DOCKETED	
Docket Number:	25-OPT-02
Project Title:	Prairie Song Reliability Project
TN #:	272998
Document Title:	Interconnection Scope Changes Part 1
Description:	N/A
Filer:	Erin Phillips
Organization:	Dudek
Submitter Role:	Applicant Consultant
Submission Date:	10/2/2026 7:27:27 AM
Docketed Date:	10/2/2026

MEMORANDUM

To:	California Energy Commission Staff
From:	Prairie Song Reliability Project, LLC (Applicant)
Subject:	Southern California Edison Interconnection Scope Changes for the Prairie Song Reliability Project (25-OPT-02)
Date:	September 30, 2026
Attachment(s):	Attachment 1A: Project Description (Redline) Attachment 1B: Project Description (Clean) Attachment 2A: Section 3.2, Biological Resources (Redline) Attachment 2B: Section 3.2, Biological Resources (Clean) Attachment 3A: Appendix 3.2G, Biota Report (Redline) Attachment 3B: Appendix 3.2G, Biota Report (Clean) Attachment 4A: Incidental Take Permit Application (Redline) Attachment 4B: Incidental Take Permit Application (Clean) Attachment 5A: Streambed Alteration Agreement Application (Redline) Attachment 5B: Streambed Alteration Agreement Application (Clean) Attachment 6A: Appendix 3.3A, Archaeological Resources Management Report (Redline) Attachment 6B: Appendix 3.3A, Archaeological Resources Management Report (Clean) Attachment 7A: Appendix 3.3B, Built Environment Impact and Evaluation Report (Redline) Attachment 7B: Appendix 3.3B, Built Environment Impact and Evaluation Report (Clean)

In response to the updated Southern California Edison (SCE) interconnection scope of work described in the Applicant's request for schedule modification dated August 18, 2026 (TN: 272028), the Applicant is submitting updated application materials for the Prairie Song Reliability Project (Project). In that filing, the Applicant explained that changes to the route and details of the interconnection facilities require revisions to the Project Description and associated biological resource and cultural resource impact analyses.

The enclosed materials have been updated to reflect the finalized interconnection information and associated revisions resulting from SCE's updated scope of work. For ease of review, both clean and redline versions of the updated documents are provided.

Project updates include a 0.1-mile extension of the gen-tie line, the addition of one lattice tower structure, and a revised alignment for the underground fiber-optic communication line extending from the Point of Change of Ownership (Pole 10) to the existing SCE Vincent Substation. The Applicant confirms that the overall construction schedule, workforce assumptions, and equipment type and usage assumptions presented in the Project Description have not changed from those previously submitted. However, the work areas associated with the SCE interconnection facilities, including related laydown and support areas, have been revised to reflect the finalized SCE scope of work.

Please include these updated materials in the Project record and use them in place of the corresponding previously submitted versions, as applicable. Should you have any questions regarding the enclosed materials, please contact the Applicant's representatives.

Attachment 1A

Project Description (Redline)

2 Project Description

Prairie Song Reliability Project LLC, a Delaware limited liability company (Applicant), a subsidiary of Coval Infrastructure DevCo LLC, a Delaware limited liability company, proposes to construct, operate, and eventually repower or decommission the up to 1,150-megawatt (MW) Prairie Song Reliability Project (Project) located on up to approximately ~~107~~ 114 acres in unincorporated Los Angeles County. The primary components of the Project include a containerized battery energy storage system (BESS) facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance (O&M) buildings, an on-site Project substation, a 500-kilovolt (kV) overhead generation interconnection (gen-tie) transmission line, and interconnection facilities within the existing Southern California Edison (SCE)-owned and operated Vincent Substation.

Electrical energy will be transferred from the existing power grid to the Project for storage and from the Project to the power grid when additional electricity is needed. The Project will provide additional capacity to the electrical grid to assist with serving load during periods of peak demand by charging when demand is low and discharging when demand is high. This operating principle increases the integration of additional intermittent renewable energy, such as wind and solar, in California's energy mix and reduces the need to operate natural gas power plants. The Project will also serve as an additional local/regional capacity resource that will enhance grid reliability, particularly to the Los Angeles Basin local reliability area and may allow for the deferral or avoidance of regional transmission facilities.

The Project will be remotely operated and monitored year-round as well as supported by on-site O&M staff seven (7) days a week. The Project will be available to receive or deliver energy 24 hours a day and 365 days a year. During the operational life of the Project, qualified technicians will inspect the Project facilities and conduct necessary maintenance to ensure reliable and safe operational readiness.

2.1 Project Location

The Project will be located in unincorporated Los Angeles County (County), California south of State Route 14 approximately three (3) miles northeast of the center of the unincorporated community of Acton. The Project site is within the Los Angeles County-designated Community Standard District of Action. The Project is within the USGS 7.5-minute Acton and Pacifico Mountain Quadrangles, Township 5N, Range 12W, Sections 27, 28, 33 and 34. The BESS site is comprised of Assessor's Parcel Numbers (APNs) 3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, and 3056-019-040. Development of the BESS facility will occur on an area of land sandwiched between two (2) existing transportation corridors, the Antelope Valley Freeway (State Route 14) to the north and Los Angeles County Metropolitan Transportation Authority (LACMTA)-owned Southern Pacific Railroad lines and Carson Mesa Road to the south, that are approximately 1,200 feet apart.

The Project will utilize one (1) of two (2) potential gen-tie routes. Either route will extend south and east from the Project substation, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, and then proceed northeast to the Point of Interconnection (POI) at the Vincent Substation. The Northern Gen-Tie Route is approximately 1.2~~1~~ miles long, and will be sited on APNs 3056-015-008, 3056-015-023, 3056-017-026, 3056-017-906, 3056-017-905, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The Southern Gen-Tie Route is approximately 1.9~~8~~ miles long, and will be sited on APNs 3056-015-008, 3056-015-023, 3056-017-016, 3056-017-022, 3056-017-026, 3056-017-027, 3056-017-028, 3056-027-007, 3056-027-031, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802.

The Project will also include three (3) fiber optic telecommunications lines: one (1) will be installed aboveground on the gen-tie structures (along whichever gen-tie route is ultimately selected), and the other two (2) will be installed underground within the Southern Gen-Tie Route corridor. The two (2) other fiber optic lines will be installed underground within the Southern Gen-Tie Route corridor regardless of which Gen-Tie Route corridor option is selected. The Project's interconnection facilities will be located within the SCE Vincent Substation. Land uses in the immediate vicinity of the Project include undeveloped and rural lands, multiple high-voltage transmission lines and an electrical substation, paved and rural roads, State Route 14, and railroad lines.

The nearest municipality to the Project site is the City of Palmdale, which is located approximately four (4) miles to the northeast. There are a few single-family residences adjacent to the BESS facility Site's northern and western boundaries as well as a few other single-family residences in the vicinity of the gen-tie line.

2.2 Project Objectives

The Project's principle Basic Objectives include the following:

- Construct and operate an up to 1,150MW BESS facility in Los Angeles County with an interconnection utilizing available system capacity at the existing SCE Vincent Substation to balance intermittent renewable generation and serve as an additional capacity resource that will enhance grid reliability.
- Provide new energy storage capacity to assist California electric utilities in meeting obligations under California's Renewable Portfolio Standard Program and Senate Bills 100 and 1020, which require renewable energy sources and zero-carbon resources to supply 60% of all retail sales of electricity to California end-use customers by December 31, 2030, 90% of all retail sales of electricity to California end-use customers by December 31, 2035, 95% of all retail sales of electricity to California end-use customers by December 31, 2040, and 100% of all retail sales of electricity to California end-use customers by December 31, 2045.
- Provide new energy storage capacity to assist the State of California in meeting its goal of reducing statewide annual greenhouse gas emissions from the electric sector to 25 million metric tons by 2035.
- Provide storage capacity to help balance electricity generation from renewable sources, such as wind and solar, with electricity demand by storing excess generation predominately from emissions free power sources and deliver it back to the grid when demand exceeds real-time generation supply.
- Offer energy storge to curtail dispatch and displace the need for additional fossil fuel based generating stations needed to serve peak demand periods when intermittent renewable sources may be inadequate or unavailable. The additional storage capacity may allow for the deferral or avoidance of regional transmission facilities.
- Provide energy storage of sufficient size, power, capacity, scale, and location to assist California utilities in meeting obligations under the California Public Utilities Commission's (CPUC's) Mid-Term Reliability Procurement and upcoming Reliability and Clean Power Procurement Program Requirements.
- Develop an electricity storage facility in close proximity to a utility grid-connected substation with existing capacity available for interconnection for charging and discharging and the ability to deliver capacity to the load to minimize environmental impacts.
- Secure a location to allow the stored energy to relieve grid congestion, and enhance electricity reliability, without requiring the construction of substantial new regional transmission infrastructure or network upgrades.

- Construct and operate a battery energy storage facility in Los Angeles County, resulting in economic benefits to the County, creating prevailing wage construction jobs, and facilitating local community benefits.
- Locate and gain site control of site large enough and well-suited to support development of the Project's 1,150MW and up to 9,200MWh battery energy storage.
- Develop an energy storage project that is in close proximity to existing electrical infrastructure and the Vincent Substation, to avoid and minimize potential impacts from long 500kV gen-tie lines.
- Locate a site to accommodate a gen-tie line of reasonable length to the POI and the ability to deliver power to the Los Angeles Basin local reliability area during peak demand.
- Locate near existing roadways and related infrastructure where available and feasible for construction and O&M access.

2.3 Project Components

The Project will include construction, O&M, and eventual decommissioning of an up to 1,150MW BESS. A 500kV gen-tie connecting the Project substation to the POI within the existing SCE Vincent Substation, will facilitate charging and discharging to the electrical grid.

2.3.1 General Facility Description, Design, and Operation

The BESS facility will include the following primary components (refer to Section 2.3.2, Transmission and Interconnection Description, Design, and Operation for a detailed description of the gen-tie line and interconnection components of the Project):

- Battery Energy Storage System (BESS) Enclosures
- Power Conversion Systems (PCS)
- Medium voltage (MV) Collection System
- Project Substation, Control Building, and Telecommunications Facilities
- Access Roads
- Laydown Yards
- Stormwater Detention Facilities
- Site Security and Fencing
- Fire Detection and Suppression System
- Operations and Maintenance Building
- Existing Distribution Line Reroute

Project components are described in the following subsections. Figure 2-1, Project Site Plan, shows the Project layout. The Project's site plan package is provided in Appendix 2A, and the Project's conceptual landscape plan is included as Appendix 2B. Table 2-1 summarizes the preliminary dimensions of major BESS facility components, and Table 2-2 summarizes the preliminary footprint/disturbance acreage associated with the BESS facility.

Table 2-1. Preliminary Dimensions of Major BESS Facility Components

Component	Quantity	Approximate Dimensions
BESS Enclosures	2,035*	20 ft × 8 ft × 9.5 ft (L × W × H)
PCS	517*	20 ft × 8 ft × 9.5 ft (L × W × H)
MV Collection system	—	Buried in trenches up to 10 ft × 10 ft (W × D)
Project Substation Area	1	2,545 ft × 440 ft (L × W); seven (7) 150 ft (H) (lightning masts)
Control Building	1	27 ft W × 95 ft L × 10 ft H (to ceiling)
Access Roads	—	26 ft (W) internal radii 55 ft minimum
Fire Water Tanks	2	33 ft in Diameter × 16 ft H
Laydown Yards	3	Variable
Stormwater Detention Facilities	2	Variable
Security Wall	—	Minimum 8 ft H block wall topped with 1 ft of barbed/razor wire
Operations and Maintenance Building	2	20 ft × 60 ft × 15 ft (L × W × H)

Notes: BESS = battery energy storage system; PCS = power conversion system; MV = medium voltage.

* The number of BESS enclosures and PCS units will depend on the manufacturer selected. The total number of BESS enclosures and PCS units may increase or decrease in the final design. It is also possible that the BESS units ultimately procured may incorporate the PCS units within the BESS enclosures.

Table 2-2. Preliminary Footprint of BESS Facility

Component	Permanent Disturbance
BESS Yards	30.0 acres
Project Substation	23.1 acres
Access Roads	7.9 acres
Laydown Yards	1.0 acres
Stormwater Detention Facilities	4.1 acres
*Other**	*4.7 acres*
Total+	**70.8 acres**

Notes: BESS = battery energy storage system.

* Other areas include maximum grading limits. The analyses assume that all areas used for the BESS facility are permanently disturbed.

\+ The total permanent disturbance acreage is a conservative estimate, and final designs may require fewer acres. Underground components within the BESS facility will be located within the footprint of above ground disturbance areas.

2.3.1.1 Battery Energy Storage System

The energy storage facility will utilize a modular and containerized BESS. There are several battery cell technologies commercially available, with one of the most common presently being lithium iron phosphate (LFP) cells, or similar. LFP technology is considered one of the safest, most efficient, and commercially financeable energy storage technologies available on the market. The initial Project concept has been developed assuming an LFP technology. By the time the Project reaches the procurement stage, it is possible for other battery cell technology with proven safety and performance records to be suitable for the Project. Although the number and dimensions of the containers may change (as it does between LFP technology providers), the technology ultimately procured will result in potential environmental impacts substantially similar to, or less than, those analyzed based on this Project Description. The Sungrow Power Titan II has been selected for this project application as a representative BESS

enclosure. Sungrow Power Titan II design and operation information is used in this application to set maximum potential impact envelopes, for site design and modeling analysis, and to set baseline safety standards. A final manufacturer for the BESS enclosures will be selected during the detailed design process post-certification. The Project will provide defensible space by setting back all BESS enclosures at least 100 feet from the property boundary.

The BESS enclosures will be prefabricated off site and arrive at the site ready to be installed and commissioned. Each modular BESS enclosure will include battery packs on racks, a battery management system, fire detection systems, thermal management systems (either liquid or air cooled depending final selected technology), and ancillary power electronics within a specialized steel-framed, non-occupiable container. The BESS enclosures will not exceed 15 feet in height.

Over the life of the project the storage capacity of the battery cells will naturally degrade. The project will implement an augmentation strategy to maintain the contractually required capacity of the system. Augmentation will entail either a capacity maintenance approach of adding/replacing individual battery modules in the existing BESS yard or designing the BESS system to incorporate space for additional BESS enclosures for later augmentation. The Project design and analysis front loads the work for the Project augmentation and assumes that it will install the end-of-life capacity at the start of construction. This assumption is made to capture augmentation impacts during construction instead of trying to assume the augmentation schedule for the Project. Equipment type/specifications, capacity agreements, and tax incentives can all change how and when augmentation is completed. Front loading augmentation to occur during construction creates a conservative case for the analysis of potential impacts that could arise from augmentation and sets a maximum impact envelope for the Project. During Project operations, the Project analysis assumes that one (1) crane and one (1) forklift will operate in support of augmentation once every 3 to 5 years for 8 hours per day.

2.3.1.2 Power Conversion System

A PCS is a packaged and integrated, or assembled, system consisting of a bi-directional inverter, MV transformers, protection equipment, direct current (DC) and alternating current (AC) circuit breakers, harmonic filters, equipment terminals, and a connection cabling system. A PCS functions to both convert between DC/AC and change the voltage level from the MV collection voltage to the working voltage of the BESS enclosures.

The PCS will convert electric energy from AC to DC when the energy is transferred from the grid to the battery, and from DC to AC when the energy is transferred from the battery to the grid. Each PCS will also include transformers that convert the AC side output of the inverter between low and medium AC voltage to increase the overall efficiency of the BESS. Inverters within the PCS units will be unattended systems designed to operate in all conditions. The inverters will be monitored and controlled remotely, and there will be on-site disconnects for use in case of an emergency or a situation requiring unscheduled maintenance.

PCS units will be installed on concrete foundations or steel piles and connected to multiple BESS enclosures with wiring and cables installed underground. All outside electrical equipment will be housed in the appropriate National Electrical Manufacturers Association-rated enclosures.

2.3.1.3 MV Collection System

The MV collection system will include multiple components that connect the PCS units to the Project substation including underground conductor circuits, switchboards, switchgear, and panels at 34.5kV. The conductors for the MV collection system will be installed underground during construction using trenching.

To connect the portion of the BESS yard north of Soledad Canyon Road to the Project substation, which is located south of Soledad Canyon Road, a portion of the MV collection system will need to be located underground within Soledad Canyon Road. A 180-foot-wide underground corridor will house the MV collection system as it traverses the road. The MV collection lines under Soledad Canyon Road will be installed using horizontal directional drilling, will be inside six (6) in conduit, covered by a minimum of 42 inches, and spaced 10 feet apart.

2.3.1.4 Project Substation

The Project substation will include six (6) main power transformers (MPTs). When the BESS facility is charging, power from the regional electric transmission grid will be stepped down from 500kV to 34.5kV and sent from the Project substation through the MV collection system and PCS units into the battery packs within the BESS enclosures. When the BESS facility is discharging, power from the battery packs within the BESS enclosures will be sent to the PCS units, stepped up to 34.5kV, and transported to the Project substation through the MV collection system before being stepped up to 500kV at the MPTs and delivered back to the regional electric transmission grid. A control building will be installed within the Project substation area and contain an energy management system, metering, and telecommunication equipment for communication with SCE/California Independent System Operator (CAISO) facilities and to support remote Project operations monitoring. The Project substation area will also include seven (7) static masts, up to 150 feet tall, for lightning protection.

2.3.1.5 BESS Facility Access Roads

The Project's roadway system will utilize existing roads wherever available and feasible and include new facility access roads and driveways, a perimeter road, and internal access roads. All new access roads, driveways, internal and perimeter roads will be bladed, compacted, and surfaced with asphalt. All internal roadways and private driveways will be constructed to meet access requirements for construction, O&M, and emergency response.

2.3.1.6 Laydown Yards

The Project will include up to three (3) laydown yards for equipment and material staging and storage during construction. These areas will also be used for worker parking during construction. The primary laydown yard will be located in the northernmost portion of the BESS site. The primary laydown yard will be bladed, compacted, and surfaced with aggregate, while an additional laydown yard to facilitate construction of the gen-tie line will be cleared of vegetation and surfaced with aggregate or other soil stabilizing materials. Landscape fabric may also be installed under the surface of all laydown yards to prevent vegetation growth, if required to comply with fire prevention standards. The O&M building and required number of parking spaces for O&M staff will be constructed within the primary laydown following construction of the BESS facility components.

The proposed Project's preliminary layout, earthwork volumes, and Project component dimensions assumed for environmental analyses in subsequent chapters are conservatively large to allow for design flexibility within the Project footprint and Project schedule preservation.

2.3.1.7 Stormwater Detention Facilities

Regulatory standards require that volumes and flow rates of stormwater discharge after construction are not to exceed pre-development conditions. Stormwater generated on-site will flow to underground stormwater detention chambers located in the southwestern portions BESS facility site (Figure 2-1, Project Site Plan). Stormwater treatment and storage sizing will be designed to hold the anticipated runoff from a 100-year, 24-hour storm event in compliance with applicable regulations. After a rainfall event, stormwater will infiltrate into the subgrade underneath the stormwater chambers. If the design capacity of the stormwater chambers is exceeded, however, stormwater may be stored in available upstream areas such as catch basins, infiltration trenches, or drain as sheet flow from the surface.

2.3.1.8 Site Security

The BESS facility site will be enclosed with a minimum 8-foot-tall block wall topped with 1 foot of three-strand barbed wire or razor wire. The wall will be installed on the outside of the perimeter roads. The wall will be required to prevent unauthorized access and to comply with human health and safety regulations. Gates will be installed at various access points along the wall and equipped with locks and knox boxes to allow for authorized personnel (e.g., transmission service provider, O&M staff, emergency response) to access appropriate portions of the BESS facility site. The wall will serve a dual purpose for security and off-site noise reduction (see Section 3.7, Noise).

Lighting will only be in areas where it is required for safety, security, or operations. Controlled security lighting no more than 28 feet tall will be installed at the Project substation and around the BESS yards, in accordance with applicable requirements and regulations. Permanent motion-sensitive, directional security lights will be installed to provide adequate illumination around the substation area and points of ingress/egress. All lighting will be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties, compliant with applicable codes and regulations. Security cameras will be placed on site and monitored 24/7.

2.3.1.9 Fire Detection and Suppression System

Fire protection will include multiple fire detection systems on-site and within the individual BESS enclosures. Each BESS enclosure will have a fire rating in conformance with the California Fire Code 2022. In addition, each BESS enclosure will contain an onboard battery management system that monitors the appropriate state of individual battery cells and relays information 24/7 and an internal Fire Alarm Control Panel that will identify which units have incidents and will notify first responders. In the event of an anomaly, the system is designed to shut down and mitigate the hazard.

The Project's fire protection design will comply with California Fire Code 2022, Section 1207 Electrical Energy Storage Systems, which adopts the National Fire Protection Association's Standard for the Installation of Stationary Energy Storage Systems (NFPA 855). BESS enclosures will be Underwriters Laboratories (UL) listed, tested, and certified to the most rigorous international safety standards. UL independently tests equipment for compliance with the latest fire safety code requirements, and the methods were developed to minimize fire risk and safety concerns about battery storage equipment raised by fire departments and building officials in the United States.

Faults, mechanical damage, or manufacturing defects in lithium-ion batteries can cause thermal runaway, which can lead to fires or other hazards. Should a thermal runaway event occur, the BESS enclosures are designed and constructed in such a way that fire will not propagate from one enclosure to a neighboring enclosure. The Project's

BESS enclosures, as part of the testing and listing process, will be subjected to destructive testing including fire testing. The Project's BESS enclosures will include the following UL certifications:

- UL 1642 – Standard for Lithium Batteries (cell level certification).
- UL 1973 – Standard for Batteries for Use in Stationary Applications (module level certification).
- UL 9540 – Standard for Energy Storage Systems and Equipment (system level certification).
- UL 9540A – Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems.
- IEC 62619 – Standard for Battery Safety in Stationary Applications.

The BESS facility ingress/egress and circulation will be designed to comply with LA County's Draft fire regulations. Each portion of the BESS facility (the BESS yards north and south of Soledad Canyon Road.) will have primary and secondary access points. The BESS yard north of Soledad Canyon Road. will have a primary access point in the southwest corner of the site and a secondary access point in the northwest corner of the site, near the O&M buildings and laydown yard. The BESS yard south of Soledad Canyon Road. will have a secondary access point directly across from the secondary access point for the northern BESS yard and a primary access point that is approximately 1,030 feet east of the secondary access point. There will also be an access point for the Project Substation that is approximately 340 feet east of the BESS yard primary access point, in the approximate middle of the Project area that is south of Soledad Canyon Road. All access points will have Knox boxes and will connect to roads that are 26 feet wide (see Appendix 2A Fire Safety and Water Circulation Plan PSR-BE-201).

Water for fire defense will be provided via an on-site well that will serve two (2) 40,000-gallon water tanks. There will be a separate water tank and booster pump in each of the BESS yards. The water tanks will serve hydrants located throughout the BESS yards. Hydrants were specifically located to be no more than 300 feet apart throughout the BESS yards. The project commissioned a fire water supply assessment that concluded that the maximum amount of water necessary to fight a fire on the site would be 15,000 gallons (see Appendix 3.17A). The project will provide 40,000 gallons of water at each BESS yard.

The fire water line system has been highlighted in PSR-BE-201. PSR-BE-201 shows the existing well in the south BESS yard and the water line connection to the water tank in that same yard (approximately 245 feet to the northeast of the existing well). The water tank and associated pumphouse serve as the distribution point for the fire water line. Three (3) lines leave the pumphouse. Two (2) fire water lines support the hydrant system in the south BESS yard. The loops follow the road and surround each of the BESS blocks. The third fire water line runs southwest along the northern road in the south BESS yard until it comes to the first responder secondary entrance. The fire water line then heads north and crosses Soledad Canyon Road along the northeastern side of the two (2) opposing first responder secondary entrances. Once in the north BESS yard, the fire water line heads back southwest along the southern road in the north BESS yard for approximately 1,030 feet. The fire water line then heads north and connects to the pump house and water tank in the north BESS yard. There are two (2) fire water lines that exit the pump house in the north BESS yard that serve the hydrants that are spaced along access roads and surround the BESS blocks.

The Los Angeles County Fire Department will review and comment on the facility fire protection and suppression plans.

2.3.1.10 Operations and Maintenance Building

O&M buildings will be constructed for the Project's anticipated 16 full-time operations staff and is planned to be in the easternmost portion of the BESS yard north of Soledad Canyon Road. The O&M buildings will include parking, outside equipment and laydown areas, basic offices, meeting rooms, washroom facilities and climate-controlled storage for certain equipment and materials. An existing groundwater well will provide water for washroom and a septic system will provide for sanitary facilities. The existing groundwater well is located south of Soledad Canyon Road on APN 3056-019-026. To serve the O&M buildings and fire water needs, which are located north of Soledad Canyon Road, an underground water line will be constructed from the existing groundwater well to the O&M buildings as shown in Figure 2-1, Project Site Plan. A portion of the water line will be located within Soledad Canyon Road as shown in Figure 2-1, Project Site Plan. The water line will run under Soledad Canyon Road along the northeast edge of the opposing first responder secondary access points between the north and south BESS yards. The water line will be covered by a minimum of 24 inches of material. The water line will be installed via horizontal directional drilling.

2.3.1.11 Existing Distribution Line Reroute

There is currently an SCE overhead electrical distribution line that bisects the southern portion of the BESS facility site. The distribution line consists of wooden poles with a cross bar carrying the distribution lines. The Project plans to reroute this line around the BESS facility site using similar distribution poles and wires. The Project will alter the existing distribution line route from where it enters the property on the south side of the BESS facility site. The Project will install approximately nine (9) poles similar to the existing poles, outside of the BESS facility site wall, along the southern and western boundary of the BESS facility site south of Soledad Canyon Road until they connect with Soledad Canyon Road. At Soledad Canyon Road, the new distribution line will tie into the existing distribution line at the western boundary of the southern BESS facility site (See Appendix 2A Distribution Line Reroute PSR-SE-103).

2.3.2 Transmission and Interconnection Description, Design, and Operation

The Project will be interconnected to the regional electrical transmission grid via an approximately 1.21~~1~~-mile-long or 1.98~~8~~-mile-long new single-circuit 500kV gen-tie line within an up-to 150-foot-wide corridor between the Project substation and the SCE Vincent Substation. The Applicant will construct and own the portion of the gen-tie line between the Project substation and the Point of Change of Ownership (POCO) transmission structure (see Figure 2-1, Project Site Plan, site layout Pole 10), and SCE will construct and own the remaining portion of the gen-tie from the POCO to the POI within the Vincent Substation. The Project's transmission and interconnection facilities will include the following components:

- 500kV Gen-Tie Line including Transmission Structures and Conductors
- Fiber Optic Telecommunications Utility Poles and Fiber Optic Lines
- Access Paths
- Temporary Work Areas
- Interconnection Facilities within Existing SCE Vincent Substation Footprint (SCE constructed and owned)

The proposed route was selected to minimize the number of existing utility crossings, cross existing utilities at the optimum locations, minimize the total gen-tie line length and number of transmission structures required, minimize

the number of turning structures required, and enter the Vincent Substation as close as possible to the POI. The proposed transmission structures were sited to avoid potential impacts to environmental resources. Project components associated with transmission and interconnection facilities are described in the following subsections. Figure 2-2, Transmission Line Route, shows the gen-tie routes, scattered rural residences, scenic areas (scenic drives and the Los Angeles National Forest), and existing transmission lines within 1 mile of the proposed routes. There are no parks or recreational areas within 1 mile of the proposed routes. Table 2-3 summarizes the preliminary dimensions of major transmission components, and Table 2-4 summarizes the preliminary new ground disturbance area associated with construction of the transmission and interconnection facilities (Southern Gen-Tie scenario). Section 3.13, Visual Resources, includes photographic simulations of a representative above ground section of the gen-tie route prior to construction and after construction.

Table 2-3. Preliminary Dimensions of Major Transmission Components

Component	Quantity	Approximate Dimensions
500kV Gen-Tie Line	1	Applicant Owned: North: 3,500 ft long / South: 7,300 ft long
		SCE Owned: ~~2,800~~3,200 ft long
Substation Bay Dead-End Transmission Structure	1	Applicant Owned: 170 ft tall
		SCE Owned: n/a
Angled Dead-End Transmission Structure	up to 7	Applicant Owned: 175 ft tall to 195 ft tall
		SCE Owned: n/a
Tangent Delta Transmission Structure	1	Applicant Owned: 155 ft tall (Northern Gen-Tie Route) to 180 ft tall (Southern Gen-Tie Route)
		SCE Owned: n/a
Lattice Tower Transmission Structure	3~~2~~	Applicant Owned: n/a
		SCE Owned: 2304~~4~~ ft tall to 27043~~43~~ ft tall
Conductors	1	Applicant Owned: North: 30,800 ft / South: 63,000 ft
		SCE Owned: 16,000 ft
Overhead Shield Wire	1	Applicant Owned: North: 3,600 ft / South: 7,300 ft
		SCE Owned: ~~2,900~~3,200 ft
Fiber Optic Cables on Gen-Tie Structures	1	Applicant Owned: North: 3,600 ft / South: 7,300 ft
		SCE Owned: ~~2,900~~3,200 ft
Fiber Optic Cables Underground	2	Applicant Owned: 12,000 ft
		SCE Owned: ~~5,700~~7,600 ft
Transmission Structure Access Path	Varies	26 ft wide
~~Transmission Line Corridor~~	~~1~~	~~150 ft wide~~

Notes: kV = kilovolt; SCE = Southern California Edison; gen-tie = generation interconnection.

Table 2-4. Approximate New Ground Disturbance Area Associated with Transmission and Interconnection Facilities

Component	Permanent Disturbance	Temporary Disturbance
Applicant Portion		
Transmission Structure Pads	2.48 acres	—
Transmission Structure Access Path	1.14 acres	—
Laydown Area	—	4.23 acres
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	19.4 acres
Applicant Total~~1~~	**3.62 acres**	**23.63 acres**
SCE Portion		
Transmission Structure Pad and Access Roads	~~0.3 acres~~ 0.62 acres	—
~~Transmission Structure Access Path~~	~~0.5 acres~~	~~—~~
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	~~8.99~~13.82 acres
Laydown Area	—	2.40 acres
SCE Total	**0.62~~8~~ acres**	**~~8.99~~16.22 acres**

Note: gen-tie = generation interconnection; SCE = Southern California Edison.
~~1~~ Represents the impacts associated only with the Southern Gen-Tie Route, which defines the maximum impact footprint.

2.3.2.1 500kV Gen-Tie Line

The 500kV gen-tie line will originate at the Project substation within the BESS facility site and extend south and east, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, as close to perpendicular as possible, and then proceed northeast to the POI at the Vincent Substation. The Project proposes a Northern Gen-Tie Route and Southern Gen-Tie Route. The Applicant understands a crossing agreement with LACMTA will be required prior to construction. LACMTA requires a crossing agreement application to include a 90% design package. This will be provided as the Project design progresses. The Project expects to submit the application in 2026.

The interconnecting 500kV transmission single-circuit configuration will be overhead. The gen-tie line will be constructed with either monopole tubular steel poles or steel lattice towers. Gen-tie structures will be at least 155 feet tall, with a maximum height of 243 feet. There will be a total of approximately 1 monopole or steel lattice tower structures. The total number of gen-tie structures will be determined by the final design of the gen-tie line. The Project transmission facilities will be designed consistent with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC 2006) where feasible. Transmission facilities will also be evaluated for potential collision reduction devices in accordance with *Reducing Avian Collisions with Power Lines: The State of Art in 2012* (APLIC 2012).

The POCO will be located on APN 3056-015-008 (see Pole 10 within Figure 2-1, Project Site Plan). The POCO is the point where the conductors of the ~~Generation Tie Line~~ gen-tie line are attached to the ~~L~~last ~~Structure, which will be connected on the side of the last project~~ Applicant-owned structure on the side ~~(Last Structure)~~ facing Vincent Substation. The ~~project~~ Applicant shall own and maintain the ~~Last Structure~~gen-tie facilities between the Project substation and Pole 10, including, the conductors, insulators and jumper loops ~~from such Last Structure to the Interconnection Customer's Large Generating Facility.~~ . SCE will own and maintain the facilities between Pole 10

and the Vincent Substation, including three dead-end lattice steel ~~as well as all~~ towers, associated conductors and shield wires, the line drop, and the interconnection facilities ~~transmission lines, circuit breakers, disconnects, relay facilities and metering~~ within the Vincent Substation~~, together with the line drop, in their entirety, from the Last Structure to Vincent Substation. SCE will own the insulators that are used to attach the project-owned conductors to the Last Structure.~~.

The conductor from the site to the POCO is planned to be triple bundle 795 Drake or equivalent. The conductor from the POCO to the Vincent Substation will be double bundle 2156 Bluebird or equivalent.

Table 2-3 includes the approximate number and dimensions of the different types of transmission structures that will be used.

2.3.2.2 Transmission Structure Access Path

Where possible, the transmission structure access path will utilize existing access roads to minimize new ground disturbance. A transmission structure access path up to 26 feet wide will be located within portions of the transmission corridor outside of the BESS facility and Vincent Substation footprints and generally follow the centerline of the gen-tie.

2.3.2.3 Telecommunication Facilities

The facility will be designed with a comprehensive Supervisory Control and Data Acquisition (SCADA) System to allow remote monitoring of facility operation and/or remote control of critical components. The fiber optic or other cabling required for the monitoring system typically will be installed in buried conduit within ~~the~~ access roads~~road~~ or planned trenches~~trenching~~ leading to the~~a~~ SCADA system cabinet at the Project substation. External telecommunications connections to the SCADA system cabinets could be provided through wireless or hard-wired connections to locally available commercial service providers.

The Project's SCADA system will interconnect to an external fiber optic network or fixed wireless service at the Project substation through ~~and will require installation of~~ buried fiber optic cables ~~underground~~ or fixed wireless antennas. These facilities will be located within the Project's planned disturbance areas; therefore,~~External telecommunications connections to the SCADA system cabinets could be provided through wireless or hard-wired connections to locally available commercial service providers, so~~ no separate~~additional~~ disturbance associated with telecommunications is anticipated. ~~As such, the Project will not require any substantial construction efforts regarding telecommunications facilities and structures.~~ No relocation of existing telecommunications~~telecommunication~~ structures will occur.

Telecommunications equipment will be installed between the control building at the Project substation and the Vincent Substation to facilitate communication with SCE/CAISO facilities. Three diverse telecommunications paths will support line protection, remedial action scheme (RAS), and remote terminal unit~~To achieve communication~~ requirements ~~with the Vincent Substation, the project will involve the following~~:

- Install optical ground wire on the Generation Tie-Line to provide one (1) of three (3) telecommunication paths required for the line protection scheme, the remote terminal units. A minimum of eight (8) strands within the optical ground wire shall be provided for SCE's exclusive use into Vincent Substation.
- Install appropriate single-mode fiber optic cable from the Project Site to a point near the POCO to the Vincent Substation to provide the second telecommunication path required for the line protection scheme

and the RAS. A minimum of eight (8) strands within the single-mode fiber optic cable shall be provided for SCE's exclusive use. The telecommunication path shall meet the Applicable Reliability Standards criteria for diversity.

- Install appropriate single mode fiber optic cables from the Project sSite to a point designated by SCE near the Vincent Substation to provide a third telecommunication path required for the ~~Generation Tie Line~~gen-tie line protection scheme. A minimum of eight (8) strands within the single mode fiber optic cable shall be provided for SCE's exclusive use. The telecommunication path shall meet the Applicable Reliability Standards criteria for diversity.

- The Applicant will own~~Own~~, operate, and maintain all three (3) telecommunications paths, ~~(~~including optical ground wire (OPGW), underground~~optical ground wire, any~~ fiber-optic cables, and appurtenant facilities, between the Project substation and~~) up to~~ the POCO. SCE will own, operate, and maintain the three (3) telecommunications facilities between the POCO and Vincent Substation (Route 1 through 3 described below).

~~In addition to the telecommunications equipment installed by the Project,~~ SCE will install the following telecommunications facilities between the POCO and Vincent Substation~~equipment~~:

- Lightwave, channel, and associated equipment (including terminal equipment), supporting protection and the remote terminal unit requirements at the Project site~~Site~~ and Vincent Substation for the interconnection of the Project. Notwithstanding that certain telecommunication equipment, including the telecommunications terminal equipment, will be located on the Interconnection Customer's side of the POCO., SCE shall own, operate and maintain such telecommunication equipment as part of ~~the~~ SCE's Interconnection Facilities.
- Route 1 will include approximately 1,400 linear feet of new underground conduit and fiber-optic cable between the POCO and an existing lattice tower M40-T3 to the east, where the new cable will connect to existing fiber. Approximately two (2) new 4' x by 4' x 6' vaults will be installed along this route. Route 1 will be installed via open trench. Route 1 is located south of Route 2, as shown in Figure 2-1. ~~Install appropriate length of fiber optic cable, including conduit and vaults, from the Vincent Substation 500kV switchrack to extend the fiber optic cable and conduit into the communication room at Vincent Substation. The 2021 Reassessment Study assumed the installation of approximately 250 feet of underground fiber optic cable and associated conduit, and one (1) 4' × 4' × 6' vault to extend the fiber optic cable into the communication room at Vincent Substation. The actual location and length of fiber optic cable and conduit, and location and number of vaults, will be determined during final engineering of SCE's Interconnection Facilities.~~
- Route 2 will include approximately 5,000 linear feet of new underground conduit and fiber-optic cable between the POCO and the Vincent Substation communications room. This route will include approximately 4,600 linear feet installed by trenching, approximately 400 linear feet installed by directional boring, two (2) bore pits, and approximately seven (7) new 4' x by 4' x 6' vaults, as shown in Figure 2-1.~~Install appropriate length of fiber optic cable, including conduit and vaults, to extend the Project's second diverse telecommunications from the point designated by SCE near the SCE's Vincent Substation into the communication room at Vincent Substation. The 2021 Reassessment Study assumed the installation of approximately 250 feet of underground fiber optic cable and associated conduit, and one (1) vault to extend the Project's diverse telecommunications into the communication room at Vincent Substation. The actual location and length of fiber optic cable and conduit, and location and number of vaults, will be determined during final engineering of the SCE's Interconnection Facilities.~~
- Route 3 will use the OPGW installed on the transmission towers and will include approximately 100 linear feet of new underground conduit and ~~Install appropriate length of~~ fiber- optic cable between~~, including~~

~~conduit and vaults, from the point designated by the SCE to extend~~ the dead-end rack and the cable/control trench and approximately 1,100 linear feet of underground~~Project's third diverse~~ fiber~~-~~optic cable to ~~into~~ the ~~communication room at~~ Vincent Substation communications room. Final route lengths~~. The 2021 Reassessment Study assumed the installation of approximately 950 feet of underground fiber optic cable and associated conduit, and one (1) 4' × 4' × 6' vault to extend the fiber optic cable into the communication room at Vincent Substation. The actual location and length of fiber optic cable~~ and the locations~~conduit, and location~~ and number of vaults~~,~~ will be determined during final engineering~~. of the Participating TO's Interconnection Facilities.~~

~~To meet these requirements, the Applicant and SCE will install one (1) of the three (3) fiber optic lines aboveground on the gen-tie structures. The two (2) other fiber optic lines will be installed underground within trenches anticipated to be up to 4 feet wide within the Southern Gen Tie Route corridor and separated by at least 25 feet. The two (2) other fiber optic lines will be installed underground within the Southern Gen Tie Route corridor regardless of which Gen Tie Route corridor option is selected.~~ Where the underground fiber optic line leaves the BESS facility site~~.~~ they ~~it~~ will be installed via horizontal directional drilling underneath the railroad tracks. Horizontal directional drilling is a trenchless construction technique used to install underground utilities like pipelines and conduits without disturbing the surface. ~~The Applicant understands a~~A crossing agreement with LACMTA will be required prior to construction~~., and the . LACMTA requires a crossing agreement application will~~to include a 90% design package. The Applicant submitted an application to LACMTA in summer 2026. ~~This will be provided as the Project design progresses. The Project expects to submit the application in 2026.~~

2.3.2.4 Interconnection Facilities within Existing SCE Vincent Substation Footprint

To facilitate interconnection of the BESS facility to the electric transmission grid, SCE will need to install one (1) 500kV dead end structure, ~~nine~~ three (3~~9~~) 500kV coupling capacitor voltage transformers, ~~three~~ one (1~~3~~) 500kV line drop~~s~~, three (3) line current relays, and one (1) 500kv line position which includes the following equipment: ~~seven~~ two (2~~7~~) 500kV circuit breakers, ~~seven~~ four (4~~7~~) 500kV disconnect switches, one (1) grounding switch, ~~84~~ 33 bus support insulators, three (3) 500kV surge arresters, ~~and two (2) breaker failure backup relays~~3-2156 KCMIL ACSR/phase conductors, and related conduit. No additional network upgrades outside of the Vincent Substation are necessary to interconnect the ~~p~~Project to the grid.

2.3.2.5 Transmission System Impact Studies

The Project will interconnect to SCE's transmission system within the CAISO planning area. CAISO identified two (2) potential Affected Systems from the QC12 Phase I Interconnection Study: California Department of Water Resources and Los Angeles Department of Water and Power.

The Applicant has contacted both potential affected systems and both have responded that the Project will not have any negative impact on their systems (see Confidential Appendix 2C).

The Applicant filed an Interconnection Request with CAISO in the Cluster 12 Interconnection Request window. CAISO, in cooperation with SCE, prepared the Phase I Interconnection Study (January 15, 2020), and Phase II Interconnection Study (November 20, 2020). The Applicant entered into a Large Generator Interconnection Agreement with CAISO and SCE on January 28, 2022. The Project's Phase I and II Interconnection Studies are included in Confidential Appendix 2C.

2.3.2.6 California Public Utilities Commission General Orders

Because SCE is an investor-owned electric utility, the SCE Improvements described above, are regulated by CPUC. CPUC General Orders (GO) cover regulatory requirements for investor-owned electrical utilities.

The Project will comply with applicable GOs, including GO 95 (Rules for Overhead Electric Line Construction) and GO 128 (Rules for Construction of Underground Electric Supply and Communications Systems).

2.3.2.7 Transmission System Design

One-line diagrams for the Project substation are included in Appendix 2A Single Line PSR-SE-001. The one-line diagrams include all equipment ratings including the bay arrangement of the circuit breakers, disconnect switches, buses, transformers, and other equipment that will be required for the Project interconnection at the Project site.

A one-line diagram for the Project's interconnection at the SCE Vincent Substation is included in Confidential Appendix 2C, specifically within Appendix A of the Large Generator Interconnection Agreement (Page 106 of 137).

Table 2-5 below, Transmission System Design/Safey and Nuisance Regulations, identifies transmission system design laws, regulations, ordinances, and standards; adopted local, regional, state, and federal land use plans; and leases and permits applicable to the Project.

The applicant plans on installing triple bundle 795 Drake or equivalent from the BESS to the POCO. Depending on the selected route, the length of the applicant's conductor will be either 30,800 feet for the Northern Route or 63,000 feet for the Southern Route. These lengths represent the total conductor length of all phases along the applicant's portion of the 500 kV route (North: 3,500 feet long/South: 7,300 feet long). In determining the line type, the Project assumed a Max Operating Temperature of 212 degrees Fahrenheit as well as the other inputs from the Phase II SCE design. The allowable ampacity of the original conductor was 1,485 amps. The current conductor design has an ampacity of 3,396 amps. Allowable ampacity affects how much energy the line can carry, so an increase in ampacity equates to an increase in carrying capacity. Triple bundle 795 Drake will be located vertically along monopoles in the applicant-owned portion of the gen-tie route (see figures in Appendix 2 PSR-TL-005 through PSR-TL-008).

SCE plans on installing double bundle 2156 Bluebird or equivalent from the POCO to the Vincent Substation. SCE will install approximately 16,000 feet of conductor on their towers. This length represents the total conductor length of all phases along the SCE portion of the 500 kV route (~~2,800~~3,200 feet long). SCE has sized the double bundle 2156 Bluebird to meet the carrying capacity requirements for the Project and will locate the conductor vertically along tower in the SCE-owned portion of the gen-tie route (see figures in Appendix 2 PSR-TL-009).

Table 2-5. Transmission System Design/Safety and Nuisance Regulations

Item	Title
CPUC GO-95	Rules for Overhead Electric Line Construction
NESC	National Electrical Safety Code (NESC)
GO-128	Rules for Construction of Underground Electric Supply and Communication Systems
GO-131-D	Rules for Planning and Construction of Electric Generation Line and Substation Facilities in California

Table 2-5. Transmission System Design/Safety and Nuisance Regulations

Item	Title
Decision 93-11-013	California Public Utilities Commission (CPUC) EMF Decision
CPUC GO-52	Construction and Operation of Power and Communication Lines for the Prevention or Mitigation of Inductive Interference
ASCE 48-19	Design of Steel Transmission Structures
ASCE 74	Guidelines for Electrical Transmission Line Structural Loading
ASCE 113	Substation Structure Design Guide
FAA 70/7460	Proposed Construction and/or Alteration of Objects that May Affect the Navigation Space
IEEE 81	Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Grounding System
IEEE 525	Guide for the Design and Installation of Cable Systems in Substations
IEEE 605	Guide for Bus Design in Air Insulated Substation
IEEE 691	Guide for Transmission Structure Foundation Design and Testing
IEEE 738	Standard for Calculating the Current-Temperature Relationship of Bare Overhead Conductors
IEEE 1127	Guide for the Design, Construction, and Operation of Electric power Substations for Community Acceptance and Environmental
IEEE 1427	Guide for Recommended Electrical Clearances and Insulation Levels in Air Insulated Electrical Power Substations
IEEE 1863	Guide for Overhead AC Transmission Line Design
47 CFR 15.25, “Operating Requirements, Incidental Radiation	Prohibits operations of any device emitting incidental radiation that causes interference to communications; the regulation also requires mitigation for any device that causes interference
Title 14 CFR, Part 77, “Objects Affecting Navigable Airspace”	Describes the criteria used to determine whether a “Notice of Proposed Construction or Alteration” (FAA Form 7460-1) is required for potential obstruction hazards.
FAA Advisory Circular No. 70/7460-1M, “Obstruction Marking and Lighting”	Describes the FAA standards for marking and lighting of obstructions as identified by FAA Regulations Part 77

2.3.2.8 Transmission Line Safety and Nuisance

The electrical effects of high-voltage transmission lines fall into two (2) broad categories: corona effects and field effects. Corona is a luminous discharge due to ionization of the air surrounding a conductor around the surface of an energized conductor and associate hardware when the voltage gradient exceeds a certain critical value during certain conditions. Corona may result in radio and television reception interference, audible noise, light, and production of ozone. Corona is a function of the voltage of the line, the diameter of the conductor, and the condition of the conductor and hardware surface. Corona performance is predicted using empirical equations from high-voltage line measurements. The methodology has been validated for predicting corona-induced noise and interference. The electric field gradient is the rate at which the electric field changes and is directly related to the line voltage and the geometric configuration of the line. Field effects are the voltages and currents that may be induced in nearby conducting objects. A transmission line’s inherent electric and magnetic fields cause these effects. Operating power lines produce electric and magnetic fields commonly referred to as an electromagnetic field (EMF). The EMF produced by the AC electrical power system in the U.S. has a frequency of 60 hertz, meaning

that the intensity and orientation of the field changes 60 times per second. The electric field (EF) is expressed in V/m or kV/m, and magnitudes are often given in root-mean-square (rms) units. Magnetic field is generated by electrical currents. Transmission lines create time-varying magnetic fields measured in Gauss (G) or milligauss (mG). Electric fields are calculated using an imaging method, while magnetic fields are obtained by summing fields from currents in all conductors, assuming balanced three-phase currents

Corona from a transmission line may result in the production of audible noise (AN), radio influence voltage (RIV) and television interference.

The electric field gradient is greatest at the surface of the conductor. Large-diameter conductors have lower electric field gradients at the conductor surface and, hence, lower corona than smaller conductors, everything else being equal. Also, irregularities (such as nicks and scrapes on the conductor surface) or sharp edges on conductors and insulators hardware concentrate the electric field at these locations and, thus, increase corona at these spots. Similarly, contamination on the conductor surface such as dust or insects can cause irregularities that are a source for corona. Raindrops, snow, fog, and condensation are also sources of irregularities.

2.3.2.8.1 Audible Noise, Corona Losses, and EMF Model Results

EMFs, audible noise, and radio and television interference near power lines vary regarding the line design, line loading, distance from the line, and other factors. Electric fields, corona, audible noise, and radio and television interference depend on line voltage and not on the level of power flow. The calculations were made under maximum operating voltage. The line design includes triple-bundled 795 thousands of circular mils (kcmil) ACSR Drake conductors on monopole structures and double-bundled 2156 kcmil ACSR Bluebird conductors on SCE lattice towers. Table 2-6 shows the audible noise under fair weather, max audible noise under foul weather, and the Environmental Protection Agency's 55 day–night average sound level criteria.

Table 2-6. 500kV Audible Noise

Gen-Tie Design	Max Audible Noise at Edge of Right of Way (dBA)	Normal Audible Noise at Edge of Right of Way (dBA)	EPA 55 day-night sound level criteria (dBA)
SCE Owned Lattice Tower	55.1	30.1	48.5
Delta Monopole	51.0	26.0	
Deadend Monopole	49.6	24.6	

Source: Appendix 2D and 2E.
Notes: gen-tie = generation interconnection; dBA = A-weighted decibels; SCE = Southern California Edison.

Corona losses are estimated to range from .52 Watts/m -.913 Watts/m under fair weather conditions and 74.5 Watts/m – 130.5 Watts/m under foul weather conditions. One (1) study calculated radio interference induced by corona from a 500kV three-phase transmission line at approximately 45 decibels above 1 microvolt per meter (dB[1μV/m]3; henceforth referred to as dB) at approximately 88 feet (27 meters) away from the outermost phase of a transmission line (Tejada-Martinez et al. 2019). Measured radio interference was generally similar to calculated values particularly for conductors strung on towers horizontally but was found to be closer to 50 dBuV/m for conductors strung on towers in a vertical manner. Two (2) other studies of 500kV transmission lines at the same distance from center phase calculated radio interference at approximately 30 dB to generally below 60 dB, except for when subconductors were spaced closely together, depending on the geometric parameters (e.g., conductor size, conductor spacing) (El Dein 2013; Phaiboon et al. 2000). As discussed above, wet weather and other conditions (e.g., debris build up on conductors) can affect corona and therefore radio interference, with higher

interference anticipated in wetter weather. The 500kV transmission lines would be engineered and installed so as to avoid harmful interference with radio or other transmissions.

The magnetic field is proportional to line loading (amperes), which varies as demand for electrical power varies and as generation from the generating facility is changed by the system operators to meet changes in demand. The magnetic field at the edge of the gen-tie right-of-way is expected to range from 99.09 mG to 171.29 mG. The electric field at the edge of the right-of-way is expected to range from 0.342 kilovolts/meter (kV/m) – 1.777 kV/m).

Overall, construction and operation of the Project, including the interconnection of the facility with SCE's transmission system, are not expected to result in increases in EMF levels, corona, radio interference, or audible noise and mitigation would not be required.

2.4 Construction

The following sections detail the approximate construction schedule and workforce, construction activities, estimated water use, and materials handling proposed by the Project.

2.4.1 Schedule and Workforce

The Project is anticipated to be built over an approximately 20-month period from the onset of site preparation activities through energization. Following energization, testing and commissioning will take place over 6 months. Initial mobilization and site preparation is anticipated to begin no later than March 2027 and testing and commissioning is anticipated to conclude no later than April 2029. The commercial operation date (COD) is expected shortly following the completion of testing and commissioning in June 2029. It is anticipated that construction crews will work 8 hours to 10 hours per day, with work occurring Monday through Friday. Overtime, night work, and weekend work will be used only as necessary to meet the Project schedule or complete time-sensitive or safety critical work. All work schedules will comply with applicable California labor laws and County regulations. Estimated durations of construction activities are presented in Table 2-7.

Table 2-7. Estimated Construction Activity Duration

Construction Activity	Estimated Duration	Estimated Timeframe
Demolition	2 weeks	3/1/2027–3/12/2027
Site Preparation	1.5 months	3/1/2027–4/15/2027
Substation Site Preparation	2 weeks	4/16/2027–4/30/2027
Civil Work and Grading	4 months	5/1/2027–8/31/2027
Substation Civil Work and Grading	1 month	9/1/2027–9/30/2027
Paving	1.5 months	8/15/2027–9/30/2027
Battery Enclosure/PCS Installation	12 months	10/1/2027–10/1/2028
Project Substation Installation	8 months	2/1/2028–10/1/2028
Gen-Tie Foundations and Structure Erection	4 months	2/1/2028–5/31/2028
Gen-Tie Line Stringing and Pulling	1 month	6/1/2028–7/1/2028
SCE Interconnection Facility Upgrades within Vincent Substation	6 months	4/1/2028–10/1/2028
Testing and Commissioning	6 months	10/2/2028–4/1/2029

Note: PCS = power conversion system.

2.4.2 Sequencing

During construction activities, multiple crews will be working on the site with various equipment and vehicles. The daily number of construction workers (consisting of laborers, craftsmen, supervisory personnel, support personnel, and construction management personnel) will range from approximately 50 to 250 workers, depending on the phase of construction. It is estimated that construction will require the vehicle trips and equipment listed in Table 2-8.

Table 2-8. BESS Project – Construction Equipment and Usage Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips[1]	Equipment Type	Quantity	Usage Hours
Demolition	10	4	6	Rubber tired dozer	1	10
				Concrete/Industrial Saws	1	10
				Tractors/Loaders/ Backhoes	2	10
Site Preparation	242	12	24	Tractors/Loaders/ Backhoes	2	10
				Excavator	2	10
				Rubber tired dozer	2	10
Substation Site Preparation	242	12	100	Tractors/Loaders/ Backhoes	1	10
				Excavator	1	10
				Rubber tired dozer	1	10
Grading	242	12	524	Graders	2	10
				Tractors/Loaders/ Backhoes	2	10
				Rollers	2	10
Substation Grading	242	12	486	Graders	1	10
				Tractors/Loaders/ Backhoes	1	10
				Rollers	1	10
Paving	16	0	0	Pavers	2	10
				Paving Equipment	2	10
				Rollers	2	10
Battery Enclosure/ PCS Installation	121	12	20	Air Compressors	1	10
				Cranes	1	10
				Forklift	1	10
				Tractors/Loaders/ Backhoes	1	10
Substation Installation	121	12	4	Aerial Lifts	1	10
				Air Compressors	1	10

Table 2-8. BESS Project – Construction Equipment and Usage Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips[1]	Equipment Type	Quantity	Usage Hours
				Bore/Drill Rigs	1	10
				Forklift	1	10
				Trenchers	1	10
Gen-Tie Foundation and Tower Erection	121	12	0	Air Compressors	1	10
				Cranes	1	10
				Forklifts	1	10
				Pumps	1	10
				Welders	1	10
Gen-Tie Stringing and Pulling	121	12	0	Aerial Lift	1	10
				Tractors/Loaders/ Backhoes	1	10
SCE Interconnection Facility Upgrades	121	12	0	Air Compressors	4	10
				Cranes	2	10
				Excavators	2	10
				Rough Terrain Forklifts	2	10
				Skid Steer Loaders	2	10
				Tractors/Loaders/ Backhoes	2	10
				Trencher	1	10
Testing and Commissioning	242	12	0	NA	NA	NA
Decommissioning	242	12	20	Concrete/Industrial Saws	2	10
				Cranes	2	10
				Rubber Tired Dozers	2	10
				Tractors/Loaders/ Backhoes	2	10

Notes: PCS = power conversion system; gen-tie = generation interconnection; SCE = Southern California Edison.

1 The average daily haul truck trips for each phase consider phase durations from Table 2-7.

* The Project layout depicted in Figure 2-1, Project Site Plan, shows the "End of Life" configuration of the BESS, meaning it shows the equipment layout after all augmentation units are implemented. The numbers in this table conservatively assume that foundations and BESS equipment installation related to augmentation occurs during initial construction of the facility. Construction of foundations and BESS equipment installation for augmentation may occur during O&M periodically within the BESS facility footprint.

2.4.3 Site Preparation

Environmental clearance surveys will be performed at the Project site prior to commencement of construction activities. The limits of construction disturbance areas delineated in the final approved engineering design packages will be surveyed and staked. Initial ground disturbing activities in preparation for construction will include installation of erosion and sediment control measures prior to start of major earthwork activities. Rough grading

and grubbing/vegetation removal will be performed where required to accommodate site drainage and allow construction equipment to access the site. Detention chambers and stormwater facilities will be created for hydrologic control. The construction contractor will be required to incorporate applicable best management practices (BMPs) including the guidelines provided in the California Stormwater Quality Association's Construction BMP Handbook (CASQA 2024), as well as a soil erosion and sedimentation control plan to reduce potential impacts related to construction of the proposed Project. Stabilized construction entrances and exits will be installed at driveways to reduce tracking of sediment onto adjacent public roadways.

Site preparation will be consistent with applicable BMPs and the Antelope Valley Air Quality Management District's Fugitive Dust Rules. Site preparation will involve the removal and proper disposal of existing debris that will unduly interfere with Project construction or the health and safety of on-site personnel. Dust-minimizing techniques will be employed, such as placement of wind control fencing, application of water, and application of dust suppressants. All applicable governmental requirements and BMPs will be incorporated into the construction activities for the Project site.

Vegetation on the site will be removed where necessary to ensure the BESS facility is free from combustible vegetation to allow for fire protection and defensible space. Where feasible, in compliance with fire protection requirements, vegetation root mass within appropriate portions of the BESS facility lease area on the outside of the perimeter and substation access roads will be left in place for soil stabilization. However, the environmental analyses in subsequent sections conservatively assume that all areas within the maximum anticipated grading limits of the BESS facility will be permanently disturbed.

2.4.4 Site Grading and Civil Work

Following site preparation activities, grading and civil work will commence. Construction activities during this phase will include excavation and grading of the Project site. Preliminary designs conservatively assume that grading will include up to approximately 175,410 cubic yards (cy) of cut and up to approximately 625,095 cy of fill, resulting in a net of 449,685 cy of fill. Blasting is not expected but may be required if large boulders are encountered during excavation and grading. Fill material requirements will be satisfied by offsite borrow pits or quarries.

Conventional grading will be performed throughout the Project site but minimized to the maximum extent feasible to reduce unnecessary soil movement. Land-leveling equipment, such as a smooth steel drum roller, will be used to even the ground surface and compact the upper layer of soil to a value recommended by a geotechnical engineer for structural support. Following major civil work within the BESS facility site, site access roads and driveways, the perimeter and substation access roads, and interior roadways to access the laydown areas and BESS yards will be graded, compacted, and surfaced with gravel or paving. Once the roadways have been constructed, the Project perimeter fence and access gates will be constructed.

2.4.5 Foundations and Underground Equipment Installation

Following completion of major site grading and civil work, equipment foundations and below grade equipment will be installed. A grounding grid and underground conduit will be installed below grade beneath the Project substation area and BESS components. Typical ground grids consist of direct-buried copper conductors with copper-clad ground rods arranged in a grid pattern. After installation of the grounding grid, the area will be backfilled, compacted, and leveled followed by application of an aggregate rock base. A containment area within the MPT foundations will be sized to hold the full volume of oil within the MPTs. The MPT foundations within the substation

area are anticipated to be concrete slab foundations poured into excavations up to 7 feet deep. Foundations for the control building, static masts, other aboveground substation equipment, O&M buildings, BESS enclosures, PCS units, DC/DC converters, and BESS auxiliary transformers and panels are anticipated to be slab on grade, or pile foundations embedded up to 24 feet below ground level. Depending on soil conditions, the piles may be drilled or driven and set with a slurry. However, some of these Project components may be installed on concrete slab foundations depending on the geotechnical conditions at the final locations.

Additional underground work will include trenching for the placement of underground electrical and communications lines, including the MV collection system, AC and DC cables, and fire alarm cable. The wires will either be installed in conduit, cable-trays, or direct-buried, depending upon final design and application

2.4.6 BESS and Project Substation Equipment Installation

Where possible, major equipment will be delivered directly to its permanent location and offloaded directly into place with a crane or heavy equipment. Where staging or sequencing does not allow, equipment will be stored at one of the laydown areas near its permanent location and installed at a later date. Major aboveground equipment will be the MPTs and other Project substation components, control building, BESS enclosures, PCS units, DC/DC converters, BESS auxiliary transformers and panels, and material for the O&M buildings.

Electrical work will include installing cables, terminations, and splices. Electrical wiring will be installed underground, at-grade, and above ground, depending on the application and location. The wires will either be installed in conduit, cable-trays, or direct-buried, depending upon final design and application.

2.4.7 Gen-Tie Structure Erection

Environmental clearance surveys will be performed within the gen-tie corridor prior to commencement of construction activities. The gen-tie corridor boundaries, gen-tie centerline, telecommunications route centerlines, and transmission structure access path will be surveyed and flagged. Initial activities will include the installation of erosion and sediment control measures and materials, and preparation of the transmission structure and fiber optic utility pole work areas. The transmission structure access path may be bladed, compacted, and surfaced with gravel where necessary to facilitate transmission structure deliveries and construction equipment access. The surface of the access path will be at-grade to allow water to sheet flow across the gen-tie corridor, as it currently does. Overland travel and temporary construction activities associated with the gen-tie and telecommunications facilities may occur anywhere within the 150-foot-wide transmission corridor. Vegetation at the transmission and fiber optic utility pole work areas will be trimmed, mowed, or removed. At locations where gen-tie line structures and fiber optic utility poles will be installed, minor cuts may be required where the foundation will be installed.

Cast-in-place concrete foundations will be installed for the Applicant-owned transmission structures by placing reinforcing steel and a structure stub or anchor bolt cage into the foundation hole, positioning the stub, and encasing it in concrete. Each transmission structure foundation will be set on anchor bolts on top of the foundation with cranes. Holes will be excavated using a truck-mounted drill rig or standalone auger rig. Poles will be delivered on a flat-bed trailer and hoisted into place with a crane. The annular space between the poles and holes will be backfilled with concrete or soil. Excavated spoil material not used for backfilling will be spread around the structure work areas.

Each SCE-owned lattice steel tower will be supported by four cast-in-place concrete footings. Shaft holes will be drilled using truck- or track-mounted augers sized in accordance with final engineering requirements. Forms, reinforcing steel cages, and stub angles will be installed within the shaft holes, and concrete will be placed after the stub-angle locations are verified. Excavated material will be distributed at the tower site, reused as backfill, used to rehabilitate existing access roads, or transported to an authorized off-site disposal facility in accordance with applicable requirements. Once the concrete has cured sufficiently, crews will remove the forms and clean the work area. Steel bundles will be delivered to each tower site and assembled within an approximately 250' x 250' temporary assembly area. Assembly will include leg extensions, body panels, box sections, and bridge sections. The assembled sections will generally be lifted into place by crane and secured by an erection and torquing crew. If terrain or tower height limits crane use, a helicopter may be used for tower erection. Helicopter operations would occur within designated landing zones near construction areas, which may require vegetation clearing.

~~Holes will be excavated using a truck mounted drill rig or standalone auger rig. Poles will be delivered on a flat bed trailer and hoisted into place with a crane. The annular space between the poles and holes will be backfilled with concrete or soil. Excavated spoil material not used for backfilling will be spread around the structure work areas.~~

2.4.8 Gen-Tie Stringing and Pulling

For a conductor pulling location, the distance needed behind the dead-end structures should be equal to or greater than a 3:1 ratio (300 feet needed for a 100-foot-tall structure), or as recommended by the conductor manufacturer, to mitigate potential damage to the conductor during installation. The width of the pulling area is consistent with the 150-foot-wide gen-tie corridor. The pulling area will need to be relatively flat since trucks, trailers and various other small vehicles will need room to maneuver for placement of materials and equipment. The area will be cleared of any brush or obstacles, to facilitate unobstructed travels. For the wire end of a pull, there will be a minimum of two (2) 53-foot-long semi-trailers side by side, loaded with three (3) conductor reels each. One (1) trailer will be feeding the conductor to a tensioner, as the other trailer will be utilized for replacement of empty reels, and then facilitate a continuation of pulling efforts. The tensioner will be approximately the size of a semi-trailer and is responsible for tensioning the conductor during installation. A heavy-duty forklift or a large size all-terrain crane will be needed to support placement/removal of reels to the wire trailers, due to size and weight. After conductor installation, a bulldozer will be used to secure the installed conductors during application of additional tensions for the sagging process. The pulling equipment utilized is comparable in size/quantity to equipment utilized to support the new conductor reels. Pulling equipment utilizes multiple reels of high-tension pulling cables, mounted to semi-trailers, to support the new conductor placement into position on the structures. Pulling sites are depicted as Gen-Tie Work areas in Figure 2-2, Transmission Line Route.

A helicopter may be used to complete gen-tie stringing and pulling where the gen-tie crosses the railroad. For this portion of the stringing and pulling work it is assumed that a MD600 helicopter would be used for up to three (3) 10-hour days consisting of 1 day for mobilization, 1 day for stringing and pulling, and 1 day for demobilization. For the purposes of project analysis, it is anticipated that the helicopter would facilitate pulling of conductors and shield wires from proposed transmission structures No. 1 to No. 9 if the Northern Gen-Tie Route is selected, and transmission structures No. 3 to No. 5 if the Southern Gen-Tie Route is selected (please see Figure 2-2, Transmission Line Route, for transmission structure numbering). Helicopter use would be supported by one (1) primary landing zone located within an approximately 2.4-acre construction laydown area. An alternate landing zone would be located within the gen-tie work area between the POCO and second SCE pole. ~~approximately 150 foot by 100 foot landing zone.~~ Landing zones would primarily be used for staging materials, picking up and transporting electrical personnel and equipment, and refueling helicopters. ~~The landing zone is anticipated to be located at the~~

~~main laydown area but may need to shift to one (1) of the other two (2) laydown areas depending on the sequencing of construction.~~

2.4.9 SCE-Owned Gen-Tie Segment and Interconnection Facilities within Vincent Substation Footprint

SCE will construct the segment of the gen-tie between the POCO and the POI within the SCE Vincent Substation, and the fiber optic routes between the POCO and the SCE control building within the Vincent Substation footprint. The Applicant will bring the fiber optic cables to underground pull boxes at the POCO structure, and SCE will install the segment of the fiber optic cables between the POCO and control building in conduit placed in underground trenches. The trenches are anticipated to be up to 4 feet wide, and the trenches for the redundant routes will need to be at least 25 feet apart to meet SCE's diverse path requirements. It is anticipated that SCE will install the trenches within the access road to the angled dead-end structure outside the Vincent Substation fence line. However, SCE may install the cables within existing roadways or other pre-disturbed areas along the perimeter of the substation fence depending on final design and routing.

Construction of the three SCE-owned lattice steel towers, including foundation installation, tower assembly, and erection, will occur as described in Section 2.4.7.

SCE will also construct the interconnection upgrades within the Vincent Substation footprint at the POI. These upgrades are described in Section 2.3.2.4 above.

2.4.10 Construction Water Use

Construction water is anticipated to be purchased from a local water purveyor and trucked to the site. During construction, an estimated 18 million gallons (approximately 55 acre-feet) of untreated water will be required for common construction-related purposes, including but not limited to dust suppression, soil compaction, and grading. Dust-control water may be used during ingress and egress of on-site construction vehicle equipment traffic and during the construction of the Project. A sanitary water supply line will not be required during construction because restroom facilities will be portable units, serviced by licensed providers, and water and sewage from the restroom facilities will be stored in on-site tanks and serviced by trucks. Drinking water will be provided via portable water coolers.

2.4.11 Solid and Non-hazardous Waste

The Project will produce a small amount of solid waste from construction activities. This may include paper, wood, glass, plastics from packing material, waste lumber, insulation, scrap metal and concrete, empty nonhazardous containers, and vegetation waste. This waste will be segregated, where practical, for recycling. Non-recyclable waste will be placed in covered dumpsters, located in project laydown areas, and removed on a regular basis by a certified waste-handling contractor for disposal at a Class III (non-hazardous waste) landfill.

2.4.12 Hazardous Materials

The hazardous materials used for construction will be typical of most construction Projects of this type. Materials may include small quantities of gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints,

ethylene glycol, dust palliatives, herbicides, and welding materials/supplies. A hazardous materials business plan will be prepared prior to commencement of construction activities. The hazardous materials business plan will include a complete list of all materials used on site and information regarding how the materials will be transported and in what form they will be used. This information will be recorded to maintain safety and prevent possible environmental contamination or worker exposure. During Project construction, material safety data sheets for all applicable materials present at the site will be made readily available to on-site personnel.

2.4.13 Hazardous Waste

Small quantities of hazardous waste will most likely be generated over the course of construction. This waste may include waste paint, spent construction solvents, waste cleaners, waste oil, oily rags, waste batteries, and spent welding materials. Workers will be trained to properly identify and handle all hazardous materials. Hazardous waste will be either recycled or disposed of at a permitted and licensed treatment, recycling, or disposal facility in accordance with law. All hazardous waste shipped off site will be transported by a licensed hazardous waste hauler.

2.4.14 Commissioning

As part of Project construction activities, and after installation, equipment will be tested and commissioned. Commissioning work will be completed by qualified personnel, and in accordance with various codes, standards and specifications including IEEE, Institute of Electrical and Electronic Engineers, NEC National Electrical Code (NFPA 70), NETA International Electrical Testing Association, specific provisions of NFPA National Fire Protection Association, and the relevant OEM / manufacturers installation and commissioning manuals. Documentation necessary for commissioning will include (but is not limited to) complete sets of electrical plans, itemized equipment descriptions, control narratives, and other procedural requirement such as persons or entities to notify when equipment has become available for acceptance tests.

Commissioning will include testing of mechanical, electrical, fire protection, and other systems at substantial completion. Systems to be commissioned and tested include (but are not limited to) BESS enclosures, PCS units, auxiliar service transformers, MV collection system, DC cables, SCADA systems, power backup systems, and fire protection system. Performance testing will also be completed to ensure charge and discharge performance of the systems as designed and in accordance with the utility requirements. Full details of the commissioning activities will be made available in a commissioning plan, prepared by the BESS supplier and construction contractor and reviewed by the Engineer of Record, as part of the construction documentation package.

2.5 Operations and Maintenance

Once constructed, the Project will be available to operate 7 days per week, 365 days per year. The facility will be remotely monitored and operated by an Owner contracted O&M provider, by means of a NERC-CIP compliant remote operations center. Project operations will be monitored remotely through the SCADA system and by the Project's anticipated full-time operations staff members. It is estimated that there will be four (4) full-time staff members for remote monitoring and 16 full-time operations staff members on site.

On-site maintenance will be required, which will include replacement of inverter power modules, filters, and miscellaneous electrical repairs on an as-needed basis. During operation of the Project substation, O&M staff will visit the substation periodically for switching and other operation activities. Light duty maintenance trucks will be utilized to perform routine maintenance, including but not limited to equipment testing, monitoring, repair, routine

procedures to ensure service continuity, and standard preventative maintenance. Typically, one (1) major maintenance inspection will take place annually. Even when considering routine maintenance and augmentation activities, the project expects to provide no less than a 96% annual availability factor to the grid.

Batteries within utility-scale BESS facilities degrade with use over time, leading to a loss of capacity. To maintain the Project's capacity in compliance with interconnection requirements and commercial contracts, periodic augmentation by installing new batteries and related equipment within the Project site will occur to maintain the capacity over an approximate 40-year life. As batteries slowly lose their capacity to store energy, extra batteries will be installed at the beginning of the Project and at several intervals through the Project life, which is referred to as augmentation. Augmentation is expected to occur in order to maintain an annual lifetime capacity of 9,200MWh. If the project were to discharge for 8 hours daily and have an annual availability of 96% then the Project would have an annual capacity factor of approximately 32%. The Project's final augmentation strategy will be determined by market based contracting requirements. Augmentation may include constructing new foundations, installing BESS equipment on the foundations, and completing electrical work within the existing Project footprint. The preliminary site layout depicted on Figure 2-1, Project Site Plan, shows an "end of life" configuration, meaning it shows the equipment layout after all augmentation units are implemented. The construction sequencing and equipment usage assumptions in Tables 2-5 and 2-6 above, and environmental analyses in subsequent chapters, conservatively assume that all initial BESS equipment and augmentation BESS equipment are constructed at the same time.

2.5.1 Solid and Non-hazardous Waste

The Project will produce a small amount of waste associated with maintenance activities, which could include broken and rusted metal, defective or malfunctioning electrical materials, empty containers, and other miscellaneous solid waste, including typical refuse generated by workers. Most of these materials will be collected and delivered back to the manufacturer or to recyclers. Non-recyclable waste will be placed in covered dumpsters, located near the O&M buildings, and removed on a regular basis by a certified waste-handling contractor for disposal at a Class III landfill.

2.5.2 Hazardous Materials

Limited amounts of hazardous materials will be stored or used on the site during operations, including diesel fuel, gasoline, and motor oil for vehicles; refrigerant within the BESS enclosures; mineral oil to be sealed within the transformers; and lead-acid-based batteries for emergency backup. Appropriate spill containment and cleanup kits will be maintained during operation of the Project. A spill prevention control and countermeasures plan will be developed for site operations.

2.5.3 Hazardous Waste

Fuels and lubricants used in operations will be subject to the spill prevention control and countermeasures plan to be prepared for the proposed Project. Solid waste, if generated during operations, will be subject to the material disposal and solid waste management plan to be prepared for the proposed Project.

2.6 Decommissioning

In general, the BESS will be recycled at the expiration of the Project's life (estimated to be 40 years). Most parts of the proposed system are recyclable. Batteries include lithium, which degrades but can be recycled or repurposed.

Steel, wood, and concrete from the decommissioned facilities will be recycled. Metal and scrap equipment and parts that do not have free-flowing oil may be sent for salvage. Materials 3 feet or more below the ground surface will be left in place.

Fuel, hydraulic fluids, and oils will be transferred directly to a tanker truck from the respective tanks and vessels. Storage tanks and vessels will be rinsed and transferred to tanker trucks. Other items that are not feasible to remove at the point of generation, such as smaller container lubricants, paints, thinners, solvents, cleaners, batteries, and sealants, will be kept in a locked utility structure with integral secondary containment that meets Certified Unified Program Agencies and Resource Conservation and Recovery Act requirements for hazardous waste storage until removal for proper disposal and recycling. It is anticipated that all oils and batteries will be recycled at an appropriate facility. Site personnel involved in handling these materials will be trained to properly handle them. Containers used to store hazardous materials will be inspected regularly for any signs of failure or leakage. Additional procedures will be specified in a Hazardous Materials Business Plan closure plan submitted to the Certified Unified Program Agencies. Transportation of the removed hazardous materials will comply with regulations for transporting hazardous materials, including those set by the Department of Transportation, the U.S. Environmental Protection Agency, California Department of Toxic Substances Control, California Highway Patrol, and California State Fire Marshal. See Appendix F, Decommissioning Plan, for additional information.

2.7 Project Site Selection

The Project site and related facilities were selected taking into consideration engineering constraints, site geology, environmental impacts, water, waste and fuel constraints, and electric transmission constraints, among other factors. The Project location was selected, in part, due to it being large enough to support development of the Project, its close proximity to existing electrical infrastructure and the Vincent Substation, thereby minimizing the length of the proposed gen-tie line to the POI and ability to deliver power to the Los Angels Basin local reliability area during peak demand, and because it is located immediately adjacent to existing roadways for construction and O&M access.

The Project is uniquely suited to help California achieve its GHG reduction requirements and support LA Basin reliability requirements. The Vincent substation is located at a key point in the electrical grid, Service Path 26, which enables it to deliver energy from renewable resources outside of the LA Basin Resource Area to meet LA Basin Local Capacity Requirements (LCR), with tie lines into the Western and Eastern LA Basin. LCR refers to the minimum amount of local generation capacity needed within specific areas to meet reliability criteria, particularly in areas where transmission constraints limit the ability to import power and is a critical metric for understand energy needs which are necessary to meet future grid demand. The LA Basin LCR is increasing, primarily due to load growth. The 2024-2025 Transmission Plan shows that peak load in the SCE Main area is forecasted to grow from 25,265MW in 2026 to 27,929MW in 2034 (CAISO 2025a), representing a 9.5% increase over 8 years. The 2026 LCR Tech Study also shows that the local capacity needed in the LA Basin is expected to increase from 5,812MW in 2026 to 7,226MW in 2030, which is an approximate 20% increase in required capacity in 4 years. Compared with the 2025 LCR study, demand for the LA Basin is 429MW higher than last year's forecast and the forecasted LCR needs have increased by 1,689MW due to load forecast increase (CAISO 2025b). In addition, CAISO is projecting that there will be a total potential curtailment of 1,300 gigawatt hours of wind and solar from the SCE North area in 2034, absent storage availability (CAISO 2025a). Locating this important energy storage Project with efficient and environmentally sound access to the Vincent Substation provides the Project with the ability to help reduce wind and solar curtailment while also supporting the growing LCR needs in the LA Basin, allowing stored resources to be dispatched when needed.

The Project site was selected in furtherance of the Project Objectives detailed in Section 2.2 above. The site selection criteria are discussed in detail in Chapter 4, Alternatives.

2.8 References

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Attachment 1B

Project Description (Clean)

2 Project Description

Prairie Song Reliability Project LLC, a Delaware limited liability company (Applicant), a subsidiary of Coval Infrastructure DevCo LLC, a Delaware limited liability company, proposes to construct, operate, and eventually repower or decommission the up to 1,150-megawatt (MW) Prairie Song Reliability Project (Project) located on up to approximately 114 acres in unincorporated Los Angeles County. The primary components of the Project include a containerized battery energy storage system (BESS) facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance (O&M) buildings, an on-site Project substation, a 500-kilovolt (kV) overhead generation interconnection (gen-tie) transmission line, and interconnection facilities within the existing Southern California Edison (SCE)-owned and operated Vincent Substation.

Electrical energy will be transferred from the existing power grid to the Project for storage and from the Project to the power grid when additional electricity is needed. The Project will provide additional capacity to the electrical grid to assist with serving load during periods of peak demand by charging when demand is low and discharging when demand is high. This operating principle increases the integration of additional intermittent renewable energy, such as wind and solar, in California's energy mix and reduces the need to operate natural gas power plants. The Project will also serve as an additional local/regional capacity resource that will enhance grid reliability, particularly to the Los Angeles Basin local reliability area and may allow for the deferral or avoidance of regional transmission facilities.

The Project will be remotely operated and monitored year-round as well as supported by on-site O&M staff seven (7) days a week. The Project will be available to receive or deliver energy 24 hours a day and 365 days a year. During the operational life of the Project, qualified technicians will inspect the Project facilities and conduct necessary maintenance to ensure reliable and safe operational readiness.

2.1 Project Location

The Project will be located in unincorporated Los Angeles County (County), California south of State Route 14 approximately three (3) miles northeast of the center of the unincorporated community of Acton. The Project site is within the Los Angeles County-designated Community Standard District of Action. The Project is within the USGS 7.5-minute Acton and Pacifico Mountain Quadrangles, Township 5N, Range 12W, Sections 27, 28, 33 and 34. The BESS site is comprised of Assessor's Parcel Numbers (APNs) 3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, and 3056-019-040. Development of the BESS facility will occur on an area of land sandwiched between two (2) existing transportation corridors, the Antelope Valley Freeway (State Route 14) to the north and Los Angeles County Metropolitan Transportation Authority (LACMTA)-owned Southern Pacific Railroad lines and Carson Mesa Road to the south, that are approximately 1,200 feet apart.

The Project will utilize one (1) of two (2) potential gen-tie routes. Either route will extend south and east from the Project substation, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, and then proceed northeast to the Point of Interconnection (POI) at the Vincent Substation. The Northern Gen-Tie Route is approximately 1.2 miles long, and will be sited on APNs 3056-015-008, 3056-015-023, 3056-017-026, 3056-017-906, 3056-017-905, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The Southern Gen-Tie Route is approximately 1.9 miles long, and will be sited on APNs 3056-015-008, 3056-015-023, 3056-017-016, 3056-017-022, 3056-017-026, 3056-017-027, 3056-017-028, 3056-027-007, 3056-027-031, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802.

The Project will also include three (3) fiber optic telecommunications lines: one (1) will be installed aboveground on the gen-tie structures (along whichever gen-tie route is ultimately selected), and the other two (2) will be installed underground within the Southern Gen-Tie Route corridor. The two (2) other fiber optic lines will be installed underground within the Southern Gen-Tie Route corridor regardless of which Gen-Tie Route corridor option is selected. The Project's interconnection facilities will be located within the SCE Vincent Substation. Land uses in the immediate vicinity of the Project include undeveloped and rural lands, multiple high-voltage transmission lines and an electrical substation, paved and rural roads, State Route 14, and railroad lines.

The nearest municipality to the Project site is the City of Palmdale, which is located approximately four (4) miles to the northeast. There are a few single-family residences adjacent to the BESS facility Site's northern and western boundaries as well as a few other single-family residences in the vicinity of the gen-tie line.

2.2 Project Objectives

The Project's principle Basic Objectives include the following:

- Construct and operate an up to 1,150MW BESS facility in Los Angeles County with an interconnection utilizing available system capacity at the existing SCE Vincent Substation to balance intermittent renewable generation and serve as an additional capacity resource that will enhance grid reliability.
- Provide new energy storage capacity to assist California electric utilities in meeting obligations under California's Renewable Portfolio Standard Program and Senate Bills 100 and 1020, which require renewable energy sources and zero-carbon resources to supply 60% of all retail sales of electricity to California end-use customers by December 31, 2030, 90% of all retail sales of electricity to California end-use customers by December 31, 2035, 95% of all retail sales of electricity to California end-use customers by December 31, 2040, and 100% of all retail sales of electricity to California end-use customers by December 31, 2045.
- Provide new energy storage capacity to assist the State of California in meeting its goal of reducing statewide annual greenhouse gas emissions from the electric sector to 25 million metric tons by 2035.
- Provide storage capacity to help balance electricity generation from renewable sources, such as wind and solar, with electricity demand by storing excess generation predominately from emissions free power sources and deliver it back to the grid when demand exceeds real-time generation supply.
- Offer energy storge to curtail dispatch and displace the need for additional fossil fuel based generating stations needed to serve peak demand periods when intermittent renewable sources may be inadequate or unavailable. The additional storage capacity may allow for the deferral or avoidance of regional transmission facilities.
- Provide energy storage of sufficient size, power, capacity, scale, and location to assist California utilities in meeting obligations under the California Public Utilities Commission's (CPUC's) Mid-Term Reliability Procurement and upcoming Reliability and Clean Power Procurement Program Requirements.
- Develop an electricity storage facility in close proximity to a utility grid-connected substation with existing capacity available for interconnection for charging and discharging and the ability to deliver capacity to the load to minimize environmental impacts.
- Secure a location to allow the stored energy to relieve grid congestion, and enhance electricity reliability, without requiring the construction of substantial new regional transmission infrastructure or network upgrades.

- Construct and operate a battery energy storage facility in Los Angeles County, resulting in economic benefits to the County, creating prevailing wage construction jobs, and facilitating local community benefits.
- Locate and gain site control of site large enough and well-suited to support development of the Project's 1,150MW and up to 9,200MWh battery energy storage.
- Develop an energy storage project that is in close proximity to existing electrical infrastructure and the Vincent Substation, to avoid and minimize potential impacts from long 500kV gen-tie lines.
- Locate a site to accommodate a gen-tie line of reasonable length to the POI and the ability to deliver power to the Los Angeles Basin local reliability area during peak demand.
- Locate near existing roadways and related infrastructure where available and feasible for construction and O&M access.

2.3 Project Components

The Project will include construction, O&M, and eventual decommissioning of an up to 1,150MW BESS. A 500kV gen-tie connecting the Project substation to the POI within the existing SCE Vincent Substation, will facilitate charging and discharging to the electrical grid.

2.3.1 General Facility Description, Design, and Operation

The BESS facility will include the following primary components (refer to Section 2.3.2, Transmission and Interconnection Description, Design, and Operation for a detailed description of the gen-tie line and interconnection components of the Project):

- Battery Energy Storage System (BESS) Enclosures
- Power Conversion Systems (PCS)
- Medium voltage (MV) Collection System
- Project Substation, Control Building, and Telecommunications Facilities
- Access Roads
- Laydown Yards
- Stormwater Detention Facilities
- Site Security and Fencing
- Fire Detection and Suppression System
- Operations and Maintenance Building
- Existing Distribution Line Reroute

Project components are described in the following subsections. Figure 2-1, Project Site Plan, shows the Project layout. The Project's site plan package is provided in Appendix 2A, and the Project's conceptual landscape plan is included as Appendix 2B. Table 2-1 summarizes the preliminary dimensions of major BESS facility components, and Table 2-2 summarizes the preliminary footprint/disturbance acreage associated with the BESS facility.

Table 2-1. Preliminary Dimensions of Major BESS Facility Components

Component	Quantity	Approximate Dimensions
BESS Enclosures	2,035*	20 ft × 8 ft × 9.5 ft (L × W × H)
PCS	517*	20 ft × 8 ft × 9.5 ft (L × W × H)
MV Collection system	—	Buried in trenches up to 10 ft × 10 ft (W × D)
Project Substation Area	1	2,545 ft × 440 ft (L × W); seven (7) 150 ft (H) (lightning masts)
Control Building	1	27 ft W × 95 ft L × 10 ft H (to ceiling)
Access Roads	—	26 ft (W) internal radii 55 ft minimum
Fire Water Tanks	2	33 ft in Diameter × 16 ft H
Laydown Yards	3	Variable
Stormwater Detention Facilities	2	Variable
Security Wall	—	Minimum 8 ft H block wall topped with 1 ft of barbed/razor wire
Operations and Maintenance Building	2	20 ft × 60 ft × 15 ft (L × W × H)

Notes: BESS = battery energy storage system; PCS = power conversion system; MV = medium voltage.

* The number of BESS enclosures and PCS units will depend on the manufacturer selected. The total number of BESS enclosures and PCS units may increase or decrease in the final design. It is also possible that the BESS units ultimately procured may incorporate the PCS units within the BESS enclosures.

Table 2-2. Preliminary Footprint of BESS Facility

Component	Permanent Disturbance
BESS Yards	30.0 acres
Project Substation	23.1 acres
Access Roads	7.9 acres
Laydown Yards	1.0 acres
Stormwater Detention Facilities	4.1 acres
*Other**	*4.7 acres*
Total+	**70.8 acres**

Notes: BESS = battery energy storage system.

* Other areas include maximum grading limits. The analyses assume that all areas used for the BESS facility are permanently disturbed.

\+ The total permanent disturbance acreage is a conservative estimate, and final designs may require fewer acres. Underground components within the BESS facility will be located within the footprint of above ground disturbance areas.

2.3.1.1 Battery Energy Storage System

The energy storage facility will utilize a modular and containerized BESS. There are several battery cell technologies commercially available, with one of the most common presently being lithium iron phosphate (LFP) cells, or similar. LFP technology is considered one of the safest, most efficient, and commercially financeable energy storage technologies available on the market. The initial Project concept has been developed assuming an LFP technology. By the time the Project reaches the procurement stage, it is possible for other battery cell technology with proven safety and performance records to be suitable for the Project. Although the number and dimensions of the containers may change (as it does between LFP technology providers), the technology ultimately procured will result in potential environmental impacts substantially similar to, or less than, those analyzed based on this Project Description. The Sungrow Power Titan II has been selected for this project application as a representative BESS

enclosure. Sungrow Power Titan II design and operation information is used in this application to set maximum potential impact envelopes, for site design and modeling analysis, and to set baseline safety standards. A final manufacturer for the BESS enclosures will be selected during the detailed design process post-certification. The Project will provide defensible space by setting back all BESS enclosures at least 100 feet from the property boundary.

The BESS enclosures will be prefabricated off site and arrive at the site ready to be installed and commissioned. Each modular BESS enclosure will include battery packs on racks, a battery management system, fire detection systems, thermal management systems (either liquid or air cooled depending final selected technology), and ancillary power electronics within a specialized steel-framed, non-occupiable container. The BESS enclosures will not exceed 15 feet in height.

Over the life of the project the storage capacity of the battery cells will naturally degrade. The project will implement an augmentation strategy to maintain the contractually required capacity of the system. Augmentation will entail either a capacity maintenance approach of adding/replacing individual battery modules in the existing BESS yard or designing the BESS system to incorporate space for additional BESS enclosures for later augmentation. The Project design and analysis front loads the work for the Project augmentation and assumes that it will install the end-of-life capacity at the start of construction. This assumption is made to capture augmentation impacts during construction instead of trying to assume the augmentation schedule for the Project. Equipment type/specifications, capacity agreements, and tax incentives can all change how and when augmentation is completed. Front loading augmentation to occur during construction creates a conservative case for the analysis of potential impacts that could arise from augmentation and sets a maximum impact envelope for the Project. During Project operations, the Project analysis assumes that one (1) crane and one (1) forklift will operate in support of augmentation once every 3 to 5 years for 8 hours per day.

2.3.1.2 Power Conversion System

A PCS is a packaged and integrated, or assembled, system consisting of a bi-directional inverter, MV transformers, protection equipment, direct current (DC) and alternating current (AC) circuit breakers, harmonic filters, equipment terminals, and a connection cabling system. A PCS functions to both convert between DC/AC and change the voltage level from the MV collection voltage to the working voltage of the BESS enclosures.

The PCS will convert electric energy from AC to DC when the energy is transferred from the grid to the battery, and from DC to AC when the energy is transferred from the battery to the grid. Each PCS will also include transformers that convert the AC side output of the inverter between low and medium AC voltage to increase the overall efficiency of the BESS. Inverters within the PCS units will be unattended systems designed to operate in all conditions. The inverters will be monitored and controlled remotely, and there will be on-site disconnects for use in case of an emergency or a situation requiring unscheduled maintenance.

PCS units will be installed on concrete foundations or steel piles and connected to multiple BESS enclosures with wiring and cables installed underground. All outside electrical equipment will be housed in the appropriate National Electrical Manufacturers Association-rated enclosures.

2.3.1.3 MV Collection System

The MV collection system will include multiple components that connect the PCS units to the Project substation including underground conductor circuits, switchboards, switchgear, and panels at 34.5kV. The conductors for the MV collection system will be installed underground during construction using trenching.

To connect the portion of the BESS yard north of Soledad Canyon Road to the Project substation, which is located south of Soledad Canyon Road, a portion of the MV collection system will need to be located underground within Soledad Canyon Road. A 180-foot-wide underground corridor will house the MV collection system as it traverses the road. The MV collection lines under Soledad Canyon Road will be installed using horizontal directional drilling, will be inside six (6) in conduit, covered by a minimum of 42 inches, and spaced 10 feet apart.

2.3.1.4 Project Substation

The Project substation will include six (6) main power transformers (MPTs). When the BESS facility is charging, power from the regional electric transmission grid will be stepped down from 500kV to 34.5kV and sent from the Project substation through the MV collection system and PCS units into the battery packs within the BESS enclosures. When the BESS facility is discharging, power from the battery packs within the BESS enclosures will be sent to the PCS units, stepped up to 34.5kV, and transported to the Project substation through the MV collection system before being stepped up to 500kV at the MPTs and delivered back to the regional electric transmission grid. A control building will be installed within the Project substation area and contain an energy management system, metering, and telecommunication equipment for communication with SCE/California Independent System Operator (CAISO) facilities and to support remote Project operations monitoring. The Project substation area will also include seven (7) static masts, up to 150 feet tall, for lightning protection.

2.3.1.5 BESS Facility Access Roads

The Project's roadway system will utilize existing roads wherever available and feasible and include new facility access roads and driveways, a perimeter road, and internal access roads. All new access roads, driveways, internal and perimeter roads will be bladed, compacted, and surfaced with asphalt. All internal roadways and private driveways will be constructed to meet access requirements for construction, O&M, and emergency response.

2.3.1.6 Laydown Yards

The Project will include up to three (3) laydown yards for equipment and material staging and storage during construction. These areas will also be used for worker parking during construction. The primary laydown yard will be located in the northernmost portion of the BESS site. The primary laydown yard will be bladed, compacted, and surfaced with aggregate, while an additional laydown yard to facilitate construction of the gen-tie line will be cleared of vegetation and surfaced with aggregate or other soil stabilizing materials. Landscape fabric may also be installed under the surface of all laydown yards to prevent vegetation growth, if required to comply with fire prevention standards. The O&M building and required number of parking spaces for O&M staff will be constructed within the primary laydown following construction of the BESS facility components.

The proposed Project's preliminary layout, earthwork volumes, and Project component dimensions assumed for environmental analyses in subsequent chapters are conservatively large to allow for design flexibility within the Project footprint and Project schedule preservation.

2.3.1.7 Stormwater Detention Facilities

Regulatory standards require that volumes and flow rates of stormwater discharge after construction are not to exceed pre-development conditions. Stormwater generated on-site will flow to underground stormwater detention chambers located in the southwestern portions BESS facility site (Figure 2-1, Project Site Plan). Stormwater treatment and storage sizing will be designed to hold the anticipated runoff from a 100-year, 24-hour storm event in compliance with applicable regulations. After a rainfall event, stormwater will infiltrate into the subgrade underneath the stormwater chambers. If the design capacity of the stormwater chambers is exceeded, however, stormwater may be stored in available upstream areas such as catch basins, infiltration trenches, or drain as sheet flow from the surface.

2.3.1.8 Site Security

The BESS facility site will be enclosed with a minimum 8-foot-tall block wall topped with 1 foot of three-strand barbed wire or razor wire. The wall will be installed on the outside of the perimeter roads. The wall will be required to prevent unauthorized access and to comply with human health and safety regulations. Gates will be installed at various access points along the wall and equipped with locks and knox boxes to allow for authorized personnel (e.g., transmission service provider, O&M staff, emergency response) to access appropriate portions of the BESS facility site. The wall will serve a dual purpose for security and off-site noise reduction (see Section 3.7, Noise).

Lighting will only be in areas where it is required for safety, security, or operations. Controlled security lighting no more than 28 feet tall will be installed at the Project substation and around the BESS yards, in accordance with applicable requirements and regulations. Permanent motion-sensitive, directional security lights will be installed to provide adequate illumination around the substation area and points of ingress/egress. All lighting will be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties, compliant with applicable codes and regulations. Security cameras will be placed on site and monitored 24/7.

2.3.1.9 Fire Detection and Suppression System

Fire protection will include multiple fire detection systems on-site and within the individual BESS enclosures. Each BESS enclosure will have a fire rating in conformance with the California Fire Code 2022. In addition, each BESS enclosure will contain an onboard battery management system that monitors the appropriate state of individual battery cells and relays information 24/7 and an internal Fire Alarm Control Panel that will identify which units have incidents and will notify first responders. In the event of an anomaly, the system is designed to shut down and mitigate the hazard.

The Project's fire protection design will comply with California Fire Code 2022, Section 1207 Electrical Energy Storage Systems, which adopts the National Fire Protection Association's Standard for the Installation of Stationary Energy Storage Systems (NFPA 855). BESS enclosures will be Underwriters Laboratories (UL) listed, tested, and certified to the most rigorous international safety standards. UL independently tests equipment for compliance with the latest fire safety code requirements, and the methods were developed to minimize fire risk and safety concerns about battery storage equipment raised by fire departments and building officials in the United States.

Faults, mechanical damage, or manufacturing defects in lithium-ion batteries can cause thermal runaway, which can lead to fires or other hazards. Should a thermal runaway event occur, the BESS enclosures are designed and constructed in such a way that fire will not propagate from one enclosure to a neighboring enclosure. The Project's

BESS enclosures, as part of the testing and listing process, will be subjected to destructive testing including fire testing. The Project's BESS enclosures will include the following UL certifications:

- UL 1642 – Standard for Lithium Batteries (cell level certification).
- UL 1973 – Standard for Batteries for Use in Stationary Applications (module level certification).
- UL 9540 – Standard for Energy Storage Systems and Equipment (system level certification).
- UL 9540A – Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems.
- IEC 62619 – Standard for Battery Safety in Stationary Applications.

The BESS facility ingress/egress and circulation will be designed to comply with LA County's Draft fire regulations. Each portion of the BESS facility (the BESS yards north and south of Soledad Canyon Road.) will have primary and secondary access points. The BESS yard north of Soledad Canyon Road. will have a primary access point in the southwest corner of the site and a secondary access point in the northwest corner of the site, near the O&M buildings and laydown yard. The BESS yard south of Soledad Canyon Road. will have a secondary access point directly across from the secondary access point for the northern BESS yard and a primary access point that is approximately 1,030 feet east of the secondary access point. There will also be an access point for the Project Substation that is approximately 340 feet east of the BESS yard primary access point, in the approximate middle of the Project area that is south of Soledad Canyon Road. All access points will have Knox boxes and will connect to roads that are 26 feet wide (see Appendix 2A Fire Safety and Water Circulation Plan PSR-BE-201).

Water for fire defense will be provided via an on-site well that will serve two (2) 40,000-gallon water tanks. There will be a separate water tank and booster pump in each of the BESS yards. The water tanks will serve hydrants located throughout the BESS yards. Hydrants were specifically located to be no more than 300 feet apart throughout the BESS yards. The project commissioned a fire water supply assessment that concluded that the maximum amount of water necessary to fight a fire on the site would be 15,000 gallons (see Appendix 3.17A). The project will provide 40,000 gallons of water at each BESS yard.

The fire water line system has been highlighted in PSR-BE-201. PSR-BE-201 shows the existing well in the south BESS yard and the water line connection to the water tank in that same yard (approximately 245 feet to the northeast of the existing well). The water tank and associated pumphouse serve as the distribution point for the fire water line. Three (3) lines leave the pumphouse. Two (2) fire water lines support the hydrant system in the south BESS yard. The loops follow the road and surround each of the BESS blocks. The third fire water line runs southwest along the northern road in the south BESS yard until it comes to the first responder secondary entrance. The fire water line then heads north and crosses Soledad Canyon Road along the northeastern side of the two (2) opposing first responder secondary entrances. Once in the north BESS yard, the fire water line heads back southwest along the southern road in the north BESS yard for approximately 1,030 feet. The fire water line then heads north and connects to the pump house and water tank in the north BESS yard. There are two (2) fire water lines that exit the pump house in the north BESS yard that serve the hydrants that are spaced along access roads and surround the BESS blocks.

The Los Angeles County Fire Department will review and comment on the facility fire protection and suppression plans.

2.3.1.10 Operations and Maintenance Building

O&M buildings will be constructed for the Project's anticipated 16 full-time operations staff and is planned to be in the easternmost portion of the BESS yard north of Soledad Canyon Road. The O&M buildings will include parking, outside equipment and laydown areas, basic offices, meeting rooms, washroom facilities and climate-controlled storage for certain equipment and materials. An existing groundwater well will provide water for washroom and a septic system will provide for sanitary facilities. The existing groundwater well is located south of Soledad Canyon Road on APN 3056-019-026. To serve the O&M buildings and fire water needs, which are located north of Soledad Canyon Road, an underground water line will be constructed from the existing groundwater well to the O&M buildings as shown in Figure 2-1, Project Site Plan. A portion of the water line will be located within Soledad Canyon Road as shown in Figure 2-1, Project Site Plan. The water line will run under Soledad Canyon Road along the northeast edge of the opposing first responder secondary access points between the north and south BESS yards. The water line will be covered by a minimum of 24 inches of material. The water line will be installed via horizontal directional drilling.

2.3.1.11 Existing Distribution Line Reroute

There is currently an SCE overhead electrical distribution line that bisects the southern portion of the BESS facility site. The distribution line consists of wooden poles with a cross bar carrying the distribution lines. The Project plans to reroute this line around the BESS facility site using similar distribution poles and wires. The Project will alter the existing distribution line route from where it enters the property on the south side of the BESS facility site. The Project will install approximately nine (9) poles similar to the existing poles, outside of the BESS facility site wall, along the southern and western boundary of the BESS facility site south of Soledad Canyon Road until they connect with Soledad Canyon Road. At Soledad Canyon Road, the new distribution line will tie into the existing distribution line at the western boundary of the southern BESS facility site (See Appendix 2A Distribution Line Reroute PSR-SE-103).

2.3.2 Transmission and Interconnection Description, Design, and Operation

The Project will be interconnected to the regional electrical transmission grid via an approximately 1.2-mile-long or 1.9-mile-long new single-circuit 500kV gen-tie line within an up-to 150-foot-wide corridor between the Project substation and the SCE Vincent Substation. The Applicant will construct and own the portion of the gen-tie line between the Project substation and the Point of Change of Ownership (POCO) transmission structure (see Figure 2-1, Project Site Plan, site layout Pole 10), and SCE will construct and own the remaining portion of the gen-tie from the POCO to the POI within the Vincent Substation. The Project's transmission and interconnection facilities will include the following components:

- 500kV Gen-Tie Line including Transmission Structures and Conductors
- Fiber Optic Telecommunications Utility Poles and Fiber Optic Lines
- Access Paths
- Temporary Work Areas
- Interconnection Facilities within Existing SCE Vincent Substation Footprint (SCE constructed and owned)

The proposed route was selected to minimize the number of existing utility crossings, cross existing utilities at the optimum locations, minimize the total gen-tie line length and number of transmission structures required, minimize

the number of turning structures required, and enter the Vincent Substation as close as possible to the POI. The proposed transmission structures were sited to avoid potential impacts to environmental resources. Project components associated with transmission and interconnection facilities are described in the following subsections. Figure 2-2, Transmission Line Route, shows the gen-tie routes, scattered rural residences, scenic areas (scenic drives and the Los Angeles National Forest), and existing transmission lines within 1 mile of the proposed routes. There are no parks or recreational areas within 1 mile of the proposed routes. Table 2-3 summarizes the preliminary dimensions of major transmission components, and Table 2-4 summarizes the preliminary new ground disturbance area associated with construction of the transmission and interconnection facilities (Southern Gen-Tie scenario). Section 3.13, Visual Resources, includes photographic simulations of a representative above ground section of the gen-tie route prior to construction and after construction.

Table 2-3. Preliminary Dimensions of Major Transmission Components

Component	Quantity	Approximate Dimensions
500kV Gen-Tie Line	1	Applicant Owned: North: 3,500 ft long / South: 7,300 ft long
		SCE Owned: 3,200 ft long
Substation Bay Dead-End Transmission Structure	1	Applicant Owned: 170 ft tall
		SCE Owned: n/a
Angled Dead-End Transmission Structure	up to 7	Applicant Owned: 175 ft tall to 195 ft tall
		SCE Owned: n/a
Tangent Delta Transmission Structure	1	Applicant Owned: 155 ft tall (Northern Gen-Tie Route) to 180 ft tall (Southern Gen-Tie Route)
		SCE Owned: n/a
Lattice Tower Transmission Structure	3	Applicant Owned: n/a
		SCE Owned: 230 ft tall to 270 ft tall
Conductors	1	Applicant Owned: North: 30,800 ft / South: 63,000 ft
		SCE Owned: 16,000 ft
Overhead Shield Wire	1	Applicant Owned: North: 3,600 ft / South: 7,300 ft
		SCE Owned: 3,200 ft
Fiber Optic Cables on Gen-Tie Structures	1	Applicant Owned: North: 3,600 ft / South: 7,300 ft
		SCE Owned: 3,200 ft
Fiber Optic Cables Underground	2	Applicant Owned: 12,000 ft
		SCE Owned: 7,600 ft
Transmission Structure Access Path	Varies	26 ft wide

Notes: kV = kilovolt; SCE = Southern California Edison; gen-tie = generation interconnection.

Table 2-4. Approximate New Ground Disturbance Area Associated with Transmission and Interconnection Facilities

Component	Permanent Disturbance	Temporary Disturbance
Applicant Portion		
Transmission Structure Pads	2.48 acres	—

Table 2-4. Approximate New Ground Disturbance Area Associated with Transmission and Interconnection Facilities

Component	Permanent Disturbance	Temporary Disturbance
Transmission Structure Access Path	1.14 acres	—
Laydown Area	—	4.23 acres
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	19.4 acres
Applicant Total[1]	**3.62 acres**	**23.63 acres**
SCE Portion		
Transmission Structure Pad and Access Roads	0.62 acres	—
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	13.82 acres
Laydown Area	—	2.40 acres
SCE Total	**0.62 acres**	**16.22 acres**

Note: gen-tie = generation interconnection; SCE = Southern California Edison.

[1] Represents the impacts associated only with the Southern Gen-Tie Route, which defines the maximum impact footprint.

2.3.2.1 500kV Gen-Tie Line

The 500kV gen-tie line will originate at the Project substation within the BESS facility site and extend south and east, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, as close to perpendicular as possible, and then proceed northeast to the POI at the Vincent Substation. The Project proposes a Northern Gen-Tie Route and Southern Gen-Tie Route. The Applicant understands a crossing agreement with LACMTA will be required prior to construction. LACMTA requires a crossing agreement application to include a 90% design package. This will be provided as the Project design progresses. The Project expects to submit the application in 2026.

The interconnecting 500kV transmission single-circuit configuration will be overhead. The gen-tie line will be constructed with either monopole tubular steel poles or steel lattice towers. Gen-tie structures will be at least 155 feet tall, with a maximum height of 243 feet. There will be a total of approximately 1 monopole or steel lattice tower structures. The total number of gen-tie structures will be determined by the final design of the gen-tie line. The Project transmission facilities will be designed consistent with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC 2006) where feasible. Transmission facilities will also be evaluated for potential collision reduction devices in accordance with *Reducing Avian Collisions with Power Lines: The State of Art in 2012* (APLIC 2012).

The POCO will be located on APN 3056-015-008 (see Pole 10 within Figure 2-1, Project Site Plan). The POCO is the point where the conductors of the gen-tie line are attached to the last Applicant-owned structure on the side facing Vincent Substation. The Applicant shall own and maintain the gen-tie facilities between the Project substation and Pole 10, including, the conductors, insulators and jumper loops. SCE will own and maintain the facilities between Pole 10 and the Vincent Substation, including three dead-end lattice steel towers, associated conductors and shield wires, the line drop, and the interconnection facilities within the Vincent Substation.

The conductor from the site to the POCO is planned to be triple bundle 795 Drake or equivalent. The conductor from the POCO to the Vincent Substation will be double bundle 2156 Bluebird or equivalent.

Table 2-3 includes the approximate number and dimensions of the different types of transmission structures that will be used.

2.3.2.2 Transmission Structure Access Path

Where possible, the transmission structure access path will utilize existing access roads to minimize new ground disturbance. A transmission structure access path up to 26 feet wide will be located within portions of the transmission corridor outside of the BESS facility and Vincent Substation footprints and generally follow the centerline of the gen-tie.

2.3.2.3 Telecommunication Facilities

The facility will be designed with a comprehensive Supervisory Control and Data Acquisition (SCADA) System to allow remote monitoring of facility operation and/or remote control of critical components. The fiber optic or other cabling required for the monitoring system typically will be installed in buried conduit within access roads or planned trenches leading to the SCADA system cabinet at the Project substation. External telecommunications connections to the SCADA system cabinets could be provided through wireless or hard-wired connections to locally available commercial service providers.

The Project's SCADA system will interconnect to an external fiber optic network or fixed wireless service at the Project substation through buried fiber optic cables or fixed wireless antennas. These facilities will be located within the Project's planned disturbance areas; therefore, no separate disturbance associated with telecommunications is anticipated. No relocation of existing telecommunications structures will occur.

Telecommunications equipment will be installed between the control building at the Project substation and the Vincent Substation to facilitate communication with SCE/CAISO facilities. Three diverse telecommunications paths will support line protection, remedial action scheme (RAS), and remote terminal unit requirements:

- Install optical ground wire on the Generation Tie-Line to provide one (1) of three (3) telecommunication paths required for the line protection scheme, the remote terminal units. A minimum of eight (8) strands within the optical ground wire shall be provided for SCE's exclusive use into Vincent Substation.
- Install appropriate single-mode fiber optic cable from the Project Site to a point near the POCO to the Vincent Substation to provide the second telecommunication path required for the line protection scheme and the RAS. A minimum of eight (8) strands within the single-mode fiber optic cable shall be provided for SCE's exclusive use. The telecommunication path shall meet the Applicable Reliability Standards criteria for diversity.
- Install appropriate single mode fiber optic cables from the Project site to a point designated by SCE near the Vincent Substation to provide a third telecommunication path required for the gen-tie line protection scheme. A minimum of eight (8) strands within the single mode fiber optic cable shall be provided for SCE's exclusive use. The telecommunication path shall meet the Applicable Reliability Standards criteria for diversity.

The Applicant will own, operate, and maintain all three (3) telecommunications paths, including optical ground wire (OPGW), underground fiber-optic cables, and appurtenant facilities, between the Project substation and the POCO. SCE will own, operate, and maintain the three (3) telecommunications facilities between the POCO and Vincent Substation (Route 1 through 3 described below).

SCE will install the following telecommunications facilities between the POCO and Vincent Substation:

- Lightwave, channel, and associated equipment (including terminal equipment), supporting protection and the remote terminal unit requirements at the Project site and Vincent Substation for the interconnection of the Project. Notwithstanding that certain telecommunication equipment, including the telecommunications terminal equipment, will be located on the Interconnection Customer's side of the POCO., SCE shall own, operate and maintain such telecommunication equipment as part of SCE's Interconnection Facilities.
- Route 1 will include approximately 1,400 linear feet of new underground conduit and fiber-optic cable between the POCO and an existing lattice tower M40-T3 to the east, where the new cable will connect to existing fiber. Approximately two (2) new 4' x by 4' x 6' vaults will be installed along this route. Route 1 will be installed via open trench. Route 1 is located south of Route 2, as shown in Figure 2-1.
- Route 2 will include approximately 5,000 linear feet of new underground conduit and fiber-optic cable between the POCO and the Vincent Substation communications room. This route will include approximately 4,600 linear feet installed by trenching, approximately 400 linear feet installed by directional boring, two (2) bore pits, and approximately seven (7) new 4' x by 4' x 6' vaults, as shown in Figure 2-1.
- Route 3 will use the OPGW installed on the transmission towers and will include approximately 100 linear feet of new underground conduit and fiber-optic cable between the dead-end rack and the cable/control trench and approximately 1,100 linear feet of underground fiber-optic cable to the Vincent Substation communications room. Final route lengths and the locations and number of vaults will be determined during final engineering.

Where the underground fiber optic line leaves the BESS facility site, they will be installed via horizontal directional drilling underneath the railroad tracks. Horizontal directional drilling is a trenchless construction technique used to install underground utilities like pipelines and conduits without disturbing the surface. A crossing agreement with LACMTA will be required prior to construction. The Applicant submitted an application to LACMTA in summer 2026.

2.3.2.4 Interconnection Facilities within Existing SCE Vincent Substation Footprint

To facilitate interconnection of the BESS facility to the electric transmission grid, SCE will need to install one (1) 500kV dead end structure, three (3) 500kV coupling capacitor voltage transformers, one (1) 500kV line drop, three (3) line current relays, and one (1) 500kv line position which includes the following equipment: two (2) 500kV circuit breakers, four (4) 500kV disconnect switches, one (1) grounding switch, 33 bus support insulators, three (3) 500kV surge arresters, 3-2156 KCMIL ACSR/phase conductors, and related conduit. No additional network upgrades outside of the Vincent Substation are necessary to interconnect the Project to the grid.

2.3.2.5 Transmission System Impact Studies

The Project will interconnect to SCE's transmission system within the CAISO planning area. CAISO identified two (2) potential Affected Systems from the QC12 Phase I Interconnection Study: California Department of Water Resources and Los Angeles Department of Water and Power.

The Applicant has contacted both potential affected systems and both have responded that the Project will not have any negative impact on their systems (see Confidential Appendix 2C).

The Applicant filed an Interconnection Request with CAISO in the Cluster 12 Interconnection Request window. CAISO, in cooperation with SCE, prepared the Phase I Interconnection Study (January 15, 2020), and Phase II Interconnection Study (November 20, 2020). The Applicant entered into a Large Generator Interconnection Agreement with CAISO and SCE on January 28, 2022. The Project's Phase I and II Interconnection Studies are included in Confidential Appendix 2C.

2.3.2.6 California Public Utilities Commission General Orders

Because SCE is an investor-owned electric utility, the SCE Improvements described above, are regulated by CPUC. CPUC General Orders (GO) cover regulatory requirements for investor-owned electrical utilities.

The Project will comply with applicable GOs, including GO 95 (Rules for Overhead Electric Line Construction) and GO 128 (Rules for Construction of Underground Electric Supply and Communications Systems).

2.3.2.7 Transmission System Design

One-line diagrams for the Project substation are included in Appendix 2A Single Line PSR-SE-001. The one-line diagrams include all equipment ratings including the bay arrangement of the circuit breakers, disconnect switches, buses, transformers, and other equipment that will be required for the Project interconnection at the Project site.

A one-line diagram for the Project's interconnection at the SCE Vincent Substation is included in Confidential Appendix 2C, specifically within Appendix A of the Large Generator Interconnection Agreement (Page 106 of 137).

Table 2-5 below, Transmission System Design/Safey and Nuisance Regulations, identifies transmission system design laws, regulations, ordinances, and standards; adopted local, regional, state, and federal land use plans; and leases and permits applicable to the Project.

The applicant plans on installing triple bundle 795 Drake or equivalent from the BESS to the POCO. Depending on the selected route, the length of the applicant's conductor will be either 30,800 feet for the Northern Route or 63,000 feet for the Southern Route. These lengths represent the total conductor length of all phases along the applicant's portion of the 500 kV route (North: 3,500 feet long/South: 7,300 feet long). In determining the line type, the Project assumed a Max Operating Temperature of 212 degrees Fahrenheit as well as the other inputs from the Phase II SCE design. The allowable ampacity of the original conductor was 1,485 amps. The current conductor design has an ampacity of 3,396 amps. Allowable ampacity affects how much energy the line can carry, so an increase in ampacity equates to an increase in carrying capacity. Triple bundle 795 Drake will be located vertically along monopoles in the applicant-owned portion of the gen-tie route (see figures in Appendix 2 PSR-TL-005 through PSR-TL-008).

SCE plans on installing double bundle 2156 Bluebird or equivalent from the POCO to the Vincent Substation. SCE will install approximately 16,000 feet of conductor on their towers. This length represents the total conductor length of all phases along the SCE portion of the 500 kV route (3,200 feet long). SCE has sized the double bundle 2156 Bluebird to meet the carrying capacity requirements for the Project and will locate the conductor vertically along tower in the SCE-owned portion of the gen-tie route (see figures in Appendix 2 PSR-TL-009).

Table 2-5. Transmission System Design/Safety and Nuisance Regulations

Item	Title
CPUC GO-95	Rules for Overhead Electric Line Construction
NESC	National Electrical Safety Code (NESC)
GO-128	Rules for Construction of Underground Electric Supply and Communication Systems
GO-131-D	Rules for Planning and Construction of Electric Generation Line and Substation Facilities in California
Decision 93-11-013	California Public Utilities Commission (CPUC) EMF Decision
CPUC GO-52	Construction and Operation of Power and Communication Lines for the Prevention or Mitigation of Inductive Interference
ASCE 48-19	Design of Steel Transmission Structures
ASCE 74	Guidelines for Electrical Transmission Line Structural Loading
ASCE 113	Substation Structure Design Guide
FAA 70/7460	Proposed Construction and/or Alteration of Objects that May Affect the Navigation Space
IEEE 81	Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Grounding System
IEEE 525	Guide for the Design and Installation of Cable Systems in Substations
IEEE 605	Guide for Bus Design in Air Insulated Substation
IEEE 691	Guide for Transmission Structure Foundation Design and Testing
IEEE 738	Standard for Calculating the Current-Temperature Relationship of Bare Overhead Conductors
IEEE 1127	Guide for the Design, Construction, and Operation of Electric power Substations for Community Acceptance and Environmental
IEEE 1427	Guide for Recommended Electrical Clearances and Insulation Levels in Air Insulated Electrical Power Substations
IEEE 1863	Guide for Overhead AC Transmission Line Design
47 CFR 15.25, “Operating Requirements, Incidental Radiation	Prohibits operations of any device emitting incidental radiation that causes interference to communications; the regulation also requires mitigation for any device that causes interference
Title 14 CFR, Part 77, “Objects Affecting Navigable Airspace”	Describes the criteria used to determine whether a “Notice of Proposed Construction or Alteration” (FAA Form 7460-1) is required for potential obstruction hazards.
FAA Advisory Circular No. 70/7460-1M, “Obstruction Marking and Lighting”	Describes the FAA standards for marking and lighting of obstructions as identified by FAA Regulations Part 77

2.3.2.8 Transmission Line Safety and Nuisance

The electrical effects of high-voltage transmission lines fall into two (2) broad categories: corona effects and field effects. Corona is a luminous discharge due to ionization of the air surrounding a conductor around the surface of an energized conductor and associate hardware when the voltage gradient exceeds a certain critical value during certain conditions. Corona may result in radio and television reception interference, audible noise, light, and production of ozone. Corona is a function of the voltage of the line, the diameter of the conductor, and the condition of the conductor and hardware surface. Corona performance is predicted using empirical equations from high-

voltage line measurements. The methodology has been validated for predicting corona-induced noise and interference. The electric field gradient is the rate at which the electric field changes and is directly related to the line voltage and the geometric configuration of the line. Field effects are the voltages and currents that may be induced in nearby conducting objects. A transmission line's inherent electric and magnetic fields cause these effects. Operating power lines produce electric and magnetic fields commonly referred to as an electromagnetic field (EMF). The EMF produced by the AC electrical power system in the U.S. has a frequency of 60 hertz, meaning that the intensity and orientation of the field changes 60 times per second. The electric field (EF) is expressed in V/m or kV/m, and magnitudes are often given in root-mean-square (rms) units. Magnetic field is generated by electrical currents. Transmission lines create time-varying magnetic fields measured in Gauss (G) or milligauss (mG). Electric fields are calculated using an imaging method, while magnetic fields are obtained by summing fields from currents in all conductors, assuming balanced three-phase currents

Corona from a transmission line may result in the production of audible noise (AN), radio influence voltage (RIV) and television interference.

The electric field gradient is greatest at the surface of the conductor. Large-diameter conductors have lower electric field gradients at the conductor surface and, hence, lower corona than smaller conductors, everything else being equal. Also, irregularities (such as nicks and scrapes on the conductor surface) or sharp edges on conductors and insulators hardware concentrate the electric field at these locations and, thus, increase corona at these spots. Similarly, contamination on the conductor surface such as dust or insects can cause irregularities that are a source for corona. Raindrops, snow, fog, and condensation are also sources of irregularities.

2.3.2.8.1 Audible Noise, Corona Losses, and EMF Model Results

EMFs, audible noise, and radio and television interference near power lines vary regarding the line design, line loading, distance from the line, and other factors. Electric fields, corona, audible noise, and radio and television interference depend on line voltage and not on the level of power flow. The calculations were made under maximum operating voltage. The line design includes triple-bundled 795 thousands of circular mils (kcmil) ACSR Drake conductors on monopole structures and double-bundled 2156 kcmil ACSR Bluebird conductors on SCE lattice towers. Table 2-6 shows the audible noise under fair weather, max audible noise under foul weather, and the Environmental Protection Agency's 55 day–night average sound level criteria.

Table 2-6. 500kV Audible Noise

Gen-Tie Design	Max Audible Noise at Edge of Right of Way (dBA)	Normal Audible Noise at Edge of Right of Way (dBA)	EPA 55 day-night sound level criteria (dBA)
SCE Owned Lattice Tower	55.1	30.1	48.5
Delta Monopole	51.0	26.0	
Deadend Monopole	49.6	24.6	

Source: Appendix 2D and 2E.
Notes: gen-tie = generation interconnection; dBA = A-weighted decibels; SCE = Southern California Edison.

Corona losses are estimated to range from .52 Watts/m -.913 Watts/m under fair weather conditions and 74.5 Watts/m – 130.5 Watts/m under foul weather conditions. One (1) study calculated radio interference induced by corona from a 500kV three-phase transmission line at approximately 45 decibels above 1 microvolt per meter (dB[1μV/m]3; henceforth referred to as dB) at approximately 88 feet (27 meters) away from the outermost phase of a transmission line (Tejada-Martinez et al. 2019). Measured radio interference was generally similar to calculated

values particularly for conductors strung on towers horizontally but was found to be closer to 50 dBuV/m for conductors strung on towers in a vertical manner. Two (2) other studies of 500kV transmission lines at the same distance from center phase calculated radio interference at approximately 30 dB to generally below 60 dB, except for when subconductors were spaced closely together, depending on the geometric parameters (e.g., conductor size, conductor spacing) (El Dein 2013; Phaiboon et al. 2000). As discussed above, wet weather and other conditions (e.g., debris build up on conductors) can affect corona and therefore radio interference, with higher interference anticipated in wetter weather. The 500kV transmission lines would be engineered and installed so as to avoid harmful interference with radio or other transmissions.

The magnetic field is proportional to line loading (amperes), which varies as demand for electrical power varies and as generation from the generating facility is changed by the system operators to meet changes in demand. The magnetic field at the edge of the gen-tie right-of-way is expected to range from 99.09 mG to 171.29 mG. The electric field at the edge of the right-of-way is expected to range from 0.342 kilovolts/meter (kV/m) – 1.777 kV/m).

Overall, construction and operation of the Project, including the interconnection of the facility with SCE's transmission system, are not expected to result in increases in EMF levels, corona, radio interference, or audible noise and mitigation would not be required.

2.4 Construction

The following sections detail the approximate construction schedule and workforce, construction activities, estimated water use, and materials handling proposed by the Project.

2.4.1 Schedule and Workforce

The Project is anticipated to be built over an approximately 20-month period from the onset of site preparation activities through energization. Following energization, testing and commissioning will take place over 6 months. Initial mobilization and site preparation is anticipated to begin no later than March 2027 and testing and commissioning is anticipated to conclude no later than April 2029. The commercial operation date (COD) is expected shortly following the completion of testing and commissioning in June 2029. It is anticipated that construction crews will work 8 hours to 10 hours per day, with work occurring Monday through Friday. Overtime, night work, and weekend work will be used only as necessary to meet the Project schedule or complete time-sensitive or safety critical work. All work schedules will comply with applicable California labor laws and County regulations. Estimated durations of construction activities are presented in Table 2-7.

Table 2-7. Estimated Construction Activity Duration

Construction Activity	Estimated Duration	Estimated Timeframe
Demolition	2 weeks	3/1/2027–3/12/2027
Site Preparation	1.5 months	3/1/2027–4/15/2027
Substation Site Preparation	2 weeks	4/16/2027–4/30/2027
Civil Work and Grading	4 months	5/1/2027–8/31/2027
Substation Civil Work and Grading	1 month	9/1/2027–9/30/2027
Paving	1.5 months	8/15/2027–9/30/2027
Battery Enclosure/PCS Installation	12 months	10/1/2027–10/1/2028
Project Substation Installation	8 months	2/1/2028–10/1/2028

Table 2-7. Estimated Construction Activity Duration

Construction Activity	Estimated Duration	Estimated Timeframe
Gen-Tie Foundations and Structure Erection	4 months	2/1/2028–5/31/2028
Gen-Tie Line Stringing and Pulling	1 month	6/1/2028–7/1/2028
SCE Interconnection Facility Upgrades within Vincent Substation	6 months	4/1/2028–10/1/2028
Testing and Commissioning	6 months	10/2/2028–4/1/2029

Note: PCS = power conversion system.

2.4.2 Sequencing

During construction activities, multiple crews will be working on the site with various equipment and vehicles. The daily number of construction workers (consisting of laborers, craftsmen, supervisory personnel, support personnel, and construction management personnel) will range from approximately 50 to 250 workers, depending on the phase of construction. It is estimated that construction will require the vehicle trips and equipment listed in Table 2-8.

Table 2-8. BESS Project – Construction Equipment and Usage Assumptions

	One-Way Vehicle Trips			Equipment		
Construction Phase	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips[1]	Equipment Type	Quantity	Usage Hours
Demolition	10	4	6	Rubber tired dozer	1	10
				Concrete/Industrial Saws	1	10
				Tractors/Loaders/ Backhoes	2	10
Site Preparation	242	12	24	Tractors/Loaders/ Backhoes	2	10
				Excavator	2	10
				Rubber tired dozer	2	10
Substation Site Preparation	242	12	100	Tractors/Loaders/ Backhoes	1	10
				Excavator	1	10
				Rubber tired dozer	1	10
Grading	242	12	524	Graders	2	10
				Tractors/Loaders/ Backhoes	2	10
				Rollers	2	10
Substation Grading	242	12	486	Graders	1	10
				Tractors/Loaders/ Backhoes	1	10
				Rollers	1	10
Paving	16	0	0	Pavers	2	10

Table 2-8. BESS Project – Construction Equipment and Usage Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips[1]	Equipment Type	Quantity	Usage Hours
				Paving Equipment	2	10
				Rollers	2	10
Battery Enclosure/ PCS Installation	121	12	20	Air Compressors	1	10
				Cranes	1	10
				Forklift	1	10
				Tractors/Loaders/ Backhoes	1	10
Substation Installation	121	12	4	Aerial Lifts	1	10
				Air Compressors	1	10
				Bore/Drill Rigs	1	10
				Forklift	1	10
				Trenchers	1	10
Gen-Tie Foundation and Tower Erection	121	12	0	Air Compressors	1	10
				Cranes	1	10
				Forklifts	1	10
				Pumps	1	10
				Welders	1	10
Gen-Tie Stringing and Pulling	121	12	0	Aerial Lift	1	10
				Tractors/Loaders/ Backhoes	1	10
SCE Interconnection Facility Upgrades	121	12	0	Air Compressors	4	10
				Cranes	2	10
				Excavators	2	10
				Rough Terrain Forklifts	2	10
				Skid Steer Loaders	2	10
				Tractors/Loaders/ Backhoes	2	10
				Trencher	1	10
Testing and Commissioning	242	12	0	NA	NA	NA
Decommissioning	242	12	20	Concrete/Industrial Saws	2	10
				Cranes	2	10
				Rubber Tired Dozers	2	10
				Tractors/Loaders/ Backhoes	2	10

Notes: PCS = power conversion system; gen-tie = generation interconnection; SCE = Southern California Edison.

[1] The average daily haul truck trips for each phase consider phase durations from Table 2-7.

* The Project layout depicted in Figure 2-1, Project Site Plan, shows the "End of Life" configuration of the BESS, meaning it shows the equipment layout after all augmentation units are implemented. The numbers in this table conservatively assume that

foundations and BESS equipment installation related to augmentation occurs during initial construction of the facility. Construction of foundations and BESS equipment installation for augmentation may occur during O&M periodically within the BESS facility footprint.

2.4.3 Site Preparation

Environmental clearance surveys will be performed at the Project site prior to commencement of construction activities. The limits of construction disturbance areas delineated in the final approved engineering design packages will be surveyed and staked. Initial ground disturbing activities in preparation for construction will include installation of erosion and sediment control measures prior to start of major earthwork activities. Rough grading and grubbing/vegetation removal will be performed where required to accommodate site drainage and allow construction equipment to access the site. Detention chambers and stormwater facilities will be created for hydrologic control. The construction contractor will be required to incorporate applicable best management practices (BMPs) including the guidelines provided in the California Stormwater Quality Association's Construction BMP Handbook (CASQA 2024), as well as a soil erosion and sedimentation control plan to reduce potential impacts related to construction of the proposed Project. Stabilized construction entrances and exits will be installed at driveways to reduce tracking of sediment onto adjacent public roadways.

Site preparation will be consistent with applicable BMPs and the Antelope Valley Air Quality Management District's Fugitive Dust Rules. Site preparation will involve the removal and proper disposal of existing debris that will unduly interfere with Project construction or the health and safety of on-site personnel. Dust-minimizing techniques will be employed, such as placement of wind control fencing, application of water, and application of dust suppressants. All applicable governmental requirements and BMPs will be incorporated into the construction activities for the Project site.

Vegetation on the site will be removed where necessary to ensure the BESS facility is free from combustible vegetation to allow for fire protection and defensible space. Where feasible, in compliance with fire protection requirements, vegetation root mass within appropriate portions of the BESS facility lease area on the outside of the perimeter and substation access roads will be left in place for soil stabilization. However, the environmental analyses in subsequent sections conservatively assume that all areas within the maximum anticipated grading limits of the BESS facility will be permanently disturbed.

2.4.4 Site Grading and Civil Work

Following site preparation activities, grading and civil work will commence. Construction activities during this phase will include excavation and grading of the Project site. Preliminary designs conservatively assume that grading will include up to approximately 175,410 cubic yards (cy) of cut and up to approximately 625,095 cy of fill, resulting in a net of 449,685 cy of fill. Blasting is not expected but may be required if large boulders are encountered during excavation and grading. Fill material requirements will be satisfied by offsite borrow pits or quarries.

Conventional grading will be performed throughout the Project site but minimized to the maximum extent feasible to reduce unnecessary soil movement. Land-leveling equipment, such as a smooth steel drum roller, will be used to even the ground surface and compact the upper layer of soil to a value recommended by a geotechnical engineer for structural support. Following major civil work within the BESS facility site, site access roads and driveways, the perimeter and substation access roads, and interior roadways to access the laydown areas and BESS yards will be graded, compacted, and surfaced with gravel or paving. Once the roadways have been constructed, the Project perimeter fence and access gates will be constructed.

2.4.5 Foundations and Underground Equipment Installation

Following completion of major site grading and civil work, equipment foundations and below grade equipment will be installed. A grounding grid and underground conduit will be installed below grade beneath the Project substation area and BESS components. Typical ground grids consist of direct-buried copper conductors with copper-clad ground rods arranged in a grid pattern. After installation of the grounding grid, the area will be backfilled, compacted, and leveled followed by application of an aggregate rock base. A containment area within the MPT foundations will be sized to hold the full volume of oil within the MPTs. The MPT foundations within the substation area are anticipated to be concrete slab foundations poured into excavations up to 7 feet deep. Foundations for the control building, static masts, other aboveground substation equipment, O&M buildings, BESS enclosures, PCS units, DC/DC converters, and BESS auxiliary transformers and panels are anticipated to be slab on grade, or pile foundations embedded up to 24 feet below ground level. Depending on soil conditions, the piles may be drilled or driven and set with a slurry. However, some of these Project components may be installed on concrete slab foundations depending on the geotechnical conditions at the final locations.

Additional underground work will include trenching for the placement of underground electrical and communications lines, including the MV collection system, AC and DC cables, and fire alarm cable. The wires will either be installed in conduit, cable-trays, or direct-buried, depending upon final design and application

2.4.6 BESS and Project Substation Equipment Installation

Where possible, major equipment will be delivered directly to its permanent location and offloaded directly into place with a crane or heavy equipment. Where staging or sequencing does not allow, equipment will be stored at one of the laydown areas near its permanent location and installed at a later date. Major aboveground equipment will be the MPTs and other Project substation components, control building, BESS enclosures, PCS units, DC/DC converters, BESS auxiliary transformers and panels, and material for the O&M buildings.

Electrical work will include installing cables, terminations, and splices. Electrical wiring will be installed underground, at-grade, and above ground, depending on the application and location. The wires will either be installed in conduit, cable-trays, or direct-buried, depending upon final design and application.

2.4.7 Gen-Tie Structure Erection

Environmental clearance surveys will be performed within the gen-tie corridor prior to commencement of construction activities. The gen-tie corridor boundaries, gen-tie centerline, telecommunications route centerlines, and transmission structure access path will be surveyed and flagged. Initial activities will include the installation of erosion and sediment control measures and materials, and preparation of the transmission structure and fiber optic utility pole work areas. The transmission structure access path may be bladed, compacted, and surfaced with gravel where necessary to facilitate transmission structure deliveries and construction equipment access. The surface of the access path will be at-grade to allow water to sheet flow across the gen-tie corridor, as it currently does. Overland travel and temporary construction activities associated with the gen-tie and telecommunications facilities may occur anywhere within the 150-foot-wide transmission corridor. Vegetation at the transmission and fiber optic utility pole work areas will be trimmed, mowed, or removed. At locations where gen-tie line structures and fiber optic utility poles will be installed, minor cuts may be required where the foundation will be installed.

Cast-in-place concrete foundations will be installed for the Applicant-owned transmission structures by placing reinforcing steel and a structure stub or anchor bolt cage into the foundation hole, positioning the stub, and encasing it in concrete. Each transmission structure foundation will be set on anchor bolts on top of the foundation with cranes. Holes will be excavated using a truck-mounted drill rig or standalone auger rig. Poles will be delivered on a flat-bed trailer and hoisted into place with a crane. The annular space between the poles and holes will be backfilled with concrete or soil. Excavated spoil material not used for backfilling will be spread around the structure work areas.

Each SCE-owned lattice steel tower will be supported by four cast-in-place concrete footings. Shaft holes will be drilled using truck- or track-mounted augers sized in accordance with final engineering requirements. Forms, reinforcing steel cages, and stub angles will be installed within the shaft holes, and concrete will be placed after the stub-angle locations are verified. Excavated material will be distributed at the tower site, reused as backfill, used to rehabilitate existing access roads, or transported to an authorized off-site disposal facility in accordance with applicable requirements. Once the concrete has cured sufficiently, crews will remove the forms and clean the work area. Steel bundles will be delivered to each tower site and assembled within an approximately 250’ x 250’ temporary assembly area. Assembly will include leg extensions, body panels, box sections, and bridge sections. The assembled sections will generally be lifted into place by crane and secured by an erection and torquing crew. If terrain or tower height limits crane use, a helicopter may be used for tower erection. Helicopter operations would occur within designated landing zones near construction areas, which may require vegetation clearing.

2.4.8 Gen-Tie Stringing and Pulling

For a conductor pulling location, the distance needed behind the dead-end structures should be equal to or greater than a 3:1 ratio (300 feet needed for a 100-foot-tall structure), or as recommended by the conductor manufacturer, to mitigate potential damage to the conductor during installation. The width of the pulling area is consistent with the 150-foot-wide gen-tie corridor. The pulling area will need to be relatively flat since trucks, trailers and various other small vehicles will need room to maneuver for placement of materials and equipment. The area will be cleared of any brush or obstacles, to facilitate unobstructed travels. For the wire end of a pull, there will be a minimum of two (2) 53-foot-long semi-trailers side by side, loaded with three (3) conductor reels each. One (1) trailer will be feeding the conductor to a tensioner, as the other trailer will be utilized for replacement of empty reels, and then facilitate a continuation of pulling efforts. The tensioner will be approximately the size of a semi-trailer and is responsible for tensioning the conductor during installation. A heavy-duty forklift or a large size all-terrain crane will be needed to support placement/removal of reels to the wire trailers, due to size and weight. After conductor installation, a bulldozer will be used to secure the installed conductors during application of additional tensions for the sagging process. The pulling equipment utilized is comparable in size/quantity to equipment utilized to support the new conductor reels. Pulling equipment utilizes multiple reels of high-tension pulling cables, mounted to semi-trailers, to support the new conductor placement into position on the structures. Pulling sites are depicted as Gen-Tie Work areas in Figure 2-2, Transmission Line Route.

A helicopter may be used to complete gen-tie stringing and pulling where the gen-tie crosses the railroad. For this portion of the stringing and pulling work it is assumed that a MD600 helicopter would be used for up to three (3) 10-hour days consisting of 1 day for mobilization, 1 day for stringing and pulling, and 1 day for demobilization. For the purposes of project analysis, it is anticipated that the helicopter would facilitate pulling of conductors and shield wires from proposed transmission structures No. 1 to No. 9 if the Northern Gen-Tie Route is selected, and

transmission structures No. 3 to No. 5 if the Southern Gen-Tie Route is selected (please see Figure 2-2, Transmission Line Route, for transmission structure numbering). Helicopter use would be supported by one (1) primary landing zone located within an approximately 2.4-acre construction laydown area. An alternate landing zone would be located within the gen-tie work area between the POCO and second SCE pole. Landing zones would primarily be used for staging materials, picking up and transporting electrical personnel and equipment, and refueling helicopters.

2.4.9 SCE-Owned Gen-Tie Segment and Interconnection Facilities within Vincent Substation Footprint

SCE will construct the segment of the gen-tie between the POCO and the POI within the SCE Vincent Substation, and the fiber optic routes between the POCO and the SCE control building within the Vincent Substation footprint. The Applicant will bring the fiber optic cables to underground pull boxes at the POCO structure, and SCE will install the segment of the fiber optic cables between the POCO and control building in conduit placed in underground trenches. The trenches are anticipated to be up to 4 feet wide, and the trenches for the redundant routes will need to be at least 25 feet apart to meet SCE's diverse path requirements. It is anticipated that SCE will install the trenches within the access road to the angled dead-end structure outside the Vincent Substation fence line. However, SCE may install the cables within existing roadways or other pre-disturbed areas along the perimeter of the substation fence depending on final design and routing.

Construction of the three SCE-owned lattice steel towers, including foundation installation, tower assembly, and erection, will occur as described in Section 2.4.7.

SCE will also construct the interconnection upgrades within the Vincent Substation footprint at the POI. These upgrades are described in Section 2.3.2.4 above.

2.4.10 Construction Water Use

Construction water is anticipated to be purchased from a local water purveyor and trucked to the site. During construction, an estimated 18 million gallons (approximately 55 acre-feet) of untreated water will be required for common construction-related purposes, including but not limited to dust suppression, soil compaction, and grading. Dust-control water may be used during ingress and egress of on-site construction vehicle equipment traffic and during the construction of the Project. A sanitary water supply line will not be required during construction because restroom facilities will be portable units, serviced by licensed providers, and water and sewage from the restroom facilities will be stored in on-site tanks and serviced by trucks. Drinking water will be provided via portable water coolers.

2.4.11 Solid and Non-hazardous Waste

The Project will produce a small amount of solid waste from construction activities. This may include paper, wood, glass, plastics from packing material, waste lumber, insulation, scrap metal and concrete, empty nonhazardous containers, and vegetation waste. This waste will be segregated, where practical, for recycling. Non-recyclable waste will be placed in covered dumpsters, located in project laydown areas, and removed on a regular basis by a certified waste-handling contractor for disposal at a Class III (non-hazardous waste) landfill.

2.4.12 Hazardous Materials

The hazardous materials used for construction will be typical of most construction Projects of this type. Materials may include small quantities of gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, ethylene glycol, dust palliatives, herbicides, and welding materials/supplies. A hazardous materials business plan will be prepared prior to commencement of construction activities. The hazardous materials business plan will include a complete list of all materials used on site and information regarding how the materials will be transported and in what form they will be used. This information will be recorded to maintain safety and prevent possible environmental contamination or worker exposure. During Project construction, material safety data sheets for all applicable materials present at the site will be made readily available to on-site personnel.

2.4.13 Hazardous Waste

Small quantities of hazardous waste will most likely be generated over the course of construction. This waste may include waste paint, spent construction solvents, waste cleaners, waste oil, oily rags, waste batteries, and spent welding materials. Workers will be trained to properly identify and handle all hazardous materials. Hazardous waste will be either recycled or disposed of at a permitted and licensed treatment, recycling, or disposal facility in accordance with law. All hazardous waste shipped off site will be transported by a licensed hazardous waste hauler.

2.4.14 Commissioning

As part of Project construction activities, and after installation, equipment will be tested and commissioned. Commissioning work will be completed by qualified personnel, and in accordance with various codes, standards and specifications including IEEE, Institute of Electrical and Electronic Engineers, NEC National Electrical Code (NFPA 70), NETA International Electrical Testing Association, specific provisions of NFPA National Fire Protection Association, and the relevant OEM / manufacturers installation and commissioning manuals. Documentation necessary for commissioning will include (but is not limited to) complete sets of electrical plans, itemized equipment descriptions, control narratives, and other procedural requirement such as persons or entities to notify when equipment has become available for acceptance tests.

Commissioning will include testing of mechanical, electrical, fire protection, and other systems at substantial completion. Systems to be commissioned and tested include (but are not limited to) BESS enclosures, PCS units, auxiliar service transformers, MV collection system, DC cables, SCADA systems, power backup systems, and fire protection system. Performance testing will also be completed to ensure charge and discharge performance of the systems as designed and in accordance with the utility requirements. Full details of the commissioning activities will be made available in a commissioning plan, prepared by the BESS supplier and construction contractor and reviewed by the Engineer of Record, as part of the construction documentation package.

2.5 Operations and Maintenance

Once constructed, the Project will be available to operate 7 days per week, 365 days per year. The facility will be remotely monitored and operated by an Owner contracted O&M provider, by means of a NERC-CIP compliant remote operations center. Project operations will be monitored remotely through the SCADA system and by the Project's anticipated full-time operations staff members. It is estimated that there will be four (4) full-time staff members for remote monitoring and 16 full-time operations staff members on site.

On-site maintenance will be required, which will include replacement of inverter power modules, filters, and miscellaneous electrical repairs on an as-needed basis. During operation of the Project substation, O&M staff will visit the substation periodically for switching and other operation activities. Light duty maintenance trucks will be utilized to perform routine maintenance, including but not limited to equipment testing, monitoring, repair, routine procedures to ensure service continuity, and standard preventative maintenance. Typically, one (1) major maintenance inspection will take place annually. Even when considering routine maintenance and augmentation activities, the project expects to provide no less than a 96% annual availability factor to the grid.

Batteries within utility-scale BESS facilities degrade with use over time, leading to a loss of capacity. To maintain the Project's capacity in compliance with interconnection requirements and commercial contracts, periodic augmentation by installing new batteries and related equipment within the Project site will occur to maintain the capacity over an approximate 40-year life. As batteries slowly lose their capacity to store energy, extra batteries will be installed at the beginning of the Project and at several intervals through the Project life, which is referred to as augmentation. Augmentation is expected to occur in order to maintain an annual lifetime capacity of 9,200MWh. If the project were to discharge for 8 hours daily and have an annual availability of 96% then the Project would have an annual capacity factor of approximately 32%. The Project's final augmentation strategy will be determined by market based contracting requirements. Augmentation may include constructing new foundations, installing BESS equipment on the foundations, and completing electrical work within the existing Project footprint. The preliminary site layout depicted on Figure 2-1, Project Site Plan, shows an "end of life" configuration, meaning it shows the equipment layout after all augmentation units are implemented. The construction sequencing and equipment usage assumptions in Tables 2-5 and 2-6 above, and environmental analyses in subsequent chapters, conservatively assume that all initial BESS equipment and augmentation BESS equipment are constructed at the same time.

2.5.1 Solid and Non-hazardous Waste

The Project will produce a small amount of waste associated with maintenance activities, which could include broken and rusted metal, defective or malfunctioning electrical materials, empty containers, and other miscellaneous solid waste, including typical refuse generated by workers. Most of these materials will be collected and delivered back to the manufacturer or to recyclers. Non-recyclable waste will be placed in covered dumpsters, located near the O&M buildings, and removed on a regular basis by a certified waste-handling contractor for disposal at a Class III landfill.

2.5.2 Hazardous Materials

Limited amounts of hazardous materials will be stored or used on the site during operations, including diesel fuel, gasoline, and motor oil for vehicles; refrigerant within the BESS enclosures; mineral oil to be sealed within the transformers; and lead-acid-based batteries for emergency backup. Appropriate spill containment and cleanup kits will be maintained during operation of the Project. A spill prevention control and countermeasures plan will be developed for site operations.

2.5.3 Hazardous Waste

Fuels and lubricants used in operations will be subject to the spill prevention control and countermeasures plan to be prepared for the proposed Project. Solid waste, if generated during operations, will be subject to the material disposal and solid waste management plan to be prepared for the proposed Project.

2.6 Decommissioning

In general, the BESS will be recycled at the expiration of the Project's life (estimated to be 40 years). Most parts of the proposed system are recyclable. Batteries include lithium, which degrades but can be recycled or repurposed. Steel, wood, and concrete from the decommissioned facilities will be recycled. Metal and scrap equipment and parts that do not have free-flowing oil may be sent for salvage. Materials 3 feet or more below the ground surface will be left in place.

Fuel, hydraulic fluids, and oils will be transferred directly to a tanker truck from the respective tanks and vessels. Storage tanks and vessels will be rinsed and transferred to tanker trucks. Other items that are not feasible to remove at the point of generation, such as smaller container lubricants, paints, thinners, solvents, cleaners, batteries, and sealants, will be kept in a locked utility structure with integral secondary containment that meets Certified Unified Program Agencies and Resource Conservation and Recovery Act requirements for hazardous waste storage until removal for proper disposal and recycling. It is anticipated that all oils and batteries will be recycled at an appropriate facility. Site personnel involved in handling these materials will be trained to properly handle them. Containers used to store hazardous materials will be inspected regularly for any signs of failure or leakage. Additional procedures will be specified in a Hazardous Materials Business Plan closure plan submitted to the Certified Unified Program Agencies. Transportation of the removed hazardous materials will comply with regulations for transporting hazardous materials, including those set by the Department of Transportation, the U.S. Environmental Protection Agency, California Department of Toxic Substances Control, California Highway Patrol, and California State Fire Marshal. See Appendix F, Decommissioning Plan, for additional information.

2.7 Project Site Selection

The Project site and related facilities were selected taking into consideration engineering constraints, site geology, environmental impacts, water, waste and fuel constraints, and electric transmission constraints, among other factors. The Project location was selected, in part, due to it being large enough to support development of the Project, its close proximity to existing electrical infrastructure and the Vincent Substation, thereby minimizing the length of the proposed gen-tie line to the POI and ability to deliver power to the Los Angels Basin local reliability area during peak demand, and because it is located immediately adjacent to existing roadways for construction and O&M access.

The Project is uniquely suited to help California achieve its GHG reduction requirements and support LA Basin reliability requirements. The Vincent substation is located at a key point in the electrical grid, Service Path 26, which enables it to deliver energy from renewable resources outside of the LA Basin Resource Area to meet LA Basin Local Capacity Requirements (LCR), with tie lines into the Western and Eastern LA Basin. LCR refers to the minimum amount of local generation capacity needed within specific areas to meet reliability criteria, particularly in areas where transmission constraints limit the ability to import power and is a critical metric for understand energy needs which are necessary to meet future grid demand. The LA Basin LCR is increasing, primarily due to load growth. The 2024-2025 Transmission Plan shows that peak load in the SCE Main area is forecasted to grow from 25,265MW in 2026 to 27,929MW in 2034 (CAISO 2025a), representing a 9.5% increase over 8 years. The 2026 LCR Tech Study also shows that the local capacity needed in the LA Basin is expected to increase from 5,812MW in 2026 to 7,226MW in 2030, which is an approximate 20% increase in required capacity in 4 years. Compared with the 2025 LCR study, demand for the LA Basin is 429MW higher than last year's forecast and the forecasted LCR needs have increased by 1,689MW due to load forecast increase (CAISO 2025b). In addition, CAISO is projecting that there will be a total potential curtailment of 1,300 gigawatt hours of wind and solar from the SCE North area in 2034, absent

storage availability (CAISO 2025a). Locating this important energy storage Project with efficient and environmentally sound access to the Vincent Substation provides the Project with the ability to help reduce wind and solar curtailment while also supporting the growing LCR needs in the LA Basin, allowing stored resources to be dispatched when needed.

The Project site was selected in furtherance of the Project Objectives detailed in Section 2.2 above. The site selection criteria are discussed in detail in Chapter 4, Alternatives.

2.8 References

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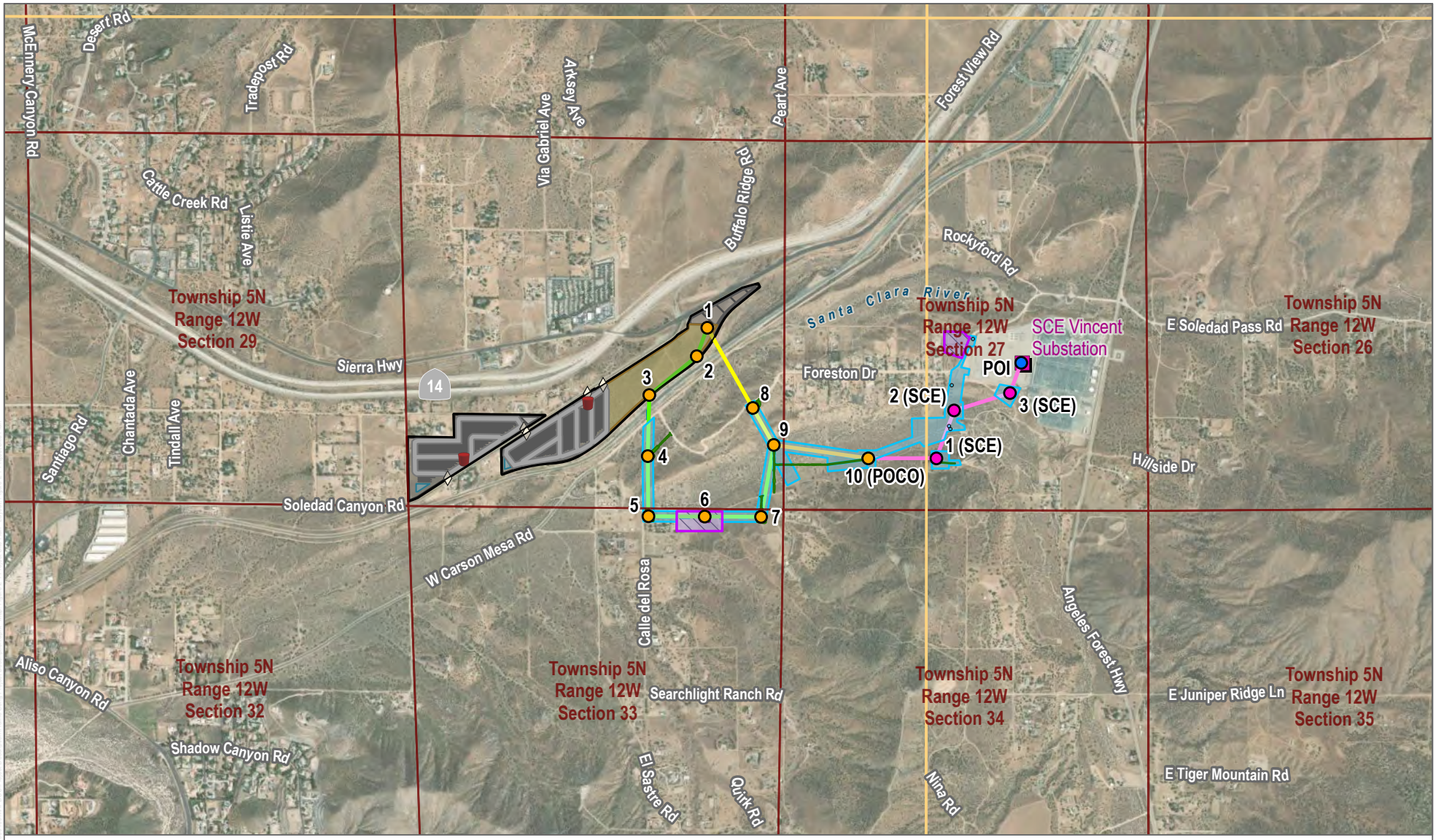
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SOURCE: World Imagery; Los Angeles County
Acton & Pacifico Mountain Quadrangle

DUDEK

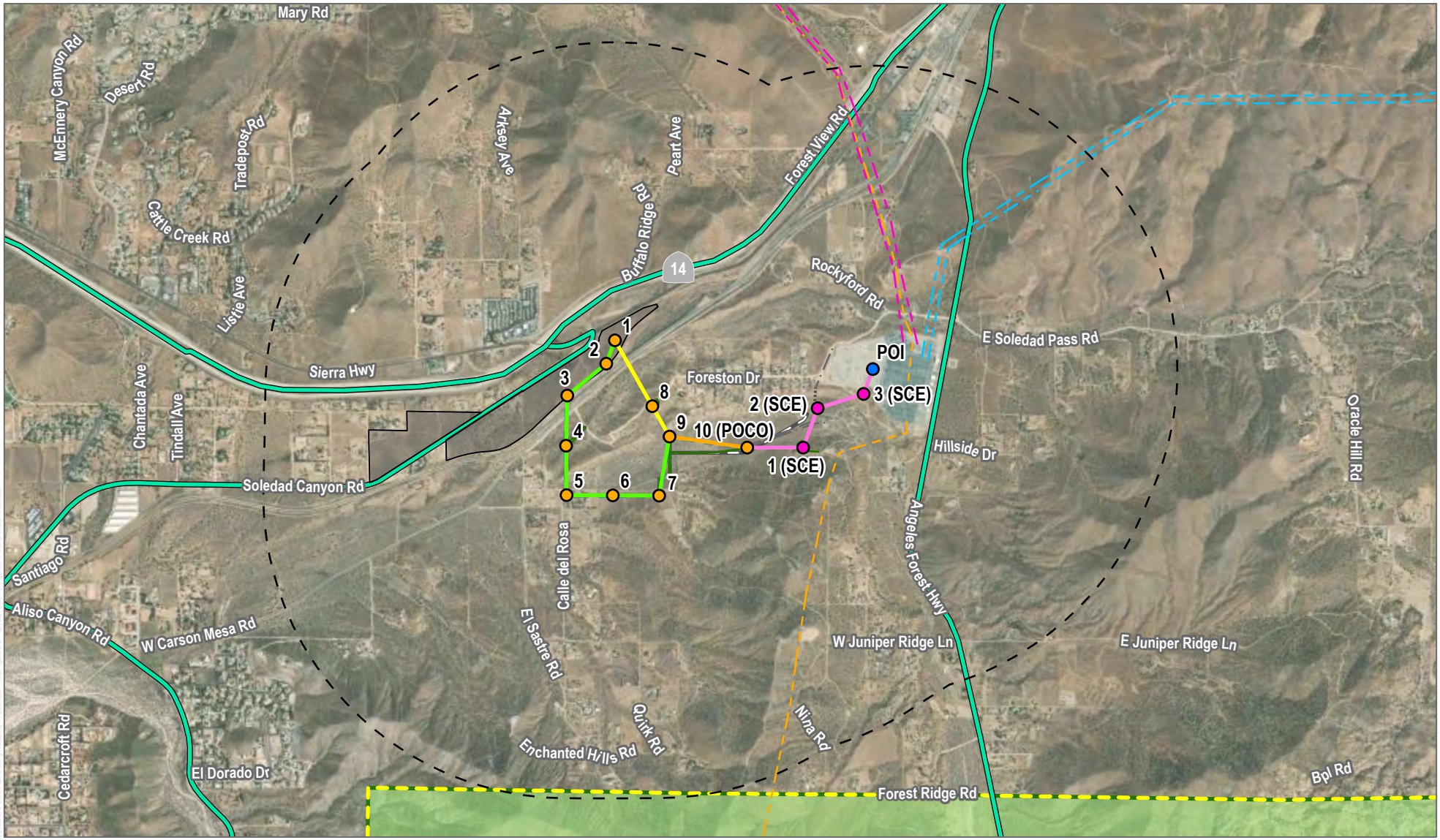
0 1,000 2,000 Feet

FIGURE 2-1

Project Site Plan

Prairie Song Reliability Project

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Transmission Lines
- Eagle Rock-Pardee & Antelope-Vincent No.1 Transmission Corridor (Tehachapi Renewable)
- Midway-Vincent No. 1 and No. 2
- Vincent-Lugo No. 1 and No. 2

Scenic Resources
- Scenic Drives
- Los Angeles National Forest
- Gen-Tie Access Roads
- 1-mile Gen-Tie Buffer

Fiber Optic Routes
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

Permanent Impact
- Pole Pad and Access Roads
- BESS Site

Pole
- SCE Tower
- Tower
- POI (Point of Interconnection)

SOURCE: Los Angeles County; USFWS; CEC

DUDEK

0 1,200 2,400 Feet

FIGURE 2-2

Transmission Line Route

Prairie Song Reliability Project

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Attachment 2A

Section 3.2, Biological Resources (Redline)

3.2 Biological Resources

This section describes the potential effects the construction, operation, and decommissioning activities associated with the Prairie Song Reliability Project (Project) may have on biological resources at and in the vicinity of the Study Area. The Project will consist of an up to 1,150-megawatt (MW), approximately 9,200-megawatt hour (MWh) containerized battery energy storage system (BESS) facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance (O&M) buildings, a Project substation, a 500-kilovolt (kV) overhead generation interconnection (gen-tie) transmission line, and interconnection facilities within the existing Southern California Edison (SCE) owned and operated Vincent Substation.

The biological resources described in this section have been compiled from a literature review of databases, maps, general plans, biological reconnaissance, as well as focused species/resource surveys. The evaluation of biological resources includes the following elements:

- Section 3.2.1 describes the existing environment that could be affected, including a regional overview, wetlands, habitats, species, vegetation, and biological survey results.
- Section 3.2.2 identifies potential environmental impacts that may result from Project construction, operation, maintenance, and decommissioning.
- Section 3.2.3 discusses the potential for cumulative effects.
- Section 3.2.4 describes project design and mitigation measures that will be implemented to avoid or minimize potentially significant impacts.
- Section 3.2.5 presents laws, ordinances, regulations, and standards (LORS) applicable to Biological Resources.
- Section 3.2.6 identifies regulatory agency contacts.
- Section 3.2.7 describes permits required for the Project related to Biological Resources.
- Section 3.2.8 provides references used to develop this section.

Biologist's credentials, survey reports, and record data used for the preparation of this section is located in the following appendices:

- Appendix 3.2A – Preliminary ALTA Surveys (unchanged from previous version)
- Appendix 3.2B – Potential to Occur Tables and Compendia (unchanged from previous version)
- Appendix 3.2C – Resumes of Applicant's Biologists (unchanged from previous version)
- Appendix 3.2D – Rare Plant Survey Report (unchanged from previous version)
- Appendix 3.2E – California Desert Native Plants Act Survey Report (unchanged from previous version)
- Appendix 3.2F – Crotch's Bumble Bee Survey Report (unchanged from previous version)
- Appendix 3.2G – Biota Report (**updated from previous version – redline and clean version provided**)
- Appendix 3.2H – Nitrogen Deposition Model (unchanged from original submittal)
- Appendix 3.2I – Photo Exhibit with Key Map (unchanged from previous version)
- Appendix 3.2J – CNDDB Forms (unchanged from original submittal)
- Appendix 3.2K – Completed 1602 Lake and Streambed Alteration Agreement Application Package (**updated from previous version – redline and clean version provided**)

- **Appendix 3.2L –** Correspondence with LA County Planning (unchanged from previous version)

A summary of the biological resources evaluation is provided in the table below.

		Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:					
1	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered, threatened, candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by CDFW or USFWS?	☐	☒	☐	☐
2	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS?	☐	☒	☐	☐
3	Have a substantial adverse effect on federal or state protected WOTUS [waters of the United States] (including wetlands) as defined by Sections 404 and 401 of the 1972 Amendments to the Federal Water Pollution Control Act, commonly known as the Clean Water Act, or the Porter-Cologne Act, either through direct removal, filling, hydrological alteration, or other means?	☐	☒	☐	☐
4	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory native wildlife corridors or impede the use of wildlife nursery sites?	☐	☐	☒	☐
5	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
6	Conflict with the provisions of an adopted Habitat Conservation Plan, NCCP [natural community conservation plan], or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Notes: CDFW = California Department of Fish and Wildlife; USFWS = U.S. Fish and Wildlife Service;

3.2.1 Affected Environment

The Project is in unincorporated Los Angeles County (County), California south of State Route 14 (SR 14) approximately 3 miles northeast of the center of the unincorporated community of Acton. The Project is within the USGS 7.5-minute Acton and Pacifico Mountain Quadrangles, Township 5N, Range 12W, Sections 27, 28, 33 and 34. The BESS site is comprised of Assessor Parcel Numbers (APNs) 3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, and 3056-019-040. Development of the BESS facility will

occur on an area of land situated between two (2) existing transportation corridors, the Antelope Valley Freeway (SR 14) to the north and Southern Pacific Railroad lines and Carson Mesa Road to the south, that are approximately 1,200 feet apart.

The Project site (approximately ~~107.29~~114 acres) refers to the area that will be physically affected by construction activities associated with the Project, including the location of permanent structures (including both gen-tie options) as well as staging and other temporary disturbance areas described in Section 2, Project Description. For the purposes of the biological surveys, the Study Area encompasses the Project site parcels, and it is approximately 414 acres. The Study Area for focused species surveys was expanded per protocol and where necessary to capture nearby resources. Focused survey methods are described below in Section 3.2.1.5, Biological Surveys. Existing conditions within 1,000 feet of the gen-tie route options are similar to the Study Area because there are no significant changes in topography, geology, or hydrology within that distance.

3.2.1.1 Regional Overview

The Study Area is in the western San Gabriel Mountains, in the Transverse Ranges Geomorphic Province (CGS 2002). The Transverse Ranges are an east-west trending series of steep mountains and valleys (CGS 2002). The Study Area is located at the conjunction of Soledad Canyon and Kentucky Springs Canyon (USGS 2022), and at the boundary of the Western Transverse Ranges ecological subregion and Mojave Desert ecological region (Jepson Flora Project 2025). Elevations in the Study Area range from approximately 2,700 feet above mean sea level along the southwestern side to 3,500 feet above mean sea level along the northern hillsides (Google Earth 2025).

The Study Area has an arid climate with the site being located on the northern side of the San Gabriel Mountains and bordering the Antelope Valley. August is the average warmest month with an average high of 93 degrees Fahrenheit (˚F) and December is the coolest month on average with a low of 36 ˚F. Rainfall occurs primarily between November and April, with the maximum average precipitation occurring in February. The mean annual rainfall for the area is approximately 9 inches of rain per year (LACPW 2023).

3.2.1.2 Regional Wetlands and Protected Areas

The National Wetlands Inventory (NWI) and National Hydrography Dataset (NHD) were reviewed to identify wetland or hydrologic features in the Study Area (USFWS 2025a, USGS 2025). Figure 3.2-1, Hydrologic Features, depicts the mapped wetland and hydrologic features in the Study Area. These resources are further described below.

Protected areas within 10 miles of the Study Area were determined through a review of the California Protected Area Database (CPAD) and California Conservation Easement Database (CCED) mapping tools (GreenInfo Network 2025). These resources are further described below.

3.2.1.2.1 Hydrologic Features

The Study Area is in the Santa Clara subbasin (HUC 18070102), Headwaters Santa Clara River watershed (HUC 1807010201), and primarily Kentucky Springs Canyon – Santa Clara River subwatershed, with the western most area of the Project overlapping into the Arrastre Canyon – Santa Clara River subwatershed. The Santa Clara River is the primary natural surface water feature in the vicinity of the Study Area. The Santa Clara River is the largest natural river remaining in Southern California, and travels through two (2) counties, Los Angeles and Ventura (Kennedy/Jenks Consultants 2014). The northern portion in Los Angeles County is largely classified as an intermittent stream/river and only contains flowing water during certain times of the year (USGS 2023;

Kennedy/Jenks Consultants 2014)). The intermittent stream channel traverses the southern end of the Study Area within parcels 3056-019-040, 3056-017-907, 3056-017-028, 3056-017-027, 3056-015-008, and 3056-015-023, as shown in Figure 3.2-1, Hydrologic Features. Several other smaller, unnamed ephemeral washes from Soledad Canyon and Kentucky Springs Canyon drain across the northern and southern portions of the Study Area, respectively. As shown in Figure 3.2-1, hydrological features were delineated within all the Project parcels and offsite within a 250-foot buffer of Project components.

3.2.1.2.2 Protected Areas

CPAD is a database that includes lands that are owned and protected for open space purposed by over 1,000 public agencies or non-profit organizations. CPAD includes national, state, or regional parks, forests, preserves and wildlife areas. It also includes large and small urban parks; land trust preserves and special district open space lands (GreenInfo Network 2025).

A review of the CPAD and CCED confirmed that there are several protected areas or conservation easements within a 10-mile radius of the Study Area (GreenInfo Network 2025), as shown in Figure 3.2-2, Protected Areas. A list of the CPAD and CCED identified areas that occur within the 10-mile buffer of the Project is provided below. Project activities will not generate any potential ground impacts to any conservation easements or protected areas. APNs 3056-017-905, 3056-017-904, 3056-017-906, and 3056-017-907 are managed by the Mountains Recreation and Conservation Authority and are deed restricted for open space use, as shown in Figure 3.2-3, Local Protected Areas. The Northern Gen-tie option would obtain an aerial easement and span these parcels, but would not generate any impacts on the ground, except for the use of an existing roadway. In addition, as shown in Figures 3.2-2 and 3.2-3, the CPAD data shows project parcel APN 3056-019-040 as a protected area; however, this is a data error. The project applicant owns this parcel and there are no conservation easements or protected areas stipulated in the deed (see Appendix 3.2A).

California Protected Areas Database

The Mountains Recreation and Conservation Authority's Cold Creek Valley Preserve is within one of the parcels where the northern gen-tie route option occurs (GreenInfo Network 2025). The following are the lands that are owned and protected for open space within 10 miles of the Study Area (GreenInfo Network 2025).

- Antelope Valley Union High School District
  - Highland High School Park
  - Knight High School Park
  - Palmdale High School Park
- California State Lands Commission
  - California State Lands Commission
- Desert and Mountain Conservation Authority
  - Joshua Ranch
  - Littlerock Creek Irrigation District
  - Little Rock Wash
  - Littlerock Creek Irrigation District Open Space
- Los Angeles, County of

  - Acton Park
  - Acton Wash Wildlife Sanctuary
  - Everett Martin Park
  - Jackie Robinson Park
  - Juniper Hills Park
  - Mattie M. Primmer Park
  - Vasquez Rocks Natural Area and Nature Center
- Mountains Recreation and Conservation Authority
  - Bird's Nest
  - Bobcat Canyon
  - Cold Creek Valley Preserve
  - Red Rover Mine TaxDef
  - Ritter Ranch
  - SCC Plum Canyon
  - Stickleback Ranch
  - Unnamed site - Mountains Recreation and Conservation Authority
- Palmdale, City of
  - American Indian Little League Site
  - 70th Street East and North of Avenue R
  - A.C. Warnack Nature Park
  - Anaverde Hills Park
  - Avenue S and Dorer Street
  - Demonstration Garden
  - Desert Sands Park
  - Domenic Massari Park
  - Dr. Robert C. St. Clair Parkway
  - Foothill Park
  - Joe Davies Heritage Airpark
  - Joshua Hills Park
  - Legacy Commons
  - Manzanita Heights
  - Marie Kerr Park
  - Melville J. Courson Park
  - Palmdale Oasis Park
  - Palmdale Park
  - Palmdale Youth Pony League Fields
  - Palmenthol History Park
  - Pelona Vista Park

  - Poncitlan Square
  - Rancho Vista Neighborhood Park
  - Sam Yellen Community Park
  - Sam Yellen Community Park - Undeveloped
  - Tejon Equestrian Park
  - William J. McAdam Park
- Santa Clarita Watershed Recreation and Conservation Authority
  - Rio Dulce Open Space
- Santa Clarita, City of
  - Agua Dulce Canyon Parkland
- The Nature Conservancy
  - Arrastre Canyon
- U.S. Bureau of Land Management
  - BLM Lands
- U.S. Forest Service
  - Angeles National Forest

California Conservation Easement Database

The CCED is a database that defines boundaries of easements and deed-base restrictions on private lands. These lands may be actively farmed, grazed, forested, or held as nature preserves and typically have no public access (GreenInfo Network 2024). No lands with easements and deed-base restrictions are found within 10 miles of the Study Area.

3.2.1.3 Sensitive Habitat Types and Critical Habitat

Sensitive habitat types within a 10-mile radius of the Study Area are shown on Figure 3.2-4, Sensitive Habitat Types, and critical habitats on Figure 3.2-5, Critical Habitat. Descriptions of the sensitive and critical habitats identified are described below.

3.2.1.3.1 Sensitive Habitat Types

The California Department of Fish and Wildlife (CDFW) defines sensitive habitats as plant communities that have limited distributions, high wildlife value, include sensitive species, or are particularly vulnerable to disturbance. CDFW ranks sensitive communities as “threatened” or “very threatened” (CDFW 2018) and keeps records of their occurrences in the California Natural Diversity Database (CDFW 2025a). Currently, CDFW publishes the California Sensitive Natural Communities List online (CDFW 2025b). Vegetation rarity ranking is based on a rank calculated developed by NatureServe (2025). Vegetation maps were taken from the CDFW Vegetation Classification Reports and Maps (CDFW 2025). CDFW’s Vegetation Program considers vegetation alliances with state (S) ranks of S1 through S3 as sensitive vegetative habitats. CDFW considers species or natural communities with one of the following NatureServe rankings as sensitive: Global (G)/State (S); Presumed Extinct (X); Possibly Extinct (G/S H); Critically Imperiled (G/S 1); Imperiled (G/S 2); Vulnerable (G/S 3). The California Environmental Quality Act (CEQA) requires that potential impacts to sensitive natural communities be evaluated. The following six (6) sensitive natural

communities occur within 10 miles of the Study Area (Figure 3.2-4, Sensitive Habitat Types): Mojave Riparian Forest, Southern California Threespine Stickleback Stream, Southern Cottonwood Willow Riparian Forest, Southern Riparian Scrub, Southern Sycamore Alder Riparian Woodland, and Southern Willow Scrub. None of these identified six (6) sensitive natural communities occur on the project site or are crossed by the gen-tie line routes.

3.2.1.3.2 Critical Habitat

Critical habitats are designated areas occupied by the species at the time it was listed that contain the physical or biological features that are essential to the conservation of endangered and threatened species. In designated critical habitat, U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) consider the following requirements of the species:

"Space for individual and population growth, and for normal behavior; nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing offspring; and, generally, any habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of this species" (USFWS 2025b).

No designated critical habitats occur within the Study Area but three (3) units of critical habitat for arroyo toad (*Anaxyrus californicus*) were identified within 10 miles of the Study Area, as shown in Figure 3.2-5, Critical Habitat (USFWS 2025c). Unit 6c is located approximately 4 miles southwest of the Study Area and is associated with the Santa Clara River. Unit 7 is located approximately 9 miles to the south and is associated with Big Tujunga Creek. Unit 21 is located approximately 5 miles to the east and is associated with Little Rock Creek. Arroyo toad is not expected to occur in the Study Area because the Study Area lacks suitable habitat (low-gradient intermittent streams with sandy, gravelly soils) for the species.

3.2.1.4 Regional Sensitive or Special-Status Species

Endangered, rare, or threatened species, as defined in CEQA Guideline 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status species" in this section and include (1) endangered, threatened, and candidate species recognized in the context of the California Endangered Species Act (CESA) and the federal Endangered Species Act (FESA) (CDFW 2025d); (2) plant species with a California Rare Plant Rank (CNPS 2025a) (lists 1 through 4; see Appendix 3.2B, Potential to Occur Tables and Compendia, for rank definitions); (3) California Species of Special Concern (SSC) and Watch List species, as designated by CDFW (CDFW 2025e); (4) mammals and birds that are Fully Protected species, as described in California Fish and Game Code Sections 4700 and 3511; and (5) Birds of Conservation Concern as designated by USFWS (2021). Additionally, the County of Los Angeles considers plant and wildlife species that are locally important as rare within the county.

Appendix 3.2B provides a list of special-status species with records within the 14 USGS 7.5-minute topographic quadrangles (Lancaster West, Lancaster East, Sleepy Valley, Ritter Ridge, Palmdale, Littlerock, Agua Dulce, Acton, Pacifico Mountain, Juniper Hills, Sunland, Condor Peak, Chilao Flat, and Waterman Mt.) that the Study Area is in and the quadrangles that the 10-mile buffer intersects, as well as the species provided by the query of the USFWS' Information for Planning and Consultation (CDFW 2025a, CNPS 2025a, and USFWS 2025d). Additionally, bird species that the County of Los Angeles considers to be locally important and have the potential to occur in the Study Area region have been included (Los Angeles Audubon 2009). This appendix includes the status designation for each species, habitat types that may support these species in the regional vicinity, a determination of potential for these species to occur within the Study Area, and a rationale for the occurrence determination. Figures 3.2-6a and

3.2-6b, Sensitive or Special-Status Species Records, depicts the special-status plant and wildlife species known to occur within a 10-mile radius of the Project area.

3.2.1.4.1 Sensitive and Special-Status Species Assessment

Dudek biologists evaluated the regional special-status plant and wildlife species against observed conditions on the Study Area to determine the potential for each species to occur. Habitat requirements, occurrence determinations, and rationale for occurrence determination are included in Appendix 3.2B. The potential for each special-status species to occur was evaluated according to the following criteria:

- **Not Expected.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on-site if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.
- **Low.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- **Moderate.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site are unsuitable. The species has a moderate probability of being found on the site.
- **High.** All the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found onsite.
- **Present.** Species was observed on site or within the Study Area.

3.2.1.5 Biological Surveys

Surveys for the BESS and Northern Gen-Tie option portions of the Study Area were conducted in 2023. In 2024 surveys were conducted on the additional parcels for the Southern Gen-Tie option. Dudek conducted comprehensive surveys for sensitive plants for the BESS and Northern Gen-Tie option portions of the Study Area in the spring of 2023 following an above average wet season. Dudek conducted surveys for Crotch's bumble bee (*Bombus crotchii*) in the summer of 2024 on the BESS and Northern Gen-Tie option portions of the Study Area. Dudek is currently conducting supplemental rare plant surveys and Crotch's bumble bee surveys in 2025 for parcels associated with the Southern Gen-Tie option of the Study Area. Table 3.2-1, Schedule of Surveys, lists the dates, conditions, and focus for each survey. While most surveys were conducted within the entire Study Area, Figure 3.2-7, Biological Surveys, depicts the areas for the surveys that deviated from the Study Area. Appendix 3.2C, Resumes of Applicant's Biologists, has resumes for the Dudek staff that conducted the surveys.

Table 3.2-1. Schedule of Surveys

Date	Focus	Biologists	Time	Survey Conditions
1/6/2023	▪ Vegetation Mapping ▪ Jurisdictional Delineation	MM, ES	7:30 AM–2:55 PM	38°F–52°F; 0–10% cloud cover; 1–8 mph wind

Table 3.2-1. Schedule of Surveys

Date	Focus	Biologists	Time	Survey Conditions
1/11/2023	▪ Vegetation Mapping ▪ Jurisdictional Delineation	MM, ES	Not recorded	Not recorded
1/12/2023	▪ Vegetation Mapping ▪ Jurisdictional Delineation	MM, ES	Not recorded	Not recorded
4/28/2023	▪ Rare Plants	VG, TP	6:40 AM–3:04 PM	60°F–80°F; 0% cloud cover; 0–2 mph wind
4/28/2023	▪ Rare Plants	TP	6:40 AM–2:46 PM	57°F–94°F; 0% cloud cover; 0–2 mph wind
5/1/2023	▪ Rare Plants	CB, DM, SN, JR	7:30 AM–3:25 PM	48°F–61°F; 60%–90% cloud cover; 3–5 mph wind
5/2/2023	▪ Rare Plants	DM, VG, SN, JR	7:30 AM–3:25 PM	48°F–70°F; 60%–90% cloud cover; 3–5 mph wind
6/12/2024	▪ Crotch's Bumble Bee	CA, AC, SL, KN	9:30 AM–10:17 AM	74°F–80°F; 0% cloud cover; 0–4 mph wind
6/22/2023-7/7/2023	▪ Protected Tree Mapping	AC, ST, AP	Not recorded	Not recorded
7/1/2024	▪ Crotch's Bumble Bee	LB, JE, DS	7:41 AM–1:34 PM	73°F–90°F; 0% cloud cover; 0–8 mph wind
7/2/2024	▪ Crotch's Bumble Bee	JE	7:02 AM–9:07 AM	70°F–81°F; 1–7 mph wind
7/23/2024	▪ Crotch's Bumble Bee	LB	7:27 AM–10:54 AM	80°F–95°F; 0%–50% cloud cover; 0–1 mph wind
7/24/2024	▪ Crotch's Bumble Bee	LB	7:18 AM–11:01 AM	80°F–95°F; 0% cloud cover; 0–2 mph wind
11/18/2024	▪ Vegetation Mapping ▪ Jurisdictional Delineation	ES, ZP	8:50 AM-12:56 PM	49°F–56°F; 0% cloud cover; 5–16 mph wind
11/19/2024	▪ Vegetation Mapping ▪ Jurisdictional Delineation	TP, RS	9:30 AM–3:35 PM	53°F–54°F; 0% cloud cover; 1–7 mph wind
2/26/2025	▪ Raptor Nest Survey	TP. RS	8:28 AM-3:30 PM	63°F–78°F; 0% cloud cover; 2–15 mph wind

Table 3.2-1. Schedule of Surveys

Date	Focus	Biologists	Time	Survey Conditions
4/16/2025	▪ Crotch's Bumble Bee	CA, ES	8:21 AM–1:08 PM	48°F–59°F; 30%–100% cloud cover; 0–3 mph wind
5/21/2025	▪ Crotch's Bumble Bee	CA, ES	8:21 AM–1:08 PM	59°F–71°F; 0% cloud cover; 0–1 mph wind
6/5/2025	▪ Rare Plants	RSw	7:00AM–12:00AM	84°F; 0% cloud cover; 0–5 mph wind
6/30/2025	▪ Crotch's Bumble Bee	ES, LB	9:16 AM–1:30 PM	79°F–86°F; 0% cloud cover
8/22/2025	▪ Jurisdictional Delineation	ES, RS	Not recorded	Not recorded

Notes:
Biologists: AC=Aida Castro, AP=Ana Pfleeger, CA=Callie Amoaku, LB=Luz Badillo, CB= Chelsea Bowers-Doerning, AC=Anna Cassidy, JE=Joshua Elson, VG=Valerie Goodwin, SL=Sony Leming, DM=Dilip Mahto, MM=Max Murray, KN=Kimberly Narel, SN=Sandra Nash, TP=Tracy Park, ZP=Zarina Pringle, JR=Jacob Rogers, ES=Eilleen Salas, DS=Dahlia Serrato, RS=Ryan Stanley, RSw=Robert Sweet; ST=Sarah Tian
Survey Conditions: °F=degrees Fahrenheit; mph=miles per hour

Vegetation Community and Land Cover Mapping

Vegetation communities and land uses within the Study Area were mapped in the field using the Environmental Systems Research Institute (Esri) Collector, a mobile data collection application, on a digital aerial-based background (Esri 2025). Following completion of the fieldwork, all vegetation linework was finalized using Esri ArcGIS software and GIS coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover type within the study area was determined. Vegetation communities within the study area were mapped using CDFW's List of Vegetation Alliances and Associations (or California Natural Community List) (CDFW 2025e), which is based on A Manual of California Vegetation, Second Edition (Sawyer et al. 2009) and A Manual of California Vegetation, Online Edition (CNPS 2025b), where feasible, with modifications made to accommodate the lack of conformity of the observed communities (e.g., developed/disturbed land cover types) using Oberbauer et al. (2008) and Jones and Stokes (1993). Vegetation communities were classified based on site factors, descriptions, distribution, and characteristic species present within an area. Each natural community was mapped to the association level, where feasible. Special-status vegetation communities are those communities identified as high priority for inventory in the California Natural Communities List (CDFW 2025b).

Rare Plant Surveys

The rare plant surveys were guided by the CNPS Botanical Survey Guidelines (CNPS 2001) and CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Sensitive Natural Communities (CDFW 2018). The biologists walked transects in suitable habitat, spaced approximately 5 meters to 10 meters apart based on the density of vegetative cover, throughout the Study Area. Digital mobile maps and 200-scale topographic plots of vegetation polygons were utilized to navigate the survey area. Plant species encountered during the field surveys were identified to subspecies or variety, if applicable, to determine sensitivity status. When rare plants were encountered, field personnel recorded data points demarcating the edge of polygon surrounding the population and assessed population numbers using a GPS with sub-meter accuracy. Appendix 3.2D, Rare Plant Survey Report, has additional details on the surveys.

California Desert Native Plants Act

Dudek biologists conducted a focused desert native plant survey within the survey area (defined as the Project impact footprint and a 150-foot buffer, where accessible). The desert native plant survey was focused on the species subject to the California Desert Native Plants Act. Biologists walked meandering transects spaced approximately 10 meters apart to obtain 100% visual coverage of the survey area. If desert native plants identified under the California Desert Native Plants Act were encountered, field personnel recorded data points using a GPS with sub-meter accuracy (i.e., Trimble® GeoXT) and a data dictionary. The data dictionary included, at a minimum, the species name, the number of individuals, and the botanist collecting the data. The survey methodology and results were documented in a memorandum, with figures illustrating the location of the mapped desert native plants and representative photos of the species. Appendix 3.2E, California Desert Native Plants Act Survey Report, has additional details on the surveys.

Crotch's Bumble Bee Surveys

The surveys for Crotch's bumble bee were conducted in accordance with the CDFW survey guidance (CDFW 2023a). The survey passes were led by Callie Amoaku, who holds a Memorandum of Understanding (MOU) and Scientific Collecting Permit (SCP) to capture Crotch's bumble bee. Dudek conducted five protocol level surveys for Crotch's bumble bee in June and July 2024 (June 12, July 1, July 2, July 23, and July 24) and two in April and May 2025 (April 16 and May 21). The surveys were split across 2 years because the Project owner did not have access to the entire Project gen-tie area during the 2024 surveys. The 2024 surveys were conducted from June through July, during the Colony Active Period of April through August, which according to CDFW guidelines had the highest detection period, and were spaced between 2 and 4 weeks apart. The three 2025 surveys, which covered the remainder of the Project site and the BESS location, were conducted between April and June, which is during the Colony Active Period. The 2025 surveys were spaced 4 weeks apart to cover a wider period during the Colony Active Period while also meeting recommended guidelines. Appendix 3.2F, Crotch's Bumble Bee Survey Report, has additional details on the surveys.

The surveys were conducted during optimal conditions when there were sunny to partly sunny skies that were greater than 60° Fahrenheit. Suitable habitat within the Study Area was visually surveyed for 1 person-hour per 3 acres of potential habitat. Biologists walked wandering transects through these resources with a goal of observing bumble bees in passing and observing bumble bee nest sites associated with small mammal burrow or other appropriate soil cavities.

Raptor Nest Surveys

Surveys for nesting raptors (i.e., eagles, hawks, kites, falcons, and owls) were conducted in early 2025. Dudek biologists conducted a 1-day survey for the Study Area and a 500-foot buffer, with a focus on areas with larger trees and shrubs, residential areas with large ornamental trees, and transmission towers that have potential to support raptor nests.

Aquatic Resources Delineation

Prior to conducting the jurisdictional delineation, USFWS National Wetland Inventory data (USFWS 2024a) was reviewed to determine if the Study Area contained any features mapped by the USFWS. Site-specific topographical data was reviewed in conjunction with aerials, both current and historical, to determine the potential presence of non-wetland waters. Current vegetation mapping was reviewed to assess whether the Study Area supported

hydrophytic vegetation and potential wetlands. Jurisdictional boundaries were mapped in the field using ESRI Collector on a mobile device with submeter accuracy, where access was available. Remote sensing was not used for the delineation, with the exception of some areas within the 250-foot buffer which were delineated via desktop-based delineation only due to access restrictions. Figure 3.2-1 shows which areas were delineated via ground-truthing and which areas were delineated via desktop only.

U.S. Army Corps of Engineers – Potential Waters of the U.S.

The U.S. Army Corps of Engineers (USACE) wetlands delineation was conducted in accordance with the 1987 USACE Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008a). A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008b) was used to determine the limits of non-wetland waters. Non-wetland waters were delineated on aerial maps in conjunction with ESRI Collector on a mobile device. The widths of each non-wetland water were determined in the field according to the OHWM manual. USACE OHWM Forms were completed at representative cross-sections of non-wetland waters to capture their characteristics and widths.

Regional Water Quality Control Board – Potential Waters of the U.S. and Waters of the State

Waters of the state regulated by the RWQCB were mapped in accordance with the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB 2021). As described in these procedures, wetland waters of the state are mapped based on the procedures in USACE's 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987) and its 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a). Non-wetland waters are mapped at the OHWM based on the procedures defined in USACE's 2008 A Field Guide to Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008b).

California Department of Fish and Wildlife – Streams

Potential CDFW jurisdictional areas were mapped to include the bank of the stream/channel and outer dripline of adjacent riparian vegetation, as set forth under California Fish and Game Code Section 1602. Streambeds under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979).

Protected Tree Census

The portions of the Study Area east of the railroad tracks, south of Foreston Drive and the Southern California Edison (SCE) Vincent Substation, and east of the SCE substation are within a County of Los Angeles Significant Ecological Area (SEA) (County of Los Angeles 2025), as shown in Figure 3.2-8, Los Angeles County Significant Ecological Area. The County's SEA Ordinance includes 60 tree species to be protected, including all sizes of California juniper (*Juniperus californica*) (Los Angeles County Planning 2020). Dudek biologists mapped the California juniper within the SEA portions of the Study Area. Field personnel recorded data points and circumference for each individual plant using a mobile device with sub-meter accuracy. An evaluation of existing health for each California juniper was conducted. Appendix A, Protected Tree Report, of Appendix 3.2G, Biota Report, has additional details on the census. An additional tree survey was conducted in December 2025 to include additional areas within the SEA and to confirm that no blue elderberry (*Sambucus nigra* ssp. *Caerulea*) occurs within the SEA portion of the Study Area. The survey confirmed that no blue elderberry occurs within the Study Area. During the December 2025

survey, additional previously unidentified SEA-protected trees were recorded and mapped: velvet ash (*Fraxinus velutina*) and Southern California black walnut (*Juglans californica*).

3.2.1.6 Nitrogen Deposition Model

A nitrogen deposition analysis was performed to assess the proposed Project's potential operational impact on biological resources within 6 miles of the Study Area and is included as Appendix 3.2H, Nitrogen Deposition Model. During operation, there will be periodic emissions of oxides of nitrogen (NO_x), from the testing and maintenance of three (3) emergency diesel generators (one [1] rated at 323 horsepower [hp] and two [2] rated at 744 hp). These emissions will result in nitrogen deposition around the Project site. To determine the potential impacts during operation, the American Meteorological Society/U.S. Environmental Protection Agency Regulatory Model (AERMOD) Version 24142 was used to model the concentration of nitrogen around the Project site using wet and dry deposition algorithms. The generators would meet the U.S. Environmental Protection Agency (EPA) Tier 4 standards based on the equipment specification sheets and were each assumed to operate up to 50 hours per year for testing and maintenance. Ammonia (NH_3) is a product of combustion with equipment having selective catalytic reduction (SCR) equipment. As the generators would be equipped with SCR, emissions of NH_3 were estimated and added to the NO_x emissions for total nitrogen emissions. Principal parameters of this modeling are presented in Table 3.2-2, AERMOD Principal Parameters – Nitrogen Deposition.

Table 3.2-2. AERMOD Principal Parameters – Nitrogen Deposition

Parameter	Details
Dispersion Model	The air dispersion model used was AERMOD Version 24142, with the Lakes Environmental Software implementation/user interface, AERMOD View, Version 13.0.0.
Meteorological Data	The latest 5-year meteorological data (2016-2020) for the Palmdale Station (KPMD) were obtained from CARB and used in the analysis as the most representative data set based on proximity and wind direction. The input data was also conservative, based on a test run that compared maximum concentrations using the Palmdale Station to the concentrations using the Santa Clarita Station (the other station in general proximity to the Project) meteorological data.
Urban versus Rural Option	Urban areas typically have more surface roughness, as well as structures and low-albedo surfaces that absorb more sunlight—and thus more heat—relative to rural areas. Based on the land use procedure from 4.4.1 of the OEHHA Guidance Manual, the rural dispersion was appropriate for the Project site (OEHHA 2015).
Terrain Characteristics and Elevation Data	Digital elevation model files were imported into AERMOD so that complex terrain features were evaluated as appropriate, and elevations were assigned to the emission sources and receptors. Digital elevation data were obtained through AERMOD View in the U.S. Geological Survey's National Elevation Dataset format with an approximately 1 arc-second resolution.
Emission Sources and Release Parameters	The diesel generators were modeled as point sources with release parameters based on the specification sheets and default diesel-fired internal combustion stack parameters (SBCAPCD 2025), if generator specific information was not available. The 323 hp generator was modeled with a vertical stack height of 3.0 meters, inside stack diameter of 0.13 meters, gas exhaust temperature of 780 Kelvin, and gas exhaust velocity of 63.9 meters per second. Each 744 hp generator was modeled with a vertical stack height of 3.7 meters, inside stack diameter of 0.2 meters, gas exhaust temperature of 719.82 Kelvin, and gas exhaust velocity of 14.05 meters per second.
Receptors	A telescoping grid of receptors was generated with the following spacing to evaluate potential nitrogen deposition impacts within a 6-mile radius of the Project:

Table 3.2-2. AERMOD Principal Parameters – Nitrogen Deposition

Parameter	Details
	▪ 25-meter spacing on the facility boundary ▪ 25-meter spacing from the facility boundary out to 100 meters ▪ 50-meter spacing from 100 meters to 250 meters ▪ 100-meter spacing from 250 meters to 500 meters ▪ 250-meter spacing from 500 meters to 1,000 meters ▪ 500-meter spacing from 1,000 meters to 2,000 meters ▪ 1,500-meter spacing from 2,000 meters to 8,000 meters
Gas Deposition	The vegetation in the region is primarily grassland and shrubland. These vegetation categories are classified as "Land Use Category" of "3 – Rangeland" in AERMOD.
NOx to NO_2 Conversion	A 100% conversion of NO_x and NH_3 into atmospherically derived nitrogen (Tier 1).
Gas and Particle Deposition	Nitric acid was assumed for the gas deposition parameters as it has a strong affinity for impacts to soils and vegetation. The default deposition velocity and parameters (pollutant reactivity factor and seasons) were assumed. The following gas deposition parameters were assumed: ▪ Pollutant Diffusivity in Air: 0.1628 cm^2/s ▪ Pollutant Diffusivity in Water: 2.98E-05 cm^2/s ▪ Cuticular Resistance: 100,000 s/cm ▪ Henry's Law Constant: 8E-08 $Pa\text{-}m^3/mol$

Source: OEHHA 2015; SBCAPCD 2025.
Notes: AERMOD = American Meteorological Society/EPA Regulatory Model; hp = horsepower. $Pa\text{-}m^3/mol$ = pascal-meters cubed per mole; NH_3 = ammonia; NOx = oxides of nitrogen; s/cm = seconds per centimeter.
See Appendix 3.2H, Nitrogen Deposition Model, for additional information.

The AERMOD model calculates atmospheric deposition of nitrogen by calculating the wet and dry fluxes of total nitrogen. This deposition is accomplished by using a resistance model for the dry deposition part, and by assigning particle phase washout coefficients for the wet removal process from rainout. As discussed above, depositional parameters for nitric acid are input into the model to calculate the deposition of nitrogen. AERMOD sums the results of the wet and dry nitrogen deposition to produce annual deposition rates in units of grams per square meter (g/m^2) for the entire 5-year meteorological period modeled, which are converted to kilograms per hectare per year (kg/ha/yr) for comparison to critical loads of nitrogen for biological resources within 6 miles of the Study Area. As discussed in detail below, the testing and maintenance operation of the Project's emergency backup generators will not lead to nitrogen deposition levels that exceed recognized thresholds and will thus result in less than significant impacts to natural vegetation communities and special status species.

3.2.1.7 Vegetation Communities and Land Cover Types

All plant species encountered during the field reconnaissance surveys and jurisdictional delineations were identified and recorded. Latin and common names for plant species with a California Rare Plant Rank (formerly California Native Plant Society List) follow the California Native Plant Society On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2025a). For plant species without a California Rare Plant Rank, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2025) and common names follow the California Natural Community list (CDFW 2025e) or the U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS) Plants Database (NRCS 2025). A list of plant species observed in the Study Area during initial surveys is presented in Appendix 3.2B. Representative photos of the vegetation communities can be found in Appendix 3.2I, Photo Exhibit.

Six (6) vegetation communities are considered sensitive by CDFW. The vegetation communities and land cover locations are summarized in Table 3.2-3, Vegetation Communities and Land Covers in the Study Area, and illustrated in Figure 3.2-9, Vegetation Communities and Land Cover. Vegetation communities within 1,000 feet of the gen-tie route options are expected to be similar to the Study Area because there are no significant changes in topography, geology, or hydrology within that distance.

Table 3.2-3. Vegetation Communities and Land Covers in the Study Area

Alliance	Association	CDFW Sensitive[1]	Ranking[2]	Acres
Native Communities				
Cheesebush – sweetbush scrub	*Ambrosia salsola - Larrea tridentata*	No	G4/S4	0.82
	Ambrosia salsola Association	No	G4/S4	2.60
Fiddleneck - phacelia fields	*Amsinckia menziesii - Erodium* spp.	No	G5/S5	2.21
California sagebrush – (purple sage) scrub	*Artemisia californica - Eriogonum fasciculatum*	No	G4/S4	12.68
Big sagebrush	*Artemisia tridentata - Ericameria nauseosa*	No	G5/S5	15.42
	Artemisia tridentata - Eriogonum fasciculatum	No	G5/S5	3.98
	Artemisia tridentata	No	G5/S5	0.48
	Artemisia tridentata ssp. *parishii*	Yes	G2/S2	7.66
Fourwing saltbush scrub	*Atriplex canescens*	No	G5/S4	75.57
Mormon tea scrub	*Ephedra viridis*	No	G4/S4	20.87
Rubber rabbitbrush scrub	*Ericameria nauseosa - Juniperus californica* / herb	No	G5/S5	18.49
	Ericameria nauseosa	No	G5/S5	5.38
California buckwheat scrub	*Eriogonum fasciculatum*	No	G5/S5	4.75
	Eriogonum fasciculatum var. *foliolosum - Juniperus californica*	Yes	G3/S3	4.50
California buckwheat – Parish's goldeneye scrub	*Eriogonum fasciculatum* rock outcrop	Yes	Unranked	3.82
California walnut groves	*Juglans californica / annual herbaceous*	Yes	G3/S3	0.89
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum*	Yes	Unranked	31.66
	Juniperus californica / herbaceous	Yes	Unranked	106.67
	Juniperus californica / Eriogonum fasciculatum - Artemisia californica	No	G5/S5	0.23
			Subtotal:	*317.35*
Naturalized (Non-Native)				
Wild oats and annual brome grasslands.	*Avena barbata - Bromus hordeaceus*	No	GNA/SNA	2.22
Red brome or Mediterranean grass grasslands	*Bromus rubens* - mixed herbs	No	GNA/SNA	2.99
			Subtotal:	*5.21*

Table 3.2-3. Vegetation Communities and Land Covers in the Study Area

Alliance	Association	CDFW Sensitive[1]	Ranking[2]	Acres
Land Cover Types				
Disturbed habitat	Not applicable	No	NA/NA	19.38
Urban/Developed	Not applicable	No	NA/NA	71.95
			Subtotal:	*91.33*
			Total:	**413.88**

Notes: Totals may not sum due to rounding.

1 CDFW has determined the community to be sensitive.

2 The conservation status of a vegetation community is designated by a number from 1 to 5, preceded by a letter reflecting the appropriate geographic scale of the assessment (G = global, S = state). The numbers have the following meaning:
1 = critically imperiled
2 = imperiled
3 = vulnerable to extirpation or extinction
4 = apparently secure
5 = demonstrably widespread, abundant, and secure
NA = not applicable
GNA = global rank not applicable
SNA = state rank not applicable
Unranked= Associations that are considered sensitive, but have not been ranked

Native Vegetation Communities

Vegetation community descriptions are taken from A Manual of California Vegetation, Online Edition (CNPS 2025b).

Cheesebush – Sweetbush Scrub

Cheesebush – sweetbush scrub (*Ambrosia salsola – Bebbia juncea* Shrubland Alliance) has cheesebush (*Ambrosia salsola*), sweetbush (*Bebbia juncea*), woolly brickellbush (*Brickellia incana*), and/or desertsenna (*Senna armata*) as dominant or co-dominant in the shrub canopy with Wiggins' cholla (*Cylindropuntia echinocarpa*), brittlebush (*Encelia farinosa*), California jointfir (*Ephedra californica*), Mojave rabbitbrush (*Ericameria paniculata*), California buckwheat (*Eriogonum fasciculatum*), white ratany (*Krameria grayi*), creosote bush (*Larrea tridentata*), and beavertail pricklypear (*Opuntia basilaris*). This alliance can be found on intermittently flooded channels, arroyos, washes, valleys, flats, and rarely flooded low-gradient deposits. Soils are alluvial, sandy and gravelly, and disturbed desert pavement. Two (2) associations of the alliance were mapped within the Study Area: *Ambrosia salsola – Larrea tridentata* and *Ambrosia salsola* association. These associations were mapped in the gen-tie portion Study Area.

Fiddleneck – Phacelia Fields

Fiddleneck – phacelia fields (*Amsinckia* [*menziesii*, *tessellata*] – *Phacelia* spp. Herbaceous Alliance) has Menzies' fiddleneck (*Amsinckia menziesii*), bristly fiddleneck (*Amsinckia tessellate*) and/or *Phacelia* spp. or other *Amsinckia* sp. as seasonally co-dominant in the herbaceous layer. Additional local species present include California saltbush (*Atriplex californica*), *Avena* spp., ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), red brome (*Bromus rubens*), exserted Indian paintbrush (*Castilleja exserta*), and *Erodium* spp. Emergent shrubs may be present at low cover. This alliance can be found along upland slopes, broad valleys, ocean bluffs, grazed or recently burned hills, fallow fields. Soils are well drained and loamy, and they are often subject to high levels of disturbance. One (1) association of the alliance, *Amsinckia menziesii – Erodium* spp., was mapped in the BESS portion of the Study Area.

California Sagebrush – (Purple Sage) Scrub

California sagebrush – (purple sage) scrub (*Artemisia californica* – [*Salvia leucophylla*] Shrubland Alliance) has California sagebrush (*Artemisia californica*) and/or purple sage (*Salvia leucophylla*) as dominant or co-dominant in the shrub canopy with chamise (*Adenostoma fasciculatum*), coyotebrush (*Baccharis pilularis*), bladderpod spiderflower (*Cleome isomeris*), orange bush monkeyflower (*Diplacus aurantiacus*), California brittlebush (*Encelia californica*), brittlebush, California jointfir, narrowleaf goldenbush (*Ericameria linearifolia*), California buckwheat, and chaparral yucca (*Hesperoyucca whipplei*). This alliance can be found on slopes of variable aspects, but usually steep and rarely flooded, low-gradient deposits along streams. Soils are alluvial or colluvial derived. One (1) association of the alliance, *Artemisia californica – Eriogonum fasciculatum*, was mapped in the gen-tie portion Study Area.

Big Sagebrush

Big sagebrush (*Artemisia tridentata* Alliance) has big sagebrush (*Artemisia tridentata*) as dominant or co-dominant in the shrub canopy with Acton's encelia (*Encelia actoni*), Mormon tea (*Ephedra viridis*), and California buckwheat (*Eriogonum fasciculatum*). Shrub canopy is open to continuous and emergent trees may be present at low cover. The herbaceous layer is usually sparse to intermittent and grassy. This alliance can be found on plains, alluvial fans, bajadas, pediments, lowers slopes, valley bottoms, seasonal and perennial stream channels, and dry washes. Soils are well drained and consist of loam or sand. Three (3) associations of the alliance were mapped within the Study Area: Artemisia tridentata Association, Artemisia tridentata-*Eriogonum fasciculatum* Association, and *Artemisia tridentata-Ericameria nauseosa* Association. These associations were found in the BESS and Southern Gen-tie portions of the Study Area.

Fourwing Saltbush Scrub

Fourwing saltbush scrub (*Atriplex canescens* Shrubland Alliance) has fourwing saltbush (*Atriplex canescens*) as dominant or co-dominant in the shrub canopy with burrobush (*Ambrosia dumosa*), cheesebush (*Ambrosia salsola*), spiny saltbush (*Atriplex confertifolia*), cattle spinach (*Atriplex polycarpa*), Mormon tea, hop sage (*Grayia spinosa*), and creosote bush (*Larrea tridentata*). Emergent trees may be present at low cover This alliance can be found along playas, old beach and shores, lake deposits, dissected alluvial fans, rolling hills or channel beds. Soils are carbonate rich, alkaline, sandy, or sandy clay loams. One (1) association, *Atriplex canescens*, was mapped in the gen-tie portion Study Area.

Mormon Tea Scrub

Mormon tea scrub (*Ephedra viridis* Shrubland Alliance) has Mormon tea as dominant or co-dominant in the shrub canopy with big sagebrush and rubber rabbitbrush (*Ericameria nauseosa*). Emergent trees may be present at low cover, including California juniper. This alliance can be found along ridges, hills, mountains, and channel beds. Soils are shallow derived from alluvium, granitic substrate, bedrock, colluvium. One (1) association, *Ephedra viridis*, was mapped primarily in the BESS portion of the Study Area.

Rubber Rabbitbrush Scrub

Rubber rabbitbrush scrub (*Ericameria nauseosa* Shrubland Alliance) has rubber rabbitbrush as dominant or co-dominant in the shrub canopy with big sagebrush, *Ephedra* spp., and California buckwheat. Emergent trees may be present at low cover, including California juniper. This alliance can be found along all topographic settings,

especially in disturbed settings. Soils are well-drained sands and gravels. Two (2) associations, *Ericameria nauseosa* and *Ericameria nauseosa-Juniperus californica/*herb, were mapped within the BESS and gen-tie portions of the Study Area.

California Buckwheat Scrub

California buckwheat scrub (*Eriogonum fasciculatum* Shrubland Alliance) has California buckwheat or chaparral yucca as dominant or co-dominant in the shrub canopy in cismontane stands with California sagebrush, coyotebrush, orange bush monkeyflower, California brittlebush, brittlebush, and Menzies' goldenbush (*Isocoma menziesii*). Emergent trees may be present at low cover, including California juniper. This alliance can be found in upland slopes, intermittently flooded arroyos, channels and washes, and rarely flooded low-gradient deposits. Soils are coarse, well drained, and moderately acidic to slightly saline. Two (2) associations, *Eriogonum fasciculatum* and *Eriogonum fasciculatum* var. *foliolosum – Juniperus californica*, were mapped in the BESS and north of the Vincent Substation portions of the Study Area.

California Buckwheat – Parish's Goldeneye Scrub

California buckwheat – Parish's goldeneye scrub (*Eriogonum fasciculatum – Viguiera parishii* Shrubland Alliance) has California buckwheat and/or Parish's goldeneye (*Viguiera parishii*) as dominant or co-dominant in the shrub canopy with burrobush (*Ambrosia dumosa*), cheesebush, big sagebrush (*Artemisia tridentata*), sweetbush, blackbrush (*Coleogyne ramosissima*), buck-horn cholla (*Cylindropuntia acanthocarpa*), Wiggins' cholla, brittlebush, and Nevada jointfir (*Ephedra nevadensis*). This alliance can be found in wash and arroyo margins, rocky to bouldery alluvium, canyons, and moderate to steep colluvial slopes and ridges. Soils are well drained and derived from granitic or volcanic rock. One (1) association, *Eriogonum fasciculatum* rock outcrop, was mapped north of the Vincent Substation in the Study Area.

California Walnut Groves

California walnut groves (*Juglans californica* Forest and Woodland Alliance) have Southern California walnut (*Juglans californica*) as dominant or co-dominant in the tree canopy with other native trees. One (1) association, *Juglans californica/*annual herbaceous, was mapped adjacent to residential property (possibly ornamental plantings in origin) north of the Vincent Substation in the Study Area.

California Juniper Woodland

California juniper woodland has California juniper as dominant or co-dominant in the small tree canopy with single-leaf pinyon (*Pinus monophyla*) and blue oak (*Quercus douglasii*). Local shrubs may include big sagebrush *Ephedra* spp., chaparral yucca, and scale broom (*Lepidospartum squamatum*). This alliance can be found along ridges, slopes, valleys, alluvial fans, and valley bottoms. Soils are porous, rocky, coarse, sandy, or silty, and are often very shallow. Three (3) associations, *Juniperus californica*, *Juniperus californica-Adenostoma fasciculatum-Eriogonum fasciculatum*, and *Juniperus californica-Ericameria linearifolia/*annual-perennial herb, were mapped within the BESS and gen-tie portions of the Study Area.

Naturalized (Non-Native) Vegetation Communities

Wild oats and Annual Brome Grasslands

Wild oats and annual brome grasslands (*Avena* spp.-*Bromus* spp. Herbaceous Semi-Natural Alliance) has slender oat (*Avena barbata*), common wild oat (*Avena fatua*), stiff brome (*Brachypodium distachyon*), greater quaking-grass (*Briza maxima*), great brome, soft brome (*Bromus hordeaceus*) and/or wall barley (*Hordeum murinum*) as dominant or co-dominant with other non-natives in the herbaceous layer. Emergent trees and shrubs may be present at low cover. This alliance can be found along all topographic settings in foothills, waste places, rangelands, and openings in woodlands. One (1) association, *Bromus hordeaceus-Amsinckia menziesii-Hordeum murinum*, was mapped adjacent to the Vincent Substation in the Study Area.

Red Brome or Mediterranean Grass Grasslands

Red brome or Mediterranean grass grasslands (*Bromus rubens* – *Schismus* [*arabicus*, *barbatus*] *Bromus rubens* Alliance) has red brome, Arabian schismus (*Schismus arabicus*), and/or common Mediterranean grass (*Schismus barbatus*) as dominant or co-dominant with other non-natives in the herbaceous layer. Emergent shrubs may be present at low cover. This habitat can be found in all topography settings and soil textures. One (1) association, *Bromus rubens* – mixed herbs, was mapped adjacent to the Vincent Substation in the Study Area.

Disturbed and Developed Land Cover Types

Disturbed Habitat

Although not recognized by the Manual of California Vegetation, Online Edition (CNPS 2025b) or the Natural Communities List (CDFW 2025e), disturbed habitat is described in the Draft Vegetation Communities of San Diego County (Oberbauer et. al. 2008). Disturbed habitat is described as areas generally lacking vegetation due to high levels of existing or historical human disturbance and are no longer recognizable as a native or naturalized vegetation association. Areas mapped as disturbed habitat may include unpaved roads, trails, and graded areas (Oberbauer et. al. 2008). Vegetation in these areas, if present at all, is usually sparse and dominated by non-native weedy herbaceous species (Oberbauer et. al. 2008). Areas mapped as disturbed habitat were found throughout the Study Area and were usually associated with developments or infrastructure.

Urban/Developed

Although not recognized by the Manual of California Vegetation (CNPS 2025b) or the Natural Communities List (CDFW 2025e), the urban/developed mapping unit (or developed land) is described in Draft Vegetation Communities of San Diego County (Oberbauer et. al. 2008). This mapping unit describes areas supporting human-made structures, including homes, yards, sidewalks, and other highly modified lands supporting structures associated with dwellings or other permanent structures. Vegetation in these areas, if present at all, is typically associated with ornamental landscaping that has been included in the development footprint (Oberbauer et. al. 2008). Most of the developed lands in the Study Area included the large, paved substation and roads.

3.2.1.8 Potential Jurisdictional Aquatic Resources

Approximately 3.80 acres of potential jurisdictional waters regulated by RWQCB and CDFW were found within the Study Area, as summarized in Table 3.2-4, Summary of Potential Jurisdictional Waters Within the Study Area, and

illustrated in Figure 3.2-1, Hydrologic Features. Impacts to these features will require permits from the RWQCB and CDFW before any Project activities take place. Based upon the current definition of waters of the U.S. per the Clean Water Act, no features were considered to be water of the U.S. under the jurisdiction of the U.S. Army Corp of Engineers due to the ephemeral-nature of each; however, an Approved Jurisdictional Determination will need to be sought from the agency to document this conclusion. No impacts to the Santa Clara River are proposed.

Table 3.2-4. Summary of Potential Jurisdictional Waters Within the Study Area

Jurisdiction	Study Area (acres)
RWQCB/CDFW	
Features	
Non-Wetland Waters	3.34
Swales	0.27
Erosional Features	0.05
Total	**3.80**

Notes: RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.

3.2.1.9 Sensitive and Special-Status Plant Species

The 80 plant species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 and that are known to occur within the 14 USGS 7.5-minute topographic quadrangles that the Study Area is in and the quadrangles that the 10-mile buffer intersects, as well as the species provided by the query of the USFWS' Information for Planning and Consultation, are provided in Appendix 3.2B (CDFW 2025a; CNPS 2025a; USFWS 2025d). This appendix provides evaluations for each of the special-status species' occurrence in the Study Area vicinity and their potential to occur based on known range, habitat associations, preferred soil substrate, life form, elevation, and blooming period. Special-status plant species that have low potential or are not expected to occur are not further analyzed in this document because no direct, indirect, or cumulative impacts are expected based on the negative surveys and evaluation that these species do not have a moderate or high potential to occur onsite.

Of the 80 special-status plant species, the following 11 species were initially determined to have a moderate or high potential to occur due to suitable habitat being present and having recent records in the vicinity or region: California androsace (*Androsace elongata* ssp. *acuta*), club-haired mariposa lily (*Calochortus clavatus* var. *clavatus*), slender mariposa-lily (*Calochortus clavatus* var. *gracilis*), Plummer's mariposa-lily (*Calochortus plummerae*), Peirson's morning-glory (*Calystegia peirsonii*), Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*), ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*), green monardella (*Monardella viridis*), California spineflower (*Mucronea californica*), Robbins' nemacladus (*Nemacladus secundiflorus* var. *robbinsii*), and Lemmon's syntrichopappus (*Syntrichopappus lemmonii*). None of these species are listed under FESA or CESA.

Special-status plant surveys were conducted in 2023 to determine the presence or absence of plant species that had a moderate or high potential to occur in the Study Area. Two (2) sensitive plant species, short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) and golden linanthus (*Leptosiphon aureus*), were mapped during the focused special-status plant surveys in 2023 within the proposed gen-tie route portion of the Study Area, as shown in Figure 3.2-10, Sensitive or Special-Status Species Survey Results. CNDDB forms for the occurrences are found in Appendix 3.2J, CNDDB Forms. The remaining nine (9) species were then reduced to a low potential to occur and will not be analyzed further. Sensitive plant species potential to occur within 1,000 feet of the gen-tie route options are

expected to be similar to the Study Area because there are no significant changes in topography, geology, or hydrology within that distance.

Two additional special-status plant species, Douglas' fiddleneck (*Amsinckia douglasiana*) and Raven's blazing-star (*Mentzelia ravenii*), were recorded on one day of the special-status plant surveys but were not mapped. Instances of Douglas' fiddleneck did not occur in database queries and was not a focal species based upon the initial habitat assessment for special-status. At the time rare plant surveys were conducted, Raven's blazing-star did not have a CRPR rank. Raven's blazing star received a rank in March 2025 (CNPS 2025a). Finally, two Southern California black walnut, which is a CRPR 4.2 species, were mapped within a residential property but are assumed to have been planted since the habitat in the Study Area is atypical for the species. As such, it will not be analyzed as a special-status species but are included in the protected tree analysis.

Short-Joint Beavertail

Short-joint beavertail has a CRPR of 1B.2, which is defined as plants rare, threatened, or endangered in California and elsewhere, with 20-80% of occurrences threatened (CNPS 2025a). The species is a cactus that can be found in creosote bush scrub, chaparral, pinyon-juniper woodland, and Joshua tree woodland (CDFW 2025a). Short-joint beavertail was mapped within the proposed gen-tie alignment portion of the Study Area, as shown in Figure 3.2-10, Sensitive or Special-Status Species Survey Results.

Golden Linanthus

Golden linanthus has a CRPR of 4.2, which is defined as a plant with limited distribution and is moderately threatened in California (CNPS 2025a). The species can be found in chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland (CDFW 2025a). The species was mapped within the proposed gen-tie alignment portion of the Study Area, as shown in Figure 3.2-10, Sensitive or Special-Status Species Survey Results.

Douglas' Fiddleneck

Douglas' fiddleneck has a CRPR of 4.2, which is defined as a plant with limited distribution and is moderately threatened in California (CNPS 2025a). The species can be found in cismontane woodland and valley and foothill grassland (CDFW 2025a). The species was inadvertently not mapped, but it is assumed to have occurred in juniper woodland.

Raven's Blazing-Star

Raven's blazing-star has a CRPR of 1B.3, which is defined as plants rare, threatened, or endangered in California and elsewhere, with less than 20% of occurrences threatened (CNPS 2025a). The species can be found in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland. The species was not mapped because it did not have a CRPR at the time of the survey. Raven's blazing-star received a CRPR rank in March 2025 (CNPS 2025a), so it was not considered a special-status plant at the time of the surveys.

3.2.1.10 Sensitive and Special-Status Wildlife Species

The 62 wildlife species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 and that are known to occur within the 14 USGS 7.5-minute topographic quadrangles that the Study Area is in and the quadrangles that the 10-mile buffer intersects, as well as the species provided by the query of the USFWS'

Information for Planning and Consultation and Los Angeles County's Sensitive Bird Species, are provided in Appendix 3.2B (CDFW 2025a; CNPS 2025a; USFWS 2025d; Los Angeles Audubon 2009). This appendix provides evaluations for each of the special-status species' occurrence in the Study Area vicinity and their potential to occur based on known range and habitat associations. Special-status wildlife species that have low potential or are not expected to occur are not further analyzed in this document because no direct, indirect, or cumulative impacts are expected based on the negative surveys and evaluation that these species do not have a moderate or high potential to occur on site. This includes three species that are included in Los Angeles County's Sensitive Bird Species (Los Angeles Audubon 2009): Scott's oriole (*Icterus parisorum*), vesper sparrow (*Pooecetes gramineus*), and western meadowlark (*Sturnella neglecta*). These three species were not observed during site surveys and have a low potential to occur in the Study Area and are not discussed further.

Two (2) special-status species were observed foraging in the BESS portion of the Study Area, loggerhead shrike (*Lanius ludovicianus*) and greater roadrunner (*Geococcyx californianus*). One species, mountain lion (*Puma concolor*), has a high potential to occur as a transient. The following six (6) special-status species had moderate to high potential to occur in the Study Area: Crotch's bumble bee, California legless lizard (*Anniella* spp.), Blainville's horned lizard (*Phrynosoma blainvillii*), Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), Bell's sage sparrow (*Artemisiospiza belli belli*), and mountain lion. The 52 special-status species with a low potential to occur (six [6] species) or species that are not expected to occur (46 species) are excluded from further discussion below, except for western burrowing owl (*Athene cunicularia hypugaea*) and American badger (*Taxidea taxus*). A discussion of western burrowing owl is provided below; however, since burrowing owl is not expected in the Study Area it is not further analyzed apart from the discussion in this section. Sensitive wildlife species potential to occur within 1,000 feet of the gen-tie route options are expected to be similar to the Study Area because there are no significant changes in topography, geology, or hydrology within that distance.

Crotch's Bumble Bee

Crotch's bumble bee is a candidate for listing as "Endangered" under CESA and is afforded the protection of CESA while the California Fish and Game Commission decides if listing the species is warranted. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (The Xerces Society 2018). In California, the species inhabits open grassland and scrub habitats (The Xerces Society 2018). The size of Crotch's bumble bee colonies has not been well documented, but like most other species of bumble bees, the species primarily nests underground (The Xerces Society 2018). Bumble bees, including Crotch's bumble bee, are generalist foragers and have been reported visiting a wide variety of flowering plants. Since it has a very short tongue, Crotch's bumble bee is best suited to forage at open flowers with short corollas (The Xerces Society 2018). The plant families most associated with observations or collections of the species from California include Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae (The Xerces Society 2018). Nectar plants known to be visited by Crotch's bumble bee include the genera *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* (Williams et al. 2014, Xerces Society et al. 2018), but it is assumed flowering plants in other genera could also support foraging by this species.

Crotch's bumble bee could use small mammal burrows within all the vegetation communities in the Study Area and forage on suitable plant species within those communities. However, no Crotch's bumble bee were observed during the surveys that occurred over two survey seasons. No bumble bees of any kind were observed during that period. Floral resources for the species are present but in limited numbers, with the Study Area being dominated by California juniper woodland, fourwing saltbush scrub, and Mormon tea scrub, as shown in Table 3.2-3, Vegetation Communities and Land Covers in the Study Area. Additionally, there are few records for the occurrence of the species or any other bumble bee from the Acton region (CDFW 2025a; iNaturalist 2025; The Xerces Society 2025).

Due to the limited foraging opportunities and the few records of bumble bees as a whole in the region, the Project is not expected to involve take of Crotch's bumble bee.

California Legless Lizard

This description provides information for three (3) potential species of legless lizard that may be found in the Study Area: Northern California legless lizard (*Anniella pulchra*), Southern California legless lizard (*Anniella stebbinsi*), and California legless lizard (*Anniella* spp.). This is due to the current uncertainty of the taxonomy of the genus in the Study Area's region (Nafis 2025). All three are considered CDFW SSC. These species are most commonly found in coastal dunes and coastal scrub, but also oak woodland, Joshua tree woodland, and pinyon-juniper woodland (Hansen and Shedd 2025), and are generally found in moist, loose soil (CDFW 2025a). California legless lizard has moderate potential to occur in the Study Area beneath the larger California junipers due to the expected higher moisture content of the soil.

Blainville's Horned Lizard

Blainville's horned lizard is a CDFW SSC that occurs throughout most of California in locations west of the desert and Cascade-Sierran highlands, in elevations from sea level to around 2,438 meters (8,000 feet) AMSL (Hansen and Shedd 2025). Despite a wide-ranging distribution, the species seems to be restricted to localized populations because of its association with loose soils that have a high sand content (Jennings and Hayes 1994). The species is found in a wide variety of vegetation types with the requisite loose sandy soils, including California sagebrush scrub, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest (Klauber 1939; Stebbins 1954). Up to 90% of the diet of Blainville's horned lizard consists of native harvester ants (*Pogonomyrmex* spp.) (Pianka and Parker 1975), and the species does not appear to eat non-native Argentine ants (*Linepithema humile*) (Jennings and Hayes 1994). The species has a moderate potential to occur in a variety of the vegetation communities in the Study Area.

Greater Roadrunner

Observations of greater roadrunner were made in the Study Area but were not mapped since the species is highly mobile and expected to occur throughout the area. The species habitats include areas dominated by creosote, mesquite, chaparral, and tamarisk, as well as grasslands, riparian woodlands, and canyons (Cornell Lab 2025). Greater roadrunner nest sites are 3 to 10 feet or more off the ground, on a horizontal branch or in the crotch of a sturdy bush, cactus, or small tree (Cornell Lab 2025). Greater roadrunner is considered sensitive by the County (Los Angeles Audubon 2009). The species could use the California juniper in the Study Area for nesting and could forage throughout the Study Area.

Loggerhead Shrike

A single observation of loggerhead shrike was made in the Study Area, as shown in Figure 3.2-10, Sensitive or Special-Status Species Survey Results. The species is a CDFW SSC that occurs throughout the United States, Mexico, and portions of Canada and is widespread at the lower elevations in California (Humple 2008). Preferred habitats for the species are open areas that include scattered shrubs, trees, posts, fences, utility lines, or other structures that provide hunting perches with views of open ground, as well as nearby spiny vegetation or man-made structures (such as the top of chain-link fences or barbed wire) that provide a location to impale prey items for storage or manipulation (Humple 2008). Nest sites are chosen based more on the cover than the particular vegetation species and are usually constructed in a dense shrub or tree well below the crown and are well concealed

(Yosef 1996). The species could use the California juniper in the Study Area for nesting and could forage throughout the Study Area.

Southern California Rufous-Crowned Sparrow

Southern California rufous-crowned sparrow is on the CDFW Watch List and occurs in sparse, mixed chaparral and coastal scrub habitats (CDFW 2025a). The species frequents relatively steep, often rocky hillsides with grass and forb patches and also grassy slopes without shrubs, if rock outcrops are present (CDFW 2025a). The species has a moderate potential to occur on the slopes of the gen-tie portion of the Study Area.

Bell's Sage Sparrow

Bell's sage sparrow is on the CDFW Watch List and occupies semi-open habitats with evenly spaced shrubs that are 1 meters to 2 meters (3.3 feet to 6.6 feet) high (County of Riverside 2008). CDFW still recognizes *A. belli belli* but the subspecies has been reclassified as its own species Bell's sparrow (*A. belli*), with the other subspecies *A. belli nevadensis* reclassified as sagebrush sparrow (*A. nevadensis*). For site selection, specific shrub species may be less important than overall vertical structure, habitat patchiness, and vegetation density (Wiens and Rotenberry 1981). At higher elevations in Southern California, Bell's sage sparrow often occurs in big sagebrush (County of Riverside 2008). Sage sparrows seek cover in fairly dense stands in chaparral and scrub habitats during the breeding season. Bell's sage sparrow has a moderate potential to occur in the *Artemisia tridentata* dominant and codominant vegetation communities in the Study Area.

Mountain Lion

Mountain lions associated with Southern California and Central Coast populations are designated as a State candidate endangered species. On April 16, 2020, the California Fish and Game Commission voted to designate the Southern California and Central Coast mountain lions as a candidate for listing as an endangered species under the CESA. The vote triggered a 1-year review by CDFW to determine whether these mountain lion populations should be formally protected under CESA; however, the listing status of this species is still currently unresolved at the time of this report.

The California mountain lion occurs throughout much of California open space, occurring in or moving through nearly all but the most urbanized settings. This species inhabits a wide range of habitat types where prey items such as mule deer (*Odocoileus hemionus*) and bighorn sheep (*Ovis canadensis*) are present, from interior, arid rocky scrublands, to upper montane coniferous forest, to chaparral, coastal scrub, and woodland habits along the coastal plain.

According to the Mountain Lion Predicted Habitat dataset (CDFW 2025b), the proposed BESS portion of the Study Area consists primarily of high quality habitat and most of the proposed gen-tie route is within low quality habitat. However, CDFW's Mountain Lion Habitat Suitability dataset has most of the proposed BESS portion of the Study Area and gen-tie alignment as low suitable habitat (Dellinger et al. 2020; CDFW 2025b). As such, the species could occur throughout most of the Project area during home range movement, dispersal, and foraging. The potential to occur is based on habitat suitability: scrub vegetation, presence of mule deer, and proximity to high-quality habitat on large swaths of public lands to the east in the Angeles Nation Forest. However, females keep their young in dens located in rocky terrain or in dense vegetation that provide cover but avoid roads and stay at a distance from human disturbance four times greater (approximately 600 meters) than non-reproductive mountain lions (Center for Biological Diversity and the Mountain Lion Foundation 2019). The Study Area is located adjacent to residential

neighborhoods, Sierra Highway, the Southern Pacific Railroad lines, Carson Mesa Road, and SR-14, all of which have associated human presence. As such, females of the species are not expected to establish natal dens in the Study Area.

Western Burrowing Owl

As of October 15, 2024, western burrowing owl (*Athene cunicularia hypugaea*) is being considered for listing under the California Endangered Species Act (CESA) and the species is provided with the protection of CESA. Primary habitat requisites for burrowing owl are the presence of burrows for roosting and nesting and vegetation structure that is relatively short and sparse (Center for Biological Diversity et al. 2024). The species was historically abundant throughout Southwestern California, including up to the 610-meter (2,001.31 feet) elevation contour in the Transverse Range, but have been extirpated from Ventura, western Los Angeles, and Orange counties and are near extirpation in San Diego County (Center for Biological Diversity et al. 2024). The petition to list the species does not include the Study Area in the breeding range of the species and does not include the Study Area in one (1) of the 16 burrowing owl regions in California (Center for Biological Diversity et al. 2024).

CDFW's range and predicted habitat for burrowing owl does not include the Study Area (CDFW 2025f). There are five (5) CNDDB records of the species within 10 miles that are in the Antelope Valley to the north of the Study Area, with the most recent being 2006 (CDFW 2025a). Citizen science-based databases have only five (5) records within 10 miles that are in the Antelope Valley to the north of the Study Area (eBird 2025; iNaturalist 2025).

The Study Area is dominated by shrub-dominant vegetation communities that have relatively high density. The Study Area elevation ranges from 2,700 feet to 3,500 feet above mean sea level, which is above the known historic occurrences of the species in the Transverse Ranges. California ground squirrel burrows are present but are sparse and none of the extensive surveys of the Study Area have identified burrowing owl or diagnostic sign (i.e., pellets, feathers, and extensive whitewash). Based upon the lack of suitable habitat; the Study Area being above the known elevation occurrence of the species in the region; the lack of observations of the species during extensive surveys; and the limited number of records of the species within 10 miles, burrowing owl is not expected in the Study Area and will not be further analyzed.

American Badger

American badger is a CDFW Species of Special Concern that is an uncommon, permanent resident found throughout most of the state, except in the northern North Coast (CDFW 2025f). Suitable habitat for the species is characterized by herbaceous, shrub, and open stages of most habitats with dry, friable soils (CDFW 2025f). American badger dig burrows in friable soil for dens and frequently reuse old burrows; although, some may dig a new den each night, especially in summer (CDFW 2025f). American badger is a highly specialized burrowing mammal that primarily eats burrowing rats, mice, chipmunks, and especially ground squirrels and pocket gophers (CDFW 2025f).

There is one (1) CNDDB record of American badger within 20 miles of the Study Area from 1930 at Lake Los Angeles (CDFW 2025a). There is one (1) 2021 iNaturalist record of the species approximately 8.6 miles to the west near Agua Dulce (iNaturalist 2025). American badger has been determined to have a low potential to occur in the Study Area due to the presence of suitable habitat, but no individuals were observed and no diagnostic sign (i.e., burrows or digs with the species' conspicuous claw marks) were observed during the extensive surveys of the Study Area. As such, the species will not be further analyzed.

3.2.1.11 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (16 USC 703 et seq.), as amended (MBTA), prohibits the intentional take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so. Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

3.2.1.12 Bald and Golden Eagle Act

Golden eagle is protected by the federal The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c) and are a fully protected species in California (Fish and Game Code 3511). The species is an uncommon permanent resident and migrant throughout California, except the center of the Central Valley (CDFW 2025f). Golden eagle nest on cliffs of all heights and in large trees in open areas, with rugged, open habitats with canyons and escarpments used most frequently (CDFW 2025f). The species needs open terrain for hunting, including grasslands, deserts, savannahs, and early successional stages of forest and shrub habitats (CDFW 2025f). Golden eagle eats mostly rabbits and rodents, but it also takes other mammals, birds, reptiles, and some carrion (CDFW 2025f).

There is one (1) CNDDB record of golden eagle nesting within 25 miles of the Study Area (CDFW 2025a). The record dates are from 1963, 1964, and 1965, and document the collection of eggs from the species for each of those years. The record location has a 1-mile accuracy and the location description was "Acton, in Aliso Canyon, off Soledad Canyon, in Angeles National Forest," which CDFW interpreted as being closer to the mouth of Aliso Canyon (CDFW 2025a). The center of the 1-mile circle is approximately 2 miles to the south-southwest of the Study Area in an area that is devoid of cliffs or open areas with large trees (Google Earth 2025).

No eagle or other raptor nests were identified within the Study Area and 500-foot buffer during the focused raptor nest surveys conducted in 2025. The Study Area and surrounding area do not contain the elements (i.e., cliffs or large trees in open areas) associated with nesting by golden eagle, so nesting by the species is not expected. Additionally, the species would not be expected to nest in areas where a variety of human activity occur since the adults of the species have been documented to flush from nest when those activities happen within 1,000 meters of the nest (Spaul and Heath 2017). The activities within the residential neighborhoods surrounding the Study Area and the Vincent Substation are expected to deter golden eagle from nesting within sight of these areas. Potential nesting in the Angeles National Forest to the east of the site are not expected to be visible from the Study Area and activities during construction would not affect any potential nesting. The species could forage or migrate through the Study Area but the Project transmission facilities will be designed consistent with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (Avian Power Line Interaction Committee [APLIC] 2006) where feasible. Transmission facilities will also be evaluated for potential collision reduction devices in accordance with *Reducing Avian Collisions with Power Lines: The State of Art in 2012* (APLIC 2012).

3.2.1.13 Wildlife Corridors and Habitat Linkages

Wildlife movement corridors have been recognized by federal and state agencies as important habitats worthy of conservation. Wildlife corridors provide migration channels seasonally (i.e., between winter and summer habitats), and provide non-migrant wildlife with the opportunity to move within their home range for food, cover, reproduction,

and refuge. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals and may also serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as steppingstones for dispersal.

The Study Area does not overlap with any South Coast Missing Linkages, California Essential Habitat Connectivity Areas or Natural Landscape Block or Natural Landscape Block (South Coast Wildlands 2008, CDFW 2014, 2017). Given that the existing vegetation is surrounded on three (3) sides by similar habitats, the Study Area likely provides habitat for local wildlife movement but is not recognized as an important regional wildlife corridor by any state agency or jurisdiction and is of limited linkage value on a landscape scale. Furthermore, although local wildlife may utilize the Study Area for movement, regional connectivity is highly limited by residential neighborhoods, Sierra Highway, the Southern Pacific Railroad lines, Carson Mesa Road, and SR-14 to the west. Thus, the Project is not expected to impose significant barriers to wildlife movement.

3.2.1.13.1 California Desert Native Plant Act Covered Species

Four (4) species covered by the California Desert Native Plants Act were mapped within the Project footprint and a 150-foot buffer: chaparral yucca, Wiggins' cholla, beavertail pricklypear (*Opuntia basilaris* var. *basilaris*) and short-joint beavertail. Table 3.2-5, California Desert Native Plant Act Covered Species in the Survey Area, summarizes the numbers within each area and Figure 3.2-11, California Desert Native Plant Act Covered Species in the Survey Area, shows the locations of these species.

Table 3.2-5. California Desert Native Plant Act Covered Species in the Survey Area

Species	Amount
chaparral yucca	1,118
Wiggins' cholla	644
beavertail pricklypear	94
short-joint beavertail	4
Total	**1,860**

3.2.1.14 Los Angeles County Significant Ecological Area – Protected Trees

A total of 1,215 trees were documented within the Survey Area. Of these, 1,191 trees are located within the Santa Clara River SEA, and 1,0~~78~~69 of those are classified as protected California junipers as shown in Figure 3.2-12, Protected Trees, and summarized in Table 3.2-6, Summary of Trees Within the SEA Portion of the Study Area. The species is a shrub that is native to California and found only slightly beyond California borders (Calflora 2025). California juniper typically has several trunks and grows up to 13 feet (Jepson Flora Project 2025). Apart from the 1,0~~69~~78 California juniper, nine (9) other protected trees were identified (velvet ash, Southern California black walnut, California sycamore (*Platanus racemosa*), and Fremont cottonwood (*Populus fremontii*); however, no impacts would occur to California sycamore or Fremont cottonwood. Two of the trees, velvet ash and Southern California black walnut, were found within the SEA portion of the Study Area as ornamental trees associated with a residence. These species do not typically occur in the habitats in the Study Area. The protected trees include 1,004 standard protected trees and 74 heritage trees. The remaining 194 trees consist of 81 located outside the SEA and 113 trees within the SEA that are classified as dead. Appendix A, Tree Location, of Appendix A, Protected Tree Report, of Appendix 3.2G, Biota Report, provides detailed locations of all individual trees assessed for the proposed

Project and full results of the survey. Because the BESS facility site is located entirely outside of the Santa Clara SEA boundaries, the SEA ordinance and SEA program do not apply to that portion of the Project. Thus, there are no protected trees on the BESS facility site. As depicted in Figure 3.2-12, there are some protected and heritage trees located along the two gen-tie line routes.

Table 3.2-6. Summary of Trees Within the SEA Portion of the Study Area

Scientific Name	Common Name	Total Number of Protected Trees	Number of Heritage Trees	Total Number of Non-Protected Trees	Total Number of Trees
Juniperus californica	California juniper	1,069	73	113	1,182
Fraxinus velutina	velvet ash	1	0	0	1
Juglans californica	Southern California black walnut	2	0	0	2
Platanus racemosa	California sycamore	1	0	0	1
Populus fremontii	Fremont cottonwood	5	1	0	5
	Total	**1,078**	**74**	**113**	**1,191**

3.2.2 Environmental Analysis

Potential direct. indirect and cumulative impacts to biological resources were evaluated to determine the potential permanent and temporary effects of construction and operation of the proposed Project. Results from the field surveys, habitat evaluations and literature review were evaluated to address the potential for presence of sensitive biological resources within the Study Area were presented in the prior section.

Section 3.2.2, contained herein, identifies the biological resources that may be affected directly or indirectly and may have temporary or permanent impacts. These impact categories are defined as follows:

Direct. The CEQA defines direct impacts as those that result from the project and occur at the same time and place. Project related activities, such as alteration, disturbance or destruction of biological resources are considered a direct impact. Direct impacts for this Project are those associated with the grading and development of the BESS facility site and both gen-tie routes.

Indirect. CEQA defines indirect impacts as impacts that are caused by the project but do not occur at the same time but rather at different but a reasonably foreseeable future time. Indirect impacts associated with the proposed Project include effects to biological or aquatic resources as a result of dust, noise, vibration, or potential erosion.

Permanent. All impacts that result in the irreversible removal of biological resources are considered permanent. Permanent impacts for the proposed Project include the conversion of land for the BESS facility site and associated access facilities.

Temporary. Temporary impacts are considered to have reversible effects on biological resources. Temporary impacts associated with the proposed Project include tension/pulling sites along the gen-tie right of way, and other work associated with temporary access along the gen-tie line.

3.2.2.1 Significance Criteria

Factors typically used to evaluate the significance of project-related impacts are set forth in Appendix G of the CEQA Guidelines. CEQA Guidelines Appendix G is a screening tool, not a method for setting thresholds of significance. Appendix G is typically used in the Initial Study phase of the CEQA process, asking a series of questions. The purpose of these questions is to determine whether a project requires an Environmental Impact Report, a Mitigated Negative Declaration, or a Negative Declaration.

As the Governor's Office of Planning and Research stated, "Appendix G of the Guidelines lists a variety of potentially significant effects but does not provide a means of judging whether they are indeed significant in a given set of circumstances." The answers to the CEQA Guidelines Appendix G questions are not determinative of whether an impact is significant or less than significant. Nevertheless, the questions presented in CEQA Guidelines Appendix G are instructive. Potentially significant biological impacts resulting from the Project were assessed by the following criteria:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered, threatened, candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- Have a substantial adverse effect on federal or state protected WOTUS [waters of the United States] (including wetlands) as defined by Sections 404 and 401 of the 1972 Amendments to the Federal Water Pollution Control Act, commonly known as the Clean Water Act, or the Porter-Cologne Act, either through direct removal, filling, hydrological interruptions, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory native wildlife corridors or impede the use of wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, NCCP [natural community conservation plan], or other approved local, regional, or state habitat conservation plan.

CEQA Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if the species is not on one of the official lists if, for example, it is likely to become endangered in the foreseeable future.

3.2.2.2 CEQA Appendix G Assessment Criteria

The following impact analysis includes both gen-tie options, so the potential direct permanent and temporary impact acreages presented are in the comprehensive analyses of both gen-tie routes are greater than the expected actual impact acreages associated with constructing only one (1) gen-tie.

3.2.2.2.1 Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered, threatened, candidate, sensitive, or special-status in

local or regional plans, policies, or regulations, or by CDFW or USFWS?

Direct Impacts

Permanent and temporary direct impacts to special-status plants and wildlife could occur from construction of the proposed Project.

Special-status Plants

Less than Significant with Mitigation. Two special-status plant species, Douglas' fiddleneck and Raven's blazing-star, were recorded on one day of the special-status plant surveys but were not mapped. As such the two species could be directly impacted during vegetation removal and grading activities if present. The loss of individuals during construction could be significant based upon the abundance of each being impacted and would require mitigation. **MM-BIO-1**, Special-Status Plant Species Surveys and seed collection, requires pre-construction surveys for the species to determine if the species are present and the collection of seeds should the species be present. **MM-BIO-2**, Demarcation of Disturbance Limits, requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. **MM-BIO-3**, Biological Monitoring, requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the flagged limits are adhered to during construction. **MM-BIO-4**, Worker Education Awareness Program, requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and Study Area, and measures to avoid and minimize impacts to those resources.

MM-BIO-5, On-Site Preservation, would require the establishment of a conservation area that will preserve up to approximately 135 acres of native vegetation communities (the non-impacted acres of the parcels associated with the gen-tie route) within the Study Area parcels associated with the gen-tie routes, as shown in Figure 3.2-13, Conservation Area, which will preserve habitat for the species should an ITP for the species be needed. The proposed mitigation parcels are located in the SEA and are made up of the same habitat as the land where the potential impacts would occur and thus make them ideal parcels for mitigation. The proposed mitigation land is made up of the parcels and gross acreages found in Table 3.2-7, Potential Parcels to be Used for On-Site Preservation, and shown on Figure 3.2-13, Conservation Area.

Table 3.2-7. Potential Parcels to be Used for On-Site Preservation

APN	Gross Acreage
3056-019-040 (south of railroad tracks)	12.85
3056-017-022	9.25
3056-017-016	5.07
3056-027-007	40.31
3056-015-008	40.06
3056-017-028	9.93
3056-017-027	9.90
3056-017-026	9.39
3056-017-023	40.04
Total Gross Acreage	**173.36[1]**

Notes: APN = Assessor's Parcel Number.

[1] Excludes areas where permanent impacts would occur. There will be up to approximately 3.44 acres of permanent impacts. The gross acreage of the parcels above totals 176.80 acres. Therefore, the total gross acreage when excluding the 3.44 acres of permanent impact is approximately 173.36 acres.

Redacted Preliminary ALTA Surveys have been provided in Appendix 3.2A. The ALTA survey information has been redacted to remove landowner names, non-mitigation land information, and any financial information that may be present in the title reports associated with the ALTA surveys. The parcels being considered for mitigation land are not already conserved, nor do they contain any conflicting easements or encumbrances that would preclude the use of this land for habitat mitigation, such as severed mineral rights, Williamson Act contracts, or subdivision prohibitions. Please note that the title report in the Redacted Preliminary ALTA Survey for APN 3056-015-023 includes exception 3 for an oil and gas lease on the APN. That exception has been removed from the title and is no longer applicable to the parcel. Please see the updated title report for APN 3056-15-023 included at the end of the Redacted Preliminary ALTA Survey document.

Phase I Environmental Site Assessment information for the mitigation lands is provided in Appendix 3.5A, Hazardous Materials Handling Appendices Part 1, and no current or historical recognized environmental conditions were found.

MM-BIO-6, Habitat Mitigation and Monitoring Plan, would require the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include using the seeds from any special-status plants that would be impacted and include floral resources that special-status wildlife could use in the conservation area.

Project implementation of MM-BIO-1 through MM-BIO-5 will reduce potential impacts to less than significant. Impacts will be **less than significant with mitigation**.

Two (2) additional special-status plant species, short-joint beavertail and golden linanthus, were mapped in the gen-tie route portion of the Study Area during surveys in 2023. None of the mapped individuals will be directly impacted by the Project. However, some of the individuals of both species are in close proximity to the Project construction limits. MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the integrity of any buffers established for active nests. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. Project implementation of MM-BIO-1 through MM-BIO-5 will reduce potential impacts to less than significant. Impacts will be **less than significant with mitigation**.

Special-status Wildlife

Less than Significant with Mitigation. Six (6) special-status wildlife species have a moderate or high potential to occur: Crotch's bumble bee, California legless lizard, Blainville's horned lizard, Southern California rufous-crowned sparrow, Bell's sage sparrow, and mountain lion. One (1) special-status wildlife species (loggerhead shrike) has been observed in the Study Area.

Crotch's Bumble Bee

Protocol surveys for Crotch's bumble bee conducted in 2024 and 2025 were negative for the species. During the initial survey each year, it was noted that there were very limited foraging opportunities within the Study Area.

However, bumble bees are opportunistic and highly mobile. The species typically nests underground, so nesting individuals could be highly vulnerable to injury and mortality during construction, which could crush nests and individuals, if present on site. Harm to or the loss of individuals during construction will be significant due to reducing the rare species' numbers and will require mitigation. If Crotch's bumble bee is still a candidate for listing under CESA or has been listed under CESA at the time of the start of construction of the Project, the following mitigation measures would be implemented. If the species is determined to not warrant listing under CESA at the time of the start of construction of the Project, then no mitigation is necessary. **MM-BIO-7**, Crotch's Bumble Bee Minimization Measures, would require pre-construction surveys for Crotch's bumble bee nests, with buffers established around active nests until the nests are deemed inactive.

MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the integrity of any buffers established for active nests. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. MM-BIO-4 requires the establishment of a conservation area that will preserve suitable habitat for the species (considered to be all of the native vegetation communities for Blainville's horned lizard and the communities with California juniper present for California legless lizard) and where captured individuals would be relocated. MM-BIO-5 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas that the species could use in the conservation area. If Crotch's bumble bee is still a candidate for listing under CESA or has been listed under CESA at the time of the start of construction, the Project's implementation of MM-BIO-2 through MM-BIO-7 will reduce potential direct impacts to **less than significant with mitigation**.

Special-Status Reptiles

Less than significant with mitigation. California legless lizard and Blainville's horned lizard are designated as CDFW Species of Special Concern. The loss of habitat for a special-status species is not considered as a substantial adverse effect, and therefore not considered a potentially significant impact, simply because there is an impact. That impact must also be shown to have a substantial adverse effect on the resource. In the case of an individual species, the effect of the habitat loss must be substantial and adverse relative to the range of the species (i.e., that the loss of habitat by a particular development activity will adversely affect the species as a whole, and not simply the effect that a development activity will have on a specific population). These species are vulnerable to mortality or injury during vegetation and ground disturbing activities associated with construction. It is highly unlikely that short-term construction activities could cause the greater population of these special-status species to drop below self-sustaining levels due to the relatively small area of construction activity and the short-term nature of the construction schedule. However, mortality or injury to individual species during the vegetation removal and grading portion of construction is a reasonable possibility, so direct permanent impacts are possible and would be significant. **MM-BIO-8,** Special-Status Wildlife Relocation Plan, requires the preparation of a plan that has a process of clearance surveys and relocation of special-status wildlife into non-impacted portions of the Study Area. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for relocating any special-status reptiles. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. MM-BIO-5 requires the establishment of a conservation area that will preserve suitable habitat for the species (considered to be all of the native vegetation communities for Blainville's horned lizard and the communities with California juniper present for California legless lizard) and where captured individuals would be relocated. MM-BIO-6 requires the preparation of a restoration plan,

its implementation, and a monitoring period to restore temporarily impacted areas that the species could use in the conservation area. Project implementation of MM-BIO-3. MM-BIO-4, MM-BIO-5, MM-BIO-6, and MM-BIO-8 will reduce potential direct impacts to **less than significant with mitigation**.

Special-Status Birds and Protected Nesting Bird Species

Less than significant with mitigation Three (3) special-status bird species, loggerhead shrike, Southern California rufous-crowned sparrow, and Bell's sage sparrow, have suitable nesting habitat on the Project site. Additionally, numerous other common species protected under the MBTA and California Fish and Game Code (Sections 3503, 3503.5, and 3513), including greater roadrunner, have suitable nesting habitat on site. Impacts to juvenile and adults of these species are not expected; however, nesting could be disrupted if construction occurs during the breeding season. Direct impacts to nesting birds could occur because of nest abandonment, reduced reproductive success, or other disruptions to nesting. Nests, eggs, and young could also be crushed or otherwise directly affected during vegetation clearing and grading. Impacts to special-status and protected nesting bird species could be potentially significant. **MM-BIO-9**, Nesting Bird Avoidance, will provide pre-construction surveys and buffer establishment for active nests. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the integrity of any buffers established for active nests. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. MM-BIO-5 requires the establishment of a conservation area that will preserve suitable habitat for the species (considered to be all of the native vegetation communities for loggerhead shrike, Southern California rufous-crowned sparrow, and Bell's sage sparrow). MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas that the species could use in the conservation area. Project implementation of MM-BIO-3. MM-BIO-4, MM-BIO-5, MM-BIO-6, and MM-BIO-9 will reduce potential direct impacts to **less than significant with mitigation**.

Mountain Lion

Less than significant with mitigation Because California mountain lion is a candidate for state listing under CESA, Project impacts resulting in direct take of California mountain lion will require an ITP under CESA through coordination with CDFW; however, no natal dens have been detected during field efforts that have resulted in extensive cover of the Project site, and none are expected. Therefore, no direct take of California mountain lion is expected to occur because of the proposed Project.

Impacts will be **less than significant with mitigation**.

Indirect Impacts

Special-Status Plants

Less than Significant with Mitigation. Potential short-term or temporary indirect impacts to short-joint beavertail and golden linanthus located in the Study Area could result from construction activities and include impacts related to or resulting from the activities outside of the Project limits, generation of fugitive dust, increased human activity, and the introduction of pollutants from construction equipment. Excessive dust can decrease the vigor and productivity of plants through effects on light, penetration, photosynthesis, respiration, and transpiration; increased penetration of phytotoxic gaseous pollutants; and increased incidence of pests and diseases. Additionally, invasive plant species could be introduced by the Project during construction and through landscaping installation that could

alter the habitat and compete with special-status plants. These indirect impacts could result in additional loss of special-status plants that could be significant. Water trucks are expected as part of Project construction, which will reduce fugitive dust. **MM-BIO-10**, Invasive Species Prevention Plan, requires the preparation and implementation of a plan that will avoid and minimize the introduction of non-native plant species that could compete for habitat space with plants that the species forages on by ensuring that vehicles and equipment used during construction are weed free. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the Invasive Species Prevention Plan will be implemented. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources, which will include a discussion on invasive plants. Project implementation of MM-BIO-3, MM-BIO-4, and MM-BIO-10 will reduce potential indirect impacts to less than significant. Impacts will be **less than significant with mitigation**.

Special-Status Wildlife

Construction

Less than Significant with Mitigation. During construction activities, indirect impacts to sensitive wildlife could include construction-related dust, soil erosion, and water runoff decreasing or permanently altering habitat suitability. Without construction-related minimization measures to control dust, erosion, and runoff, and without compliance with National Pollutant Discharge Elimination System (NPDES) requirements, indirect impacts to riparian resources and upland communities could occur. However, standard construction BMPs to control dust, erosion, and runoff, including straw bales and silt fencing, will be implemented through the General Permit for stormwater control during construction to minimize these adverse effects. Additionally, implementation of MM-BIO-2 through MM-BIO-9 to reduce indirect impacts to special-status wildlife species will also contribute to the reduction of indirect impacts to **less than significant with mitigation**.

Operation

Less than Significant. Once constructed, the Project will be available to operate 7 days per week, 365 days per year. The facility will be remotely monitored and operated by an Owner contracted O&M provider as well as 16 on-site staff. Onsite maintenance will be required, which will include replacement of inverter power modules, filters, and miscellaneous electrical repairs on an as-needed basis. During operation of the Project substation, O&M staff will service the substation periodically for switching and other operation activities. Light duty maintenance trucks will be utilized to perform routine maintenance, including but not limited to equipment testing, monitoring, repair, routine procedures to ensure service continuity, and standard preventative maintenance. Typically, one major maintenance inspection will take place annually. The Project transmission facilities will be designed consistent with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (Avian Power Line Interaction Committee [APLIC] 2006) where feasible. Transmission facilities will also be evaluated for potential collision reduction devices in accordance with *Reducing Avian Collisions with Power Lines: The State of Art in 2012* (APLIC 2012). Based upon the low volume of human activity and the proposed avian protecting Project design features, indirect impacts to wildlife during Project operation are expected to be **less than significant**.

The infrequent testing of the emergency backup generators onsite will introduce a new source of nitrogen deposition. The modeling showed that the highest nitrogen loading from such testing will be located just outside the northern boundary as shown in Appendix 3.2H. The nitrogen loading was estimated to 0.66. The potential for nitrogen deposition reduces significantly with distance from the source and the infrequent testing.

As previously discussed, the area consists primarily of vegetation communities that are classified as chaparral, coastal sage scrub, and North American desert woodland (juniper woodland) and the nitrogen loading from the project is below the critical load for those habitats, as shown in Table 3.2-8, Critical Nitrogen Loads for Biological Resources Within 6 Miles of the Project Site. As such, the nitrogen is well below any critical loads for other sensitive biological resources that are present or have the potential to occur, including short-joint beavertail, golden linanthus, Crotch's bumble bee, California legless lizard, Blainville's horned lizard, loggerhead shrike, Southern California rufous-crowned sparrow, Bell's sage sparrow, mountain lion, and jurisdictional waters. While there may be other biological species within 6 miles of the Study Area that are not listed here, the annual nitrogen deposition is well below the maximum impact area indicated above and will not be above other species' critical nitrogen loads.

Table 3.2-8. Critical Nitrogen Loads for Biological Resources Within 6 Miles of the Project Site

Biological Resource	Critical Nitrogen Loads (kg/ha/yr)
Chaparral	5-33
Coastal sage scrub	7.8-10
North American desert woodland	3-8.4

Source: Pardo et al 2011.
Note: kg/ha/yr = kilogram per hectare per year.

The quantity of nitrogen deposition from the Project emissions on vegetation will, in practice, be less than the model results because the assumptions modeled are inherently conservative (e.g., assuming the emergency backup generators are running at the same time). The nitrogen deposition will also be distributed incrementally throughout a year and not all nitrogen added to the soil during each deposition event will be available for plant use because of losses associated with soil processes. As a result, the testing of the Project's emergency backup generators will not lead to nitrogen deposition levels that exceed critical thresholds associated with significant impacts to natural vegetation communities and special status species in the vicinity of the Project site. Therefore, operations from the testing of the Project's emergency backup generators will result in less than significant impacts to natural vegetation communities and special status species within 6 miles of equipment operation.

Impacts will be **less than significant.**

3.2.2.2.2 Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.?

Direct Impacts

Less than Significant with Mitigation. As currently designed, the proposed Project will result in approximately ~~101.12~~107.33 acres (approximately ~~27.83~~34.32 acres temporary and approximately 73.~~29~~ 01 acres permanent if the Northern Gen-Tie Route is selected) of direct impacts to vegetation communities and land covers through the removal of vegetation and grading of land to construct the proposed Project. The proposed Project will result in approximately ~~108.19~~114.39 acres (approximately ~~33.56~~40.05 acres temporary and approximately ~~74.63~~74.34 acres permanent if the Southern Gen-Tie Route is selected) of direct impacts to vegetation communities and land covers through the removal of vegetation and grading of land to construct the proposed Project. Permanent impacts will occur due to the construction and operation of the BESS portion of the Project and access roads and transmission pole pads associated with the gen-tie line. Temporary impacts will occur due to the construction of

the two (2) underground fiber optic lines within the Southern Gen-Tie Route corridor, within areas proposed for construction laydown areas for the gen-tie work, within pull areas from stringing the gen-tie, and within other gen-tie work areas that are outside of the transmission pole pads and access roads. The total acreage for project-related impacts to the mapped vegetation communities located within the development area are provided in Table 3.2-9, Potential Impacts to Vegetation Communities and Land Covers in the Study Area.

Table 3.2-9. Potential Impacts to Vegetation Communities and Land Covers in the Study Area

Alliance	Association	CDFW Sensitive[1]	Ranking[2]	Potential Permanent Impacts - BESS[3] (Gross Acreages)	Potential Permanent Impacts – Northern Gen-Tie[4] (Gross Acreage)	Potential Permanent Impacts – Southern Gen-Tie[4] (Gross Acreage)	Potential Temporary Impacts – Northern Gen-Tie[5] (Gross Acreage)	Potential Temporary Impacts – Southern Gen-Tie[5] (Gross Acreage)
Native Communities								
Cheesebush – sweetbush scrub	*Ambrosia salsola – Larrea tridentata*	No	G4/S4	–	–	–	–	0.05
	Ambrosia salsola Association	No	G4/S4	–	–	–	0.54	1.57
Fiddleneck – phacelia fields	*Amsinckia menziesii – Erodium* spp.	No	G5/S5	2.08	–	–	–	–
California sagebrush – (purple sage) scrub	*Artemisia californica – Eriogonum fasciculatum*	No	G4/S4	–	0.08	0.08	1.~~44~~85	1.85~~44~~
Big sagebrush	*Artemisia tridentata – Ericameria nauseosa*	No	G5/S5	0.42	–	0.46	1.15~~4~~	2.21
	Artemisia tridentata – Eriogonum fasciculatum	No	G5/S5	2.60	–	–	–	–
	Artemisia tridentata ssp. *parishii*	Yes	G2/S2	–	–	–	0.06	0.20
Fourwing saltbush scrub	*Atriplex canescens*	No	G5/S4	0.67	1.58~~2.07~~	1.58~~2.07~~	~~16.06~~18.98	21.01~~18.09~~
Mormon tea scrub	*Ephedra viridis*	No	G4/S4	17.84	–	–	–	–
Rubber rabbitbrush scrub	*Ericameria nauseosa – Juniperus californica*/herb	No	G5/S5	10.98	–	–	0.43	1.23
	Ericameria nauseosa	No	G5/S5	–	–	–	~~–~~0.87	~~–~~0.87
California buckwheat scrub	*Eriogonum fasciculatum*	No	G5/S5	4.75	–	–	0.16~~5~~	~~–~~ –

Table 3.2-9. Potential Impacts to Vegetation Communities and Land Covers in the Study Area

Alliance	Association	CDFW Sensitive[1]	Ranking[2]	Potential Permanent Impacts - BESS[3] (Gross Acreages)	Potential Permanent Impacts – Northern Gen-Tie[4] (Gross Acreage)	Potential Permanent Impacts – Southern Gen-Tie[4] (Gross Acreage)	Potential Temporary Impacts – Northern Gen-Tie[5] (Gross Acreage)	Potential Temporary Impacts – Southern Gen-Tie[5] (Gross Acreage)
	Eriogonum fasciculatum var. *foliolosum* – *Juniperus californica*	Yes	G3/S3	4.32	–	–	–	–
California buckwheat – Parish's goldeneye scrub	*Eriogonum fasciculatum* rock outcrop	Yes	Unranked	–	–	–	–	–
California walnut groves	*Juglans californica / annual herbaceous*	Yes	G3/S3	–~~=~~	–~~=~~	–~~=~~	–~~=~~	–~~=~~
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum – Eriogonum fasciculatum*	Yes	Unranked	10.68	–	0.53	0.26	0.35
	Juniperus californica / herbaceous	Yes	Unranked	7.16	~~0.39~~0.59	0.20~~=~~	1.71~~1.16~~	~~1.49~~2.03
	Juniperus californica / Eriogonum fasciculatum – Artemisia californica	No	G5/S5	–	–	–	–	–
			Subtotal:	*61.49*	*2.~~53~~25*	*2.85~~3.13~~*	*26.00~~21.25~~*	*~~26.63~~31.38*
Naturalized (Non-Native)								
Avena spp. – *Bromus* spp.	*Avena barbata – Bromus hordeaceus*	No	GNA/SNA	–	–	–	–	–
Bromus rubens – Schismus (*arabicus*, *barbatus*)	*Bromus rubens* – mixed herbs	No	GNA/SNA	–	–	–	~~–~~1.39	~~–~~1.39

Table 3.2-9. Potential Impacts to Vegetation Communities and Land Covers in the Study Area

Alliance	Association	CDFW Sensitive[1]	Ranking[2]	Potential Permanent Impacts - BESS[3] (Gross Acreages)	Potential Permanent Impacts – Northern Gen-Tie[4] (Gross Acreage)	Potential Permanent Impacts – Southern Gen-Tie[4] (Gross Acreage)	Potential Temporary Impacts – Northern Gen-Tie[5] (Gross Acreage)	Potential Temporary Impacts – Southern Gen-Tie[5] (Gross Acreage)
			Subtotal:	–	–	–	*1.39*~~–~~	~~–~~*1.39*
Land Cover Types								
Disturbed habitat	Not applicable	No	NA/NA	6.00	–~~–~~	0.36	3.61	3.354
Urban/Developed	Not applicable	No	NA/NA	3.25	0.02	0.39	~~2.96~~3.32	~~3.58~~3.94
			Subtotal:	*9.26*	*0.02*~~*0.02*~~	*0.75*~~*0.75*~~	*6.93*~~*6.57*~~	~~*6.92*~~*7.29*
			Total:	**70.74**	**2.27**~~**55**~~[5]	**3.**~~**89**~~[5]**60**[5]	**34.32**~~**27.83**~~[5]	**40.05**~~**33.56**~~[5]

Notes: CDFW = California Department of Fish and Wildlife; BESS = battery energy storage system; gen-tie = generation interconnection.
Totals may not sum due to rounding and inclusion of both gen-tie routes.

1 CDFW has determined the community to be sensitive.

2 The conservation status of a vegetation community is designated by a number from 1 to 5, preceded by a letter reflecting the appropriate geographic scale of the assessment (G = global, S = state). The numbers have the following meaning:
1 = critically imperiled
2 = imperiled
3 = vulnerable to extirpation or extinction
4 = apparently secure
5 = demonstrably widespread, abundant, and secure
NA = not applicable
GNA = global rank not applicable
SNA = state rank not applicable
Unranked= Associations that are considered sensitive, but have not been ranked

3 There are no temporary impacts associated with the BESS.

4 Permanent impacts for the gen-tie are for access roads and tower pads.

5 Temporary impacts will occur due to the construction of the two (2) underground fiber optic lines within the Southern Gen-Tie Route corridor, within areas proposed for construction laydown areas for the gen-tie work, within pull areas from stringing the gen-tie, and within other gen-tie work areas that are outside of the transmission pole pads and access roads.

Four (4) sensitive vegetation communities have approximately 24.7803 acres of direct impacts (Northern Gen-Tie Route) and 24.7225.47 acres of direct impacts (Southern Gen-Tie Route): *Artemisia tridentata* ssp. *parishii* association, *Eriogonum fasciculatum* var. *foliolosum-Juniperus californica* association, *Juniperus californica/Adenostoma fasciculatum-Eriogonum fasciculatum* association, and *Juniperus californica/herbaceous* association. There are approximately 22.5522.75 acres of permanent impacts (Northern Gen-Tie Route) and 22.1622.89 acres of permanent impacts (Southern Gen-Tie Route), and approximately 1.482.03 acres of temporary impacts (Northern Gen-Tie Route) and 2.562.58 acres of temporary impacts (Southern Gen-Tie Route) to these communities. Potential impacts to the three four (43) sensitive vegetation communities could be considered potentially significant. MM-BIO-5 requires the establishment of a conservation area that contains up to approximately 76 acres of sensitive vegetation communities (California juniper woodland) that are available for preservation. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore the approximately 1.482.03 or 2.562.58 acres of temporarily impacted sensitive vegetation communities in the gen-tie portion of the Study Area. MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring that Project construction does not extend beyond Project limits. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources, which will include a discussion about sensitive vegetation communities. Project implementation of MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, and MM-BIO-6 will reduce potential direct impacts to less than significant. Impacts will be **less than significant with mitigation**.

Indirect Impacts

Less than Significant with Mitigation. Potential short-term or temporary indirect impacts to sensitive vegetation located in the Study Area could result from construction activities and include impacts related to or resulting from the activities outside of the Project limits, generation of fugitive dust, increased human activity, and the introduction of pollutants from construction equipment. Excessive dust can decrease the vigor and productivity of plants through effects on light, penetration, photosynthesis, respiration, and transpiration; increased penetration of phytotoxic gaseous pollutants; and increased incidence of pests and diseases. Additionally, invasive plant species could be introduced by the Project during construction and through landscaping installation that could alter the habitat and compete with native vegetation. These indirect impacts could result in additional loss of sensitive vegetation communities that could be potentially significant. Water trucks are expected as part of Project construction, which will reduce fugitive dust. MM-BIO-10 requires the preparation and implementation of a plan to avoid and minimize the introduction of non-native plant species that could compete for habitat space with native plants ensuring that vehicles and equipment used during construction are weed free. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the Invasive Species Prevention Plan will be implemented. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources, which will include a discussion on invasive plants. Project implementation of MM-BIO-3, MM-BIO-4, and MM-BIO-10 will reduce potential indirect impacts to less than significant. Impacts will be **less than significant with mitigation**.

3.2.2.2.3 Would the project have a substantial adverse effect on federal or state protected WOTUS (including wetlands) as defined by Sections 404 and 401 of the 1972 Amendments to the Federal Water Pollution Control Act, commonly known as the Clean Water Act, or

the Porter-Cologne Act, either through direct removal, filling, hydrological alteration, or other means?

Direct Impacts

Less than Significant with Mitigation. As currently designed, the proposed Project will result in approximately ~~-~~0.53~~7~~ acres (approximately 0.204 acres temporary and approximately 0.33 acres permanent if the Northern Gen-Tie Route is selected) of direct impacts to potential jurisdictional waters through the removal of vegetation and grading of land to construct the proposed Project. The proposed Project will result in approximately~~–~~ 0.63~~6~~ acres (approximately 0.303 acres temporary and approximately 0.33 acres permanent if the Southern Gen-Tie Route is selected) of direct impacts to potential jurisdictional waters through the removal of vegetation and grading of land to construct the proposed Project. Temporary impacts will occur within areas proposed for construction laydown areas and within the gen-tie work areas that are outside of the transmission pole pads and access roads. The total acreage for project-related impacts to potential jurisdictional waters located within the development area are provided in Table 3.2-10, Summary of Potential Impacts to Potential Jurisdictional Waters.

Table 3.2-10a. Summary of Potential Impacts to Potential Jurisdictional Waters – Northern Gen-Tie Route

Jurisdiction	Potential Temporary Impact (Gross Acreage)	Potential Permanent Impact (Gross Acreage)
RWQCB/CDFW		
Features		
Non-Wetland Waters	0.~~23~~15	0.33
Swales	0.05~~1~~	0
Total	**0.204**	**0.33**

Notes: RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.
Totals may not add up due to rounding.

Table 3.2-10b. Summary of Potential Impacts to Potential Jurisdictional Waters – Southern Gen-Tie Route

Jurisdiction	Potential Temporary Impact (Gross Acreage)	Potential Permanent Impact (Gross Acreage)
RWQCB/CDFW		
Features		
Non-Wetland Waters	0.~~32~~24	0.~~33~~28
Swales	0.~~01~~05	0.05
Total	**0.303**	**0.33**

Notes: RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.
Totals may not add up due to rounding.

Streams within the BESS area will be filled. Culverts will manage upstream off-site stormwater runoff throughout the overall Project site and will be used to manage flows previously routed through existing streams. Various culverts running beneath site access driveways will be used to bypass flows from upstream of the site. One existing 36-inch culvert allows runoff to flow south underneath Soledad Canyon Road towards the southern BESS yard. A manhole with an open grate will collect stormwater runoff at the downstream point of the existing 36-inch culvert. A new 60-

inch storm sewer will be placed from the manhole to the downstream end of the site to convey upstream stormwater runoff from the BESS facilities. A hydraulic dissipator with riprap will be placed at the downstream site of the BESS facility. This can be seen on drawings PSR-CS-004 S011 and PSR-CS-004 S012 (TN 264472). A 72-inch culvert will also be placed to route stormwater runoff under the site. A manhole with an open grate will collect stormwater runoff and be conveyed, underground, downstream to the south of the substation site. A hydraulic dissipator with riprap will be placed at the downstream site of the substation. Sizing of the culverts, calculations, and figures with the locations of the structures can be seen in the Stormwater Management Report found in Appendix K of Appendix 3.15A, Water Quality Management Plan (TN264386).

There is a 36-inch culvert that conveys flows from NWW-1a across Soledad Canyon Road. The culvert is reinforced with concrete, will be maintained throughout construction, and will not be affected by Project-related traffic. The culvert will not be affected by construction and operation and is not expected to need repair. The downstream end of the culvert will be connected to a new manhole to provide continuation of the stormwater conveyance downstream of the BESS facility.

MM-BIO-11, Jurisdictional Waters Compensation, will require the purchase of mitigation bank credits and/or turnkey projects with a mitigation bank at 3:1 for permanent impacts to jurisdictional waters, for a maximum of approximately 0.99 acres. MM-BIO-5 will preserve up to approximately ~~2.3~~1.99 acres of jurisdictional waters in the Study Area parcels associated with the Southern Gen-Tie Route (or 2.08 acres if the Northern Gen-Tie Route is selected). ~~gen-tie routes.~~ MM-BIO-6 will require the preparation of a restoration plan, its implementation, and a monitoring period to restore the approximately 0.204 acres or 0.3~~3~~ acres of temporarily impacted jurisdictional waters dependent on which gen-tie route is selected. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring that Project construction does not extend beyond Project limits. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources, which will include a discussion about jurisdictional waters. Project implementation of MM-BIO-3, MM-BIO-4, MM-BIO-5, MM-BIO-6, and MM-BIO-11 will reduce potential direct impacts to less than significant. Impacts will be **less than significant with mitigation**.

Indirect Impacts

Less than Significant. Potential temporary indirect impacts to the drainages in the Study Area and downstream waters could result from construction activities and will include potential impacts from the generation of fugitive dust and the potential introduction of chemical pollutants (including herbicides). Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration and transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect wetlands/ jurisdictional waters. The release of chemical pollutants can reduce the water quality downstream and degrade adjacent habitats. However, during construction, erosion-control measures will be implemented as part of the storm water pollution prevention plan (SWPPP) for the Project. Because the entirety of the Project development footprint will be graded at one time but construction will occur over time in phases, the erosion measures will be maintained until all graded areas are constructed/landscaped. Prior to the start of construction activities, the Contractor is required to file a Permit Registration Document with the State Water Resources Control Board in order to obtain coverage under the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities (Order No 2009-009-DWQ, NPDES No. CAS000002) or the latest approved general permit. This permit is required for earthwork that results in the disturbance of 1 acre or more of total land area. The required SWPPP will mandate

the implementation of best management practices to reduce or eliminate construction-related pollutants in the runoff, including sediment, for all exposed soils. Therefore, temporary indirect impacts will be **less than significant** due to compliance with regulations.

3.2.2.2.4 Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory native wildlife corridors or impede the use of wildlife nursery sites?

Less than Significant. Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The Study Area does not overlap with any California Essential Habitat Connectivity Areas or Natural Landscape (CDFW 2014, 2017). The Study Area is located adjacent to residential neighborhoods, Sierra Highway, the Southern Pacific Railroad lines, Carson Mesa Road, and SR-14, all of which have associated human presence. The Study Area does not support permanent or relatively permanent waters so fish movement is not expected. As such, no significant direct or indirect permanent impacts will occur on wildlife movement or use of native wildlife nursery sites associated with Project activities. Existing habitat linkages and wildlife corridor functions will remain intact while construction activities are conducted and following Project completion. Construction activities will not likely result in potential impacts to wildlife movement because no new structures that will impede wildlife movement are proposed.

During construction activities, temporary disturbance to local species may occur, but will not substantially degrade the quality or use of the vegetation communities in the vicinity. Some indirect impacts to localized wildlife movement could occur during construction activities due to construction-related noise. However, this impact will be temporary and will not be expected to significantly disrupt wildlife movement during and following construction activities.

During operation of the Project, the BESS and substation are located adjacent to residential neighborhoods, Sierra Highway, the Southern Pacific Railroad lines, Carson Mesa Road, and SR 14, so it is not expected to create a substantial new barrier between open natural lands to the east and west of the Study Area. The Project transmission facilities will be designed consistent with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC 2006) and be evaluated for potential collision reduction devices in accordance with *Reducing Avian Collisions with Power Lines: The State of Art in 2012* (APLIC 2012), so bird migration through the Study Area is expected to continue.

Therefore, direct and indirect impacts on wildlife corridors and migratory routes resulting from the proposed Project will be **less than significant**.

3.2.2.2.5 Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

California Desert Native Plant Act

The Project would require the removal of chaparral yucca, Wiggin's cholla, and beavertail pricklypear, at the numbers indicated in Table 3.2-11, Impacts to California Desert Native Plant Act Covered Species.

Table 3.2-11a. Impacts to California Desert Native Plant Act Covered Species – Northern Gen-Tie Route

Species	Amount
chaparral yucca	~~805~~904
Wiggins' cholla	~~539~~993
beavertail pricklypear	86~~5~~
Total	~~1,429~~1,983

Table 3.2-11b. Impacts to California Desert Native Plant Act Covered Species – Southern Gen-Tie Route

Species	Amount
chaparral yucca	~~842~~906
Wiggins' cholla	~~541~~1,067
beavertail pricklypear	86~~5~~
Total	~~1,468~~2,059

The applicant would get appropriate permits, tags, and seals that must be obtained from the designated County official or office that implements the California Desert Native Plant Act but for the CEC's Opt-In Application for Certification process, where the CEC's certification will be in lieu of any permits, tags, or seals issued by the County. Additionally, the harvested individuals are expected to be used as part of the restoration plan required by MM-BIO-6 that would occur in the temporary impacted areas of the Project site.

County of Los Angeles Significant Ecological Area

Less than Significant with Mitigation. The portions of the Study Area east of the railroad tracks, south of Foreston Drive and the Vincent Substation, and east of the substation are within a County of Los Angeles SEA (County of Los Angeles 2025), as shown in Figure 3.2-8, Los Angeles County Significant Ecological Area. The SEA Ordinance establishes the permitting, design standards, and review process for development within SEAs, balancing preservation of the County's natural biodiversity with private property rights. The gen-tie line portion of the Project has the potential to impact resources within the Santa Clara River SEA including special-status wildlife, special-status wildlife foraging habitat, sensitive vegetation communities, Water Resources (i.e., streams), and protected trees.

Special-Status Plants

Two (2) special-status plant species, short-joint beavertail and golden linanthus, were mapped in the gen-tie route portion of the Study Area during surveys in 2023. None of the mapped individuals will be directly impacted by the Project. However, some of the individuals of both species are in close proximity to the Project construction limits. Two special-status plant species, Douglas' fiddleneck and Raven's blazing-star, were recorded on one day of the special-status plant surveys but were not mapped. As such the two species could be directly impacted in the gen-tie route portion of the Study Area during vegetation removal and grading activities if present. The loss of individuals during construction could be significant based upon the abundance of each being impacted and would require mitigation. MM-BIO-1 requires pre-construction surveys for the species to determine if the species are present and the collection of seeds should the species be present. MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the flagged limits are adhered to during construction. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and Study Area, and measures to avoid and minimize impacts to those resources. MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately ~~135~~ 147 acres of native vegetation communities within the Study Area parcels associated with the Southern Gen-Tie Route (or ~~101~~ 122 acres if the Northern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use. Project implementation of MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, and MM-BIO-6 will provide the mitigation for the Project to be compatible with SEA Resources.

Special-Status Wildlife

For all wildlife, MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the integrity of any buffers established for active nests. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. For Crotch's bumble bee, MM-BIO-7 requires pre-construction surveys for the Crotch's bumble nests, with buffers established around active nests until the nests are deemed inactive. For special-status reptiles MM-BIO-8 will provide a process of clearance surveys and relocation of special-status wildlife into non-impacted portions of the Study Area. For nesting birds, including loggerhead shrike, Southern California rufous-crowned sparrow, and Bell's sage sparrow, MM-BIO-9 requires pre-construction surveys and buffer establishment for active nests. Project implementation of MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-7, MM-BIO-8, and MM-BIO-9 will provide the mitigation for the Project to be compatible with SEA Resources.

The Project will impact habitat that supports or has the potential to support several special-status species that are candidates for listing under CESA or are CDFW Species of Special Concern: Crotch's bumble bee, California legless lizard, Blainville's horned lizard, loggerhead shrike, Southern California rufous-crowned sparrow, and mountain lion. Each species is expected to have potentially suitable habitat in all of the native habitats in the Study Area, with the exception of California legless lizard, which is only expected in habitats with California juniper. Indirect impacts to these species will be from the substantial loss of foraging and breeding habitat, as shown in Table 3.2-12, Potential Impacts to Special-Status Wildlife Habitat Within the SEA. Table 3.2-12a provides an impact tabulation for the northern gen-tie route and Table 3.2-12b provides an impact tabulation for the southern gen-tie route.

Table 3.2-12a. Potential Impacts to Special-Status Wildlife Habitat Within the SEA – Northern Gen-Tie Route

Species	SEA Resource Category[1]	SEA Preservation Ratio[1]	Potential Impacted Habitat (acres)[2]	Restored Temporarily Impacted Habitat (Gross acreage)[2, 3]	Needed Conserved Habitat (Gross acreage)[2, 4, 6]
Crotch's bumble bee	1	5:1	26.123.15[7]	20.7023.96	95.05106.64
California legless lizard	2	4:1	2.461.76[8]	1.8737	7.975.67
Blainville's horned lizard	2	4:1	26.123.15[7]	23.9620.70	80.5271.90
loggerhead shrike	2	4:1	26.123.15[7]	23.9620.70	80.5271.90
greater roadrunner	3	3:1	26.123.15[7]	23.9620.70	54.4048.75
mountain lion	1	5:1	29.736.76[9]	27.574.31[10]	109.49121.08

Notes: SEA = Significant Ecological Area.

1 Los Angeles County Planning 2020.
2 Includes impacts from the northern gen-tie route.
3 Restoration for areas that are temporary impacts (MM-BIO-6).
4 Total impacts multiplied by the ratio and minus the restored habitat (MM-BIO-5).
6 Acreages are not additive. Conserved habitat needed is overlapping since the species share suitable habitat, so the 109.49121.08 acres for mountain lion will cover all species.
7 Includes all native habitats impacted, as listed in Table 3.2-13a.
8 Includes all habitats that support California juniper, as listed in Table 3.2-13a.
9 Includes all native habitats and disturbed habitat impacted, as listed in Table 3.2-13a.
10 Includes all restoration of native habitats and disturbed habitats.

Table 3.2-12b. Potential Impacts to Special-Status Wildlife Habitat Within the SEA – Southern Gen-Tie Route

Species	SEA Resource Category[1]	SEA Preservation Ratio[1]	Potential Impacted Habitat (acres)[2]	Restored Temporarily Impacted Habitat (Gross acreage)[2, 3]	Needed Conserved Habitat (Gross acreage)[2, 4, 6]
Crotch's bumble bee	1	5:1	32.2629.28[7]	26.2329.49	131.81120.17
California legless lizard	2	4:1	3.062.36[8]	1.832.33	9.917.61
Blainville's horned lizard	2	4:1	32.2629.28[7]	29.4926.23	99.5590.89
loggerhead shrike	2	4:1	32.2629.28[7]	29.4926.23	99.5590.89
greater roadrunner	3	3:1	32.2629.28[7]	29.4926.23	67.2961.61
mountain lion	1	5:1	35.962.99[9]	32.8429.58[10]	135.37146.96

Notes: SEA = Significant Ecological Area.

1 Los Angeles County Planning 2020.
2 Includes impacts from the southern gen-tie route.
3 Restoration for areas that are temporary impacts (MM-BIO-6).
4 Total impacts multiplied by the ratio and minus the restored habitat (MM-BIO-5).
6 Acreages are not additive. Conserved habitat needed is overlapping since the species share suitable habitat, so the 135.37146.96 acres for mountain lion will cover all species.
7 Includes all native habitats impacted, as listed in Table 3.2-13b.
8 Includes all habitats that support California juniper, as listed in Table 3.2-13b.
9 Includes all native habitats and disturbed habitat impacted, as listed in Table 3.2-13b.
10 Includes all restoration of native habitats and disturbed habitats.

MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately ~~135~~ 147 acres of native vegetation communities within the Study Area parcels associated with the Southern Gen-Tie Route (or ~~110~~ 122 acres if the Northern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use. MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring that Project construction does not extend beyond Project limits. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources, which will include a discussion about sensitive vegetation communities. Project implementation of MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, and MM-BIO-6 will provide the mitigation for the Project to be compatible with SEA Resources.

Vegetation Communities

Table 3.2-13a, Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Northern Gen-Tie Route, and Table 3.2-13b, Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Southern Gen-Tie Route~~.~~, summarize the Project's potential direct impacts to vegetation communities and land covers in the Santa Clara River SEA by gen-tie route. Potential direct impacts will occur due to removal of vegetation, alteration of soils from grading, and the development of the Project.

Table 3.2-13a. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Northern Gen-Tie Route

Alliance	Association	SEA Category[1]	Ratio[1]	Permanent Impacts (gross acreage)[2]	Temporary Impacts (gross acreage)[2]	Total Impacts (gross acreage)[2]
Native Communities						
Cheesebush – sweetbush scrub	*Ambrosia salsola Association*	4	2:1	–	0.54	0.54
California sagebrush – (purple sage) scrub	*Artemisia californica - Eriogonum fasciculatum*	4	2:1	–	1.00~~15~~	1.~~15~~00
Big sagebrush	*Artemisia tridentata - Ericameria nauseosa*	4	2:1	--	1.15	1.15
	Artemisia tridentata ssp. *parishii*	4	2:1	–	0.06	0.06
Fourwing saltbush scrub	*Atriplex canescens*	4	2:1	~~2.06~~1.57	~~16.06~~18.98	~~18.12~~20.55
Rubber rabbitbrush scrub	*Ericameria nauseosa* -	4	2:1	–	0.37	0.37

Table 3.2-13a. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Northern Gen-Tie Route

Alliance	Association	SEA Category[1]	Ratio[1]	Permanent Impacts (gross acreage)[2]	Temporary Impacts (gross acreage)[2]	Total Impacts (gross acreage)[2]
	Juniperus californica / herb					
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum*	3	3:1	--	0.21	0.21
	Juniperus californica / herbaceous	3	3:1	0.5939	1.6616	1.552.25
Disturbed Habitat	N/A	N/A	N/A	--	3.61	3.61
Urban/Developed	N/A	N/A	N/A	0.01	1.112	1.13
			Total:	**2.1846**	**25.4328.68**	**27.8930.86**

Notes: Totals may not add up due to rounding.
[1] SEA Ordinance Implementation Guide (Los Angeles County Planning 2020).

Table 3.2-13b. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Southern Gen-Tie Route

Alliance	Association	SEA Category[1]	Ratio[1]	Permanent Impacts (gross acreage)[2]	Temporary Impacts (gross acreage)[2]	Total Impacts (gross acreage)[2]
Native Communities						
Cheesebush – sweetbush scrub	*Ambrosia salsola - Larrea tridentata*	4	2:1	--	0.05	0.05
	Ambrosia salsola Association	4	2:1	--	1.57	1.57
California sagebrush – (purple sage) scrub	*Artemisia californica - Eriogonum fasciculatum*	4	2:1	--	1.0015	1.0015
Big sagebrush	*Artemisia tridentata - Ericameria nauseosa*	4	2:1	0.46	2.21	2.67
	Artemisia tridentata ssp. *parishii*	4	2:1	--	0.20	0.20

Table 3.2-13b. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Southern Gen-Tie Route

Alliance	Association	SEA Category[1]	Ratio[1]	Permanent Impacts (gross acreage)[2]	Temporary Impacts (gross acreage)[2]	Total Impacts (gross acreage)[2]
Fourwing saltbush scrub	*Atriplex canescens*	4	2:1	~~2.06~~1.58	~~18.09~~21.01	~~20.15~~22.59
Rubber rabbitbrush scrub	*Ericameria nauseosa - Juniperus californica* / herb	4	2:1	--	1.12	1.12
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum*	3	3:1	0.53	0.35	0.87
	Juniperus californica / herbaceous	3	3:1	~~–~~0.20	1.~~49~~98	~~1.49~~2.18
Disturbed Habitat	N/A	N/A	N/A	0.36	3.35	3.71
Urban/Developed	N/A	N/A	N/A	0.39	1.78~~9~~	2.17
			Total:	~~3.80~~3.51	~~31.37~~34.62	~~35.16~~38.13

Notes: Totals may not add up due to rounding.
1 SEA Ordinance Implementation Guide (Los Angeles County Planning 2020).

MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately ~~135~~ 147 acres of native vegetation communities within the Study Area parcels associated with the Southern Gen-Tie Route (or ~~110~~ 122 acres if the Northern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore up to the approximately ~~26~~ 28.17 acres of temporarily impacted areas within the conservation area associated with the Southern Gen-Tie (or ~~21~~ 22.61 acres of temporarily impacted areas under the Northern Gen-Tie Route). Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

Water Resources

The Project will have potential impacts to approximately 0.21~~5~~ acres (approximately 0.01 permanent impacts and 0.20~~4~~ acres temporary impacts) of SEA Water Resources (i.e., streams and swales), if the Northern Gen-Tie Route is selected, and approximately 0.31~~4~~ acres (approximately 0.01 permanent impacts and 0.~~33~~ 30 acres temporary impacts) of SEA Water Resources (i.e., streams and swales) if the Southern Gen-Tie Route is selected. Potential direct impacts will occur due to grading and the development of the Project. Water Resources are to be preserved at 5:1, resulting in the need for up to 1.55~~70~~ acres of preservation. MM-BIO-5 requires the establishment of a

conservation area that will preserve up to approximately 2.7628 acres of unimpacted Water Resources in the Study Area parcels associated with the gen-tie routesNorthern Gen-Tie Route (or 2.72 acres if the Southern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore an additional approximately 0.204 acres or 0.313 acres of temporarily impacted Water Resources within the conservation area. Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

Protected Trees

Direct impacts are associated with tree removal or encroachment within the tree protected zone (i.e., canopy dripline plus 5 feet or 15 feet from trunk, whichever is greater; TPZ) of a protected tree. Specifically, potential tree impacts were determined using geographic information system technology, spatial locations of tree crowns, and a minimum distance of each tree relative to the Project impact. A tree is considered removed if it falls within the Project's limits of disturbance or if 30% or more of its TPZ is impacted. The TPZ is defined as 5 feet beyond the dripline or 15 feet from the trunk, whichever is greater. A tree is considered encroached upon if less than 30% of its TPZ is affected by Project activities, including soil or root disturbance and/or pruning, but the tree is not removed, and a tree is considered preserved it they are not removed and do not experience any TPZ disturbance. Impact totals presented herein are based on proposed disturbance limits, fuel modification zones, and development plans as of the date of this report. The following tree impact findings are organized into two categories: non-heritage tree impacts and heritage tree impacts. Heritage tree status is based on the SEA tree classifications (i.e., riparian, coniferous, upland hardwood) and minimum trunk diameter for protected and heritage trees.

Appendix A, Protected Tree Report, of Appendix 3.2G, Biota Report, provides all of the details of the impacts to SEA Protected Trees.

Non-Heritage Tree Impacts (Protected Trees)

Forty one72 protected non-heritage trees could be directly impacted by the proposed Project under the Northern Gen-Tie Route option. The 72 41 protected non-heritage tree impacts consist of 30 58 potential removals (trees that are within the grading limits or grading activities affect more than 30% of a TPZ), 14eleven (11) potential encroachments (trees that are not removed, but root damage, soil excavation and compaction, grade changes, loss of canopy, and trunk wounds are anticipated). The remaining 963932 protected non-heritage trees would not be directly impacted. Table 3.2-14a, Summary of Potential Impacts to SEA Protected Trees (Non-Heritage), provides a summary of the potential impacts to non-heritage SEA Protected Trees within and adjacent to the Project if the Northern Gen-Tie Route were selected.

Of the 1,004 004 Protected non-heritage trees that occur within the Survey Area, 55 86 could be directly impacted by the proposed Southern gen-tie route option. The 55 86 Protected non-heritage tree impacts consist of 47 74 potential removals and eight 12 potential encroachments. The remaining 949 918 Protected non-heritage trees would not be directly impacted by the Southern gen-tie route option. Table 3.2-14b, Summary of Potential Impacts to SEA Protected Trees (Non-Heritage), provides a summary of the potential impacts to non-heritage SEA Protected Trees within and adjacent to the Project if the Southern Gen-Tie Route were selected.

Table 3.2-14a. Summary of Potential Impacts to SEA Protected Trees (Non-Heritage) – Northern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	0	0	0
Juniperus californica	California juniper	5729	1114	7140
Platanus racemosa~~*Fraxinus velutina*~~	California sycamore~~velvet ash~~	01	00	10
Populus fremontii~~*Juglans californica*~~	Fremont cottonwood~~Southern California black walnut~~	00	00	00
~~*Platanus racemosa*~~	~~California sycamore~~	0	0	0
~~*Populus fremontii*~~	~~Fremont cottonwood~~	0	0	0
Total		5830	1114	4172

Note: SEA = Significant Ecological Area.

Table 3.2-14b. Summary of Potential Impacts to SEA Protected Trees (Non-Heritage) – Southern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina~~*Juniperus californica*~~	velvet ash~~California juniper~~	1~~45~~	~~8~~0	~~53~~1
Juglans californica~~*Fraxinus velutina*~~	Southern California black walnut~~velvet ash~~	1~~1~~	~~0~~0	~~1~~1
Juniperus californica~~*Juglans californica*~~	California juniper~~Southern California black walnut~~	72~~1~~	~~0~~12	~~1~~84
Platanus racemosa~~*Platanus racemosa*~~	California sycamore~~California sycamore~~	0~~0~~	~~0~~0	~~0~~0
Populus fremontii~~*Populus fremontii*~~	Fremont cottonwood~~Fremont cottonwood~~	~~0~~0	~~0~~0	~~0~~0
Total		~~47~~74	~~8~~12	~~55~~86

Note: SEA = Significant Ecological Area.

Heritage Tree Impacts

California juniper, which have naturally thin trunks, must have a canopy spread of 35 feet to be designated as a heritage tree (Los Angeles County Planning 2020). A total of 74 heritage trees are found on the Project site, of which ~~six (6)~~10 could be directly impacted by the Project under the Northern Gen-Tie Route option. The ~~six (6)~~10 heritage tree impacts consist of ~~five~~ six (6~~5~~) potential removals and ~~one~~ four (4~~1~~) potential encroachments. The remaining ~~68~~ 64 heritage trees would not be directly impacted by the Project. Table 3.2-15a, Summary of Potential Impacts to SEA Protected Heritage Trees, provides a summary of the potential impacts to SEA protected heritage trees within and adjacent to the Project if the Northern Gen-Tie Route was selected.

A total of 74 heritage trees are found within the Survey Area, of which ~~eight~~ 12~~(8)~~ could be directly impacted by the Southern gen-tie route option. The ~~eight (8)~~12 heritage tree impacts comprise ~~seven~~ eight (8~~7~~) potential removals and ~~one~~ four (4~~1~~) potential encroachments. The remaining ~~66~~ 62 heritage trees would not be directly impacted by the project if the Southern gen-tie route were selected. Table 3.2-15b, Summary of Potential Impacts to SEA Protected Heritage Trees, provides a summary of the potential impacts to SEA protected heritage trees within and adjacent to the Project if the Southern Gen-Tie Route was selected.

Table 3.2-15a. Summary of Potential Impacts to SEA Protected Heritage Trees – Northern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina~~*Juniperus californica*~~	velvet ash~~California juniper~~	0~~5~~	~~1~~0	~~6~~0
Juglans californica~~*Fraxinus velutina*~~	Southern California black walnut~~velvet ash~~	0~~0~~	~~0~~0	~~0~~0
Juniperus californica~~*Juglans californica*~~	California juniper~~Southern California black walnut~~	6~~0~~	~~0~~4	~~0~~10
Platanus racemosa~~*Platanus racemosa*~~	California sycamore~~California sycamore~~	0~~0~~	~~0~~0	~~0~~0
Populus fremontii~~*Populus fremontii*~~	Fremont cottonwood~~Fremont cottonwood~~	~~0~~0	~~0~~0	~~0~~0
	Total	~~5~~6	~~1~~4	~~6~~10

Note: SEA = Significant Ecological Area.

Table 3.2-15b. Summary of Potential Impacts to SEA Protected Heritage Trees – Southern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina~~*Juniperus californica*~~	velvet ash~~California juniper~~	0~~7~~	~~1~~0	~~8~~0
Juglans californica~~*Fraxinus velutina*~~	Southern California black walnut~~velvet ash~~	~~0~~0	~~0~~0	~~0~~0
Juniperus californica~~*Juglans californica*~~	California juniper~~Southern California black walnut~~	8~~0~~	4~~0~~	12~~0~~
Platanus racemosa~~*Platanus racemosa*~~	California sycamore~~California sycamore~~	~~0~~0	~~0~~0	~~0~~0
Populus fremontii~~*Populus fremontii*~~	Fremont cottonwood~~Fremont cottonwood~~	~~0~~0	~~0~~0	~~0~~0
	Total	8~~7~~	4~~1~~	12~~8~~

Note: SEA = Significant Ecological Area.

Per the County requirements, the removal of any SEA Protected Tree requires mitigation in the form of two (2) replacement plantings, and the removal of a heritage tree requires mitigation in the form of 10 replacement plantings. Replacement trees should be seedlings of the same species as those being removed and should be planted in an area of the Project site where there is suitable habitat and where the trees would be able to remain in perpetuity. As such, ~~based on the August 2025 impact analysis (updated in December 2025)~~ if the Northern Gen-Tie Route option is selected up to ~~35~~ 64 potential direct tree removals (~~five~~ six [6~~5~~] heritage trees and ~~30~~ 58 non-heritage protected trees), the SEA rules may require up to ~~110~~176 mitigation trees (depending on actual Project impacts based on final design and the selected gen-tie route) to be planted in an area of the Project site where there is suitable habitat and where the trees would be able to remain in perpetuity. Per the County, Table 3.2-16a, Summary of Potential Individual Species Replacement Quantities, details the quantity of each species required for planting if the Northern Gen-Route was selected.

If the Southern gen-tie route option is selected up to ~~54~~ 82 direct Protected Tree removals (~~seven~~ eight [8~~7~~] heritage trees and ~~47~~ 74 Protected non-heritage trees), the County would require up to ~~164~~ 228 mitigation trees to be planted in an area of the project site. Per the County, Table 3.2-16b, Summary of Potential Individual Species Replacement Quantities, details the quantity of each species required for planting if the Southern Gen-Route was selected.

Table 3.2-16a. Summary of Potential Individual Species Replacement Quantities – Northern Gen-Tie Route

Scientific Name	Common Name	Total Impacted	Replacement Ratio	Total Replacement Required
Juniperus californica	California juniper	~~29~~57	2:1	~~58~~114

Table 3.2-16a. Summary of Potential Individual Species Replacement Quantities – Northern Gen-Tie Route

Scientific Name	Common Name	Total Impacted	Replacement Ratio	Total Replacement Required
Juniperus californica (Heritage Tree)	California juniper	65	10:1	650
Fraxinus velutina	velvet ash	1	2:1	2[1]
	Totals	6435	N/A	110176

Note: [1] The velvet ash that would be impacted by the Project is an ornamental tree associated with a residence and these species do not typically occur in the habitats in the Study Area, so California juniper would be used for the replacement of these species.

Table 3.2-16b. Summary of Potential Individual Species Replacement Quantities – Southern Gen-Tie Route

Scientific Name	Common Name	Total Impacted	Replacement Ratio	Total Replacement Required
Juniperus californica	California juniper	7245	2:1	14490
Juniperus californica (Heritage Tree)	California juniper	87	10:1	8070
Fraxinus velutina	velvet ash	1	2:1	2[1]
Juglans californica	Southern California black walnut	1	2:1	2[1]
	Totals	8254	N/A	228164

Note: [1] The velvet ash and Southern California black walnut that would be impacted by the Project are ornamental trees associated with a residence and these species do not typically occur in the habitats in the Study Area, so California juniper would be used for the replacement of these species.

MM-BIO-5 requires the establishment of a conservation area. The currently contemplated conservation area has the potential to preserve up to 749 996 California junipers. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas within the conservation area including areas mapped as California juniper woodland. Up to 164 228 replacement California juniper would be planted and monitored as part of the implementation of MM-BIO-6. Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

Impacts will be **less than significant with mitigation**.

Significant Ecological Areas Statement of Findings

A ***Be highly compatible with the SEA Resources, including the preservation of natural open space areas and providing for the long-term maintenance of ecosystem functions.***

The Santa Clara River SEA (the "SCR SEA") covers approximately 45,496 acres and its overall boundaries extend upstream along several major tributary creeks and where contiguous drainage areas connect to the river basin through open habitat. On a regional basis, the SCR SEA contains biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution. native grassland, coast live oak riparian forest, southern willow scrub, bigcone spruce-canyon oak forest, southern sycamore-alder woodland,

southern cottonwood-willow riparian woodland and forest, freshwater marsh, alluvial fan sage scrub, and vernal pool. (PCR 2000).

The portions of the Project within the SCR SEA consist of an approximately 1.21 ~~1~~-mile-long or 1.98 ~~8~~-mile-long new gen-tie line. There will be a maximum of ~~approximately~~ 121 ~~1~~ monopole or steel lattice tower structures. The proposed transmission structures were sited to avoid potential impacts to environmental resources. Where possible, the transmission structure access path will utilize existing access roads to minimize new ground disturbance. Fiber optic or other cabling required for the monitoring system typically will be installed in buried conduit within the access road or planned trenching.

The gen-tie portion of the Project consists of steel lattice tower structures and access roads that create a small footprint (2.1846 ~~46~~ acres under the Northern Gen-Tie Route and 3.5180 ~~80~~ acres under the Southern Gen-Tie Route) within the SCR SEA following the completion of construction activities. MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately ~~161~~147 acres of native vegetation communities within the Study Area parcels associated with the Southern Gen-Tie Route (or 122 acres if the Northern Gen-Tie Route is selected)~~gen-tie routes~~, which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use.

B Avoid or minimize impacts to the SEA Resources and wildlife movement through one or more of the following:

1 Avoiding habitat fragmentation;

The monopole or steel lattice tower structures, access roads, and buried lines create a small footprint within the SCR SEA following the completion of construction activities, and with the restoration of the temporary impacted areas, the Project is not expected to fragment the habitats with the Study Area. Wildlife is expected to be able to pass through the Project post-construction, because the transmission lines are not a barrier to movement.

2 Minimizing edge effects; or

The gen-tie portion of the Project consists of steel lattice tower structures and access roads create a small footprint (approximately 2.1846 ~~46~~ acres under the Northern Gen-Tie Route and 3.5180 ~~80~~ acres under the Southern Gen-Tie Route option) within the SCR SEA following the completion of construction activities. The approximately ~~25.43~~28.68 acres of temporary impacts under the Northern Gen-Tie Route or ~~31.37~~34.62 acres of temporary impacts under the Southern Gen-Tie Route option will be restored per MM-BIO-6 and MM-BIO-5 will conserve up to approximately ~~161~~ 147 acres of natural habitat if the Southern Gen-Tie Route is selected, or 122 acres if the Northern Gen-Tie Route is selected. During the operation of the Project, maintenance work on the gen-tie and associated infrastructure is expected to be infrequent, so indirect impacts to wildlife are expected to be low.

3 Siting development in the least sensitive location.

The Project has been sited to avoid impacts to special-status plants and only have temporary impacts to Water Resources, which will be restored per MM-BIO-6.

C Buffer important habitat areas from development by retaining sufficient natural vegetation cover and/or natural open spaces and integrating sensitive design features;

See B.2 above.

D Maintain the ecological and hydrological functions of water bodies, watercourses, and their tributaries;

The gen-tie portion of the Project will impact approximately 0.26~~0~~ acres of ephemeral Water Resources within the SCR SEA if the Southern Gen-Tie Route is selected (or 0.17 acres if the Northern Gen-Tie Route is selected). The approximately 0.~~19~~ 24 acres or 0.16 acres of temporary impacts produced by the Project by the Southern Route and Northern Route, respectively, will be restored per MM-BIO-6 and MM-BIO-5 will conserve up to approximately ~~0.97~~1.99 or 2.08 acres of Water Resources with respect to the Southern and Northern Gen-Tie Routes.

E Ensure that roads, access roads, driveways, and utilities do not conflict with Priority Biological Resources, habitat areas or migratory paths; and

The gen-tie portion of the Project consists of steel lattice tower structures and access roads create a small footprint (approximately 2.18~~46~~ acres or 3.51~~80~~ acres) within the SCR SEA following the completion of construction activities. The Project has potential impacts to Priority Biological Resources (SEA Resource Categories 1 through 3) in the form special-status plants and wildlife, water resources, and vegetation communities; however, all such impacts are mitigated in accordance with SEA ordinance and CEQA guidelines.

The Project transmission facilities will be designed consistent with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (Avian Power Line Interaction Committee [APLIC] 2006) where feasible. Transmission facilities will also be evaluated for potential collision reduction devices in accordance with *Reducing Avian Collisions with Power Lines: The State of Art in 2012* (APLIC 2012). Based upon the low volume of human activity and the proposed avian protecting Project design features, potential impacts to wildlife habitat and movement during Project operation are expected to be less than significant.

F Promote the resiliency of the SEA to the greatest extent possible. For purposes of this finding, SEA resiliency cannot be preserved when the proposed development may cause any of the following:

1 Significant unmitigated loss of contiguity or connectivity of the SEA;

See B.2 above.2 Significant unmitigated impact to a Priority Biological Resource;

The Project has potential impacts to Priority Biological Resources (SEA Resource Categories 1 through 3) in the form special-status plants and wildlife, water resources, and vegetation communities; however, all such potential impacts are mitigated in accordance with SEA ordinance and CEQA guidelines. A total of 10 preservation, avoidance, and minimization measures have been provided as a part of the Project (MM BIO-1 through BIO-10), including: conserving in perpetuity approximately ~~161~~147 acres of on-site natural open space if the Southern Gen-Tie Route is selected or 122 acres if the Northern Gen-Tie Route is selected; requiring pre-construction surveys, planning, and biological monitoring during construction; measures protecting against invasive species establishment and spread; preparation of conservation management plans; nesting bird avoidance; and strategically locating development as close as possible to existing urban uses/infrastructure. These measures serve to preserve and limit potential impacts to Priority Biological Resources. As such, potential impacts to Priority Biological Resources will be reduced to less than significant.

3 Removal of habitat that is the only known location of a new or rediscovered species; or

No new or rediscovered species are present on the Project site. As such, the Project complies with this finding.

4 Other factors as identified by SEATAC.

Not applicable due to the CEC Opt-In process.

Impact 3.2-6 Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Study Area is not within any HCP, NCCP, or other approved local, regional, or state HCP (CDFW 2023b). Therefore, there are **no impacts** to HCP, NCCP, or other approved local, regional, or state HCP.

3.2.3 Cumulative Effects

Cumulative effects on biological resources because of past, present, and reasonably foreseeable future actions, in combination with the Project, can result from loss of habitat and habitat disturbance and degradation. A cumulative impact refers to a project's incremental effect together with other closely related past, present, and reasonably foreseeable future projects whose impacts may compound or increase the incremental effect of the facility (Public Resource Code [PRC] Section 21083; 14 CRR 15064(h), 16065(c), 15130, and 15355). The Project through mitigation measures and avoidance strategies would mitigate for its potential contribution to regional cumulative impacts. The Project will not have long-term direct and indirect impacts that would have the potential to be cumulatively considerable. Cumulative impacts from the Project are expected to be **less than significant**.

3.2.4 Mitigation Measures

The following section describes the measures that are intended to avoid and minimize potential adverse effects of the Project to biological resources.

3.2.4.1 Mitigation Measures for Construction and Decommissioning

The following section presents avoidance, minimization, and mitigation measures to avoid, minimize, or mitigate potentially significant impacts to all special-status plant and wildlife species and other sensitive biological or aquatic resources during the construction and operations phases of the proposed Project.

MM-BIO-1 Pre-Construction Special-Status Plant Species Survey and Seed Collection. Prior to the beginning of vegetation removal and grading, CEC-approved biologists shall conduct a focused rare plant survey for Douglas' fiddleneck and Raven's blazing-star during the appropriate blooming period (March through May). Reference site checks will be made for the species to determine if the species are blooming in the Project vicinity. The surveys will conform to CNPS' Botanical Survey Guidelines; CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities; and USFWS' Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants.

Should any of the species be found at a count of 20 or higher, then construction of the occupied location shall be delayed until the individuals have gone to seed. Seeds shall be collected once the seed has matured, but prior to the seed capsules opening to disperse the seed. Seeds shall be stored in breathable paper bags in a cool, dry, and dark place. The seeds will then be used in the habitat restoration for the Project (see MM-BIO-6).

MM-BIO-2 Demarcation of Disturbance Limits. Prior to commencement of ground disturbing activities for each phase of Project construction, the construction limits shall be clearly demarcated (e.g., installation of flagging or temporary high visibility construction fence), as recommended by the CEC-approved Biological Monitor. All construction activities including equipment staging and maintenance shall be conducted within the marked disturbance limits to prevent inadvertent disturbance to sensitive vegetation communities outside the limits of work. The flagging shall be maintained throughout construction.

MM-BIO-3 Biological Monitoring. Prior to ground disturbing activities, the Applicant shall submit the qualifications of potential Biological Monitor(s) to the CEC for review and approval. The CEC-approved Biological Monitors will monitor construction activities and ensure compliance with all mitigation measures. The Biological Monitors shall be present on site during all vegetation removal and each day prior to the commencement of grading activities. The Biological Monitors shall be responsible for conducting a pre-construction clearance survey and any special-status species shall be relocated to areas of the Study Area that will not be impacted by the Project (see MM-BIO-5). Pre-construction clearance surveys shall be conducted prior to construction of each new phase of the development. The Biological Monitors shall monitor to ensure that wildlife does not become entrapped in excavation or trenching areas. Safeguards shall be implemented during daytime periods of non-activity and overnight, such as placing a platform over trenches, flush with the ground surface; installing escape ramps in trenches; or installing exclusionary fencing. Should relocation of any trapped wildlife be required, construction shall be halted until a Biological Monitor arrives on site and clears the work area (in compliance with all applicable permits and authorizations).

The Biological Monitors shall regularly inspect the Project site as needed after the completion of all grading activities. Monthly spot-check monitoring is anticipated to be required throughout the construction of the Project for those areas that are graded but not yet developed/landscaped. During monthly visits, a Biological Monitor shall address the following: (1) the potential establishment of invasive species and require weed abatement (if necessary) in accordance with MM-BIO-10; (2) address the potential establishment of native vegetation/habitat to reduce the potential for impacts between phases of construction; and (3) identify deficiencies, if applicable, with any erosion control measures that have the potential to negatively impact biological resources.

Daily monitoring reports shall be prepared by the Biological Monitors that document the results of any surveys conducted, wildlife relocations, construction activities performed, compliance issues observed, corrective actions taken during the reporting period. The monitoring reports shall include photos as appropriate and be made available to the CEC at their request. Following the completion of the Project construction, a Construction Monitoring Report will be prepared by the Applicant to document compliance with the minimization measures and permit conditions for the Project.

MM-BIO-4 Worker Education Awareness Program (WEAP). Prior to the initiation of the initial ground disturbing activities, all personnel associated with those activities shall attend a worker education awareness program (program) prepared by a CEC-approved qualified biologist. In general, the program shall discuss any potentially occurring sensitive biological resources or species and habitat preference(s), occupied habitat in the area, life histories, as well as potential construction impacts, protection measures, and Project limits. Legal protections and regulations pertinent to the biological resources that may be present shall also be included in the program. A species and habitat fact sheet shall be developed prior to the training program and distributed at the training program to all contractors, employers and other personnel involved with the construction of the Project.

After the kickoff meeting, the Project Applicant shall notify the CEC-approved qualified biologist in advance if additional contractors are employed during the initial vegetation removal or initial grading activities. A sign-in sheet will be circulated for signatures to all personnel that attend the workers educational training to confirm that program materials were received and that they understand the information presented.

MM-BIO-5 On-Site Preservation. The Applicant shall demonstrate recordation of a conservation easement, as defined by California Civil Code section 815.1, that permanently preserves up to approximately ~~135~~ 147 acres of non-impacted vegetation communities and up to approximately ~~26~~ 28.17 acres of temporary impacted areas that will be restored within the Project boundaries for long-term conservation and management as a natural conservation area ("Conservation Area"). The Conservation Area will be up to approximately ~~161~~ 147 acres and located within portions of the Study Area within the Santa Clara River Significant Ecological Area when considering the Southern Gen-Tie Route option. Table 3.2-17, Unimpacted Vegetation Communities and Land Cover Types in the Santa Clara River Significant Ecological Area Portion of the Study Area That Could Be Conserved, summarizes the potential vegetation communities and land cover that could be preserved.

Table 3.2-17. Unimpacted Vegetation Communities and Land Cover Types in the Santa Clara River Significant Ecological Area Portion of the Study Area That Could Be Conserved

Alliance	Association	SEA Category[1]	Acres
Vegetation Communities			
Cheesebush – sweetbush scrub	*Ambrosia salsola - Larrea tridentata*	4	0.82
	Ambrosia salsola Association	4	2.60
Big sagebrush	*Artemisia tridentata - Ericameria nauseosa*	4	14.04
	Artemisia tridentata - Eriogonum fasciculatum	4	~~0.06~~
	Artemisia tridentata ssp. *parishii*	4	0.48
Fourwing saltbush scrub	*Atriplex canescens*	4	66.659
Mormon tea scrub	*Ephedra viridis*	4	1.99

Table 3.2-17. Unimpacted Vegetation Communities and Land Cover Types in the Santa Clara River Significant Ecological Area Portion of the Study Area That Could Be Conserved

Alliance	Association	SEA Category[1]	Acres
Rubber rabbitbrush scrub	*Ericameria nauseosa - Juniperus californica* / herb	4	3.85
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum*	3	5.55~~60~~
	Juniperus californica / herbaceous	3	69.90
		Vegetation Communities Subtotal:	*~~166.03~~165.88*
Land Cover Types			
Disturbed Habitat	NA	NA	6.39
Urban Developed	NA	NA	2.76
		Land Cover Types Subtotal:	*9.15*
		Total:	**175.03~~18~~**

Notes: NA=Not Applicable; totals may not add up due to rounding

[1] SEA Ordinance Implementation Guide (County Planning 2020).

A cost estimate will be prepared to estimate the initial start-up costs and ongoing annual costs of management activities for the management of the conservation easement area(s) in perpetuity. The funding source will be in the form of an endowment to help the qualified natural lands management entity that is ultimately selected to hold the conservation easement(s). The endowment amount will be established following the completion of a Project-specific Property Analysis Record (PAR) to calculate the costs of in-perpetuity land management. The PAR will take into account all management activities required if an Incidental Take Permit for Crotch's bumble bee is needed for the Project.

The conservation easement holder shall be an entity which has as part of its mission the protection of the environment, including lands, plant species, and/or wildlife species, and can be expected by its organization and history to remain in existence for the foreseeable future. The California Department of Fish and Wildlife per Government Code Section 65967(c) shall review the entity. The entity that holds the endowment shall first meet the criteria outlined in Government Code section 65968(b).

Conservation Management Plan. As part of recording the conservation easement, a Conservation Management Plan (CMP) applicable to the conservation area will be prepared and submitted to the CEC for approval. The CMP shall identify the required resource management activities and the entities that shall be responsible for managing those activities in perpetuity. The CMP will set forth requirements that will be implemented by the entity that holds the conservation easement and/or manages and stewards the Conservation Area, and may include the following: (1) there shall be no grading or other construction activities within the Conservation Area, except for the proposed habitat enhancement/restoration; (2) no fencing or other barriers to wildlife movement shall be installed; (3) commercial honeybee operations shall not be allowed to use the Conservation Area for storing their apiaries; (4) rodenticides shall be prohibited; (5) herbicides and pesticides shall be

discouraged, and only those typically used for invasive plant management in California wildlands shall be allowed, per the California Invasive Plant Council & Pesticide Research Institute's Best Management Practices (BMPs) for Wildland Stewardship[1]; (6) at least one annual walk-through survey shall be conducted by a biologist to qualitatively monitor the general condition of on-site habitats and to check for any new introduction or expansion of invasive plant species; (13) collect and remove trash, repair vandalized signs, and rectify trespass impacts; and (14) provide annual reporting that document the conditions of the Conservation Area. Approved work will be outlined in the CMP and in the conservation easement, including monitoring and maintenance efforts or for other activities associated with preserve management, and prohibited activities shall be delineated.

MM-BIO-6 Habitat Mitigation and Monitoring Plan. Prior to ground disturbing activities, a qualified biologist shall be retained to prepare a Habitat Mitigation and Monitoring Plan (HMMP) detailing the specific approach for each type of habitat restoration and establishment area in the Conservation Area, and short-joint beavertail transplant location, and will outline detailed performance standards and monitoring requirements for each; following the monitoring and reporting methods and performance standards listed below. The HMMP shall be submitted to and approved by the CEC prior to the onset of Project-related ground-disturbing activities. The acreages allotted for on-site establishment apply to approximately ~~32~~ 34.62 acres within the Conservation Area that includes 0.24~~19~~ acres of ephemeral streams for the Southern Gen-Tie Route, or 28.68 acres including 0.16 acres of ephemeral streams if the Northern Gen-Tie Route is selected. Up to ~~164~~ 228 California juniper will be planted, and individuals of the plant species covered by the California Desert Native Plant Act will be evaluated to be used in the installation of native plants. The HMMP shall set out measures for habitat restoration/enhancement implementation, including but not limited to:

- Identification of proposed plant materials
- Signage in the habitat restoration area
- Schedule for habitat restoration/enhancement work
- Use of pesticides and elimination of non-native vegetation
- Habitat monitoring and reporting
- Performance standards

MM-BIO-7 Crotch's Bumble Bee Avoidance and Minimization Measures. If Crotch's bumble bee is still a candidate for listing under the California Endangered Species Act (CESA) or has been listed under CESA at the time of the start of construction of the Project, a pre-construction survey for Crotch's bumble bee shall be conducted within the construction footprint prior to the start of initial ground disturbing activities occurring during the Crotch's bumble bee nesting period (February 1 through October 31). If construction commences outside of that period (November 1 through January 31), surveys would not be warranted since the daughter queens (gynes) disperse following a nest's lifecycle and conducting surveys for dormant gynes would not be practical.

The pre-construction survey will be based on recommendations described in the "Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species,"

[1] California Invasive Plant Council & Pesticide Research Institute. 2015. Best Management Practices (BMPs) for Wildland Stewardship. Accessed October 2023. https://cal-ipc.org/docs/bmps/dd9jwo1ml8vttq9527zjhek99qr/BMPHerbicide.pdf.

released by the California Department of Fish and Wildlife (CDFW) on June 6, 2023, or the most current at the time of construction. The pre-construction survey will be performed by a biologist with expertise in surveying for bumble bees and include at least three (3) survey passes that are not on sequential days or in the same week. The biologist shall watch the nest resources for up to five minutes, looking for exiting or entering worker bumble bees. Worker bees should arrive and exit an active nest site with frequency, such that their presence will be apparent after five minutes of observation.

During the bumble bee active nesting season (April 1 through August 30), the CEC-approved Biological Monitors (MM-BIO2) shall continue to conduct daily sweeps of areas proposed for initial vegetation removal and ground disturbance.

If nest resources occupied by Crotch's bumble bee are detected within the construction area, no construction activities shall occur within 50 feet of the nest, or as determined by a qualified biologist through evaluation of topographic features or distribution of floral resources. The nest resources will be avoided for the duration of the Crotch's bumble bee nesting period (February 1 through October 31). The CEC-approved Biological Monitors (MM-BIO-3) shall ensure that the nest buffer is complied with during that period. Outside of the nesting season, it is assumed that no live individuals will be present within the nest as the gynes usually leave by September, and all other individuals (original queen, workers, males) die. The gyne is highly mobile and can independently disperse to outside of the construction footprint to proposed open space or other suitable areas beyond that have suitable hibernacula resources. Because construction will have occurred in the area outside of the occupied nesting resources, no suitable habitat will be present in the impact area, and it is assumed that new queens will disperse to habitat outside of the construction area.

If the nest resources cannot be avoided, as outlined in this measure, the project applicant will consult with CEC and CDFW regarding the need to obtain an Incidental Take Permit. In the event an Incidental Take Permit is needed, mitigation for direct impacts to Crotch bumble bee will be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those impacted by the Project, or as otherwise determined through the Incidental Take Permit process. The compensatory habitat mitigation would be accomplished by onsite preservation of suitable habitat.

MM-BIO-8 Special-Status Wildlife Relocation Plan. Prior to commencement of any ground disturbing activities or the pre-construction staging of equipment on the Project site, the Project Applicant shall contract with a CEC-approved biologist to develop a Preconstruction Wildlife Survey and Relocation Plan for terrestrial reptiles, including California legless lizard and Blainville's horned lizard. The Preconstruction Wildlife Survey and Relocation Plan shall be submitted to the CEC for review prior to any ground-disturbing activities within potentially occupied habitat.

The Plan shall include, at a minimum, the following:

- Protocols for pre-construction surveys to flush out and/or move identified special status wildlife within the Project site, as feasible.
- Relocation to the portions of the Study Area outside of the Project construction limits and within the Conservation Area.

- The timing, frequency, and locations where surveys should be conducted.
- Surveys will be conducted 24 hours prior to construction activities and repeated the morning of the proposed activity.
- Surveys shall be conducted in all areas anticipated to be subject to vegetation clearing.
- The habitat and conditions in the proposed relocation site(s).
- The methods that will be used for trapping and relocating identified species.
- All equipment used in the effort will be cleaned and decontaminated to minimize the spread of herpetofaunal pathogens.[2]
- Any wildlife handling and relocation methodology from the CDFW-issued Streambed Alteration Agreement, if any, will be incorporated in the Preconstruction Survey and Relocation Plan.
- Protocols for documentation/recordation of the species and number of animals relocated.
- Relocations shall be logged and made available to the CEC, if requested.
- Protocols for notifying CDFW if identified species cannot be relocated.
- Attempts at relocation shall be logged and notification shall occur within 24 hours.
- The timing and frequency of reports documenting the results of the surveys.

MM-BIO-9 Nesting Bird Avoidance. Project construction shall be conducted in compliance with the conditions set forth in the Migratory Bird Treaty Act and California Fish and Game Code consistent with methods approved by the California Department of Fish and Wildlife to protect active bird/raptor nests. Vegetation removal shall occur during the non-breeding season for nesting birds and nesting raptors to avoid impacts to nesting birds and raptors.

For the remaining Project activities initiated during the breeding season for nesting birds and nesting raptors, a pre-construction survey shall be conducted by the Biological Monitor (MM-BIO-3) for nesting birds and/or raptors within three days prior to any work within 300 feet for suitable nesting habitat for non-raptors and within 500 feet for suitable nesting habitat for raptors. If the Biological Monitor does not find any active nests immediately adjacent to the impact areas, the Project activity shall be allowed to proceed.

If the Biological Monitors find an active nest adjacent to the construction area and determines that the nest may be indirectly impacted or breeding activities substantially disrupted, the Biological Monitors shall delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the nature of the construction activity. Any nest found during survey efforts shall be mapped on the construction plans, which will be included in the report(s) documenting the survey(s) that will be submitted to the CEC upon completion of the survey. The active nest shall be protected until nesting activity has ended. To protect any nest site, the following restrictions to construction activities shall be required until nests are no longer active, as determined by the Biological Monitor: (1) work limits shall be established within a buffer around any occupied nest (the buffer shall be 100–300 feet for nesting non-raptors and 300–500 feet for nesting raptors), unless otherwise determined by the Biological Monitors and (2) access and surveying shall be restricted within the buffer of any occupied nest, unless otherwise determined by the Biological

[2] Julian et al. 2020. Minimizing the Spread of Herpetofaunal Pathogens in Aquatic Habitats by Decontaminating Construction Equipment. Herpetological Review, 2020, 51(3), 472–483. https://parcplace.org/wp-content/uploads/2020/11/Julian-2020-Decontamination-for-Herps-for-large-equipment.pdf.

Monitor. Encroachment into the buffer area around a known nest shall only be allowed if the Biological Monitor determines that the proposed activity will not disturb the nest occupants. Construction can proceed when the Biological Monitor has determined that fledglings have left the nest, or the nest has failed.

MM-BIO-10 Invasive Species Prevention Plan. To prevent the spread of invasive plant species during construction and until the establishment of common landscaped areas associated with the Project, the following measures shall be implemented:

- The WEAP (see MM-BIO-4) will include invasive species prevention measures implemented by the Project.
- All mobile vehicles and construction equipment shall be washed prior to entering the Project site in an upland location where any seed material from invasive species will be contained and not carried onto the Project site. Logs of the washing will be submitted monthly to the CEC.
- Following the completion of grading activities, for those areas of the Project site that are graded but not yet developed/landscaped, the City-approved Biological Monitor shall conduct monthly spot checks to prevent the introduction or establishment of invasive plant species onto the graded areas (see MM BIO-3). If abundant invasive species are identified, the Biological Monitor shall inform the construction contractor about the infested area and recommend that the invasive species be removed. The recommendation will be included in the daily report.
- All vegetative material removed from the Project footprint shall be transported in a covered vehicle and will be disposed of at a certified disposal site.

MM-BIO-11 Jurisdictional Waters Compensation. Mitigation for up to approximately 0.99 acres of jurisdictional waters shall be implemented through off-site acquisition, such as mitigation bank credits, and/or turnkey projects with mitigation banks (as approved by the CEC) following the issuance of permits from the U.S. Army Corps of Engineers, and Los Angeles Regional Water Quality Control Board, as applicable, and those agencies approval of the mitigation bank, and prior to the issuance of the grading permit. A turnkey mitigation project (establishment of the riparian habitat) will be used should credits not be available at the time of the jurisdictional waters permitting.

3.2.4.2 Mitigation Measure for Site Restoration

Over the long term, once the Project facilities are no longer needed, the structures will be removed the Project area will be in accordance with the approved decommissioning plan. Because rehabilitation of the site is not expected to occur for approximately 40 years, a draft conceptual plan may be included as part of the Biological Resources Mitigation Implementation and Minimization Plan. This draft plan can then be updated at a later date (but no more than one (1) year prior to closure). A formal rehabilitation plan for the Project facility closure will be developed by the Project owner and submitted to the CEC Compliance Manager at least one (1) year prior to facility closure. The facility closure restoration plan will include the following sections and details:

- Goals and objectives of the restoration
- A description of methods employed to achieve the restoration goals and objectives
- Success criteria used to determine whether the restoration was successful
- A monitoring and maintenance program, including details on remedial measures

- A description of annual reporting
- A restoration implementation and monitoring timeline and schedule of planned activities.

3.2.5 Laws, Ordinances, Regulations, and Standards

The following subsections within Section 3.2.5 describe the laws, ordinances, regulations, and standards (LORS) that apply to potential impacts on biological resources in the Project area and list the agencies responsible for enforcing the regulations. A summary of the applicable federal, state, and local LORS is provided in Table 3.2-18, LORS Applicable to Biological Resources.

Table 3.2-18. LORS Applicable to Biological Resources

LORS	Applicability	Conformity	Opt-In Application Reference
Federal			
Federal ESA (16 USC 1531 et seq.)	Designates and protects federally threatened and endangered plants and animals and their critical habitat. Applicants for projects that could results in adverse impacts on any federally listed species are required to consult with and mitigate potential impacts in consultation with USFWS.	**Yes**. Federally threatened and endangered plants and animals analyzed. Avoidance, minimization, and mitigation measures include preconstruction surveys, avoidance buffers, timing restrictions, and take authorization from the USFWS, if necessary.	Section 3.2.1.9 Section 3.2.1.10 Section 3.2.2.2.1 Section 3.2.5.1
MBTA (16 USC 703 to 711)	Protects all migratory birds, including nests and eggs	**Yes**. Pre-construction surveys and avoidance buffers for active nests will prevent impacts to nesting migratory birds.	Section 3.2.1.11 Section 3.2.2.2.1 Section 3.2.5.1
Bald and Golden Eagle Protection Act (16 USC 668)	Specifically protects bald and golden eagles from harm or trade in parts of these species	**Yes**. Pre-construction surveys and avoidance buffers will prevent take of eagles.	Section 3.2.1.12 Section 3.2.2.2.1 Section 3.2.5.1
State			
CESA (Fish and Game Code Section 2050 et seq.)	Species listed under this act cannot be “taken” or harmed, except under specific permit. Take in the context of CEQA means to hunt, pursue, kill, or capture as well as any other actions that may result in an adverse impact when attempting to take a listed species.	**Yes**. State threatened and endangered plants and animals analyzed. Avoidance, minimization, and mitigation measures include preconstruction surveys, avoidance buffers, timing restrictions, and take authorization from the CEC/CDFW if necessary.	Section 3.2.1.9 Section 3.2.1.10 Section 3.2.2.2.1 Section 3.2.5.2

Table 3.2-18. LORS Applicable to Biological Resources

LORS	Applicability	Conformity	Opt-In Application Reference
Game Code Section 3511	Describes bird species, primarily raptors that are FP (Fully Protected). FP birds may not be taken or possessed, except under specific permit requirements.	**Yes.** No take of FP bird species is anticipated.	Section 3.2.1.10 Section 3.2.2.2.1 Section 3.2.3.2
Fish and Game Code Section 3503	States that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.	**Yes**. Preconstruction surveys and avoidance buffers prevent impacts to nesting birds.	Section 3.2.1.10 Section 3.2.2.2.1 Section 3.2.5.2
Fish and Game Code Section 3503.5	It is unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation made pursuant thereto.	**Yes.** Preconstruction surveys and avoidance buffers will prevent impacts to nesting raptors.	Section 3.2.1.10 Section 3.2.2.2.1 Section 3.2.5.2
Fish and Game Code Section 3513	It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act.	**Yes.** Preconstruction surveys and avoidance buffers prevent impacts to migratory birds.	Section 3.2.1.11 Section 3.2.2.2.1 Section 3.2.5.2
Fish and Game Code Sections 351, 4700, 5050, and 5515	Lists bird, mammal, amphibian, reptile, and fish species that are FP in California	**Yes.** FP species discussed. No take of FP species anticipated.	Section 3.2.1.10 Section 3.2.2.2.1 Section 3.2.3.2
NPPA Fish and Game Code Sections 1900 et seq.	The Native Plant Protection Act (NPPA) lists threatened, endangered, and rare plants listed by the State.	**Yes.** No threatened, endangered, or rare plants anticipated to occur. Preconstruction surveys and avoidance buffers provide further protection.	Section 3.2.1.9 Section 3.2.2.2.1 Section 3.2.5.2

Table 3.2-18. LORS Applicable to Biological Resources

LORS	Applicability	Conformity	Opt-In Application Reference
CDNPA Food and Agricultural Code Sections 80001 et seq.	The California Desert Native Plants Act (CDNPA) is to protect certain species of California desert native plants from unlawful harvesting on both public and privately owned lands.	**Yes.** The species listed in the CDNPA have been mapped, and the Project would seek the appropriate permit from the County of Los Angeles to collect those that will be impacted.	Section 3.2.1.9.1 Section 3.2.2.2.5 Section 3.2.5.2.4
Fish and Wildlife Code Sections 1900 et seq.	Lists endangered or rare native plants of the State and establishes criteria for determining rarity or listing status.	**Yes.** No endangered or rare plants present. Preconstruction surveys and avoidance buffers prevent potential impacts to rare plant species.	Section 3.2.1.9 Section 3.2.2.2.1 Section 3.2.5.2
Title 14 CCR, Sections 670.2 and 670.5	Lists animals designated as threatened or endangered in California	**Yes.** State threatened and endangered plants and animals analyzed. Avoidance, minimization, and mitigation measures include preconstruction surveys, avoidance buffers, timing restrictions, and take authorization from the CEC/CDFW.	Section 3.2.1.10 Section 3.2.2.2.1 Section 3.2.5.2
CFG Code Sections 1601-1607	Prohibits alteration of any stream, including intermittent and seasonal channels and many artificial channels without a permit from CDFW.	**Yes.** Permit from CEC/CDFW will be in hand prior to impacts to CDFW jurisdictional features.	Section 3.2.1.8 Section 3.2.2.2.3 Section 3.2.5.2
CEQA Public Resources Code (PRC) Sections2100, et seq. and CEQA Guidelines (14 C.C.R. 15000, et seq.)	CEQA requires that the effects of a project on environmental resources must be analyzed and assessed using criteria determined by the lead agency.	**Yes.** Environmental resources analyzed using CEQA and CEC criteria.	Section 3.2.2.2 Section 3.2.5.2

Table 3.2-18. LORS Applicable to Biological Resources

LORS	Applicability	Conformity	Opt-In Application Reference
Warren Alquist Act Public Resources Code (PRC) 25000, et seq.	A CEQA-equivalent process implemented by the CEC.	**Yes.** Environmental resources analyzed using CEQA and CEC criteria.	Section 3.2.2.2 Section 3.2.5.2
California Assembly Bill 205	Emergency regulation expanding the CEC's siting authority for renewable energy projects. Allows certification in lieu of CDFW 2081 ITP or CFGC Section 1600 et seq. LSAA.	**Yes.** Take authorization, if necessary, and LSAA to be coordinated with CEC with input from CDFW.	Throughout the Opt-In Application
Local			
Los Angeles County 2035 General Plan	The Los Angeles County 2035 General Plan provides the policy framework for how and where the unincorporated County will grow through the year 2035, while recognizing and celebrating the County's wide diversity of cultures, abundant natural resources, and status as an international economic center.	**Yes.** The Project will mitigate impacts to biological resources, which will comply with the General Plan goals and policies related to open space.	Section 3.2.2.2 Section 3.2.5.3
Ord. 2019-0072 § 2, 2019 Significant Ecological Areas	The SEA Program was originally established as a part of the 1980 County General Plan, to help conserve the genetic and physical diversity within Los Angeles County by designating biological resource areas capable of sustaining themselves into the future. The General Plan 2035 updated the SEA boundary map, goals and policies in 2015.	**Yes**. The Project's Gen-Tie Line will impact SEA Resource Categories 1 through 3 in the form special-status plants and wildlife, water resources, and vegetation communities; however, all such impacts are mitigated in accordance with the SEA ordinance and CEQA guidelines.	Section 3.2.1.13 Section 3.2.2.2.5 Section 3.2.5.3

3.2.5.1 Federal LORS

3.2.5.1.1 Federal ESA (16 United States Code [USC] 153 et seq.)

The federal Endangered Species Act (FESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS) for most plant and animal species, and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain marine species. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend, and to provide programs for the conservation of those species, thus preventing the extinction of plants and wildlife. The FESA defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under the FESA, it is unlawful to "take" any listed species, and "take" is defined as, "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

The FESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement.

Federally threatened and endangered plants and animals are analyzed herein. Avoidance, minimization, and mitigation measures will include preconstruction surveys, avoidance buffers, timing restrictions, and take authorization from the USFWS if necessary.

3.2.5.1.2 Migratory Bird Treaty Act (16 USC 703 to 711)

The Migratory Bird Treaty Act (16 USC 703 et seq.), as amended (MBTA), prohibits the intentional take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so. Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

Project pre-construction surveys and avoidance buffers for active nests will prevent impacts to nesting migratory birds.

3.2.5.1.3 Bald and Golden Eagle Protection Act (16 USC 668)

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), enacted in 1940, and amended several times since, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald or golden eagles, includes their parts, nests, or eggs. The Act provides criminal penalties for person who "take, possess, sell, purchase, bater, offer to sell, transport, export or import, at any time or any manner, any bald eagle… [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, kill, wound, capture, trap, collect, molest or disturb."

Project pre-construction surveys and avoidance buffers will prevent take of eagles.

3.2.5.2 State LORS

3.2.5.2.1 California Endangered Species Act

CESA (California Fish and Game Code Sections 2050–2068) provides protection and prohibits take of plant, fish, and wildlife species listed by the State of California. Unlike the FESA, under the CESA, state-listed plants have the same degree of protection as wildlife, but insects and other invertebrates may not be listed. Take is defined similarly to the FESA and is prohibited for both listed and candidate species. Incidental Take authorization may be obtained by a project applicant from the California Department of Fish and Wildlife (CDFW) under CESA Section 2081, which also allows take of a listed species for educational, scientific, or management purposes. In this case, private developers consult with CDFW to develop a set of measures and standards for managing the listed species, including full mitigation for impacts, funding of implementation, and monitoring of mitigation measures.

State threatened and endangered plants and animals are analyzed herein. Avoidance, minimization, and mitigation measures include preconstruction surveys, avoidance buffers, timing restrictions, and Incidental Take authorization from the CEC/CDFW, if necessary.

3.2.5.2.2 Fish and Game Code

Sections 3500, 3511, and 3513

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3511 states that fully protected birds or parts thereof may not be taken or possessed at any time. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA.

Project pre-construction surveys and avoidance buffers for active nests will prevent impacts to nesting migratory birds.

Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances, such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. Furthermore, it is the responsibility of CDFW to maintain viable populations of all native species. Toward that end, CDFW has designated certain vertebrate species as Species of Special Concern, because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

FP species are discussed herein. No take of FP species is anticipated.

Section 1600–1616

CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses (including dry washes) and lakes characterized by the presence of a definable bed and banks and existing fish or wildlife resources. CDFW takes

jurisdiction to the top of bank of the stream or the limit of the adjacent riparian vegetation, which may include oak woodlands in canyon bottoms. Historical court cases have further extended CDFW jurisdiction to include watercourses that seemingly disappear but reemerge elsewhere. Under the CDFW definition, a watercourse need not exhibit evidence of an ordinary high-water mark (OHWM) to be claimed as jurisdictional. CDFW does not have jurisdiction over ocean or shoreline resources.

Under California Fish and Game Code Sections 1600–1616, CDFW has the authority to regulate work that will substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake. CDFW also has the authority to regulate work that will deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. This regulation takes the form of a requirement for a Lake or Streambed Alteration Agreement and is applicable to all projects. Applications to CDFW must include a complete, certified California Environmental Quality Act (CEQA) document. The CEC Stands in the shoes of CDFW in ensuring compliance with the substantive requirements of the Lake or Streambed Alteration Agreement program.

3.2.5.2.3 California Native Plant Protection Act

The Native Plant Protection Act of 1977 (see Section 1900 *et seq.* of the California Fish and Game Code) directed CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as "endangered" or "rare," and to protect endangered and rare plants from take. The CESA expanded on the original Native Plant Protection Act and enhanced legal protection for plants, but the Native Plant Protection Act remains part of the California Fish and Game Code. To align with federal regulations, the CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the CESA as threatened species but did not do so for rare plants. Thus, there are three (3) listing categories for plants in California: rare, threatened, and endangered. Because rare plants are not included in the CESA, mitigation measures for impacts to rare plants are specified in a formal agreement between CDFW and the Project proponent.

No threatened, endangered, or rare plants are anticipated to occur. Preconstruction surveys and avoidance buffers will provide further protection.

3.2.5.2.4 California Desert Native Plant Act

The purpose of the California Desert Native Plants Act is to protect certain species of California desert native plants from unlawful harvesting on both public and privately owned lands. The California Desert Native Plants Act only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties. Within these counties, the California Desert Native Plants Act prohibits the harvest, transport, sale, or possession of specific native desert plants unless a person has a valid permit or wood receipt and the required tags and seals. The appropriate permits, tags, and seals must be obtained from the County sheriff or commissioner of the County where collecting will occur, and the County will charge a fee. 3.2.5.2.5 Porter–Cologne Water Quality Control Act

Pursuant to provisions of the Porter–Cologne Water Quality Control Act (Porter–Cologne Act), the RWQCBs regulate discharging waste, or proposing to discharge waste, within any region that could affect a water of the state (California Water Code Section 13260[a]). The State Water Resources Control Board defines a water of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water

Code Section 13050[e]). As of April 2019, the State Water Resources Control Board has narrowed its definition of a water of the state to include the following (SWRCB 2021):

1. Natural wetlands
2. Wetlands created by modification of a surface water of the state
3. Artificial wetlands that meet any of the following criteria:
    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration
    b. Specifically identified in a water quality control plan as a wetland or other water of the state
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape
    d. Greater than or equal to 1 acre in size unless the artificial wetland was constructed and is currently used and maintained, primarily for one or more of the following purposes: industrial or municipal wastewater treatment or disposal; settling of sediment; detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial permitting program; treatment of surface waters; agricultural crop irrigation or stock watering; fire suppression; industrial processing or cooling water; active surface mining – even if the site is managed for interim wetlands functions and values; log storage; treatment, storage, or distribution of recycled water; maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or fields flooded for rice growing.

All waters of the United States are waters of the state. Wetlands, such as isolated seasonal wetlands, that are not generally considered waters of the United States are considered waters of the state if, "under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation" (SWRCB 2021). If a CWA Section 404 permit is not required for a project, the RWQCB may still require a permit (waste discharge requirements) for impacts to waters of the state under the Porter–Cologne Act.

The Project is expected to be subject to Waste Discharge Requirements (WDRs) from RWQCB. Permits and mitigation plans required prior to construction will be the responsibility of the qualified biologist assigned by the Applicant.

As discussed in Section 3.15.2.3.1 within Section 3.15, Water Resources, the Project is unlikely to encounter shallow groundwater and dewatering is not expected to be required. However, should groundwater be encountered during construction, any dewatering activity that would discharge to the land surface would need to comply with the provisions of General WDRs and ensure compliance with the Basin Plan. If required, the applicant and/or its contractor will submit the following to the Los Angeles RWQCB: a Notice of Intent to comply with these General WDRs, a project map, a copy of the CEQA document, the requisite fee, a discharge monitoring plan, and any additional information requested by the Los Angeles RWQCB. Please refer to Section 3.15.2.3.1 for additional details.

Additionally, the project will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. For

additional details regarding groundwater. Please refer to Section 3.15.2.3.2 within Section 3.15, Water Resources for additional details.

3.2.5.2.6 Plants and Animals of California Declared to be Endangered or Threatened (Title 14, CCR, Sections 670.2 and 670.5

These codes list plants and animals designated as threatened or endangered in California. State SSC is a category conferee by CDFW of those species that are indicators of regional habitat change or are considered potential future protected species. These species do not have any species legal status but are intended by CDFW for use as a management tool to take these species into special consideration when decisions are made concerning the future of any land parcel.

State threatened and endangered plants and animals are analyzed herein. Avoidance, minimization, and mitigation measures will include preconstruction surveys, avoidance buffers, timing restrictions, and take authorization from the CEC/CDFW, if necessary.

3.2.5.2.7 CEQA (PRC Sections 21000 et seq.)

CEQA requires identification of a project's potentially significant impacts on biological resources and ways that such impacts can be avoided, minimized, or mitigated. CEQA also provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts.

CEQA Guidelines Section 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors." A rare animal or plant is defined in Section 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c).

CDFW has developed a list of "Special Species" as "a general term that refers to all of the taxa the California Natural Diversity Database (CNDDB) is interested in tracking, regardless of their legal or protection status." This is a broader list than those species that are protected under the FESA, CESA, and other California Fish and Game Code provisions, and includes lists developed by other organizations, including, for example, the Audubon Watch List Species. Guidance documents prepared by other agencies, including the Bureau of Land Management Sensitive Species and USFWS Birds of Special Concern, are also included on the CDFW Special Species list. Additionally, CDFW has concluded that plant species listed as California Rare Plant Rank 1 and 2 by the California Native Plant Society, and potentially some California Rare Plant Rank 3 plants, are covered by CEQA Guidelines Section 15380.

Section IV, Appendix G (Environmental Checklist Form), of the CEQA Guidelines requires an evaluation of impacts to "any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service."

Project environmental resources will be analyzed pursuant to CEQA.

3.2.5.2.8 Warren Alquist Act (PRC Sections 25000, et seq.)

The AFC process is a certified regulatory process pursuant to the Warren-Alquist Act and, therefore, fulfills the requirements of CEQA. CEQA is codified in the California PRC, Sections 21000, et seq. Guidelines for implementation of CEQA are codified in Title 14 of the California Code of Regulations (CRR), Sections 15000-15387.

Project environmental resources will be analyzed pursuant to CEQA.

3.2.5.2.9 California Energy Commission – Assembly Bill 205

Assembly Bill (AB) 205 is an emergency regulation expanding the CEC's siting authority for renewable energy projects constructed on or before June 30, 2029. AB 205 was signed into law on June 30, 2022, and allows renewable and energy storage projects to apply for direct state permits through the CEC. CEC certification opt-in statute (specifically 25545.1(b)(1)) says "the issuance of a certificate by the commission for a site and related facility pursuant to this chapter shall be in lieu of any permit, certificate, or similar document required by any state, local, or regional agency [except California Coastal Commission, San Francisco Bay Conservation and Development Commission, and State/Regional Water Quality Control Board] … for the use of the site and related facilities, and shall supersede any applicable statute, ordinance, or regulation of any state, local, or regional agency…."

The application for certification process is in lieu of CDFW's Incidental Take Permit and Lake and Streambed Alteration Agreement processes. However, applications for both of these permits will be submitted to the CEC for informational purposes. The CEC Certification will include conditions and mitigation consistent with the Commission's AB 205 authorities.

Project take authorization, if necessary, and a LSAA will be administered by the CEC in consultation with CDFW. A completed 1602 Lake and Streambed Alteration Agreement application is included as Appendix 3.2K.

3.2.5.3 Local LORS

3.2.5.3.1 Los Angeles County General Plan

The General Plan includes guiding principles that inform the County's goals, policies, and implementation actions. The following goals and policies are relevant to the Project and applicable to biological resources (County of Los Angeles 2015):

Goal C/NR 1: Open space areas that meet the diverse needs of Los Angeles County.

> Policy C/NR 1.3: Support the acquisition of new available open space areas. Augment this strategy by leveraging County resources in concert with the compatible open space stewardship actions of other agencies, as feasible and appropriate.

Goal C/NR 2: Effective collaboration in open space resource preservation.

> Policy C/NR 2.2: Encourage the development of multi-benefit dedicated open spaces.
>
> Policy C/NR 3.8: Discourage development in areas with identified significant biological resources, such as Significant Ecological Areas (SEAs).

The Project will mitigate impacts to biological resources, which will comply with the General Plan goals and policies related to open space.

3.2.5.3.2 County of Los Angeles Significant Ecological Areas

SEAs are officially designated areas within the County with irreplaceable biological resources. The SEA program objective is to conserve genetic and physical diversity within the County by designating biological resource areas that can sustain themselves into the future. The SEA also protects native trees and provides a list of the protected species and the size of the diameter of the trunk that triggers protection. The SEA Ordinance establishes the permitting, design standards, and review process for development within SEAs, balancing preservation of the County's natural biodiversity with private property rights. A discretionary SEA Conditional Use Permit application is required for development that cannot demonstrate compliance with Section 22.102.070 (Protected Tree Permit), or Sections 22.102.090 (SEA Development Standards) and 22.102.100 (Natural Open Space Preservation) of the County Code. County Planning has issued the SEA Ordinance Implementation Guide (County Planning 2020) to help proposed development comply with the ordinance.

SEA Resource Categories

The SEA Ordinance includes SEA Resource Categories 1 through 5. These categories are defined as follows (County Planning 2020):

- **Category 1:** FESA and CESA listed plant and wildlife species; CESA candidate species, CRPR 1A or B, 2A or B, and 3 (CNPS 2025a), critically imperiled natural communities (those that have a Global [G] and/or State [S] ranking of 1 (NatureServe 2025), and water resources
- **Category 2:** CDFW SSC and their occupied habitat, and imperiled natural communities (those that have are G2/S2) (NatureServe 2025)
- **Category 3:** Vulnerable natural communities that are G3/S3 (NatureServe 2025), sensitive local native resources, and oak woodlands
- **Category 4:** Apparently secure natural communities that are G4/S4 (NatureServe 2025), secure natural communities that are G5/S5 (NatureServe 2025), and CRPR 4 species
- **Category 5:** All other lands including those dominated by non-native vegetation, agricultural fields, hedges, early successional vegetation that has yet to form into a distinct natural community, cleared or disturbed areas, and non-native trees and shrubs.

Table 3.2-19, Recommended Preservation Ratios for SEA CUP, lists the recommended preservation ratios for impacts to SEA Resources Categories for projects that require a Conditional Use Permit.

Table 3.2-19. Recommended Preservation Ratios for SEA CUP

SEA Resources	Preservation Ratio
Category 1 ▪ State or federally listed species and their habitats ▪ California Rare Plant Ranks 1,2,3 ▪ Natural communities ranked G1/S1 ▪ Water resources (e.g., wetlands, streams, ponds, lakes, vernal pools, marshes) ▪ Beach and dune	5:1

Table 3.2-19. Recommended Preservation Ratios for SEA CUP

SEA Resources	Preservation Ratio
Category 2 ▪ Natural communities ranked G2/S2 ▪ Species of Special Concern and their habitats	4:1
Category 3 ▪ Natural communities ranked G3/S3 ▪ Oak woodland ▪ Sensitive local native resources ▪ Rock outcrops/rocklands	3:1
Category 4 ▪ Natural communities ranked G4/S4/G5/S5 ▪ California Rare Plant Rank 4 ▪ Non-native grasslands	2:1
Category 5 ▪ Wildlife linkage or corridor or open space buffer	1:1

Source: County Planning 2020.
Notes: SEA = Significant Ecological Area; G = Global; S = State.

The Project's Gen-Tie Line will potentially impact SEA Resource Categories 1 through 3 in the form special-status plants and wildlife, water resources, and vegetation communities; however, all such impacts are mitigated in accordance with the SEA ordinance and CEQA.

SEA Protected Trees

The SEA Ordinance includes 60 tree species to be protected in addition to already protected oak trees (County Planning 2020). The SEA Protected Tree List specifies the species of tree protected in each individual SEA and the size of the tree when regulations are applied. A Protected Tree Permit from the County shall be required for development that complies with Section 22.102.090 (SEA Development Standards) except for Subsection 22.102.090.B (SEA Protected Trees) of the County Code, and which includes any of the following impacts:

1. Pruning or trimming of branches of SEA Protected Trees in excess of 2 inches in diameter or 25% of live foliage for one or more trees;
2. Encroachments of up to 30% into an SEA Protected Tree's protected zone; any encroachment of more than 30% into the protected zone of a tree shall be considered as a tree removal
3. Removal of up to two SEA Protected Trees that are not designated as heritage trees (single trunk that measures 36 inches or more in diameter, or two trunks that collectively measure 54 inches or more in diameter)
4. Tree relocation poses significant risk to the health or survival rate of a tree. Any relocation of an SEA Protected Tree shall, therefore, be processed as a removal

California juniper, velvet ash, and Southern California black walnut are protected trees under the SEA Ordinance. The Project will potentially impact up to ~~53~~ 96 California juniper due to the construction of the gen-tie, up to 1 velvet ash, and up to 1 Southern California black walnut, however, all such impacts are mitigated in accordance with the SEA ordinance.

3.2.6 Permit and Permit Schedule

The Project is expected to require a Lake or Streambed Alteration Agreement from CDFW, but for the CEC's Opt-In Application for Certification process, and a WDR from RWQCB. Permits and mitigation plans required prior to construction will be the responsibility of the qualified biologist assigned by the Applicant. Lake or Streambed Alteration Agreement is included herein as Appendix 3.2K. It is expected that the WDR would be issued within 90 days after certification by the CEC of the environmental impact report for the Project.

Table 3.2-20, Biological Resource Permits, lists the permits related to biological resources.

Table 3.2-20. Biological Resources Permits

Permit	Agency	Status
Lake or Streambed Alteration Agreement (LSAA)	California Department of Fish and Wildlife – Region 5, South Coast	Submitted as part of this Opt-In application (see Appendix 3.2K)
Waste Discharge Requirements (WDR)	Los Angeles Regional Water Quality Control Board (RWQCB)	Application will be submitted to Los Angeles RWQCB in October 2025
California Desert Native Plants Act Permit	Los Angeles County	Will be obtained prior to collection of plants that will be impacted

3.2.7 Agency Contacts

Table 3.2-21, Summary of the Agency Contacts, lists regulatory agency contacts for biological resources for this project.

Table 3.2-21. Summary of the Agency Contacts

Natural Resource	Agency	Contact Information
Locally Sensitive Species	County of Los Angeles Regional Planning	Joseph Decruyenaere, Senior Biologist; jdecruyenaere@planning.lacounty.gov[1]

Note:
[1] This correspondence is included as Appendix 3.2L.

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Attachment 2B

Section 3.2, Biological Resources (Clean)

3.2 Biological Resources

This section describes the potential effects the construction, operation, and decommissioning activities associated with the Prairie Song Reliability Project (Project) may have on biological resources at and in the vicinity of the Study Area. The Project will consist of an up to 1,150-megawatt (MW), approximately 9,200-megawatt hour (MWh) containerized battery energy storage system (BESS) facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance (O&M) buildings, a Project substation, a 500-kilovolt (kV) overhead generation interconnection (gen-tie) transmission line, and interconnection facilities within the existing Southern California Edison (SCE) owned and operated Vincent Substation.

The biological resources described in this section have been compiled from a literature review of databases, maps, general plans, biological reconnaissance, as well as focused species/resource surveys. The evaluation of biological resources includes the following elements:

- Section 3.2.1 describes the existing environment that could be affected, including a regional overview, wetlands, habitats, species, vegetation, and biological survey results.
- Section 3.2.2 identifies potential environmental impacts that may result from Project construction, operation, maintenance, and decommissioning.
- Section 3.2.3 discusses the potential for cumulative effects.
- Section 3.2.4 describes project design and mitigation measures that will be implemented to avoid or minimize potentially significant impacts.
- Section 3.2.5 presents laws, ordinances, regulations, and standards (LORS) applicable to Biological Resources.
- Section 3.2.6 identifies regulatory agency contacts.
- Section 3.2.7 describes permits required for the Project related to Biological Resources.
- Section 3.2.8 provides references used to develop this section.

Biologist's credentials, survey reports, and record data used for the preparation of this section is located in the following appendices:

- Appendix 3.2A – Preliminary ALTA Surveys (unchanged from previous version)
- Appendix 3.2B – Potential to Occur Tables and Compendia (unchanged from previous version)
- Appendix 3.2C – Resumes of Applicant's Biologists (unchanged from previous version)
- Appendix 3.2D – Rare Plant Survey Report (unchanged from previous version)
- Appendix 3.2E – California Desert Native Plants Act Survey Report (unchanged from previous version)
- Appendix 3.2F – Crotch's Bumble Bee Survey Report (unchanged from previous version)
- Appendix 3.2G – Biota Report (**updated from previous version – redline and clean version provided**)
- Appendix 3.2H – Nitrogen Deposition Model (unchanged from original submittal)
- Appendix 3.2I – Photo Exhibit with Key Map (unchanged from previous version)
- Appendix 3.2J – CNDDB Forms (unchanged from original submittal)
- Appendix 3.2K – Completed 1602 Lake and Streambed Alteration Agreement Application Package (**updated from previous version – redline and clean version provided**)

- **Appendix 3.2L –** Correspondence with LA County Planning (unchanged from previous version)

A summary of the biological resources evaluation is provided in the table below.

		Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the Project:					
1	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered, threatened, candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by CDFW or USFWS?	☐	☒	☐	☐
2	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS?	☐	☒	☐	☐
3	Have a substantial adverse effect on federal or state protected WOTUS [waters of the United States] (including wetlands) as defined by Sections 404 and 401 of the 1972 Amendments to the Federal Water Pollution Control Act, commonly known as the Clean Water Act, or the Porter-Cologne Act, either through direct removal, filling, hydrological alteration, or other means?	☐	☒	☐	☐
4	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory native wildlife corridors or impede the use of wildlife nursery sites?	☐	☐	☒	☐
5	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
6	Conflict with the provisions of an adopted Habitat Conservation Plan, NCCP [natural community conservation plan], or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Notes: CDFW = California Department of Fish and Wildlife; USFWS = U.S. Fish and Wildlife Service;

3.2.1 Affected Environment

The Project is in unincorporated Los Angeles County (County), California south of State Route 14 (SR 14) approximately 3 miles northeast of the center of the unincorporated community of Acton. The Project is within the USGS 7.5-minute Acton and Pacifico Mountain Quadrangles, Township 5N, Range 12W, Sections 27, 28, 33 and 34. The BESS site is comprised of Assessor Parcel Numbers (APNs) 3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, and 3056-019-040. Development of the BESS facility will

occur on an area of land situated between two (2) existing transportation corridors, the Antelope Valley Freeway (SR 14) to the north and Southern Pacific Railroad lines and Carson Mesa Road to the south, that are approximately 1,200 feet apart.

The Project site (approximately 114 acres) refers to the area that will be physically affected by construction activities associated with the Project, including the location of permanent structures (including both gen-tie options) as well as staging and other temporary disturbance areas described in Section 2, Project Description. For the purposes of the biological surveys, the Study Area encompasses the Project site parcels, and it is approximately 414 acres. The Study Area for focused species surveys was expanded per protocol and where necessary to capture nearby resources. Focused survey methods are described below in Section 3.2.1.5, Biological Surveys. Existing conditions within 1,000 feet of the gen-tie route options are similar to the Study Area because there are no significant changes in topography, geology, or hydrology within that distance.

3.2.1.1 Regional Overview

The Study Area is in the western San Gabriel Mountains, in the Transverse Ranges Geomorphic Province (CGS 2002). The Transverse Ranges are an east-west trending series of steep mountains and valleys (CGS 2002). The Study Area is located at the conjunction of Soledad Canyon and Kentucky Springs Canyon (USGS 2022), and at the boundary of the Western Transverse Ranges ecological subregion and Mojave Desert ecological region (Jepson Flora Project 2025). Elevations in the Study Area range from approximately 2,700 feet above mean sea level along the southwestern side to 3,500 feet above mean sea level along the northern hillsides (Google Earth 2025).

The Study Area has an arid climate with the site being located on the northern side of the San Gabriel Mountains and bordering the Antelope Valley. August is the average warmest month with an average high of 93 degrees Fahrenheit (˚F) and December is the coolest month on average with a low of 36 ˚F. Rainfall occurs primarily between November and April, with the maximum average precipitation occurring in February. The mean annual rainfall for the area is approximately 9 inches of rain per year (LACPW 2023).

3.2.1.2 Regional Wetlands and Protected Areas

The National Wetlands Inventory (NWI) and National Hydrography Dataset (NHD) were reviewed to identify wetland or hydrologic features in the Study Area (USFWS 2025a, USGS 2025). Figure 3.2-1, Hydrologic Features, depicts the mapped wetland and hydrologic features in the Study Area. These resources are further described below.

Protected areas within 10 miles of the Study Area were determined through a review of the California Protected Area Database (CPAD) and California Conservation Easement Database (CCED) mapping tools (GreenInfo Network 2025). These resources are further described below.

3.2.1.2.1 Hydrologic Features

The Study Area is in the Santa Clara subbasin (HUC 18070102), Headwaters Santa Clara River watershed (HUC 1807010201), and primarily Kentucky Springs Canyon – Santa Clara River subwatershed, with the western most area of the Project overlapping into the Arrastre Canyon – Santa Clara River subwatershed. The Santa Clara River is the primary natural surface water feature in the vicinity of the Study Area. The Santa Clara River is the largest natural river remaining in Southern California, and travels through two (2) counties, Los Angeles and Ventura (Kennedy/Jenks Consultants 2014). The northern portion in Los Angeles County is largely classified as an intermittent stream/river and only contains flowing water during certain times of the year (USGS 2023;

Kennedy/Jenks Consultants 2014)). The intermittent stream channel traverses the southern end of the Study Area within parcels 3056-019-040, 3056-017-907, 3056-017-028, 3056-017-027, 3056-015-008, and 3056-015-023, as shown in Figure 3.2-1, Hydrologic Features. Several other smaller, unnamed ephemeral washes from Soledad Canyon and Kentucky Springs Canyon drain across the northern and southern portions of the Study Area, respectively. As shown in Figure 3.2-1, hydrological features were delineated within all the Project parcels and offsite within a 250-foot buffer of Project components.

3.2.1.2.2 Protected Areas

CPAD is a database that includes lands that are owned and protected for open space purposed by over 1,000 public agencies or non-profit organizations. CPAD includes national, state, or regional parks, forests, preserves and wildlife areas. It also includes large and small urban parks; land trust preserves and special district open space lands (GreenInfo Network 2025).

A review of the CPAD and CCED confirmed that there are several protected areas or conservation easements within a 10-mile radius of the Study Area (GreenInfo Network 2025), as shown in Figure 3.2-2, Protected Areas. A list of the CPAD and CCED identified areas that occur within the 10-mile buffer of the Project is provided below. Project activities will not generate any potential ground impacts to any conservation easements or protected areas. APNs 3056-017-905, 3056-017-904, 3056-017-906, and 3056-017-907 are managed by the Mountains Recreation and Conservation Authority and are deed restricted for open space use, as shown in Figure 3.2-3, Local Protected Areas. The Northern Gen-tie option would obtain an aerial easement and span these parcels, but would not generate any impacts on the ground, except for the use of an existing roadway. In addition, as shown in Figures 3.2-2 and 3.2-3, the CPAD data shows project parcel APN 3056-019-040 as a protected area; however, this is a data error. The project applicant owns this parcel and there are no conservation easements or protected areas stipulated in the deed (see Appendix 3.2A).

California Protected Areas Database

The Mountains Recreation and Conservation Authority's Cold Creek Valley Preserve is within one of the parcels where the northern gen-tie route option occurs (GreenInfo Network 2025). The following are the lands that are owned and protected for open space within 10 miles of the Study Area (GreenInfo Network 2025).

- Antelope Valley Union High School District
  - Highland High School Park
  - Knight High School Park
  - Palmdale High School Park
- California State Lands Commission
  - California State Lands Commission
- Desert and Mountain Conservation Authority
  - Joshua Ranch
  - Littlerock Creek Irrigation District
  - Little Rock Wash
  - Littlerock Creek Irrigation District Open Space
- Los Angeles, County of

  - Acton Park
  - Acton Wash Wildlife Sanctuary
  - Everett Martin Park
  - Jackie Robinson Park
  - Juniper Hills Park
  - Mattie M. Primmer Park
  - Vasquez Rocks Natural Area and Nature Center
- Mountains Recreation and Conservation Authority
  - Bird's Nest
  - Bobcat Canyon
  - Cold Creek Valley Preserve
  - Red Rover Mine TaxDef
  - Ritter Ranch
  - SCC Plum Canyon
  - Stickleback Ranch
  - Unnamed site - Mountains Recreation and Conservation Authority
- Palmdale, City of
  - American Indian Little League Site
  - 70th Street East and North of Avenue R
  - A.C. Warnack Nature Park
  - Anaverde Hills Park
  - Avenue S and Dorer Street
  - Demonstration Garden
  - Desert Sands Park
  - Domenic Massari Park
  - Dr. Robert C. St. Clair Parkway
  - Foothill Park
  - Joe Davies Heritage Airpark
  - Joshua Hills Park
  - Legacy Commons
  - Manzanita Heights
  - Marie Kerr Park
  - Melville J. Courson Park
  - Palmdale Oasis Park
  - Palmdale Park
  - Palmdale Youth Pony League Fields
  - Palmenthol History Park
  - Pelona Vista Park

  - Poncitlan Square
  - Rancho Vista Neighborhood Park
  - Sam Yellen Community Park
  - Sam Yellen Community Park - Undeveloped
  - Tejon Equestrian Park
  - William J. McAdam Park
- Santa Clarita Watershed Recreation and Conservation Authority
  - Rio Dulce Open Space
- Santa Clarita, City of
  - Agua Dulce Canyon Parkland
- The Nature Conservancy
  - Arrastre Canyon
- U.S. Bureau of Land Management
  - BLM Lands
- U.S. Forest Service
  - Angeles National Forest

California Conservation Easement Database

The CCED is a database that defines boundaries of easements and deed-base restrictions on private lands. These lands may be actively farmed, grazed, forested, or held as nature preserves and typically have no public access (GreenInfo Network 2024). No lands with easements and deed-base restrictions are found within 10 miles of the Study Area.

3.2.1.3 Sensitive Habitat Types and Critical Habitat

Sensitive habitat types within a 10-mile radius of the Study Area are shown on Figure 3.2-4, Sensitive Habitat Types, and critical habitats on Figure 3.2-5, Critical Habitat. Descriptions of the sensitive and critical habitats identified are described below.

3.2.1.3.1 Sensitive Habitat Types

The California Department of Fish and Wildlife (CDFW) defines sensitive habitats as plant communities that have limited distributions, high wildlife value, include sensitive species, or are particularly vulnerable to disturbance. CDFW ranks sensitive communities as “threatened” or “very threatened” (CDFW 2018) and keeps records of their occurrences in the California Natural Diversity Database (CDFW 2025a). Currently, CDFW publishes the California Sensitive Natural Communities List online (CDFW 2025b). Vegetation rarity ranking is based on a rank calculated developed by NatureServe (2025). Vegetation maps were taken from the CDFW Vegetation Classification Reports and Maps (CDFW 2025). CDFW’s Vegetation Program considers vegetation alliances with state (S) ranks of S1 through S3 as sensitive vegetative habitats. CDFW considers species or natural communities with one of the following NatureServe rankings as sensitive: Global (G)/State (S); Presumed Extinct (X); Possibly Extinct (G/S H); Critically Imperiled (G/S 1); Imperiled (G/S 2); Vulnerable (G/S 3). The California Environmental Quality Act (CEQA) requires that potential impacts to sensitive natural communities be evaluated. The following six (6) sensitive natural

communities occur within 10 miles of the Study Area (Figure 3.2-4, Sensitive Habitat Types): Mojave Riparian Forest, Southern California Threespine Stickleback Stream, Southern Cottonwood Willow Riparian Forest, Southern Riparian Scrub, Southern Sycamore Alder Riparian Woodland, and Southern Willow Scrub. None of these identified six (6) sensitive natural communities occur on the project site or are crossed by the gen-tie line routes.

3.2.1.3.2 Critical Habitat

Critical habitats are designated areas occupied by the species at the time it was listed that contain the physical or biological features that are essential to the conservation of endangered and threatened species. In designated critical habitat, U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) consider the following requirements of the species:

"Space for individual and population growth, and for normal behavior; nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing offspring; and, generally, any habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of this species" (USFWS 2025b).

No designated critical habitats occur within the Study Area but three (3) units of critical habitat for arroyo toad (*Anaxyrus californicus*) were identified within 10 miles of the Study Area, as shown in Figure 3.2-5, Critical Habitat (USFWS 2025c). Unit 6c is located approximately 4 miles southwest of the Study Area and is associated with the Santa Clara River. Unit 7 is located approximately 9 miles to the south and is associated with Big Tujunga Creek. Unit 21 is located approximately 5 miles to the east and is associated with Little Rock Creek. Arroyo toad is not expected to occur in the Study Area because the Study Area lacks suitable habitat (low-gradient intermittent streams with sandy, gravelly soils) for the species.

3.2.1.4 Regional Sensitive or Special-Status Species

Endangered, rare, or threatened species, as defined in CEQA Guideline 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status species" in this section and include (1) endangered, threatened, and candidate species recognized in the context of the California Endangered Species Act (CESA) and the federal Endangered Species Act (FESA) (CDFW 2025d); (2) plant species with a California Rare Plant Rank (CNPS 2025a) (lists 1 through 4; see Appendix 3.2B, Potential to Occur Tables and Compendia, for rank definitions); (3) California Species of Special Concern (SSC) and Watch List species, as designated by CDFW (CDFW 2025e); (4) mammals and birds that are Fully Protected species, as described in California Fish and Game Code Sections 4700 and 3511; and (5) Birds of Conservation Concern as designated by USFWS (2021). Additionally, the County of Los Angeles considers plant and wildlife species that are locally important as rare within the county.

Appendix 3.2B provides a list of special-status species with records within the 14 USGS 7.5-minute topographic quadrangles (Lancaster West, Lancaster East, Sleepy Valley, Ritter Ridge, Palmdale, Littlerock, Agua Dulce, Acton, Pacifico Mountain, Juniper Hills, Sunland, Condor Peak, Chilao Flat, and Waterman Mt.) that the Study Area is in and the quadrangles that the 10-mile buffer intersects, as well as the species provided by the query of the USFWS' Information for Planning and Consultation (CDFW 2025a, CNPS 2025a, and USFWS 2025d). Additionally, bird species that the County of Los Angeles considers to be locally important and have the potential to occur in the Study Area region have been included (Los Angeles Audubon 2009). This appendix includes the status designation for each species, habitat types that may support these species in the regional vicinity, a determination of potential for these species to occur within the Study Area, and a rationale for the occurrence determination. Figures 3.2-6a and

3.2-6b, Sensitive or Special-Status Species Records, depicts the special-status plant and wildlife species known to occur within a 10-mile radius of the Project area.

3.2.1.4.1 Sensitive and Special-Status Species Assessment

Dudek biologists evaluated the regional special-status plant and wildlife species against observed conditions on the Study Area to determine the potential for each species to occur. Habitat requirements, occurrence determinations, and rationale for occurrence determination are included in Appendix 3.2B. The potential for each special-status species to occur was evaluated according to the following criteria:

- **Not Expected.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on-site if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.
- **Low.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- **Moderate.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site are unsuitable. The species has a moderate probability of being found on the site.
- **High.** All the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found onsite.
- **Present.** Species was observed on site or within the Study Area.

3.2.1.5 Biological Surveys

Surveys for the BESS and Northern Gen-Tie option portions of the Study Area were conducted in 2023. In 2024 surveys were conducted on the additional parcels for the Southern Gen-Tie option. Dudek conducted comprehensive surveys for sensitive plants for the BESS and Northern Gen-Tie option portions of the Study Area in the spring of 2023 following an above average wet season. Dudek conducted surveys for Crotch's bumble bee (*Bombus crotchii*) in the summer of 2024 on the BESS and Northern Gen-Tie option portions of the Study Area. Dudek is currently conducting supplemental rare plant surveys and Crotch's bumble bee surveys in 2025 for parcels associated with the Southern Gen-Tie option of the Study Area. Table 3.2-1, Schedule of Surveys, lists the dates, conditions, and focus for each survey. While most surveys were conducted within the entire Study Area, Figure 3.2-7, Biological Surveys, depicts the areas for the surveys that deviated from the Study Area. Appendix 3.2C, Resumes of Applicant's Biologists, has resumes for the Dudek staff that conducted the surveys.

Table 3.2-1. Schedule of Surveys

Date	Focus	Biologists	Time	Survey Conditions
1/6/2023	▪ Vegetation Mapping ▪ Jurisdictional Delineation	MM, ES	7:30 AM–2:55 PM	38°F–52°F; 0–10% cloud cover; 1–8 mph wind

Table 3.2-1. Schedule of Surveys

Date	Focus	Biologists	Time	Survey Conditions
1/11/2023	▪ Vegetation Mapping ▪ Jurisdictional Delineation	MM, ES	Not recorded	Not recorded
1/12/2023	▪ Vegetation Mapping ▪ Jurisdictional Delineation	MM, ES	Not recorded	Not recorded
4/28/2023	▪ Rare Plants	VG, TP	6:40 AM–3:04 PM	60°F–80°F; 0% cloud cover; 0–2 mph wind
4/28/2023	▪ Rare Plants	TP	6:40 AM–2:46 PM	57°F–94°F; 0% cloud cover; 0–2 mph wind
5/1/2023	▪ Rare Plants	CB, DM, SN, JR	7:30 AM–3:25 PM	48°F–61°F; 60%–90% cloud cover; 3–5 mph wind
5/2/2023	▪ Rare Plants	DM, VG, SN, JR	7:30 AM–3:25 PM	48°F–70°F; 60%–90% cloud cover; 3–5 mph wind
6/12/2024	▪ Crotch's Bumble Bee	CA, AC, SL, KN	9:30 AM–10:17 AM	74°F–80°F; 0% cloud cover; 0–4 mph wind
6/22/2023-7/7/2023	▪ Protected Tree Mapping	AC, ST, AP	Not recorded	Not recorded
7/1/2024	▪ Crotch's Bumble Bee	LB, JE, DS	7:41 AM–1:34 PM	73°F–90°F; 0% cloud cover; 0–8 mph wind
7/2/2024	▪ Crotch's Bumble Bee	JE	7:02 AM–9:07 AM	70°F–81°F; 1–7 mph wind
7/23/2024	▪ Crotch's Bumble Bee	LB	7:27 AM–10:54 AM	80°F–95°F; 0%–50% cloud cover; 0–1 mph wind
7/24/2024	▪ Crotch's Bumble Bee	LB	7:18 AM–11:01 AM	80°F–95°F; 0% cloud cover; 0–2 mph wind
11/18/2024	▪ Vegetation Mapping ▪ Jurisdictional Delineation	ES, ZP	8:50 AM-12:56 PM	49°F–56°F; 0% cloud cover; 5–16 mph wind
11/19/2024	▪ Vegetation Mapping ▪ Jurisdictional Delineation	TP, RS	9:30 AM–3:35 PM	53°F–54°F; 0% cloud cover; 1–7 mph wind
2/26/2025	▪ Raptor Nest Survey	TP. RS	8:28 AM-3:30 PM	63°F–78°F; 0% cloud cover; 2–15 mph wind

Table 3.2-1. Schedule of Surveys

Date	Focus	Biologists	Time	Survey Conditions
4/16/2025	▪ Crotch's Bumble Bee	CA, ES	8:21 AM–1:08 PM	48°F–59°F; 30%–100% cloud cover; 0–3 mph wind
5/21/2025	▪ Crotch's Bumble Bee	CA, ES	8:21 AM–1:08 PM	59°F–71°F; 0% cloud cover; 0–1 mph wind
6/5/2025	▪ Rare Plants	RSw	7:00AM–12:00AM	84°F; 0% cloud cover; 0–5 mph wind
6/30/2025	▪ Crotch's Bumble Bee	ES, LB	9:16 AM–1:30 PM	79°F–86°F; 0% cloud cover
8/22/2025	▪ Jurisdictional Delineation	ES, RS	Not recorded	Not recorded

Notes:
Biologists: AC=Aida Castro, AP=Ana Pfleeger, CA=Callie Amoaku, LB=Luz Badillo, CB= Chelsea Bowers-Doerning, AC=Anna Cassidy, JE=Joshua Elson, VG=Valerie Goodwin, SL=Sony Leming, DM=Dilip Mahto, MM=Max Murray, KN=Kimberly Narel, SN=Sandra Nash, TP=Tracy Park, ZP=Zarina Pringle, JR=Jacob Rogers, ES=Eilleen Salas, DS=Dahlia Serrato, RS=Ryan Stanley, RSw=Robert Sweet; ST=Sarah Tian
Survey Conditions: °F=degrees Fahrenheit; mph=miles per hour

Vegetation Community and Land Cover Mapping

Vegetation communities and land uses within the Study Area were mapped in the field using the Environmental Systems Research Institute (Esri) Collector, a mobile data collection application, on a digital aerial-based background (Esri 2025). Following completion of the fieldwork, all vegetation linework was finalized using Esri ArcGIS software and GIS coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover type within the study area was determined. Vegetation communities within the study area were mapped using CDFW's List of Vegetation Alliances and Associations (or California Natural Community List) (CDFW 2025e), which is based on A Manual of California Vegetation, Second Edition (Sawyer et al. 2009) and A Manual of California Vegetation, Online Edition (CNPS 2025b), where feasible, with modifications made to accommodate the lack of conformity of the observed communities (e.g., developed/disturbed land cover types) using Oberbauer et al. (2008) and Jones and Stokes (1993). Vegetation communities were classified based on site factors, descriptions, distribution, and characteristic species present within an area. Each natural community was mapped to the association level, where feasible. Special-status vegetation communities are those communities identified as high priority for inventory in the California Natural Communities List (CDFW 2025b).

Rare Plant Surveys

The rare plant surveys were guided by the CNPS Botanical Survey Guidelines (CNPS 2001) and CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Sensitive Natural Communities (CDFW 2018). The biologists walked transects in suitable habitat, spaced approximately 5 meters to 10 meters apart based on the density of vegetative cover, throughout the Study Area. Digital mobile maps and 200-scale topographic plots of vegetation polygons were utilized to navigate the survey area. Plant species encountered during the field surveys were identified to subspecies or variety, if applicable, to determine sensitivity status. When rare plants were encountered, field personnel recorded data points demarcating the edge of polygon surrounding the population and assessed population numbers using a GPS with sub-meter accuracy. Appendix 3.2D, Rare Plant Survey Report, has additional details on the surveys.

California Desert Native Plants Act

Dudek biologists conducted a focused desert native plant survey within the survey area (defined as the Project impact footprint and a 150-foot buffer, where accessible). The desert native plant survey was focused on the species subject to the California Desert Native Plants Act. Biologists walked meandering transects spaced approximately 10 meters apart to obtain 100% visual coverage of the survey area. If desert native plants identified under the California Desert Native Plants Act were encountered, field personnel recorded data points using a GPS with sub-meter accuracy (i.e., Trimble® GeoXT) and a data dictionary. The data dictionary included, at a minimum, the species name, the number of individuals, and the botanist collecting the data. The survey methodology and results were documented in a memorandum, with figures illustrating the location of the mapped desert native plants and representative photos of the species. Appendix 3.2E, California Desert Native Plants Act Survey Report, has additional details on the surveys.

Crotch's Bumble Bee Surveys

The surveys for Crotch's bumble bee were conducted in accordance with the CDFW survey guidance (CDFW 2023a). The survey passes were led by Callie Amoaku, who holds a Memorandum of Understanding (MOU) and Scientific Collecting Permit (SCP) to capture Crotch's bumble bee. Dudek conducted five protocol level surveys for Crotch's bumble bee in June and July 2024 (June 12, July 1, July 2, July 23, and July 24) and two in April and May 2025 (April 16 and May 21). The surveys were split across 2 years because the Project owner did not have access to the entire Project gen-tie area during the 2024 surveys. The 2024 surveys were conducted from June through July, during the Colony Active Period of April through August, which according to CDFW guidelines had the highest detection period, and were spaced between 2 and 4 weeks apart. The three 2025 surveys, which covered the remainder of the Project site and the BESS location, were conducted between April and June, which is during the Colony Active Period. The 2025 surveys were spaced 4 weeks apart to cover a wider period during the Colony Active Period while also meeting recommended guidelines. Appendix 3.2F, Crotch's Bumble Bee Survey Report, has additional details on the surveys.

The surveys were conducted during optimal conditions when there were sunny to partly sunny skies that were greater than 60° Fahrenheit. Suitable habitat within the Study Area was visually surveyed for 1 person-hour per 3 acres of potential habitat. Biologists walked wandering transects through these resources with a goal of observing bumble bees in passing and observing bumble bee nest sites associated with small mammal burrow or other appropriate soil cavities.

Raptor Nest Surveys

Surveys for nesting raptors (i.e., eagles, hawks, kites, falcons, and owls) were conducted in early 2025. Dudek biologists conducted a 1-day survey for the Study Area and a 500-foot buffer, with a focus on areas with larger trees and shrubs, residential areas with large ornamental trees, and transmission towers that have potential to support raptor nests.

Aquatic Resources Delineation

Prior to conducting the jurisdictional delineation, USFWS National Wetland Inventory data (USFWS 2024a) was reviewed to determine if the Study Area contained any features mapped by the USFWS. Site-specific topographical data was reviewed in conjunction with aerials, both current and historical, to determine the potential presence of non-wetland waters. Current vegetation mapping was reviewed to assess whether the Study Area supported

hydrophytic vegetation and potential wetlands. Jurisdictional boundaries were mapped in the field using ESRI Collector on a mobile device with submeter accuracy, where access was available. Remote sensing was not used for the delineation, with the exception of some areas within the 250-foot buffer which were delineated via desktop-based delineation only due to access restrictions. Figure 3.2-1 shows which areas were delineated via ground-truthing and which areas were delineated via desktop only.

U.S. Army Corps of Engineers – Potential Waters of the U.S.

The U.S. Army Corps of Engineers (USACE) wetlands delineation was conducted in accordance with the 1987 USACE Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008a). A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008b) was used to determine the limits of non-wetland waters. Non-wetland waters were delineated on aerial maps in conjunction with ESRI Collector on a mobile device. The widths of each non-wetland water were determined in the field according to the OHWM manual. USACE OHWM Forms were completed at representative cross-sections of non-wetland waters to capture their characteristics and widths.

Regional Water Quality Control Board – Potential Waters of the U.S. and Waters of the State

Waters of the state regulated by the RWQCB were mapped in accordance with the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB 2021). As described in these procedures, wetland waters of the state are mapped based on the procedures in USACE's 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987) and its 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a). Non-wetland waters are mapped at the OHWM based on the procedures defined in USACE's 2008 A Field Guide to Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008b).

California Department of Fish and Wildlife – Streams

Potential CDFW jurisdictional areas were mapped to include the bank of the stream/channel and outer dripline of adjacent riparian vegetation, as set forth under California Fish and Game Code Section 1602. Streambeds under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979).

Protected Tree Census

The portions of the Study Area east of the railroad tracks, south of Foreston Drive and the Southern California Edison (SCE) Vincent Substation, and east of the SCE substation are within a County of Los Angeles Significant Ecological Area (SEA) (County of Los Angeles 2025), as shown in Figure 3.2-8, Los Angeles County Significant Ecological Area. The County's SEA Ordinance includes 60 tree species to be protected, including all sizes of California juniper (*Juniperus californica*) (Los Angeles County Planning 2020). Dudek biologists mapped the California juniper within the SEA portions of the Study Area. Field personnel recorded data points and circumference for each individual plant using a mobile device with sub-meter accuracy. An evaluation of existing health for each California juniper was conducted. Appendix A, Protected Tree Report, of Appendix 3.2G, Biota Report, has additional details on the census. An additional tree survey was conducted in December 2025 to include additional areas within the SEA and to confirm that no blue elderberry (*Sambucus nigra* ssp. *Caerulea*) occurs within the SEA portion of the Study Area. The survey confirmed that no blue elderberry occurs within the Study Area. During the December 2025

survey, additional previously unidentified SEA-protected trees were recorded and mapped: velvet ash (*Fraxinus velutina*) and Southern California black walnut (*Juglans californica*).

3.2.1.6 Nitrogen Deposition Model

A nitrogen deposition analysis was performed to assess the proposed Project's potential operational impact on biological resources within 6 miles of the Study Area and is included as Appendix 3.2H, Nitrogen Deposition Model. During operation, there will be periodic emissions of oxides of nitrogen (NO_x), from the testing and maintenance of three (3) emergency diesel generators (one [1] rated at 323 horsepower [hp] and two [2] rated at 744 hp). These emissions will result in nitrogen deposition around the Project site. To determine the potential impacts during operation, the American Meteorological Society/U.S. Environmental Protection Agency Regulatory Model (AERMOD) Version 24142 was used to model the concentration of nitrogen around the Project site using wet and dry deposition algorithms. The generators would meet the U.S. Environmental Protection Agency (EPA) Tier 4 standards based on the equipment specification sheets and were each assumed to operate up to 50 hours per year for testing and maintenance. Ammonia (NH_3) is a product of combustion with equipment having selective catalytic reduction (SCR) equipment. As the generators would be equipped with SCR, emissions of NH_3 were estimated and added to the NO_x emissions for total nitrogen emissions. Principal parameters of this modeling are presented in Table 3.2-2, AERMOD Principal Parameters – Nitrogen Deposition.

Table 3.2-2. AERMOD Principal Parameters – Nitrogen Deposition

Parameter	Details
Dispersion Model	The air dispersion model used was AERMOD Version 24142, with the Lakes Environmental Software implementation/user interface, AERMOD View, Version 13.0.0.
Meteorological Data	The latest 5-year meteorological data (2016-2020) for the Palmdale Station (KPMD) were obtained from CARB and used in the analysis as the most representative data set based on proximity and wind direction. The input data was also conservative, based on a test run that compared maximum concentrations using the Palmdale Station to the concentrations using the Santa Clarita Station (the other station in general proximity to the Project) meteorological data.
Urban versus Rural Option	Urban areas typically have more surface roughness, as well as structures and low-albedo surfaces that absorb more sunlight—and thus more heat—relative to rural areas. Based on the land use procedure from 4.4.1 of the OEHHA Guidance Manual, the rural dispersion was appropriate for the Project site (OEHHA 2015).
Terrain Characteristics and Elevation Data	Digital elevation model files were imported into AERMOD so that complex terrain features were evaluated as appropriate, and elevations were assigned to the emission sources and receptors. Digital elevation data were obtained through AERMOD View in the U.S. Geological Survey's National Elevation Dataset format with an approximately 1 arc-second resolution.
Emission Sources and Release Parameters	The diesel generators were modeled as point sources with release parameters based on the specification sheets and default diesel-fired internal combustion stack parameters (SBCAPCD 2025), if generator specific information was not available. The 323 hp generator was modeled with a vertical stack height of 3.0 meters, inside stack diameter of 0.13 meters, gas exhaust temperature of 780 Kelvin, and gas exhaust velocity of 63.9 meters per second. Each 744 hp generator was modeled with a vertical stack height of 3.7 meters, inside stack diameter of 0.2 meters, gas exhaust temperature of 719.82 Kelvin, and gas exhaust velocity of 14.05 meters per second.
Receptors	A telescoping grid of receptors was generated with the following spacing to evaluate potential nitrogen deposition impacts within a 6-mile radius of the Project:

Table 3.2-2. AERMOD Principal Parameters – Nitrogen Deposition

Parameter	Details
	▪ 25-meter spacing on the facility boundary ▪ 25-meter spacing from the facility boundary out to 100 meters ▪ 50-meter spacing from 100 meters to 250 meters ▪ 100-meter spacing from 250 meters to 500 meters ▪ 250-meter spacing from 500 meters to 1,000 meters ▪ 500-meter spacing from 1,000 meters to 2,000 meters ▪ 1,500-meter spacing from 2,000 meters to 8,000 meters
Gas Deposition	The vegetation in the region is primarily grassland and shrubland. These vegetation categories are classified as "Land Use Category" of "3 – Rangeland" in AERMOD.
NOx to NO_2 Conversion	A 100% conversion of NO_x and NH_3 into atmospherically derived nitrogen (Tier 1).
Gas and Particle Deposition	Nitric acid was assumed for the gas deposition parameters as it has a strong affinity for impacts to soils and vegetation. The default deposition velocity and parameters (pollutant reactivity factor and seasons) were assumed. The following gas deposition parameters were assumed: ▪ Pollutant Diffusivity in Air: 0.1628 cm^2/s ▪ Pollutant Diffusivity in Water: 2.98E-05 cm^2/s ▪ Cuticular Resistance: 100,000 s/cm ▪ Henry's Law Constant: 8E-08 $Pa\text{-}m^3/mol$

Source: OEHHA 2015; SBCAPCD 2025.
Notes: AERMOD = American Meteorological Society/EPA Regulatory Model; hp = horsepower. $Pa\text{-}m^3/mol$ = pascal-meters cubed per mole; NH_3 = ammonia; NOx = oxides of nitrogen; s/cm = seconds per centimeter.
See Appendix 3.2H, Nitrogen Deposition Model, for additional information.

The AERMOD model calculates atmospheric deposition of nitrogen by calculating the wet and dry fluxes of total nitrogen. This deposition is accomplished by using a resistance model for the dry deposition part, and by assigning particle phase washout coefficients for the wet removal process from rainout. As discussed above, depositional parameters for nitric acid are input into the model to calculate the deposition of nitrogen. AERMOD sums the results of the wet and dry nitrogen deposition to produce annual deposition rates in units of grams per square meter (g/m^2) for the entire 5-year meteorological period modeled, which are converted to kilograms per hectare per year (kg/ha/yr) for comparison to critical loads of nitrogen for biological resources within 6 miles of the Study Area. As discussed in detail below, the testing and maintenance operation of the Project's emergency backup generators will not lead to nitrogen deposition levels that exceed recognized thresholds and will thus result in less than significant impacts to natural vegetation communities and special status species.

3.2.1.7 Vegetation Communities and Land Cover Types

All plant species encountered during the field reconnaissance surveys and jurisdictional delineations were identified and recorded. Latin and common names for plant species with a California Rare Plant Rank (formerly California Native Plant Society List) follow the California Native Plant Society On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2025a). For plant species without a California Rare Plant Rank, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2025) and common names follow the California Natural Community list (CDFW 2025e) or the U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS) Plants Database (NRCS 2025). A list of plant species observed in the Study Area during initial surveys is presented in Appendix 3.2B. Representative photos of the vegetation communities can be found in Appendix 3.2I, Photo Exhibit.

Six (6) vegetation communities are considered sensitive by CDFW. The vegetation communities and land cover locations are summarized in Table 3.2-3, Vegetation Communities and Land Covers in the Study Area, and illustrated in Figure 3.2-9, Vegetation Communities and Land Cover. Vegetation communities within 1,000 feet of the gen-tie route options are expected to be similar to the Study Area because there are no significant changes in topography, geology, or hydrology within that distance.

Table 3.2-3. Vegetation Communities and Land Covers in the Study Area

Alliance	Association	CDFW Sensitive[1]	Ranking[2]	Acres
Native Communities				
Cheesebush – sweetbush scrub	*Ambrosia salsola - Larrea tridentata*	No	G4/S4	0.82
	Ambrosia salsola Association	No	G4/S4	2.60
Fiddleneck - phacelia fields	*Amsinckia menziesii - Erodium* spp.	No	G5/S5	2.21
California sagebrush – (purple sage) scrub	*Artemisia californica - Eriogonum fasciculatum*	No	G4/S4	12.68
Big sagebrush	*Artemisia tridentata - Ericameria nauseosa*	No	G5/S5	15.42
	Artemisia tridentata - Eriogonum fasciculatum	No	G5/S5	3.98
	Artemisia tridentata	No	G5/S5	0.48
	Artemisia tridentata ssp. *parishii*	Yes	G2/S2	7.66
Fourwing saltbush scrub	*Atriplex canescens*	No	G5/S4	75.57
Mormon tea scrub	*Ephedra viridis*	No	G4/S4	20.87
Rubber rabbitbrush scrub	*Ericameria nauseosa - Juniperus californica* / herb	No	G5/S5	18.49
	Ericameria nauseosa	No	G5/S5	5.38
California buckwheat scrub	*Eriogonum fasciculatum*	No	G5/S5	4.75
	Eriogonum fasciculatum var. *foliolosum - Juniperus californica*	Yes	G3/S3	4.50
California buckwheat – Parish's goldeneye scrub	*Eriogonum fasciculatum* rock outcrop	Yes	Unranked	3.82
California walnut groves	*Juglans californica / annual herbaceous*	Yes	G3/S3	0.89
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum*	Yes	Unranked	31.66
	Juniperus californica / herbaceous	Yes	Unranked	106.67
	Juniperus californica / Eriogonum fasciculatum - Artemisia californica	No	G5/S5	0.23
			Subtotal:	*317.35*
Naturalized (Non-Native)				
Wild oats and annual brome grasslands.	*Avena barbata - Bromus hordeaceus*	No	GNA/SNA	2.22
Red brome or Mediterranean grass grasslands	*Bromus rubens* - mixed herbs	No	GNA/SNA	2.99
			Subtotal:	*5.21*

Table 3.2-3. Vegetation Communities and Land Covers in the Study Area

Alliance	Association	CDFW Sensitive[1]	Ranking[2]	Acres
Land Cover Types				
Disturbed habitat	Not applicable	No	NA/NA	19.38
Urban/Developed	Not applicable	No	NA/NA	71.95
			Subtotal:	*91.33*
			Total:	**413.88**

Notes: Totals may not sum due to rounding.

1 CDFW has determined the community to be sensitive.

2 The conservation status of a vegetation community is designated by a number from 1 to 5, preceded by a letter reflecting the appropriate geographic scale of the assessment (G = global, S = state). The numbers have the following meaning:
1 = critically imperiled
2 = imperiled
3 = vulnerable to extirpation or extinction
4 = apparently secure
5 = demonstrably widespread, abundant, and secure
NA = not applicable
GNA = global rank not applicable
SNA = state rank not applicable
Unranked= Associations that are considered sensitive, but have not been ranked

Native Vegetation Communities

Vegetation community descriptions are taken from A Manual of California Vegetation, Online Edition (CNPS 2025b).

Cheesebush – Sweetbush Scrub

Cheesebush – sweetbush scrub (*Ambrosia salsola – Bebbia juncea* Shrubland Alliance) has cheesebush (*Ambrosia salsola*), sweetbush (*Bebbia juncea*), woolly brickellbush (*Brickellia incana*), and/or desertsenna (*Senna armata*) as dominant or co-dominant in the shrub canopy with Wiggins' cholla (*Cylindropuntia echinocarpa*), brittlebush (*Encelia farinosa*), California jointfir (*Ephedra californica*), Mojave rabbitbrush (*Ericameria paniculata*), California buckwheat (*Eriogonum fasciculatum*), white ratany (*Krameria grayi*), creosote bush (*Larrea tridentata*), and beavertail pricklypear (*Opuntia basilaris*). This alliance can be found on intermittently flooded channels, arroyos, washes, valleys, flats, and rarely flooded low-gradient deposits. Soils are alluvial, sandy and gravelly, and disturbed desert pavement. Two (2) associations of the alliance were mapped within the Study Area: *Ambrosia salsola – Larrea tridentata* and *Ambrosia salsola* association. These associations were mapped in the gen-tie portion Study Area.

Fiddleneck – Phacelia Fields

Fiddleneck – phacelia fields (*Amsinckia* [*menziesii*, *tessellata*] – *Phacelia* spp. Herbaceous Alliance) has Menzies' fiddleneck (*Amsinckia menziesii*), bristly fiddleneck (*Amsinckia tessellate*) and/or *Phacelia* spp. or other *Amsinckia* sp. as seasonally co-dominant in the herbaceous layer. Additional local species present include California saltbush (*Atriplex californica*), *Avena* spp., ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), red brome (*Bromus rubens*), exserted Indian paintbrush (*Castilleja exserta*), and *Erodium* spp. Emergent shrubs may be present at low cover. This alliance can be found along upland slopes, broad valleys, ocean bluffs, grazed or recently burned hills, fallow fields. Soils are well drained and loamy, and they are often subject to high levels of disturbance. One (1) association of the alliance, *Amsinckia menziesii – Erodium* spp., was mapped in the BESS portion of the Study Area.

California Sagebrush – (Purple Sage) Scrub

California sagebrush – (purple sage) scrub (*Artemisia californica* – [*Salvia leucophylla*] Shrubland Alliance) has California sagebrush (*Artemisia californica*) and/or purple sage (*Salvia leucophylla*) as dominant or co-dominant in the shrub canopy with chamise (*Adenostoma fasciculatum*), coyotebrush (*Baccharis pilularis*), bladderpod spiderflower (*Cleome isomeris*), orange bush monkeyflower (*Diplacus aurantiacus*), California brittlebush (*Encelia californica*), brittlebush, California jointfir, narrowleaf goldenbush (*Ericameria linearifolia*), California buckwheat, and chaparral yucca (*Hesperoyucca whipplei*). This alliance can be found on slopes of variable aspects, but usually steep and rarely flooded, low-gradient deposits along streams. Soils are alluvial or colluvial derived. One (1) association of the alliance, *Artemisia californica – Eriogonum fasciculatum*, was mapped in the gen-tie portion Study Area.

Big Sagebrush

Big sagebrush (*Artemisia tridentata* Alliance) has big sagebrush (*Artemisia tridentata*) as dominant or co-dominant in the shrub canopy with Acton's encelia (*Encelia actoni*), Mormon tea (*Ephedra viridis*), and California buckwheat (*Eriogonum fasciculatum*). Shrub canopy is open to continuous and emergent trees may be present at low cover. The herbaceous layer is usually sparse to intermittent and grassy. This alliance can be found on plains, alluvial fans, bajadas, pediments, lowers slopes, valley bottoms, seasonal and perennial stream channels, and dry washes. Soils are well drained and consist of loam or sand. Three (3) associations of the alliance were mapped within the Study Area: Artemisia tridentata Association, Artemisia tridentata-*Eriogonum fasciculatum* Association, and *Artemisia tridentata-Ericameria nauseosa* Association. These associations were found in the BESS and Southern Gen-tie portions of the Study Area.

Fourwing Saltbush Scrub

Fourwing saltbush scrub (*Atriplex canescens* Shrubland Alliance) has fourwing saltbush (*Atriplex canescens*) as dominant or co-dominant in the shrub canopy with burrobush (*Ambrosia dumosa*), cheesebush (*Ambrosia salsola*), spiny saltbush (*Atriplex confertifolia*), cattle spinach (*Atriplex polycarpa*), Mormon tea, hop sage (*Grayia spinosa*), and creosote bush (*Larrea tridentata*). Emergent trees may be present at low cover This alliance can be found along playas, old beach and shores, lake deposits, dissected alluvial fans, rolling hills or channel beds. Soils are carbonate rich, alkaline, sandy, or sandy clay loams. One (1) association, *Atriplex canescens*, was mapped in the gen-tie portion Study Area.

Mormon Tea Scrub

Mormon tea scrub (*Ephedra viridis* Shrubland Alliance) has Mormon tea as dominant or co-dominant in the shrub canopy with big sagebrush and rubber rabbitbrush (*Ericameria nauseosa*). Emergent trees may be present at low cover, including California juniper. This alliance can be found along ridges, hills, mountains, and channel beds. Soils are shallow derived from alluvium, granitic substrate, bedrock, colluvium. One (1) association, *Ephedra viridis*, was mapped primarily in the BESS portion of the Study Area.

Rubber Rabbitbrush Scrub

Rubber rabbitbrush scrub (*Ericameria nauseosa* Shrubland Alliance) has rubber rabbitbrush as dominant or co-dominant in the shrub canopy with big sagebrush, *Ephedra* spp., and California buckwheat. Emergent trees may be present at low cover, including California juniper. This alliance can be found along all topographic settings,

especially in disturbed settings. Soils are well-drained sands and gravels. Two (2) associations, *Ericameria nauseosa* and *Ericameria nauseosa-Juniperus californica/*herb, were mapped within the BESS and gen-tie portions of the Study Area.

California Buckwheat Scrub

California buckwheat scrub (*Eriogonum fasciculatum* Shrubland Alliance) has California buckwheat or chaparral yucca as dominant or co-dominant in the shrub canopy in cismontane stands with California sagebrush, coyotebrush, orange bush monkeyflower, California brittlebush, brittlebush, and Menzies' goldenbush (*Isocoma menziesii*). Emergent trees may be present at low cover, including California juniper. This alliance can be found in upland slopes, intermittently flooded arroyos, channels and washes, and rarely flooded low-gradient deposits. Soils are coarse, well drained, and moderately acidic to slightly saline. Two (2) associations, *Eriogonum fasciculatum* and *Eriogonum fasciculatum* var. *foliolosum – Juniperus californica*, were mapped in the BESS and north of the Vincent Substation portions of the Study Area.

California Buckwheat – Parish's Goldeneye Scrub

California buckwheat – Parish's goldeneye scrub (*Eriogonum fasciculatum – Viguiera parishii* Shrubland Alliance) has California buckwheat and/or Parish's goldeneye (*Viguiera parishii*) as dominant or co-dominant in the shrub canopy with burrobush (*Ambrosia dumosa*), cheesebush, big sagebrush (*Artemisia tridentata*), sweetbush, blackbrush (*Coleogyne ramosissima*), buck-horn cholla (*Cylindropuntia acanthocarpa*), Wiggins' cholla, brittlebush, and Nevada jointfir (*Ephedra nevadensis*). This alliance can be found in wash and arroyo margins, rocky to bouldery alluvium, canyons, and moderate to steep colluvial slopes and ridges. Soils are well drained and derived from granitic or volcanic rock. One (1) association, *Eriogonum fasciculatum* rock outcrop, was mapped north of the Vincent Substation in the Study Area.

California Walnut Groves

California walnut groves (*Juglans californica* Forest and Woodland Alliance) have Southern California walnut (*Juglans californica*) as dominant or co-dominant in the tree canopy with other native trees. One (1) association, *Juglans californica/*annual herbaceous, was mapped adjacent to residential property (possibly ornamental plantings in origin) north of the Vincent Substation in the Study Area.

California Juniper Woodland

California juniper woodland has California juniper as dominant or co-dominant in the small tree canopy with single-leaf pinyon (*Pinus monophyla*) and blue oak (*Quercus douglasii*). Local shrubs may include big sagebrush *Ephedra* spp., chaparral yucca, and scale broom (*Lepidospartum squamatum*). This alliance can be found along ridges, slopes, valleys, alluvial fans, and valley bottoms. Soils are porous, rocky, coarse, sandy, or silty, and are often very shallow. Three (3) associations, *Juniperus californica*, *Juniperus californica-Adenostoma fasciculatum-Eriogonum fasciculatum*, and *Juniperus californica-Ericameria linearifolia/*annual-perennial herb, were mapped within the BESS and gen-tie portions of the Study Area.

Naturalized (Non-Native) Vegetation Communities

Wild oats and Annual Brome Grasslands

Wild oats and annual brome grasslands (*Avena* spp.-*Bromus* spp. Herbaceous Semi-Natural Alliance) has slender oat (*Avena barbata*), common wild oat (*Avena fatua*), stiff brome (*Brachypodium distachyon*), greater quaking-grass (*Briza maxima*), great brome, soft brome (*Bromus hordeaceus*) and/or wall barley (*Hordeum murinum*) as dominant or co-dominant with other non-natives in the herbaceous layer. Emergent trees and shrubs may be present at low cover. This alliance can be found along all topographic settings in foothills, waste places, rangelands, and openings in woodlands. One (1) association, *Bromus hordeaceus-Amsinckia menziesii-Hordeum murinum*, was mapped adjacent to the Vincent Substation in the Study Area.

Red Brome or Mediterranean Grass Grasslands

Red brome or Mediterranean grass grasslands (*Bromus rubens* – *Schismus* [*arabicus*, *barbatus*] *Bromus rubens* Alliance) has red brome, Arabian schismus (*Schismus arabicus*), and/or common Mediterranean grass (*Schismus barbatus*) as dominant or co-dominant with other non-natives in the herbaceous layer. Emergent shrubs may be present at low cover. This habitat can be found in all topography settings and soil textures. One (1) association, *Bromus rubens* – mixed herbs, was mapped adjacent to the Vincent Substation in the Study Area.

Disturbed and Developed Land Cover Types

Disturbed Habitat

Although not recognized by the Manual of California Vegetation, Online Edition (CNPS 2025b) or the Natural Communities List (CDFW 2025e), disturbed habitat is described in the Draft Vegetation Communities of San Diego County (Oberbauer et. al. 2008). Disturbed habitat is described as areas generally lacking vegetation due to high levels of existing or historical human disturbance and are no longer recognizable as a native or naturalized vegetation association. Areas mapped as disturbed habitat may include unpaved roads, trails, and graded areas (Oberbauer et. al. 2008). Vegetation in these areas, if present at all, is usually sparse and dominated by non-native weedy herbaceous species (Oberbauer et. al. 2008). Areas mapped as disturbed habitat were found throughout the Study Area and were usually associated with developments or infrastructure.

Urban/Developed

Although not recognized by the Manual of California Vegetation (CNPS 2025b) or the Natural Communities List (CDFW 2025e), the urban/developed mapping unit (or developed land) is described in Draft Vegetation Communities of San Diego County (Oberbauer et. al. 2008). This mapping unit describes areas supporting human-made structures, including homes, yards, sidewalks, and other highly modified lands supporting structures associated with dwellings or other permanent structures. Vegetation in these areas, if present at all, is typically associated with ornamental landscaping that has been included in the development footprint (Oberbauer et. al. 2008). Most of the developed lands in the Study Area included the large, paved substation and roads.

3.2.1.8 Potential Jurisdictional Aquatic Resources

Approximately 3.80 acres of potential jurisdictional waters regulated by RWQCB and CDFW were found within the Study Area, as summarized in Table 3.2-4, Summary of Potential Jurisdictional Waters Within the Study Area, and

illustrated in Figure 3.2-1, Hydrologic Features. Impacts to these features will require permits from the RWQCB and CDFW before any Project activities take place. Based upon the current definition of waters of the U.S. per the Clean Water Act, no features were considered to be water of the U.S. under the jurisdiction of the U.S. Army Corp of Engineers due to the ephemeral-nature of each; however, an Approved Jurisdictional Determination will need to be sought from the agency to document this conclusion. No impacts to the Santa Clara River are proposed.

Table 3.2-4. Summary of Potential Jurisdictional Waters Within the Study Area

Jurisdiction	Study Area (acres)
RWQCB/CDFW	
Features	
Non-Wetland Waters	3.34
Swales	0.27
Erosional Features	0.05
Total	**3.80**

Notes: RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.

3.2.1.9 Sensitive and Special-Status Plant Species

The 80 plant species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 and that are known to occur within the 14 USGS 7.5-minute topographic quadrangles that the Study Area is in and the quadrangles that the 10-mile buffer intersects, as well as the species provided by the query of the USFWS' Information for Planning and Consultation, are provided in Appendix 3.2B (CDFW 2025a; CNPS 2025a; USFWS 2025d). This appendix provides evaluations for each of the special-status species' occurrence in the Study Area vicinity and their potential to occur based on known range, habitat associations, preferred soil substrate, life form, elevation, and blooming period. Special-status plant species that have low potential or are not expected to occur are not further analyzed in this document because no direct, indirect, or cumulative impacts are expected based on the negative surveys and evaluation that these species do not have a moderate or high potential to occur onsite.

Of the 80 special-status plant species, the following 11 species were initially determined to have a moderate or high potential to occur due to suitable habitat being present and having recent records in the vicinity or region: California androsace (*Androsace elongata* ssp. *acuta*), club-haired mariposa lily (*Calochortus clavatus* var. *clavatus*), slender mariposa-lily (*Calochortus clavatus* var. *gracilis*), Plummer's mariposa-lily (*Calochortus plummerae*), Peirson's morning-glory (*Calystegia peirsonii*), Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*), ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*), green monardella (*Monardella viridis*), California spineflower (*Mucronea californica*), Robbins' nemacladus (*Nemacladus secundiflorus* var. *robbinsii*), and Lemmon's syntrichopappus (*Syntrichopappus lemmonii*). None of these species are listed under FESA or CESA.

Special-status plant surveys were conducted in 2023 to determine the presence or absence of plant species that had a moderate or high potential to occur in the Study Area. Two (2) sensitive plant species, short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) and golden linanthus (*Leptosiphon aureus*), were mapped during the focused special-status plant surveys in 2023 within the proposed gen-tie route portion of the Study Area, as shown in Figure 3.2-10, Sensitive or Special-Status Species Survey Results. CNDDB forms for the occurrences are found in Appendix 3.2J, CNDDB Forms. The remaining nine (9) species were then reduced to a low potential to occur and will not be analyzed further. Sensitive plant species potential to occur within 1,000 feet of the gen-tie route options are

expected to be similar to the Study Area because there are no significant changes in topography, geology, or hydrology within that distance.

Two additional special-status plant species, Douglas' fiddleneck (*Amsinckia douglasiana*) and Raven's blazing-star (*Mentzelia ravenii*), were recorded on one day of the special-status plant surveys but were not mapped. Instances of Douglas' fiddleneck did not occur in database queries and was not a focal species based upon the initial habitat assessment for special-status. At the time rare plant surveys were conducted, Raven's blazing-star did not have a CRPR rank. Raven's blazing star received a rank in March 2025 (CNPS 2025a). Finally, two Southern California black walnut, which is a CRPR 4.2 species, were mapped within a residential property but are assumed to have been planted since the habitat in the Study Area is atypical for the species. As such, it will not be analyzed as a special-status species but are included in the protected tree analysis.

Short-Joint Beavertail

Short-joint beavertail has a CRPR of 1B.2, which is defined as plants rare, threatened, or endangered in California and elsewhere, with 20-80% of occurrences threatened (CNPS 2025a). The species is a cactus that can be found in creosote bush scrub, chaparral, pinyon-juniper woodland, and Joshua tree woodland (CDFW 2025a). Short-joint beavertail was mapped within the proposed gen-tie alignment portion of the Study Area, as shown in Figure 3.2-10, Sensitive or Special-Status Species Survey Results.

Golden Linanthus

Golden linanthus has a CRPR of 4.2, which is defined as a plant with limited distribution and is moderately threatened in California (CNPS 2025a). The species can be found in chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland (CDFW 2025a). The species was mapped within the proposed gen-tie alignment portion of the Study Area, as shown in Figure 3.2-10, Sensitive or Special-Status Species Survey Results.

Douglas' Fiddleneck

Douglas' fiddleneck has a CRPR of 4.2, which is defined as a plant with limited distribution and is moderately threatened in California (CNPS 2025a). The species can be found in cismontane woodland and valley and foothill grassland (CDFW 2025a). The species was inadvertently not mapped, but it is assumed to have occurred in juniper woodland.

Raven's Blazing-Star

Raven's blazing-star has a CRPR of 1B.3, which is defined as plants rare, threatened, or endangered in California and elsewhere, with less than 20% of occurrences threatened (CNPS 2025a). The species can be found in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland. The species was not mapped because it did not have a CRPR at the time of the survey. Raven's blazing-star received a CRPR rank in March 2025 (CNPS 2025a), so it was not considered a special-status plant at the time of the surveys.

3.2.1.10 Sensitive and Special-Status Wildlife Species

The 62 wildlife species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 and that are known to occur within the 14 USGS 7.5-minute topographic quadrangles that the Study Area is in and the quadrangles that the 10-mile buffer intersects, as well as the species provided by the query of the USFWS'

Information for Planning and Consultation and Los Angeles County's Sensitive Bird Species, are provided in Appendix 3.2B (CDFW 2025a; CNPS 2025a; USFWS 2025d; Los Angeles Audubon 2009). This appendix provides evaluations for each of the special-status species' occurrence in the Study Area vicinity and their potential to occur based on known range and habitat associations. Special-status wildlife species that have low potential or are not expected to occur are not further analyzed in this document because no direct, indirect, or cumulative impacts are expected based on the negative surveys and evaluation that these species do not have a moderate or high potential to occur on site. This includes three species that are included in Los Angeles County's Sensitive Bird Species (Los Angeles Audubon 2009): Scott's oriole (*Icterus parisorum*), vesper sparrow (*Pooecetes gramineus*), and western meadowlark (*Sturnella neglecta*). These three species were not observed during site surveys and have a low potential to occur in the Study Area and are not discussed further.

Two (2) special-status species were observed foraging in the BESS portion of the Study Area, loggerhead shrike (*Lanius ludovicianus*) and greater roadrunner (*Geococcyx californianus*). One species, mountain lion (*Puma concolor*), has a high potential to occur as a transient. The following six (6) special-status species had moderate to high potential to occur in the Study Area: Crotch's bumble bee, California legless lizard (*Anniella* spp.), Blainville's horned lizard (*Phrynosoma blainvillii*), Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), Bell's sage sparrow (*Artemisiospiza belli belli*), and mountain lion. The 52 special-status species with a low potential to occur (six [6] species) or species that are not expected to occur (46 species) are excluded from further discussion below, except for western burrowing owl (*Athene cunicularia hypugaea*) and American badger (*Taxidea taxus*). A discussion of western burrowing owl is provided below; however, since burrowing owl is not expected in the Study Area it is not further analyzed apart from the discussion in this section. Sensitive wildlife species potential to occur within 1,000 feet of the gen-tie route options are expected to be similar to the Study Area because there are no significant changes in topography, geology, or hydrology within that distance.

Crotch's Bumble Bee

Crotch's bumble bee is a candidate for listing as "Endangered" under CESA and is afforded the protection of CESA while the California Fish and Game Commission decides if listing the species is warranted. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (The Xerces Society 2018). In California, the species inhabits open grassland and scrub habitats (The Xerces Society 2018). The size of Crotch's bumble bee colonies has not been well documented, but like most other species of bumble bees, the species primarily nests underground (The Xerces Society 2018). Bumble bees, including Crotch's bumble bee, are generalist foragers and have been reported visiting a wide variety of flowering plants. Since it has a very short tongue, Crotch's bumble bee is best suited to forage at open flowers with short corollas (The Xerces Society 2018). The plant families most associated with observations or collections of the species from California include Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae (The Xerces Society 2018). Nectar plants known to be visited by Crotch's bumble bee include the genera *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* (Williams et al. 2014, Xerces Society et al. 2018), but it is assumed flowering plants in other genera could also support foraging by this species.

Crotch's bumble bee could use small mammal burrows within all the vegetation communities in the Study Area and forage on suitable plant species within those communities. However, no Crotch's bumble bee were observed during the surveys that occurred over two survey seasons. No bumble bees of any kind were observed during that period. Floral resources for the species are present but in limited numbers, with the Study Area being dominated by California juniper woodland, fourwing saltbush scrub, and Mormon tea scrub, as shown in Table 3.2-3, Vegetation Communities and Land Covers in the Study Area. Additionally, there are few records for the occurrence of the species or any other bumble bee from the Acton region (CDFW 2025a; iNaturalist 2025; The Xerces Society 2025).

Due to the limited foraging opportunities and the few records of bumble bees as a whole in the region, the Project is not expected to involve take of Crotch's bumble bee.

California Legless Lizard

This description provides information for three (3) potential species of legless lizard that may be found in the Study Area: Northern California legless lizard (*Anniella pulchra*), Southern California legless lizard (*Anniella stebbinsi*), and California legless lizard (*Anniella* spp.). This is due to the current uncertainty of the taxonomy of the genus in the Study Area's region (Nafis 2025). All three are considered CDFW SSC. These species are most commonly found in coastal dunes and coastal scrub, but also oak woodland, Joshua tree woodland, and pinyon-juniper woodland (Hansen and Shedd 2025), and are generally found in moist, loose soil (CDFW 2025a). California legless lizard has moderate potential to occur in the Study Area beneath the larger California junipers due to the expected higher moisture content of the soil.

Blainville's Horned Lizard

Blainville's horned lizard is a CDFW SSC that occurs throughout most of California in locations west of the desert and Cascade-Sierran highlands, in elevations from sea level to around 2,438 meters (8,000 feet) AMSL (Hansen and Shedd 2025). Despite a wide-ranging distribution, the species seems to be restricted to localized populations because of its association with loose soils that have a high sand content (Jennings and Hayes 1994). The species is found in a wide variety of vegetation types with the requisite loose sandy soils, including California sagebrush scrub, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest (Klauber 1939; Stebbins 1954). Up to 90% of the diet of Blainville's horned lizard consists of native harvester ants (*Pogonomyrmex* spp.) (Pianka and Parker 1975), and the species does not appear to eat non-native Argentine ants (*Linepithema humile*) (Jennings and Hayes 1994). The species has a moderate potential to occur in a variety of the vegetation communities in the Study Area.

Greater Roadrunner

Observations of greater roadrunner were made in the Study Area but were not mapped since the species is highly mobile and expected to occur throughout the area. The species habitats include areas dominated by creosote, mesquite, chaparral, and tamarisk, as well as grasslands, riparian woodlands, and canyons (Cornell Lab 2025). Greater roadrunner nest sites are 3 to 10 feet or more off the ground, on a horizontal branch or in the crotch of a sturdy bush, cactus, or small tree (Cornell Lab 2025). Greater roadrunner is considered sensitive by the County (Los Angeles Audubon 2009). The species could use the California juniper in the Study Area for nesting and could forage throughout the Study Area.

Loggerhead Shrike

A single observation of loggerhead shrike was made in the Study Area, as shown in Figure 3.2-10, Sensitive or Special-Status Species Survey Results. The species is a CDFW SSC that occurs throughout the United States, Mexico, and portions of Canada and is widespread at the lower elevations in California (Humple 2008). Preferred habitats for the species are open areas that include scattered shrubs, trees, posts, fences, utility lines, or other structures that provide hunting perches with views of open ground, as well as nearby spiny vegetation or man-made structures (such as the top of chain-link fences or barbed wire) that provide a location to impale prey items for storage or manipulation (Humple 2008). Nest sites are chosen based more on the cover than the particular vegetation species and are usually constructed in a dense shrub or tree well below the crown and are well concealed

(Yosef 1996). The species could use the California juniper in the Study Area for nesting and could forage throughout the Study Area.

Southern California Rufous-Crowned Sparrow

Southern California rufous-crowned sparrow is on the CDFW Watch List and occurs in sparse, mixed chaparral and coastal scrub habitats (CDFW 2025a). The species frequents relatively steep, often rocky hillsides with grass and forb patches and also grassy slopes without shrubs, if rock outcrops are present (CDFW 2025a). The species has a moderate potential to occur on the slopes of the gen-tie portion of the Study Area.

Bell's Sage Sparrow

Bell's sage sparrow is on the CDFW Watch List and occupies semi-open habitats with evenly spaced shrubs that are 1 meters to 2 meters (3.3 feet to 6.6 feet) high (County of Riverside 2008). CDFW still recognizes *A. belli belli* but the subspecies has been reclassified as its own species Bell's sparrow (*A. belli*), with the other subspecies *A. belli nevadensis* reclassified as sagebrush sparrow (*A. nevadensis*). For site selection, specific shrub species may be less important than overall vertical structure, habitat patchiness, and vegetation density (Wiens and Rotenberry 1981). At higher elevations in Southern California, Bell's sage sparrow often occurs in big sagebrush (County of Riverside 2008). Sage sparrows seek cover in fairly dense stands in chaparral and scrub habitats during the breeding season. Bell's sage sparrow has a moderate potential to occur in the *Artemisia tridentata* dominant and codominant vegetation communities in the Study Area.

Mountain Lion

Mountain lions associated with Southern California and Central Coast populations are designated as a State candidate endangered species. On April 16, 2020, the California Fish and Game Commission voted to designate the Southern California and Central Coast mountain lions as a candidate for listing as an endangered species under the CESA. The vote triggered a 1-year review by CDFW to determine whether these mountain lion populations should be formally protected under CESA; however, the listing status of this species is still currently unresolved at the time of this report.

The California mountain lion occurs throughout much of California open space, occurring in or moving through nearly all but the most urbanized settings. This species inhabits a wide range of habitat types where prey items such as mule deer (*Odocoileus hemionus*) and bighorn sheep (*Ovis canadensis*) are present, from interior, arid rocky scrublands, to upper montane coniferous forest, to chaparral, coastal scrub, and woodland habits along the coastal plain.

According to the Mountain Lion Predicted Habitat dataset (CDFW 2025b), the proposed BESS portion of the Study Area consists primarily of high quality habitat and most of the proposed gen-tie route is within low quality habitat. However, CDFW's Mountain Lion Habitat Suitability dataset has most of the proposed BESS portion of the Study Area and gen-tie alignment as low suitable habitat (Dellinger et al. 2020; CDFW 2025b). As such, the species could occur throughout most of the Project area during home range movement, dispersal, and foraging. The potential to occur is based on habitat suitability: scrub vegetation, presence of mule deer, and proximity to high-quality habitat on large swaths of public lands to the east in the Angeles Nation Forest. However, females keep their young in dens located in rocky terrain or in dense vegetation that provide cover but avoid roads and stay at a distance from human disturbance four times greater (approximately 600 meters) than non-reproductive mountain lions (Center for Biological Diversity and the Mountain Lion Foundation 2019). The Study Area is located adjacent to residential

neighborhoods, Sierra Highway, the Southern Pacific Railroad lines, Carson Mesa Road, and SR-14, all of which have associated human presence. As such, females of the species are not expected to establish natal dens in the Study Area.

Western Burrowing Owl

As of October 15, 2024, western burrowing owl (*Athene cunicularia hypugaea*) is being considered for listing under the California Endangered Species Act (CESA) and the species is provided with the protection of CESA. Primary habitat requisites for burrowing owl are the presence of burrows for roosting and nesting and vegetation structure that is relatively short and sparse (Center for Biological Diversity et al. 2024). The species was historically abundant throughout Southwestern California, including up to the 610-meter (2,001.31 feet) elevation contour in the Transverse Range, but have been extirpated from Ventura, western Los Angeles, and Orange counties and are near extirpation in San Diego County (Center for Biological Diversity et al. 2024). The petition to list the species does not include the Study Area in the breeding range of the species and does not include the Study Area in one (1) of the 16 burrowing owl regions in California (Center for Biological Diversity et al. 2024).

CDFW's range and predicted habitat for burrowing owl does not include the Study Area (CDFW 2025f). There are five (5) CNDDB records of the species within 10 miles that are in the Antelope Valley to the north of the Study Area, with the most recent being 2006 (CDFW 2025a). Citizen science-based databases have only five (5) records within 10 miles that are in the Antelope Valley to the north of the Study Area (eBird 2025; iNaturalist 2025).

The Study Area is dominated by shrub-dominant vegetation communities that have relatively high density. The Study Area elevation ranges from 2,700 feet to 3,500 feet above mean sea level, which is above the known historic occurrences of the species in the Transverse Ranges. California ground squirrel burrows are present but are sparse and none of the extensive surveys of the Study Area have identified burrowing owl or diagnostic sign (i.e., pellets, feathers, and extensive whitewash). Based upon the lack of suitable habitat; the Study Area being above the known elevation occurrence of the species in the region; the lack of observations of the species during extensive surveys; and the limited number of records of the species within 10 miles, burrowing owl is not expected in the Study Area and will not be further analyzed.

American Badger

American badger is a CDFW Species of Special Concern that is an uncommon, permanent resident found throughout most of the state, except in the northern North Coast (CDFW 2025f). Suitable habitat for the species is characterized by herbaceous, shrub, and open stages of most habitats with dry, friable soils (CDFW 2025f). American badger dig burrows in friable soil for dens and frequently reuse old burrows; although, some may dig a new den each night, especially in summer (CDFW 2025f). American badger is a highly specialized burrowing mammal that primarily eats burrowing rats, mice, chipmunks, and especially ground squirrels and pocket gophers (CDFW 2025f).

There is one (1) CNDDB record of American badger within 20 miles of the Study Area from 1930 at Lake Los Angeles (CDFW 2025a). There is one (1) 2021 iNaturalist record of the species approximately 8.6 miles to the west near Agua Dulce (iNaturalist 2025). American badger has been determined to have a low potential to occur in the Study Area due to the presence of suitable habitat, but no individuals were observed and no diagnostic sign (i.e., burrows or digs with the species' conspicuous claw marks) were observed during the extensive surveys of the Study Area. As such, the species will not be further analyzed.

3.2.1.11 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (16 USC 703 et seq.), as amended (MBTA), prohibits the intentional take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so. Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

3.2.1.12 Bald and Golden Eagle Act

Golden eagle is protected by the federal The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c) and are a fully protected species in California (Fish and Game Code 3511). The species is an uncommon permanent resident and migrant throughout California, except the center of the Central Valley (CDFW 2025f). Golden eagle nest on cliffs of all heights and in large trees in open areas, with rugged, open habitats with canyons and escarpments used most frequently (CDFW 2025f). The species needs open terrain for hunting, including grasslands, deserts, savannahs, and early successional stages of forest and shrub habitats (CDFW 2025f). Golden eagle eats mostly rabbits and rodents, but it also takes other mammals, birds, reptiles, and some carrion (CDFW 2025f).

There is one (1) CNDDB record of golden eagle nesting within 25 miles of the Study Area (CDFW 2025a). The record dates are from 1963, 1964, and 1965, and document the collection of eggs from the species for each of those years. The record location has a 1-mile accuracy and the location description was "Acton, in Aliso Canyon, off Soledad Canyon, in Angeles National Forest," which CDFW interpreted as being closer to the mouth of Aliso Canyon (CDFW 2025a). The center of the 1-mile circle is approximately 2 miles to the south-southwest of the Study Area in an area that is devoid of cliffs or open areas with large trees (Google Earth 2025).

No eagle or other raptor nests were identified within the Study Area and 500-foot buffer during the focused raptor nest surveys conducted in 2025. The Study Area and surrounding area do not contain the elements (i.e., cliffs or large trees in open areas) associated with nesting by golden eagle, so nesting by the species is not expected. Additionally, the species would not be expected to nest in areas where a variety of human activity occur since the adults of the species have been documented to flush from nest when those activities happen within 1,000 meters of the nest (Spaul and Heath 2017). The activities within the residential neighborhoods surrounding the Study Area and the Vincent Substation are expected to deter golden eagle from nesting within sight of these areas. Potential nesting in the Angeles National Forest to the east of the site are not expected to be visible from the Study Area and activities during construction would not affect any potential nesting. The species could forage or migrate through the Study Area but the Project transmission facilities will be designed consistent with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (Avian Power Line Interaction Committee [APLIC] 2006) where feasible. Transmission facilities will also be evaluated for potential collision reduction devices in accordance with *Reducing Avian Collisions with Power Lines: The State of Art in 2012* (APLIC 2012).

3.2.1.13 Wildlife Corridors and Habitat Linkages

Wildlife movement corridors have been recognized by federal and state agencies as important habitats worthy of conservation. Wildlife corridors provide migration channels seasonally (i.e., between winter and summer habitats), and provide non-migrant wildlife with the opportunity to move within their home range for food, cover, reproduction,

and refuge. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals and may also serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as steppingstones for dispersal.

The Study Area does not overlap with any South Coast Missing Linkages, California Essential Habitat Connectivity Areas or Natural Landscape Block or Natural Landscape Block (South Coast Wildlands 2008, CDFW 2014, 2017). Given that the existing vegetation is surrounded on three (3) sides by similar habitats, the Study Area likely provides habitat for local wildlife movement but is not recognized as an important regional wildlife corridor by any state agency or jurisdiction and is of limited linkage value on a landscape scale. Furthermore, although local wildlife may utilize the Study Area for movement, regional connectivity is highly limited by residential neighborhoods, Sierra Highway, the Southern Pacific Railroad lines, Carson Mesa Road, and SR-14 to the west. Thus, the Project is not expected to impose significant barriers to wildlife movement.

3.2.1.13.1 California Desert Native Plant Act Covered Species

Four (4) species covered by the California Desert Native Plants Act were mapped within the Project footprint and a 150-foot buffer: chaparral yucca, Wiggins' cholla, beavertail pricklypear (*Opuntia basilaris* var. *basilaris*) and short-joint beavertail. Table 3.2-5, California Desert Native Plant Act Covered Species in the Survey Area, summarizes the numbers within each area and Figure 3.2-11, California Desert Native Plant Act Covered Species in the Survey Area, shows the locations of these species.

Table 3.2-5. California Desert Native Plant Act Covered Species in the Survey Area

Species	Amount
chaparral yucca	1,118
Wiggins' cholla	644
beavertail pricklypear	94
short-joint beavertail	4
Total	**1,860**

3.2.1.14 Los Angeles County Significant Ecological Area – Protected Trees

A total of 1,215 trees were documented within the Survey Area. Of these, 1,191 trees are located within the Santa Clara River SEA, and 1,069 of those are classified as protected California junipers as shown in Figure 3.2-12, Protected Trees, and summarized in Table 3.2-6, Summary of Trees Within the SEA Portion of the Study Area. The species is a shrub that is native to California and found only slightly beyond California borders (Calflora 2025). California juniper typically has several trunks and grows up to 13 feet (Jepson Flora Project 2025). Apart from the 1,069 California juniper, nine (9) other protected trees were identified (velvet ash, Southern California black walnut, California sycamore (*Platanus racemosa*), and Fremont cottonwood (*Populus fremontii*); however, no impacts would occur to California sycamore or Fremont cottonwood. Two of the trees, velvet ash and Southern California black walnut, were found within the SEA portion of the Study Area as ornamental trees associated with a residence. These species do not typically occur in the habitats in the Study Area. The protected trees include 1,004 standard protected trees and 74 heritage trees. The remaining 194 trees consist of 81 located outside the SEA and 113 trees within the SEA that are classified as dead. Appendix A, Tree Location, of Appendix A, Protected Tree Report, of Appendix 3.2G, Biota Report, provides detailed locations of all individual trees assessed for the proposed Project

and full results of the survey. Because the BESS facility site is located entirely outside of the Santa Clara SEA boundaries, the SEA ordinance and SEA program do not apply to that portion of the Project. Thus, there are no protected trees on the BESS facility site. As depicted in Figure 3.2-12, there are some protected and heritage trees located along the two gen-tie line routes.

Table 3.2-6. Summary of Trees Within the SEA Portion of the Study Area

Scientific Name	Common Name	Total Number of Protected Trees	Number of Heritage Trees	Total Number of Non-Protected Trees	Total Number of Trees
Juniperus californica	California juniper	1,069	73	113	1,182
Fraxinus velutina	velvet ash	1	0	0	1
Juglans californica	Southern California black walnut	2	0	0	2
Platanus racemosa	California sycamore	1	0	0	1
Populus fremontii	Fremont cottonwood	5	1	0	5
	Total	**1,078**	**74**	**113**	**1,191**

3.2.2 Environmental Analysis

Potential direct. indirect and cumulative impacts to biological resources were evaluated to determine the potential permanent and temporary effects of construction and operation of the proposed Project. Results from the field surveys, habitat evaluations and literature review were evaluated to address the potential for presence of sensitive biological resources within the Study Area were presented in the prior section.

Section 3.2.2, contained herein, identifies the biological resources that may be affected directly or indirectly and may have temporary or permanent impacts. These impact categories are defined as follows:

Direct. The CEQA defines direct impacts as those that result from the project and occur at the same time and place. Project related activities, such as alteration, disturbance or destruction of biological resources are considered a direct impact. Direct impacts for this Project are those associated with the grading and development of the BESS facility site and both gen-tie routes.

Indirect. CEQA defines indirect impacts as impacts that are caused by the project but do not occur at the same time but rather at different but a reasonably foreseeable future time. Indirect impacts associated with the proposed Project include effects to biological or aquatic resources as a result of dust, noise, vibration, or potential erosion.

Permanent. All impacts that result in the irreversible removal of biological resources are considered permanent. Permanent impacts for the proposed Project include the conversion of land for the BESS facility site and associated access facilities.

Temporary. Temporary impacts are considered to have reversible effects on biological resources. Temporary impacts associated with the proposed Project include tension/pulling sites along the gen-tie right of way, and other work associated with temporary access along the gen-tie line.

3.2.2.1 Significance Criteria

Factors typically used to evaluate the significance of project-related impacts are set forth in Appendix G of the CEQA Guidelines. CEQA Guidelines Appendix G is a screening tool, not a method for setting thresholds of significance. Appendix G is typically used in the Initial Study phase of the CEQA process, asking a series of questions. The purpose of these questions is to determine whether a project requires an Environmental Impact Report, a Mitigated Negative Declaration, or a Negative Declaration.

As the Governor's Office of Planning and Research stated, "Appendix G of the Guidelines lists a variety of potentially significant effects but does not provide a means of judging whether they are indeed significant in a given set of circumstances." The answers to the CEQA Guidelines Appendix G questions are not determinative of whether an impact is significant or less than significant. Nevertheless, the questions presented in CEQA Guidelines Appendix G are instructive. Potentially significant biological impacts resulting from the Project were assessed by the following criteria:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered, threatened, candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- Have a substantial adverse effect on federal or state protected WOTUS [waters of the United States] (including wetlands) as defined by Sections 404 and 401 of the 1972 Amendments to the Federal Water Pollution Control Act, commonly known as the Clean Water Act, or the Porter-Cologne Act, either through direct removal, filling, hydrological interruptions, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory native wildlife corridors or impede the use of wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, NCCP [natural community conservation plan], or other approved local, regional, or state habitat conservation plan.

CEQA Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if the species is not on one of the official lists if, for example, it is likely to become endangered in the foreseeable future.

3.2.2.2 CEQA Appendix G Assessment Criteria

The following impact analysis includes both gen-tie options, so the potential direct permanent and temporary impact acreages presented are in the comprehensive analyses of both gen-tie routes are greater than the expected actual impact acreages associated with constructing only one (1) gen-tie.

3.2.2.2.1 Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered, threatened, candidate, sensitive, or special-status in

local or regional plans, policies, or regulations, or by CDFW or USFWS?

Direct Impacts

Permanent and temporary direct impacts to special-status plants and wildlife could occur from construction of the proposed Project.

Special-status Plants

Less than Significant with Mitigation. Two special-status plant species, Douglas' fiddleneck and Raven's blazing-star, were recorded on one day of the special-status plant surveys but were not mapped. As such the two species could be directly impacted during vegetation removal and grading activities if present. The loss of individuals during construction could be significant based upon the abundance of each being impacted and would require mitigation. **MM-BIO-1**, Special-Status Plant Species Surveys and seed collection, requires pre-construction surveys for the species to determine if the species are present and the collection of seeds should the species be present. **MM-BIO-2**, Demarcation of Disturbance Limits, requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. **MM-BIO-3**, Biological Monitoring, requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the flagged limits are adhered to during construction. **MM-BIO-4**, Worker Education Awareness Program, requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and Study Area, and measures to avoid and minimize impacts to those resources.

MM-BIO-5, On-Site Preservation, would require the establishment of a conservation area that will preserve up to approximately 135 acres of native vegetation communities (the non-impacted acres of the parcels associated with the gen-tie route) within the Study Area parcels associated with the gen-tie routes, as shown in Figure 3.2-13, Conservation Area, which will preserve habitat for the species should an ITP for the species be needed. The proposed mitigation parcels are located in the SEA and are made up of the same habitat as the land where the potential impacts would occur and thus make them ideal parcels for mitigation. The proposed mitigation land is made up of the parcels and gross acreages found in Table 3.2-7, Potential Parcels to be Used for On-Site Preservation, and shown on Figure 3.2-13, Conservation Area.

Table 3.2-7. Potential Parcels to be Used for On-Site Preservation

APN	Gross Acreage
3056-019-040 (south of railroad tracks)	12.85
3056-017-022	9.25
3056-017-016	5.07
3056-027-007	40.31
3056-015-008	40.06
3056-017-028	9.93
3056-017-027	9.90
3056-017-026	9.39
3056-017-023	40.04
Total Gross Acreage	**173.36[1]**

Notes: APN = Assessor's Parcel Number.

[1] Excludes areas where permanent impacts would occur. There will be up to approximately 3.44 acres of permanent impacts. The gross acreage of the parcels above totals 176.80 acres. Therefore, the total gross acreage when excluding the 3.44 acres of permanent impact is approximately 173.36 acres.

Redacted Preliminary ALTA Surveys have been provided in Appendix 3.2A. The ALTA survey information has been redacted to remove landowner names, non-mitigation land information, and any financial information that may be present in the title reports associated with the ALTA surveys. The parcels being considered for mitigation land are not already conserved, nor do they contain any conflicting easements or encumbrances that would preclude the use of this land for habitat mitigation, such as severed mineral rights, Williamson Act contracts, or subdivision prohibitions. Please note that the title report in the Redacted Preliminary ALTA Survey for APN 3056-015-023 includes exception 3 for an oil and gas lease on the APN. That exception has been removed from the title and is no longer applicable to the parcel. Please see the updated title report for APN 3056-15-023 included at the end of the Redacted Preliminary ALTA Survey document.

Phase I Environmental Site Assessment information for the mitigation lands is provided in Appendix 3.5A, Hazardous Materials Handling Appendices Part 1, and no current or historical recognized environmental conditions were found.

MM-BIO-6, Habitat Mitigation and Monitoring Plan, would require the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include using the seeds from any special-status plants that would be impacted and include floral resources that special-status wildlife could use in the conservation area.

Project implementation of MM-BIO-1 through MM-BIO-5 will reduce potential impacts to less than significant. Impacts will be **less than significant with mitigation**.

Two (2) additional special-status plant species, short-joint beavertail and golden linanthus, were mapped in the gen-tie route portion of the Study Area during surveys in 2023. None of the mapped individuals will be directly impacted by the Project. However, some of the individuals of both species are in close proximity to the Project construction limits. MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the integrity of any buffers established for active nests. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. Project implementation of MM-BIO-1 through MM-BIO-5 will reduce potential impacts to less than significant. Impacts will be **less than significant with mitigation**.

Special-status Wildlife

Less than Significant with Mitigation. Six (6) special-status wildlife species have a moderate or high potential to occur: Crotch's bumble bee, California legless lizard, Blainville's horned lizard, Southern California rufous-crowned sparrow, Bell's sage sparrow, and mountain lion. One (1) special-status wildlife species (loggerhead shrike) has been observed in the Study Area.

Crotch's Bumble Bee

Protocol surveys for Crotch's bumble bee conducted in 2024 and 2025 were negative for the species. During the initial survey each year, it was noted that there were very limited foraging opportunities within the Study Area.

However, bumble bees are opportunistic and highly mobile. The species typically nests underground, so nesting individuals could be highly vulnerable to injury and mortality during construction, which could crush nests and individuals, if present on site. Harm to or the loss of individuals during construction will be significant due to reducing the rare species' numbers and will require mitigation. If Crotch's bumble bee is still a candidate for listing under CESA or has been listed under CESA at the time of the start of construction of the Project, the following mitigation measures would be implemented. If the species is determined to not warrant listing under CESA at the time of the start of construction of the Project, then no mitigation is necessary. **MM-BIO-7**, Crotch's Bumble Bee Minimization Measures, would require pre-construction surveys for Crotch's bumble bee nests, with buffers established around active nests until the nests are deemed inactive.

MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the integrity of any buffers established for active nests. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. MM-BIO-4 requires the establishment of a conservation area that will preserve suitable habitat for the species (considered to be all of the native vegetation communities for Blainville's horned lizard and the communities with California juniper present for California legless lizard) and where captured individuals would be relocated. MM-BIO-5 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas that the species could use in the conservation area. If Crotch's bumble bee is still a candidate for listing under CESA or has been listed under CESA at the time of the start of construction, the Project's implementation of MM-BIO-2 through MM-BIO-7 will reduce potential direct impacts to **less than significant with mitigation**.

Special-Status Reptiles

Less than significant with mitigation. California legless lizard and Blainville's horned lizard are designated as CDFW Species of Special Concern. The loss of habitat for a special-status species is not considered as a substantial adverse effect, and therefore not considered a potentially significant impact, simply because there is an impact. That impact must also be shown to have a substantial adverse effect on the resource. In the case of an individual species, the effect of the habitat loss must be substantial and adverse relative to the range of the species (i.e., that the loss of habitat by a particular development activity will adversely affect the species as a whole, and not simply the effect that a development activity will have on a specific population). These species are vulnerable to mortality or injury during vegetation and ground disturbing activities associated with construction. It is highly unlikely that short-term construction activities could cause the greater population of these special-status species to drop below self-sustaining levels due to the relatively small area of construction activity and the short-term nature of the construction schedule. However, mortality or injury to individual species during the vegetation removal and grading portion of construction is a reasonable possibility, so direct permanent impacts are possible and would be significant. **MM-BIO-8,** Special-Status Wildlife Relocation Plan, requires the preparation of a plan that has a process of clearance surveys and relocation of special-status wildlife into non-impacted portions of the Study Area. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for relocating any special-status reptiles. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. MM-BIO-5 requires the establishment of a conservation area that will preserve suitable habitat for the species (considered to be all of the native vegetation communities for Blainville's horned lizard and the communities with California juniper present for California legless lizard) and where captured individuals would be relocated. MM-BIO-6 requires the preparation of a restoration plan,

its implementation, and a monitoring period to restore temporarily impacted areas that the species could use in the conservation area. Project implementation of MM-BIO-3. MM-BIO-4, MM-BIO-5, MM-BIO-6, and MM-BIO-8 will reduce potential direct impacts to **less than significant with mitigation**.

Special-Status Birds and Protected Nesting Bird Species

Less than significant with mitigation Three (3) special-status bird species, loggerhead shrike, Southern California rufous-crowned sparrow, and Bell's sage sparrow, have suitable nesting habitat on the Project site. Additionally, numerous other common species protected under the MBTA and California Fish and Game Code (Sections 3503, 3503.5, and 3513), including greater roadrunner, have suitable nesting habitat on site. Impacts to juvenile and adults of these species are not expected; however, nesting could be disrupted if construction occurs during the breeding season. Direct impacts to nesting birds could occur because of nest abandonment, reduced reproductive success, or other disruptions to nesting. Nests, eggs, and young could also be crushed or otherwise directly affected during vegetation clearing and grading. Impacts to special-status and protected nesting bird species could be potentially significant. **MM-BIO-9**, Nesting Bird Avoidance, will provide pre-construction surveys and buffer establishment for active nests. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the integrity of any buffers established for active nests. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. MM-BIO-5 requires the establishment of a conservation area that will preserve suitable habitat for the species (considered to be all of the native vegetation communities for loggerhead shrike, Southern California rufous-crowned sparrow, and Bell's sage sparrow). MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas that the species could use in the conservation area. Project implementation of MM-BIO-3. MM-BIO-4, MM-BIO-5, MM-BIO-6, and MM-BIO-9 will reduce potential direct impacts to **less than significant with mitigation**.

Mountain Lion

Less than significant with mitigation Because California mountain lion is a candidate for state listing under CESA, Project impacts resulting in direct take of California mountain lion will require an ITP under CESA through coordination with CDFW; however, no natal dens have been detected during field efforts that have resulted in extensive cover of the Project site, and none are expected. Therefore, no direct take of California mountain lion is expected to occur because of the proposed Project.

Impacts will be **less than significant with mitigation**.

Indirect Impacts

Special-Status Plants

Less than Significant with Mitigation. Potential short-term or temporary indirect impacts to short-joint beavertail and golden linanthus located in the Study Area could result from construction activities and include impacts related to or resulting from the activities outside of the Project limits, generation of fugitive dust, increased human activity, and the introduction of pollutants from construction equipment. Excessive dust can decrease the vigor and productivity of plants through effects on light, penetration, photosynthesis, respiration, and transpiration; increased penetration of phytotoxic gaseous pollutants; and increased incidence of pests and diseases. Additionally, invasive plant species could be introduced by the Project during construction and through landscaping installation that could

alter the habitat and compete with special-status plants. These indirect impacts could result in additional loss of special-status plants that could be significant. Water trucks are expected as part of Project construction, which will reduce fugitive dust. **MM-BIO-10**, Invasive Species Prevention Plan, requires the preparation and implementation of a plan that will avoid and minimize the introduction of non-native plant species that could compete for habitat space with plants that the species forages on by ensuring that vehicles and equipment used during construction are weed free. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the Invasive Species Prevention Plan will be implemented. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources, which will include a discussion on invasive plants. Project implementation of MM-BIO-3, MM-BIO-4, and MM-BIO-10 will reduce potential indirect impacts to less than significant. Impacts will be **less than significant with mitigation**.

Special-Status Wildlife

Construction

Less than Significant with Mitigation. During construction activities, indirect impacts to sensitive wildlife could include construction-related dust, soil erosion, and water runoff decreasing or permanently altering habitat suitability. Without construction-related minimization measures to control dust, erosion, and runoff, and without compliance with National Pollutant Discharge Elimination System (NPDES) requirements, indirect impacts to riparian resources and upland communities could occur. However, standard construction BMPs to control dust, erosion, and runoff, including straw bales and silt fencing, will be implemented through the General Permit for stormwater control during construction to minimize these adverse effects. Additionally, implementation of MM-BIO-2 through MM-BIO-9 to reduce indirect impacts to special-status wildlife species will also contribute to the reduction of indirect impacts to **less than significant with mitigation**.

Operation

Less than Significant. Once constructed, the Project will be available to operate 7 days per week, 365 days per year. The facility will be remotely monitored and operated by an Owner contracted O&M provider as well as 16 on-site staff. Onsite maintenance will be required, which will include replacement of inverter power modules, filters, and miscellaneous electrical repairs on an as-needed basis. During operation of the Project substation, O&M staff will service the substation periodically for switching and other operation activities. Light duty maintenance trucks will be utilized to perform routine maintenance, including but not limited to equipment testing, monitoring, repair, routine procedures to ensure service continuity, and standard preventative maintenance. Typically, one major maintenance inspection will take place annually. The Project transmission facilities will be designed consistent with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (Avian Power Line Interaction Committee [APLIC] 2006) where feasible. Transmission facilities will also be evaluated for potential collision reduction devices in accordance with *Reducing Avian Collisions with Power Lines: The State of Art in 2012* (APLIC 2012). Based upon the low volume of human activity and the proposed avian protecting Project design features, indirect impacts to wildlife during Project operation are expected to be **less than significant**.

The infrequent testing of the emergency backup generators onsite will introduce a new source of nitrogen deposition. The modeling showed that the highest nitrogen loading from such testing will be located just outside the northern boundary as shown in Appendix 3.2H. The nitrogen loading was estimated to 0.66. The potential for nitrogen deposition reduces significantly with distance from the source and the infrequent testing.

As previously discussed, the area consists primarily of vegetation communities that are classified as chaparral, coastal sage scrub, and North American desert woodland (juniper woodland) and the nitrogen loading from the project is below the critical load for those habitats, as shown in Table 3.2-8, Critical Nitrogen Loads for Biological Resources Within 6 Miles of the Project Site. As such, the nitrogen is well below any critical loads for other sensitive biological resources that are present or have the potential to occur, including short-joint beavertail, golden linanthus, Crotch's bumble bee, California legless lizard, Blainville's horned lizard, loggerhead shrike, Southern California rufous-crowned sparrow, Bell's sage sparrow, mountain lion, and jurisdictional waters. While there may be other biological species within 6 miles of the Study Area that are not listed here, the annual nitrogen deposition is well below the maximum impact area indicated above and will not be above other species' critical nitrogen loads.

Table 3.2-8. Critical Nitrogen Loads for Biological Resources Within 6 Miles of the Project Site

Biological Resource	Critical Nitrogen Loads (kg/ha/yr)
Chaparral	5-33
Coastal sage scrub	7.8-10
North American desert woodland	3-8.4

Source: Pardo et al 2011.
Note: kg/ha/yr = kilogram per hectare per year.

The quantity of nitrogen deposition from the Project emissions on vegetation will, in practice, be less than the model results because the assumptions modeled are inherently conservative (e.g., assuming the emergency backup generators are running at the same time). The nitrogen deposition will also be distributed incrementally throughout a year and not all nitrogen added to the soil during each deposition event will be available for plant use because of losses associated with soil processes. As a result, the testing of the Project's emergency backup generators will not lead to nitrogen deposition levels that exceed critical thresholds associated with significant impacts to natural vegetation communities and special status species in the vicinity of the Project site. Therefore, operations from the testing of the Project's emergency backup generators will result in less than significant impacts to natural vegetation communities and special status species within 6 miles of equipment operation.

Impacts will be **less than significant.**

3.2.2.2.2 Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.?

Direct Impacts

Less than Significant with Mitigation. As currently designed, the proposed Project will result in approximately 107.33 acres (approximately 34.32 acres temporary and approximately 73.01 acres permanent if the Northern Gen-Tie Route is selected) of direct impacts to vegetation communities and land covers through the removal of vegetation and grading of land to construct the proposed Project. The proposed Project will result in approximately 114.39 acres (approximately 40.05 acres temporary and approximately 74.34 acres permanent if the Southern Gen-Tie Route is selected) of direct impacts to vegetation communities and land covers through the removal of vegetation and grading of land to construct the proposed Project. Permanent impacts will occur due to the construction and operation of the BESS portion of the Project and access roads and transmission pole pads associated with the gen-tie line. Temporary impacts will occur due to the construction of the two (2) underground fiber optic lines within the

Southern Gen-Tie Route corridor, within areas proposed for construction laydown areas for the gen-tie work, within pull areas from stringing the gen-tie, and within other gen-tie work areas that are outside of the transmission pole pads and access roads. The total acreage for project-related impacts to the mapped vegetation communities located within the development area are provided in Table 3.2-9, Potential Impacts to Vegetation Communities and Land Covers in the Study Area.

Table 3.2-9. Potential Impacts to Vegetation Communities and Land Covers in the Study Area

Alliance	Association	CDFW Sensitive[1]	Ranking[2]	Potential Permanent Impacts - BESS[3] (Gross Acreages)	Potential Permanent Impacts – Northern Gen-Tie[4] (Gross Acreage)	Potential Permanent Impacts – Southern Gen-Tie[4] (Gross Acreage)	Potential Temporary Impacts – Northern Gen-Tie[5] (Gross Acreage)	Potential Temporary Impacts – Southern Gen-Tie[5] (Gross Acreage)
Native Communities								
Cheesebush – sweetbush scrub	*Ambrosia salsola – Larrea tridentata*	No	G4/S4	–	–	–	–	0.05
	Ambrosia salsola Association	No	G4/S4	–	–	–	0.54	1.57
Fiddleneck – phacelia fields	*Amsinckia menziesii – Erodium* spp.	No	G5/S5	2.08	–	–	–	–
California sagebrush – (purple sage) scrub	*Artemisia californica – Eriogonum fasciculatum*	No	G4/S4	–	0.08	0.08	1.85	1.85
Big sagebrush	*Artemisia tridentata – Ericameria nauseosa*	No	G5/S5	0.42	–	0.46	1.15	2.21
	Artemisia tridentata – Eriogonum fasciculatum	No	G5/S5	2.60	–	–	–	–
	Artemisia tridentata ssp. *parishii*	Yes	G2/S2	–	–	–	0.06	0.20
Fourwing saltbush scrub	*Atriplex canescens*	No	G5/S4	0.67	1.58	1.58	18.98	21.01
Mormon tea scrub	*Ephedra viridis*	No	G4/S4	17.84	–	–	–	–
Rubber rabbitbrush scrub	*Ericameria nauseosa – Juniperus californica*/herb	No	G5/S5	10.98	–	–	0.43	1.23
	Ericameria nauseosa	No	G5/S5	–	–	–	0.87	0.87
California buckwheat scrub	*Eriogonum fasciculatum*	No	G5/S5	4.75	–	–	0.16	–

Table 3.2-9. Potential Impacts to Vegetation Communities and Land Covers in the Study Area

Alliance	Association	CDFW Sensitive[1]	Ranking[2]	Potential Permanent Impacts - BESS[3] (Gross Acreages)	Potential Permanent Impacts – Northern Gen-Tie[4] (Gross Acreage)	Potential Permanent Impacts – Southern Gen-Tie[4] (Gross Acreage)	Potential Temporary Impacts – Northern Gen-Tie[5] (Gross Acreage)	Potential Temporary Impacts – Southern Gen-Tie[5] (Gross Acreage)
	Eriogonum fasciculatum var. *foliolosum* – *Juniperus californica*	Yes	G3/S3	4.32	–	–	–	–
California buckwheat – Parish's goldeneye scrub	*Eriogonum fasciculatum* rock outcrop	Yes	Unranked	–	–	–	–	–
California walnut groves	*Juglans californica / annual herbaceous*	Yes	G3/S3	–	–	–	–	–
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum – Eriogonum fasciculatum*	Yes	Unranked	10.68	–	0.53	0.26	0.35
	Juniperus californica / herbaceous	Yes	Unranked	7.16	0.59	0.20	1.71	2.03
	Juniperus californica / Eriogonum fasciculatum – Artemisia californica	No	G5/S5	–	–	–	–	–
			Subtotal:	*61.49*	*2.25*	*2.85*	*26.00*	*31.38*
Naturalized (Non-Native)								
Avena spp. – *Bromus* spp.	*Avena barbata – Bromus hordeaceus*	No	GNA/SNA	–	–	–	–	–
Bromus rubens – Schismus (*arabicus*, *barbatus*)	*Bromus rubens* – mixed herbs	No	GNA/SNA	–	–	–	1.39	1.39

Table 3.2-9. Potential Impacts to Vegetation Communities and Land Covers in the Study Area

Alliance	Association	CDFW Sensitive[1]	Ranking[2]	Potential Permanent Impacts - BESS[3] (Gross Acreages)	Potential Permanent Impacts – Northern Gen-Tie[4] (Gross Acreage)	Potential Permanent Impacts – Southern Gen-Tie[4] (Gross Acreage)	Potential Temporary Impacts – Northern Gen-Tie[5] (Gross Acreage)	Potential Temporary Impacts – Southern Gen-Tie[5] (Gross Acreage)
			Subtotal:	–	–	–	*1.39*	*1.39*
Land Cover Types								
Disturbed habitat	Not applicable	No	NA/NA	6.00	–	0.36	3.61	3.35
Urban/Developed	Not applicable	No	NA/NA	3.25	0.02	0.39	3.32	3.94
			Subtotal:	*9.26*	*0.02*	*0.75*	*6.93*	*7.29*
			Total:	**70.74**	**2.27[5]**	**3.60[5]**	**34.32[5]**	**40.05[5]**

Notes: CDFW = California Department of Fish and Wildlife; BESS = battery energy storage system; gen-tie = generation interconnection.
Totals may not sum due to rounding and inclusion of both gen-tie routes.

1 CDFW has determined the community to be sensitive.

2 The conservation status of a vegetation community is designated by a number from 1 to 5, preceded by a letter reflecting the appropriate geographic scale of the assessment (G = global, S = state). The numbers have the following meaning:
1 = critically imperiled
2 = imperiled
3 = vulnerable to extirpation or extinction
4 = apparently secure
5 = demonstrably widespread, abundant, and secure
NA = not applicable
GNA = global rank not applicable
SNA = state rank not applicable
Unranked= Associations that are considered sensitive, but have not been ranked

3 There are no temporary impacts associated with the BESS.

4 Permanent impacts for the gen-tie are for access roads and tower pads.

5 Temporary impacts will occur due to the construction of the two (2) underground fiber optic lines within the Southern Gen-Tie Route corridor, within areas proposed for construction laydown areas for the gen-tie work, within pull areas from stringing the gen-tie, and within other gen-tie work areas that are outside of the transmission pole pads and access roads.

Four (4) sensitive vegetation communities have approximately 24.78 acres of direct impacts (Northern Gen-Tie Route) and 25.47 acres of direct impacts (Southern Gen-Tie Route): *Artemisia tridentata* ssp. *parishii* association, *Eriogonum fasciculatum* var. *foliolosum-Juniperus californica* association, *Juniperus californica/Adenostoma fasciculatum-Eriogonum fasciculatum* association, and *Juniperus californica/herbaceous* association. There are approximately 22.75 acres of permanent impacts (Northern Gen-Tie Route) and 22.89 acres of permanent impacts (Southern Gen-Tie Route), and approximately 2.03 acres of temporary impacts (Northern Gen-Tie Route) and 2.58 acres of temporary impacts (Southern Gen-Tie Route) to these communities. Potential impacts to the four (4) sensitive vegetation communities could be considered potentially significant. MM-BIO-5 requires the establishment of a conservation area that contains up to approximately 76 acres of sensitive vegetation communities (California juniper woodland) that are available for preservation. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore the approximately 2.03 or 2.58 acres of temporarily impacted sensitive vegetation communities in the gen-tie portion of the Study Area. MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring that Project construction does not extend beyond Project limits. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources, which will include a discussion about sensitive vegetation communities. Project implementation of MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, and MM-BIO-6 will reduce potential direct impacts to less than significant. Impacts will be **less than significant with mitigation**.

Indirect Impacts

Less than Significant with Mitigation. Potential short-term or temporary indirect impacts to sensitive vegetation located in the Study Area could result from construction activities and include impacts related to or resulting from the activities outside of the Project limits, generation of fugitive dust, increased human activity, and the introduction of pollutants from construction equipment. Excessive dust can decrease the vigor and productivity of plants through effects on light, penetration, photosynthesis, respiration, and transpiration; increased penetration of phytotoxic gaseous pollutants; and increased incidence of pests and diseases. Additionally, invasive plant species could be introduced by the Project during construction and through landscaping installation that could alter the habitat and compete with native vegetation. These indirect impacts could result in additional loss of sensitive vegetation communities that could be potentially significant. Water trucks are expected as part of Project construction, which will reduce fugitive dust. MM-BIO-10 requires the preparation and implementation of a plan to avoid and minimize the introduction of non-native plant species that could compete for habitat space with native plants ensuring that vehicles and equipment used during construction are weed free. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the Invasive Species Prevention Plan will be implemented. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources, which will include a discussion on invasive plants. Project implementation of MM-BIO-3, MM-BIO-4, and MM-BIO-10 will reduce potential indirect impacts to less than significant. Impacts will be **less than significant with mitigation**.

3.2.2.2.3 Would the project have a substantial adverse effect on federal or state protected WOTUS (including wetlands) as defined by Sections 404 and 401 of the 1972 Amendments to the Federal Water Pollution Control Act, commonly known as the Clean Water Act, or

the Porter-Cologne Act, either through direct removal, filling, hydrological alteration, or other means?

Direct Impacts

Less than Significant with Mitigation. As currently designed, the proposed Project will result in approximately 0.53 acres (approximately 0.20 acres temporary and approximately 0.33 acres permanent if the Northern Gen-Tie Route is selected) of direct impacts to potential jurisdictional waters through the removal of vegetation and grading of land to construct the proposed Project. The proposed Project will result in approximately 0.63 acres (approximately 0.30 acres temporary and approximately 0.33 acres permanent if the Southern Gen-Tie Route is selected) of direct impacts to potential jurisdictional waters through the removal of vegetation and grading of land to construct the proposed Project. Temporary impacts will occur within areas proposed for construction laydown areas and within the gen-tie work areas that are outside of the transmission pole pads and access roads. The total acreage for project-related impacts to potential jurisdictional waters located within the development area are provided in Table 3.2-10, Summary of Potential Impacts to Potential Jurisdictional Waters.

Table 3.2-10a. Summary of Potential Impacts to Potential Jurisdictional Waters – Northern Gen-Tie Route

Jurisdiction	Potential Temporary Impact (Gross Acreage)	Potential Permanent Impact (Gross Acreage)
RWQCB/CDFW		
Features		
Non-Wetland Waters	0.15	0.33
Swales	0.05	0
Total	**0.20**	**0.33**

Notes: RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.
Totals may not add up due to rounding.

Table 3.2-10b. Summary of Potential Impacts to Potential Jurisdictional Waters – Southern Gen-Tie Route

Jurisdiction	Potential Temporary Impact (Gross Acreage)	Potential Permanent Impact (Gross Acreage)
RWQCB/CDFW		
Features		
Non-Wetland Waters	0.24	0.28
Swales	0.05	0.05
Total	**0.30**	**0.33**

Notes: RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.
Totals may not add up due to rounding.

Streams within the BESS area will be filled. Culverts will manage upstream off-site stormwater runoff throughout the overall Project site and will be used to manage flows previously routed through existing streams. Various culverts running beneath site access driveways will be used to bypass flows from upstream of the site. One existing 36-inch culvert allows runoff to flow south underneath Soledad Canyon Road towards the southern BESS yard. A manhole with an open grate will collect stormwater runoff at the downstream point of the existing 36-inch culvert. A new 60-

inch storm sewer will be placed from the manhole to the downstream end of the site to convey upstream stormwater runoff from the BESS facilities. A hydraulic dissipator with riprap will be placed at the downstream site of the BESS facility. This can be seen on drawings PSR-CS-004 S011 and PSR-CS-004 S012 (TN 264472). A 72-inch culvert will also be placed to route stormwater runoff under the site. A manhole with an open grate will collect stormwater runoff and be conveyed, underground, downstream to the south of the substation site. A hydraulic dissipator with riprap will be placed at the downstream site of the substation. Sizing of the culverts, calculations, and figures with the locations of the structures can be seen in the Stormwater Management Report found in Appendix K of Appendix 3.15A, Water Quality Management Plan (TN264386).

There is a 36-inch culvert that conveys flows from NWW-1a across Soledad Canyon Road. The culvert is reinforced with concrete, will be maintained throughout construction, and will not be affected by Project-related traffic. The culvert will not be affected by construction and operation and is not expected to need repair. The downstream end of the culvert will be connected to a new manhole to provide continuation of the stormwater conveyance downstream of the BESS facility.

MM-BIO-11, Jurisdictional Waters Compensation, will require the purchase of mitigation bank credits and/or turnkey projects with a mitigation bank at 3:1 for permanent impacts to jurisdictional waters, for a maximum of approximately 0.99 acres. MM-BIO-5 will preserve up to approximately 1.99 acres of jurisdictional waters in the Study Area parcels associated with the Southern Gen-Tie Route (or 2.08 acres if the Northern Gen-Tie Route is selected). MM-BIO-6 will require the preparation of a restoration plan, its implementation, and a monitoring period to restore the approximately 0.20 acres or 0.30 acres of temporarily impacted jurisdictional waters dependent on which gen-tie route is selected. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring that Project construction does not extend beyond Project limits. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources, which will include a discussion about jurisdictional waters. Project implementation of MM-BIO-3, MM-BIO-4, MM-BIO-5, MM-BIO-6, and MM-BIO-11 will reduce potential direct impacts to less than significant. Impacts will be **less than significant with mitigation**.

Indirect Impacts

Less than Significant. Potential temporary indirect impacts to the drainages in the Study Area and downstream waters could result from construction activities and will include potential impacts from the generation of fugitive dust and the potential introduction of chemical pollutants (including herbicides). Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration and transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect wetlands/ jurisdictional waters. The release of chemical pollutants can reduce the water quality downstream and degrade adjacent habitats. However, during construction, erosion-control measures will be implemented as part of the storm water pollution prevention plan (SWPPP) for the Project. Because the entirety of the Project development footprint will be graded at one time but construction will occur over time in phases, the erosion measures will be maintained until all graded areas are constructed/landscaped. Prior to the start of construction activities, the Contractor is required to file a Permit Registration Document with the State Water Resources Control Board in order to obtain coverage under the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities (Order No 2009-009-DWQ, NPDES No. CAS000002) or the latest approved general permit. This permit is required for earthwork that results in the disturbance of 1 acre or more of total land area. The required SWPPP will mandate

the implementation of best management practices to reduce or eliminate construction-related pollutants in the runoff, including sediment, for all exposed soils. Therefore, temporary indirect impacts will be **less than significant** due to compliance with regulations.

3.2.2.2.4 Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory native wildlife corridors or impede the use of wildlife nursery sites?

Less than Significant. Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The Study Area does not overlap with any California Essential Habitat Connectivity Areas or Natural Landscape (CDFW 2014, 2017). The Study Area is located adjacent to residential neighborhoods, Sierra Highway, the Southern Pacific Railroad lines, Carson Mesa Road, and SR-14, all of which have associated human presence. The Study Area does not support permanent or relatively permanent waters so fish movement is not expected. As such, no significant direct or indirect permanent impacts will occur on wildlife movement or use of native wildlife nursery sites associated with Project activities. Existing habitat linkages and wildlife corridor functions will remain intact while construction activities are conducted and following Project completion. Construction activities will not likely result in potential impacts to wildlife movement because no new structures that will impede wildlife movement are proposed.

During construction activities, temporary disturbance to local species may occur, but will not substantially degrade the quality or use of the vegetation communities in the vicinity. Some indirect impacts to localized wildlife movement could occur during construction activities due to construction-related noise. However, this impact will be temporary and will not be expected to significantly disrupt wildlife movement during and following construction activities.

During operation of the Project, the BESS and substation are located adjacent to residential neighborhoods, Sierra Highway, the Southern Pacific Railroad lines, Carson Mesa Road, and SR 14, so it is not expected to create a substantial new barrier between open natural lands to the east and west of the Study Area. The Project transmission facilities will be designed consistent with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC 2006) and be evaluated for potential collision reduction devices in accordance with *Reducing Avian Collisions with Power Lines: The State of Art in 2012* (APLIC 2012), so bird migration through the Study Area is expected to continue.

Therefore, direct and indirect impacts on wildlife corridors and migratory routes resulting from the proposed Project will be **less than significant**.

3.2.2.2.5 Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

California Desert Native Plant Act

The Project would require the removal of chaparral yucca, Wiggin's cholla, and beavertail pricklypear, at the numbers indicated in Table 3.2-11, Impacts to California Desert Native Plant Act Covered Species.

Table 3.2-11a. Impacts to California Desert Native Plant Act Covered Species – Northern Gen-Tie Route

Species	Amount
chaparral yucca	904
Wiggins' cholla	993
beavertail pricklypear	86
Total	1,983

Table 3.2-11b. Impacts to California Desert Native Plant Act Covered Species – Southern Gen-Tie Route

Species	Amount
chaparral yucca	906
Wiggins' cholla	1,067
beavertail pricklypear	86
Total	2,059

The applicant would get appropriate permits, tags, and seals that must be obtained from the designated County official or office that implements the California Desert Native Plant Act but for the CEC's Opt-In Application for Certification process, where the CEC's certification will be in lieu of any permits, tags, or seals issued by the County. Additionally, the harvested individuals are expected to be used as part of the restoration plan required by MM-BIO-6 that would occur in the temporary impacted areas of the Project site.

County of Los Angeles Significant Ecological Area

Less than Significant with Mitigation. The portions of the Study Area east of the railroad tracks, south of Foreston Drive and the Vincent Substation, and east of the substation are within a County of Los Angeles SEA (County of Los Angeles 2025), as shown in Figure 3.2-8, Los Angeles County Significant Ecological Area. The SEA Ordinance establishes the permitting, design standards, and review process for development within SEAs, balancing preservation of the County's natural biodiversity with private property rights. The gen-tie line portion of the Project has the potential to impact resources within the Santa Clara River SEA including special-status wildlife, special-status wildlife foraging habitat, sensitive vegetation communities, Water Resources (i.e., streams), and protected trees.

Special-Status Plants

Two (2) special-status plant species, short-joint beavertail and golden linanthus, were mapped in the gen-tie route portion of the Study Area during surveys in 2023. None of the mapped individuals will be directly impacted by the Project. However, some of the individuals of both species are in close proximity to the Project construction limits. Two special-status plant species, Douglas' fiddleneck and Raven's blazing-star, were recorded on one day of the special-status plant surveys but were not mapped. As such the two species could be directly impacted in the gen-tie route portion of the Study Area during vegetation removal and grading activities if present. The loss of individuals during construction could be significant based upon the abundance of each being impacted and would require mitigation. MM-BIO-1 requires pre-construction surveys for the species to determine if the species are present and the collection of seeds should the species be present. MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the flagged limits are adhered to during construction. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and Study Area, and measures to avoid and minimize impacts to those resources. MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately 147 acres of native vegetation communities within the Study Area parcels associated with the Southern Gen-Tie Route (or 122 acres if the Northern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use. Project implementation of MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, and MM-BIO-6 will provide the mitigation for the Project to be compatible with SEA Resources.

Special-Status Wildlife

For all wildlife, MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the integrity of any buffers established for active nests. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. For Crotch’s bumble bee, MM-BIO-7 requires pre-construction surveys for the Crotch’s bumble nests, with buffers established around active nests until the nests are deemed inactive. For special-status reptiles MM-BIO-8 will provide a process of clearance surveys and relocation of special-status wildlife into non-impacted portions of the Study Area. For nesting birds, including loggerhead shrike, Southern California rufous-crowned sparrow, and Bell's sage sparrow, MM-BIO-9 requires pre-construction surveys and buffer establishment for active nests. Project implementation of MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-7, MM-BIO-8, and MM-BIO-9 will provide the mitigation for the Project to be compatible with SEA Resources.

The Project will impact habitat that supports or has the potential to support several special-status species that are candidates for listing under CESA or are CDFW Species of Special Concern: Crotch’s bumble bee, California legless lizard, Blainville’s horned lizard, loggerhead shrike, Southern California rufous-crowned sparrow, and mountain lion. Each species is expected to have potentially suitable habitat in all of the native habitats in the Study Area, with the exception of California legless lizard, which is only expected in habitats with California juniper. Indirect impacts to these species will be from the substantial loss of foraging and breeding habitat, as shown in Table 3.2-12, Potential Impacts to Special-Status Wildlife Habitat Within the SEA. Table 3.2-12a provides an impact tabulation for the northern gen-tie route and Table 3.2-12b provides an impact tabulation for the southern gen-tie route.

Table 3.2-12a. Potential Impacts to Special-Status Wildlife Habitat Within the SEA – Northern Gen-Tie Route

Species	SEA Resource Category[1]	SEA Preservation Ratio[1]	Potential Impacted Habitat (acres)[2]	Restored Temporarily Impacted Habitat (Gross acreage)[2, 3]	Needed Conserved Habitat (Gross acreage)[2, 4, 6]
Crotch's bumble bee	1	5:1	26.12[7]	23.96	106.64
California legless lizard	2	4:1	2.46[8]	1.87	7.97
Blainville's horned lizard	2	4:1	26.12[7]	23.96	80.52
loggerhead shrike	2	4:1	26.12[7]	23.96	80.52
greater roadrunner	3	3:1	26.12[7]	23.96	54.40
mountain lion	1	5:1	29.73[9]	27.57[10]	121.08

Notes: SEA = Significant Ecological Area.
1 Los Angeles County Planning 2020.
2 Includes impacts from the northern gen-tie route.
3 Restoration for areas that are temporary impacts (MM-BIO-6).
4 Total impacts multiplied by the ratio and minus the restored habitat (MM-BIO-5).
6 Acreages are not additive. Conserved habitat needed is overlapping since the species share suitable habitat, so the 121.08 acres for mountain lion will cover all species.
7 Includes all native habitats impacted, as listed in Table 3.2-13a.
8 Includes all habitats that support California juniper, as listed in Table 3.2-13a.
9 Includes all native habitats and disturbed habitat impacted, as listed in Table 3.2-13a.
10 Includes all restoration of native habitats and disturbed habitats.

Table 3.2-12b. Potential Impacts to Special-Status Wildlife Habitat Within the SEA – Southern Gen-Tie Route

Species	SEA Resource Category[1]	SEA Preservation Ratio[1]	Potential Impacted Habitat (acres)[2]	Restored Temporarily Impacted Habitat (Gross acreage)[2, 3]	Needed Conserved Habitat (Gross acreage)[2, 4, 6]
Crotch's bumble bee	1	5:1	32.26[7]	29.49	131.81
California legless lizard	2	4:1	3.06[8]	2.33	9.91
Blainville's horned lizard	2	4:1	32.26[7]	29.49	99.55
loggerhead shrike	2	4:1	32.26[7]	29.49	99.55
greater roadrunner	3	3:1	32.26[7]	29.49	67.29
mountain lion	1	5:1	35.96[9]	32.84[10]	146.96

Notes: SEA = Significant Ecological Area.
1 Los Angeles County Planning 2020.
2 Includes impacts from the southern gen-tie route.
3 Restoration for areas that are temporary impacts (MM-BIO-6).
4 Total impacts multiplied by the ratio and minus the restored habitat (MM-BIO-5).
6 Acreages are not additive. Conserved habitat needed is overlapping since the species share suitable habitat, so the 146.96 acres for mountain lion will cover all species.
7 Includes all native habitats impacted, as listed in Table 3.2-13b.
8 Includes all habitats that support California juniper, as listed in Table 3.2-13b.
9 Includes all native habitats and disturbed habitat impacted, as listed in Table 3.2-13b.
10 Includes all restoration of native habitats and disturbed habitats.

MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately 147 acres of native vegetation communities within the Study Area parcels associated with the Southern Gen-Tie Route (or 122 acres if the Northern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use. MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring that Project construction does not extend beyond Project limits. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources, which will include a discussion about sensitive vegetation communities. Project implementation of MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, and MM-BIO-6 will provide the mitigation for the Project to be compatible with SEA Resources.

Vegetation Communities

Table 3.2-13a, Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Northern Gen-Tie Route, and Table 3.2-13b, Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Southern Gen-Tie Route, summarize the Project's potential direct impacts to vegetation communities and land covers in the Santa Clara River SEA by gen-tie route. Potential direct impacts will occur due to removal of vegetation, alteration of soils from grading, and the development of the Project.

Table 3.2-13a. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Northern Gen-Tie Route

Alliance	Association	SEA Category[1]	Ratio[1]	Permanent Impacts (gross acreage)[2]	Temporary Impacts (gross acreage)[2]	Total Impacts (gross acreage)[2]
Native Communities						
Cheesebush – sweetbush scrub	*Ambrosia salsola Association*	4	2:1	–	0.54	0.54
California sagebrush – (purple sage) scrub	*Artemisia californica - Eriogonum fasciculatum*	4	2:1	–	1.00	1.00
Big sagebrush	*Artemisia tridentata - Ericameria nauseosa*	4	2:1	--	1.15	1.15
	Artemisia tridentata ssp. *parishii*	4	2:1	–	0.06	0.06
Fourwing saltbush scrub	*Atriplex canescens*	4	2:1	1.57	18.98	20.55
Rubber rabbitbrush scrub	*Ericameria nauseosa* -	4	2:1	–	0.37	0.37

Table 3.2-13a. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Northern Gen-Tie Route

Alliance	Association	SEA Category[1]	Ratio[1]	Permanent Impacts (gross acreage)[2]	Temporary Impacts (gross acreage)[2]	Total Impacts (gross acreage)[2]
	Juniperus californica / herb					
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum*	3	3:1	--	0.21	0.21
	Juniperus californica / herbaceous	3	3:1	0.59	1.66	2.25
Disturbed Habitat	N/A	N/A	N/A	--	3.61	3.61
Urban/Developed	N/A	N/A	N/A	0.01	1.11	1.13
			Total:	**2.18**	**28.68**	**30.86**

Notes: Totals may not add up due to rounding.
[1] SEA Ordinance Implementation Guide (Los Angeles County Planning 2020).

Table 3.2-13b. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Southern Gen-Tie Route

Alliance	Association	SEA Category[1]	Ratio[1]	Permanent Impacts (gross acreage)[2]	Temporary Impacts (gross acreage)[2]	Total Impacts (gross acreage)[2]
Native Communities						
Cheesebush – sweetbush scrub	*Ambrosia salsola - Larrea tridentata*	4	2:1	--	0.05	0.05
	Ambrosia salsola Association	4	2:1	--	1.57	1.57
California sagebrush – (purple sage) scrub	*Artemisia californica - Eriogonum fasciculatum*	4	2:1	--	1.00	1.00
Big sagebrush	*Artemisia tridentata - Ericameria nauseosa*	4	2:1	0.46	2.21	2.67
	Artemisia tridentata ssp. *parishii*	4	2:1	--	0.20	0.20

Table 3.2-13b. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Southern Gen-Tie Route

Alliance	Association	SEA Category[1]	Ratio[1]	Permanent Impacts (gross acreage)[2]	Temporary Impacts (gross acreage)[2]	Total Impacts (gross acreage)[2]
Fourwing saltbush scrub	*Atriplex canescens*	4	2:1	1.58	21.01	22.59
Rubber rabbitbrush scrub	*Ericameria nauseosa - Juniperus californica* / herb	4	2:1	--	1.12	1.12
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum*	3	3:1	0.53	0.35	0.87
	Juniperus californica / herbaceous	3	3:1	0.20	1.98	2.18
Disturbed Habitat	N/A	N/A	N/A	0.36	3.35	3.71
Urban/Developed	N/A	N/A	N/A	0.39	1.78	2.17
			Total:	**3.51**	**34.62**	**38.13**

Notes: Totals may not add up due to rounding.
1 SEA Ordinance Implementation Guide (Los Angeles County Planning 2020).

MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately 147 acres of native vegetation communities within the Study Area parcels associated with the Southern Gen-Tie Route (or 122 acres if the Northern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore up to the approximately 28.17 acres of temporarily impacted areas within the conservation area associated with the Southern Gen-Tie (or 22.61 acres of temporarily impacted areas under the Northern Gen-Tie Route). Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

Water Resources

The Project will have potential impacts to approximately 0.21 acres (approximately 0.01 permanent impacts and 0.20 acres temporary impacts) of SEA Water Resources (i.e., streams and swales), if the Northern Gen-Tie Route is selected, and approximately 0.31 acres (approximately 0.01 permanent impacts and 0.30 acres temporary impacts) of SEA Water Resources (i.e., streams and swales) if the Southern Gen-Tie Route is selected. Potential direct impacts will occur due to grading and the development of the Project. Water Resources are to be preserved at 5:1, resulting in the need for up to 1.55 acres of preservation. MM-BIO-5 requires the establishment of a

conservation area that will preserve up to approximately 2.76 acres of unimpacted Water Resources in the Study Area parcels associated with Northern Gen-Tie Route (or 2.72 acres if the Southern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore an additional approximately 0.20 acres or 0.31 acres of temporarily impacted Water Resources within the conservation area. Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

Protected Trees

Direct impacts are associated with tree removal or encroachment within the tree protected zone (i.e., canopy dripline plus 5 feet or 15 feet from trunk, whichever is greater; TPZ) of a protected tree. Specifically, potential tree impacts were determined using geographic information system technology, spatial locations of tree crowns, and a minimum distance of each tree relative to the Project impact. A tree is considered removed if it falls within the Project's limits of disturbance or if 30% or more of its TPZ is impacted. The TPZ is defined as 5 feet beyond the dripline or 15 feet from the trunk, whichever is greater. A tree is considered encroached upon if less than 30% of its TPZ is affected by Project activities, including soil or root disturbance and/or pruning, but the tree is not removed, and a tree is considered preserved it they are not removed and do not experience any TPZ disturbance. Impact totals presented herein are based on proposed disturbance limits, fuel modification zones, and development plans as of the date of this report. The following tree impact findings are organized into two categories: non-heritage tree impacts and heritage tree impacts. Heritage tree status is based on the SEA tree classifications (i.e., riparian, coniferous, upland hardwood) and minimum trunk diameter for protected and heritage trees.

Appendix A, Protected Tree Report, of Appendix 3.2G, Biota Report, provides all of the details of the impacts to SEA Protected Trees.

Non-Heritage Tree Impacts (Protected Trees)

72 protected non-heritage trees could be directly impacted by the proposed Project under the Northern Gen-Tie Route option. The 72 protected non-heritage tree impacts consist of 58 potential removals (trees that are within the grading limits or grading activities affect more than 30% of a TPZ), 14 potential encroachments (trees that are not removed, but root damage, soil excavation and compaction, grade changes, loss of canopy, and trunk wounds are anticipated). The remaining 932 protected non-heritage trees would not be directly impacted. Table 3.2-14a, Summary of Potential Impacts to SEA Protected Trees (Non-Heritage), provides a summary of the potential impacts to non-heritage SEA Protected Trees within and adjacent to the Project if the Northern Gen-Tie Route were selected.

Of the 1,004 Protected non-heritage trees that occur within the Survey Area, 86 could be directly impacted by the proposed Southern gen-tie route option. The 86 Protected non-heritage tree impacts consist of 74 potential removals and 12 potential encroachments. The remaining 918 Protected non-heritage trees would not be directly impacted by the Southern gen-tie route option. Table 3.2-14b, Summary of Potential Impacts to SEA Protected Trees (Non-Heritage), provides a summary of the potential impacts to non-heritage SEA Protected Trees within and adjacent to the Project if the Southern Gen-Tie Route were selected.

Table 3.2-14a. Summary of Potential Impacts to SEA Protected Trees (Non-Heritage) – Northern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	0	0	0
Juniperus californica	California juniper	57	14	71
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**58**	**14**	**72**

Note: SEA = Significant Ecological Area.

Table 3.2-14b. Summary of Potential Impacts to SEA Protected Trees (Non-Heritage) – Southern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	1	0	1
Juniperus californica	California juniper	72	12	84
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**74**	**12**	**86**

Note: SEA = Significant Ecological Area.

Heritage Tree Impacts

California juniper, which have naturally thin trunks, must have a canopy spread of 35 feet to be designated as a heritage tree (Los Angeles County Planning 2020). A total of 74 heritage trees are found on the Project site, of which 10 could be directly impacted by the Project under the Northern Gen-Tie Route option. The 10 heritage tree impacts consist of six (6) potential removals and four (4) potential encroachments. The remaining 64 heritage trees would not be directly impacted by the Project. Table 3.2-15a, Summary of Potential Impacts to SEA Protected Heritage Trees, provides a summary of the potential impacts to SEA protected heritage trees within and adjacent to the Project if the Northern Gen-Tie Route was selected.

A total of 74 heritage trees are found within the Survey Area, of which 12 could be directly impacted by the Southern gen-tie route option. The 12 heritage tree impacts comprise eight (8) potential removals and four (4) potential encroachments. The remaining 62 heritage trees would not be directly impacted by the project if the Southern gen-tie route were selected. Table 3.2-15b, Summary of Potential Impacts to SEA Protected Heritage Trees, provides a summary of the potential impacts to SEA protected heritage trees within and adjacent to the Project if the Southern Gen-Tie Route was selected.

Table 3.2-15a. Summary of Potential Impacts to SEA Protected Heritage Trees – Northern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	0	0	0
Juglans californica	Southern California black walnut	0	0	0
Juniperus californica	California juniper	6	4	10
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**6**	**4**	**10**

Note: SEA = Significant Ecological Area.

Table 3.2-15b. Summary of Potential Impacts to SEA Protected Heritage Trees – Southern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	0	0	0
Juglans californica	Southern California black walnut	0	0	0
Juniperus californica	California juniper	8	4	12
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**8**	**4**	**12**

Note: SEA = Significant Ecological Area.

Per the County requirements, the removal of any SEA Protected Tree requires mitigation in the form of two (2) replacement plantings, and the removal of a heritage tree requires mitigation in the form of 10 replacement plantings. Replacement trees should be seedlings of the same species as those being removed and should be planted in an area of the Project site where there is suitable habitat and where the trees would be able to remain in perpetuity. As such, if the Northern Gen-Tie Route option is selected up to 64 potential direct tree removals (six [6] heritage trees and 58 non-heritage protected trees), the SEA rules may require up to 176 mitigation trees (depending on actual Project impacts based on final design and the selected gen-tie route) to be planted in an area of the Project site where there is suitable habitat and where the trees would be able to remain in perpetuity. Per the County, Table 3.2-16a, Summary of Potential Individual Species Replacement Quantities, details the quantity of each species required for planting if the Northern Gen-Route was selected.

If the Southern gen-tie route option is selected up to 82 direct Protected Tree removals (eight [8] heritage trees and 74 Protected non-heritage trees), the County would require up to 228 mitigation trees to be planted in an area of the project site. Per the County, Table 3.2-16b, Summary of Potential Individual Species Replacement Quantities, details the quantity of each species required for planting if the Southern Gen-Route was selected.

Table 3.2-16a. Summary of Potential Individual Species Replacement Quantities – Northern Gen-Tie Route

Scientific Name	Common Name	Total Impacted	Replacement Ratio	Total Replacement Required
Juniperus californica	California juniper	57	2:1	114
Juniperus californica (Heritage Tree)	California juniper	6	10:1	60
Fraxinus velutina	velvet ash	1	2:1	2[1]
	Totals	**64**	**N/A**	**176**

Note: [1] The velvet ash that would be impacted by the Project is an ornamental tree associated with a residence and these species do not typically occur in the habitats in the Study Area, so California juniper would be used for the replacement of these species.

Table 3.2-16b. Summary of Potential Individual Species Replacement Quantities – Southern Gen-Tie Route

Scientific Name	Common Name	Total Impacted	Replacement Ratio	Total Replacement Required
Juniperus californica	California juniper	72	2:1	144
Juniperus californica (Heritage Tree)	California juniper	8	10:1	80
Fraxinus velutina	velvet ash	1	2:1	2[1]
Juglans californica	Southern California black walnut	1	2:1	2[1]
	Totals	**82**	**N/A**	**228**

Note: [1] The velvet ash and Southern California black walnut that would be impacted by the Project are ornamental trees associated with a residence and these species do not typically occur in the habitats in the Study Area, so California juniper would be used for the replacement of these species.

MM-BIO-5 requires the establishment of a conservation area. The currently contemplated conservation area has the potential to preserve up to 996 California junipers. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas within the conservation area including areas mapped as California juniper woodland. Up to 228 replacement California juniper would be planted and monitored as part of the implementation of MM-BIO-6. Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

Impacts will be **less than significant with mitigation**.

Significant Ecological Areas Statement of Findings

A ***Be highly compatible with the SEA Resources, including the preservation of natural open space areas and providing for the long-term maintenance of ecosystem functions.***

The Santa Clara River SEA (the "SCR SEA") covers approximately 45,496 acres and its overall boundaries extend upstream along several major tributary creeks and where contiguous drainage areas connect to the river basin through open habitat. On a regional basis, the SCR SEA contains biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution. native grassland, coast live oak riparian forest, southern willow scrub, bigcone spruce-canyon oak forest, southern sycamore-alder woodland,

southern cottonwood-willow riparian woodland and forest, freshwater marsh, alluvial fan sage scrub, and vernal pool. (PCR 2000).

The portions of the Project within the SCR SEA consist of an approximately 1.2-mile-long or 1.9-mile-long new gen-tie line. There will be a maximum of 12 monopole or steel lattice tower structures. The proposed transmission structures were sited to avoid potential impacts to environmental resources. Where possible, the transmission structure access path will utilize existing access roads to minimize new ground disturbance. Fiber optic or other cabling required for the monitoring system typically will be installed in buried conduit within the access road or planned trenching.

The gen-tie portion of the Project consists of steel lattice tower structures and access roads that create a small footprint (2.18 acres under the Northern Gen-Tie Route and 3.51 acres under the Southern Gen-Tie Route) within the SCR SEA following the completion of construction activities. MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately 147 acres of native vegetation communities within the Study Area parcels associated with the Southern Gen-Tie Route (or 122 acres if the Northern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use.

B Avoid or minimize impacts to the SEA Resources and wildlife movement through one or more of the following:

1 Avoiding habitat fragmentation;

The monopole or steel lattice tower structures, access roads, and buried lines create a small footprint within the SCR SEA following the completion of construction activities, and with the restoration of the temporary impacted areas, the Project is not expected to fragment the habitats with the Study Area. Wildlife is expected to be able to pass through the Project post-construction, because the transmission lines are not a barrier to movement.

2 Minimizing edge effects; or

The gen-tie portion of the Project consists of steel lattice tower structures and access roads create a small footprint (approximately 2.18 acres under the Northern Gen-Tie Route and 3.51 acres under the Southern Gen-Tie Route option) within the SCR SEA following the completion of construction activities. The approximately 28.68 acres of temporary impacts under the Northern Gen-Tie Route or 34.62 acres of temporary impacts under the Southern Gen-Tie Route option will be restored per MM-BIO-6 and MM-BIO-5 will conserve up to approximately 147 acres of natural habitat if the Southern Gen-Tie Route is selected, or 122 acres if the Northern Gen-Tie Route is selected. During the operation of the Project, maintenance work on the gen-tie and associated infrastructure is expected to be infrequent, so indirect impacts to wildlife are expected to be low.

3 Siting development in the least sensitive location.

The Project has been sited to avoid impacts to special-status plants and only have temporary impacts to Water Resources, which will be restored per MM-BIO-6.

C Buffer important habitat areas from development by retaining sufficient natural vegetation cover and/or natural open spaces and integrating sensitive design features;

See B.2 above.

D Maintain the ecological and hydrological functions of water bodies, watercourses, and their tributaries;

The gen-tie portion of the Project will impact approximately 0.26 acres of ephemeral Water Resources within the SCR SEA if the Southern Gen-Tie Route is selected (or 0.17 acres if the Northern Gen-Tie Route is selected). The approximately 0.24 acres or 0.16 acres of temporary impacts produced by the Project by the Southern Route and Northern Route, respectively, will be restored per MM-BIO-6 and MM-BIO-5 will conserve up to approximately 1.99 or 2.08 acres of Water Resources with respect to the Southern and Northern Gen-Tie Routes.

E Ensure that roads, access roads, driveways, and utilities do not conflict with Priority Biological Resources, habitat areas or migratory paths; and

The gen-tie portion of the Project consists of steel lattice tower structures and access roads create a small footprint (approximately 2.18 acres or 3.51 acres) within the SCR SEA following the completion of construction activities. The Project has potential impacts to Priority Biological Resources (SEA Resource Categories 1 through 3) in the form special-status plants and wildlife, water resources, and vegetation communities; however, all such impacts are mitigated in accordance with SEA ordinance and CEQA guidelines.

The Project transmission facilities will be designed consistent with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (Avian Power Line Interaction Committee [APLIC] 2006) where feasible. Transmission facilities will also be evaluated for potential collision reduction devices in accordance with *Reducing Avian Collisions with Power Lines: The State of Art in 2012* (APLIC 2012). Based upon the low volume of human activity and the proposed avian protecting Project design features, potential impacts to wildlife habitat and movement during Project operation are expected to be less than significant.

F Promote the resiliency of the SEA to the greatest extent possible. For purposes of this finding, SEA resiliency cannot be preserved when the proposed development may cause any of the following:

1 Significant unmitigated loss of contiguity or connectivity of the SEA;

See B.2 above.2 Significant unmitigated impact to a Priority Biological Resource;

The Project has potential impacts to Priority Biological Resources (SEA Resource Categories 1 through 3) in the form special-status plants and wildlife, water resources, and vegetation communities; however, all such potential impacts are mitigated in accordance with SEA ordinance and CEQA guidelines. A total of 10 preservation, avoidance, and minimization measures have been provided as a part of the Project (MM BIO-1 through BIO-10), including: conserving in perpetuity approximately 147 acres of on-site natural open space if the Southern Gen-Tie Route is selected or 122 acres if the Northern Gen-Tie Route is selected; requiring pre-construction surveys, planning, and biological monitoring during construction; measures protecting against invasive species establishment and spread; preparation of conservation management plans; nesting bird avoidance; and strategically locating development as close as possible to existing urban uses/infrastructure. These measures serve to preserve and limit potential impacts to Priority Biological Resources. As such, potential impacts to Priority Biological Resources will be reduced to less than significant.

3 Removal of habitat that is the only known location of a new or rediscovered species; or

No new or rediscovered species are present on the Project site. As such, the Project complies with this finding.

4 Other factors as identified by SEATAC.

Not applicable due to the CEC Opt-In process.

Impact 3.2-6 Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Study Area is not within any HCP, NCCP, or other approved local, regional, or state HCP (CDFW 2023b). Therefore, there are **no impacts** to HCP, NCCP, or other approved local, regional, or state HCP.

3.2.3 Cumulative Effects

Cumulative effects on biological resources because of past, present, and reasonably foreseeable future actions, in combination with the Project, can result from loss of habitat and habitat disturbance and degradation. A cumulative impact refers to a project's incremental effect together with other closely related past, present, and reasonably foreseeable future projects whose impacts may compound or increase the incremental effect of the facility (Public Resource Code [PRC] Section 21083; 14 CRR 15064(h), 16065(c), 15130, and 15355). The Project through mitigation measures and avoidance strategies would mitigate for its potential contribution to regional cumulative impacts. The Project will not have long-term direct and indirect impacts that would have the potential to be cumulatively considerable. Cumulative impacts from the Project are expected to be **less than significant**.

3.2.4 Mitigation Measures

The following section describes the measures that are intended to avoid and minimize potential adverse effects of the Project to biological resources.

3.2.4.1 Mitigation Measures for Construction and Decommissioning

The following section presents avoidance, minimization, and mitigation measures to avoid, minimize, or mitigate potentially significant impacts to all special-status plant and wildlife species and other sensitive biological or aquatic resources during the construction and operations phases of the proposed Project.

MM-BIO-1 Pre-Construction Special-Status Plant Species Survey and Seed Collection. Prior to the beginning of vegetation removal and grading, CEC-approved biologists shall conduct a focused rare plant survey for Douglas' fiddleneck and Raven's blazing-star during the appropriate blooming period (March through May). Reference site checks will be made for the species to determine if the species are blooming in the Project vicinity. The surveys will conform to CNPS' Botanical Survey Guidelines; CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities; and USFWS' Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants.

Should any of the species be found at a count of 20 or higher, then construction of the occupied location shall be delayed until the individuals have gone to seed. Seeds shall be collected once the seed has matured, but prior to the seed capsules opening to disperse the seed. Seeds shall be stored in breathable paper bags in a cool, dry, and dark place. The seeds will then be used in the habitat restoration for the Project (see MM-BIO-6).

MM-BIO-2 Demarcation of Disturbance Limits. Prior to commencement of ground disturbing activities for each phase of Project construction, the construction limits shall be clearly demarcated (e.g., installation of flagging or temporary high visibility construction fence), as recommended by the CEC-approved Biological Monitor. All construction activities including equipment staging and maintenance shall be conducted within the marked disturbance limits to prevent inadvertent disturbance to sensitive vegetation communities outside the limits of work. The flagging shall be maintained throughout construction.

MM-BIO-3 Biological Monitoring. Prior to ground disturbing activities, the Applicant shall submit the qualifications of potential Biological Monitor(s) to the CEC for review and approval. The CEC-approved Biological Monitors will monitor construction activities and ensure compliance with all mitigation measures. The Biological Monitors shall be present on site during all vegetation removal and each day prior to the commencement of grading activities. The Biological Monitors shall be responsible for conducting a pre-construction clearance survey and any special-status species shall be relocated to areas of the Study Area that will not be impacted by the Project (see MM-BIO-5). Pre-construction clearance surveys shall be conducted prior to construction of each new phase of the development. The Biological Monitors shall monitor to ensure that wildlife does not become entrapped in excavation or trenching areas. Safeguards shall be implemented during daytime periods of non-activity and overnight, such as placing a platform over trenches, flush with the ground surface; installing escape ramps in trenches; or installing exclusionary fencing. Should relocation of any trapped wildlife be required, construction shall be halted until a Biological Monitor arrives on site and clears the work area (in compliance with all applicable permits and authorizations).

The Biological Monitors shall regularly inspect the Project site as needed after the completion of all grading activities. Monthly spot-check monitoring is anticipated to be required throughout the construction of the Project for those areas that are graded but not yet developed/landscaped. During monthly visits, a Biological Monitor shall address the following: (1) the potential establishment of invasive species and require weed abatement (if necessary) in accordance with MM-BIO-10; (2) address the potential establishment of native vegetation/habitat to reduce the potential for impacts between phases of construction; and (3) identify deficiencies, if applicable, with any erosion control measures that have the potential to negatively impact biological resources.

Daily monitoring reports shall be prepared by the Biological Monitors that document the results of any surveys conducted, wildlife relocations, construction activities performed, compliance issues observed, corrective actions taken during the reporting period. The monitoring reports shall include photos as appropriate and be made available to the CEC at their request. Following the completion of the Project construction, a Construction Monitoring Report will be prepared by the Applicant to document compliance with the minimization measures and permit conditions for the Project.

MM-BIO-4 Worker Education Awareness Program (WEAP). Prior to the initiation of the initial ground disturbing activities, all personnel associated with those activities shall attend a worker education awareness program (program) prepared by a CEC-approved qualified biologist. In general, the program shall discuss any potentially occurring sensitive biological resources or species and habitat preference(s), occupied habitat in the area, life histories, as well as potential construction impacts, protection measures, and Project limits. Legal protections and regulations pertinent to the biological resources that may be present shall also be included in the program. A species and habitat fact sheet shall be developed prior to the training program and distributed at the training program to all contractors, employers and other personnel involved with the construction of the Project.

After the kickoff meeting, the Project Applicant shall notify the CEC-approved qualified biologist in advance if additional contractors are employed during the initial vegetation removal or initial grading activities. A sign-in sheet will be circulated for signatures to all personnel that attend the workers educational training to confirm that program materials were received and that they understand the information presented.

MM-BIO-5 On-Site Preservation. The Applicant shall demonstrate recordation of a conservation easement, as defined by California Civil Code section 815.1, that permanently preserves up to approximately 147 acres of non-impacted vegetation communities and up to approximately 28.17 acres of temporary impacted areas that will be restored within the Project boundaries for long-term conservation and management as a natural conservation area ("Conservation Area"). The Conservation Area will be up to approximately 147 acres and located within portions of the Study Area within the Santa Clara River Significant Ecological Area when considering the Southern Gen-Tie Route option. Table 3.2-17, Unimpacted Vegetation Communities and Land Cover Types in the Santa Clara River Significant Ecological Area Portion of the Study Area That Could Be Conserved, summarizes the potential vegetation communities and land cover that could be preserved.

Table 3.2-17. Unimpacted Vegetation Communities and Land Cover Types in the Santa Clara River Significant Ecological Area Portion of the Study Area That Could Be Conserved

Alliance	Association	SEA Category[1]	Acres
Vegetation Communities			
Cheesebush – sweetbush scrub	*Ambrosia salsola - Larrea tridentata*	4	0.82
	Ambrosia salsola Association	4	2.60
Big sagebrush	*Artemisia tridentata - Ericameria nauseosa*	4	14.04
	Artemisia tridentata - Eriogonum fasciculatum	4	--
	Artemisia tridentata ssp. *parishii*	4	0.48
Fourwing saltbush scrub	*Atriplex canescens*	4	66.65
Mormon tea scrub	*Ephedra viridis*	4	1.99
Rubber rabbitbrush scrub	*Ericameria nauseosa - Juniperus californica* / herb	4	3.85

Table 3.2-17. Unimpacted Vegetation Communities and Land Cover Types in the Santa Clara River Significant Ecological Area Portion of the Study Area That Could Be Conserved

Alliance	Association	SEA Category[1]	Acres
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum*	3	5.55
	Juniperus californica / herbaceous	3	69.90
		Vegetation Communities Subtotal:	*165.88*
Land Cover Types			
Disturbed Habitat	NA	NA	6.39
Urban Developed	NA	NA	2.76
		Land Cover Types Subtotal:	*9.15*
		Total:	**175.03**

Notes: NA=Not Applicable; totals may not add up due to rounding
[1] SEA Ordinance Implementation Guide (County Planning 2020).

A cost estimate will be prepared to estimate the initial start-up costs and ongoing annual costs of management activities for the management of the conservation easement area(s) in perpetuity. The funding source will be in the form of an endowment to help the qualified natural lands management entity that is ultimately selected to hold the conservation easement(s). The endowment amount will be established following the completion of a Project-specific Property Analysis Record (PAR) to calculate the costs of in-perpetuity land management. The PAR will take into account all management activities required if an Incidental Take Permit for Crotch's bumble bee is needed for the Project.

The conservation easement holder shall be an entity which has as part of its mission the protection of the environment, including lands, plant species, and/or wildlife species, and can be expected by its organization and history to remain in existence for the foreseeable future. The California Department of Fish and Wildlife per Government Code Section 65967(c) shall review the entity. The entity that holds the endowment shall first meet the criteria outlined in Government Code section 65968(b).

Conservation Management Plan. As part of recording the conservation easement, a Conservation Management Plan (CMP) applicable to the conservation area will be prepared and submitted to the CEC for approval. The CMP shall identify the required resource management activities and the entities that shall be responsible for managing those activities in perpetuity. The CMP will set forth requirements that will be implemented by the entity that holds the conservation easement and/or manages and stewards the Conservation Area, and may include the following: (1) there shall be no grading or other construction activities within the Conservation Area, except for the proposed habitat enhancement/restoration; (2) no fencing or other barriers to wildlife movement shall be installed; (3) commercial honeybee operations shall not be allowed to use the Conservation Area for storing their apiaries; (4) rodenticides shall be prohibited; (5) herbicides and pesticides shall be discouraged, and only those typically used for invasive plant management in California wildlands shall be allowed, per the California Invasive Plant Council & Pesticide Research Institute's Best

Management Practices (BMPs) for Wildland Stewardship[1]; (6) at least one annual walk-through survey shall be conducted by a biologist to qualitatively monitor the general condition of on-site habitats and to check for any new introduction or expansion of invasive plant species; (13) collect and remove trash, repair vandalized signs, and rectify trespass impacts; and (14) provide annual reporting that document the conditions of the Conservation Area. Approved work will be outlined in the CMP and in the conservation easement, including monitoring and maintenance efforts or for other activities associated with preserve management, and prohibited activities shall be delineated.

MM-BIO-6 Habitat Mitigation and Monitoring Plan. Prior to ground disturbing activities, a qualified biologist shall be retained to prepare a Habitat Mitigation and Monitoring Plan (HMMP) detailing the specific approach for each type of habitat restoration and establishment area in the Conservation Area, and short-joint beavertail transplant location, and will outline detailed performance standards and monitoring requirements for each; following the monitoring and reporting methods and performance standards listed below. The HMMP shall be submitted to and approved by the CEC prior to the onset of Project-related ground-disturbing activities. The acreages allotted for on-site establishment apply to approximately 34.62 acres within the Conservation Area that includes 0.24 acres of ephemeral streams for the Southern Gen-Tie Route, or 28.68 acres including 0.16 acres of ephemeral streams if the Northern Gen-Tie Route is selected. Up to 228 California juniper will be planted, and individuals of the plant species covered by the California Desert Native Plant Act will be evaluated to be used in the installation of native plants. The HMMP shall set out measures for habitat restoration/enhancement implementation, including but not limited to:

- Identification of proposed plant materials
- Signage in the habitat restoration area
- Schedule for habitat restoration/enhancement work
- Use of pesticides and elimination of non-native vegetation
- Habitat monitoring and reporting
- Performance standards

MM-BIO-7 Crotch's Bumble Bee Avoidance and Minimization Measures. If Crotch's bumble bee is still a candidate for listing under the California Endangered Species Act (CESA) or has been listed under CESA at the time of the start of construction of the Project, a pre-construction survey for Crotch's bumble bee shall be conducted within the construction footprint prior to the start of initial ground disturbing activities occurring during the Crotch's bumble bee nesting period (February 1 through October 31). If construction commences outside of that period (November 1 through January 31), surveys would not be warranted since the daughter queens (gynes) disperse following a nest's lifecycle and conducting surveys for dormant gynes would not be practical.

The pre-construction survey will be based on recommendations described in the "Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species," released by the California Department of Fish and Wildlife (CDFW) on June 6, 2023, or the most current at the time of construction. The pre-construction survey will be performed by a biologist

[1] California Invasive Plant Council & Pesticide Research Institute. 2015. Best Management Practices (BMPs) for Wildland Stewardship. Accessed October 2023. https://cal-ipc.org/docs/bmps/dd9jwo1ml8vttq9527zjhek99qr/BMPHerbicide.pdf.

with expertise in surveying for bumble bees and include at least three (3) survey passes that are not on sequential days or in the same week. The biologist shall watch the nest resources for up to five minutes, looking for exiting or entering worker bumble bees. Worker bees should arrive and exit an active nest site with frequency, such that their presence will be apparent after five minutes of observation.

During the bumble bee active nesting season (April 1 through August 30), the CEC-approved Biological Monitors (MM-BIO2) shall continue to conduct daily sweeps of areas proposed for initial vegetation removal and ground disturbance.

If nest resources occupied by Crotch's bumble bee are detected within the construction area, no construction activities shall occur within 50 feet of the nest, or as determined by a qualified biologist through evaluation of topographic features or distribution of floral resources. The nest resources will be avoided for the duration of the Crotch's bumble bee nesting period (February 1 through October 31). The CEC-approved Biological Monitors (MM-BIO-3) shall ensure that the nest buffer is complied with during that period. Outside of the nesting season, it is assumed that no live individuals will be present within the nest as the gynes usually leave by September, and all other individuals (original queen, workers, males) die. The gyne is highly mobile and can independently disperse to outside of the construction footprint to proposed open space or other suitable areas beyond that have suitable hibernacula resources. Because construction will have occurred in the area outside of the occupied nesting resources, no suitable habitat will be present in the impact area, and it is assumed that new queens will disperse to habitat outside of the construction area.

If the nest resources cannot be avoided, as outlined in this measure, the project applicant will consult with CEC and CDFW regarding the need to obtain an Incidental Take Permit. In the event an Incidental Take Permit is needed, mitigation for direct impacts to Crotch bumble bee will be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those impacted by the Project, or as otherwise determined through the Incidental Take Permit process. The compensatory habitat mitigation would be accomplished by onsite preservation of suitable habitat.

MM-BIO-8 Special-Status Wildlife Relocation Plan. Prior to commencement of any ground disturbing activities or the pre-construction staging of equipment on the Project site, the Project Applicant shall contract with a CEC-approved biologist to develop a Preconstruction Wildlife Survey and Relocation Plan for terrestrial reptiles, including California legless lizard and Blainville's horned lizard. The Preconstruction Wildlife Survey and Relocation Plan shall be submitted to the CEC for review prior to any ground-disturbing activities within potentially occupied habitat.

The Plan shall include, at a minimum, the following:

- Protocols for pre-construction surveys to flush out and/or move identified special status wildlife within the Project site, as feasible.
- Relocation to the portions of the Study Area outside of the Project construction limits and within the Conservation Area.
- The timing, frequency, and locations where surveys should be conducted.

- Surveys will be conducted 24 hours prior to construction activities and repeated the morning of the proposed activity.
- Surveys shall be conducted in all areas anticipated to be subject to vegetation clearing.
- The habitat and conditions in the proposed relocation site(s).
- The methods that will be used for trapping and relocating identified species.
- All equipment used in the effort will be cleaned and decontaminated to minimize the spread of herpetofaunal pathogens.[2]
- Any wildlife handling and relocation methodology from the CDFW-issued Streambed Alteration Agreement, if any, will be incorporated in the Preconstruction Survey and Relocation Plan.
- Protocols for documentation/recordation of the species and number of animals relocated.
- Relocations shall be logged and made available to the CEC, if requested.
- Protocols for notifying CDFW if identified species cannot be relocated.
- Attempts at relocation shall be logged and notification shall occur within 24 hours.
- The timing and frequency of reports documenting the results of the surveys.

MM-BIO-9 Nesting Bird Avoidance. Project construction shall be conducted in compliance with the conditions set forth in the Migratory Bird Treaty Act and California Fish and Game Code consistent with methods approved by the California Department of Fish and Wildlife to protect active bird/raptor nests. Vegetation removal shall occur during the non-breeding season for nesting birds and nesting raptors to avoid impacts to nesting birds and raptors.

For the remaining Project activities initiated during the breeding season for nesting birds and nesting raptors, a pre-construction survey shall be conducted by the Biological Monitor (MM-BIO-3) for nesting birds and/or raptors within three days prior to any work within 300 feet for suitable nesting habitat for non-raptors and within 500 feet for suitable nesting habitat for raptors. If the Biological Monitor does not find any active nests immediately adjacent to the impact areas, the Project activity shall be allowed to proceed.

If the Biological Monitors find an active nest adjacent to the construction area and determines that the nest may be indirectly impacted or breeding activities substantially disrupted, the Biological Monitors shall delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the nature of the construction activity. Any nest found during survey efforts shall be mapped on the construction plans, which will be included in the report(s) documenting the survey(s) that will be submitted to the CEC upon completion of the survey. The active nest shall be protected until nesting activity has ended. To protect any nest site, the following restrictions to construction activities shall be required until nests are no longer active, as determined by the Biological Monitor: (1) work limits shall be established within a buffer around any occupied nest (the buffer shall be 100–300 feet for nesting non-raptors and 300–500 feet for nesting raptors), unless otherwise determined by the Biological Monitors and (2) access and surveying shall be restricted within the buffer of any occupied nest, unless otherwise determined by the Biological Monitor. Encroachment into the buffer area around a known nest shall only be allowed if the

[2] Julian et al. 2020. Minimizing the Spread of Herpetofaunal Pathogens in Aquatic Habitats by Decontaminating Construction Equipment. Herpetological Review, 2020, 51(3), 472–483. https://parcplace.org/wp-content/uploads/2020/11/Julian-2020-Decontamination-for-Herps-for-large-equipment.pdf.

Biological Monitor determines that the proposed activity will not disturb the nest occupants. Construction can proceed when the Biological Monitor has determined that fledglings have left the nest, or the nest has failed.

MM-BIO-10 Invasive Species Prevention Plan. To prevent the spread of invasive plant species during construction and until the establishment of common landscaped areas associated with the Project, the following measures shall be implemented:

- The WEAP (see MM-BIO-4) will include invasive species prevention measures implemented by the Project.
- All mobile vehicles and construction equipment shall be washed prior to entering the Project site in an upland location where any seed material from invasive species will be contained and not carried onto the Project site. Logs of the washing will be submitted monthly to the CEC.
- Following the completion of grading activities, for those areas of the Project site that are graded but not yet developed/landscaped, the City-approved Biological Monitor shall conduct monthly spot checks to prevent the introduction or establishment of invasive plant species onto the graded areas (see MM BIO-3). If abundant invasive species are identified, the Biological Monitor shall inform the construction contractor about the infested area and recommend that the invasive species be removed. The recommendation will be included in the daily report.
- All vegetative material removed from the Project footprint shall be transported in a covered vehicle and will be disposed of at a certified disposal site.

MM-BIO-11 Jurisdictional Waters Compensation. Mitigation for up to approximately 0.99 acres of jurisdictional waters shall be implemented through off-site acquisition, such as mitigation bank credits, and/or turnkey projects with mitigation banks (as approved by the CEC) following the issuance of permits from the U.S. Army Corps of Engineers, and Los Angeles Regional Water Quality Control Board, as applicable, and those agencies approval of the mitigation bank, and prior to the issuance of the grading permit. A turnkey mitigation project (establishment of the riparian habitat) will be used should credits not be available at the time of the jurisdictional waters permitting.

3.2.4.2 Mitigation Measure for Site Restoration

Over the long term, once the Project facilities are no longer needed, the structures will be removed the Project area will be in accordance with the approved decommissioning plan. Because rehabilitation of the site is not expected to occur for approximately 40 years, a draft conceptual plan may be included as part of the Biological Resources Mitigation Implementation and Minimization Plan. This draft plan can then be updated at a later date (but no more than one (1) year prior to closure). A formal rehabilitation plan for the Project facility closure will be developed by the Project owner and submitted to the CEC Compliance Manager at least one (1) year prior to facility closure. The facility closure restoration plan will include the following sections and details:

- Goals and objectives of the restoration
- A description of methods employed to achieve the restoration goals and objectives
- Success criteria used to determine whether the restoration was successful
- A monitoring and maintenance program, including details on remedial measures
- A description of annual reporting

- A restoration implementation and monitoring timeline and schedule of planned activities.

3.2.5 Laws, Ordinances, Regulations, and Standards

The following subsections within Section 3.2.5 describe the laws, ordinances, regulations, and standards (LORS) that apply to potential impacts on biological resources in the Project area and list the agencies responsible for enforcing the regulations. A summary of the applicable federal, state, and local LORS is provided in Table 3.2-18, LORS Applicable to Biological Resources.

Table 3.2-18. LORS Applicable to Biological Resources

LORS	Applicability	Conformity	Opt-In Application Reference
Federal			
Federal ESA (16 USC 1531 et seq.)	Designates and protects federally threatened and endangered plants and animals and their critical habitat. Applicants for projects that could results in adverse impacts on any federally listed species are required to consult with and mitigate potential impacts in consultation with USFWS.	**Yes**. Federally threatened and endangered plants and animals analyzed. Avoidance, minimization, and mitigation measures include preconstruction surveys, avoidance buffers, timing restrictions, and take authorization from the USFWS, if necessary.	Section 3.2.1.9 Section 3.2.1.10 Section 3.2.2.2.1 Section 3.2.5.1
MBTA (16 USC 703 to 711)	Protects all migratory birds, including nests and eggs	**Yes**. Pre-construction surveys and avoidance buffers for active nests will prevent impacts to nesting migratory birds.	Section 3.2.1.11 Section 3.2.2.2.1 Section 3.2.5.1
Bald and Golden Eagle Protection Act (16 USC 668)	Specifically protects bald and golden eagles from harm or trade in parts of these species	**Yes**. Pre-construction surveys and avoidance buffers will prevent take of eagles.	Section 3.2.1.12 Section 3.2.2.2.1 Section 3.2.5.1
State			
CESA (Fish and Game Code Section 2050 et seq.)	Species listed under this act cannot be “taken” or harmed, except under specific permit. Take in the context of CEQA means to hunt, pursue, kill, or capture as well as any other actions that may result in an adverse impact when attempting to take a listed species.	**Yes**. State threatened and endangered plants and animals analyzed. Avoidance, minimization, and mitigation measures include preconstruction surveys, avoidance buffers, timing restrictions, and take authorization from the CEC/CDFW if necessary.	Section 3.2.1.9 Section 3.2.1.10 Section 3.2.2.2.1 Section 3.2.5.2

Table 3.2-18. LORS Applicable to Biological Resources

LORS	Applicability	Conformity	Opt-In Application Reference
Game Code Section 3511	Describes bird species, primarily raptors that are FP (Fully Protected). FP birds may not be taken or possessed, except under specific permit requirements.	**Yes.** No take of FP bird species is anticipated.	Section 3.2.1.10 Section 3.2.2.2.1 Section 3.2.3.2
Fish and Game Code Section 3503	States that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.	**Yes**. Preconstruction surveys and avoidance buffers prevent impacts to nesting birds.	Section 3.2.1.10 Section 3.2.2.2.1 Section 3.2.5.2
Fish and Game Code Section 3503.5	It is unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation made pursuant thereto.	**Yes.** Preconstruction surveys and avoidance buffers will prevent impacts to nesting raptors.	Section 3.2.1.10 Section 3.2.2.2.1 Section 3.2.5.2
Fish and Game Code Section 3513	It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act.	**Yes.** Preconstruction surveys and avoidance buffers prevent impacts to migratory birds.	Section 3.2.1.11 Section 3.2.2.2.1 Section 3.2.5.2
Fish and Game Code Sections 351, 4700, 5050, and 5515	Lists bird, mammal, amphibian, reptile, and fish species that are FP in California	**Yes.** FP species discussed. No take of FP species anticipated.	Section 3.2.1.10 Section 3.2.2.2.1 Section 3.2.3.2
NPPA Fish and Game Code Sections 1900 et seq.	The Native Plant Protection Act (NPPA) lists threatened, endangered, and rare plants listed by the State.	**Yes.** No threatened, endangered, or rare plants anticipated to occur. Preconstruction surveys and avoidance buffers provide further protection.	Section 3.2.1.9 Section 3.2.2.2.1 Section 3.2.5.2

Table 3.2-18. LORS Applicable to Biological Resources

LORS	Applicability	Conformity	Opt-In Application Reference
CDNPA Food and Agricultural Code Sections 80001 et seq.	The California Desert Native Plants Act (CDNPA) is to protect certain species of California desert native plants from unlawful harvesting on both public and privately owned lands.	**Yes.** The species listed in the CDNPA have been mapped, and the Project would seek the appropriate permit from the County of Los Angeles to collect those that will be impacted.	Section 3.2.1.9.1 Section 3.2.2.2.5 Section 3.2.5.2.4
Fish and Wildlife Code Sections 1900 et seq.	Lists endangered or rare native plants of the State and establishes criteria for determining rarity or listing status.	**Yes.** No endangered or rare plants present. Preconstruction surveys and avoidance buffers prevent potential impacts to rare plant species.	Section 3.2.1.9 Section 3.2.2.2.1 Section 3.2.5.2
Title 14 CCR, Sections 670.2 and 670.5	Lists animals designated as threatened or endangered in California	**Yes.** State threatened and endangered plants and animals analyzed. Avoidance, minimization, and mitigation measures include preconstruction surveys, avoidance buffers, timing restrictions, and take authorization from the CEC/CDFW.	Section 3.2.1.10 Section 3.2.2.2.1 Section 3.2.5.2
CFG Code Sections 1601-1607	Prohibits alteration of any stream, including intermittent and seasonal channels and many artificial channels without a permit from CDFW.	**Yes.** Permit from CEC/CDFW will be in hand prior to impacts to CDFW jurisdictional features.	Section 3.2.1.8 Section 3.2.2.2.3 Section 3.2.5.2
CEQA Public Resources Code (PRC) Sections2100, et seq. and CEQA Guidelines (14 C.C.R. 15000, et seq.)	CEQA requires that the effects of a project on environmental resources must be analyzed and assessed using criteria determined by the lead agency.	**Yes.** Environmental resources analyzed using CEQA and CEC criteria.	Section 3.2.2.2 Section 3.2.5.2

Table 3.2-18. LORS Applicable to Biological Resources

LORS	Applicability	Conformity	Opt-In Application Reference
Warren Alquist Act Public Resources Code (PRC) 25000, et seq.	A CEQA-equivalent process implemented by the CEC.	**Yes.** Environmental resources analyzed using CEQA and CEC criteria.	Section 3.2.2.2 Section 3.2.5.2
California Assembly Bill 205	Emergency regulation expanding the CEC's siting authority for renewable energy projects. Allows certification in lieu of CDFW 2081 ITP or CFGC Section 1600 et seq. LSAA.	**Yes.** Take authorization, if necessary, and LSAA to be coordinated with CEC with input from CDFW.	Throughout the Opt-In Application
Local			
Los Angeles County 2035 General Plan	The Los Angeles County 2035 General Plan provides the policy framework for how and where the unincorporated County will grow through the year 2035, while recognizing and celebrating the County's wide diversity of cultures, abundant natural resources, and status as an international economic center.	**Yes.** The Project will mitigate impacts to biological resources, which will comply with the General Plan goals and policies related to open space.	Section 3.2.2.2 Section 3.2.5.3
Ord. 2019-0072 § 2, 2019 Significant Ecological Areas	The SEA Program was originally established as a part of the 1980 County General Plan, to help conserve the genetic and physical diversity within Los Angeles County by designating biological resource areas capable of sustaining themselves into the future. The General Plan 2035 updated the SEA boundary map, goals and policies in 2015.	**Yes**. The Project's Gen-Tie Line will impact SEA Resource Categories 1 through 3 in the form special-status plants and wildlife, water resources, and vegetation communities; however, all such impacts are mitigated in accordance with the SEA ordinance and CEQA guidelines.	Section 3.2.1.13 Section 3.2.2.2.5 Section 3.2.5.3

3.2.5.1 Federal LORS

3.2.5.1.1 Federal ESA (16 United States Code [USC] 153 et seq.)

The federal Endangered Species Act (FESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS) for most plant and animal species, and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain marine species. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend, and to provide programs for the conservation of those species, thus preventing the extinction of plants and wildlife. The FESA defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under the FESA, it is unlawful to "take" any listed species, and "take" is defined as, "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

The FESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement.

Federally threatened and endangered plants and animals are analyzed herein. Avoidance, minimization, and mitigation measures will include preconstruction surveys, avoidance buffers, timing restrictions, and take authorization from the USFWS if necessary.

3.2.5.1.2 Migratory Bird Treaty Act (16 USC 703 to 711)

The Migratory Bird Treaty Act (16 USC 703 et seq.), as amended (MBTA), prohibits the intentional take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so. Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

Project pre-construction surveys and avoidance buffers for active nests will prevent impacts to nesting migratory birds.

3.2.5.1.3 Bald and Golden Eagle Protection Act (16 USC 668)

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), enacted in 1940, and amended several times since, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald or golden eagles, includes their parts, nests, or eggs. The Act provides criminal penalties for person who "take, possess, sell, purchase, bater, offer to sell, transport, export or import, at any time or any manner, any bald eagle… [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, kill, wound, capture, trap, collect, molest or disturb."

Project pre-construction surveys and avoidance buffers will prevent take of eagles.

3.2.5.2 State LORS

3.2.5.2.1 California Endangered Species Act

CESA (California Fish and Game Code Sections 2050–2068) provides protection and prohibits take of plant, fish, and wildlife species listed by the State of California. Unlike the FESA, under the CESA, state-listed plants have the same degree of protection as wildlife, but insects and other invertebrates may not be listed. Take is defined similarly to the FESA and is prohibited for both listed and candidate species. Incidental Take authorization may be obtained by a project applicant from the California Department of Fish and Wildlife (CDFW) under CESA Section 2081, which also allows take of a listed species for educational, scientific, or management purposes. In this case, private developers consult with CDFW to develop a set of measures and standards for managing the listed species, including full mitigation for impacts, funding of implementation, and monitoring of mitigation measures.

State threatened and endangered plants and animals are analyzed herein. Avoidance, minimization, and mitigation measures include preconstruction surveys, avoidance buffers, timing restrictions, and Incidental Take authorization from the CEC/CDFW, if necessary.

3.2.5.2.2 Fish and Game Code

Sections 3500, 3511, and 3513

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3511 states that fully protected birds or parts thereof may not be taken or possessed at any time. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA.

Project pre-construction surveys and avoidance buffers for active nests will prevent impacts to nesting migratory birds.

Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances, such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. Furthermore, it is the responsibility of CDFW to maintain viable populations of all native species. Toward that end, CDFW has designated certain vertebrate species as Species of Special Concern, because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

FP species are discussed herein. No take of FP species is anticipated.

Section 1600–1616

CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses (including dry washes) and lakes characterized by the presence of a definable bed and banks and existing fish or wildlife resources. CDFW takes

jurisdiction to the top of bank of the stream or the limit of the adjacent riparian vegetation, which may include oak woodlands in canyon bottoms. Historical court cases have further extended CDFW jurisdiction to include watercourses that seemingly disappear but reemerge elsewhere. Under the CDFW definition, a watercourse need not exhibit evidence of an ordinary high-water mark (OHWM) to be claimed as jurisdictional. CDFW does not have jurisdiction over ocean or shoreline resources.

Under California Fish and Game Code Sections 1600–1616, CDFW has the authority to regulate work that will substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake. CDFW also has the authority to regulate work that will deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. This regulation takes the form of a requirement for a Lake or Streambed Alteration Agreement and is applicable to all projects. Applications to CDFW must include a complete, certified California Environmental Quality Act (CEQA) document. The CEC Stands in the shoes of CDFW in ensuring compliance with the substantive requirements of the Lake or Streambed Alteration Agreement program.

3.2.5.2.3 California Native Plant Protection Act

The Native Plant Protection Act of 1977 (see Section 1900 *et seq.* of the California Fish and Game Code) directed CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as "endangered" or "rare," and to protect endangered and rare plants from take. The CESA expanded on the original Native Plant Protection Act and enhanced legal protection for plants, but the Native Plant Protection Act remains part of the California Fish and Game Code. To align with federal regulations, the CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the CESA as threatened species but did not do so for rare plants. Thus, there are three (3) listing categories for plants in California: rare, threatened, and endangered. Because rare plants are not included in the CESA, mitigation measures for impacts to rare plants are specified in a formal agreement between CDFW and the Project proponent.

No threatened, endangered, or rare plants are anticipated to occur. Preconstruction surveys and avoidance buffers will provide further protection.

3.2.5.2.4 California Desert Native Plant Act

The purpose of the California Desert Native Plants Act is to protect certain species of California desert native plants from unlawful harvesting on both public and privately owned lands. The California Desert Native Plants Act only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties. Within these counties, the California Desert Native Plants Act prohibits the harvest, transport, sale, or possession of specific native desert plants unless a person has a valid permit or wood receipt and the required tags and seals. The appropriate permits, tags, and seals must be obtained from the County sheriff or commissioner of the County where collecting will occur, and the County will charge a fee. 3.2.5.2.5 Porter–Cologne Water Quality Control Act

Pursuant to provisions of the Porter–Cologne Water Quality Control Act (Porter–Cologne Act), the RWQCBs regulate discharging waste, or proposing to discharge waste, within any region that could affect a water of the state (California Water Code Section 13260[a]). The State Water Resources Control Board defines a water of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water

Code Section 13050[e]). As of April 2019, the State Water Resources Control Board has narrowed its definition of a water of the state to include the following (SWRCB 2021):

1. Natural wetlands
2. Wetlands created by modification of a surface water of the state
3. Artificial wetlands that meet any of the following criteria:
    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration
    b. Specifically identified in a water quality control plan as a wetland or other water of the state
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape
    d. Greater than or equal to 1 acre in size unless the artificial wetland was constructed and is currently used and maintained, primarily for one or more of the following purposes: industrial or municipal wastewater treatment or disposal; settling of sediment; detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial permitting program; treatment of surface waters; agricultural crop irrigation or stock watering; fire suppression; industrial processing or cooling water; active surface mining – even if the site is managed for interim wetlands functions and values; log storage; treatment, storage, or distribution of recycled water; maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or fields flooded for rice growing.

All waters of the United States are waters of the state. Wetlands, such as isolated seasonal wetlands, that are not generally considered waters of the United States are considered waters of the state if, "under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation" (SWRCB 2021). If a CWA Section 404 permit is not required for a project, the RWQCB may still require a permit (waste discharge requirements) for impacts to waters of the state under the Porter–Cologne Act.

The Project is expected to be subject to Waste Discharge Requirements (WDRs) from RWQCB. Permits and mitigation plans required prior to construction will be the responsibility of the qualified biologist assigned by the Applicant.

As discussed in Section 3.15.2.3.1 within Section 3.15, Water Resources, the Project is unlikely to encounter shallow groundwater and dewatering is not expected to be required. However, should groundwater be encountered during construction, any dewatering activity that would discharge to the land surface would need to comply with the provisions of General WDRs and ensure compliance with the Basin Plan. If required, the applicant and/or its contractor will submit the following to the Los Angeles RWQCB: a Notice of Intent to comply with these General WDRs, a project map, a copy of the CEQA document, the requisite fee, a discharge monitoring plan, and any additional information requested by the Los Angeles RWQCB. Please refer to Section 3.15.2.3.1 for additional details.

Additionally, the project will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. For

additional details regarding groundwater. Please refer to Section 3.15.2.3.2 within Section 3.15, Water Resources for additional details.

3.2.5.2.6 Plants and Animals of California Declared to be Endangered or Threatened (Title 14, CCR, Sections 670.2 and 670.5

These codes list plants and animals designated as threatened or endangered in California. State SSC is a category conferee by CDFW of those species that are indicators of regional habitat change or are considered potential future protected species. These species do not have any species legal status but are intended by CDFW for use as a management tool to take these species into special consideration when decisions are made concerning the future of any land parcel.

State threatened and endangered plants and animals are analyzed herein. Avoidance, minimization, and mitigation measures will include preconstruction surveys, avoidance buffers, timing restrictions, and take authorization from the CEC/CDFW, if necessary.

3.2.5.2.7 CEQA (PRC Sections 21000 et seq.)

CEQA requires identification of a project's potentially significant impacts on biological resources and ways that such impacts can be avoided, minimized, or mitigated. CEQA also provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts.

CEQA Guidelines Section 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors." A rare animal or plant is defined in Section 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c).

CDFW has developed a list of "Special Species" as "a general term that refers to all of the taxa the California Natural Diversity Database (CNDDB) is interested in tracking, regardless of their legal or protection status." This is a broader list than those species that are protected under the FESA, CESA, and other California Fish and Game Code provisions, and includes lists developed by other organizations, including, for example, the Audubon Watch List Species. Guidance documents prepared by other agencies, including the Bureau of Land Management Sensitive Species and USFWS Birds of Special Concern, are also included on the CDFW Special Species list. Additionally, CDFW has concluded that plant species listed as California Rare Plant Rank 1 and 2 by the California Native Plant Society, and potentially some California Rare Plant Rank 3 plants, are covered by CEQA Guidelines Section 15380.

Section IV, Appendix G (Environmental Checklist Form), of the CEQA Guidelines requires an evaluation of impacts to "any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service."

Project environmental resources will be analyzed pursuant to CEQA.

3.2.5.2.8 Warren Alquist Act (PRC Sections 25000, et seq.)

The AFC process is a certified regulatory process pursuant to the Warren-Alquist Act and, therefore, fulfills the requirements of CEQA. CEQA is codified in the California PRC, Sections 21000, et seq. Guidelines for implementation of CEQA are codified in Title 14 of the California Code of Regulations (CRR), Sections 15000-15387.

Project environmental resources will be analyzed pursuant to CEQA.

3.2.5.2.9 California Energy Commission – Assembly Bill 205

Assembly Bill (AB) 205 is an emergency regulation expanding the CEC's siting authority for renewable energy projects constructed on or before June 30, 2029. AB 205 was signed into law on June 30, 2022, and allows renewable and energy storage projects to apply for direct state permits through the CEC. CEC certification opt-in statute (specifically 25545.1(b)(1)) says "the issuance of a certificate by the commission for a site and related facility pursuant to this chapter shall be in lieu of any permit, certificate, or similar document required by any state, local, or regional agency [except California Coastal Commission, San Francisco Bay Conservation and Development Commission, and State/Regional Water Quality Control Board] … for the use of the site and related facilities, and shall supersede any applicable statute, ordinance, or regulation of any state, local, or regional agency…."

The application for certification process is in lieu of CDFW's Incidental Take Permit and Lake and Streambed Alteration Agreement processes. However, applications for both of these permits will be submitted to the CEC for informational purposes. The CEC Certification will include conditions and mitigation consistent with the Commission's AB 205 authorities.

Project take authorization, if necessary, and a LSAA will be administered by the CEC in consultation with CDFW. A completed 1602 Lake and Streambed Alteration Agreement application is included as Appendix 3.2K.

3.2.5.3 Local LORS

3.2.5.3.1 Los Angeles County General Plan

The General Plan includes guiding principles that inform the County's goals, policies, and implementation actions. The following goals and policies are relevant to the Project and applicable to biological resources (County of Los Angeles 2015):

Goal C/NR 1: Open space areas that meet the diverse needs of Los Angeles County.

> Policy C/NR 1.3: Support the acquisition of new available open space areas. Augment this strategy by leveraging County resources in concert with the compatible open space stewardship actions of other agencies, as feasible and appropriate.

Goal C/NR 2: Effective collaboration in open space resource preservation.

> Policy C/NR 2.2: Encourage the development of multi-benefit dedicated open spaces.
>
> Policy C/NR 3.8: Discourage development in areas with identified significant biological resources, such as Significant Ecological Areas (SEAs).

The Project will mitigate impacts to biological resources, which will comply with the General Plan goals and policies related to open space.

3.2.5.3.2 County of Los Angeles Significant Ecological Areas

SEAs are officially designated areas within the County with irreplaceable biological resources. The SEA program objective is to conserve genetic and physical diversity within the County by designating biological resource areas that can sustain themselves into the future. The SEA also protects native trees and provides a list of the protected species and the size of the diameter of the trunk that triggers protection. The SEA Ordinance establishes the permitting, design standards, and review process for development within SEAs, balancing preservation of the County's natural biodiversity with private property rights. A discretionary SEA Conditional Use Permit application is required for development that cannot demonstrate compliance with Section 22.102.070 (Protected Tree Permit), or Sections 22.102.090 (SEA Development Standards) and 22.102.100 (Natural Open Space Preservation) of the County Code. County Planning has issued the SEA Ordinance Implementation Guide (County Planning 2020) to help proposed development comply with the ordinance.

SEA Resource Categories

The SEA Ordinance includes SEA Resource Categories 1 through 5. These categories are defined as follows (County Planning 2020):

- **Category 1:** FESA and CESA listed plant and wildlife species; CESA candidate species, CRPR 1A or B, 2A or B, and 3 (CNPS 2025a), critically imperiled natural communities (those that have a Global [G] and/or State [S] ranking of 1 (NatureServe 2025), and water resources
- **Category 2:** CDFW SSC and their occupied habitat, and imperiled natural communities (those that have are G2/S2) (NatureServe 2025)
- **Category 3:** Vulnerable natural communities that are G3/S3 (NatureServe 2025), sensitive local native resources, and oak woodlands
- **Category 4:** Apparently secure natural communities that are G4/S4 (NatureServe 2025), secure natural communities that are G5/S5 (NatureServe 2025), and CRPR 4 species
- **Category 5:** All other lands including those dominated by non-native vegetation, agricultural fields, hedges, early successional vegetation that has yet to form into a distinct natural community, cleared or disturbed areas, and non-native trees and shrubs.

Table 3.2-19, Recommended Preservation Ratios for SEA CUP, lists the recommended preservation ratios for impacts to SEA Resources Categories for projects that require a Conditional Use Permit.

Table 3.2-19. Recommended Preservation Ratios for SEA CUP

SEA Resources	Preservation Ratio
Category 1 ▪ State or federally listed species and their habitats ▪ California Rare Plant Ranks 1,2,3 ▪ Natural communities ranked G1/S1 ▪ Water resources (e.g., wetlands, streams, ponds, lakes, vernal pools, marshes) ▪ Beach and dune	5:1

Table 3.2-19. Recommended Preservation Ratios for SEA CUP

SEA Resources	Preservation Ratio
Category 2 ▪ Natural communities ranked G2/S2 ▪ Species of Special Concern and their habitats	4:1
Category 3 ▪ Natural communities ranked G3/S3 ▪ Oak woodland ▪ Sensitive local native resources ▪ Rock outcrops/rocklands	3:1
Category 4 ▪ Natural communities ranked G4/S4/G5/S5 ▪ California Rare Plant Rank 4 ▪ Non-native grasslands	2:1
Category 5 ▪ Wildlife linkage or corridor or open space buffer	1:1

Source: County Planning 2020.
Notes: SEA = Significant Ecological Area; G = Global; S = State.

The Project's Gen-Tie Line will potentially impact SEA Resource Categories 1 through 3 in the form special-status plants and wildlife, water resources, and vegetation communities; however, all such impacts are mitigated in accordance with the SEA ordinance and CEQA.

SEA Protected Trees

The SEA Ordinance includes 60 tree species to be protected in addition to already protected oak trees (County Planning 2020). The SEA Protected Tree List specifies the species of tree protected in each individual SEA and the size of the tree when regulations are applied. A Protected Tree Permit from the County shall be required for development that complies with Section 22.102.090 (SEA Development Standards) except for Subsection 22.102.090.B (SEA Protected Trees) of the County Code, and which includes any of the following impacts:

1. Pruning or trimming of branches of SEA Protected Trees in excess of 2 inches in diameter or 25% of live foliage for one or more trees;
2. Encroachments of up to 30% into an SEA Protected Tree's protected zone; any encroachment of more than 30% into the protected zone of a tree shall be considered as a tree removal
3. Removal of up to two SEA Protected Trees that are not designated as heritage trees (single trunk that measures 36 inches or more in diameter, or two trunks that collectively measure 54 inches or more in diameter)
4. Tree relocation poses significant risk to the health or survival rate of a tree. Any relocation of an SEA Protected Tree shall, therefore, be processed as a removal

California juniper, velvet ash, and Southern California black walnut are protected trees under the SEA Ordinance. The Project will potentially impact up to 96 California juniper due to the construction of the gen-tie, up to 1 velvet ash, and up to 1 Southern California black walnut, however, all such impacts are mitigated in accordance with the SEA ordinance.

3.2.6 Permit and Permit Schedule

The Project is expected to require a Lake or Streambed Alteration Agreement from CDFW, but for the CEC's Opt-In Application for Certification process, and a WDR from RWQCB. Permits and mitigation plans required prior to construction will be the responsibility of the qualified biologist assigned by the Applicant. Lake or Streambed Alteration Agreement is included herein as Appendix 3.2K. It is expected that the WDR would be issued within 90 days after certification by the CEC of the environmental impact report for the Project.

Table 3.2-20, Biological Resource Permits, lists the permits related to biological resources.

Table 3.2-20. Biological Resources Permits

Permit	Agency	Status
Lake or Streambed Alteration Agreement (LSAA)	California Department of Fish and Wildlife – Region 5, South Coast	Submitted as part of this Opt-In application (see Appendix 3.2K)
Waste Discharge Requirements (WDR)	Los Angeles Regional Water Quality Control Board (RWQCB)	Application will be submitted to Los Angeles RWQCB in October 2025
California Desert Native Plants Act Permit	Los Angeles County	Will be obtained prior to collection of plants that will be impacted

3.2.7 Agency Contacts

Table 3.2-21, Summary of the Agency Contacts, lists regulatory agency contacts for biological resources for this project.

Table 3.2-21. Summary of the Agency Contacts

Natural Resource	Agency	Contact Information
Locally Sensitive Species	County of Los Angeles Regional Planning	Joseph Decruyenaere, Senior Biologist; jdecruyenaere@planning.lacounty.gov[1]

Note:
[1] This correspondence is included as Appendix 3.2L.

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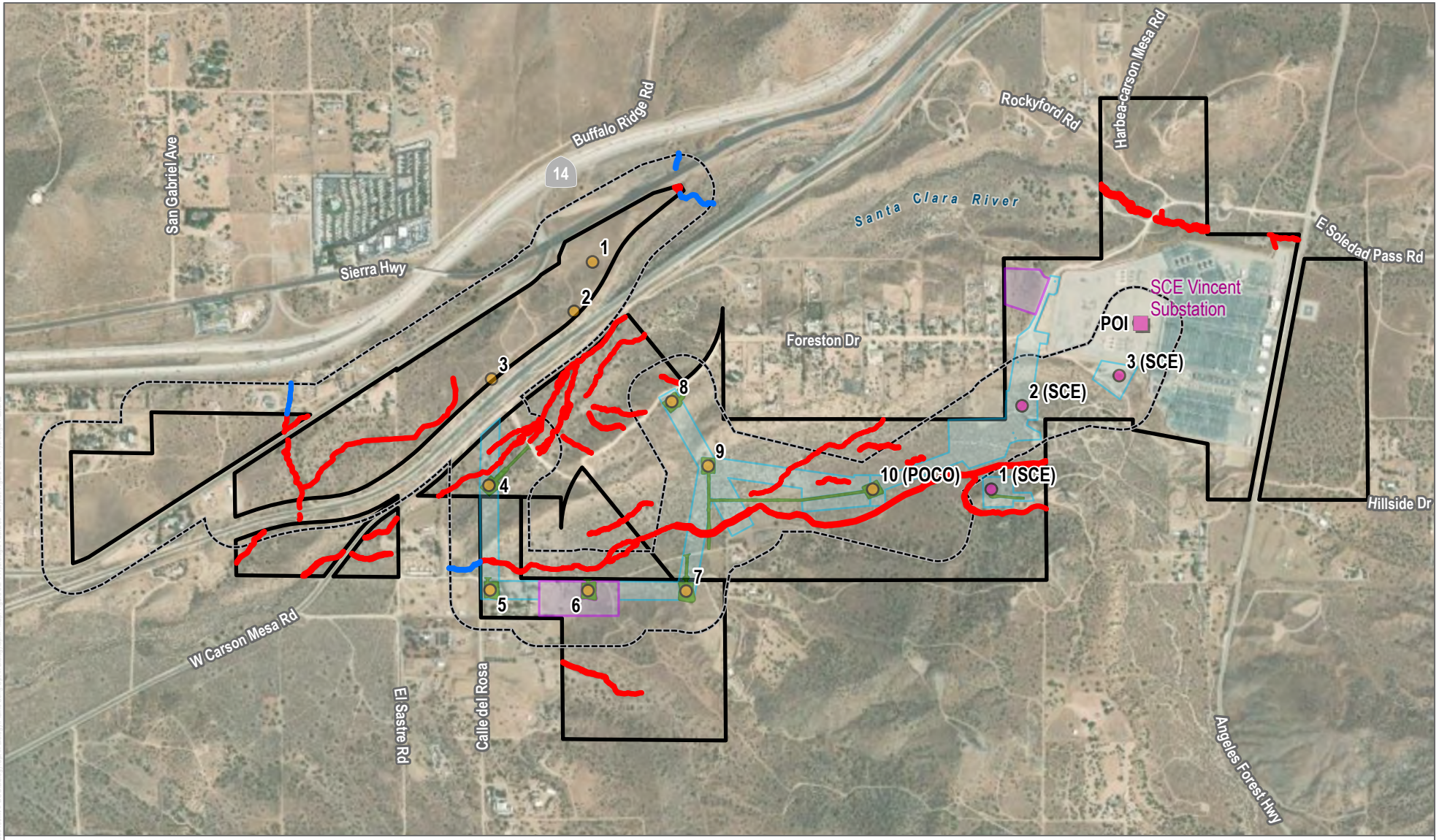
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SOURCE: World Imagery

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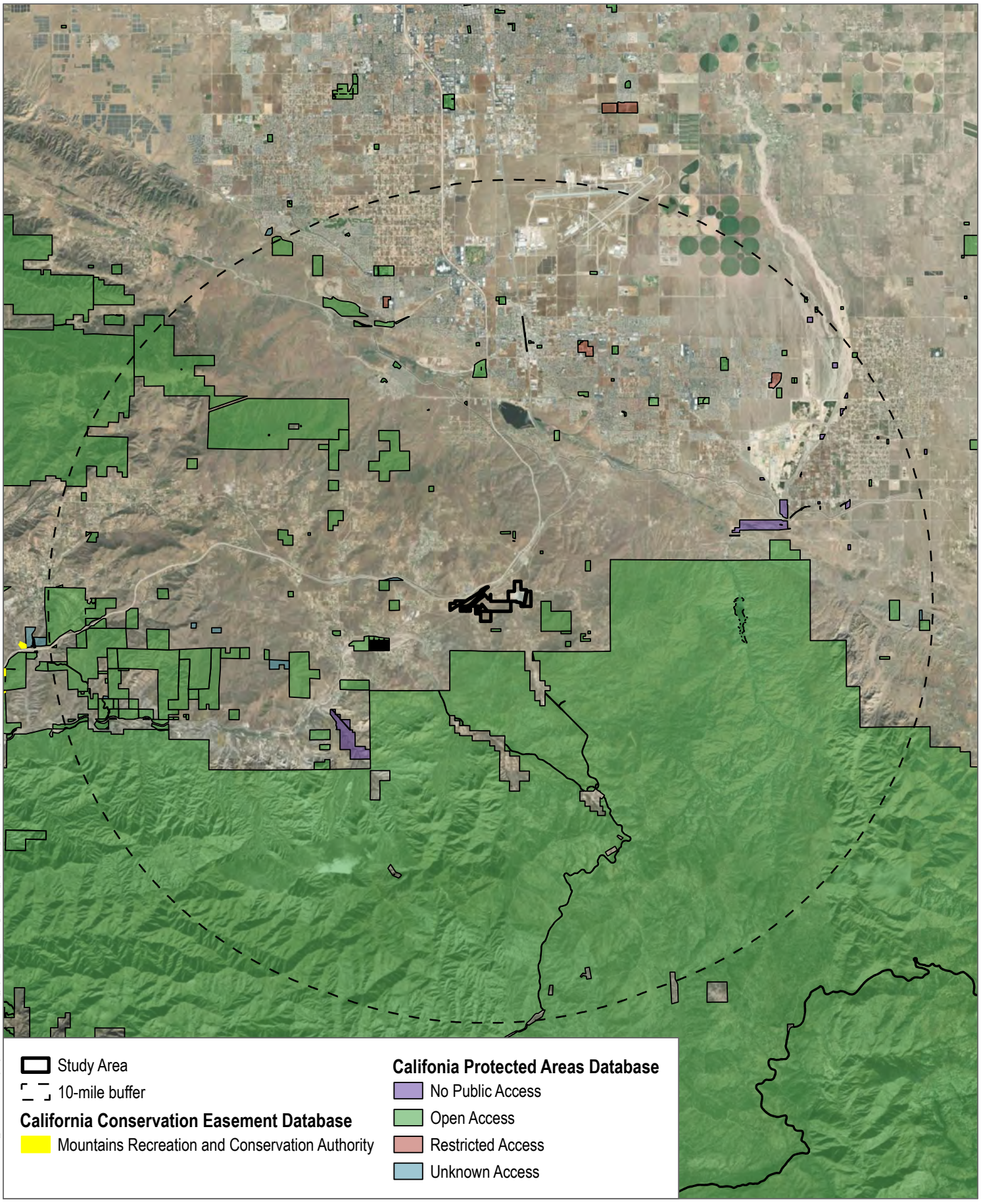
0 550 1,100 Feet

FIGURE 3.2-1

Hydrologic Features

Prairie Song Reliability Project

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SOURCE: World Imagery; CPAD 2024; CCED 2024

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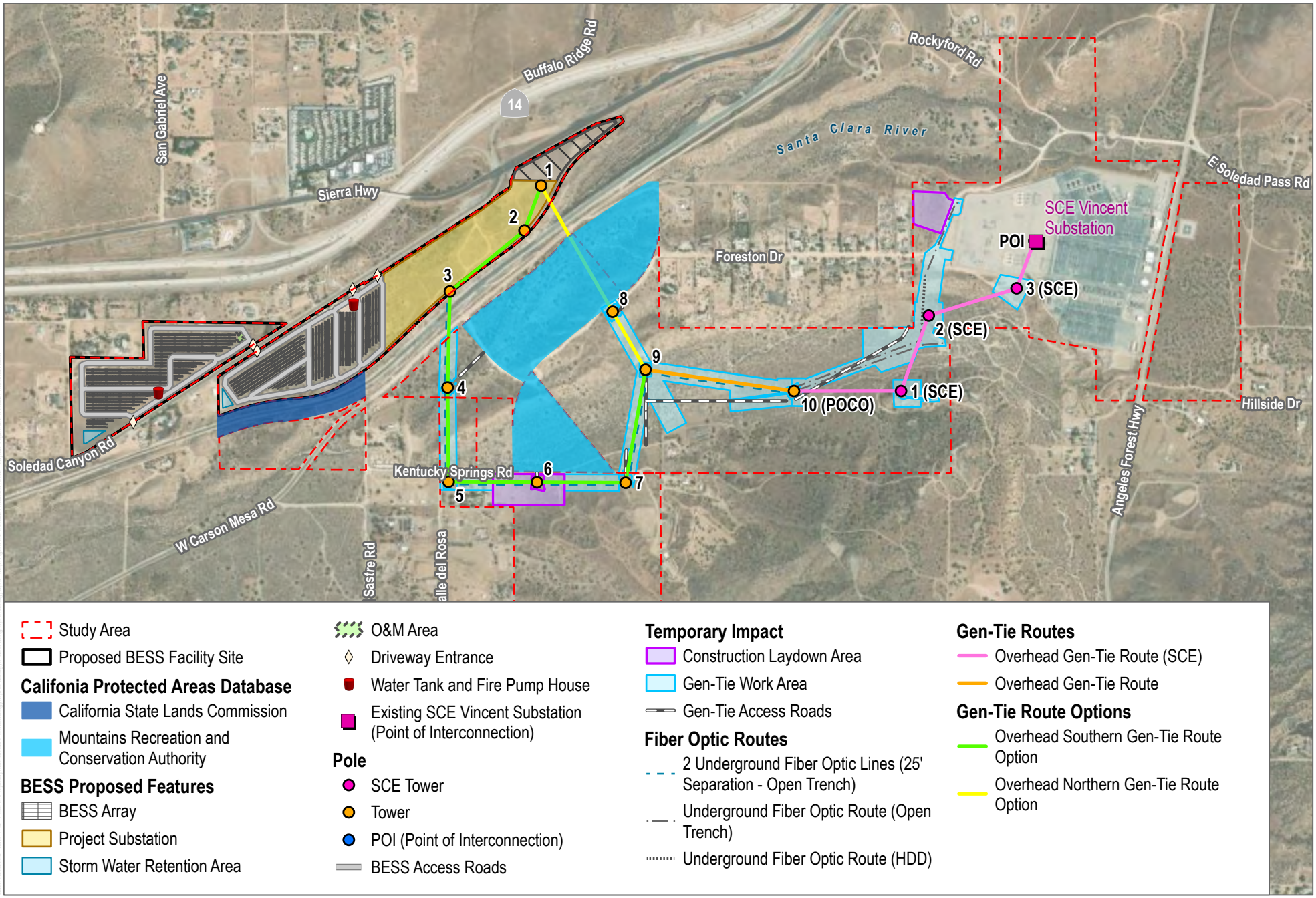
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FIGURE 3.2-2

Protected Areas

Prairie Song Reliability Project

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SOURCE: World Imagery; CPAD 2024

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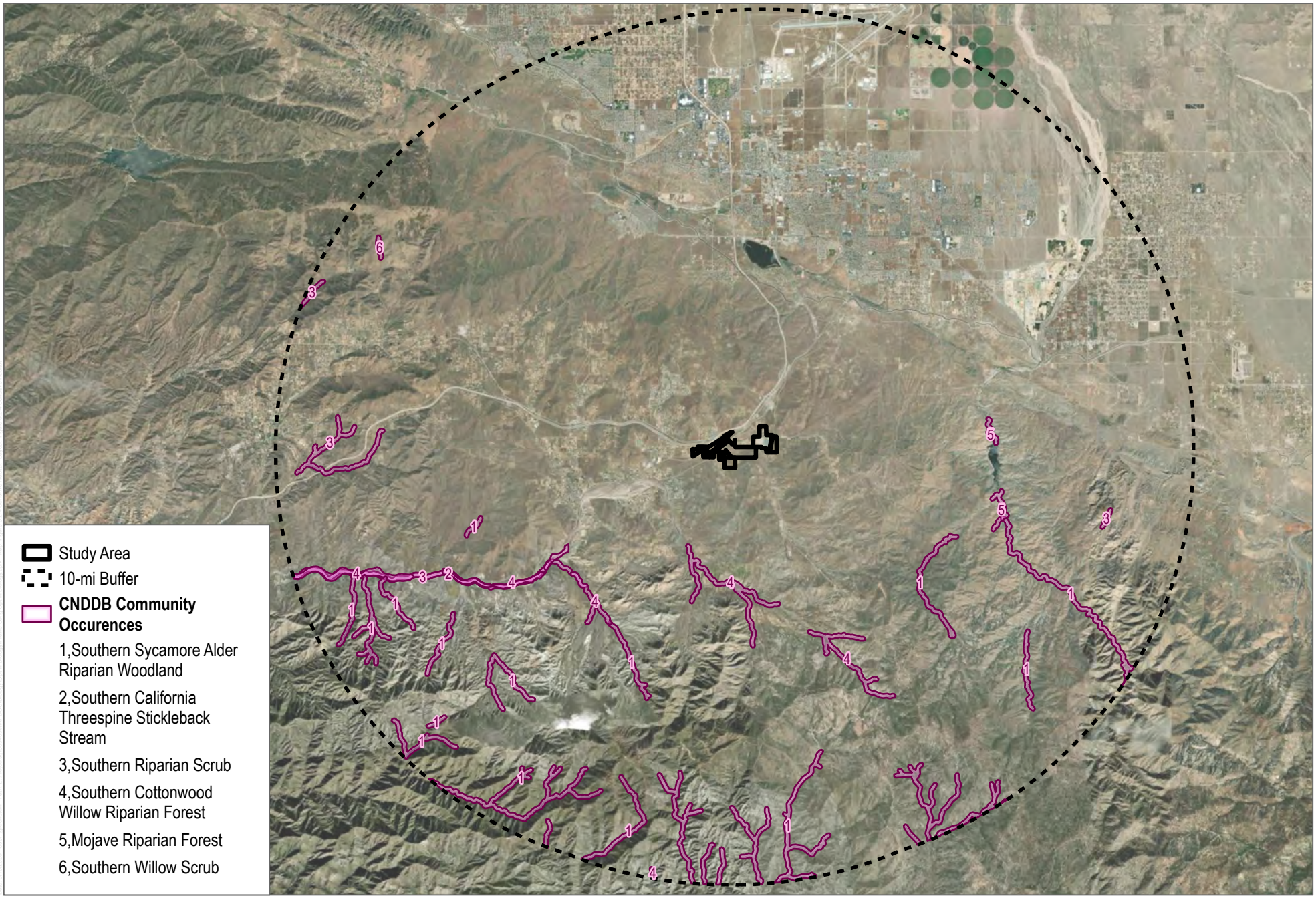
0 550 1,100 Feet

FIGURE 3.2-3

Local Protected Areas

Prairie Song Reliability Project

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SOURCE: Bing Maps 2023; Open Street Map 2023; CA Dept. of Fish and Wildlife 2023

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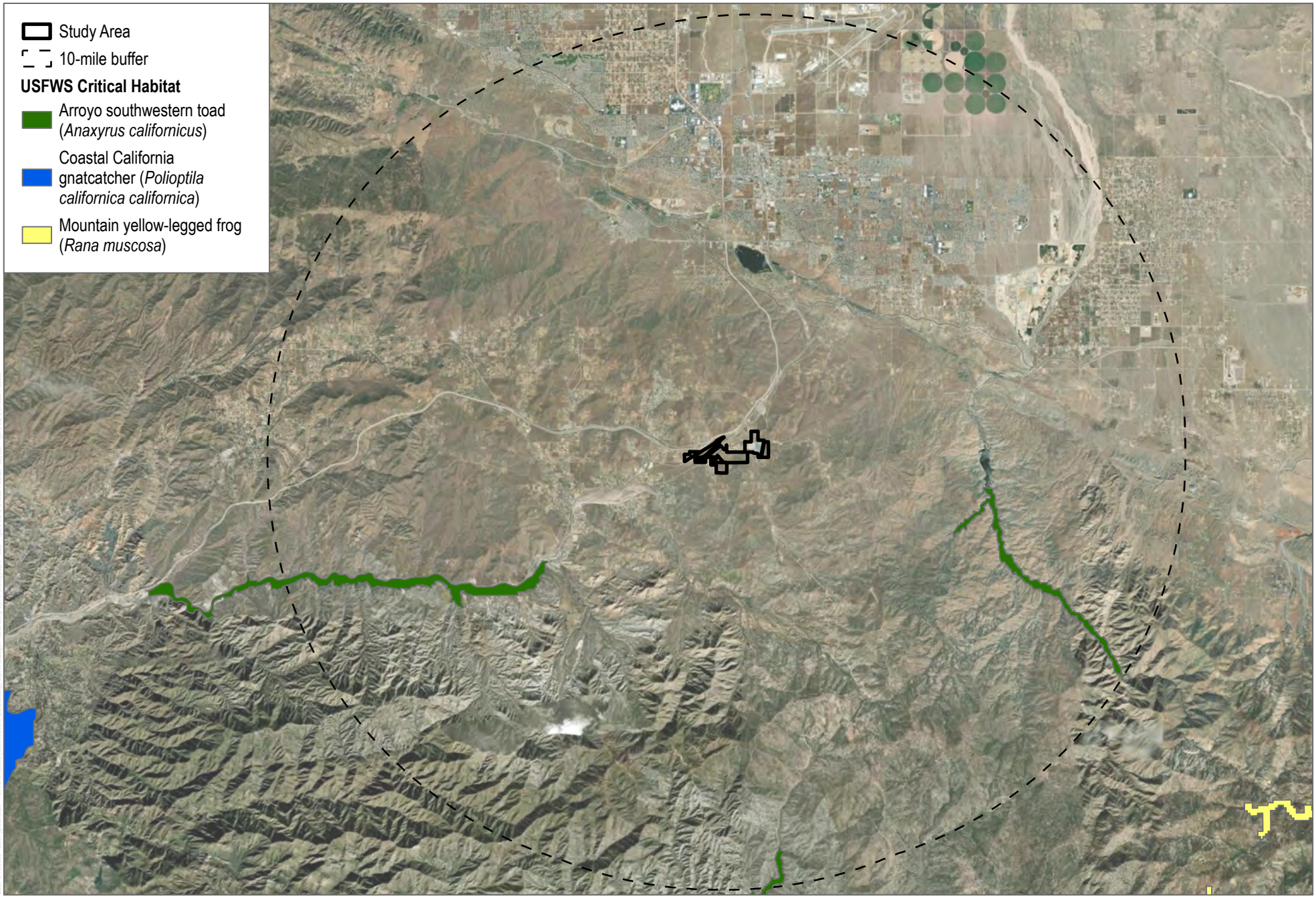
0 7,000 14,000 Feet

FIGURE 3.2-4

Sensitive Habitat Types

Prairie Song Reliability Project

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SOURCE: World Imagery; USFWS

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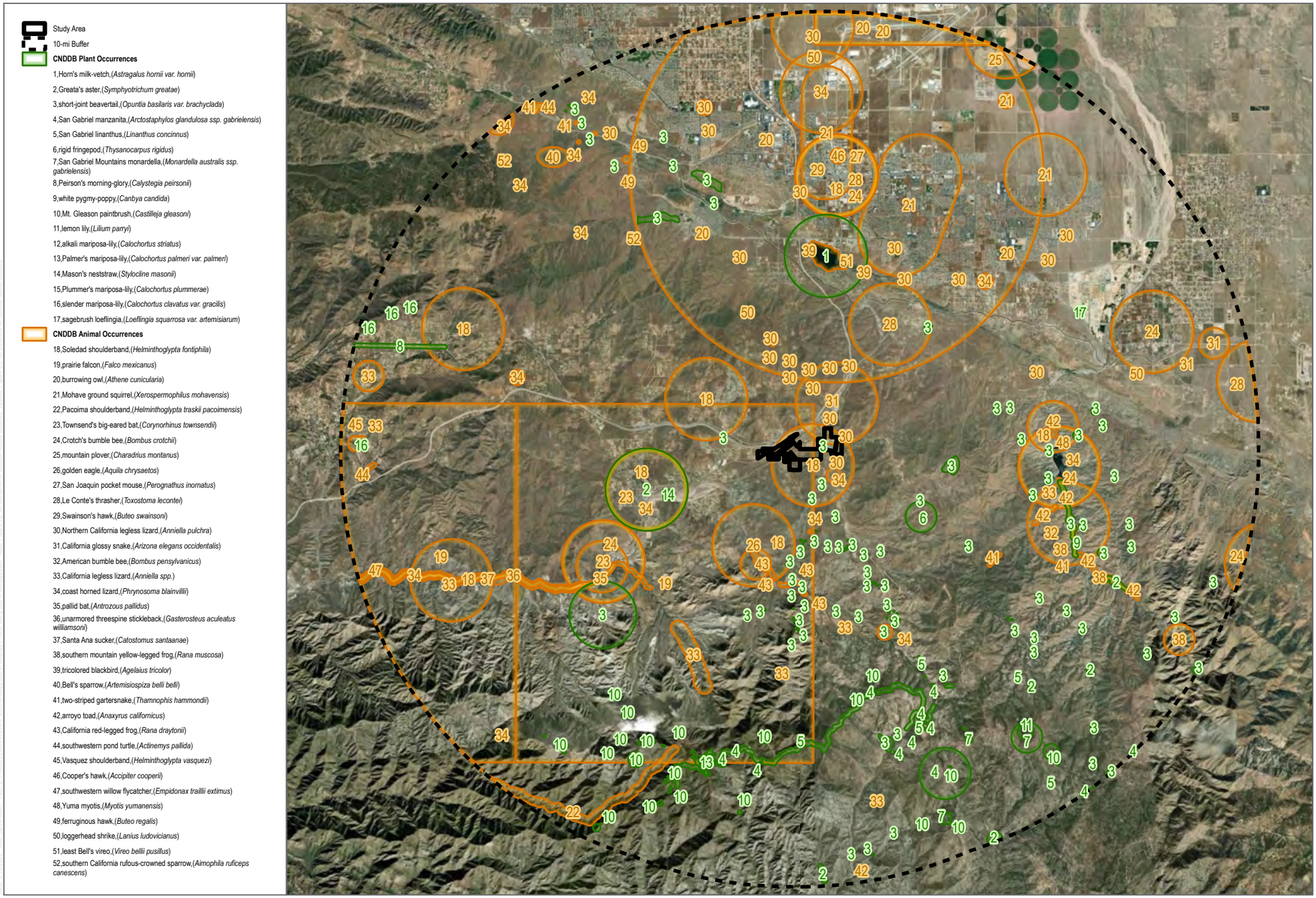
0 8,000 16,000 Feet

FIGURE 3.2-5

Critical Habitat

Prairie Song Reliability Project

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SOURCE: Bing Maps 2023; Open Street Map 2023; CA Dept. of Fish and Wildlife 2023

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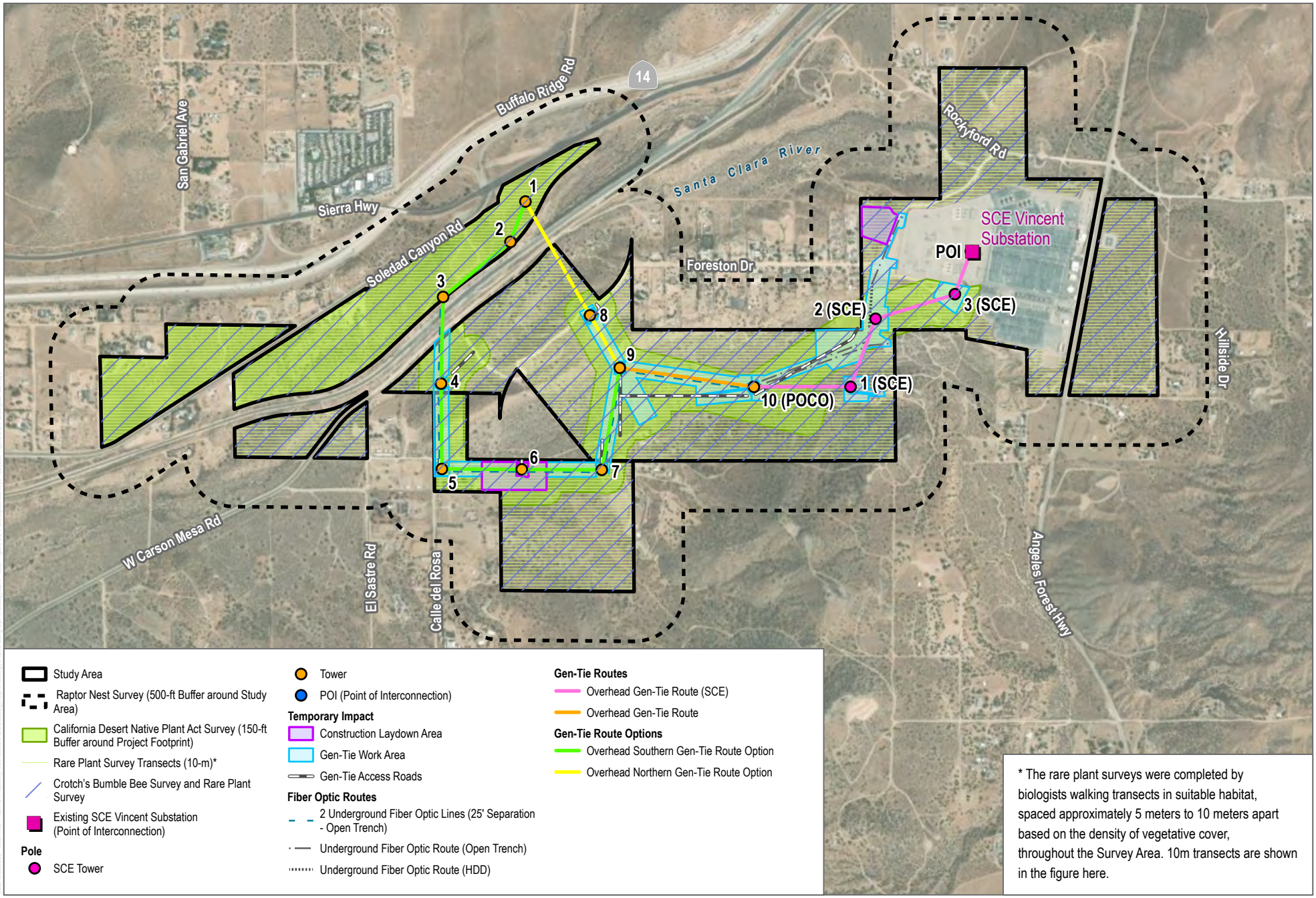
0 7,000 14,000 Feet

FIGURE 3.2-6b

Sensitive or Special-Status Species Records

Prairie Song Reliability Project

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SOURCE: World Imagery

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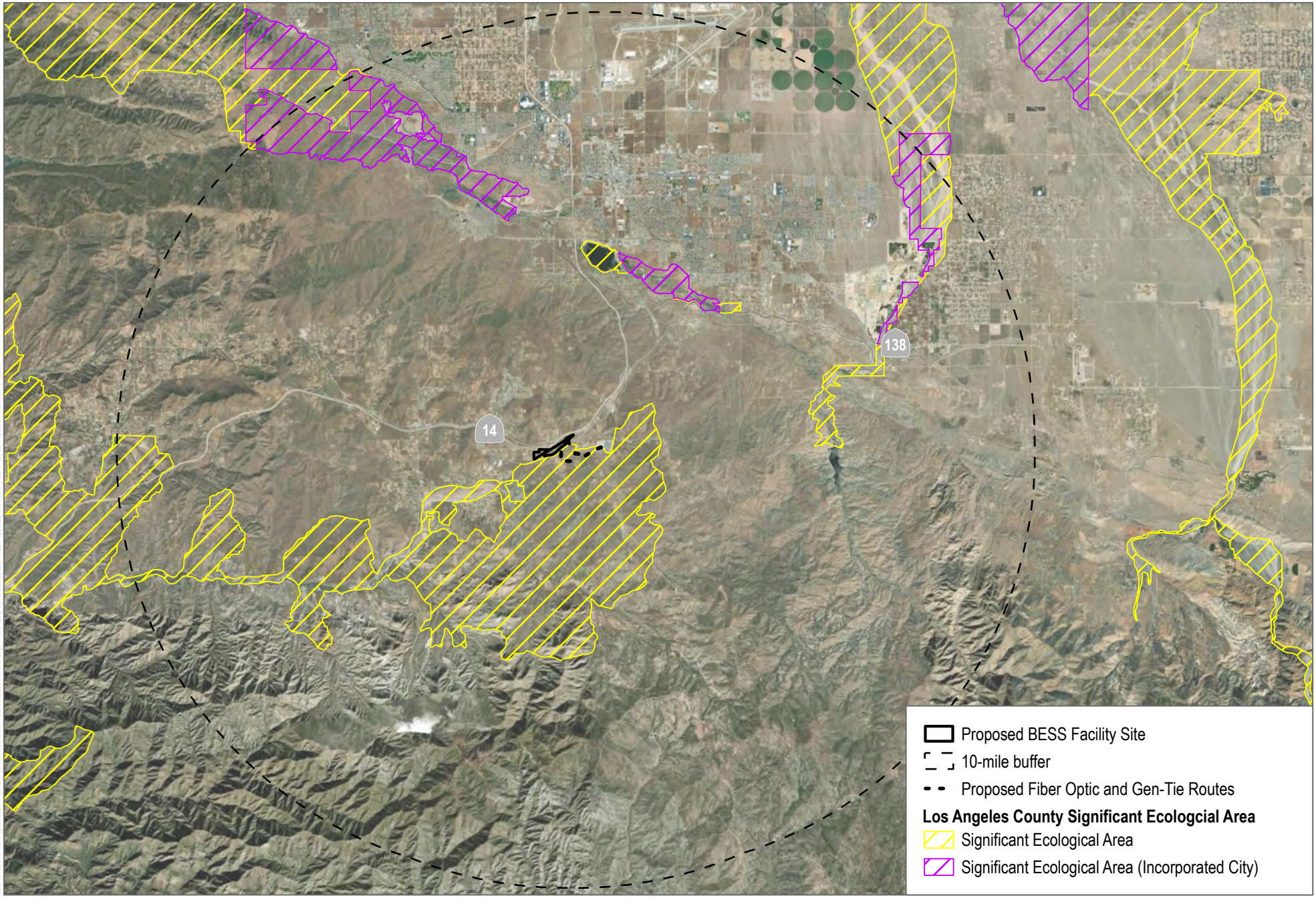
0 650 1,300 Feet

FIGURE 3.2-7

Biological Surveys

Prairie Song Reliability Project

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SOURCE: Los Angeles County; World Imagery

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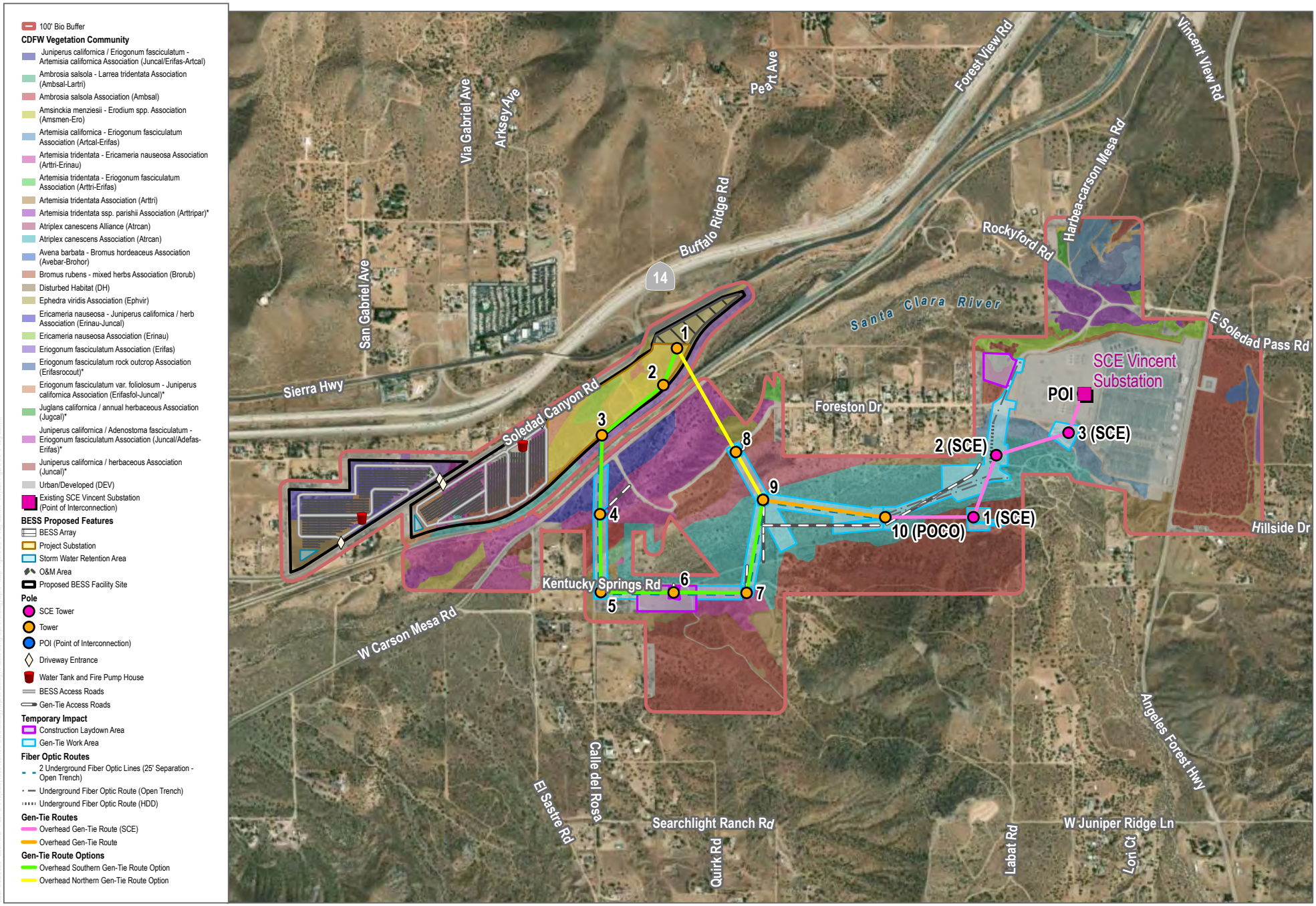
0 8,000 16,000 Feet

FIGURE 3.2-8

Los Angeles County Significant Ecological Area

Prairie Song Reliability Project

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SOURCE: World Imagery

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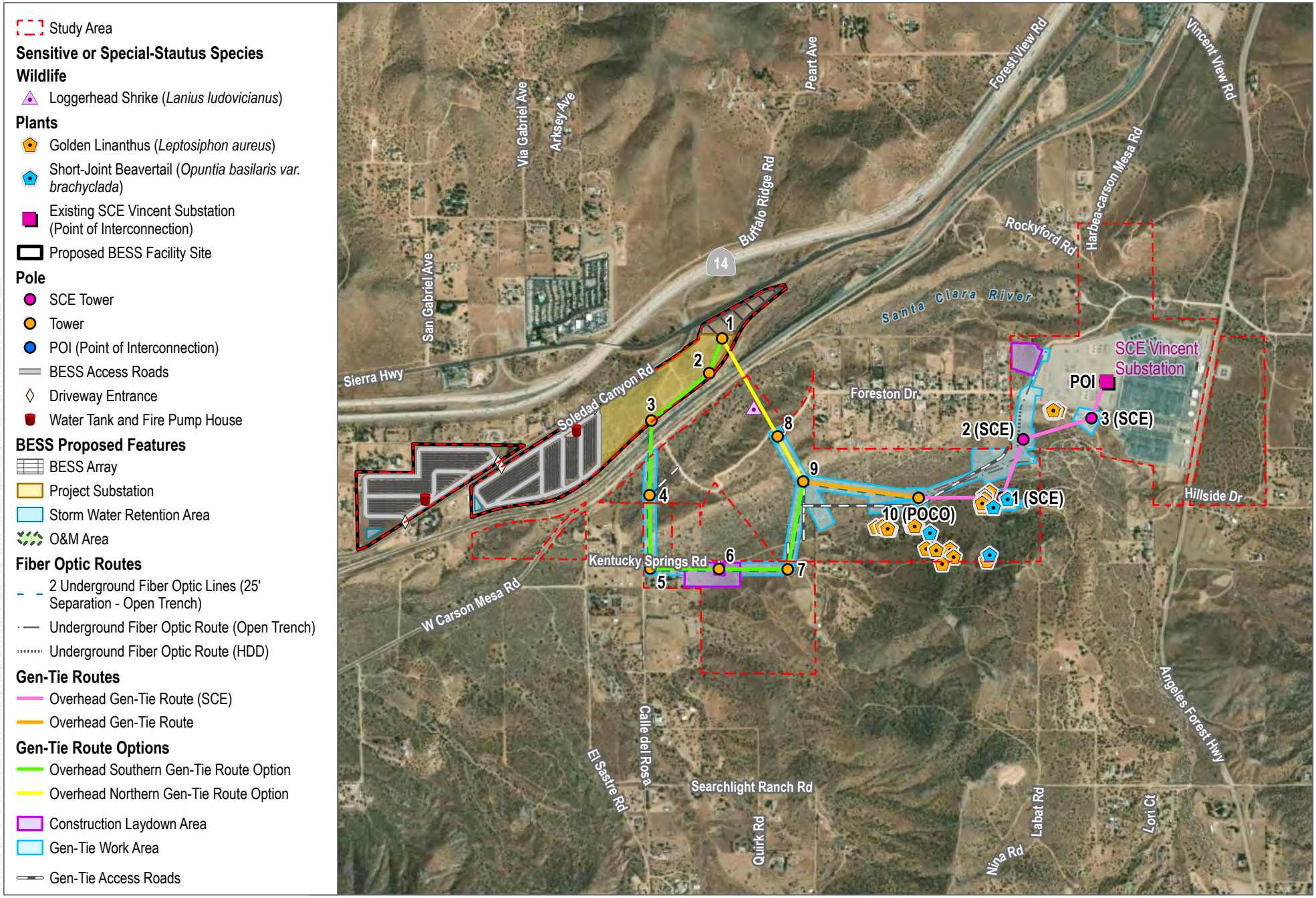
0 700 1,400 Feet

FIGURE 3.2-9

Vegetation Communities and Land Cover

Prairie Song Reliability Project

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SOURCE: World Imagery

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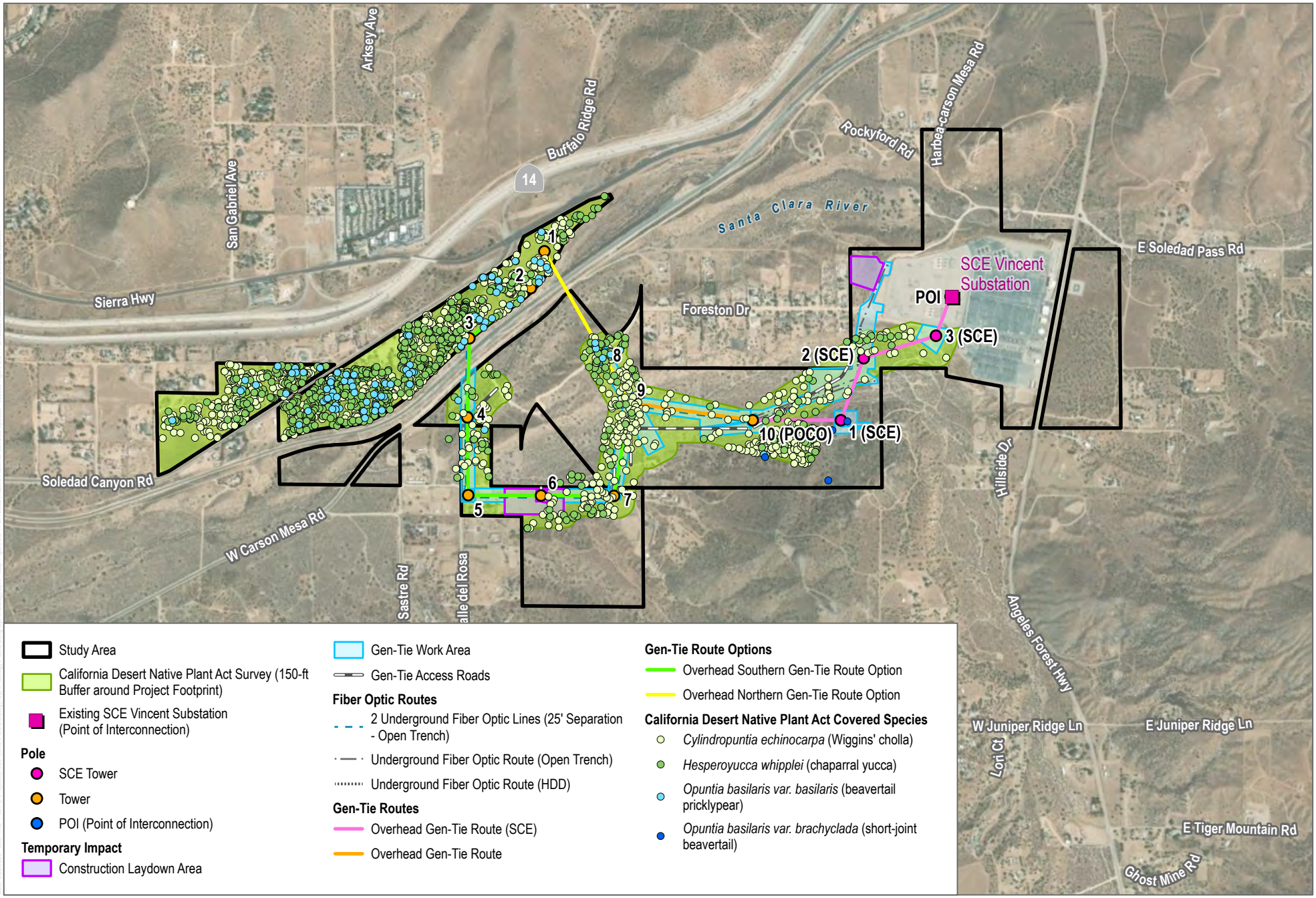
0 750 1,500 Feet

FIGURE 3.2-10

Sensitive or Special-Status Species Survey Results

Prairie Song Reliability Project

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SOURCE: World Imagery

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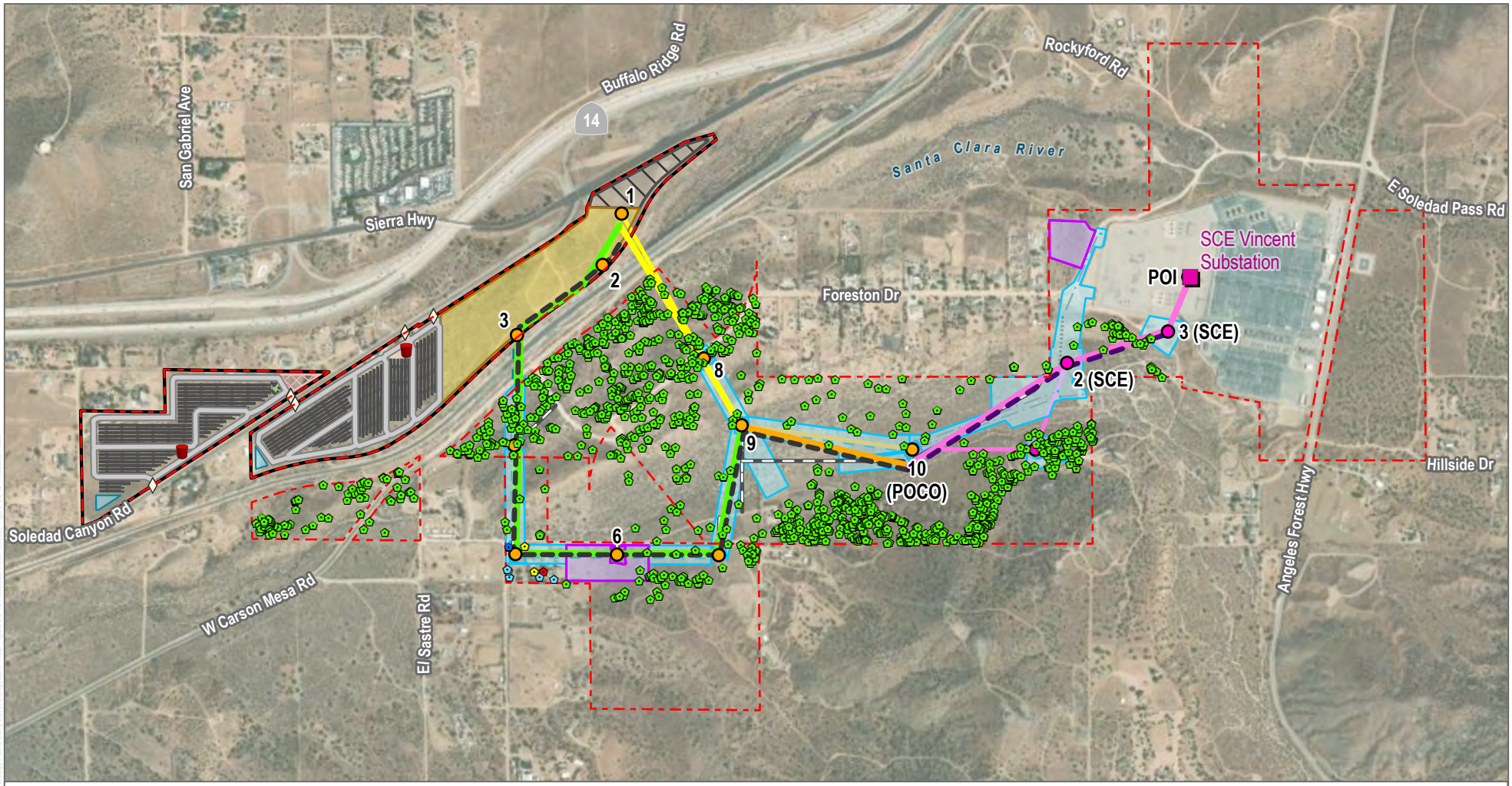
0 700 1,400 Feet

FIGURE 3.2-11

CA Desert Native Plant Act Covered Species

Prairie Song Reliability Project

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Study Area
Proposed BESS Facility Site

Tree Species
- California Juniper
- California Sycamore
- Fremont Cottonwood
- Southern California Black Walnut
- Velvet Ash

BESS Proposed Features
- BESS Array
- Project Substation
- Storm Water Retention Area
- O&M Area
- Laydown Area
- Driveway Entrance
- Water Tank and Fire Pump House

Existing SCE Vincent Substation (Point of Interconnection)

Pole
- SCE Tower
- Tower
- POI (Point of Interconnection)

BESS Access Roads

Temporary Impact
- Construction Laydown Area
- Gen-Tie Work Area
- Gen-Tie Access Roads

Fiber Optic Routes
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: World Imagery

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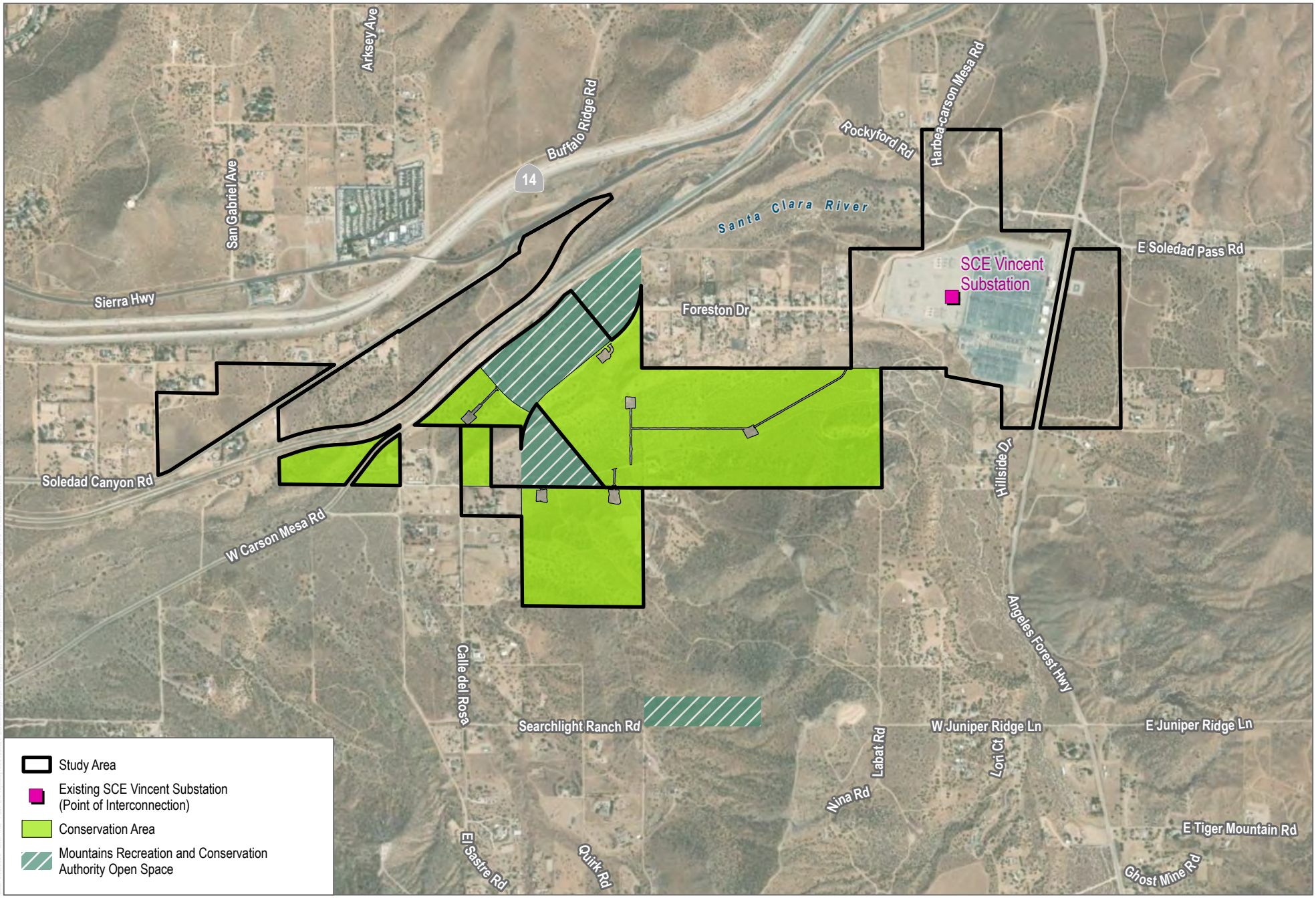
0 550 1,100 Feet

FIGURE 3.2-12

Protected Trees

Prairie Song Reliability Project

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SOURCE: World Imagery; CPAD 2024

DUDEK

0 700 1,400 Feet

FIGURE 3.2-13

Conservation Area

Prairie Song Reliability Project

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Attachment 3A

Appendix 3.2G, Biota Report (Redline)

Biota Report
Prairie Song Reliability Project

~~FEBRUARY~~ SEPTEMBER 2026

Prepared for:

PRAIRIE SONG RELIABILITY PROJECT LLC

Prepared by:

DUDEK
225 South Lake Avenue, Suite M210
Pasadena, California 91101
Contact: Michael Cady, Senior Biologist

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C Potential to Occur Tables and Compendia
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Acronyms and Abbreviations

Acronym	Definition
BESS	battery energy storage system
CDFW	California Department of Fish and Wildlife
CDNPA	California Desert Native Plants Act
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	County of Los Angeles
CRPR	California Rare Plant Rank
CUP	Conditional Use Permit
FESA	federal Endangered Species Act
gen-tie	generation interconnection
MM	Mitigation Measure
OHWM	ordinary high-water mark
Project	Prairie Song Reliability Project
RWQCB	Regional Water Quality Control Board
SCE	Southern California Edison
SEA	Significant Ecological Area
SR	State Route
SSC	California Species of Special Concern
TPZ	tree protection zone
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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1 Introduction

This report presents the findings of a biological resources assessment conducted for the proposed Prairie Song Reliability Project (Project). The purpose of this assessment was to evaluate the existing biological conditions and provide an analysis of the Project's potential impacts on the County of Los Angeles (County) Significant Ecological Area (SEA) resources as identified within the Los Angeles County SEA Ordinance Implementation Guide (Los Angeles County Regional Planning 2020). The generation interconnection (gen-tie) line route alignments for the Project are located in the Santa Clara River SEA, but the existing conditions are given for the Project as a whole.

1.1 Project Location

The Project is in unincorporated Los Angeles County, California, south of State Route (SR) 14. The Project is within the U.S. Geological Survey (USGS) 7.5-minute Acton and Pacifico Mountain quadrangles, Township 5N, Range 12W, Sections 27, 28, 33, and 34 (Figure 1, Project Location). The battery energy storage system (BESS) site consists of Assessor's Parcel Numbers 3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, and 3056-019-040. Development of the BESS facility will occur on an area of land situated between two existing transportation corridors, the Antelope Valley Freeway (SR-14) to the north and Southern Pacific Railroad lines and Carson Mesa Road to the south, which are approximately 1,200 feet apart.

The Project will utilize one (1) of two (2) potential gen-tie routes. Either route will extend south and east from the Project substation, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, and then proceed northeast to the Point of Interconnection at the Vincent Substation. The Northern Gen-Tie Route is approximately 1.2~~1~~ miles long and will be sited on portions of Assessor's Parcel Numbers 3056-015-008, 3056-015-023, 3056-017-026, 3056-017-905, 3056-017-906, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The Southern Gen-Tie Route is approximately 1.9~~8~~ miles long and will be sited on portions of Assessor's Parcel Numbers 3056-015-008, 3056-015-023, 3056-017-016, 3056-017-022, 3056-017-026, 3056-017-027, 3056-017-028, 3056-027-007, 3056-027-031, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802 (see Table 1 below). The full acreage of the parcels is provided in Table 1. The Project will also include three (3) fiber optic telecommunications lines: one (1) will be installed aboveground on the gen-tie structures (along whichever gen-tie route is ultimately selected), and the other two (2) will be installed underground within the Southern Gen-Tie Route corridor. The two (2) other fiber optic lines will be installed underground within the Southern Gen-Tie Route corridor regardless of which gen-tie route corridor option is selected. The Project's interconnection facilities will be located within the Southern California Edison (SCE) Vincent Substation. Land uses in the immediate vicinity of the Project include undeveloped and rural lands, multiple high-voltage transmission lines and an electrical substation, paved and rural roads, SR-14, and railroad lines.

Table 1. Project Parcels

Assessor's Parcel Number	Acreage
3056-005-816	1.28
3056-005-817	6.41
3056-005-818	15.18
3056-015-008	40.18
3056-015-023	39.89

Table 1. Project Parcels

Assessor's Parcel Number	Acreage
3056-015-801	23.43
3056-015-802	5.02
3056-017-016	5.14
3056-017-022	10.01
3056-017-026	10.16
3056-017-027	10.17
3056-017-028	10.25
3056-017-905	10.15
3056-017-906	10.12
3056-027-007	40.41
3056-027-031	4.98

The nearest municipality to the Project site is the City of Palmdale, which is located approximately 4 miles to the northeast. There are a few single-family residences adjacent to the BESS facility site's northern and western boundaries, as well as a few other single-family residences in the vicinity of the gen-tie line.

1.2 Project Description

Prairie Song Reliability Project LLC, a Delaware limited liability company (applicant), a subsidiary of Coval Infrastructure DevCo LLC, a Delaware limited liability company, proposes to construct, operate, and eventually repower or decommission the up to 1,150-megawatt Project located on up to approximately 107 acres in unincorporated Los Angeles County. The primary components of the Project include a containerized BESS facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance buildings, an on-site Project substation, a 500-kilovolt overhead gen-tie transmission line, and interconnection facilities within the existing SCE-owned and operated Vincent Substation.

Electrical energy will be transferred from the existing power grid to the Project for storage and from the Project to the power grid when additional electricity is needed. The Project will provide additional capacity to the electrical grid to assist with serving load during periods of peak demand by charging when demand is low and discharging when demand is high. This operating principle increases the integration of additional intermittent renewable energy, such as wind and solar, in California's energy mix and reduces the need to operate natural gas power plants. The Project will also serve as an additional local/regional capacity resource that will enhance grid reliability, particularly to the Los Angeles Basin local reliability area and may allow for the deferral or avoidance of regional transmission facilities.

The Project will be remotely operated and monitored year-round and supported by on-site operations and maintenance staff 7 days a week. The Project will be available to receive or deliver energy 24 hours a day and 365 days a year. During the operational life of the Project, qualified technicians will inspect the Project facilities and conduct necessary maintenance to ensure reliable and safe operational readiness.

Please refer to Appendix D for a Conceptual Project Design map.

1.2.1 Transmission and Interconnection

The Project will be interconnected to the regional electrical transmission grid via an approximately 1.~~1~~2-mile-long or 1.9~~8~~-mile-long new single-circuit 500kV gen-tie line within an up-to 150-foot-wide corridor between the Project substation and the SCE Vincent Substation. Construction of the gen-tie line is expected to start in December 2027 and conclude in July 2028.

- Site preparation, BMP installation, and civil work is expected to take approximately 2 months.
- Foundation setting and tower erection is expected to take approximately 4 months
- Transmission line stringing, pulling, and tensioning is expected to take approximately 1 month.

Additional specifics regarding gen-tie line construction are provided below:

The Applicant will construct and own the portion of the gen-tie line between the Project substation and the Point of Change of Ownership (POCO) transmission structure and SCE will construct and own the remaining portion of the gen-tie from the POCO to the POI within the Vincent Substation. The Project's transmission and interconnection facilities will include the following components:

- 500kV Gen-Tie Line including Transmission Structures and Conductors
- Fiber Optic Telecommunications Utility Poles and Fiber Optic Lines
- Access Paths
- Temporary Work Areas
- Interconnection Facilities within Existing SCE Vincent Substation Footprint (SCE constructed and owned)

The proposed route was selected to minimize the number of existing utility crossings, cross existing utilities at the optimum locations, minimize the total gen-tie line length and number of transmission structures required, minimize the number of turning structures required, and enter the Vincent Substation as close as possible to the POI. The proposed transmission structures were sited to avoid potential impacts to environmental resources. Table 2 summarizes the preliminary new ground disturbance area associated with construction of the transmission and interconnection facilities (Southern Gen-Tie scenario).

Table 2. Approximate New Ground Disturbance Area Associated with Transmission and Interconnection Facilities

Component	Permanent Disturbance	Temporary Disturbance
Applicant Portion		
Transmission Structure Pads	2.48 acres	—
Transmission Structure Access Path	1.14 acres	—
Laydown Area	—	4.23 acres
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	19.4 acres
Applicant Total[1]	**3.62 acres**	**~23.63 acres**
SCE Portion		
Transmission Structure Pad and Access Roads	0.623 acres	—

Table 2. Approximate New Ground Disturbance Area Associated with Transmission and Interconnection Facilities

Component	Permanent Disturbance	Temporary Disturbance
~~Transmission Structure Access Path~~	~~0.5 acres~~	~~—~~
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	~~8.99~~13.82 acres
Laydown Area	—	2.40
SCE Total	**0.628 acres**	**16.228.99 acres**

Note: gen-tie = generation interconnection; SCE = Southern California Edison.
[1] Represents the impacts associated only with the Southern Gen-Tie Route, which defines the maximum impact footprint.

If determined to be required by the director or agency with primary responsibility for fire protection, Public Resources Code Sections 4292 and 4293 require 10 feet of vegetation clearance in all directions for any transmission line operating above 110 kilovolts (kV). The project's proposed 500 kV gen-tie line is designed to be higher than 35 feet above the ground surface during heavy sag conditions. The majority of the gen-tie line is greater than 45 feet above ground during heavy sag conditions, meaning that vegetation would need to be at least 35 feet tall to require maintenance for fuel modification. The vegetation communities in this area do not typically grow to be 35 feet tall so it is unlikely any fuel modification will be required. However, there are two areas where the proposed gen-tie line is near 35 feet above the ground. In these two areas, fuel modification may be necessary, on a spot basis, to limit the height of vegetation to comply with Public Resources Code Sections 4292 and 4293. These two areas are shown on Conceptual Project Design – Graded Areas. Vegetation Maintenance area 1 (VM1) is a 40-foot by 40 foot area at the top of a ridge. There is a road on the top of the ridge making it unlikely that any vegetation maintenance will be necessary near where the gen-tie line approached 35 above the surface. Vegetation Management area 2 (VM2) is a 360-foot by 40-foot long area between gen-tie pole 9 and gen-tie pole 10 (POCO) where the proposed gen-tie line is less than 40 feet above the ground surface. There is the potential for vegetation management along VM2 for any vegetation that approaches 30 feet in height.

Figure 1 Project Location

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2 Environmental Setting

2.1 On-Site Conditions

The Project site refers to the area that may be physically affected by construction activities associated with the Project, including the location of permanent structures (including both gen-tie options), as well as staging and other temporary disturbance areas described. For the purposes of the biological surveys, the Study Area encompasses the parcels that make up the Project site and additional parcels that have been acquired by the Project applicant. The Study Area for focused species surveys was expanded per protocol and where necessary to capture nearby resources.

APNs 3056-017-905, 3056-017-904, 3056-017-906, and 3056-017-907 are managed by the Mountains Recreation and Conservation Authority and are deed restricted for open space use (see Figure 9: Regional Setting). The Northern Gen-tie option would obtain an aerial easement and span these parcels, but would not generate any impacts on the ground, except for the use of an existing roadway. There are no protected lands adjacent to the Project site.

2.2 Soils

According to the U.S. Department of Agriculture (2025a) Web Soil Survey, there are seven (7) soil map units that occur within the Study Area, as shown in Figure 2, Soils: Greenfield sandy loam, 2% to 9% slopes (GsC); Hanford coarse sandy loam, 0% to 2% slopes (HbA); Hanford coarse sandy loam, 2% to 9% slopes (HbC); Hanford coarse sandy loam, 9% to 15% slopes (HbD); Hanford sandy loam, 2% to 9% slopes (HcC); Terrace escarpments (TsF); and Vista coarse sandy loam, 30% to 50% slopes (VsF). Of the seven (7) soil map units, only one (1) is ranked as partially hydric: Hanford coarse sandy loam, 0% to 2% slopes.

The Greenfield soil series consists of deep, well-drained soils formed in moderately coarse to coarse-textured alluvium derived from granitic and mixed rock sources. These soils are typically found on alluvial fans and terraces with slopes ranging from 0% to 30%. In Southern California, Greenfield soils experience a dry, subhumid climate with hot, dry summers and cool, moist winters, receiving approximately 9 to 20 inches of annual precipitation. The soils exhibit moderately rapid permeability and low organic matter content, supporting vegetation such as annual grasses, forbs, scattered shrubs, and occasional oak trees in uncultivated areas (USDA 2025a)

The Hanford soil series, common in alluvial valleys of Southern California, consists of well-drained, moderately permeable soils formed in coarse-loamy alluvium derived primarily from granitic sources. These soils typically occur on stream terraces and alluvial fans with slopes ranging from 0% to 15%. Hanford soils exhibit low organic content and are generally dry from late spring through fall, with seasonal moisture during winter months. Their physical characteristics support a range of land uses, including agriculture and urban development, and they typically host annual grasses and herbaceous vegetation in undeveloped areas (USDA 2025a).

The Vista soil series consists of moderately deep, well-drained soils formed in material weathered from decomposed granitic rocks. These soils typically occur on hills and mountainous uplands with slopes ranging from 2% to 85%. Vista soils exhibit coarse sandy loam textures, moderately rapid permeability, and low organic matter content. They are found in areas with a subhumid mesothermal climate, receiving approximately 10 to 22 inches of annual

precipitation. Native vegetation includes annual grasses, forbs, and drought-tolerant shrubs such as California sagebrush (*Artemisia californica*), chamise (*Adenostoma fasciculatum*), and scrub oak (*Quercus* spp.) (USDA 2025a).

2.3 Regional Conditions

The Study Area is in the western San Gabriel Mountains, in the Transverse Ranges Geomorphic Province (CGS 2002). The Transverse Ranges are an east/west-trending series of steep mountains and valleys (CGS 2002). The Study Area is located at the conjunction of Soledad Canyon and Kentucky Springs Canyon (USGS 2022) and at the boundary of the Western Transverse Ranges ecological subregion and the Mojave Desert ecological region (Jepson Flora Project 2025). Elevations in the Study Area range from approximately 2,700 feet above mean sea level along the southwestern side to 3,500 feet above mean sea level along the northern hillsides (Google Earth 2025).

The Study Area has an arid climate with the site being located on the northern side of the San Gabriel Mountains and bordering the Antelope Valley. August is the average warmest month, with an average high of 93˚F, and December is the coolest month on average, with a low of 36˚F. Rainfall occurs primarily between November and April, with the maximum average precipitation occurring in February. The mean annual rainfall for the area is approximately 9 inches of rain per year (LACPW 2025).

2.3.1 Hydrologic Features

The Study Area is in the Santa Clara subbasin (HUC 18070102), Headwaters Santa Clara River watershed (HUC 1807010201), and primarily Kentucky Springs Canyon–Santa Clara River subwatershed, with the westernmost area of the Project overlapping into the Arrastre Canyon–Santa Clara River subwatershed. The Santa Clara River is the primary natural surface water feature in the vicinity of the Study Area. The Santa Clara River is the largest natural river remaining in Southern California and travels through two (2) counties, Los Angeles and Ventura (Kennedy/Jenks Consultants 2014). The northern portion in Los Angeles County is largely classified as an intermittent stream/river and only contains flowing water during certain times of the year (USGS 2023Kennedy/Jenks Consultants 2014). The intermittent stream channel traverses the southern end of the Study Area within parcels 3056-019-040, 3056-017-907, 3056-017-028, 3056-017-027, 3056-015-008, and 3056-015-023, as shown in Figure 3, Hydrologic Setting. Several other smaller, unnamed ephemeral washes from Soledad Canyon and Kentucky Springs Canyon drain across the northern and southern portions of the Study Area, respectively. The National Wetlands Inventory and National Hydrography Dataset were reviewed to identify wetland or hydrologic features in the Study Area (USFWS 2025a; USGS 2023). Figure 3 depicts the mapped wetland and hydrologic features in the Study Area.

Figure 2 Soils

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Figure 3 Hydrologic Setting

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3 Regulatory Context

3.1 Federal Regulations

Federal Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS) for most plant and wildlife species and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain marine species. FESA is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and to provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. FESA defines an endangered species as "any species which is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under FESA, it is unlawful to take any listed species; "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

FESA allows for the issuance of Incidental Take Permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement. Upon development of a habitat conservation plan, USFWS can issue Incidental Take Permits for listed species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (16 USC 703 et seq.), as amended, prohibits the intentional take of any migratory bird or any part, nest, or eggs of any such bird. Under the Migratory Bird Treaty Act, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so. Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a Memorandum of Understanding. USFWS reviews actions that might affect these species.

Clean Water Act

The Clean Water Act provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a project operator for a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the Clean Water Act. The Regional Water Quality Control Boards (RWQCBs) administer the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. USACE implementing regulations are found at 33 Code of Federal Regulations (CFR) 320 and 330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the U.S. Environmental Protection Agency in conjunction with USACE

(40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Wetlands and Other Waters of the United States

Aquatic resources, including riparian areas, wetlands, and certain aquatic vegetation communities, are considered sensitive biological resources and can fall under the jurisdiction of several regulatory agencies. USACE exerts jurisdiction over waters of the United States, including all waters that are subject to the ebb and flow of the tide; wetlands and other waters, such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools, wet meadows, playa lakes, or natural ponds; and tributaries of the above features.

The extent of waters of the United States is generally defined as that portion that falls within the limits of an ordinary high-water mark (OHWM). Typically, the OHWM corresponds to the water surface elevation of a 2-year flood event (USACE 2008b). In addition, waters of the United States may include wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, defined by USACE as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3[c]). Indicators of three (3) wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by USACE.

3.2 State Regulations

California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA), which prohibits the take of plant and wildlife species designated by the Fish and Game Commission as endangered or threatened in California. Under CESA Section 86, "take" is defined as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA declares the policy of the state that public agencies should not approve projects that would "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CESA defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." CESA defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any wildlife determined by the commission as rare on or before January 1, 1985, is a 'threatened species.'" A candidate species is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." CESA does not list invertebrate species.

Porter–Cologne Water Quality Control Act

The intent of the Porter–Cologne Water Quality Control Act is to protect water quality and the beneficial uses of water, and it applies to both surface water and groundwater. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the nine (9) RWQCBs develop basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under the Porter–Cologne Water Quality Control Act include isolated waters that are no longer regulated by USACE. Developments with impact to jurisdictional waters must demonstrate compliance with the goals of the act by developing stormwater pollution prevention plans, standard urban stormwater mitigation plans, and other measures to obtain an order of Waste Discharge Requirement (or, in cases where a Clean Water Act Section 401 certification is required, a waiver of Waste Discharge Requirement).

California Fish and Game Code

Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code outline protection for fully protected species of birds, mammals, reptiles and amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time, except under certain circumstances, such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. Furthermore, it is the responsibility of CDFW to maintain viable populations of all native species. Toward that end, CDFW has designated certain vertebrate species as Species of Special Concern (SSC) because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

Section 1602

Under Section 1602 of the California Fish and Game Code, a project operator is required to notify CDFW prior to any project that would substantially divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the code, a "stream" is defined as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life" (14 CCR 1.72). Based on this definition, a watercourse with "a surface or subsurface flows that supports or has supported riparian vegetation" is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water during storm events.

Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW may require implementation of reasonable measures necessary to protect the resource. These modifications are formalized in a Streambed Alteration Agreement, which becomes part of the plans, specifications, and bid documents for the project.

Nesting Birds

Section 3503 of the California Fish and Game Code states that "it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3511 states that fully protected birds or parts thereof "may not be taken or possessed at any time," unless otherwise provide for by law or authorized by CDFW.

Section 3513 states that "it is unlawful to take or possess any migratory nongame bird as designated in the federal Migratory Bird Treaty Act."

California Native Plant Protection Act

The Native Plant Protection Act of 1977 (see Section 1900 et seq. of the California Fish and Game Code) directed CDFW to carry out the legislature's intent to "preserve, protect and enhance rare and endangered plants in this state." The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take. CESA expanded on the original Native Plant Protection Act and enhanced legal protection for plants, but the Native Plant Protection Act remains part of the California Fish and Game Code. To align with federal regulations, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" wildlife into the act as threatened species but did not do so for rare plants. Thus, there are three (3) listing categories for plants in California: rare, threatened, and endangered. Because rare plants are not included in CESA, mitigation measures for impacts to rare plants are typically specified in a formal agreement between CDFW and the project proponent.

California Desert Native Plant Act

The purpose of the California Desert Native Plants Act (CDNPA) is to protect certain species of California desert native plants from unlawful harvesting on both public and privately owned lands. The CDNPA only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties. Within these counties, the CDNPA prohibits the harvest, transport, sale, or possession of specific native desert plants unless a person has a valid permit or wood receipt, and the required tags and seals. The appropriate permits, tags, and seals must be obtained from the county sheriff or commissioner of the county where collecting will occur, and the county will charge a fee.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) requires identification of a project's potentially significant impacts on biological resources and ways that such impacts can be avoided, minimized, or mitigated. CEQA also provides guidelines and thresholds for use by lead agencies for evaluating the significance of potential impacts.

Special-Status Plants and Wildlife

CEQA Guidelines Section 15380(b)(1) defines endangered wildlife or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors." A rare wildlife or plant is defined in CEQA Guidelines Section 15380(b)(2) as a species that, although not currently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the Federal Endangered Species Act." Additionally, a wildlife or plant species may be presumed to be endangered, rare, or threatened if it meets the criteria for listing as defined further in CEQA Guidelines Section 15380(c) or otherwise meets the criteria of Section 15380(b).

Special-Status Vegetation Communities

Section IV, Appendix G (Environmental Checklist Form) of the CEQA Guidelines (14 CCR 15000 et seq.) requires an evaluation of impacts to "any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service."

3.3 Local Regulations

Los Angeles County 2035 General Plan

The General Plan includes guiding principles that inform the County's goals, policies, and implementation actions. The following goals and policies are relevant to the Project and applicable to biological resources (County of Los Angeles 2015):

Goal C/NR 1: Open space areas that meet the diverse needs of Los Angeles County.

> Policy C/NR 1.3: Support the acquisition of new available open space areas. Augment this strategy by leveraging County resources in concert with the compatible open space stewardship actions of other agencies, as feasible and appropriate.

Goal C/NR 2: Effective collaboration in open space resource preservation.

> Policy C/NR 2.2: Encourage the development of multi-benefit dedicated open spaces.
>
> Policy C/NR 3.8: Discourage development in areas with identified significant biological resources, such as SEAs.

County of Los Angeles Significant Ecological Areas

SEAs are officially designated areas "where the County deems it important to facilitate a balance between development and biological resource conservation" (see Figure 5). The SEA program objective is to conserve genetic and physical diversity within the County by designating biological resource areas that can sustain themselves into the future, and balancing that objective against other critical public needs. The SEA program also protects native trees and provides a list of the protected species and the size of the diameter of the trunk that triggers protection. The SEA Ordinance establishes the permitting, design standards, and review process for development within SEAs, balancing preservation of the County's natural biodiversity with private property rights.

The SEA Ordinance identifies 60 tree species to be protected in addition to already protected oak trees (Los Angeles County Regional Planning 2020). The SEA Protected Tree List specifies the species of tree protected in each individual SEA and the size of the tree when regulations are applied. Per County Code 22.102.070 (Protected Tree Permit), development that complies with Section 22.102.090 (SEA Development Standards) shall require a Protected Tree Permit from the County except for Subsection 22.102.090.B (SEA Protected Trees) of the County Code, and which includes any of the following impacts:

1. Pruning or trimming of branches of SEA Protected Trees in excess of two inches in diameter or 25 percent of live foliage for one or more trees;

2. Encroachments of up to 30 percent into an SEA Protected Tree's protected zone. Any encroachment of more than 30 percent into the protected zone of a tree shall be considered as a tree removal...;

3. Removal of up to two SEA Protected Trees that are not designated as Heritage Trees [(single trunk that measures 36 inches or more in diameter or two trunks that collectively measure 54 inches or more in diameter)]; or

4. Tree relocation poses significant risk to the health or survival rate of a tree. Any relocation of an SEA Protected Tree shall, therefore, be processed as a removal.

A discretionary SEA Conditional Use Permit (CUP) application is required for development that cannot demonstrate compliance with Section 22.102.070 (Protected Tree Permit) or Sections 22.102.090 (SEA Development Standards) and 22.102.100 (Natural Open Space Preservation) of the County Code. Los Angeles County Regional Planning has issued the SEA Ordinance Implementation Guide (Los Angeles County Regional Planning 2020) to help proposed development comply with the ordinance.

The gen-tie line route alignments for the Project are located in the Santa Clara River SEA. Depending on the final route and pole locations, the proposed Project may require an SEA CUP, but for the California Energy Commission's Opt-In Application for Certification process, because it may have impacts to SEA Resource Categories (as defined below) that are greater than those allowed by SEA Development Standards and may require removal of more than two SEA Protected Trees that also include heritage trees.

Significant Ecological Area Resource Categories

The SEA Ordinance includes SEA Resource Categories 1 through 5. These categories are defined as follows (Los Angeles County Regional Planning 2020):

- Category 1: FESA and CESA listed plant and wildlife species; CESA candidate species, California Rare Plant Ranks (CRPR) 1A or B, 2A or B, and 3 (CNPS 2025a), critically imperiled natural communities (those that have a Global [G] and/or State [S] ranking of 1) (NatureServe 2023), and water resources
- Category 2: CDFW SSC and their occupied habitat and imperiled natural communities (those that are G2/S2) (NatureServe 2023)
- Category 3: Vulnerable natural communities that are G3/S3 (NatureServe 2023), sensitive local native resources, and oak woodlands
- Category 4: Apparently secure natural communities that are G4/S4 (NatureServe 2023), secure natural communities that are G5/S5 (NatureServe 2023), and CRPR 4 species
- Category 5: All other lands including those "dominated by non-native [vegetation], agricultural fields, hedges, early successional vegetation that has yet to form into a distinct natural community, cleared or disturbed areas, and non-native trees and shrubs."

Natural Open Space for Significant Ecological Areas Conditional Use Permit

The County's SEA Ordinance and Implementation Guidelines provide for the provision of natural open space, whether on-site or off-site, as mitigation to offset impacts to SEA resources. To evaluate the appropriate location and mechanism for preserved natural open space, staff will first need to determine whether an adequate amount of suitable habitat is present on site. Projects that do not have an adequate amount of suitable habitat available to

protect on site will need to provide any necessary natural open space preservation off site. Mitigation areas that fall short of SEA recommended mitigation ratios. The amount of natural open space may vary, and proposed areas may be given added conservation value should they possess the following characteristics (Los Angeles County Regional Planning 2020):

> "Added value" can be given to proposed natural open space areas if they also contain unique or valuable habitat linkage resources, additional special-status species, surface waters, or sensitive habitats, etc. Proposed open-space with such added-value characteristics may be allowed to be smaller than the area that would typically be required and still be determined to be consistent with the SEA Program goals, subject to the discretion of the Department and a determination of consistency with the SEA Findings by SEATAC.

Table 3, Recommended Preservation Ratios for SEA CUP, lists the recommended preservation ratios for impacts to SEA Resources Categories for projects that require a CUP. These ratios can also be changed based on site specific factors.

Table 3. Recommended Preservation Ratios for SEA CUP

SEA Resources	Preservation Ratio
Category 1 • State or federally listed species and their habitats • California Rare Plant Ranks 1, 2, 3 • Natural communities ranked G1/S1 • Water resources (e.g., wetlands, streams, ponds, lakes, vernal pools, marshes) • Beach and dune	5:1
Category 2 • Natural communities ranked G2/S2 • Species of Special Concern and their habitats	4:1
Category 3 • Natural communities ranked G3/S3 • Oak woodland • Sensitive local native resources • Rock outcrops/rocklands	3:1
Category 4 • Natural communities ranked G4/S4/G5/S5 • California Rare Plant Rank 4 • Non-native grasslands	2:1
Category 5 • Wildlife linkage or corridor or open space buffer	1:1

Source: Los Angeles County Regional Planning 2020.
Note: SEA = Significant Ecological Area; CUP = Conditional Use Permit; G = Global; S = State.

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4 Methods

4.1 Literature/Database Review

The following data sources were reviewed to assist with the assessment of biological resources:

- CDFW California Natural Diversity Database (CNDDB) (CDFW 2025a)
- USFWS Information for Planning and Consultation (USFWS 2025b)
- California Native Plant Society (CNPS) Rare Plant Inventory (CNPS 2025a)
- U.S. Department of Agriculture National Resources Conservation Service Web Soil Survey (USDA 2025a)
- CDFW Biogeographic Information and Observation System (CDFW 2025b)

Prior to conducting field surveys, Dudek reviewed regional CNDDB occurrence data (CDFW 2025a), the Rare Plant Inventory (CNPS 2025a), and USFWS occurrence data (USFWS 2025c) for USGS 7.5-minute Acton and Pacifico Mountain quadrangles and the surrounding 14 quadrangles. In addition, Dudek reviewed the USFWS Information for Planning and Consultation (USFWS 2025b), the National Wetlands Inventory (USFWS 2025a), and the U.S. Department of Agriculture's Natural Resources Conservation Service Web Soil Survey (USDA 2025a) to analyze the occurrence potential of special-status species and jurisdictional aquatic resources that are known to occur or may potentially occur within the study area.

Other literature reviewed included A Manual of California Vegetation, Online Edition (CNPS 2025b); the California Natural Community List (CDFW 2025c); State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2025d); State and Federally Listed Endangered and Threatened Animals of California (CDFW 2025e); and the CDFW California Wildlife Habitat Relationships Life History Accounts and Range Maps (CDFW 2025f).

The following available resources were reviewed to assess the potential for jurisdictional waters: aerial photographs (Google Earth 2025; NETR 2025), the USGS Newhall 7.5-minute topographic quadrangle map (USGS 2018), the National Hydrography Dataset and Watershed Boundary Dataset (USGS 2023), and the USFWS National Wetland Inventory (USFWS 2025a).

4.2 Special-Status Plant and Wildlife Species Assessment

Endangered, rare, or threatened plant species as defined in CEQA Guidelines Section 15380(b) are referred to as "special-status plant species" and, as used in this report, include (1) plant species listed, proposed for listing, or candidates for listing as endangered or threatened recognized in the context of CESA and FESA (CDFW 2025d); and/or (2) plant species with a CRPR of 1 through 4 as designated by CNPS (2025a). Additionally, the County of Los Angeles considers plant species that are locally important as rare within the county.

Endangered, rare, or threatened wildlife species as defined in CEQA Guidelines Section 15380(b) are referred to as "special-status wildlife species" and, as used in this report, include (1) wildlife species listed, proposed for listing, or candidates for listing as endangered or threatened recognized in the context of CESA and FESA (CDFW 2025e); (2) California SSC and Watch List species, as designated by CDFW (2025g); and (3) mammals and birds that are

fully protected species as described in the California Fish and Game Code, Sections 4700 and 3511 (CDFW 2025h), and (4) Birds of Conservation Concern as designated by USFWS (2021). Additionally, the County of Los Angeles considers wildlife species that are locally important as rare within the county.

The potential for special-status plant species to occur within the Study Area was assessed based on known geographic and elevation ranges as well as habitat and soil conditions that are known to support species occurring in the region. The potential for special-status wildlife species to occur within the Study Area was assessed based on known geographic ranges, the presence/absence of suitable habitat, and other natural history elements that might predict their occurrence. After completion of the reconnaissance surveys, the potential for special-status plant and wildlife species to occur on or near the Project site was summarized according to the following categories:

- Known to occur
- High potential to occur
- Moderate potential to occur
- Low potential to occur
- Not expected to occur

Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided:

- Known to occur: The species has been documented on the property by a reliable source.
- High potential to occur: The species has not been documented on the property but is known to recently occur in the vicinity, and suitable habitat is present.
- Moderate potential to occur: The species has not been documented on the property or in the vicinity, but the site is within the known range of the species, and suitable habitat for the species is present.
- Low potential to occur: The species has not been documented in the vicinity or on the property, but the site is within the known range of the species; however, suitable habitat for the species on site is of low quality.
- Not expected to occur: The property is outside the known geographic or elevational range of the species, and/or the site does not support suitable habitat for the species.

4.3 Field Effort

Surveys for the BESS facility site and Northern Gen-Tie option portions of the Study Area were conducted in 2023. In 2024, surveys were conducted on additional parcels for the Southern Gen-Tie option. Dudek conducted comprehensive surveys for sensitive plants for the BESS and Northern Gen-Tie option portions of the Study Area in the spring of 2023 following an above-average wet season. Dudek conducted surveys for Crotch's bumble bee (*Bombus crotchii*) in the summer of 2024 on the BESS and Northern Gen-Tie option portions of the Study Area. Dudek conducted supplemental Crotch's bumble bee surveys in 2025 for parcels associated with the Southern Gen-Tie option of the Study Area. Table 4, Schedule of Surveys, shows the survey type, date, time, conditions, and biologist(s) for each survey.

Table 4. Schedule of Surveys

Date	Focus	Biologists	Time	Survey Conditions
1/6/2023	▪ Vegetation mapping ▪ Jurisdictional delineation	MM, ES	7:30 a.m.–2:55 p.m.	38°F–52°F; 0%–10% cloud cover; 1–8 mph wind
1/11/2023	▪ Vegetation mapping ▪ Jurisdictional delineation	MM, ES	Not recorded	Not recorded
1/12/2023	▪ Vegetation mapping ▪ Jurisdictional delineation	MM, ES	Not recorded	Not recorded
4/28/2023	▪ Rare plants	VG, TP	6:40 a.m.–3:04 p.m.	60°F–80°F; 0% cloud cover; 0–2 mph wind
4/28/2023	▪ Rare plants	TP	6:40 a.m.–2:46 p.m.	57°F–94°F; 0% cloud cover; 0–2 mph wind
5/1/2023	▪ Rare plants	CB, DM, SN, JR	7:30 a.m.–3:25 p.m.	48°F–61°F; 60%–90% cloud cover; 3–5 mph wind
5/2/2023	▪ Rare plants	DM, VG, SN, JR	7:30 a.m.–3:25 p.m.	48°F–70°F; 60%–90% cloud cover; 3–5 mph wind
6/12/2024	▪ Crotch's bumble bee	CA, AC, SL, KN	9:30 a.m.–10:17 a.m.	74°F–80°F; 0% cloud cover; 0–4 mph wind
6/22/2023–7/7/2023	▪ Protected tree mapping	ACa, ST, AP	Not recorded	Not recorded
7/1/2024	▪ Crotch's bumble bee	LB, JE, DS	7:41 a.m.–1:34 p.m.	73°F–90°F; 0% cloud cover; 0–8 mph wind
7/2/2024	▪ Crotch's bumble bee	JE	7:02 a.m.–9:07 a.m.	70°F–81°F; 1–7 mph wind
7/23/2024	▪ Crotch's bumble bee	LB	7:27 a.m.–10:54 a.m.	80°F–95°F; 0%–50% cloud cover; 0–1 mph wind
7/24/2024	▪ Crotch's bumble bee	LB	7:18 a.m.–11:01 a.m.	80°F–95°F; 0% cloud cover; 0–2 mph wind
11/18/2024	▪ Vegetation mapping ▪ Jurisdictional delineation	ES, ZP	8:50 a.m.–12:56 p.m.	49°F–56°F; 0% cloud cover; 5–16 mph wind
11/19/2024	▪ Vegetation mapping ▪ Jurisdictional delineation	TP, RS	9:30 a.m.–3:35 p.m.	53°F–54°F; 0% cloud cover; 1–7 mph wind
2/26/2025	▪ Raptor nest survey	TP, RS	8:28 a.m.–3:30 p.m.	63°F–78°F; 0% cloud cover; 2–15 mph wind
4/16/2025	▪ Crotch's bumble bee	CA, ES	8:21 a.m.–1:08 p.m.	48°F–59°F; 30%–100% cloud cover; 0–3 mph wind
5/21/2025	▪ Crotch's bumble bee	CA, ES	8:21 a.m.–1:08 p.m.	59°F–71°F; 0% cloud cover; 0–1 mph wind
6/5/2025	▪ Rare plants	RSw	7:00 a.m.–12:00 a.m.	84°F; 0% cloud cover; 0–5 mph wind

Table 4. Schedule of Surveys

Date	Focus	Biologists	Time	Survey Conditions
6/30/2025	▪ Crotch's bumble bee	ES, LB	9:16 a.m.–1:30 p.m.	79°F–86°F; 0% cloud cover
8/22/2025	▪ Jurisdictional delineation	ES, RS	Not recorded	Not recorded

Notes: °F = degrees Fahrenheit; mph = miles per hour.
Biologists: AC = Anna Cassidy; ACa = Aida Castro; AP = Ana Pfleeger; CA = Callie Amoaku; CB = Chelsea Bowers-Doerning; DM = Dilip Mahto; DS = Dahlia Serrato; ES = Eilleen Salas; JE = Joshua Elson; JR = Jacob Rogers; KN = Kimberly Narel; LB = Luz Badillo; MM = Max Murray; RS = Ryan Stanley; RSw = Robert Sweet; SL = Sony Leming; SN = Sandra Nash; ST = Sarah Tian; TP = Tracy Park; VG = Valerie Goodwin; ZP = Zarina Pringle.

4.3.1 Vegetation Community and Land Cover Mapping

Vegetation communities and land uses within the Study Area were mapped in the field using Esri Collector, a mobile data collection application, on a digital aerial-based background (Esri 2025). Following completion of the fieldwork, all vegetation linework was finalized using Esri ArcGIS software, and geographic information system coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover type within the Study Area was determined. Vegetation communities within the Study Area were mapped using CDFW's List of Vegetation Alliances and Associations (or California Natural Community List) (CDFW 2025c), which is based on A Manual of California Vegetation, Second Edition (Sawyer et al. 2009) and A Manual of California Vegetation, Online Edition (CNPS 2025b), where feasible, with modifications made to accommodate the lack of conformity of the observed communities (e.g., developed/disturbed land cover types) using Oberbauer et al. (2008) and Jones and Stokes (1993). Vegetation communities were classified based on site factors, descriptions, distribution, and characteristic species present within an area. Each natural community was mapped to the association level, where feasible. Special-status vegetation communities are those communities identified as high priority for inventory in the California Natural Community List (CDFW 2025c).

4.3.2 Aquatic Resource Delineation

Prior to conducting the jurisdictional delineation, USFWS National Wetland Inventory data (USFWS 2025a) was reviewed to determine if the Study Area contained any features mapped by USFWS. Site-specific topographical data was reviewed in conjunction with aerials, both current and historical, to determine the potential presence of non-wetland waters. Current vegetation mapping was reviewed to assess whether the Study Area supported hydrophytic vegetation and potential wetlands. Jurisdictional boundaries were mapped in the field using Esri Collector on a mobile device with sub-meter accuracy. Remote sensing was not used for the delineation.

U.S. Army Corps of Engineers – Potential Waters of the United States

The USACE wetlands delineation was conducted in accordance with the 1987 USACE Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a). A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008b) was used to determine the limits of non-wetland waters. Non-wetland waters were delineated on aerial maps in conjunction with Esri Collector on a mobile device. The widths of each non-wetland water were determined in the field according to the OHWM manual. USACE OHWM forms were completed at representative cross-sections of non-wetland waters to capture their characteristics and widths.

Regional Water Quality Control Board – Potential Waters of the United States and Waters of the State

Waters of the state regulated by RWQCB were mapped in accordance with the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB 2021). As described in these procedures, wetland waters of the state are mapped based on the procedures in the Corps of Engineers Wetlands Delineation Manual (USACE 1987) and its 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a). Non-wetland waters are mapped at the OHWM based on the procedures defined in A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008b).

California Department of Fish and Wildlife – Streams

Potential CDFW jurisdictional areas were mapped to include the bank of the stream/channel and outer dripline of adjacent riparian vegetation, as set forth under California Fish and Game Code Section 1602. Streambeds under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979).

4.3.3 Rare Plants

The rare plant surveys were guided by the CNPS Botanical Survey Guidelines (CNPS 2001) and CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018). The biologists walked transects in suitable habitat, spaced approximately 5 meters to 10 meters apart based on the density of vegetative cover, throughout the Study Area. Digital mobile maps and 200-scale topographic plots of vegetation polygons were utilized to navigate the survey area. Plant species encountered during the field surveys were identified to subspecies or variety, if applicable, to determine sensitivity status. When rare plants were encountered, field personnel recorded data points demarcating the edge of polygon surrounding the population and assessed population numbers using a GPS with sub-meter accuracy.

4.3.4 California Desert Native Plants Act

Dudek biologists conducted a focused desert native plant survey within the survey area (defined as the Project impact footprint and a 150-foot buffer, where accessible). The desert native plant survey was focused on the species subject to the CDNPA. Biologists walked meandering transects spaced approximately 10 meters apart to obtain 100% visual coverage of the survey area. If desert native plants identified under the CDNPA were encountered, field personnel recorded data points using a GPS with sub-meter accuracy (i.e., Trimble® GeoXT) and a data dictionary. The data dictionary included, at a minimum, the species name, the number of individuals, and the botanist collecting the data. The survey methodology and results were documented in a memorandum, with figures illustrating the location of the mapped desert native plants and representative photos of the species.

4.3.5 Crotch's Bumble Bee Surveys

The surveys for Crotch's bumble bee were conducted in accordance with the CDFW survey guidance (CDFW 2023). The survey passes were led by Callie Amoaku, who holds a Memorandum of Understanding and Scientific Collecting Permit to capture Crotch's bumble bee. Dudek conducted five (5) protocol level surveys for Crotch's bumble bee spaced in June and July 2024 (June 12, July 1, July 2, July 23, and July 24), and three (3) in April, May, and June

2025 (April 16, May 21, and June 30). The surveys were split across 2 years because the Project owner did not have access to the entire Project gen-tie area during the 2024 surveys. The 2024 surveys were conducted from June through July, during the Colony Active Period of April through August, which according to CDFW guidelines had the highest detection period, and were spaced between 2 and 4 weeks apart. The three (3) 2025 surveys, which covered the remainder of the Project site and the BESS location, were conducted between April and June, which is during the Colony Active Period. The 2025 surveys were spaced 4 weeks apart to cover a wider period during the Colony Active Period while also meeting recommended guidelines.

The surveys were conducted during optimal conditions when there were sunny to partly sunny skies with temperatures that were greater than 60°F. Suitable habitat within the Study Area was visually surveyed for 1 person-hour per 3 acres of potential habitat. Biologists walked wandering transects through these resources with a goal of observing bumble bees in passing and observing bumble bee nest sites associated with small mammal burrows or other appropriate soil cavities.

4.3.6 Raptor Nest Survey

Surveys for nesting raptors (i.e., eagles, hawks, kites, falcons, and owls) were conducted in early 2025. Dudek biologists conducted a 1-day survey for the Study Area and a 500-foot buffer, with a focus on areas with larger trees and shrubs, residential areas with large ornamental trees, and transmission towers that have potential to support raptor nests.

4.3.7 Protected Tree Census

The portions of the Study Area east of the railroad tracks, south of Carson Mesa Road and the SCE Vincent Substation, and east of the SCE substation are within a County of Los Angeles SEA (County of Los Angeles 2025). The County's SEA Ordinance includes 60 tree species to be protected, including all sizes of California juniper (*Juniperus californica*) (Los Angeles County Regional Planning 2020). Dudek biologists mapped SEA-protected trees within the SEA portions of the Study Area. Field personnel recorded data points and circumference for each individual plant using a mobile device with sub-meter accuracy. An evaluation of existing health for each California juniper was conducted. Appendix A, Protected Tree Report, has additional details on the census.

5 Results

The cumulative results of the surveys can be found in Appendix B, Biological Constraints Map.

5.1 Vegetation Communities and Land Covers

All plant species encountered during the field reconnaissance surveys and jurisdictional delineations were identified and recorded. Latin and common names for plant species with a CRPR (formerly CNPS List) follow the CNPS Rare Plant Inventory (CNPS 2025a). For plant species without a CRPR, Latin names follow Jepson eFlora (Jepson Flora Project 2025), and common names follow the California Natural Community List (CDFW 2025c) or the U.S. Department of Agriculture Natural Resources Conservation Service PLANTS Database (USDA 2025b). A list of plant species observed in the Study Area during initial surveys is presented in Appendix C, Potential to Occur Tables and Compendia.

Six (6) vegetation communities are considered sensitive by CDFW. The vegetation communities and land cover locations are summarized in Table 5, Vegetation Communities and Land Covers in the Study Area, and illustrated in Figure 4, Vegetation Communities and Land Cover. Vegetation communities within 1,000 feet of the gen-tie route options are expected to be similar to the Study Area because there are no significant changes in topography, geology, or hydrology within that distance.

Table 5. Vegetation Communities and Land Covers in the Study Area

Alliance	Association	Acres
Cheesebush – sweetbush scrub	*Ambrosia salsola – Larrea tridentata*	0.82
	Ambrosia salsola Association	2.60
Fiddleneck – phacelia fields	*Amsinckia menziesii – Erodium* spp.	2.21
California sagebrush – (purple sage) scrub	*Artemisia californica – Eriogonum fasciculatum*	12.68
Big sagebrush	*Artemisia tridentata – Ericameria nauseosa*	15.42
	Artemisia tridentata – Eriogonum fasciculatum	3.98
	Artemisia tridentata	0.48
	Artemisia tridentata ssp. *parishii*	7.66
Fourwing saltbush scrub	*Atriplex canescens*	75.57
Mormon tea scrub	*Ephedra viridis*	20.87
Rubber rabbitbrush scrub	*Ericameria nauseosa – Juniperus californica* / herb	18.49
	Ericameria nauseosa	5.38
California buckwheat scrub	*Eriogonum fasciculatum*	4.75
	Eriogonum fasciculatum var. *foliolosum – Juniperus californica*	4.50
California buckwheat – Parish's goldeneye scrub	*Eriogonum fasciculatum* rock outcrop	3.82
California walnut groves	*Juglans californica / annual herbaceous*	0.89
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum – Eriogonum fasciculatum*	31.66
	Juniperus californica / herbaceous	106.67

Table 5. Vegetation Communities and Land Covers in the Study Area

Alliance	Association	Acres
	Juniperus californica / Eriogonum fasciculatum – Artemisia californica	0.23
	Subtotal:	*317.35*
Naturalized (Non-Native)		
Wild oats and annual brome grasslands	*Avena barbata – Bromus hordeaceus*	2.22
Red brome or Mediterranean grass grasslands	*Bromus rubens* – mixed herbs	2.99
	Subtotal:	*5.21*
Land Cover Types		
Disturbed habitat	Not applicable	19.38
Urban/Developed	Not applicable	71.95
	Subtotal:	*91.33*
	Total:	**413.88**

Notes: Totals may not sum due to rounding.

Figure 4 Vegetation Communities and Land Cover

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Native Vegetation Communities

Vegetation community descriptions are taken from A Manual of California Vegetation, Online Edition (CNPS 2025b).

Cheesebush – Sweetbush Scrub

Cheesebush – sweetbush scrub (*Ambrosia salsola – Bebbia juncea* Shrubland Alliance) has cheesebush (*Ambrosia salsola*), sweetbush (*Bebbia juncea*), woolly brickellbush (*Brickellia incana*), and/or desertsenna (*Senna armata*) as dominant or co-dominant in the shrub canopy with Wiggins' cholla (*Cylindropuntia echinocarpa*), brittlebush (*Encelia farinosa*), California jointfir (*Ephedra californica*), Mojave rabbitbrush (*Ericameria paniculata*), California buckwheat (*Eriogonum fasciculatum*), white ratany (*Krameria grayi*), creosote bush (*Larrea tridentata*), and beavertail pricklypear (*Opuntia basilaris*). This alliance can be found on intermittently flooded channels, arroyos, washes, valleys, flats, and rarely flooded low-gradient deposits. Soils are alluvial, sandy and gravelly, and disturbed desert pavement. Two (2) associations of the alliance were mapped within the Study Area: *Ambrosia salsola – Larrea tridentata* and *Ambrosia salsola* Association. These associations were mapped in the gen-tie portion Study Area.

Fiddleneck – Phacelia Fields

Fiddleneck – phacelia fields (*Amsinckia* [*menziesii*, *tessellata*] – *Phacelia* spp. Herbaceous Alliance) has Menzies' fiddleneck (*Amsinckia menziesii*), bristly fiddleneck (*Amsinckia tessellate)* and/or *Phacelia* spp. or other *Amsinckia* sp. as seasonally co-dominant in the herbaceous layer. Additional local species present include California saltbush (*Atriplex californica*), *Avena* spp., ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), red brome (*Bromus rubens*), exserted Indian paintbrush (*Castilleja exserta*), and *Erodium* spp. Emergent shrubs may be present at low cover. This alliance can be found along upland slopes, broad valleys, ocean bluffs, grazed or recently burned hills, and fallow fields. Soils are well drained and loamy, and they are often subject to high levels of disturbance. One (1) association of the alliance, *Amsinckia menziesii – Erodium* spp., was mapped in the BESS portion of the Study Area.

California Sagebrush – (Purple Sage) Scrub

California sagebrush – (purple sage) scrub (*Artemisia californica* – [*Salvia leucophylla*] Shrubland Alliance) has California sagebrush and/or purple sage (*Salvia leucophylla*) as dominant or co-dominant in the shrub canopy with chamise, coyotebrush (*Baccharis pilularis*), bladderpod spiderflower (*Cleome isomeris*), orange bush monkeyflower (*Diplacus aurantiacus*), California brittlebush (*Encelia californica*), brittlebush, California jointfir, narrowleaf goldenbush (*Ericameria linearifolia*), California buckwheat, and chaparral yucca (*Hesperoyucca whipplei*). This alliance can be found on slopes of variable aspects, but usually steep and rarely flooded, low-gradient deposits along streams. Soils are alluvial or colluvial derived. One (1) association of the alliance, *Artemisia californica – Eriogonum fasciculatum*, was mapped in the gen-tie portion Study Area.

Big Sagebrush

Big sagebrush (*Artemisia tridentata* Alliance) has big sagebrush (*Artemisia tridentata*) as dominant or co-dominant in the shrub canopy with Acton's encelia (*Encelia actoni*), Mormon tea (*Ephedra viridis*), and California buckwheat. Shrub canopy is open to continuous, and emergent trees may be present at low cover. The herbaceous layer is usually sparse to intermittent and grassy. This alliance can be found on plains, alluvial fans, bajadas, pediments, lower slopes, valley bottoms, seasonal and perennial stream channels, and dry washes. Soils are well drained and

consist of loam or sand. Three (3) associations of the alliance were mapped within the Study Area: *Artemisia tridentata* Association, *Artemisia tridentata – Eriogonum fasciculatum* Association, and *Artemisia tridentata – Ericameria nauseosa* Association. These associations were found in the BESS and Southern Gen-tie portions of the Study Area.

Fourwing Saltbush Scrub

Fourwing saltbush scrub (*Atriplex canescens* Shrubland Alliance) has fourwing saltbush (*Atriplex canescens*) as dominant or co-dominant in the shrub canopy with burrobush (*Ambrosia dumosa*), cheesebush, spiny saltbush (*Atriplex confertifolia*), cattle spinach (*Atriplex polycarpa*), Mormon tea, hop sage (*Grayia spinosa*), and creosote bush. Emergent trees may be present at low cover. This alliance can be found along playas, old beaches and shores, lake deposits, dissected alluvial fans, rolling hills, or channel beds. Soils are carbonate rich, alkaline, sandy, or sandy clay loams. One (1) association, *Atriplex canescens*, was mapped in the gen-tie portion Study Area.

Mormon Tea Scrub

Mormon tea scrub (*Ephedra viridis* Shrubland Alliance) has Mormon tea as dominant or co-dominant in the shrub canopy with big sagebrush and rubber rabbitbrush (*Ericameria nauseosa*). Emergent trees may be present at low cover, including California juniper. This alliance can be found along ridges, hills, mountains, and channel beds. Soils are shallow and derived from alluvium, granitic substrate, bedrock, and colluvium. One (1) association, *Ephedra viridis*, was mapped primarily in the BESS portion of the Study Area.

Rubber Rabbitbrush Scrub

Rubber rabbitbrush scrub (*Ericameria nauseosa* Shrubland Alliance) has rubber rabbitbrush as dominant or co-dominant in the shrub canopy with big sagebrush, *Ephedra* spp., and California buckwheat. Emergent trees may be present at low cover, including California juniper. This alliance can be found along all topographic settings, especially in disturbed settings. Soils are well-drained sands and gravels. Two (2) associations, *Ericameria nauseosa* and *Ericameria nauseosa – Juniperus californica/*herb, were mapped within the BESS and gen-tie portions of the Study Area.

California Buckwheat Scrub

California buckwheat scrub (*Eriogonum fasciculatum* Shrubland Alliance) has California buckwheat or chaparral yucca as dominant or co-dominant in the shrub canopy in cismontane stands with California sagebrush, coyotebrush, orange bush monkeyflower, California brittlebush, brittlebush, and Menzies' goldenbush (*Isocoma menziesii*). Emergent trees may be present at low cover, including California juniper. This alliance can be found in upland slopes, intermittently flooded arroyos, channels and washes, and rarely flooded low-gradient deposits. Soils are coarse, well drained, and moderately acidic to slightly saline. Two (2) associations, *Eriogonum fasciculatum* and *Eriogonum fasciculatum* var. *foliolosum – Juniperus californica*, were mapped in the BESS and north of the Vincent Substation portions of the Study Area.

California Buckwheat – Parish's Goldeneye Scrub

California buckwheat – Parish's goldeneye scrub (*Eriogonum fasciculatum – Viguiera parishii* Shrubland Alliance) has California buckwheat and/or Parish's goldeneye (*Viguiera parishii*) as dominant or co-dominant in the shrub canopy with burrobush, cheesebush, big sagebrush, sweetbush, blackbrush (*Coleogyne ramosissima*), buck-horn

cholla (*Cylindropuntia acanthocarpa*), Wiggins' cholla, brittlebush, and Nevada jointfir (*Ephedra nevadensis*). This alliance can be found in wash and arroyo margins, rocky to bouldery alluvium, canyons, and moderate to steep colluvial slopes and ridges. Soils are well drained and derived from granitic or volcanic rock. One (1) association, *Eriogonum fasciculatum* rock outcrop, was mapped north of the Vincent Substation in the Study Area.

California Walnut Groves

California walnut groves (*Juglans californica* Forest and Woodland Alliance) have Southern California walnut (*Juglans californica*) as dominant or co-dominant in the tree canopy with other native trees. One (1) association, *Juglans californica*/annual herbaceous, was mapped adjacent to residential property (possibly ornamental plantings in origin) north of the Vincent Substation in the Study Area.

California Juniper Woodland

California juniper woodland has California juniper as dominant or co-dominant in the small tree canopy with single-leaf pinyon (*Pinus monophyla*) and blue oak (*Quercus douglasii*). Local shrubs may include big sagebrush *Ephedra* spp., chaparral yucca, and scale broom (*Lepidospartum squamatum*). This alliance can be found along ridges, slopes, valleys, alluvial fans, and valley bottoms. Soils are porous, rocky, coarse, sandy, or silty, and are often very shallow. Three (3) associations, *Juniperus californica*, *Juniperus californica – Adenostoma fasciculatum – Eriogonum fasciculatum*, and *Juniperus californica – Ericameria linearifolia*/annual-perennial herb, were mapped within the BESS and gen-tie portions of the Study Area.

Naturalized (Non-Native) Vegetation Communities

Wild Oats and Annual Brome Grasslands

Wild oats and annual brome grasslands (*Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance) has slender oat (*Avena barbata*), common wild oat (*Avena fatua*), stiff brome (*Brachypodium distachyon*), greater quaking-grass (*Briza maxima*), ripgut brome, soft brome, and/or wall barley (*Hordeum murinum*) as dominant or co-dominant with other non-natives in the herbaceous layer. Emergent trees and shrubs may be present at low cover. This alliance can be found along all topographic settings in foothills, waste places, rangelands, and openings in woodlands. One (1) association, *Bromus hordeaceus – Amsinckia menziesii – Hordeum murinum*, was mapped adjacent to the Vincent Substation in the Study Area.

Red Brome or Mediterranean Grass Grasslands

Red brome or Mediterranean grass grasslands (*Bromus rubens – Schismus* [*arabicus*, *barbatus*] *Bromus rubens* Alliance) has red brome, Arabian schismus (*Schismus arabicus*), and/or common Mediterranean grass (*Schismus barbatus*) as dominant or co-dominant with other non-natives in the herbaceous layer. Emergent shrubs may be present at low cover. This habitat can be found in all topography settings and soil textures. One (1) association, *Bromus rubens* – mixed herbs, was mapped adjacent to the Vincent Substation in the Study Area.

Disturbed and Developed Land Cover Types

Disturbed Habitat

Although not recognized by the Manual of California Vegetation, Online Edition (CNPS 2025b) or the California Natural Community List (CDFW 2025c), disturbed habitat is described in the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008). Disturbed habitat is described as areas generally lacking vegetation due to high levels of existing or historical human disturbance that are no longer recognizable as a native or naturalized vegetation association. Areas mapped as disturbed habitat may include unpaved roads, trails, and graded areas (Oberbauer et al. 2008). Vegetation in these areas, if present at all, is usually sparse and dominated by non-native weedy herbaceous species (Oberbauer et al. 2008). Areas mapped as disturbed habitat were found throughout the Study Area and were usually associated with developments or infrastructure.

Urban/Developed

Although not recognized by the Manual of California Vegetation (CNPS 2025b) or the California Natural Community List (CDFW 2025c), the urban/developed mapping unit (or developed land) is described in Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008). This mapping unit describes areas supporting human-made structures, including homes, yards, sidewalks, and other highly modified lands supporting structures associated with dwellings or other permanent structures. Vegetation in these areas, if present at all, is typically associated with ornamental landscaping that has been included in the development footprint (Oberbauer et al. 2008). Most of the developed lands in the Study Area included the large, paved substation and roads.

5.2 Special-Status Plant Species

Appendix C (CDFW 2025a; CNPS 2025a; USFWS 2025b) lists the 80 plant species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 and that are known to occur within the 14 USGS 7.5-minute topographic quadrangles that the Study Area is in and the quadrangles that the 10-mile buffer intersects, as well as the species provided by the query of the USFWS' Information for Planning and Consultation. This appendix provides evaluations for each of the special-status species' occurrence in the Study Area vicinity and their potential to occur based on known range, habitat associations, preferred soil substrate, life form, elevation, and blooming period. Special-status plant species that have low potential or are not expected to occur are not further analyzed in this document because no direct, indirect, or cumulative impacts are expected based on the negative surveys and evaluation that these species do not have a moderate or high potential to occur on site.

Two (2) sensitive plant species, short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) and golden linanthus (*Leptosiphon aureus*), were mapped during the focused special-status plant surveys in 2023 within the proposed gen-tie route portion of the Study Area, as shown in Figure 5, Biological Survey Results. Two additional special-status plant species, Douglas' fiddleneck (*Amsinckia douglasiana*) and Raven's blazing-star (*Mentzelia ravenii*), were recorded on one day of the special-status plant surveys but were not mapped. Instances of Douglas' fiddleneck did not occur in database queries and was not a focal species based upon the initial habitat assessment for special-status. At the time rare plant surveys were conducted, Raven's blazing-star did not have a CRPR rank. Raven's blazing star received a rank in March 2025 (CNPS 2025a). Finally, two Southern California black walnut, which is a CRPR 4.2 species, were mapped within a residential property but are assumed to have been planted since the habitat in the Study Area is atypical for the species. As such, it will not be analyzed as a special-status species but are included in the protected tree analysis.

Short-Joint Beavertail

Short-joint beavertail has a CRPR of 1B.2, which is defined as plants rare, threatened, or endangered in California and elsewhere, with 20%–80% of occurrences threatened (CNPS 2025a). The species is a cactus that can be found in creosote bush scrub, chaparral, pinyon-juniper woodland, and Joshua tree woodland (CDFW 2025a). Short-joint beavertail was mapped within the proposed gen-tie alignment portion of the Study Area, as shown in Figure 5.

Golden Linanthus

Golden linanthus has a CRPR of 4.2, which is defined as a plant with limited distribution and is moderately threatened in California (CNPS 2025a). The species can be found in chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland (CDFW 2025a). The species was mapped within the proposed gen-tie alignment portion of the Study Area, as shown in Figure 5.

Douglas' Fiddleneck

Douglas' fiddleneck has a CRPR of 4.2, which is defined as a plant with limited distribution and is moderately threatened in California (CNPS 2025a). The species can be found in cismontane woodland and valley and foothill grassland (CDFW 2025a). The species was inadvertently not mapped, but it is assumed to have occurred in juniper woodland.

Raven's Blazing-Star

Raven's blazing-star has a CRPR of 1B.3, which is defined as plants rare, threatened, or endangered in California and elsewhere, with less than 20% of occurrences threatened (CNPS 2025a). The species can be found in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland. The species was not mapped because it did not have a CRPR at the time of the survey. Raven's blazing-star received a CRPR rank in March 2025 (CNPS 2025a), so it was not considered a special-status plant at the time of the surveys.

5.3 Special-Status Wildlife Species

Appendix C (CDFW 2025a; CNPS 2025a; USFWS 2025b; Los Angeles Audubon 2009) lists the 62 wildlife species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 and that are known to occur within the 14 USGS 7.5-minute topographic quadrangles that the Study Area is in and the quadrangles that the 10-mile buffer intersects, as well as the species provided by the query of the USFWS' Information for Planning and Consultation and Los Angeles County's Sensitive Bird Species. This appendix provides evaluations for each of the special-status species' occurrence in the Study Area vicinity and their potential to occur based on known range and habitat associations. Special-status wildlife species that have low potential or are not expected to occur are not further analyzed in this document because no direct, indirect, or cumulative impacts are expected based on the negative surveys and evaluation that these species do not have a moderate or high potential to occur on site. This includes three species that are included in Los Angeles County's Sensitive Bird Species (Los Angeles Audubon 2009), Scott's oriole (*Icterus parisorum*), vesper sparrow (*Pooecetes gramineus*), and western meadowlark (*Sturnella neglecta*). These three species were not observed during site surveys and have a low potential to occur in the Study Area and are not discussed further.

Two (2) special-status species were observed foraging in the BESS portion of the Study Area, loggerhead shrike (*Lanius ludovicianus*) and greater roadrunner (*Geococcyx californianus*). The following six (6) special-status species

had moderate to high potential to occur in the Study Area: Crotch's bumble bee, California legless lizard (*Anniella* spp.), Blainville's horned lizard (*Phrynosoma blainvillii*), Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), Bell's sage sparrow (*Artemisiospiza belli belli*), and mountain lion (*Puma concolor*). One species in the previous list, mountain lion, has a high potential to occur as a transient. The 52 special-status species with a low potential to occur (six [6] species) or species that are not expected to occur (46 species) are excluded from further discussion below, except for western burrowing owl (*Athene cunicularia hypugaea*) and American badger (*Taxidea taxus*). A discussion of western burrowing owl is provided below; however, since burrowing owl is not expected in the Study Area, it is not further analyzed apart from the discussion in this section. Sensitive wildlife species potential within 1,000 feet of the gen-tie route options are expected to be similar to the Study Area because there are no significant changes in topography, geology, or hydrology within that distance.

Crotch's Bumble Bee

Crotch's bumble bee is a candidate for listing as "Endangered" under CESA and is afforded the protection of CESA while the California Fish and Game Commission decides if listing the species is warranted. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (The Xerces Society 2018). In California, the species inhabits open grassland and scrub habitats (The Xerces Society 2018). The size of Crotch's bumble bee colonies has not been well documented, but like most other species of bumble bees, the species primarily nests underground (The Xerces Society 2018). Bumble bees, including Crotch's bumble bee, are generalist foragers and have been reported visiting a wide variety of flowering plants. Since it has a very short tongue, Crotch's bumble bee is best suited to forage at open flowers with short corollas (The Xerces Society 2018). The plant families most associated with observations or collections of the species from California include Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae (The Xerces Society 2018). Nectar plants known to be visited by Crotch's bumble bee include the genera *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* (Williams et al. 2014; Xerces Society et al. 2018), but it is assumed flowering plants in other genera could also support foraging by this species.

Crotch's bumble bee could use small mammal burrows within all the vegetation communities in the Study Area and forage on suitable plant species within those communities. However, no Crotch's bumble bee were observed during the surveys that occurred over two (2) survey seasons. No bumble bees of any kind were observed during that period. Floral resources for the species are present but in limited numbers, with the Study Area being dominated by California juniper woodland, fourwing saltbush scrub, and Mormon tea scrub, as shown in Table 3, Vegetation Communities and Land Covers in the Study Area. Additionally, there are few records for the occurrence of the species or any other bumble bee from the Acton region (CDFW 2025a; iNaturalist 2025; The Xerces Society 2025). Due to the limited foraging opportunities and the few records of bumble bees as a whole in the region, the Project is not expected to involve take of Crotch's bumble bee.

California Legless Lizard

This description provides information for three (3) potential species of legless lizard that may be found in the Study Area: Northern California legless lizard (*Anniella pulchra*), Southern California legless lizard (*Anniella stebbinsi*), and California legless lizard (*Anniella* spp.). This is due to the current uncertainty of the taxonomy of the genus in the Study Area's region (Nafis 2025). All three (3) are considered CDFW SSC. These species are most commonly found in coastal dunes and coastal scrub, but also oak woodland, Joshua tree woodland, and pinyon-juniper woodland (Hansen and Shedd 2025), and are generally found in moist, loose soil (CDFW 2025a). California legless lizard has

moderate potential to occur in the Study Area beneath the larger California junipers due to the expected higher moisture content of the soil.

Figure 5 Biological Survey Results

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Blainville's Horned Lizard

Blainville's horned lizard is a CDFW SSC that occurs throughout most of California in locations west of the desert and Cascade-Sierran highlands, in elevations from sea level to around 2,438 meters (8,000 feet) above mean sea level (Hansen and Shedd 2025). Despite a wide-ranging distribution, the species seems to be restricted to localized populations because of its association with loose soils that have a high sand content (Jennings and Hayes 1994). The species is found in a wide variety of vegetation types with the requisite loose sandy soils, including California sagebrush scrub, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest (Klauber 1939; Stebbins 1954). Up to 90% of the diet of Blainville's horned lizard consists of native harvester ants (*Pogonomyrmex* spp.) (Pianka and Parker 1975), and the species does not appear to eat non-native Argentine ants (*Linepithema humile*) (Jennings and Hayes 1994). The species has a moderate potential to occur in a variety of the vegetation communities in the Study Area.

Greater Roadrunner

Observations of greater roadrunner were made in the Study Area but were not mapped since the species is highly mobile and expected to occur throughout the area. The species habitats include areas dominated by creosote, mesquite, chaparral, and tamarisk, as well as grasslands, riparian woodlands, and canyons (Cornell Lab 2025). Greater roadrunner nest sites are 3 to 10 feet or more off the ground, on a horizontal branch or in the crotch of a sturdy bush, cactus, or small tree (Cornell Lab 2025). Greater roadrunner is considered sensitive by the County (Los Angeles Audubon 2009). The species could use the California juniper in the Study Area for nesting and could forage throughout the Study Area.

Loggerhead Shrike

A single observation of loggerhead shrike was made in the Study Area, as shown in Figure 5. The species is a CDFW SSC that occurs throughout the United States, Mexico, and portions of Canada and is widespread at the lower elevations in California (Humple 2008). Preferred habitats for the species are open areas that include scattered shrubs, trees, posts, fences, utility lines, or other structures that provide hunting perches with views of open ground, as well as nearby spiny vegetation or human-made structures (such as the top of chain-link fences or barbed wire) that provide a location to impale prey items for storage or manipulation (Humple 2008). Nest sites are chosen based more on the cover than the particular vegetation species and are usually constructed in a dense shrub or tree well below the crown and are well concealed (Yosef 1996). The species could use the California juniper in the Study Area for nesting and could forage throughout the Study Area.

Southern California Rufous-Crowned Sparrow

Southern California rufous-crowned sparrow is on the CDFW Watch List and occurs in sparse, mixed chaparral and coastal scrub habitats (CDFW 2025a). The species frequents relatively steep, often rocky hillsides with grass and forb patches and also grassy slopes without shrubs, if rock outcrops are present (CDFW 2025a). The species has a moderate potential to occur on the slopes of the gen-tie portion of the Study Area.

Bell's Sage Sparrow

Bell's sage sparrow is on the CDFW Watch List and occupies semi-open habitats with evenly spaced shrubs that are 1 meters to 2 meters (3.3 feet to 6.6 feet) high (County of Riverside 2025). CDFW still recognizes *A. belli belli*, but the subspecies has been reclassified as its own species Bell's sparrow (*A. belli*), with the other subspecies *A.*

belli nevadensis reclassified as sagebrush sparrow (*A. nevadensis*). For site selection, specific shrub species may be less important than overall vertical structure, habitat patchiness, and vegetation density (Wiens and Rotenberry 1981). At higher elevations in Southern California, Bell's sage sparrow often occurs in big sagebrush (County of Riverside 2008). Sage sparrows seek cover in fairly dense stands in chaparral and scrub habitats during the breeding season. Bell's sage sparrow has a moderate potential to occur in the *Artemisia tridentata* dominant and co-dominant vegetation communities in the Study Area.

Mountain Lion

Mountain lions associated with Southern California and Central Coast populations are designated as a State candidate endangered species. On April 16, 2020, the California Fish and Game Commission voted to designate the Southern California and Central Coast mountain lions as a candidate for listing as an endangered species under CESA. The vote triggered a 1-year review by CDFW to determine whether these mountain lion populations should be formally protected under CESA; however, the listing status of this species is still currently unresolved at the time of this report.

The California mountain lion occurs throughout much of California open space, occurring in or moving through nearly all but the most urbanized settings. This species inhabits a wide range of habitat types where prey items such as mule deer (*Odocoileus hemionus*) and bighorn sheep (*Ovis canadensis*) are present, from interior, arid rocky scrublands, to upper montane coniferous forest, to chaparral, coastal scrub, and woodland habits along the coastal plain.

According to the Mountain Lion Predicted Habitat dataset (CDFW 2025b), the proposed BESS portion of the Study Area consists primarily of high-quality habitat and most of the proposed gen-tie route is within low quality habitat. However, CDFW's Mountain Lion Habitat Suitability dataset has most of the proposed BESS portion of the Study Area and gen-tie alignment as low suitable habitat (Dellinger et al. 2020; CDFW 2025b). As such, the species could occur throughout most of the Project area during home range movement, dispersal, and foraging. The potential to occur is based on habitat suitability: scrub vegetation, presence of mule deer, and proximity to high-quality habitat on large swaths of public lands to the east in the Angeles Nation Forest. However, females keep their young in dens located in rocky terrain or in dense vegetation that provide cover but avoid roads and stay at a distance from human disturbance four (4) times greater (approximately 600 meters) than non-reproductive mountain lions (Center for Biological Diversity and the Mountain Lion Foundation 2019). The Study Area is located adjacent to residential neighborhoods, Sierra Highway, the Southern Pacific Railroad lines, Carson Mesa Road, and SR-14, all of which have associated human presence. As such, females of the species are not expected to establish natal dens in the Study Area.

Western Burrowing Owl

As of October 15, 2024, western burrowing owl is being considered for listing under CESA, and the species is provided with the protection of CESA. Primary habitat requisites for burrowing owl are the presence of burrows for roosting and nesting and vegetation structure that is relatively short and sparse (Center for Biological Diversity et al. 2024). The species was historically abundant throughout southwestern California, including up to the 610-meter (2,001.31 feet) elevation contour in the Transverse Ranges, but have been extirpated from Ventura, western Los Angeles, and Orange Counties and are near extirpation in San Diego County (Center for Biological Diversity et al. 2024). The petition to list the species does not include the Study Area in the breeding range of the species and does not include the Study Area in one (1) of the 16 burrowing owl regions in California (Center for Biological Diversity et al. 2024).

CDFW's range and predicted habitat for burrowing owl does not include the Study Area (CDFW 2025f). There are five (5) CNDDB records of the species within 10 miles that are in the Antelope Valley to the north of the Study Area, with the most recent being 2006 (CDFW 2025a). Citizen science-based databases have only five (5) records within 10 miles that are in the Antelope Valley to the north of the Study Area (eBird 2025; iNaturalist 2025).

The Study Area is dominated by shrub-dominant vegetation communities that have relatively high density. The Study Area elevation ranges from 2,700 feet to 3,500 feet above mean sea level, which is above the known historic occurrences of the species in the Transverse Ranges. California ground squirrel (*Otospermophilus beecheyi*) burrows are present but are sparse, and none of the extensive surveys of the Study Area have identified burrowing owl or diagnostic sign (i.e., pellets, feathers, and extensive whitewash). Based upon the lack of suitable habitat, the Study Area being above the known elevation occurrence of the species in the region, the lack of observations of the species during extensive surveys, and the limited number of records of the species within 10 miles, burrowing owl is not expected in the Study Area and will not be further analyzed.

American Badger

American badger is a CDFW SSC that is an uncommon, permanent resident found throughout most of the state, except in the northern North Coast (CDFW 2025f). Suitable habitat for the species is characterized by herbaceous, shrub, and open stages of most habitats with dry, friable soils (CDFW 2025f). American badger dig burrows in friable soil for dens and frequently reuse old burrows, although some may dig a new den each night, especially in summer (CDFW 2025f). American badger is a highly specialized burrowing mammal that primarily eats burrowing rats, mice, chipmunks, and especially ground squirrels and pocket gophers (CDFW 2025f).

There is one (1) CNDDB record of American badger within 20 miles of the Study Area from 1930 at Lake Los Angeles (CDFW 2025a). There is one (1) 2021 iNaturalist record of the species approximately 8.6 miles to the west near Agua Dulce (iNaturalist 2025). American badger has been determined to have a low potential to occur in the Study Area due to the presence of suitable habitat, but no individuals were observed and no diagnostic signs (i.e., burrows or digs with the species' conspicuous claw marks) were observed during the extensive surveys of the Study Area. As such, the species will not be further analyzed.

5.4 Potential Jurisdictional Wetlands and Waters

Approximately 3.80 acres of potential jurisdictional waters regulated by RWQCB and CDFW were found within the Study Area, as summarized in Table 6, Summary of Potential Jurisdictional Waters Within the Study Area, and illustrated in Figure 6, Potential Jurisdictional Aquatic Resources. Impacts to these features will require permits from RWQCB and, but for the CEC's jurisdiction, CDFW, before any Project activities take place. Based upon the current definition of waters of the United States per the Clean Water Act, no features were considered to be water of the United States under the jurisdiction of USACE due to the ephemeral-nature of each; however, an Approved Jurisdictional Determination will need to be sought from the agency to document this conclusion.

Table 6. Summary of Potential Jurisdictional Waters Within the Study Area

Jurisdiction	Study Area (acres)
RWQCB/CDFW	
Features	
Non-Wetland Waters	3.34
Swales	0.27
	0.05
Total	**3.80**

Note: RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.

Figure 6 Potential Jurisdictional Aquatic Resources

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5.5 Wildlife Corridors and Habitat Linkages

Wildlife movement corridors have been recognized by federal and state agencies as important habitats worthy of conservation. Wildlife corridors provide migration channels seasonally (i.e., between winter and summer habitats) and provide non-migrant wildlife with the opportunity to move within their home range for food, cover, reproduction, and refuge. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals and may also serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as stepping stones for dispersal.

The Study Area does not overlap with any South Coast Missing Linkages, California Essential Habitat Connectivity Areas, or Natural Landscape Blocks (South Coast Wildlands 2020; CDFW 2014, 2017). Given that the existing vegetation is surrounded on three (3) sides by similar habitats, the Study Area likely provides habitat for local wildlife movement but is not recognized as an important regional wildlife corridor by any state agency or jurisdiction and is of limited linkage value on a landscape scale. Furthermore, although local wildlife may utilize the Study Area for movement, regional connectivity is highly limited by residential neighborhoods, Sierra Highway, the Southern Pacific Railroad lines, Carson Mesa Road, and SR-14 to the west. Thus, the Project is not expected to impose significant barriers to wildlife movement.

5.6 California Desert Native Plant Act Covered Species

Four (4) species covered by the CDNPA were mapped within the Project footprint and a 150-foot buffer (except for adjacent private properties), as shown in Figure 7, California Desert Native Plant Act Covered Species in the Survey Area: chaparral yucca, Wiggins' cholla, beavertail pricklypear (*Opuntia basilaris* var. *basilaris*) and short-joint beavertail. Table 7, California Desert Native Plant Act Covered Species in the Survey Area, summarizes the numbers within each area and Figure 7.

Table 7. California Desert Native Plant Act Covered Species in the Survey Area

Species	Amount
chaparral yucca	1,118
Wiggins' cholla	644
beavertail pricklypear	94
short-joint beavertail	4
Total	**1,860**

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Figure 7 California Desert Native Plant Act Covered Species in the Survey Area

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5.7 Significant Ecological Area Protected Trees

A total of 1,215 trees were documented within the survey area, as shown in Figure 8, Protected Trees, and summarized in Table 8, Summary of Trees in the Study Area. Of these, 1,191 trees are located within the Santa Clara River SEA, and 1,069~~21~~ of those are classified as protected California junipers. The species is a shrub that is native to California and found only slightly beyond California borders (Calflora 2025). California juniper typically has several trunks and grows up to 13 feet (Jepson Flora Project 2025). Apart from the 1,0~~78~~69 California juniper, nine (9) other protected trees were identified (velvet ash, Southern California black walnut, California sycamore (*Platanus racemosa*), and Fremont cottonwood (*Populus fremontii*), however, no impacts would occur to California sycamore or Fremont cottonwood. Two of the trees, velvet ash and Southern California black walnut, were found within the SEA portion of the Study Area as ornamental trees associated with a residence. These species do not typically occur in the habitats in the Study Area. The protected trees include 1,004 standard protected trees and 74 heritage trees. The remaining 194 trees consist of 81 located outside the SEA and 113 trees within the SEA that are classified as dead; dead trees are not protected by the County of Los Angeles and do not require mitigation. Table 8 summarizes the protected trees, heritage trees, and non-protected trees that were mapped and evaluated within the Survey Area. Appendix A, Tree Location, of Appendix A of this report provides detailed methodology and locations of all individual trees assessed for the proposed Project. Full results are included in Appendix A.

Table 8. Summary of Trees in the Study Area

Scientific Name	Common Name	Total Number of Protected Trees	Number of Heritage Trees	Total Number of Non-Protected Trees	Total Number of Trees
Juniperus californica	California juniper	1,069	73	113	1,182
Fraxinus velutina	velvet ash	1	0	0	1
Juglans californica	Southern California black walnut	2	0	0	2
Platanus racemosa	California sycamore	1	0	0	1
Populus fremontii	Fremont cottonwood	5	1	0	5
	Total	**1,078**	**74**	**113**	**1,191**

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Figure 8 Protected Trees

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6 Project Impacts to Significant Ecological Area Resources

This chapter addresses the maximum direct and indirect potential impacts to biological resources within the Santa Clara SEA that would result from implementation of the Project.

6.1 Definition of Impacts

Direct. Section 15358 of the CEQA Guidelines defines direct impacts as those that result from the project and "occur at the same time and place." Project-related activities, such as alteration, disturbance, or destruction of sensitive biological resources, are considered a direct impact. Direct impacts for this Project are those associated with the Project, including grading and development of the BESS facility site and gen-tie route.

Indirect. Section 15358 of the CEQA Guidelines defines indirect impacts as impacts that are caused by the project and "are later in time or farther removed in distance, but are still reasonably foreseeable." Indirect impacts associated with the proposed Project include effects to biological or aquatic resources as a result of dust, noise, vibration, or potential erosion.

Permanent. All impacts that result in the irreversible removal of biological resources are considered permanent. Permanent impacts for the proposed Project include the conversion of land for the BESS facility site and associated access facilities.

Temporary. Temporary impacts are considered to have reversible effects on biological resources. Temporary impacts associated with the proposed Project include tension/pulling sites along the gen-tie right of way, and other work associated with temporary access along the gen-tie line.

6.1.1 Explanation of Project Consistency with Significant Ecological Area Conditional Use Permit Compatibility Criteria

As noted in the SEA Ordinance Implementation Guide (Los Angeles County Regional Planning 2020), "When development does not meet the SEA Development Standards, [but for the California Energy Commission's Opt-In Application for Certification process,] a SEA CUP will be required to consider whether the project is compatible with the goals and policies of the SEA Program." Additionally, "The natural open space preservation requirement for SEA CUPs is dependent on the amount of proposed development, degree of impact, type and quality (e.g., intactness) of SEA Resources being disturbed, location, and setting of those SEA Resources, and the project's ability to address the SEA Findings."

The SEA Ordinance Implementation Guide also notes the following (Los Angeles County Regional Planning 2020):

> Development in the SEAs must demonstrate how the proposed development is designed to:
>
> A. Be highly compatible with the SEA Resources, including the preservation of natural open space areas and providing for the long-term maintenance of ecosystem functions;...

B. Avoid or minimize impacts to the SEA Resources and wildlife movement through one or more of the following: avoiding habitat fragmentation, minimizing edge effects, or siting development in the least sensitive location;...

C. Buffer important habitat areas from development by retaining sufficient natural vegetation cover and/or natural open spaces and integrating sensitive design features;...

D. Maintain the ecological and hydrological functions of water bodies, watercourses, and their tributaries;...

E. Ensure that roads, access roads, driveways, and utilities do not conflict with Priority Biological Resources, habitat areas or migratory paths; and...

F. Promote the resiliency of the SEA to the greatest extent possible. For purposes of this finding, SEA resiliency cannot be preserved when the proposed development may cause any of the following:

   a. Significant unmitigated loss of contiguity or connectivity of the SEA;

   b. Significant unmitigated impact to a Priority Biological Resource;

   c. Removal of habitat that is the only known location of a new or rediscovered species; or

   d. Other factors as identified by SEATAC.

6.2 Impacts to Special-Status Plants

Two special-status plant species, Douglas' fiddleneck and Raven's blazing-star, were recorded on one day of the special-status plant surveys but were not mapped. As such the two species could be directly impacted during vegetation removal and grading activities. The loss of individuals during construction could be significant based upon the abundance of each being impacted and will require mitigation. **MM-BIO-1**, Special-Status Plant Species Surveys and seed collection, requires pre-construction surveys for the species to determine if the species are present and the collection of seeds should the species be present. However, some of the individuals of both species are in close proximity to the Project construction limits. Mitigation Measure (MM) BIO-2, Demarcation of Disturbance Limits, requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3, Biological Monitoring, requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the flagged limits are adhered to during construction. MM-BIO-4, Worker Education Awareness Program (WEAP), requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and Study Area and measures to avoid and minimize impacts to those resources. MM-BIO-5, On-Site Preservation, requires the establishment of a conservation area that will preserve up to approximately 136 acres of native vegetation communities (the non-impacted acres of the parcels associated with the gen-tie route) within the Study Area parcels associated with the gen-tie routes,, which will preserve individuals and habitat for the species should an ITP for the species be needed. MM-BIO-6, Habitat Mitigation and Monitoring Plan, requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use. Project implementation of MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, and MM-BIO-6 will provide the mitigation for the Project to be compatible with SEA Resources.

Two (2) additional special-status plant species, short-joint beavertail and golden linanthus, were mapped in the gen-tie route portion of the Study Area during surveys in 2023. None of the mapped individuals will be directly impacted by the Project. However, some of the individuals of both species are in close proximity to the Project construction limits. MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources

outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the integrity of any buffers established for active nests. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. Project implementation of MM-BIO-1 through MM-BIO-5 will reduce potential impacts to less than significant. Impacts will be less than significant with mitigation.

6.3 Impacts to Special-Status Wildlife

For all wildlife, MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the integrity of any buffers established for active nests. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. For Crotch's bumble bee, MM-BIO-7, Crotch's Bumble Bee Avoidance and Minimization Measures, requires pre-construction surveys for the Crotch's bumble nests, with buffers established around active nests until the nests are deemed inactive. For special-status reptiles, MM-BIO-8, Special-Status Wildlife Relocation Plan, will provide a process of clearance surveys and relocation of special-status wildlife into non-impacted portions of the Study Area. For nesting birds, including loggerhead shrike, Southern California rufous-crowned sparrow, and Bell's sage sparrow, MM-BIO-8, Nesting Bird Avoidance, requires pre-construction surveys and buffer establishment for active nests. Project implementation of MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-7, MM-BIO-8, and MM-BIO-9 will provide the mitigation for the Project to be compatible with SEA Resources.

The Project may impact habitat in the SEA that supports or has the potential to support several special-status species that are candidates for listing under CESA or are CDFW SSC: Crotch's bumble bee, California legless lizard, Blainville's horned lizard, loggerhead shrike, Southern California rufous-crowned sparrow, and mountain lion. Each species is expected to have potentially suitable habitat in all of the native habitats in the Study Area, with the exception of California legless lizard, which is only expected in habitats with California juniper. Indirect impacts to these species will be from the substantial loss of foraging and breeding habitat, as shown in Table 9, Potential Impacts to Special-Status Wildlife Habitat Within the SEA.

Table 9a. Potential Impacts to Special-Status Wildlife Habitat Within the SEA – Northern Gen-Tie Route

Species	SEA Resource Category[1]	SEA Preservation Ratio[1]	Potential Impacted Habitat (acres)[2]	Restored Temporarily Impacted Habitat (Gross acreage)[2,3]	Needed Conserved Habitat (Gross acreage)[2,4,6]
Crotch's bumble bee	1	5:1	26.12[7]~~23.15[7]~~	23.96~~20.70~~	106.64~~95.05~~
California legless lizard	2	4:1	2.46[8]~~1.76[8]~~	1.87~~1.37~~	7.97~~5.67~~
Blainville's horned lizard	2	4:1	26.12[7]~~23.15[7]~~	23.96~~20.70~~	80.52~~71.90~~
loggerhead shrike	2	4:1	26.12[7]~~23.15[7]~~	23.96~~20.70~~	80.52~~71.90~~
greater roadrunner	3	3:1	26.12[7]~~23.15[7]~~	23.96~~20.70~~	54.40~~48.75~~
mountain lion	1	5:1	29.73[9]~~26.76[9]~~	27.57[10]~~24.31[10]~~	121.08~~109.49~~

Notes: SEA = Significant Ecological Area; gen-tie = generation interconnection; MM = Mitigation Measure.
1 Los Angeles County Regional Planning 2020.
2 Includes impacts from the northern gen-tie route.
3 Restoration for areas that are temporary impacts (MM-BIO-6).
4 Total impacts multiplied by the ratio and minus the restored habitat (MM-BIO-5).
6 Acreages are not additive. Conserved habitat needed is overlapping since the species share suitable habitat, so the ~~109.49~~121.08 acres for mountain lion will cover all species.
7 Includes all native habitats impacted, as listed in Table 10.
8 Includes all habitats that support California juniper, as listed in Table 10.
9 Includes all native habitats and disturbed habitat impacted, as listed in Table 10.
10 Includes all restoration of native habitats and disturbed habitats.

Table 9b. Potential Impacts to Special-Status Wildlife Habitat Within the SEA – Southern Gen-Tie Route

Species	SEA Resource Category[1]	SEA Preservation Ratio[1]	Potential Impacted Habitat (acres)[2]	Restored Temporarily Impacted Habitat (Gross acreage)[2,3]	Needed Conserved Habitat (Gross acreage)[2,4,6]
Crotch's bumble bee	1	5:1	32.26[7]~~29.28[7]~~	29.49~~26.23~~	131.81~~120.17~~
California legless lizard	2	4:1	3.06[8]~~2.36[8]~~	2.33~~1.83~~	9.91~~7.61~~
Blainville's horned lizard	2	4:1	32.26[7]~~29.28[7]~~	29.49~~26.23~~	99.55~~90.89~~
loggerhead shrike	2	4:1	32.26[7]~~29.28[7]~~	29.49~~26.23~~	99.55~~90.89~~
greater roadrunner	3	3:1	32.26[7]~~29.28[7]~~	29.49~~26.23~~	67.29~~61.61~~
mountain lion	1	5:1	35.96[9]~~32.99[9]~~	32.84[10]~~29.58[10]~~	146.96~~135.37~~

Notes: SEA = Significant Ecological Area; gen-tie = generation interconnection; MM = Mitigation Measure.
1 Los Angeles County Regional Planning 2020.
2 Includes impacts from the southern gen-tie route.
3 Restoration for areas that are temporary impacts (MM-BIO-6).
4 Total impacts multiplied by the ratio and minus the restored habitat (MM-BIO-5).
6 Acreages are not additive. Conserved habitat needed is overlapping since the species share suitable habitat, so the ~~135.37~~146.96 acres for mountain lion will cover all species.
7 Includes all native habitats impacted, as listed in Table 10.
8 Includes all habitats that support California juniper, as listed in Table 10.
9 Includes all native habitats and disturbed habitat impacted, as listed in Table 10.
10 Includes all restoration of native habitats and disturbed habitats.

MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately ~~135~~ 147 acres of native vegetation communities within the Study Area parcels associated with the Southern Gen-Tie Route (or ~~110~~ 122 acres if the Northern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use. MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring that Project construction does not extend beyond Project limits. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources, which will include a discussion about sensitive vegetation communities. Project implementation of MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, and MM-BIO-6 will provide the mitigation for the Project to be compatible with SEA Resources.

6.4 Impacts to Vegetation Communities

Table 10, Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area Portion of the Study Area, summarizes the Project's potential direct impacts to vegetation communities and land covers in the Santa Clara River SEA. There will be approximately 2.18~~46~~ acres of permanent impacts and approximately ~~25.43~~28.68 acres of temporary impacts, under the Northern Gen-Tie Route. There will be approximately 3.51~~80~~ acres of permanent impacts and approximately 34.62~~1.37~~ acres of temporary impacts, under the Southern Gen-Tie Route. Of the approximate 269.78 acres of vegetation communities in the Study Area, about ~~241.89~~238.92 acres (~89~~90~~%) will be unaffected by Project activities under the Northern Gen-Tie Route, and ~~234.61~~231.65 acres (~86~~7~~%) under the Southern Gen-Tie Route. Potential direct impacts will occur due to removal of vegetation, alteration of soils from grading, and the development of the Project.

Table 10a. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area Portion of the Study Area – Northern Gen-Tie Route

Alliance/Type	Association	NatureServe Global / State Rank[1]	SEA Category[2]	Ratio[2]	Permanent Impacts (gross acreage)[3]	Temporary Impacts (gross acreage)[3]	Total Impacts (gross acreage)[3]
Native Communities							
Cheesebush – sweetbush scrub	*Ambrosia salsola – Larrea tridentata*	NA/NA	4	2:1	–	–	–
	Ambrosia salsola Association	NA/NA	4	2:1	–	0.54	0.54
California sagebrush – (purple sage) scrub	*Artemisia californica – Eriogonum fasciculatum*	G4/S4	4	2:1	–	1.00~~15~~	1.00~~1~~5
Big sagebrush	*Artemisia tridentata – Ericameria nauseosa*	NA/NA	4	2:1	–	1.15	1.15
	Artemisia tridentata ssp. *parishii*	G2/S2	4	2:1	–	0.06	0.06
Fourwing saltbush scrub	*Atriplex canescens*	G5/NA	4	2:1	~~2.06~~1.57	1~~6.06~~8.98	~~18.12~~ 20.22
Rubber rabbitbrush scrub	*Ericameria nauseosa – Juniperus californica* / herb	NA/NA	4	2:1	–	0.37	0.37
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum* –	NA/NA	3	3:1	–	0.21	0.21

Table 10a. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area Portion of the Study Area – Northern Gen-Tie Route

Alliance/Type	Association	NatureServe Global / State Rank[1]	SEA Category[2]	Ratio[2]	Permanent Impacts (gross acreage)[3]	Temporary Impacts (gross acreage)[3]	Total Impacts (gross acreage)[3]
	Eriogonum fasciculatum						
	Juniperus californica / herbaceous	NA/NA	3	3:1	0.539	1.1666	1.552.25
Land Covers							
Disturbed Habitat	NA	NA	NA	NA	–	3.61	3.61
Urban/ Developed	NA	NA	NA	NA	0.01	1.112	1.13
				Total:	2.1846	25.4328.68	27.8930.86

Notes:

1 Vegetation types listed with global/state ranks 1-3 are considered sensitive; ranks 4-5 are considered secure (CNPS 2023). NA = this vegetation association does not have an assigned NatureServe global or state conservation rank because it either is not considered rare or imperiled, or it has not been formally evaluated or ranked by NatureServe.

2 Significant Ecological Area Ordinance Implementation Guide (Los Angeles County Regional Planning 2020).

3 Includes impacts from the Northern Gen-Tie Route and permanent and temporary impacts.

Table 10b. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Southern Gen-Tie Route

Alliance	Association	SEA Category[1]	Ratio[1]	Permanent Impacts (gross acreage)[2]	Temporary Impacts (gross acreage)[2]	Total Impacts (gross acreage)[2]
Native Communities						
Cheesebush – sweetbush scrub	*Ambrosia salsola - Larrea tridentata*	4	2:1	--	0.05	0.05
	Ambrosia salsola Association	4	2:1	--	1.57	1.57
California sagebrush – (purple sage) scrub	*Artemisia californica - Eriogonum fasciculatum*	4	2:1	--	1.0015	1.151.00
Big sagebrush	*Artemisia tridentata - Ericameria nauseosa*	4	2:1	0.46	2.21	2.67

Table 10b. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Southern Gen-Tie Route

Alliance	Association	SEA Category[1]	Ratio[1]	Permanent Impacts (gross acreage)[2]	Temporary Impacts (gross acreage)[2]	Total Impacts (gross acreage)[2]
	Artemisia tridentata ssp. *parishii*	4	2:1	--	0.20	0.20
Fourwing saltbush scrub	*Atriplex canescens*	4	2:1	1.58~~2.06~~	~~18.09~~21.01	~~20.15~~22.59
Rubber rabbitbrush scrub	*Ericameria nauseosa - Juniperus californica* / herb	4	2:1	--	1.12	1.12
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum*	3	3:1	0.53	0.35	0.87
	Juniperus californica / herbaceous	3	3:1	~~-~~0.20	~~1.49~~1.98	~~1.49~~2.18
Disturbed Habitat	N/A	N/A	N/A	0.36	3.35	3.71
Urban/Developed	N/A	N/A	N/A	0.39	1.78~~9~~	2.17
			Total:	**3.51~~80~~**	~~31.37~~34.62	~~35.16~~38.13

As shown in Table 10, the *Artemisia tridentata ssp. parishii* association is the only vegetation community in the Study Area ranked as sensitive under NatureServe's conservation status system. Classified as globally and state imperiled (G2/S2), this community faces a high risk of extinction or elimination (NatureServe 2025). Project activities will result in approximately 0.06 acres of temporary impacts to this vegetation community association under the Northern Gen-Tie Route or 0.20 acres of temporary impacts to this vegetation community association under the Southern Gen-Tie Route.

MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately ~~135~~147 acres of native vegetation communities within the Study Area parcels associated with the Southern Gen-Tie Route (or ~~110~~ 122 acres if the Northern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore the approximately ~~26~~ 28.17 acres of temporarily impacted areas within the conservation area associated with the Southern Gen-Tie (or ~~21~~ 22.61 acres of temporarily impacted areas under the Northern Gen-Tie Route). Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

6.5 Impacts to Water Resources

The Project will have potential impacts to up to approximately 0.215 ~~5~~ acres (approximately 0.01 acres of permanent impacts and 0.204 ~~4~~ acres of temporary impacts) of SEA Water Resources (i.e., streams and swales), if the Northern Gen-Tie Route is selected, and approximately 0.314 ~~4~~ acres (approximately 0.01 permanent impacts and 0.303 ~~3~~ acres temporary impacts) of SEA Water Resources (i.e., streams and swales) if the Southern Gen-Tie Route is selected. Potential direct impacts will occur due to grading and the development of the Project. Water Resources are to be preserved at 5:1, resulting in the need for up to 1.5570 ~~70~~ acres of preservation. MM-BIO-5 requires the establishment of a conservation area that has the potential to preserve up to 2.0828 ~~28~~ acres of unimpacted Water Resources in the Study Area parcels associated with the ~~gen-tie routes~~Northern Gen-Tie Route (or 1.99 acres if the Southern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore an additional approximately 0.204 ~~4~~ acres or 0.313 ~~3~~ acres of temporarily impacted Water Resources within the conservation area. Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

6.6 Impacts to Protected Trees

Direct impacts are associated with tree removal or encroachment within the tree protection zone (TPZ; i.e., canopy dripline plus 5 feet or 15 feet from trunk, whichever is greater) of a protected tree. Specifically, potential tree impacts were determined using geographic information system technology, spatial locations of tree crowns, and a minimum distance of each tree relative to the project impact. A tree is considered removed if it falls within the Project's limits of disturbance or if 30% or more of its TPZ is impacted. A tree is considered encroached upon if less than 30% of its TPZ is affected by project activities, including soil or root disturbance and/or pruning, but the tree is not removed, and a tree is considered preserved if they are not removed and do not experience any TPZ disturbance. Impact totals presented herein are based on proposed disturbance limits, fuel modification zones, and development plans as of the date of this report. The following tree impact findings are organized into two categories: non-heritage tree impacts and heritage tree impacts. Heritage tree status is based on the SEA tree classifications (i.e., riparian, coniferous, upland hardwood) and minimum trunk diameter for protected and heritage trees.

Non-Heritage Tree Impacts (Protected Trees)

Of the ~~953~~ 1,004 protected trees that occur within the Survey Area (non-inclusive of heritage trees), ~~41~~ 72 protected non-heritage trees would be directly impacted by the proposed Northern gen-tie route. The ~~41~~ 72 protected non-heritage tree impacts consist of ~~30~~ 58 potential removals (trees are within the grading limits or grading activities affect more than 30% of a TPZ) and ~~eleven~~ 14 potential encroachments (trees that are not removed, but root damage, soil excavation and compaction, grade changes, loss of canopy, and trunk wounds are anticipated). The remaining ~~963~~ 932 protected non-heritage trees would not be directly impacted by the Project. ~~Fifty-five~~86 protected non-heritage trees could be directly impacted by the proposed Southern Gen-Tie Route option. The ~~55~~ 86 protected non-heritage tree impacts consist of ~~47~~ 74 potential removals and ~~eight (8)~~ 12 potential encroachments. The remaining ~~949~~ 918 protected non-heritage trees would not be directly impacted by the Southern Gen-Tie Route option.

Table 11, Summary of Potential Impacts to SEA Protected Trees (Non-Heritage), provides a summary of the proposed impacts to non-heritage SEA protected trees within and adjacent to the Project.

Table 11a. Summary of Potential Impacts to SEA Protected Trees (Non-Heritage) – Northern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
*Fraxinus velutina**Juniperus californica*	velvet ash**California juniper**	1**29**	0**11**	1**40**
*Juglans californica**Fraxinus velutina*	Southern California black walnut**velvet ash**	0**1**	0**0**	0**1**
*Juniperus californica**Juglans californica*	California juniper**Southern California black walnut**	57**0**	14**0**	71**0**
*Platanus racemosa**Platanus racemosa*	California sycamore**California sycamore**	0**0**	0**0**	0**0**
*Populus fremontii**Populus fremontii*	Fremont cottonwood**Fremont cottonwood**	0**0**	0**0**	0**0**
	TotalTotal	**5830**	**1411**	**7241**

Note: SEA = Significant Ecological Area.

Table 11b. Summary of Potential Impacts to SEA Protected Trees (Non-Heritage) – Southern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
*Fraxinus velutina**Juniperus californica*	velvet ash**California juniper**	1**45**	0**8**	1**53**
*Juglans californica**Fraxinus velutina*	Southern California black walnut**velvet ash**	1**1**	0**0**	1**1**
*Juniperus californica**Juglans californica*	California juniper**Southern California black walnut**	72**1**	12**0**	84**1**
*Platanus racemosa**Platanus racemosa*	California sycamore**California sycamore**	0**0**	0**0**	0**0**
*Populus fremontii**Populus fremontii*	Fremont cottonwood**Fremont cottonwood**	0**0**	0**0**	0**0**
	TotalTotal	**7447**	**128**	**8655**

Note: SEA = Significant Ecological Area.

Appendix A presents the locations of the individual trees that would be subject to impacts by the proposed Project.

Heritage Tree Impacts

California juniper, which have naturally thin trunks, must have a height of 20 feet or a canopy spread of 35 feet to be designated as a heritage tree (Los Angeles County Regional Planning 2020).

A total of 74 heritage trees are found on site, of which ~~six (6)~~10 could be directly impacted if the Northern Gen-Tie Route were selected. The ~~six (6)~~10 heritage tree impacts comprise ~~five~~ six (6) potential removals and ~~one~~ four (4) potential encroachment. The remaining ~~68~~ 64 heritage trees would not be directly impacted by the Northern Gen-Tie Route. ~~Eight (8)~~12 heritage trees could be directly impacted by the Southern Gen-Tie Route option. The ~~eight (8)~~12 heritage tree impacts comprise ~~seven~~ eight (8) potential removals and ~~one~~ four (4) potential encroachment. The remaining ~~66~~ 62 heritage trees would not be directly impacted by the project if the Southern Gen-Tie Route were selected.

Table 12, Summary of Potential Impacts to SEA Protected heritage trees, provides a summary of the proposed impacts to SEA protected heritage trees within and adjacent to the Project.

Table 12a. Summary of Potential Impacts to SEA Protected Heritage Trees – Northern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina~~*Juniperus californica*~~	velvet ash~~California juniper~~	0~~5~~	0~~1~~	0~~6~~
Juglans californica~~*Fraxinus velutina*~~	Southern California black walnut~~velvet ash~~	0~~0~~	0~~0~~	0~~0~~
Juniperus californica~~*Juglans californica*~~	California juniper~~Southern California black walnut~~	6~~0~~	4~~0~~	10~~0~~
Platanus racemosa~~*Platanus racemosa*~~	California sycamore~~California sycamore~~	0~~0~~	0~~0~~	0~~0~~
Populus fremontii~~*Populus fremontii*~~	Fremont cottonwood~~Fremont cottonwood~~	0~~0~~	0~~0~~	0~~0~~
	Total~~Total~~	6~~5~~	4~~1~~	10~~6~~

Note: SEA = Significant Ecological Area.

Table 12b. Summary of Potential Impacts to SEA Protected Heritage Trees – Southern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina~~*Juniperus californica*~~	velvet ash~~California juniper~~	0~~7~~	0~~1~~	0~~8~~
Juglans californica~~*Fraxinus velutina*~~	Southern California black walnut~~velvet ash~~	0~~0~~	0~~0~~	0~~0~~
Juniperus californica~~*Juglans californica*~~	California juniper~~Southern California black walnut~~	8~~0~~	4~~0~~	12~~0~~
Platanus racemosa~~*Platanus racemosa*~~	California sycamore~~California sycamore~~	0~~0~~	0~~0~~	0~~0~~
Populus fremontii~~*Populus fremontii*~~	Fremont cottonwood~~Fremont cottonwood~~	0~~0~~	0~~0~~	0~~0~~
Total~~Total~~		8~~7~~	4~~1~~	12~~8~~

Note: SEA = Significant Ecological Area.

Appendix A presents the locations of the individual trees that would be potentially subject to impacts by the proposed Project.

Per the County requirements, the removal of any SEA protected tree requires mitigation in the form of two (2) replacement plantings, and the removal of a heritage tree requires mitigation in the form of 10 replacement plantings. Replacement trees should be seedlings of the same species as those being removed and should be planted in an area of the Project site where there is suitable habitat and where the trees would be able to remain in perpetuity. As such, ~~based on the August 2025 and December 2025 impact analysis of the current design,~~ if the Northern Gen-Tie Route were selected, ~~35~~ 64 potential direct tree removals (~~five~~ six [6~~5~~] heritage trees and ~~30~~ 58 non-heritage protected trees), the SEA rules may require a minimum of ~~110~~ 176 mitigation trees to be planted in an area of the Project site where there is suitable habitat and where the trees would be able to remain in perpetuity.

~~-~~If the Southern Gen-Tie Route option is selected up to ~~54~~ 82 potential direct tree removals (~~seven~~ eight [8~~7~~] heritage trees and ~~47~~ 74 non-heritage protected trees), the County would require up to ~~164~~ 228 mitigation trees to be planted in an area of the project site. Per the County, Table 13, Summary of Potential Individual Species Replacement Quantities, details the quantity of each species required for planting.

Table 13a. Summary of Potential Individual Species Replacement Quantities – Northern Gen-Tie Route

Scientific Name	Common Name	Total Impacted	Replacement Ratio	Total Replacement Required
Juniperus californica	California juniper	~~29~~57	2:1	~~58~~114
Juniperus californica (Heritage Tree)	California juniper	~~5~~6	10:1	~~50~~60

Table 13a. Summary of Potential Individual Species Replacement Quantities – Northern Gen-Tie Route

Scientific Name	Common Name	Total Impacted	Replacement Ratio	Total Replacement Required
Fraxinus velutina	velvet ash	1	2:1	2[1]
	Total:	~~35~~64	N/A	~~110~~176

Note: N/A = not applicable. [1] The velvet ash that would be impacted by the Project is an ornamental tree associated with a residence and these species do not typically occur in the habitats in the Study Area, so California juniper would be used for the replacement of these species.

Table 13b. Summary of Potential Individual Species Replacement Quantities – Southern Gen-Tie Route

Scientific Name	Common Name	Total Impacted	Replacement Ratio	Total Replacement Required
Juniperus californica	California juniper	~~45~~72	2:1	~~90~~144
Juniperus californica (Heritage Tree)	California juniper	~~7~~8	10:1	8~~7~~0
Fraxinus velutina	velvet ash	1	2:1	2[1]
Juglans californica	Southern California black walnut	1	2:1	2[1]
	Total:	~~54~~82	N/A	~~164~~228

Note: N/A = not applicable. [1] The velvet ash and Southern California black walnut that would be impacted by the Project are ornamental trees associated with a residence and these species do not typically occur in the habitats in the Study Area, so California juniper would be used for the replacement of these species.

MM-BIO-5 requires the establishment of a conservation area. The currently contemplated conservation area has the potential to preserve up to ~~749~~ 996 California junipers, however this will be determined upon selection of the gen-tie line route and the design of the project prior to final site plans. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas within the conservation area, including areas mapped as California juniper woodland. Based on current design, up to ~~110~~ 228 or 164 replacement California juniper would be planted and monitored as part of the implementation of MM-BIO-6 if the Northern Gen-Tie Route or Southern Gen-Tie Route is selected, respectively. Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

7 Mitigation Measures

The following mitigation measures shall be implemented for the Project to make the Project compatible with SEA Resources.

MM-BIO-1 Pre-Construction Special-Status Plant Species Survey and Seed Collection.

Prior to the beginning of vegetation removal and grading, CEC-approved biologists shall conduct a focused rare plant survey for Douglas' fiddleneck and Raven's blazing-star during the appropriate blooming period (March through May). Reference site checks will be made for the species to determine if the species are blooming in the Project vicinity. The surveys will conform to CNPS' Botanical Survey Guidelines; CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities; and USFWS' Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants. The results of the surveys will be documented in a report and submitted to the City.

Should any of the species be found at a count of 20 or higher, then construction of the occupied location shall be delayed until the individuals have gone to seed. Seeds shall be collected once the seed has matured, but prior to the seed capsules opening to disperse the seed. Seeds shall be stored in breathable paper bags in a cool, dry, and dark place. The seeds will then be used in the habitat restoration for the Project (see MM-BIO-6).

MM-BIO-2 Demarcation of Disturbance Limits

Prior to commencement of ground-disturbing activities for each phase of Project construction, the construction limits shall be clearly demarcated (e.g., installation of flagging or temporary high visibility construction fence), as recommended by the California Energy Commission–approved Biological Monitor. All construction activities including equipment staging and maintenance shall be conducted within the marked disturbance limits to prevent inadvertent disturbance to sensitive vegetation communities outside the limits of work. The flagging shall be maintained throughout construction.

MM-BIO-3 Biological Monitoring

Prior to ground-disturbing activities, the applicant shall submit the qualifications of potential Biological Monitor(s) to the California Energy Commission (CEC) for review and approval. The CEC-approved Biological Monitors shall monitor construction activities and ensure compliance with all mitigation measures. The Biological Monitors shall be present on site during all vegetation removal and each day prior to the commencement of grading activities. The Biological Monitors shall be responsible for conducting a pre-construction clearance survey, and any special-status species shall be relocated to areas of the Study Area that will not be impacted by the Project (see MM-BIO-5). Pre-construction clearance surveys shall be conducted prior to construction of each new phase of the development. The Biological Monitors shall monitor to ensure that wildlife does not become entrapped in excavation or trenching areas. Safeguards shall be implemented during daytime periods of non-activity and overnight, such as placing a platform over trenches, flush with the ground surface; installing escape ramps in trenches; or installing exclusionary fencing. Should relocation of any trapped wildlife be required, construction shall be halted until a Biological Monitor arrives on site and clears the work area (in compliance with all applicable permits and authorizations).

The Biological Monitors shall regularly inspect the Project site as needed after the completion of all grading activities. Monthly spot-check monitoring is anticipated to be required throughout the construction of the Project for those areas that are graded but not yet developed/landscaped. During monthly visits, a Biological Monitor shall address the following: (1) the potential establishment of invasive species and require weed abatement (if necessary) in accordance with Mitigation Measure BIO-10; (2) address the potential establishment of native vegetation/habitat to reduce the potential for impacts between phases of construction; and (3) identify deficiencies, if applicable, with any erosion control measures that have the potential to negatively impact biological resources.

Daily monitoring reports shall be prepared by the Biological Monitors that document the results of any surveys conducted, wildlife relocated, construction activities performed, compliance issues observed, or corrective actions taken during the reporting period. The monitoring reports shall include photos as appropriate and be made available to the CEC at their request. Following the completion of the Project construction, a construction monitoring report will be prepared by the applicant to document compliance with the minimization measures and permit conditions for the Project.

MM-BIO-4 Worker Education Awareness Program (WEAP)

Prior to the initiation of the initial ground-disturbing activities, all personnel associated with those activities shall attend a worker education awareness program (program) prepared by a qualified biologist approved by the California Energy Commission (CEC). In general, the program shall discuss any potentially occurring sensitive biological resources or species and habitat preference(s), occupied habitat in the area, and life histories; potential construction impacts; protection measures; and Project limits. Legal protections and regulations pertinent to the biological resources that may be present shall also be included in the program. A species and habitat fact sheet shall be developed prior to the training program and distributed at the training program to all contractors, employers, and other personnel involved with the construction of the Project.

After the kickoff meeting, the Project applicant shall notify the CEC-approved qualified biologist in advance if additional contractors are employed during the initial vegetation removal or initial grading activities. A sign-in sheet will be circulated for signatures to all personnel that attend the workers' educational training to confirm that program materials were received and that they understand the information presented.

MM-BIO-5 On-Site Preservation

The applicant shall demonstrate recordation of a conservation easement, as defined by California Civil Code Section 815.1, that permanently preserves up to approximately ~~135~~ 147 acres of non-impacted vegetation communities and up to approximately ~~26~~28.17 acres of temporary impacted areas that will be restored within the Project boundaries for long-term conservation and management as a natural conservation area. Final acreages proposed for mitigation shall be determined once the generation interconnection line route is finalized. The Conservation Area will be up to approximately ~~161~~ 147 acres and located within portions of the Study Area within the Santa Clara River SEA when considering the Southern Gen-Tie Route option. Table 14, Unimpacted Vegetation Communities and Land Cover Types in the Santa Clara River Significant Ecological Area Portion of the Study Area That Could Be Conserved, summarizes the potential vegetation communities and land cover that could be preserved.

Table 14. Unimpacted Vegetation Communities and Land Cover Types in the Santa Clara River Significant Ecological Area Portion of the Study Area That Could Be Conserved

Alliance	Association	SEA Category[1]	Acres
Vegetation Communities			
Cheesebush – sweetbush scrub	*Ambrosia salsola – Larrea tridentata*	4	0.82
	Ambrosia salsola Association	4	2.60
Big sagebrush	*Artemisia tridentata – Ericameria nauseosa*	4	14.04
	Artemisia tridentata – Eriogonum fasciculatum	4	~~0.06~~
	Artemisia tridentata ssp. *parishii*	4	0.48
Fourwing saltbush scrub	*Atriplex canescens*	4	66.659
Mormon tea scrub	*Ephedra viridis*	4	1.99
Rubber rabbitbrush scrub	*Ericameria nauseosa – Juniperus californica* / herb	4	3.85
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum – Eriogonum fasciculatum*	3	5.5560
	Juniperus californica / herbaceous	3	69.90
		Vegetation Communities Subtotal:	~~166.03~~165.88
Land Cover Types			
Disturbed Habitat	N/A	N/A	6.39
Urban Developed	N/A	N/A	2.76
		Land Cover Types Subtotal:	*9.15*
		Total:	**175.0318**

Notes: SEA = Significant Ecological Area; N/A = not applicable.
[1] SEA Ordinance Implementation Guide (Los Angeles County Regional Planning 2020).

A cost estimate shall be prepared to estimate the initial start-up costs and ongoing annual costs of management activities for the management of the conservation easement area(s) in perpetuity. The funding source shall be in the form of an endowment to help the qualified natural lands management entity that is ultimately selected to hold the conservation easement(s). The endowment amount shall be established following the completion of a Project-specific Property Analysis Record (PAR) to calculate the costs of in-perpetuity land management. The PAR shall take into account all management activities required if an Incidental Take Permit for Crotch's bumble bee (*Bombus crotchii*) is needed for the Project.

The conservation easement holder shall be an entity that has as part of its mission the protection of the environment, including lands, plant species, and/or wildlife species, and can be expected by its organization and history to remain in existence for the foreseeable future. The California Department of Fish and Wildlife per Government Code Section 65967(c) shall review the entity. The entity that holds the endowment shall first meet the criteria outlined in Government Code Section 65968(b).

Conservation Management Plan. As part of recording the conservation easement, a Conservation Management Plan (CMP) applicable to the Conservation Area shall be prepared and submitted to the California Energy Commission for approval. The CMP shall identify the required resource management activities and the entities that shall be responsible for managing those activities in perpetuity. The CMP shall set forth requirements that shall be

implemented by the entity that holds the conservation easement and/or manages and stewards the Conservation Area, and may include the following: (1) there shall be no grading or other construction activities within the Conservation Area, except for the proposed habitat enhancement/restoration; (2) no fencing or other barriers to wildlife movement shall be installed; (3) commercial honeybee operations shall not be allowed to use the Conservation Area for storing their apiaries; (4) rodenticides shall be prohibited; (5) herbicides and pesticides shall be discouraged, and only those typically used for invasive plant management in California wildlands shall be allowed, per the California Invasive Plant Council and Pesticide Research Institute's 2015 Best Management Practices (BMPs) for Wildland Stewardship; (6) at least one (1) annual walk-through survey shall be conducted by a biologist to qualitatively monitor the general condition of on-site habitats and to check for any new introduction or expansion of invasive plant species; (7 trash shall be collected and removed, vandalized signs shall be repaired, and trespass impacts shall be rectified; and (8) annual reporting that document the conditions of the Conservation Area shall be provided. Approved work shall be outlined in the CMP and in the conservation easement, including monitoring and maintenance efforts or for other activities associated with preserve management, and prohibited activities shall be delineated.

MM-BIO-6 Habitat Mitigation and Monitoring Plan

Prior to ground-disturbing activities, a qualified biologist shall be retained to prepare a Habitat Mitigation and Monitoring Plan (HMMP) detailing the specific approach for each type of habitat restoration and establishment area in the Conservation Area and short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) transplant location, and shall outline detailed performance standards and monitoring requirements for each, following the monitoring and reporting methods and performance standards listed below. The HMMP shall be submitted to and approved by the California Energy Commission prior to the onset of Project-related ground-disturbing activities. The acreages allotted for on-site establishment apply to approximately ~~32~~ 34.62 acres within the Conservation Area, including 0.24~~19~~ acres of ephemeral streams for the Southern Gen-Tie Route, or 28.68 acres including 0.16 ephemeral streams if the Northern Gen-Tie Route is selected. Up to ~~110 or 164~~176 or 228 California juniper (*Juniperus californica*) (depending on actual Project impacts and whether the Northern or Southern Gen-Tie Route selected, respectively) shall be planted, and individuals of the plant species covered by the California Desert Native Plant Act shall be evaluated to be used in the installation of native plants. The HMMP shall set out measures for habitat restoration/enhancement implementation, including but not limited to the following:

- Identification of proposed plant materials
- Signage in the habitat restoration area
- Schedule for habitat restoration/enhancement work
- Use of pesticides and elimination of non-native vegetation
- Habitat monitoring and reporting
- Performance standards

MM-BIO-7 Crotch's Bumble Bee Avoidance and Minimization Measures

If Crotch's bumble bee (*Bombus crotchii*) is still a candidate for listing under the California Endangered Species Act (CESA) or has been listed under CESA at the time of the start of construction of the Project, a pre-construction survey for Crotch's bumble bee shall be conducted within the construction footprint prior to the start of initial ground-disturbing activities occurring during the Crotch's bumble bee nesting period (February 1 through October 31). If construction commences outside of that period (November 1 through January 31), surveys would not be

warranted since the daughter queens (gynes) disperse following a nest's life cycle and conducting surveys for dormant gynes would not be practical.

The pre-construction survey will be based on recommendations described in the Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species, released by the California Department of Fish and Wildlife (CDFW) on June 6, 2023, or the most current at the time of construction. The pre-construction survey will be performed by a biologist with expertise in surveying for bumble bees and include at least three (3) survey passes that are not on sequential days or in the same week. The biologist shall watch the nest resources for up to 5 minutes, looking for exiting or entering worker bumble bees. Worker bees should arrive and exit an active nest site with frequency, such that their presence will be apparent after 5 minutes of observation.

During the bumble bee active nesting season (April 1 through August 30), the Biological Monitors approved by the California Energy Commission (CEC) (Mitigation Measure [MM] BIO-2) shall continue to conduct daily sweeps of areas proposed for initial vegetation removal and ground disturbance.

If nest resources occupied by Crotch's bumble bee are detected within the construction area, no construction activities shall occur within 50 feet of the nest or as determined by a qualified biologist through evaluation of topographic features or distribution of floral resources. The nest resources shall be avoided for the duration of the Crotch's bumble bee nesting period (February 1 through October 31). The CEC-approved Biological Monitors (MM-BIO-2) shall ensure that the nest buffer is complied with during that period. Outside of the nesting season, it is assumed that no live individuals will be present within the nest as the gynes usually leave by September and all other individuals (original queen, workers, males) die. The gyne is highly mobile and can independently disperse to outside of the construction footprint to proposed open space or other suitable areas beyond that have suitable hibernacula resources. Because construction will have occurred in the area outside of the occupied nesting resources, no suitable habitat will be present in the impact area, and it is assumed that new queens will disperse to habitat outside of the construction area.

If the nest resources cannot be avoided, as outlined in this measure, the Project applicant shall consult with CEC and CDFW regarding the need to obtain an Incidental Take Permit. In the event an Incidental Take Permit is needed, mitigation for direct impacts to Crotch's bumble bee shall be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those impacted by the Project or as otherwise determined through the Incidental Take Permit process. The compensatory habitat mitigation would be accomplished by on site preservation of suitable habitat.

MM-BIO-8 Special-Status Wildlife Relocation Plan

Prior to commencement of any ground-disturbing activities or the pre-construction staging of equipment on the Project site, the Project applicant shall contract with a biologist approved by the California Energy Commission (CEC) to develop a Pre-Construction Wildlife Survey and Relocation Plan for terrestrial reptiles, including California legless lizard (*Anniella* spp.) and Blainville's horned lizard (*Phrynosoma blainvillii*). The Pre-Construction Wildlife Survey and Relocation Plan shall be submitted to the CEC for review prior to any ground-disturbing activities within potentially occupied habitat.

The plan shall include, at a minimum, the following:

- Protocols for pre-construction surveys to flush out and/or move identified special-status wildlife within the Project site, as feasible

- Relocation to the portions of the Study Area outside of the Project construction limits and within the Conservation Area
- The timing, frequency, and locations where surveys should be conducted
- That surveys shall be conducted 24 hours prior to construction activities and repeated the morning of the proposed activity
- That surveys shall be conducted in all areas anticipated to be subject to vegetation clearing
- The habitat and conditions in the proposed relocation site(s)
- The methods that shall be used for trapping and relocating identified species
- That all equipment used in the effort shall be cleaned and decontaminated to minimize the spread of herpetofaunal pathogens, as noted by Julian and colleagues in their 2020 article in the Herpetological Review, Minimizing the Spread of Herpetofaunal Pathogens in Aquatic Habitats by Decontaminating Construction Equipment
- That any wildlife handling and relocation methodology from the Streambed Alteration Agreement issued by the California Department of Fish and Wildlife (CDFW), if any, shall be incorporated in the Pre-Construction Wildlife Survey and Relocation Plan
- Protocols for documentation/recordation of the species and number of animals relocated
- That relocations shall be logged and made available to the CEC, if requested
- Protocols for notifying CDFW if identified species cannot be relocated
- That attempts at relocation shall be logged and notification shall occur within 24 hours
- The timing and frequency of reports documenting the results of the surveys

MM-BIO-9 Nesting Bird Avoidance

Project construction shall be conducted in compliance with the conditions set forth in the Migratory Bird Treaty Act and California Fish and Game Code consistent with methods approved by the California Department of Fish and Wildlife to protect active bird/raptor nests. Vegetation removal shall occur during the non-breeding season for nesting birds and nesting raptors to avoid impacts to nesting birds and raptors.

For the remaining Project activities initiated during the breeding season for nesting birds and nesting raptors, a pre-construction survey shall be conducted by the Biological Monitor (Mitigation Measure BIO-3) for nesting birds and/or raptors within 3 days prior to any work within 300 feet for suitable nesting habitat for non-raptors and within 500 feet for suitable nesting habitat for raptors. If the Biological Monitor does not find any active nests immediately adjacent to the impact areas, the Project activity shall be allowed to proceed.

If the Biological Monitor finds an active nest adjacent to the construction area and determines that the nest may be indirectly impacted or breeding activities substantially disrupted, the Biological Monitor shall delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the nature of the construction activity. Any nest found during survey efforts shall be mapped on the construction plans, which shall be included in the report(s) documenting the survey(s) that shall be submitted to the California Energy Commission upon completion of the survey. The active nest shall be protected until nesting activity has ended. To protect any nest site, the following restrictions to construction activities shall be required until nests are no longer active, as determined by the Biological Monitor: (1) work limits shall be established within a buffer around any occupied nest (the buffer shall be 100–300 feet for nesting non-raptors and 300–500 feet for nesting raptors), unless otherwise determined by the Biological Monitors; and (2) access and surveying shall be restricted within the buffer of any occupied nest, unless otherwise determined by the Biological Monitor. Encroachment into the buffer area around

a known nest shall only be allowed if the Biological Monitor determines that the proposed activity will not disturb the nest occupants. Construction can proceed when the Biological Monitor has determined that fledglings have left the nest or the nest has failed.

MM-BIO-10 Invasive Species Prevention Plan

To prevent the spread of invasive plant species during construction and until the establishment of common landscaped areas associated with the Project, the following measures shall be implemented:

- The Worker Education Awareness Program (see Mitigation Measure [MM] BIO-3) shall include invasive species prevention measures implemented by the Project.
- All mobile vehicles and construction equipment shall be washed prior to entering the Project site in an upland location where any seed material from invasive species shall be contained and not carried onto the Project site. Logs of the washing shall be submitted monthly to the California Energy Commission (CEC).
- Following the completion of grading activities, for those areas of the Project site that are graded but not yet developed/landscaped, the CEC-approved Biological Monitor shall conduct monthly spot checks to prevent the introduction or establishment of invasive plant species onto the graded areas (see MM BIO-2). If abundant invasive species are identified, the Biological Monitor shall inform the construction contractor about the infested area and recommend that the invasive species be removed. The recommendation shall be included in the daily report.
- All vegetative material removed from the Project footprint shall be transported in a covered vehicle and shall be disposed of at a certified disposal site.

MM-BIO-11 Jurisdictional Waters Compensation

Mitigation for up to approximately 0.99 acres of jurisdictional waters shall be implemented through off-site acquisition, such as mitigation bank credits, and/or turnkey projects with mitigation banks (as approved by the California Energy Commission) following the issuance of permits from the U.S. Army Corps of Engineers, and Los Angeles Regional Water Quality Control Board, as applicable, and those agencies' approval of the mitigation bank, and prior to the issuance of the grading permit. A turnkey mitigation project (establishment of the riparian habitat) will be used should credits not be available at the time of the jurisdictional waters permitting.

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8 Significant Ecological Areas Statement of Findings

A Be highly compatible with the SEA Resources, including the preservation of natural open space areas and providing for the long-term maintenance of ecosystem functions

The Santa Clara River SEA covers approximately 45,496 acres, and its overall boundaries extend upstream along several major tributary creeks and where contiguous drainage areas connect to the river basin through open habitat. On a regional basis, the Santa Clara River SEA contains biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution. These include native grassland, coast live oak riparian forest, southern willow scrub, bigcone spruce-canyon oak forest, southern sycamore-alder woodland, southern cottonwood-willow riparian woodland and forest, freshwater marsh, alluvial fan sage scrub, and vernal pool (PCR 2000).

The portions of the Project within the Santa Clara River SEA consist of an approximately 1.2~~1~~-mile-long or 1.9~~8~~-mile-long new gen-tie line, depending on the alignment chosen. There will be a maximum of ~~approximately~~ 12~~1~~ monopole or steel lattice tower structures. The proposed transmission structures were sited to avoid potential impacts to environmental resources. Where possible, the transmission structure access path will utilize existing access roads to minimize new ground disturbance. Fiber optic or other cabling required for the monitoring system typically will be installed in buried conduit within the access road or planned trenching.

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines that create a small footprint within the Santa Clara River SEA following the completion of construction activities. MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately ~~162~~ 147 acres of native vegetation communities within the Study Area parcels associated with the gen-tie routes, which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use.

B Avoid or minimize impacts to the SEA Resources and wildlife movement through one or more of the following:

1 Avoiding habitat fragmentation

The monopole or steel lattice tower structures, access roads, and buried lines create a small footprint within the Santa Clara River SEA following the completion of construction activities, and with the restoration of the temporary impacted areas, the Project is not expected to fragment the habitats with the Study Area. Wildlife is expected to be able to pass through the Project post-construction because the transmission lines are not a barrier to movement.

2 Minimizing edge effects

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines that create a small footprint (approximately ~~4.12 acres~~2.18 acres under the Northern Gen-Tie Route and 3.51 acres under the Southern Gen-Tie Route) within the Santa Clara River SEA following the completion of construction activities. The

up to approximately ~~32.25~~34.62 acres of temporary impacts produced by the Project will be restored per MM-BIO-6, and MM-BIO-5 will conserve up to approximately ~~162~~ 147 acres of natural habitat. During the operation of the Project, maintenance work on the gen-tie and associated infrastructure is expected to be infrequent, so indirect impacts to wildlife are expected to be low.

3 Siting development in the least sensitive location

The Project has been sited to avoid impacts to special-status plants and only have temporary impacts to Water Resources, which will be restored per MM-BIO-6.

C Buffer important habitat areas from development by retaining sufficient natural vegetation cover and/or natural open spaces and integrating sensitive design features

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines that create a small footprint (approximately ~~4.12~~2.18 acres under the Northern Gen-Tie Route, and 3.51 acres under the Southern Gen-Tie Route) within the Santa Clara River SEA following the completion of construction activities. The up to approximately ~~32.25~~34.62 acres of temporary impacts produced by the Project will be restored per MM-BIO-6, and MM-BIO-5 will conserve up to approximately ~~162~~ 147 acres of natural habitat.

D Maintain the ecological and hydrological functions of water bodies, watercourses, and their tributaries

The gen-tie portion of the Project will impact up to approximately 0.~~34~~ 26 acres of ephemeral Water Resources within the Santa Clara River SEA. The up to approximately 0.33 acres of temporary impacts produced by the Project will be restored per MM-BIO-6, and MM-BIO-5 will conserve up to approximately ~~2.28~~2.08 acres of Water Resources.

E Ensure that roads, access roads, driveways, and utilities do not conflict with Priority Biological Resources, habitat areas or migratory paths

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines that create a small footprint (approximately ~~4.12~~2.18 acres under the Northern Gen-Tie Route or 3.51 acres under the Southern Gen-Tie Route) within the Santa Clara River SEA following the completion of construction activities. The Project has potential impacts to Priority Biological Resources (SEA Resource Categories 1 through 3) in the form of special-status plants and wildlife, Water Resources, and vegetation communities; however, all such impacts are mitigated in accordance with the SEA Ordinance and CEQA Guidelines.

The Project transmission facilities will be designed consistent with the Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (APLIC 2006) where feasible. Transmission facilities will also be evaluated for potential collision reduction devices in accordance with Reducing Avian Collisions with Power Lines: The State of the Art in 2012 (APLIC 2012). Based upon the low volume of human activity and the proposed avian-protecting Project design features, potential impacts to wildlife habitat and movement during Project operation are expected to be less than significant.

F Promote the resiliency of the SEA to the greatest extent possible. For purposes of this finding, SEA resiliency cannot be preserved when the proposed development may cause any of the following:

1 Significant unmitigated loss of contiguity or connectivity of the SEA

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines. These facilities create a small footprint (approximately ~~4.12~~2.18 acres under the Northern Gen-Tie Route or 3.51 acres under the Southern Gen-Tie Route) within the Santa Clara River SEA following the completion of construction activities. The up to approximately ~~32.25~~34.62 acres of temporary impacts produced by the Project will be restored per MM-BIO-6, and MM-BIO-5 will conserve up to approximately ~~162~~147 acres of native vegetation communities within the SEA. These types of features do not create barriers for connectivity or contiguity within the SEA.

2 Significant unmitigated impact to a Priority Biological Resource

The Project has potential impacts to Priority Biological Resources (SEA Resource Categories 1 through 3) in the form of special-status plants and wildlife, Water Resources, and vegetation communities; however, all such potential impacts are mitigated in accordance with the SEA Ordinance and CEQA Guidelines. Ten preservation, avoidance, and minimization measures have been provided as a part of the Project (MM-BIO-1 through MM-BIO-10), including conserving in perpetuity up to approximately ~~162~~ 147 acres of on-site natural open space; requiring pre-construction surveys, planning, and biological monitoring during construction; measures protecting against invasive species establishment and spread; preparation of conservation management plans; nesting bird avoidance; and strategically locating development as close as possible to existing urban uses/infrastructure. These measures serve to preserve and limit potential impacts to Priority Biological Resources. As such, potential impacts to Priority Biological Resources will be reduced to less than significant.

3 Removal of habitat that is the only known location of a new or rediscovered species

No new or rediscovered species are present on the Project site. As such, the Project complies with this finding.

4 Other factors as identified by SEATAC

This finding is not applicable due to the California Energy Commission Opt-In process.

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Appendix A
Protected Tree Report

Appendix B
Biological Constraints Map

Appendix C

Potential to Occur Tables and Compendia

Appendix D
Conceptual Project Design

Attachment 3B

Appendix 3.2G, Biota Report (Clean)

Biota Report
Prairie Song Reliability Project

SEPTEMBER 2026

Prepared for:

PRAIRIE SONG RELIABILITY PROJECT LLC

Prepared by:

DUDEK

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Acronyms and Abbreviations

Acronym	Definition
BESS	battery energy storage system
CDFW	California Department of Fish and Wildlife
CDNPA	California Desert Native Plants Act
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	County of Los Angeles
CRPR	California Rare Plant Rank
CUP	Conditional Use Permit
FESA	federal Endangered Species Act
gen-tie	generation interconnection
MM	Mitigation Measure
OHWM	ordinary high-water mark
Project	Prairie Song Reliability Project
RWQCB	Regional Water Quality Control Board
SCE	Southern California Edison
SEA	Significant Ecological Area
SR	State Route
SSC	California Species of Special Concern
TPZ	tree protection zone
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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1 Introduction

This report presents the findings of a biological resources assessment conducted for the proposed Prairie Song Reliability Project (Project). The purpose of this assessment was to evaluate the existing biological conditions and provide an analysis of the Project's potential impacts on the County of Los Angeles (County) Significant Ecological Area (SEA) resources as identified within the Los Angeles County SEA Ordinance Implementation Guide (Los Angeles County Regional Planning 2020). The generation interconnection (gen-tie) line route alignments for the Project are located in the Santa Clara River SEA, but the existing conditions are given for the Project as a whole.

1.1 Project Location

The Project is in unincorporated Los Angeles County, California, south of State Route (SR) 14. The Project is within the U.S. Geological Survey (USGS) 7.5-minute Acton and Pacifico Mountain quadrangles, Township 5N, Range 12W, Sections 27, 28, 33, and 34 (Figure 1, Project Location). The battery energy storage system (BESS) site consists of Assessor's Parcel Numbers 3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, and 3056-019-040. Development of the BESS facility will occur on an area of land situated between two existing transportation corridors, the Antelope Valley Freeway (SR-14) to the north and Southern Pacific Railroad lines and Carson Mesa Road to the south, which are approximately 1,200 feet apart.

The Project will utilize one (1) of two (2) potential gen-tie routes. Either route will extend south and east from the Project substation, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, and then proceed northeast to the Point of Interconnection at the Vincent Substation. The Northern Gen-Tie Route is approximately 1.2 miles long and will be sited on portions of Assessor's Parcel Numbers 3056-015-008, 3056-015-023, 3056-017-026, 3056-017-905, 3056-017-906, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The Southern Gen-Tie Route is approximately 1.9 miles long and will be sited on portions of Assessor's Parcel Numbers 3056-015-008, 3056-015-023, 3056-017-016, 3056-017-022, 3056-017-026, 3056-017-027, 3056-017-028, 3056-027-007, 3056-027-031, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802 (see Table 1 below). The full acreage of the parcels is provided in Table 1. The Project will also include three (3) fiber optic telecommunications lines: one (1) will be installed aboveground on the gen-tie structures (along whichever gen-tie route is ultimately selected), and the other two (2) will be installed underground within the Southern Gen-Tie Route corridor. The two (2) other fiber optic lines will be installed underground within the Southern Gen-Tie Route corridor regardless of which gen-tie route corridor option is selected. The Project's interconnection facilities will be located within the Southern California Edison (SCE) Vincent Substation. Land uses in the immediate vicinity of the Project include undeveloped and rural lands, multiple high-voltage transmission lines and an electrical substation, paved and rural roads, SR-14, and railroad lines.

Table 1. Project Parcels

Assessor's Parcel Number	Acreage
3056-005-816	1.28
3056-005-817	6.41
3056-005-818	15.18
3056-015-008	40.18
3056-015-023	39.89

Table 1. Project Parcels

Assessor's Parcel Number	Acreage
3056-015-801	23.43
3056-015-802	5.02
3056-017-016	5.14
3056-017-022	10.01
3056-017-026	10.16
3056-017-027	10.17
3056-017-028	10.25
3056-017-905	10.15
3056-017-906	10.12
3056-027-007	40.41
3056-027-031	4.98

The nearest municipality to the Project site is the City of Palmdale, which is located approximately 4 miles to the northeast. There are a few single-family residences adjacent to the BESS facility site's northern and western boundaries, as well as a few other single-family residences in the vicinity of the gen-tie line.

1.2 Project Description

Prairie Song Reliability Project LLC, a Delaware limited liability company (applicant), a subsidiary of Coval Infrastructure DevCo LLC, a Delaware limited liability company, proposes to construct, operate, and eventually repower or decommission the up to 1,150-megawatt Project located on up to approximately 107 acres in unincorporated Los Angeles County. The primary components of the Project include a containerized BESS facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance buildings, an on-site Project substation, a 500-kilovolt overhead gen-tie transmission line, and interconnection facilities within the existing SCE-owned and operated Vincent Substation.

Electrical energy will be transferred from the existing power grid to the Project for storage and from the Project to the power grid when additional electricity is needed. The Project will provide additional capacity to the electrical grid to assist with serving load during periods of peak demand by charging when demand is low and discharging when demand is high. This operating principle increases the integration of additional intermittent renewable energy, such as wind and solar, in California's energy mix and reduces the need to operate natural gas power plants. The Project will also serve as an additional local/regional capacity resource that will enhance grid reliability, particularly to the Los Angeles Basin local reliability area and may allow for the deferral or avoidance of regional transmission facilities.

The Project will be remotely operated and monitored year-round and supported by on-site operations and maintenance staff 7 days a week. The Project will be available to receive or deliver energy 24 hours a day and 365 days a year. During the operational life of the Project, qualified technicians will inspect the Project facilities and conduct necessary maintenance to ensure reliable and safe operational readiness.

Please refer to Appendix D for a Conceptual Project Design map.

1.2.1 Transmission and Interconnection

The Project will be interconnected to the regional electrical transmission grid via an approximately 1.2-mile-long or 1.9-mile-long new single-circuit 500kV gen-tie line within an up-to 150-foot-wide corridor between the Project substation and the SCE Vincent Substation. Construction of the gen-tie line is expected to start in December 2027 and conclude in July 2028.

- Site preparation, BMP installation, and civil work is expected to take approximately 2 months.
- Foundation setting and tower erection is expected to take approximately 4 months
- Transmission line stringing, pulling, and tensioning is expected to take approximately 1 month.

Additional specifics regarding gen-tie line construction are provided below:

The Applicant will construct and own the portion of the gen-tie line between the Project substation and the Point of Change of Ownership (POCO) transmission structure and SCE will construct and own the remaining portion of the gen-tie from the POCO to the POI within the Vincent Substation. The Project's transmission and interconnection facilities will include the following components:

- 500kV Gen-Tie Line including Transmission Structures and Conductors
- Fiber Optic Telecommunications Utility Poles and Fiber Optic Lines
- Access Paths
- Temporary Work Areas
- Interconnection Facilities within Existing SCE Vincent Substation Footprint (SCE constructed and owned)

The proposed route was selected to minimize the number of existing utility crossings, cross existing utilities at the optimum locations, minimize the total gen-tie line length and number of transmission structures required, minimize the number of turning structures required, and enter the Vincent Substation as close as possible to the POI. The proposed transmission structures were sited to avoid potential impacts to environmental resources. Table 2 summarizes the preliminary new ground disturbance area associated with construction of the transmission and interconnection facilities (Southern Gen-Tie scenario).

Table 2. Approximate New Ground Disturbance Area Associated with Transmission and Interconnection Facilities

Component	Permanent Disturbance	Temporary Disturbance
Applicant Portion		
Transmission Structure Pads	2.48 acres	—
Transmission Structure Access Path	1.14 acres	—
Laydown Area	—	4.23 acres
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	19.4 acres
Applicant Total[1]	**3.62 acres**	**~23.63 acres**
SCE Portion		
Transmission Structure Pad and Access Roads	0.62 acres	—

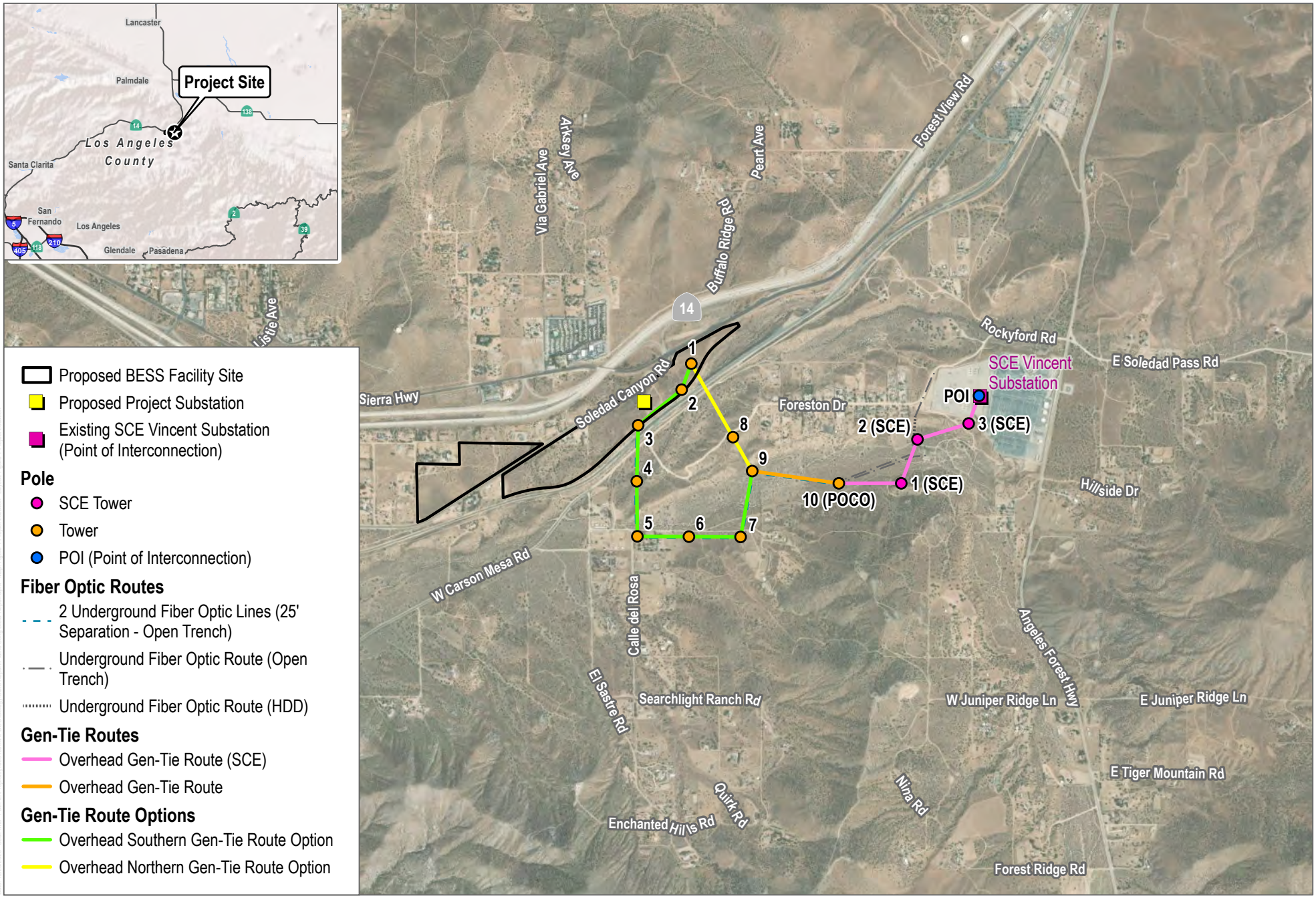
Table 2. Approximate New Ground Disturbance Area Associated with Transmission and Interconnection Facilities

Component	Permanent Disturbance	Temporary Disturbance
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	13.82 acres
Laydown Area	—	2.40
SCE Total	**0.62 acres**	**16.22 acres**

Note: gen-tie = generation interconnection; SCE = Southern California Edison.

[1] Represents the impacts associated only with the Southern Gen-Tie Route, which defines the maximum impact footprint.

If determined to be required by the director or agency with primary responsibility for fire protection, Public Resources Code Sections 4292 and 4293 require 10 feet of vegetation clearance in all directions for any transmission line operating above 110 kilovolts (kV). The project's proposed 500 kV gen-tie line is designed to be higher than 35 feet above the ground surface during heavy sag conditions. The majority of the gen-tie line is greater than 45 feet above ground during heavy sag conditions, meaning that vegetation would need to be at least 35 feet tall to require maintenance for fuel modification. The vegetation communities in this area do not typically grow to be 35 feet tall so it is unlikely any fuel modification will be required. However, there are two areas where the proposed gen-tie line is near 35 feet above the ground. In these two areas, fuel modification may be necessary, on a spot basis, to limit the height of vegetation to comply with Public Resources Code Sections 4292 and 4293. These two areas are shown on Conceptual Project Design – Graded Areas. Vegetation Maintenance area 1 (VM1) is a 40-foot by 40 foot area at the top of a ridge. There is a road on the top of the ridge making it unlikely that any vegetation maintenance will be necessary near where the gen-tie line approached 35 above the surface. Vegetation Management area 2 (VM2) is a 360-foot by 40-foot long area between gen-tie pole 9 and gen-tie pole 10 (POCO) where the proposed gen-tie line is less than 40 feet above the ground surface. There is the potential for vegetation management along VM2 for any vegetation that approaches 30 feet in height.



SOURCE: World Imagery

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Prairie Song Reliability Project

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2 Environmental Setting

2.1 On-Site Conditions

The Project site refers to the area that may be physically affected by construction activities associated with the Project, including the location of permanent structures (including both gen-tie options), as well as staging and other temporary disturbance areas described. For the purposes of the biological surveys, the Study Area encompasses the parcels that make up the Project site and additional parcels that have been acquired by the Project applicant. The Study Area for focused species surveys was expanded per protocol and where necessary to capture nearby resources.

APNs 3056-017-905, 3056-017-904, 3056-017-906, and 3056-017-907 are managed by the Mountains Recreation and Conservation Authority and are deed restricted for open space use (see Figure 9: Regional Setting). The Northern Gen-tie option would obtain an aerial easement and span these parcels, but would not generate any impacts on the ground, except for the use of an existing roadway. There are no protected lands adjacent to the Project site.

2.2 Soils

According to the U.S. Department of Agriculture (2025a) Web Soil Survey, there are seven (7) soil map units that occur within the Study Area, as shown in Figure 2, Soils: Greenfield sandy loam, 2% to 9% slopes (GsC); Hanford coarse sandy loam, 0% to 2% slopes (HbA); Hanford coarse sandy loam, 2% to 9% slopes (HbC); Hanford coarse sandy loam, 9% to 15% slopes (HbD); Hanford sandy loam, 2% to 9% slopes (HcC); Terrace escarpments (TsF); and Vista coarse sandy loam, 30% to 50% slopes (VsF). Of the seven (7) soil map units, only one (1) is ranked as partially hydric: Hanford coarse sandy loam, 0% to 2% slopes.

The Greenfield soil series consists of deep, well-drained soils formed in moderately coarse to coarse-textured alluvium derived from granitic and mixed rock sources. These soils are typically found on alluvial fans and terraces with slopes ranging from 0% to 30%. In Southern California, Greenfield soils experience a dry, subhumid climate with hot, dry summers and cool, moist winters, receiving approximately 9 to 20 inches of annual precipitation. The soils exhibit moderately rapid permeability and low organic matter content, supporting vegetation such as annual grasses, forbs, scattered shrubs, and occasional oak trees in uncultivated areas (USDA 2025a)

The Hanford soil series, common in alluvial valleys of Southern California, consists of well-drained, moderately permeable soils formed in coarse-loamy alluvium derived primarily from granitic sources. These soils typically occur on stream terraces and alluvial fans with slopes ranging from 0% to 15%. Hanford soils exhibit low organic content and are generally dry from late spring through fall, with seasonal moisture during winter months. Their physical characteristics support a range of land uses, including agriculture and urban development, and they typically host annual grasses and herbaceous vegetation in undeveloped areas (USDA 2025a).

The Vista soil series consists of moderately deep, well-drained soils formed in material weathered from decomposed granitic rocks. These soils typically occur on hills and mountainous uplands with slopes ranging from 2% to 85%. Vista soils exhibit coarse sandy loam textures, moderately rapid permeability, and low organic matter content. They are found in areas with a subhumid mesothermal climate, receiving approximately 10 to 22 inches of annual

precipitation. Native vegetation includes annual grasses, forbs, and drought-tolerant shrubs such as California sagebrush (*Artemisia californica*), chamise (*Adenostoma fasciculatum*), and scrub oak (*Quercus* spp.) (USDA 2025a).

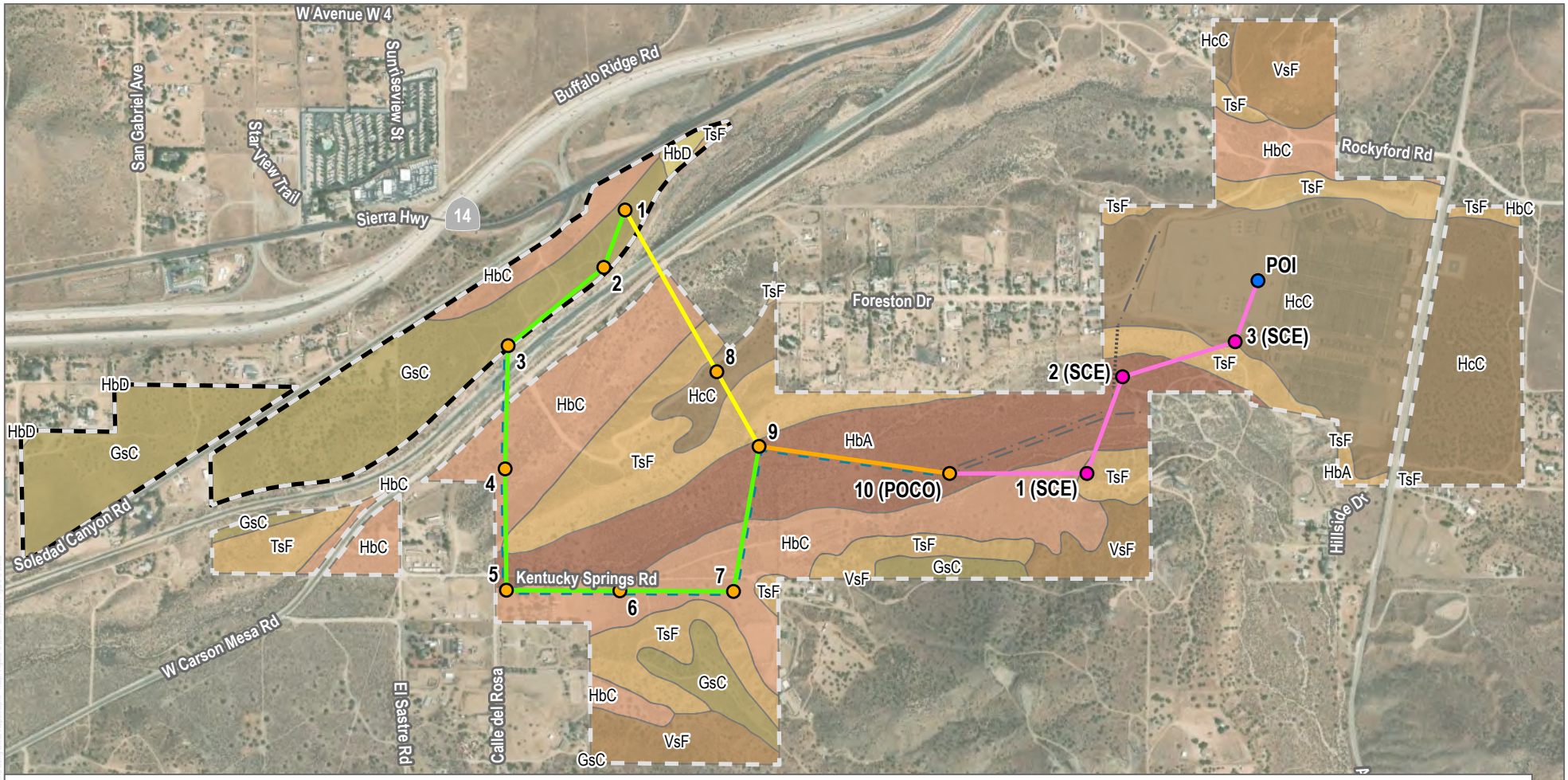
2.3 Regional Conditions

The Study Area is in the western San Gabriel Mountains, in the Transverse Ranges Geomorphic Province (CGS 2002). The Transverse Ranges are an east/west-trending series of steep mountains and valleys (CGS 2002). The Study Area is located at the conjunction of Soledad Canyon and Kentucky Springs Canyon (USGS 2022) and at the boundary of the Western Transverse Ranges ecological subregion and the Mojave Desert ecological region (Jepson Flora Project 2025). Elevations in the Study Area range from approximately 2,700 feet above mean sea level along the southwestern side to 3,500 feet above mean sea level along the northern hillsides (Google Earth 2025).

The Study Area has an arid climate with the site being located on the northern side of the San Gabriel Mountains and bordering the Antelope Valley. August is the average warmest month, with an average high of 93˚F, and December is the coolest month on average, with a low of 36˚F. Rainfall occurs primarily between November and April, with the maximum average precipitation occurring in February. The mean annual rainfall for the area is approximately 9 inches of rain per year (LACPW 2025).

2.3.1 Hydrologic Features

The Study Area is in the Santa Clara subbasin (HUC 18070102), Headwaters Santa Clara River watershed (HUC 1807010201), and primarily Kentucky Springs Canyon–Santa Clara River subwatershed, with the westernmost area of the Project overlapping into the Arrastre Canyon–Santa Clara River subwatershed. The Santa Clara River is the primary natural surface water feature in the vicinity of the Study Area. The Santa Clara River is the largest natural river remaining in Southern California and travels through two (2) counties, Los Angeles and Ventura (Kennedy/Jenks Consultants 2014). The northern portion in Los Angeles County is largely classified as an intermittent stream/river and only contains flowing water during certain times of the year (USGS 2023Kennedy/Jenks Consultants 2014). The intermittent stream channel traverses the southern end of the Study Area within parcels 3056-019-040, 3056-017-907, 3056-017-028, 3056-017-027, 3056-015-008, and 3056-015-023, as shown in Figure 3, Hydrologic Setting. Several other smaller, unnamed ephemeral washes from Soledad Canyon and Kentucky Springs Canyon drain across the northern and southern portions of the Study Area, respectively. The National Wetlands Inventory and National Hydrography Dataset were reviewed to identify wetland or hydrologic features in the Study Area (USFWS 2025a; USGS 2023). Figure 3 depicts the mapped wetland and hydrologic features in the Study Area.



Study Area

Proposed BESS Facility Site

Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

Soil Type

- Greenfield sandy loam, 2 to 9 percent slopes (GsC)
- Hanford coarse sandy loam, 0 to 2 percent slopes (HbA)
- Hanford coarse sandy loam, 2 to 9 percent slopes (HbC)
- Hanford coarse sandy loam, 9 to 15 percent slopes (HbD)
- Hanford sandy loam, 2 to 9 percent slopes (HcC)
- Terrace escarpments (TsF)
- Vista coarse sandy loam, 30 to 50 percent slopes (VsF)

SOURCE: World Imagery; USDA

DUDEK

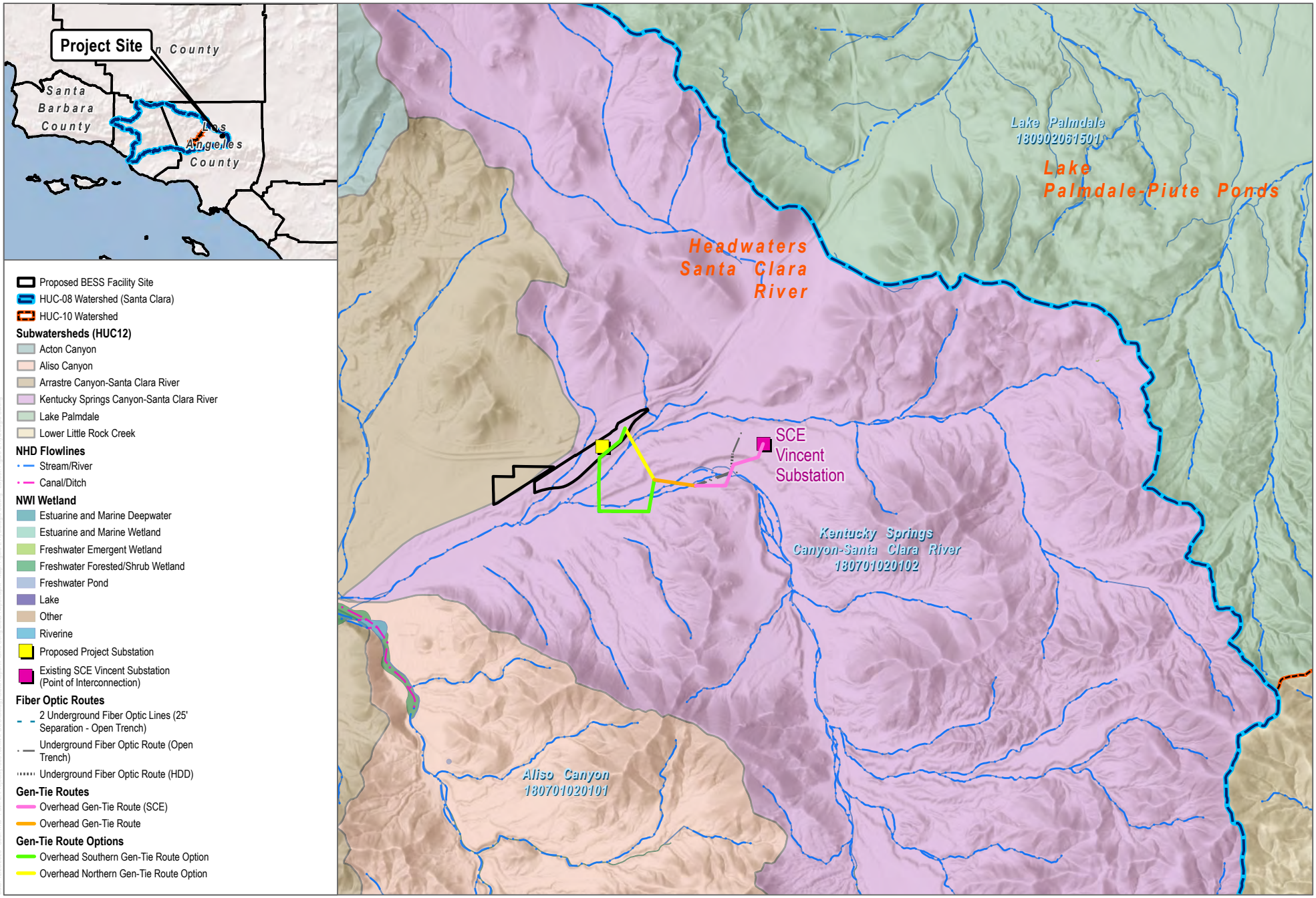
0 500 1,000 Feet

FIGURE 2

Soils

Prairie Song Reliability Project

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SOURCE: World HIllshade; SWRQCB

DUDEK

0 2,300 4,600 Feet

FIGURE 3

Hydrologic Setting

Prairie Song Reliability Project

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3 Regulatory Context

3.1 Federal Regulations

Federal Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS) for most plant and wildlife species and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain marine species. FESA is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and to provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. FESA defines an endangered species as "any species which is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under FESA, it is unlawful to take any listed species; "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

FESA allows for the issuance of Incidental Take Permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement. Upon development of a habitat conservation plan, USFWS can issue Incidental Take Permits for listed species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (16 USC 703 et seq.), as amended, prohibits the intentional take of any migratory bird or any part, nest, or eggs of any such bird. Under the Migratory Bird Treaty Act, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so. Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a Memorandum of Understanding. USFWS reviews actions that might affect these species.

Clean Water Act

The Clean Water Act provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a project operator for a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the Clean Water Act. The Regional Water Quality Control Boards (RWQCBs) administer the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. USACE implementing regulations are found at 33 Code of Federal Regulations (CFR) 320 and 330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the U.S. Environmental Protection Agency in conjunction with USACE

(40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Wetlands and Other Waters of the United States

Aquatic resources, including riparian areas, wetlands, and certain aquatic vegetation communities, are considered sensitive biological resources and can fall under the jurisdiction of several regulatory agencies. USACE exerts jurisdiction over waters of the United States, including all waters that are subject to the ebb and flow of the tide; wetlands and other waters, such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools, wet meadows, playa lakes, or natural ponds; and tributaries of the above features.

The extent of waters of the United States is generally defined as that portion that falls within the limits of an ordinary high-water mark (OHWM). Typically, the OHWM corresponds to the water surface elevation of a 2-year flood event (USACE 2008b). In addition, waters of the United States may include wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, defined by USACE as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3[c]). Indicators of three (3) wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by USACE.

3.2 State Regulations

California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA), which prohibits the take of plant and wildlife species designated by the Fish and Game Commission as endangered or threatened in California. Under CESA Section 86, "take" is defined as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA declares the policy of the state that public agencies should not approve projects that would "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CESA defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." CESA defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any wildlife determined by the commission as rare on or before January 1, 1985, is a 'threatened species.'" A candidate species is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." CESA does not list invertebrate species.

Porter–Cologne Water Quality Control Act

The intent of the Porter–Cologne Water Quality Control Act is to protect water quality and the beneficial uses of water, and it applies to both surface water and groundwater. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the nine (9) RWQCBs develop basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under the Porter–Cologne Water Quality Control Act include isolated waters that are no longer regulated by USACE. Developments with impact to jurisdictional waters must demonstrate compliance with the goals of the act by developing stormwater pollution prevention plans, standard urban stormwater mitigation plans, and other measures to obtain an order of Waste Discharge Requirement (or, in cases where a Clean Water Act Section 401 certification is required, a waiver of Waste Discharge Requirement).

California Fish and Game Code

Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code outline protection for fully protected species of birds, mammals, reptiles and amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time, except under certain circumstances, such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. Furthermore, it is the responsibility of CDFW to maintain viable populations of all native species. Toward that end, CDFW has designated certain vertebrate species as Species of Special Concern (SSC) because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

Section 1602

Under Section 1602 of the California Fish and Game Code, a project operator is required to notify CDFW prior to any project that would substantially divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the code, a "stream" is defined as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life" (14 CCR 1.72). Based on this definition, a watercourse with "a surface or subsurface flows that supports or has supported riparian vegetation" is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water during storm events.

Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW may require implementation of reasonable measures necessary to protect the resource. These modifications are formalized in a Streambed Alteration Agreement, which becomes part of the plans, specifications, and bid documents for the project.

Nesting Birds

Section 3503 of the California Fish and Game Code states that "it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3511 states that fully protected birds or parts thereof "may not be taken or possessed at any time," unless otherwise provide for by law or authorized by CDFW.

Section 3513 states that "it is unlawful to take or possess any migratory nongame bird as designated in the federal Migratory Bird Treaty Act."

California Native Plant Protection Act

The Native Plant Protection Act of 1977 (see Section 1900 et seq. of the California Fish and Game Code) directed CDFW to carry out the legislature's intent to "preserve, protect and enhance rare and endangered plants in this state." The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take. CESA expanded on the original Native Plant Protection Act and enhanced legal protection for plants, but the Native Plant Protection Act remains part of the California Fish and Game Code. To align with federal regulations, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" wildlife into the act as threatened species but did not do so for rare plants. Thus, there are three (3) listing categories for plants in California: rare, threatened, and endangered. Because rare plants are not included in CESA, mitigation measures for impacts to rare plants are typically specified in a formal agreement between CDFW and the project proponent.

California Desert Native Plant Act

The purpose of the California Desert Native Plants Act (CDNPA) is to protect certain species of California desert native plants from unlawful harvesting on both public and privately owned lands. The CDNPA only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties. Within these counties, the CDNPA prohibits the harvest, transport, sale, or possession of specific native desert plants unless a person has a valid permit or wood receipt, and the required tags and seals. The appropriate permits, tags, and seals must be obtained from the county sheriff or commissioner of the county where collecting will occur, and the county will charge a fee.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) requires identification of a project's potentially significant impacts on biological resources and ways that such impacts can be avoided, minimized, or mitigated. CEQA also provides guidelines and thresholds for use by lead agencies for evaluating the significance of potential impacts.

Special-Status Plants and Wildlife

CEQA Guidelines Section 15380(b)(1) defines endangered wildlife or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors." A rare wildlife or plant is defined in CEQA Guidelines Section 15380(b)(2) as a species that, although not currently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the Federal Endangered Species Act." Additionally, a wildlife or plant species may be presumed to be endangered, rare, or threatened if it meets the criteria for listing as defined further in CEQA Guidelines Section 15380(c) or otherwise meets the criteria of Section 15380(b).

Special-Status Vegetation Communities

Section IV, Appendix G (Environmental Checklist Form) of the CEQA Guidelines (14 CCR 15000 et seq.) requires an evaluation of impacts to "any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service."

3.3 Local Regulations

Los Angeles County 2035 General Plan

The General Plan includes guiding principles that inform the County's goals, policies, and implementation actions. The following goals and policies are relevant to the Project and applicable to biological resources (County of Los Angeles 2015):

Goal C/NR 1: Open space areas that meet the diverse needs of Los Angeles County.

> Policy C/NR 1.3: Support the acquisition of new available open space areas. Augment this strategy by leveraging County resources in concert with the compatible open space stewardship actions of other agencies, as feasible and appropriate.

Goal C/NR 2: Effective collaboration in open space resource preservation.

> Policy C/NR 2.2: Encourage the development of multi-benefit dedicated open spaces.
>
> Policy C/NR 3.8: Discourage development in areas with identified significant biological resources, such as SEAs.

County of Los Angeles Significant Ecological Areas

SEAs are officially designated areas "where the County deems it important to facilitate a balance between development and biological resource conservation" (see Figure 5). The SEA program objective is to conserve genetic and physical diversity within the County by designating biological resource areas that can sustain themselves into the future, and balancing that objective against other critical public needs. The SEA program also protects native trees and provides a list of the protected species and the size of the diameter of the trunk that triggers protection. The SEA Ordinance establishes the permitting, design standards, and review process for development within SEAs, balancing preservation of the County's natural biodiversity with private property rights.

The SEA Ordinance identifies 60 tree species to be protected in addition to already protected oak trees (Los Angeles County Regional Planning 2020). The SEA Protected Tree List specifies the species of tree protected in each individual SEA and the size of the tree when regulations are applied. Per County Code 22.102.070 (Protected Tree Permit), development that complies with Section 22.102.090 (SEA Development Standards) shall require a Protected Tree Permit from the County except for Subsection 22.102.090.B (SEA Protected Trees) of the County Code, and which includes any of the following impacts:

1. Pruning or trimming of branches of SEA Protected Trees in excess of two inches in diameter or 25 percent of live foliage for one or more trees;

> 2. Encroachments of up to 30 percent into an SEA Protected Tree's protected zone. Any encroachment of more than 30 percent into the protected zone of a tree shall be considered as a tree removal…;
>
> 3. Removal of up to two SEA Protected Trees that are not designated as Heritage Trees [(single trunk that measures 36 inches or more in diameter or two trunks that collectively measure 54 inches or more in diameter)]; or
>
> 4. Tree relocation poses significant risk to the health or survival rate of a tree. Any relocation of an SEA Protected Tree shall, therefore, be processed as a removal.

A discretionary SEA Conditional Use Permit (CUP) application is required for development that cannot demonstrate compliance with Section 22.102.070 (Protected Tree Permit) or Sections 22.102.090 (SEA Development Standards) and 22.102.100 (Natural Open Space Preservation) of the County Code. Los Angeles County Regional Planning has issued the SEA Ordinance Implementation Guide (Los Angeles County Regional Planning 2020) to help proposed development comply with the ordinance.

The gen-tie line route alignments for the Project are located in the Santa Clara River SEA. Depending on the final route and pole locations, the proposed Project may require an SEA CUP, but for the California Energy Commission's Opt-In Application for Certification process, because it may have impacts to SEA Resource Categories (as defined below) that are greater than those allowed by SEA Development Standards and may require removal of more than two SEA Protected Trees that also include heritage trees.

Significant Ecological Area Resource Categories

The SEA Ordinance includes SEA Resource Categories 1 through 5. These categories are defined as follows (Los Angeles County Regional Planning 2020):

- Category 1: FESA and CESA listed plant and wildlife species; CESA candidate species, California Rare Plant Ranks (CRPR) 1A or B, 2A or B, and 3 (CNPS 2025a), critically imperiled natural communities (those that have a Global [G] and/or State [S] ranking of 1) (NatureServe 2023), and water resources
- Category 2: CDFW SSC and their occupied habitat and imperiled natural communities (those that are G2/S2) (NatureServe 2023)
- Category 3: Vulnerable natural communities that are G3/S3 (NatureServe 2023), sensitive local native resources, and oak woodlands
- Category 4: Apparently secure natural communities that are G4/S4 (NatureServe 2023), secure natural communities that are G5/S5 (NatureServe 2023), and CRPR 4 species
- Category 5: All other lands including those "dominated by non-native [vegetation], agricultural fields, hedges, early successional vegetation that has yet to form into a distinct natural community, cleared or disturbed areas, and non-native trees and shrubs."

Natural Open Space for Significant Ecological Areas Conditional Use Permit

The County's SEA Ordinance and Implementation Guidelines provide for the provision of natural open space, whether on-site or off-site, as mitigation to offset impacts to SEA resources. To evaluate the appropriate location and mechanism for preserved natural open space, staff will first need to determine whether an adequate amount of suitable habitat is present on site. Projects that do not have an adequate amount of suitable habitat available to

protect on site will need to provide any necessary natural open space preservation off site. Mitigation areas that fall short of SEA recommended mitigation ratios. The amount of natural open space may vary, and proposed areas may be given added conservation value should they possess the following characteristics (Los Angeles County Regional Planning 2020):

> "Added value" can be given to proposed natural open space areas if they also contain unique or valuable habitat linkage resources, additional special-status species, surface waters, or sensitive habitats, etc. Proposed open-space with such added-value characteristics may be allowed to be smaller than the area that would typically be required and still be determined to be consistent with the SEA Program goals, subject to the discretion of the Department and a determination of consistency with the SEA Findings by SEATAC.

Table 3, Recommended Preservation Ratios for SEA CUP, lists the recommended preservation ratios for impacts to SEA Resources Categories for projects that require a CUP. These ratios can also be changed based on site specific factors.

Table 3. Recommended Preservation Ratios for SEA CUP

SEA Resources	Preservation Ratio
Category 1 • State or federally listed species and their habitats • California Rare Plant Ranks 1, 2, 3 • Natural communities ranked G1/S1 • Water resources (e.g., wetlands, streams, ponds, lakes, vernal pools, marshes) • Beach and dune	5:1
Category 2 • Natural communities ranked G2/S2 • Species of Special Concern and their habitats	4:1
Category 3 • Natural communities ranked G3/S3 • Oak woodland • Sensitive local native resources • Rock outcrops/rocklands	3:1
Category 4 • Natural communities ranked G4/S4/G5/S5 • California Rare Plant Rank 4 • Non-native grasslands	2:1
Category 5 • Wildlife linkage or corridor or open space buffer	1:1

Source: Los Angeles County Regional Planning 2020.
Note: SEA = Significant Ecological Area; CUP = Conditional Use Permit; G = Global; S = State.

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4 Methods

4.1 Literature/Database Review

The following data sources were reviewed to assist with the assessment of biological resources:

- CDFW California Natural Diversity Database (CNDDB) (CDFW 2025a)
- USFWS Information for Planning and Consultation (USFWS 2025b)
- California Native Plant Society (CNPS) Rare Plant Inventory (CNPS 2025a)
- U.S. Department of Agriculture National Resources Conservation Service Web Soil Survey (USDA 2025a)
- CDFW Biogeographic Information and Observation System (CDFW 2025b)

Prior to conducting field surveys, Dudek reviewed regional CNDDB occurrence data (CDFW 2025a), the Rare Plant Inventory (CNPS 2025a), and USFWS occurrence data (USFWS 2025c) for USGS 7.5-minute Acton and Pacifico Mountain quadrangles and the surrounding 14 quadrangles. In addition, Dudek reviewed the USFWS Information for Planning and Consultation (USFWS 2025b), the National Wetlands Inventory (USFWS 2025a), and the U.S. Department of Agriculture's Natural Resources Conservation Service Web Soil Survey (USDA 2025a) to analyze the occurrence potential of special-status species and jurisdictional aquatic resources that are known to occur or may potentially occur within the study area.

Other literature reviewed included A Manual of California Vegetation, Online Edition (CNPS 2025b); the California Natural Community List (CDFW 2025c); State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2025d); State and Federally Listed Endangered and Threatened Animals of California (CDFW 2025e); and the CDFW California Wildlife Habitat Relationships Life History Accounts and Range Maps (CDFW 2025f).

The following available resources were reviewed to assess the potential for jurisdictional waters: aerial photographs (Google Earth 2025; NETR 2025), the USGS Newhall 7.5-minute topographic quadrangle map (USGS 2018), the National Hydrography Dataset and Watershed Boundary Dataset (USGS 2023), and the USFWS National Wetland Inventory (USFWS 2025a).

4.2 Special-Status Plant and Wildlife Species Assessment

Endangered, rare, or threatened plant species as defined in CEQA Guidelines Section 15380(b) are referred to as "special-status plant species" and, as used in this report, include (1) plant species listed, proposed for listing, or candidates for listing as endangered or threatened recognized in the context of CESA and FESA (CDFW 2025d); and/or (2) plant species with a CRPR of 1 through 4 as designated by CNPS (2025a). Additionally, the County of Los Angeles considers plant species that are locally important as rare within the county.

Endangered, rare, or threatened wildlife species as defined in CEQA Guidelines Section 15380(b) are referred to as "special-status wildlife species" and, as used in this report, include (1) wildlife species listed, proposed for listing, or candidates for listing as endangered or threatened recognized in the context of CESA and FESA (CDFW 2025e); (2) California SSC and Watch List species, as designated by CDFW (2025g); and (3) mammals and birds that are

fully protected species as described in the California Fish and Game Code, Sections 4700 and 3511 (CDFW 2025h), and (4) Birds of Conservation Concern as designated by USFWS (2021). Additionally, the County of Los Angeles considers wildlife species that are locally important as rare within the county.

The potential for special-status plant species to occur within the Study Area was assessed based on known geographic and elevation ranges as well as habitat and soil conditions that are known to support species occurring in the region. The potential for special-status wildlife species to occur within the Study Area was assessed based on known geographic ranges, the presence/absence of suitable habitat, and other natural history elements that might predict their occurrence. After completion of the reconnaissance surveys, the potential for special-status plant and wildlife species to occur on or near the Project site was summarized according to the following categories:

- Known to occur
- High potential to occur
- Moderate potential to occur
- Low potential to occur
- Not expected to occur

Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided:

- Known to occur: The species has been documented on the property by a reliable source.
- High potential to occur: The species has not been documented on the property but is known to recently occur in the vicinity, and suitable habitat is present.
- Moderate potential to occur: The species has not been documented on the property or in the vicinity, but the site is within the known range of the species, and suitable habitat for the species is present.
- Low potential to occur: The species has not been documented in the vicinity or on the property, but the site is within the known range of the species; however, suitable habitat for the species on site is of low quality.
- Not expected to occur: The property is outside the known geographic or elevational range of the species, and/or the site does not support suitable habitat for the species.

4.3 Field Effort

Surveys for the BESS facility site and Northern Gen-Tie option portions of the Study Area were conducted in 2023. In 2024, surveys were conducted on additional parcels for the Southern Gen-Tie option. Dudek conducted comprehensive surveys for sensitive plants for the BESS and Northern Gen-Tie option portions of the Study Area in the spring of 2023 following an above-average wet season. Dudek conducted surveys for Crotch's bumble bee (*Bombus crotchii*) in the summer of 2024 on the BESS and Northern Gen-Tie option portions of the Study Area. Dudek conducted supplemental Crotch's bumble bee surveys in 2025 for parcels associated with the Southern Gen-Tie option of the Study Area. Table 4, Schedule of Surveys, shows the survey type, date, time, conditions, and biologist(s) for each survey.

Table 4. Schedule of Surveys

Date	Focus	Biologists	Time	Survey Conditions
1/6/2023	▪ Vegetation mapping ▪ Jurisdictional delineation	MM, ES	7:30 a.m.–2:55 p.m.	38°F–52°F; 0%–10% cloud cover; 1–8 mph wind
1/11/2023	▪ Vegetation mapping ▪ Jurisdictional delineation	MM, ES	Not recorded	Not recorded
1/12/2023	▪ Vegetation mapping ▪ Jurisdictional delineation	MM, ES	Not recorded	Not recorded
4/28/2023	▪ Rare plants	VG, TP	6:40 a.m.–3:04 p.m.	60°F–80°F; 0% cloud cover; 0–2 mph wind
4/28/2023	▪ Rare plants	TP	6:40 a.m.–2:46 p.m.	57°F–94°F; 0% cloud cover; 0–2 mph wind
5/1/2023	▪ Rare plants	CB, DM, SN, JR	7:30 a.m.–3:25 p.m.	48°F–61°F; 60%–90% cloud cover; 3–5 mph wind
5/2/2023	▪ Rare plants	DM, VG, SN, JR	7:30 a.m.–3:25 p.m.	48°F–70°F; 60%–90% cloud cover; 3–5 mph wind
6/12/2024	▪ Crotch's bumble bee	CA, AC, SL, KN	9:30 a.m.–10:17 a.m.	74°F–80°F; 0% cloud cover; 0–4 mph wind
6/22/2023–7/7/2023	▪ Protected tree mapping	ACa, ST, AP	Not recorded	Not recorded
7/1/2024	▪ Crotch's bumble bee	LB, JE, DS	7:41 a.m.–1:34 p.m.	73°F–90°F; 0% cloud cover; 0–8 mph wind
7/2/2024	▪ Crotch's bumble bee	JE	7:02 a.m.–9:07 a.m.	70°F–81°F; 1–7 mph wind
7/23/2024	▪ Crotch's bumble bee	LB	7:27 a.m.–10:54 a.m.	80°F–95°F; 0%–50% cloud cover; 0–1 mph wind
7/24/2024	▪ Crotch's bumble bee	LB	7:18 a.m.–11:01 a.m.	80°F–95°F; 0% cloud cover; 0–2 mph wind
11/18/2024	▪ Vegetation mapping ▪ Jurisdictional delineation	ES, ZP	8:50 a.m.–12:56 p.m.	49°F–56°F; 0% cloud cover; 5–16 mph wind
11/19/2024	▪ Vegetation mapping ▪ Jurisdictional delineation	TP, RS	9:30 a.m.–3:35 p.m.	53°F–54°F; 0% cloud cover; 1–7 mph wind
2/26/2025	▪ Raptor nest survey	TP, RS	8:28 a.m.–3:30 p.m.	63°F–78°F; 0% cloud cover; 2–15 mph wind
4/16/2025	▪ Crotch's bumble bee	CA, ES	8:21 a.m.–1:08 p.m.	48°F–59°F; 30%–100% cloud cover; 0–3 mph wind
5/21/2025	▪ Crotch's bumble bee	CA, ES	8:21 a.m.–1:08 p.m.	59°F–71°F; 0% cloud cover; 0–1 mph wind
6/5/2025	▪ Rare plants	RSw	7:00 a.m.–12:00 a.m.	84°F; 0% cloud cover; 0–5 mph wind

Table 4. Schedule of Surveys

Date	Focus	Biologists	Time	Survey Conditions
6/30/2025	▪ Crotch's bumble bee	ES, LB	9:16 a.m.–1:30 p.m.	79°F–86°F; 0% cloud cover
8/22/2025	▪ Jurisdictional delineation	ES, RS	Not recorded	Not recorded

Notes: °F = degrees Fahrenheit; mph = miles per hour.
Biologists: AC = Anna Cassidy; ACa = Aida Castro; AP = Ana Pfleeger; CA = Callie Amoaku; CB = Chelsea Bowers-Doerning; DM = Dilip Mahto; DS = Dahlia Serrato; ES = Eilleen Salas; JE = Joshua Elson; JR = Jacob Rogers; KN = Kimberly Narel; LB = Luz Badillo; MM = Max Murray; RS = Ryan Stanley; RSw = Robert Sweet; SL = Sony Leming; SN = Sandra Nash; ST = Sarah Tian; TP = Tracy Park; VG = Valerie Goodwin; ZP = Zarina Pringle.

4.3.1 Vegetation Community and Land Cover Mapping

Vegetation communities and land uses within the Study Area were mapped in the field using Esri Collector, a mobile data collection application, on a digital aerial-based background (Esri 2025). Following completion of the fieldwork, all vegetation linework was finalized using Esri ArcGIS software, and geographic information system coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover type within the Study Area was determined. Vegetation communities within the Study Area were mapped using CDFW's List of Vegetation Alliances and Associations (or California Natural Community List) (CDFW 2025c), which is based on A Manual of California Vegetation, Second Edition (Sawyer et al. 2009) and A Manual of California Vegetation, Online Edition (CNPS 2025b), where feasible, with modifications made to accommodate the lack of conformity of the observed communities (e.g., developed/disturbed land cover types) using Oberbauer et al. (2008) and Jones and Stokes (1993). Vegetation communities were classified based on site factors, descriptions, distribution, and characteristic species present within an area. Each natural community was mapped to the association level, where feasible. Special-status vegetation communities are those communities identified as high priority for inventory in the California Natural Community List (CDFW 2025c).

4.3.2 Aquatic Resource Delineation

Prior to conducting the jurisdictional delineation, USFWS National Wetland Inventory data (USFWS 2025a) was reviewed to determine if the Study Area contained any features mapped by USFWS. Site-specific topographical data was reviewed in conjunction with aerials, both current and historical, to determine the potential presence of non-wetland waters. Current vegetation mapping was reviewed to assess whether the Study Area supported hydrophytic vegetation and potential wetlands. Jurisdictional boundaries were mapped in the field using Esri Collector on a mobile device with sub-meter accuracy. Remote sensing was not used for the delineation.

U.S. Army Corps of Engineers – Potential Waters of the United States

The USACE wetlands delineation was conducted in accordance with the 1987 USACE Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a). A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008b) was used to determine the limits of non-wetland waters. Non-wetland waters were delineated on aerial maps in conjunction with Esri Collector on a mobile device. The widths of each non-wetland water were determined in the field according to the OHWM manual. USACE OHWM forms were completed at representative cross-sections of non-wetland waters to capture their characteristics and widths.

Regional Water Quality Control Board – Potential Waters of the United States and Waters of the State

Waters of the state regulated by RWQCB were mapped in accordance with the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB 2021). As described in these procedures, wetland waters of the state are mapped based on the procedures in the Corps of Engineers Wetlands Delineation Manual (USACE 1987) and its 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a). Non-wetland waters are mapped at the OHWM based on the procedures defined in A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008b).

California Department of Fish and Wildlife – Streams

Potential CDFW jurisdictional areas were mapped to include the bank of the stream/channel and outer dripline of adjacent riparian vegetation, as set forth under California Fish and Game Code Section 1602. Streambeds under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979).

4.3.3 Rare Plants

The rare plant surveys were guided by the CNPS Botanical Survey Guidelines (CNPS 2001) and CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018). The biologists walked transects in suitable habitat, spaced approximately 5 meters to 10 meters apart based on the density of vegetative cover, throughout the Study Area. Digital mobile maps and 200-scale topographic plots of vegetation polygons were utilized to navigate the survey area. Plant species encountered during the field surveys were identified to subspecies or variety, if applicable, to determine sensitivity status. When rare plants were encountered, field personnel recorded data points demarcating the edge of polygon surrounding the population and assessed population numbers using a GPS with sub-meter accuracy.

4.3.4 California Desert Native Plants Act

Dudek biologists conducted a focused desert native plant survey within the survey area (defined as the Project impact footprint and a 150-foot buffer, where accessible). The desert native plant survey was focused on the species subject to the CDNPA. Biologists walked meandering transects spaced approximately 10 meters apart to obtain 100% visual coverage of the survey area. If desert native plants identified under the CDNPA were encountered, field personnel recorded data points using a GPS with sub-meter accuracy (i.e., Trimble® GeoXT) and a data dictionary. The data dictionary included, at a minimum, the species name, the number of individuals, and the botanist collecting the data. The survey methodology and results were documented in a memorandum, with figures illustrating the location of the mapped desert native plants and representative photos of the species.

4.3.5 Crotch's Bumble Bee Surveys

The surveys for Crotch's bumble bee were conducted in accordance with the CDFW survey guidance (CDFW 2023). The survey passes were led by Callie Amoaku, who holds a Memorandum of Understanding and Scientific Collecting Permit to capture Crotch's bumble bee. Dudek conducted five (5) protocol level surveys for Crotch's bumble bee spaced in June and July 2024 (June 12, July 1, July 2, July 23, and July 24), and three (3) in April, May, and June

2025 (April 16, May 21, and June 30). The surveys were split across 2 years because the Project owner did not have access to the entire Project gen-tie area during the 2024 surveys. The 2024 surveys were conducted from June through July, during the Colony Active Period of April through August, which according to CDFW guidelines had the highest detection period, and were spaced between 2 and 4 weeks apart. The three (3) 2025 surveys, which covered the remainder of the Project site and the BESS location, were conducted between April and June, which is during the Colony Active Period. The 2025 surveys were spaced 4 weeks apart to cover a wider period during the Colony Active Period while also meeting recommended guidelines.

The surveys were conducted during optimal conditions when there were sunny to partly sunny skies with temperatures that were greater than 60°F. Suitable habitat within the Study Area was visually surveyed for 1 person-hour per 3 acres of potential habitat. Biologists walked wandering transects through these resources with a goal of observing bumble bees in passing and observing bumble bee nest sites associated with small mammal burrows or other appropriate soil cavities.

4.3.6 Raptor Nest Survey

Surveys for nesting raptors (i.e., eagles, hawks, kites, falcons, and owls) were conducted in early 2025. Dudek biologists conducted a 1-day survey for the Study Area and a 500-foot buffer, with a focus on areas with larger trees and shrubs, residential areas with large ornamental trees, and transmission towers that have potential to support raptor nests.

4.3.7 Protected Tree Census

The portions of the Study Area east of the railroad tracks, south of Carson Mesa Road and the SCE Vincent Substation, and east of the SCE substation are within a County of Los Angeles SEA (County of Los Angeles 2025). The County's SEA Ordinance includes 60 tree species to be protected, including all sizes of California juniper (*Juniperus californica*) (Los Angeles County Regional Planning 2020). Dudek biologists mapped SEA-protected trees within the SEA portions of the Study Area. Field personnel recorded data points and circumference for each individual plant using a mobile device with sub-meter accuracy. An evaluation of existing health for each California juniper was conducted. Appendix A, Protected Tree Report, has additional details on the census.

5 Results

The cumulative results of the surveys can be found in Appendix B, Biological Constraints Map.

5.1 Vegetation Communities and Land Covers

All plant species encountered during the field reconnaissance surveys and jurisdictional delineations were identified and recorded. Latin and common names for plant species with a CRPR (formerly CNPS List) follow the CNPS Rare Plant Inventory (CNPS 2025a). For plant species without a CRPR, Latin names follow Jepson eFlora (Jepson Flora Project 2025), and common names follow the California Natural Community List (CDFW 2025c) or the U.S. Department of Agriculture Natural Resources Conservation Service PLANTS Database (USDA 2025b). A list of plant species observed in the Study Area during initial surveys is presented in Appendix C, Potential to Occur Tables and Compendia.

Six (6) vegetation communities are considered sensitive by CDFW. The vegetation communities and land cover locations are summarized in Table 5, Vegetation Communities and Land Covers in the Study Area, and illustrated in Figure 4, Vegetation Communities and Land Cover. Vegetation communities within 1,000 feet of the gen-tie route options are expected to be similar to the Study Area because there are no significant changes in topography, geology, or hydrology within that distance.

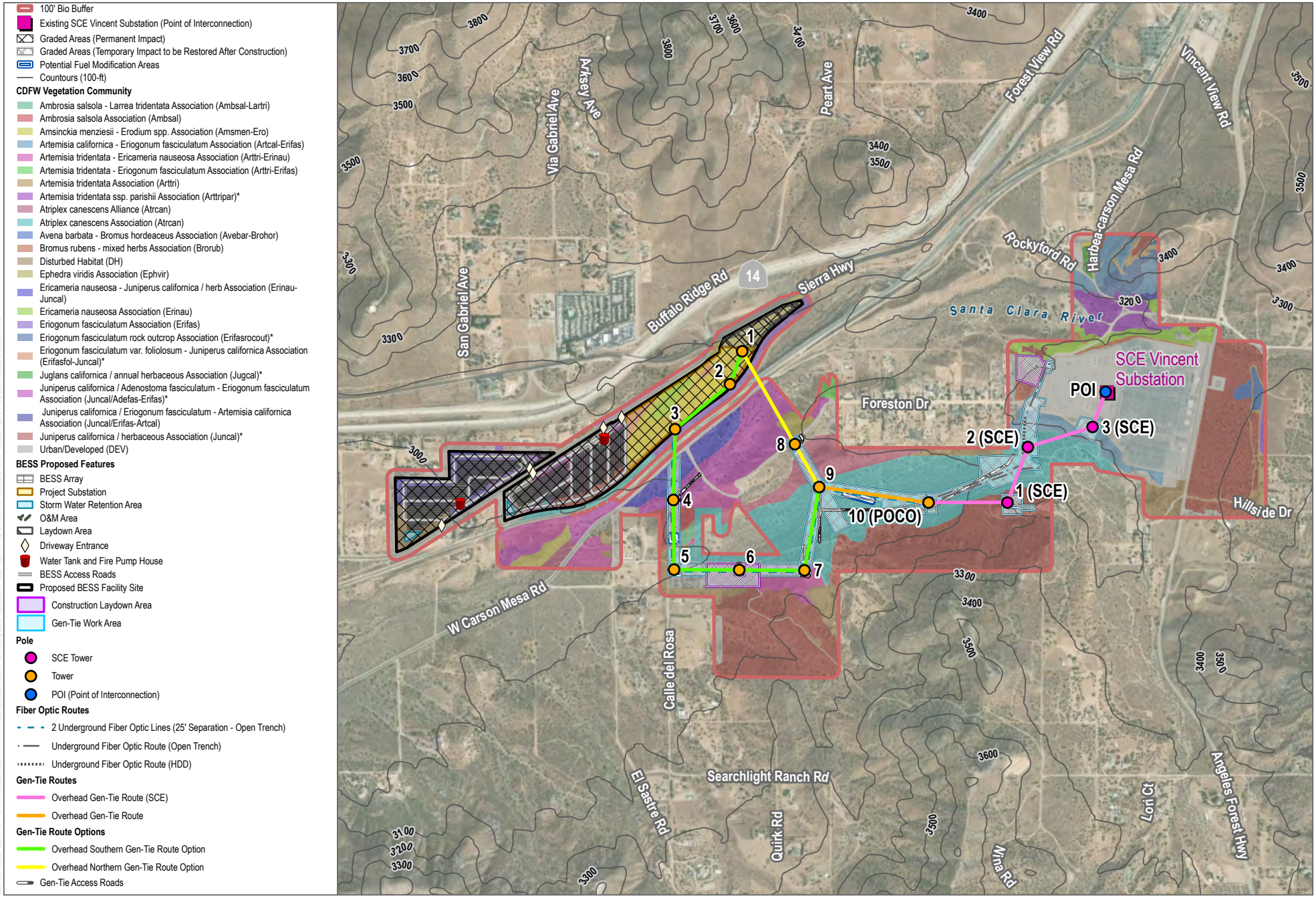
Table 5. Vegetation Communities and Land Covers in the Study Area

Alliance	Association	Acres
Cheesebush – sweetbush scrub	*Ambrosia salsola – Larrea tridentata*	0.82
	Ambrosia salsola Association	2.60
Fiddleneck – phacelia fields	*Amsinckia menziesii – Erodium* spp.	2.21
California sagebrush – (purple sage) scrub	*Artemisia californica – Eriogonum fasciculatum*	12.68
Big sagebrush	*Artemisia tridentata – Ericameria nauseosa*	15.42
	Artemisia tridentata – Eriogonum fasciculatum	3.98
	Artemisia tridentata	0.48
	Artemisia tridentata ssp. *parishii*	7.66
Fourwing saltbush scrub	*Atriplex canescens*	75.57
Mormon tea scrub	*Ephedra viridis*	20.87
Rubber rabbitbrush scrub	*Ericameria nauseosa – Juniperus californica* / herb	18.49
	Ericameria nauseosa	5.38
California buckwheat scrub	*Eriogonum fasciculatum*	4.75
	Eriogonum fasciculatum var. *foliolosum – Juniperus californica*	4.50
California buckwheat – Parish's goldeneye scrub	*Eriogonum fasciculatum* rock outcrop	3.82
California walnut groves	*Juglans californica / annual herbaceous*	0.89
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum – Eriogonum fasciculatum*	31.66
	Juniperus californica / herbaceous	106.67

Table 5. Vegetation Communities and Land Covers in the Study Area

Alliance	Association	Acres
	Juniperus californica / Eriogonum fasciculatum – Artemisia californica	0.23
	Subtotal:	*317.35*
Naturalized (Non-Native)		
Wild oats and annual brome grasslands	*Avena barbata – Bromus hordeaceus*	2.22
Red brome or Mediterranean grass grasslands	*Bromus rubens* – mixed herbs	2.99
	Subtotal:	*5.21*
Land Cover Types		
Disturbed habitat	Not applicable	19.38
Urban/Developed	Not applicable	71.95
	Subtotal:	*91.33*
	Total:	**413.88**

Notes: Totals may not sum due to rounding.



SOURCE: World Imagery

DUDEK

0 700 1,400 Feet

FIGURE 4

Vegetation Communities and Land Cover

Prairie Song Reliability Project

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Native Vegetation Communities

Vegetation community descriptions are taken from A Manual of California Vegetation, Online Edition (CNPS 2025b).

Cheesebush – Sweetbush Scrub

Cheesebush – sweetbush scrub (*Ambrosia salsola – Bebbia juncea* Shrubland Alliance) has cheesebush (*Ambrosia salsola*), sweetbush (*Bebbia juncea*), woolly brickellbush (*Brickellia incana*), and/or desertsenna (*Senna armata*) as dominant or co-dominant in the shrub canopy with Wiggins' cholla (*Cylindropuntia echinocarpa*), brittlebush (*Encelia farinosa*), California jointfir (*Ephedra californica*), Mojave rabbitbrush (*Ericameria paniculata*), California buckwheat (*Eriogonum fasciculatum*), white ratany (*Krameria grayi*), creosote bush (*Larrea tridentata*), and beavertail pricklypear (*Opuntia basilaris*). This alliance can be found on intermittently flooded channels, arroyos, washes, valleys, flats, and rarely flooded low-gradient deposits. Soils are alluvial, sandy and gravelly, and disturbed desert pavement. Two (2) associations of the alliance were mapped within the Study Area: *Ambrosia salsola – Larrea tridentata* and *Ambrosia salsola* Association. These associations were mapped in the gen-tie portion Study Area.

Fiddleneck – Phacelia Fields

Fiddleneck – phacelia fields (*Amsinckia* [*menziesii*, *tessellata*] – *Phacelia* spp. Herbaceous Alliance) has Menzies' fiddleneck (*Amsinckia menziesii*), bristly fiddleneck (*Amsinckia tessellate)* and/or *Phacelia* spp. or other *Amsinckia* sp. as seasonally co-dominant in the herbaceous layer. Additional local species present include California saltbush (*Atriplex californica*), *Avena* spp., ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), red brome (*Bromus rubens*), exserted Indian paintbrush (*Castilleja exserta*), and *Erodium* spp. Emergent shrubs may be present at low cover. This alliance can be found along upland slopes, broad valleys, ocean bluffs, grazed or recently burned hills, and fallow fields. Soils are well drained and loamy, and they are often subject to high levels of disturbance. One (1) association of the alliance, *Amsinckia menziesii – Erodium* spp., was mapped in the BESS portion of the Study Area.

California Sagebrush – (Purple Sage) Scrub

California sagebrush – (purple sage) scrub (*Artemisia californica* – [*Salvia leucophylla*] Shrubland Alliance) has California sagebrush and/or purple sage (*Salvia leucophylla*) as dominant or co-dominant in the shrub canopy with chamise, coyotebrush (*Baccharis pilularis*), bladderpod spiderflower (*Cleome isomeris*), orange bush monkeyflower (*Diplacus aurantiacus*), California brittlebush (*Encelia californica*), brittlebush, California jointfir, narrowleaf goldenbush (*Ericameria linearifolia*), California buckwheat, and chaparral yucca (*Hesperoyucca whipplei*). This alliance can be found on slopes of variable aspects, but usually steep and rarely flooded, low-gradient deposits along streams. Soils are alluvial or colluvial derived. One (1) association of the alliance, *Artemisia californica – Eriogonum fasciculatum*, was mapped in the gen-tie portion Study Area.

Big Sagebrush

Big sagebrush (*Artemisia tridentata* Alliance) has big sagebrush (*Artemisia tridentata*) as dominant or co-dominant in the shrub canopy with Acton's encelia (*Encelia actoni*), Mormon tea (*Ephedra viridis*), and California buckwheat. Shrub canopy is open to continuous, and emergent trees may be present at low cover. The herbaceous layer is usually sparse to intermittent and grassy. This alliance can be found on plains, alluvial fans, bajadas, pediments, lower slopes, valley bottoms, seasonal and perennial stream channels, and dry washes. Soils are well drained and

consist of loam or sand. Three (3) associations of the alliance were mapped within the Study Area: *Artemisia tridentata* Association, *Artemisia tridentata – Eriogonum fasciculatum* Association, and *Artemisia tridentata – Ericameria nauseosa* Association. These associations were found in the BESS and Southern Gen-tie portions of the Study Area.

Fourwing Saltbush Scrub

Fourwing saltbush scrub (*Atriplex canescens* Shrubland Alliance) has fourwing saltbush (*Atriplex canescens*) as dominant or co-dominant in the shrub canopy with burrobush (*Ambrosia dumosa*), cheesebush, spiny saltbush (*Atriplex confertifolia*), cattle spinach (*Atriplex polycarpa*), Mormon tea, hop sage (*Grayia spinosa*), and creosote bush. Emergent trees may be present at low cover. This alliance can be found along playas, old beaches and shores, lake deposits, dissected alluvial fans, rolling hills, or channel beds. Soils are carbonate rich, alkaline, sandy, or sandy clay loams. One (1) association, *Atriplex canescens*, was mapped in the gen-tie portion Study Area.

Mormon Tea Scrub

Mormon tea scrub (*Ephedra viridis* Shrubland Alliance) has Mormon tea as dominant or co-dominant in the shrub canopy with big sagebrush and rubber rabbitbrush (*Ericameria nauseosa*). Emergent trees may be present at low cover, including California juniper. This alliance can be found along ridges, hills, mountains, and channel beds. Soils are shallow and derived from alluvium, granitic substrate, bedrock, and colluvium. One (1) association, *Ephedra viridis*, was mapped primarily in the BESS portion of the Study Area.

Rubber Rabbitbrush Scrub

Rubber rabbitbrush scrub (*Ericameria nauseosa* Shrubland Alliance) has rubber rabbitbrush as dominant or co-dominant in the shrub canopy with big sagebrush, *Ephedra* spp., and California buckwheat. Emergent trees may be present at low cover, including California juniper. This alliance can be found along all topographic settings, especially in disturbed settings. Soils are well-drained sands and gravels. Two (2) associations, *Ericameria nauseosa* and *Ericameria nauseosa – Juniperus californica/*herb, were mapped within the BESS and gen-tie portions of the Study Area.

California Buckwheat Scrub

California buckwheat scrub (*Eriogonum fasciculatum* Shrubland Alliance) has California buckwheat or chaparral yucca as dominant or co-dominant in the shrub canopy in cismontane stands with California sagebrush, coyotebrush, orange bush monkeyflower, California brittlebush, brittlebush, and Menzies' goldenbush (*Isocoma menziesii*). Emergent trees may be present at low cover, including California juniper. This alliance can be found in upland slopes, intermittently flooded arroyos, channels and washes, and rarely flooded low-gradient deposits. Soils are coarse, well drained, and moderately acidic to slightly saline. Two (2) associations, *Eriogonum fasciculatum* and *Eriogonum fasciculatum* var. *foliolosum – Juniperus californica*, were mapped in the BESS and north of the Vincent Substation portions of the Study Area.

California Buckwheat – Parish's Goldeneye Scrub

California buckwheat – Parish's goldeneye scrub (*Eriogonum fasciculatum – Viguiera parishii* Shrubland Alliance) has California buckwheat and/or Parish's goldeneye (*Viguiera parishii*) as dominant or co-dominant in the shrub canopy with burrobush, cheesebush, big sagebrush, sweetbush, blackbrush (*Coleogyne ramosissima*), buck-horn

cholla (*Cylindropuntia acanthocarpa*), Wiggins' cholla, brittlebush, and Nevada jointfir (*Ephedra nevadensis*). This alliance can be found in wash and arroyo margins, rocky to bouldery alluvium, canyons, and moderate to steep colluvial slopes and ridges. Soils are well drained and derived from granitic or volcanic rock. One (1) association, *Eriogonum fasciculatum* rock outcrop, was mapped north of the Vincent Substation in the Study Area.

California Walnut Groves

California walnut groves (*Juglans californica* Forest and Woodland Alliance) have Southern California walnut (*Juglans californica*) as dominant or co-dominant in the tree canopy with other native trees. One (1) association, *Juglans californica*/annual herbaceous, was mapped adjacent to residential property (possibly ornamental plantings in origin) north of the Vincent Substation in the Study Area.

California Juniper Woodland

California juniper woodland has California juniper as dominant or co-dominant in the small tree canopy with single-leaf pinyon (*Pinus monophyla*) and blue oak (*Quercus douglasii*). Local shrubs may include big sagebrush *Ephedra* spp., chaparral yucca, and scale broom (*Lepidospartum squamatum*). This alliance can be found along ridges, slopes, valleys, alluvial fans, and valley bottoms. Soils are porous, rocky, coarse, sandy, or silty, and are often very shallow. Three (3) associations, *Juniperus californica*, *Juniperus californica – Adenostoma fasciculatum – Eriogonum fasciculatum*, and *Juniperus californica – Ericameria linearifolia*/annual-perennial herb, were mapped within the BESS and gen-tie portions of the Study Area.

Naturalized (Non-Native) Vegetation Communities

Wild Oats and Annual Brome Grasslands

Wild oats and annual brome grasslands (*Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance) has slender oat (*Avena barbata*), common wild oat (*Avena fatua*), stiff brome (*Brachypodium distachyon*), greater quaking-grass (*Briza maxima*), ripgut brome, soft brome, and/or wall barley (*Hordeum murinum*) as dominant or co-dominant with other non-natives in the herbaceous layer. Emergent trees and shrubs may be present at low cover. This alliance can be found along all topographic settings in foothills, waste places, rangelands, and openings in woodlands. One (1) association, *Bromus hordeaceus – Amsinckia menziesii – Hordeum murinum*, was mapped adjacent to the Vincent Substation in the Study Area.

Red Brome or Mediterranean Grass Grasslands

Red brome or Mediterranean grass grasslands (*Bromus rubens – Schismus* [*arabicus*, *barbatus*] *Bromus rubens* Alliance) has red brome, Arabian schismus (*Schismus arabicus*), and/or common Mediterranean grass (*Schismus barbatus*) as dominant or co-dominant with other non-natives in the herbaceous layer. Emergent shrubs may be present at low cover. This habitat can be found in all topography settings and soil textures. One (1) association, *Bromus rubens* – mixed herbs, was mapped adjacent to the Vincent Substation in the Study Area.

Disturbed and Developed Land Cover Types

Disturbed Habitat

Although not recognized by the Manual of California Vegetation, Online Edition (CNPS 2025b) or the California Natural Community List (CDFW 2025c), disturbed habitat is described in the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008). Disturbed habitat is described as areas generally lacking vegetation due to high levels of existing or historical human disturbance that are no longer recognizable as a native or naturalized vegetation association. Areas mapped as disturbed habitat may include unpaved roads, trails, and graded areas (Oberbauer et al. 2008). Vegetation in these areas, if present at all, is usually sparse and dominated by non-native weedy herbaceous species (Oberbauer et al. 2008). Areas mapped as disturbed habitat were found throughout the Study Area and were usually associated with developments or infrastructure.

Urban/Developed

Although not recognized by the Manual of California Vegetation (CNPS 2025b) or the California Natural Community List (CDFW 2025c), the urban/developed mapping unit (or developed land) is described in Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008). This mapping unit describes areas supporting human-made structures, including homes, yards, sidewalks, and other highly modified lands supporting structures associated with dwellings or other permanent structures. Vegetation in these areas, if present at all, is typically associated with ornamental landscaping that has been included in the development footprint (Oberbauer et al. 2008). Most of the developed lands in the Study Area included the large, paved substation and roads.

5.2 Special-Status Plant Species

Appendix C (CDFW 2025a; CNPS 2025a; USFWS 2025b) lists the 80 plant species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 and that are known to occur within the 14 USGS 7.5-minute topographic quadrangles that the Study Area is in and the quadrangles that the 10-mile buffer intersects, as well as the species provided by the query of the USFWS' Information for Planning and Consultation. This appendix provides evaluations for each of the special-status species' occurrence in the Study Area vicinity and their potential to occur based on known range, habitat associations, preferred soil substrate, life form, elevation, and blooming period. Special-status plant species that have low potential or are not expected to occur are not further analyzed in this document because no direct, indirect, or cumulative impacts are expected based on the negative surveys and evaluation that these species do not have a moderate or high potential to occur on site.

Two (2) sensitive plant species, short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) and golden linanthus (*Leptosiphon aureus*), were mapped during the focused special-status plant surveys in 2023 within the proposed gen-tie route portion of the Study Area, as shown in Figure 5, Biological Survey Results. Two additional special-status plant species, Douglas' fiddleneck (*Amsinckia douglasiana*) and Raven's blazing-star (*Mentzelia ravenii*), were recorded on one day of the special-status plant surveys but were not mapped. Instances of Douglas' fiddleneck did not occur in database queries and was not a focal species based upon the initial habitat assessment for special-status. At the time rare plant surveys were conducted, Raven's blazing-star did not have a CRPR rank. Raven's blazing star received a rank in March 2025 (CNPS 2025a). Finally, two Southern California black walnut, which is a CRPR 4.2 species, were mapped within a residential property but are assumed to have been planted since the habitat in the Study Area is atypical for the species. As such, it will not be analyzed as a special-status species but are included in the protected tree analysis.

Short-Joint Beavertail

Short-joint beavertail has a CRPR of 1B.2, which is defined as plants rare, threatened, or endangered in California and elsewhere, with 20%–80% of occurrences threatened (CNPS 2025a). The species is a cactus that can be found in creosote bush scrub, chaparral, pinyon-juniper woodland, and Joshua tree woodland (CDFW 2025a). Short-joint beavertail was mapped within the proposed gen-tie alignment portion of the Study Area, as shown in Figure 5.

Golden Linanthus

Golden linanthus has a CRPR of 4.2, which is defined as a plant with limited distribution and is moderately threatened in California (CNPS 2025a). The species can be found in chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland (CDFW 2025a). The species was mapped within the proposed gen-tie alignment portion of the Study Area, as shown in Figure 5.

Douglas' Fiddleneck

Douglas' fiddleneck has a CRPR of 4.2, which is defined as a plant with limited distribution and is moderately threatened in California (CNPS 2025a). The species can be found in cismontane woodland and valley and foothill grassland (CDFW 2025a). The species was inadvertently not mapped, but it is assumed to have occurred in juniper woodland.

Raven's Blazing-Star

Raven's blazing-star has a CRPR of 1B.3, which is defined as plants rare, threatened, or endangered in California and elsewhere, with less than 20% of occurrences threatened (CNPS 2025a). The species can be found in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland. The species was not mapped because it did not have a CRPR at the time of the survey. Raven's blazing-star received a CRPR rank in March 2025 (CNPS 2025a), so it was not considered a special-status plant at the time of the surveys.

5.3 Special-Status Wildlife Species

Appendix C (CDFW 2025a; CNPS 2025a; USFWS 2025b; Los Angeles Audubon 2009) lists the 62 wildlife species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 and that are known to occur within the 14 USGS 7.5-minute topographic quadrangles that the Study Area is in and the quadrangles that the 10-mile buffer intersects, as well as the species provided by the query of the USFWS' Information for Planning and Consultation and Los Angeles County's Sensitive Bird Species. This appendix provides evaluations for each of the special-status species' occurrence in the Study Area vicinity and their potential to occur based on known range and habitat associations. Special-status wildlife species that have low potential or are not expected to occur are not further analyzed in this document because no direct, indirect, or cumulative impacts are expected based on the negative surveys and evaluation that these species do not have a moderate or high potential to occur on site. This includes three species that are included in Los Angeles County's Sensitive Bird Species (Los Angeles Audubon 2009), Scott's oriole (*Icterus parisorum*), vesper sparrow (*Pooecetes gramineus*), and western meadowlark (*Sturnella neglecta*). These three species were not observed during site surveys and have a low potential to occur in the Study Area and are not discussed further.

Two (2) special-status species were observed foraging in the BESS portion of the Study Area, loggerhead shrike (*Lanius ludovicianus*) and greater roadrunner (*Geococcyx californianus*). The following six (6) special-status species

had moderate to high potential to occur in the Study Area: Crotch's bumble bee, California legless lizard (*Anniella* spp.), Blainville's horned lizard (*Phrynosoma blainvillii*), Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), Bell's sage sparrow (*Artemisiospiza belli belli*), and mountain lion (*Puma concolor*). One species in the previous list, mountain lion, has a high potential to occur as a transient. The 52 special-status species with a low potential to occur (six [6] species) or species that are not expected to occur (46 species) are excluded from further discussion below, except for western burrowing owl (*Athene cunicularia hypugaea*) and American badger (*Taxidea taxus*). A discussion of western burrowing owl is provided below; however, since burrowing owl is not expected in the Study Area, it is not further analyzed apart from the discussion in this section. Sensitive wildlife species potential within 1,000 feet of the gen-tie route options are expected to be similar to the Study Area because there are no significant changes in topography, geology, or hydrology within that distance.

Crotch's Bumble Bee

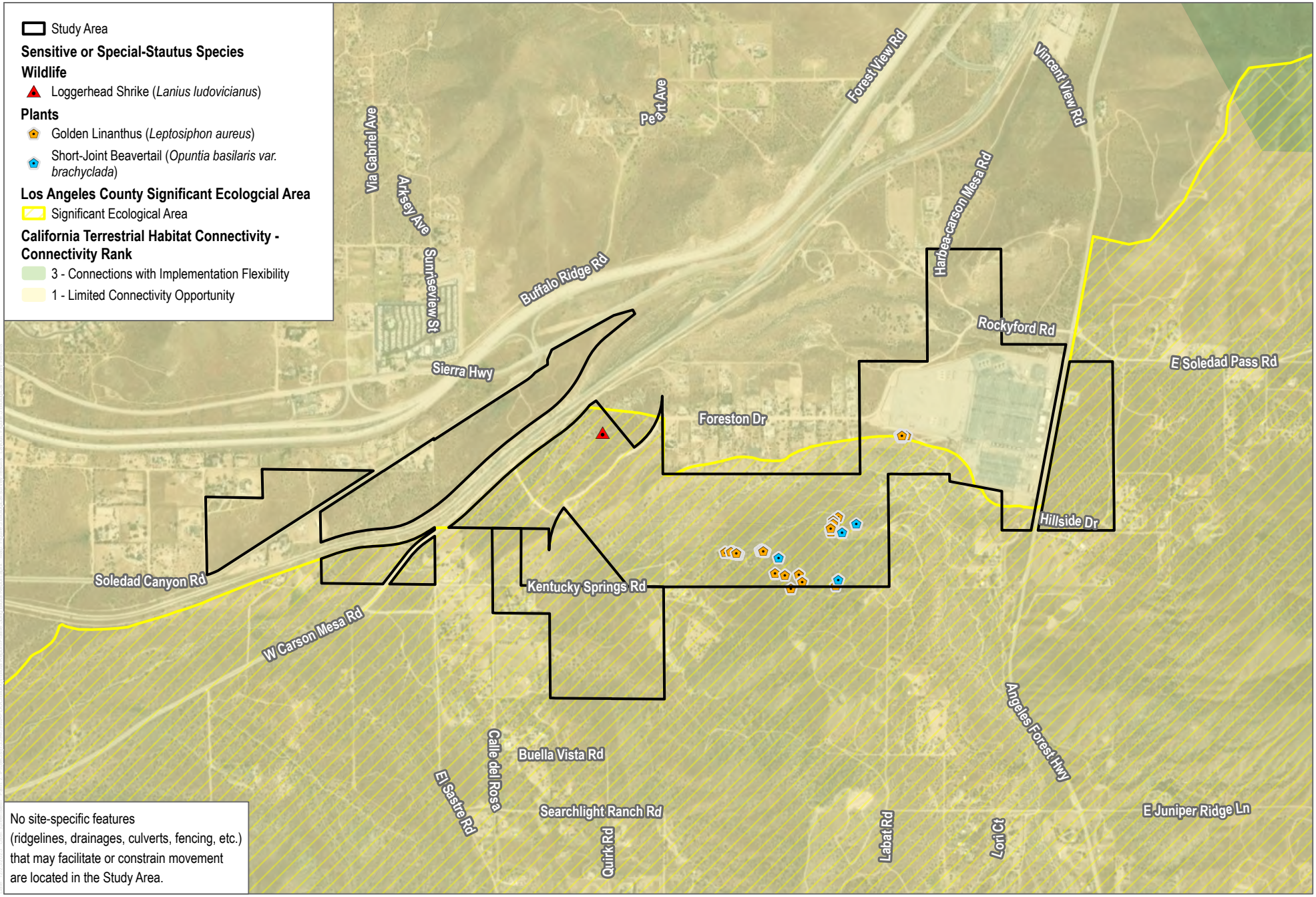
Crotch's bumble bee is a candidate for listing as "Endangered" under CESA and is afforded the protection of CESA while the California Fish and Game Commission decides if listing the species is warranted. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (The Xerces Society 2018). In California, the species inhabits open grassland and scrub habitats (The Xerces Society 2018). The size of Crotch's bumble bee colonies has not been well documented, but like most other species of bumble bees, the species primarily nests underground (The Xerces Society 2018). Bumble bees, including Crotch's bumble bee, are generalist foragers and have been reported visiting a wide variety of flowering plants. Since it has a very short tongue, Crotch's bumble bee is best suited to forage at open flowers with short corollas (The Xerces Society 2018). The plant families most associated with observations or collections of the species from California include Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae (The Xerces Society 2018). Nectar plants known to be visited by Crotch's bumble bee include the genera *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* (Williams et al. 2014; Xerces Society et al. 2018), but it is assumed flowering plants in other genera could also support foraging by this species.

Crotch's bumble bee could use small mammal burrows within all the vegetation communities in the Study Area and forage on suitable plant species within those communities. However, no Crotch's bumble bee were observed during the surveys that occurred over two (2) survey seasons. No bumble bees of any kind were observed during that period. Floral resources for the species are present but in limited numbers, with the Study Area being dominated by California juniper woodland, fourwing saltbush scrub, and Mormon tea scrub, as shown in Table 3, Vegetation Communities and Land Covers in the Study Area. Additionally, there are few records for the occurrence of the species or any other bumble bee from the Acton region (CDFW 2025a; iNaturalist 2025; The Xerces Society 2025). Due to the limited foraging opportunities and the few records of bumble bees as a whole in the region, the Project is not expected to involve take of Crotch's bumble bee.

California Legless Lizard

This description provides information for three (3) potential species of legless lizard that may be found in the Study Area: Northern California legless lizard (*Anniella pulchra*), Southern California legless lizard (*Anniella stebbinsi*), and California legless lizard (*Anniella* spp.). This is due to the current uncertainty of the taxonomy of the genus in the Study Area's region (Nafis 2025). All three (3) are considered CDFW SSC. These species are most commonly found in coastal dunes and coastal scrub, but also oak woodland, Joshua tree woodland, and pinyon-juniper woodland (Hansen and Shedd 2025), and are generally found in moist, loose soil (CDFW 2025a). California legless lizard has

moderate potential to occur in the Study Area beneath the larger California junipers due to the expected higher moisture content of the soil.



SOURCE: World Imagery; CDFW 2025; County of Los Angeles 2025

DUDEK

0 750 1,500 Feet

FIGURE 5

Biological Survey Results

Prairie Song Reliability Project

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Blainville's Horned Lizard

Blainville's horned lizard is a CDFW SSC that occurs throughout most of California in locations west of the desert and Cascade-Sierran highlands, in elevations from sea level to around 2,438 meters (8,000 feet) above mean sea level (Hansen and Shedd 2025). Despite a wide-ranging distribution, the species seems to be restricted to localized populations because of its association with loose soils that have a high sand content (Jennings and Hayes 1994). The species is found in a wide variety of vegetation types with the requisite loose sandy soils, including California sagebrush scrub, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest (Klauber 1939; Stebbins 1954). Up to 90% of the diet of Blainville's horned lizard consists of native harvester ants (*Pogonomyrmex* spp.) (Pianka and Parker 1975), and the species does not appear to eat non-native Argentine ants (*Linepithema humile*) (Jennings and Hayes 1994). The species has a moderate potential to occur in a variety of the vegetation communities in the Study Area.

Greater Roadrunner

Observations of greater roadrunner were made in the Study Area but were not mapped since the species is highly mobile and expected to occur throughout the area. The species habitats include areas dominated by creosote, mesquite, chaparral, and tamarisk, as well as grasslands, riparian woodlands, and canyons (Cornell Lab 2025). Greater roadrunner nest sites are 3 to 10 feet or more off the ground, on a horizontal branch or in the crotch of a sturdy bush, cactus, or small tree (Cornell Lab 2025). Greater roadrunner is considered sensitive by the County (Los Angeles Audubon 2009). The species could use the California juniper in the Study Area for nesting and could forage throughout the Study Area.

Loggerhead Shrike

A single observation of loggerhead shrike was made in the Study Area, as shown in Figure 5. The species is a CDFW SSC that occurs throughout the United States, Mexico, and portions of Canada and is widespread at the lower elevations in California (Humple 2008). Preferred habitats for the species are open areas that include scattered shrubs, trees, posts, fences, utility lines, or other structures that provide hunting perches with views of open ground, as well as nearby spiny vegetation or human-made structures (such as the top of chain-link fences or barbed wire) that provide a location to impale prey items for storage or manipulation (Humple 2008). Nest sites are chosen based more on the cover than the particular vegetation species and are usually constructed in a dense shrub or tree well below the crown and are well concealed (Yosef 1996). The species could use the California juniper in the Study Area for nesting and could forage throughout the Study Area.

Southern California Rufous-Crowned Sparrow

Southern California rufous-crowned sparrow is on the CDFW Watch List and occurs in sparse, mixed chaparral and coastal scrub habitats (CDFW 2025a). The species frequents relatively steep, often rocky hillsides with grass and forb patches and also grassy slopes without shrubs, if rock outcrops are present (CDFW 2025a). The species has a moderate potential to occur on the slopes of the gen-tie portion of the Study Area.

Bell's Sage Sparrow

Bell's sage sparrow is on the CDFW Watch List and occupies semi-open habitats with evenly spaced shrubs that are 1 meters to 2 meters (3.3 feet to 6.6 feet) high (County of Riverside 2025). CDFW still recognizes *A. belli belli*, but the subspecies has been reclassified as its own species Bell's sparrow (*A. belli*), with the other subspecies *A.*

belli nevadensis reclassified as sagebrush sparrow (*A. nevadensis*). For site selection, specific shrub species may be less important than overall vertical structure, habitat patchiness, and vegetation density (Wiens and Rotenberry 1981). At higher elevations in Southern California, Bell's sage sparrow often occurs in big sagebrush (County of Riverside 2008). Sage sparrows seek cover in fairly dense stands in chaparral and scrub habitats during the breeding season. Bell's sage sparrow has a moderate potential to occur in the *Artemisia tridentata* dominant and co-dominant vegetation communities in the Study Area.

Mountain Lion

Mountain lions associated with Southern California and Central Coast populations are designated as a State candidate endangered species. On April 16, 2020, the California Fish and Game Commission voted to designate the Southern California and Central Coast mountain lions as a candidate for listing as an endangered species under CESA. The vote triggered a 1-year review by CDFW to determine whether these mountain lion populations should be formally protected under CESA; however, the listing status of this species is still currently unresolved at the time of this report.

The California mountain lion occurs throughout much of California open space, occurring in or moving through nearly all but the most urbanized settings. This species inhabits a wide range of habitat types where prey items such as mule deer (*Odocoileus hemionus*) and bighorn sheep (*Ovis canadensis*) are present, from interior, arid rocky scrublands, to upper montane coniferous forest, to chaparral, coastal scrub, and woodland habits along the coastal plain.

According to the Mountain Lion Predicted Habitat dataset (CDFW 2025b), the proposed BESS portion of the Study Area consists primarily of high-quality habitat and most of the proposed gen-tie route is within low quality habitat. However, CDFW's Mountain Lion Habitat Suitability dataset has most of the proposed BESS portion of the Study Area and gen-tie alignment as low suitable habitat (Dellinger et al. 2020; CDFW 2025b). As such, the species could occur throughout most of the Project area during home range movement, dispersal, and foraging. The potential to occur is based on habitat suitability: scrub vegetation, presence of mule deer, and proximity to high-quality habitat on large swaths of public lands to the east in the Angeles Nation Forest. However, females keep their young in dens located in rocky terrain or in dense vegetation that provide cover but avoid roads and stay at a distance from human disturbance four (4) times greater (approximately 600 meters) than non-reproductive mountain lions (Center for Biological Diversity and the Mountain Lion Foundation 2019). The Study Area is located adjacent to residential neighborhoods, Sierra Highway, the Southern Pacific Railroad lines, Carson Mesa Road, and SR-14, all of which have associated human presence. As such, females of the species are not expected to establish natal dens in the Study Area.

Western Burrowing Owl

As of October 15, 2024, western burrowing owl is being considered for listing under CESA, and the species is provided with the protection of CESA. Primary habitat requisites for burrowing owl are the presence of burrows for roosting and nesting and vegetation structure that is relatively short and sparse (Center for Biological Diversity et al. 2024). The species was historically abundant throughout southwestern California, including up to the 610-meter (2,001.31 feet) elevation contour in the Transverse Ranges, but have been extirpated from Ventura, western Los Angeles, and Orange Counties and are near extirpation in San Diego County (Center for Biological Diversity et al. 2024). The petition to list the species does not include the Study Area in the breeding range of the species and does not include the Study Area in one (1) of the 16 burrowing owl regions in California (Center for Biological Diversity et al. 2024).

CDFW's range and predicted habitat for burrowing owl does not include the Study Area (CDFW 2025f). There are five (5) CNDDB records of the species within 10 miles that are in the Antelope Valley to the north of the Study Area, with the most recent being 2006 (CDFW 2025a). Citizen science-based databases have only five (5) records within 10 miles that are in the Antelope Valley to the north of the Study Area (eBird 2025; iNaturalist 2025).

The Study Area is dominated by shrub-dominant vegetation communities that have relatively high density. The Study Area elevation ranges from 2,700 feet to 3,500 feet above mean sea level, which is above the known historic occurrences of the species in the Transverse Ranges. California ground squirrel (*Otospermophilus beecheyi*) burrows are present but are sparse, and none of the extensive surveys of the Study Area have identified burrowing owl or diagnostic sign (i.e., pellets, feathers, and extensive whitewash). Based upon the lack of suitable habitat, the Study Area being above the known elevation occurrence of the species in the region, the lack of observations of the species during extensive surveys, and the limited number of records of the species within 10 miles, burrowing owl is not expected in the Study Area and will not be further analyzed.

American Badger

American badger is a CDFW SSC that is an uncommon, permanent resident found throughout most of the state, except in the northern North Coast (CDFW 2025f). Suitable habitat for the species is characterized by herbaceous, shrub, and open stages of most habitats with dry, friable soils (CDFW 2025f). American badger dig burrows in friable soil for dens and frequently reuse old burrows, although some may dig a new den each night, especially in summer (CDFW 2025f). American badger is a highly specialized burrowing mammal that primarily eats burrowing rats, mice, chipmunks, and especially ground squirrels and pocket gophers (CDFW 2025f).

There is one (1) CNDDB record of American badger within 20 miles of the Study Area from 1930 at Lake Los Angeles (CDFW 2025a). There is one (1) 2021 iNaturalist record of the species approximately 8.6 miles to the west near Agua Dulce (iNaturalist 2025). American badger has been determined to have a low potential to occur in the Study Area due to the presence of suitable habitat, but no individuals were observed and no diagnostic signs (i.e., burrows or digs with the species' conspicuous claw marks) were observed during the extensive surveys of the Study Area. As such, the species will not be further analyzed.

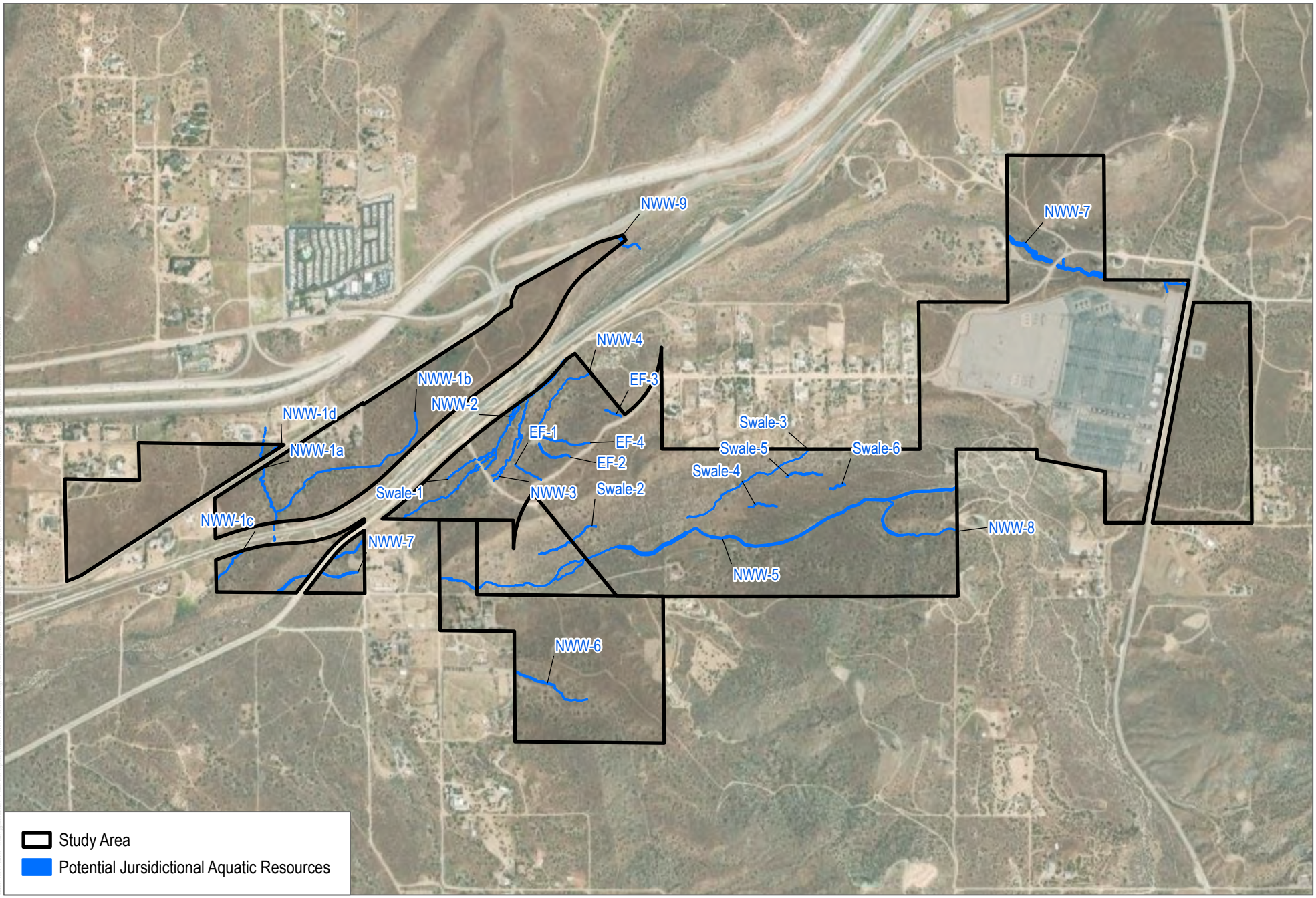
5.4 Potential Jurisdictional Wetlands and Waters

Approximately 3.80 acres of potential jurisdictional waters regulated by RWQCB and CDFW were found within the Study Area, as summarized in Table 6, Summary of Potential Jurisdictional Waters Within the Study Area, and illustrated in Figure 6, Potential Jurisdictional Aquatic Resources. Impacts to these features will require permits from RWQCB and, but for the CEC's jurisdiction, CDFW, before any Project activities take place. Based upon the current definition of waters of the United States per the Clean Water Act, no features were considered to be water of the United States under the jurisdiction of USACE due to the ephemeral-nature of each; however, an Approved Jurisdictional Determination will need to be sought from the agency to document this conclusion.

Table 6. Summary of Potential Jurisdictional Waters Within the Study Area

Jurisdiction	Study Area (acres)
RWQCB/CDFW	
Features	
Non-Wetland Waters	3.34
Swales	0.27
	0.05
Total	**3.80**

Note: RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.



SOURCE: World Imagery

DUDEK

0 500 1,000 Feet

FIGURE 6

Potential Jurisdictional Aquatic Resources

Prairie Song Reliability Project

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5.5 Wildlife Corridors and Habitat Linkages

Wildlife movement corridors have been recognized by federal and state agencies as important habitats worthy of conservation. Wildlife corridors provide migration channels seasonally (i.e., between winter and summer habitats) and provide non-migrant wildlife with the opportunity to move within their home range for food, cover, reproduction, and refuge. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals and may also serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as stepping stones for dispersal.

The Study Area does not overlap with any South Coast Missing Linkages, California Essential Habitat Connectivity Areas, or Natural Landscape Blocks (South Coast Wildlands 2020; CDFW 2014, 2017). Given that the existing vegetation is surrounded on three (3) sides by similar habitats, the Study Area likely provides habitat for local wildlife movement but is not recognized as an important regional wildlife corridor by any state agency or jurisdiction and is of limited linkage value on a landscape scale. Furthermore, although local wildlife may utilize the Study Area for movement, regional connectivity is highly limited by residential neighborhoods, Sierra Highway, the Southern Pacific Railroad lines, Carson Mesa Road, and SR-14 to the west. Thus, the Project is not expected to impose significant barriers to wildlife movement.

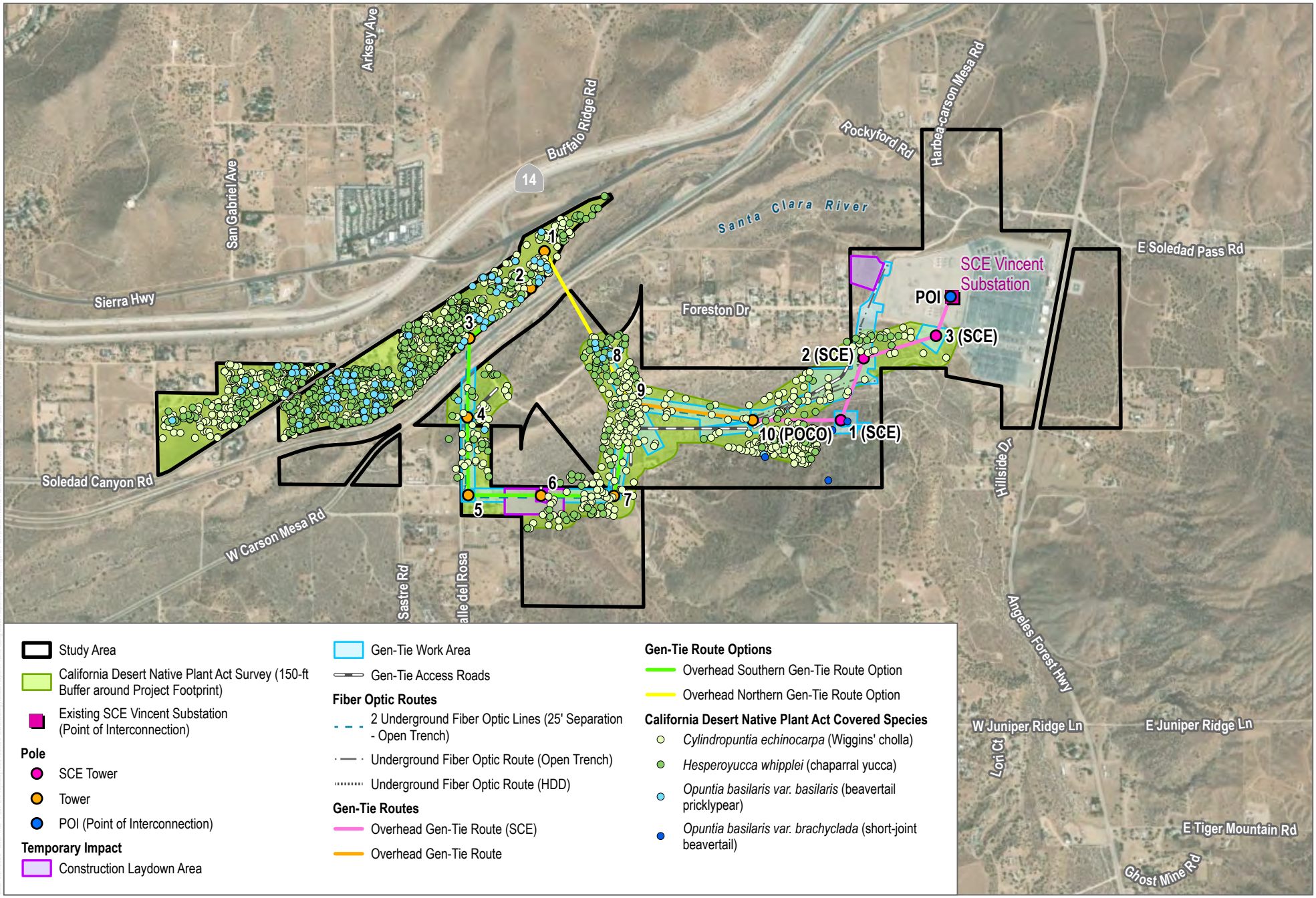
5.6 California Desert Native Plant Act Covered Species

Four (4) species covered by the CDNPA were mapped within the Project footprint and a 150-foot buffer (except for adjacent private properties), as shown in Figure 7, California Desert Native Plant Act Covered Species in the Survey Area: chaparral yucca, Wiggins' cholla, beavertail pricklypear (*Opuntia basilaris* var. *basilaris*) and short-joint beavertail. Table 7, California Desert Native Plant Act Covered Species in the Survey Area, summarizes the numbers within each area and Figure 7.

Table 7. California Desert Native Plant Act Covered Species in the Survey Area

Species	Amount
chaparral yucca	1,118
Wiggins' cholla	644
beavertail pricklypear	94
short-joint beavertail	4
Total	**1,860**

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SOURCE: World Imagery

DUDEK

0 700 1,400 Feet

FIGURE 7

California Desert Native Plant Act Covered Species in the Survey Area

Prairie Song Reliability Project

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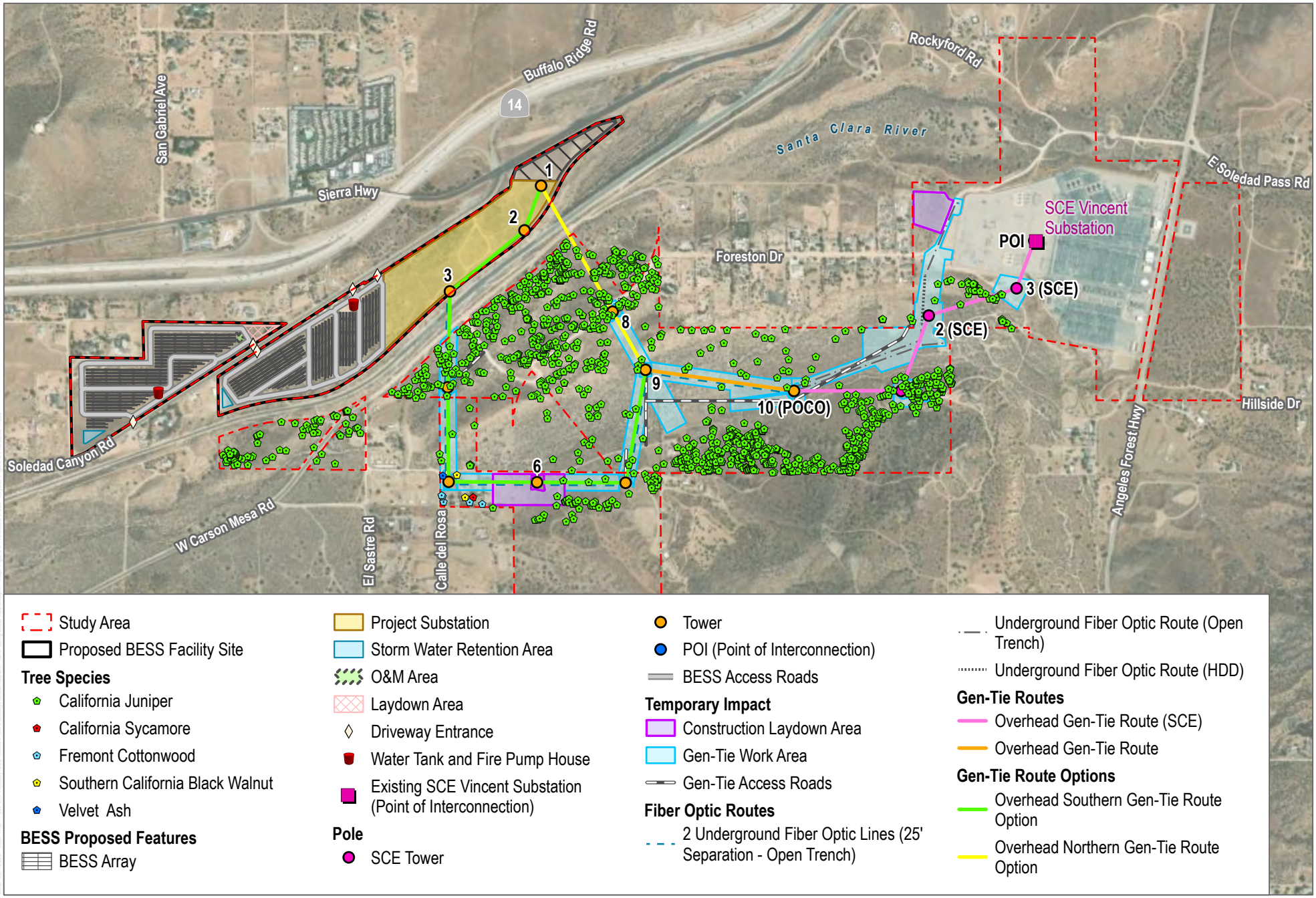
5.7 Significant Ecological Area Protected Trees

A total of 1,215 trees were documented within the survey area, as shown in Figure 8, Protected Trees, and summarized in Table 8, Summary of Trees in the Study Area. Of these, 1,191 trees are located within the Santa Clara River SEA, and 1,069 of those are classified as protected California junipers. The species is a shrub that is native to California and found only slightly beyond California borders (Calflora 2025). California juniper typically has several trunks and grows up to 13 feet (Jepson Flora Project 2025). Apart from the 1,069 California juniper, nine (9) other protected trees were identified (velvet ash, Southern California black walnut, California sycamore (*Platanus racemosa*), and Fremont cottonwood (*Populus fremontii*), however, no impacts would occur to California sycamore or Fremont cottonwood. Two of the trees, velvet ash and Southern California black walnut, were found within the SEA portion of the Study Area as ornamental trees associated with a residence. These species do not typically occur in the habitats in the Study Area. The protected trees include 1,004 standard protected trees and 74 heritage trees. The remaining 194 trees consist of 81 located outside the SEA and 113 trees within the SEA that are classified as dead; dead trees are not protected by the County of Los Angeles and do not require mitigation. Table 8 summarizes the protected trees, heritage trees, and non-protected trees that were mapped and evaluated within the Survey Area. Appendix A, Tree Location, of Appendix A of this report provides detailed methodology and locations of all individual trees assessed for the proposed Project. Full results are included in Appendix A.

Table 8. Summary of Trees in the Study Area

Scientific Name	Common Name	Total Number of Protected Trees	Number of Heritage Trees	Total Number of Non-Protected Trees	Total Number of Trees
Juniperus californica	California juniper	1,069	73	113	1,182
Fraxinus velutina	velvet ash	1	0	0	1
Juglans californica	Southern California black walnut	2	0	0	2
Platanus racemosa	California sycamore	1	0	0	1
Populus fremontii	Fremont cottonwood	5	1	0	5
	Total	**1,078**	**74**	**113**	**1,191**

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SOURCE: World Imagery

DUDEK

0 550 1,100 Feet

FIGURE 8

Protected Trees

Prairie Song Reliability Project

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6 Project Impacts to Significant Ecological Area Resources

This chapter addresses the maximum direct and indirect potential impacts to biological resources within the Santa Clara SEA that would result from implementation of the Project.

6.1 Definition of Impacts

Direct. Section 15358 of the CEQA Guidelines defines direct impacts as those that result from the project and "occur at the same time and place." Project-related activities, such as alteration, disturbance, or destruction of sensitive biological resources, are considered a direct impact. Direct impacts for this Project are those associated with the Project, including grading and development of the BESS facility site and gen-tie route.

Indirect. Section 15358 of the CEQA Guidelines defines indirect impacts as impacts that are caused by the project and "are later in time or farther removed in distance, but are still reasonably foreseeable." Indirect impacts associated with the proposed Project include effects to biological or aquatic resources as a result of dust, noise, vibration, or potential erosion.

Permanent. All impacts that result in the irreversible removal of biological resources are considered permanent. Permanent impacts for the proposed Project include the conversion of land for the BESS facility site and associated access facilities.

Temporary. Temporary impacts are considered to have reversible effects on biological resources. Temporary impacts associated with the proposed Project include tension/pulling sites along the gen-tie right of way, and other work associated with temporary access along the gen-tie line.

6.1.1 Explanation of Project Consistency with Significant Ecological Area Conditional Use Permit Compatibility Criteria

As noted in the SEA Ordinance Implementation Guide (Los Angeles County Regional Planning 2020), "When development does not meet the SEA Development Standards, [but for the California Energy Commission's Opt-In Application for Certification process,] a SEA CUP will be required to consider whether the project is compatible with the goals and policies of the SEA Program." Additionally, "The natural open space preservation requirement for SEA CUPs is dependent on the amount of proposed development, degree of impact, type and quality (e.g., intactness) of SEA Resources being disturbed, location, and setting of those SEA Resources, and the project's ability to address the SEA Findings."

The SEA Ordinance Implementation Guide also notes the following (Los Angeles County Regional Planning 2020):

> Development in the SEAs must demonstrate how the proposed development is designed to:
>
> A. Be highly compatible with the SEA Resources, including the preservation of natural open space areas and providing for the long-term maintenance of ecosystem functions;...

B. Avoid or minimize impacts to the SEA Resources and wildlife movement through one or more of the following: avoiding habitat fragmentation, minimizing edge effects, or siting development in the least sensitive location;...

C. Buffer important habitat areas from development by retaining sufficient natural vegetation cover and/or natural open spaces and integrating sensitive design features;...

D. Maintain the ecological and hydrological functions of water bodies, watercourses, and their tributaries;...

E. Ensure that roads, access roads, driveways, and utilities do not conflict with Priority Biological Resources, habitat areas or migratory paths; and...

F. Promote the resiliency of the SEA to the greatest extent possible. For purposes of this finding, SEA resiliency cannot be preserved when the proposed development may cause any of the following:

   a. Significant unmitigated loss of contiguity or connectivity of the SEA;

   b. Significant unmitigated impact to a Priority Biological Resource;

   c. Removal of habitat that is the only known location of a new or rediscovered species; or

   d. Other factors as identified by SEATAC.

6.2 Impacts to Special-Status Plants

Two special-status plant species, Douglas' fiddleneck and Raven's blazing-star, were recorded on one day of the special-status plant surveys but were not mapped. As such the two species could be directly impacted during vegetation removal and grading activities. The loss of individuals during construction could be significant based upon the abundance of each being impacted and will require mitigation. **MM-BIO-1**, Special-Status Plant Species Surveys and seed collection, requires pre-construction surveys for the species to determine if the species are present and the collection of seeds should the species be present. However, some of the individuals of both species are in close proximity to the Project construction limits. Mitigation Measure (MM) BIO-2, Demarcation of Disturbance Limits, requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3, Biological Monitoring, requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the flagged limits are adhered to during construction. MM-BIO-4, Worker Education Awareness Program (WEAP), requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and Study Area and measures to avoid and minimize impacts to those resources. MM-BIO-5, On-Site Preservation, requires the establishment of a conservation area that will preserve up to approximately 136 acres of native vegetation communities (the non-impacted acres of the parcels associated with the gen-tie route) within the Study Area parcels associated with the gen-tie routes,, which will preserve individuals and habitat for the species should an ITP for the species be needed. MM-BIO-6, Habitat Mitigation and Monitoring Plan, requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use. Project implementation of MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, and MM-BIO-6 will provide the mitigation for the Project to be compatible with SEA Resources.

Two (2) additional special-status plant species, short-joint beavertail and golden linanthus, were mapped in the gen-tie route portion of the Study Area during surveys in 2023. None of the mapped individuals will be directly impacted by the Project. However, some of the individuals of both species are in close proximity to the Project construction limits. MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources

outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the integrity of any buffers established for active nests. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. Project implementation of MM-BIO-1 through MM-BIO-5 will reduce potential impacts to less than significant. Impacts will be less than significant with mitigation.

6.3 Impacts to Special-Status Wildlife

For all wildlife, MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the integrity of any buffers established for active nests. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. For Crotch's bumble bee, MM-BIO-7, Crotch's Bumble Bee Avoidance and Minimization Measures, requires pre-construction surveys for the Crotch's bumble nests, with buffers established around active nests until the nests are deemed inactive. For special-status reptiles, MM-BIO-8, Special-Status Wildlife Relocation Plan, will provide a process of clearance surveys and relocation of special-status wildlife into non-impacted portions of the Study Area. For nesting birds, including loggerhead shrike, Southern California rufous-crowned sparrow, and Bell's sage sparrow, MM-BIO-8, Nesting Bird Avoidance, requires pre-construction surveys and buffer establishment for active nests. Project implementation of MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-7, MM-BIO-8, and MM-BIO-9 will provide the mitigation for the Project to be compatible with SEA Resources.

The Project may impact habitat in the SEA that supports or has the potential to support several special-status species that are candidates for listing under CESA or are CDFW SSC: Crotch's bumble bee, California legless lizard, Blainville's horned lizard, loggerhead shrike, Southern California rufous-crowned sparrow, and mountain lion. Each species is expected to have potentially suitable habitat in all of the native habitats in the Study Area, with the exception of California legless lizard, which is only expected in habitats with California juniper. Indirect impacts to these species will be from the substantial loss of foraging and breeding habitat, as shown in Table 9, Potential Impacts to Special-Status Wildlife Habitat Within the SEA.

Table 9a. Potential Impacts to Special-Status Wildlife Habitat Within the SEA – Northern Gen-Tie Route

Species	SEA Resource Category[1]	SEA Preservation Ratio[1]	Potential Impacted Habitat (acres)[2]	Restored Temporarily Impacted Habitat (Gross acreage)[2,3]	Needed Conserved Habitat (Gross acreage)[2,4,6]
Crotch's bumble bee	1	5:1	26.12[7]	23.96	106.64
California legless lizard	2	4:1	2.46[8]	1.87	7.97
Blainville's horned lizard	2	4:1	26.12[7]	23.96	80.52
loggerhead shrike	2	4:1	26.12[7]	23.96	80.52
greater roadrunner	3	3:1	26.12[7]	23.96	54.40
mountain lion	1	5:1	29.73[9]	27.57[10]	121.08

Notes: SEA = Significant Ecological Area; gen-tie = generation interconnection; MM = Mitigation Measure.
1 Los Angeles County Regional Planning 2020.
2 Includes impacts from the northern gen-tie route.
3 Restoration for areas that are temporary impacts (MM-BIO-6).
4 Total impacts multiplied by the ratio and minus the restored habitat (MM-BIO-5).
6 Acreages are not additive. Conserved habitat needed is overlapping since the species share suitable habitat, so the 121.08 acres for mountain lion will cover all species.
7 Includes all native habitats impacted, as listed in Table 10.
8 Includes all habitats that support California juniper, as listed in Table 10.
9 Includes all native habitats and disturbed habitat impacted, as listed in Table 10.
10 Includes all restoration of native habitats and disturbed habitats.

Table 9b. Potential Impacts to Special-Status Wildlife Habitat Within the SEA – Southern Gen-Tie Route

Species	SEA Resource Category[1]	SEA Preservation Ratio[1]	Potential Impacted Habitat (acres)[2]	Restored Temporarily Impacted Habitat (Gross acreage)[2,3]	Needed Conserved Habitat (Gross acreage)[2,4,6]
Crotch's bumble bee	1	5:1	32.26[7]	29.49	131.81
California legless lizard	2	4:1	3.06[8]	2.33	9.91
Blainville's horned lizard	2	4:1	32.26[7]	29.49	99.55
loggerhead shrike	2	4:1	32.26[7]	29.49	99.55
greater roadrunner	3	3:1	32.26[7]	29.49	67.29
mountain lion	1	5:1	35.96[9]	32.84[10]	146.96

Notes: SEA = Significant Ecological Area; gen-tie = generation interconnection; MM = Mitigation Measure.
1 Los Angeles County Regional Planning 2020.
2 Includes impacts from the southern gen-tie route.
3 Restoration for areas that are temporary impacts (MM-BIO-6).
4 Total impacts multiplied by the ratio and minus the restored habitat (MM-BIO-5).
6 Acreages are not additive. Conserved habitat needed is overlapping since the species share suitable habitat, so the 146.96 acres for mountain lion will cover all species.
7 Includes all native habitats impacted, as listed in Table 10.
8 Includes all habitats that support California juniper, as listed in Table 10.
9 Includes all native habitats and disturbed habitat impacted, as listed in Table 10.
10 Includes all restoration of native habitats and disturbed habitats.

MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately 147 acres of native vegetation communities within the Study Area parcels associated with the Southern Gen-Tie Route (or 122 acres if the Northern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use. MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring that Project construction does not extend beyond Project limits. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources, which will include a discussion about sensitive vegetation communities. Project implementation of MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, and MM-BIO-6 will provide the mitigation for the Project to be compatible with SEA Resources.

6.4 Impacts to Vegetation Communities

Table 10, Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area Portion of the Study Area, summarizes the Project's potential direct impacts to vegetation communities and land covers in the Santa Clara River SEA. There will be approximately 2.18 acres of permanent impacts and approximately 28.68 acres of temporary impacts, under the Northern Gen-Tie Route. There will be approximately 3.51 acres of permanent impacts and approximately 34.62 acres of temporary impacts, under the Southern Gen-Tie Route. Of the approximate 269.78 acres of vegetation communities in the Study Area, about 238.92 acres (~89%) will be unaffected by Project activities under the Northern Gen-Tie Route, and 231.65 acres (~86%) under the Southern Gen-Tie Route. Potential direct impacts will occur due to removal of vegetation, alteration of soils from grading, and the development of the Project.

Table 10a. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area Portion of the Study Area – Northern Gen-Tie Route

Alliance/Type	Association	NatureServe Global / State Rank[1]	SEA Category[2]	Ratio[2]	Permanent Impacts (gross acreage)[3]	Temporary Impacts (gross acreage)[3]	Total Impacts (gross acreage)[3]
Native Communities							
Cheesebush – sweetbush scrub	*Ambrosia salsola – Larrea tridentata*	NA/NA	4	2:1	–	–	–
	Ambrosia salsola Association	NA/NA	4	2:1	–	0.54	0.54
California sagebrush – (purple sage) scrub	*Artemisia californica – Eriogonum fasciculatum*	G4/S4	4	2:1	–	1.00	1.00
Big sagebrush	*Artemisia tridentata – Ericameria nauseosa*	NA/NA	4	2:1	–	1.15	1.15
	Artemisia tridentata ssp. *parishii*	G2/S2	4	2:1	–	0.06	0.06
Fourwing saltbush scrub	*Atriplex canescens*	G5/NA	4	2:1	1.57	18.98	20.22
Rubber rabbitbrush scrub	*Ericameria nauseosa – Juniperus californica* / herb	NA/NA	4	2:1	–	0.37	0.37
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum* –	NA/NA	3	3:1	–	0.21	0.21

Table 10a. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area Portion of the Study Area – Northern Gen-Tie Route

Alliance/Type	Association	NatureServe Global / State Rank[1]	SEA Category[2]	Ratio[2]	Permanent Impacts (gross acreage)[3]	Temporary Impacts (gross acreage)[3]	Total Impacts (gross acreage)[3]
	Eriogonum fasciculatum						
	Juniperus californica / herbaceous	NA/NA	3	3:1	0.59	1.66	2.25
Land Covers							
Disturbed Habitat	NA	NA	NA	NA	–	3.61	3.61
Urban/ Developed	NA	NA	NA	NA	0.01	1.11	1.13
				Total:	**2.18**	**28.68**	**30.86**

Notes:

1 Vegetation types listed with global/state ranks 1-3 are considered sensitive; ranks 4-5 are considered secure (CNPS 2023). NA = this vegetation association does not have an assigned NatureServe global or state conservation rank because it either is not considered rare or imperiled, or it has not been formally evaluated or ranked by NatureServe.

2 Significant Ecological Area Ordinance Implementation Guide (Los Angeles County Regional Planning 2020).

3 Includes impacts from the Northern Gen-Tie Route and permanent and temporary impacts.

Table 10b. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Southern Gen-Tie Route

Alliance	Association	SEA Category[1]	Ratio[1]	Permanent Impacts (gross acreage)[2]	Temporary Impacts (gross acreage)[2]	Total Impacts (gross acreage)[2]
Native Communities						
Cheesebush – sweetbush scrub	*Ambrosia salsola - Larrea tridentata*	4	2:1	--	0.05	0.05
	Ambrosia salsola Association	4	2:1	--	1.57	1.57
California sagebrush – (purple sage) scrub	*Artemisia californica - Eriogonum fasciculatum*	4	2:1	--	1.00	1.00
Big sagebrush	*Artemisia tridentata - Ericameria nauseosa*	4	2:1	0.46	2.21	2.67

Table 10b. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Southern Gen-Tie Route

Alliance	Association	SEA Category[1]	Ratio[1]	Permanent Impacts (gross acreage)[2]	Temporary Impacts (gross acreage)[2]	Total Impacts (gross acreage)[2]
	Artemisia tridentata ssp. *parishii*	4	2:1	--	0.20	0.20
Fourwing saltbush scrub	*Atriplex canescens*	4	2:1	1.58	21.01	22.59
Rubber rabbitbrush scrub	*Ericameria nauseosa - Juniperus californica* / herb	4	2:1	--	1.12	1.12
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum*	3	3:1	0.53	0.35	0.87
	Juniperus californica / herbaceous	3	3:1	0.20	1.98	2.18
Disturbed Habitat	N/A	N/A	N/A	0.36	3.35	3.71
Urban/Developed	N/A	N/A	N/A	0.39	1.78	2.17
			Total:	**3.51**	**34.62**	**38.13**

As shown in Table 10, the *Artemisia tridentata ssp. parishii* association is the only vegetation community in the Study Area ranked as sensitive under NatureServe's conservation status system. Classified as globally and state imperiled (G2/S2), this community faces a high risk of extinction or elimination (NatureServe 2025). Project activities will result in approximately 0.06 acres of temporary impacts to this vegetation community association under the Northern Gen-Tie Route or 0.20 acres of temporary impacts to this vegetation community association under the Southern Gen-Tie Route.

MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately 147 acres of native vegetation communities within the Study Area parcels associated with the Southern Gen-Tie Route (or 122 acres if the Northern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore the approximately 28.17 acres of temporarily impacted areas within the conservation area associated with the Southern Gen-Tie (or 22.61 acres of temporarily impacted areas under the Northern Gen-Tie Route). Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

6.5 Impacts to Water Resources

The Project will have potential impacts to up to approximately 0.21 acres (approximately 0.01 acres of permanent impacts and 0.20 acres of temporary impacts) of SEA Water Resources (i.e., streams and swales), if the Northern Gen-Tie Route is selected, and approximately 0.31 acres (approximately 0.01 permanent impacts and 0.30 acres temporary impacts) of SEA Water Resources (i.e., streams and swales) if the Southern Gen-Tie Route is selected. Potential direct impacts will occur due to grading and the development of the Project. Water Resources are to be preserved at 5:1, resulting in the need for up to 1.55 acres of preservation. MM-BIO-5 requires the establishment of a conservation area that has the potential to preserve up to 2.08 acres of unimpacted Water Resources in the Study Area parcels associated with the Northern Gen-Tie Route (or 1.99 acres if the Southern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore an additional approximately 0.20 acres or 0.31 acres of temporarily impacted Water Resources within the conservation area. Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

6.6 Impacts to Protected Trees

Direct impacts are associated with tree removal or encroachment within the tree protection zone (TPZ; i.e., canopy dripline plus 5 feet or 15 feet from trunk, whichever is greater) of a protected tree. Specifically, potential tree impacts were determined using geographic information system technology, spatial locations of tree crowns, and a minimum distance of each tree relative to the project impact. A tree is considered removed if it falls within the Project's limits of disturbance or if 30% or more of its TPZ is impacted. A tree is considered encroached upon if less than 30% of its TPZ is affected by project activities, including soil or root disturbance and/or pruning, but the tree is not removed, and a tree is considered preserved if they are not removed and do not experience any TPZ disturbance. Impact totals presented herein are based on proposed disturbance limits, fuel modification zones, and development plans as of the date of this report. The following tree impact findings are organized into two categories: non-heritage tree impacts and heritage tree impacts. Heritage tree status is based on the SEA tree classifications (i.e., riparian, coniferous, upland hardwood) and minimum trunk diameter for protected and heritage trees.

Non-Heritage Tree Impacts (Protected Trees)

Of the 1,004 protected trees that occur within the Survey Area (non-inclusive of heritage trees), 72 protected non-heritage trees would be directly impacted by the proposed Northern gen-tie route. The 72 protected non-heritage tree impacts consist of 58 potential removals (trees are within the grading limits or grading activities affect more than 30% of a TPZ) and 14 potential encroachments (trees that are not removed, but root damage, soil excavation and compaction, grade changes, loss of canopy, and trunk wounds are anticipated). The remaining 932 protected non-heritage trees would not be directly impacted by the Project. 86 protected non-heritage trees could be directly impacted by the proposed Southern Gen-Tie Route option. The 86 protected non-heritage tree impacts consist of 74 potential removals and 12 potential encroachments. The remaining 918 protected non-heritage trees would not be directly impacted by the Southern Gen-Tie Route option.

Table 11, Summary of Potential Impacts to SEA Protected Trees (Non-Heritage), provides a summary of the proposed impacts to non-heritage SEA protected trees within and adjacent to the Project.

Table 11a. Summary of Potential Impacts to SEA Protected Trees (Non-Heritage) – Northern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	0	0	0
Juniperus californica	California juniper	57	14	71
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**58**	**14**	**72**

Note: SEA = Significant Ecological Area.

Table 11b. Summary of Potential Impacts to SEA Protected Trees (Non-Heritage) – Southern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	1	0	1
Juniperus californica	California juniper	72	12	84
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**74**	**12**	**86**

Note: SEA = Significant Ecological Area.

Appendix A presents the locations of the individual trees that would be subject to impacts by the proposed Project.

Heritage Tree Impacts

California juniper, which have naturally thin trunks, must have a height of 20 feet or a canopy spread of 35 feet to be designated as a heritage tree (Los Angeles County Regional Planning 2020).

A total of 74 heritage trees are found on site, of which 10 could be directly impacted if the Northern Gen-Tie Route were selected. The 10 heritage tree impacts comprise six (6) potential removals and four (4) potential encroachment. The remaining 64 heritage trees would not be directly impacted by the Northern Gen-Tie Route. 12 heritage trees could be directly impacted by the Southern Gen-Tie Route option. The 12 heritage tree impacts comprise eight (8) potential removals and four (4) potential encroachment. The remaining 62 heritage trees would not be directly impacted by the project if the Southern Gen-Tie Route were selected.

Table 12, Summary of Potential Impacts to SEA Protected heritage trees, provides a summary of the proposed impacts to SEA protected heritage trees within and adjacent to the Project.

Table 12a. Summary of Potential Impacts to SEA Protected Heritage Trees – Northern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	0	0	0
Juglans californica	Southern California black walnut	0	0	0
Juniperus californica	California juniper	6	4	10
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**6**	**4**	**10**

Note: SEA = Significant Ecological Area.

Table 12b. Summary of Potential Impacts to SEA Protected Heritage Trees – Southern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	0	0	0
Juglans californica	Southern California black walnut	0	0	0
Juniperus californica	California juniper	8	4	12
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**8**	**4**	**12**

Note: SEA = Significant Ecological Area.

Appendix A presents the locations of the individual trees that would be potentially subject to impacts by the proposed Project.

Per the County requirements, the removal of any SEA protected tree requires mitigation in the form of two (2) replacement plantings, and the removal of a heritage tree requires mitigation in the form of 10 replacement plantings. Replacement trees should be seedlings of the same species as those being removed and should be planted in an area of the Project site where there is suitable habitat and where the trees would be able to remain in perpetuity. As such, if the Northern Gen-Tie Route were selected, 64 potential direct tree removals (six [6] heritage trees and 58 non-heritage protected trees), the SEA rules may require a minimum of 176 mitigation trees to be planted in an area of the Project site where there is suitable habitat and where the trees would be able to remain in perpetuity.

If the Southern Gen-Tie Route option is selected up to 82 potential direct tree removals (eight [8] heritage trees and 74 non-heritage protected trees), the County would require up to 228 mitigation trees to be planted in an area of the project site. Per the County, Table 13, Summary of Potential Individual Species Replacement Quantities, details the quantity of each species required for planting.

Table 13a. Summary of Potential Individual Species Replacement Quantities – Northern Gen-Tie Route

Scientific Name	Common Name	Total Impacted	Replacement Ratio	Total Replacement Required
Juniperus californica	California juniper	57	2:1	114
Juniperus californica (Heritage Tree)	California juniper	6	10:1	60
Fraxinus velutina	velvet ash	1	2:1	2[1]
	Total:	**64**	**N/A**	**176**

Note: N/A = not applicable. [1] The velvet ash that would be impacted by the Project is an ornamental tree associated with a residence and these species do not typically occur in the habitats in the Study Area, so California juniper would be used for the replacement of these species.

Table 13b. Summary of Potential Individual Species Replacement Quantities – Southern Gen-Tie Route

Scientific Name	Common Name	Total Impacted	Replacement Ratio	Total Replacement Required
Juniperus californica	California juniper	72	2:1	144
Juniperus californica (Heritage Tree)	California juniper	8	10:1	80
Fraxinus velutina	velvet ash	1	2:1	2[1]
Juglans californica	Southern California black walnut	1	2:1	2[1]
	Total:	**82**	**N/A**	**228**

Note: N/A = not applicable. [1] The velvet ash and Southern California black walnut that would be impacted by the Project are ornamental trees associated with a residence and these species do not typically occur in the habitats in the Study Area, so California juniper would be used for the replacement of these species.

MM-BIO-5 requires the establishment of a conservation area. The currently contemplated conservation area has the potential to preserve up to 996 California junipers, however this will be determined upon selection of the gen-tie line route and the design of the project prior to final site plans. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas within the conservation area, including areas mapped as California juniper woodland. Based on current design, up to 228 or 164 replacement California juniper would be planted and monitored as part of the implementation of MM-BIO-6 if the Northern Gen-Tie Route or Southern Gen-Tie Route is selected, respectively. Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

7 Mitigation Measures

The following mitigation measures shall be implemented for the Project to make the Project compatible with SEA Resources.

MM-BIO-1 Pre-Construction Special-Status Plant Species Survey and Seed Collection.

Prior to the beginning of vegetation removal and grading, CEC-approved biologists shall conduct a focused rare plant survey for Douglas' fiddleneck and Raven's blazing-star during the appropriate blooming period (March through May). Reference site checks will be made for the species to determine if the species are blooming in the Project vicinity. The surveys will conform to CNPS' Botanical Survey Guidelines; CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities; and USFWS' Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants. The results of the surveys will be documented in a report and submitted to the City.

Should any of the species be found at a count of 20 or higher, then construction of the occupied location shall be delayed until the individuals have gone to seed. Seeds shall be collected once the seed has matured, but prior to the seed capsules opening to disperse the seed. Seeds shall be stored in breathable paper bags in a cool, dry, and dark place. The seeds will then be used in the habitat restoration for the Project (see MM-BIO-6).

MM-BIO-2 Demarcation of Disturbance Limits

Prior to commencement of ground-disturbing activities for each phase of Project construction, the construction limits shall be clearly demarcated (e.g., installation of flagging or temporary high visibility construction fence), as recommended by the California Energy Commission–approved Biological Monitor. All construction activities including equipment staging and maintenance shall be conducted within the marked disturbance limits to prevent inadvertent disturbance to sensitive vegetation communities outside the limits of work. The flagging shall be maintained throughout construction.

MM-BIO-3 Biological Monitoring

Prior to ground-disturbing activities, the applicant shall submit the qualifications of potential Biological Monitor(s) to the California Energy Commission (CEC) for review and approval. The CEC-approved Biological Monitors shall monitor construction activities and ensure compliance with all mitigation measures. The Biological Monitors shall be present on site during all vegetation removal and each day prior to the commencement of grading activities. The Biological Monitors shall be responsible for conducting a pre-construction clearance survey, and any special-status species shall be relocated to areas of the Study Area that will not be impacted by the Project (see MM-BIO-5). Pre-construction clearance surveys shall be conducted prior to construction of each new phase of the development. The Biological Monitors shall monitor to ensure that wildlife does not become entrapped in excavation or trenching areas. Safeguards shall be implemented during daytime periods of non-activity and overnight, such as placing a platform over trenches, flush with the ground surface; installing escape ramps in trenches; or installing exclusionary fencing. Should relocation of any trapped wildlife be required, construction shall be halted until a Biological Monitor arrives on site and clears the work area (in compliance with all applicable permits and authorizations).

The Biological Monitors shall regularly inspect the Project site as needed after the completion of all grading activities. Monthly spot-check monitoring is anticipated to be required throughout the construction of the Project for those areas that are graded but not yet developed/landscaped. During monthly visits, a Biological Monitor shall address the following: (1) the potential establishment of invasive species and require weed abatement (if necessary) in accordance with Mitigation Measure BIO-10; (2) address the potential establishment of native vegetation/habitat to reduce the potential for impacts between phases of construction; and (3) identify deficiencies, if applicable, with any erosion control measures that have the potential to negatively impact biological resources.

Daily monitoring reports shall be prepared by the Biological Monitors that document the results of any surveys conducted, wildlife relocated, construction activities performed, compliance issues observed, or corrective actions taken during the reporting period. The monitoring reports shall include photos as appropriate and be made available to the CEC at their request. Following the completion of the Project construction, a construction monitoring report will be prepared by the applicant to document compliance with the minimization measures and permit conditions for the Project.

MM-BIO-4 Worker Education Awareness Program (WEAP)

Prior to the initiation of the initial ground-disturbing activities, all personnel associated with those activities shall attend a worker education awareness program (program) prepared by a qualified biologist approved by the California Energy Commission (CEC). In general, the program shall discuss any potentially occurring sensitive biological resources or species and habitat preference(s), occupied habitat in the area, and life histories; potential construction impacts; protection measures; and Project limits. Legal protections and regulations pertinent to the biological resources that may be present shall also be included in the program. A species and habitat fact sheet shall be developed prior to the training program and distributed at the training program to all contractors, employers, and other personnel involved with the construction of the Project.

After the kickoff meeting, the Project applicant shall notify the CEC-approved qualified biologist in advance if additional contractors are employed during the initial vegetation removal or initial grading activities. A sign-in sheet will be circulated for signatures to all personnel that attend the workers' educational training to confirm that program materials were received and that they understand the information presented.

MM-BIO-5 On-Site Preservation

The applicant shall demonstrate recordation of a conservation easement, as defined by California Civil Code Section 815.1, that permanently preserves up to approximately 147 acres of non-impacted vegetation communities and up to approximately 28.17 acres of temporary impacted areas that will be restored within the Project boundaries for long-term conservation and management as a natural conservation area. Final acreages proposed for mitigation shall be determined once the generation interconnection line route is finalized. The Conservation Area will be up to approximately 147 acres and located within portions of the Study Area within the Santa Clara River SEA when considering the Southern Gen-Tie Route option. Table 14, Unimpacted Vegetation Communities and Land Cover Types in the Santa Clara River Significant Ecological Area Portion of the Study Area That Could Be Conserved, summarizes the potential vegetation communities and land cover that could be preserved.

Table 14. Unimpacted Vegetation Communities and Land Cover Types in the Santa Clara River Significant Ecological Area Portion of the Study Area That Could Be Conserved

Alliance	Association	SEA Category[1]	Acres
Vegetation Communities			
Cheesebush – sweetbush scrub	*Ambrosia salsola – Larrea tridentata*	4	0.82
	Ambrosia salsola Association	4	2.60
Big sagebrush	*Artemisia tridentata – Ericameria nauseosa*	4	14.04
	Artemisia tridentata – Eriogonum fasciculatum	4	--
	Artemisia tridentata ssp. *parishii*	4	0.48
Fourwing saltbush scrub	*Atriplex canescens*	4	66.65
Mormon tea scrub	*Ephedra viridis*	4	1.99
Rubber rabbitbrush scrub	*Ericameria nauseosa – Juniperus californica* / herb	4	3.85
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum – Eriogonum fasciculatum*	3	5.55
	Juniperus californica / herbaceous	3	69.90
		Vegetation Communities Subtotal:	*165.88*
Land Cover Types			
Disturbed Habitat	N/A	N/A	6.39
Urban Developed	N/A	N/A	2.76
		Land Cover Types Subtotal:	*9.15*
		Total:	**175.03**

Notes: SEA = Significant Ecological Area; N/A = not applicable.
[1] SEA Ordinance Implementation Guide (Los Angeles County Regional Planning 2020).

A cost estimate shall be prepared to estimate the initial start-up costs and ongoing annual costs of management activities for the management of the conservation easement area(s) in perpetuity. The funding source shall be in the form of an endowment to help the qualified natural lands management entity that is ultimately selected to hold the conservation easement(s). The endowment amount shall be established following the completion of a Project-specific Property Analysis Record (PAR) to calculate the costs of in-perpetuity land management. The PAR shall take into account all management activities required if an Incidental Take Permit for Crotch's bumble bee (*Bombus crotchii*) is needed for the Project.

The conservation easement holder shall be an entity that has as part of its mission the protection of the environment, including lands, plant species, and/or wildlife species, and can be expected by its organization and history to remain in existence for the foreseeable future. The California Department of Fish and Wildlife per Government Code Section 65967(c) shall review the entity. The entity that holds the endowment shall first meet the criteria outlined in Government Code Section 65968(b).

Conservation Management Plan. As part of recording the conservation easement, a Conservation Management Plan (CMP) applicable to the Conservation Area shall be prepared and submitted to the California Energy Commission for approval. The CMP shall identify the required resource management activities and the entities that shall be responsible for managing those activities in perpetuity. The CMP shall set forth requirements that shall be

implemented by the entity that holds the conservation easement and/or manages and stewards the Conservation Area, and may include the following: (1) there shall be no grading or other construction activities within the Conservation Area, except for the proposed habitat enhancement/restoration; (2) no fencing or other barriers to wildlife movement shall be installed; (3) commercial honeybee operations shall not be allowed to use the Conservation Area for storing their apiaries; (4) rodenticides shall be prohibited; (5) herbicides and pesticides shall be discouraged, and only those typically used for invasive plant management in California wildlands shall be allowed, per the California Invasive Plant Council and Pesticide Research Institute's 2015 Best Management Practices (BMPs) for Wildland Stewardship; (6) at least one (1) annual walk-through survey shall be conducted by a biologist to qualitatively monitor the general condition of on-site habitats and to check for any new introduction or expansion of invasive plant species; (7 trash shall be collected and removed, vandalized signs shall be repaired, and trespass impacts shall be rectified; and (8) annual reporting that document the conditions of the Conservation Area shall be provided. Approved work shall be outlined in the CMP and in the conservation easement, including monitoring and maintenance efforts or for other activities associated with preserve management, and prohibited activities shall be delineated.

MM-BIO-6 Habitat Mitigation and Monitoring Plan

Prior to ground-disturbing activities, a qualified biologist shall be retained to prepare a Habitat Mitigation and Monitoring Plan (HMMP) detailing the specific approach for each type of habitat restoration and establishment area in the Conservation Area and short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) transplant location, and shall outline detailed performance standards and monitoring requirements for each, following the monitoring and reporting methods and performance standards listed below. The HMMP shall be submitted to and approved by the California Energy Commission prior to the onset of Project-related ground-disturbing activities. The acreages allotted for on-site establishment apply to approximately 34.62 acres within the Conservation Area, including 0.24 acres of ephemeral streams for the Southern Gen-Tie Route, or 28.68 acres including 0.16 ephemeral streams if the Northern Gen-Tie Route is selected. Up to 176 or 228 California juniper (*Juniperus californica*) (depending on actual Project impacts and whether the Northern or Southern Gen-Tie Route selected, respectively) shall be planted, and individuals of the plant species covered by the California Desert Native Plant Act shall be evaluated to be used in the installation of native plants. The HMMP shall set out measures for habitat restoration/enhancement implementation, including but not limited to the following:

- Identification of proposed plant materials
- Signage in the habitat restoration area
- Schedule for habitat restoration/enhancement work
- Use of pesticides and elimination of non-native vegetation
- Habitat monitoring and reporting
- Performance standards

MM-BIO-7 Crotch's Bumble Bee Avoidance and Minimization Measures

If Crotch's bumble bee (*Bombus crotchii*) is still a candidate for listing under the California Endangered Species Act (CESA) or has been listed under CESA at the time of the start of construction of the Project, a pre-construction survey for Crotch's bumble bee shall be conducted within the construction footprint prior to the start of initial ground-disturbing activities occurring during the Crotch's bumble bee nesting period (February 1 through October 31). If construction commences outside of that period (November 1 through January 31), surveys would not be

warranted since the daughter queens (gynes) disperse following a nest's life cycle and conducting surveys for dormant gynes would not be practical.

The pre-construction survey will be based on recommendations described in the Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species, released by the California Department of Fish and Wildlife (CDFW) on June 6, 2023, or the most current at the time of construction. The pre-construction survey will be performed by a biologist with expertise in surveying for bumble bees and include at least three (3) survey passes that are not on sequential days or in the same week. The biologist shall watch the nest resources for up to 5 minutes, looking for exiting or entering worker bumble bees. Worker bees should arrive and exit an active nest site with frequency, such that their presence will be apparent after 5 minutes of observation.

During the bumble bee active nesting season (April 1 through August 30), the Biological Monitors approved by the California Energy Commission (CEC) (Mitigation Measure [MM] BIO-2) shall continue to conduct daily sweeps of areas proposed for initial vegetation removal and ground disturbance.

If nest resources occupied by Crotch's bumble bee are detected within the construction area, no construction activities shall occur within 50 feet of the nest or as determined by a qualified biologist through evaluation of topographic features or distribution of floral resources. The nest resources shall be avoided for the duration of the Crotch's bumble bee nesting period (February 1 through October 31). The CEC-approved Biological Monitors (MM-BIO-2) shall ensure that the nest buffer is complied with during that period. Outside of the nesting season, it is assumed that no live individuals will be present within the nest as the gynes usually leave by September and all other individuals (original queen, workers, males) die. The gyne is highly mobile and can independently disperse to outside of the construction footprint to proposed open space or other suitable areas beyond that have suitable hibernacula resources. Because construction will have occurred in the area outside of the occupied nesting resources, no suitable habitat will be present in the impact area, and it is assumed that new queens will disperse to habitat outside of the construction area.

If the nest resources cannot be avoided, as outlined in this measure, the Project applicant shall consult with CEC and CDFW regarding the need to obtain an Incidental Take Permit. In the event an Incidental Take Permit is needed, mitigation for direct impacts to Crotch's bumble bee shall be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those impacted by the Project or as otherwise determined through the Incidental Take Permit process. The compensatory habitat mitigation would be accomplished by on site preservation of suitable habitat.

MM-BIO-8 Special-Status Wildlife Relocation Plan

Prior to commencement of any ground-disturbing activities or the pre-construction staging of equipment on the Project site, the Project applicant shall contract with a biologist approved by the California Energy Commission (CEC) to develop a Pre-Construction Wildlife Survey and Relocation Plan for terrestrial reptiles, including California legless lizard (*Anniella* spp.) and Blainville's horned lizard (*Phrynosoma blainvillii*). The Pre-Construction Wildlife Survey and Relocation Plan shall be submitted to the CEC for review prior to any ground-disturbing activities within potentially occupied habitat.

The plan shall include, at a minimum, the following:

- Protocols for pre-construction surveys to flush out and/or move identified special-status wildlife within the Project site, as feasible

- Relocation to the portions of the Study Area outside of the Project construction limits and within the Conservation Area
- The timing, frequency, and locations where surveys should be conducted
- That surveys shall be conducted 24 hours prior to construction activities and repeated the morning of the proposed activity
- That surveys shall be conducted in all areas anticipated to be subject to vegetation clearing
- The habitat and conditions in the proposed relocation site(s)
- The methods that shall be used for trapping and relocating identified species
- That all equipment used in the effort shall be cleaned and decontaminated to minimize the spread of herpetofaunal pathogens, as noted by Julian and colleagues in their 2020 article in the Herpetological Review, Minimizing the Spread of Herpetofaunal Pathogens in Aquatic Habitats by Decontaminating Construction Equipment
- That any wildlife handling and relocation methodology from the Streambed Alteration Agreement issued by the California Department of Fish and Wildlife (CDFW), if any, shall be incorporated in the Pre-Construction Wildlife Survey and Relocation Plan
- Protocols for documentation/recordation of the species and number of animals relocated
- That relocations shall be logged and made available to the CEC, if requested
- Protocols for notifying CDFW if identified species cannot be relocated
- That attempts at relocation shall be logged and notification shall occur within 24 hours
- The timing and frequency of reports documenting the results of the surveys

MM-BIO-9 Nesting Bird Avoidance

Project construction shall be conducted in compliance with the conditions set forth in the Migratory Bird Treaty Act and California Fish and Game Code consistent with methods approved by the California Department of Fish and Wildlife to protect active bird/raptor nests. Vegetation removal shall occur during the non-breeding season for nesting birds and nesting raptors to avoid impacts to nesting birds and raptors.

For the remaining Project activities initiated during the breeding season for nesting birds and nesting raptors, a pre-construction survey shall be conducted by the Biological Monitor (Mitigation Measure BIO-3) for nesting birds and/or raptors within 3 days prior to any work within 300 feet for suitable nesting habitat for non-raptors and within 500 feet for suitable nesting habitat for raptors. If the Biological Monitor does not find any active nests immediately adjacent to the impact areas, the Project activity shall be allowed to proceed.

If the Biological Monitor finds an active nest adjacent to the construction area and determines that the nest may be indirectly impacted or breeding activities substantially disrupted, the Biological Monitor shall delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the nature of the construction activity. Any nest found during survey efforts shall be mapped on the construction plans, which shall be included in the report(s) documenting the survey(s) that shall be submitted to the California Energy Commission upon completion of the survey. The active nest shall be protected until nesting activity has ended. To protect any nest site, the following restrictions to construction activities shall be required until nests are no longer active, as determined by the Biological Monitor: (1) work limits shall be established within a buffer around any occupied nest (the buffer shall be 100–300 feet for nesting non-raptors and 300–500 feet for nesting raptors), unless otherwise determined by the Biological Monitors; and (2) access and surveying shall be restricted within the buffer of any occupied nest, unless otherwise determined by the Biological Monitor. Encroachment into the buffer area around

a known nest shall only be allowed if the Biological Monitor determines that the proposed activity will not disturb the nest occupants. Construction can proceed when the Biological Monitor has determined that fledglings have left the nest or the nest has failed.

MM-BIO-10 Invasive Species Prevention Plan

To prevent the spread of invasive plant species during construction and until the establishment of common landscaped areas associated with the Project, the following measures shall be implemented:

- The Worker Education Awareness Program (see Mitigation Measure [MM] BIO-3) shall include invasive species prevention measures implemented by the Project.
- All mobile vehicles and construction equipment shall be washed prior to entering the Project site in an upland location where any seed material from invasive species shall be contained and not carried onto the Project site. Logs of the washing shall be submitted monthly to the California Energy Commission (CEC).
- Following the completion of grading activities, for those areas of the Project site that are graded but not yet developed/landscaped, the CEC-approved Biological Monitor shall conduct monthly spot checks to prevent the introduction or establishment of invasive plant species onto the graded areas (see MM BIO-2). If abundant invasive species are identified, the Biological Monitor shall inform the construction contractor about the infested area and recommend that the invasive species be removed. The recommendation shall be included in the daily report.
- All vegetative material removed from the Project footprint shall be transported in a covered vehicle and shall be disposed of at a certified disposal site.

MM-BIO-11 Jurisdictional Waters Compensation

Mitigation for up to approximately 0.99 acres of jurisdictional waters shall be implemented through off-site acquisition, such as mitigation bank credits, and/or turnkey projects with mitigation banks (as approved by the California Energy Commission) following the issuance of permits from the U.S. Army Corps of Engineers, and Los Angeles Regional Water Quality Control Board, as applicable, and those agencies' approval of the mitigation bank, and prior to the issuance of the grading permit. A turnkey mitigation project (establishment of the riparian habitat) will be used should credits not be available at the time of the jurisdictional waters permitting.

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8 Significant Ecological Areas Statement of Findings

A Be highly compatible with the SEA Resources, including the preservation of natural open space areas and providing for the long-term maintenance of ecosystem functions

The Santa Clara River SEA covers approximately 45,496 acres, and its overall boundaries extend upstream along several major tributary creeks and where contiguous drainage areas connect to the river basin through open habitat. On a regional basis, the Santa Clara River SEA contains biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution. These include native grassland, coast live oak riparian forest, southern willow scrub, bigcone spruce-canyon oak forest, southern sycamore-alder woodland, southern cottonwood-willow riparian woodland and forest, freshwater marsh, alluvial fan sage scrub, and vernal pool (PCR 2000).

The portions of the Project within the Santa Clara River SEA consist of an approximately 1.2-mile-long or 1.9-mile-long new gen-tie line, depending on the alignment chosen. There will be a maximum of 12 monopole or steel lattice tower structures. The proposed transmission structures were sited to avoid potential impacts to environmental resources. Where possible, the transmission structure access path will utilize existing access roads to minimize new ground disturbance. Fiber optic or other cabling required for the monitoring system typically will be installed in buried conduit within the access road or planned trenching.

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines that create a small footprint within the Santa Clara River SEA following the completion of construction activities. MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately 147 acres of native vegetation communities within the Study Area parcels associated with the gen-tie routes, which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use.

B Avoid or minimize impacts to the SEA Resources and wildlife movement through one or more of the following:

1 Avoiding habitat fragmentation

The monopole or steel lattice tower structures, access roads, and buried lines create a small footprint within the Santa Clara River SEA following the completion of construction activities, and with the restoration of the temporary impacted areas, the Project is not expected to fragment the habitats with the Study Area. Wildlife is expected to be able to pass through the Project post-construction because the transmission lines are not a barrier to movement.

2 Minimizing edge effects

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines that create a small footprint (approximately 2.18 acres under the Northern Gen-Tie Route and 3.51 acres under the Southern Gen-Tie Route) within the Santa Clara River SEA following the completion of construction activities. The up to

approximately 34.62 acres of temporary impacts produced by the Project will be restored per MM-BIO-6, and MM-BIO-5 will conserve up to approximately 147 acres of natural habitat. During the operation of the Project, maintenance work on the gen-tie and associated infrastructure is expected to be infrequent, so indirect impacts to wildlife are expected to be low.

3 Siting development in the least sensitive location

The Project has been sited to avoid impacts to special-status plants and only have temporary impacts to Water Resources, which will be restored per MM-BIO-6.

C Buffer important habitat areas from development by retaining sufficient natural vegetation cover and/or natural open spaces and integrating sensitive design features

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines that create a small footprint (approximately 2.18 acres under the Northern Gen-Tie Route, and 3.51 acres under the Southern Gen-Tie Route) within the Santa Clara River SEA following the completion of construction activities. The up to approximately 34.62 acres of temporary impacts produced by the Project will be restored per MM-BIO-6, and MM-BIO-5 will conserve up to approximately 147 acres of natural habitat.

D Maintain the ecological and hydrological functions of water bodies, watercourses, and their tributaries

The gen-tie portion of the Project will impact up to approximately 0.26 acres of ephemeral Water Resources within the Santa Clara River SEA. The up to approximately 0.33 acres of temporary impacts produced by the Project will be restored per MM-BIO-6, and MM-BIO-5 will conserve up to approximately 2.08 acres of Water Resources.

E Ensure that roads, access roads, driveways, and utilities do not conflict with Priority Biological Resources, habitat areas or migratory paths

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines that create a small footprint (approximately 2.18 acres under the Northern Gen-Tie Route or 3.51 acres under the Southern Gen-Tie Route) within the Santa Clara River SEA following the completion of construction activities. The Project has potential impacts to Priority Biological Resources (SEA Resource Categories 1 through 3) in the form of special-status plants and wildlife, Water Resources, and vegetation communities; however, all such impacts are mitigated in accordance with the SEA Ordinance and CEQA Guidelines.

The Project transmission facilities will be designed consistent with the Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (APLIC 2006) where feasible. Transmission facilities will also be evaluated for potential collision reduction devices in accordance with Reducing Avian Collisions with Power Lines: The State of the Art in 2012 (APLIC 2012). Based upon the low volume of human activity and the proposed avian-protecting Project design features, potential impacts to wildlife habitat and movement during Project operation are expected to be less than significant.

F Promote the resiliency of the SEA to the greatest extent possible. For purposes of this finding, SEA resiliency cannot be preserved when the proposed development may cause any of the following:

1 Significant unmitigated loss of contiguity or connectivity of the SEA

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines. These facilities create a small footprint (approximately 2.18 acres under the Northern Gen-Tie Route or 3.51 acres under the Southern Gen-Tie Route) within the Santa Clara River SEA following the completion of construction activities. The up to approximately 34.62 acres of temporary impacts produced by the Project will be restored per MM-BIO-6, and MM-BIO-5 will conserve up to approximately 147 acres of native vegetation communities within the SEA. These types of features do not create barriers for connectivity or contiguity within the SEA.

2 Significant unmitigated impact to a Priority Biological Resource

The Project has potential impacts to Priority Biological Resources (SEA Resource Categories 1 through 3) in the form of special-status plants and wildlife, Water Resources, and vegetation communities; however, all such potential impacts are mitigated in accordance with the SEA Ordinance and CEQA Guidelines. Ten preservation, avoidance, and minimization measures have been provided as a part of the Project (MM-BIO-1 through MM-BIO-10), including conserving in perpetuity up to approximately 147 acres of on-site natural open space; requiring pre-construction surveys, planning, and biological monitoring during construction; measures protecting against invasive species establishment and spread; preparation of conservation management plans; nesting bird avoidance; and strategically locating development as close as possible to existing urban uses/infrastructure. These measures serve to preserve and limit potential impacts to Priority Biological Resources. As such, potential impacts to Priority Biological Resources will be reduced to less than significant.

3 Removal of habitat that is the only known location of a new or rediscovered species

No new or rediscovered species are present on the Project site. As such, the Project complies with this finding.

4 Other factors as identified by SEATAC

This finding is not applicable due to the California Energy Commission Opt-In process.

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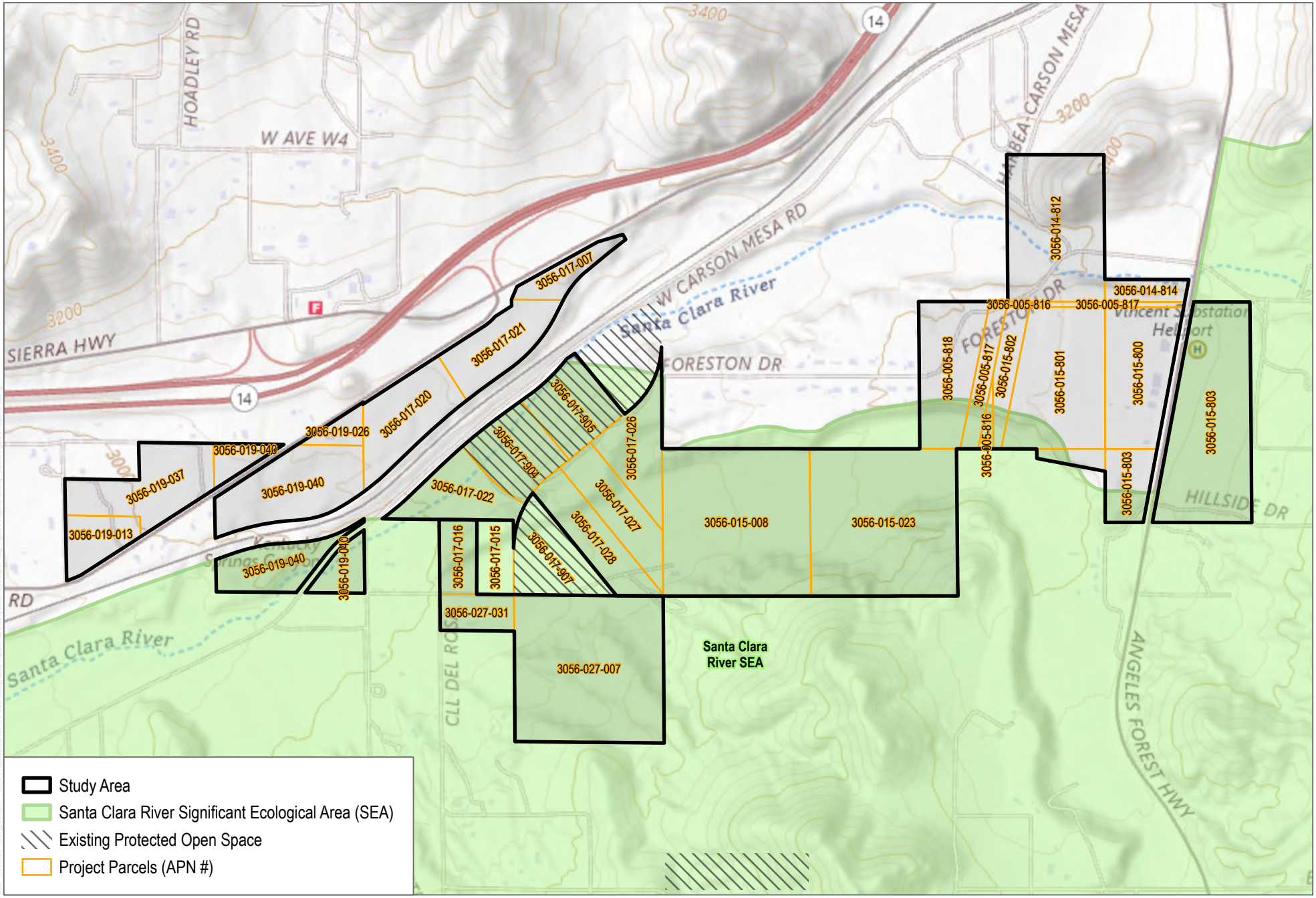
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SOURCE: USGS Topo; CPAD 2025; County of Los Angeles 2025

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0 500 1,000 Feet

FIGURE 9

Regional Setting

Prairie Song Reliability Project

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Appendix A
Protected Tree Report

Significant Ecological Area Protected Tree Report

Prairie Song Reliability Project

SEPTEMBER 2026

Prepared for:

PRAIRIE SONG RELIABILITY PROJECT LLC
Contact: Garrett Lehman

Prepared by:

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Pasadena, California 91101
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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
County	County of Los Angeles
CUP	Conditional Use Permit
DBH	diameter at breast height
OPGW	optical ground wire
project	Prairie Song Reliability Project
SEA	Significant Ecological Area
TPZ	tree protection zone

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1 Introduction

This Significant Ecological Area (SEA) Protected Tree Report provides an inventory and evaluation of the Protected Trees located within the Santa Clara River Significant Ecological Area (SEA) that are potentially impacted by the Prairie Song Reliability Project (project). This report also provides an analysis of the project's impact on the County of Los Angeles (County) SEA resources as identified within the Los Angeles County SEA Ordinance and SEA Implementation Guide (Implementation Guide; Los Angeles County Planning 2020).

The project will be located on up to approximately 114.39-acres in unincorporated Los Angeles County (County), California, south of State Route 14 (Figure 1, Project Location). Approximately 43.65 acres associated with the two gen-tie tie line route options are located within the Santa Clara River SEA and are the focus of this report. The remainder of the project is located outside of the SEA and was not included in the arborists' survey area. The field inventory and assessments of tree resources were conducted in June and July 2023 and again in February and December 2025. The focus of Dudek's field evaluations was to identify and inventory all trees in the SEA survey area that are subject to regulation by the Los Angeles County Regional Planning Significant Ecological Areas Ordinance that could be affected by the proposed development. This report meets the requirements of Los Angeles County Regional Planning Significant Ecological Areas Ordinance and includes a discussion of the tree inventory, evaluation, and analysis methods; a summary of findings; identification of anticipated impacts; and tree impact mitigation recommendations.

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2 Project Location and Description

2.1 Project Location

The project would be located in unincorporated Los Angeles County (County), California, south of State Route 14 approximately 3 miles northeast of the center of the unincorporated community of Acton (Figure 1, Project Location). The project is within the U.S. Geological Survey 7.5-minute Acton and Pacifico Mountain Quadrangles, Township 5N, Range 12W, Sections 27, 28, 33 and 34. The battery energy storage system (BESS) site, located outside of the SEA, is comprised of Assessor's Parcel Numbers 3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, and 3056-019-040. Development of the battery energy storage system facility would occur on an area of land located between two existing transportation corridors, the Antelope Valley Freeway (State Route 14) to the north and Los Angeles County Metropolitan Transportation Authority-owned Southern Pacific Railroad lines and Carson Mesa Road to the south, that are approximately 1,200 feet apart.

The project would utilize one of two potential gen-tie routes. Either route would traverse the SEA by extending south and east from the project substation, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, and then proceeding northeast to the Point of Interconnection at the Vincent Substation. The Northern Gen-Tie Route is approximately 1.2 miles long and would be sited on Assessor's Parcel Numbers 3056-015-008, 3056-015-023, 3056-017-026, 3056-017-904, and 3056-017-905, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The Southern Gen-Tie Route is approximately 1.9 miles long and would be sited on Assessor's Parcel Numbers 3056-015-008, 3056-015-023, 3056-017-016, 3056-017-022, 3056-017-026, 3056-017-027, 3056-017-028, 3056-027-007, 3056-027-031, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The Project would include three (3) diverse fiber-optic telecommunications paths. Between the Project substation and the Point of Change of Ownership (POCO), one (1) path would be incorporated into optical ground wire (OPGW) installed on the Applicant-owned gen-tie structures, and the other two (2) paths would consist of underground fiber-optic cables installed within the Southern Gen-Tie Route corridor regardless of which gen-tie route is selected. Between the POCO and Vincent Substation, SCE would extend the telecommunications system using OPGW installed on the SCE-owned transmission towers and underground fiber-optic cable, conduit, and vaults. The project's interconnection facilities would be located within the Southern California Edison Vincent Substation. Land uses in the immediate vicinity of the project include undeveloped and rural lands, multiple high-voltage transmission lines and an electrical substation, paved and rural roads, State Route 14, and railroad lines.

For the purposes of this report, the survey area included parcels comprising the potential gen-tie routes located south and east of the railroad tracks and Carson Mesa Road, and south and west of Southern California Edison's Vincent Substation (Survey Area). The Survey Area is depicted on Figure 3 and is within a County of Los Angeles SEA (County of Los Angeles 2025), Los Angeles County Significant Ecological Area (Figure 2, SEA Location). The SEA Ordinance establishes the permitting, design standards, and review process for development within SEAs, balancing preservation of the County's natural biodiversity with private property rights.

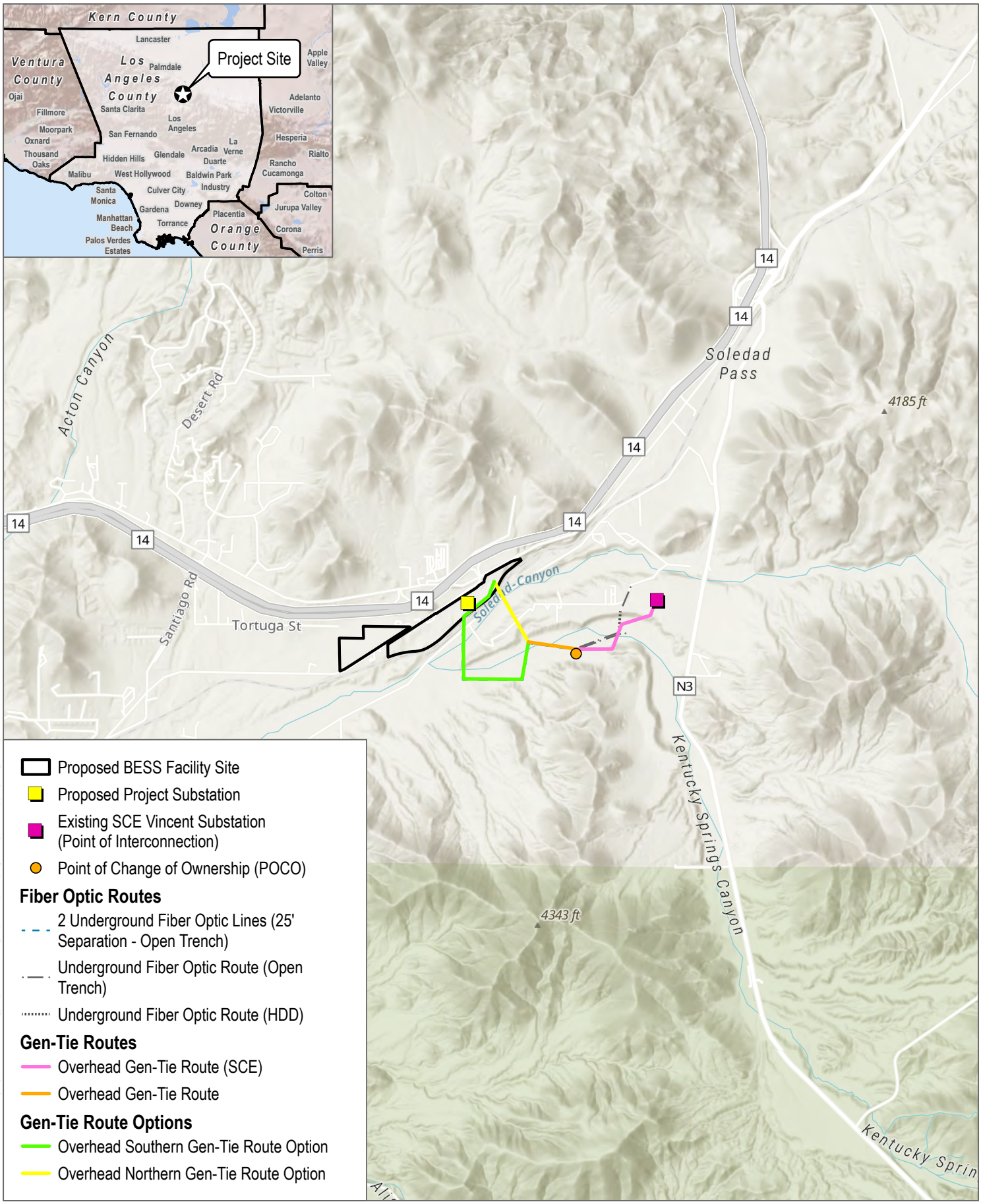
2.2 Project Description

Prairie Song Reliability Project LLC, a Delaware limited liability company (Applicant), a subsidiary of Coval Infrastructure DevCo LLC, a Delaware limited liability company, proposes to construct, operate, and eventually

repower or decommission the up to 1,150-megawatt Prairie Song Reliability Project (project) located on up to approximately 114.39 acres in unincorporated Los Angeles County, of which approximately 43.65 acres associated with the two gen-tie line routes are located within the Santa Clara River SEA. The primary components of the project include a containerized battery energy storage system facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance buildings, an on-site project substation, a 500-kilovolt overhead generation interconnection (gen-tie) transmission line, and interconnection facilities within the existing Southern California Edison-owned and operated Vincent Substation.

Electrical energy would be transferred from the existing power grid to the project for storage and from the project to the power grid when additional electricity is needed. The project would provide additional capacity to the electrical grid to assist with serving load during periods of peak demand by charging when demand is low and discharging when demand is high. This operating principle increases the integration of additional intermittent renewable energy, such as wind and solar, in California's energy mix and reduces the need to operate natural gas power plants. The project would also serve as an additional local/regional capacity resource that would enhance grid reliability, particularly to the Los Angeles Basin local reliability area and may allow for the deferral or avoidance of regional transmission facilities.

The project would be remotely operated and monitored year-round as well as supported by on-site operations and maintenance staff 7 days a week. The project would be available to receive or deliver energy 24 hours a day and 365 days a year. During the operational life of the project, qualified technicians would inspect the project facilities and conduct necessary maintenance to ensure reliable and safe operational readiness.



SOURCE: World Topographic

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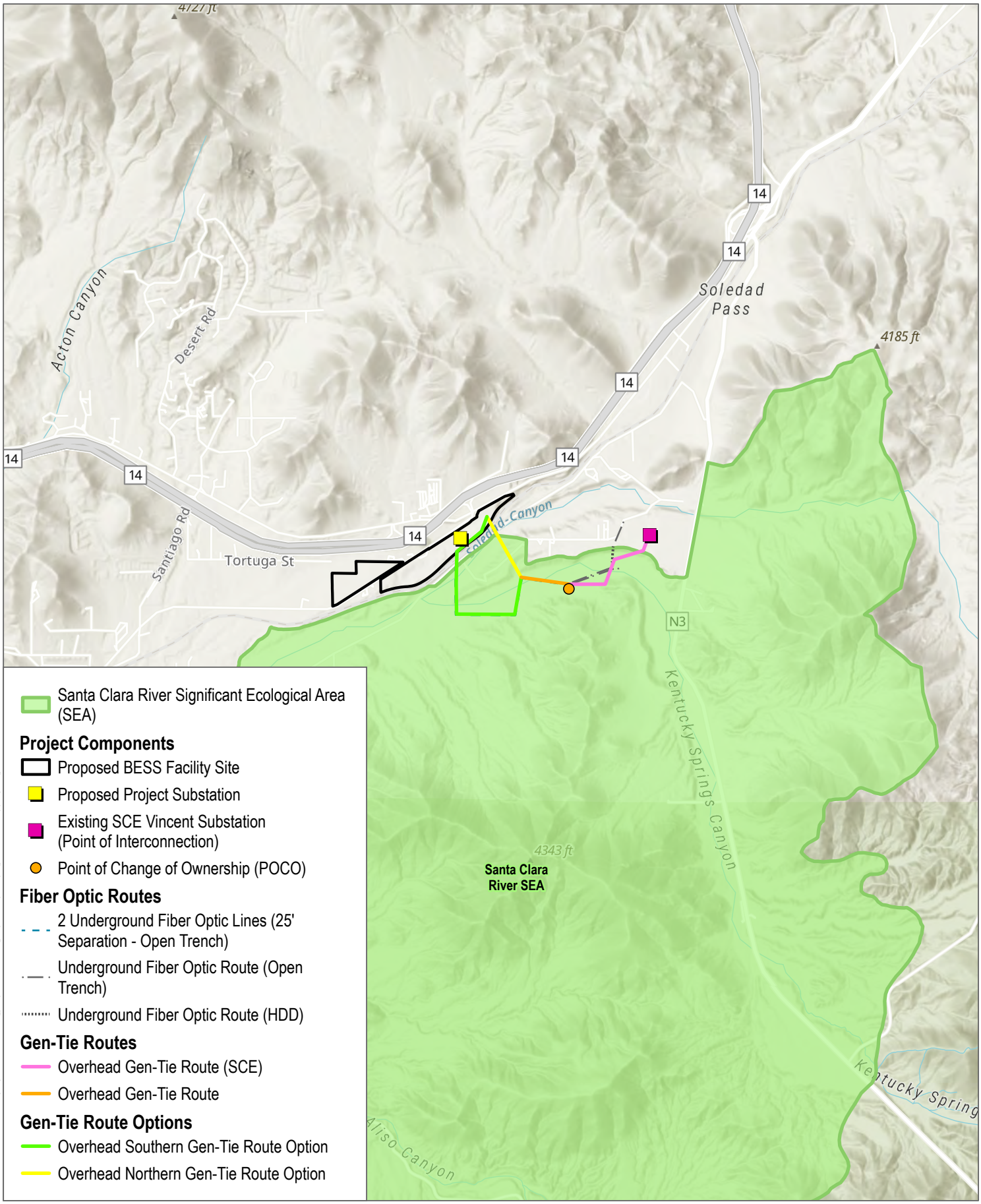
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FIGURE 1

Project Location

Prairie Song Reliability Project

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SOURCE: World Topographic; Los Angeles County

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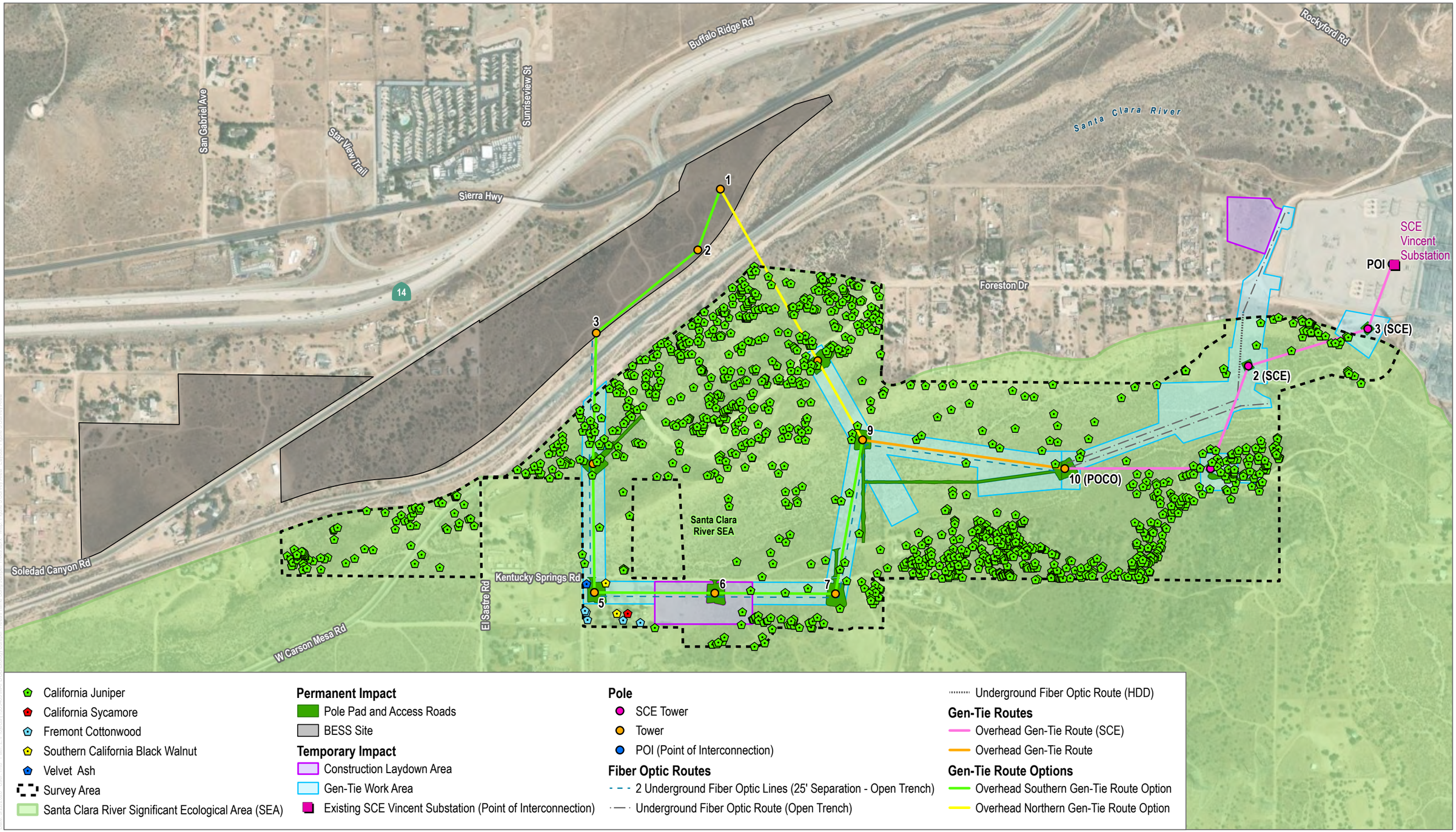
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FIGURE 2

SEA Location

Prairie Song Reliability Project

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SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

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0 300 600 Feet

FIGURE 3

Survey Area

Prairie Song Reliability Project

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3 Methods

3.1 Tree Inventory

Dudek's International Society of Arboriculture Certified Arborists Aida Castro, Sarah Tian, Jannette Ly, and Anna Pfleeger performed a comprehensive tree inventory update in June and July 2023. As a follow-up survey, International Society of Arboriculture Certified Arborists, Aida Castro and Ryan Allen conducted a supplemental survey on February 21, 2025. An additional survey was conducted by International Society of Arboriculture Certified Arborists Aida Castro and Katrina Burritt on December 3rd and 4th, 2025 to include additional areas within the SEA and to confirm that no blue elderberry (*Sambucus nigra ssp. Caerulea*) occurs within the Survey Area. As previously mentioned, the Survey Area used in this report only includes areas associated with the two gen-tie tie line route options that are located within the Santa Clara River SEA. The remainder of the project area outside of the SEA was excluded from the tree Survey Area.

The location of the Survey Area, including the SEA is depicted in Figure 3, Survey Area. During the survey, Dudek mapped and evaluated all trees that met the minimum requirements for protection under the Los Angeles County SEA Ordinance within the Survey Area.

Requirements for individual and multi-stem diameter thresholds that determine protection status for native tree species within the Santa Clara River SEA are discussed in section 4 of this report and further detailed in Appendix B, SEA Protected Tree List.

Per the Los Angeles County SEA Ordinance, trunk diameter measurements were taken at 54 inches above the natural grade. In cases where the trunk of a tree split into multiple stems at approximately 54 inches above natural grade, the measurement was made at the location that best represented the trunk's diameter.

Tree attribute data collected during the field survey included species, height, canopy width, number of stems, trunk diameter, and general health and structure conditions. Trunk diameters were measured using a diameter tape, which provides adjusted numbers for diameter measurements when wrapping the tape around the circumference of a tree trunk. Diameter measurements were collected using standard protocol described by the Council of Tree and Landscape Appraisers in its Guide for Plant Appraisal (CTLA 2020), published by the International Society of Arboriculture, and in accordance with guidance given in the County's SEA Ordinance.

Pursuant to the Guide for Plant Appraisal (CTLA 2020), tree health was evaluated with respect to five distinct tree components: roots, trunk, scaffold branches, small branches, and foliage. Health and structure were graded as good, good/fair, fair, fair/poor, or poor. Good condition trees exhibit acceptable vigor, healthy foliage, minor if any structural issues, and no apparent maladies. Fair condition trees are typical, with few maladies and moderate structural issues, and may exhibit less vigor in foliage and new growth. Trees assigned a poor condition rating exhibit significant health or structural problems or damage.

Each regulated tree was mapped using Apple iPhones or iPads paired with external Bluetooth antennas (EOS Arrow 100 and Trimble R1) to enhance positional accuracy. Tree location data was collected and managed in the field using ArcGIS Field Maps. Each tree was assigned a unique digital identifier, which corresponds to the mapped locations in Appendix A, Tree Location, and the associated attributes in Appendix C, Tree Information Matrix.

Upon completion of field data collection and mapping, raw data was post-processed and individual tree location data was compiled and updated utilizing geographic information system technology. The digital tree locations were linked to individual tree identification numbers and associated tree attribute data. These data were then analyzed to evaluate the protection status of each tree (Protected or heritage) and each tree's impact status, as presented in this report. For SEA Protected Trees with multiple trunks, the combined diameter at breast height (DBH) of the two largest trunks was calculated to determine the aggregate DBH for such trees. DBH was used to characterize individual trees as being a Protected or heritage Tree under the SEA guidelines. Those specific measurements are provided in Appendix B, SEA Protected Tree List. Additional details regarding protection status (Protected or heritage) are discussed in detail in Section 4, Regulatory Setting.

3.2 Impact Evaluation

There is wide variation in tolerance to construction impacts among tree species, and the response of an individual tree to impacts also varies with age and condition. Impacts assessed for this project include trees with protected zones within the proposed improvement and disturbance areas, as defined in the project's site plan as of the date of this report. Per the County Code, which establishes minimum setbacks for SEA Protected Trees, the tree protection zone (TPZ) is defined as the area that extends 5 feet out from the dripline of the Protected Tree or 15 feet from the trunk, whichever distance is greater. For the tree impact analysis conducted in December 2025, Dudek applied the SEA Protected Tree Ordinance criteria. Tree removal is anticipated when proposed grading activities affect more than 30% of a TPZ. Encroachment is expected when less than 30% of the TPZ is disturbed, such as through soil or root disruption, or when pruning is required. To determine impact designations, Dudek arborists used the County's definition of direct impact, which includes tree removal, root disturbance, soil excavation and compaction, grade changes, canopy loss, and trunk damage. Based on these criteria, project-related impacts are classified as either direct impacts (removal or encroachment) or no impact (trees preserved without disturbance).

3.3 Scope of Work Limitations

No root crown excavations or investigations or internal probing were performed during the tree assessment. Therefore, the presence or absence of internal decay or other hidden inferiorities in individual trees could not be confirmed. It is recommended that any large tree proposed for preservation or relocation be thoroughly inspected for internal and subterranean decay by a qualified arborist before finalizing a preservation or relocation plan.

Data for trees located on private property was visually estimated.

4 Regulatory Setting

The following section summarizes the relevant policies regulating tree impacts and removals associated with the project.

4.1 Los Angeles County SEA Ordinance

The Survey Area encompassing the two gen-tie line routes under consideration by the project are in the Santa Clara River SEA. The following section summarizes portions of the ordinance that are specifically pertinent to this tree report (Los Angeles County Regional Planning 2020).

4.1.1 Significant Ecological Area Protected Trees

Chapter 3 (SEA Protected Trees) of the Los Angeles County SEA Ordinance Implementation Guide (County of Los Angeles 2020) describes tree protection regulations. Protected Trees are designated by species and trunk diameter of a minimum listed size specific to each SEA. The minimum size at which native tree species become protected within the project area SEA is as follows:

- Riparian species and trees listed as rare by California Native Plant Society ("CNPS") are generally protected at 3-inch DBH for single trunk and 4-inch DBH for multi-trunk,
- Non-riparian native tree species, as detailed in Appendix B, SEA Protected Tree List, are generally protected at 6-inch DBH for single trunk and 8-inch DBH for multi-trunk,
- All California junipers (*Juniperus californica*) regardless of diameter are protected.

Additionally, according to SEA, Protected trees are considered heritage trees if they meet the following criteria:

- Riparian species and trees listed as rare by California Native Plant Society ("CNPS") are generally considered heritage trees at 18-inch DBH for single trunk and 28-inch DBH for multi-trunk,
- Non-riparian native tree species, as detailed in Appendix B, SEA Protected Tree List, are generally protected at 36-inch DBH for single trunk and 56-inch DBH for multi-trunk,
- California junipers with a canopy spread of 35' or greater are considered heritage trees.

Detailed requirements for individual and multi-stem diameter thresholds that determine protection status for native tree species within the Santa Clara River SEA are provided in Appendix B, SEA Protected Tree List

As discussed in the following sections, because the number of project-related impacts is greater than two trees, the project requires a discretionary SEA Conditional Use Permit (CUP) review but for the California Energy Commission's Opt-In Application for Certification process, which is currently ongoing. Furthermore, mitigation and monitoring requirements for SEA CUPs should meet or exceed the mitigation and monitoring requirements of a Protected Tree permit.

4.1.2 Tree Protection Zone

Chapter 3 of the Implementation Guide establishes minimum setbacks for SEA Protected Trees, known as a TPZ. Since tree roots extend well beyond the visible crown of the tree and can be greatly impacted by disturbances to the ground around them, the TPZ extends 5 feet out from the dripline of the Protected Tree or 15 feet from the trunk, whichever distance is greater.

5 Results

5.1 Tree Inventory Summary

A total of 1,191 trees were documented within the Survey Area, 1,078 of which are classified as Protected. The Protected Trees include 1,004 Protected non-heritage trees and 74 heritage trees. The remaining 113 trees are dead and as such are not considered Protected. Table 1 summarizes all trees that were mapped and evaluated within the Survey Area. Appendix A, Tree Location, provides detailed locations of all individual trees assessed for the proposed project.

Table 1. Summary of Trees at the Prairie Song Reliability Project

Scientific Name	Common Name	Number of Protected Non-heritage Trees	Number of Protected Heritage Trees	Total Number of Protected Trees	Number of Non-Protected Trees	Total Number of Trees
Fraxinus velutina	velvet ash	1	0	1	0	1
Juglans californica	Southern California black walnut	2	0	2	0	2
Juniperus californica	California juniper	996	73	1,069	113	1,182
Platanus racemosa	California sycamore	1	0	1	0	1
Populus fremontii	Fremont cottonwood	4	1	5	0	5
	Total	**1,004**	**74**	**1,078**	**113**	**1,191**

Trees in the Survey Area vary in size and stature and exhibit conditions typical of their locations as native trees in a natural setting. As presented in Appendix C, Tree Information Matrix, of the 1,078 Protected Trees (Protected non-heritage trees and heritage trees):

- 121 trees (11.22%) are in good health
- 517 trees (47.96%) are in fair health
- 332 trees (30.80%) are in poor health
- 108 trees (10.02%) are in critical health

The remaining 113 trees located in the SEA are classified as dead and are therefore not Protected.

Trees in good condition exhibit acceptable vigor, healthy foliage, adequate structure, and lack major defects. Trees in fair condition show multiple defects and/or potentially declining vigor. Poor condition trees exhibit declining vigor, unhealthy foliage, poor structure, and multiple defects. Trees in critical condition exhibit a severe decline in vigor, major structural defects, or severe irreversible physiological deterioration.

Among the 1,078 Protected Trees surveyed, single and aggregate trunk diameters for the two largest stems range from 1 inch to 27 inches. Tree heights vary from 1 foot for juvenile specimens to 50 feet for mature trees.

Heritage tree status is based on the SEA tree classifications (i.e., riparian, coniferous, upland hardwood) and minimum trunk diameter for protected and heritage trees. Of the 1,078 Protected Trees within the Survey Area, a total of 74 heritage trees were identified, 73 of which are multi-trunk California junipers and one is a single trunk Fremont cottonwood.

The health of the 74 heritage trees ranges from good to critical. As detailed in Appendix C, Tree Information Matrix:

- 7 trees (9.46%) are in good health
- 38 trees (51.35%) are in fair health
- 24 trees (32.43%) are in poor health
- 5 trees (6.76%) are in critical health

Among the 74 heritage trees surveyed, single and aggregate trunk diameters for the two largest stems range from 2 inches to 23 inches. Tree heights vary from 1 foot for juvenile specimens to 45 feet for mature trees.

5.2 Tree Impacts

As previously stated, for the purposes of this arborist report, potential direct impacts are associated with tree removal or encroachment within the tree protection zone (5 feet beyond the dripline or 15 feet from the trunk, whichever is greater). Specifically, tree impacts were determined using geographic information system technology, spatial locations of tree crowns, and a minimum distance of each tree relative to the potential project impact. A tree is considered removed if more than 30% of its TPZ falls within the project's proposed limits of disturbance. A tree is considered encroached upon if 0.01% to 30% of its TPZ is affected by proposed project activities. A tree is considered preserved if it does not experience any TPZ disturbance. Impact totals presented herein are based on proposed disturbance limits, fuel modification zones, and development plans as of the date of this report. As of the date of this report, both the Northern and Southern gen-tie routes are under consideration, although only one will ultimately be selected. Impact evaluations have therefore been prepared for each alignment to illustrate the potential effects associated with both options. It is assumed that the entirety of the 150' gen-tie right of way and pull areas will be temporarily impacted for whichever route is selected. The total number of impacted trees will depend on the chosen route and actual construction and gen-tie pulling impacts. The impact figures presented in this report represent a maximum potential impact for each route option. Field adjustments are likely to further minimize impacts to Protected Trees.

The locations of the individual trees that would be subject to impacts from each of the proposed gen-tie route options for the proposed project are presented in Appendix D.

5.2.1 Northern Gen-tie Route Impacts

Of the 1,078 Protected non-heritage trees and heritage trees in the Survey Area, 82 could be directly impacted by the Northern gen-tie route option. The 82 Protected Tree impacts comprise 64 potential removals and 18 potential encroachments. The remaining 996 Protected Trees would not be directly impacted by the Northern gen-tie route

option. Table 2 provides a summary of the proposed impacts to all SEA Protected Trees within the Survey Area if the Northern gen-tie route were selected.

Table 2. Summary of Northern Route Protected Tree Impacts (Heritage and Non-heritage)

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	0	0	0
Juniperus californica	California juniper	63	18	81
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	64	18	82

5.2.1.1 Northern Gen-tie Route Protected Non-heritage Tree Impacts

Of the 1,004 Protected non-heritage trees that occur within the Survey Area, 72 could be directly impacted by the proposed Northern gen-tie route. The 72 Protected non-heritage tree impacts consist of 58 potential removals and 14 potential encroachments. The remaining 932 Protected non-heritage trees within the Survey Area would not be directly impacted by the Northern gen-tie route. Table 3 provides a summary of the proposed impacts to non-heritage SEA Protected Trees within the Survey Area if the Northern gen-tie route were selected.

Table 3. Summary of Impacts to Northern Route Protected Non-heritage Trees

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	0	0	0
Juniperus californica	California juniper	57	14	71
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	58	14	72

Table 4 provides a summary of the overall health ratings for the proposed impacted Protected non-heritage trees within the Survey Area if the Northern gen-tie route were selected.

Table 4. Summary of Overall Health Ratings for Northern Route Impacted Protected Non-heritage Trees

Scientific Name	Common Name	Overall Health Rating				
		Critical	Poor	Fair	Good	Total
Fraxinus velutina	velvet ash	0	0	1	0	1
Juglans californica	Southern California black walnut	0	0	0	0	0
Juniperus californica	California juniper	5	17	31	18	71
Platanus racemosa	California sycamore	0	0	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0	0	0
	Totals	**5**	**17**	**32**	**18**	**72**

Note: Dead trees are not protected by the County of Los Angeles and do not require mitigation.

5.2.1.2 Northern Gen-tie Route Heritage Tree Impacts

A total of 74 heritage trees are found on site, of which 10 could be directly impacted if the Northern gen-tie route were selected. The 10 heritage tree impacts comprise six potential removals and four potential encroachments. The remaining 64 heritage trees would not be directly impacted by the Northern gen-tie route. Table 5 provides a summary of the proposed impacts to SEA Protected heritage trees within the Survey Area if the Northern gen-tie route were selected.

Table 5. Summary of Impacts to Northern Route SEA Protected Heritage Trees

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	0	0	0
Juglans californica	Southern California black walnut	0	0	0
Juniperus californica	California juniper	6	4	10
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**6**	**4**	**10**

Table 6 provides a summary of overall health ratings for the eight heritage trees that could be impacted by the project if the Northern gen-tie route were selected.

Table 6. Summary of Overall Health Ratings for Northern Route Impacted SEA Heritage Trees

Scientific Name	Common Name	Overall, Health Rating (Number)				
		Critical	Poor	Fair	Good	Total
Fraxinus velutina	velvet ash	0	0	0	0	0
Juglans californica	Southern California black walnut	0	0	0	0	0
Juniperus californica	California juniper	1	3	4	2	10
Platanus racemosa	California sycamore	0	0	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0	0	0
	Totals	**1**	**3**	**4**	**2**	**10**

Note: Dead trees are not protected by the County of Los Angeles and do not require mitigation.

5.2.1.3 Northern Gen-tie Route Dead Tree Analysis

A total of 113 trees in the Survey Area are dead and as such are not considered Protected. Three non-Protected Trees could be directly impacted by the proposed Northern gen-tie route option. The three non-Protected Tree impacts consist of two potential removals and one potential encroachment. The remaining 110 non-Protected trees would not be directly impacted by the project if the Northern gen-tie route were selected. All of the non-Protected Tree impacts are dead California juniper trees. Table 7 provides a summary of the proposed impacts to non-Protected Trees within the Survey Area if the Northern gen-tie route were selected.

Table 7. Summary of Northern Route Dead Trees

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	*velvet ash*	0	0	0
Juglans californica	*Southern California black walnut*	0	0	0
Juniperus californica	California juniper	2	1	3
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**2**	**1**	**3**

5.2.2 Southern Gen-tie Route Impacts

Of the 1,078 Protected non-heritage trees and heritage trees in the Survey Area, 98 could be directly impacted by the Southern gen-tie route option. The 98 Protected Tree impacts comprise 82 potential removals and 16 potential encroachments. The remaining 980 Protected Trees would not be directly impacted by the Southern gen-tie route option. Table 8 provides a summary of the proposed impacts to all SEA Protected Trees within the Survey Area if the Southern gen-tie route were selected.

Table 8. Summary of Southern Route Protected Tree Impacts (Heritage and Non-heritage)

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	1	0	1
Juniperus californica	California juniper	80	16	96
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**82**	**16**	**98**

5.2.2.1 Southern Gen-tie Route Protected Non-heritage Tree Impacts

Of the 1,004 Protected non-heritage trees that occur within the Survey Area, 86 could be directly impacted by the proposed Southern gen-tie route option. The 86 Protected non-heritage tree impacts consist of 74 potential removals and 12 potential encroachments. The remaining 918 Protected non-heritage trees would not be directly impacted by the Southern gen-tie route option. Table 9 provides a summary of the proposed impacts to non-heritage SEA Protected Trees within the Survey Area if the Southern gen-tie route were selected.

Table 9. Summary of Impacts to Southern Route Protected Non-heritage Trees

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	1	0	1
Juniperus californica	California juniper	72	12	84
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**74**	**12**	**86**

Table 10 provides a summary of the overall health ratings for the proposed impacted Protected non-heritage trees within the Survey Area if the Southern gen-tie route were selected.

Table 10. Summary of Overall Health Ratings for Southern Route Impacted Protected Non-heritage Trees

		Overall Health Rating				
Scientific Name	Common Name	Critical	Poor	Fair	Good	Total
Fraxinus velutina	velvet ash	0	0	1	0	1
Juglans californica	Southern California black walnut	0	0	1	0	1
Juniperus californica	California juniper	5	20	40	19	84
Platanus racemosa	California sycamore	0	0	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0	0	0
	Totals	**5**	**20**	**42**	**19**	**86**

Note: Dead trees are not protected by the County of Los Angeles and do not require mitigation.

5.2.2.2 Southern Gen-tie Route Heritage Tree Impacts

A total of 74 heritage trees are found within the Survey Area, of which 12 could be directly impacted by the Southern gen-tie route option. The 12 heritage tree impacts comprise 8 potential removals and 4 potential encroachments. The remaining 62 heritage trees would not be directly impacted by the project if the Southern gen-tie route were selected. Table 11 provides a summary of the proposed impacts to SEA Protected heritage trees within the Survey Area if the Southern gen-tie route were selected.

Table 11. Summary of Impacts to Southern Route SEA Protected Heritage Trees

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	0	0	0
Juglans californica	Southern California black walnut	0	0	0
Juniperus californica	California juniper	8	4	12
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**8**	**4**	**12**

Table 12 provides a summary of overall health ratings for the eight heritage trees that could be impacted by the project.

Table 12. Summary of Overall Health Ratings for Southern Route Impacted SEA Heritage Trees

Scientific Name	Common Name	Overall, Health Rating (Number)				
		Critical	Poor	Fair	Good	Total
Fraxinus velutina	velvet ash	0	0	0	0	0
Juglans californica	Southern California black walnut	0	0	0	0	0
Juniperus californica	California juniper	1	3	6	2	12
Platanus racemosa	California sycamore	0	0	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0	0	0
	Totals	**1**	**3**	**6**	**2**	**12**

Note: Dead trees are not protected by the County of Los Angeles and do not require mitigation.

5.2.2.3 Southern Gen-tie Route Dead Tree Analysis

A total of 113 trees in the Survey Area are dead and as such are not considered Protected. Five non-Protected Trees could be directly impacted by the proposed Southern gen-tie route option. The five non-Protected Tree impacts consist of four potential removals and one potential encroachment. The remaining 108 non-Protected trees would not be directly impacted by the project if the Southern gen-tie route were selected. All of the non-Protected Tree impacts are dead California juniper trees. Table 13 provides a summary of the proposed impacts to non-Protected Trees within the Survey Area if the Southern gen-tie route were selected.

Table 13. Summary of Southern Route Dead Trees

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	*velvet ash*	0	0	0
Juglans californica	*Southern California black walnut*	0	0	0
Juniperus californica	California juniper	4	1	4
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**4**	**1**	**5**

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6 Mitigation

The proposed project's mitigation effort would include tree planting mitigation for incurred tree impacts, which would be consistent with the goals and intent of the County.

6.1 Mitigation Requirements

Per the County SEA Ordinance, any development that would remove a heritage tree or would remove more than two non-heritage-size SEA Protected Trees requires a CUP. Mitigation and monitoring for such removals are determined as part of the discretionary SEA CUP review and included as conditions of approval in the CUP. Mitigation and monitoring requirements for SEA CUPs must meet or exceed the mitigation and monitoring requirements of a Protected Tree permit.

Per the County requirements, the removal of any SEA Protected Tree requires mitigation in the form of 2 replacement plantings, and the removal of a heritage tree requires mitigation in the form of 10 replacement plantings. Replacement trees should be seedlings of the same species as those being removed, planted in an area of the project site where there is suitable habitat, and where the trees would be able to remain in perpetuity. As such, if the Northern gen-tie route option is selected up to 64 direct Protected Tree removals (6 heritage trees and 58 Protected non-heritage trees), the County would require up to 176 mitigation trees to be planted in an area of the project site where there is suitable habitat and where the trees would be able to remain in perpetuity. If the Southern gen-tie route option is selected up to 82 direct Protected Tree removals (8 heritage trees and 74 Protected non-heritage trees), the County would require up to 228 mitigation trees to be planted in an area of the project site. Per the County requirements, Table 14, Summary of Individual Species Replacement Quantities for the Northern Route Option, and Table 15, Summary of Individual Species Replacement Quantities for the Southern Route Option, details the quantity of each species required for planting based on the route option selected.

Table 14. Summary of Individual Species Estimated Replacement Quantities for the Northern Route Option

Scientific Name	Common Name	Total Protected Removals	Replacement Ratio	Total Replacement Required
Fraxinus velutina	velvet ash	1	2:1	2
Juglans californica	Southern California black walnut	0	2:1	0
Juniperus californica	California juniper	57	2:1	114
Juniperus californica (heritage tree)	California juniper	6	10:1	60
Platanus racemosa	California sycamore	0	2:1	0
Populus fremontii	Fremont cottonwood	0	2:1	0
	Totals	**64**	**N/A**	**176**

Table 15. Summary of Individual Species Estimated Replacement Quantities for the Southern Route Option

Scientific Name	Common Name	Total Protected Removals	Replacement Ratio	Total Replacement Required
Fraxinus velutina	velvet ash	1	2:1	2
Juglans californica	Southern California black walnut	1	2:1	2
Juniperus californica	California juniper	72	2:1	144
Juniperus californica (heritage tree)	California juniper	8	10:1	80
Platanus racemosa	California sycamore	0	2:1	0
Populus fremontii	Fremont cottonwood	0	2:1	0
	Totals	**82**	**N/A**	**228**

It should be noted that mitigation can include the protection of undersized, naturally sprouted trees of the same species growing on site. In addition, per the County Code, the County may require additional mitigation and monitoring requirements following review of the SEA CUPs. At a minimum, the County requires that the replacement trees need to be nurtured and maintained in a healthy condition and be monitored for a period of 7 years. If any of the replacement plantings fail during the monitoring period of 7 years, the applicant would be responsible for replanting and nurturing those new trees.

The final number of impacts and subsequent mitigation will be based upon final project design. As a result, the total number of impacted trees is expected to be lower depending on the selected gen-tie route. The impact figures presented in this report represent a maximum potential impact, and actual impacts are expected to be reduced.

7 Tree Protection

If the Northern gen-tie route is selected, up to 64 of the 1,078 Protected Trees within the Survey Area (Protected non-heritage trees and heritage trees) would require removal to accommodate the proposed project. The remaining 996 Protected Trees, along with up to 18 Protected Trees subject to encroachment, shall be protected in place to avoid further impacts.

If the Southern gen-tie route is selected, up to 82 of the 1,078 Protected Trees within the Survey Area (Protected non-heritage trees and heritage trees) would need to be removed to accommodate the proposed project. Accordingly, the remaining 980 Protected Trees, in addition to the 16 Protected Trees subject to encroachment, shall be safeguarded from project related impacts.

Tree protection standards to safeguard all Protected Trees not subject to removal are found in Appendix E, Tree Protection Measures.

An additional 113 trees found within the Survey Area have been identified as dead; these are not considered Protected and therefore do not require tree protection measures.

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8 Conclusion

A total of 1,191 trees were found within the Survey Area, 1,078 of which are classified as Protected. The Protected Trees include 1,004 Protected non-heritage trees and 74 heritage trees. The remaining 113 trees are dead and are not considered Protected or require mitigation for removal.

If the Northern gen-tie route option is selected, up to 85 trees could be directly impacted, with up to 19 encroachments (4 heritage tree, 14 Protected non-heritage trees, and 1 non-Protected Tree) and 66 removals (6 heritage trees, 58 Protected non-heritage trees, and 2 non-Protected Tree). Mitigation will be necessary for the removal of up to 64 Protected Trees (6 heritage and 58 Protected non-heritage) and will require replacement using seedlings of the same species, at a ratio of 2:1 for Protected non-heritage trees and 10:1 for heritage trees. Based on these requirements, up to 176 mitigation trees may be needed to satisfy County standards. The remaining 996 Protected Trees, along with up to 18 Protected Trees subject to encroachment, shall be protected in place to avoid further impacts.

If the Southern gen-tie route option is selected, up to 103 trees could be directly impacted, with up to 17 encroachments (4 heritage trees, 12 Protected non-heritage trees, and 1 non-Protected Tree) and 86 removals (8 heritage trees, 74 Protected non-heritage trees, and 4 non-Protected Trees). Mitigation will be necessary for the removal of up to 82 Protected Trees (8 heritage and 74 Protected non-heritage) and will require replacement using seedlings of the same species, at a ratio of 2:1 for Protected non-heritage trees and 10:1 for heritage trees. Based on these requirements, up to 228 mitigation trees may be needed to satisfy County standards. The remaining 980 Protected Trees, in addition to the 16 Protected Trees subject to encroachment, shall be safeguarded from project related impacts.

All Protected Trees not subject to removal located throughout the Survey Area will be safeguarded from damage during construction in accordance with the tree protection standards found in Appendix E Tree Protection Measures.

As previously noted, both the Northern and Southern gen-tie routes are under consideration, although only one will ultimately be selected. Impact evaluations have therefore been prepared for each alignment to illustrate the potential effects associated with both options. In addition, field adjustments during implementation are likely to further reduce impacts to Protected Trees. The impact figures presented in this report represent a maximum potential impact for each route option, and actual impacts may be lower.

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9 Arborist's Disclosure

This report provides conclusions and recommendations based only on a visual examination of the trees and surrounding site by an International Society of Arboriculture Certified Arborist and reasonable reliance upon the completeness and accuracy of the information provided to the arborist. The examination did not include subterranean or internal examination of the trees.

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near them. Although trees provide many benefits to those who live near them, they also include inherent risks from breakage or failure that can be minimized but not eliminated.

Arborists cannot detect every condition that could possibly lead to the failure of a tree. Trees are living organisms subject to attack by disease, insects, fungi, weather, and other forces of nature, and conditions that lead to failure are often hidden within trees and below ground. There are some inherent risks with trees that cannot be predicted with any degree of certainty, even by a skilled and experienced arborist. Arborists cannot predict acts of nature that can cause even an apparently healthy tree to fail, including storms of sufficient strength. Additionally, arborists cannot guarantee that a tree will be healthy or safe under all circumstances or for any specific period of time. A tree's condition could change over a short or long period of time due to climatic, cultural, or environmental conditions. Further, there is no guarantee or certainty that recommendations or efforts to correct unsafe conditions will prevent future breakage or failure of a tree.

To live or work near trees is to accept some degree of risk. Neither the author of this report nor Dudek have assumed any responsibility for, nor will either of them be liable for, any claims, losses, or damages for damage to any tree, death or injury to any person, or any loss of or damage to any personal or real property.

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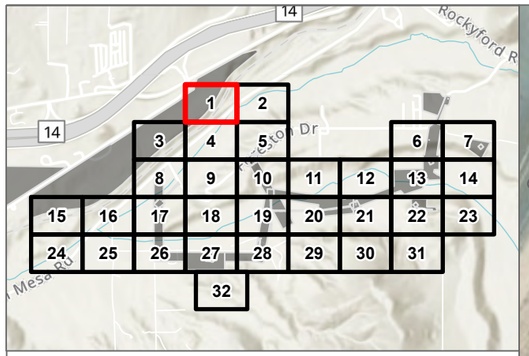
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Appendix A
Tree Locations



Tree Species

- California Juniper

Permanent Impact

- BESS Site

Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

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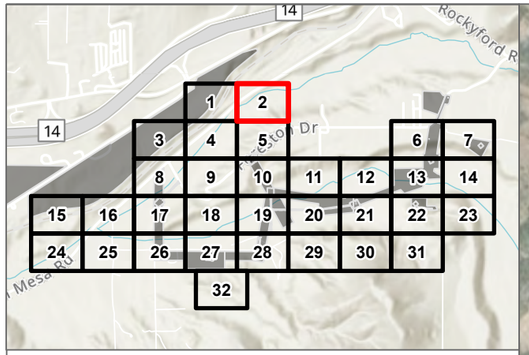
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APPENDIX A1

Tree Location

Prairie Song Reliability Project



Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

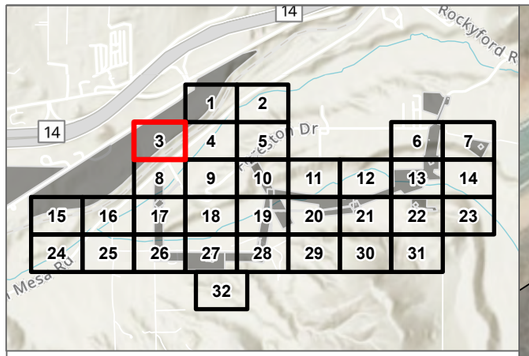
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APPENDIX A2

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Permanent Impact

- BESS Site

Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

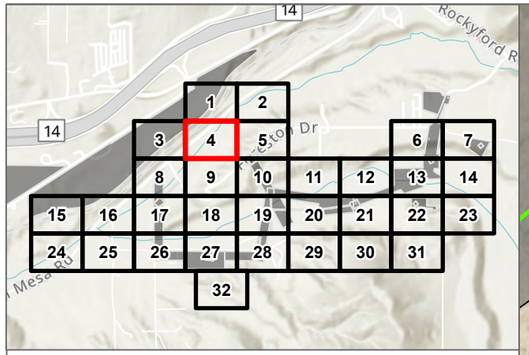
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APPENDIX A3

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Permanent Impact

- BESS Site

Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Yellow Overhead Northern Gen-Tie Route Option

W Carson Mesa Rd

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

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APPENDIX A4

Tree Location

Prairie Song Reliability Project



Tree Species
- California Juniper

Permanent Impact
- Pole Pad and Access Roads

Temporary Impact
- Gen-Tie Work Area

Pole
- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

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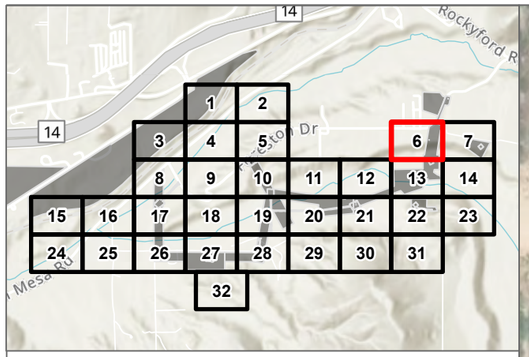
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APPENDIX A5

Tree Location

Prairie Song Reliability Project



Tree Species
- California Juniper

Permanent Impact
- Pole Pad and Access Roads

Temporary Impact
- Gen-Tie Work Area

Pole
- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

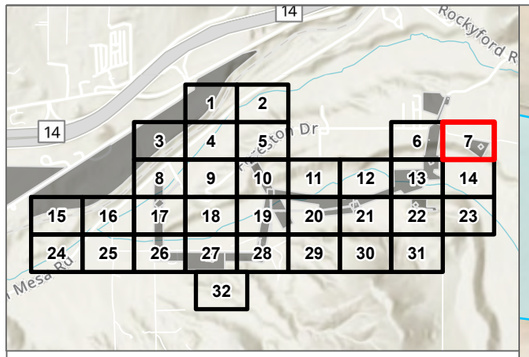
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APPENDIX A6

Tree Location

Prairie Song Reliability Project



Tree Species
- California Juniper

Permanent Impact
- Pole Pad and Access Roads

Temporary Impact
- Gen-Tie Work Area

Pole
- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

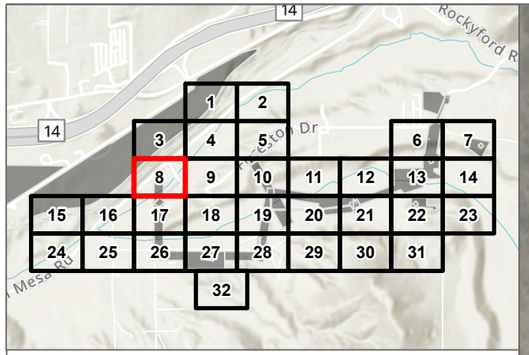
DUDEK

0 30 60 Feet

APPENDIX A7

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Permanent Impact

- Pole Pad and Access Roads
- BESS Site

Temporary Impact

- Gen-Tie Work Area

Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

W Carson Mesa Rd

Foreston Dr

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

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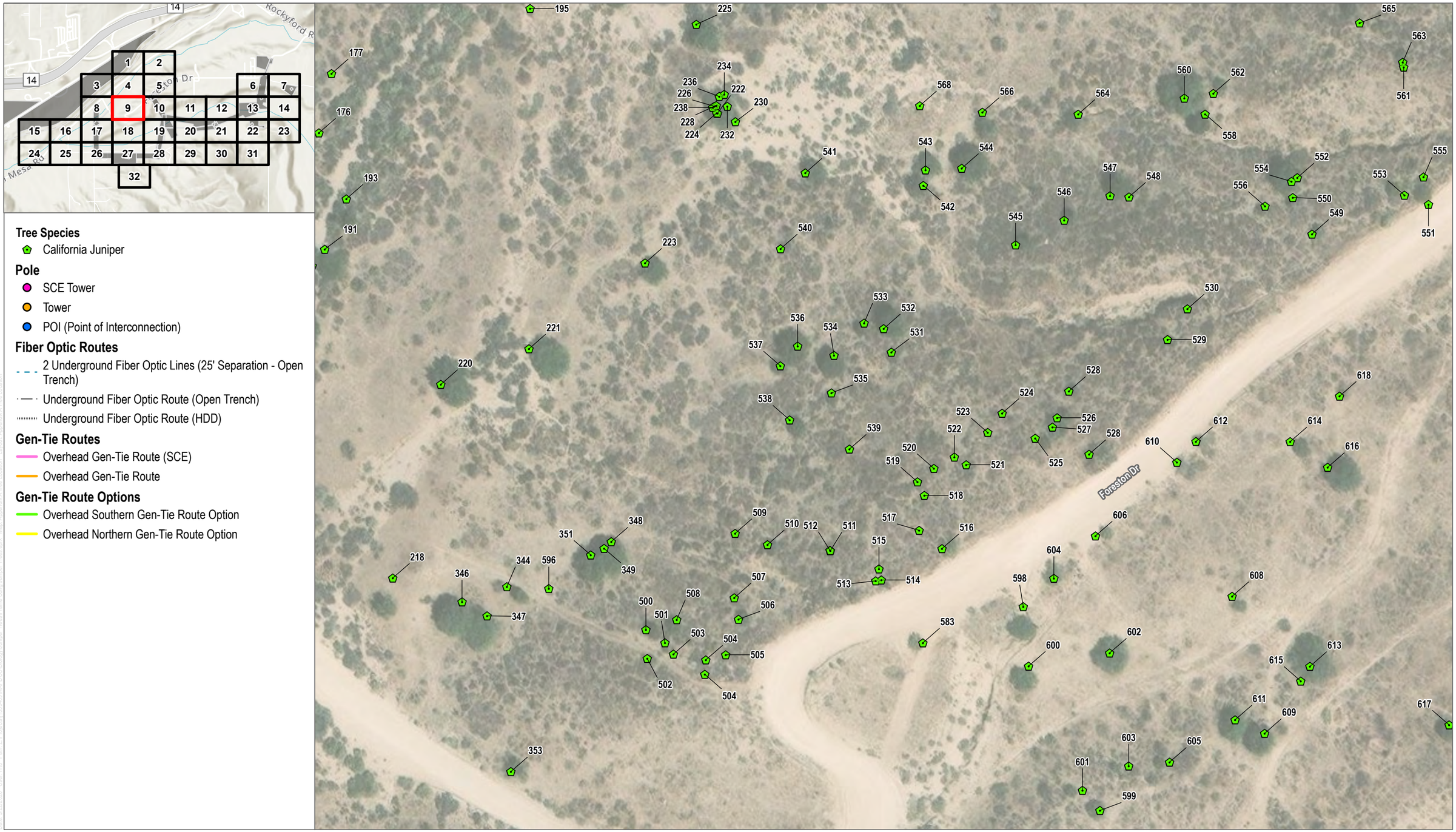
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0 30 60 Feet

APPENDIX A8

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

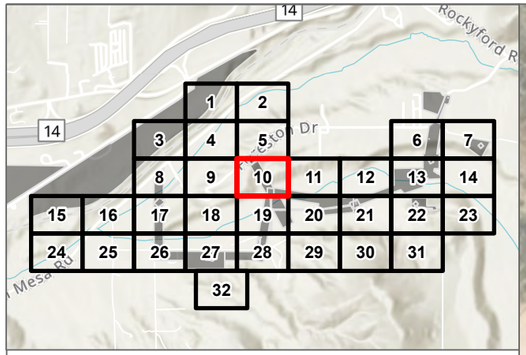
DUDEK

0 30 60 Feet

APPENDIX A9

Tree Location

Prairie Song Reliability Project



Tree Species
- California Juniper

Permanent Impact
- Pole Pad and Access Roads

Temporary Impact
- Gen-Tie Work Area

Pole
- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

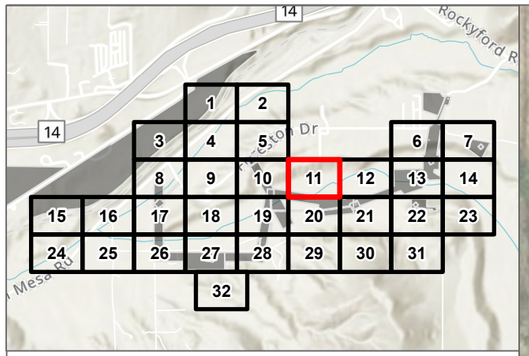
DUDEK

0 30 60 Feet

APPENDIX A10

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Temporary Impact

- Gen-Tie Work Area

Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

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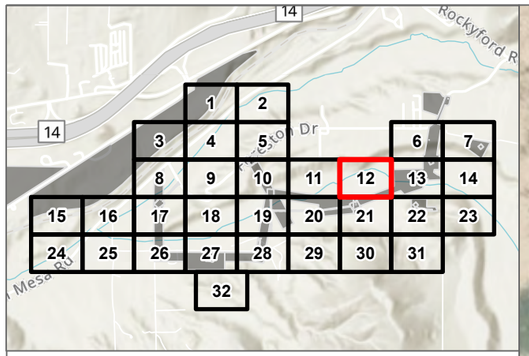
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0 30 60 Feet

APPENDIX A11

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Temporary Impact

- Gen-Tie Work Area

Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

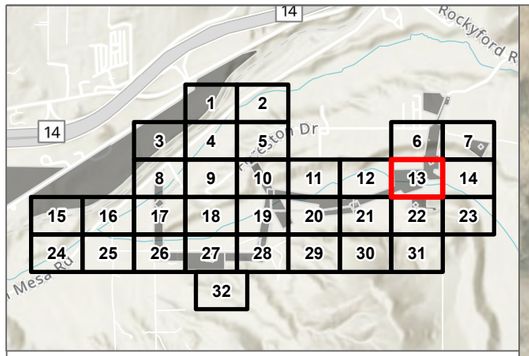
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0 30 60 Feet

APPENDIX A12

Tree Location

Prairie Song Reliability Project



Tree Species
- California Juniper

Permanent Impact
- Pole Pad and Access Roads

Temporary Impact
- Gen-Tie Work Area

Pole
- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

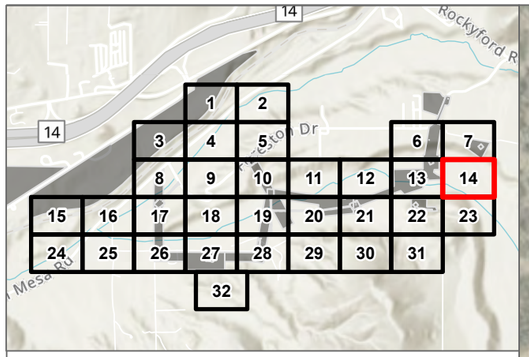
DUDEK

0 30 60 Feet

APPENDIX A13

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

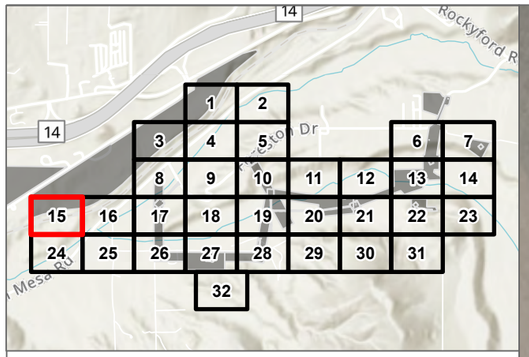
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0 30 60 Feet

APPENDIX A14

Tree Location

Prairie Song Reliability Project



Tree Species
- California Juniper

Permanent Impact
- BESS Site

Pole
- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

0 30 60 Feet

APPENDIX A15

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Permanent Impact

- BESS Site

Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

N

0 30 60 Feet

APPENDIX A16

Tree Location

Prairie Song Reliability Project



Tree Species
- California Juniper

Permanent Impact
- Pole Pad and Access Roads

Temporary Impact
- Gen-Tie Work Area

Pole
- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

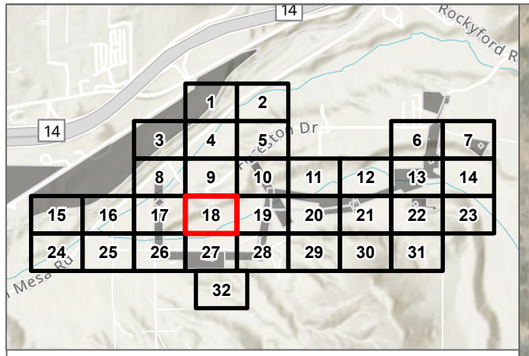
DUDEK

0 30 60 Feet

APPENDIX A17

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

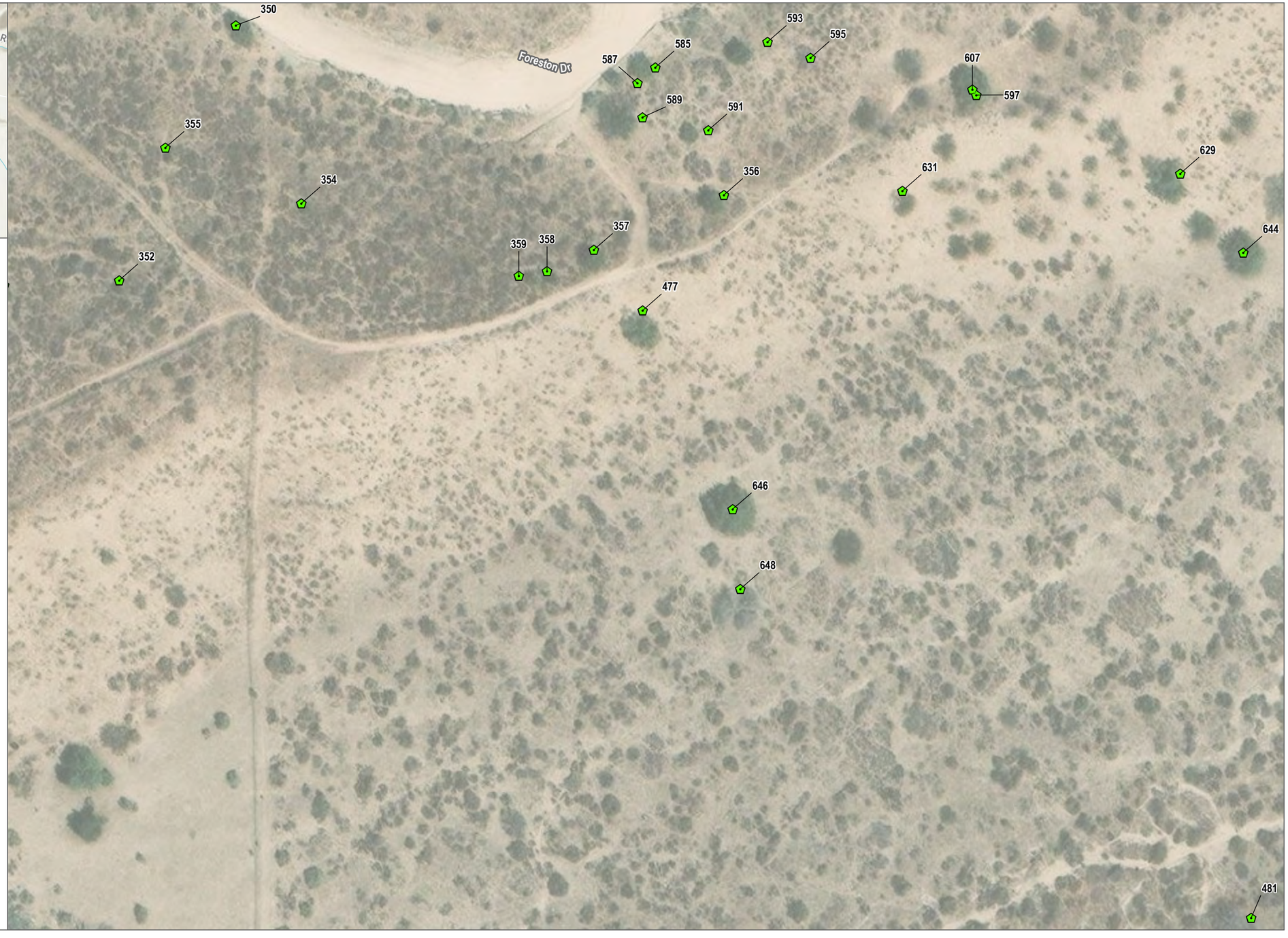
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

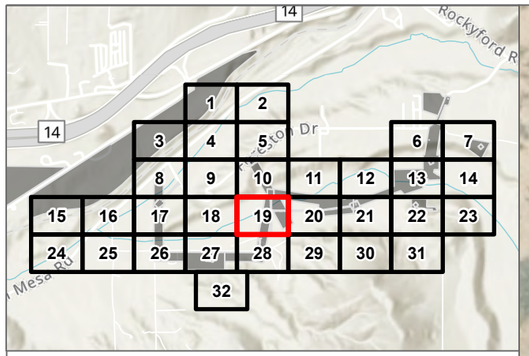
DUDEK

0 30 60 Feet

APPENDIX A18

Tree Location

Prairie Song Reliability Project



Tree Species
- California Juniper

Permanent Impact
- Pole Pad and Access Roads

Temporary Impact
- Gen-Tie Work Area

Pole
- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

627
496
498
491
493
800
495
497
484
486
489
494
483

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

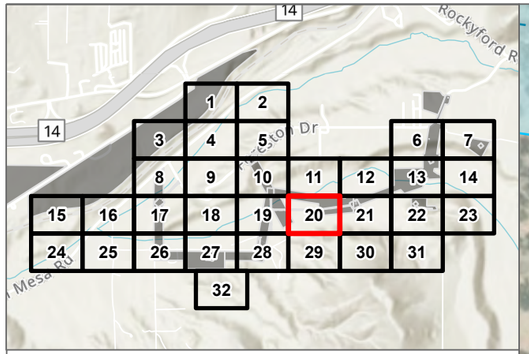
DUDEK

0 30 60 Feet

APPENDIX A19

Tree Location

Prairie Song Reliability Project



Tree Species
- California Juniper

Permanent Impact
- Pole Pad and Access Roads

Temporary Impact
- Gen-Tie Work Area

Pole
- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

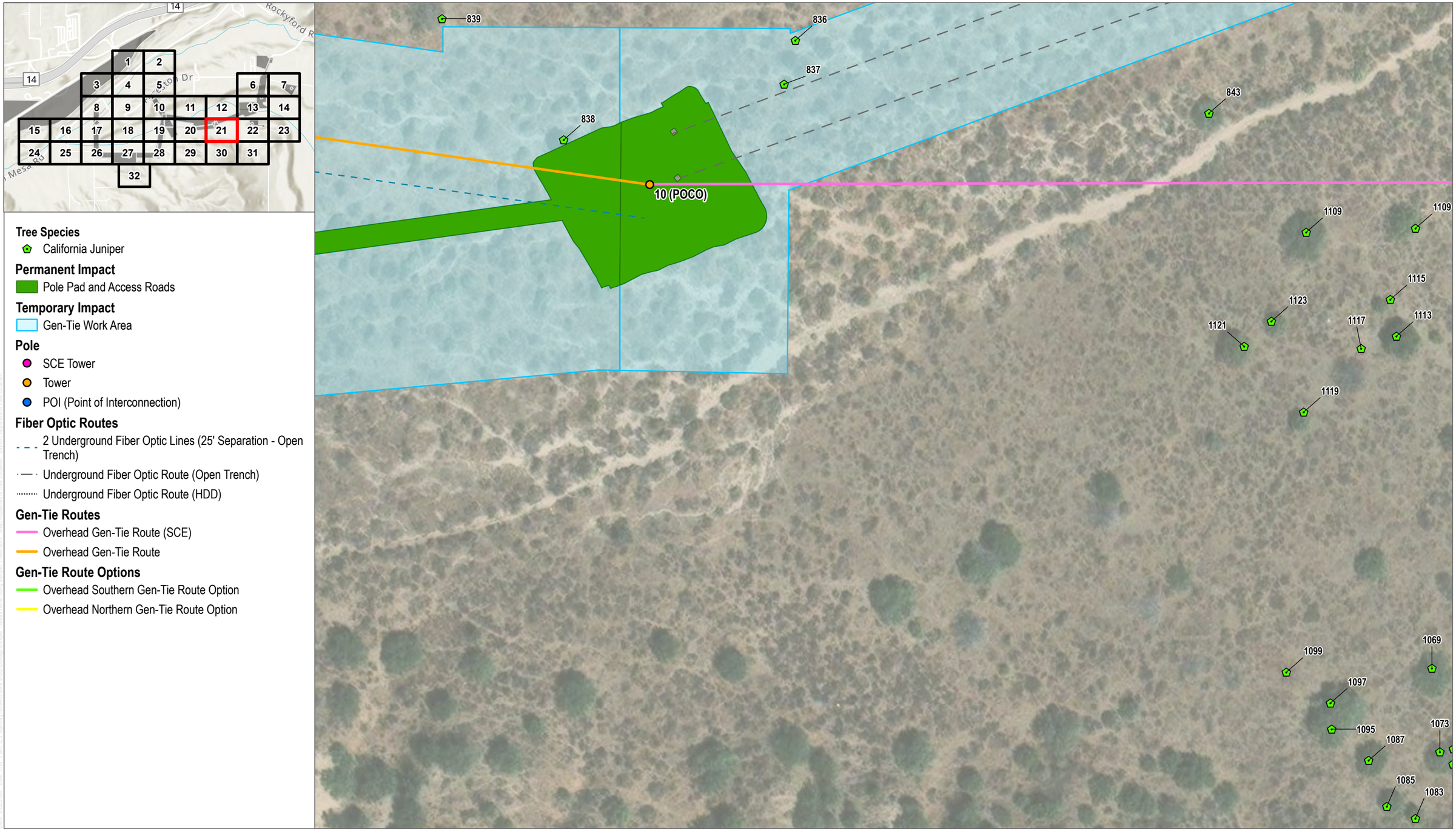
DUDEK

0 30 60 Feet

APPENDIX A20

Tree Location

Prairie Song Reliability Project



Tree Species
- California Juniper

Permanent Impact
- Pole Pad and Access Roads

Temporary Impact
- Gen-Tie Work Area

Pole
- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

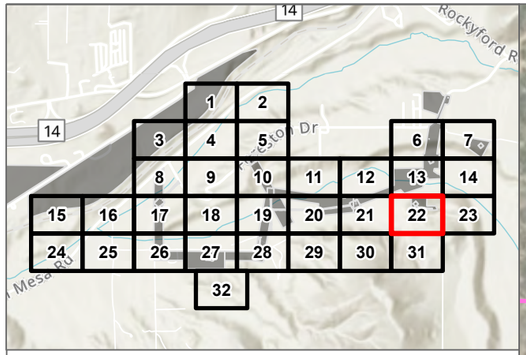
DUDEK

0 30 60 Feet

APPENDIX A21

Tree Location

Prairie Song Reliability Project



Tree Species
- California Juniper

Permanent Impact
- Pole Pad and Access Roads

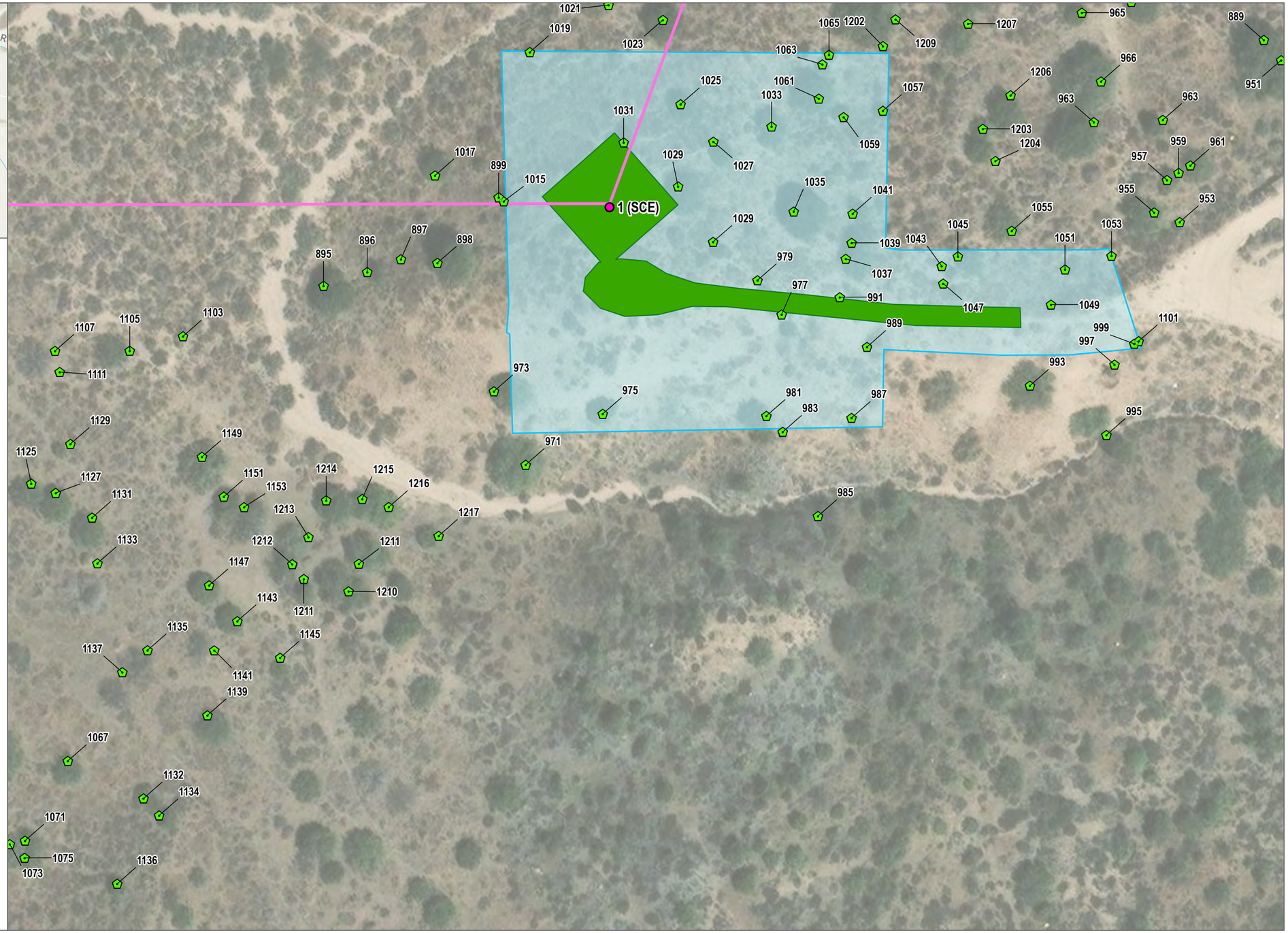
Temporary Impact
- Gen-Tie Work Area

Pole
- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

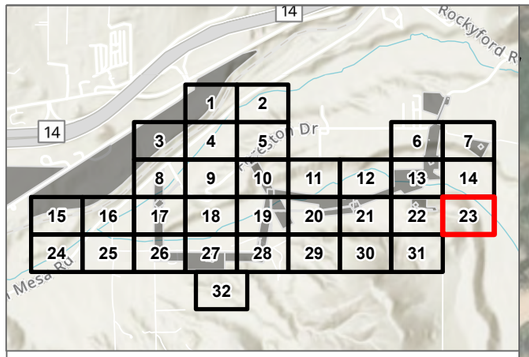
DUDEK

0 30 60 Feet

APPENDIX A22

Tree Location

Prairie Song Reliability Project





Tree Species

- California Juniper

Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

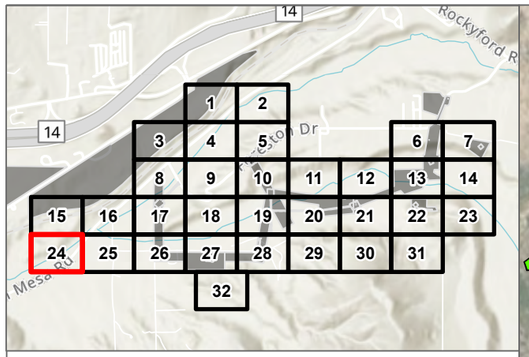
DUDEK

0 30 60 Feet

APPENDIX A23

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

W Carson Mesa Rd

Kentucky Springs Rd

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

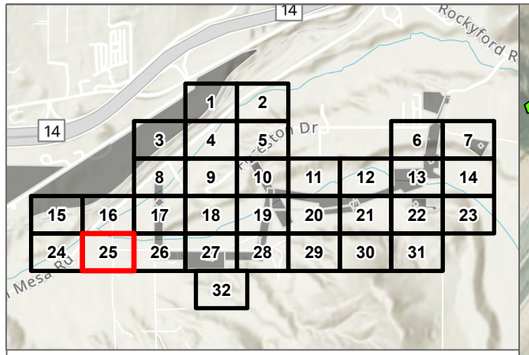
DUDEK

0 30 60 Feet

APPENDIX A24

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Pole

- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes

- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

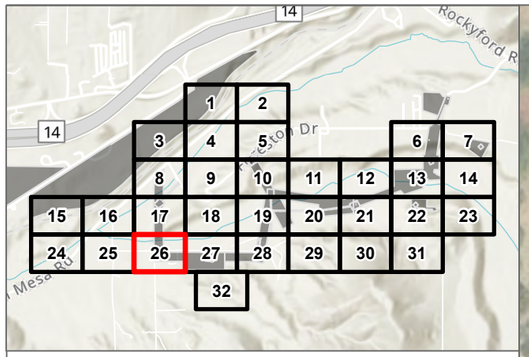
N

0 30 60 Feet

APPENDIX A25

Tree Location

Prairie Song Reliability Project



Tree Species
- California Juniper
- California Sycamore
- Fremont Cottonwood
- Southern California Black Walnut
- Velvet Ash

Permanent Impact
- Pole Pad and Access Roads

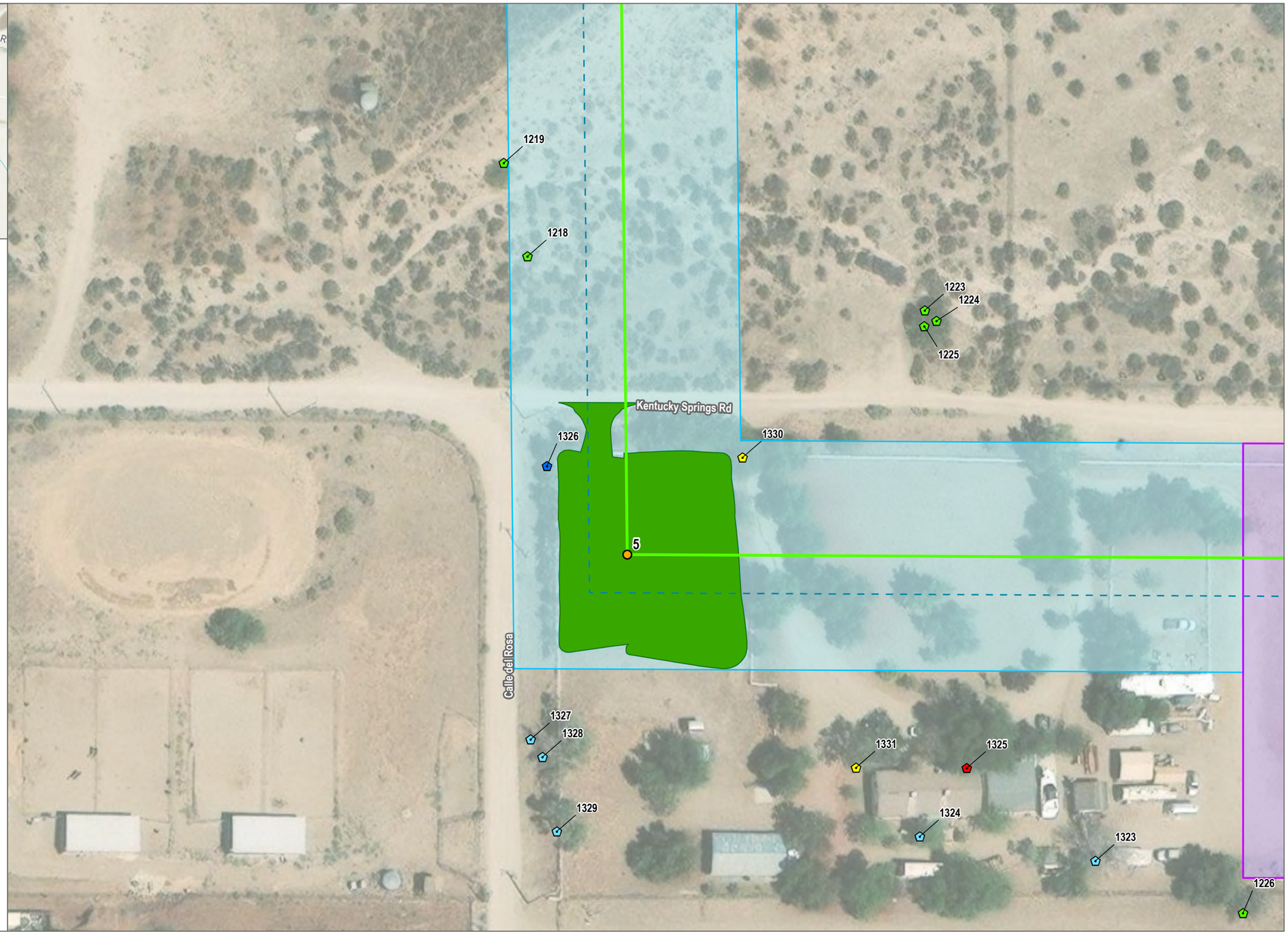
Temporary Impact
- Construction Laydown Area
- Gen-Tie Work Area

Pole
- SCE Tower
- Tower
- POI (Point of Interconnection)

Fiber Optic Routes
- 2 Underground Fiber Optic Lines (25' Separation - Open Trench)
- Underground Fiber Optic Route (Open Trench)
- Underground Fiber Optic Route (HDD)

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

0 30 60 Feet

APPENDIX A26

Tree Location

Prairie Song Reliability Project