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Prairie Song Reliability Project
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3.15 Water Resources

This section describes the potential effects the construction and operation of the Prairie Song Reliability Project (Project) may have on water resources at and in the vicinity of the Project site. The Project will consist of an up to 1,150-megawatt (MW) 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 information presented is based on a site-specific drainage analysis, water supply assessment (WSA), and readily available resources provided online. This evaluation of water resources includes the following elements:

- Section 3.15.1 describes the existing environment that could be affected, including drainage features, groundwater, water quality, and flooding.
- Section 3.15.2 identifies potential environmental impacts that may result from Project construction, operation, maintenance, and decommissioning.
- Section 3.15.3 discusses potential cumulative effects.
- Section 3.15.4 identifies avoidance and mitigation measures that should be considered during Project construction, operation, maintenance, and decommissioning.
- Section 3.15.5 presents laws, ordinances, regulations, and standards (LORS) applicable to water resources.
- Section 3.15.6 identifies regulatory agency contacts and describes permits required for the Project related to water resources.
- Section 3.15.7 provides references used to develop this section.

The following environmental setting and impact evaluation is based in part on the following Project-specific technical documents, included as appendices to this application:

- Appendix 2A – Site Plan Package
- Appendix 3.15A – Water Quality Management Plan (Sargent & Lundy 2025), includes Hydrology Report (Westwood 2025a) and Preliminary Stormwater Management Report (Westwood 2025b)
- Appendix 3.15B – Water Supply Assessment (WSA) (Dudek 2025)

A summary of the water 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	Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality?	☐	☐	☒	☐

		Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
3	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: a. Result in substantial erosion or siltation on- or off-site; b. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; c. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; and/or d. Impede or redirect flood flows?	☐	☐	☒	☐
4	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
5	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.15.1 Affected Environment

This subsection describes existing climate, drainage features, groundwater, water quality, water supply, and flooding potential at the Project site and surrounding region.

3.15.1.1 Climate

The Project site is located in an area characterized by a warm-summer Mediterranean climate, with temperatures typically varying between 35°F to 93°F (WRCC 2025). The average maximum temperature in the Project vicinity, based on temperature data recorded at the Acton, CA Remote Automatic Weather Station (National Weather Service Station No. 045438), for the period from 1995 to 2025 ranges from 54°F to 88°F, and the average minimum temperature ranges from 44°F to 75°F (WRCC 2025). Maximum temperatures in the summer typically reach the low-100s (°F) and minimum temperatures in the winter reach the mid-20s (°F). The average annual precipitation at the Acton, CA weather station for the period from 1995 to 2025 is approximately 9.36 inches (WRCC 2025).

Projected future climate conditions in California indicate gradual warming, with an increase in extremely hot days relative to historical norms, and greater year-to-year precipitation variability. Warming of approximately 3.6°F to 12.6°F is expected by the end of the century (Pierce et al. 2018). Additionally, there will be fewer wet days, but

increased precipitation on the wettest days (i.e., wetter winters and drier springs and autumns), resulting in modest annual precipitation changes but an increase in the frequency of dry years (Pierce et al. 2018).

3.15.1.2 Drainage Features

Regionally, the Project site is located within the Santa Clara River Watershed, named after the largest river system in Southern California that still remains largely in its natural state. The Santa Clara River Watershed (HUC-08) drains approximately 1,200 square miles traversing Los Angeles and Ventura counties (SWRCB 2025a) (Figure 3.15-1, RWQCB Hydrologic Setting, and Figure 3.15-2, USGS Hydrologic Setting). The river originates in the northern slope of the San Gabriel Mountains and flows in a nearly east to west direction before emptying into the Pacific Ocean halfway between the cities of San Buenaventura and Oxnard. Tributaries to Santa Clara River include Bouquet, Placerita, San Francisquito, Castaic, Piru, and Sespe creeks. In addition, there are numerous unnamed tributaries that flow north into Santa Clara River just south of the vicinity of the Project site (Westwood 2025). The Project site is located within the Kentucky Springs Canyon – Santa Clara River Watershed (HUC-12 No. 180701020102), with the westernmost area of the Project overlapping into the Arrastre Canyon – Santa Clara River subwatershed (No. 180701020105) (Figure 3.15-1) (EPA 2025a).

In the vicinity of the Project site, the Santa Clara River flows just outside of the southwestern boundary in a northeast to southwest direction. The Project is located on moderate terrain that generally slopes to the southwest toward the Santa Clara River (Figure 3.15-3, Local Drainage Features). The Project site contains varying slopes from 2% to greater than 10%, with steeper slopes existing in the southwest portion of the site (Westwood 2025). An unnamed tributary to the Santa Clara River runs through the site from northeast to southwest.

3.15.1.3 Groundwater

3.15.1.3.1 Groundwater Basin Description

The Project overlies the Antelope Valley Groundwater Basin (DWR Basin No. 6-044), which covers an area of 1,580 square miles (Figure 3.15-4, Groundwater Basins and Water Agency Boundaries) (Dudek 2025). The California Department of Water Resources (DWR) has designated the Basin as very low priority with regard to enacting the Sustainable Groundwater Management Act of 2014 (DWR 2025). Approximately 90% of the Basin was adjudicated in 2015 and the adjudicated portion is not subject to the requirements of the Sustainable Groundwater Management Act (SGMA), but is instead subject to groundwater pumping allocations under the court adjudication set up to sustainably manage the Basin to reverse groundwater level declines and reduce subsidence (Dudek 2025). The Project site is located within the remaining 10% of the Basin, which is the non-adjudicated area.

The two (2) primary water-bearing units of the Basin include Holocene[1] and Pleistocene[2] unconsolidated alluvial and lacustrine deposits. These two (2) primary aquifers (upper and lower) are separated by thick, low permeability clay deposits that can reach as thick as 400 feet. The generally unconfined upper aquifer is the primary source of groundwater for the valley. Specific yield for this aquifer ranges from 1% to 30%, and well production is typically moderate to highly productive, with well yields reported to average just under 300 gallons per minute (Dudek 2025). The lower aquifer is generally confined. A small portion of the Basin that extends southwest into the San Gabriel

[1] The Holocene Epoch began about 11,600 years ago and continues to present day.
[2] The Pleistocene Epoch began about 2.6 million years ago and lasted until about 12,000 years ago.

mountains is composed of older alluvial and lacustrine deposits, as well as Mesozoic[3] and Precambrian[4] igneous and metamorphic rock complexes. The Project is located in this area.

The Basin is generally bound on the north by Fremont Valley Groundwater Basin; on the east by ridges, buttes and low hills forming a drainage divide; on the southwest by the San Andreas fault zone at the base of the San Gabriel mountains; and on the northwest by the Garlock fault zone at the base of the Tehachapi Mountains (DWR 2004).

The total groundwater storage capacity of the Basin is estimated to be around 68,000,000 to 70,000,000 AF (Dudek 2025). Subsidence from over-extraction has occurred in parts of the Basin, in some areas as much as 6 feet (Dudek 2025). Groundwater extraction was at its highest in the 1950s, but as land use converted from agricultural to urban and with introduction of SWP water in 1972, groundwater pumping decreased until the mid-1980s, when the area started to experience rapid population growth (Dudek 2025).

Subsurface flow between the adjudicated and unadjudicated portions of the Basin are considered nominal (Dudek 2025). There is limited groundwater production data for the Project area, which is located outside of the adjudicated portion of the Basin.

The Basin primarily receives recharge from perennial runoff from the surrounding mountains. Most recharge occurs at the foot of the higher elevation areas by percolation through the head of alluvial fan systems. The Big Rock and Little Rock Creeks in the southern part of the Basin contribute about 80% of runoff into the Basin (DWR 2004). Groundwater levels in the Basin have ranged from an increase of 84 feet to a decrease of 66 feet from the mid-1970s to late 1990s. The largest declines have been observed in the urban areas such as Lancaster and Edwards Air Force Base. These areas have also experienced subsidence because of groundwater pumping (DWR 2004). Depth to groundwater in the vicinity of the Project site has historically ranged from approximately 40 feet belowground surface to upwards of 200 feet belowground surface between 1960 and 2005 (DWR 2025).

3.15.1.3.2 Groundwater Wells

A review of the following databases for information about wells on the Project site was completed as part of the WSA prepared for the proposed Project: SGMA Data Viewer, National Water Information System Mapper, and Groundwater Ambient Monitoring and Assessment Program Groundwater Information System (Dudek 2025). The location of groundwater wells on and in the vicinity of the Project site is shown in Figure 3.15-5, Groundwater Wells within 0.5 Miles, and a summary of well completion information and historical groundwater level data is provided below in Table 3.15-1.

[3] The Mesozoic Epoch began about 245 million years ago and lasted until about 65 million years ago.
[4] The Precambrian Epoch began about 4,600 million years ago and lasted until about 544 million years ago.

Table 3.15-1. Groundwater Well Inventory

Site Name	Well Depth (ft)	Land Surface Elevation (ft MSL)	Start Date	End Date	Range of water levels (ft MSL)	Distance from Project Site (Miles)	USGS Site Status
05N012W29R002S	Unknown	2,962	11/1/1965	3/29/1978	2,747.9– 2,964.9	0.11	Inactive
05N012W28F001S	Unknown	3,120	11/30/1965	11/30/1965	2,953.7	0.25	Inactive
05N012W32M001S	131.3	2,835	9/15/1978	3/30/2005	2,710.5–2,797.6	0.89	Inactive
05N012W22K001S	Unknown	3,247	11/30/1965	11/30/1965	2,903.3	1.21	Inactive
04N013W12C003S	115	2,635	12/4/1950	3/15/2022	2,587.8–2,634.8	3.33	Active

Source: USGS 2025b, as cited in Dudek 2025.
Notes: ft = feet; MSL = mean sea level.

Dudek performed a site reconnaissance on November 18, 2024 and located two (2) existing groundwater wells on the Project site. One (1) well, no longer connected to power, was observed on APN 3056-017-021, one well was observed on APN 3056-019-026, which likely supplies potable water to the adjacent residence (observed well located toward the south-west of the Project site). According to well completion reports for wells drilled in the Project vicinity, wells in the area typically yield between 10 to 20 GPM, with a select few wells that yield up to 50 GPM (Dudek 2025).

3.15.1.4 Water Quality

3.15.1.4.1 Surface Water Quality

As noted above, the Project site is primarily located in the 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 closest to the Project site along with an unnamed drainage that cuts across the site (Figure 3.15-3). According to the U.S. Environmental Protection Agency watershed database, water quality is not monitored in either the Kentucky Springs Canyon or Arrastre Canyon subwatersheds (EPA 2025a). The closest impaired water bodies to the Project site include Palmdale Lake, located approximately 4 miles north of the Project site and Little Rock Reservoir, located approximately 6.5 miles east of the Project site (Figure 3.15-6, Impaired Waterbodies). Palmdale Lake is impaired by pesticides, and Little Rock Reservoir is impaired by mercury, metals, and PCBs (EPA 2025c). Both of these water bodies are located in other watersheds, whereas, downstream of the Project site, water quality of reaches 6 and 7 of the Santa Clara River in the Sand Canyon-Santa Clara River subwatershed (No. 180701020107) are monitored for physical, chemical and biological factors (EPA 2025a). According to the monitoring data, Mint Canyon Creek Reach 1, Santa Clara River Reach 6, and Santa Clara River Reach 7 are found to be impaired (EPA 2025b). Mint Canyon Creek Reach 1 is used for drinking water and found to be impaired by nitrogen and/or phosphorous. Santa Clara River Reach 6 has beneficial uses of aquatic life, recreation, and other and has identified issues with pesticides, salts, and total toxic chemicals (EPA 2025b). Reach 7 of the Santa Clara River has beneficial uses of recreation and identified issues of bacteria and other microbes (EPA 2025b).

3.15.1.4.2 Groundwater Quality

Water quality in the Basin varies but is generally of good quality and found to be suitable for domestic, agricultural, and industrial uses (Dudek 2025). Water quality impairments in groundwater from wells in the vicinity of the Project site include elevated total dissolved solids and nitrate-nitrogen (Dudek 2025). High fluoride, boron, nitrates, and arsenic have been reported in some areas of the Basin (Dudek 2025). Los Angeles County Water District 37 (District 37) annual water quality reports from 2020 to 2023 show maximum nitrate concentrations in groundwater were as high as 8.7 milligrams per liter (mg/L) but have not exceeded the maximum contaminant level of 10 mg/L (LACWD 2025b, as cited in Dudek 2025). In the adjacent LACWD District No. 40 – Antelope Valley (District 40), the maximum reported nitrate concentrations were lower at 4.2 mg/L. The maximum reported concentration of arsenic in District 37 water in 2023 (the most recent water quality report) was 2.2 parts per billion, much lower than the maximum contaminant level of 10 parts per billion.

Table 3.15-2. Groundwater Quality Data

Site Name	Start Date	End Date	Water Quality Concerns	Max Concentration Measured	Distance from Project Site (Miles)
05N12W28F001S	12/29/1950	3/16/1972	Nitrate	11.5 mg/L	0.25
05N12W28L001S	4/24/1975	3/24/1981	Nitrate, TDS	23.7 mg/L, 1800 mg/L	0.25
05N12W32F003S	3/16/1972	3/14/1989	None	—	0.77
05N12W31H002S	4/21/1971	4/21/1971	None	—	1.25
04N12W05G002S	4/25/1975	3/14/1989	None	—	1.35
04N12W02E002S	9/17/1967	3/14/1989	None	—	1.35
05N12W30K001S	3/30/1953	4/20/1967	Nitrate	12.5 mg/L	1.5
Well 37-01	4/23/1987	11/29/2022	Nitrate	13 mg/L	2.85

Source: SWRCB 2025a, as cited in Dudek 2025.
Notes: mg/L = milligrams per liter; TDS = total dissolved solids; — = not available.

District 37 blends the pumped groundwater with purchased imported surface water from Antelope Valley–East Kern Water Agency (AVEK). The imported surface water generally has lower nitrate and total dissolved solids concentrations, resulting in higher quality water for consumption.

Little data from the on-site wells are known; however, from a previous site reconnaissance conducted on December 20, 2022, the property owner of the two (2) on-site wells reported no known contaminants (Dudek 2025).

3.15.1.5 Flooding Potential

Flood zones are identified on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) as Special Flood Hazard Areas (SFHAs) and "other areas of flood hazard." An SFHA is defined as the area that would be inundated by a flood event having a 1% chance of being equaled or exceeded in any given year. The 1% annual chance flood is also referred to as the base flood or 100-year flood, and is the national standard used by all federal agencies for the purposes of requiring the purchase of flood insurance and regulating new development. Similarly, the 0.2% annual chance flood is referred to as the 500-year flood. According to FEMA FIRM mapping (Panel 06037C0885G), the Project site does not contain any FEMA Flood Hazard zones (Westwood 2025a) (Figure 3.15-7, FEMA Flood Zones).

The California Department of Water Resources (DWR) has also conducted their own study to identify flood-prone areas within the state. This study, which mapped flood zones and floodplains for the 100-year, 200-year, and 500-year floods, has been created to supplement the studies that have been conducted by FEMA. The 100-year flood zones, referred to as "Flood Awareness Zones," were reviewed as part of the Preliminary Hydrology Study for the Project site and found not to contain any 100-year Flood Awareness Zones (Westwood 2025a).

In addition, the Project site will not be subject to seiche or tsunami (due to the great distance to the ocean or any enclosed or semi-enclosed large body of water).

3.15.2 Impact Analysis

The following sections present the potential effects on water resources from construction, operation, maintenance, and decommissioning of the proposed Project.

3.15.2.1 Methodology

The impact analysis is based on a site-specific hydrology/water quality report, WSA, engineering drawings, and readily available resources provided online. Potential direct and indirect Project impacts related to water resources were evaluated against the California Environmental Quality Act (CEQA) significance criteria and are discussed below. The impact analysis evaluates potential Project impacts during Project construction, operation, and decommissioning.

3.15.2.2 Impact Evaluation Criteria

CEQA Guidelines Appendix G is a screening tool, not a method for setting thresholds of significance. CEQA Guidelines 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 make a determination as to whether a project requires an EIR, 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. With respect to hydrology and water quality, CEQA Guidelines Appendix G asks, in part, would the Project:

- Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality?
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    a. Result in substantial erosion or siltation on- or off-site;
    b. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
    c. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; and/or
    d. Impede or redirect flood flows;
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

3.15.2.3 CEQA Appendix G Assessment Criteria

3.15.2.3.1 Would the Project violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality?

Construction

Less than Significant. Construction of the Project will have the potential to result in substantial additional sources of polluted runoff that will potentially have short-term impacts on surface water quality through activities such as clearing and grading, stockpiling of soils and materials, concrete pouring, painting, and asphalt surfacing. Typically, BESS and gen-tie line construction includes equipment such as bulldozers, graders, water trucks, rollers, backhoe/trenching machines, excavators, concrete trucks/concrete pumps, cranes, dump trucks, flatbed and low-bed trucks, pickup trucks, small hydraulic cranes, and rough-terrain cranes/forklifts. Pollutants associated with these construction activities that could substantially degrade water quality include soils, debris and other materials generated during clearing, fuels and other fluids associated with the equipment used for construction, paints, concrete slurries, asphalt, and other hazardous materials.

Non-stormwater discharges during construction will include periodic application of water for dust control. Since the practice of dust control is necessary during windy and dry periods to prevent wind erosion and dust plumes, water will be applied in sufficient quantities to wet the soil, but not so excessively as to produce runoff from the construction site. Water applied for dust control will either quickly evaporate or locally infiltrate into shallow surface soils. This means that water applied for dust control is unlikely to appreciably affect groundwater or surface water features and thus will not cause or contribute to exceedances of water quality objectives contained in the Basin Plan.

Pollutants associated with construction could degrade water quality if they are mobilized by stormwater or non-stormwater flows into surface waters. Sediment is often the most common pollutant associated with construction sites because of the associated earth-moving activities and areas of exposed soil. Sediment that is washed off site can result in turbidity in surface waters, which can impact aquatic species. In addition, when sediment is deposited into receiving waters it can smother species, alter the substrate and habitat, and alter the drainage course. Hydrocarbons such as fuels, asphalt materials, oils, and hazardous materials such as paints and concrete slurries discharged from construction sites could also impact aquatic plants and animals downstream. Debris and trash could be washed into existing storm drainage channels to downstream surface waters and could impact wildlife and aesthetic value.

Stormwater runoff from the Project site ultimately flows to the Santa Clara River, which is currently listed on the 303(d) list of impaired water bodies for bacteria and other microbes (Reach 7) and pesticides, salts (i.e., chloride), and total toxic chemicals (Reach 6) (EPA 2025b). The closest portion of the Project site to the impaired reach of the Santa Clara River is approximately 13 miles southwest. No TMDLs have been established for these pollutants for these nearby reaches of Santa Clara River; however, Reach 3 further downstream has a TMDL for Chloride with intentions of establishing TMDLs in Reaches 5 and 6 in the future. Other nearby impaired water bodies are shown in Figure 3.15-6.

However, under the NPDES CGP permit program, SWPPPs are required to be prepared and the best management practices (BMPs) identified in the SWPPPs implemented for all construction sites greater than 1 acre to reduce the potential for off-site discharges of pollutants in surface water. In compliance with the CGP, the Project will

implement construction BMPs that minimize disturbance, protect slopes, reduce erosion, and limit or prevent various pollutants from entering surface water runoff.

The Project's grading plans will include details on the location and type of BMPs necessary to reduce the potential for Project-induced erosion and scour, including temporary BMPs to be implemented during construction (per the statewide CGP), and permanent BMPs to be installed and maintained (per the County BMP Design Manual). The exact location and type of temporary BMPs to be installed during construction depend on site-specific conditions, construction schedule, and proposed activities, all of which are outlined in the construction SWPPP that will be prepared for the Project. Typical temporary BMPs used for similar projects include energy dissipaters, silt fences, fiber rolls, gravel/sand bags, construction road stabilization, and stabilized construction entrances. As the Project-specific SWPPP is prepared, the location, type, and number of specific BMPs may be refined based on the final designs to most effectively achieve the objective of reducing turbidity and other pollutant loads in stormwater runoff. The provisions of the CGP ensure that site-specific conditions are taken into consideration when developing construction SWPPPs, that personnel developing and implementing construction SWPPPs are qualified, and that BMPs are adequately monitored and maintained.

As discussed in the environmental setting, the Project is unlikely to encounter shallow groundwater, and dewatering is not expected to be required. The Geotechnical Engineering Report conducted for the Project, dated May 14, 2025 states that "According to data collected from the Water Data Library for the State of California from a nearby well, located approximately 0.5 miles north of the site in State Well Number 05N12W28F001S, historic groundwater levels around November 30, 1965, were recorded at greater than 100 feet bgs.1 Recent publicly available data (within the last 20 years) is not available within a 1-mile radius from the site boundary. As such, groundwater is not anticipated to occur within the depth of excavations or foundation installations at the site" (see Appendix 3.4A, page 7).

Because the actual presence or absence of shallow groundwater is dependent on local geologic and climatic conditions it is possible that locally perched groundwater could be encountered. Therefore, it is possible that construction-related dewatering discharges could be required. Nonetheless, 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, a Notice of Intent to comply with General WDRs would be submitted to the Los Angeles RWQCB, in addition to a discharge monitoring plan, and any additional information requested by the Los Angeles RWQCB. RWQCB staff would then determine whether coverage under the General WDRs is appropriate and, if so, would notify the applicant by letter of coverage. This permit process is the mechanism by which the Los Angeles RWQCB would ensure that discharges of groundwater would not violate Basin Plan standards. If contaminated groundwater is unexpectedly discovered during discharge monitoring, the Los Angeles RWQCB will be notified. Groundwater would be passed through a treatment unit prior to being discharged to land or surface water.

Operations

Less than Significant. Once constructed, the proposed BESS facility will result in a substantial increase in impervious surfaces at the site, currently entirely pervious, which could potentially result in discharge of polluted stormwater runoff. Potential sources of polluted runoff include incidental spills of petroleum products and hazardous substances from maintenance vehicles and equipment.

In compliance with the Los Angeles County BMP Design Manual, private development projects are required to implement permanent water quality BMP measures to ensure that pollutant discharges and runoff flows from

development are reduced to the maximum extent practicable, and receiving water quality objectives are not violated throughout the life of the Project. In compliance with the County BMP Design Manual, a Preliminary Stormwater Management Report has been developed for the proposed Project (Westwood 2025b), to provide the calculations on how the proposed stormwater facilities will comply with the County stormwater management requirements. The proposed substation and BESS will be constructed on a raised pad and runoff from this area will drain southwest into catch basins located across the site. A storm sewer network will route water from the catch basins into underground infiltration chambers and infiltration trenches. Infiltration trenches along the southern end of each drainage area connected to the chamber system will aid in meeting the infiltration volume requirement.

Infiltration facilities are proposed to provide rate control and treatment of stormwater runoff to meet the requirements of the State of California and Los Angeles County. An infiltration rate of 0.57 inches per hour was used in the analysis of the site based on the percolation testing provided by Terracon. The storage volume provided within the infiltration facilities will infiltrate into the soil for treatment and provide a reduction in runoff rate and volume.

In accordance with County requirements, because the Project discharges to a natural drainage system and is tributary to the Santa Clara River, stormwater controls are required to be implemented to prevent adverse effects from the changes in drainage patterns (Westwood 2025b). The Project is required to fully mitigate off-site drainage impacts caused by the Project for the LID, 2-, 5-, 10-, 25-, and 50-year storm events per the Los Angeles County Low Impact Development Standards Manual. The infiltration facilities will be sized to store and infiltrate the difference in runoff between existing and proposed conditions up to the 50-year 24-hour storm event for the two (2) drainage areas on site. According to the Preliminary Stormwater Management Report, the total volume that will be required to achieve runoff difference will be 13.16 acre-feet (Westwood 2025b).

The County also requires the Project to retain 100% of the Stormwater Quality Design Volume (SWQDv) on site. According to calculations in the Preliminary Stormwater Management Report, the total volume required to provide on-site retainment will also be 13.16 acre-feet (Westwood 2025b). Other water quality BMPs that will be implemented on site as part of the WQMP would include: maximizing natural infiltration capacity; preserving existing drainage patterns and time of concentration; protection of existing vegetation and use of a vegetative buffer surrounding the impervious improvements; revegetation of disturbed areas; avoidance of soil stockpiling; ongoing maintenance of detention basins chambers; water efficient landscaping; use of culverts to manage upstream off-site stormwater runoff throughout the Project site; and slope and channel buffers that are maintained to decrease potential for erosion (Sargent & Lundy 2025).

By implementing the pollution control measures described in the Preliminary Stormwater Management Report, as well as the appropriate monitoring program included there within, the proposed Project will limit the possibility of contributing contaminants that might exceed local water quality objectives or contribute to the degradation of beneficial uses of Santa Clara River, in compliance with the County requirements and the Regional MS4 Permit.

As a result, the proposed Project will not violate applicable water quality objectives or waste discharge requirements, and will comply with all federal, state, and local laws addressing water quality in stormwater and non-stormwater discharges.

Potential construction and operations impacts will be **less than significant.**

3.15.2.3.2 Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

Less than Significant. Water supply for construction will be sourced from off-site water delivered by truck and water for O&M will be sourced from an on-site well(s). The project is anticipated to require approximately 55 AF for construction over an approximate 20-month period (assumed that BESS facility and gen-tie will be constructed simultaneously), and approximately 1.5 AFY for operation (Dudek 2025). Based on this, the total Project water demand is estimated to be approximately 82 AF over the 20-year, SB 610 planning horizon and 170 AF over the life of the Project (43 years) (Appendix 3.15B; Dudek 2025).

The Project site is located within AVEK's service area, which is a wholesale water supplier of SWP water to the greater Antelope Valley region that provides potable water sourced from either State Water Project (SWP) water treated at AVEK water treatment plants, or groundwater that is either recovered from recharge in previous years or part of AVEK's adjudicated groundwater production rights. As a water wholesaler, AVEK does not typically sell to individuals and will not be available as a direct source of water for the Project, rather, water provided by AVEK will likely need to be purchased through one of the retail water agencies that AVEK serves.

PWD sources raw water from Littlerock Dam and the SWP, with the remaining water (approximately 33%) pumped from local groundwater wells (Dudek 2025). According to the WSA prepared for the proposed Project, the groundwater level trends in wells near the Project site have been stable indicating that there is sufficient groundwater available to satisfy Project water demands and the demands of all other groundwater users during normal, single dry, and multiple dry years over a 20-year projection and the life of the Project (43 years) (Dudek 2025). Similarly, based on review of AVEK's projected water supplies and demands, AVEK/retail water agencies in the region, including PWD, have sufficient supplies to serve the Project during normal, single dry, and multiple dry years over a 20-year projection and the life of the Project. The majority of Project water use will be of short duration for construction and decommissioning and water use for Project O&M will be *de minimis*. The amortized demand of the Project will be a nominal 4 AFY so the additional demand on groundwater resources or AVEK's/retail water agencies' water supplies will be negligible (Dudek 2025).

Furthermore, as noted above, the proposed Project improvements will be required to implement drainage control features that will be sized to store and infiltrate the difference in runoff between existing and proposed conditions up to the 50-year 24-hour storm event for the two (2) drainage areas on site (Appendix 3.15A). Therefore, even though the Project will introduce new impervious surfaces, the adherence to County drainage requirements will provide onsite infiltration of stormwater runoff such that the potential to substantially decrease groundwater recharge will be minimized.

Therefore, the water supply needs for the Project will be sourced in part from AVEK through a water retail provider such as PWD in a mostly adjudicated basin that is managed by court order to ensure that sustainability goals are maintained as well as through use of the on-site well(s). Local groundwater level trends are stable and determined to have sufficient ability to supply the Project (Dudek 2025). In addition, groundwater recharge will continue at the site with the construction and operation of infiltration facilities on site. As a result, the potential impacts to groundwater supplies for construction and operations will be **less than significant**.

3.15.2.3.3 Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

A. Result in substantial erosion or siltation on- or off-site;
B. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
C. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; and/or
D. Impede or redirect flood flows?

Less than Significant. Construction of the Project will alter drainage patterns at the site by introducing new impervious surfaces to the site. As mentioned above in Section 3.15.2.3.1, part of adherence to County requirements requires analysis of existing and proposed stormwater conditions that will occur due to implementation of the Project. To analyze the potential impacts of the proposed Project in relation to the hydrology and drainage patterns threshold, watershed hydrologic runoff calculations were performed in accordance with County requirements. Existing and proposed runoff were completed for the Project using modeling software consistent with the County's Low Impact Development Standards Manual. As noted above, the Project is required to capture and infiltrate the difference in runoff between existing and proposed conditions up to the 50-year 24-hour storm event for the two (2) drainage areas on site.

The proposed grading and hydraulic structures will be designed to route off-site runoff through and around the site, maintain overall existing drainage patterns, and route on-site runoff to the proposed infiltration facilities. Water quality treatment and hydromodification requirements will be met through the use of infiltration chambers and trenches. Upstream off-site runoff will be diverted both around and through the Project site using culverts. The culverts would be required to be sized for the 100-year, 24-hour rain event. Large outfall velocities for the culverts routed through and around the BESS and substation site will be minimized using energy dissipators and riprap (Sargent & Lundy 2025).

As a result, the proposed Project will not substantially alter the existing drainage pattern of the site or increase impervious surfaces in a manner that will result in substantial erosion or siltation on or off site; substantially increase the rate or amount of runoff that will result in flooding on or off site; or contribute runoff that will exceed the capacity of existing or planned stormwater drainage systems. (See Section 3.15.2.3.1 regarding potentially polluted runoff.). As a result, potential stormwater drainage impacts from construction and operations will be less than significant.

The BESS site is not located within a 100-year floodplain as mapped by FEMA and not within a Flood Awareness Zone as determined by the Department of Water Resources (Westwood 2025a). As shown in Figure 3.15-7, some portions of the proposed gen-tie line will be located within a 100-year flood zone; however, these tower structures have a relatively minimal aboveground profile and will have negligible effects related to impeding or redirecting flood flows. Stormwater runoff from the gen-tie pad areas will drain to infiltration ponds located at each pad. The new roads leading to the gen-tie pads would be gravel-surfaced and drain through perforated underdrains to the infiltration basin located at each of the gen-tie pads. Therefore, the Project will not substantially impede or redirect 100-year flood flows. In an analysis of flood conditions, the 100-year analysis of the proposed conditions shows similar flooding depth patterns to those of the existing conditions, but with slight variations in flood depths around

the unnamed flow path in the central portion of the site (Westwood 2025a). However, the proposed drainage system will be constructed such that stormwater runoff will be controlled and contained, resulting in minimal stormwater runoff flowing off site. The majority of stormwater runoff will flow toward the infiltration facilities. As a result, construction and operations of proposed improvements will not substantively impede or redirect flood flow, resulting in **less than significant** impacts.

3.15.2.3.4 In flood hazard, tsunami, or seiche zones, would the Project risk release of pollutants due to Project inundation?

Less than Significant. As noted above, the Project site is not located within a 100-year flood hazard area and is located well inland such that it is not susceptible to tsunami hazards. Seiche hazard zones are limited to areas immediately adjacent to enclosed or semi-enclosed bodies of water, and there are no such features in the vicinity of the site. Furthermore, O&M activities associated with a BESS facility will require limited storage of hazardous materials and those that will be on site will be stored in designated, secured areas with secondary containment. A Hazardous Materials Business Plan for site operations will ensure that all handling, storage, and disposal of hazardous materials associated with Project operation will be appropriately secured and conducted in accordance with all regulatory requirements. As such, the potential construction and operations impacts related to risk of release of pollutants due to Project inundation will be **less than significant**.

3.15.2.3.5 Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant. As noted above, the proposed Project will adhere to all applicable drainage control requirements and will not include any other water discharge that is not already discussed in Section 3.15.2.3.1. Adherence to these stormwater quality control requirements are consistent with RWQCB Basin Plan policies and the construction and operation of the Project will not conflict or obstruct implementation of the Basin Plan and the potential construction and operations impacts will be less than significant.

Water supply for the Project will be provided by an on-site well(s), and/or delivery of off-site water via truck deliveries provided by AVEK/retail water agencies, such as PWD, which sources surface water from the SWP and from groundwater supply wells that are located in the Antelope Valley Groundwater Basin. The majority of the Basin is adjudicated and not required to develop a Groundwater Sustainability Plan pursuant to SGMA. The non-adjudicated portion of the Basin is also not required to develop a Groundwater Sustainability Plan pursuant to SGMA because DWR has designated the Basin as very low priority. AVEK, a public water supplier within whose service area the Project lies, concluded in its more recent Urban Water Management Plan that sufficient supplies exist to serve future water demands of development intensities consistent with the proposed Project, if necessary. As a result, there is no applicable Groundwater Sustainability Plan. Therefore, the Project will not conflict or obstruct implementation of a sustainable groundwater management plan and the potential from construction and operations impacts will be **less than significant**.

3.15.3 Cumulative Effects

As defined by Public Resources Code Section 21083; Title 14 CCR, Sections 15064(h), 15605(c), 15130, and 15355, a cumulative effect refers to a proposed project's incremental effect paired with closely related past, present, and reasonably foreseeable future projects whose impacts compound or increase the incremental effect of the proposed Project.

The geographic scope of cumulative effects on hydrology and water quality differs somewhat depending on the issue being addressed. The geographic scope for surface water quality and hydrology is typically watershed-based, whereby projects contributing flow to the same water bodies as the proposed Project will be considered. For groundwater impacts, the geographic scope of cumulative effects will be the groundwater aquifer affected by the proposed Project. As discussed above, the potential Project impacts to surface water and groundwater were determined to be less than significant.

Surface Water

Not cumulatively considerable. In the absence of regulatory controls, the primary impact of the proposed Project in the cumulative scenario will be increases in the area covered by impervious surfaces, development of access driveways and utility corridors, and the release of non-point-source pollutants (e.g., motor fuels, trash, sediment). The proposed Project, along with other cumulative projects occurring within the Santa Clara River Watershed will be required to comply with applicable federal, state, and local water quality regulations. The proposed Project, along with other projects of greater than 1 acre (which includes most of the projects in the cumulative scenario), will be required to obtain coverage under the NPDES CGP, which requires project proponents to identify and implement stormwater BMPs that effectively control erosion and sedimentation and other construction-related pollutants. Further, nearly all projects identified in the cumulative scenario will meet the definition of "new development and redevelopment projects" under the Los Angeles County MS4 Permit. Such projects are required to implement site design; source control; and, in some cases, treatment control BMPs to control the volume, rate, and water quality of stormwater runoff from the project during long-term operations. This is implemented locally by the County by requiring new development projects to submit and implement a Stormwater Quality Management Plan. These drainage control regulatory requirements are watershed-based, and therefore, water quality impacts will not be cumulatively considerable.

Groundwater Resources

Not cumulatively considerable. The proposed BESS site is located in the Antelope Valley Groundwater Basin, which is considered by the California Department of Water Resources to be a low priority basin due to the adjudication of the Basin. The adjudication provides a framework to sustainably manage the basin to reverse groundwater level declines and reduce subsidence. The Basin has a safe yield of 82,000 acre-feet per year, which is the amount considered to provide a sustainable amount of extraction without causing adverse effects. Total production for 2023 was 64,517.97 acre-feet, well below the safe yield. Therefore, because a Groundwater Sustainability Plan is not required for the Basin and the court order is already providing a mandated sustainability framework for the Basin, there is no cumulative impact to groundwater resources and the Project cannot incrementally contribute to a cumulative impact. As a result, groundwater impacts will not be cumulatively considerable.

Hydrology and Drainage Pattern

Not cumulatively considerable. In the absence of regulatory controls, the primary impact of the proposed Project in the cumulative scenario will be alteration of the natural hydrology of the region through increases in the area covered by impervious surfaces. The typical impact of substantial increases in impervious surfaces is that peak flows within the watershed's drainages are greater in magnitude, shorter in duration, and more responsive to storm events, since a greater portion of precipitation is carried by surface runoff rather than percolated into the soil. New roads and/or transmission line corridors can often block or redirect stormwater flows if improperly designed. These impacts are undesirable with respect to management of stormwater flow capacities and flood hazards.

However, based on the Preliminary Stormwater Management Report (Westwood 2025b), increased Project stormwater runoff rates resulting from increased impervious surfaces will be reduced to less than or equal to existing conditions through construction of infiltration facilities. Cumulative project development within the Santa Clara River Watershed will similarly be required to reduce stormwater runoff rates in accordance with regulatory requirements. As a result, the additional impervious surfaces associated with cumulative development will have minimal to no hydrologic impact on receiving waters in the watershed. Therefore, hydrologic impacts will not be cumulatively considerable.

Flood Hazards

Not cumulatively considerable. The proposed BESS site is not located within an identified flood hazard area (i.e., 100-year FEMA flood zone); however, portions of the proposed gen-tie line are located within a flood hazard area. For the proposed Project, the 100-year analysis of the proposed conditions shows similar flooding patterns to those of the existing conditions, but with slight variations in flood depths around the unnamed flow path in the central portion of the BESS site (Westwood 2025b). In accordance with local stormwater drainage control requirements, cumulative projects, like what is discussed above for the proposed Project, are required to provide on-site detainment of any increases in stormwater runoff associated with any increases in impervious surfaces. Further, cumulative project development will also be subject to CEQA, which mandates that development within a floodplain does not substantially impede or redirect flood flows and cause off-site flood-related impacts. As a result, the proposed Project will not combine to contribute to cumulatively considerable flood-related impacts.

Water Planning

Not cumulatively considerable. The Project site overlies the Antelope Valley Groundwater Basin, an adjudicated basin and not subject to a Groundwater Sustainability Plan per SGMA. As noted above, the proposed Project is not expected to violate any water quality standards and measures will be taken both during construction and throughout operation to prevent potential contaminants from leaving the site by runoff. All cumulative projects will equally be required to comply with these regulations and standards, which are consistent with Basin Plan policies and thus, through compliance with RWQCB requirements and a NPDES permit, implementation of a SWPPP, the Project will not cumulatively conflict with or obstruct implementation of the Los Angeles RWQCB Basin Plan.

3.15.4 Mitigation Measures

No mitigation measures beyond the Project design's avoidance and minimization measures are required as no significant impacts will occur.

3.15.5 Laws, Ordinances, Regulations, and Standards

Federal, state, and local LORS applicable to water resources are discussed in this subsection and are summarized in Table 3.15-3.

Table 3.15-3. LORS Applicable to Water Resources

Jurisdiction	LORS	Applicability	Project Conformity	Opt-In Application Reference
Federal	Clean Water Act	Requires adherence to NPDES	**Yes.** Project will include preparation and	Section 3.15.2.3.1

Table 3.15-3. LORS Applicable to Water Resources

Jurisdiction	LORS	Applicability	Project Conformity	Opt-In Application Reference
		stormwater and water discharge requirements.	implementation of a SWPPP and construction BMPs during construction activities to prevent off-site transport of pollutants. For operation, project will design and construct stormwater treatment controls to protect water quality of receiving waters.	Section 3.15.2.3.3 Section 3.15.2.3.5 Section 3.15.5.1
Federal	Antidegradation Policy	Requires states to develop statewide antidegradation policies and identify methods for implementing them.	**Yes.** Project will implement construction and post-construction BMPs to prevent off-site transport of pollutants.	Section 3.15.2.3.1 Section 3.15.2.3.3 Section 3.15.5.1
Federal	Safe Drinking Water Act	The act authorizes EPA to set national health-based standards for drinking water.	**Yes.** Treatment controls of stormwater (e.g., on-site infiltration) will aid in the protection of receiving waters and groundwater to ensure that water resources used for drinking water are protected.	Section 3.15.2.3.1 Section 3.15.2.3.3 Section 3.15.5.1
Federal	National Flood Insurance Act	Established the National Flood Insurance Program to provide flood insurance within communities willing to adopt floodplain management programs to mitigate future flood losses.	**Yes.** Stormwater drainage controls (i.e., infiltration facilities) will ensure that project peak storm runoff does not exceed stormwater volumes under existing conditions.	Section 3.15.2.3.4 Section 3.15.5.1
Federal	Executive Order 11988	FEMA requires local governments covered by federal flood insurance pass and enforce a floodplain management ordinance that specifies minimum requirements for any construction within the 100-year floodplain.	**Yes.** Stormwater drainage controls (i.e., infiltration facilities) will ensure that project peak storm runoff does not exceed stormwater volumes under existing conditions.	Section 3.15.2.3.4 Section 3.15.5.1
State	Porter-Cologne Water Quality Control Act	The basic water quality control law establishes the legal	**Yes.** Stormwater drainage controls (i.e., infiltration facilities) will provide post-	Section 3.15.2.3.1 Section 3.15.2.3.3

Table 3.15-3. LORS Applicable to Water Resources

Jurisdiction	LORS	Applicability	Project Conformity	Opt-In Application Reference
		and regulatory framework for California's water quality control to implement the provisions of the CWA.	construction treatment of stormwater runoff and prevent off-site transport of pollutants. In addition, the Project is expected to require a waste discharge requirements (WDR) from RWQCB. A WDR application is included as Appendix 3.2E of this application.	Section 3.15.5.2
State	California Water Code	Establishes districts and local agencies with specific statutory provisions to manage surface water and authority to exercise some forms of groundwater management.	**Yes.** Stormwater drainage controls (i.e., infiltration facilities) will provide post-construction treatment of stormwater runoff and prevent off-site transport of pollutants.	Section 3.15.2.3.1 Section 3.15.2.3.2 Section 3.15.2.3.3 Section 3.15.5.2
State	California Toxics Rule	Establishes water quality criteria for certain toxic substances to be applied to waters in the state.	**Yes.** Stormwater drainage controls (i.e., post-construction treatment controls) will ensure that water quality of receiving waters is protected.	Section 3.15.2.3.1 Section 3.15.2.3.3 Section 3.15.5.2
State	Sustainable Groundwater Management Act	SGMA requires governments and water agencies of high- and medium-priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge.	**Yes.** Project is located in Antelope Valley Groundwater Basin, which is not subject to SGMA due to its adjudication.	Section 3.15.2.3.2 Section 3.15.2.3.5 Section 3.15.5.2
Local	Municipal NPDES Permit	This permit also serves as an NPDES permit under the federal CWA, as well as waste discharge requirements under California law.	**Yes.** Project design will include post-construction treatment controls to protect water quality.	Section 3.15.2.3.1 Section 3.15.2.3.3 Section 3.15.2.3.5 Section 3.15.5.3
Local	LA County LID Manual	Also known as the Los Angeles Water Quality Ordinance, the manual provides standards to comply with the	**Yes.** The Project's stormwater management features will be designed consistent with the County's manual to ensure consistency with the MS4 Permit.	Section 3.15.2.3.1 Section 3.15.2.3.3 Section 3.15.2.3.5 Section 3.15.5.3

Table 3.15-3. LORS Applicable to Water Resources

Jurisdiction	LORS	Applicability	Project Conformity	Opt-In Application Reference
		requirements of the NPDES MS4 Permit for stormwater and non-stormwater discharges.		

3.15.5.1 Federal LORS

Clean Water Act

The CWA was first introduced in 1948 as the Water Pollution Control Act. The CWA authorizes federal, state, and local entities to cooperatively create comprehensive programs for eliminating or reducing the pollution of state waters and tributaries. The primary goals of the CWA are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. As such, the CWA forms the basic national framework for the management of water quality and the control of pollutant discharges. The CWA also sets forth a number of objectives in order to achieve the abovementioned goals. These objectives include regulating pollutant and toxic pollutant discharges; providing for water quality that protects and fosters the propagation of fish, shellfish, and wildlife; developing waste treatment management plans; and developing and implementing programs for the control of non-point sources of pollution.

Since its introduction, major amendments to the CWA have been enacted (e.g., 1961, 1966, 1970, 1972, 1977, and 1987). Amendments enacted in 1970 created the U.S. EPA, while amendments enacted in 1972 deemed the discharge of pollutants into waters of the United States from any point source unlawful unless authorized by an EPA National Pollutant Discharge Elimination System (NPDES) permit. Amendments enacted in 1977 mandated development of a Best Management Practices Program at the state level and provided the Water Pollution Control Act with the common name of "Clean Water Act," which is universally used today. Amendments enacted in 1987 required EPA to create specific requirements for discharges.

In response to the 1987 amendments to the CWA and as part of Phase I of its NPDES permit program, EPA began requiring NPDES permits for (1) municipal separate storm sewer systems (MS4s) generally serving, or located in, incorporated cities with 100,000 or more people (referred to as municipal permits); (2) 11 specific categories of industrial activity (including landfills); and (3) construction activity that disturbs 5 acres or more of land. Phase II of EPA's NPDES permit program, which went into effect in early 2003, extended the requirements for NPDES permits to (1) numerous small MS4s, (2) construction sites of 1 to 5 acres, and (3) industrial facilities owned or operated by small MS4s. The NPDES permit program is typically administered by individual authorized states.

In 2008, EPA published draft effluent limitation guidelines for the construction and development industry. On June 27, 2016, EPA finalized its 2016 Effluent Guidelines Program Plan.

In California, the NPDES stormwater permitting program is administered by the State Water Resources Control Board (SWRCB), which was created by the legislature in 1967. The joint authority of water distribution and water quality protection allows SWRCB to provide protection for the state's waters through its nine (9) RWQCBs. The RWQCBs develop and enforce water quality objectives and implement plans that will best protect California's

waters, acknowledging areas of different climate, topography, geology, and hydrology. The RWQCBs develop basin plans for their hydrologic areas, issue waste discharge requirements, enforce action against stormwater discharge violators, and monitor water quality.

Section 303 of the Clean Water Act (Beneficial Use and Water Quality Objectives)

The Los Angeles RWQCB is responsible for the protection of the beneficial uses of waters within the Project area in the County. The Los Angeles RWQCB uses its planning, permitting, and enforcement authority to meet its responsibilities adopted in its Basin Plan (Los Angeles RWQCB 2014) to implement plans, policies, and provisions for water quality management.

In accordance with state policy for water quality control, the Los Angeles RWQCB employs a range of beneficial use definitions for surface waters, groundwater basins, marshes, and mudflats that serve as the basis for establishing water quality objectives and discharge conditions and prohibitions. The Basin Plan has identified existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction. Under CWA Section 303(d), the State of California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. A TMDL defines how much of a specific pollutant/stressor a given water body can tolerate and still meet relevant water quality standards. The Los Angeles RWQCB has developed TMDLs for select reaches of water bodies.

Section 401 of the Clean Water Act (Water Quality Certification)

Section 401 of the CWA requires that an applicant for any federal permit (e.g., a U.S. Army Corps of Engineers [USACE] Section 404 permit) obtain certification from the state, ensuring that discharge to waters of the United States would comply with provisions of the CWA and with state water quality standards. For example, an applicant for a permit under Section 404 of the CWA must also obtain water quality certification per Section 401 of the CWA. Section 404 of the CWA requires a permit from USACE prior to discharging dredged or fill material into waters of the United States, with exceptions. For the Project area, the Los Angeles RWQCB must provide the water quality certification required under Section 401 of the CWA in order to minimize or eliminate the potential water quality impacts associated with the action(s) requiring a federal permit.

Section 402 of the Clean Water Act (National Pollutant Discharge Elimination System)

The NPDES permit program, as authorized by Section 402 of the CWA, was established to control water pollution by regulating point sources that discharge pollutants into waters of the United States (33 USC 1342). In the State of California, EPA has authorized SWRCB permitting authority to implement the NPDES program.

Regulations (Phase II Rule) that became final on December 8, 1999, expanded the existing NPDES program to address stormwater discharges from construction sites that disturb land equal to or greater than 1 acre and less than 5 acres (small construction activity). The regulations also require that stormwater discharges from small MS4s be regulated by an NPDES General Permit for Storm Water Discharges Associated with Construction Activity (Construction General Permit), Order No. 99-08-DWQ. The Construction General Permit requires the development and implementation of a stormwater pollution prevention plan (SWPPP), which describes BMPs the discharger would use to protect stormwater runoff. The SWPPP must contain a visual monitoring program, a chemical monitoring program for non-visible pollutants to be implemented if there is a failure of BMPs, and a sediment-monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Routine inspection of all BMPs is required under the provisions of the Construction General Permit. On September 8, 2022,

SWRCB issued a new Construction General Permit (Order No. 2022-0057-DWQ, NPDES No. CAS000002), which became effective September 1, 2023.

Section 404 of the Clean Water Act

Section 404 of the CWA established a permitting program to regulate the discharge of dredged or filled material into waters of the United States, which include wetlands adjacent to national waters (33 USC 1344). This permitting program is administered by USACE and enforced by EPA.

The Project will include preparation and implementation of a SWPPP and construction BMPs during construction activities to prevent offsite transport of pollutants. For operation, Project will design and construct stormwater treatment controls to protect water quality of receiving waters.

Federal Antidegradation Policy

The Federal Antidegradation Policy (40 CFR 131.12) requires states to develop statewide antidegradation policies and identify methods for implementing them. Pursuant to the federal regulation, state antidegradation policies and implementation methods shall, at a minimum, protect and maintain: (1) existing in-stream water uses; (2) existing water quality where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

The Project will implement construction and post-construction BMPs to prevent offsite transport of pollutants.

Safe Drinking Water Act

Congress passed the Safe Drinking Water Act in 1974 to protect public health by regulating the nation's public drinking water supply. The act authorizes EPA to set national health-based standards for drinking water to protect against both naturally occurring and human-made contaminants that may be found in drinking water.

Per Section 1424(e) of the Safe Drinking Water Act, EPA established the Sole Source Aquifer Program in 1977 to help prevent contamination of groundwater from federally funded projects. The Sole Source Aquifer Program allows for EPA environmental review of any project that is financially assisted by federal grants or federal loan guarantees to determine whether such projects would have the potential to contaminate a sole source aquifer. The Wellhead Protection Program was developed as a part of the Ground Water Protection Strategy for States and Tribes under the 1986 Amendments to the Safe Drinking Water Act. The Wellhead Protection Program includes delineation of Wellhead Protection Program areas, detection of possible contamination, remediation and monitoring of contamination, contamination prevention, and public education and participation. In March 2021, EPA made a determination to issue drinking water regulations for perfluorooctanoic acid (PFOA) and per- and polyfluoroalkyl substances (PFAS) and as part of that process issued a PFAS Strategic Roadmap in October 2021. This roadmap states that EPA will issue drinking water regulations for PFAS under an accelerated time frame.

The Project's treatment controls of stormwater (e.g., on-site infiltration) will aid in the protection of receiving waters and groundwater to ensure that water resources used for drinking water are protected.

National Flood Insurance Act

The National Flood Insurance Act of 1968 established the National Flood Insurance Program to provide flood insurance within communities that were willing to adopt floodplain management programs to mitigate future flood losses. The act also required the identification of all floodplain areas within the United States and the establishment of flood-risk zones within those areas. FEMA is the primary agency responsible for administering programs and coordinating with communities to establish effective floodplain management standards. FEMA is responsible for preparing FIRMs that delineate the areas of known special flood hazards and their risk applicable to the community. The program encourages the adoption and enforcement by local communities of floodplain management ordinances that reduce flood risks. In support of the program, FEMA identifies flood hazard areas throughout the United States on FEMA flood hazard boundary maps.

The Project's stormwater drainage controls (i.e., infiltration facilities) will ensure that Project peak storm runoff does not exceed stormwater volumes under existing conditions.

Executive Order 11988

Under Executive Order 11988 – Floodplain Management, the FEMA is responsible for management of floodplain areas defined as the lowland and relatively flat areas adjoining inland and coastal waters subject to a 1% or greater chance of flooding in any given year (the 100-year floodplain). FEMA requires that local governments covered by federal flood insurance pass and enforce a floodplain management ordinance that specifies minimum requirements for any construction within the 100-year floodplain. Executive Order 11988 addresses floodplain issues related to public safety, conservation, and economics. It generally requires federal agencies constructing, permitting, or funding a project in a floodplain to avoid incompatible floodplain development, be consistent with the standards and criteria of the National Flood Insurance Program, and restore and preserve natural and beneficial floodplain values.

The Project's stormwater drainage controls (i.e., infiltration facilities) will ensure that Project peak storm runoff does not exceed stormwater volumes under existing conditions.

3.15.5.2 State LORS

Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act of 1967 (California Water Code Section 13000 et seq.) is the basic water quality control law for California. The act established the legal and regulatory framework for California's water quality control. The California Water Code authorizes SWRCB to implement the provisions of the CWA, including the authority to regulate waste disposal and require cleanup of discharges of hazardous materials and other pollutants.

As discussed previously, the State of California is divided into nine (9) RWQCBs, governing the implementation and enforcement of the California Water Code and the CWA. The Project site is located within Region 4, also known as the Los Angeles Region. Each RWQCB is required to formulate and adopt a Basin Plan for its region. The Los Angeles RWQCB Basin Plan is a comprehensive document that reports beneficial uses for surface and groundwaters, defines narrative and numeric parameters to protect water quality, and describes implementation programs to protect waters throughout the region. This Basin Plan must adhere to the policies set forth in the California Water Code and established by SWRCB. Each RWQCB is also given authority to include within its Basin Plan water discharge prohibitions applicable to particular conditions, areas, or types of waste. The original 1975 Basin Plan

for the Los Angeles Region has been amended over time and is reviewed and updated as necessary with a triennial review that occurs on an ongoing basis (Los Angeles RWQCB 2014).

The Project's stormwater drainage controls (i.e., infiltration facilities) will provide post-construction treatment of stormwater runoff and prevent off-site transport of pollutants.

In addition, 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]). 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 require a WDR from RWQCB. A completed WDR application is included as Appendix 3.2E of this application.

The Industrial General Permit regulates industrial stormwater discharges and authorized non-stormwater discharges from industrial facilities in California. The Industrial General Permit is called a general permit because many industrial facilities are covered by the same permit, but comply with its requirements at their individual industrial facilities. The State Water Resources Control Board and Regional Water Quality Control Boards (collectively, the Water Boards) implement and enforce the Industrial General Permit. The stormwater regulations require a broad range of industrial facilities to comply with the Industrial General Permit. They include manufacturing facilities, mining operations, disposal sites, recycling yards, transportation facilities, and other (SWRCB 2025b). Based on a review of Attachment A of the Industrial Storm Water General Permit (IGP), which contains a complete list of required facilities, the Project is not subject to an IGP.

California Water Code

The California Water Code includes 22 kinds of districts or local agencies with specific statutory provisions to manage surface water. Many of these agencies have statutory authority to exercise some forms of groundwater management. For example, a water replenishment district (California Water Code Section 60000 et seq.) is authorized to establish groundwater replenishment programs and collect fees for that service, while a water conservation district (California Water Code Section 75500 et seq.) can levy groundwater extraction fees. Through special acts of the legislature, 13 local agencies have been granted greater authority to manage groundwater. Most of these agencies, formed since 1980, have the authority to limit export and even control some in-basin extraction upon evidence of overdraft or the threat of an overdraft condition. These agencies can also generally levy fees for groundwater management activities and for water supply replenishment.

The Project's stormwater drainage controls (i.e., infiltration facilities) will provide post-construction treatment of stormwater runoff and prevent off-site transport of pollutants.

California Toxics Rule

In 2000, EPA promulgated the California Toxics Rule, which establishes water quality criteria for certain toxic substances to be applied to waters in the state. In 1994, a California state court revoked the state's water quality control plans, which contained numeric criteria for water quality. This was in direct violation of the CWA and required EPA action. EPA then implemented the California Toxics Rule. EPA promulgated this rule based on Section 303(c)(2)(B) of the CWA, which dictates that states must adopt numeric criteria in order to protect human health and the environment. The California Toxics Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water such as inland surface waters and enclosed bays and estuaries that are designated by the RWQCBs as having beneficial uses protective of aquatic life or human health.

The Project's stormwater drainage controls (i.e., post-construction treatment controls) will ensure that water quality of receiving waters is protected.

Sustainable Groundwater Management Act

On September 16, 2014, Governor Brown signed into law a three-bill legislative package—Assembly Bill 1739, Senate Bill 1168, and Senate Bill 1319—collectively known as SGMA. SGMA requires governments and water agencies of high- and medium-priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, sustainability should be achieved by 2040. For the remaining high- and medium-priority basins, 2042 is the deadline. Through SGMA, the California Department of Water Resources provides ongoing support to local agencies through guidance, financial assistance, and technical assistance. SGMA empowers local agencies to form Groundwater Sustainability Agencies to manage basins sustainably and requires those Groundwater Sustainability Agencies to adopt groundwater sustainability plans for critical (i.e., medium- to high-priority) groundwater basins in California. The vast majority (approximately 90%) of the Antelope Valley Groundwater Basin (No. 6-044) was adjudicated in 2015 and is not subject to the requirements of SGMA.

The Project is located in Antelope Valley Groundwater Basin, which is not subject to SGMA due to its adjudication.

3.15.5.3 Local LORS

Municipal National Pollutant Discharge Elimination System Permit

The County is a co-permittee under the "Waste Discharge Requirements for Municipal Stormwater and Urban Runoff Discharges within the County of Los Angeles," issued by the Los Angeles RWQCB (Order No. R4-2021-0105), adopted July 23, 2021. This order applies to the following:

1. Los Angeles County Flood Control District (LACFCD)
2. Unincorporated areas of Los Angeles County under County jurisdiction, with the exception of a portion of Antelope Valley and the City of Avalon
3. 84 cities within the LACFCD, with the exception of the City of Long Beach

This permit also serves as an NPDES permit under the federal CWA (NPDES No. CAS614001), as well as waste discharge requirements under California law (the Municipal NPDES Permit), and as a co-permittee under the

Municipal NPDES Permit the County is required to adopt ordinances and implement procedures with respect to the entry of non-stormwater discharges into the MS4s.

The Los Angeles MS4 Order incorporates most of the pre-existing requirements of the previous 2001 Los Angeles MS4 Order, including the water quality-based requirement to not cause or contribute to exceedances of water quality standards in the receiving water. The Los Angeles MS4 Order also requires permittees to comply with new water quality-based requirements to implement 33 watershed-based total maximum daily loads (TMDLs) for the region. The Order links both of these water quality-based requirements to the programmatic elements of the Order by allowing permittees to comply with the water quality-based requirements, in part, by developing and implementing a watershed management program (WMP) or enhanced watershed management program (EWMP).

The Project design will include post-construction treatment controls to protect water quality.

Los Angeles County Low Impact Development Manual

The County of Los Angeles prepared the 2014 Low Impact Development Standards Manual (LID Standards Manual) to comply with the requirements of the NPDES MS4 Permit for stormwater and non-stormwater discharges from the MS4, within the coastal watersheds of Los Angeles County (CAS004001, Order No. R4-2012-0175), also known as the Los Angeles Water Quality Ordinance. This permit covers 84 cities, including Gardena, and the unincorporated areas of Los Angeles County. Under the permit, the LACFCD is designated as the principal permittee, and the County, along with 84 incorporated cities, is designated as a permittee. In compliance with the permit, the permittees have implemented a stormwater quality management program, with the ultimate goal of accomplishing the requirements of the permit and reducing the amount of pollutants in stormwater and urban runoff, wherein new development/redevelopment projects are required to prepare a LID report.

The Los Angeles County LID Standards Manual provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects in unincorporated areas of the County, with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges. The LID Standards Manual addresses the following objectives and goals (LACPW 2014):

- Lessen the adverse impacts of stormwater runoff from development and urban runoff on natural drainage systems, receiving waters, and other water bodies
- Minimize pollutant loadings from impervious surfaces by requiring development projects to incorporate properly designed, technically appropriate BMPs and other LID strategies

Minimize erosion and other hydrologic impacts on natural drainage systems by requiring development projects to incorporate properly designed, technically appropriate hydromodification control development and technologies.

The Project's stormwater management features will be designed consistent with the County's manual to ensure consistency with the MS4 Permit.

3.15.6 Agency Contacts, Permits, and Permit Schedule

Applicable agency contacts for hydrology and water quality are shown in Table 3.15-4. Approval of an HMBP from the Los Angeles County Fire Department, Health Hazardous Materials Division will be superseded by CEC approval of the Project under the opt-in program. The Project will prepare a SPCC, and approval of the SPCC will also be superseded by CEC approval under the opt-in program. In addition, the Project will be designed per Los Angeles County Fire Department requirements and standards for BESS; however, approval from the Los Angeles County Fire Department will also be superseded by CEC approval of the Project under the opt-in program.

Table 3.15-4. Permits and Agency Contacts

Issue/Approval	Agency Contact	Applicability
NPDES GCP	Los Angeles County Regional Water Quality Control, Industrial and Construction Stormwater Programs, Compliance & Enforcement Nerissa Schrader, Supervisor Documents submitted via SMARTS* 213.620.2243 stormwater@waterboards.ca.gov Nerissa.Schrader@Waterboards.ca.gov	SWPPP for construction activities
Waste Discharge Requirements	Same contact as above.	Discharge of fill to waters of the state under the Porter–Cologne Act
HMBP	Los Angeles County Fire Department, Health Hazardous Materials Division Mario Tresierras, Division Chief 5825 Rickenbacker Road Commerce, California 90040 323.890.4045 Fire-HHMDCERS@fire.lacounty.gov	Hazardous materials compliance
SPCC	Same contact as above.	Hazardous materials compliance

Note: NPDES = National Pollutant Discharge Elimination System; GCP = General Construction Permit; SMARTS = Stormwater Multiple Application and Report Tracking System; SWPPP = stormwater pollution prevention plan; HMBP = Hazardous Materials Business Plan; SPCC = Spill Prevention Control and Countermeasures.

3.15.7 References

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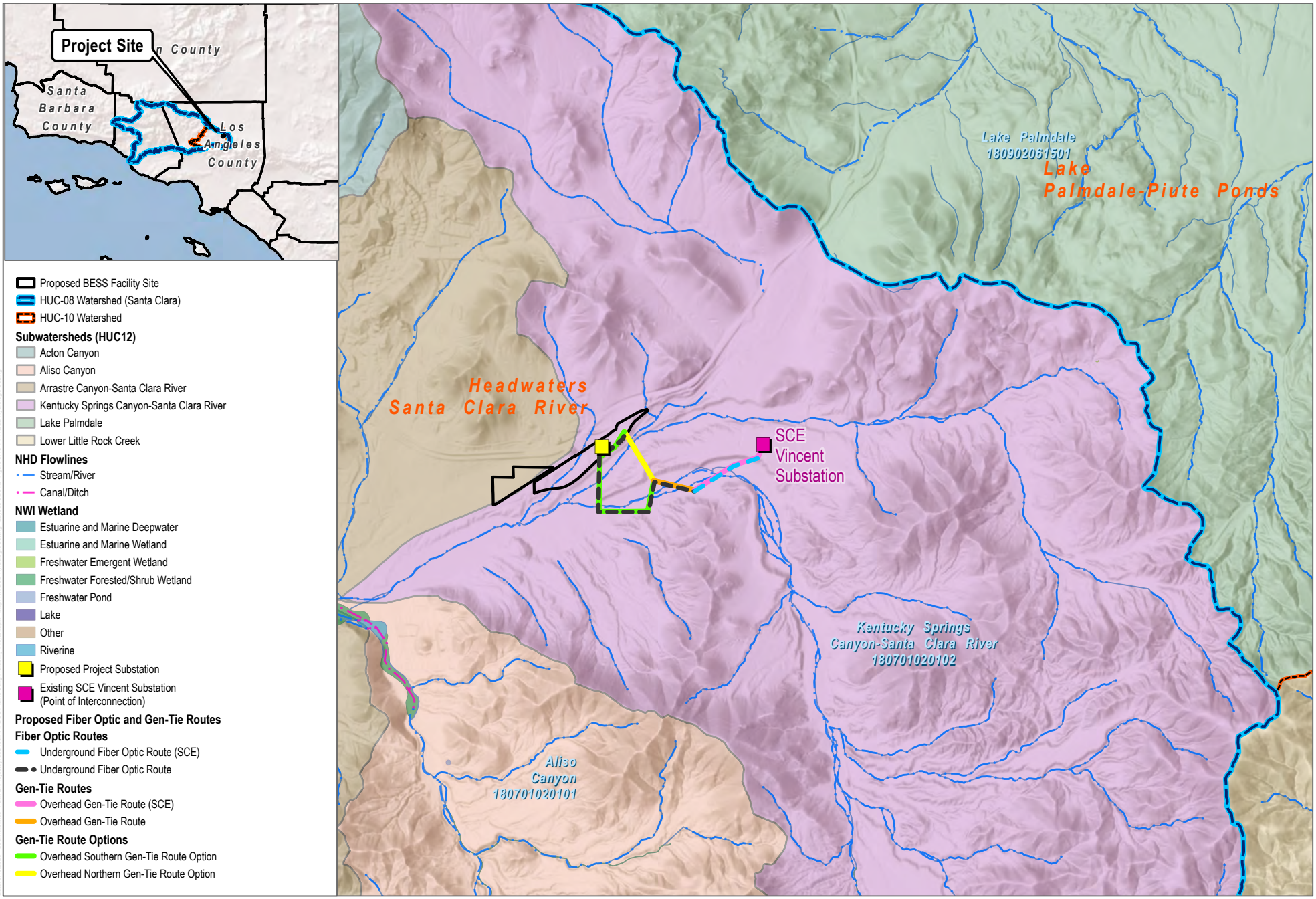

SOURCE: World HIllshade; SWRQCB

DUDEK

0 2,000 4,000 Feet

FIGURE 3.15-1

RWQCB Hydrologic Setting

Prairie Song Reliability Project

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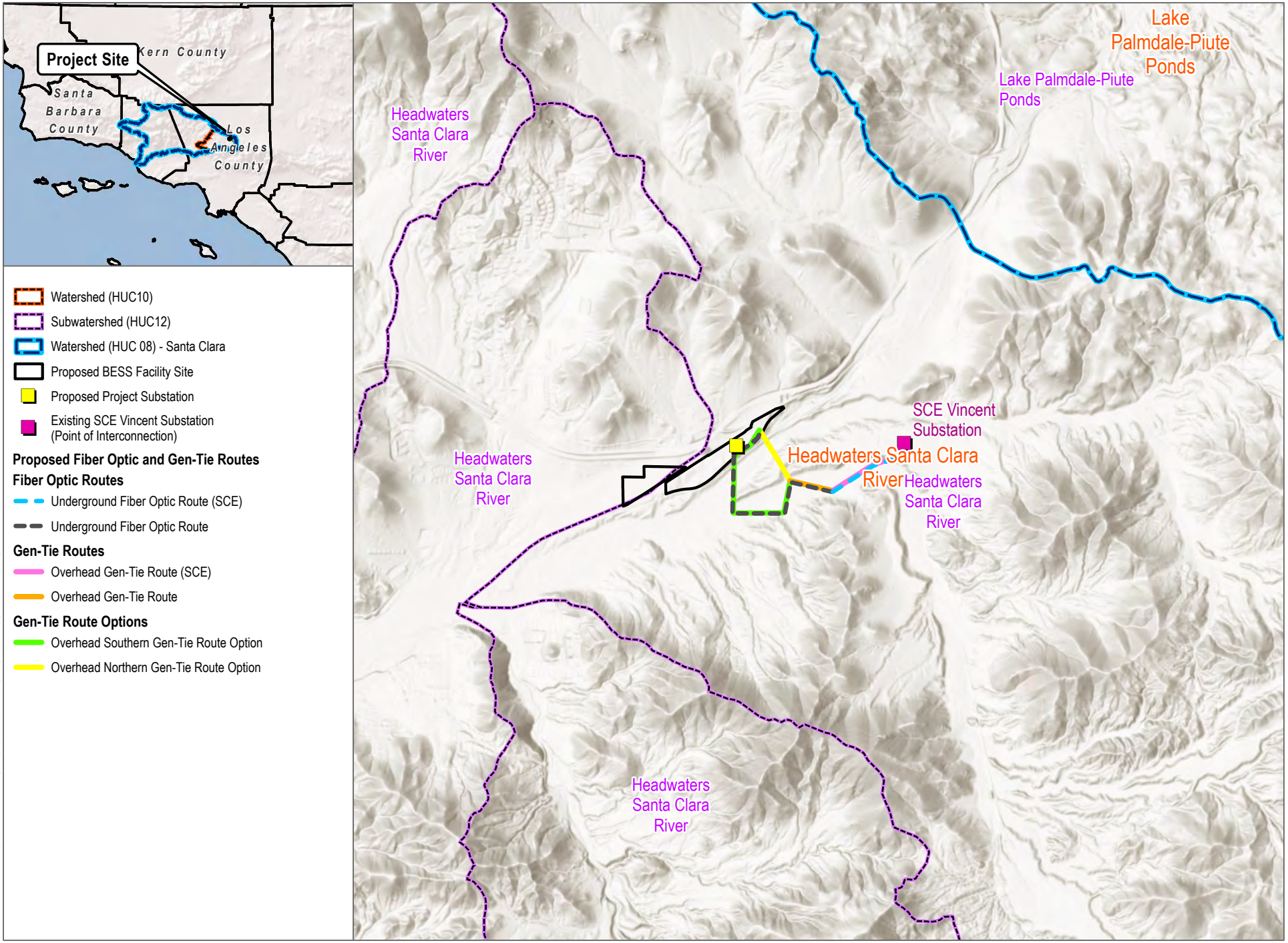

SOURCE: USGS

DUDEK

0 2,500 5,000 Feet

FIGURE 3.15-2

USGS Hydrologic Setting

Prairie Song Reliability Project

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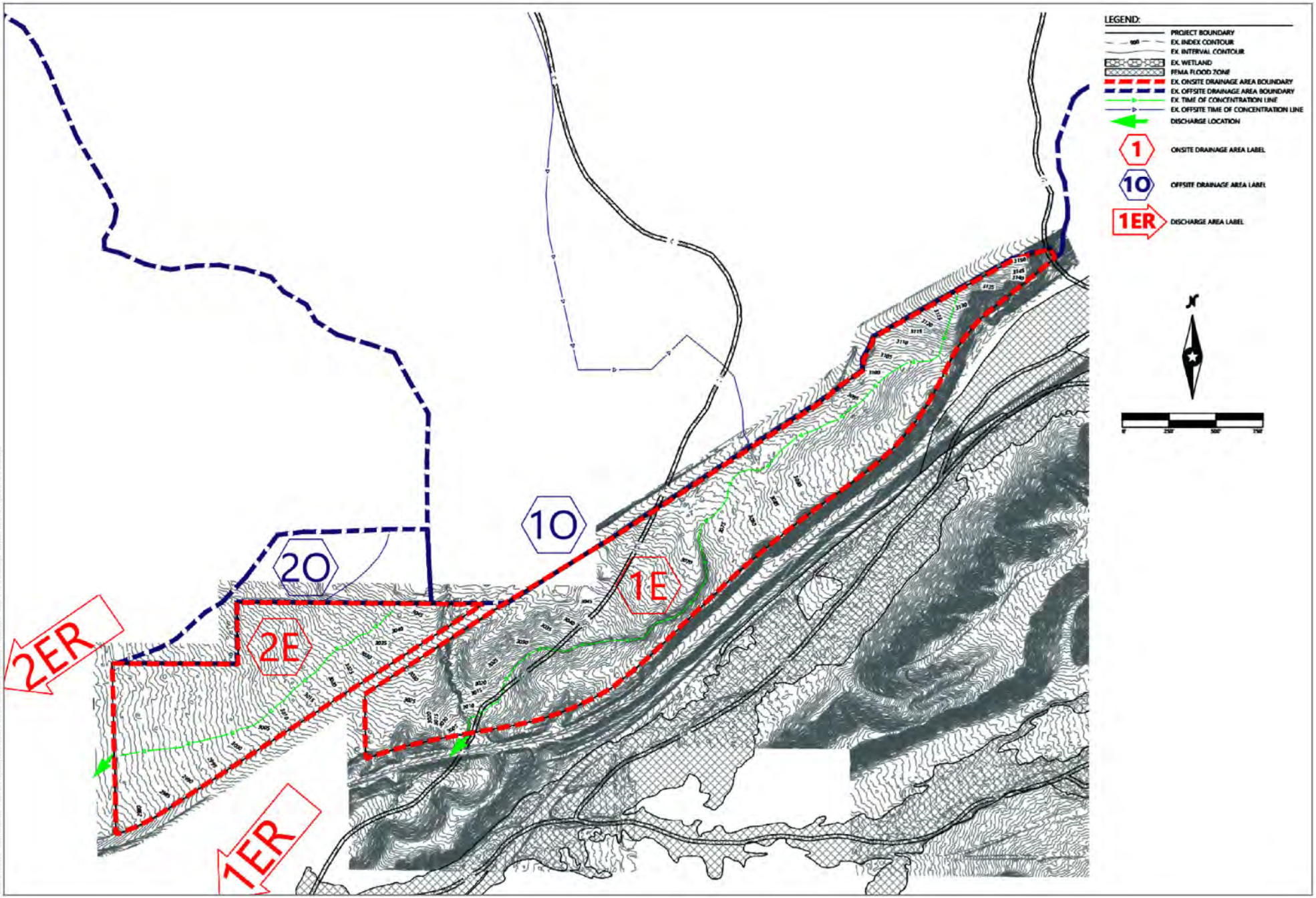

SOURCE: Westwood

FIGURE 3.15-3

Local Drainage Features

Prairie Song Reliability Project

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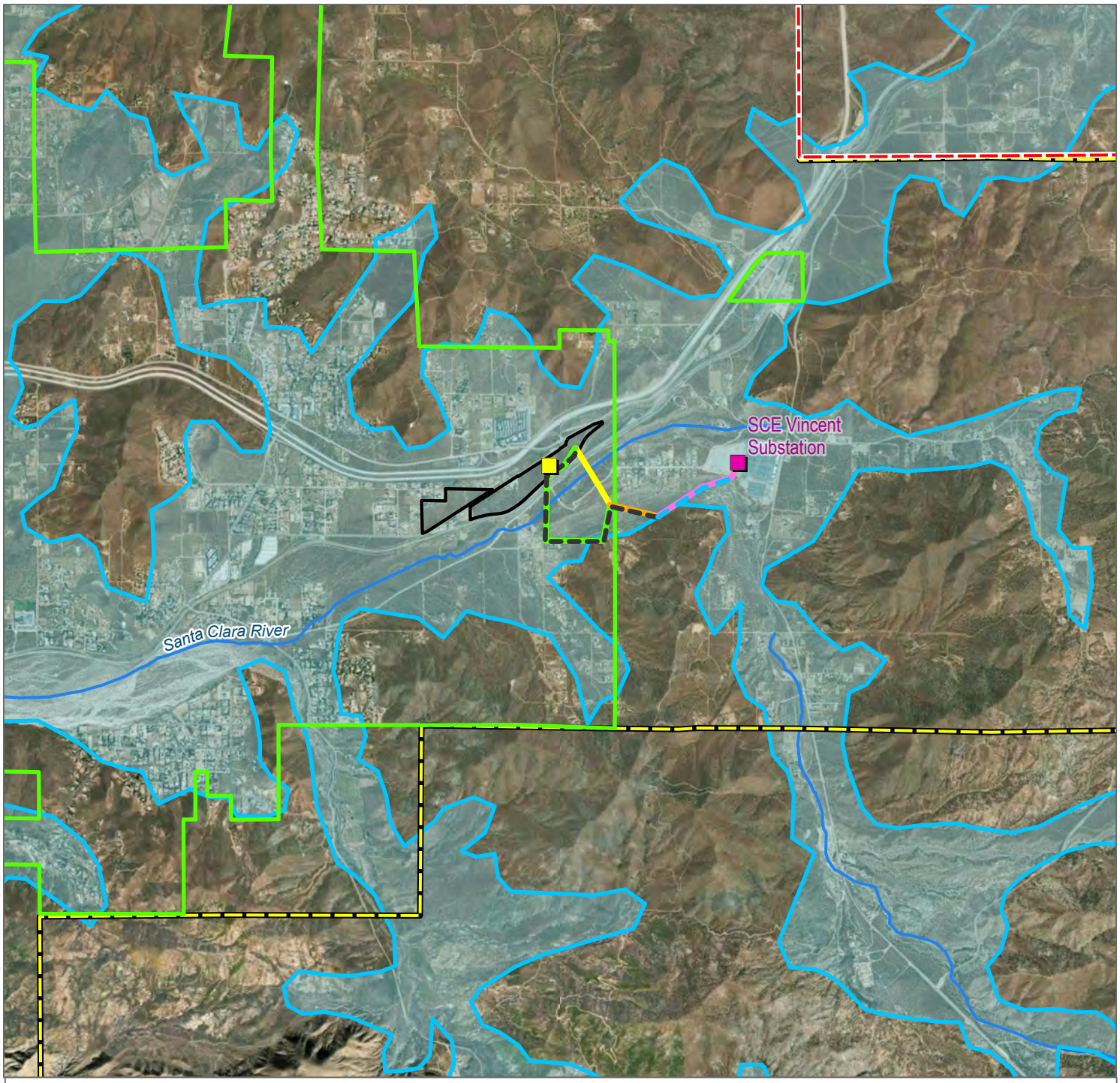

Antelope Valley Groundwater Basin No. 6-044

Water Agency

Antelope Valley - East Kern Water Agency

Los Angeles County Waterworks District 37 - Acton

Palmdale Water District

Santa Clara River

Proposed BESS Facility Site

Proposed Project Substation

Existing SCE Vincent Substation (Point of Interconnection)

Proposed Fiber Optic and Gen-Tie Routes

Fiber Optic Routes

Underground Fiber Optic Route (SCE)

Underground Fiber Optic Route

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: DWR, RWQCB

DUDEK

0 1,500 3,000 Feet

FIGURE 3.15-4

Groundwater Basins and Water Agency Boundaries

Prairie Song Reliability Project

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Proposed BESS Facility Site

Groundwater Well

- Water Level & Quality Data
- Water Quality Data
- Observed Onsite Well
- Water Level Data

Proposed Project Substation

Existing SCE Vincent Substation (Point of Interconnection)

Fiber Optic Routes

- Underground Fiber Optic Route (SCE)
- Underground Fiber Optic Route

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: SWRCB, DWR, USGS

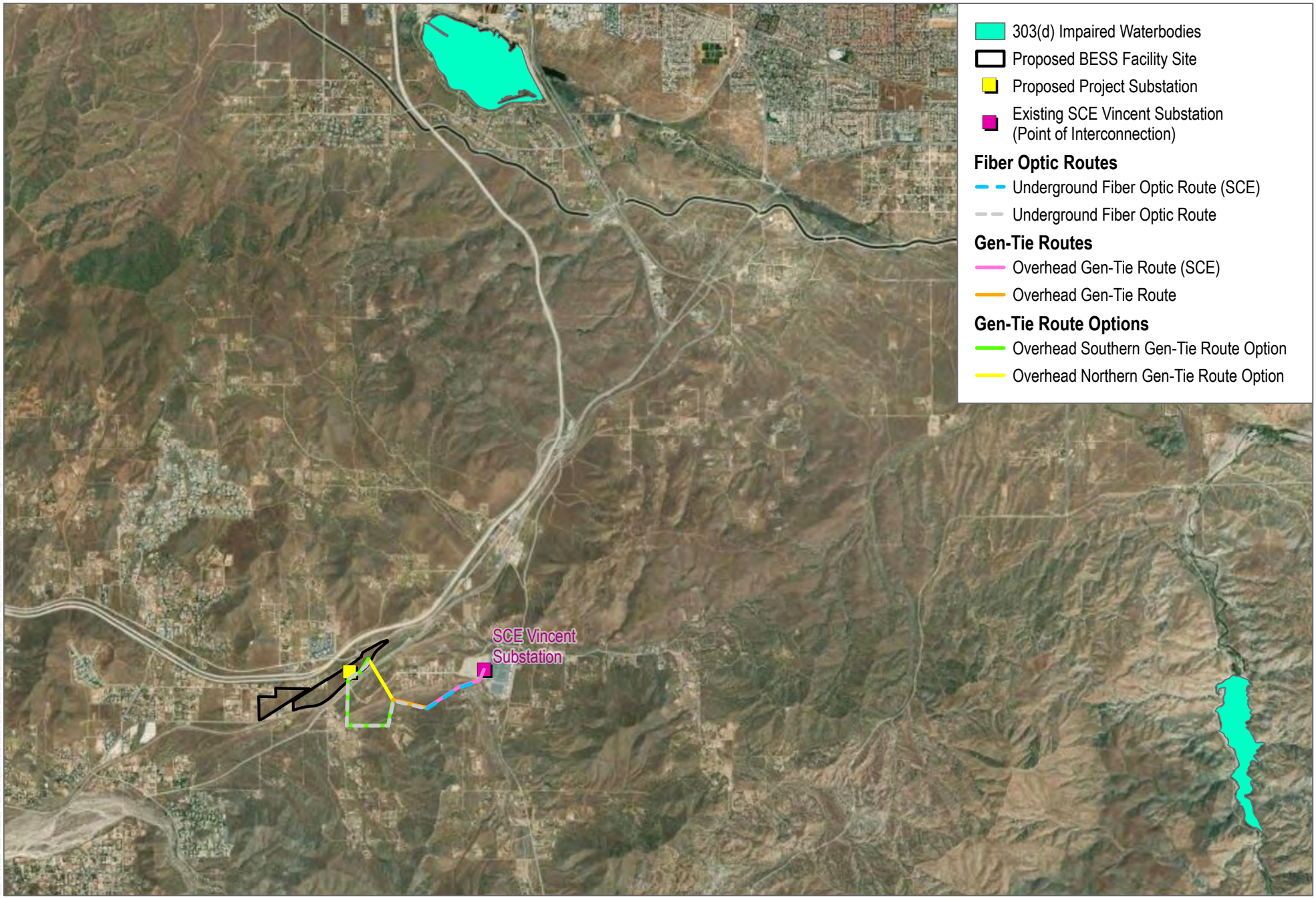
DUDEK

0 500 1,000 Feet

FIGURE 3.15-5

Groundwater Wells within 0.5 miles

Prairie Song Reliability Project



SOURCE: EPA; World Imagery

DUDEK

0 2,000 4,000 Feet

FIGURE 3.15-6

Impaired Waterbodies

Prairie Song Reliability Project

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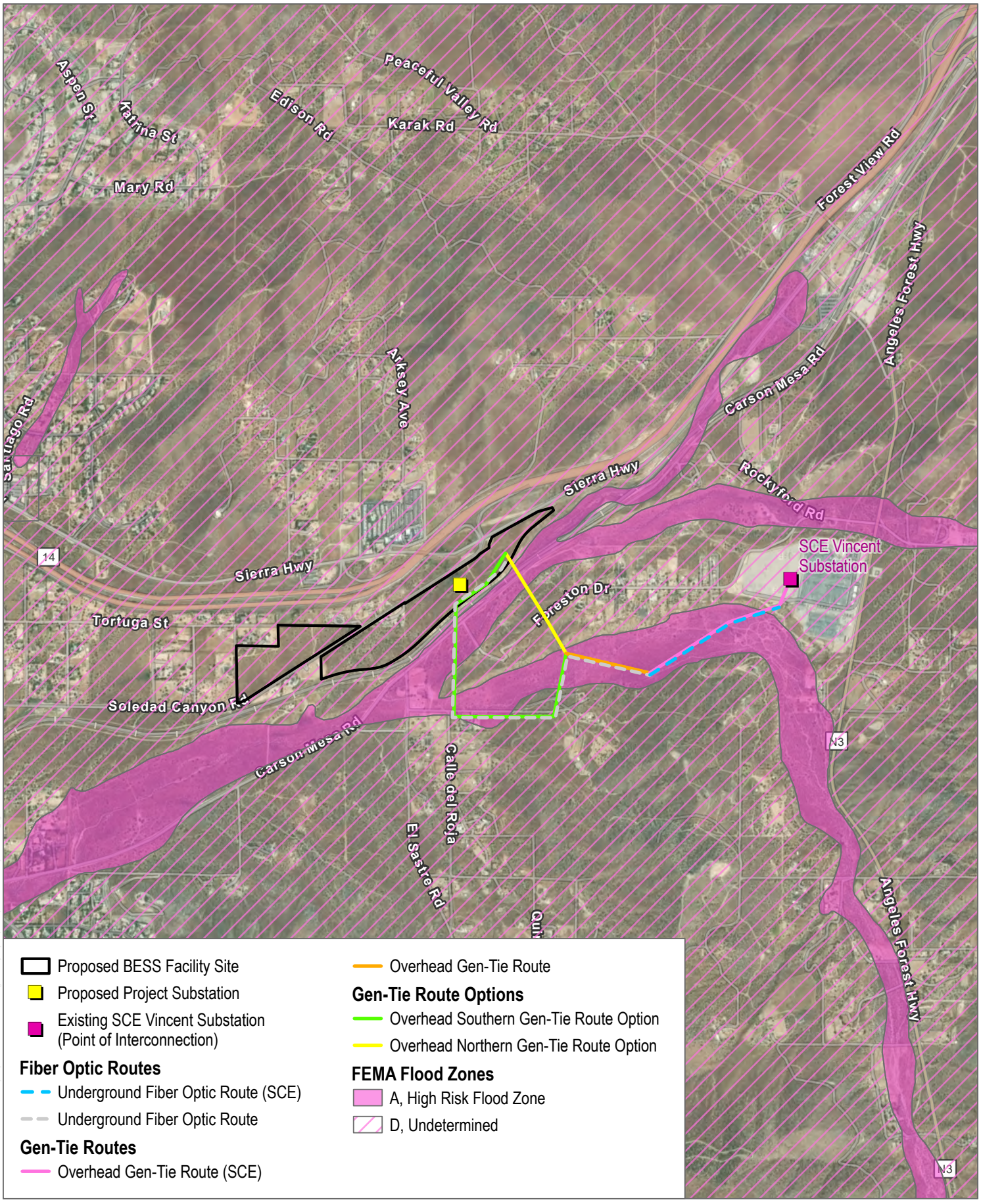

SOURCE: FEMA

DUDEK

0 500 1,000 Feet

FIGURE 3.15-7

FEMA Flood Zones

Prairie Song Reliability Project

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3.16 Wildfire

This section describes the potential effects that the construction, operation, and decommissioning of the Prairie Song Reliability Project (Project) may have on potential wildfire impacts. The Project will consist of an up to 1,150-megawatt (MW) 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 information presented is based on a review of existing resources and applicable laws, regulations, guidelines, and standards. Publicly available sources were reviewed in the development of this section, including, but not limited to, the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program (FRAP) database (CAL FIRE 2025a); the CAL FIRE Office of the State Fire Marshal (OSFM) fire prevention program; the Los Angeles County General Plan; the Los Angeles County Fire Code; Title 32 of the Los Angeles County Code of Ordinances; the Los Angeles County Local Hazard Mitigation Plan; applicable sections of the California Fire Code (CFC), as adopted by the Los Angeles County Fire Department (LACoFD), including Chapters 12 and 49; the California Code of Regulations (CCR), Title 14 – Fire Safe Regulations; National Fire Prevention Association (NFPA) Standard 855 (NFPA 2024); and Underwriters Laboratory (UL) Standard 9540. This evaluation of wildfire includes the following elements:

- Section 3.16.1 describes the existing environment that could be affected, including vegetation and fuels, climate, topography, Fire Hazard Severity Zone (FHSZ) designation, fire history, and emergency response and fire protection.
- Section 3.16.2 identifies potential environmental impacts that may result from Project construction, operation, maintenance, and decommissioning.
- Section 3.16.3 discusses potential cumulative effects.
- Section 3.16.4 identifies mitigation measures that should be considered during Project construction, operation, maintenance, and decommissioning.
- Section 3.16.5 presents laws, ordinances, regulations, and standards (LORS) applicable to wildfire.
- Section 3.16.6 identifies regulatory agency contacts.
- Section 3.16.7 describes permits required for the Project related to wildfire.
- Section 3.16.8 provides references used to develop this section.

The following environmental setting and impact evaluation is based in part on the following, included as an appendix to this application:

- Appendix 2A – Site Plan Package

A summary of the wildfire 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) If located in or near SRAs or lands classified as VHFHSZs, substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
2) If located in or near SRAs or lands classified as VHFHSZs, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☒	☐	☐
3) If located in or near SRAs or lands classified as VHFHSZs, require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☒	☐	☐
4) If located in or near SRAs or lands classified as VHFHSZs, expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

3.16.1 Affected Environment

3.16.1.1 Regional

Wildfire is a seasonal threat in Los Angeles County (County) and is particularly concerning in rural areas and the wildland–urban interface (WUI), a geographic area where urban development either abuts or intermingles with wildland or vegetative fuels. The County and the nearby unincorporated community of Acton contain several miles of WUI, where established development meets open space areas. The proposed Project site is situated in northeastern Los Angeles County, California, in an environment where the combination of terrain, vegetation, and weather permit the spread of wildfire when conditions are right. Fire environments are dynamic systems and include many types of environmental factors and site characteristics. Fires can occur in any environment where conditions are conducive to ignition and fire movement. Areas of naturally vegetated open space are typically composed of conditions that may be favorable to wildfire spread. The three (3) major components of the fire environment are topography, vegetation (fuels), and climate. The state of each of these components and their interactions with each other determines the potential characteristics and behavior of a fire at any given moment. Understanding the existing wildland vegetation and urban fuel conditions on and adjacent to the site is necessary to understand the

potential for fire within and around the Project site. This section describes the fire environment at the Project site and the surrounding area, including a summary of the fire history.

3.16.1.2 Project Site

The Project is located in unincorporated Los Angeles County, California, south of State Route 14 approximately 3 miles northeast of the unincorporated community of Acton. 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. The BESS site consists of 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 (State Route 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 is located in the western San Gabriel Mountains, in the Transverse Ranges Geomorphic Province (Harden 2004; California Geological Survey 2002). The Transverse Ranges are an east/west-trending series of steep mountains and valleys (California Geological Survey 2002). The Project site 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 Project 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).

Topography and terrain influences fire risk by affecting fire spread rates. Typically, in the absence of wind, steep terrain results in faster fire spread upslope and slower fire spread downslope. Flat terrain tends to have little effect on fire spread, resulting in fires that are driven by wind. There are no narrow canyons, box canyons, chimneys, or other terrain features that would exacerbate a wildfire burning near the Project site. The Project site is on a small hilltop, and the surrounding hillsides are short (less than 100 feet in elevation change between the bottom and top of the hill); extreme fire behavior driven by long steep hillsides is not anticipated on these short slopes.

3.16.1.3 Vegetation

As discussed in Section 3.2, Biological Resources, vegetation, communities, and land uses within the Project area were mapped in the field using the Esri Collector, a mobile data collection application, on a digital aerial-based background (Esri 2025). The Project area is characterized by a total of 15 vegetation communities and land cover types, with a total of six (6) vegetation communities considered sensitive by the California Department of Fish and Wildlife. Numerous scrub and sagebrush species make up the majority of the vegetation communities identified within the Project area. Please refer to Section 3.2 for additional details regarding vegetation communities and land cover types.

3.16.1.4 Vegetation Dynamics

Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (bark thickness, leaf size, branching patterns), and overall fuel loading. For example, non-native grass dominated plant communities become seasonally prone to ignition and produce lower intensity, higher-spread-rate fires. In comparison, chaparral

can produce higher heat intensity and higher flame lengths under strong, dry wind patterns but does not typically ignite or spread as quickly as light, flashy grass fuels.

It is critical to consider the dynamic nature of vegetation communities. Wildfire disturbances have dramatic impacts on plants themselves and plant community composition. Heat shock, accumulation of post-fire charred wood, and change in photoperiods due to removal of shrub canopies may all stimulate seed germination of certain plant species. This type of germination is common in chaparral and scrub plant communities. Fire presence and absence at varying cycles or regimes affect plant community succession. The succession of plant communities, most notably the gradual conversion of shrublands to grasslands with high-frequency fires and grasslands to shrublands with fire exclusion, is highly dependent on the fire regime. The post-fire response for most species is vegetative reproduction and stimulation of flowering and fruiting. The combustion of aboveground biomass alters seedbeds and temporarily eliminates competition for moisture, nutrients, heat, and light. Species that can rapidly take advantage of the available resources will flourish. Further, biomass and associated fuel loading increase over time, assuming that disturbance or fuel reduction efforts are not diligently implemented.

Coastal Scrub

Coastal scrub is a type of chaparral, commonly referred to as a soft chapparal. This type of chaparral is flashier, or more prone to igniting and burning quickly and intensely, than hard chapparal species and is more influenced by daily changes in humidity. Coastal scrub vegetation is generally associated with annual grasslands and oak woodlands and can tolerate drier conditions than these associated habitats. Coastal scrub vegetation may be interspersed with chaparral vegetation, most commonly on south-facing slopes. Coastal scrub is tolerant of very steep terrain and is commonly observed on steeper slopes. Coastal scrub is considered a moderately fine fuel that is loosely compacted with a moderate fuel load. Coastal scrub has a high surface-area-to-volume ratio, requiring less heat to remove fuel moisture and raise fuel to ignition temperature. It is subject to early seasonal drying in the late spring and early summer but does not fully cure in the way that grasses do. Compared to other types of chaparral, coastal scrub tends to have a lower content of volatile organic compounds. The live fuel moisture content reaches its low point in the late summer and early fall months. Dead fuels consist mainly of 1-hour and 10-hour fuel sizes, or twigs and small stems ranging from 0.25 inches to 1 inch in diameter. Coastal scrub has potential for a high rate of spread, rapid ignition, and extreme fire behavior.

Annual Grasslands

Herbaceous vegetation in the Project area is largely represented by annual grasslands. Herbaceous plant species have non-woody stems and generally complete their life cycle in a single growing season. Invasive grasses, forbs, and noxious weeds may also be a component of herbaceous vegetation types. Trees and shrubs may also be present in this vegetation type; however, absolute tree and shrub cover is often less than 10%.

Grasses are fine fuels that are loosely compacted with a low fuel load.[1] Grasses have a high surface-area-to-volume ratio, requiring less heat to remove fuel moisture and raise the fuel to ignition temperature. They are also subject to early seasonal drying in late spring and early summer. Live fuel moisture content in grasses typically reaches its low point in early summer, and grasses begin to cure soon after. Due to these characteristics, grasses have the potential for rapid ignition, a high rate of spread, and facilitation of extreme fire behavior. Grasses are the vegetation type in the Project area with the highest risk for wildfire ignition. Their low overall fuel loads typically result in faster-

[1] The amount of available and potentially combustible material, usually expressed as tons per acre (NWCG 2022).

moving fires with lower flame lengths and heat output. Untreated grasses can help spread a fire into other adjacent surface fuel types (e.g., shrubs) or facilitate surface to crown fire[2] transition where they exist beneath tree canopies.

As described above, vegetation plays a significant role in fire behavior. A critical factor to consider is the dynamic nature of vegetation communities. Fire presence and absence at varying cycles or regimes disrupts plant succession, resetting plant communities to an earlier state where less fuel is present for a period of time as the plant community begins its succession again. High-frequency fires tend to convert shrublands to grasslands or maintain grasslands, while fire exclusion tends to convert grasslands to shrublands, over time. In general, biomass and associated fuel loading will increase over time, assuming that disturbance (fire, farming, or grading) or fuel reduction efforts are not diligently implemented. It is possible to alter successional pathways for varying plant communities through manual alteration. This concept is a key component in the overall establishment and maintenance of the proposed fuel modification zones around the substation and BESS containers.

The Project site development footprint will be cleared, graded, and covered in a noncombustible, compacted road base. The BESS facility site will be subject to regular "disturbance" in the form of vegetation maintenance in between and around the BESS containers and access roads and will not be allowed to accumulate excessive biomass over time, which results in reduced fire ignition, spread rates, and intensity within the battery facility.

The gen-tie and associated right-of-way will include the construction of a graded and compacted roadway, along with vegetation management where vegetation is cleared to maintain a safe distance between the lines and the surrounding vegetation. Within the right-of-way, vegetation management will include vertical and horizontal maintenance as well as removal of dead and dying materials. The gen-tie lines are typically located within an area of land called a right-of-way, which is an area of land the applicant does not own but which the applicant has been granted the right to use for installing, repairing, operating, and maintaining transmission lines. Generally, vegetation management does not occur in the right-of-way; however, sometimes trees may be identified that have the potential to grow or fall into the lines.

3.16.1.5 Weather

The Project site, like much of Southern California, is influenced by the Pacific Ocean and a seasonal, migratory subtropical high-pressure cell known as the "Pacific High." Wet winters and dry summers with mild seasonal changes characterize the Southern California climate. This climate pattern is occasionally interrupted by extreme periods of hot weather, winter storms, or dry, easterly Santa Ana winds. August is the average warmest month with an average high temperature of 93 degrees Fahrenheit (°F), and December is the coolest month on average with a low of 35°F. Rainfall occurs primarily between October and April, with the maximum average precipitation occurring in January and February. The mean annual rainfall for the region is approximately 11.5 inches of rain per year (Weather Spark 2025).

From a regional perspective, the fire risk in Southern California can be divided into three (3) distinct "seasons" (Nichols et al. 2011; Baltar et al. 2014). The first season, the most active season and covering the summer months, extends from late May to late September. This is followed by an intense fall season characterized by fewer but larger fires. This season begins in late September and continues until early November. The remaining months, November to late May, cover the mostly dormant, winter season.

[2] A crown fire is a forest fire that advances, often at great speed, from treetop to treetop.

Typically, the highest fire danger in Southern California coincides with Santa Ana winds, which can occur from September to March, most commonly occurring from October through March. The Santa Ana wind conditions are a reversal of the prevailing southwesterly winds that usually occur on a region-wide basis near the end of fire season during late summer and early fall. They are dry, warm winds that flow from the higher desert elevations in the east through the mountain passes and canyons. As they converge through the canyons, their velocities increase. Localized wind patterns on the Project site are strongly affected by both regional and local topography.

The prevailing wind pattern is from the west (onshore), but the presence of the Pacific Ocean causes a diurnal wind pattern known as the land/sea breeze system. During the day, winds are from the southwest (sea), and at night winds are from the northeast (land). Wind speeds average approximately 10 miles per hour (mph) throughout the year. Hourly gust speeds average approximately 20 mph throughout the year, with monthly average highs of approximately 40 to 45 mph between October and April and approximately between 25 and 35 between May and September (FEMS 2024). The highest wind velocities are associated with downslope, canyon, and Santa Ana winds. The mountainous areas to the south and east of the Project site include topography that can funnel winds and dry air, creating areas with high wind speeds that can quickly spread fire by preheating vegetation uphill and exacerbate the spread of a wildfire; thus, the site is subject to periodic extreme fire weather conditions that occur throughout foothill portions of Los Angeles County.

3.16.1.6 Historic Wildland Fires and Ignitions

Fire history data provides valuable information regarding fire spread, fire frequency, ignition sources, and vegetation/fuel mosaics across a given landscape. One important use for this information is as a tool for pre-fire planning as fire history data can inform how to best protect lives, property, and ecosystems from wildfires. It is advantageous to know which areas may have burned recently and therefore may provide a tactical defense position, what type of fire burned on the site, and how a fire may spread.

Fire history in the area can be represented by the CAL FIRE FRAP database (CAL FIRE 2025a). FRAP summarizes fire perimeter data dating to the late 1800s, but it is incomplete due to the fact that it only includes fires over 10 acres in size and has incomplete perimeter data, especially for the first half of the twentieth century (Syphard and Keeley 2016). However, the data does provide a summary of recorded fires and can be used to show whether large fires have occurred in the Project area, which indicates an increased probability of future wildfires.

According to available data from the CAL FIRE FRAP database,[3] 80 fires have burned within 5 miles of the Project site since the beginning of the historical fire data record (1878), with the oldest fire occurring in 1911. Of the 80 fires, there have been zero (0) fires that have occurred on site. Recorded wildfires within 5 miles range from 10 acres to 160,833 acres (2009 Station Fire), and the average fire size is approximately 4,173 acres (including the 2009 Station Fire but not fires smaller than 10 acres). Since the 2009 Station Fire, the 2012 Tree Fire is the most significant fire that has occurred in the vicinity of the Project site (approximately 126 acres); there have been seven (7) smaller fires with the 2022 Barrel Fire (approximately 8 acres) being the most recent fire to have occurred within 5 miles of the Project (CAL FIRE 2025a). LACoFD may have data regarding smaller fires (less than 10 acres) that have occurred on the site that have not been included herein. Fire history for the general vicinity of the Project site is illustrated in Figure 3.16-1, Fire History.

[3] Based on polygon geographic information system data from CAL FIRE's FRAP, which includes data from CAL FIRE, U.S. Department of Agriculture Forest Service Region 5, Bureau of Land Management, National Park Service, Contract Counties, and other agencies. The data set is a comprehensive fire perimeter geographic information system layer for public and private lands throughout the state and covers fires 10 acres and greater between 1878 and 2023.

3.16.1.7 Fire Hazard Severity Zones

OSFM's Fire Hazard Severity Zone Maps Program includes map data documenting areas of significant fire hazards in the state (CAL FIRE 2025b). These maps categorize geographic areas of the state into different FHSZs. The classifications include Moderate, High, and Very High FHSZs. CAL FIRE uses FHSZs to classify anticipated fire-related hazards for the entire state and includes classifications for State Responsibility Areas (SRAs), Local Responsibility Areas (LRAs), and Federal Responsibility Areas (FRAs). Fire hazard severity classifications consider vegetation, topography, weather, crown fire production, and ember production and movement.

The Project site and the surrounding area are located on SRA lands where the state has the primary responsibility for fire suppression. According to the OSFM FHSZ Maps, the Project site and the surrounding area are located in an area currently designated as a Very High FHSZ (VHFHSZ). The state recently updated the SRA maps, which became effective in April 2024. Figure 3.16-2 shows the FHSZ map, including SRA, for the Project area.

The California Public Utilities Commission (CPUC) has published High Fire-Threat District (HFTD) maps. The HFTD maps show areas where there is an increased risk (including likelihood and potential impacts on people and property) for utility associated wildfires (CPUC 2025). The Project site and the surrounding area are located within a Tier 3 (Extreme) HFTD.

3.16.1.8 Post-Fire Slope Instability and Drainage Pattern Changes

A wildfire may create a burned landscape that is more susceptible to debris flows. Changes to vegetation and soil due to a wildfire can increase the probability of runoff and erosion in a watershed during a rainfall event, and thus the likelihood of a debris flow triggered by a rainfall event. Debris flows may damage natural resources, property, and infrastructure and may lead to injuries and fatalities. The community's downslope of burned terrain may be vulnerable to damage from debris flows, such as that which occurred in Montecito, California, in 2018 (CRS 2023).

The USGS Post Wildfire Debris Flow Hazard Assessment uses geospatial data related to basin morphometry, burn severity, soil properties, and rainfall characteristics to estimate the probability and volume of debris flows that may occur in response to a design storm (USGS 2025). USGS publishes the results of this assessment online on a map viewer that shows recent burn perimeters, and the hazard and the likelihood of a debris flow within the fire perimeter. No data is available for the Project site; however, the 2025 Hurst Fire burned within 20 miles of the Project site. It is worth noting that the Hurst Fire perimeter burned over steeper slopes than present at the Project site; areas of steeper topography exhibited high combined hazards, while the lower elevations similar to those present at the Project site, exhibited a low likelihood and combined hazard (USGS 2025).

3.16.1.9 Emergency Response and Fire Protection

The Project is located within the LACoFD jurisdictional response area, which includes the Acton and Palmdale areas where the Project will be situated. Regionally, LACoFD provides fire, emergency medical, and rescue services from 176 stations spanning 2,311 square miles consisting of 60 district cities and all unincorporated communities with approximately 1,295,894 housing units and 3,961,285 residents (LACoFD 2023). The Project site lies within the North Operations Bureau. Fire Station 80 will provide an initial response to the Project; however, Stations 131, 37, and 81 are available to provide a secondary response to the Project, if needed. These existing stations were analyzed herein due to their proximity to the Project site.

Table 3.16-1 provides a summary of the LACoFD fire and medical delivery system for Fire Stations 80, 131, 37, and 81 (listed based upon distance to the site). Travel distances are derived from Google road data while travel times are calculated using response speeds of 35 mph, consistent with nationally recognized NFPA 1710 (NFPA 2024) and the Insurance Services Office (ISO) Public Protection Classification Program's Response Time Standard formula (Time=0.65 + 1.7(Distance)). The ISO response travel time formula discounts speed for intersections, vehicle deceleration, and acceleration and does not include turnout time.

Table 3.16-1. Closest Responding Stations Summary

Station No.	Location	Travel Distance to BESS Entrance (miles)[1]	Maximum Travel Distance to SCE Vincent Substation (miles)[2]	Travel Time to BESS Entrance[3]
LACoFD Station 80	1533 West Sierra Highway, Acton, California	1.0	4.0	2.35 minutes
LACoFD Station 131	2629 East Avenue South, Palmdale, California	7.1	5.8	12.72 minutes
LACoFD Station 37	38318 E. 9th Street East, Palmdale	8.2	7.1	14.59 minutes
LACoFD Station 81	8710 Sierra Highway, Agua Dulce, California	10.8	13.6	19 minutes

Notes: BESS = battery energy storage system; SCE = Southern California Edison; LACoFD = Los Angeles County Fire Department.

1 Distance measured to the BESS facility entrance off Soledad Canyon Road.

2 Distance measured to the SCE Vincent Substation entrance off Angeles Forest Highway.

3 Assumes travel at 35 mph travel speed and does not include donning turnout gear and fire dispatch time. Actual travel speeds are likely to be closer to 45 mph speed limits.

Within the area's emergency services system, fire and emergency medical services are also provided by other LACoFD fire stations. Generally, each agency is responsible for structural fire protection and wildland fire protection within their area of responsibility. However, mutual aid agreements enable non-lead fire agencies to respond to fire emergencies outside their district boundaries. In the Project area, fire agencies cooperate under existing regional and statewide master mutual aid agreements. These include the Los Angeles County Operational Area Mutual Aid Plan, the California Fire Master Mutual Aid Agreement, California Master Cooperative Wildland Fire Management and Stafford Act Response Agreement, California Fire Assistance Agreement, and Public Resources Code Section 4129.

While additional resources outside of LACoFD could respond to an emergency at the Project via existing mutual aid agreements, none are closer than the LACoFD stations (LACoFD 2025) listed above in Table 3.16-1. Given that the LACoFD stations listed in Table 3.16-1 are closer than any mutual aid resources, a non-LACoFD response would only be anticipated in the unlikely event of a large wildfire, conflagration, or similarly substantial event that necessitates a sizable emergency response.

The County prepares an annual document that summarizes performance measures for all departments. Within the performance measures for LACoFD, there are conformances to response times that vary by land classification. Those response time standards are summarized in Table 3.16-2 below.

Table 3.16-2. LACoFD Response Time Standards by Land Classification

Land Classification	Classification Description	Response Time
Urban	Dense business populations, high-rise structures, no wildland interface	less than 5 minutes
Suburban	Dense residential population, some wildland interface	less than 8 minutes
Rural	Sparser population, few structures, greater wildland interface	less than 12 minutes

Source: Los Angeles 2023a.
Note: LACoFD = Los Angeles County Fire Department.

Emergency response time target thresholds include travel time along with dispatch and turnout time, which can add 2 minutes to travel time. It is assumed that the Project will be classified as "Rural," with a 12-minute first-in fire engine response time. LACoFD Fire Station 80 will provide an initial response as the closest existing fire station. As indicated in Table 3.16-2, the response from Station 80 to the Project site conforms to the response time standard of 12 minutes or less for rural areas (Los Angeles County 2023a). Specifically, total response time, including call and turnout time, from Station 80 is calculated at roughly 4.32 minutes to the entrance of the BESS facility. All response calculations are based on an average response speed of 35 mph, consistent with nationally recognized NFPA 1710.

3.16.2 Impact Analysis

The following subsections cover potential wildfire-related impacts associated with the construction and operation of the proposed Project.

3.16.2.1 Methodology

To identify and assess potential impacts related to wildfire, Dudek reviewed publicly available information from CAL FIRE and Los Angeles County and information provided by the applicant.

3.16.2.2 Impact Evaluation Criteria

The potential for impacts related to hazardous material was evaluated using the criteria described in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.). A project could have a significant environmental impact in terms of wildfire if it is located in or near SRAs or lands classified as VHFHSZs and would:

- Substantially impair an adopted emergency response plan or emergency evacuation plan.
- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes

3.16.2.3 CEQA Appendix G Assessment Criteria

3.16.2.3.1 If located in or near SRAs or lands classified as VHFHSZs, would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant. The proposed Project will not substantially impair an adopted emergency response plan or emergency evacuation plan because the Project will not physically impede implementation of an emergency response plan, emergency vehicle access, or personnel access to the Project site. The Project site is located in an area with several alternative roadways allowing access in the event of an emergency. Access to existing roadways near the Project site will be maintained throughout the construction, operation, and decommissioning phases, and appropriate detours will be provided in the event of potential road closures. Therefore, no potential significant impacts related to impairment of the implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan will occur during Project construction.

The Los Angeles County Operational Area Emergency Operations Plan (OAEOP) addresses both the County's planned response to extraordinary emergency situations impacting unincorporated areas of the County as well as Operational Area coordination. The OAEOP accomplishes the following (Los Angeles County 2023b):

- Establishes the emergency management organization required to respond to and recover from any significant emergency or disaster impacting the County.
- Establishes the concepts associated with the management of incidents, including the organization and activation of the County/OA [Operational Area] Emergency Operations Center.
- Provides a flexible platform for planning and response to all hazards within the OA. It is applicable to a wide variety of anticipated incident events including earthquake, wildland fires, floods, and public health emergencies.

Furthermore, the 2020 County of Los Angeles All-Hazards Mitigation Plan (AHMP) has been prepared for the County to assess risks posed by all natural hazards and to develop a mitigation action plan for reducing the risks in Los Angeles County. Section 4.7, Wildfire, of the AHMP identifies and provides an assessment of wildfire throughout Los Angeles County.

The 2020 AHMP structure has been updated to include the following sections (Los Angeles County 2020):

- **Section 2 Planning Process** provides an overview of the 2020 planning process, starting with a plan update timeline. It identifies Advisory Committee members and describes their involvement with the plan update process. It also details stakeholder outreach, public involvement and continued public involvement. It provides an overview of the existing plans and reports and how they were incorporated into the 2020 AHMP and lastly lays out a plan update method and schedule. Supporting planning process documentation is listed in Appendix A [of the All-Hazards Mitigation Plan].
- **Section 3 Community Profile** describes the planning area for the 2020 AHMP, which includes the unincorporated areas of Los Angeles County (hereinafter referred to as Unincorporated Los Angeles County). It touches on the current population and development trends in the County and discusses vulnerable populations in the County, including the growing homeless crisis. Finally, this section lists the County-owned and County-related critical facilities included in this

plan. Supporting community profile information can be found in Appendix B [of the All-Hazards Mitigation Plan].

- Section 4 Hazard Identification and Risk Assessment describes each of the eight hazards addressed in this plan. Additionally, it includes impact (i.e., risk assessment) tables for the planning area, vulnerable populations and critical facilities in each hazard area. An overall summary description is also provided for each hazard. Appendix C [of the All-Hazards Mitigation Plan] contains supporting hazard identification and risk assessment information.
- Section 5 Mitigation Strategy details Los Angeles County's capabilities (authorities, policies, programs, and resources) available for hazard mitigation. It also discusses the County's participation in the National Flood Insurance Program (NFIP). Finally, it describes the mitigation strategy, which is the blueprint for how hazard risks will be reduced. The mitigation strategy is made up of three main components: mitigation goal(s); potential mitigation actions and projects; and a mitigation action plan.
- Section 6 Plan Review, Evaluation, and Implementation discusses the revisions made to the 2020 AHMP to address changes in development, progress made in local mitigation efforts and changes to priorities.
- Section 7 Plan Adoption contains a scanned copy of the adoption resolution.

Additionally, Chapter 12, Safety Element, of the Los Angeles County General Plan (updated April 2025) has been prepared "to reduce the potential risk of death, injuries, property damage, economic loss, and social dislocation resulting from natural and human-made hazards" as development in Los Angeles County "has extended into areas with environmental hazards" (Los Angeles County Department of Regional Planning 2025). The Safety Element works in conjunction with the OAEOP.

The limited size of the Project's operational work force will not generate significant traffic volumes during an emergency evacuation scenario that could complicate area-wide emergency evacuation efforts. Driveways built to connect to existing local roads for direct site access will not affect designated emergency evacuation routes, as these are public roadways, and the driveways will not conflict with potential evacuation routes for surrounding land uses. Therefore, potential impacts are considered **less than significant.** Refer to Section 3.5, Hazardous Materials Handling, for further information and analysis on adopted emergency operations and evacuation plans.

3.16.2.3.2 If located in or near SRAs or lands classified as VHFHSZs, would the Project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Given the fire protection systems of BESS enclosures, the UL 9540A testing to be performed, and the vegetation management and setbacks, the proposed Project, once developed, will not facilitate wildfire spread and will be anticipated to reduce projected flame lengths to levels that will be manageable by firefighting resources.

Rather, the highest potential risk of a wildfire originating within the proposed Project would occur during the construction and demolition phases; however, through adherence to applicable provisions of Chapter 33, Fire Safety During Construction and Demolition, of the 2022 edition of the CFC, as well as those outlined in Mitigation Measure (MM) WF-1 through MM-WF-4, the potential risk will be mitigated to less than significant.

Construction and Decommissioning

Less than Significant with Mitigation. The construction and decommissioning phases of the proposed Project are anticipated to potentially create the greatest fire hazard due to the potential for sparks and the increased human activity. During construction activities, multiple crews will be working on the site with various equipment and vehicles. The total number of construction workers (consisting of laborers, craftsmen, supervisory personnel, support personnel, and construction management personnel) would range from approximately 50 to 250 workers, depending on the phase of construction. Construction and decommissioning activities would introduce potential ignition sources to the proposed Project site, including the use of heavy machinery and the potential for sparks during welding activities or other hot work. Construction best practices and mitigations measures will be implemented to manage risk. In addition, the Project will be required to comply with County, state, and LACoFD requirements for construction activities in hazardous fire areas, including fire safety practices, to reduce the possibility of fires during construction activities. The Project will be subject to additional requirements, such as limiting or ceasing construction and decommissioning work during high-wind weather events and implementing ongoing fire patrols during fire season as outlined in MM-WF-1. Additionally, as outlined in MM-WF-2, vegetation management requirements will be implemented at the start of and throughout all phases of construction, and combustible materials will not be brought on site until site improvements (e.g., utilities, access roads, fire hydrants, fuel modification zones) have been implemented. The pre-construction requirements outlined in MM-WF-2 will reduce the risk of wildfire ignition and spread on the proposed Project site during construction activities. Vegetation management will also reduce the risk of wildfire spreading from within the active construction areas to off-site fuel beds. As outlined in MM-WF-3, there will be a minimum of one (1) filled water tender plus firefighting tools present during construction activities. On-site water supply and firefighting equipment provided in MM-WF-3 will reduce the risk of new wildfire ignition spreading beyond the incipient stage by providing an immediately accessible source of fire control tools and water. Provided site improvements and vegetation management requirements are appropriately implemented and approved by LACoFD, construction and decommissioning activities are not anticipated to exacerbate wildfire risk such that proposed Project workers would be exposed to the uncontrolled spread of a wildfire or pollutant concentrations from a wildfire. Therefore, with the implementation of MM-WF-1 through MM-WF-3, construction and decommissioning impacts will be less than significant. The impact will be **less than significant with mitigation**.

Operation

Less than Significant with Mitigation. The proposed BESS facility includes the installation of an up to 1,150 MW/9,200 megawatt-hour BESS and gen-tie line within the approximately 107-acre project area. The Project is in an area considered a VHFHSZ within an SRA (see Figure 3.16-2). The Project site currently is dominated by low- to- moderate-loads of scrub and sagebrush vegetation communities that could serve as potential fuel sources. Existing potential ignition sources near the Project site include the associated vehicles that travel along State Route 14 to the north, Soledad Canyon Road and other connecting roads adjacent to the Project site, nearby railroad lines, the SCE Vincent substation to the east, off-roading or other recreation in the surrounding open space areas and Angeles National Forest, and arson-related ignitions. Development of the proposed Project would introduce new potential sources of ignition to the Project site, including the BESS modules, energized substation equipment, the gen-tie line, increased human activity on the proposed Project site, and additional vehicles traveling on internal and external roads. The BESS facility will have 16 full-time staff working out of an O&M building within the facility, and one major maintenance inspection will be expected annually. The Project will be required to design, construct, and maintain structures, roadways, and facilities in compliance with applicable local, regional, state, and federal requirements (see Section 3.16.5, Laws, Ordinances, Regulations, and Standards) related to fire safety, emergency

access, and evacuation, as well as building materials, setbacks, and defensible space requirements for development in fire hazard areas. The local, state, and federal rules, regulations, and policies included in Section 3.16.5 set forth minimum standards for development strategies, building materials, and systems and fire prevention strategies for development in fire hazard areas to reduce the risk of wildfire damage and losses.

Wildland fire risk in the vicinity of the proposed Project site was reviewed and determined that wildfires, as shown in Figure 3.16-1, have occurred in the vicinity of the Project site. However, those fires have never occurred within the Project site footprint. The most common wildfire occurrences have been in wildland or naturally vegetated areas north of State Route 14 or south and east of the Project site in the naturally vegetated open space areas and Angeles National Forest. The fuels that carried the fires shown in Figure 3.16-1 generally resemble those in and around the proposed Project site and are evidence of the vegetation, climate, and topography being capable of supporting fire.

Slope

The majority of the proposed Project site is currently either undeveloped or rural residential. Elevations in the Project 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 and is generally hilly in nature, with the greater elevations along the eastern portion of the Project site. Topography and terrain influences fire risk by affecting fire spread rates. Typically, steep terrain results in faster fire spread upslope and slower fire spread downslope in the absence of wind. Flat terrain tends to have little effect on fire spread, resulting in fires that are driven by wind. There are no narrow canyons, box canyons, chimneys, or other terrain features that would exacerbate a wildfire burning near the Project site. The Project site is on a small hilltop, and the surrounding hillsides are short (less than 100 feet in elevation change between the bottom and top of the hill); extreme fire behavior driven by long steep hillsides is not anticipated on these short slopes. The proposed Project will not create conditions that result in steeper slopes or topographic features that would increase fire behavior. Project equipment and facilities are setback from adjacent slopes and will not be at an increased risk of direct flame exposure due to fire spreading upslope. The Project will not exacerbate wildfire risk related to slope.

Prevailing Winds

The prevailing wind pattern is from the west (onshore), but the presence of the Pacific Ocean causes a diurnal wind pattern known as the land/sea breeze system. During the day, winds are from the southwest (sea), and at night winds are from the northeast (land). Wind speeds average approximately 10 mph throughout the year. Hourly gust speeds average approximately 20 mph throughout the year, with monthly average highs of approximately 40 to 45 mph between October and April and approximately between 25 and 35 between May and September (FEMS 2024). The highest wind velocities are associated with downslope, canyon, and Santa Ana winds. As noted above, the Project site is located on a small hilltop with short surrounding hillsides (less than 100 feet in elevation change between the bottom and top of the hill); however, nearby mountain passages located south and southeast of the Project site can contribute to funneling strong winds, especially during Santa Ana wind events, thus leading to periodic extreme fire weather conditions around the Project site. Santa Ana wind events typically flow from east to west though mountain passes, leading to strong, dry winds that may exceed 50 mph. That being said, due to the Project's location along with the topography around the Project site, it is not anticipated that the Project, due to the prevailing onshore wind pattern, would exacerbate wildfire risks.

Vegetation Management and Setbacks

The majority of the site is covered in low- to- moderate-load scrub and sage scrub vegetation. It is critical to consider the dynamic nature of vegetation communities. Wildfire disturbances have dramatic impacts on plants themselves and plant community composition. Heat shock, accumulation of post-fire charred wood, and change in photoperiods due to removal of shrub canopies may all stimulate seed germination of certain plant species. This type of germination is common in chaparral and scrub plant communities. Fire presence and absence at varying cycles or regimes affect plant community succession. The succession of plant communities is highly dependent on the fire regime. Shrublands gradually convert to grasslands with high-frequency fires and grasslands to shrublands with fire exclusion. The post-fire response for most species is vegetative reproduction and stimulation of flowering and fruiting. The combustion of aboveground biomass alters seedbeds and temporarily eliminates competition for moisture, nutrients, heat, and light. Species that can rapidly take advantage of the available resources will flourish. Further, biomass and associated fuel loading increase over time, assuming that disturbance or fuel reduction efforts are not diligently implemented.

While the development of an up to 1,150 MW BESS and the associated gen-tie line will introduce new potential ignition sources to the proposed Project site, the site will be largely converted from readily ignitable fuels to BESS enclosures and associated components including the building containing the Supervisory Control and Data Acquisition (SCADA) system on graded and maintained areas. The proposed Project will be developed according to all existing building codes and fire codes, as indicated in the Los Angeles County Fire Code (Title 32 of the Los Angeles Code of Ordinances), which adopts the 2022 CFC, including Chapter 12, Section 1207, Electrical Energy Storage Systems, which includes information for clearances and vegetation control. These codes include provisions for fuel modification and defensible space for fire prevention and safety.

Per the vegetation management requirements established by Section 1207.5.7 of the CFC, “areas within 10 feet (3048 m) on each side of outdoor ESS [energy storage systems] shall be cleared of combustible vegetation and other combustible growth.” The code does permit “single specimens of trees, shrubbery or cultivated ground cover such as green grass, ivy, succulents or similar plants used as ground cover … provided that they do not form a means of readily transmitting fire.” However, as outlined in MM-WF-4, the entire facility within the perimeter of the security fence will be maintained free of vegetation and will be inspected annually by a third party to ensure compliance with this requirement. Per Public Resources Code Section 4291, the O&M buildings that the full-time staff will be working out of will require up to 100 feet of defensible space, as achievable within the property boundaries, and will be included as part of the Project’s Alternative Materials and Methods Report. The location of the buildings shall be near the laydown yard with all exterior sides at least 100 feet from the perimeter security fencing to ensure the vegetation management outlined in MM-WF-4 provides the necessary defensible space. If the building is placed closer to the perimeter wall than this minimum, then exterior fuel modification will have to be provided to ensure at least 100 feet of defensible space is provided. Such areas would also be subject to the annual inspections of MM-WF-4. Additionally, Section 1207.8.3 of the CFC requires that the energy storage systems be separated by a minimum of 10 feet from lot lines, public ways, buildings, stored combustible materials, hazardous materials, high-piled stock, and other exposure hazards. CFC Section 1207.8.1 requires remote outdoor installations to be located more than 100 feet from the hazards previously mentioned. Similarly, CFC Section 1207.5.8 requires energy storage systems to be separated from any means of egress by at least 10 feet, but this can be reduced if large-scale fire testing in accordance with UL 9540A is completed. As mentioned in the Project description, while the selection of the BESS technology is not finalized, it would have undergone the UL 9540A testing, which will show that fire involving one BESS will not propagate to an adjacent BESS.

As mentioned previously, vegetation management will also occur around power poles and power lines. California Public Resources Code Sections 4292 and 4293 require that a minimum of 10 feet of vegetation clearance be maintained around every electrical pole or tower and that the appropriate clearance be maintained around electrical transmission and distribution lines for the operating voltage. Given the proposed gen-tie line voltage, there will be at least 10 feet of clearance from any vegetation around the lines. However, given the low- to- moderate-loads of vegetation and lack of sizable trees in the area of the gen-tie line, there are not anticipated to be any vegetation clearance issues related to the transmission lines.

BESS Fire Protection Systems

Exact specifications regarding the fire protection system and related technology-specific protection incorporated into the BESS enclosures cannot be provided until the technology and selection have been finalized, but references to relevant CFC sections provide insight into what minimum requirements will be met. In accordance with CFC 1207.5.5, a fire protection system that meets CFC requirements and is appropriate for the selected battery chemistry will be provided. Additional measures provided, as required in CFC Section 1207.6, would include exhaust ventilation with a gas detection system to maintain the concentration of flammable gas below 25% of the lower flammable limit, spill control and neutralization, explosion control, safety caps, and an approved method to prevent, detect, and minimize the impact of thermal runaway. The combination of these features that is required varies by battery technology as displayed in CFC Table 1207.7, but any system that adheres to these requirements would reduce the risk of thermal runaway and would be tested through UL 9540A.

Operational Summary

Given the increased development throughout Los Angeles County's rural areas and the region's fire history, it can be anticipated that periodic wildfires will occur in the open space areas of Los Angeles, with the vegetated areas surrounding the proposed Project site being no exception. Given the climatic, vegetative, topographic characteristics, and local fire history of the area, the proposed Project site, once developed, could be subject to periodic wildfires that may start on, burn onto, or spot into the site.

The proposed Project will introduce potential ignition sources to the site; however, all new BESS components will be constructed to Los Angeles County Fire Code, NFPA 855, and 2022 CFC standards (or then current edition). The Project will be subject to additional requirements, such as limiting or ceasing construction and decommissioning work during high-wind weather events and implementing ongoing fire patrols during fire season as outlined in MM-WF-1. Additionally, as outlined in MM-WF-2, vegetation management requirements will be implemented at the start of and throughout all phases of construction, and combustible materials will not be brought on site until site improvements (e.g., utilities, access roads, fire hydrants, fuel modification zones) have been implemented. The operational requirements outlined in MM-WF-2 will reduce the risk of wildfire ignition and spread on the proposed Project site while operational. Furthermore, the proposed Project will implement vegetation management throughout the BESS facility as outlined in MM-WF-4 and include over 100-foot setbacks of the BESS enclosures from the property line. Given the monitoring system will shut off the unit should it sense any abnormal conditions, a thermal runaway event is unlikely, but should it occur, the fire protection system that will be designed into the BESS technology selected will isolate the event to a single enclosure. BESS modules that adhere to NFPA 855 by incorporating fire and explosion prevention features that ensure that any fire from an individual BESS is unlikely to spread to adjacent units combined with the planned vegetation management and setbacks would result in a low likelihood of a fire spreading from a BESS enclosure off site. Fires from off site will not have continuous fuels across this site and will therefore be expected to burn around and/or over the site via spotting. Burning vegetation embers may land on proposed Project components but are not likely to result in ignition based on ember decay rates and

the types of noncombustible and ignition-resistant materials that will be used on site as well as the planned grading and vegetation management. The proposed Project will comply with applicable ignition-resistant fire and building codes and will include a layered fire protection approach that is designed to current codes and inclusive of site-specific measures that would result in a Project that is less susceptible to wildfire than surrounding landscapes. These fire protection features form a redundant system of protection to minimize the likelihood of exposing workers or nearby population, as well as structures, to the uncontrolled spread of a wildfire. As such, accidental fires within the maintained landscape or structures in the Project site will have limited ability to spread. It should be noted that while these standards provide a high level of protection for the proposed Project, there is no guarantee that compliance with these standards will prevent damage or destruction of BESS components by fire in all cases.

Given the fire protection systems of BESS enclosures, the UL 9540A testing to be performed, and the vegetation management and setbacks, the proposed Project, once developed, will not facilitate wildfire spread and will be anticipated to reduce projected flame lengths to levels that will be manageable by firefighting resources.

Rather, the most likely risk of a wildfire originating within the proposed Project would occur during the construction and demolition phases; however, through adhering to Chapter 33, Fire Safety During Construction and Demolition, of the 2022 edition of the CFC, as well as those outlined in MM-WF-1 through MM-WF-4, the risk will be mitigated. The proposed Project will not exacerbate wildfire risks due to slope, prevailing winds, and other factors, and thereby expose proposed Project workers to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, and impacts will be **less than significant with mitigation incorporated**.

3.16.2.3.3 If located in or near SRAs or lands classified as VHFHSZs, would the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less than Significant with Mitigation. The Project is located on SRA lands classified as a High FHSZ. The Project involves the development of a previously undeveloped site with up to 1,150 MW of battery energy storage, related components, and a gen-tie line connecting the BESS facility to a nearby substation. The Project will include the installation and maintenance of associated infrastructure, including driveways, roadways, and a perimeter wall, which will require ground disturbance, and the use of heavy machinery associated with trenching, grading, site work, and other construction and maintenance activities. Thus, the installation of related infrastructure could potentially result in temporary or ongoing impacts to the environment. However, the associated infrastructure for the Project, such as roads, fuel modification zones, and water sources, will reduce the fire risk in the immediate area by reducing the volume of flammable vegetation and providing better access to emergency responders to suppress fires near the Project site. The BESS facility sits on a large, level pad composed of a noncombustible surface. Ignition events originating within the facility would lack the vegetation to sustain a fire. The tie-line connecting the facility to the nearby substation is short and only a portion of this extends over vegetation that can sustain a fire. Overall, the development of the Project including the associated infrastructure will result in a reduced volume of flammable vegetation and better access for emergency responders and will not exacerbate fire risk.

Vegetation Management

As mentioned previously and outlined in MM-WF-4, the proposed Project will maintain the BESS facility free from combustible vegetation to allow for fire protection mitigation and defensible space consistent with local regulation. This surpasses the minimum of 10 feet around BESS enclosures stated in the CFC. Additionally, a minimum of

10 feet of vegetation clearance will be provided around all power poles/towers as well as power lines associated with the proposed Project and associated gen-tie line. Per MM-WF-2, adequate vegetation management must be performed before bringing any combustible materials onto the Project site, and vegetation management activities will occur prior to the start of construction and throughout the life of the Project. Consequently, the associated vegetation management activities will not exacerbate fire risk, provided that fuel modification and other vegetation management activities are implemented and enforced according to County and state requirements. The proposed vegetation management activities will reduce the fire risk by thinning or removing combustible vegetation.

Roads

The Project will involve construction of internal access roads within the BESS facility and access roads to access the gen-tie line. There will also be an internal circulation network with an unobstructed width of 26 feet and internal radii of a minimum of 55 feet. There will be minimal increased human activity and vehicles along newly installed roads during the operational phase; only 16 full-time staff and one larger annual inspection are anticipated. The construction phase will have more vehicle trips and an estimated 50 to 250 construction workers present depending on the phase of construction. The added human activity will introduce new potential ignition sources to the Project area. However, vegetation will be removed where gravel roads will be constructed and where fill will be placed from grading operations. Construction of Project roadways and connections to existing roadways will provide increased accessibility for emergency services to the proposed Project site. Further, site access, including road widths and connectivity, will comply with the County's development review process, including review for compliance with the Los Angeles County Fire Code (Title 32). As required under the Los Angeles County Fire Code, access roads and driveways will have an unobstructed vertical clearance of 13 feet, 6 inches above the roadways. Additionally, as outlined in MM-WF-3, all construction-related vehicles will have equipment capable of suppressing construction-related ignitions. The proposed Project ownership will be responsible for long-term funding and maintenance of private roads and fire protection systems. Therefore, installation and maintenance of site access roads in accordance with all relevant development codes will not exacerbate wildfire risk.

Utilities

As previously mentioned, the proposed Project will include 16 full-time staff and that will operate out of an O&M building with bathroom facilities, running water, and office space. A potable water storage tank will provide water for washroom and sanitary facilities, and sewage/wastewater will be collected in a septic tank. Potable water will be supplied by an existing on-site well, and sewage/wastewater will be pumped from the septic tank, transported off site via truck, and disposed of at a sanitary dump station, as needed, during operations. During construction and decommissioning of the proposed Project, untreated water will be required for common construction-related purposes, and restroom facilities will be portable units, serviced by licensed providers. 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. Per MM-WF-2, vegetation management will be performed, and all road surfaces will be approved and installed prior to combustibles being brought on site. This will enable safe delivery of any water used during construction and proper fire apparatus access should any ignition grow past initial suppression efforts by construction workers with equipment described in MM-WF-3. Permanent water and electric service will be provided to the proposed Project; however, there will be a minimal associated fire risk as these utilities already exist near the Project area. Power for the heating, ventilation, and air conditioning system; lighting; and other electrical systems will be provided through separate auxiliary power connection to the on-site station service transformers with connection lines installed above and/or belowground. This ancillary power or other Project-related power lines will be the only utilities associated with the proposed Project other than municipal water. However, as discussed

previously, vegetation management will be performed around all power poles/towers and power lines. Therefore, utilities associated with the proposed Project will not exacerbate the fire risk.

Summary

Installation and maintenance of Project roads, service utilities, fuel modification, and other associated infrastructure will not exacerbate wildfire risks provided that the appropriate fire prevention, access, and vegetation management activities are implemented as required by LACoFD, County code and state requirements, and MM-WF-2 through MM-WF-4.

Given that the activities involved with installation or maintenance of associated infrastructure will require ground disturbance and the use of heavy machinery associated with trenching, grading, site work, and other construction and maintenance activities, the installation of related infrastructure could potentially result in temporary or ongoing impacts to the environment. However, the installation and maintenance of roads, utilities, and vegetation management activities are part of the proposed Project analyzed herein. As such, any potential temporary or ongoing environmental impacts related to these components of the proposed Project have been accounted for and analyzed as part of the impact assessment conducted for the entirety of the Project. Additionally, the proposed Project will be required to comply with all regulatory requirements and mitigation measures outlined for the purposes of mitigating impacts associated with trenching, grading, site work, and the use of heavy machinery. No adverse physical effects beyond those already discussed in this Opt-In Application will occur as a result of implementation of the Project's associated infrastructure.

Therefore, the installation and maintenance of associated infrastructure will not exacerbate wildfire risk or result in impacts to the environment beyond those already disclosed, and impacts will be **less than significant with mitigation** incorporated.

3.16.2.3.4 If located in or near SRAs or lands classified as VHFHSZs, would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than Significant. Vegetation plays a vital role in maintaining existing drainage patterns and the stability of soils. Plant roots stabilize the soil, and leaves, stems, and branches intercept and slow water, allowing it to percolate into the soil more effectively. If a fire were to denude the Project site of surface vegetation, it would reduce the ability of the soil surface to absorb rainwater and can allow for increased runoff that may include large amounts of debris or mudflows. If hydrophobic conditions exist post-fire, the rate of surface water runoff is increased as water percolation into the soil is reduced (Moench and Fusaro 2012). The potential for surface runoff and debris flows therefore increases for areas recently burned by large wildfires (Moench and Fusaro 2012). As previously discussed and shown in Figure 3.16-1, no fires have burned onto the proposed Project site, but multiple wildfires have burned within a 5-mile radius of the proposed Project site. Typical annual vegetation management including removal and thinning of scrub and sage scrub vegetation around the Project site will not include the removal of roots. These techniques will not denude the Project site of vegetation, and root systems of the annual grasses will remain intact to assist in the stabilization of the soil after mowing or post-fire. Further, short grasses, like the grass that will remain after mowing, do not support high-intensity fire, so there is a low likelihood of hydrophobic soils developing post-fire.

In addition to the Project's location in a fire-prone area of northeast Los Angeles County, the proposed Project site and surrounding area are topographically diverse with slope gradients ranging from relatively flat to moderately

steep within the Angeles National Forest. Area elevations at the site 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 and are generally hilly in nature, with the greater elevations along the eastern portion of the Project site where the BESS facility will be located. The Post Wildfire Debris Flow Hazard Assessment uses geospatial data related to basin morphometry, burn severity, soil properties, and rainfall characteristics to estimate the probability and volume of debris flows that may occur in response to a design storm (USGS 2025). USGS publishes the results of this assessment online on a map viewer that shows recent burn perimeters and the hazard and the likelihood of a debris flow within the fire perimeter. No data is available for the Project site (USGS 2025). Additionally, according to Figures 12.2a and 12.2b of the Los Angeles County General Plan Safety Element, the proposed Project site is located in an area considered to be "1% Annual Chance of Flood (100 Year)" and unincorporated "Flood Plain Area" (Los Angeles County Department of Regional Planning 2025). In addition, the drainage pattern on the Project site has not been previously altered due to a fire event and generally drains toward Soledad Canyon Road. No wildfires have burned on the site or on the larger parcel that contains the Project site. Further, as discussed in Section 3.4, Geological Hazards and Resources, the risk of on- or off-site landslides is less than significant.

The potential for landslides, runoff, flooding, drainage changes, and water quality improvements have been analyzed in Section 3.15, Water Resources, and Section 3.4. The potential for temporary steep slopes created during excavation is addressed in Section 3.4. In summary, there is not a significant risk of landslides or flooding within the area of the proposed Project. Therefore, with adherence to regulatory requirements and applicable mitigation measures outlined, the Project will not expose people or structures to downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. Therefore, impacts will be **less than significant**.

3.16.3 Cumulative Effects

Wildfires are not cumulative in the same way that traffic or pollution is where each contribution provides a direct additive effect. For a wildfire to occur, there needs to be a landscape conducive to the spread of fire. This consists of a consistent fuel bed of low enough fuel moistures driven by dry, warm, and possibly windy weather. Even under such conditions, an ignition must occur in order to start the fire. This is not to say that there are never cumulative effects related to wildfire from projects. When there are multiple ignitions, fire suppression resources are spread thin and each consecutive ignition, when occurring simultaneously, would have less resources available to contain and extinguish it. The most common examples of this would be natural occurrences such as dry lightning storms where many lightning strikes start many small fires that may later converge, or arson-caused fires where an individual purposely creates multiple, successive ignitions to inhibit the ability of fire suppression resources to contain all of them. However, the cumulative effect of ignitions reducing fire suppression capabilities would be minimized by reducing the ignition risk associated with each respective project. Projects near the Project would be subject to similar environmental review that includes wildfire analysis, meaning the said review processes would ensure compliance with all applicable regulations and any hazards would be mitigated. The same would be true of the associated infrastructure as they would be analyzed as part of their respective projects. While power lines can be a potential cause of wildfires, those associated with the proposed Project and nearby energy projects would be subject to vegetation management and operational regulations. Lastly, the area around the proposed Project is not susceptible to slope failure or post-fire debris flows. Therefore, the cumulative effects of the proposed Project and nearby projects related to wildfire are considered to be **less than significant**.

3.16.4 Mitigation Measures

MM-WF-1 Extreme Fire Day Ignition Avoidance and Fire Patrols. The National Weather Service defines a Red Flag Warning as environmental conditions where warm temperatures, very low humidities making vegetation dry and flammable, and stronger winds are expected to combine to produce an increased risk of fire danger. A Red Flag Warning is issued for a stated period by the National Weather Service using pre-determined criteria to identify particularly critical wildfire danger in a particular geographic area. Any work that would generate sparks or open flames including activities involving heat or sparks, outdoor burning, and power tool use shall temporarily cease during Red Flag Warnings to reduce the risk of starting a wildfire. The superintendent shall coordinate with personnel to determine which low fire hazard activities may occur. Should the Los Angeles County Fire Department (LACoFD) or similar entity declare a Red Flag Warning affecting the Project site, the same work activity restrictions occurring during National Weather Service Red Flag Warning periods shall apply.

The proposed Project shall implement ongoing fire patrols during the fire season as defined by local and state agencies. The Site Safety Director (SSD) shall be assigned as fire patrol to monitor work activities when an activity risk exists for fire compliance. The SSD shall verify proper tools and equipment are on site, assess any fire agency work restrictions, and serve as a lookout for fire starts, including staying behind (e.g., a fire watch) to make certain no residual fire exists. Fire watch may be performed by any site personnel. An SSD shall perform routine patrols of the Project site during the fire season equipped with a portable fire extinguisher and communications equipment. The proposed Project staff shall notify the LACoFD of the name and contact information of the current SSD in the event of any change.

MM-WF-2 Pre-Construction Requirements. Vegetation management shall be conducted prior to the start of construction and throughout all construction phases. Existing flammable vegetation shall be reduced by 50% for all areas within 30 feet of hot work construction activities (or to the extent possible within the property boundary line). Caution must be used to avoid causing erosion or ground (including slope) instability or water runoff due to vegetation removal, vegetation management, maintenance, landscaping, or irrigation.

Prior to bringing any combustible materials onto the site, site improvements within the active development area shall be in place, including an approved, temporary roadway surface. These features shall be reviewed by the Los Angeles County Fire Department prior to combustibles being brought on site.

MM-WF-3 Construction Requirements. There shall be a minimum of one (1) filled water tender plus firefighting tools present during construction activities. On-site water supply and firefighting equipment provided would reduce the risk of new wildfire ignition spreading beyond the incipient stage by providing an immediately accessible source of fire control tools and water.

MM-WF-4 Operational Vegetation Management Requirements. The proposed Project shall remove all vegetation within the security fence perimeter of the battery energy storage system (BESS) facility site.

As a further means of ensuring the vegetation management is maintained per this requirement, the proposed Project applicant or current owner shall obtain an inspection and report from a County-authorized Wildland Fire Safety Inspector by June 1 of each year, certifying that vegetation management activities throughout the BESS facility site have been performed pursuant to this plan. This effort further ensures vegetation maintenance and compliance with no impact on the County.

3.16.5 Laws, Ordinances, Regulations, and Standards

Federal, state, and local LORS applicable to wildfire are discussed below and summarized in Table 3.16-3.

Table 3.16-3. LORS Applicable to Wildfire

Jurisdiction	LORS	Applicability	Project Conformity	Opt-In Application Reference
Federal	North American Electric Reliability Corporation; Institute of Electrical and Electronics Engineers; National Electrical Safety Code	Electrical components of the proposed Project. Most notably, overhead power lines.	**Yes**. All electrical components, most notably overhead power lines, associated with the proposed Project (including the gen-tie line), will comply with the requirements of these LORS, most notably the vegetation management requirements.	Section 3.16.2.3.2 Section 3.16.2.3.3 Section 3.16.5.1
State	CGC Sections 51175 through 51189, Section 51182; CCR Title 14, Division 1.5, Chapter 7, Subchapter 3; PRC Sections 4290 through 4293; CPUC 8386, General Orders and Rules	LORS pertaining mainly to defensible space, vegetation management around power lines, and fire hazard severity zones.	**Yes**. Vegetation management around power lines will be in compliance with these requirements.	Section 3.16.2.3.2 Section 3.16.2.3.3 Section 3.16.2.3.4 Section 3.16.5.2
State	Part 2 of CCR Title 24, California Building Code	Standards for construction of the proposed Project.	**Yes**. Project construction will comply with the CBC through compliance with the Los Angeles County Code of Ordinances.	Section 3.16.2.3.2 Section 3.16.5.2
State	Part 9 of CCR Title 24, California Fire Code	Establishes requirements for fire department access, fire protection systems, BESS design, installation, operation, and removal.	**Yes**. All Project components will be in compliance with the requirements of the CFC, including those pertaining to fire apparatus access, and BESS design.	Section 3.16.2.3.2 Section 3.16.2.3.3 Section 3.16.2.3.4 Section 3.16.5.2

Table 3.16-3. LORS Applicable to Wildfire

Jurisdiction	LORS	Applicability	Project Conformity	Opt-In Application Reference
Local	Los Angeles County General Plan	Establishes policies and actions that guide fire-safe development and local emergency services.	**Yes**. Provides general principles that the proposed Project will follow as well as policies that will impact the emergency services that will serve the proposed Project.	Section 3.16.2.3.1 Section 3.16.2.3.2 Section 3.16.5.3
Local	Los Angeles County Code of Ordinances – Fire Code (Title 32)	Contains the Los Angeles County Fire Code (Title 32), which outlines the requirements of the proposed Project pertaining to fire safety.	**Yes**. Contains pertinent local codes (Fire, Building, Electrical), that all proposed Project components will have to be in compliance with.	Section 3.16.2.3.2 Section 3.16.2.3.3 Section 3.16.5.3
Local	Los Angeles County All-Hazard Mitigation Plan	Contains goals and objectives that are intended to reduce loss of life and property from natural disasters.	**Yes**. Identifies mitigation action items that aim to meet objectives and reduce the impacts of these hazards, which the Project will have to be in compliance with.	Section 3.16.2.3.1 Section 3.16.2.3.2 Section 3.16.5.3
Local	Emergency Operations Area Emergency Operations Plan	Provides an overview of the jurisdiction's approach to emergency operations. It identifies emergency response policies, describes the response and recovery organization, and assigns specific roles and responsibilities to Los Angeles County departments, agencies, and community partners.	**Yes**. Facilitates response and recovery activities in an efficient and effective way, which the Project will have to be in compliance with. The Project achieves a less than 5-minute total response time from LACoFD Station 80, conforming to the response time standards.	Section 3.16.2.3.2 Section 3.16.2.3.3 Section 3.16.5.3

Notes: LORS = laws, ordinances, regulations, and standards; CGC = California Government Code; CCR = California Code of Regulations; PRC = Public Resources Code; CPUC = California Public Utilities Commission; CBC = California Building Code; BESS = battery energy storage system; CFC = California Fire Code; LACoFD = Los Angeles County Fire Department.

3.16.5.1 Federal LORS

North American Electric Reliability Corporation Standard FAC-003, Transmission Vegetation Management

According to North American Electric Reliability Corporation Standard FAC-003, transmission vegetation management standards are applicable to all transmission lines operated as 200 kV and higher and to lower voltage lines designated by the Regional Reliability Organization as critical to the reliability of the region's electric system (NERC 2022). The elements and requirements of these standards apply to SCE's transmission line–related vegetation management activities in the Project area.

All electrical components, most notably overhead power lines, associated with the proposed Project (including the gen-tie line), will comply with the requirements of these LORS, most notably the vegetation management requirements.

3.16.5.2 State LORS

California Government Code

California Government Code Sections 51175 through 51189 provide guidance for classifying lands in California as fire hazard areas and requirements for management of property within those lands. CAL FIRE is responsible for classifying FHSZs based on statewide criteria and makes the information available for public review. Further, local agencies must designate, by ordinance, VHFHSZs within their jurisdiction based on the recommendations of CAL FIRE. Section 51182 sets forth requirements for maintaining property within fire hazard areas, such as defensible space, vegetative fuels management, building materials, and standards. Defensible space must consist of 100 feet of fuel modification on each side of a habitable structure but not beyond the property line unless findings conclude that the clearing is necessary to significantly reduce the risk of structure ignition in the event of a wildfire.

California Code of Regulations

Title 14, Natural Resources

CCR Title 14, Division 1.5, Chapter 7, Subchapter 3, Fire Hazard, also sets forth requirements for defensible space if the distances specified above cannot be met. For example, options that have similar practical effects include noncombustible block walls or fences, 5 feet of noncombustible material horizontally around the structure, installing hardscape landscaping or reducing exposed windows on the side of the structure with a less-than-30-foot setback, or additional structure hardening such as those required in the California Building Code (CBC), CCR Title 24, Part 2, Chapter 7A. CCR Title 14 Sections 1254 through 1256 establish requirements for vegetation clearance around electric poles and conductors in SRAs.

Title 24, California Building Code

Part 2 of CCR Title 24 contains the CBC. Chapter 7A of the CBC regulates building materials, systems, and/or assemblies used in the exterior design and construction of new buildings located within a WUI fire area. The CBC establishes minimum requirements to safeguard public health, safety, and general welfare. The code aims to ensure the safety, health, accessibility, and sustainability of buildings and their occupants. The code covers various aspects of building design, such as fire protection, structural integrity, energy efficiency, plumbing, electrical,

mechanical, and accessibility. The code also incorporates national model codes and standards, as well as California-specific amendments that address the state's unique conditions and needs.

The purpose of Chapter 7A is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any FHSZ within an SRA or a WUI fire area to resist the intrusion of flames or embers projected by a vegetation fire, and to contribute to a systematic reduction in conflagration losses. New buildings located in such areas must comply with the ignition-resistant construction standards outlined in CBC Chapter 7A.

Project construction will comply with the CBC through compliance with the Los Angeles County Code of Ordinances.

California Fire Code

Chapter 3 Section 322, Storage of Lithium-Ion and Lithium Metal Batteries

CFC Chapter 3 Section 322 describes the construction and storage requirements for facilities storing lithium batteries. The section also describes the required fire protection features for these facilities.

Chapter 5, Fire Service Features

CFC Chapter 5 describes the requirements for fire service features for buildings, structures, and premises. Chapter 5 includes fire apparatus access roads and fire department key box requirements.

Chapter 9, Fire Protection and Life Safety Systems

CFC Chapter 9 describes the requirements for active fire protection equipment systems to perform the functions of detecting a fire, alerting the occupants or fire department of a fire emergency, mass notification, gas detection, controlling smoke, and controlling or extinguishing the fire.

Chapter 33, Fire Safety During Construction and Demolition

CFC Chapter 33 describes the minimum safeguards for construction, alteration, and demolition operations to provide reasonable safety to life and property from fire.

Chapter 49, Requirements for Wildland-Urban Interface Areas

CFC Chapter 49 provides the minimum standards to reduce the likelihood of life and property loss due to a wildfire through the use of performance and prescriptive requirements for construction and development in SRAs and LRAs designated as a Moderate, High, or Very High FHSZ.

All Project components will be in compliance with the requirements of the CFC, including those pertaining to fire apparatus access and BESS design.

California Public Utilities Commission

General Order No. 131-D

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Project according to CPUC General Order (GO) 131-D, Section XIV.B.

General Order No. 95

GO 95 describes the overhead line design, construction, and maintenance requirements. GO 95 applies to all overhead electrical supply and communication facilities outside buildings.

General Order No. 166

GO 166 describes the standards to ensure that jurisdictional electric utilities are prepared for emergencies and disasters to minimize damage and inconvenience to the public that may occur due to electric system failures, major outages, or hazards posed by damage to electric facilities. GO 166 applies to all electric utilities subject to the jurisdiction of the CPUC concerning matters relating to electric service reliability and safety.

Decision 17-12-024

In response to devastating wildfires driven by strong Santa Ana winds, Rulemaking (R.) 08-11-005 was created to consider and adopt regulations to protect the public from potential fire hazards associated with overhead power line facilities and nearby aerial communication facilities. The fire safety regulations apply only to areas referred to as “high fire-threat areas” where there is a high risk for power line fire ignitions and spreading rapidly.

In 2015, R.08-11-005 was closed and rulemaking R.15-05-006 was started to complete the unfinished tasks in R.08-11-005. These tasks included creating and adopting a statewide fire-threat map that outlines the boundaries of a new HFTD where the previously adopted regulations will apply; figuring out the need for more fire-safety regulations in the HFTD; and revising GO 95 to include a definition and maps of the HFTD, as well as new fire-safety regulations. As part of R.15-05-006, focus was the development and adoption of a statewide fire-threat map and identification, evaluation, and adoption of fire-safety regulations in the HFTD. In 2017, Decision (D.) 17-12-024 was issued to adopt regulations to enhance fire-safety in the HFTD as well as the final CPUC Fire-Threat Map. The CPUC Fire-Threat Map describes the HFTD and consists of three (3) areas: Tier 1 High Hazard Zones, Tier 2 Elevation Risk, and Tier 3 Extreme Risk areas.

California Public Resources Code

California Public Resources Code Section 4290 requires minimum fire safety standards related to defensible space that are applicable to residential, commercial, and industrial building construction in SRA lands and lands classified and designated as VHFHSZs. These regulations include road standards for fire apparatus access, standards for signs identifying roads and buildings, fuel breaks and green belts, and minimum water supply requirements. It should be noted that these regulations do not supersede local regulations that equal or exceed minimum regulations required by the state.

Public Resources Code Section 4291 requires a reduction of fire hazards around buildings located adjacent to a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered in flammable material. It is required to maintain a minimum 100 feet of vegetation management around all buildings

and is the primary mechanism for conducting fire prevention activities on private property within CAL FIRE jurisdiction. Further, Public Resources Code Section 4291 requires the removal of dead or dying vegetative materials from the roof of a structure, and trees and shrubs must be trimmed from within 10 feet of the outlet of a chimney or stovepipe. Exemptions may apply for buildings with an exterior constructed entirely of nonflammable materials.

Public Resources Code Sections 4292 and 4293 describe the responsibilities of operators of electrical equipment, including distribution and transmission systems, to maintain the flammable vegetation around their equipment and the overhead wires to the following standards:

- Clear a fire break of not less than 10 feet in each direction from the outer circumference of a pole or tower that supports a switch, fuse, transformer, lightning arrester, line junction, or dead end or corner pole
- Maintain a clearance of the respective distances specified in this section in all directions between all vegetation and all conductors that are carrying electric current:
  - For any line operating at 2,400 or more volts but less than 72,000 volts: 4 feet
  - For any line operating at 72,000 or more volts but less than 110,000 volts: 6 feet
  - For any line operating at 110,000 or more volts: 10 feet

State Minimum Fire Safe Standards

The State Minimum Fire Safe Standards have been prepared and adopted for the purpose of establishing state minimum wildfire protection standards in conjunction with building, construction, and development in the SRAs and, after July 1, 2021, the VHFHSZs, as defined in California Government Code Section 51177(i). The future design and construction of structures, subdivisions, and developments in the SRA and, after July 1, 2021, the VHFHSZ shall provide for basic emergency access and perimeter wildfire protection measures. These standards shall provide for emergency access; signing and building numbering; private water supply reserves for emergency fire use; and vegetation modification, fuel breaks, greenbelts, and measures to preserve undeveloped ridgelines. Subchapter 2 specifies the minimums for such measures.

California Department of Forestry and Fire Protection

CAL FIRE is tasked with reducing wildfire-related impacts and enhancing California's resources. CAL FIRE responds to all types of emergencies including wildland fires and residential/commercial structure fires. In addition, CAL FIRE is responsible for the protection of approximately 31 million acres of private land within the state and, at the local level, is responsible for inspecting defensible space around private residences. CAL FIRE is responsible for enforcing State of California fire safety codes included in the CCR and California Public Resources Codes. Public Resources Code Section 4291 states generally that any person operating any structure located on brush-covered lands or land covered with flammable material is required to maintain defensible space around the structure. CCR Title 14 Section 1254 identifies the minimum clearance required around utility poles. In SRAs within the jurisdiction of CAL FIRE, the Fire Safety Inspection Program is an important tool for community outreach and enforcement of state fire codes.

CAL FIRE also inspects utility facilities and makes recommendations regarding improvements in facility design and infrastructure. Joint inspections of facilities by CAL FIRE and the utility owner are recommended by CAL FIRE so that each entity may assess the current state of the facility and then successfully implement fire prevention techniques and policies. Violations of state fire codes discovered during inspections are required to be brought into compliance

with the established codes. If a CAL FIRE investigation reveals that a wildfire occurred as a result of a violation of a law or negligence, the responsible party could face criminal and/or misdemeanor charges. In cases where a violation of a law or negligence has occurred, CAL FIRE has established the Civil Cost Recovery Program, which requires parties liable for wildfires to pay for wildfire-related damages.

Fire Hazard Severity Zone Mapping

As previously discussed, CAL FIRE's FRAP database provides data documenting areas of significant fire hazards throughout the state, based on fuel loading, slope, fire history, weather, and other relevant factors as directed by Public Resources Code Sections 4201 through 4204 and California Government Code Sections 51175 through 51189. FHSZs are ranked from Moderate to Very High and are categorized for fire protection within an FRA, SRA, or LRA under the jurisdiction of a federal agency, CAL FIRE, or local agency, respectively. As noted above and depicted in Figure 3.16-2, the Project site and surrounding area is located within a VHFHSZ.

3.16.5.3 Local LORS

The proposed Project will be subject to state and federal agency planning documents described above, as well as regional or local planning documents, such as the Los Angeles County General Plan and the Los Angeles County Code of Ordinances.

Los Angeles County General Plan

Chapter 12: Safety Element

The Los Angeles County General Plan describes the purpose of the Safety Element as follows (Los Angeles County Department of Regional Planning 2025):

> The purpose of the Safety Element is to reduce the potential risk of death, injuries, property damage, economic loss, and social dislocation resulting from natural and human-made hazards. The California Government Code requires the General Plan to address "the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction, and other seismic hazards…; flooding; and wildland and urban fires." The Safety Element addresses only limited aspects of human-made disasters, such as hazardous waste and materials management. In general, hazardous materials management is addressed in the Los Angeles County Integrated Waste Management Plan (California Code of Regulations (CCR) Section 18755.5).

Fire hazards are included as a public safety and service issue relevant to the County. The following goals and policies related to fire hazards may be applicable to the Project (Los Angeles County Department of Regional Planning 2025):

Goal S4. An effective regulatory system that prevents or minimizes personal injury, loss of life, and property damage due to fire hazards.

Policy S4.1. Prohibit new subdivisions in VHFHSZs unless: (1) the new subdivision is generally surrounded by existing or entitled development or is located in an existing approved specific plan or is within

the boundaries of a communities facility district adopted by the County prior to January 1, 2022, including any improvement areas and future annexation areas identified in the County resolution approving such district; (2) the County determines there is sufficient secondary egress; and (3) the County determines the adjoining major highways and street networks are sufficient for evacuation as well as safe access for emergency responders under a range of emergency scenarios, as determined by the County. Discourage new subdivisions in all other FHSZs.

Policy S4.2. New subdivisions shall provide adequate evacuation and emergency vehicle access to and from the subdivision on streets or street systems that are evaluated for their traffic access or flow limitations, including but not limited to weight or vertical clearance limitations, dead-end, one-way, or single lane conditions.

Policy S4.3. Ensure that biological and natural resources are protected during rebuilding after a wildfire event.

Policy S4.4. Reduce the risk of wildland fire hazards through meeting minimum State and local regulations for fire-resistant building materials, vegetation management, fuel modification, and other fire hazard reduction programs.

Policy S4.5. Encourage the use of climate-adapted plants that are compatible with the area's natural vegetative habitats.

Policy S4.6. Ensure that infrastructure requirements for new development meet minimum State and local regulations for ingress, egress, peak load water supply availability, anticipated water supply, and other standards within FHSZs.

Policy S4.7. Discourage building mid-slope, on ridgelines and on hilltops, and employ adequate setbacks on and below slopes to reduce risk from wildfires and post-fire, rainfall-induced landslides and debris flows.

Policy S4.8. Support the retrofitting of existing structures in FHSZs to meet current safety regulations, such as the building and fire code, to help reduce the risk of structural and human loss due to wildfire.

Policy S4.9. Adopt by reference the County of Los Angeles Fire Department Strategic Fire Plan, as amended.

Policy S4.10. Encourage the planting of native oaks in strategic locations and near existing oak woodlands, including those to be mapped in the Oak Woodlands Conservation Management Plan, to protect developments from wildfires, as well as to lessen fire risk associated with developments.

Policy S4.11. Support efforts to address unique pest, disease, exotic species and other forest health issues in open space areas to reduce fire hazards and support ecological integrity.

Policy S4.12. Support efforts to incorporate systematic fire protection improvements for open space, including the facilitation of safe fire suppression tactics, standards for adequate access for firefighting, fire mitigation planning with landowners and other stakeholders, and water sources for fire suppression.

Policy S4.13. Encourage the siting of major landscape features, including but not limited to large water bodies, productive orchards, and community open space at the periphery of new subdivisions to provide strategic firefighting advantage and function as lasting firebreaks and buffers against wildfires, and the maintenance of such features by respective property owners.

Policy S4.14. Encourage the strategic placement of structures in FHSZs that conserves fire suppression resources, increases safety for emergency fire access and evacuation, and provides a point of attack or defense from a wildfire.

Policy S4.15. Encourage rebuilds and additions to comply with fire mitigation guidelines.

Policy S4.16. Require local development standards to meet or exceed SRA Fire Safe Regulations, which include visible home and street addressing and signage and vegetation clearance maintenance on public and private roads; all requirements in the California Building Code and Fire Code; and Board of Forestry Fire Safe Regulations.

Policy S4.17. Coordinate with agencies, including the Fire Department and ACWM, to ensure that effective fire buffers are maintained through brush clearance and fuel modification around developments.

Policy S4.18. Require Fire Protection Plans for new residential subdivisions in FHSZs that minimize and mitigate potential loss from wildfire exposure, and reduce impact on the community's fire protection delivery system.

Policy S4.19. Ensure all water distributors providing water in unincorporated Los Angeles County identify, maintain, and ensure the long-term integrity of future water supply for fire suppression needs, and ensure that water supply infrastructure adequately supports existing and future development and redevelopment, and provides adequate water flow to combat structural and wildland fires, including during peak domestic demand periods.

Policy S4.20. Prohibit new and intensification of existing general assembly uses in VHFHSZs unless: (1) the use is located in an existing approved specific plan or (2) the County determines there is sufficient secondary egress and the County determines the adjoining major highways and street networks are sufficient for evacuation, as well as safe access for emergency responders under a range of emergency scenarios, as determined by the County. Discourage new general assembly uses in all other FHSZs.

The Safety Element provides general principles that the proposed Project will follow as well as policies that will impact the emergency services that will serve the proposed Project.

Los Angeles County Code of Ordinances

The Los Angeles County Code of Ordinances Title 32, Fire Code, adopts, with amendments, the 2022 CFC, Part 9 of CCR Title 24, including current and future errata and supplements as based off the 2021 International Fire Code. Los Angeles County also added Appendices B, C, and D of the 2022 CFC to their Fire Code.

The County Code contains pertinent local codes (Fire, Building, Electrical), that all proposed Project components will have to be in compliance with.

Los Angeles County All-Hazard Mitigation Plan

The Los Angeles County AHMP contains goals and objectives that are intended to reduce loss of life and property from natural disasters. During the planning process this plan used Federal Emergency Management Agency tools to determine the most likely possible threats would be earthquakes, flooding, landslides, tsunamis, and wildfires in urban interface zones. The AHMP identifies mitigation action items that aim to meet objectives and reduce the impacts of these hazards. The Los Angeles County AHMP is written on behalf of three (3) separate entities: the County, LACoFD, and the Los Angeles County Flood Control District (Los Angeles County 2020).

The AHMP identifies mitigation action items that aim to meet objectives and reduce the impacts of these hazards, that the Project will have to be in compliance with.

Emergency Operations Area Emergency Operations Plan

The OAEOP) provides an overview of the jurisdiction's approach to emergency operations. It identifies emergency response policies, describes the response and recovery organization, and assigns specific roles and responsibilities to County departments, agencies, and community partners. The OAEOP has the flexibility to be used for all emergencies and will facilitate response and recovery activities in an efficient and effective way. The OAEOP provides a description of the OAEOP's intended audience, the method of distribution, the approval process, and its applicability to other plans (Los Angeles County 2023b).

The Project achieves a less than 5-minute total response time from LACoFD Station 80, conforming to the response time standards.

3.16.6 Agencies and Agency Contacts

Applicable agency contacts for wildfire are shown in Table 3.16-4.

Table 3.16-4. Agency Contacts

Issue	Agency	Address	Contact
Emergency Response for Hazardous Materials Spills and Fires	Los Angeles County Fire Department, Health Hazardous Materials Division	5825 Rickenbacker Road Commerce, California 90040	Mario Tresierras, Division Chief 323.890.4045 Fire-HHMDCERS@fire.lacounty.gov
Fire Hazards	Los Angeles County Fire Department, Fire Prevention Division	5823 Rickenbacker Road Commerce, California 90040	Richard H. Stillwagon, Division Chief 323.890.4243 (no email available)

3.16.7 Permits and Permit Schedule

Documents that will be prepared regarding the installation, operation, and removal of the BESS facility/components include a commissioning plan, a commissioning report with results of initial acceptance testing, an operation and maintenance manual with inspection and testing records, and a decommissioning plan. The components, order/timeline, and recipients of these documents will occur consistent with the requirements of CFC

Section 1207.2, Commissioning, Decommissioning, Operation and Maintenance. Additionally, UL 9540A testing documentation will be provided to LACoFD officials once the BESS technology has been finalized.

3.16.8 References

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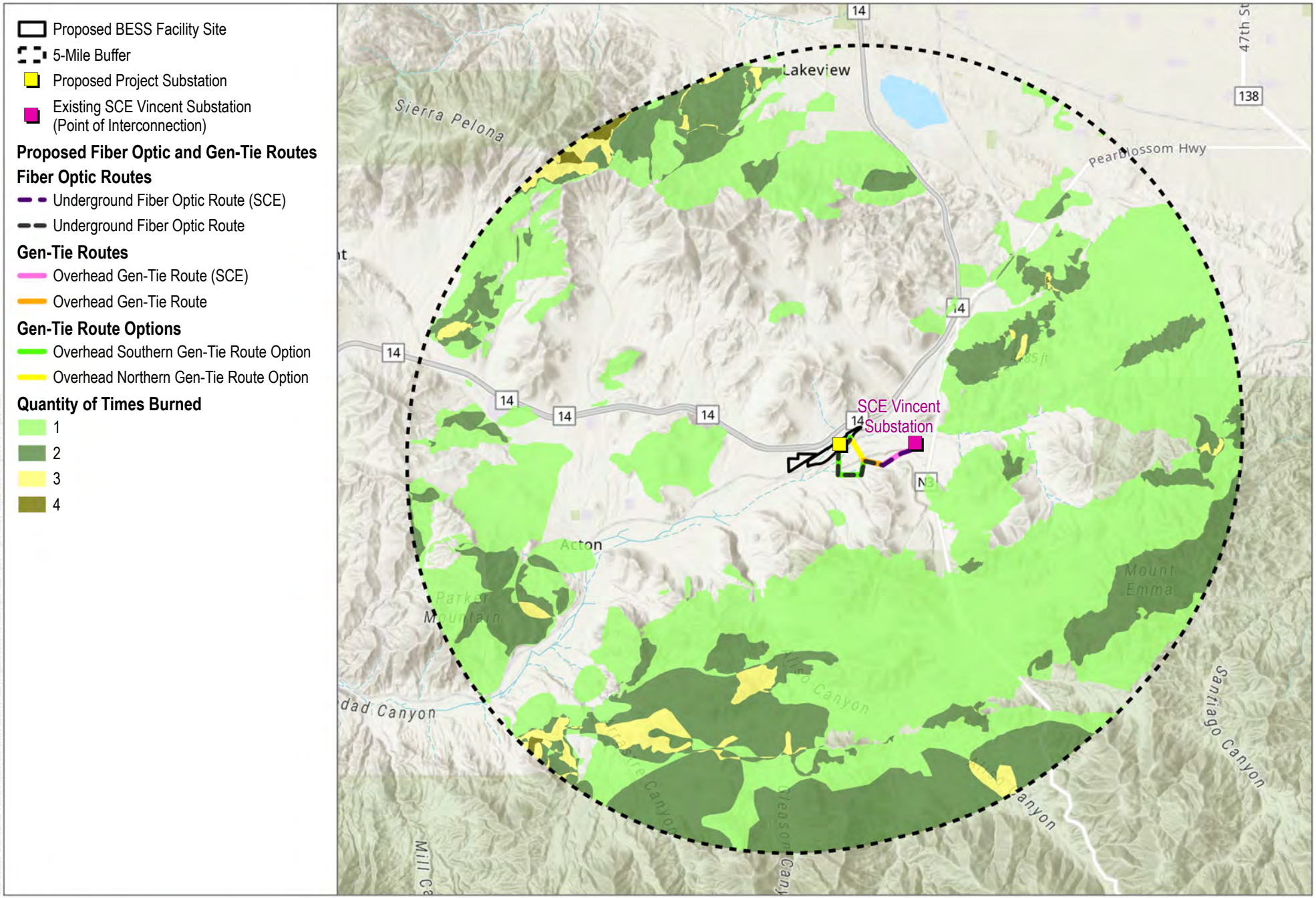

SOURCE: Esri 2025; CalFire 2024

DUDEK

0 1 2 Miles

FIGURE 3.16-1

Fire History

Prairie Song Reliability Project

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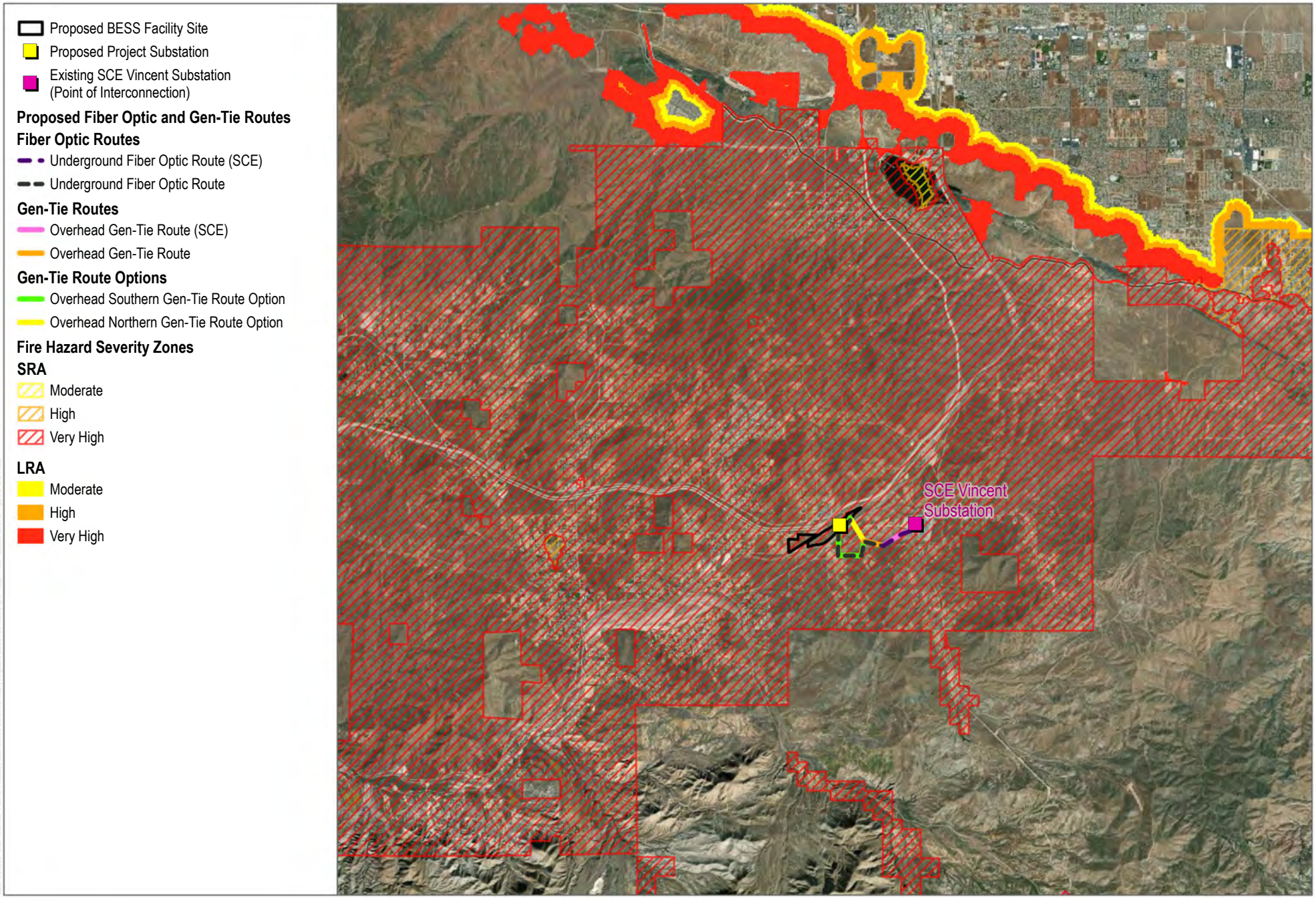

SOURCE: World Imagery; CalFire 2025

DUDEK

0 1 2 Miles

FIGURE 3.16-2

Fire Hazard Severity Zones

Prairie Song Reliability Project

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3.17 Worker Health and Safety

This subsection summarizes the worker health and safety issues that may be encountered during construction, operation, and decommissioning of the Prairie Song Reliability Project (Project). The Project will consist of an up to 1,150-megawatt (MW) 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.

Because of the subject matter, this subsection follows a slightly different format than other subsections in Chapter 3. Instead of a standard discussion of affected environment followed by the Project's environmental consequences and proposed mitigation measures for significant impacts, this subsection contains worker safety information, including the laws, ordinances, regulations, and standards (LORS), that apply to the proposed Project.

- Section 3.17.1 describes the environmental setting related to the proposed Project.
- Section 3.17.2 describes the health and safety programs in terms of analyses conducted to identify hazards and also the safety compliance and training programs that will be established on site.
- Section 3.17.3 discusses the applicable LORS.
- Section 3.17.4 lists the regulatory agencies involved and key agency contacts.
- Section 3.17.5 provides information regarding required permits and permitting schedules.

3.17.1 Environmental Setting

The Project site is in the Antelope Valley area of unincorporated Los Angeles County, California, south of State Route 14, approximately 3 miles northeast of the unincorporated community of Acton. The site consists of undeveloped lands, a residence, and disturbed dirt roads. Land uses in the immediate vicinity of the Project site 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 incorporated municipality to the Project site is the City of Palmdale, which is approximately 4 miles to the northeast.

Climate in the Project area is characterized as a dry-summer Mediterranean climate with hot summers and mild winters. Summers are typically sunny and dry, with temperatures reaching into the upper 80s to mid-90s degrees Fahrenheit during the day. Winters are fairly mild, with temperatures rarely dropping below freezing. Rainfall is minimal during the summer months, but increases in winter months.

The Phase I Environmental Site Assessments did not identify any recognized environmental conditions (RECs), conditional RECs, or historical RECs associated with the Project site (see Appendices 3.5A-1 and 3.5A-2). Although not identified as RECs, the Phase I Environmental Site Assessments identified evidence of unauthorized dumping along dirt access roads north of the railroad property, potential for contaminants in railway corridors, and potential for asbestos because some on-site structures were constructed as early as 1980. Conformance with applicable federal, state, and local ordinances related to the proper handling and disposal of potential hazardous material waste will be implemented during Project construction (e.g., CalRecycle, U.S. Environmental Protection Agency, Department of Toxic Substances Control). In addition, Antelope Valley Air Quality Management District requirements for asbestos surveys and notification prior to demolition, and implementation of Mitigation Measure (MM) HAZ-1 to

address potential contaminated soil associated with the adjacent railroad will apply. See Section 3.5, Hazardous Materials Handling, for additional details.

3.17.2 Impact Analysis

3.17.2.1 Impact Evaluation Criteria

This section addresses the California Energy Commission's requirement to evaluate worker health and safety per Appendix B of Title 20, California Code of Regulations, Section 1704.

3.17.2.2 Hazard Analysis

Workers could be potentially exposed to activities that pose potential safety hazards. A hazard analysis is included to evaluate the hazards and assess control measures. The analysis identifies the hazards anticipated during construction, operation, and decommissioning, and indicates what safety programs should be developed and implemented to avoid, mitigate, and appropriately manage those hazards. The hazard analysis for Project construction and decommissioning activities is provided in Table 3.17-1, and the hazard analysis prepared for Project operation is provided in Table 3.17-2. The types of hazards anticipated during construction, operation, and decommissioning are similar; thus, there is duplication in the tables.

Programs and plans described in this section set forth the methods that will be followed to achieve health and safety objectives. The programs or plans will be in written and electronic formats that will be kept at specific locations in the facility and readily available to staff and first responders. Each program or plan will contain job-specific training requirements that are translated into detailed training courses. These courses will be taught to construction and operation personnel, as needed.

Table 3.17-1. Construction Hazard Analysis

Activity	Hazard*	Control
Operating motor vehicles and heavy equipment	▪ Employee injury and property damage from collisions between people and equipment	▪ Motor Vehicle and Heavy Equipment Safety Program
Operating forklifts	▪ Same as heavy equipment	▪ Forklift Operation Program
Trenching and excavating	▪ Employee injury and property damage from the collapse of trenches and excavations or exposure to fumes or vapors that have collected in the trench/excavation	▪ Excavation/Trenching Program ▪ Confined Space Training
Working at elevated locations	▪ Falls from the same level and elevated areas	▪ Fall Prevention Program ▪ Scaffolding/Ladder Safety Program ▪ Articulating Boom Platforms Program ▪ Working at Heights
Using cranes	▪ Property damage from falling loads ▪ Employee injuries from falling loads ▪ Injuries and property damage from contact with crane	▪ Crane and Material Handling Program ▪ Critical Lift Studies, as necessary

Table 3.17-1. Construction Hazard Analysis

Activity	Hazard*	Control
		▪ Crane Operator Certification
Working with flammable and combustible liquids	▪ Fire/spills	▪ Fire Protection and Prevention Program ▪ Housekeeping and Material Handling and Storage Program ▪ Spill Prevention, Countermeasure, and Control Plan (Appendix 3.5C)
Hot work (including cutting and welding)	▪ Employee injury and property damage from fire ▪ Exposure to fumes during cutting and welding ▪ Eye exposure to ultraviolet and infrared radiation during cutting and welding	▪ Hot Work Safety Program ▪ Respiratory Protection Program ▪ Employee Exposure Monitoring Program ▪ PPE Program ▪ Fire Protection and Prevention Program
Inspecting and maintaining temporary systems during construction activities	▪ Injury and property damage from contact with hazardous energy sources (e.g., electrical, thermal, and mechanical)	▪ Electrical Safety Program ▪ LO/TO Program
Working on electrical equipment and systems	▪ Contact with live electricity and energized equipment	▪ Electrical Safety Program ▪ LO/TO Program ▪ PPE Program
Exposure to hazardous waste	▪ Working with or having the potential to be exposed to contaminated soil, groundwater, or debris during construction	▪ Hazardous Waste Program
Entering confined spaces	▪ Injury from physical and chemical hazards	▪ Permit-required ▪ Confined-Space Entry Program ▪ Air monitoring requirements ▪ LO/TO Program ▪ PPE Program
General construction activities	▪ Injury from hand and portable power tools	▪ Hand and Portable Power Tool Safety Program ▪ PPE Program ▪ Powder-Actuated Tools Program
	▪ Injury and/or property damage from inadequate walking and working surfaces	▪ Housekeeping and Material Handling and Storage Program
	▪ Exposure to occupational noise	▪ Hearing Conservation Program ▪ PPE Program
	▪ Injury from improper lifting and carrying materials and equipment	▪ Back Injury Prevention Program
	▪ Injury to head, eye/face, hands, body, feet, and skin	▪ PPE Program
	▪ Exposure to hazardous gases, vapors, dusts, and fumes, including wildfire smoke	▪ Hazard Communication Program ▪ Respiratory Protection Program ▪ PPE Program

Table 3.17-1. Construction Hazard Analysis

Activity	Hazard*	Control
		▪ Air Monitoring Program
	▪ Exposure to various hazards ▪ Reporting of hazardous conditions during construction	▪ Injury and Illness Prevention Program
	▪ Heat and cold stress (i.e., heat illness)	▪ Heat and Cold Stress Monitoring Control Program, including a Heat Illness Prevention Plan (outdoor/indoor)
Working outdoors and in remote areas	▪ Employees working alone outdoors could suffer an injury ▪ Lightning strike during a storm	▪ Working Alone/Person-Down Plan ▪ Lightning Procedure

Notes: LO/TO = lock-out/tag-out; PPE = personal protective equipment

* The hazards and hazard controls provided are generic to construction activities. During various phases of construction, additional hazard analysis will be performed to evaluate the relevant hazards more specifically and to develop appropriate controls.

Table 3.17-2. Operation Hazard Analysis

Activity	Hazard*	Control
Operating motor vehicles and heavy equipment	▪ Injury and property damage from collisions between people and equipment	▪ Motor Vehicle and Heavy Equipment Safety Program
Operating forklifts	▪ Same as heavy equipment	▪ Forklift Operation Program
Trenching and excavating	▪ Injury and property damage from the collapse of trenches and excavations	▪ Excavation/Trenching Program ▪ Confined Space Training
Working at elevated locations	▪ Falls from the same level and elevated areas	▪ Fall Prevention Program ▪ Scaffolding/Ladder Safety Program ▪ Working at Heights
Using cranes and derricks	▪ Property damage from falling loads ▪ Injuries from falling loads ▪ Injuries and property damage from contact with crane or derrick	▪ Crane and Material Handling Program ▪ Critical Lift Studies, as necessary ▪ Crane Operator Certification
Working with flammable and combustible liquids	▪ Fire/spills	▪ Fire Protection and Prevention Program ▪ Spill Prevention, Countermeasure, and Control Plan (Appendix 3.5C)
Working with hazardous materials	▪ Injury from chemical burns, inhalation, digestion, and absorption	▪ Safe Use Handling Procedures ▪ Job-Specific Training ▪ PPE Program ▪ Spill Response Procedures, including implementation of a Spill Prevention, Countermeasure, and Control Plan (Appendix 3.5C) ▪ Emergency Response Program

Table 3.17-2. Operation Hazard Analysis

Activity	Hazard*	Control
Exposure to hazardous waste	▪ Personnel who are working with or have the potential to be exposed to contaminated soil, groundwater, or debris during operation	▪ Hazardous Waste Program
Hot work (including cutting and welding)	▪ Injury and property damage from fire ▪ Exposure to fumes during cutting and welding ▪ Eye exposure to ultraviolet and infrared radiation during cutting and welding	▪ Hot Work Safety Program ▪ Respiratory Protection Program ▪ Employee Exposure Monitoring Program ▪ PPE Program ▪ Fire Protection and Prevention Program ▪ Hexavalent Chromium Program
Troubleshooting and maintaining systems and general operational activities	▪ Injury and property damage from contact with hazardous energy sources (e.g., electrical, thermal, and mechanical)	▪ Electrical Safety Program ▪ LO/TO Program
Working on electrical equipment and systems	▪ Contact with live electricity	▪ Electrical Safety Program ▪ PPE Program
Entering confined spaces	▪ Injury from physical and chemical hazards	▪ Confined-Space Program ▪ LO/TO Program ▪ PPE Program
General operation activities	▪ Injury from hand and portable power tools	▪ Hand and Portable Power Tool Safety Program ▪ PPE Program
	▪ Injury and property damage from inadequate walking and work surfaces	▪ Housekeeping and Material Handling and Storage Program
	▪ Overexposure to occupational noise	▪ Hearing Conservation Program ▪ PPE Program
	▪ Injury from improper lifting and carrying of materials and equipment	▪ Back Injury Prevention Program
	▪ Injury and property damage from unsafe driving	▪ Safe Driving Program
	▪ Exposure to hazardous gases, vapors, dusts, and fumes, including wildfire smoke	▪ Hazard Communication Program ▪ Respiratory Protection Program ▪ PPE Program ▪ Employee Exposure Monitoring Program
	▪ Reporting and repairing hazardous conditions	▪ Injury and Illness Prevention Program
	▪ Heat and cold stress (e.g., heat illness)	▪ Heat and Cold Stress Monitoring and Control Program, including Heat Illness Prevention Plan (outdoor/indoor)
	▪ Ergonomic injuries	▪ Ergonomic Awareness Program
Working outdoors	▪ Employees working alone outdoors could suffer an injury	▪ Working Alone/Person-Down Plan

Table 3.17-2. Operation Hazard Analysis

Activity	Hazard*	Control
	▪ Lightning strikes during a storm	▪ Lightning Procedure ▪ Heat Stress Training and Management
Biological hazards	▪ Wildlife hazards	▪ Emergency Response Plan ▪ Working Alone/Person-Down Plan ▪ Pest Management Protocol

Notes: LO/TO = lock-out/tag-out; PPE = personal protective equipment

* The hazards and hazard controls provided are generic to operations. During various phases of operation additional hazard analysis will be performed to evaluate the relevant hazards more specifically and to develop appropriate controls.

3.17.2.3 Training and Safety Programs

To protect the safety and health of workers during construction, operation, and decommissioning activities associated with the Project, health and safety programs designed to mitigate hazards and comply with applicable regulations will be implemented. Periodic audits will be performed by qualified individuals to determine whether proper work practices are being used to mitigate hazardous conditions and to evaluate regulatory compliance. The following subsections contain information on the anticipated content of the health and safety programs.

3.17.2.3.1 Construction and Decommissioning Health and Safety Program

Safety programs will be developed and implemented during construction and decommissioning activities. These programs and their major components are outlined below.

Injury and Illness Prevention Program

- Philosophy and safety commitment
- Safety leadership and responsibilities
- Accountability
- Employee communication
- Planning “job hazard analysis and pre-task”
- Compliance with work rules and safe work practices
- Measuring compliance and effectiveness of prevention methods, and inspections/audits
- Communicating about performance and implementing necessary improvements
- Training and other communication requirements

Fire Protection and Prevention Program

- General requirements
- Housekeeping and proper material storage
- Employee alarm/communication system
- Portable fire extinguishers
- Fixed firefighting equipment

- Fire control and containment
- Flammable and combustible liquid storage
- Dispensing and disposing of flammable liquids
- Service and refueling areas
- Training

Personal Protective Equipment Program

- Personal protective devices
- Hazard analysis
- Training
- Head protection
- Eye/face protection
- Body protection
- Hand protection
- Foot protection
- Skin protection
- Fall protection
- Electrical arc flash protection
- Respiratory protection
- Hearing protection

First Aid, CPR, and Automated External Defibrillator

- General requirements
- Written program
- Training
- Maintenance

Emergency Response Action Program/Plan

- Emergency procedures for the protection of personnel, equipment, the environment, and materials:
  - Fire and emergency reporting procedures
  - Response actions for accidents involving personnel and/or property
  - Site assembly and emergency evacuation route procedures
- Reporting and notification procedures for emergencies and contacts, including off-site and local authorities:
  - Alarm and communication systems
- Spill response, prevention, and control action plan (refer to Section 3.5, Hazardous Materials Handling, and Appendix 3.5C (Draft Spill Prevention Control and Countermeasure Plan)
  - Emergency response equipment
  - Emergency personnel (response team) responsibilities and notification roster

- Training requirements

Construction Safety Programs

Motor Vehicle and Heavy Equipment Safety Program

- Operation and maintenance of vehicles
- Inspection
- Personal protective equipment (PPE)
- Training

Forklift Operation Program

- Trained and certified operators
- Fueling operations
- Safe operating parameters
- Training

Excavation/Trenching Program

- Shoring, sloping, and benching requirements
- California Occupational Safety and Health Administration (Cal/OSHA) permit requirements
- Inspection
- Access and egress

Fall Protection Program

- Evaluation of fall hazards
- Protective devices
- Training

Scaffolding/Ladder Safety Program

- Inspection of equipment
- Load ratings
- Safe operating parameters
- Operator training

Crane and Material Handling Program

- Certified and licensed operators
- Inspection of equipment
- Load ratings

- Safe operating parameters
- Training

Hazardous Waste Program

- Evaluation of hazards
- Training
- Air monitoring
- Medical surveillance
- Health and Safety Plan preparation
- Documentation procedures

Hot Work Safety Program

- Welding and cutting procedures
- Acetylene and fuel gas safety procedures
- Fire watch
- Hot work permit
- PPE
- Training
- Documentation procedures

Employee Exposure Monitoring Program

- Exposure evaluation
- Monitoring requirements
- Reporting results
- Medical surveillance
- Training
- Documentation procedures
- Protection from wildfire smoke
    - Monitoring forecast and current air quality index for fine particulate matter (PM2.5) of 151 or greater when there is exposure to wildfire smoke
    - Communication
    - Training
    - Controls (e.g., providing enclosed buildings, structures, or vehicles where the air is filtered; changing work schedules/reducing work intensity; respiratory protective equipment)

Electrical Safety Program

- Grounding procedures
- Overhead and underground utilities

- Utility clearance
- Assured Grounding Program/Ground Fault Circuit Interrupters
- Training
- Documentation procedures

Lock-Out/Tag-Out (LO/TO) Program

- Allocation of devices (e.g., locks, tags, and adaptors)
- Lock-out/tag-out (LO/TO) sequencing
- Types/magnitudes of energy
- Types/locations of machines
- Verification
- Training
- Documentation procedures

Permit-Required Confined-Space Entry Program

- Air monitoring and ventilation requirements
- Rescue procedures
- LO/TO and blocking, blinding, and blanking requirements
- Permit completion
- Training
- Documentation procedures

Hand and Portable Power Tool Safety Program

- Guarding and proper operation
- Training

Powder-Actuated Tool Safety Program

- Operator qualifications
- Inspection requirements
- Repair requirements
- Storage requirements
- Training

Housekeeping and Material Handling and Storage Program

- Storage requirements
- Walkways and work surfaces
- Equipment handling requirements
- Training

Hearing Conservation Program

- Identifying high-noise environments
- Exposure monitoring
- Medical surveillance requirements
- Hearing-protective devices
- Training

Back Injury Prevention Program

- Proper lifting and material handling procedures
- Training

Hazard Communication Program

- Labeling requirements
- Storage and handling
- Safety data sheets
- Chemical inventory
- Training
- Documentation procedures

Respiratory Protection Program

- Selection and use
- Storage
- Fit testing
- Medical requirements
- Inspection and repair
- Training
- Documentation procedures

Heat and Cold Stress Monitoring and Control Program, including Heat Illness Prevention Plan (Outdoor/Indoor)

- Prevention and control (e.g., clean drinking water, access to shade or cool down areas, cool down periods)
- High-heat procedures
- Monitoring (i.e., measure temperatures and heat index and maintain records)
- Emergency response procedures
- Acclimatization for new workers during a 14-day period and all workers during a heat wave
- Training

- Establish, implement, and maintain a written Outdoor Heat Illness Prevention Plan that includes procedures for providing drinking water, shade, preventative rest periods, close observation during acclimatization, high-heat procedures, training, and prompt emergency response
- Establish, implement, and maintain a written Indoor Heat Illness Prevention Plan that includes procedures for providing drinking water, cool-down areas, rest periods, close observation during acclimatization, assessment and measurement of heat, training, prompt emergency response, and feasible control measures

3.17.2.3.2 Operations Health and Safety Program

Upon completion of construction and commencement of operations, the construction Health and Safety Plan will transition into an operation-oriented program reflecting the hazards and controls during operation. The following outline sets forth the topics that will be included in the Operations Health and Safety Program.

Injury and Illness Prevention Program

- Personnel with the responsibility and authority to implement the program
- Safety and health policy
- Work rules and safe work practices
- System for ensuring that employees comply with safe work practices
- Employee communications
- Identification and evaluation of workplace hazards
- Methods and/or procedures for correcting unsafe or unhealthy conditions, work practices, and work procedures in a timely manner based on the severity of the hazards
- Specific safety procedures (see Operations Health and Safety Program, below)

First Aid, CPR, and Automated External Defibrillator

- General requirements
- Written program
- Training
- Maintenance
- Documentation

Fire Protection and Prevention Program

- General requirements
- Fire hazard inventory, including ignition sources and mitigation
- Housekeeping and proper materials storage
- Employee alarm/communication system
- Portable fire extinguishers
- Fixed firefighting equipment
- Fire control

- Flammable and combustible liquid storage
- Use of flammable and combustible liquids
- Dispensing and disposal of liquids
- Training
- Personnel to contact for information on program contents

Emergency Response Action Program/Plan

- Emergency escape procedures and emergency escape route assignments
- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate
- Procedures to account for all employees after emergency evacuation has been completed
- Rescue and medical duties for those employees performing them
- Spill response, prevention, and control action plan (refer to Section 3.5, Hazardous Materials Handling, and Appendix 3.5C, Draft Spill Prevention Control and Countermeasure Plan)
- Fire and emergency reporting procedures
- Alarm and communication system
- Personnel to contact for information on plan contents
- Training requirements

Personal Protective Equipment Program

- Hazard analysis and prescription of PPE
- Personal protective devices
- Head protection
- Eye and face protection
- Body protection
- Hand protection
- Foot protection
- Skin protection
- Sanitation
- Safety belts and lifelines for fall protection
- Protection for electrical shock
- Medical services and first aid/blood-borne pathogens
- Respiratory protective equipment
- Hearing protection
- Life safety
- Training

Operations Health and Safety Program

Motor Vehicle and Heavy Equipment Safety Program

- Operation and maintenance of vehicles
- Inspections
- PPE
- Training

Forklift Operation Program

- Trained and certified operators
- Fueling operations
- Safe operating parameters
- Training

Excavation/Trenching Program

- Shoring, sloping, and benching requirements
- Cal/OSHA permit requirements
- Inspection
- Air monitoring
- Access and egress
- Documentation procedures

Fall Protection Program

- Evaluation of fall hazards
- Protection devices
- Training

Scaffolding/Ladder Safety Program

- Construction and inspection of equipment
- Proper use
- Training

Articulating Boom Platforms Program

- Inspecting equipment
- Load ratings
- Safe operating parameters
- Operator training

Hot Work Safety Program

- Welding and cutting procedures
- Acetylene and fuel gas safety
- Fire Watch
- Hot work permit
- PPE
- Training
- Documentation procedures

Workplace Ergonomics Program

- Identification of personnel at risk
- Evaluation of personnel
- Workplace and job activity modifications
- Training
- Documentation procedures

Employee Exposure Monitoring Program

- Exposure evaluation
- Monitoring requirements
- Reporting results
- Medical surveillance
- Training
- Electrical Safety Program
- Grounding procedure
- Overhead and underground utilities
- Utility clearance
- Training
- High-voltage switching
- Documentation procedures
- Protection from wildfire smoke
    - Monitoring forecast and current air quality index for fine particulate matter (PM2.5) of 151 or greater when there is exposure to wildfire smoke
    - Communication
    - Training
    - Controls (e.g., providing enclosed buildings, structures, or vehicles where the air is filtered; changing work schedules/reducing work intensity; respiratory protective equipment)

LO/TO Program

- Allocation of LO/TO devices (e.g., locks, tags, and adaptors)
- Machine-specific LO/TO procedures
- Steps for verification of isolation
- Training (Affected and Authorized and Interaction with Energized Electrics)
- Annual program review

Permit-Required Confined-Space Entry Program

- Air monitoring and ventilation requirements
- Rescue procedures
- LO/TO and blocking, blinding, and blanking requirements
- Permit completion
- Training
- Documentation procedures

Hand and Portable Power Tool Safety Program

- Guarding and proper operation
- Training

Housekeeping and Material Handling and Storage Program

- Storage requirements
- Walkways and work surfaces
- Equipment handling requirements
- Training
- Documentation procedures
- Hazardous material reporting and documentation

Hearing Conservation Program

- Identifying high-noise environments
- Exposure monitoring
- Medical surveillance requirements
- Hearing-protective devices
- Training
- Documentation procedures

Back Injury Prevention Program

- Proper lifting and material handling procedures
- Training

Hazard Communication Program

- Labeling requirements
- Storage and handling
- Safety data sheets
- Chemical inventory
- Training
- Documentation procedures

Respiratory Protection Program

- Selection and use
- Storage
- Fit testing
- Medical requirements
- Inspection and repair
- Training
- Documentation procedures

Heat and Cold Stress Monitoring and Control Program, including Heat Illness Prevention Plan (Outdoor/Indoor)

- Prevention and control (e.g., clean drinking water, access to shade or cool down areas, cool down periods)
- High-heat procedures
- Monitoring (i.e., measure temperatures and heat index and maintain records)
- Emergency response procedures
- Acclimatization for new workers during a 14-day period, and all workers during a heat wave
- Training
- Establish, implement, and maintain a written Outdoor Heat Illness Prevention Plan that includes procedures for providing drinking water, shade, rest periods, close observation during acclimatization, high-heat procedures, training, and prompt emergency response
- Establish, implement, and maintain a written Indoor Heat Illness Prevention Plan that includes procedures for providing drinking water, cool-down areas, rest periods, close observation during acclimatization, assessment and measurement of heat, training, prompt emergency response, and feasible control measures

Safe Driving Program

- Inspection and maintenance of vehicles
- Training

3.17.2.3.3 Safety Training

To ensure that employees recognize and understand how to protect themselves from potential hazards, comprehensive training programs for construction and operation will be implemented, as indicated in Tables 3.17-3 and 3.17-4. Each of the safety procedures developed to control and mitigate potential site hazards will require some form of training. Training will be delivered in a variety of ways depending on the requirements of Cal/OSHA standards, the complexity of the topic, the characteristics of the workforce, and the degree of risk associated with each of the identified hazards.

Tables 3.17-3 and 3.17-4 summarize the safety training programs that will be provided to construction and operations personnel, respectively.

Table 3.17-3. Construction Training Program

Training Course	Target Employees
Injury and Illness Prevention Training	All
Emergency Response Action Program/Plan	All
Personal Protective Equipment Training	All
Motor Vehicle and Heavy Equipment Safety Training	Employees working on, near, or with heavy equipment or vehicles
Forklift Operation Training	Employees operating forklifts
Excavation/Trenching Safety Training	Employees involved with trenching or excavating
Fall Protection Training	Employees working at heights greater than 6 feet required to use fall protection
Scaffolding/Ladder Safety Training	Employees required to erect or use scaffolding
Crane Safety Training	Employees supervising or performing crane operations
Fire Protection and Prevention Training	Employees responsible for handling and storing flammable or combustible liquids or gases
Hazard Communication Training	Employees handling or working with hazardous materials
Hazardous Waste	Employees handling or excavating hazardous waste
Hot Work Safety Training	Employees performing hot work
Electrical Safety Training	Employees performing lock-out/tag-out (LO/TO) or working on systems that require LO/TO activities
	Employees required to work on electrical systems and equipment, or use electrical equipment and cords
Permit-Required Confined-Space Entry Training	Employees required to supervise or perform confined-space entry activities
Hand and Portable Power Tool Safety Training	Employees who will be operating hand and portable power tools
Powder-Actuated Tool Safety Training	Employees who will be operating powder-actuated tools
Heat Stress and Cold Stress Safety Training	Employees who will be exposed to temperature extremes
Hearing Conservation Training	All

Table 3.17-3. Construction Training Program

Training Course	Target Employees
Back Injury Prevention Training	All
Safe Driving Training	Employees supervising or driving motor vehicles
Respiratory Protection Training	All employees required to wear respiratory protection
Fire Protection and Prevention Training	All
First Aid, CPR, and Automated External Defibrillator	All
Worker Exposure Awareness Training	All
Worker Environmental Awareness Training	All

Table 3.17-4. Operations Training Program

Training Course	Target Employees
Injury and Illness Prevention Training	All
Emergency Action Plan	All
Personal Protective Equipment Training	All
Excavation/Trenching Safety training	Employees involved with trenching or excavating
Scaffolding/Ladder Safety Training	Employees required to erect or use scaffolding
Fall Protection Training	Employees required to use fall protection
Forklift Operator Training	Employees operating forklifts
Crane Safety Training	Employees supervising or performing crane operations
Workplace Ergonomics	Employees performing repetitive activities
Fire Protection and Prevention Training	Employees responsible for handling and storing batteries or flammable or combustible liquids or gasses
Hot Work Safety Training	Employees performing hot work
Electrical Safety Training	Employees performing lock-out/tag-out or required to work on electrical systems and equipment
Permit-Required Confined-Space Entry	Employees required to supervise or perform confined-space entry
Hand and Portable Power Tool Safety Training	Employees operating hand and portable power tools
Heat Stress and Cold Stress Safety Training	Employees exposed to temperature extremes
Hearing Conservation Training	All
Back Injury Prevention Training	All
Safe Driving Training	Employees supervising or driving motor vehicles
Hazard Communication Training	Employees handling or working around hazardous materials
Respiratory Protection Program	All employees required to wear respiratory protection
Fire Protection and Prevention Training	All
First Aid, CPR, and Automated External Defibrillator	All
Worker Exposure Awareness Training	All
Worker Environmental Awareness Training	All

3.17.2.4 Fire Protection

Fire protection at the site will involve facilities designed in compliance with the California Fire Code. The BESS will consist of National Fire Protection Association (NFPA) 855 Standard compliance and UL certified systems. These systems will include built-in failsafe and cooling systems designed to prevent thermal runaway and engineered design to limit the spread of fire. Each BESS enclosure will be NFPA 855, NFPA 68, and NFPA 69 compliant. Each BESS enclosure will be equipped with an automatic fire alarm and linkage control system, an explosion relief system, a combustible gas detection and alarm system, and an exhaust system. If any abnormality is detected, the battery system controller will connect to a local controller via ethernet for alarm signaling, control of the battery container shutdown, and control of the system for corresponding logic control. Fire hydrants will be located throughout the site and will be served by an on-site water tank and pump house (Appendix 2A, Site Plan, PSR-BE-201 Fire Safety and Water Circulation Plan). Traditional water fire suppression will be used to prevent the spread of fire to surrounding equipment.

Based on an evaluation of the proposed Project and the fire environment at the Project site, the following elements will be incorporated into the Project to address fire protection:

- Project to be compliant with 2022 California Fire Code, 1206, Electrical Energy Storage Systems.
- Compliance with Los Angeles County Fire Department Alternative Materials and Methods Review requirements and approval (initial correspondence from Los Angeles County Fire Department regarding the Alternative Materials and Methods Review is included as Appendix 3.17F).
- Minimum 8-foot-tall block wall surrounding the BESS facility.
- 20-foot fuel modification zone of gravel or similar surface.
- 10-foot fuel modification zone for vegetation maintenance around outside perimeter of fence.
- Maintenance of fuel modification zones twice-yearly or more as needed.
- Hydrants spaced approximately 300 feet apart throughout the BESS facility.
- Two 40,000-gallon fire water tanks on site. The fire water tanks will be NFPA 22 compliant and connected to fire hydrants throughout the site via a dry, underground, NFPA 24 compliant private fire service main. The size of the outlets on the fire hydrants will be coordinated with the Los Angeles County Fire Department.
- Multiple access (five) driveways into the BESS facility per County of Los Angeles standards; access to the BESS facility will be provided via Knox boxes at each gate or other means as coordinated with first responders.
- Internal access roads per County of Los Angeles standards.
- Each section of the BESS field will have primary and secondary access points to allow first responders safe access to the area regardless of the location of the event.

A representative fire code analysis was provided to ensure compliance of the fire water storage and flow rate amounts with local fire requirements (see Appendix 3.17A). The representative fire code analysis determined that a 5,497-gallon water capacity will be required to respond to a transformer, vehicle, or control house enclosure fire. However, two 40,000-gallon water tanks are proposed as part of the Project. The 40,000-gallon water supply in each tank will provide an initial water supply for up to 5 hours for cooling exposures, controlling smoke, or extinguishing small vegetation fires. During these initial 5 hours, a shuttle service can be set up by the fire service to provide additional water to the site if it is required.

In addition, a Hazard Mitigation Analysis will be prepared and implemented during Project operations. As required by NFPA 855, the Hazard Mitigation Analysis will be prepared in compliance with UL 9540A and include consideration of potential thermal runaway fault conditions occurring within a single battery storage rack, cell module, or cell array (i.e., cell level, module level, unit level, and installation level). The analysis will include mitigation measures to prevent flammable gases released during a fire, battery overcharging, and other abnormal operating conditions within the BESS from creating an explosion hazard that could injure workers or emergency first responders.

An Emergency Response Plan, consistent with Senate Bill 38, will also be prepared in coordination with local public safety agencies and implemented during Project operations. Outlines of the Hazard Mitigation Analysis and Emergency Response Plan that will be prepared are included as part of this application (Appendix 3.17B and Appendix 3.17C).

A representative Community Risk Assessment showing the release and dissipation of materials during a thermal event will be prepared and submitted to the Los Angeles County Fire Department. The representative Community Risk Assessment will be used to inform the Los Angeles County Fire Department of required safety precautions and PPE necessary at various distances and times during and from a thermal event. The representative Community Risk Assessment is included in Appendix 3.17D of this application. The representative Community Risk Assessment plume analysis was performed using the Process Hazard Analysis Software Tools (PHAST) consequence modeling to model pre-combustion gas dispersion and their associated consequences based on the gas composition and release dynamics described in the UL 9540A cell/module/unit level tests. UL 9540A test results are provided in Appendix 3.17E. The report considered all potential release scenarios and consequence extents for pre-combustion battery vent gas release scenarios. Scenarios for pre-combustion releases included the five-cell UL 9540A module level test-based release, and hypothetical scenarios for a full-volume module release, a full-volume rack of eight modules each, and a full-volume release of the entire 48-module enclosure. Analysis of results for all pre-combustion battery vent gas release scenarios show that there are no significant hazards that extend significantly beyond the nearest property boundary for both the flammable and toxic portions of the cloud. For additional details, please refer to Appendix 3.17D.

The Los Angeles County Fire Department will provide an initial response in the event of a fire or emergency spill. The two closest fire stations are Station 80 at 1533 W. Sierra Highway, Acton, CA 93510, and Station 131 at 2629 East Avenue, South Palmdale, CA 93550. Station 80 is approximately 0.2 miles north of the BESS facility and Station 131 is approximately 6.0 miles northeast of the BESS facility.

3.17.2.5 Water Quality

3.17.2.5.1 Construction and Decommissioning

During construction and decommissioning, water will be required for common construction-related purposes, including dust suppression, soil compaction, and grading. A sanitary water supply will not be required during construction or decommissioning because restroom facilities will be portable units, serviced by licensed providers. Drinking water will be provided via portable water coolers. Construction and decommissioning water is anticipated to be purchased from the Palmdale Water District and trucked to the Project site.

3.17.2.5.2 Operations

During operations, an existing groundwater well will provide water for washroom and sanitary facilities associated with the on-site O&M facility. Water quality testing will be conducted prior to occupancy. Drinking water will be provided via portable water coolers.

3.17.3 Laws, Ordinances, Regulations, and Standards

Construction, operation, and decommissioning of the Project will be conducted in accordance with all applicable LORS. Table 3.17-5 summarizes the federal, state, and local LORS relating to worker health and safety. Table 3.17-5 also provides a summary of the applicable national consensus standards.

Table 3.17-5. Laws, Ordinances, Regulations, and Standards

LORS	Requirements/ Applicability	Administering Agency
Federal		
Title 29 Code of Federal Regulations Part 1910	Contains the minimum occupational safety and health standards for general industry in the United States.	OSHA
Title 29 Code of Federal Regulations Part 1926	Contains the minimum occupational safety and health standards for construction industry in the United States.	OSHA
State*		
California Occupational Safety and Health Act, 1970 ▪ Title 8 California Code of Regulations Section 3395 Heat Illness Prevention (outdoors) ▪ Title 8 California Code of Regulations Section 3396 Heat Illness Prevention (indoors) ▪ Title 8 California Code of Regulations Section 5141.1 Protection from Wildfire Smoke	Establishes minimum safety and health standards for construction and general industry operations in California. ▪ Cal/OSHA's Heat Illness Prevention for Outdoor Places of Employment regulation applies to all outdoor places of employment, such as those in the agriculture, construction, and landscaping industries. For outdoor workplaces, employers must take steps to protect workers from heat illness. Some of the requirements include providing water, shade, rest, and training. The Project will comply with the regulation and prepare and implement a Heat Illness Prevention Plan. ▪ Cal/OSHA's Heat Illness Prevention in Indoor Places of Employment regulation applies to most indoor workplaces, such as restaurants, warehouses, and manufacturing facilities, where temperatures can get high. For indoor workplaces where the temperature reaches 82°F, employers must take steps to protect workers from heat illness. Some of the requirements include providing water, rest, cool-down areas, methods for cooling down the work area under certain conditions, and training. The Project will comply with the regulation and prepare and implement a Heat Illness Prevention Plan.	Cal/OSHA

Table 3.17-5. Laws, Ordinances, Regulations, and Standards

LORS	Requirements/ Applicability	Administering Agency
	▪ Section 5141.1 requires employers to determine employee exposure to fine particulate matter ($PM_{2.5}$) for worksites at the start of each shift and periodically thereafter as needed. Employers must implement measures and controls to protect workers when the current Air Quality Index is 151 or greater, including communication systems, training, engineering controls, changes to work schedules or procedures, providing respiratory protection, and other measures. The Project's Employee Exposure Monitoring Program will incorporate air quality and wildfire monitoring requirements and controls.	
Title 24, Part 3, California Electrical Code	Requirements for electrical safety, which include the Uniform Electrical Code, Title 24, Part 3.	Cal/OSHA
Title 24, Part 9, Chapter 6, Section 608	California Fire Code requirements for stationary storage battery systems.	Cal/OSHA
Health and Safety Code Sections 25500 through 25541	Requirements for the preparation of a Hazardous Material Business Plan that details emergency response plans for a hazardous material emergency at the facility.	Cal/OSHA
Local		
Specific hazardous material handling requirements	Hazardous materials used or stored must conform to the Uniform Fire Code.	Los Angeles County Department of Public Health, Environmental Health; Los Angeles County Fire Department, Health Hazardous Materials Division
Hazardous Materials Business Plan	Los Angeles County Fire Department is the designated Certified Unified Program Agency and is responsible for administering Hazardous Materials Business Plans.	Los Angeles County Fire Department, Health Hazardous Materials Division
Industry Standard		
National Fire Protection Association (NFPA) 855 Standard for the Installation of Stationary Energy Storage Systems	NFPA 855 provides guidelines regarding the minimum requirements for mitigating the potential hazards associated with the battery energy storage system. Although not codified in state or local LORS, NFPA 855 is included here as an industry standard that the Project will meet.	N/A

Notes: LORS = Laws, Ordinances, Regulations, and Standards; OSHA = Occupational Safety and Health Administration; Cal/OSHA = California Occupational Safety and Health Administration; N/A = not applicable.
* State and local approvals will be superseded by California Energy Commission approval of the Project under the Opt-In Program.

3.17.4 Agencies and Agency Contacts

Applicable agency contacts for worker health and safety are shown in Table 3.17-6.

Table 3.17-6. Agencies and Agency Contacts

Issue/Approval	Agency	Applicability
Worker Health and Safety	Cal/OSHA, Regional Office (Region 4) Hassan Adan, Region 4 Manager 800 Royal Oaks Drive, Suite 105 Monrovia, CA 91016 626.471.9122 DOSHREG4Monrovia@dir.ca.gov Van Nuys District Office Vacant, District Manager 6150 Van Nuys Boulevard, Suite 405 Van Nuys, CA 91401 818.901.5403 DOSHVN@dir.ca.gov	Incident reporting
Hazardous Materials Business Plan*	Los Angeles County Fire Department, Health Hazardous Materials Division Mario Tresierras, Division Chief 5825 Rickenbacker Road Commerce, CA 90040 323.890.4045 Fire-HHMDCERS@fire.lacounty.gov	Hazardous materials compliance
Plan check review*	Los Angeles County Fire Department, Fire Prevention Division Richard H. Stillwagon, Division Chief 5823 Rickenbacker Road Commerce, CA 90040 323.890.4243 richard.stillwagon@fire.lacounty.gov	Fire protection compliance

Notes: Cal/OSHA = California Occupational Safety and Health Administration

* Approval of the Hazardous Materials Business Plan from the Los Angeles County Fire Department will be superseded by California Energy Commission (CEC) approval of the Project under the Opt-In Program. In addition, Project plan approval from the Los Angeles County Fire Department will be superseded by CEC approval of the Project under the Opt-In Program.

3.17.5 Permits and Permit Schedule

Given the California Energy Commission's preemptive authorities under applicable state law, there are no additional applicable permits or permit schedule for worker health and safety.

4 Alternatives

4.1 Introduction

This section discusses alternatives to the proposed 1,150-megawatt (MW) up to 9,200-megawatt-hour (MWh) Prairie Song Reliability Project (Project) in Los Angeles County. These include the No Project Alternative, the Reduced Project Alternative, and an Alternative Project Site. This discussion focuses on alternatives that could feasibly accomplish most of the basic objectives of the Project and could avoid or substantially lessen one or more of the potential impacts. This section also describes the site selection criteria used in determining the proposed location of the Project and alternatives that were considered but rejected from further review.

The California Environmental Quality Act (CEQA) requires consideration of "a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives" (Title 14, California Code of Regulations [CCR] 15126.6[a]).

Thus, the focus of an alternatives analysis should be on alternatives that "could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects" (Title 14, CCR 15126.6[c]). The CEQA Guidelines further provide that "among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts."

The Energy Facilities Siting Regulations (Title 20, CCR, Appendix B) guidelines titled Information Requirements for an Application require the following:

> A discussion of the range of reasonable alternatives to the project, or to the location of the project, including the no project alternative, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and an evaluation of the comparative merits of the alternatives. In accordance with Public Resources Code section 25540.6(b), a discussion of the applicant's site selection criteria, any alternative sites considered for the project, and the reasons why the applicant chose the proposed site.

The data adequacy regulations also require the following:

> A description of how the site and related facilities were selected, and the consideration given to engineering constraints, site geology, environmental impacts, water, waste and fuel constraints, electric transmission constraints, and any other factors considered by the applicant.

Further, the CEQA Guidelines, Section 15126.6(d) provides in pertinent part, "If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. (County of Inyo v. City of Los Angeles (1981) 124 Cal.App.3d 1)."

4.2 Project Objectives

One of the primary purposes of the Project is 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. The Project would help balance electricity generation from renewable sources, such as wind and solar, with electricity demand by storing excess generation from emissions free power sources and delivering it back to the grid when demand exceeds real-time generation supply. The Project may displace the need for additional fossil fuel based generating stations needed to serve peak demand periods when renewable sources may be inadequate or unavailable.

The principle Basic Project 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 Southern California Edison (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 storage 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 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 500 kilovolt (kV) gen-tie lines.
- Locate a site to accommodate a gen-tie line of reasonable length to the Point of Interconnection and the ability to deliver power to the Los Angeles (LA) Basin local reliability area during peak demand.
- Locate near existing roadways and related infrastructure where available and feasible for construction and operations and maintenance (O&M) access.

4.3 Project Overview

Prairie Song Reliability Project LLC (Applicant), a subsidiary of Coval Infrastructure DevCo LLC, proposes to construct, operate, and eventually repower or decommission the up to 1,150MW Prairie Song Reliability Project (Project) located on up to approximately 107 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, O&M buildings, an on-site Project substation, a 500kV overhead generation interconnection (gen-tie) transmission line, and interconnection facilities within the existing SCE owned and operated Vincent Substation. The BESS Facility site will be approximately 71 acres in size and the gen-tie line will be up to approximately 36 acres.

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 LA 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 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.

4.4 Rationale for Alternatives Selection

The following discussion covers a reasonable range of feasible alternatives that would avoid or substantially lessen one or more significant effects of the Project while attaining most of the Project objectives. In accordance with the CEQA Guidelines, many factors may be taken into account when addressing the feasibility of alternatives, such as environmental impacts, site suitability as it pertains to various land use designations or zoning, economic viability, availability of infrastructure, regulatory limitations, and jurisdictional boundaries (CEQA Guidelines, 15126.6[f][1]).

In determining an appropriate range of Project alternatives to be evaluated, a broad range of alternatives were reviewed. Based on initial review and consideration, it was determined that some of these preliminary alternatives did not accomplish most of the objectives, as listed above, or would result in greater impacts than the Project. Thus, these alternatives were rejected and were not fully analyzed. The alternatives that were considered and rejected are discussed in Section 4.5 below.

Two (2) alternatives would meet most of the Project objectives, are potentially feasible, and would avoid or minimize some potential impacts as compared to the Project. These alternatives are the Reduced Project Alternative and the Alternative Project Site. Additionally, a No Project Alternative is required to be included in the range of alternatives.

The three (3) alternatives, as listed below, are more fully analyzed than the rejected alternatives discussed in Section 4.5. For each of these alternatives, the analysis includes a description of the alternative and a comparison of the environmental effects relative to the Project. These Project alternatives are addressed in Sections 4.6, 4.7, and 4.8 in this section as follows:

- **Alternative 1:** No Project Alternative
- **Alternative 2:** Alternative Project Site (Peaceful Valley Alternative Site)
- **Alternative 3:** Reduced Project Alternative

The alternatives studied constitute a reasonable range because they contain enough variation to facilitate informed decision making that leads to a reasoned choice. Also, the discussion of each alternative is sufficient to allow meaningful evaluation, analysis, and comparison with the Project. Therefore, the significant effects of each alternative are discussed in less detail than those of the Project, but in enough detail to provide the CEC with perspective and a reasoned choice among alternatives to the Project.

The Project would not result in any significant and unavoidable adverse impacts for which feasible mitigation measures could not reduce the impacts to below significance. Implementation of feasible mitigation measures would reduce potentially significant impacts to the following issue areas to less than significant: Air Quality, Biological Resources, Cultural Resources, Hazardous Materials Handling, Noise, Paleontological Resources, Traffic and Transportation, and Wildfire.

Potential impacts to the following issue areas were determined not to be significant after further evaluation and would not require mitigation: Geological Hazards and Resources, Land Use, Public Health, Socioeconomics, Soils, Waste Management, Visual Resources, Water Resources, and Worker Health and Safety.

Sections 4.6, 4.7, and 4.8 compare the impacts of the No Project Alternative, the Peaceful Valley Alternative Site, and the Reduced Project Alternative to the impacts of the Project. A summary of how these alternatives compare to the Project Objectives is provided in Table 4-1, Alternatives Summary Relative to Project Objectives.

4.5 Alternatives Considered but Eliminated from Further Analyses

The purpose of an alternatives analysis is to develop alternatives to the Project that avoid potentially significant environmental effects identified as a result of the Project, while still feasibly meeting most of the basic project objectives. Several alternatives were considered but subsequently eliminated from further analyses because of "(i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts." (Title 14, CCR 15126.6[c]).

4.5.1 Alternative Locations Analyzed

The Project proponent completed an extensive site planning process to identify and avoid constraints, which included analysis of numerous potential sites for the Project. This site planning process was intended to create a project that optimizes reliable, dispatchable energy generation, while being sensitive to environmental constraints, and ultimately resulted in the Project. Several alternative site locations were considered but subsequently rejected from further analysis because they would result in greater impacts than the Project, primarily due to the construction of a longer gen-tie line from the alternative site to the Vincent Substation and sloped terrain.

All alternative locations must be centered around an interconnection to the Vincent Substation. The Vincent substation is located at a key point in the grid, Service Path 26, that is able 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 understanding energy needs 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). The 2026 LCR Tech Study estimates an annual LCR increase in the LA Basin of 364.25MW between 2026 and 2030. In addition, the California Independent System Operator 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.

Alternative Location Criterion

Alternative site locations were evaluated to determine if a 1,150MW, 9,200MWh, battery energy storage system with supporting improvements could be reasonably and feasibly placed in another location. The Project developed a robust set of criteria, based on the project objectives, to evaluate potential Alternative Sites. The evaluation criteria stratify sites based on the project objectives. Sites that do not meet most of the basic project objectives were analyzed but ultimately eliminated from further consideration. The alternatives analyses comprised the following principle criteria:

Areas within a 2-mile radius of the Vincent Substation were reviewed as potential Alternative Sites.

- Potential sites outside of the 2-mile radius were eliminated due to physical siting constraints. Specifically, the mountainous terrain to the south, east, and north does not contain sites of sufficient acreage and slope that are constructable. Similarly, the lands to the west are predominately developed with residential and commercial land uses. A project developed in these land uses would inherently generate more potential

impacts and use conflicts than the Project location. In addition, sites farther than 2 miles from the Vicent Substation would result in a lengthier gen-tie line which would contribute to greater potential acreages used and impacts than the Project.

Exclude areas that contain over 50% area of greater than 5-degree slopes.

- As noted above, most of the lands within a 2-mile radius are mountainous or already developed with other uses.
- Significantly, slopes over 5° require substantial grading and earthwork such as retaining walls and other structural improvements and would accordingly generate impacts that are avoided or minimized at the Project site.

Exclude Protected Areas Database of the United States (PAD-US) areas[1].

- Protected areas were excluded to avoid environmental impacts and potential land use conflicts in areas likely to invite recreationalists.

Exclude areas within the 100-year floodplain.

- Potential Alternative Sites within the 100-year floodplain were excluded because constructing a BESS and incorporating flood-proofing construction requirements within a 100-year floodplain would result in additional environmental impacts, and pose constructability issues and flood and hazard insurance risks.

Exclude areas with non-riverine wetlands and wetland complexes.

- Non-riverine wetland areas were excluded to avoid environmental impacts.
- Wetland complexes create a functional ecological unit through interconnection of wetland features and provide habitat, biodiversity, as well as water filtration and purification.

Areas with parcel groupings that were at least 60 contiguous acres in size were carried forward for evaluation as Alternative Sites.

- A total of 60 contiguous acres was used to identify the minimum viable project size that would be necessary to support a 1,150MW, 9,200MWh project.

After applying the alternative site criteria listed above, two (2) potential Alternative Site areas were identified as shown in Figure 4-1, Alternative Sites.

Alternative Site 1 (herein referred to as the Mountain Springs Alternative Site) does not meet the project objective to ***"Locate and gain site control of site large enough and well-suited to support development of the Project's 1,150-MW and up to 9,200MWh battery energy storage."*** The Mountain Springs Alternative Site is bisected by the Sierra Highway, partially comprised of commercially unavailable Southern California Edison owned parcels, and

[1] PAD-US is America's official national inventory of U.S. terrestrial and marine protected areas that are dedicated to the preservation of biological diversity and to other natural, recreation and cultural uses, managed for these purposes through legal or other effective means (USGS 2022). https://www.usgs.gov/programs/gap-analysis-project/science/pad-us-data-overview.

much of the area is currently under option by another developer, making site control infeasible. The Mountain Springs Alternative Site is therefore excluded from further analysis.

Alternative Site 2 (the Peaceful Valley Alternative Site) meets the alternative site criterion, partially meets the project objectives, and is therefore further discussed in Section 4.7.

4.5.2 Alternative Technologies

The Project proponent conducted an analysis to identify alternative technologies to the lithium-iron phosphate battery energy storage technology proposed for the Project. Several alternative technologies were considered but were subsequently rejected from further analysis because they did not accomplish most of the Project objectives or would result in greater impacts than the Project. A discussion of the alternative technologies considered and rejected is provided below:

Compressed Air Energy Storage

Traditional compressed air energy storage uses a compressor to convert electrical energy into high pressure compressed air that is stored in this increased energy state, typically by injecting the compressed air into existing, deep salt caverns or depleted gas reservoirs that can store compressed air and retain it in the formation for long periods. When electricity is required, the compressed air is expanded through a turbine generator, converting the stored energy back into electricity. Because the expansion process results in significant cooling of the expanding air stream, heat is added back into the compressed air before to avoid unacceptably low temperatures for continuing operation of the turbine. The addition of heat to the expansion process generally requires the combustion of significant quantities of fossil fuel with associated emissions including criteria and toxic air contaminants as well as significant emissions of greenhouse gases (GHGs). Compressing air and the subsequent reheating results in round trip efficiencies ranging from 46% to 80% (DOE 2023). Since this technology produces GHG emissions, the traditional compressed air technology would not meet basic project objectives and was rejected in favor of battery energy storage technology.

Pumped Hydro Storage

Pumped hydro storage uses water released by gravity from an upper reservoir through turbine generating equipment into a lower reservoir separated by at least several hundred to more than a thousand feet or more of elevation to generate electricity. Typically, power is generated during peak power demand periods or when needed to address system reliability with an efficiency typically around 70% to 87% (NREL 2024a). During off-peak periods, water from the lower reservoir is pumped back up into the upper reservoir to “recharge” the system. Pumped hydro storage has many positive characteristics including a long lifespan (50+ years), long storage durations, and the provision of synchronous generation (including rotational inertia) to the grid. However, pumped hydro storage would require much larger reservoirs and surface elevation differentials than are required for battery energy storage technology. The creation of large reservoirs would require inundation of a much larger area than the Project and may result in much greater land use, biological and visual resources impacts than the Project. Viable sites are not located near the Vincent Substation. In addition, the technology is also much more capital intensive per installed MW than the battery energy storage technology. Finally, pumped hydro would not meet a basic project objective of deploying a utility scale battery energy storage system. For these reasons, this alternative was rejected as not meeting key project objectives.

Flywheel Energy Storage

Flywheels store energy mechanically by spinning a mass at high speed. This stored kinetic energy can be converted back into electricity when needed, making the flywheels a potential alternative to batteries for energy storage. Excess electricity is used to spin a flywheel rotor (a heavy, spinning mass) to a high speed. When electricity is needed, the flywheel's rotational energy is converted back into electricity by a generator with a round trip efficiency between 70% to 95% (EESI 2019). Flywheels can deliver high power output quickly and can have a long lifespan with minimal maintenance; however, flywheels typically have lower energy density compared to batteries, making them more suited for short-duration, high-power applications. In addition, the cost of flywheel systems can be higher than batteries, though they may have lower maintenance costs over their lifetime. Finally, flywheel energy storage would not meet a basic project objective of deploying a utility scale battery energy storage system. Flywheel energy technology was rejected from further analysis because it is not a proven technology at the scale of the Project and has energy output issues and would not substantially reduce the impacts associated with the Project.

Hydrogen Energy Storage

Hydrogen energy storage for electricity involves using electrolysis to convert surplus electricity into hydrogen, storing the hydrogen for later use, and then converting the stored hydrogen back into electricity through fuel cells or combustion. This process offers a way to store excess energy from renewable sources like solar; however, there are many challenges with hydrogen energy storage technology. The main challenge stems from hydrogen's low energy density, flammability, low round trip efficiency between 20% to 45% (EESI 2019), and potential for leakage. Efficiently storing and transporting hydrogen requires specialized infrastructure and can lead to energy losses or safety concerns. Materials used for storage can be susceptible to hydrogen embrittlement. Hydrogen has a much lower energy density per unit volume compared to traditional fuels, meaning more space is needed to store the same amount of energy. This necessitates larger storage tanks or more complex storage systems. To achieve higher storage density, hydrogen can be compressed to high pressures or liquefied at very low temperatures, requiring significant energy input and specialized infrastructure. The processes of compressing or liquefying hydrogen can lead to energy losses, reducing the overall efficiency of the storage system. In addition, hydrogen is a highly flammable gas that can ignite easily and burn with a nearly invisible flame, posing safety risks during storage, transportation, and use, and hydrogen's small molecular size makes it prone to leakage through porous materials or even through previously impermeable materials, raising concerns about containment. Developing materials that are both strong, lightweight, and resistant to hydrogen embrittlement while being cost-effective is a significant challenge, and building and maintaining the infrastructure for hydrogen production, storage, and transportation can be expensive to manufacture and maintain. The overall efficiency of hydrogen storage and use (including production, storage, and utilization) can also be low. Hydrogen energy storage was rejected from further analysis because it is not a proven technology at the scale of the Project and has its own energy, fire and safety issues and would not substantially reduce the impacts associated with potential fire and safety hazards.

Flow Battery Energy Storage

Redox flow batteries operate on the principle of redox reactions, where oxidation and reduction processes occur in a fluid electrolyte. The main components of a flow battery include two (2) tanks of electrolyte solutions, one for the catholyte (positive side) and one for the anolyte (negative side), and a cell stack where the electrochemical reactions take place. Redox flow batteries store energy in liquid electrolytes, which are pumped from external reservoirs into the cell stack during charging and discharging cycles. Vanadium is currently employed in most flow batteries; however, several flow battery technologies that do not contain vanadium are emerging such as zinc-bromine, iron, organic based, and sodium-based flow batteries (EPRI 2024).

Since the active electrolytic material is separated from the reactive electrodes in the battery, redox flow batteries have a much higher level of safety relative to other electrochemical energy storage technologies. Additional advantages include long life cycle, low fire risk due to low flammability or battery and electrolyte material, and easy maintenance. However, compared to lithium-ion batteries, redox flow batteries have lower energy and power densities and typically involve more space-intensive system infrastructure, which limits them for large-scale stationary applications. Redox flow batteries also tend to have lower round-trip efficiencies (60% to 85% [EESI 2019]) compared to lithium-ion batteries and have higher costs due in part to a lack of large-scale manufacturing capacity and the need for pumps, sensors and other power and flow management systems (NREL 2024b). Redox flow battery technology was rejected from further analysis because it has lower energy and power densities requiring more space and additional equipment compared to lithium-ion batteries and is not a proven technology at the scale of the Project.

Sodium Ion Battery Energy Storage

Sodium-sulfur batteries are a type of high-temperature battery that relies on a reversible redox reaction between molten sodium and sulfur to charge and discharge electricity. Sodium-sulfur batteries have high energy densities, which can make them advantageous for areas with space constraints. Sodium-sulfur batteries are in the initial commercialization phase, marked by high energy density, low levels of self-discharge (which correspond to higher efficiencies), and relatively long cycle life. These storage systems rely on common, abundant, and cheap materials, which may help drive down costs relative to storage systems reliant on scare minerals (NREL 2024b).

In addition, sodium-sulfur batteries have high reliability and can be easily installed, relocated, and maintained; however, these batteries operate at high temperatures, which presents certain safety issues that could limit applications. Several notable safety failures of deployed sodium-sulfur systems, which caused fires, combined with declining lithium-ion costs, have led to declining deployments (NREL 2024b). Sodium-Sulfur batteries have similar round trip efficiencies to lithium iron phosphate BESS. Sodium-sulfur battery technology was rejected from further analysis because it is not a proven technology at the scale of the Project and has its own fire and safety issues and would not substantially reduce the impacts associated with potential fire hazards.

4.5.3 Distributed Storage Alternative

An additional potential alternative to the Project would be the combination of many, smaller distributed storage projects across the local area. This would require mass scaling to reach an energy storage potential similar to the Project on the residential and commercial level, with individual homeowners and companies installing these systems at rates currently no experienced or expected, given market, economic and other factors. A typical home battery storage system installed in a garage holds 13.5 kilowatt-hours (kWh) of energy[2] as compared to the up to 9,200,000kWh that the Project would hold. This would mean that approximately 681,000 homes would need to install home storage systems to reach the level of energy storage the Project proposes, though those system would be operated independently behind the meter by homeowners, foregoing the system reliability benefits of a utility-scale resource like the Project. This would require financial outlay and the decision of thousands of homeowners or business owners, which is an infeasible option considering there could not be any type of coordinated commitment to complete these installations.

[2] https://www.tesla.com/powerwall.

4.5.4 Alternatives Carried Forward

Based on the foregoing, three (3) alternatives are carried forward for further analysis.

- **Alternative 1:** No Project Alternative
- **Alternative 2:** Alternative Project Site (Peaceful Valley Alternative Site)
- **Alternative 3:** Reduced Project Alternative

4.6 Analysis of the No Project Alternative

4.6.1 No Project Alternative Description and Setting

The No Project Alternative is required so that the California Energy Commission (CEC) can compare the impacts of approving the Project with the impacts of not approving the Project. The No Project Alternative must discuss the existing conditions as well as what would be reasonably expected to occur in the foreseeable future if the Project was not approved, based on current plans and available infrastructure and community services. The No Project Alternative is the circumstance under which the Project does not proceed, the project site remains in its existing condition, and potential impacts associated with the Project would be avoided and Project benefits foregone.

4.6.2 Summary of the No Project Alternative

Under the No Project Alternative, the Project would not be implemented, and the site would remain in its current condition. Under this alternative, none of the potential direct or indirect environmental impacts associated with construction, operation and decommissioning of the Project would occur.

As discussed above, all of the Project's potential effects can be avoided, minimized, or mitigated to a level of less than significant under CEQA. Moreover, for each subject matter discussed in this Application, the Project can demonstrate compliance with Applicable Laws, Ordinances, Regulations, and Standards. Therefore while it would have no effects, because the Project will have no significant effects, the No Project Alternative will not "avoid or substantially lessen any of the significant effects of the project." (14 CCR 15126.6[a].)

If the No Project Alternative results in the Project not being constructed, none of the Applicant's basic project Objectives would be realized. The No Project Alternative would forego the electric system and greenhouse gas policy benefits associated with up to 1,150MW of energy storage utilizing available system capacity at the existing SCE Vincent Substation. The No Project Alternative would mean that the Project's energy storage would not be available to balance intermittent renewable generation and serve as an additional capacity resource that will enhance grid reliability.

The No Project Alternative foregoes the new energy storage capacity to assist California electric utilities with their Renewable Portfolio Standard renewable energy sources and zero-carbon resources goals for the retail sales of electricity to California end-use customers. The No Project Alternative also fails to 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.

The No Project Alternative would result in foregoing energy 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. The No Project Alternative eliminates the ability to offer energy storage 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. It also foregoes the additional storage capacity may allow for the deferral or avoidance of regional transmission facilities.

Without the Project, the No Project Alternative foregoes energy storage of sufficient size, power, capacity, scale, and location to assist California utilities in meeting obligations under the CPUC's Mid-Term Reliability Procurement and upcoming Clean Power Procurement Program Requirements.

The No Project Alternative means that there will be no development of 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. It foregoes the addition of stored energy to relieve grid congestion, and enhance electricity reliability, without requiring the construction of substantial new regional transmission infrastructure or network upgrades. In terms of economic development, the No Project Alt6ernative eliminates the construction and operation of a battery energy storage facility in Los Angeles County and its resulting in economic benefits to the County, creating prevailing wage construction jobs, and facilitating local community benefits.

The No Project Alternative also foregoes an energy storage project that is in close proximity to existing electrical infrastructure and the Vincent Substation with a gen-tie line of reasonable length, delivering power to the LA Basin local reliability area during peak demand while utilizing existing roadways and related infrastructure where available and feasible for construction and O&M access.

If those basic project objectives would not be met, and the grid reliability, and environmental and policy benefits from the Project would not be realized. The Project would provide a significant contribution to the State's ambitious renewable energy and storage needs, and the No Project Alternative would deprive the State and the area of this significant contribution. The No Project Alternative would also not be consistent with California's environmental policy goals of encouraging development and deployment of energy storage resources, such as the Project, as articulated in CPUC Decision 21-06-035.

The No Project Alternative could result in inadequate system reliability (more blackouts), greater fuel consumption, greenhouse gas emissions, air pollution, climate change and other environmental impacts in the state because less efficient energy storage than the Project would be employed. The No Project Alternative would also deprive the area of a significant construction employment opportunity with associated purchases of local goods and services, as well as jobs associated with the construction, operation and maintenance of the facility, and ongoing property tax revenue, and other community benefits. Therefore, because no development would not satisfactorily meet the project objectives specified above, the No Project Alternative was rejected in favor of the Project.

4.7 Analysis of the Peaceful Valley Alternative Site

4.7.1 Peaceful Valley Alternative Site Description and Setting

As shown on Figure 4-1, the Peaceful Valley Alternative Site is located at the edge of the 2-mile radius, north of the Project site and north of Highway 14 off of Peacefull Valley Road. The Peaceful Valley Alternative Site is an approximately 113-acre block of land consisting of 13 parcels. 10 of the 13 parcels contain residential land uses with the other three (3) parcels being undeveloped. The site is generally flat but does contain some topography around two (2) riverine features that cross the site. It is surrounded by mountainous terrain and similar to the project site it is in a Very High Fire Hazard Severity Zone and is not served by any water or sewer utilities.

4.7.2 Peaceful Valley Alternative Site Comparison

All of the potential impacts at the current project site are less than significant with or without mitigation. Therefore, the Peaceful Valley Alternative Site could not generate fewer potentially significant impacts than the project as discussed above CEQA requires consideration of "a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project" (Title 14, CCR 15126.6[a]). To stratify the project and the Peaceful Valley Alternative by noting differences, the following analysis focuses on how the project locations differ in their ability to meet the project objectives and the potential for the Peaceful Valley Alternative Site to result in potentially significant impacts that are not present for the Project.

The two (2) primary project objectives that stratify the Project site and the Peaceful Valley Alternative Site are:

Develop an energy storage project that is in close proximity to existing electrical infrastructure and the Vincent Substation, to avoid and minimize potential impacts.

The Project would entail an approximately 1.1-mile-long Gen-Tie (Northern Gen-Tie Route) or an approximately 1.8-mile-long Gen-Tie (Southern Gen-Tie Route), and Peaceful Valley Alternative Site would entail a minimum 1.8-mile-long Gen-Tie. Regardless, if the Northern Gen-Tie Route or the Southern Gen-Tie Route is selected, the Project Gen-Tie would be routed through semi-developed land (existing dirt roads) to the Vincent Substation resulting in potential Land Use and Transportation impacts. The Project Gen-Tie would not cross other transmission lines (until entering the Vincent Substation) or highways. Cultural Resources records searches do not show the Project Gen-Tie approaching any recorded cultural resources sites.

The Peaceful Valley Alternative Site Gen-Tie would need to cross the Sierra Highway as well as the Antelope Valley Freeway. Depending on the specific route, Peaceful Valley Alternative Site Gen-Tie would need to cross between one (1) and five (5) high voltage (>220kV) transmission lines. The Peaceful Valley Alternative Site Gen-Tie route would also have to parallel significantly sloped terrain or travel near existing homes generating potential impacts to homeowners and disturbing significantly more land for access roads due to cross slope stability requirements. Finally, the Peaceful Valley Alternative Site Gen-Tie route would cross an area of land where numerous Cultural Resources sites are located thus increasing the potential for cultural resource impacts.

Locate near existing roadways and related infrastructure where available and feasible for construction and O&M access.

The Project Site is located adjacent to an existing access and exit point for the Antelope Valley Freeway. The Freeway access becomes Soledad Canyon Road, which parallels the site. Access to the Project Gen-Tie line is supported by the following existing roads: Carson Mesa, Foreston, and Kentucky Springs. Carson Mesa Road and Foreston Road are not expected to require upgrades for Gen-Tie access and construction. Kentucky Springs Road would need to be extended by approximately 0.6 miles to facilitate construction and operational access to the Gen-Tie.

Access to Peaceful Valley Alternative Site would require use of the Sierra Highway as well as approximately 0.8 miles along Peaceful Valley Road, a local dirt road. This road is used for residential access by many of the local homeowners, and it is expected that there would be associated construction traffic impacts to residents. The Peaceful Valley Alternative Site Gen-Tie would have to create approximately 0.6 miles of new roads for construction and operational access to the Gen-Tie, resulting in potential Land Use and Transportation impacts.

In addition to these two (2) objectives, the following considerations were reviewed to compare the project site to Peaceful Valley Alternative Site.

- **Gen-Tie Landowner Agreements:** The Peaceful Valley Alternative Site Gen-Tie Route requires site control or easement agreements from nine (9) to 10 landowners, depending on the chosen route. These landowner counts represent preferred Gen-Tie routes that are either the most direct or limit development on steep terrain. The involvement of a larger number of landowners introduces considerable risk to the development process as well as the potential to increase the length and potential impacts of the Gen-Tie line could result in potentially significant effects on Land Use. If landowners decline an easement option, the Gen-Tie Route will have to go around those properties, either increasing the length of the Gen-Tie, forcing it on-to steep terrain, or both. In any of these situations, the potential for ground disturbance and Visual Resource impacts would be higher due to the increased number of towers necessary to complete the Gen-Tie route and the increased length of access roads necessary to build and maintain the line, resulting in potential Feasibility issues under CEQA.
- **Existing Transmission Line Conflicts:** The Peaceful Valley Alternative Site Gen-Tie Route must run parallel to five (5) existing transmission lines leading to the Vincent Substation. While this may facilitate access to the transmission right-of-way, the required entry point into the Vincent Substation requires crossing over the Midway-Vincent 500kV line as specified in the Large Generator Interconnection Agreement. This routing may necessitate traversing more densely populated residential areas, potentially making it infeasible and potential Land Use and Transportation impacts.
- **Residential Displacement:** Peaceful Valley Alternative Site identified during the 2-mile search consists of 13 parcels, 10 of which contain permanent residences. This represents a threefold increase in the number of homeowners who may be displaced by the project and would increase the potential for significant impacts to Socioeconomics. Additionally, the alternative site has a comparable number of adjacent homeowners, resulting in potential Land Use and Transportation impacts.
- **Crossings:** The Peaceful Valley Alternative Site presents significantly higher crossing risks, particularly due to required crossings over the Antelope Valley Freeway and Sierra Highway. Furthermore, it does not eliminate many crossings associated with the current layout, including those over railroad tracks and Carson Mesa Road. The Gen-Tie for Peaceful Valley Alternative Site would have to use a helicopter to string line across the Sierra Highway and Antelope Valley Freeway and would necessitate closure of both routes during stringing and would increase the potential for temporary traffic and Transportation impacts

- **Site Topography:** The topography of Peaceful Valley Alternative Site is predominantly flat, but contains several steep ridges present in areas required for construction. This condition will necessitate more extensive grading and earthwork compared to the Project and would increase the potential for significant impacts to air quality and Paleontological and Cultural Resources impacts due additional earthwork, resulting in potential Feasibility issues under CEQA.
- **Gen-Tie Terrain Considerations:** Due to the existing transmission corridor located on a mountainside, constructing the Peaceful Valley Alternative Site Gen-Tie Route will require navigating highly sloped terrain to minimize unnecessary crossings of transmission lines, in addition to potential grid reliability issues associated with existing facilities. This presents significant engineering challenges and raises concerns about the feasibility of any proposed route, resulting in potential Feasibility issues under CEQA.
- **Distance to Services:** The Peaceful Valley Alternative Site is located approximately 0.8 miles down Peaceful Valley Road, a dirt road. The site is approximately 2.6 miles away from LA County Fire Station 80. This is an increase of 1.9 miles over the distance to the current project location. In addition, any emergency service to the Peaceful Valley Alternative Site would potentially have to make an unprotected left hand turn from Mountain Springs Road on to Forest View Road then travel 0.8 miles up the Peaceful Valley Road, resulting in potential Traffic impacts. The increased distance to the Peaceful Valley Alternative Site and the use and/or potential improvement of Peaceful Valley Road would represent an increased potential for significant impacts to County Services, Air Quality, and Public Health versus the project.
- **Access Road Expansion:** The Peaceful Valley Alternative Site Gen-Tie Route would require enhancements to the existing access road infrastructure used for servicing transmission lines, leading to additional Visual Resources and Soils ground disturbance impacts and potential Traffic impacts
- **Visual Resources Impact from Gen-Tie Line:** If crossing agreements are secured for Antelope Valley Freeway and Sierra Freeway, the Peaceful Valley Alternative Site Gen-Tie Route would further increase Visual Resources impacts for drivers on these roadways. In contrast, the Project Site utilizes a Gen-Tie Route that avoids heavily trafficked automotive corridors.

4.7.3 Summary of the Peaceful Valley Alternative Site Analysis

As shown in the analysis above, the alternative site cannot avoid or substantially lessen any of the potential significant effects of the Project, because the project does not possess any potentially significant impacts. The Peaceful Valley Alternative Site contains the potential for significant impacts and only partially meets the project objectives. The Peaceful Valley Alternative Site is not located near the Vincent Substation in a way that minimizes impacts nor is it located near existing roadways and infrastructure suitable for construction of the project. In conclusion, the Peaceful Valley Alternative Site is less desirable than the project because of its "(i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts." (Title 14, CCR 15126.6[c]). In addition, there is little potential to obtain site control of these areas as the parcels are not currently for sale.

4.8 Analysis of the Reduced Project Alternative

4.8.1 Reduced Project Alternative Description and Setting

Under the Reduced Project Alternative, the Project capacity would be reduced from using an 8-hour battery to a 4-hour battery thereby reducing the total capacity from 9,200MWh to 4,600MWh. Under this alternative, the project

footprint would be a total of approximately 89 acres, which is a reduction of approximately 18 acres or approximately 17% compared to the Project. The reduction of battery size from an 8-hour battery to a 4-hour battery would specifically reduce the BESS facility size from 70.9 acres to 44.8 acres. The Project site would be reduced mainly in the area north of Soledad Canyon Road on the northwest end. The Reduced Project Alternative would reduce the footprint of the stie north of Soledad Canyon Road, but would not eliminate the need for the project to be on both sides of the road. Under the alternative, the 23.1-acre Project substation would remain the same size as the Project and the stormwater detention facilities and other components (as noted in Table 2-2, Preliminary Footprint of the BESS Facility) would be reduced by 1 acre and 2 acres respectively. All other Project components (Project substation, access roads, laydown yard, and the gen-tie) would be the same as the Project. The length of construction would be reduced under this Alternative to approximately 13 months, thus reducing the number of construction workers required and haul truck trips. However, the phases of construction would remain the same as the Project. Grading and installation activities would be reduced due to the smaller Project footprint. The gen-tie line would remain unchanged under the Reduced Project Alternative as there would still be the need to connect the BESS Facility to the Vincent Substation via the Northern or Southern Gen-Tie Route.

4.8.2 Comparison of the Effects of the Reduced Project Alternative to the Project

Air Quality/Greenhouse Gas Emissions

The Reduced Project Alternative would require less construction activities than the Project, which would reduce air quality emissions during construction. The reduction of the development footprint by about 18 acres (17%) under the Reduced Project Alternative would reduce diesel emissions, as the construction efforts would be reduced and would reduce any potential health risks relative to the Project. While the reduction in the development footprint would reduce overall emissions, the criteria pollutant emission thresholds are based on a daily emission rate. The duration of construction would be slightly reduced under this Reduced Project Alternative relative to the Project (13 months vs. 20 months), but the per day activities are expected to be similar to the Project. Thus, it is expected that the Reduced Project Alternative's potential impacts related to daily criteria pollutant emissions would be similar to the Project. The Reduced Project Alterative could implement mitigation measures to reduce potential air quality impacts to less than significant, similar to the Project.

The GHG emissions generated by the Reduced Project Alternative would be lower than the GHG emissions generated from construction of the Project because the Reduced Project scenario would generate GHG emissions from the construction of a 17% smaller facility. However, this alternative would deprive the area of some of the Project's beneficial impacts, including adding a larger BESS project to the grid that would store additional excess energy produced during periods of high generation and dispatching more clean energy to the grid when renewable resources are unavailable. This alternative would reduce the total capacity of electricity stored from 9,200MWh to 4,600MWh; therefore, while it would help bridge the gaps during peak demand periods or times when solar and wind output is low, but not to the same extent as the proposed Project because of its reduced total capacity. Thus, all GHG emission impacts, including the beneficial impacts identified for the Project, would be reduced under the Reduced Project Alternative, resulting in potential GHG and Air Quality impacts

This Reduced Project Alternative also would forego Project benefits. The Reduced Project Alternative would reduce project benefits in the following ways:

- Would not be able to support California's new goals for resource adequacy that is greater than 4 hours;

- Would reduce daily renewable energy grid integration by half (4,600MWh), or would reduce increase daily renewable curtailment by 4,600MWh compared to the project; and
- Would increase the reliance on traditional, GHG emitting, power plants to serve load for 4 hours each day.

Biological Resources

The Reduced Project Alternative would include a reduction in impact area of 18 acres when compared to the Project. However, given that the area being reduced would be located north of Soledad Canyon Road where sensitive vegetation communities occur, and that all other Project components (substation, access roads, laydown yard, and the gen-tie) would be the same as the proposed Project, the total mitigation requirements would not be significantly reduced under the Reduced Project Alternative. The Reduced Project Alterative would reduce the acreages of permanent and temporary direct impacts to special-status plants and wildlife during construction, direct impacts to vegetation communities and land covers, and direct impacts to potential jurisdictional waters. All other potential indirect impacts of the Reduced Project Alternative would be similar to the Project.

Overall, the Reduced Project Alternative would slightly reduce potential biological resource impacts relative to the Project. The Reduced Project Alternative would still require mitigation measures such as demarcation of disturbance limits, biological monitoring, worker education awareness programs, Crotch's bumble bee (*Bombus crotchii*) avoidance and minimization measures, on-site preservation, a habitat mitigation and monitoring plan, a special-status relocation plan, nesting bird avoidance, an invasive species prevention plan, jurisdictional waters compensation, and mitigation measures for site restoration that could include reduce potential impacts to less than significant, similar to the Project.

Cultural Resources

Under the Reduced Project Alternative, the impact area would be reduced by 18 acres (17%). The Reduced Project Alternative would reduce potential impacts to undiscovered cultural resources and undiscovered human remains considering the potential impact area would be reduced. This alternative would reduce potential impacts by 18 acres, or 17% relative to the Project. Thus, the Reduced Project Alternative's impacts to undiscovered cultural resources and undiscovered human remains would be less than the Project.

The Reduced Project Alternative could implement mitigation measures such as a worker's environmental awareness program, a management of inadvertent discovery program, and procedure for handling human remains, similar to the Project.

Geological Hazards and Resources

The Reduced Project Alternative would reduce the impact area by 18 acres. As the impact area would be reduced by 17%, the Reduced Project Alternative may substantially reduce the project's less than significant geologic impacts related to ground shaking, liquefaction, landslides, and subsidence and no impacts related to earthquake faults and mineral resources during construction, operation and decommissioning activities. However, the Reduced Project Alternative's geologic potential impacts would remain less than significant, similar to the Project.

Hazardous Materials Handling

The potential impacts from hazards and hazardous materials would be reduced because the development footprint would be reduced by 18 acres and the construction period would be reduced from 20 months to 13 months;

however, the Reduced Project Alternative would continue to have hazardous materials impacts similar to that of the Project. Potential impacts related to handling and storing hazardous materials during construction- and operation-related activities would still occur under this alternative. The Reduced Project Alternative would be required to implement the mitigation measures such as railroad soil and ballast management, similar to the Project. Thus, hazards and hazardous materials impacts due to the Reduced Project Alternative would be less than significant with implementation of mitigation, similar to the Project.

Land Use

Like the Project, the Reduced Project Alternative is anticipated to have less than significant potential impacts related to land use and planning because it will comply and/or be consistent with all applicable land use and planning documents. Overall, potential land use impacts would be the same under the Reduced Project Alternative as the Project.

Noise

The Reduced Project Alternative would reduce the development footprint in the site by 18 acres (17%). The construction period would also be shorter under the Reduced Project Alternative when compared to the Project (13 months vs. 20 months). Thus, the potential construction and operational noise impacts under the Reduced Project Alternative would be slightly less than that of the Project, including potential impacts associated with construction-related noise and cumulative exceedances of noise standards. The Reduced Project Alternative could implement mitigation measures such as locating stationary noise sources as far as feasible from sensitive receptors, equipping all construction equipment with properly operating and maintained mufflers, and the implementation of temporary noise barriers to ensure that noise generation from construction and decommissioning activities would not exceed County standards and noise ordinances prior to work commencing. These mitigation measures could reduce these potential impacts to less than significant, similar to the Project.

Paleontological Resources

The Reduced Project Alternative would reduce the impact area by 18 acres (17%), which would also reduce the potential impacts to paleontological resources as a result of grading. This alternative would reduce potential impacts to areas underlain by late Pleistocene-age older dissected surficial sediments. Considering a reduction would occur to these areas, the Reduced Project Alternative reduction would reduce the paleontological resource potential impact relative to the Project. Nonetheless, the Reduced Project Alternative would still require conventional grading throughout the site requiring approximately 143,836 cubic yards of cut and approximately 512,578 cubic yards of fill and would therefore result in a potential impact to paleontological resources. The Reduced Project Alternative could implement monitoring mitigation measures such as monitoring and having a paleontologist prepare a Paleontological Resources Impact Mitigation Program to reduce the potential impact to less than significant, similar to the Project.

Public Health

The Reduced Project Alternative would reduce the development footprint by 18 acres (17%). Thus, the Reduced Project Alternative would slightly reduce the potential public health impacts during construction and operation. The Project's potential cancer risk and non-cancer health impacts would continue to be below a level of significance with implementation of mitigation measures such the use of Tier 4 or better engines, similar to the Project. Thus, all potential public health impacts identified for the Project would be reduced under the Reduced Project Alternative.

Socioeconomics

The Reduced Project Alternative would reduce the project's footprint by 18 acres (17%) and would reduce the construction period from 20 months to 13 months. Thus, the Reduced Project Alternative would have fewer socioeconomic impacts related to population growth, housing and environmental justice. The Reduced Project Alternative would also lessen some of the beneficial impacts that would be derived because there would be fewer tax benefits from the capital expenditure, fewer construction employment opportunities with associated purchases of local goods and services when compared to the Project, as well as fewer jobs associated with the operation and maintenance of the facility. Also, the ongoing property tax revenue from the site would be reduced. Thus, all socioeconomic impacts, including the loss or reduction of the beneficial impacts identified for the Project under the Reduced Project Alternative.

Soils

The Reduced Project Alternative would reduce the development footprint by 18 acres (17%), which would also reduce the amount of grading that would be required during construction. The Reduced Project Alternative would still require conventional grading throughout the site, but grading would be limited to approximately 143,836 cubic yards of cut and approximately 512,578 cubic yards of fill. Therefore, the Reduced Project Alternative would result in a fewer potential impacts to soils from soil erosion, loss of topsoil, and risks associated with expansive soils. Thus, fewer soil potential impacts would occur under this alternative than those identified for the Project.

Traffic and Transportation

The peak day period of construction for the Project would generate approximately 1,862 trips and operation of the Project would require 32 daily trips. Therefore, the construction traffic for the Project would require mitigation measures in the form of a transportation demand management plan and a traffic control plan. Operation of the Project would not generate a significant number of trips and thereby would not cause a substantial amount of vehicle miles traveled, and traffic impacts from operation would be less than significant. The Reduced Project Alternative would generate a reduced vehicle miles traveled during construction and operations as compared to the Project and would still require the same type of mitigation measures. As such, less than significant potential transportation impacts under this alternative would be less than that of the Project.

Visual Resources

Under the Reduced Project Alternative, the project would be reduced by approximately 18 acres. This reduction represents a reduction of 17% of the Project's development footprint north of Soledad Canyon Road, which would reduce the scale and acreage of the facility. Thus, the less than significant impacts related to certain key observation points north of the project site would be somewhat reduced. Nonetheless, the Reduced Project Alternative would continue to result in a potential impact to visual quality and the character similar to the Project. This alternative would be designed with the same project design features as the proposed project, including the construction of a tan perimeter block wall, targeted installation of site perimeter landscaping, and colorization of BESS enclosures, substation buildings, and substation H-frame structures. With these design features, potential aesthetic impacts from the Reduced Project Alternative would remain less than significant, similar to the project. Also, similar to the Project, potential impacts from light and glare would remain less significant under this alternative.

Waste Management

The Reduced Project Alternative would reduce the development footprint by 18 acres (17%). Thus, the Reduced Project Alternative would lessen the Project's potential waste management impacts related to having waste disposal needs beyond the capacity of appropriate landfills during construction, operation and decommissioning. While the Project's impacts would continue to be below a level of significance with no mitigation measures required, the Reduced Project Alternative would lessen these potential impacts considering less development would occur on the Project site. Thus, potential impacts from waste management identified for the Project would be slightly reduced under the Reduced Project Alternative.

Water Resources

The Reduced Project Alternative would reduce the impact area by 18 acres. Similar to the Project, potential hydrology and water quality impacts related to issues such as violating water quality standards, decreasing groundwater supplies and recharge, altering existing drainage patterns, increasing stormwater runoff or releasing pollutants due to flood, tsunami or seiche would still occur under this alternative. The Project's potential water resources impacts would remain below a level of significance with no mitigation measures required; however, these impacts would occur to a lesser extent. The Reduced Project Alternative would also generate fewer demands for water, wastewater and stormwater service systems. With the development of a slightly smaller footprint and facility, this alternative would result in a decrease in water demand because less irrigation and operation water would be required. Overall, the Reduced Project Alternative would have fewer potential impacts on water resources compared to the Project.

Wildfire

The Project is located on State Responsibility Area lands that are classified as a high fire hazard severity zone. While potential wildfire impacts would be slightly reduced because the development footprint would be reduced by 18 acres, the Reduced Project Alternative would continue to have potential wildfire impacts similar to that of the Project. Potential impacts related to construction-related wildfire risk, operation-related wildfire risk, and the installation of infrastructure that may exacerbate fire risk would still occur. Similar to the Project, the Reduced Project Alternative would be required to implement mitigation measures such as ignition avoidance and fire patrols during extreme fire days, pre-construction requirements, construction requirements and operational vegetation management requirements to lessen potential wildfire impacts to below a level of significance. Thus, potential wildfire impacts due to the Reduced Project Alternative would be less than significant with implementation of mitigation, similar to the Project.

Worker Health and Safety

While the Reduced Project Alternative would reduce the project footprint by 18 acres (17%), this alternative would still produce the Project's potential worker health and safety impacts related to construction and operation safety hazards. Under this alternative, the potential health and safety impacts would remain and would require implementation of construction training and safety programs, operations health and safety programs, safety training, fire protection training, and water quality procedures, the same as the Project. Thus, all potential worker health and safety impacts identified for the Project would be the same under the Reduced Project Alternative.

4.8.3 Summary of the Reduced Project Alternative Analysis

The Reduced Project Alternative would reduce the development footprint by 18 acres. The reduction of the development footprint by 17% would reduce impacts to the following environmental resources areas: air quality/GHG emissions, biological resources, cultural resources, noise, paleontological resources, public health, socioeconomics, soils, traffic and transportation, visual resources, waste management, and water resources.

This alternative would meet some but not all of the basic project objectives.

If the Reduced Project Alternative were built instead of the Project, the State would forego the electric system and greenhouse gas policy benefits associated with up to 4,600MWh of energy storage utilizing available system capacity at the existing SCE Vincent Substation. The Reduced Project Alternative would mean that half of the Project's energy storage capacity would not be available to balance intermittent renewable generation and serve as an additional capacity resource that is over 4 hours in duration.

The Reduced Project Alternative reduces the new greater than 4-hour energy storage capacity to assist California electric utilities with their Renewable Portfolio Standard renewable energy sources and zero-carbon resources goals for the retail sales of electricity to California end-use customers. The Reduced Project Alternative also reduces the flexibility of the Project to provide new energy storage capacity (either 4 hours or greater than 4 hours) 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.

The Reduced Project Alternative would result in halving the daily energy storage capacity (4,600MWh) 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. The Reduced Project Alternative significantly reduces the ability to offer energy storage 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. It also reduces the additional storage capacity that may allow for the deferral or avoidance of regional transmission facilities.

The Reduced Project Alternative has reduced ability, compared to the Project, to provide energy storage of sufficient size, power, capacity, scale, and location to assist California utilities in meeting some of it's obligations under the CPUC's Mid-Term Reliability Procurement and upcoming Clean Power Procurement Program Requirements.

The Reduced Project Alternative means that there will less capacity developed at 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. It reduces the addition of stored energy capacity to relieve grid congestion, and enhance electricity reliability, without requiring the construction of substantial new regional transmission infrastructure or network upgrades.

In terms of economic development, the Reduced Project Alternative reduces the economic benefits associated with the construction and operation of a battery energy storage facility in Los Angeles County, resulting in, fewer prevailing wage construction jobs, and reduced local community benefits.

The Reduced Project Alternative also reduces the benefits of developing an energy storage project that is in close proximity to existing electrical infrastructure and the Vincent Substation with a gen-tie line of reasonable length, delivering power to the LA Basin local reliability area during peak demand while utilizing existing roadways and

related infrastructure where available and feasible for construction and O&M access. If lost capacity from the Reduced Project Alternative, compared to the Project, were to be replaced at the Vincent substation, there would be inherently more impacts due to the need for additional redundant facilities (i.e., project substation, gen-tie line, O&M buildings, and set-backs) and the potential for additional upgrades at the Vincent substation or along transmission lines to provide similar services to the grid.

A 2024 report from the CEC that evaluates the value of long-duration energy storage states that "Today's lithium batteries (about 7 GW) are providing very useful services to the grid, but the 4-hr duration will not be adequate for getting through each night as the state transitions away from natural gas. This project found that an 8-hr battery is well-suited for supporting California as solar electricity becomes dominant. The 8-hr batteries will be charged while the sun is up, discharge quickly during peak demand in the early evening, and then discharge more slowly for the lower demand experienced during the night. Approximately 70 GW of 8-hr storage will be beneficial and may be cycled more than 300 times per year."(CEC 2024). The Reduced Project Alternative would not be able to meet this potential 70-gigawatt need.

4.9 Summary of Alternatives

A summary of the alternatives compared to the Project-by-Project Objective is provided in Table 4-1 below. The asterisks provided in the Reduced Project Alternative column indicate that while the Peaceful Valley Alternative Site or Reduced Project Alternative may meet a project objective, it only partially achieves the project objective as the proposed project would achieve the objective to a greater degree.

Table 4-1. Alternatives Summary Relative to Project Objectives

	Project Objective	Project	No Project Alternative	Peaceful Valley Alternative Site	Reduced Project Alternative
1	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.	Yes	No	Yes	No
2	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.	Yes	No	Yes	Yes*

Table 4-1. Alternatives Summary Relative to Project Objectives

	Project Objective	Project	No Project Alternative	Peaceful Valley Alternative Site	Reduced Project Alternative
3	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.	Yes	No	Yes	Yes*
4	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.	Yes	No	Yes	Yes*
5	Offer energy storage 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.	Yes	No	Yes	Yes*
6	Provide energy storage of sufficient size, scale, and location to assist California utilities in meeting obligations under the CPUC's Mid-Term Reliability Procurement and upcoming Clean Power Procurement Program Requirements	Yes	No	Yes	No
7	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 delivery capacity to the load to minimize environmental impacts.	Yes	No	No	Yes
8	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.	Yes	No	No	Yes
9	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.	Yes	No	Yes	Yes*
10	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.	Yes	No	Ability to gain site control is unknown	No
11	Develop an energy storage project that is in close proximity to existing electrical infrastructure and	Yes	No	Yes*	Yes

Table 4-1. Alternatives Summary Relative to Project Objectives

	Project Objective	Project	No Project Alternative	Peaceful Valley Alternative Site	Reduced Project Alternative
	the Vincent Substation, to avoid and minimize potential impacts from long 500kV gen-tie lines.				
12	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.	Yes	No	Yes	Yes
13	Locate near existing roadways and related infrastructure where available and feasible for construction and O&M access.	Yes	No	No	Yes

Notes: MW = megawatt; SCE = Southern California Edison; CPUC = California Public Utilities Commission; MWh = megawatt hours; kV = kilovolt; POI = Point of Interconnection; O&M = operations and maintenance.

A summary of potential impacts of the Alternatives compared to the Project by resource topic is included in Table 4-2 below.

Table 4-2. Summary of Potentially Significant Effects for the Project and Project Alternatives

Issue Area	Proposed Project (Prairie Song)	No Project Alternative[1]	Peaceful Valley Alternative Site[1]	Reduced Project Alternative[1]
Air Quality	LTS	NA	LTS	Potentially Significant (Reduced GHG benefits)
Biological Resources	LTS	NA	LTS	LTS
Cultural Resources	LTS	NA	Potentially Significant	LTS
Geological Hazards and Resources	LTS	NA	LTS	LTS
Land Use	LTS	NA	Potentially Significant	LTS
Noise	LTS	NA	LTS	LTS
Paleontological Resources	LTS	NA	Potentially Significant	LTS
Public Health	LTS	NA	Potentially Significant	LTS
Socioeconomics	LTS	NA	LTS	LTS (Reduced tax and other project benefits)
Soils	LTS	NA	Potentially Significant	LTS
Traffic and Transportation	LTS	NA	Potentially Significant	LTS

Table 4-2. Summary of Potentially Significant Effects for the Project and Project Alternatives

Issue Area	Proposed Project (Prairie Song)	No Project Alternative[1]	Peaceful Valley Alternative Site[1]	Reduced Project Alternative[1]
Visual Resources	LTS	NA	Potentially Significant	LTS
Waste Management	LTS	NA	LTS	LTS
Water Resources	LTS	NA	LTS	LTS
Wildfire	LTS	NA	LTS	LTS
Worker Health and Safety	LTS	LTS	LTS	LTS

Notes: LTS = less than significant; NA = not applicable; GHG = greenhouse gas.
Potentially Significant = potentially significant and unavoidable impact.
[1] See Sections 4.6 through 4.8 for discussions of potential effects.

4.10 References

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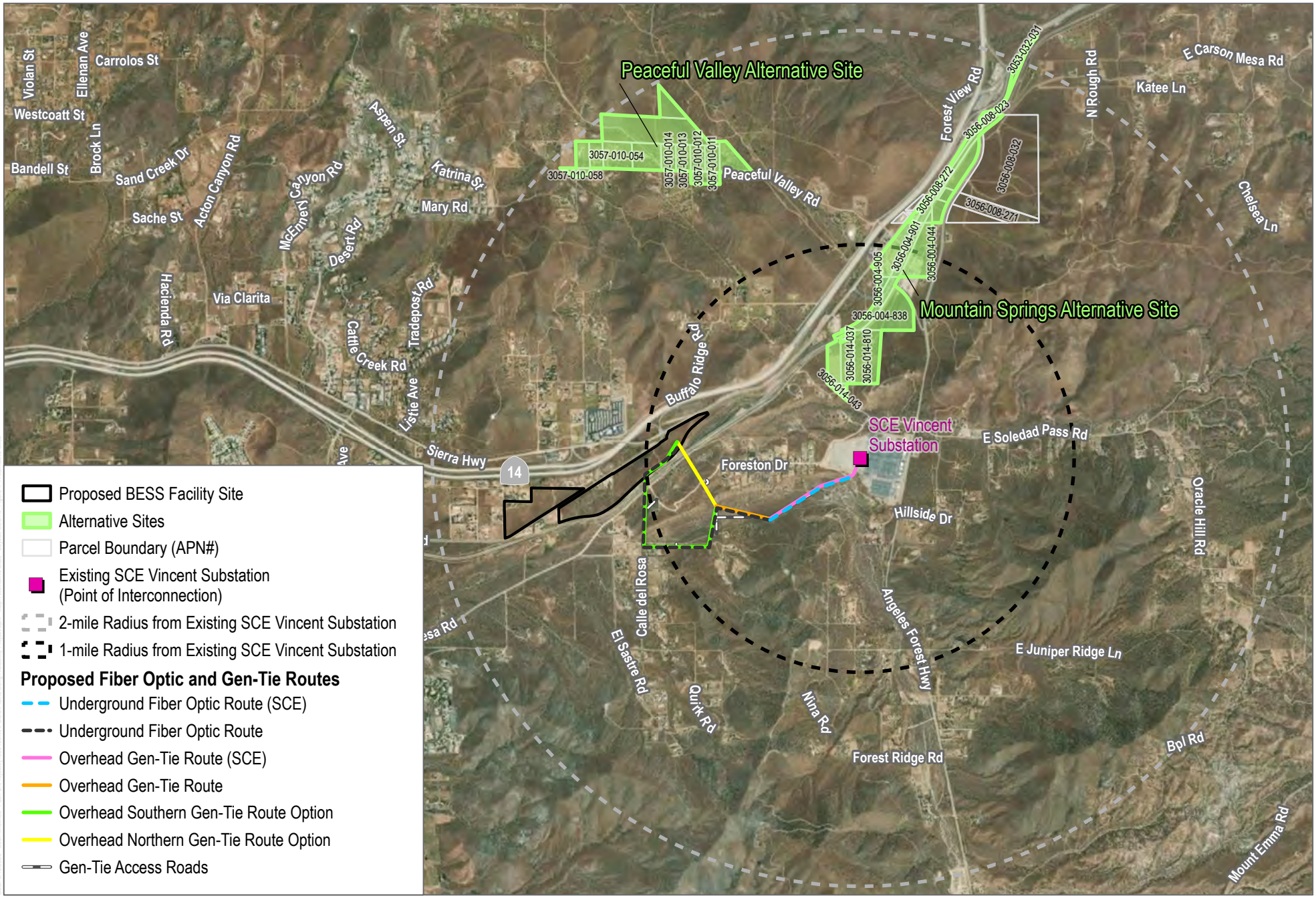

SOURCE: Los Angeles County

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FIGURE 4-1

Alternative Sites

Prairie Song Reliability Project

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5 Comprehensive LORS Table

Table 5-1. Comprehensive Law, Ordinance, Regulation, or Standard Table

Topic	Jurisdiction	Applicable Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity	Opt-In Application Reference
Air Quality	Federal	Clean Air Act and Regulations	Establishes national ambient air quality standards (NAAQS) for criteria air pollutants	**Yes**. To evaluate the potential for localized criteria air pollutant emissions from Project construction or operations to exceed respective NAAQS, ambient air quality analyses (AAQAs) were performed. The Project will not exceed the NAAQS.	Section 3.1.3.1.2 Section 3.1.5.1.1
Air Quality	State	Clean Air Act	Establishes state ambient air quality standards (CAAQS) for criteria air pollutants	**Yes**. To evaluate the potential for localized criteria air pollutant emissions from Project construction or operations to exceed respective CAAQS, AAQAs were performed. The Project will not exceed the CAAQS.	Section 3.1.3.1.2 Section 3.1.5.2.1
Air Quality	State	State Climate Change Targets LORS	Establishes statewide goals to reduce greenhouse gas (GHG) emissions to address climate change	**Yes**. The Project's potential to conflict with state climate change targets, including the 2017 and 2022 California Air Resources Board (CARB) Scoping Plans, was assessed qualitatively. The Project would not conflict with the key strategies and measures of these plans.	Section 3.1.3.2.5 Section 3.1.5.2.2
Air Quality	State	Building Energy LORS	Establishes building standards for all occupancies throughout the state	**Yes.** The Project would comply with all Title 24 mandatory requirements.	Section 3.1.3.2.5 Section 3.1.5.2.2
Air Quality	State	Renewable Energy and Energy Procurement LORS	Establishes statewide goals and frameworks for transitioning to renewable energy resources and zero-carbon resources	**Yes.** The Project will support increased usage of renewable electricity by allowing for a more reliable local electric grid, support the integration of additional intermittent renewable energy sources, such as wind and solar, and reduce the need to operate natural gas power plants.	Section 3.1.3.2.5 Section 3.1.5.2.2
Air Quality	State	Mobile Sources LORS	Establishes statewide goals and requirements for reducing GHG emissions from vehicles	**Yes.** The Project would create minimal trips during operation, and emissions associated with the Project's mobile sources were quantified. The Project would not obstruct or interfere with the implementation of mobile source regulations for the purpose of reducing GHG emissions.	Section 3.1.3.2.5 Section 3.1.5.2.2
Air Quality	State	Solid Waste LORS	Establishes goals and requirements for reducing solid waste	**Yes.** Emissions associated with the Project's solid waste consumption were quantified. The Project would not obstruct or interfere with the implementation of solid waste source regulations for the purpose of reducing GHG emissions.	Section 3.1.3.2.5 Section 3.1.5.2.2
Air Quality	State	Water LORS	Establishes goals and requirements for reducing water	**Yes.** Emissions associated with the Project's water consumption were quantified. The Project would not obstruct or interfere with the implementation of water source regulations for the purpose of reducing GHG emissions.	Section 3.1.3.2.5 Section 3.1.5.2.2
Air Quality	Local	Antelope Valley Air Quality Management District Rules and Air Quality Management Plans	Regulates air pollutant emissions throughout the in the Los Angeles County portion of the MDAB	**Yes**. The Project would be required to comply with all applicable AVAQMD rules and regulations.	Section 3.1.3.2.1 Section 3.1.3.2.2 Section 3.1.3.2.3 Section 3.1.3.2.4 Section 3.1.5.3.1
Air Quality	Local	County of Los Angeles Climate Action Plan	Establishes new GHG emissions reduction targets for unincorporated Los Angeles County that are consistent with state goals	**Yes.** The Project's potential to conflict with County's CAP was assessed qualitatively. The Project would not conflict with the key strategies and measures of the CAP.	Section 3.1.3.2.5 Section 3.1.5.3.2
Biological Resources	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
Biological Resources	Federal	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

Table 5-1. Comprehensive Law, Ordinance, Regulation, or Standard Table

Topic	Jurisdiction	Applicable Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity	Opt-In Application Reference
Biological Resources	Federal	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
Biological Resources	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
Biological Resources	State	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
Biological Resources	State	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
Biological Resources	State	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
Biological Resources	State	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
Biological Resources	State	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
Biological Resources	State	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
Biological Resources	State	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
Biological Resources	State	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

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Topic	Jurisdiction	Applicable Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity	Opt-In Application Reference
Biological Resources	State	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
Biological Resources	State	CEQA PRC Section 15380	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 are analyzed using CEQA and CEC criteria.	Section 3.2.2.2 Section 3.2.5.2
Biological Resources	State	Warren Alquist Act PRC 25000, et seq.	A CEQA-equivalent process implemented by the CEC.	**Yes.** Environmental resources are analyzed using CEQA and CEC criteria.	Section 3.2.2.2 Section 3.2.5.2
Biological Resources	State	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
Biological Resources	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
Biological Resources	Local	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
Cultural Resources	State	California Register of Historical Resources	Program used by state and local agencies to identify, evaluate, register, and protect California's historical resources.	**Yes**. The Project complies with the CRHR because properties in the Project study area were evaluated using the evaluation criteria of the CRHR to determine if the properties meet the criteria and retain integrity to convey their significance.	Section 3.3.3.3.1 Section 3.3.6.2
Cultural Resources	State	California Environmental Quality Act	Requires state and local government agencies to inform decisionmakers and the public about the potential environmental effects of a Project and to prevent significant, avoidable environmental impacts to extents feasible.	**Yes**. Certification of the Project by the CEC will be required to comply with CEQA as required by the CEC's Opt-In Application process.	Throughout this Opt-In Application
Cultural Resources	State	Assembly Bill 52	Requires lead agencies to consult with Tribal Governments to address Tribal Cultural Resources that may be impacted by a Project.	**Yes**. The CEC will complete Government-to-Government consultation pursuant to AB 52 as part of the Opt-In Application process.	Section 3.3.6.2
Cultural Resources	State	California Health and Safety Code Section 7050.5	Work shall be halted in the event of human remains discovery.	**Yes.** Mitigation Measure CUL-3 requires compliance with the California Health and Safety Code Section 7050.5.	Section 3.3.3.3.2 Section 3.3.5 Section 3.3.6.2
Cultural Resources	State	Public Resources Code Section 5097.98	Most Likely Descendant designation following the discovery of human remains determined by the County Coroner to be Native American in origin.	**Yes**. Mitigation Measure CUL-3 requires compliance with Public Resources Code Section 5097.98.	Section 3.3.3.3.2 Section 3.3.5 Section 3.3.6.2

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Topic	Jurisdiction	Applicable Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity	Opt-In Application Reference
Cultural Resources	Local	Los Angeles County General Plan	Protects historic, cultural, and paleontological resources in unincorporated areas of Los Angeles County.	**Yes**. The Project would conform with the Los Angeles County General Plan goal and policies.	Section 3.3.6.3
Cultural Resources	Local	Los Angeles County Historic Preservation Ordinance	Establishes criteria and procedures for the nomination, designation, and review of work on historic landmarks and property located within historic districts in unincorporated areas of Los Angeles County.	**Yes**. The current study identified two cultural resources that meet the Los Angeles County Historic Preservation Ordinance criteria. The Project will not cause an impact to these resources because there will be no alteration to the character-defining features of the resources and they will continue to retain integrity and convey their significance.	Section 3.3.3.3.1 Section 3.3.6.3
Geological Hazards and Resources	Federal	International Building Code	Requires state to comply with during design and construction of engineered facilities	**Yes.** Project design and construction will comply with the International Building Code with respect to geologic hazards through compliance with the CBC and the recommendations of a Project-specific geotechnical report.	Section 3.4.2.3.1 Section 3.4.2.3.2 Section 3.4.2.3.3 Section 3.4.5.1
Geological Hazards and Resources	State	California Building Code, 2022	Defines acceptable design criteria for structures with respect to seismic design and load-bearing capacity	**Yes.** Project design and construction will comply with the California Building Code with respect to geologic hazards through compliance with the recommendations of a Project-specific geotechnical report.	Section 3.4.2.3.1 Section 3.4.2.3.2 Section 3.4.2.3.3 Section 3.4.5.2
Geological Hazards and Resources	State	Cal/OSHA, CCR Title 8	Specifies the measures to be used for temporary excavation and trench work where workers could be exposed to unstable soil conditions	**Yes.** Project construction will comply with Cal/OSHA with respect to temporary slopes and excavations.	Section 3.4.2.3.1 Section 3.4.2.3.2 Section 3.4.2.3.3 Section 3.4.5.2
Geological Hazards and Resources	State	Alquist–Priolo Earthquake Fault Zone Act	Identifies areas subject to surface rupture from active faults	**Yes.** Project design and construction will comply with the California Building Code with respect to geologic hazards through compliance with the recommendations of a Project-specific geotechnical report.	Section 3.4.2.3.1 Section 3.4.5.2
Geological Hazards and Resources	State	Seismic Hazards Mapping Act	Identifies secondary seismic hazards (liquefaction and seismically induced landslides)	**Yes.** Project design and construction will comply with the California Building Code with respect to geologic hazards through compliance with the recommendations of a Project-specific geotechnical report.	Section 3.4.2.3.1 Section 3.4.5.2
Geological Hazards and Resources	State	Surface Mining and Reclamation Act	Regulates surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition.	**Yes.** The Project is not located within a designated MRZ, and no mines or gravel pits are in the vicinity of the Project site.	Section 3.4.2.3.4 Section 3.4.2.3.5
Geological Hazards and Resources	Local	Los Angeles County Code of Ordinances, Title 25 – Building Code	Adopts the 2022 California Building Code, with amendments	**Yes.** Project design and construction will comply with the Los Angeles County Building Code with respect to geologic hazards through compliance with the recommendations of a Project-specific geotechnical report.	Section 3.4.2.3.1 Section 3.4.2.3.2 Section 3.4.2.3.3 Section 3.4.5.3
Geological Hazards and Resources	Local	Los Angeles County Code of Ordinances, Appendix J - Grading	Standards for grading and erosion control, including permit requirements	**Yes.** Project construction will comply with Los Angeles County erosion and sediment control ordinances with respect to erosion control during grading and construction through compliance with the CBC and the recommendations of a Project-specific geotechnical report.	Section 3.4.2.3.1 Section 3.4.2.3.2 Section 3.4.2.3.3 Section 3.4.5.3
Geological Hazards and Resources	Local	Los Angeles County General Plan, Safety Element: Goal 1 –	Goals and policies to protect against geologic hazards	**Yes.** Project design and construction will comply with Los Angeles County Safety Element goals with respect to seismic and geotechnical hazards through compliance with the CBC and the recommendations of a Project-specific geotechnical report.	Section 3.4.2.3.1 Section 3.4.2.3.2

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Topic	Jurisdiction	Applicable Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity	Opt-In Application Reference
		Seismic and Geotechnical Hazards			Section 3.4.2.3.3 Section 3.4.5.3
Geological Hazards and Resources	Local	Antelope Valley Area Plan, Public Safety, Services and Facilities Element: Goals and Policies – Geologic Hazards	Includes goals and policies that are intended to protect the public from geologic hazards	**Yes.** Project design and construction will comply with the Antelope Valley Area Plan goals and policies with respect to geological hazards through compliance with the CBC and the recommendations of a Project-specific geotechnical report.	Section 3.4.2.3.1 Section 3.4.2.3.2 Section 3.4.2.3.3 Section 3.4.5.3
Hazardous Materials Handling	Federal	40 CFR 112	Facilities that store oil in excess of 1,320 gallons aboveground or 42,000 gallons below ground, in containers 55 gallons or larger, must prepare a Spill Prevention, Control and Countermeasure (SPCC) Plan.	**Yes.** An SPCC Plan will be prepared and implemented.	Section 3.5.2.3.1 Section 3.5.2.3.2 Section 3.5.5.1
Hazardous Materials Handling	Federal	40 CFR 260 through 273	Establishes requirements for the management of solid wastes, hazardous wastes, landfills, underground storage tanks, and some medical wastes.	**Yes.** Waste generated by the Project will be characterized for disposal. If hazardous wastes are generated, they must be managed in accordance with the rules outlined in 40 CFR Part 262.	Section 3.5.2.3.1 Section 3.5.2.3.2 Section 3.5.5.1
Hazardous Materials Handling	Federal	29 CFR 1910	The Occupational Safety and Health Administration (OSHA) has multiple rules and regulations established for worker protections, health, and safety to be established in the workplace.	**Yes.** Personal protective equipment and training will be provided to workers handling hazardous materials and/or wastes. Fire protection systems and equipment are required for the workplace to protect against site-specific fire hazards. Additional fire protection requirements are discussed in Section 3.16. Chemical products will include an SDS for downstream product users.	Section 3.5.2.3.1 Section 3.5.2.3.2 Section 3.5.5.1
Hazardous Materials Handling	Federal	49 CFR 172	Establishes standards for transportation of hazardous materials and wastes. These include labeling, packaging, shipping manifests, recordkeeping, and training requirements.	**Yes.** The Project will comply with required standards for transportation of hazardous materials and wastes.	Section 3.5.2.3.1 Section 3.5.2.3.2 Section 3.5.5.1
Hazardous Materials Handling	Federal	40 CFR 68	A facility, defined in 40 CFR 68.3 as a "stationary source," that stores a hazardous material above its applicable threshold quantity is required to comply with emergency response coordination activities, implement an emergency response program, conduct emergency response training exercises, and implement applicable accident prevention measures as required by 40 CFR 68.10.	**Yes**. An Emergency Response Plan will be prepared and implemented.	Section 3.5.2.3.1 Section 3.5.2.3.2 Section 3.5.5.1
Hazardous Materials Handling	State	Health and Safety Code Section 25230 / Assembly Bill 332	Allows handling non-RCRA hazardous treated wood waste in accordance with a set of alternative management standards in lieu of the requirements for hazardous waste pursuant to Health and Safety Code, division 20, chapter 6.5, articles 6, 6.5, and 9 and California Code of Regulations, title 22, division 4.5, chapters 12, 13, 14, 15, 16, 18, and 20.	**Yes**. The Project will handle treated wood waste in accordance with this LORS.	Section 3.5.2.3.2 Section 3.5.5.2
Hazardous Materials Handling	State	Health and Safety Code Division 20, Chapter 6.11	California's Unified Hazardous Waste and Hazardous Materials Management Regulatory (Unified) Program consolidates administration, permitting, inspection, and enforcement activities of several environmental programs at a local level.	**Yes**. An HMBP will be prepared and implemented.	Section 3.5.2.3.2 Section 3.5.5.2

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			Duties are delegated to Certified Unified Program Agencies (CUPAs). Multiple programs are managed under the Unified Program, including the Aboveground Petroleum Storage Act (APSA), area plans for hazardous material emergencies, California Accidental Release Prevention (CalARP), Hazardous Material Business Plans (HMBPs), Hazardous Materials Management Plans (HMMPs), Hazardous Materials Inventory Statements (HMISs), hazardous waste permitting (tiered permitting), and underground storage tanks.		
Hazardous Materials Handling	State	HSC Division 20 Chapter 6.95, Sections 25500 through 25519	A facility that handles a hazardous material, hazardous waste, or mixture containing a hazardous material at any one time during the reporting year greater than or equal to 55 gallons of liquid, 500 pounds of solid, or 200 cubic feet of gas is required to prepare and submit an HMBP.	**Yes.** The facility will be required to prepare and submit an HMBP for hazardous materials stored on site. HMBPs are submitted through the California Environmental Reporting System (CERS) online; submittals then go to Los Angeles County for review, approval, and further inspection. HMBPs are updated annually, or within 30 days of a change in hazardous material or waste storage at a facility.	Section 3.5.2.3.2 Section 3.5.5.2
Hazardous Materials Handling	State	California Health and Safety Code, Division 20, Chapter 6.95, Article 2, Sections 25531 to 25543.3 (California Accidental Release Prevention Program (CalARP))	The purpose of the CalARP program is to prevent accidental releases of substances that can cause serious harm to the public and the environment, and to minimize the damage if releases do occur. CalARP requires certain facilities (referred to as "stationary sources") which handle, manufacture, use, or store any regulated substances above threshold quantities to take actions to proactively prevent and prepare for accidental releases. Facilities subject to CalARP requirements must submit a Risk Management Plan (RMP).	**Yes.** Approximately 6,000 pounds of H2S04 (sulfuric acid) will be within the control house. The Project will prepare and implement an RMP to proactively prevent and prepare for accidental releases.	Section 3.5.2.3.2 Section 3.5.5.2
Hazardous Materials Handling	State	Health and Safety Code, Section 25270 through 25270.13 (Aboveground Petroleum Storage Act)	APSA regulations include aboveground petroleum storage tanks that are subject to Spill Prevention, Control, and Countermeasure (SPCC) regulations under 40 CFR 112, aboveground petroleum storage tanks that are larger than 1,320 gallons, and aboveground petroleum storage tanks in underground areas	**Yes**. An SPCC Plan will be prepared and implemented.	Section 3.5.2.3.1 Section 3.5.2.3.2 Section 3.5.5.2
Hazardous Materials Handling	Local	RULE 1403 Asbestos Emissions From Demolition/Renovation Activities	Specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACM).	**Yes**. The Project will comply with this LORS prior to demolition of the structures on site. Asbestos might also occur in ballast rock and soils associated with railroad tracks. The Project will implement Mitigation Measure HAZ-1 to address potential contaminated soil associated with the adjacent railroad.	Section 3.5.2.3.2 Section 3.5.4.1 Section 3.5.5.3
Hazardous Materials Handling	Local	Antelope Valley Area Plan	Preservation of public health, safety, and welfare, through identification of natural and environmental hazards, including noise, seismic, fire, and airborne emissions, and designation of land uses in an appropriate manner to mitigate these impacts	**Yes**. The proposed Project will not physically impede an existing emergency response plan, emergency vehicle access, or personnel access to the Project site. The Project will handle hazardous materials in accordance with applicable LORS and prepare and implement an HMBP.	Section 3.5.2.3.5 Section 3.5.5.3
Hazardous Materials Handling	Local	All-Hazards Mitigation Plan	Identifies and mitigates natural hazards	**Yes**. The proposed Project will not physically impede an existing emergency response plan, emergency vehicle access, or personnel access to the Project site.	Section 3.5.2.3.5 Section 3.5.5.3

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Topic	Jurisdiction	Applicable Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity	Opt-In Application Reference
Land Use	Federal	Title 14 of the Code of Federal Regulations (14 CFR) Part 77	Any person or an agent who intends to sponsor construction is required to submit notice to the FAA if the proposed construction or alteration meets notice requirements.	**Yes**. The Project will file notice under §77.9 for gen-tie line structures that are over 200 feet tall, as required. The FAA's notice criteria tool has been used to determine which gen-tie line structures require notice.	Section 3.6.2.3.2 Section 3.6.5.1
Land Use	Federal	49 U.S. Code § 44718 - Structures interfering with air commerce or national security	Notice is required when a Project may obstruct (1) safety in air commerce; (2) the efficient use and preservation of the navigable airspace and of airport traffic capacity at public-use airports; or (3) the interests of national security, as determined by the Secretary of Defense.	**Yes**. The Project will comply. Initial outreach with the Military Aviation and Installation Assurance Siting Clearinghouse and results of their review indicate that the Project will have minimal impact on military operations conducted in the area (Appendix 3.6A). Additional coordination will occur as part of the FAA's §77.9.	Section 3.6.2.3.2 Section 3.6.5.1
Land Use	State	Assembly Bill 205	Legislation that created and gives statutory authority to the CEC.	**Yes.** As part of the Opt-In Application process, the California Energy Commission (CEC) will review the Project for consistency with Los Angeles County's land use plans, policies, and regulations.	Throughout this Opt-In Application
Land Use	State	California Land Conservation Act of 1965 (Williamson Act)	Preserves agricultural land and encourages open space preservation and efficient urban growth.	**Yes**. The BESS facility site and gen-tie corridors are not under any Williamson Act contract. Furthermore, the Project site and surrounding lands are designated as Other Land per the Department of Conservation Farmland Mapping and Monitoring Program. For environmental review purposes under CEQA, the Other Land category is not constituted as "agricultural land" (Public Resources Code 21060.1).	Section 3.6.2.3.4 Section 3.6.2.3.5 Section 3.6.5.2
Land Use	State	California Environmental Quality Act (CEQA)	Requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of the Project and to reduce environmental impacts to the extent feasible.	**Yes.** California Energy Commission (CEC), per the CEC's certified regulatory program and the AB 205 Opt-In Application process.	Throughout this Opt-In Application
Land Use	Local	Los Angeles County General Plan / Antelope Valley Area Plan	A document that provides a comprehensive policy framework guiding the long-term physical development and conservation of the unincorporated areas of Los Angeles County. The plan includes elements such as land use, mobility, air quality, conservation, parks and recreation, noise, safety, public services, and economic development.	**Yes**. As part of the Opt-In Application process, the California Energy Commission (CEC) will review the Project for consistency with Los Angeles County's land use plans, policies, and regulations. Assembly Bill (AB) 205 expanded the CEC's authority under the Warren-Alquist Act to establish a new certification program for eligible non-fossil-fueled power plants using emergency rulemaking authority provided by AB 205. As part of the Opt-In Application process established under AB 205, the CEC will determine whether the Project will conflict with the County's land use and zoning policies.	Section 3.6.2.3.2 Table 3.6-1 Section 3.6.5.3
Land Use	Local	Los Angeles County Municipal Code, Title 22 Planning and Zoning	Establishes regulations and standards for land use and development in the unincorporated areas of Los Angeles County. It includes countywide provisions that apply to all areas, such as general rules, zoning classifications, and development standards.	**Yes.** BESS is not expressly defined in the County's Zoning Code. However, the County issued a memorandum dated October 18, 2021, regarding BESS, which, in the context of land use, specifically defines BESS as an energy storage device that is considered most like an Electrical Distribution Substation, and further permits this land use in Agricultural zones with either a Site Plan Review or a Conditional Use Permit. The Project will conform to the applicable development standards.	Section 3.6.2.3.2 Section 3.6.2.3.4 Section 3.6.5.3
Noise	Federal	Noise Control Act	Delegates authority to the states to regulate environmental noise and direct government agencies to ensure compliance with local community noise statutes and regulations.	**Yes**. The Project will not exceed the Los Angeles Code of Ordinances Chapter 12.08 threshold for noise or the prescribed time limits on noise generating activities.	Section 3.7.2.3.1 Section 3.7.5.1
Noise	Federal	Transit Noise and Vibration Impact Assessment guidance manual	Recommends a daytime construction noise level threshold when detailed construction noise assessments are performed to evaluate potential impacts to community residences surrounding a Project.	**Yes**. Project construction will not exceed the recommended construction noise threshold of 80 dBA Leq over an 8-hour period.	Section 3.7.2.3.1 Section 3.7.5.1

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Topic	Jurisdiction	Applicable Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity	Opt-In Application Reference
Noise	Federal	1992 findings of the Federal Interagency Committee on Noise (FICON)	Provides guidance regarding the determination of a substantial permanent increase in ambient noise levels in the Project vicinity above existing levels	**Yes**. The Project will not result in an increase in ambient noise that will create an annoyance based on the FICON guidance.	Section 3.7.2.3.1 Section 3.7.5.1
Noise	State	California Environmental Quality Act (CEQA)	Requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of the Project and to reduce environmental impacts to the extent feasible.	**Yes**. The CEC will serve as CEQA lead agency and evaluate potential noise impacts, per the CEC's Opt-In Application process.	Throughout this Opt-In Application
Noise	State	California Department of Health Services guidelines of community noise acceptability for use by local agencies	Provides guidance regarding normally and conditionally acceptable noise levels by receptor land use.	**Yes**. The Project will not exceed the recommended noise thresholds at nearby sensitive receptors.	Section 3.7.2.3.1 Section 3.7.5.2
Noise	State	California Occupational Safety and Health Administration (OSHA); Division of Occupational Safety and Health (DOSH) under the California Department of Industrial Relations (DIR).	Provides permissible noise exposure limits for worker safety related to noise-induced hearing loss.	**Yes.** Employee noise exposures will be limited in accordance with Cal/OSHA requirements.	Section 3.17 Section 3.7.5.2
Noise	State	California Department of Transportation and Construction Vibration Guidance Manual	Provides procedures for predicting and assessing noise and vibration impacts of proposed transit Projects.	**Yes**. The Project will not exceed vibration thresholds that will result in damage to structures or annoyance to nearby receptors.	Section 3.7.2.3.2 Section 3.7.5.2
Noise	Local	Los Angeles County General Plan, Noise Element	Contains a goal and policies related to noise control, establishes noise and land use compatibility standards, and outlines goals and policies to achieve these standards	**Yes**. The Project will not exceed recommended noise levels at nearby sensitive receptors.	Section 3.7.2.3.1 Section 3.7.5.3
Noise	Local	Los Angeles Code of Ordinances Chapter 12.08	Establishes noise and vibration level limits "in order to control unnecessary, excessive and annoying noise and vibration in the county of Los Angeles.	**Yes**. The Project will not exceed the ordinances threshold for noise or the prescribed time limits on noise generating activities.	Section 3.7.2.3.1 Section 3.7.5.3
Paleontological Resources	State	California Environmental Quality Act (CEQA)	Requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of the Project, including to paleontological resources, and to reduce environmental impacts to the extent feasible.	**Yes.** California Energy Commission (CEC) will act as CEQA lead agency, per the CEC's Opt-in Application process.	Section 3.8.2.2 Section 3.8.2.3 Section 3.8.5.1
Paleontological Resources	State	California PRC Section 5097.5	Provides protection for paleontological resources on public lands.	**Not applicable** to this Project because it is located entirely on private property.	Section 3.8.5.1
Paleontological Resources	Local	2035 County of Los Angeles General Plan Update EIR	Includes stipulations that are intended to address paleontological resources in the County of Los Angeles.	**Yes.** Siting of the Project will comply with the General Plan with respect to areas of potential paleontological resources.	Section 3.8.4 Section 3.8.5.2
Public Health	Federal	Clean Air Act	Establishes federal national emissions standards for hazardous air pollutants.	**Yes**. Construction and operational HRAs were performed to assess potential effects and public exposure associated with airborne hazardous air pollutant emissions, specifically DPM, from the Project. The Project will not exceed federal standards.	Section 3.9.3.1 Section 3.9.6.1
Public Health	State	Air Toxics Program	Assembly Bill 1807 and Assembly Bill 2588 involve TAC risk identification and risk management, including facility prioritization.	**Yes**. Construction and operational HRAs were performed to assess potential effects and public exposure associated with airborne TAC emissions, specifically DPM, from the Project. The Project will not exceed state standards.	Section 3.9.3.1 Section 3.9.6.2
Public Health	State	Diesel Risk Reduction Plan	The Diesel Risk Reduction Plan evaluated health effects of ambient DPM and identified potential control technologies to reduce DPM, which paved the way for development and adoption of ATCMs.	**Yes.** Construction and operational sources of DPM associated with the Project will be required to comply with the applicable ATCMs to reduce DPM.	Section 3.9.3.1 Section 3.9.6.2

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Topic	Jurisdiction	Applicable Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity	Opt-In Application Reference
Public Health	State	California Health and Safety Code Section 41700	Prohibits discharging air contaminants causing injury, nuisance, or endangering public health or safety.	**Yes.** Based on the construction and operational HRAs performed for the Project, TAC exposure will not endanger public health or safety.	Section 3.9.3.1 Section 3.9.6.2
Public Health	Local	Antelope Valley Air Quality Management District Rules	Regulates air pollutant emissions throughout the Los Angeles County portion of the Mojave Desert Air Basin.	**Yes**. Based on the construction and operational HRAs performed for the Project, TAC exposure will not exceed the AVAQMD risk thresholds. In addition, the Project will be required to comply with applicable AVAQMD rules to minimize potential TAC emissions and exposure.	Section 3.9.3.1 Section 3.9.6.3
Socioeconomics	Federal	Executive Order 12898	Avoid disproportionately high and adverse impacts on minority and low-income members of the community. Applies only to federal agencies. However, was used to inform an analysis of impacts to environmental justice communities for the Project.	**Yes**. No high and adverse human health or environmental impacts related to the Project will disproportionately fall on minority and/or low-income members of the local community.	Section 3.10.2.4 Section 3.10.5.1
Socioeconomics	State	California Code of Regulations Title 14, Section 15131 (CEQ)	CEQA identifies several environmental factors that are addressed or referenced in this analysis, including Population, Housing, Utilities/Service Systems, and Public Services. Economic/social effects of a Project are not treated as significant effects on the environment, while they may be used to determine the significance of physical changes caused by the Project.	**Yes**. This section evaluates the Project's effects to Population, Housing, Utilities/Service Systems, Public Services, and Socioeconomics. Impacts will be less than significant as described above.	Section 3.10.2.3 Section 3.10.5.2
Socioeconomics	State	Government Code Sections 65996 – 65997	Establishes that the levy of a fee for construction of an industrial facility be considered mitigating impacts on school facilities. School districts may charge a one-time assessment fee to mitigate potential school impacts.	**Yes**. The Project will pay applicable school impact fees.	Section 3.10.2.3.5 Section 3.10.5.2
Socioeconomics	State	Education Code Section 17620	Allows a school district to levy a fee against any construction within the boundaries of the district for the purpose of funding construction of school facilities. Local school districts may charge a one-time assessment fee to mitigate potential school impacts.	**Yes**. The Project will pay applicable school impact fees.	Section 3.10.2.3.5 Section 3.10.5.2
Socioeconomics	Local	Los Angeles County General Plan, Economic Development Element	Outlines the County's economic development goals, and provides strategies that contribute to the economic well-being of Los Angeles County.	**Yes**. Overall, the Project will generate about $376 million in public revenue during the construction phase with $154.9 million accruing to Los Angeles County (2025-dollar terms). In addition, Project construction is estimated to generate $60.8 million in employee compensation and about $145.1 million in total economic output in the County. Annual Project operations will provide about $5.7 million in employee compensation and $14.5 million in economic output each year during its approximate 40-year lifetime.	Section 3.10.2.3.3 Section 3.10.2.3.4 Section 3.10.5.3
Socioeconomics	Local	Antelope Valley Area Plan, Economic Development Element	Provides the blueprint for the planning area to build a healthy and sustainable economic base that will drive development and private-sector led conservation and preservation of open space in the are	**Yes**. See above.	Section 3.10.2.3.3 Section 3.10.2.3.4 Section 3.10.5.3
Soils	Federal	Clean Water Act (CWA)/Water Pollution Control Act. 1972, amended by Water Quality Act of 1987 P.L. 100-4	Regulates stormwater and non-stormwater discharges from construction and industrial activities	**Yes.** Project grading and construction will be completed in compliance with the NPDES Construction General Permit, which will fulfill CWA requirements with respect to erosion and water quality.	Section 3.11.2.3.1 Section 3.11.5.2

Table 5-1. Comprehensive Law, Ordinance, Regulation, or Standard Table

Topic	Jurisdiction	Applicable Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity	Opt-In Application Reference
Soils	Federal	USDA NRCS National Engineering Handbook, Sections 2 and 3	Provides standards for soil conservation during planning, design, and construction activities	**Yes**. Project grading will include earthwork activities that provide relatively level surfaces for proposed construction of structures and removing any soils unsuitable for construction and may be reused on site for landscaping. All grading will be done consistent with building code requirements.	Section 3.11.2.3.1 Section 3.11.2.3.2 Section 3.11.5.1
Soils	State	Section 1803.5.3 of the California Building Code	Regulations for soils and foundations, including standards for defining expansive soils	**Yes**. Adherence to existing regulatory requirements, which requires testing and structural design with respect to potentially expansive soils, will fulfill the requirements of the California Building Code.	Section 3.11.2.3.2 Section 3.11.5.2
Soils	Local	California Building Standards Code (CCR Title 24, Part 2, Chapters 18 and 18A) (2022)	Sets the requirements for general building design and construction	**Yes.** All proposed improvements will be required to adhere to the requirements of the California Building Code with local amendments by Los Angeles County, as applicable.	Section 3.11.2.3.2 Section 3.11.5.2
Soils	Local	Los Angeles County Code of Ordinances, Appendix J - Grading	Standards for grading and water quality, including permit requirements	**Yes**. Project grading and construction will comply with Los Angeles County erosion and sediment control ordinances with respect to erosion control during grading and construction through compliance with the Building and Grading Permit requirements.	Section 3.11.2.3.1 Section 3.11.5.3
Soils	Local	Los Angeles County Code of Ordinances, Chapter 12.80 Stormwater and Runoff Pollution Control	Sets requirements for stormwater and runoff pollution control during construction activities	**Yes.** Project grading and construction will be completed in compliance with the NPDES Construction General Permit, and Los Angeles County erosion and sediment control requirements to protect stormwater water quality.	Section 3.11.2.3.1 Section 3.11.5.3
Soils	Local	Los Angeles County Code of Ordinances, Chapter 12.84 Low Impact Development Standards	Standards for erosion and stormwater control	**Yes.** Project grading and construction will comply with NPDES Construction General Permit and operationally stormwater drainage control features will comply with Los Angeles County Low Impact Development (LID) ordinances with a LID plan.	Section 3.11.2.3.1 Section 3.11.5.3
Transportation and Traffic	Federal	Code of Federal Regulations (CFR)	Provides standards for labels, placards, and markings on hazardous materials shipments by truck (Part 172), standards for packaging hazardous materials (Parts 173), and for transporting hazardous materials in tank cars (Part 179).	**Yes**. The Project will be consistent with the CFR regulations by using applicable standards for labeling and packaging hazardous materials.	Section 3.12.5.1
Transportation and Traffic	State	California Environmental Quality Act (CEQA)	Requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of proposed Projects and to reduce those environmental impacts to the extent feasible.	**Yes**. The Project's impact analysis provided, specifically, the VMT analysis has been prepared per CEQA requirements for transportation impact analysis.	Section 3.12.2.3 Section 3.12.5.2
Transportation and Traffic	State	California Vehicle Code	A rulebook containing information about traffic laws in California	**Yes**. The Project will comply with the applicable provision of the CVC and apply for required transportation and encroachment permits from the agencies.	Section 3.12.5.2 Section 3.12.6 Section 3.12.7
Transportation and Traffic	Local	Los Angeles County General Plan	Contains goals designed to further the County's mobility strategy pursuant to California Complete Streets Act of 2007. The Mobility Element addresses this requirement with policies and programs that consider all modes of travel, with the goal of making streets safer, accessible and more convenient to walk, ride a bicycle, or take transit.	**Yes**. The Project would not conflict nor impede the implementation of any plans or policies regarding proposed transit, roadway, bicycle or pedestrian facilities including the County's General Plan and its applicable elements.	Section 3.12.2.3 Section 3.12.5.3
Transportation and Traffic	Local	Antelope Valley Area Plan	Refines the countywide goals and policies in the General Plan by addressing specific issues relevant to the Antelope Valley, and its Mobility Element	**Yes**. The Project would not conflict nor impede the implementation of any plans or policies regarding proposed transit, roadway, bicycle or pedestrian facilities including the Antelope Valley Area Plan.	Section 3.12.2.3 Section 3.12.5.3

Table 5-1. Comprehensive Law, Ordinance, Regulation, or Standard Table

Topic	Jurisdiction	Applicable Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity	Opt-In Application Reference
			outlines the improvements needed to ensure current and future mobility between land uses		
Transportation and Traffic	Local	Los Angeles County Municipal Code	Consists of the regulatory, penal and administrative ordinances related to Planning and Zoning (Title 22), Vehicles and Traffic (Title 15), Highways (Title 16), and Fire Code (Title 32).	**Yes**. The Project will be consistent with County's Code and implement a traffic control plan as discussed in MM-TRA-1 Construction Traffic Management Plan and ensure emergency access is maintained at all times per LACoFD requirements.	Section 3.12.2.3.3 Section 3.12.5.3
Transportation and Traffic	Local	Transportation Impact Analysis (TIA) Guidelines, Traffic Control Requirements	Includes guidance and requirements for VMT analysis of development and transportation Projects, including Project screening, analysis methodology, significance criteria, impact assessment, and mitigation strategies.	**Yes**. The Project's impact analysis addresses the VMT and operational analysis and criteria detailed in the County's TIA Guidelines, as they apply to the proposed Project.	Section 3.12.2.3 Section 3.12.5.3
Transportation and Traffic	Local	Requirements for Temporary Controls for Lane Closures, Street Closures, and Detours	Provides the requirements for temporary traffic controls and access for any permitted activity within the County public rights-of-way when temporary disruption of traffic is implemented.	**Yes**. The Project will be consistent and implement a traffic control plan as discussed in MM-TRA-1 Construction Traffic Management Plan per County's requirements for any construction in the County public rights-of-way.	Section 3.12.2.3 Section 3.12.5.3
Transportation and Traffic	Local	Vision Zero Los Angeles County: A Plan for Safer Roadways	A traffic safety initiative intended to guide the County's efforts on reducing traffic deaths and severe injuries on unincorporated County roadways through 2025. Creates the vision for the future and sets goals and actions to enhance traffic safety in collaboration with agencies and community partners	**Yes**. The Project would not conflict nor impede the implementation of any plans or policies addressing safety per the Vision Zero Action Plan. The Project would implement a traffic control plan as discussed in MM-TRA-1 Construction Traffic Management Plan to ensure safe movement of all road users during the construction period.	Section 3.12.2.3 Section 3.12.5.3
Visual Resources	State	California Environmental Quality Act (CEQA)	Requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of proposed Projects and to reduce those avoid or minimize potentially significant environmental impacts to the extent feasible.	**Yes**. Refer to Section 3.13.2.5 that presents an aesthetics analysis in accordance with CEQA.	Section 3.13.2.5 Section 3.13.5.2
Visual Resources	State	State Scenic Highway Program	The scenic corridor protection program is made up of adopted ordinances to preserve the scenic quality of the corridor or document such regulations that already exists in various portions of local codes.	**Yes.** There are no state scenic highways in the surrounding area from which views of the Project site and proposed Project components will be available. See also Section 3.13.2.5 for analysis of potential impacts to scenic resources within the viewshed of a state scenic highway.	Section 3.13.2.5.2 Section 3.13.5.2
Visual Resources	Local	Los Angeles County General Plan	Provides a comprehensive policy framework to guide development and growth in the unincorporated areas of the county.	**Yes**. Refer to Section 3.13.2.5 for analysis of Project conformity with applicable policies of the Los Angeles County General Plan.	Section 3.13.2.5.3 Section 3.13.5.3
Visual Resources	Local	Antelope Valley Area Plan	Refines the countywide goals and policies in the General Plan by addressing specific issues relevant to the Antelope Valley, such as community maintenance and appearance, and provides more specific guidance on elements already found in the General Plan.	**Yes**. Refer to Section 3.13.2.5 for analysis of Project conformity with applicable policies of the Antelope Valley Area Plan.	Section 3.13.2.5.3 Section 3.13.5.3
Waste Management	Federal	RCRA Subtitle D	Regulates design and operation of nonhazardous solid waste landfills.	**Yes.** Non-hazardous waste generated as part of Project implementation will be handled and disposed of in accordance with Subtitle D.	Section 3.14.2.3.1 Section 3.14.5.1
Waste Management	Federal	RCRA Subtitle C	Controls storage, treatment, and disposal of hazardous waste.	**Yes.** Hazardous waste generated as part of Project implementation will be handled and disposed of in accordance with Subtitle C.	Section 3.14.2.3.1 Section 3.14.5.1

Table 5-1. Comprehensive Law, Ordinance, Regulation, or Standard Table

Topic	Jurisdiction	Applicable Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity	Opt-In Application Reference
Waste Management	State	California Environmental Quality Act (CEQA)	Requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of the Project and to reduce environmental impacts to the extent feasible.	**Yes.** California Energy Commission (CEC), per the CEC's Opt-In Application process.	Section 3.14.2.3.1 Section 3.14.5.2
Waste Management	State	California Integrated Waste Management Act (CIWMA) – AB 939	Controls solid waste collectors, recyclers, and depositors.	**Yes.** Waste generated as part of Project implementation will be handled and disposed of in accordance AB 939 requirements.	Section 3.14.2.3.1 Section 3.14.5.2
Waste Management	State	Assembly Bill 341 / State Bill 1018 – Mandatory Commercial Recycling	Requires commercial businesses generating 4 cubic yards per week or more of solid waste to adopt recycling practices	**Yes.** Recyclable materials generated as part of Project implementation will be recycled in accordance with Assembly Bill 341 / State Bill 1018 as applicable.	Section 3.14.2.3.1 Section 3.14.5.2
Waste Management	State	CCR Title 24, Part 11 (CALGreen Standards)	Establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality	**Yes.** Solid waste generated will be recycled in accordance with CALGreen requirements for recycling percentages.	Section 3.14.2.3.1 Section 3.14.5.2
Waste Management	State	CCR Title 22, Division 4.5	Controls storage, treatment, and disposal of hazardous waste under the Department of Toxic Substance Control.	**Yes.** Hazardous wastes generated by the Project will be handled and disposed of in conformance with CCR Title 22, Division 4.5.	Section 3.14.2.3.1 Section 3.14.5.2
Waste Management	Local	Construction and Demolition Debris Recycling and Reuse Ordinance	Requires Projects in the unincorporated areas to recycle or reuse 50% of the debris generated.	**Yes.** The Project will conform to the requirements of the County's Construction and Demolition Debris Recycling and Reuse Ordinance.	Section 3.14.2.3.1 Section 3.14.5.3
Waste Management	Local	Los Angeles County General Plan	Provides a comprehensive policy framework to guide development and growth in the unincorporated areas of the county	**Yes**. The Project will conform to the Los Angeles County General Plan goals and policies related to waste.	Section 3.14.2.3.1 Section 3.14.5.3
Water Resources	Federal	Clean Water Act	Requires adherence to NPDES stormwater and water discharge requirements	**Yes.** Project will include preparation and implementation of a SWPPP and construction BMPs during construction activities to prevent off-site transport of pollutants. For operation, Project will design and construct stormwater treatment controls to protect water quality of receiving waters.	Section 3.15.2.3.1 Section 3.15.2.3.3 Section 3.15.2.3.5 Section 3.15.5.1
Water Resources	Federal	Antidegradation Policy	Requires states to develop statewide antidegradation policies and identify methods for implementing them.	**Yes.** Project will implement construction and post-construction BMPs to prevent off-site transport of pollutants.	Section 3.15.2.3.1 Section 3.15.2.3.3 Section 3.15.5.1
Water Resources	Federal	Safe Drinking Water Act	The act authorizes EPA to set national health-based standards for drinking water	**Yes.** Treatment controls of stormwater (e.g., on-site infiltration) will aid in the protection of receiving waters and groundwater to ensure that water resources used for drinking water are protected.	Section 3.15.2.3.1 Section 3.15.2.3.3 Section 3.15.5.1
Water Resources	Federal	National Flood Insurance Act	Established the National Flood Insurance Program to provide flood insurance within communities willing to adopt floodplain management programs to mitigate future flood losses	**Yes.** Stormwater drainage controls (i.e., infiltration facilities) will ensure that Project peak storm runoff does not exceed stormwater volumes under existing conditions.	Section 3.15.2.3.4 Section 3.15.5.1
Water Resources	Federal	Executive Order 11988	FEMA requires local governments covered by federal flood insurance pass and enforce a floodplain management ordinance that specifies minimum requirements for any construction within the 100-year floodplain	**Yes.** Stormwater drainage controls (i.e., infiltration facilities) will ensure that Project peak storm runoff does not exceed stormwater volumes under existing conditions.	Section 3.15.2.3.4 Section 3.15.5.1

Table 5-1. Comprehensive Law, Ordinance, Regulation, or Standard Table

Topic	Jurisdiction	Applicable Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity	Opt-In Application Reference
Water Resources	State	Porter–Cologne Water Quality Control Act	The basic water quality control law establishes the legal and regulatory framework for California's water quality control to implement the provisions of the CWA	**Yes.** Stormwater drainage controls (i.e., infiltration facilities) will provide post-construction treatment of stormwater runoff and prevent off-site transport of pollutants. In addition, the Project is expected to require a waste discharge requirements (WDR) from RWQCB. A WDR application is included as Appendix 3.2D of this application.	Section 3.15.2.3.1 Section 3.15.2.3.3 Section 3.15.5.2
Water Resources	State	California Water Code	Establishes districts and local agencies with specific statutory provisions to manage surface water and authority to exercise some forms of groundwater management.	**Yes.** Stormwater drainage controls (i.e., infiltration facilities) will provide post-construction treatment of stormwater runoff and prevent off-site transport of pollutants.	Section 3.15.2.3.1 Section 3.15.2.3.2 Section 3.15.2.3.3 Section 3.15.5.2
Water Resources	State	California Toxics Rule	Establishes water quality criteria for certain toxic substances to be applied to waters in the state	**Yes.** Stormwater drainage controls (i.e., post-construction treatment controls) will ensure that water quality of receiving waters is protected.	Section 3.15.2.3.1 Section 3.15.2.3.3 Section 3.15.5.2
Water Resources	State	Sustainable Groundwater Management Act	SGMA requires governments and water agencies of high- and medium-priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge	**Yes.** Project is located in Antelope Valley Groundwater Basin which is not subject to SGMA due to its adjudication.	Section 3.15.2.3.2 Section 3.15.2.3.5 Section 3.15.5.2
Water Resources	Local	Municipal NPDES Permit	This permit also serves as an NPDES permit under the federal CWA, as well as waste discharge requirements under California law	**Yes.** Project design will include post-construction treatment controls to protect water quality.	Section 3.15.2.3.1 Section 3.15.2.3.3 Section 3.15.2.3.5 Section 3.15.5.3
Water Resources	Local	LA County LID Manual	Also known as the Los Angeles Water Quality Ordinance, the manual provides standards to comply with the requirements of the NPDES MS4 Permit for stormwater and non-stormwater discharges	**Yes.** The Project's stormwater management features will be designed consistent with the County's manual to ensure consistency with the MS4 Permit	Section 3.15.2.3.1 Section 3.15.2.3.3 Section 3.15.2.3.5 Section 3.15.5.3
Wildfire	Federal	North American Electric Reliability Corporation; Institute of Electrical and Electronics Engineers; National Electrical Safety Code	Electrical components of the proposed Project. Most notably, overhead powerlines.	**Yes**. All electrical components, most notably overhead powerlines, associated with the proposed Project (including the gen-tie line), would comply with the requirements of these LORS, most notably the vegetation management requirements.	Section 3.16.2.3.2 Section 3.16.2.3.3 Section 3.16.5.1
Wildfire	State	CGC Sections 51175 through 51189, Section 51182; CCR Title 14, Division 1.5, Chapter 7, Subchapter 3; PRC Sections 4290-4293; PUC 8386, General Orders and Rules	LORS pertaining mainly to defensible space, vegetation management around powerlines, and fire hazard severity zones.	**Yes**. Vegetation management around power lines would be in compliance with these requirements.	Section 3.16.2.3.2 Section 3.16.2.3.3 Section 3.16.2.3.4 Section 3.16.5.2
Wildfire	State	Part 2 of CCR Title 24, California Building Code	Standards for construction of the proposed Project.	**Yes**. Project construction would comply with the CBC through compliance with the Los Angeles County Code of Ordinances.	Section 3.16.2.3.2 Section 3.16.5.2
Wildfire	State	Part 9 of CCR Title 24, California Fire Code	Establishes requirements for fire department access, fire protection systems, BESS design, installation, operation, and removal.	**Yes**. All Project components will be in compliance with the requirements of the CFC including those pertaining to fire apparatus access, and BESS design.	Section 3.16.2.3.2 Section 3.16.2.3.3 Section 3.16.2.3.4 Section 3.16.5.2

Table 5-1. Comprehensive Law, Ordinance, Regulation, or Standard Table

Topic	Jurisdiction	Applicable Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity	Opt-In Application Reference
Wildfire	Local	Los Angeles County General Plan	Establishes policies and actions that guide fire-safe development and local emergency services.	**Yes**. Provides general principles that the proposed Project would follow as well as policies that would impact the emergency services that would serve the proposed Project.	Section 3.16.2.3.1 Section 3.16.2.3.2 Section 3.16.5.3
Wildfire	Local	Los Angeles County Code of Ordinances – Fire Code (Title 32)	Contains the Los Angeles County Fire Code (Title 32), which outlines the requirements of the proposed Project pertaining to fire safety.	**Yes**. Contains pertinent local codes (Fire, Building, Electrical), that all proposed Project components would have to be in compliance with.	Section 3.16.2.3.2 Section 3.16.2.3.3 Section 3.16.5.3
Wildfire	Local	Los Angeles County All-Hazard Mitigation Plan	Contains goals and objectives that are intended to reduce loss of life and property from natural disasters	**Yes**. Identifies mitigation action items that aim to meet objectives and reduce the impacts of these hazards, which the Project would have to be in compliance with.	Section 3.16.2.3.1 Section 3.16.2.3.2 Section 3.16.5.3
Wildfire	Local	Emergency Operations Plan	Provides an overview of the jurisdiction's approach to emergency operations. It identifies emergency response policies, describes the response and recovery organization, and assigns specific roles and responsibilities to County departments, agencies, and community partners.	**Yes**. Facilitates response and recovery activities in an efficient and effective way, that the Project would have to be in compliance with. The Project achieves a less than 5-minute total response time from the Los Angeles County Fire Department Station 80, conforming to the response time standards.	Section 3.16.2.3.2 Section 3.16.2.3.3 Section 3.16.5.3
Worker Health and Safety	Federal	Title 29 Code of Federal Regulations Part 1910	Contains the minimum occupational safety and health standards for general industry in the United States.	**Yes**. The Project will implement training and programs to comply.	Section 3.17
Worker Health and Safety	Federal	Title 29 Code of Federal Regulations Part 1926	Contains the minimum occupational safety and health standards for construction industry in the United States.	**Yes**. The Project will implement training and programs to comply.	Section 3.17
Worker Health and Safety	State	California Occupational Safety and Health Act, 1970 ▪ Title 8 California Code of Regulations Section 3395 Heat Illness Prevention (outdoors) ▪ Title 8 California Code of Regulations Section 3396 Heat Illness Prevention (indoors) ▪ Title 8 California Code of Regulations Section 5141.1 Protection from Wildfire Smoke	Establishes minimum safety and health standards for construction and general industry operations in California. ▪ Cal/OSHA's Heat Illness Prevention for Outdoor Places of Employment regulation applies to all outdoor places of employment, such as those in the agriculture, construction, and landscaping industries. For outdoor workplaces, employers must take steps to protect workers from heat illness. Some of the requirements include providing water, shade, rest, and training. The Project will comply with the regulation and prepare and implement a Heat Illness Prevention Plan.	**Yes**. The Project will implement training and programs to comply.	Section 3.17

Table 5-1. Comprehensive Law, Ordinance, Regulation, or Standard Table

Topic	Jurisdiction	Applicable Law, Ordinance, Regulation, or Standard	Applicability	Project Conformity	Opt-In Application Reference
			▪ Cal/OSHA's Heat Illness Prevention in Indoor Places of Employment regulation applies to most indoor workplaces, such as restaurants, warehouses, and manufacturing facilities, where temperatures can get high. For indoor workplaces where the temperature reaches 82°F, employers must take steps to protect workers from heat illness. Some of the requirements include providing water, rest, cool-down areas, methods for cooling down the work area under certain conditions, and training. The Project will comply with the regulation and prepare and implement a Heat Illness Prevention Plan. ▪ Section 5141.1 requires employers to determine employee exposure to fine particulate matter ($PM_{2.5}$) for worksites at the start of each shift and periodically thereafter as needed. Employers must implement measures and controls to protect workers when the current Air Quality Index is 151 or greater, including communication systems, training, engineering controls, changes to work schedules or procedures, providing respiratory protection, and other measures. The Project's Employee Exposure Monitoring Program will incorporate air quality and wildfire monitoring requirements and controls.		
Worker Health and Safety	State	Title 24, Part 3, California Electrical Code	Requirements for electrical safety, which include the Uniform Electrical Code, Title 24, Part 3.	**Yes**. The Project will implement training and programs to comply.	Section 3.17
Worker Health and Safety	State	Title 24, Part 9, Chapter 6, Section 608	California Fire Code requirements for stationary storage battery systems.	**Yes**. The Project will be designed to CFC standards.	Section 3.17
Worker Health and Safety	State	Health and Safety Code Sections 25500 through 25541	Requirements for the preparation of a Hazardous Material Business Plan that details emergency response plans for a hazardous material emergency at the facility.	**Yes**. The Project will comply. See Section 3.5, Hazardous Materials Handling.	Section 3.5
Worker Health and Safety	Local	Specific hazardous material handling requirements	Hazardous materials used or stored must conform to the Uniform Fire Code.	**Yes**. The Project will comply. See Section 3.5, Hazardous Materials Handling.	Section 3.5
Worker Health and Safety	Local	Hazardous Materials Business Plan	Los Angeles County Fire Department is the designated Certified Unified Program Agency and is responsible for administering Hazardous Materials Business Plans.	**Yes**. The Project will comply. See Section 3.5, Hazardous Materials Handling.	Section 3.5
Worker Health and Safety	Industry Standard	National Fire Protection Association (NFPA) 855 Standard for the Installation of Stationary Energy Storage Systems	NFPA 855 provides guidelines regarding the minimum requirements for mitigating the potential hazards associated with the battery energy storage system. Although not codified in state or local LORS, NFPA 855 is included here as an industry standard that the Project will meet.	**Yes**. The Project will be designed to NFPA 855 standards.	Section 3.17

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6 Permits and Approvals Table

Table 6-1. Permits and Approvals Table

Agency	Agency Contact Information	Permit/Approval	Status
California Energy Commission (CEC)	Kaycee Chang, Project Manager Siting, Transmission and Environmental Protection Division 1516 Ninth Street, MS 15 Sacramento, California 95814 Kaycee.chang@energy.ca.gov	Site Certification for Opt-In Project; environmental review under California Environmental Quality Act; Assembly Bill 52 Tribal Consultation	Application submitted June 2025.
California Public Utilities Commission (CPUC)	505 Van Ness Avenue San Francisco, California 94102 415.703.2782	Since the Project interconnection facilities (e.g., gen-tie line) are required to be owned in part by Southern California Edison (SCE), the CPUC would have jurisdiction over the approval of those portions of the Project, pursuant to General Order 131-D, and may rely on the this application and the CEC's analysis to fulfill its California Environmental Quality Act (CEQA) review obligations of any substation or interconnection facility improvements under its jurisdiction that are necessary to serve the Project	SCE will be responsible for this submittal and coordinate with the CPUC after the CEC issues its Decision on the Application.
Los Angeles County Department of Regional Planning	Amy Bodek, Director 320 West Temple Street Los Angeles, California 90012 213.974.6411 info@planning.lacounty.gov	Significant Ecological Area Conditional Use Permit	To be incorporated into CEC Certification/superseded by the CEC.

Table 6-1. Permits and Approvals Table

Agency	Agency Contact Information	Permit/Approval	Status
Los Angeles County Department of Regional Planning	Amy Bodek, Director 320 West Temple Street Los Angeles, California 90012 213.974.6411 info@planning.lacounty.gov	Lot Line Adjustment	If required, the Applicant will combine the battery energy storage (BESS) facility site parcels so that the proposed project, excluding linears and temporary laydown or staging area, will be located on a single legal parcel.
Los Angeles County Fire Department	Fire Prevention Division Richard H. Stillwagon, Division Chief 5823 Rickenbacker Road Commerce, California 90040 323.890.4243 richard.stillwagon@fire.lacounty.gov	Request for Modification or Alternate Materials and Methods Review	To be incorporated into CEC Certification/superseded by the CEC.
Los Angeles County Public Works Department	900 South Fremont Avenue Alhambra, California 91803 626.458.5100	Franchise Agreement (for project components that will be located underground within Soledad Canyon Road and Carson Mesa Road)	Application will be submitted in Q2 2026.
Los Angeles County Metropolitan Transportation Authority	One Gateway Plaza Los Angeles, California 90012-2952 213.922.6000	Franchise Agreement (for project components that will cross above and be located underneath the railroad tracks)	Application will be submitted in Q2 2026.
Los Angeles County Public Works Department	C&D Unit Annex Building, 3rd Floor 900 South Fremont Avenue Alhambra, California 91803 626.300.2070 CND@pw.lacounty.gov	C&D Recycle and Reuse Plan	To be incorporated into CEC Certification/superseded by the CEC.
Los Angeles County Fire Department	Fire Prevention Division Richard H. Stillwagon, Division Chief 5823 Rickenbacker Road Commerce, California 90040 323.890.4243 richard.stillwagon@fire.lacounty.gov	Grading/Building Permits	To be incorporated into CEC Certification/superseded by the CEC.

Table 6-1. Permits and Approvals Table

Agency	Agency Contact Information	Permit/Approval	Status
Los Angeles County Public Works Department	Building & Safety Division 900 South Fremont Avenue Alhambra, California 91803 626.458.3173	Grading/Building Permits	To be incorporated into CEC Certification/superseded by the CEC.
Los Angeles County Fire Department, Health Hazardous Materials Division	Mario Tresierras, Division Chief 5825 Rickenbacker Road Commerce, California 90040 323.890.4045 Fire-HHMDCERS@fire.lacounty.gov	Hazardous Materials Business Plan	To be incorporated into CEC Certification/superseded by the CEC.
Los Angeles County Fire Department, Health Hazardous Materials Division	Mario Tresierras, Division Chief 5825 Rickenbacker Road Commerce, California 90040 323.890.4045 Fire-HHMDCERS@fire.lacounty.gov	Spill Prevention, Control, and Countermeasures Plan	To be incorporated into CEC Certification/superseded by the CEC.
Los Angeles County Fire Department, Health Hazardous Materials Division	Mario Tresierras, Division Chief 5825 Rickenbacker Road Commerce, California 90040 323.890.4045 Fire-HHMDCERS@fire.lacounty.gov	Risk Management Plan	To be incorporated into CEC Certification/superseded by the CEC.
Department of Defense Military Aviation and Installation Assurance Siting Clearinghouse	Robbin Beard, Deputy Director, Military Aviation and Installation Assurance Siting Clearinghouse, Department of Defense, Office of the Assistant Secretary of Defense 3400 Defense Pentagon, Washington DC 20301-3400 (no phone number provided) robbin.e.beard.civ@mail.mil	49 United States Code Section 44718, Structures Interfering with Air Commerce or National Security	An informal review was conducted by the Military Aviation and Installation Assurance Siting Clearinghouse. The results of the review indicated that the Project, will have minimal impact on military operations conducted in the area. Further review will be required as part of the Federal Aviation Administration's Obstruction Evaluation Airport Airspace Analysis (OE/AAA) process.

Table 6-1. Permits and Approvals Table

Agency	Agency Contact Information	Permit/Approval	Status
Federal Aviation Administration	Dan Shoemaker, Western OE Team Manager Federal Aviation Administration Southwest Regional Office Obstruction Evaluation Group 10101 Hillwood Parkway Fort Worth, Texas 76177 206.231.2989 OEGroup@faa.gov	Obstruction Evaluation Airport Airspace Analysis (OE/AAA) process, Title 14 of the Code of Federal Regulations Part 77	The Project will file notice under Section 77.9 for gen-tie line structures that are over 200 feet tall, as required.
California Department of Fish and Wildlife	Erinn Wilson-Olgin, Regional Manager 3883 Ruffin Road San Diego, California 92123 858.467.4201 AskR5@wildlife.ca.gov	Section 1602 Lake and Streambed Alteration Agreement	Application submitted June 2025 (as part of the Opt-In Application – see Appendix 3.2D).
Los Angeles Regional Water Quality Control Board	Los Angeles County Regional Water Quality Control, Industrial and Construction Stormwater Programs, Compliance & Enforcement Nerissa Schrader, Supervisor Documents submitted via SMARTS* 213.620.2243 stormwater@waterboards.ca.gov Nerissa.Schrader@Waterboards.ca.gov	Waste Discharge Requirements Permit	Application submitted June 2025 (as part of the Opt-In Application – see Appendix 3.2E).
Los Angeles Regional Water Quality Control Board	Los Angeles County Regional Water Quality Control, Industrial and Construction Stormwater Programs, Compliance & Enforcement Nerissa Schrader, Supervisor Documents submitted via SMARTS* 213.620.2243 stormwater@waterboards.ca.gov Nerissa.Schrader@Waterboards.ca.gov	Construction Stormwater General Permit, Notice of Intent to Comply, stormwater pollution prevention plan (SWPPP)	Notice of Intent will be filed by the Engineering Procurement and Construction (EPC) contractor prior to construction.

Table 6-1. Permits and Approvals Table

Agency	Agency Contact Information	Permit/Approval	Status
Palmdale Water District	Engineering Services 2029 East Avenue Q Palmdale, California 93550 661.441.5949 dev_services@palmdalewater.org	Application for Recycled Water Construction Meter	Application will be submitted in July 2025.
California Department of Transportation	Transportation Permits Issuance Branch 916.322.1297	Transportation Permit for Oversized Loads	To be incorporated into CEC Certification/superseded by the CEC.
Los Angeles County Department of Public Works	Transportation Permits Tiffany Nguyen 626.458.4948 tnguyen@dpw.lacounty.gov	Transportation Permit for Oversized Loads	To be incorporated into CEC Certification/superseded by the CEC.
Los Angeles County Department of Public Works	Land Development Division 900 South Fremont Avenue, 3rd Floor Alhambra, California 91803 626.458.6959	LA County Haul Route – Encroachment Permit	To be incorporated into CEC Certification/superseded by the CEC.
Southern California Regional Rail Authority (SCRRA)	2700 Melbourne Avenue Pomona, California 91767 Attn: Eric Reese – ROW Encroachments Coordinator rightofentry@scrra.net 909.667.8108	Right of Entry Permit or Railroad Encroachment Permit	To be incorporated into CEC Certification/superseded by the CEC.
Antelope Valley Air Quality Management District	Taylor Morais, Air Quality Engineer 661.723.8070, ext. 24 tmorais@avaqmd.ca.gov	Authority to Construct (for Emergency Generators)	Application will be submitted in July 2025.

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7 Persons Who Prepared the Application

Organization	Role	Name
Prairie Song Reliability Project LLC	Project Management and Overall Application Preparation (Executive Summary, Project Description, etc.)	Garrett Lehman, Director
		Kyle Rourke, Senior Project Development Analyst
		Nadia Pabst, Senior Vice President of Policy & Regulatory Affairs
		Rahul Ganesan, PE, Senior Director of Engineering
Dudek	Project Management and Overall Application Preparation (Executive Summary, Project Description, etc.)	Keith Carwana, Director Erin Phillips, Project Manager Kyle Holmes, GIS Specialist Steve Taffolla, Publications Manager
	Air Quality, Public Health	Matthew Morales, Senior Environmental Planner Ames Noll, Air Resources Specialist
	Biological Resources	Michael Cady, Senior Biologist Eilleen Salas, Biologist
	Cultural Resources	Adam Giacinto, Senior Archaeologist Roshanne Bakhtiary, Archaeologist Patricia Ambacher, Senior Architectural Historian Claire Cancilla, Architectural Historian
	Geological Hazards and Resources	Eric Schniewind, Senior Geologist, Hydrologist, and Hazardous Materials Specialist
	Hazardous Materials Handling, Waste Management, Worker Health and Safety	Audrey Herschberger, PE, Environmental Engineer Susie Smith, PG, Senior Geologist Eric Schniewind, Senior Geologist, Hydrologist, and Hazardous Materials Specialist
	Land Use	Keith Carwana, Director Erin Phillips, Project Manager
	Noise	Dana Lodico, Senior Acoustician Carson Wong, Acoustician
	Paleontological Resources	Sarah Siren, Senior Paleontologist
	Soils	Eric Schniewind, Senior Geologist, Hydrologist, and Hazardous Materials Specialist

Organization	Role	Name
	Traffic and Transportation	Sabita Tewani, Senior Transportation Planner
	Visual Resources	Joshua Saunders, Senior Environmental Planner Eden Vitakis, Environmental Planner Paul Caligiuri, 3D Production Manager
	Water Resources	Devin Pritchard-Petersen, Senior Hydrogeologist Laura Minuto, Hydrogeologist Eric Schniewind, Senior Geologist, Hydrologist, and Hazardous Materials Specialist
	Wildfire	Noah Stamm, Fire Protection Planner Austin Ott, Fire Protection Planner
Climate Edge Law Group	Overall Application Preparation, Alternatives	Jeffery D. Harris Samantha Neumyer
Economic & Planning Systems Inc.	Socioeconomics	Andrew Williams, Senior Associate Teifion Rice-Evans, Managing Principal Julie Cooper, Principal Lohita Turlapati, Associate
Sargeant & Lundy	Design Engineer	Matt Braet, Project Director
		Grace Buenavista, Team Project Director
		Greg Tapia, Team Scheduler and Cost Controls
		Estefania Mercer, Substation Lead Engineer
		Greg Magsaysay, BESS Lead Engineer
		Lisa Grambush, BESS/Substation Physical Designer
		Mohamed Elbeialy, BESS/Substation Electrical Prep Engineer
		Terri Rogers, BESS/Substation P&C CAD Design
		Jett Perry, Civil/Stormwater Subject Matter Expert
		Crispin Flores, Civil/Stormwater Prep Engineer
		Craig Flamini, Civil Lead Designer/CAD
		Trung Nguyen, Transmission Line Lead Engineer
		John O'Connor, Transmission Line Engineer Route Review & Estimating
		Madison Brooks, Transmission Line Prep Engineer Route, Drawings, Calcs

Organization	Role	Name
		Kevin Baker, Transmission Line PLS-CADD Designer
Terracon	Geotechnical Consultant	Janna Valdez, EIT, Senior Staff Engineer Joshua R. Morgan, PE, Department Regional Manager
Westwood	Hydrology Consultant and Stormwater BMP Sizing	Matthew Hildreth, Project Manager – Energy Storage Louis Bassette, Water Resources Lead Engineer
Fire and Risk Alliance	Fire Water Study and Community Risk Assessment	Christian Ng, PE, Senior Fire Protection Engineer Micah H. Ryder, PE, Director of Hazard & Risk

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8 Environmental Analysis Summary

Table 8-1. Environmental Analysis Summary

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Air Quality			
Would the Project conflict with or obstruct implementation of the applicable air quality plan?	Less than significant with mitigation incorporated	MM-AQ-1, MM-AQ-2, MM-AQ-3	Less than significant
Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?	Less than significant with mitigation incorporated	MM-AQ-1, MM-AQ-2, MM-AQ-3	Less than significant
Would the Project expose sensitive receptors to substantial pollutant concentrations?	Less than significant with mitigation incorporated	MM-AQ-1, MM-AQ-2, MM-AQ-3	Less than significant
Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less than significant	N/A	Less than significant
Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than significant	N/A	Less than significant
Biological Resources			
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?	Less than significant with mitigation incorporated	MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, MM-BIO-6, MM-BIO-7, MM-BIO-8, MM-BIO-9	Less than significant

Table 8-1. Environmental Analysis Summary

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
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?	Less than significant with mitigation incorporated	MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-5, MM-BIO-6, MM-BIO-9	Less than significant
Would the Project 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?	Less than significant with mitigation incorporated	MM-BIO-2, MM-BIO-3, MM-BIO-5, MM-BIO-6, MM-BIO-10	Less than significant
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	N/A	Less than significant
Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Less than significant with mitigation incorporated	MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, MM-BIO-6, MM-BIO-7, MM-BIO-8	Less than significant
Would the Project 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?	No impact	N/A	No impact
Cultural Resources			
Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to §15063.4?	No impact	N/A	No impact

Table 8-1. Environmental Analysis Summary

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15063.4 or disturb any human remains, including those interred outside of dedicated cemeteries?	Less than significant with mitigation incorporated	MM-CUL-1, MM-CUL-2, MM-CUL-3	Less than significant
Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is A. Listed or eligible for listing in the California Register of Historical Resources (CRHR), or in a local register of historical resources as defined in PRC section 5020.1(k)? B. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	Less than significant with mitigation incorporated	MM-CUL-1, MM-CUL-2, MM-CUL-3	Less than significant
Geological Hazards and Resources			
Would the Project directly or indirectly cause potential adverse effects, including the risk of loss, injury, or death involving the following:	Less than significant	N/A	Less than significant

Table 8-1. Environmental Analysis Summary

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
A. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? B. Strong seismic ground shaking? C. Seismic-related ground failure, including liquefaction? D. Landslides?			
Would the Project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in onsite- or offsite landslide, subsidence, liquefaction, or collapse?	Less than significant	N/A	Less than significant
Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Less than significant	N/A	Less than significant
Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No impact	N/A	No impact
Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local plan, specific plan, or other land use plan?	No impact	N/A	No impact
Hazardous Materials Handling			
Would the Project create a significant hazard to the public or environment through routine transport or use of hazardous materials?	Less than significant	N/A	Less than significant

Table 8-1. Environmental Analysis Summary

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less than significant with mitigation incorporated	MM-HAZ-1	Less than significant
Would the Project emit hazardous emissions or handle materials, substances, or waste within 0.25 miles of an existing or proposed school?	No impact	N/A	No impact
Would the Project be located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and result in a significant hazard to the public or environment?	No impact	N/A	No impact
Would the Project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency plan?	Less than significant	N/A	Less than significant
Land Use			
Would the Project physically divide an established community?	No impact	N/A	No impact
Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Less than significant impact	N/A	Less than significant impact
Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use, excepting those lands that would be expected to be converted or retired even without the project	No impact	N/A	No impact

Table 8-1. Environmental Analysis Summary

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
due to insufficient water resources for continued commercial agriculture, land subsidence due to historic groundwater over-pumping, soil contamination due to inadequate drainage, or the local weather effects of climate change?			
Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?	No impact	N/A	No impact
Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	No impact	N/A	No impact
Noise			
Would the Project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less than significant impact with mitigation incorporated	MM-NOI-1, MM-NOI-2, MM-NOI-3	Less than significant
Would the Project generate excessive groundborne vibration or groundborne noise levels?	Less than significant	N/A	Less than significant
Would the Project expose people residing or working in the project area to excessive noise levels (for a project located within the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport)?	No impact	N/A	No impact
Paleontological Resources			
Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less than significant impact with	MM-GEO-1	Less than significant

Table 8-1. Environmental Analysis Summary

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
	mitigation incorporated		
Public Health			
Would the Project expose sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a hazard index (non-cancerous) greater than or equal to 1 ?	Less than significant	N/A	Less than significant
Socioeconomics			
Would the Project induce substantial growth or concentration of population?	Less than significant	N/A	Less than significant
Would the Project displace a large number of people or impact existing housing?	Less than significant	N/A	Less than significant
Would the Project result in substantial adverse impacts on the local economy and employment?	No impact (beneficial impact)	N/A	No impact (beneficial impact)
Would the Project create adverse fiscal impacts on the community?	No impact (beneficial impact)	N/A	No impact (beneficial impact)
Would the Project result in substantial adverse impacts on educational facilities?	Less than significant	N/A	Less than significant
Would the Project result in substantial adverse impacts on the provision of utility services?	Less than significant	N/A	Less than significant
Would the Project result in substantial adverse impacts associated with the provision of public services?	Less than significant	N/A	Less than significant
Soils			
Would the Project result in substantial soil erosion or the loss of topsoil?	Less than significant	N/A	Less than significant
Would the Project be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code, creating substantial direct or indirect risks to life or property?	Less than significant	N/A	Less than significant

Table 8-1. Environmental Analysis Summary

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use?	Less than significant	N/A	Less than significant
Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Less than significant	N/A	Less than significant
Traffic and Transportation			
Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Less than significant with mitigation incorporated	MM-TRA-1	Less than significant
Would the Project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	Less than significant with mitigation incorporated	MM-TRA-1	Less than significant
Would the Project substantially increase hazards due to geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Less than significant with mitigation incorporated	MM-TRA-1	Less than significant
Would the Project result in inadequate emergency access?	Less than significant with mitigation incorporated	MM-TRA-1	Less than significant
Would the Project result in potential impacts to an airport if the proposed project including any linear facility is to be located within four miles of an airport, a planned or proposed airport runway, or an airport runway under construction?	Less than significant	N/A	Less than significant
Would the Project exceed current and projected roadway and intersection level of service before project development,	Less than significant	N/A	Less than significant

Table 8-1. Environmental Analysis Summary

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
during construction, and during project operation?			
Would the Project result in significantly increased hazards associated with Project related hazardous materials to be transported to or from the Project site?	Less than significant	N/A	Less than significant
Visual Resources			
Would the Project have a substantial adverse effect on a scenic vista?	Less than significant	N/A	Less than significant
Would the Project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No impact	N/A	No impact
In non-urbanized areas, would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.	Less than significant	N/A	Less than significant
Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less than significant	N/A	Less than significant
Waste Management			
Would the Project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Less than significant	N/A	Less than significant
Water Resources			
Would the Project violate any water quality standards or waste discharge requirements, or	Less than significant	N/A	Less than significant

Table 8-1. Environmental Analysis Summary

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
otherwise substantially degrade water quality?			
Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Less than significant	N/A	Less than significant
Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: Result in substantial erosion or siltation on- or off-site? Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? Impede or redirect flood flows?	Less than significant	N/A	Less than significant
In flood hazard, tsunami, or seiche zones, would the Project risk release of pollutants due to project inundation?	Less than significant	N/A	Less than significant
Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less than significant	N/A	Less than significant
Wildfire			
If located in or near SRAs or lands classified as VHFHSZs, would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?	Less than significant	N/A	Less than significant

Table 8-1. Environmental Analysis Summary

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
If located in or near SRAs or lands classified as VHFHSZs, would the Project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Less than significant impact with mitigation incorporated	MM-WF-1, MM-WF-2, MM-WF-3, MM-WF-4	Less than significant
If located in or near SRAs or lands classified as VHFHSZs, would the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Less than significant impact with mitigation incorporated	MM-WF-2, MM-WF-3, MM-WF-4	Less than significant
If located in or near SRAs or lands classified as VHFHSZs, would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Less than significant	N/A	Less than significant

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