DOCKETED	
Docket Number:	24-OPT-04
Project Title:	Potentia-Viridi Battery Energy Storage System
TN #:	261422
Document Title:	DR Response 2 - Attachment 20, Revised Section 3-17, Wildfire
Description:	This revised section describes the potential effects the construction, operation, and decommissioning of the project may have related to wildfire impacts.
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Submission Date:	1/29/2025 8:47:05 AM
Docketed Date:	1/29/2025

Attachment 20

Revised Section 3.17, Wildfire

3.17 Wildfire

This section describes the potential effects of the construction, operation, and decommissioning of the Potentia-Viridi Battery Energy Storage System Project (Project) may have on potential wildfire impacts. 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 Prevention (CAL FIRE) FRAP database, Alameda County General Plan, the Alameda County Code of Ordinances, and the Alameda County Local Hazard Mitigation Plan, Chapter 12 of the California Fire Code, National Fire Prevention Association standard 855, and Underwriters Laboratory standard 9540. This evaluation of wildfire includes the following elements:

- Section 3.17.1 describes the existing environment that could be affected, including vegetation and fuels, climate, topography, fire hazard severity zone designation, fire history, and emergency response and fire protection;
- Section 3.17.2 provides an overview of the regulatory setting related to wildfire;
- Section 3.17.3 identifies potential environmental impacts that may result from Project construction, operation, maintenance, and decommissioning;
- Section 3.17.4 discusses cumulative effects;
- Section 3.17.5 identifies mitigation measures that should be considered during Project construction, operation, maintenance, and decommissioning;
- Section 3.17.6 presents laws, ordinances, regulations, and standards (LORS) applicable to wildfire;
- Section 3.17.7 identifies regulatory agency contacts;
- Section 3.17.8 describes permits required for the Project related to wildfire; and
- Section 3.17.9 provides references used to develop this section.

The following environmental setting and impact evaluation is based in part on the following Project-specific technical reports, included as an appendix to this EIR:

1. Appendix 3.15A– Hydrology/Water Quality Report, prepared by Dudek, July 2024
2. Appendix 3.17A – Fire Safety Plan, prepared by Dudek, July 2024.

3.17.1 Affected Environment

3.17.1.1 Regional

Wildfire is a seasonal threat in Alameda 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 City of Tracy contain several miles of WUI, where established development meets open space areas, which are quite significant in the eastern part of the County near the proposed Project. The proposed Project site is situated in eastern Alameda County, California, within the Diablo Mountain Range and would lie on the east-facing slopes of the range that extend from the Altamont Pass area at the ridgeline down to the San Joaquin Valley to the east. Generally, the terrain increases in elevation from east to west climbing from the valley bottom near Tracy, California to the ridgeline near Altamont Pass. Slope also increases from east to west while ascending towards the pass with the steepest slopes generally near the ridgeline or on the

upper third of the slope. The proposed Project would be situated amongst a large expanse of ruderal grassland and meadow that gives way at higher elevations to the east to lower montane blue oak-foothill pine, and coastal live oak woodland and savanna with pockets of mesic chaparral (LANDFIRE 2022). All of these plant communities are capable of carrying fast-moving fire, especially when fine fuels (grasses) are cured during seasonal droughts. Adaptations to the local dry, Mediterranean climate include specialized roots, stems, and leaves. The latter two become available fuels of importance and contribute to wildfire intensity and spread. The climate of Alameda County can be characterized as a hot-summer Mediterranean climate with cool, wet winters and hot, dry summers. Beyond the seasonal droughts and high temperatures, extreme wind events known locally as Diablo Winds can also heighten fire danger.

3.17.1.2 Project Site

The Project would be located in Alameda County, California within a portion of Assessor Parcel Number (APN) 99B-7890-002-04 located at 17257 Patterson Pass Road, southwest of Interstate 580 and Interstate 205. Development of the BESS facility would occur on about 70 acres of APN 99B-7890-002-04, which currently consists of fallowed annual grasslands suitable for grazing. The gen-tie line would extend southeast from the Project substation, crossing Patterson Pass Rd, and then proceed east to the Point of Interconnection (POI) at the Tesla Substation. The Project's gen-tie line would be sited on APNs 99B-7890-2-4, 99B-7890-2-6, and 99B-7885-12. Land uses in the immediate vicinity of the Project include undeveloped rural agricultural lands, multiple high-voltage transmission lines and electrical substations, rural roads, and railroad lines. The nearest municipality to the Project site is the City of Tracy approximately 2.5 miles to the northeast. There are a few single-family residences near the Tesla Substation's southern and eastern boundaries. The nearest residence is about 1,500 feet southeast of the Project site and 560 feet south of the proposed gen-tie line; it is owned by the same landowner leasing the lands for the Project.

3.17.1.3 Vegetation/Fuels

As discussed in Section 3.2, Biological Resources, vegetation communities on the proposed Project site are defined as California Annual Grassland, dominated by non-native species. These continuous annual grasslands extend from valley bottom to ridgeline. Scattered trees and brush are present in isolated patches along creeks or wet drainages. The only exception to this is landscaping around developed sites such as homes and ranches, which is a mix of shade trees and ornamental vegetation. The grasslands in the area are used as pasture for livestock; however, there was no evidence of recent grazing at the proposed Project site or on the adjacent lands.

The proposed Project site is located within a rural, sparsely developed area with limited existing infrastructure. The area contains California annual grassland vegetation typical of the Diablo Mountain Range around Altamont Pass. The annual grasslands in the Project area occur as nearly continuous expanses of grass only broken up by roads, waterways, or rocky areas. Annual grasslands are available to burn when the grass has fully cured, which occurs from April to May depending on when the grasses begin curing. The likelihood of cured grass igniting and sustaining fire is highly dependent on the amount of moisture in the soil and air. Cured annual grasses typically burn actively when the relative humidity in the air drops below 15% (Livingston and Varner 2016). In the late spring-early summer (April-June), the grasses may be fully cured; however, the period of time when the relative humidity is below 15% is relatively short, and there is good overnight recovery of relative humidity levels due to cooler temperatures and onshore winds. Later in the summer, the period of time when relative humidity is below 15% is extended, and there is poor overnight recovery of relative humidity. As a result, wildland fires in the grassland environments found in the

Project area are more common during the later part of the fire season (June to October) because the vegetation readily ignites and fuel volumes are sufficient and continuous enough to sustain the spread of a wildfire

3.17.1.4 Climate

Climate in the Project area is characterized as a hot-summer Mediterranean climate with cool, wet winters and hot, dry summers. Weather data for the proposed Project site comes from the Altamont Remote Automated Weather Station (RAWS), which is located near the ridgeline of the Diablo Mountain Range west of the Project site. Temperatures in the Project area range between average lows of 48°F during the coldest months to average highs of 75°F during the summer months. From May to September maximum temperatures exceed 90°F. Relative humidity at the proposed Project site ranges from an average of 70% during the wettest months to 40% during the driest months. Minimum average relative humidity in the proposed Project area is below 15% from March to October. Most of the precipitation falls between November and March. After March precipitation quickly decreases to minimal precipitation by May. Winds in the proposed Project area are predominantly out of the west-southwest. Average wind speeds vary between 6 and 19 mph. Average wind speeds above 15 mph occur from May to August. Wind gusts exceeding 50 mph can occur throughout the year. Regarding wind records, the Altamont RAWS is located at a higher elevation (approximately 1,000 feet above the site) and closer to the ridgeline than the Project site so is subject to stronger winds then would be expected at the Project site (WRCC 2024).

Weather conditions conducive to the ignition and spread of a wildfire occur on average from March to October. During this period, the window when the grass at the proposed Project site is available to burn varies. In March there may be a relatively short window during the day when temperatures are high enough and relative humidities low enough that fire can spread in the grass. This window increases as the year progresses peaking in July and August during the hottest and driest periods of the year. As the year progresses this window will decrease again as the temperature decreases and relatively humidity increases. The steady winds experienced at the proposed Project site would sustain fire spread when temperature and humidity condition are conducive to fire ignition.

3.17.1.5 Topography

Topography and terrain influences fire risk by affecting fire spread rates. Typically, steep terrain results in faster fire spread up-slope and slower fire spread down-slope in the absence of wind. Flat terrain tends to have little effect on fire spread, resulting in fires that are driven by wind. The proposed Project site specifically is located on a low hill or rise that is located on the east side of the parcel that the proposed Project is located on. Aspect at the proposed Project site varies with the south side of the BESS facility being located adjacent to a south-southeast aspect, and the north side of the BESS facility being adjacent to a northwest aspect. Elevation ranges from approximately 400 feet above mean sea level (AMSL) at Patterson Pass Road to approximately 470 feet AMSL at the highest point on the hill. Elevation on the north side of the proposed Project site does not decrease as much as on the south side descending to approximately 430 feet AMSL at the north. Slopes on the Project site range from 2 to 20% with the steepest slopes on the southeast side of the proposed Project site from the BESS facility footprint down to Patterson Pass Road. There are no narrow canyons, box canyons, chimneys, or other terrain features that would exacerbate a wildfire burning near the Project site. The proposed 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.

3.17.1.6 Fire Hazard Severity Zone Designation

CAL FIRE's Fire and Resource Assessment Program (FRAP) database includes map data documenting areas of significant fire hazards in the state. These maps categorize geographic areas of the state into different fire hazard severity zones (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, Local Responsibility Areas, and Federal Responsibility Areas. Fire hazard severity classifications consider vegetation, topography, weather, crown fire production, and ember production and movement.

As shown in Figure 3.17-1, Fire Hazard Severity Zones, the proposed Project site and the surrounding area are located on SRA lands where the state has the primary responsibility for fire suppression. According to the State Fire Marshal Fire Hazard Severity Zone Maps (CAL FIRE 2011), the proposed Project site and the surrounding area are located in an area currently designated as a High FHSZ. The nearest Moderate Fire Hazard Severity Zone is located 2 miles to west near the ridgeline of the Diablo Mountain Range and the closest Very High FHSZ is located approximately 3.5 miles south-southwest of the proposed Project and just west of the Lawrence Livermore National Laboratory Site 300. The State adopted updated FHSZ maps on April 2, 2024. According to the updated maps, the Project site is in an area classified as a High Fire Hazard Severity Zone.

The California Public Utilities Commission 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 2023). The Project site and the surrounding area is not located within a Tier 2 (High) or Tier 3 (Extreme) HFTD.

3.17.1.7 Fire History

Fire history is an important component of evaluating how prone to ignition and fire spread a landscape is. Fire history data provides valuable information regarding fire spread, fire frequency, most vulnerable areas, and notable ignition sources, amongst others. In turn, this understanding of why fires occur in an area and how they typically spread can then be used for pre-planning. This fire history analysis uses the Fire and Resource Assessment Program (FRAP) database. FRAP summarizes fire perimeter data dating to the late 1800s but is incomplete since it only includes fires over 10 acres in size and has incomplete perimeter data, especially before the mid-20th 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 proposed Project area, which indicates whether they may be possible in the future.

According to available data from the CAL FIRE FRAP records there have been 63 fires within 5 miles of the proposed Project site from 1950 to 2023 (CAL FIRE 2022). Evidence of two additional fires were observed during the site visit, bringing the total to 65 fires within 5 miles of the Project site. These two additional fires likely occurred after the fire perimeter data was released by CAL FIRE in May 2024. Twelve fires have burned within 1 mile of the Project site. No fires have burned onto the footprint of the BESS facility at the Project site; however, one fire perimeter extended over the proposed tie-in line path and one fire perimeter extended onto the larger 232-acre property that the proposed Project site would be located within. The California Public Utilities Commission (CPUC) collects and publishes data on utility caused fires. According to CPUC data only one utility fire has been recorded within 5 miles of the proposed Project site since 2014 (CPUC 2023). Utility caused fires that were the result of bulk transmission equipment such as the lines that connect to the Tesla substation are recorded but not published, there may be other utility caused fires in the proposed Project area. Figure 3.17-2, Fire History Map, shows a map of the recorded fire perimeters within 5 miles of the proposed Project site.

3.17.1.8 Emergency Response and Fire Protection

The proposed Project site is located on SRA lands where the State has the primary responsibility for fire suppression and emergency response, but Alameda County Fire Department (ACFD), also includes the proposed Project site and surrounding areas on its service maps. While the proposed Project site is located in Alameda County, it is within a State Responsibility Area, which means CAL FIRE is responsible for fire suppression and prevention (Alameda County Community Development Agency 2022). The nearest fire station is CAL FIRE station 26- Castle Rock located on the west side of Tracy, California in San Joaquin County. South San Joaquin County Fire Authority (SSJCFA) Fire Station 94 is adjacent to CAL FIRE Station 26. While CAL FIRE would be the authority having jurisdiction (AHJ), the ACFD, SSJCFA, and CAL FIRE have mutual aid agreements. Under a mutual aid agreement, the fire agencies agree to pool their resources and respond to calls within each other's service territory. Table 3.17-1 summarizes the location, equipment, staffing levels, maximum travel distance, and estimated travel time for CAL FIRE Station 26-Castle Rock/SSJCFA Station 94 and the next nearest fire station, Mountain House fire station 1. Travel distances are derived from Google Maps road data while travel times are calculated using response speeds of 35 mph, consistent with nationally recognized National Fire Protection Association (NFPA) standard 1710 and 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 3.17-1 Closest Emergency Response Station Summary

Station Name	Location	Apparatus	Staffing	Maximum Travel Distance	Travel Time to Project Site
CAL FIRE Station 26-Castle Rock	16502 W Schulte Rd, Tracy, California 95377	1 - Type 1 Pumper ALS unit 1 – Type 3 OES Engine (Engine 4307)	3 – Full-time firefighter	3.4 miles	8 minutes
SSJCFA Tracy Fire Station 94	16502 W Schulte Rd, Tracy, California 95377	2 Engines	3 – Full-time Firefighters	3.4 miles	8 minutes
Mountain House Fire Station 1	911 Traditions St, Mountain House, California 95391	1 - Ladder Truck, 2 - Engines, 1 - Rescue Truck, 1 – Chief's Truck	5 – Full-time Firefighters	6.2 miles	14.6 minutes

Travel time to the furthest portion of the proposed Project site for the first responding units from CAL FIRE Station 26 is not expected to exceed 8 minutes. CAL FIRE does not have response time performance objectives and the Alameda County General Plan Public Services and Facilities Element does not specifically state a recommended response time. The East County Area Plan does contain a related policy, Policy 246, which states "The County shall

limit development to very low densities in areas where police, fire, and emergency medical response times will average more than 15 minutes." (Alameda County Community Development Agency Planning Department 2000). The Project site is within this 15-minute response period and does conform to the General Plan recommendations.

3.17.2 Regulatory Setting

Federal, state, and local laws, ordinances, regulations, and standards (LORS) related to wildfire were reviewed for applicability to the Project. These are detailed in Section 3.17.6, Laws, Ordinances, Regulations, and Standards.

3.17.3 Impact Analysis

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

3.17.3.1 Methodology

To identify and assess potential impacts related to wildfire, Dudek reviewed publicly available information from the California Department of Forestry and Fire Protection (CAL FIRE), Alameda County, and information provided by the Applicant. Furthermore, the Project's Fire Safety Plan (FSP, Appendix 3.17A) provides a summary of the fire environment at the Project site and recommendations for managing the risk of wildfire impacting the facility as well as minimizing the risk that equipment at the facility causes a fire that spreads off the property,

3.17.3.2 Impact Evaluation Criteria

The potential for impact related to hazardous material were evaluated using the criteria described in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (sections 15000-15387, Title 13, California Code of Regulations, Chapter 3). A Project would 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

3.17.3.3 Impact Evaluation

Impact 3.17-1 Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant. The proposed Project would not physically impede an existing emergency response plan, emergency vehicle access, or personnel access to the Project site. The impacts related to this impact are considered

less than significant. Refer to Section 3.5, Hazardous Materials Handling, under Impact 3.17-5 for further information and analysis on emergency response and evacuation plans.

Impact 3.17-2: If located in or near SRAs or lands classified as VHFHSZs, would the Project exacerbate wildfire risks and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors?

Construction and Decommissioning

Less than Significant with Mitigation. The construction and decommissioning phases of the proposed Project are anticipated to create the greatest fire hazard due to the potential for sparks and the increased human activity. During construction activities, multiple crews would 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 5 to 200 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 would be required to comply with County, State and ACFD requirements for construction activities in hazardous fire areas, including fire safety practices, to reduce the possibility of fires during construction activities. The Project would 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 would be implemented at the start of and throughout all phases of construction, and combustible materials would 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** would reduce the risk of wildfire ignition and spread on the proposed Project site during construction activities. Vegetation management would also reduce the risk of wildfire spreading from within the active construction areas to offsite fuel beds. As outlined in **MM-WF-3**, there will be two filled water tenders plus firefighting tools present during construction activities. On-site water supply and firefighting equipment provided in **MM-WF-3** 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. Provided site improvements and vegetation management requirements are appropriately implemented and approved by the ACFD, 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 would be less than significant.

Operation

Less than Significant with Mitigation. The proposed BESS facility includes the installation of a 400 MW/3,200 MWh battery energy storage system and gen-tie line ~~on~~ within the approximately ~~85 acres~~ 102-acre project area is in an area considered a High FHSZ within a State Responsibility Area (see Figure 3.17-1). The proposed Project site currently is dominated by California annual grassland composed of non-native grasses that could serve as potential fuel sources. Existing potential ignition sources near the Project site include Patterson Pass Road and associated vehicles, the more distant Interstate-580, the nearby railroad line, the Tesla substation, the Altamont Pass wind farm, Lawrence Livermore Site 300 Experimental Test Site, off-roading or other recreation in the Diablo Range, 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 tie-in line, , increased human

activity on the proposed Project site, and additional vehicles traveling on internal and external roads. The BESS facility would have three full time staff working out of an operations and maintenance building within the facility and one major maintenance inspection would be expected annually. The Project would be required to design, construct, and maintain structures, roadways, and facilities in compliance with applicable local, regional, state, and federal requirements (see Section 3.17.6) 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 3.17.6 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.

The Fire Safety Plan prepared for the proposed Project (included as Appendix 3.17A) analyzes the wildland fire risk in the vicinity of the proposed Project site and determined that wildfires, as shown in Figure 3.17-2, have occurred most commonly in wildland or naturally vegetated areas north of interstate 580 west of the junction with interstate 205, southeast of the proposed Project, and south of the proposed Project in the Diablo Range. The fuels that carried the fires shown in Figure 3.17-2 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 proposed Project site currently consists of vacant, agricultural farmland used for cattle grazing. Slopes on the Project site range from 2 to 20% with the steepest slopes on the southeast side of the proposed Project site from the BESS facility footprint down to Patterson Pass Road. Topography and slope variations can influence surface winds, which impact wildfire behavior. The topography of the proposed Project site is variable, ranging from relative flat to moderately steep slopes, and would be on a small hilltop with short surrounding hillsides. The proposed Project would not create conditions that resulted in steeper slopes or topographic features that would increase fire behavior. Project equipment and facilities are setback at least 15 feet from adjacent slopes and would not be at an increased risk of direct flame exposure due to fire spreading upslope. The Project would not exacerbate wildfire risk related to slope.

Prevailing Winds

The prevailing wind pattern in the proposed Project area is from the west-southwest (onshore) with an average speed of approximately 15 mph and average gusts of approximately 24 mph. During the summer season, the diurnal winds may average slightly higher speeds than the winds during the winter season due to greater pressure gradient forces. However, the proposed Project site is subject to periodic extreme fire weather conditions that occur throughout Alameda County, associated with drought conditions and Diablo winds, when wind speeds may exceed 50 mph (WRCC 2024). As such, the Project could be subject to wildfire conditions as a result of prevailing winds.

Vegetation Management and Setbacks

The majority of the site is covered in annual brome grassland. Variations in vegetative cover type and species composition have a direct effect on fire behavior. For example, grasses produce lower intensity, higher spread rate fires, while California mesic chapparal can produce higher intensity and higher flame lengths under strong, dry wind patterns, but does not typically ignite or spread as quickly as light, flashy grass fuels.

While development of a 400 MW battery energy storage system and the associated gen-tie line would introduce new potential ignition sources to the proposed Project site, the site would be largely converted from readily ignitable

fuels to BESS enclosures and associated components including the building containing the SCADA system on graded and maintained areas. The proposed Project would be developed according to all existing building codes and fire codes, as indicated in the Alameda County Fire Code (Alameda County Code of Ordinances Chapter 6.04), which adopts the 2022 California Fire Code, 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.

The vegetation management requirements established by Section 1207.5.7 of the CFC are that areas within 10 feet on each side of outdoor 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 would be maintained free of vegetation and would be inspected annually by a third party to ensure compliance with this requirement. Per Public Resource Code, Section 4291, the operations & maintenance building that the full-time staff will be working out of would require 100 feet of defensible space. The location of the building shall be within 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 fence than this minimum, then exterior fuel modification will have to be provided to ensure at least 100 feet of defensible space is provided. Such area 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 would 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. The proposed Project would surpass these requirements with the BESS enclosures nearest the property line, at the southeastern corner, surpassing the 100-foot threshold and other perimeter BESS enclosures being located over 400 feet from the property line, such as the southwestern corner. 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 would also occur around power poles and powerlines. California Public Resources Code 4292 and 4293 requires that a minimum of 10 feet of vegetation clearance must 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 grass dominated vegetation and lack of sizeable 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. These could be a standard water automatic sprinkler system or an alternative carbon dioxide, water spray, water mist, clean agent, or fixed aerosol fire-extinguishing system. 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 of Alameda 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 Alameda County, 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 would introduce potential ignition sources to the site; however, all new BESS components would be constructed to Alameda County Fire Code, NFPA 855, and 2022 CFC standards (or the current edition). The Project would 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 would be implemented at the start of and throughout all phases of construction, and combustible materials would 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** would reduce the risk of wildfire ignition and spread on the proposed Project site while operational. Furthermore, the proposed Project would implement vegetation management throughout the BESS facility as outline 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 in the BESS technology selected will isolate the event to a single enclosure. BESS modules that adhere to NFPA 855 incorporate fire and explosion prevention features that ensure that any fire from an individual BESS would not 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 offsite. Fires from off-site would not have continuous fuels across this site and would 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 non-combustible and ignition-resistant materials that will be used on site as well as the planned grading and vegetation management. The proposed Project would comply with applicable ignition-resistant fire and building codes and would 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 would 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 would have limited ability to spread. It should be noted that while these standards would provide a high level of protection for the proposed Project, there is no guarantee that compliance with these standards would 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, would not facilitate wildfire spread and would be anticipated to reduce projected flame lengths to levels that would 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, the Fire Safety Plan, Appendix 3.17A, as well as those outlined in **MM-WF-1** through **MM-WF-4**, the risk would be mitigated. The proposed Project would 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 **would be less than significant with mitigation incorporated.**

Impact 3.17-3: 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 fire hazard severity zone. The Project involves the development of a previously undeveloped site with 400 MW of battery energy storage, related components, and a gen-tie line connecting the BESS facility to a nearby substation. The Project would include the installation and maintenance of associated infrastructure, including driveways, roadways, and fencing. Associated infrastructure for the Project such as roads, fuel modification zones, and water sources would 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 non-combustible 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 would result in a reduced volume of flammable vegetation and better access for emergency responders. And would not exacerbate fire risk or temporary or ongoing impacts to the environment.

Vegetation Management

As mentioned previously and outlined in **MM-WF-4**, the proposed Project would maintain the BESS facility free from combustible vegetation to allow for fire protection mitigation and defensible space consistent with local regulation. This would surpass 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 powerlines 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 on to the Project site, and vegetation management activities would occur prior to the start of construction and throughout the life of the Project. Consequently, the associated vegetation management activities would 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 would reduce the fire risk by thinning or removing combustible vegetation.

Roads

The Project would involve construction of access roads from Patterson Pass Road to the northeastern corner as well as the southwestern corner of the BESS facility. There would also be an internal circulation network with an unobstructed width of not less than 20 feet and internal radii of a minimum of 25 feet. There would be minimal increased human activity and vehicles along newly installed roads during the operational phase only three full time staff and one larger annual inspection anticipated. The construction phase would have more vehicle trips and an

estimated 5 to 60 construction workers present depending on the phase of construction. The added human activity would introduce new potential ignition sources to the Project area. However, vegetation would be removed where gravel roads would be constructed and where fill would be placed from grading operations. Construction of Project roadways and connections to existing roadways would provide increased accessibility for emergency services to the proposed Project site. Further, site access, including road widths and connectivity, would comply with the County's development review process, including review for compliance with the Alameda County Fire Code, as well as compliance with applicable emergency access standards such as the ACFD Development Guidelines (ACFD 2023). As required under the Alameda County Fire Code and ACFD Development Guidelines, 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 would have equipment capable of suppressing construction-related ignitions. The proposed Project ownership would 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 would not exacerbate wildfire risk.

Utilities

As previously mentioned, the proposed Project would include three full time staff and that would operate out of an operations and maintenance building with bathroom facilities, running water, and office space. A potable water storage tank would provide water for washroom and sanitary facilities, and sewage/wastewater would be collected in a separate tank. Potable water would be trucked to the water storage tank periodically during O&M, and sewage/wastewater would be pumped from the storage tank, transported offsite via truck, and disposed of at a sanitary dump station, as needed, during operations. During construction and decommissioning of the proposed Project, untreated water would be required for common construction-related purposes and restroom facilities would be portable units, serviced by licensed providers, and water and sewage from the restroom facilities would be stored in onsite tanks and serviced by trucks. Drinking water would be provided via portable water coolers. Per **MM-WF-2**, vegetation management will be performed, and all road surfaces approved and installed prior to combustibles being brought on site. This would 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 would be provided to the proposed Project; however, there would be a minimal associated fire risk as these utilities already exist near the Project area. Power for the HVAC system, lighting, and other electrical systems would be provided through separate auxiliary power connection to the on-site station service transformers with connection lines installed above and/or below ground. This ancillary power or other Project-related powerlines would be the only utilities associated with the proposed Project other than municipal water. However, as discussed previously vegetation management would be performed around all power poles/towers and powerlines. Therefore, utilities associated with the proposed Project would not exacerbate the fire risk.

Summary

Installation and maintenance of Project roads, service utilities, fuel modification, and other associated infrastructure would not exacerbate wildfire risks provided that the appropriate fire prevention, access, and vegetation management activities are implemented as required by the ACFD, 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 would 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 in this EIR as part of the impact assessment conducted for the entirety of the Project. Additionally, the proposed Project would be required to comply with all regulatory requirements and mitigation measures outlined within this EIR 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 disclosed in this EIR would occur as a result of implementation of the Project's associated infrastructure.

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

Impact 3.17-4: If located in or near SRAs or lands classified as VHFHSZs, would the Project expose people or structures to significant risks, including downslopes 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. Denuding the Project site of surface vegetation reduces 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 3.17-2, Fire History, no fires have burned onto the proposed Project site, but a fire has burned within the area proposed for the gen-tie line, as well as within the larger 232-acre parcel, and multiple wildfires have burned within a 5-mile radius of the proposed Project site. Vegetation management including annual mowing of the grasslands around the Project site would not include the removal of roots. The Project site would not be denuded of vegetation, root systems of the annual grasses would remain intact to assist in the stabilization of the soil after mowing or post fire. Further, short grass, like the grass that will remain after mowing, does 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 east Alameda County, the proposed Project site and surrounding area are topographically diverse with slope gradients ranging from relatively flat to moderately steep, with elevations at the site ranging from approximately 400 amsl at Patterson Pass Road to approximately 470 feet AMSL at the highest point on the hill where the BESS facility would 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 2023). The 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 2020 SCU Lightning Complex burned within 10 miles of the Project site and onto terrain and vegetation similar to the Project site. Debris flow hazard assessments for nearby portions of the SCU complex rating similar terrain and vegetation as having a low likelihood and low combined hazard for a post fire debris flow (USGS 2023). Additionally, according to Figure S-4 of the Alameda County General Plan, the proposed Project site is located in an area considered to be "least susceptible," to slope failure or in an area where landslides previously occurred. In addition, the drainage pattern on the Project site has not been previously altered due to a fire event and generally drains toward Patterson Run, the waterway adjacent to Patterson Pass Road. No wildfires have

burned on the site or on the larger parcel that contains the Project site within the last 20 years. 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 has been analyzed in Section 3.15, Water Resources, and Section 3.4, Geological Hazards and Resources, of this EIR. As discussed in the Hydrology and Hydrology/Water Quality Report (Appendix 3.15A), the Project site lies within the San Joaquin Delta watershed. The San Joaquin Delta watershed begins in the elevated topography west of the site and flows in an easterly direction toward the San Joaquin River, which drains the watershed. On a smaller scale, the Project site is within the Old River and Lower Old River watersheds, which are drained by the Old River, a tributary to the San Joaquin River. Based on the Alameda County Local Hazard Mitigation Plan, the Project site is located in an area considered to be "least susceptible," to slope failure or in an area where landslides previously occurred. The potential for temporary steep slopes created during excavation is addressed in Section 3.4, Geological Hazards and Resources. In summary, there is not a significant risk of landslides or flooding within the area of the proposed. Therefore, with adherence to regulatory requirements and applicable mitigation measures outlined in this EIR, the Project would 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 would be **less than significant.**

3.17.4 Cumulative Effects

Cumulative projects that would have the potential to be considered in a cumulative context with the proposed Project's incremental contribution, and that are included in the analysis of cumulative impacts relative to wildfire, are identified in Chapter 3, Environmental Analysis, Table 3-2, Cumulative Projects. Cumulative projects were chosen based on proximity to the proposed Project. Other projects include residential, commercial, and industrial development as well as similar energy projects. The majority of the cumulative projects would involve both construction and operational activities.

As described above, the proposed Project site is located in a High FHSZ. The proposed Project, combined with other projects in the region, would increase the population and/or activities and potential ignition sources in the area, which may increase the potential of a wildfire and increase the number of people and structures exposed to risk of loss, injury, or death from wildfires. Individual projects located within Alameda County and surrounding areas are required to comply with their applicable County/City fire and building codes, which must be at least as stringent as state codes and have been increasingly strengthened as a result of severe wildfires that have occurred in the last two decades. The authority having jurisdiction would have the ability to require a Fire Protection Plan (FPP) for any project located in an SRA or a Very High FHSZ as stated in CFC Section 4903.1. These documents are designed by qualified fire safety specialists and analyze the wildfire risk of the building, project, premises, or region through considerations of location, topography, aspect, and climatic and fire history to recommend necessary changes. They also identify conformance with the most restrictive of all applicable wildfire regulations including fire department access, egress, road and address signage, water supply, and fuel reduction requirements. Additionally, CFC 403.10.6 requires a fire safety and evacuation plan be prepared and maintained for occupancies that involve activities for the research and development, testing, manufacturing, handling, storage of lithium-ion batteries or lithium metal batteries or the repair or servicing of vehicles powered by lithium-ion batteries or lithium metal batteries. This would be the case for most systems as lithium is the most efficient and economically viable of available technologies. This would mean that other energy storage projects, of which there are 16 along with other energy-related projects, would be required to prepare such plans that would aid in highlighting any possible hazards associated with the projects and incorporate any necessary mitigations to reduce those hazards to acceptable levels. Since each project would be expected to adhere to all applicable regulations and, if the Project is located

within an area presenting a fire hazard, would likely be required to prepare a document analyzing the wildfire risks associated with the Project (see Fire Safety Plan, Appendix 3.17A), the cumulative effect of the Project and other nearby projects is not considered to exacerbate wildfire risks or expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, or other factors. Therefore, the cumulative effect of the Project and nearby projects on the spread of wildfire is considered to be **less than significant**.

The proposed Project has associated infrastructure that combined with the associated infrastructure of other projects in the region, could result in an increase in potential ignition sources in the area, which may increase the potential of a wildfire. However, as mentioned previously mentioned, each project would be subject to the requirement of the preparation of an FPP, which would analyze the fire hazard upon and presented by the respective project as well as its compliance with the most stringent of all applicable local or state regulations. Any mitigations or alternative materials and methods necessary to negate existing hazards would be provided. Similarly, Fire Safety Plans (FSPs) would have to be prepared for the nearby energy storage systems should they choose to utilize lithium battery technology, which is the most common current choice given the current technology available. FPPs and FSPs would analyze projects in their totality, including associated infrastructure. These plans would highlight any fire hazards presented by a project's associated infrastructure and mitigate them, as necessary. By these processes reducing the potential of ignition from each respective project, the cumulative impact of said projects is reduced.

Syphard and Keeley (2015) summarized all wildfire ignitions included in the CAL FIRE FRAP database dating back over 100 years. They found that in San Diego County (which is similar to the Alameda County fire environment), equipment-caused fires were by far the most numerous, and these also accounted for most of the area burned, but powerline fires were a close second. The equipment related fires would likely be minimized through the implementation of an FPP and/or FSP, and the findings of the research correlated these fires mainly with low to medium density residential areas where there is an intermix of potential ignition sources, homes, with vegetation that can carry fire. Modern code requirements, including maintained defensible space, would inhibit the spread of fire from such ignitions. However, there are multiple energy projects occurring within the vicinity of the Project and they would necessitate a connection to existing energy infrastructure via transmission lines, which have been shown to be a common cause of wildfires. While the transmission lines associated with these projects would be subject to the same regulations regarding vegetation management around poles and conductors, an ignition is still possible, especially under extreme weather conditions. However, Pacific Gas and Electric (PG&E) would likely be responsible for much of the span of these powerlines, as is the case after the point of change of ownership for the proposed Project. Understanding the present hazards, PG&E has been improving their system to reduce the ignition risk of said powerlines. PG&E has a meteorology team that is constantly analyzing HD cameras as well as past, present, and forecasted, humidity, precipitation, temperature, and wind speeds/gusts to determine the potential for a weather-caused powerline ignition to occur and the subsequent necessity to implement a public safety power shutoff. Additionally, their Community Wildfire Safety Program has resulted in safety measures such as undergrounding powerlines, improving the strength of poles, covering powerlines, faster shut-off speeds, and managing trees and vegetation near powerlines (PG&E 2024).

In regard to the environmental impacts of the associated infrastructure other than those related to wildfire, as stated previously, the installation and maintenance of roads, utilities, vegetation management activities, and any other project related infrastructure would be part of their associated project. As such, any potential temporary or ongoing environmental impacts related to these components of their respective project would have been accounted for and analyzed through the CEQA process as part of the impact assessment conducted for the entirety of the project.

In summary, while the proposed Project, in combination with other projects in the area, would increase the amount of associated infrastructure that may cause an ignition that could result in a wildfire, the proposed projects would likely be subject to the preparation of FPPs, FSPs, and/or CEQA documents that would identify and mitigate any hazards presented by the associated infrastructure. While the powerlines that are anticipated to be associated with nearby energy projects are a notable concern, they would be subject to the same vegetation management regulations and spans under the ownership of PG&E would be constantly monitored and shut-off in the event of unsafe conditions. Therefore, the cumulative effect of the associated infrastructure of the proposed Project and associated infrastructure of other projects within the vicinity is not found to exacerbate fire risk or result in temporary or ongoing impacts to the environment and their cumulative effects are found to be **less than significant.**

Finally, as mentioned previously, and analyzed in Section 3.15, Water Resources, and Section 3.4, Geological Hazards and Resources, of this EIR, the proposed Project site is located in area considered to be "least susceptible," to slope failure or in an area where landslides previously occurred as shown in the Alameda County General Plan. The same is true for most of the surrounding area, and the USGS Post Wildfire Debris Flow Hazard Assessment similarly projects a low likelihood and low combined hazard for a post fire debris flow for the general area of the proposed Project and nearby projects (USGS 2023). Other projects would also be subject to environmental review and required to conform to applicable regulations and requirements including those related to building and grading. If a hazard were found to be presented by said projects, they would be mitigated. Since the area surrounding the proposed Project and nearby projects is not susceptible to slope failure and at a low likelihood for post fire debris flow, they are not anticipated to expose people or structures to significant risks, including downslope or downstream flooding and landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, the cumulative effects related to post-fire soil and drainage changes are considered to be **less than significant**.

Cumulative Summary

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 land scape 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 which 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 powerlines are a common cause of wildfires, those associated with the proposed Projects and nearby energy projects would be subject to vegetation management regulations and it would be anticipated that a significant portion of those powerlines would be under the jurisdiction of PG&E, which would analyze weather conditions and perform a public safety power shutoff when conditions are unsafe. 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**.

3.17.5 Mitigation Measures

MM-FIRE-1 Extreme Fire Day Ignition Avoidance & Fire Patrols. The National Weather Service defines a Red Flag Warning as environmental conditions where warm temperatures, very low humidities, 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. All construction and maintenance activities shall temporarily cease during Red Flag Warnings. The superintendent shall coordinate with personnel to determine which low fire hazard activities may occur. Should Alameda County Fire Department 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) will 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 SSJCFA/CAL FIRE and/or ACFD of the name and contact information of the current SSD in the event of any change.

MM-FIRE-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 any construction activities. 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 approved by Alameda County Fire Department prior to combustibles being brought on site.

MM-FIRE-3 Construction Suppression Equipment Requirements. The Project will be equipped with two water trucks, each with a 4,000-gallon capacity. Each truck will be equipped with 50 feet of 0.25-inch fast response hose with fog nozzles. Any hose size greater than 1.5 inches shall use National Hose (NH) couplings. A cache of shovels, McLeods, and Pulaskis shall be available at staging sites. The amount of equipment will be determined by consultation between SSD and the SSJCFA/CAL FIRE and/or ACFD. Additionally, all construction-related vehicles shall be equipped with a 10 pound, 4A:80BC Dry Chemical Fire Extinguisher, a 5-gallon backpack pump fire extinguisher, a 46-inch round point hardwood shovel, and a first aid kit.

MM-FIRE-4 Operational Vegetation Management Requirements The proposed Project will remove all vegetation within the security fence perimeter.

As a further means of ensuring the vegetation management is maintained per this requirement, the proposed Project applicant or current owner will 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 Project site have been performed pursuant to this plan. This effort further ensures vegetation maintenance and compliance with no impact on the County.

3.17.6 Laws, Ordinances, Regulations, and Standards

Federal, state, and local Laws, Ordinances, Regulations, and Standards (LORS) applicable to wildfire are discussed below and summarized in Table 3.17-2.

Table 3.17-2. LORS Applicable to Wildfire

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
Federal	National Fire Protection Association Codes, Standards, Practices, and Guides	Provides standards for the design, installation, operation and removal of BESS in regard to fire safety.	Impact 3.17-2	The NFPA Standards required by the Project, including NFPA 855, Standard for the Installation of Stationary Energy Storage Systems, and is the standard for the testing, design, installation, operation, and removal of battery energy storage systems and components, provide the basis for state regulation (CFC Chapter 12 Section 1207), which the proposed Project would comply with.
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.	Impact 3.17-2 Impact 3.17-3	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.
Federal	International Fire Code; International Wildland–Urban Interface Code	Model codes for California.	Impact 3.17-2 Impact 3.17-3 Impact 3.17-4	As a model code for the California Fire Code and upcoming Wildland-Urban Interface Code, they impact what requirements are adopted by the State and subsequently County.

Table 3.17-2. LORS Applicable to Wildfire

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
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.	Impact 3.17-2 Impact 3.17-3 Impact 3.17-4	Vegetation management around power lines would be in compliance with these requirements
State	Part 2 of CCR Title 24, California Building Code,	Standards for construction of the proposed Project.	Impact 3.17-2	Project construction would comply with the CBC through compliance with the Alameda County Code of Ordinances.
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.	Impact 3.17-2 Impact 3.17-3 Impact 3.17-4	All Project components will be in compliance with the requirements of the CFC including those pertaining to fire apparatus access, and BESS design.
State	CAL FIRE	Would provide fire suppression service to the proposed Project given its location in an SRA. Additionally, the subdivision, FRAP, creates the FHSZ maps that dictate what FHSZ the proposed Project would be in.	Impact 3.17-1	The proposed Project would be served by CAL FIRE suppression services via station 21 and have to comply to all pertinent LORS for development in a SRA.
State	California Strategic Fire Plan	Dictates the fire protection policies of CAL FIRE.	Impact 3.17-1	Would impact the policies of an agency providing fire protection services to the proposed Project.
State & Local	Mutual Aid Agreements	Establishes agreements between fire protection agencies to provide aid to nearby areas when necessary.	Impact 3.17-1	Enables fire protection to be provided by the nearest resource and for additional resources to respond when necessary.
Local	Alameda County General Plan	Establishes policies and actions that guide fire-safe development and local emergency services.	Impact 3.17-1 Impact 3.17-2	Provides general principles that the proposed Project would follow as well as policies that would impact

Table 3.17-2. LORS Applicable to Wildfire

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
				the emergency services that would serve the proposed Project.
Local	Alameda County Code of Ordinances	Contains the Alameda County Fire Code, which outlines the requirements of the proposed Project pertaining to fire safety.	Impact 3.17-2 Impact 3.17-3	Contains pertinent local codes (Fire, Building, Electrical), that all proposed Project components would have to be in compliance with.

Acronyms: CCR – California Code of Regulations, CFC – California Fire Code, CGC California Government Code, NFPA – National Fire protection Association, PRC – Public Resource Code, PUC – Public utilities Commission.

3.17.6.1 Federal LORS

National Fire Protection Association Codes, Standards, Practices, and Guides

National Fire Protection Association (NFPA; 2024) codes, standards, recommended practices, and guides are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together professionals representing varied viewpoints and interests to achieve consensus on fire and other safety issues. NFPA standards are recommended guidelines and nationally accepted good practices in fire protection but are not laws or codes unless adopted as such or referenced as such by the California Fire Code or the local fire agency.

- NFPA 10, Standard for Portable Fire Extinguishers (2018): A long-standing standard, which specifies the types, sizes, rating, and locations for portable fire extinguishers. It also provides information on how to calculate the number and size of portable fire extinguishers needed.
- NFPA 11, Standard for Low-, Medium-, and High-Expansion Foam (2016): NFPA 11 is a longstanding standard, which provides recommendations for design and installation of firefighting foam systems and portable equipment. It also provides recommendations regarding calculating the amount of foam concentrate and solution needed on a flammable or combustible liquid fire.
- NFPA 13, Standard for Installation of Sprinkler Systems (2019): NFPA 13 is the standard for design and installation of automatic fire sprinkler systems in a building. It provides the requirements for the type of system needed in a particular occupancy, water supply, sprinkler head flow and pressures, the locations of sprinkler heads, and installation of the system. This standard is referenced by the California Fire Code.
- NFPA 22, Standard for Water Tanks for Private Fire Protection (2018): Provides recommendations for the design, construction, installation, and maintenance of tanks and accessory equipment that supply water for private fire protection.
- NFPA 30, Flammable and Combustible Liquids Code (2018): This standard provides safeguards to reduce the hazards associated with the storage, use, and handling of flammable and combustible liquids. It provides detailed information regarding tank storage, spacing, dispensing of liquids, portable containers, and other related operations. NFPA 30 is referenced by the California Fire Code.

- NFPA 70, National Electrical Code (2017): NFPA 70 is the standard for the design, installation, and inspection of electrical hazards. It includes recommendations for various types of occupancies and also provides recommendations and criteria for the location and installation of "explosion proof" electrical systems.
- NFPA 72, National Fire Alarm and Signaling Code (2019): NFPA 72 is the standard for the design, installation, and operation of fire alarm systems in various occupancies. This standard is used by fire alarm system designers when designing and installing a system. It is utilized also by fire agencies when reviewing plans for new systems.
- NFPA 497, Classification of Flammable Liquids, Gases, or Vapors, and of Hazardous Locations for Electrical Installations in Chemical Process Areas (2017): NFPA 497 is the standard, which is utilized along with NFPA 70 to determine flammable gas, flammable liquid, and combustible liquid hazards and to recommend the areas that require explosion-proof electrical systems. It also sets forth the extent of the classified areas. Although the title says chemical process areas, it is used as a standard for explosion-proof electrical as it defines various risks and contains numerous diagrams to help the electrical system designer.
- NFPA 855, Standard for the Installation of Stationary Energy Storage Systems, is the standard for the testing, design, installation, operation, and removal of battery energy storage systems and components. It is the basis for much of CFC Chapter 12 Section 1207.

North American Electric Reliability Corporation

According to North American Electric Reliability Corporation (NERC) Standard FAC-003, transmission vegetation management standards are applicable to all transmission lines operated as 200 kilovolts 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 LSPG-CA and PG&E's transmission line–related vegetation management activities in the proposed Project area.

Institute of Electrical and Electronics Engineers

In accordance with Standard 516-2003 (Guide for Maintenance Methods on Energized Power Lines), the transmission vegetation management program requires identifying and documenting clearances between vegetation and any overhead supply conductors while considering transmission line voltage, effects of ambient temperature on conductor sag under maximum design loading, fire risk, line terrain, and elevation, and effects of wind velocities on conductor sway. The clearances identified must be no less than those outlined in this standard.

National Electrical Safety Code

Section 23 of the National Electrical Safety Code describes all clearances, including climbing space involving overhead supply and communication lines.

National Fire Plan

The National Fire Plan, officially titled *Managing the Impacts of Wildfire on Communities and the Environment: A Report to the President in Response to the Wildfires of 2000*, was a presidential directive in 2000 as a response to severe wildland fires that had burned throughout the United States. The National Fire Plan focuses on reducing fire impacts on rural communities and providing assurance for sufficient firefighting capacity in the future. The plan addresses five key points: Firefighting, Rehabilitation, Hazardous Fuels Reduction, Community Assistance, and

Accountability. The plan continues to provide invaluable technical, financial, and resource guidance and support for wildland fire management across the United States. The U.S. Forest Service and the Department of the Interior are working to successfully implement the key points outlined in the plan (DOI/USDA 2000).

International Fire Code

Created by the International Code Council, the International Fire Code (IFC) addresses a wide array of conditions hazardous to life and property, including fire, explosions, and hazardous materials handling or usage (although not a federal regulation, but rather the product of the International Code Council). The IFC places an emphasis on prescriptive and performance-based approaches to fire prevention and fire protection systems. Updated every 3 years, the IFC uses a hazards classification system to determine the appropriate measures to be incorporated to protect life and property (often these measures include construction standards and specialized equipment). The IFC uses a permit system (based on hazard classification) to ensure that required measures are instituted (International Code Council 2020a).

International Wildland–Urban Interface Code

The International Wildland–Urban Interface Code is published by the International Code and is a model code addressing wildfire issues in low-density, rural residential areas or where residential areas abut open space (International Code Council 2020b). As of the time of this document being written, California is in the process of consolidating all state codes applicable to the wildland-urban interface into its own Wildland-Urban Interface Code.

3.17.6.2 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, Very High FHSZs 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 consisting 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

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), California Code of Regulations Title 24, Part 2, Chapter 7A. CCR Section 1254 – Section 1256 establish requirements for vegetation clearance around electric poles and conductors in State Responsibility Areas.

Title 24 California Building Code

Part 2 of Title 24 contains the California Building Code (CBC). Chapter 7A of the CBC regulates to building materials, systems, and/or assemblies used in the exterior design and construction of new buildings located within a wildland–urban interface fire area. The purpose of this Chapter is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any FHSZ within a State Responsibility Area or a wildland–urban interface 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.

California Fire Code

Part 9 of Title 24 contains the California Fire Code (CFC), which incorporates by adoption the International Fire Code with necessary California amendments. The purpose of this code is to establish the minimum requirements to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. Chapter 49 of the CFC contains minimum standards for development in the wildland–urban interface and fire hazard areas. Chapter 12, Section 1207 of the CFC establishes requirements for electrical energy storage systems including allowable quantities and separation distances based upon the type of installation.

California Public Resources Code

California Public Resource Code Section 4290 requires minimum fire safety standards related to defensible space that are applicable to residential, commercial, and industrial building construction in State Responsibility Area lands and lands classified and designated as Very High FHSZs. 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 Resource 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, PRC 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.

PRC 4292 & 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 that is operating at 2,400 or more volts but less than 72,000 volts, four feet.

- For any line operating at 72,000 or more volts but less than 110,000 volts, six feet.
- For any line operating at 110,000 or more volts, 10 feet.

California Public Utilities Commission General Orders and Rules

- California Public Utilities Commission General Order No. 131-D -The California Public Utilities Commission (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,
- California Public Utilities Commission General Order No. 95 - General Order 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.
- California Public Utilities Commission General Order No. 166 - General Order 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.
- Rule R.08-11-005 - Rule R.08-11-005 describes identifying, evaluating, and adopting fire-safety regulations for the High Fire Threat District (HFTD). R.08-11-005 also adopted the CPUC Fire-Threat Map that describes the High Fire Threat District that consists of three areas: Tier 1 High Hazard Zones, Tier 2 Elevation Risk, and Tier 3 Extreme Risk areas.

Public Utilities Code 8386

Public Utilities Code (PUC) 8386 describes the basic requirements for investor-owned utilities (IOU) towards operating their equipment to minimize the risk of catastrophic wildfire posed by their electrical lines and equipment. PUC 8386 also describes the required elements of a Wildfire Mitigation Plan (WMP) prepared by an IOU, including the wildfire risks, risk drivers present in their service territory, and the strategies the IOU is performing to mitigate these risk/risk drivers.

California Department of Forestry and Fire Protection (CAL FIRE)

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 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 minimum clearance requirements 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 the 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 4201–4204 and Government Code Sections 51175–51189. FHSZs are ranked from Moderate to Very High and are categorized for fire protection within a Federal Responsibility Area, State Responsibility Area, or Local Responsibility Area under the jurisdiction of a federal agency, CAL FIRE, or local agency, respectively. As noted above and depicted in Figure 3.17-1, Fire Hazard Severity Zone Map, the Project site and surrounding area is located within a High FHSZ.

California Strategic Fire Plan

The 2019 Strategic Plan (CAL FIRE 2019) is guided by CAL FIRE's mission to serve and safeguard the people and protect the property and resources of California as well as its vision to be the leader in providing fire prevention and protection, emergency response, and enhancement of natural resource systems. The Strategic Plan is organized into four goals. These goals include to improve core capabilities, enhance internal operations, ensure health and safety, and build an engaged, motivated, and innovative workforce. These goals are further categorized into the following objectives to meet said goals.

- Analyze and integrate core operations functions at all levels of the Department.
- Evaluate and improve existing emergency response capabilities.
- Expand forestry and fire prevention through effective natural resource management programs, education, inspections, and land use planning.
- Strengthen post-incident assessments to create long-term improvements.
- Analyze business support functions and improve operational efficiencies.
- Define and effectively manage internal communication processes.
- Review and update communication processes to all external stakeholders.
- Create a secure, responsive, and integrated user-centric technology culture.
- Manage fiscal challenges to ensure adequate funding for critical programs.
- Promote employee behavioral health and physical fitness.
- Promote the safety of Department employees, partners, and the public.
- Address skill gaps and barriers through creative outreach and recruiting.
- Create and implement detailed training plans for all Department employees.
- Retain the Department workforce through purposeful engagement.

Mutual Aid Agreements

The California Disaster and Civil Defense Master Mutual Aid Agreement, as provided by the California Emergency Services Act, provides statewide mutual aid between and among local jurisdictions and the state. The statewide mutual aid system exists to ensure that adequate resources, facilities, and other supports are provided to jurisdictions whenever resources prove to be inadequate for a given situation. Each jurisdiction controls its own

personnel and facilities but can give and receive help whenever needed. CAL FIRE and the ACFD participate in these mutual aid, automatic aid, and other agreements with surrounding fire departments. In some instances, the closest available resource may come from another fire department.

3.17.6.3 Local LORS

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

Alameda County General Plan

Safety Element

The Safety Element addresses safety issues arising from both naturally occurring and human-caused conditions, and presents goals and policies focused on reducing the potential risk of death, injuries, property damage, and economic and social dislocation resulting from hazards. 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.

Goal 2: To reduce the risk of urban and wildland fire hazards.

Policy P2: Hill area development, and particularly that adjoining heavily vegetated open space area, should incorporate careful site design, use of fire retardant building materials and landscaping, development and maintenance of fuel breaks and vegetation management programs, and provisions to limit public access to open space areas in order to minimize wildland fire hazards.

Policy P4: All urban and rural development, existing and proposed, should be provided with adequate water supply and fire protection facilities and services. Facilities serving hill area development should be adequate to provide both structural and wildland fire protection. The primary responsibility falls upon the owner and the developer.

Policy P5: Structures, features of structures, or uses which present an unacceptable risk of fire should be brought into conformance with applicable fire safety standards.

Policy P6: Plan new public and private buildings to minimize the risk of fires and identify measures to reduce fire hazards to persons and property in all existing development.

Policy P7: The County shall adhere to the provisions of the Alameda County Fire Protection Master Plan and Fire Hazard Mitigation Plan.

Policy P8: The County shall limit residential development to very low densities in high fire hazard zones identified in Figure 5 of the Alameda County General Plan Safety Element.

Policy P10: The County shall require the design of adequate infrastructure if a new development is located in a state responsibility area (SRA) or in a very high fire hazard severity zone, including safe access for emergency response vehicles, visible street signs, and water supplies for structural fire suppression.

Policy P11: The County shall require the use of fire resistant building materials, fire resistant landscaping and, and adequate clearance around structures in “high” and “very high” fire hazard areas.

Policy P13: The County shall work cooperatively with public agencies with responsibility for fire protection and refer development applications to the Alameda County Fire Department, or the local Fire District for review and recommendation.

Policy P17: The County shall avoid or minimize the wildfire hazards associated with new uses of land.

Action A1: Limit or prohibit development and activities in areas lacking adequate water and firefighting facilities.

Action A2: Enforce design standards and guidelines through the site development, planned development, and subdivision review process.

Action A3: Require environmental impact assessment for development proposals in areas of severe fire hazard.

by establishing a regular review schedule for areas subject to this requirement.

Action A14: Revise the County’s Integrated Vegetation Management Program to require private property owners to maintain the vegetation on their property in a condition that will not contribute to the spread of a fire. Requirements for private property owners could include, but need not be limited to, the following:

- Maintain a 30-foot defensible space around all buildings and structures;
- Remove all portions of trees within 10 feet of chimneys and stovepipe outlets;
- Remove materials or plants that may act as a fuel or a conveyance of fire (such as dead/dying wood on trees adjacent to/overhanging structures, leaves, pine needles, etc. on rooftops or elsewhere on the property); and
- Install spark arrester in chimney and or stovepipe outlets.

Alameda County Code of Ordinances

The Alameda County Code of Ordinances Title 6, Chapter 6.04, Alameda County Fire Code, adopts, with amendments, the 2022 California Fire Code, Part 9 of California Code of Regulations Title 24, including current and future errata and supplements as based off the 2021 International Fire Code. Alameda County also added Appendices B, C, and D of the 2022 CFC to their Fire Code. Additionally, Chapter 6.44 Hazardous Weeds and Rubbish within the Alameda County Code of Ordinances establishes the power of the County to enforce weed abatement to reduce the accumulation of grass, weeds, and other vegetation that may cause fire hazards.

Alameda County Local Hazard Mitigation Plan

The Alameda County Local Hazard Mitigation Plan (LHMP) 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 (FEMA) tools to determine the most likely possible threats would be earthquakes, flooding, landslides, tsunamis, and wildfires in urban interface zones. The LHMP identifies mitigation action items that aim

to meet objectives and reduce the impacts of these hazards. The Alameda County LHMP is written on behalf of three separate entities Alameda County, Alameda County Fire Department (ACFD), and Alameda County Flood Control and Water Conservation District (ACFCWCD) (Alameda County 2022).

Alameda County Emergency Operations Plan

The Alameda County Emergency Operations Plan (EOP) 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 EOP has the flexibility to be used for all emergencies and facilitates response and recovery activities in an efficient and effective way (Alameda County Sheriff's Office 2012).

3.17.7 Agency and Agency Contacts

Applicable agency contacts for wildfire are shown in Table 3.17-3.

Table 3.17-3. Agency Contacts

Issue	Agency	Address	Contact
Emergency Response for Hazardous Materials Spills and Fires	Alameda County, Office of Emergency Services	4985 Broder Blvd Dublin, California 94568	925.803.7800
Fire Hazards	Alameda County Fire Department/CAL FIRE Station 21	Site 300, L-890, 15999 W. Corral Hollow Road, Tracy	925.423.5201

3.17.8 Permits and Permit Schedule

A Fire Safety Plan, Appendix 3.17A, has been prepared by Dudek for review by the Alameda County Fire Department. Documents that shall 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 shall be dictated by the requirements of California Fire Code Section 1207.2, Commissioning, decommissioning, operation, and maintenance. Additionally, UL 9540A testing documentation will be provided to ACFD officials once BESS technology has been finalized.

3.17.9 References

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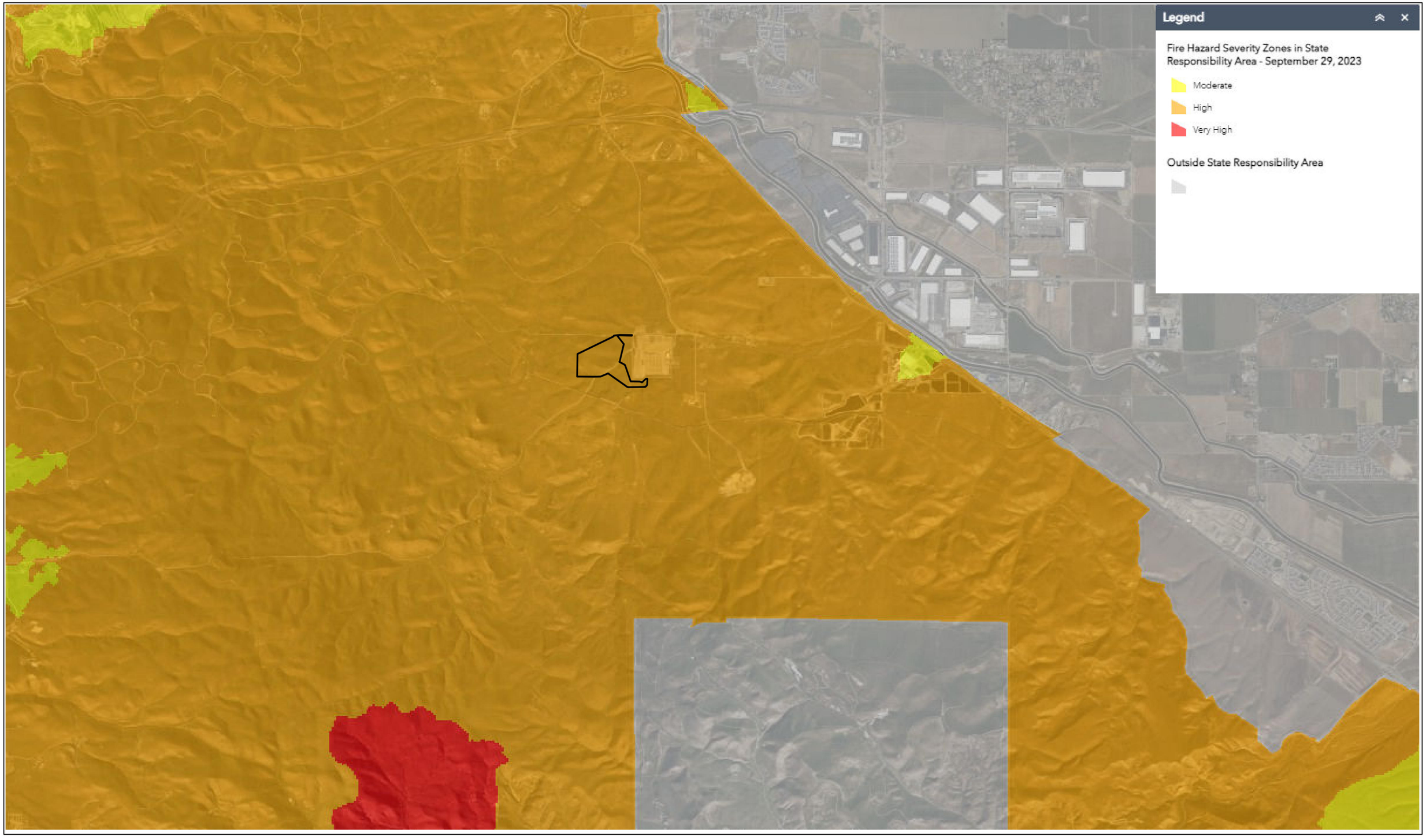

SOURCE: CALIFORNIA OFFICE OF THE STATE FIRE MARSHAL, SRA FIRE HAZARD SEVERITY ZONE MAPS, 2023

DUDEK

0 2,000 4,000 Feet

FIGURE **3.17-1**

Fire Hazard Severity Zones

Potentia-Viridi BESS Project Fire Safety Plan

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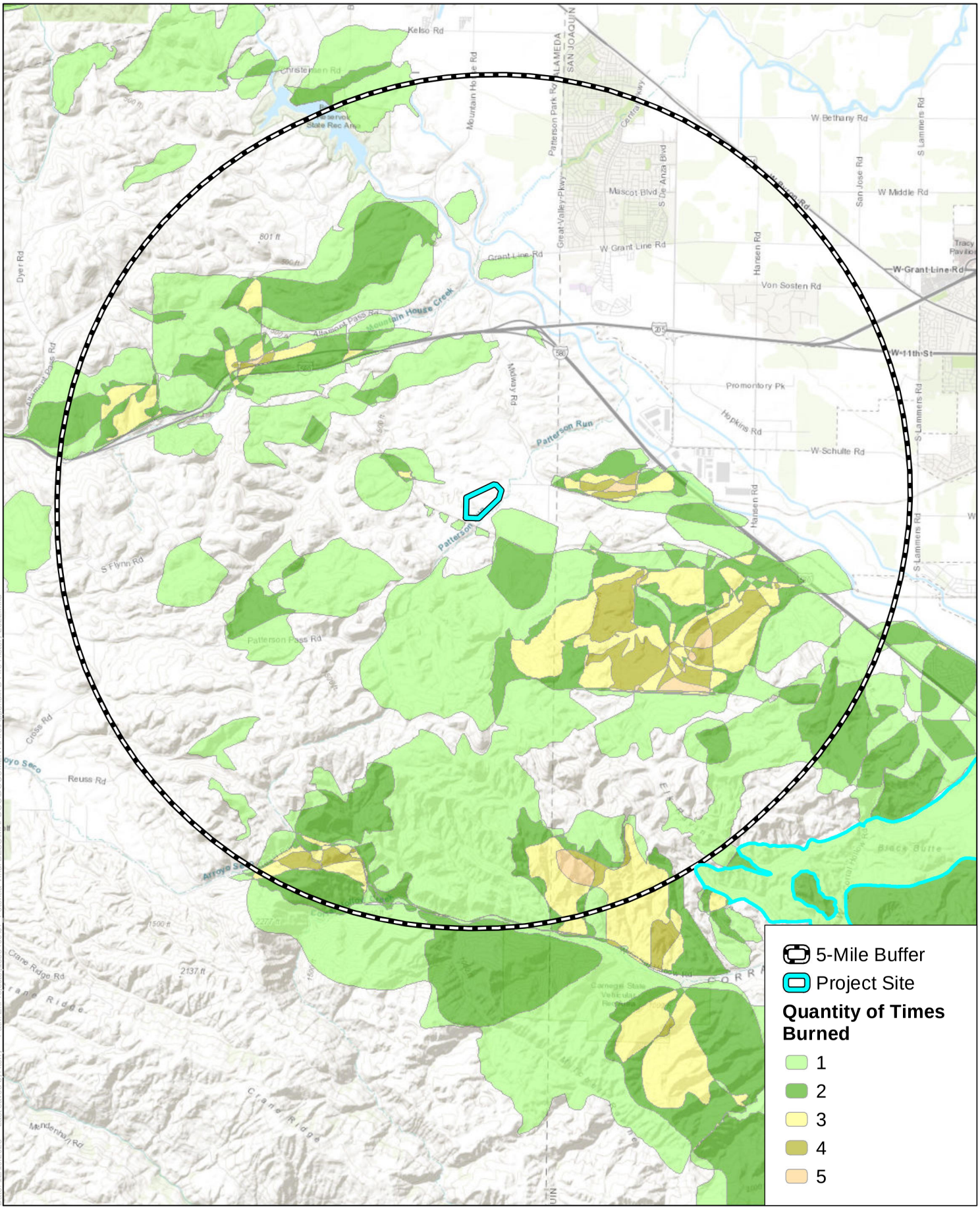

SOURCE: BASE MAP- ESRI MAPPING SERVICE; FIRE DATA-CALFIRE 2022

DUDEK

0 1 2 Miles

APPENDIX **3.17-2**

Fire History Map

Potentia-Viridi BESS Project

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