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Filer:	Grace Myers
Organization:	Rincon Consultants, Inc.
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5.17 Wildfire

This section discusses issues related to wildfire associated with the construction and operation of the Vaca Dixon Power Center Project (Project). Section 5.17.1 describes the environmental setting. Section 5.17.2 describes the regulatory setting. Section 5.17.3 identifies the potential wildfire impacts during Project construction and operation (including maintenance). Section 5.17.4 discusses cumulative impacts. Section 5.17.5 presents applicable laws, ordinances, regulations, and standards (LORS) applicable to wildfire. Section 5.17.6 identifies regulatory agency contacts and Section 5.17.7 describes permits required for the Project related to wildfire. Section 5.17.8 provides references for this section.

5.17.1 Environmental Setting

5.17.1.1 Wildfire Fundamentals

A wildfire is an uncontrolled fire in an area of extensive combustible fuel, including vegetation and structures. Wildfires differ from other fires in that they take place outdoors in areas of grassland, woodlands, brushland, scrubland, peatland, and other wooded areas that act as a source of fuel, or combustible material. Buildings may become involved if a wildfire spreads to adjacent development and communities. The primary factors that increase an area's susceptibility to wildfire include slope and topography, vegetation type and condition, and weather and atmospheric conditions. Regions of dense dry vegetation, particularly in canyon areas and on hillsides, pose the greatest potential for wildfire risks. Extreme wildfire events are expected to increase in frequency with the effects of increased global temperature, although changes in specific fire-prone areas are difficult to predict with any certainty (United States Forest Service 2021).

The effects of wildfires can be catastrophic. In addition to stripping the land of vegetation and destroying natural resources, post-fire conditions leave exposed slopes and hillsides vulnerable to surface erosion and runoff. Soil exposed to intense heat may lose its capacity to absorb moisture and support life. Debris flows during post-fire rainy seasons can pose a risk to life and property and occur with little warning. Any storm that has rainfall intensities greater than about 10 millimeters/hour (0.4 inch/hour) poses the risk of producing debris flows (United States Geological Survey 2018). Wildfires also have negative impacts on air quality. Exposure to smoke and particulate matter has immediate and long-term public health impacts; populations may suffer from eye irritations, respiratory problems, and complications to existing lung and heart conditions.

Wildfire has three basic elements: how and where its ignition occurred; how and why it moves across a landscape from its point of origin; and what the fire's nature is upon arrival at a location. In general, a fire's nature is defined by eight characteristics:

1. Direction of the advance of the fire front
2. Speed of the advance of the fire front (rate of spread)
3. Mechanism causing the advance
4. Duration at any one location
5. Structure-related consumption of fuels
6. Flame length
7. Intensity
8. Gaining control

A fire front's direction of travel is primarily determined by direction of prevailing winds, geographic aspect, and condition of the fuels in the advance direction of the fire. The speed of a fire front's advance is a result of conditions at the site of the currently burning material and of lands in the advance direction of the fire. As a fire advances, the overriding influences determining its speed are prevailing wind speed, terrain slope gradient, dominant fuel size classes, and fuel continuity.

Wildfires advance by two principal mechanisms - combustion resulting from radiant heating and remote ignition resulting from ember production. Fire stays at one location primarily due to the size class of the material being consumed. Grass formations are dominated by low volumes of very "fine" fuels and depending on the level of dryness, can be consumed with the fire advancing in a matter of minutes. On the other hand, tree-dominated vegetation has significantly greater volumes of available fuel and a far greater amount of larger-sized fuel components. Fires can remain at these locations for days, often weeks, and sometimes months (on heavily wooded conifer sites).

Fires burn where fuels are available. Fires in grasslands burn at a level set by the height of the grass, while fires in brushlands can burn surface fuels and typically consume the stems and leafy crowns to the full height of the plants. Fires in tree-dominated vegetation have a much more complex pattern of movement based primarily on the continuity (or "connectedness") of the fuels. In these stands, there are typically three distinct layers of fuels, arranged vertically - surface, stems and trunks, and the crown, which is composed of branches, twigs, and leaves. The continuity of fuels is important to consider in both horizontal and vertical directions. If a fire enters a stand and is advancing only as a surface fire, it will continue this manner of advance if there is high horizontal fuel connectivity. However, if there is also a high degree of vertical continuity (provided by fuels referred to as "ladder fuels"), then a fire can move up into the crown as well as forward across the surface, involving fuels in the entire stand structure.

Flame lengths are generally determined by the volume of fuels burning, the amount of time to total consumption, and the height of the species in the composition. Grassland produces flame lengths typically ranging from one to three feet as they are composed of low volumes of fine materials that are consumed quickly. Flame lengths are at their maximum when the material is dry. Stands of brush can produce flame lengths from 4 to 10 feet. Native oak-dominated hardwood stands can generate 20- to 40-foot flame lengths, and stands of exotics, such as *Eucalyptus globulus* or *E. cinerea,* or dense conifer stands can generate flame lengths over 100 feet. Flame length is important because it sets the distance over which radiant heating-related combustion can occur.

The temperature achieved in a wildfire is directly related to the amount of cellulosic material available for consumption. Grasslands have very low amounts and attain lower temperatures but woodlands, characterized by large amounts of highly concentrated cellulosic material, can attain temperatures on the order of 1,800 degrees Fahrenheit (°F).

Gaining control over a wildfire's behavioral character is the objective of response efforts. Grassland fires, burning in low fuel volume, rapid consumption, and at a single level, are the easiest to bring under control. On the other end, fires that are burning in high fuel volumes, full spectrum size classes, and entire stand structure involvement can require days, weeks, or even months to bring under complete control.

5.17.1.2 Wildfire-Conducive Conditions

Vegetation

Vegetation is fuel to a wildfire, and it changes over time with seasonal growth and die-back. The relationship between vegetation and wildfire is complex, but generally some vegetation is naturally fire-resistant, while some vegetation is extremely flammable. For example, cured grass is much more flammable than standing trees (California Department of Forestry and Fire Protection [CAL FIRE] 2018). Grass is considered an open fuel, in which oxygen has free access to promote the spread of fire. Additionally, weather and climate conditions, such as drought, can lead to increasingly dry vegetation with low moisture content and, thus, higher flammability. Some plant types in California landscapes are fire resistant, while others are fire-dependent for their seed germination cycles.

Mean fire return intervals identify the average number of years between fires in a specific area. The Solano County Community Wildfire Protection Plan states that the prevailing mean fire return interval observed throughout the county, including areas around the Project area, is 11 to 15 years. Following closely are the intervals of 0 to 5 years and 6 to 10 years, ranking as the second and third most prominent categories, respectively. The county experiences notably short fire return intervals, particularly within its most densely populated areas (Solano County 2023).

Land uses surrounding the BESS Project Area include Interstate 80 (I-80) to the north and west; a PG&E transmission line easement and orchard-covered agricultural land within the City of Vacaville to the east; and Kilkenny Road and agricultural land within Solano County to the south. Adjacent land uses along the gen-tie routes within Solano County include a commercial auto body shop and pond to the west and southwest (Urban Commercial designation), undeveloped land and residential backyards along Mills Lane to the west and northwest (designated Urban Residential, Public Open Space, and Public/Institutional), Gibson Canyon Creek to the north, and the PG&E Vaca-Dixon Substation to the east.

As described in Section 5.12, *Biological Resources*, and the Biological Resources Technical Study (Appendix Y) the existing vegetation communities and land cover types in the Project Site, including the BESS Project Area as well as the transmission intertie (gen-tie) lines, include non-native annual grasslands, developed lands, agricultural fields, barren/ruderal lands, landscaped areas, open water, perennial rye grass fields, and fresh emergent wetlands. The BESS Project Area is dominated by mature plum tree orchards with non-native annual grasses interspersed between rows. In addition, vegetation communities and land cover types within 1 mile of the Project Site include urban residential, rural residential, business park, commercial highway, public open space, and a large amount of agriculture.

Slope, Elevation, and Aspect

Slope can determine how quickly a fire spreads. Fire typically burns faster uphill, because it can pre-heat the fuels above with rising hot air, and upward drafts are more likely to create fire spots. (National Park Service 2017). Areas containing steep, rugged terrain can also hinder access and the use of heavy firefighting equipment, posing additional difficulties for firefighting efforts (CAL FIRE 2022). Following severe wildfires, sloping land is also more susceptible to landslide or flooding from increased runoff during substantial precipitation events. Landslides and surficial slope failure are most likely to occur in areas with more than 25 percent slope (hillside areas) and along steep bluffs.

Elevation affects fire behavior by influencing the timing and amount of precipitation as well as exposure to prevailing winds. Aspect is the direction a slope faces, which determines how much radiated heat the slope will receive from the sun. Slopes facing south to southwest will receive the most solar radiation; thus, they tend to be warmer and the vegetation drier than on slopes facing a northerly to northeasterly direction, creating a higher potential for wildfire ignition and spread (University of California 2018).

Aspect is the direction that a slope faces, and it determines how much radiated heat the slope will receive from the sun. Slopes facing south to southwest will receive the most solar radiation and are warmer and drier than slopes facing a northerly to northeasterly direction, increasing the potential for wildfire ignition and spread (University of California 2018).

As described in Section 5.12, *Biological Resources,* the Project Site consists of mostly flat landscape, with minor elevation changes throughout. Elevations range from approximately 80 to 91 feet above mean sea level.

Climate and Weather

Wind, temperature, and relative humidity are the most influential weather elements in fire behavior and susceptibility (National Park Service 2017). Fire moves faster under hot, dry, and windy conditions. Wind may also blow embers ahead of a fire, causing its spread. In addition, drought conditions lead to extended periods of excessively dry vegetation, increasing the fuel load and ignition potential.

The Project area is characterized by dry, warm to hot summers and wet, cool winters. Average monthly temperatures range from lows around 40°F to highs above 95°F, and average annual precipitation is approximately 26 inches, 86 percent of which occurs between November and March (City of Vacaville 2021).

Wind within Solano County is highly dependent on local topography and other factors, and winds in the Project area are influenced by the proximate Vaca Mountains and English Hills and their mountain weather patterns. Historical wind data is provided by two weather stations; one located at Travis Air Force Base, approximately 10 miles south of the Project, and one located at the Vacaville Nut Tree Weather Station (WAS O45) located at the Nut Tree Airport, approximately 4 miles southeast of the Project. Table 5.17-1 presents wind data from the two stations and includes the primary wind source directions and average wind speed. The data has been further broken out into two seasonal periods: May to October (which roughly corresponds to the fire season) and the wetter months between November and April.

Table 5.17-1 Wind Data

	Seasonal Period			
	May – October		November – April	
Station	PWD	AWS (mph)	PWD	AWS (mph)
Vacaville Nut Tree Airport (WAS O45)	Southwest	6.3	North-Northwest and Southwest	5.6
Travis Air Force Base (SUU)	Southwest	15.3	Southwest	8.2

PWD = wind source direction, AWS = average wind speed, mph = miles per hour

Source: Iowa Environmental Mesonet 2025, average of datasets from 2021, 2022, 2023, and 2024

During the fire season (approximately May to October) winds primarily occur from the southwest, with calm conditions (less than 2 mph winds) occurring an average of 14 percent of the time. Winds in excess of 20 mph are primarily experienced from the north and southwest. During the wet season (approximately November to April) winds primarily occur from the north-northwest and southwest, with calm conditions occurring approximately 23 percent of the time. Higher wind speeds (between 15 and 20 mph) and winds in excess of 20 mph are primarily experienced from the north and southwest (Iowa Environmental Mesonet 2025).

As described in the Solano County Community Wildfire Protection Plan, spotting occurs when embers travel in advance of the flaming front; long range spotting can be miles ahead of the main fire. Many factors determine whether an ember will result in an ignition (such as fire source and size, wind, fuels, exposure duration, etc.), but the potential for ignition from embers exists (Solano County 2023). The Solano County Community Wildfire Protection Plan determined ember exposure levels throughout the county using the National Institute of Standards and Technology *Framework for Addressing the National Wildland Urban Interface Fire Problem*. The ember exposure threat levels for the Project Site are categorized as E2 and E3 (Solano County 2023). Exposure zone E2 is defined as a low ember assault exposure area, typically in the interior of the community, which offers improved protection from a direct wildfire assault (Maranghides and Mell 2013). Exposure zone E3 is typically found on the perimeter of the community and close to or adjacent to wildlands; this zone may experience a significant ember assault in the event of a wildfire (Maranghides and Mell 2013).

Power Lines

Above-ground power lines have the potential to contribute to wildfire risk, especially when they are near or traverse forested areas. In some instances, high winds can blow nearby trees and branches into power lines, sparking fires. Wind can also snap wooden poles, causing live wires to fall onto nearby grass or other fuel, igniting it. While the California Public Utilities Commission estimates only about 10 percent of California's wildfires are triggered by power lines, the frequency and severity of these wildfires has spurred the agency to promulgate new requirements for power line safety practices (Atkinson 2018).

PG&E's Vaca-Dixon Substation is located approximately 0.2-mile north of the BESS Project Area; and thus, numerous overhead power lines leading to the substation exist in the Project vicinity. Existing lines are strung across rows of existing lattice steel towers present to the north and west of the Project Site, parallel to I-80, and to the east of the Project Site, parallel to the eastern property line. Additional lines cross I-80 from the south and east into the Vaca-Dixon Substation. See Section 2, *Project Description*, for gen-tie details and a visual representation of the described overhead components of the Project, including the proposed 13.8 kilovolt (kV) and 115 kV overhead gen-tie lines that extend across I-80 and onto the PG&E Vaca-Dixon Substation parcel to the north (Figure 2-9).

Additionally, Section 5.5, *Visual Resources*, provides photographic simulations of the Project, with design details located in Appendix P.

5.17.1.3 Wildfire Hazard Designations

In California, state and local agencies share responsibility for wildfire prevention and suppression, and federal agencies take part as well. Federal agencies are responsible for oversight of federal lands in Federal Responsibility Areas (FRA). The State of California has determined that some non-

federal lands in unincorporated areas are of statewide interest and has classified those lands as State Responsibility Areas (SRA), which are managed by CAL FIRE (United States Department of Agriculture and United States Department of the Interior 2000). SRA is a legal term defining the area where the state has financial responsibility for wildland fire protection and prevention. Lands are removed from SRA when they become incorporated by a city, change in ownership to the federal government, become more densely populated, or are converted to intensive agriculture that minimizes the risk of wildfire (CAL FIRE 2024). All incorporated areas and unincorporated lands not in FRAs or SRAs are classified as Local Responsibility Areas (LRA).

While nearly all of California is subject to some degree of wildfire hazard, there are specific features that make certain areas more hazardous. CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors (Public Resources Code [PRC] Sections 4201 through 4204; California Government Code Sections 51175-89). The primary factors that increase an area's susceptibility to fire hazards include slope, vegetation type and condition, and atmospheric conditions. CAL FIRE maps fire hazards as zones, referred to as Fire Hazard Severity Zones (FHSZ). There are three levels of severity – Moderate, High, and Very High. Only the Very High FHSZs (VHFHSZ) are mapped for LRAs while all three FHSZs are mapped for SRAs. As of January 2022, California law requires CAL FIRE to map the Moderate and High FHSZ in addition to the Very High FHSZ for LRAs. The CAL FIRE FHSZ maps for SRAs were updated and took effect in April 2024.

Each of the FHSZs influence how people construct buildings and protect property to reduce risk associated with wildland fires. Under state regulations, areas within VHFHSZs must comply with specific building and vegetation management requirements intended to reduce property damage and loss of life in those areas. However, none of the fire zones specifically prohibit development or construction.

As shown in Figure 5.17-1 and Figure 5.17-2, the Project Site is not located within a SRA or VHFHSZ, and is located more than 2.5 miles east of the nearest SRA or VHFHSZ. The Project Site is situated in a Local Responsibility Area (LRA).

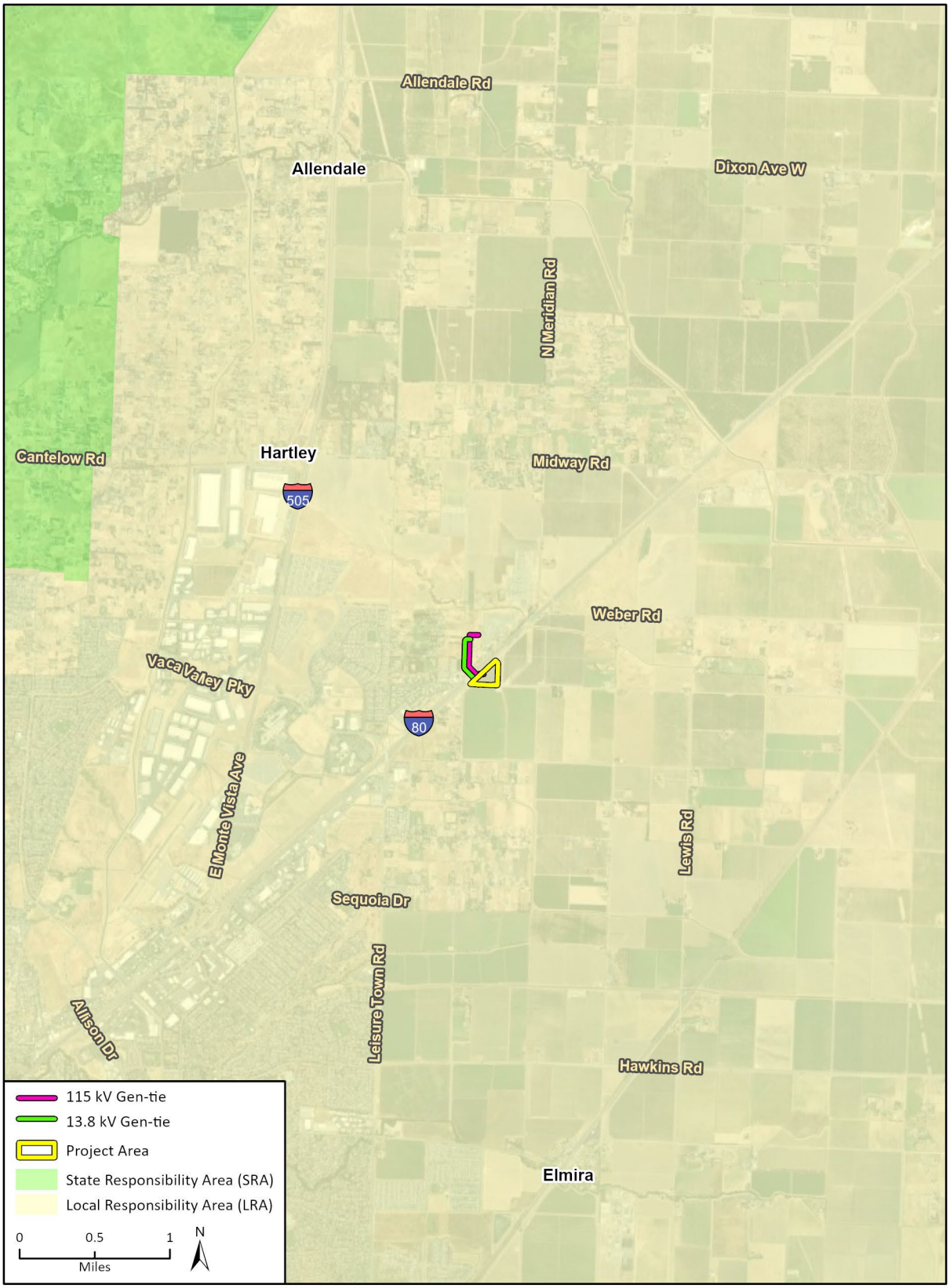
5.17.1.4 Fire History

Table 4-10 of the Solano County Multi-Jurisdictional Hazard Mitigation Plan identifies 15 wildfires that occurred in Solano County from 2005-2020, with some extending into neighboring counties Each of these fires burned over 100 acres, with the most extensive being the 2017 Atlas Fire and the 2020 Sonoma-Lake-Napa Unit (LNU) Lightning Complex (Solano County 2022).

Approximately 4 miles west of the Project Site, the LNU Lightning complex burned 363,220 acres and remained active for 47 days in 2020. The LNU Lightning Complex was a group of fires ignited by lightning strikes in Northern California, starting in August and lasting until October 2020. Over a three-day span, approximately 14,000 lightning strikes hit California, sparking more than 650 fires (Solano County 2022).

Approximately 15.5 miles southwest of the Project Site, the Atlas Fire burned 51,624 acres and remained active for 20 days in October 2017 (Nauslar, Abatzoglou, & Marsh 2018). The Atlas Fire was part of the Northern California firestorm, which included 14 large fires burning simultaneously across eight counties. The fire ignited on October 8, 2017, near Atlas Peak Road, driven by strong winds and low humidity. The fire destroyed 783 structures, including 445 residences and 19 commercial properties (Nauslar et al. 2018).

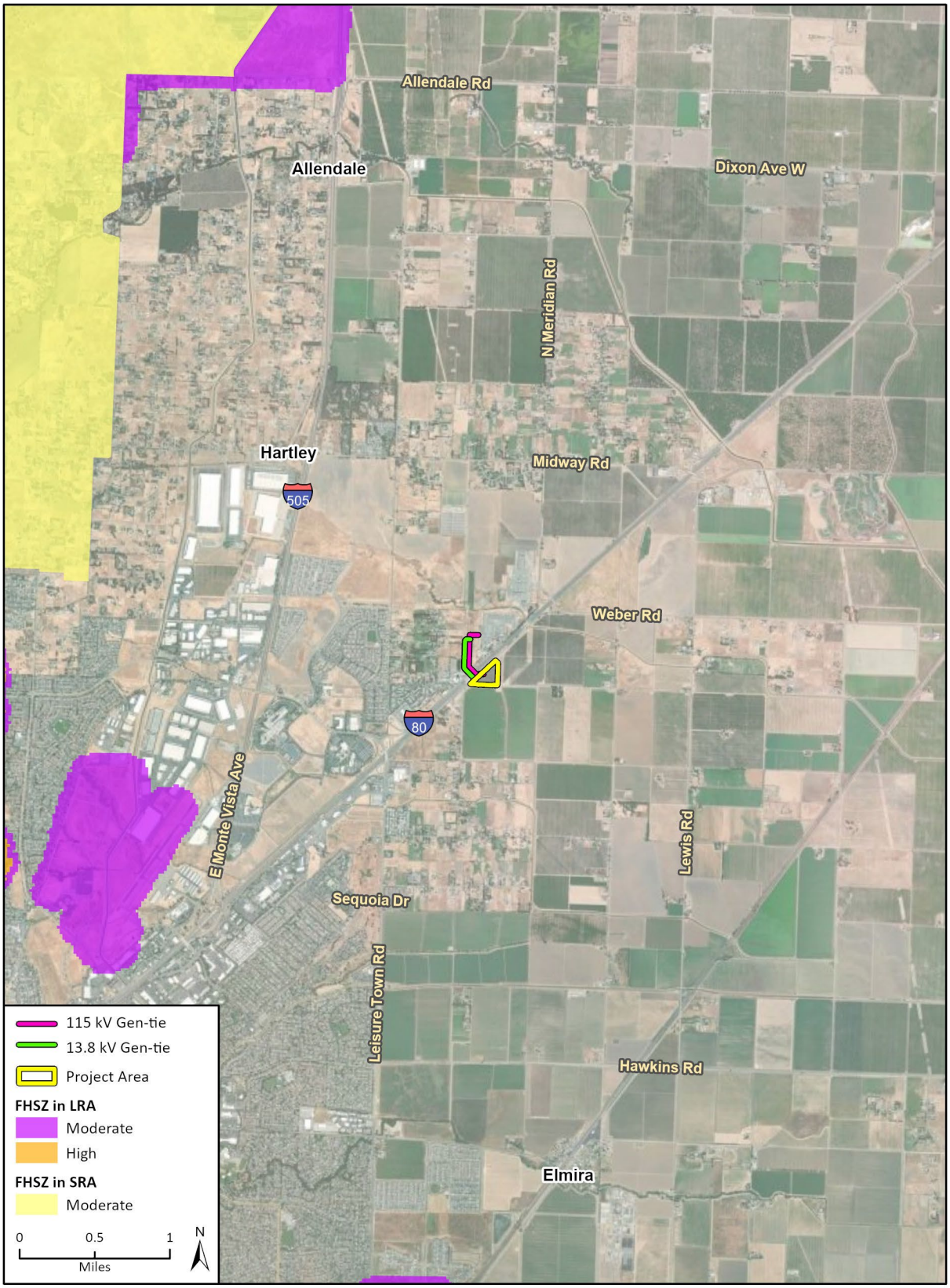
Figure 5.17-1 Wildfire Responsibility Areas Within and Near the Project Site



Imagery provided by Esri and its licensors © 2025.
Additional data provided by CALFIRE 2025.

25-17851 Hazards
Fig 5.17-1 State Responsibility Areas

Figure 5.17-2 Fire Hazard Severity Zones Within and Near the Project Site



Imagery provided by Microsoft Bing and its licensors © 2025.
Additional data provided by CALFIRE 2025.

25-17851 Hazards
Fig 5.17-2 Fire Hazard Severity Zones

5.17.1.5 Post-Fire Slope Instability and Drainage Pattern Changes

Vegetation loss from wildfire scarring of the landscape can result in slope instability in the form of more intensive flooding and landslides. These post-fire slope soils and altered drainage patterns can result in soil creep on downslope sides of foundations and reduce lateral support.

As described above in Section 5.17.1.2, the Project Site is mostly flat, with minor elevation changes throughout. As described in Section 5.16, *Geologic Hazards and Resources,* no records of major historical landslides were found in proximity to the Project Site, and the Project Site is not mapped within a deep-seated landslide susceptibility zone.

5.17.1.6 Fire Protection Services

As described in Section 5.10, *Worker Safety,* the City of Vacaville Fire Department (VFD) provides fire response services to the Project Site (VFD 2025). The closest fire station to the Project Site is City of Vacaville Fire Station 73, located approximately 2.5 miles west at 650 Eubanks Court in the City of Vacaville. Portions of the gen-tie lines will be located in unincorporated Solano County within the jurisdiction of the Dixon Fire Protection District. The Dixon Fire Department and VFD have a mutual aid agreement in place allowing mutual assistance in the case of a major fire or emergency. The VFD has dedicated fire suppression and prevention staff who respond to fire, medical, and emergency calls and conduct building and fire protection system plan reviews and associated inspections, required annual fire and life safety inspections, municipal code enforcement, COV connect neighborhood clean-up programing, and weed abatement to assist in reducing the City's fire risk. The VFD responded to 290 fire calls in 2021 and had an average response time of 6 minutes and 53 seconds (City of Vacaville 2025a).

5.17.2 Regulatory Setting

A review of existing relevant LORS was conducted to understand the regulatory context for wildfire surrounding the Project. This review of applicable federal, state, and local policies and regulations included, but was not limited to, the California Environmental Quality Act, City of Vacaville, Solano County General Plan, and Solano County Code of Ordinances. These are detailed in Section 5.17.5.

5.17.3 Impact Analysis

The following subsections discuss the potential direct and indirect impacts related to wildfire during construction and operation (including maintenance) of the Project.

5.17.3.1 Methodology

To identify and assess potential impacts related to wildfire, Rincon Consultants reviewed publicly available information from CAL FIRE, Solano County, and information provided by the Applicant.

The California Environmental Quality Act (CEQA) impact evaluation criteria are based on whether a project is located within or near a SRA or VHFHSZ. As shown in Figure 5.17-1 and Figure 5.17-2, the Project Site is not located within a SRA or VHFHSZ. The Project is located approximately 2.54 miles east of the nearest SRA and 5.89 miles east of the nearest VHFHSZ. The ember exposure threat levels in the Project vicinity are categorized as E2 and E3. Exposure zone E3 is typically found on the perimeter of the community and close to or adjacent to wildlands; this zone may experience a significant ember assault in the event of a wildfire. Additionally, the Project Site is approximately 4 miles east of the LNU Lightning complex, which burned 363,220 acres and remained active for 47

days in 2020. Consequently, for the purposes of this analysis, while the Project is not located within a SRA or VHFHSZ, the Project is considered to be near a SRA or VHFHSZ.

Fire Protection and Prevention Programs

The Project would implement comprehensive health and safety programs to mitigate potential safety hazards during construction and operations and maintenance (O&M) activities, ensuring compliance with applicable regulations. The Project would also incorporate fire protection measures in accordance with the requirements set forth by the City of Vacaville, Solano County, and the California Energy Commission (CEC). As detailed in Section 5.10, *Worker Safety*, a Construction Fire Protection and Prevention Program would be developed to identify and address fire hazards during the construction phase. This program would include specific fire protection and prevention measures to be implemented throughout the construction period.

Similarly, an O&M Fire Protection and Prevention Program would be established for the operational phase of the Project. This program would focus on identifying fire hazards and implementing appropriate fire protection and prevention measures during ongoing operations and maintenance activities. Both the construction and O&M phases would include comprehensive Fire Protection and Prevention Training Programs to ensure all personnel are adequately trained in fire safety protocols.

Furthermore, the Project would be designed in accordance with the National Fire Protection Association (NFPA) Standard 855, which sets the standards for the installation of stationary energy storage systems. The Project would also comply with the California Fire Code, which provides guidelines for fuel handling and fire suppression.

5.17.3.2 Impact Evaluation Criteria

The potential for impacts related to wildfire were evaluated using the criteria described in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (Sections 15000-15387, Title 14, 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; and/or
- 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.

Section 5.9, *Hazardous Materials Handling,* Impact HAZ-4 includes a discussion and analysis related to adopted emergency response and evacuation plans; therefore, this topic is not included in the impact analysis below.

Impact WF-1

Threshold:	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?

As described under Section 5.17.3.1, *Methodology,* above, while not located within an SRA or VHFHSZ, the Project Site is considered located "near" an SRA or VHFHSZ for the purposes of this analysis. As detailed in Section 5.12, *Biological Resources,* the Project Site is comprised of a mostly flat landscape, with minor elevation changes throughout. Given the flat terrain, the risk of exacerbating wildfire spread due to slope is minimal. Therefore, the potential for slope and prevailing winds to contribute to the uncontrolled spread of a wildfire is limited, and the Project would not exacerbate wildfire risks or expose temporary construction personnel to pollutant concentrations from a wildfire.

As described in Section 5.17.1.2, and detailed in Section 5.12, *Biological Resources,* vegetation and land cover types within 250 feet of the Project Site include non-native annual grasslands, developed lands, agricultural fields, barren/ruderal, landscaped areas, open water, perennial rye grass fields, and fresh emergent wetlands.

Construction

Less than Significant Impact. During Project construction, there would be a temporary increase in human activity and potential ignition sources, including equipment that could create spark, be a source of heat, or leak flammable materials on the Project Site. The predominant fire hazard from Project construction would involve the use of vehicles and equipment, which could ignite dry vegetation and result in a fire, particularly during the drier, warmer conditions of summer and fall. Construction activities that could result in sparks, such as welding or grading, have a greater potential to result in an ignition. Therefore, depending on the time of year and the location of construction activities, construction activities could increase the sources of potential ignition in the Project Site and could temporarily exacerbate the risk of wildfire. If construction were to result in an ignition, wildfire could result in smoke and air pollutants that could result in poor air quality for construction personnel and the surrounding communities.

As discussed above, existing conditions on the Project Site include flat topography and a mix of developed land and variable vegetation which could serve as a fuel source and pose a fire hazard. Combustible vegetation within the Project Site would be actively managed and maintained by the Project owner or its affiliates during the construction phase of the Project in accordance with the vegetation management guidelines included in the Project Construction Fire Protection and Prevention Program to minimize fire risk. Further, while the use of vehicles and equipment in the Project Site could result in an ignition that could lead to the spread of wildfire, the risk of such an impact would be low due to the short-term duration of construction, existing flat topography, and the minimization of potentially flammable vegetation. Additionally, the Applicant would prepare and implement a Construction Fire Protection and Prevention Program which would further reduce construction related risks of wildfire ignition by identifying known fire hazards and providing procedures for fire safeguards during Project construction activities. Therefore, the risk of a construction-related ignition resulting in an exacerbated risk of wildfire would be less than significant.

Operation and Maintenance

Less than significant. As described in Section 2, *Project Description,* on-site operations and maintenance (O&M) activities would occur up to two times per week during daytime hours, with up to two staff members visiting the Project Site. These activities include routine visual inspections, minor repairs, and road and fence repairs, which would include the use of vehicles and other equipment that may serve as ignition sources. All O&M activities would be completed in accordance with the Project Operational Fire Protection and Prevention Program to minimize wildfire risk. The Project would be unmanned and monitored and operated remotely using a Supervisory Control and Data Acquisition (SCADA) system, and security personnel would be on call. The Project switchyard would be designed to include protection and control systems that would disconnect power to faulted equipment to remove electrical energy from propagating damage, thereby reducing wildfire risk. The Project does not include habitable structures, and no permanent employees or Project occupants would be on-site. Therefore, the Project would not expose Project occupants to exacerbated risks of wildfire or pollutant concentrations during operations and maintenance.

Combustible vegetation within the Project Site would be actively managed and maintained by the Project owner or its affiliates during the O&M phase of the Project in accordance with the Project Operational Fire Protection and Prevention Program, which would reduce the availability of vegetative fuels on-site and thereby minimize fire risk. With implementation of the Operational Fire Protection and Prevention Program, the Project would not exacerbate wildfire risks related to vegetation.

The Project BESS facilities would be designed and operated in compliance with applicable standards, such as National Fire Protection Association (NFPA) and the California Fire Code. The Applicant would coordinate with the local fire department(s) and follow all applicable detection and suppression requirements in the local fire code and BESS-specific fire code. Additionally, as shown in Figure 5.10-1 within Section 5.10, *Worker Safety*, fire suppression systems in both the Arges 400 MWh and Vaca Dixon 57 MWh BESS enclosures would include a gaseous fire suppressant agent designed to flood the entire container in the event of a fire. The enclosure would be equipped with combustible gas detection, early smoke detection, alarms, emergency ventilation, and remote monitoring, and fire safety and suppression measures would be implemented in accordance with the current CFC. Further, the Operational Fire Protection and Prevention Program would provide guidelines for fire prevention, active fire protection, fire and gas detection and alarm systems, and personnel safety measures in conformance with NFPA 855, *Standard for Installation of Stationary Energy Storage Systems*, and Chapter 12 of the California Fire Code. The Project's Injury and Illness Prevention Program, Operational Fire Protection and Prevention Program, Operational Personal Protective Equipment Program, and emergency action plan would be implemented to reduce risks related to pollutant exposure. With adherence to these Project-specific plans and programs, O&M of the Project would not exacerbate wildfire risks or expose individuals to pollutant concentrations from a wildfire; this impact would be less than significant.

Decommissioning

Less than significant. Decommissioning activities would be similar to those occurring during Project construction. Consequently, for the reasons described above, the Project decommissioning activities would not exacerbate wildfire risks or expose Project occupants to pollutant concentrations from a wildfire, and this impact would be less than significant.

Impact WF-2

Threshold:	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?

Construction and Operation

Less than Significant Impact As detailed in Section 2, *Project Description*, the Project would involve the implementation of underground utility lines and overhead gen-tie structures and lines; access roads; fire water lines and hydrants; and lithium-ion BESS components.

As outlined in Section 2, *Project Description*, the Project would introduce new structures and overhead lines to interconnect the Vaca Dixon 57 MWh BESS component with the existing Vaca Dixon Peaker Plant (VDPP) via a new 13.8 kV gen-tie and the Arges 400 MWh component with the PG&E Vaca-Dixon Substation via a new 115 kV gen-tie. The proposed gen-tie components for the Vaca Dixon 57 MWh and Arges 400 MWh BESS facilities would be co-located on shared transmission structures carrying both 13.8 kV and 115 kV conductors for approximately 1,500 feet of the gen-tie lengths, from the vicinity of the BESS switchyards across I-80 and up to the northwest corner of the VDPP facility. As shown in Figure 5.17-1and Figure 5.17-2, from the VDPP, the 13.8 kV gen-tie component for the Vaca Dixon 57 MWh BESS would continue approximately 150 feet to the east for connection to the low side of the 13.8/115 kV GSU transformer at the VDPP. The Arges 400 MWh BESS 115 kV gen-tie route continues approximately 725 feet north and east to the connection point at the PG&E Vaca-Dixon Substation. Figure 2-9 provides a map of the proposed gen-tie route and existing transmission lines within one mile of the Project. The proposed gen-tie would not exacerbate fire risk or result in additional temporary or ongoing impacts to the environment beyond those already identified and disclosed throughout this Application. Fire risks related to construction and operation of overhead gen-tie structures and lines would be minimized through implementation of the Construction and O&M Fire Protection and Prevention Programs; and thus, would not exacerbate fire risk.

A series of 20-foot-wide, asphalt access roads would be constructed within the BESS Project Area, providing three different points of ingress/egress to Kilkenny Road. The ground surface within and surrounding the BESS facilities, laydown area, switchgear, and switching station would be covered with gravel. The combination of asphalt and gravel ground surfaces would provide a buffer of non-combustible materials within, and surrounding, the Project Site. Fire risks related to construction and operation of these Project components would be minimized through implementation of the Construction and O&M Fire Protection and Prevention Programs; and thus, would not exacerbate fire risk. This infrastructure would not create additional temporary or ongoing impacts to the environment beyond those already identified and disclosed throughout this Application.

As described in Chapter 2, *Project Description*, a fire water loop and six fire hydrants would be installed on-site. The proposed CFC-compliant fire water loop would tap into an existing 12-inch City water main along the northern site boundary. The fire water line would loop around the northern, eastern, and southern extents of the BESS Project Area, and service approximately six fire hydrants throughout the site. The availability of an emergency water supply would benefit fire suppression efforts on-site and reduce potential fire risks. The use of water sourced from the City's 12-inch water main would not create additional temporary or ongoing impacts to the environment beyond those already identified and disclosed throughout this Application.

As discussed under the threshold question above and in Chapter 2, *Project Description*, implementation of the Project's Injury and Illness Prevention Program, Operational Fire Protection and Prevention Program, and Operational Personal Protective Equipment Program, and emergency action plan would reduce impacts related to exacerbating wildfire risk from installing and maintaining electrical infrastructure to a less than significant level.

Impact WF-3

Threshold:	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?

Construction and Operation

Less than significant. As discussed previously, the Project Site is not located within a SRA or VHFHSZ, and is located more than 2.5 miles east of the nearest SRA or VHFHSZ. The Project Site is situated in a Local Responsibility Area (LRA). The Project Site is mostly flat, with minor elevation changes throughout; thus, downslope flooding and landslide risks are minimal to non-existent. As discussed in Section 5.13, *Water Resources*, the Project would not substantially alter existing drainage patterns, cause erosion, create surface runoff that would contribute to flooding on- or off-site, or impede flood flows. The Project would include BMPs for stormwater control and management, such as utilizing straw waddles to minimize runoff and erosion, as detailed in the Project's Stormwater Pollution Prevention Plan (SWPPP). Further, as shown in the Project plans in Section 2, *Project Description*, stormwater would be routed to two stormwater detention basins on-site, one in the northern portion of the BESS Project Area, to the north of the Arges 400 MWh BESS component, and one centrally located in the BESS Project Area, north of the Vaca Dixon 57 MWh BESS component. The stormwater detention basins are designed for a 2-year, 24-hour storm and constructed with subsurface infiltration trenches to allow on-site percolation. Above the infiltration trenches, the ponds store additional runoff temporarily, releasing water slowly to mimic the pre-construction runoff characteristics of the site. The design of the stormwater detention basins would minimize risks of flooding elsewhere on-site. Additionally, all Project structures would be designed and installed in accordance with the recommendations of the site-specific geotechnical study, such as those related to structure foundation depth. Adherence to the recommendations of the Project geotechnical study would minimize structural risks related to soil and slope instability. Therefore, the Project would not expose people or structures to significant risks related to downslopes or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes, and impacts would be less than significant.

5.17.4 Cumulative Impacts

Impacts of the Project would be considered cumulatively considerable if they would have the potential to combine with other past, present, or reasonably foreseeable projects to become significant. A list of closely related past, present, and reasonably foreseeable projects are provided in Table 5-1 of Chapter 5, Environmental Analysis.

Overall Project

Areas subject to potential wildfire impacts include areas around the Project Site, namely those more than 3 miles west of the Project Site, which are identified as being within an SRA by CAL FIRE. One cumulative project, Cumulative Project 48 as listed in Table 5-2, is located within an SRA Moderate FHSZ. All other cumulative projects are located within LRAs.

Impacts related to exacerbated fire risks are Project- and-site-specific. Construction and operation of the Project would result in less than significant impacts related to exacerbated fire risks associated with slope, winds, and other factors due to the flat nature of the Project Site. The Project would implement Construction and Operational Fire Protection and Prevention Plans, a Hazardous Materials Business Plan, and would adhere to all applicable federal, state, and local laws and regulations to reduce the potential impacts from wildfire to a less than significant level during construction, operation, and decommissioning of the Project. Cumulative projects would have variable fire risk depending on individual project site conditions. However, similar to the Project, cumulative projects would adhere to all applicable federal, state, and local laws and regulations to reduce risk of wildfire. Therefore, cumulative impacts related to exacerbated wildfire risk would be less than significant, and the Project would not contribute to a cumulatively considerable impact.

5.17.5 Laws, Ordinances, Regulations, and Standards

The LORS that may apply to the Project related to wildfire are summarized in Table 5.17-2.

5.17.5.1 Federal LORS

There are no federal LORS that apply to wildfire.

5.17.5.2 State LORS

California Code of Regulations

Title 8 (Industrial Relations)

The CCR contains applicable worker health and safety regulations and addresses hazards including, but not limited to hazardous materials, pressure vessels, construction work, helicopters, electrical systems, equipment, and fires. Title 8 also outlines requirements for programs, procedures, and plans to mitigate injury and/or property damage that can result from these hazards.

Table 5.17-2 LORS Applicable to Wildfire

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
State	California Code of Regulations (CCR) 8 CCR § 1920, et seq.	Requirements for fire protection systems	Throughout this Opt-In Application	A Fire Protection and Prevention Plan would be prepared for both construction and O&M activities associated with the Project that would comply with the requirements set forth in 8 CCR § 1920, et seq.
State	8 CCR § 6150, et seq.; § 6151, et seq.; § 6165, et seq.; § 6170, et seq.; § 6175, et seq.; § 6183, et seq.; § 6184, et seq.	Requirements for fire protection	Throughout this Opt-In Application	A Fire Prevention and Protection Plan would be developed in compliance with the requirements set forth in 8 CCR § 6150, et seq.; § 6151, et seq.; § 6165, et seq.; § 6170, et seq.; § 6175, et seq.; § 6183, et seq.; § 6184, et seq.
State	CCR, Title 24 (California Fire Code)	Establishes best practices for fire safety and prevention. Requires the preparation of a Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statement (HMIS) or an HMBP that includes the required information.	Impact HAZ-1 Impact WF-1 Impact WF-2	The Project facility would prepare an HMBP that would include details that satisfy the requirements of the HMMP and HMIS.
State	CCR, Title 24 Chapter 1207	Outlines requirements for design, construction, operation, and decommissioning standards; permits, construction documents, hazard mitigation analysis, and fire testing, suppression, and remediation for stationary and mobile electrical energy storage systems.	Impact WF-1 Impact WF-2	The Project would be designed to comply with the requirements set forth in CCR Title 24, Chapter 1207.
State	California Environmental Quality Act	Requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of the Project and to reduce environmental impacts to the extent feasible.	Throughout this Opt-In Application	The Project's approval by the CEC would comply with CEQA, as required by the CEC's Opt-In Application process.

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
State	California Public Resource Code Section 4427 Section 4428 Section 4431	Outlines fire safety and wildfire protection standards in conjunction with building, construction, and development in SRAs.	Impact WF-1 Impact WF-2	The Project is not located within a SRA. However, the Project would include preparation and implementation of Fire Protection and Prevention Plans during construction and O&M activities that would be consistent with these standards.
Local	Solano County General Plan Policy HS.P-31- HS.P-32, HS.P-34, HS.P-39, HS.P-40, HS.P-41, and HS.P-43	Outlines policies, standards, and programs related to fire hazards.	Impact WF-1 Impact WF-2 Impact WF-3	The Project would include preparation and implementation of Fire Protection and Prevention Plans during construction and O&M activities that would be consistent with these General Plan policies.
Local	Solano County General Plan Policy HS.P-31, Policy HS.P-40, Policy HS-43	Adopts defensible space policies that ensure new and existing developments in high fire hazard zones incorporate defensible space and vegetation management to reduce fire risks.		
Local	Solano County General Plan Policy HS.P-39 and HS.P-41	Adopts Emergency Access policies that mandate new developments and roadways in fire hazard zones provide adequate access for emergency vehicles and comply with fire safety regulations.		
Local	Solano County General Plan Policy HS. P-34 and HS.P-43	Adopts Building review polices that require new developments in high fire hazard zones use fire-safe building methods and undergo comprehensive review to ensure fire protection.		
Local	Solano County General Plan Policy HS.P-32	Adopts general polices that discourage the construction of public facilities in areas with high wildfire risk to minimize potential hazards.		
Local	Solano County Code of Ordinances Chapter 6.3	Adopts the California Fire Code.	Section 5.9, *Hazardous Materials Handling* Section 5.10, *Worker Safety* Section 5.17, *Wildfire*	The Project would be consistent with the requirements set forth in the Solano County Municipal Code Chapter 6.3.

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
Local	Solano County Code of Ordinances Chapter 12.5	Addresses the abatement of fire hazards, including the removal of flammable materials to prevent fire risks.	Section 5.9, *Hazardous Materials Handling* Section 5.10, *Worker Safety* Section 5.17, *Wildfire*	The Project would be consistent with the requirements set forth in the Solano County Municipal Code Chapter 12.5.
Local	City of Vacaville General Plan Safety Element Policies SAF-P5.2, SAF-P5.4, SAF-P5.5, SAF-P5.7	Outlines policies, standards, and programs related to fire hazards.	Impact WF-1 Impact WF-2 Impact WF-3	The Project would include preparation and implementation of Fire Protection and Prevention Plans during construction and O&M activities that would be consistent with these General Plan policies.
Local	City of Vacaville General Plan Policy PUB-P1.4	Requires identification and mitigation of fire hazards during project review and approval process.	Section 5.9, *Hazardous Materials Handling* Section 5.10, *Worker Safety* Section 5.17, *Wildfire*	This Application package identifies fire hazards and mitigation, as applicable, for the Project.
Local	City of Vacaville General Plan Policy PUB-P1.5	Requires new development to satisfy fire flow, hydrant, and other requirements of the VFD.	Section 5.9, *Hazardous Materials Handling* Section 5.10, *Worker Safety* Section 5.17, *Wildfire*	The Project would be consistent with the requirements set forth by the VFD.
Local	City of Vacaville Code of Ordinances Chapter 15.20.270 and 15.20.271	Adopts and administers the California Fire Code.	Section 5.9, *Hazardous Materials Handling* Section 5.10, *Worker Safety* Section 5.17, *Wildfire*	The Project would be consistent with the requirements set forth in the City of Vacaville Municipal Code Chapter 15.20.270 and 15.20.271.
Local	City of Vacaville Code of Ordinances Chapter 15.20.273	Establishes development standards for new construction adjacent to open space lands.	Section 5.9, *Hazardous Materials Handling* Section 5.10, *Worker Safety* Section 5.17, *Wildfire*	The Project would be consistent with the requirements set forth in the City of Vacaville Municipal Code Chapter 15.20.273.

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
Local	City of Vacaville Code of Ordinances Chapter 14.09.270.170 (D)	Provides standards for the development and installation of facilities related to telecommunication facilities, including those for fire prevention and emergency response.	Section 5.9, *Hazardous Materials Handling* Section 5.10, *Worker Safety* Section 5.17, *Wildfire*	The Project would be consistent with the requirements set forth in the City of Vacaville Municipal Code Chapter 14.09.270.170 (D).
Local	City of Vacaville Code of Ordinances Chapter 14.09.240.070	Establishes that fire alarms and fire suppression equipment and devices are subject to approval by the Fire Department and shall comply with the California Fire Code (CFC) and National Fire Protection Association Standards (NFPA).	Section 5.9, *Hazardous Materials Handling* Section 5.10, *Worker Safety* Section 5.17, *Wildfire*	The Project would be consistent with the requirements set forth in the City of Vacaville Municipal Code Chapter 14.09.240.070.
Local	City of Vacaville Code of Ordinances Chapter 13.12.170 and 13.12.190	Provides sizing, inspection, testing, and approval requirements and regulations for fire hydrants.	Section 5.9, *Hazardous Materials Handling* Section 5.10, *Worker Safety* Section 5.17, *Wildfire*	The Project would be consistent with the requirements set forth in the City of Vacaville Municipal Code Chapter 13.12.170 and 13.12.190.

CCR: California Code of Regulations
HMIS: Hazardous Materials Inventory Statement
HMMP: Hazardous Materials Management Plan
O&M: Operations and maintenance
SRA: State responsibility area

Title 24, Part 9 (California Fire Code)

The California Fire Code (CFC) is Chapter 9 of California Code of Regulations (CCR) Title 24 and is based on the International Fire Code. The CFC establishes the minimum requirements consistent with nationally-recognized good practices to safeguard 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. The CFC uses a hazard classification system to determine what protective measures are required to ensure fire safety and protect lives. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure these safety measures are met, the CFC employs a permit system based on hazard classification.

More specifically, CFC Chapter 8 addresses fire-related interior finishes; Chapter 9 addresses fire protection systems; and Chapter 10 addresses fire-related means of egress. Chapter 12 addresses requirements for electrical energy storage system design, construction, operation, and decommissioning standards; as well as required permits, construction documents, hazard mitigation analysis, and fire testing, suppression, and remediation. CFC Chapter 49 also contains regulations for vegetation and fuel management to maintain clearances around structures. These requirements establish minimum standards to protect buildings in VHFHSZs in SRAs, LRAs, and wildland-urban interface fire areas.

California Environmental Quality Act

The CEQA requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of the Project and to reduce environmental impacts to the extent feasible. Appendix G of the CEQA Guidelines includes recommended criteria for evaluating potential impacts related to wildfire.

California Public Resource Code

The California Public Resource Code (PRC) includes fire safety regulations that include the following:

- On days when a burning permit is required, flammable materials would be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor would maintain the appropriate fire suppression equipment (PRC Section 4427)
- Appropriate fire suppression equipment would be maintained during the highest fire danger period from April 1 to December 1 (PRC Section 4428)
- On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines would not be used within 25 feet of any flammable materials (PRC Section 4431)

In addition, PRC Section 4290 establishes minimum wildfire protection standards in conjunction with building, construction, and development in SRAs and VHFHSZs in LRAs. Under PRC Section 4290, the design and construction of structures, subdivisions, and developments in SRAs must provide for basic emergency access and specified perimeter wildfire protection measures. These measures provide for road standards for emergency access, signing and building numbering, water supply reserves, and fuel breaks and greenbelts and are known as the State Minimum Fire Safe Regulations.

5.17.5.3 Local LORS

Solano County General Plan

The Health and Safety Element of the Solano County General Plan outlines Solano County's planning strategies regarding emergency management and response, fire hazards, flood hazards, seismic and geological hazards, airport hazards, hazardous waste materials, and noise. The following list consists of the policies of the Health and Safety Element relevant to fire hazards:

- **Policy HS.P-31:** Require that all structures or new development be built with defensible space.
- **Policy HS.P-32:** Discourage the construction of public facilities in areas of high or very high wildfire risk.
- **Policy HS.P-34:** Require new developments in high or very high fire hazard severity zones to incorporate fire-safe building methods and site planning techniques into the development.
- **Policy HS.P-39:** Require new development to provide adequate access for fire and emergency vehicles and equipment that meets or exceeds the standards. These standards are found in two parts of the California Fire Safe Regulations (California Code of Regulations, Title 14, Division 1.5, Chapter 7): Subchapter 2, Articles 1-5 (commencing with section 1270, SRA Fire Safe Regulations); and Subchapter 3, Article 3 (commencing with Section 1299.01, Fire Hazard Reduction Around Buildings and Structures Regulations).
- **Policy HS.P-40:** Require new and existing development and infrastructure in high or very high fire hazard severity zones to establish and maintain vegetation management practices to reduce the risk of wildfire ignition and spread. This shall include responsible site planning, vegetation management, the use of native drought-tolerant and fire-resistant species, and defensible space consistent with State, local, and fire protection district regulations.
- **Policy HS.P-41:** Ensure public and private roadways in fire hazard severity zones are in compliance with current fire safety regulations.
- **Policy HS.P-43:** Require review by the Building Services Division, Planning Services Division and fire protection districts prior to the issuance of development permits for significant development projects conceptual landscaping plans in Very High Fire Hazard Severity Zones identified by CAL FIRE (see Figure HS-14, Wildfire Hazard Severity Zones). Plans for proposed development in such areas shall include, at a minimum:
  - Site plan to reduce the risk of fire hazards and with consideration to site conditions, including slope, structures, and adjacencies.
  - Development and maintenance of defensible space.
  - Points of ingress and egress that facilitate improved evacuation and emergency response, and provide fire equipment access and adequate water infrastructure for water supply and fire flow that meets or exceeds the standards in the California Fire Safe Regulations. This specifically includes two sections of Title 14 of the California Code of Regulations (CCR), Division 1.5, Chapter 7: Subchapter 2, Articles 1-5 (commencing with Section 1270, SRA Fire Safe Regulations); and Subchapter 3, Article 3 (commencing with Section 1299.01, Fire Hazard Reduction Around Buildings and Structures Regulations).
  - Class A roof materials for new and replacement roofs.
  - Location and source of anticipated water supply.

- A Fire Protection Plan that includes a fire risk analysis, current fire response capabilities, fire safety requirements (defensible space, infrastructure, and building ignition resistance), mitigation measures and design considerations for non-conforming fuel modification, wildfire education and limitations, wildfire prevention maintenance, and evacuation planning.

Solano County Code of Ordinances

The Project would adhere to all applicable policies within the Solano County Municipal Code, including Chapters 6.3 and 12.5. Chapter 6.3 establishes rules and regulations under the State Housing Law and Health and Safety Code to protect public health, safety, and welfare, governing various aspects of building construction and maintenance for human habitation. Chapter 12.5 addresses the abatement of fire hazards and reduces fire risks in Solano County by mandating the clearance of flammable materials like dry grass and brush, and outlining procedures for the County or fire protection districts to enforce these regulations and recover costs from non-compliant property owners. The purpose of these regulations is to protect public health, safety, and welfare; establish comprehensive building standards; ensure safe construction and maintenance of buildings; mandate the clearance of flammable materials; and enforce compliance to safeguard the community against structural and fire hazards.

City of Vacaville General Plan

The Safety Element of the City of Vacaville General Plan outlines the City's planning strategies regarding hazards related to wildland fire, flood and dam failure, seismic and geological hazards, hazardous materials and waste, and climate change. The following list consists of the policies of the Safety Element relevant to fire hazards (City of Vacaville 2022a):

- **Policy SAF-P5.2:** Require that all development in areas of potential wildland fire hazards, including agricultural areas east of Leisure Town Road, include the following:
  - Fire breaks adjoining open space areas.
  - Adequate access to adjoining open space areas.
  - Clearance around structures and energy infrastructure.
  - Fire-resistant groundcover.
  - Fire-resistant roofing materials.
  - Adequate emergency water flow.
  - Adequate road dimension and signage to support the delivery of firefighting services and evacuation.
- **Policy SAF-P5.4:** Require that all development adjacent to open agricultural lands or open space comply with state law regarding defensible open space, even if the agricultural lands are designated for future development.
- **Policy SAF-P5.5:** Incorporate drought-resistant and fire-resistant plants in public works projects in areas subject to wildland fires.
- **Policy SAF-P5.7:** Require all development applications to be reviewed and approved by the Fire Department prior to project approval.

The Public Facilities Element of the City of Vacaville General Plan outlines the City's planning strategies regarding availability of public facilities and services related to fire, rescue, and emergency medical services, law enforcement, schools, public buildings, technology and telecommunications, community services, waste and recycling, water service, and wastewater. The following list consists of the policies of the Public Facilities Element relevant to wildfire (City of Vacaville 2022b):

- **Policy PUB-P1.4:** Identify and mitigate fire hazards during the project review and approval process.
- **Policy PUB-P1.5:** Require that new development satisfy fire flow and hydrant requirements and other design requirements as established by the Fire Department.

City of Vacaville Code of Ordinances

The Project would adhere to all applicable policies within the City of Vacaville Municipal Code, including Chapters 15.20.270, 15.20.273 14.09.270.170 (D)(8), 14.09.240.070, 13.12.170 and 13.12.190. Chapter 15.20.270 adopts and administers the California Fire Code, governing conditions hazardous to life and property from fire, hazardous materials, or explosion. Chapter 15.20.273 adopts development standards for new construction adjacent to open space lands to increase the protection of life and property from wildfire occurring on open lands; including but not limited to requirements related to defensible space and fire breaks, fire access roads, building materials, water supply, and fire suppression systems. Chapter 14.09.270.170 adopts a set of standards for the development and installation of telecommunications and related facilities in a manner consistent with the City's General Plan and state and federal requirements. Subsection (D)(8) adopts standards for fire prevention and emergency response to minimize wildfire ignition or intensification, such as those related to construction materials and fire extinguishing systems. Chapter 14.09.240.070 enforces that fire alarms and fire suppression equipment and devices standard in industry shall be subject to approval by the Fire Department and shall comply with the California Fire Code (CFC) and National Fire Protection Association Standards (NFPA). Chapter 13.12.170 establishes size, use, and approval requirements for fire water service connections and hydrants. Chapter 13.12.190 establishes requirements for the use and operation of fire hydrants. The purpose of these regulations is to protect public health, safety, and welfare; establish comprehensive building standards; ensure safe construction and maintenance of buildings; mandate the clearance of flammable materials; and enforce compliance to safeguard the community against structural and fire hazards.

5.17.6 Agencies and Agency Contact

Applicable agency contacts related to wildfire are shown in Table 5.17-3.

Table 5.17-3 Agency Contacts for Wildfire

Issue	Agency	Contact
CUPA for HMBP and Risk Management Plan (RMP)	Solano County Department of Resource Management - Environmental Health Services Division	James Bezek Director 675 Texas Street, Suite 5500 Fairfield, CA 94553 707-784-6765
Fire Hazards	City of Vacaville Fire Department	Kris Concepcion Fire Chief 630 Merchant Street Vacaville, CA 95688 707-449-5452
		Jill Childers Fire Safety Coordinator jill.childers@cityofvacaville.com
		Alex Nourot Deputy Fire Chief alex.nourot@cityofvacaville.com
	Dixon Fire Protection District	Randy Shafer Acting Fire Chief 205 Ford Way Dixon, CA 95620 707-678-7060

[1] Chief Concepcion is anticipated to step down from his position in January 2026 (City of Vacaville 2025).

Sources: Solano County Environmental Health Contacts (Solano County 2025)

5.17.7 Permits and Permit Schedule

The Applicant and CEC would collaborate with Solano County on review of the Opt-In Application to ensure compliance with City of Vacaville and Solano County requirements. No permits related to wildfire would be required for the Project.

5.17.8 References

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