

5.17 Wildfire

This section discusses issues related to wildfire associated with the construction and operation of the Darden Clean Energy 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.

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 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. Additional factors that increase an urban area's susceptibility to wildfire are development patterns and density, building types, and building materials.

The indirect effects of wildland fires can be catastrophic. In addition to stripping the land of vegetation and destroying forest resources, large, intense fires can harm soil, waterways, and the land itself. Soil exposed to intense heat may lose its capacity to absorb moisture and support life.

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:

- Direction of the advance of the fire front
- Speed of the advance of the fire front (rate of spread)
- Mechanism causing the advance
- Duration at any one location
- Structure-related consumption of fuels
- Flame length
- Intensity
- 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.

As described in Section 5.12, *Biological Resources*, and the Biological Resources Assessment (Appendix Q), the Project site is dominated by active and seasonally managed non-active agricultural fields. Few to no trees, brush, or branches exist on-site. This relative lack of fuels is one contributor to the lack of identified fire hazards on the Project site.

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 2022a). 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).

As described in Section 5.12, *Biological Resources*, the Project site is relatively flat, with elevations ranging from approximately 186 to 644 feet above mean sea level, increasing in elevation from the east to the west and southwest towards the Diablo Range. This flat topography in the Project vicinity is one contributor to the lack of fire hazard severity at the Project site, described below.

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.

Summers are long, hot, and dry in the valley in which the Project site is located. Winters are short and mild with light rain. Most of the seasonal precipitation occurs between October and April, and lightning occurs during the summer monsoonal moisture season. Over the course of the year, temperature typically varies from 39 °F to 99 °F and is rarely below 31 °F or above 106 °F.

Wind within Fresno County is highly dependent on local topography and other factors. The west side of the Project is influenced more by the proximate coastal range and coastal weather patterns, while the east side of the Project is more influenced by heating and cooling of the valley floor (Fresno County 2018). Historical wind data is provided by two weather stations; one located at Fresno Chandler Executive Airport, approximately 30 miles northeast of the Project, and Lemoore Naval Air Station (NAS), approximately 19 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: March to October (which roughly corresponds to the fire season) and the wetter months between November and April.

Table 5.17-1 Wind Data

Station	Seasonal Period			
	March – October		November – April	
	PWD	AWS (mph)	PWD	AWS (mph)
Fresno Chandler	Northwest	5.9	Northwest-Southeast	3.7
Lemoore NAS	North-Northwest	9.5	Northwest-Southeast	7.4

PWD = wind source direction, AWS = average wind speed, mph = miles per hour
 Source: Iowa State University IEM 2023

Power Lines

Above-ground power lines have the potential to contribute to wildfire risk, especially when they are near or traverse wilderness 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 (CPUC) 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).

An existing network of overhead distribution lines, strung along wooden poles, follows local public streets throughout the Project vicinity. The Pacific Gas & Electric (PG&E) Los Banos-Midway #2 500 kilovolt (kV) transmission line and associated lattice steel towers generally parallels Interstate 5 (I-5) approximately 1 mile to the west. Additionally, an existing 250 kV transmission line generally parallels I-5 approximately 0.5-mile to the east.

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 with watershed value are of statewide interest and have classified those lands as State Responsibility Areas (SRA). CAL FIRE manages SRAs. 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. Updates to the CAL FIRE FHSZ maps are in progress and expected to be completed in early 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 westernmost components of the Project, including the Project utility switchyard, a portion of the generation intertie (gen-tie) line, and alternate green hydrogen facility, are located within a SRA, in a Moderate FHSZ. The remainder of the Project site is not located within a SRA or FHSZ, and the solar facility and Option 1 and 2 step-up substation, BESS, and green hydrogen component locations are located more than eight miles east of the nearest SRA or FHSZ.

5.17.1.4 Fire History

Figure 4.53 of the Fresno County Multi-Jurisdictional Hazard Mitigation Plan identifies areas west of I-5 as one of the principal areas with a large, damaging fire history, and approximates 120 to 200 annual fire occurrences in SRAs and 1,400 to 1,600 in LRAs within the County (Fresno County 2018).

Immediately west of I-5, near the westernmost Project components, the Ciervo Fire burned approximately 62,900 acres in 1979; the Cantua Creek Fire burned approximately 468 acres in 1984; the Lightning 2 Fire burned approximately 211 acres in 1987; the 3 Rocks Fire burned approximately 9,435 acres in 2006; and the Five Fire burned approximately 2,372 acres in 2007 (CAL FIRE 2023). The nearest edge of the Ciervo Fire burned less than 500 feet west of the utility switchyard. The Cantua Creek Fire burned in the same vicinity as the utility switchyard and alternate green hydrogen facility. The nearest edge of the Lightning 2 Fire burned approximately 3.75 miles northwest of the utility switchyard. The nearest edge of the 3 Rocks Fire burned approximately 3.25 miles northwest of the utility switchyard. The nearest edge of the Five Fire burned approximately 3.5 miles northwest of the utility switchyard.

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, the Project site is generally flat with increasing elevation from the east to the west and southwest towards the Diablo Range.

5.17.1.6 Fire Protection Services

As described in Section 5.10, *Worker Safety*, Fresno County Fire Protection District (FCFPD) provides a full range of emergency response services including, but not limited to, structural fire suppression, wildland fire suppression, response to hazardous materials incidents, and life support medical services to the Project area (FCFPD 2023). The closest fire station to the Project site is FCFPD Station 95, located approximately eight miles north at 25101 West Morton Avenue in the community of Tranquility.

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

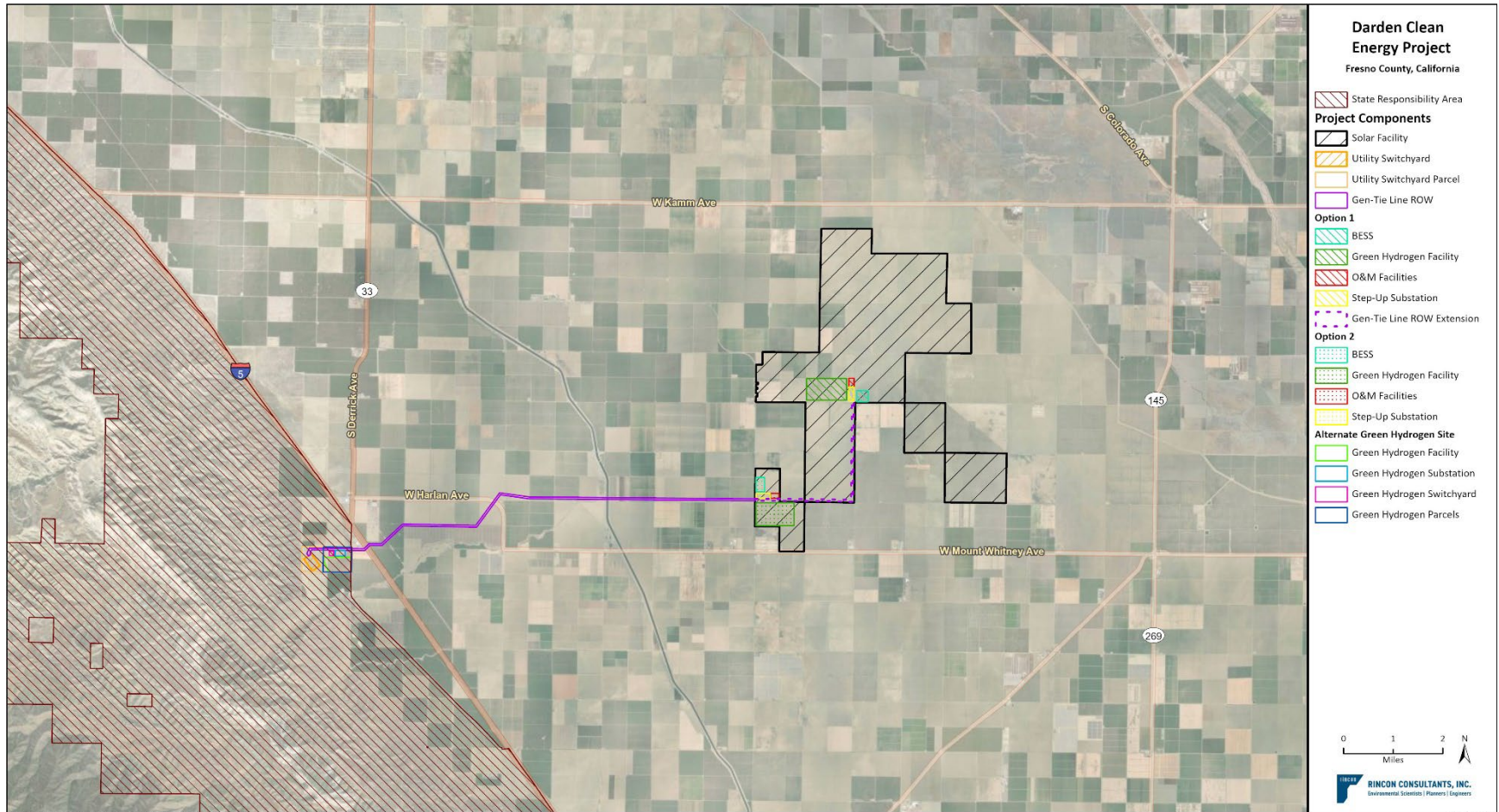
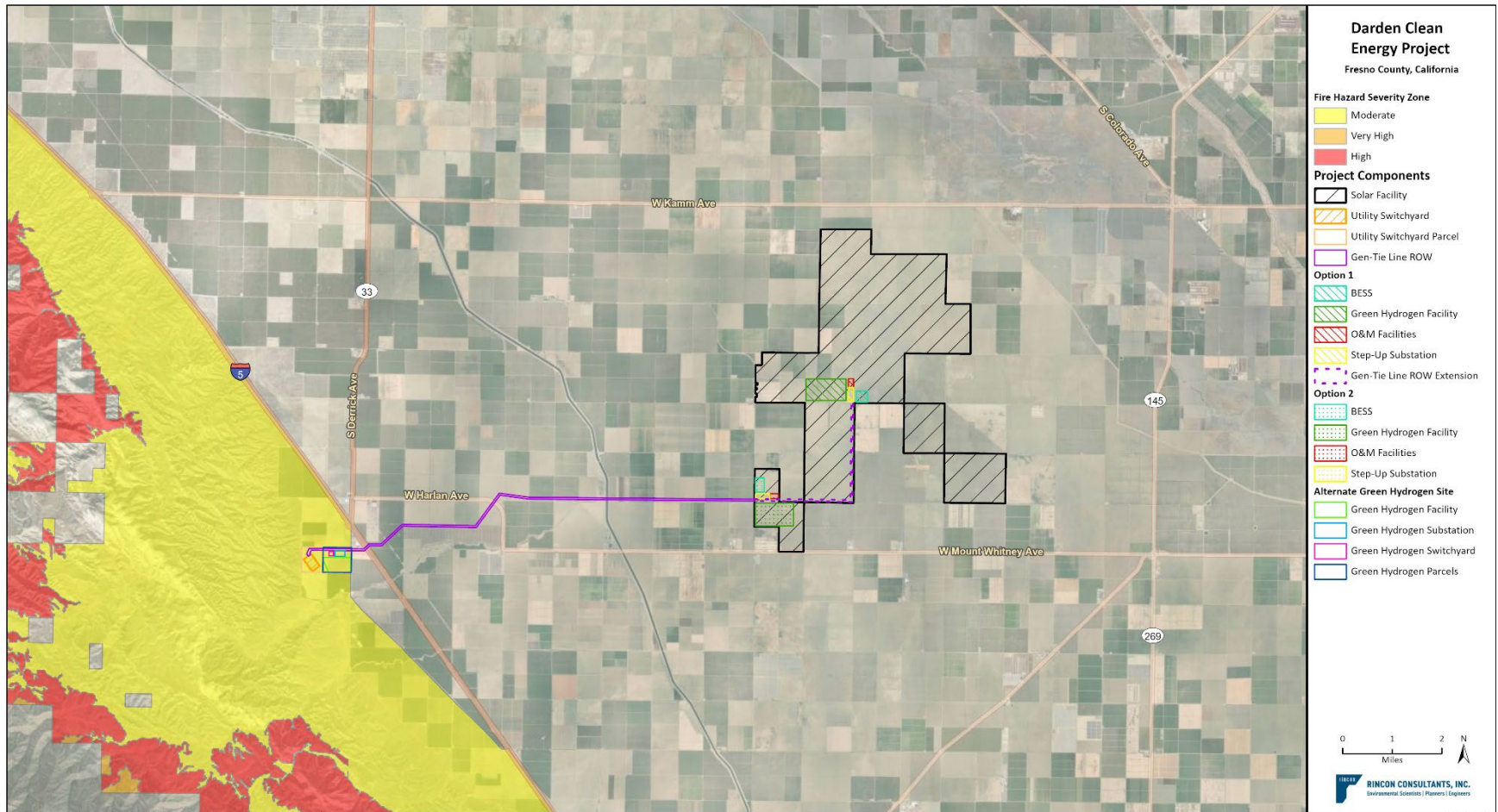


Figure 5.17-2 Fire Hazard Severity Zones Within and Near the Project Site



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 Fig. 5.17-2 Fire Hazard Severity Zones

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 including, but not limited to, the California Environmental Quality Act, Fresno County General Plan, and Fresno 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, Inc., reviewed publicly available information from the California Department of Forestry and Fire Protection (CAL FIRE), Fresno County, and information provided by the Applicant.

Fire Protection and Prevention Programs

As detailed in Section 5.10, *Worker Safety*, a Construction Fire Protection and Prevention Program would be developed and implemented during Project construction to identify fire hazards and fire protection and prevention measures. Likewise, an Operations and Maintenance (O&M) Fire Protection and Prevention Program would be developed and implemented during Project operation and maintenance. The Project would implement Fire Protection and Prevention Training Programs for construction and operations phases of the Project. Additionally, the Applicant has prepared a Fire Protection Philosophy for the green hydrogen facility, which provides guidelines for fire prevention, active fire protection, fire and gas detection and alarm systems, and personnel safety measures. The Fire Protection Philosophy is included in Appendix P.

5.17.3.2 Impact Evaluation Criteria

The potential for impacts related to hazardous materials 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.
- 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, and thereby is not included in the impact analysis below.

The Project utility switchyard, gen-tie, and alternate green hydrogen facility are the only Project components that would be located in or near a SRA. Therefore, these are the only Project components analyzed for wildfire impacts in the discussion 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?

Utility Switchyard, Gen-Tie, and Alternate Green Hydrogen Facility

As described above, the Project site is not populated and is vegetated with active and non-active agriculture in a largely flat region with no forested areas in the vicinity. As shown in Figure 5.17-1 and Figure 5.17-2, the Project components west of I-5, including the utility switchyard, a portion of the gen-tie line, and the alternate green hydrogen facility are located within a Moderate FHSZ in a SRA. Agricultural access roads and local roadways provide non-flammable fire breaks and vehicular access between parcels in the area.

Protocols related to worker safety and potential exposure to Project pollutants are described in Section 5.10, *Worker Safety*. A discussion of how potential Project pollutants would be contained and treated in the event of upset or accident conditions, such as a wildfire event, is included in Section 5.9, *Hazardous Materials Handling*, Impact HAZ-1. As detailed therein, emergency spill and response procedures would be communicated within the Project-specific Contingency Plan, Hazardous Materials Business Plan (HMBP), and a spill prevention, control, and countermeasure (SPCC) plan, and best management practices (BMPs) such as double containment would minimize risks associated with release of potential Project pollutants on-site.

Construction

Less than Significant Impact. During construction of the utility switchyard, gen-tie line, and alternate green hydrogen facility, 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 on 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 the surrounding communities. As discussed above, existing conditions on the Project site include flat topography and sparse vegetation. Therefore, while the use of vehicle and equipment on 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, lack of vegetation on-site, and

distance to population centers. 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 providing fire protections, identifying known fire hazards, and outlining procedures for fire safeguards for Project construction activities. Therefore, the risk of a construction-related ignition resulting in an exacerbated risk of wildfire would be less than significant.

Operation

Less than Significant Impact. The risk of ignition from vehicle and equipment use would be similar during operation and maintenance of the Project. As such, routine maintenance and vegetation clearance during operation and maintenance would ensure that all required fire breaks comply with all applicable regulatory requirements, and thus the quantity of available fuels would be low. Additionally, the Applicant would prepare and implement an O&M Fire Protection and Prevention Program which would further reduce operations-related risks of wildfire ignition by providing fire protections, identifying known fire hazards, and outlining procedures for fire safeguards for Project O&M activities. Additionally, the Applicant has prepared a Fire Protection Philosophy for the green hydrogen facility, which provides guidelines for fire prevention, active fire protection, fire and gas detection and alarm systems, and personnel safety measures. The Fire Protection Philosophy is included in Appendix P. As a result, the risk of an operation-related ignition resulting in an exacerbated risk of wildfire would be less than significant.

The utility 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. Upon completion of the utility switchyard, ownership and operations of the facility would be transferred to PG&E. In compliance with California Senate Bill 901, Assembly Bill 1054 and guidelines from the Office of Energy Infrastructure Safety, PG&E has prepared and implemented its 2023-2025 Wildfire Mitigation Plan (WMP). The 2023-2025 WMP addresses PG&E's wildfire safety programs and initiatives focused on reducing the potential for catastrophic wildfires related to electrical equipment, reducing the potential for fires to spread, and containing the customer impact of Enhanced Powerline Safety Settings and Public Safety Power Shutoff events (PG&E 2023). Any fire protection or prevention programs for switchyard operations would be the responsibility of the utility, and compliance with the PG&E 2023-2024 WMP would reduce switchyard operation impacts related to exacerbating wildfire risk to a less than significant level.

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?
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Utility Switchyard, Gen-Tie, and Alternate Green Hydrogen Facility

Construction and Operation

Less than Significant Impact. As shown in Figure 5.17-1 and Figure 5.17-2, the Project components west of I-5 including the utility switchyard, a portion of the gen-tie line, and the alternate green hydrogen facility are located within a Moderate FHSZ in a SRA.

These Project components would include the installation and/or maintenance of access roads, power lines, and other electrical utilities that could exacerbate fire risk. Emergency water sources would be installed at the Project utility switchyard and alternate green hydrogen facility. The increased availability of water and the implementation of fire protection systems, including hydrants, would decrease wildfire risk on the site over existing conditions.

As described in Section 5.10, *Worker Safety*, fire risks related to construction and operation of Project components would be minimized through implementation of the Construction and O&M Fire Protection and Prevention Programs as well as the Fire Protection Philosophy for the alternate green hydrogen facility. Thus, construction and operation activities would not exacerbate fire risk.

Further, as described in Chapter 2, *Project Description*, pure hydrogen is considered a fire risk as it is both highly flammable and also highly explosive. The alternate green hydrogen facility would be designed and operated in compliance with applicable standards, such as National Fire Protection Association 2 and Hydrogen Technologies Code. The Applicant would coordinate with the local fire department and follow all applicable detection and suppression requirements in the local fire code and hydrogen-specific fire code. Additionally, the Applicant has prepared a Fire Protection Philosophy (Appendix P) for the green hydrogen facility, which provides guidelines for fire prevention, active fire protection, fire and gas detection and alarm systems, and personnel safety measures. Therefore, construction and operations of the alternate green hydrogen facility would not exacerbate fire risk.

None of the Project infrastructure improvements would exacerbate fire risk or result in additional temporary or ongoing impacts to the environment beyond those already identified and disclosed throughout this Application. Therefore, impacts would be less than significant.

As detailed in Impact WF-1, the utility 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. Any fire protection or prevention programs for switchyard operations would be the responsibility of the utility, and compliance with the PG&E 2023-2024 WMP 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?
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Utility Switchyard, Gen-Tie, and Alternate Green Hydrogen Facility

Construction and Operation

No Impact. The Project site is relatively flat and thereby would not 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. The Project does not include any housing; therefore, it would not expose people to increased risk associated with flooding, landslides, or post-fire slope instability as a result of locating housing near such existing risks.

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, affect stormwater drainage capacity, or impede flood flows. A site-specific Stormwater Pollution Prevention Plan (SWPPP) would be implemented which would include BMPs to minimize or avoid adverse effects associated with drainage and runoff.

Project construction and operation would have a less-than-significant wildfire risk due to limited ground disturbance, flat site topography, minimal vegetation. Because the Project would have a low potential to exacerbate wildfire risk, it also would not pose a substantial risk of causing post-fire slope instability. Additionally, because the Project site is located on flat land, the Project would not be located on slopes that could contribute to the occurrence of landslides or flooding.

Therefore, the Project would not 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, 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 west of I-5, which are identified within an SRA by CAL FIRE. Cumulative projects FC-6, an oil and gas exploration and production project; FC-8, a gas station and convenience store project; and FC-11, a multi-use and freeway commercial development, are located west of I-5 and are located within or near an SRA.

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, limited vegetation, and fire breaks created by access roads surrounding (and throughout) the Project site. The Project would implement a Project Fire Protection and Prevention Plan, 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 and operation 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.

Utility Switchyard

Construction and operation of the utility switchyard is considered in the cumulative impact analysis of the overall Project discussed above; therefore, similar to the overall Project, cumulative impacts related to wildfire would be less than significant.

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.

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 BESS would be designed to comply with the requirements set forth in CCR Title 24, Chapter 1207.
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 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.

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
Local	Fresno County General Plan Policy HS-B.1 Policy HS-B.5 Policy HS-B.8 Policy HS-B.11	Outlines policies, standards, and programs related to fire hazards.	Impact WF-1 Impact WF-2	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	Fresno County Code of Ordinances Section 15.10	Adopts the California Fire Code.	Section 5.9, <i>Hazardous Materials Handling</i> Section 5.10, <i>Worker Safety</i> Section 5.17, <i>Wildfire</i>	The Project would be consistent with the requirements set forth in the Fresno County Municipal Code Section 15.10.
Local	Fresno County Code of Ordinances Section 15.60	State Responsibility Area Fire Safe Regulations of the County, provides minimum uniform standards for basic emergency access, perimeter wildfire protection measures, signing and building numbering, private water supply reserves for emergency fire use and vegetation modification.	Section 5.9, <i>Hazardous Materials Handling</i> Section 5.10, <i>Worker Safety</i> Section 5.17, <i>Wildfire</i>	The Project would be consistent with the requirements set forth in the Fresno County Municipal Code Section 15.60.

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

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.

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 FHSZs in SRAs, LRAs, and wildland-urban interface fire areas.

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

Fresno County General Plan

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

- **Policy HS-B.1:** The County shall review project proposals to identify potential fire hazards and to evaluate the effectiveness of preventive measures to reduce the risk to life and property.
- **Policy HS-B.5:** The County shall require development to have adequate access for fire and emergency vehicles and equipment.
- **Policy HS-B.8:** The County shall refer development proposals in the unincorporated county to the appropriate local fire agencies for review of compliance with fire safety standards. If dual responsibility exists, both agencies shall review and comment relative to their area of responsibility. If standards are different or conflicting, the more stringent standards shall apply.
- **Policy HS-B.11:** The County shall require new development to have water systems that meet County fire flow requirements. Where minimum fire flow is not available to meet County standards, alternate fire protection measures, including sprinkler systems, shall be identified and may be incorporated into development if approved by the appropriate fire protection agency.

Fresno County Code of Ordinances

The Project would adhere to all applicable policies within the Fresno County Municipal Code, including Chapter 15.10 and 15.60. The Fresno County Code of Ordinances Chapter 15.10 adopts the California Fire Code with specific edits. Fresno County Code of Ordinances Chapter 15.60 is the State Responsibility Area Fire Safe Regulations of the County, and is necessary in order to provide minimum uniform standards for basic emergency access, perimeter wildfire protection measures, signing and building numbering, private water supply reserves for emergency fire use and vegetation modification. The purpose of these regulations is to: create a safer environment for citizens within the wildlands of Fresno County; reduce the destruction and damage to structures and resources; and provide defensible space protecting citizens and firefighters.

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
Emergency Response for Hazardous Materials Spills and Fires	Fresno County, Office of Emergency Services	(559) 600-4065 OES@fresnocountyca.gov
Fire Hazards	Fresno County Fire Protection District	(559) 493-4300

Source: Fresno County Environmental Hazardous Materials Compliance Program
 Fresno County Fire Protection District (<https://www.fresnocountyfire.org/>)

5.17.7 Permits and Permit Schedule

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

5.17.8 References

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