

2.9 Wildfire

This section describes the existing setting of the Project Site, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Campo Wind Project with Boulder Brush Facilities (Project). Potential wildfire impacts resulting from construction, operation, and decommissioning of the Project were evaluated based on a review of existing resources, technical data, and applicable laws, regulations, guidelines, and standards, as well as the following technical reports prepared for the Boulder Brush Facilities:

- Boulder Brush Facilities Fire Protection Plan (FPP) prepared by Dudek (Appendix I to this Environmental Impact Report [EIR]).
- Boulder Brush Facilities Construction Fire Prevention Plan (CFPP) prepared by Dudek (Appendix A of Appendix I to this EIR).
- Boulder Brush Facilities Technical Report for Fire Personnel prepared by Dudek (Appendix H of Appendix I to this EIR).

Comments received in response to the Notice of Preparation included concerns regarding the Project's potential for increased fire risks, cumulative increase in wildfire ignition sources, firefighting hazards, and sufficient fire service and protection. These concerns are addressed in this section. For a discussion of fire protection services, please refer to Section 3.1.8, Public Services, of this EIR. A copy of the Notice of Preparation and comment letters received in response to the NOP is included in Appendix A of this EIR.

2.9.1 Existing Conditions

2.9.1.1 Regional Overview

As described in Chapter 1, Project Description, Location, and Environmental Setting, of this EIR, the Project would involve construction and operation of a renewable wind energy generation facility and associated infrastructure to connect energy generated by the Project to the existing San Diego Gas & Electric Company (SDG&E) Sunrise Powerlink. The Project consists of both the Campo Wind Facilities that would be located on land within the Campo Band of Diegueño Mission Indians Reservation (Reservation) Boundary under the jurisdiction of the Bureau of Indian Affairs (BIA) and the Boulder Brush Facilities that would be located on adjacent private lands within the Boulder Brush Boundary under the land use jurisdiction of the County of San Diego (County). The Campo Wind Facilities would be located within the approximately 2,200-acre Campo Corridor inside the Reservation Boundary while the Boulder Brush Facilities would be located within the approximately 320-acre Boulder Brush Corridor inside the Boulder Brush Boundary. Collectively, the Campo Corridor and the Boulder Brush Corridor comprise the approximately 2,520-acre Project Site. The Project Area includes the land within the Reservation Boundary and the Boulder Brush Boundary.

The Project vicinity consists of a mixture of large-lot rural residences and open space with mountainous terrain consisting of steep slopes, prominent ridgelines, and rock outcroppings. The 500-kilovolt (kV) Sunrise Powerlink traverses the northeast portion of the Boulder Brush Boundary. The Kumeyaay Wind and Tule Wind facilities are located to the east, north, and northwest.

Although the County as Lead Agency is analyzing the Project as a whole, the County's land use jurisdiction is limited to the Boulder Brush Facilities. The BIA has jurisdiction over the Campo Wind Facilities and has prepared an Environmental Impact Statement (EIS) to evaluate potential impacts of the Project under the National Environmental Policy Act (NEPA) (BIA 2019). This analysis adopts and incorporates by reference the EIS. The Boulder Brush Facilities Fire Protection Plan (FPP), which includes the Boulder Brush Facilities Construction Fire Prevention Plan (CFPP) and the Boulder Brush Facilities Technical Report for Fire Personnel, has been prepared pursuant to Section 4903 of the San Diego County Consolidated Fire Code to address the potential adverse environmental effects that the Boulder Brush Facilities may have on or from wildfire. The FPP provides analysis of the fire environment and its potential impact on the Boulder Brush Facilities as well as the Facilities potential impact on existing fire protection services. The FPP, CFPP and Technical Report are included as Appendix I to this EIR. Preparation of, and compliance with an FPP, to the satisfaction of the Campo Reservation Fire Protection District (CRFPD) would be required for implementation of the Campo Wind Facilities.

2.9.1.2 *Fire Hazard Severity Zones*

The California Department of Forestry and Fire Protection (CAL FIRE) uses Fire Hazard Severity Zones (FHSZ) to classify the anticipated fire-related hazard for state responsibility areas (SRAs). The classifications include Non-Wildland Non-Urban, Moderate, High, and Very High. Fire hazard measurements take into account the following elements: vegetation, topography, weather, crown fire production, and ember production and movement. The very high fire hazard severity designation can be attributed to a variety of factors including highly flammable, dense, drought-adapted desert chaparral vegetation, seasonal, strong winds, and a Mediterranean climate that results in vegetation drying during the months most likely to experience Santa Ana winds.

The Project Site is located in a High to Very High Fire Hazard Severity Zone, as statutorily designated by the California Department of Forestry and Fire Protection (CAL FIRE) (CAL FIRE 2007) (Figure 2.9-1, Fire Hazard Severity Zones in Project Area). The Project Site is located in an area with historically fire-adapted vegetation communities, including chaparral, scrub, and oak woodlands, which are vegetation communities that experience occasional wildfire and can burn in an extreme manner under the occasional severe fire weather (dry and windy) conditions that occur in the area. Based on the region's fuels, fire history, and expected fire behavior, severe fires may occur, with moderate- to severe-intensity fire expected to occur in the Project Area. The rocky terrain and more open fuel beds at the Project Site result in the anticipated moderate-intensity fire

behavior. The applicable Tribal and County fire codes required for the Project directly address the fire concerns associated with the Project Area. Tribal and County fire codes address combustible materials within the Project Vicinity, usage of heavy machinery, and emergency access and circulation. Fire protection in the Project Area is shared by several agencies, with the CRFPD, the San Diego County Fire Authority (SDCFA), and CAL FIRE providing significant resources. The CRFPD serves the Reservation, including the Campo Corridor, as well as the La Posta, Manzanita, Jamul, and Ewiiapaayp Indian Reservations. The CRFPD also has mutual aid agreements with Off-Reservation fire departments, including SDCFA, CAL FIRE, and the Boulevard Fire and Rescue Department.

CRFPD handles the management and prevention measures associated with fire issues on the Reservation, and works with CAL FIRE when needed as a responding agency when ground support and air attack assistance are needed for fire suppression. Through a state-wide agreement and an annual state-wide operating plan between the BIA Pacific Region and CAL FIRE, CAL FIRE is the primary wildfire response agency for all federal Native American reservation land except Hoopa and Tule River. The BIA Pacific Region additionally has an agreement with the Campo Band of Diegueño Mission Indians (Tribe) to provide wildfire protection. Both have wildland protection responsibility, but CAL FIRE responsibility is primary in wildlands (Appendix I).

The Project Area has a long history of wildfires. As identified in an annual report produced by CAL FIRE, San Diego County is consistently listed among the top-five counties in the state for both number of acres burned and dollar value of fire damage. In the County, fire season is typically defined as May through November, depending on variations in weather conditions. However, the threat of a wildfire is always present and is influenced by weather conditions throughout the year. In 2016, 131 fires in the County burned a combined 7,963 acres (CAL FIRE 2016).

In general, the eastern portion of San Diego County (including the Project Site) has terrain that is favorable to wildfire spread, including steep slopes, ravines, mountains, and valleys. The terrain within the Project Site is undulating, and ranges from valley bottoms to boulder-covered ridge lines. Slopes surrounding the hills and valleys are moderate (relatively flat up to 25%). The Project Area's climate has a large influence on fire risk as drying vegetation during the summer months becomes fuel available to advancing flames. Typically, the highest fire danger is produced by the high-pressure systems that occur in the Great Basin, which result in the Santa Ana winds of Southern California. Sustained wind speeds recorded during recent major fires in San Diego County exceeded 30 miles per hour and may exceed 50 miles per hour during extreme conditions.

2.9.1.3 Project Site

A field assessment of the Boulder Brush Boundary was conducted on June 13, 2018, to document existing site conditions. While on site, Dudek's Fire Protection Planners assessed the topography, natural vegetation and fuel loading, surrounding land use and general susceptibility to wildfire. Among the field tasks that were completed include the following:

- Vegetation estimates and mapping refinements
- Fuel load analysis
- Topographic features documentation
- Photograph documentation
- Confirmation/verification of hazard assumptions
- Ingress/egress documentation.
- Nearby Fire Station reconnaissance

Field observations were used in generating the fire behavior models and formulating the recommendations detailed in the FPP prepared for the Boulder Brush Facilities (Appendix I). Characteristics within the Reservation Boundary are generally the same as those within the Boulder Brush Boundary and discussions with CRFPD concurred with these general characteristics.

Vegetation/Fuels

The Boulder Brush Boundary is largely undeveloped and comprised of a variety of vegetation types that were mapped by Dudek biologists (see Appendix D, Biological Resources Technical Report). Extensive vegetation type mapping is useful for fire planning because it enables each vegetation community to be assigned a fuel model, which is used by a software program to predict fire characteristics, as discussed in Appendix I. Vegetative fuel types within the Boulder Brush Boundary consist of approximately 11 vegetation communities and four non-native communities or land cover types. Native vegetation communities within the Boulder Brush Boundary are montane buckwheat scrub, big sagebrush scrub, granitic northern mixed chaparral, chamise chaparral, granitic chamise chaparral, red shank chaparral, semi-desert chaparral, wildflower field, emergent wetland, southern arroyo willow riparian forest, and coast live oak woodland. Two non-native vegetation communities, disturbed habitat and eucalyptus woodland, and two land cover types, unvegetated stream channel and urban/developed. Semi-desert chaparral, red shank chaparral, Montane buckwheat scrub, and granitic northern mixed chaparral communities are the most common plant communities on and adjacent to the Boulder Brush Boundary. The chaparral vegetation communities are considered to be the flammable fuels that would facilitate wildfire throughout the region. Appendix I provides photographs of the existing fuel types within the Boulder Brush Boundary.

The Reservation supports large, intact expanses of relatively undisturbed habitats characteristic of the region. Dense chaparral covers much of the undeveloped portions of the Reservation, with oak woodlands and riparian habitats present along scattered canyons. The chaparral vegetation communities are considered to be the flammable fuels that would facilitate wildfire throughout the region. Twenty-two vegetation communities and land cover types were mapped by Dudek biologists within the Campo Corridor (refer to Table 2.3-1 of Section 2.3, Biological Resources, of this EIR). Sensitive vegetation communities within the Campo Corridor include emergent wetland, freshwater marsh, mulefat scrub, southern willow scrub, unvegetated stream channel, southern coast live oak riparian forest, big sagebrush scrub (including disturbed), granitic chamise chaparral, granitic northern mixed chaparral, Montane buckwheat scrub, red shank chaparral, scrub oak chaparral, upper Sonoran subshrub scrub, nonnative grassland (including broadleaf-dominated), valley Sacaton grassland, and coast live oak woodland (including open and dense forms). The Campo Corridor also includes 3.59 acres of developed area and 46.78 acres of disturbed habitat.

Topography

In general, east San Diego County includes terrain that is favorable to wildfire spread including steep slopes, ravines, mountains, and valleys. The Project Site lies between two major drainage divides: the Tecate Divide to the west, and the In-Ko-Pah Mountains to the east. The terrain within the Boulder Brush Boundary is undulating, and ranges from valley bottoms to boulder-covered ridge lines. The slopes surrounding the hills and valleys are moderate (relatively flat up to 25%). The elevation across the Boulder Brush Boundary ranges from approximately 3,280 feet above mean sea level to approximately 4,120 feet above mean sea level. Topography within the Reservation Boundary exhibits a range from moderate to steep ridges, to semiarid plateaus and valleys. The area is in a desert transition zone, supporting desert and high desert habitats and vegetative communities. The Reservation is in the central area of the Peninsular Ranges geomorphic province. Altitude and relief generally decrease from east to west. Elevation within the Reservation Boundary ranges from 3,280 to 4,120 feet above mean sea level.

Climate

Eastern San Diego County, including the Project Site, are influenced by the Pacific Ocean and are frequently under the influence of a seasonal, migratory subtropical high-pressure cell known as the “Pacific High” (Appendix I). Wet winters and dry summers with mild seasonal changes characterize the Southern California climate. This climate pattern is occasionally interrupted by extreme periods of hot weather, winter storms, or dry, easterly Santa Ana winds (Appendix I). The average high temperature in the area is approximately 76.3°F, with average highs in the summer and early fall months (July–October) reaching 93.8°F. The average precipitation for the area is approximately 14.82 inches per year, with the majority of rainfall concentrated in the months of December (2.06 inches), January (3.04 inches), February (2.77 inches), and March (2.30 inches), while smaller amounts of rain are experienced during the other months of the year (Appendix I).

The prevailing wind pattern is from the west (on-shore), but the presence of the Pacific Ocean causes a diurnal wind pattern known as the land/sea breeze system. During the day, winds are from the west–southwest (sea) and at night winds are from the northeast (land). During the summer season, the diurnal winds may average slightly higher than the winds during the winter season due to greater pressure gradient forces. Surface winds can also be influenced locally by topography and slope variations. The highest wind velocities are associated with downslope, canyon, and Santa Ana winds.

Southern California's climate has a large influence on fire risk as drying vegetation during the summer months becomes fuel available to advancing flames should an ignition be realized. Typically, the highest fire danger is produced by the high-pressure systems that occur in the Great Basin, which result in the Santa Ana winds of Southern California. Sustained wind speeds recorded during recent major fires in San Diego County exceeded 30 mph and may exceed 50 mph during extreme conditions. The Santa Ana wind conditions are a reversal of the prevailing southwesterly winds that usually occur on a region-wide basis during late summer and early fall. Santa Ana winds are warm and dry winds that flow from the higher desert elevations in the north through the mountain passes and canyons. As they converge through the canyons, their velocities increase. Consequently, peak velocities are highest at the mouths of canyons and dissipate as they spread across valley floors. Santa Ana winds generally coincide with the regional drought period and the period of highest fire danger. The Project Site is affected by Santa Ana winds.

Fire History

Fire history information can provide an understanding of fire frequency, fire type, most vulnerable facilities areas, and significant ignition sources, amongst others. Fire history represented in the FPP prepared for the Boulder Brush Facilities uses the Fire and Resource Assessment Program (FRAP) database. FRAP summarizes fire perimeter data dating to the late 1800s, which is incomplete due to the fact that it includes only fires over 10 acres in size and has incomplete perimeter data, especially for the first half of the 20th century (Appendix I). However, the data does provide a summary of recorded fires and can be used to show whether large fires have occurred within the Boulder Brush Boundary, which indicates whether they may be possible in the future.

Figure 4 in the Boulder Brush Facilities FPP (Appendix I), presents a graphical view of the recorded fire history. There have been 21 fires recorded since 1911 by CAL FIRE in their FRAP database¹ in a fire buffer area of 3 miles of the Boulder Brush Boundary. A total of three fires, ranging from 695 acres (Carrizo 1983 fire) to 64,420 acres (Un-named 1944 Fire) are noted to have burned onto the northern portion of the Boulder Brush Boundary (CAL FIRE 2018).

¹ Based on polygon GIS data from CAL FIRE's FRAP, which includes data from CAL FIRE, USDA Forest Service Region 5, BLM, NPS, Contract Counties and other agencies. The data set is a comprehensive fire perimeter GIS layer for public and private lands throughout the state and covers fires 10 acres and greater between 1911–2018.

Based on an analysis of the CAL FIRE FRAP fire history data set, specifically the years in which the fires burned, the average interval between wildfires in this portion of the County was calculated to be five years with intervals ranging between 1 and 27 years (CAL FIRE 2018). Based on this analysis and the similar site characteristics and proximity of the Reservation Boundary, wildfire could impact the Boulder Brush Facilities and the Campo Wind Facilities, if weather conditions coincide, roughly every five years with the possibility of shorter interval occurrences, as observed in the fire history records. Further, the large expanses of open space surrounding the Project Site and potential ignition sources along I-8 and nearby off-road vehicle trails, contribute to increased potential risk and wildfire hazard in the area.

2.9.1.4 Environmental Effects of Fires

Although fire can benefit natural ecosystems that have evolved with occasional fire and that benefit from the stimulation of growth through the reproduction of plants and wildlife habitat, fire can also be detrimental to biological and other natural resources, such as air quality and water quality.

Biological Resources

Flora. Grassland communities, usually non-native grasses, will readily establish after wildfires in chaparral and scrub communities. With repeated burning at short intervals of up to several years, it is possible to convert chaparral and scrub to non-native grasslands. Chaparral and scrub vegetation communities will typically re-sprout and absent fire or other disturbances will return to pre-fire conditions. Chaparral communities also tend to repopulate many of the San Diego County forest types following stand-replacing fire. The chaparral may establish for the first several years after the fire event, whereupon the tree cover will begin to establish (USDA 2000a). Because vegetation communities can be converted following fire, these changes in dominant vegetation communities can drastically affect plant and animal habitat and can affect the prevalence of special-status species.

Fauna. Generally speaking, fires injure or kill a relatively small proportion of wild animals. For example, birds and larger mammals can flee wildfire and small mammals and reptiles can seek refuge in subterranean burrows. Habitat changes resulting from fires have a much more profound impact on faunal populations and communities than does the fire itself. Fires can result in short-term increases in vegetation productivity and the availability and nutrient content of forage and browse (USDA 2000b). These increases can in turn lead to increases in herbivore populations. However, any increase in population size is highly dependent upon the population's ability to survive in the post-fire environment (USDA 2000b). In general, fires that devastate a landscape featuring many shrubs and trees reduce habitat cover for species requiring cover and increase habitat for species (such as raptors) that prefer open areas (USDA 2000b).

Desert Ecosystems. Weedy species have been known to invade desert and semi-desert habitats in areas where fires have occurred infrequently because of scant fuels sources. When fires occur in these areas, vegetation can change (such as converting to non-native grasses) and become more susceptible to ignition. Animals within desert ecosystems are ill-suited to avoid fire and often struggle to use resources and prosper in post-fire communities.

Air Quality

Carbon dioxide, water vapor, carbon monoxide, particulate matter, hydrocarbons, and other constituent materials are all present in wildfire smoke. The specific composition of smoke depends largely on the fuel type (vegetation types contain different amounts of cellulose, oils, waxes, and starches, which when ignited produce different compounds). In addition, hazardous air pollutants and toxic air contaminants, such as benzene and formaldehyde, are also present in smoke. However, the principal pollutant of concern from wildfire smoke is particulate matter.

Factors including weather, stage of fire, and terrain can all dictate fire behavior and the impact of smoke on the ground. Wind, for instance, generally results in lower smoke concentrations because wind causes smoke to mix with a larger volume of air. Regional weather systems, such as the Santa Ana winds of Southern California, on the other hand, can spread fire quickly. The Santa Ana winds effectively work to reverse the typical onshore flow patterns and blow winds from dry, desert Great Basin areas westward toward the coast. As a result, coastal communities can be impacted by fires originating in inland areas (Stone et al. 2016).

Large quantities of pollutants can be released by wildfires over a relatively short period of time. Air quality during large fires can become hazardous and can remain impaired for several days after the fire is ignited.

Water Quality

Fire can impact water quality by increasing potential for erosion and sedimentation in areas where vegetation has been burned by fire, resulting in increased water temperature through removal or modification of shade-providing trees and vegetation. Water chemistry can also be altered through the introduction of pollutants and chemical constituents. Aquatic environments may also be impacted through the introduction of fire-retardant chemicals used during firefighting activities.

Erosion and Sedimentation. Watersheds severely burned by wildfire are vulnerable to accelerated rates of soil erosion and can experience large amounts of post-fire sediment deposits. Increases in post-fire suspended sediments in streams and lakes (in addition to possible increases in turbidity) can result from erosion and overland flow, channel scouring, and creep accumulations in stream channels after an event (USDA 2005). While less is known regarding the effect of fire on turbidity, it has been observed that post-fire turbidity levels in stream water are affected by the steepness of

the devastated watershed (USDA 2005). The little data available regarding post-fire turbidity levels has indicated that U.S. Environmental Protection Agency (EPA) water quality standard for turbidity can be exceeded after a fire event (USDA 2005). The threat to water quality from erosion following wildfire was analyzed by CAL FIRE (2009). This analysis estimates an expected erosion rate if an area experiences a high severity fire and considers information on fire rotation to better identify locations that are more likely to experience frequent high severity fires (CAL FIRE 2010).

Water Temperature. When fire burns stream bank vegetation and shade trees, water temperature can rise, which in turn can lead to thermal pollution, which leads to increased biological activity in the stream. Increased activity levels place a greater demand on the dissolved oxygen content of the water and can affect the survivability and sustainability of aquatic populations and communities (USDA 2005). Water temperature increases up to 62°F have been recorded in stream flows following fires in which the stream bank vegetation was burned (USDA 2005).

Water Chemistry. Ash deposits generated by a fire can affect the pH of water immediately after the event, potentially increasing to levels that violate water quality standards. In addition, increases in the pH of nearby soil can also cause increases in stream flow pH (USDA 2005). Dissolved nitrogen levels can increase after fires as a result of accelerated mineralization and nitrification (dissolved nitrogen is commonly studied as an indicator of fire disturbance), but these levels do not typically exceed established water quality standards (USDA 2005). Dissolved phosphorous, sulfur, chloride, and total dissolved solids levels can increase after a fire, but studies have shown that these increases typically do not result in violation of drinking water quality standards (USDA 2005).

Fire Retardant. The use of fire retardants to protect communities, sensitive resources, or other assets has proven highly effective, but it can have a direct effect on aquatic environments. The use of ammonium-based retardants can affect water quality and, in some instances, they can be toxic to aquatic biota (USDA 2005). Nitrogen-containing retardants can potentially affect drinking water quality, and retardants containing sodium ferrocyanide (YPS) can potentially be lethal for aquatic organisms (USDA 2005).

2.9.2 Regulatory Setting

This section discusses federal, state, and regional environmental regulations, plans, and standards applicable to the Project.

2.9.2.1 Federal Regulations

Federal regulations are applicable to the Campo Wind Facilities and the Boulder Brush Facilities.

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) requires utilities to adopt and maintain minimum clearance standards between vegetation and transmission voltage power lines. These clearances vary depending on voltage. In most cases, the minimum clearances required in state regulations are greater than the federal requirement. In California for example, the state has adopted General Order 95 rather than the North American Electric Reliability Corporation (NERC) Standards as the electric safety standard for the state (CPUC). FERC is not discussed further.

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

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

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

storage, spacing, dispensing of liquids, portable containers, and other related operations. NFPA 30 is referenced by the California Fire Code.

- NFPA 70, National Electrical Code (2017): NFPA 70 is the standard for the design, installation, and inspection of electrical hazards. It includes recommendations for various types of occupancies and also provides recommendations and criteria for the location and installation of “explosion proof” electrical systems.
- NFPA 72, National Fire Alarm and Signaling Code (2019): NFPA 72 is the standard for the design, installation, and operation of fire alarm systems in various occupancies. This standard is used by fire alarm system designers when designing and installing a system. It is utilized also by fire agencies when reviewing plans for new systems.
- NFPA 497, Classification of Flammable Liquids, Gases, or Vapors, and of Hazardous Locations for Electrical Installations in Chemical Process Areas (2017): NFPA 497 is the standard, which is utilized along with NFPA 70 to determine flammable gas, flammable liquid, and combustible liquid hazards and to recommend the areas that require explosion-proof electrical systems. It also sets forth the extent of the classified areas. Although the title says chemical process areas, it is used as a standard for explosion-proof electrical as it defines various risks and contains numerous diagrams to help the electrical system designer.
- NFPA 850, Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations, 2015: NFPA 850 was prepared for the guidance of those charged with the design, construction, operation, and protection of electric generating plants and high voltage direct current converter stations that are covered by the scope of this document. This document provides fire hazard control recommendations for the safety of construction and operating personnel, the physical integrity of plant components, fire protection systems and equipment, and the continuity of plant operations.

National Electric Safety Code 2017

The National Electric Safety Code covers basic provisions related to electric supply stations, overhead electric supply and communication lines, and underground electric supply and communication lines. The code also contains work rules for construction, maintenance, and operational activities associated with electric supply and communication lines and equipment. The code, which must be adopted by states on an individual basis, is not applicable in the State of California. As stated previously, the State of California has adopted its own standard (General Order 95) rather than a general national standard. The National Electric Safety Code is not discussed further.

North American Electric Reliability Corporation Standards

The NERC is a nonprofit corporation comprising 10 regional reliability councils. The overarching goal of NERC is to ensure the reliability of the bulk power system in North America. To achieve its goal, the NERC develops and enforces reliability standards, monitors the bulk power systems, and educates, trains, and certifies industry personnel (NERC 2019). To improve the reliability of regional electric transmission systems and in response to the massive widespread power outage that occurred on the Eastern Seaboard, NERC developed a transmission vegetation management program that is applicable to all transmission lines operated at 200 kV and above to lower-voltage lines designated by the Regional Reliability Organization as critical to the reliability of the electric system in the region. The plan, which became effective on April 7, 2006, establishes requirements of the formal transmission vegetation management program, which include identifying and documenting clearances between vegetation and any overhead, ungrounded supply conductors while taking into consideration transmission line voltage, the effects of ambient temperature on conductor sag under maximum design loading, fire risk, line terrain and elevation, and the effects of wind velocities on conductor sway (NERC 2006). The clearances identified must be no less than those set forth in the Institute of Electrical and Electronics Engineers Standard 516-2009, Guide for Maintenance Methods on Energized Power Lines (NERC 2006).

Institute of Electrical and Electronics Engineers Standard 516-2009

The Institute of Electrical and Electronics Engineers is a leading authority in setting standards for the electric power industry. Standard 516-2009, Guide for Maintenance Methods on Energized Power Lines, establishes minimum vegetation-to-conductor clearances to maintain electrical integrity of the electrical system.

Federal Wildland Fire Management Policy

The Federal Wildland Fire Management Policy was developed in 1995 and updated in 2001 by the National Wildfire Coordinating Group, a federal multi-agency group that establishes consistent and coordinated fire management policy across multiple federal jurisdictions. An important component of the Federal Wildland Fire Management Policy is the acknowledgment of the essential role of fire in maintaining natural ecosystems. The Federal Wildland Fire Management Policy and its implementation are founded on the following guiding principles (NIFC 2009):

- Firefighter and public safety is the first priority in every fire management activity.
- The role of wildfire as an essential ecological process and natural change agent will be incorporated into the planning process.
- Fire management plans, programs, and activities support land and resource management plans and their implementation.

- Sound risk management is a foundation for all fire management activities.
- Fire management programs and activities are economically viable, based upon values to be protected, costs, and land and resource management objectives.
- Fire management plans and activities are based upon the best available science.
- Fire management plans and activities incorporate public health and environmental quality considerations.
- Federal, state, tribal, local, interagency, and international coordination and cooperation are essential.
- Standardization of policies and procedures among federal agencies is an ongoing objective.

National Fire Plan

The National Fire Plan was a Presidential directive in 2000 as a response to severe wildfires that had burned throughout the United States. The National Fire Plan focuses on reducing fire impacts on rural communities and assurance for sufficient firefighting capacity in the future. It is a long-term investment that will help protect natural resources in addition to communities, as well as a long-term commitment based on cooperation and communication among federal agencies, states, local governments, tribes, and interested members of the public. There are five key areas addressed under the National Fire Plan:

- Firefighting and Preparedness
- Rehabilitation and Restoration
- Hazardous Fuels Reduction
- Community Assistance
- Accountability

International Fire Code

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

2.9.2.2 State Regulations

State regulations are applicable to the Boulder Bush Facilities which are proposed on private lands under the jurisdiction of the County. State Regulations are not applicable On-Reservation, or to the Campo Wind Facilities.

California Fire Code

The California Fire Code (CFC) is Chapter 9 of Title 24 of the CCR. It was created by the California Building Standards Commission and is based on the International Fire Code created by the International Code Council. It is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the California Building Code use a hazards classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every 3 years.

California Health and Safety Code

State fire regulations are set forth in Section 13000 et seq. of the California Health &Safety Code, which include regulations concerning building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training. The state fire marshal enforces these regulations and building standards in all state-owned buildings, state-occupied buildings, and state institutions.

Title 14 Division 1.5 of the California Code of Regulations

Title 14 of the CCR, Division 1.5, establishes the regulations for California Department of Forestry and Fire Protection (CAL FIRE) and is applicable in all State Responsibility Areas—areas where CAL FIRE is responsible for wildfire protection. Most of the unincorporated area of the County is a State Responsibility Area, and any development in a State Responsibility Area must comply with these regulations. Among other things, Title 14, Section 1270 et seq. establishes minimum standards for emergency access, fuel modification, setback to property lines, signage, and water supply.

California Public Utilities Commission General Order 95: Rules for Overhead Transmission Line Construction

General Order 95 was initially adopted in 1941 and was most recently updated in 2009 for Southern California. General Order 95 governs the design, construction, and maintenance of overhead electrical lines. Rule 31.1 generally states that design, construction, and maintenance of overhead electrical lines should be done in accordance with accepted good practices for the given location conditions known at the time by the persons responsible for the design, construction, and maintenance of the overhead electrical lines and equipment. Rule 35 of General Order 95 (Tree Trimming) requires the following:

- 4 feet radial clearances for any conductor of a line operating at 2,400 volts or more, but less than 72,000 volts
- 6 feet radial clearances for any conductor of a line operating at 72,000 volts or more, but less than 110,000 volts
- 10 feet radial clearances for any conductor of a line operating at 110,000 volts or more, but less than 300,000 volts (this would apply to the Project)
- 15 feet radial clearances for any conductor of a line operating at 300,000 volts or more

Under California Public Utilities Code Section 1708.5, interested persons are permitted to petition the CPUC to adopt, amend, or repeal a regulation. In response to the 2007 wildfires in San Diego County, on November 6, 2007, SDG&E submitted a petition to the CPUC requesting that the CPUC issues an Order Instituting Rulemaking to determine whether General Order 95 should be amended or if more rules should be adopted to address disaster preparedness, including damage from Santa Ana wind-driven firestorms (CPUC and BLM 2008). According to SDG&E, the petition requested that the CPUC consider several items, including the following:

- Operating rural electrical lines differently during severe fire weather
- Mitigating potential hazards associated with rural lines including undergrounding line, using steel poles in place of wood, and shortening spans between poles
- Better coordinating disaster management efforts among agencies, municipalities, local jurisdictions, and utilities
- Maintaining electrical line rights-of-way (ROWs) free of vegetation
- Adopting a state-wide Disaster Management Plan

California Department of Forestry and Fire Protection

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

CAL FIRE also inspects utility facilities and makes recommendations regarding improvements in facility design and infrastructure. Joint inspections of facilities by CAL FIRE and the utility owner are recommended by CAL FIRE so that each entity may assess the current state of the facility and the successfully implement fire prevention techniques and policies. Violations of state fire codes discovered during inspections are required to be brought into compliance with the established codes. If a CAL FIRE investigation reveals that a wildfire occurred as a result of a violation of a law or negligence, the responsible party could face criminal and/or misdemeanor charges. In cases where a violation of a law or negligence has occurred, CAL FIRE has established the Civil Cost Recovery Program, which requires parties liable for wildfires to pay for wildfire-related damages.

In the portion of Southern California where the Project Site is located, the power line hazard reduction standards are applicable year-round due to the scope of the fire season. Full descriptions of applicable codes and regulations and images of exempt and non-exempt power line structures are provided in the CAL FIRE Power Line Fire Prevention Field Guide (CAL FIRE 2008).

Applicable CAL FIRE Power Line Fire Prevention regulations are summarized as follows:

- **Public Resource Code 4291** requires a reduction of fire hazards around buildings, requiring 100 feet of vegetation management around all buildings, and is the primary mechanism for conducting fire prevention activities on private property within CAL FIRE jurisdiction.
- **Public Resources Code 4292** states that a minimum firebreak of 10 feet in all directions from the outer circumference of such pole or tower be established around any pole which supports a switch, transformer, lightning arrester, line junction, or end or corner pole. All vegetation shall be cleared within the firebreak.

- **Public Resources Code 4293** establishes the minimum vegetation clearance distances (between vegetation and energized conductors) required for overhead transmission line construction. Minimum clearances are discussed as follows:
 - A minimum radial clearance of 4 feet shall be established for any conductor of a line operating at 2,400 or more volts but less than 72,000 volts.
 - A minimum radial clearance of 6 feet shall be established for any conductor of a line operating at 72,000 or more volts but less than 110,000 volts.
 - A minimum radial clearance of 10 feet shall be established for any conductor of a line operating at 110,000 or more volts but less than 300,000 volts.
 - A minimum radial clearance of 15 feet shall be established for any conductor of a line operating at 300,000 or more volts.

Specific requirements applicable to construction, operation and decommissioning of the Boulder Brush Facilities include those from Public Resources Code, Division 4, Chapter 6:

- **Section 4427** – Operation of fire-causing equipment
- **Section 4428** – Use of hydrocarbon-powered engines near forest, brush, or grass-covered lands without maintaining firefighting tools
- **Section 4431** – Gasoline-powered saws, etc.; firefighting tools
- **Section 4442** – Spark arrestors of fire prevention measures, requirements, exemptions.

Title 14 Division 1.5, Sections 1252, 1253, and 1254 of the California Code of Regulations

California Code of Regulations (CCR) Title 14 Division 1.5, Sections 1252 and 1253 state that in San Diego County, power line hazard reduction standards are applicable year-round. Power lines reduction strategies includes pole brush clearing and in southeastern San Diego County, and CAL FIRE is responsible for inspecting local implementation of these strategies.

CCR Title 14 Section 1254 states that the fire break minimum clearance requirements of California Public Resources Code 4292 are applicable within an imaginary cylindroidal space surrounding each pole or tower on which a switch, fuse, transformer, or lightning arrester is attached. The radius of the cylindroid is 3.1 meters (10 feet) measured horizontally from the outer circumference of the specified pole or tower with height equal to the distance from the intersection of the imaginary vertical exterior surface of the cylindroid with the ground to an intersection with a horizontal plane passing through the highest point at which a conductor is attached to such pole or tower.

Flammable vegetation and materials located wholly or partially within the firebreak space shall be treated as follows:

- At ground level: remove flammable materials, including but not limited to, ground litter, duff, and dead or desiccated vegetation that will allow fire to spread
- From 0–2.4 meters (0–8 feet) above ground level: remove flammable trash, debris, or other materials, including grass, herbaceous, and brush vegetation. All limbs and foliage of living trees shall be removed up to a height of 2.4 meters (8 feet)
- From 2.2 meters (8 feet) to horizontal plane of highest point of conductor attachment: remove dead, diseased, or dying limbs and foliage from living sound trees and any dead, diseased, or dying trees in their entirety

Emergency Response

California Emergency Services Act

The California Emergency Services Act was adopted to establish the state's roles and responsibilities during human-caused or natural emergencies that result in conditions of disaster and/or extreme peril to life, property, or resources of the state. This act is intended to protect health and safety by preserving the lives and property of the people of the state.

California Natural Disaster Assistance Act

The California Natural Disaster Assistance Act provides financial aid to local agencies to assist in the permanent restoration of public real property, other than facilities used solely for recreational purposes, when such real property has been damaged or destroyed by a natural disaster. The California Natural Disaster Assistance Act is activated after a local declaration of emergency and the California Emergency Management Agency gives concurrence with the local declaration, or the governor issues a proclamation of a state emergency. Once the act is activated, local government is eligible for certain types of assistance, depending on the specific declaration or proclamation issued.

2.9.2.3 Local Regulations

Local regulations are applicable to the Boulder Bush Facilities, which are proposed on private lands under the jurisdiction of the County. Local Regulations are not applicable On-Reservation or to the Campo Wind Facilities.

County of San Diego General Plan

Updated (and adopted) in August 2011, the County of San Diego General Plan guides future growth in the unincorporated areas of the County, and considers projected growth anticipated to occur within various communities. Policies relevant to emergencies, hazards, and hazardous materials that may occur within the Boulder Brush Boundary are listed below (County of San Diego 2011a, 2011b).

Land Use Element

- **Policy LU-6.10: Protection from Hazards.** Require that development be located and designed to protect property and residents from the risks of natural and man-induced hazards.

Safety Element

- **Policy S-3.1: Defensible Development.** Require development to be located, designed, and constructed to provide adequate defensibility and minimize the risk of structural loss and life safety resulting from wildfires.
- **Policy S-3.3: Minimize Flammable Vegetation.** Site and design development to minimize the likelihood of a wildfire spreading to structures by minimizing pockets or peninsulas, or islands of flammable vegetation within a development.
- **Policy S-3.4: Service Availability.** Plan for development where fire and emergency services are available or planned.
- **Policy S-3.5: Access Roads.** Require development to provide additional access roads when necessary to concurrently provide for safe access of emergency equipment and civilian evacuation.
- **Policy S-3.6: Fire Protection Measures.** Ensure that development located within fire threat areas implement measures that reduce the risk of structural and human loss due to wildfire.
- **Policy S-3.7: Fire Resistant Construction.** Require all new, remodeled, or rebuilt structures to meet current ignition resistance construction codes and establish and enforce reasonable and prudent standards that support retrofitting of existing structures in high fire threat areas.
- **Policy S-4.2: Coordination to Minimize Fuel Management Impacts.** Consider comments from CAL FIRE, U.S. Forest Service, local fire districts, and wildlife agencies for recommendations regarding mitigation for impacts to habitat and species into fuel management projects.

- **Policy S-6.1: Water Supply.** Ensure that water supply systems for development are adequate to combat structural and wildfires.
- **Policy S-6.3: Funding Fire Protection Services.** Require development to contribute its fair share towards funding the provision of appropriate fire and emergency medical services as determined necessary to adequately serve the project.
- **Policy S-6.4: Fire Protection Services for Development.** Require that development demonstrate that fire services can be provided that meet the minimum travel times identified in Table S-1 (Travel Time Standards).
- **Policy S-6.5: Concurrency of Fire Protection Services.** Ensure that fire protection staffing, facilities and equipment required to serve development are operating prior to, or in conjunction with, the development. Allow incremental growth to occur until a new facility can be supported by development.

Subregional Plans

The Project Site is located within the Mountain Empire Subregional Plan and Boulevard Subregional Planning Area boundaries. There are no policies relevant to wildfire in the Mountain Empire Subregional Plan or Boulevard Subregional Planning Area (County of San Diego 2011c).

County of San Diego Code of Regulatory Ordinances

Title 6, Division 8, Chapter 4: Removal of Combustible Vegetation and Other Flammable Materials Ordinance (Ordinance No. 9633, Sections 68.401–68.406)

The Removal of Combustible Vegetation and Other Flammable Materials Ordinance establishes that combustible vegetation, dead, dying or diseased trees, green waste, rubbish, and other materials on private property can create fire hazards resulting in conditions that are potentially injurious to the health, safety, and welfare of the public. The ordinance goes on to state that combustible vegetation and other materials are public nuisances that must be abated and the requirements for abatement must be enforced in all County Service Areas and in the unincorporated areas of the County outside of a fire protection district or municipal water district. Fire protection districts and municipal water districts have either adopted their own combustible vegetation abatement programs or have adopted the County ordinance.

Clearance requirements and combustible vegetation removal protocols are established in Sections 68.404 and 68.406 of the County ordinance. Section 68.404 states that “no responsible party shall permit on a parcel any accumulation of combustible vegetation, dead, dying or diseased trees, green waste, rubbish, or other flammable materials within thirty (30) feet of the property line when such accumulation endangers property or the health, safety, or welfare of

residents of the vicinity” and that “no responsible party shall permit on a parcel any accumulation of combustible vegetation, dead, dying or diseased trees, green waste, rubbish, or other flammable materials within ten (10) feet of each side of the improved width of highways, private roads and driveways” (County of San Diego 1985). Section 68.406 requires that combustible vegetation removal be conducted so as to leave the plant root structure intact to stabilize the soil and prevent erosion and that areas where combustible vegetation removal has occurred may be replanted with fire-resistant shrubbery and planting materials (County of San Diego 1985). The county ordinance also requires that vegetation removal be conducted in conformance with all federal, state, and local environmental laws and regulations.

County of San Diego Code of Regulatory Ordinances, Removal of Fire Hazards

Per the County Code of Regulatory Ordinances, Sections 96.1.005 and 96.1.202, Removal of Fire Hazards, the SDCFA, in partnership with CAL FIRE, the Bureau of Land Management, and the U.S. Forest Service, is responsible for the enforcement of defensible space inspections. Inspectors from CAL FIRE are responsible for the initial inspection of properties to ensure an adequate defensible space has been created around structures. If violations of the program requirements are noted, inspectors provide a list of required corrective measures and provide a reasonable timeframe to complete the task. If the violations still exist upon re-inspection, the local fire inspector forwards a complaint to the County for further enforcement action.

Title 9, Division 6, Chapter 1: County Fire Code (Section 96.1.4703)

Section 96.1.4703 states that the County Department of Planning and Land Use or the applicable fire protection district may require an applicant for a parcel map, specific plan, or major use permit located in a wildland/urban interface fire area to prepare and submit a FPP as part of the approval process. According to the County Fire Code, wildland–urban interface fire area is a geographic area identified by the state as a “Fire Hazard Severity Zone.” The FPP, which requires that the topography, combustible vegetation, and fire history (among other factors) be considered during development of the plan, addresses water supply, vehicular and emergency apparatus access, travel time to the nearest fire station, structure setback from property lines, ignition-resistant building features, fire protection systems and equipment, impacts to existing emergency services, defensible space, and vegetation management.

County of San Diego Consolidated Fire Code

The County, in collaboration with the local fire protection districts, created the first Consolidated Fire Code in 2001. The Consolidated Fire Code (CFC) contains the County’s and fire protection districts’ amendments to the CFC. The purpose of consolidation of the County’s and local fire districts’ adoptive ordinances is to promote consistency in the interpretation and enforcement of

the CFC for the protection of public health and safety, which includes permit requirements for the installation, alteration, or repair of new and existing fire protection systems, and penalties for violations of the code. The CFC provides the minimum requirements for access, water supply and distribution, construction type, fire protection systems, and vegetation management. Additionally, the CFC regulates hazardous materials and provides associated measures to ensure that public health and safety are protected from incidents relating to hazardous substance releases. San Diego County's 2017 CFC is the most recently adopted version (County of San Diego 2017a).

County of San Diego Multi-Jurisdictional Hazard Mitigation Plan

The County Multi-Jurisdictional Hazard Mitigation Plan is implemented by the County of San Diego Office of Emergency Services. The Multi-Jurisdictional Hazard Mitigation Plan is a County-wide plan that identifies risks posed by natural and human-caused disasters, and discusses ways to minimize potential damage occurring as a result of these disasters. The plan is intended to serve many purposes, including enhancing public understanding and awareness of potential hazardous situations, creating a decision tool for managing hazards, promoting compliance with state and federal program requirements, enhancing local policies for hazard mitigation capability, providing inter-jurisdictional coordination, and achieving regulatory compliance (County of San Diego 2017b).

Operational Area Emergency Operations Plan

The Office of Emergency Services also implements the Operational Area Emergency Operations Plan in collaboration with the Unified San Diego County Emergency Services Organization. The Operational Area Emergency Operations Plan is for use by the County and all of the cities within the County to respond to major emergencies and disasters. It describes the roles and responsibilities of all County departments (including many city departments), and the relationship between the County and its departments and the jurisdictions within the County. The Operational Area Emergency Operations Plan contains 16 annexes detailing specific emergency operations for different emergency situations (County of San Diego 2014).

San Diego Fire Chiefs Association Defensible Space Memorandum of Understanding

In response to the Harmony Grove Fire in 1997, the San Diego County Fire Chief's Association and the Fire District's Association of San Diego County entered into an MOU with the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and CAL FIRE (San Diego Fire Chiefs Association 2007). The removal of flammable vegetation within 100 feet of any structure and 30 feet from any roadway without a biological survey is permitted by the MOU. The intent of the MOU was to establish guidelines by which CAL FIRE, cities, and fire districts can continue to protect lives and property from the threat of fires by requiring flammable vegetation abatement

pursuant to applicable state and local regulations. The MOU is also intended to establish a cooperative mechanism through which the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife may “assess, minimize, and help account for potential adverse impacts to sensitive species and habitats resulting from vegetation abatement activities” (San Diego County Fire Chiefs Association 2007).

Tribal Regulations

Under the Campo Lease, the following Tribal regulations and plans are not applicable to the Campo Wind Facilities, although they are described below for informational purposes. Additionally, Tribal regulations are not applicable to the Boulder Brush Facilities which are proposed on private land under the jurisdiction of the County.

Campo Band of Mission Indians Land Use Code

The Campo Band of Mission Indians Land Use Code was adopted by the Tribe on June 15, 1992, and amended on June 1, 2011. The purpose of the Land Use Code is to promote the health, safety, and general welfare of the residents on the Reservation and to develop and maintain adequate standards for diversity in land use and building patterns. The Tribe is guided by the goals set forth in its Land Use Plan, which are to protect the natural and physical resources on the Reservation, including “groundwater and air, preserving tribal traditions and culture, retaining wilderness areas, providing adequate housing for all tribal members, promoting employment for tribal members, and improving the standard of living for tribal members.”

Campo Band of Mission Indians Land Use Plan

The Campo Band of Mission Indians Land Use Plan was originally adopted by the Tribe in June of 1978, and most recently revised and adopted in December of 2010. The purpose of the Land Use Plan is to ensure that future development within the Reservation occurs in a manner consistent with the Tribe’s goals for “economic and social development and with its concern that such development does not threaten the environment and cultural resources of the Reservation or surrounding communities.” In addition, it is important to the Tribe to “support a viable economic development plan for achieving balanced economic growth, providing jobs, and improving the standard of living for tribal members without adversely affecting the Tribe’s environment and cultural resources.” Lastly, the Land Use Plan is meant to “provide technical information about the area’s resources and potential, so that future growth and change may be directed in an orderly and appropriate fashion” (Campo Band of Mission Indians 2010).

CRFPD, the district responsible for serving the Reservation and surrounding communities, honors the Insurance Services Office (ISO) regulations and state fire codes and practices.

2.9.3 Analysis of Project Effects and Determination as to Significance

CEQA Guidelines

The significance criteria used to evaluate project impacts associated with wildfire are outlined in Appendix G of the CEQA Guidelines. According to these Guidelines, if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, a significant impact related to wildfire would occur if a project would:

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan.
- b) 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.
- c) 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.
- d) 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.

County Guidelines for Determining Significance

In addition, San Diego County's Guidelines for Determining Significance and Report Format and Content Requirements: Wildland Fire and Fire Protection (County of San Diego 2010) applies to both the direct impact analysis and the cumulative impact analysis. An affirmative response to, or confirmation of any one of the following Guidelines, will generally be considered a significant impact related to wildfire and Fire Protection as a result of a project, in the absence of evidence to the contrary:

- The project cannot demonstrate compliance with all applicable fire codes.
- A comprehensive Fire Protection Plan has been accepted, and the project is inconsistent with its recommendations.
- The project does not meet the emergency response objectives identified in the Public Facilities Element of the County General Plan or offer feasible alternatives that achieve comparable emergency response objectives.

As identified in the FPP prepared for the Boulder Brush Facilities (Appendix I), the Boulder Brush Facilities demonstrates compliance with applicable fire codes. The Boulder Brush Facilities FPP is being evaluated concurrent with this Draft EIR and, while the FPP has not yet been accepted, the Boulder Brush Facilities are consistent with its recommendations. As discussed under Section 2.9.1 above, preparation of, and compliance with an FPP, to the satisfaction of the Campo Reservation Fire Protection District (CRFPD) would be required for implementation of the Campo Wind Facilities.

As stated above, although the County as Lead Agency is analyzing the Project as a whole, the County's land use jurisdiction for the Project is limited to the Boulder Brush Facilities. The BIA has jurisdiction over the Campo Wind Facilities and has prepared an EIS to evaluate Project effects under NEPA (BIA 2019). This analysis adopts and incorporates by reference the EIS. In addition, this section provides an analysis of Project impacts, both on the Reservation and on private lands, pursuant to the requirements of CEQA and consistent with the County's guidelines.

2.9.3.1 Emergency Response/Evacuation Plans

- a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

In addition, this impact analysis considers the following County Guideline:

- The project does not meet the emergency response objectives identified in the Public Facilities Element of the County General Plan or offer feasible alternatives that achieve comparable emergency response objectives.

Analysis

Project

To better establish Mutual Aid capabilities and improve communications between jurisdictions and agencies, as well as assist the cities and the County in developing emergency plans and exercising those plans, the San Diego County Operational Area (OA) was formed. The OA Emergency Operations Plan (EOP) is used by the County and all of the cities within the county to respond to major emergencies and disasters, including wildfire. The OA EOP describes the roles and responsibilities of all departments and the relationship between the County and its departments and the jurisdictions within the county. The OA EOP has been adopted and is complete with 16 functional annexes, including an Evacuation Annex (Annex Q). The OA Evacuation Annex is intended to be used as a template for the development of other jurisdictional evacuation plans and describes how emergencies are managed and how the evacuation of residents and their pets are implemented. The OA Evacuation Annex outlines strategies, procedures, recommendations, and organizational structures that can be used to implement a coordinated evacuation effort in the OA (County of San Diego 2018).

An increase in demand for fire protection and emergency services would occur at the Project Site due to increased activity, higher amounts of fuel on the site, and a greater number of ignition sources on the site, including equipment and human activities.

Travel times in the area from the closest fire station are currently within the County of San Diego General Plan guideline of 20 minutes for rural use areas. The Project Site is located within both the CRFPD and the SDFCA responsibility area and emergency response for the Project would be provided initially by the CRFPD Station located centrally within the Reservation, and/or by SDCFA and/or CAL FIRE from the co-located Station 47 in Boulevard, California, and the McCain Valley CAL FIRE Camp. The Boulevard Fire Station is located approximately 6.8 miles from the most remote portion of the Boulder Brush Boundary (high-voltage substation location) and approximately 3 miles from the site access point off of Ribbonwood Road, and has a calculated travel time of approximately 12.2 minutes (based on a 6.8-mile distance).² This travel and response time is compliant with the San Diego County General Plan Safety Element, Table S-1, Travel Time Standards from the Closest Fire Station (County of San Diego 2011b), and also compliant with the required Consolidated Fire Code response time and distance requirements for a rural land use zoning.

In addition to the responding fire stations, additional resources for emergency response are provided by automatic and mutual aid agreements. In the County's unincorporated regions, emergency, fire, and medical services are provided by Fire Protection Districts, County Service Areas, and CAL FIRE. Collectively, there are an estimated 2,800 firefighters currently responsible for fire protection. Due to the remote location of the Project Site, fire and emergency services generally consist of volunteer departments and CAL FIRE. The unincorporated area of San Diego County has a Cooperative Fire Protection Agreement with CAL FIRE for the provision of fire and emergency services in the eastern portion of the County, and covers response to wildfires, structural fires, floods, hazardous material spills, swift-water rescues, civil disturbances, earthquakes, and medical emergencies. Fire emergencies, among other incidents that require emergency response, may occur on site and would be serviced by the CRFPD and SDFCA's Boulevard Fire Station, CAL FIRE, and other mutual and automatic aid agreements throughout the County and state, when necessary.

Construction, operation, and decommissioning of the Project would result in a nominal increase in the demand for fire protection services in the area. However, travel time from the Boulevard Fire Station is approximately 12.2 minutes, which complies with the San Diego County General Plan response time threshold of 20 minutes for a rural area. The Project would not adversely affect response times and, therefore, the Project would not

² Travel distances were derived from Google Earth road data and driving on the access roads to fire stations from the Project Site; travel times were calculated applying the nationally recognized Insurance Services Office (ISO) Public Protection Classification Program's Response Time Standard formula ($T = 0.65 + 1.7 D$, where T = time and D = distance). The ISO response travel time formula discounts speed for intersections and vehicle deceleration and acceleration, and does not include turnout time.

result in the need for increased fire protection facilities or services in the area during construction, operation or decommissioning.

Additionally, as discussed in Section 2.8, Traffic and Transportation, of this EIR, a Construction Traffic Control Plan and notification procedures would be implemented to ensure safe and efficient traffic flow in the area during Project construction. The Plan would be prepared in consultation with the County and CEPA and would address transportation activities such as the delivery of turbine components, main assembly cranes, and other large pieces of equipment to reduce impacts to traffic flow. The Plan would also identify the requirements for road design, and construction.

An indirect increase in demand for fire protection services could occur if a project causes an increase in population, which could possibly result in an increase in fire emergency service calls. The Project would include permanent staff, up to 12 personnel, on site during operation, inspection, and maintenance activities. This on-site population would vary, and therefore does not fit into typical models to calculate projected call volume for emergency services. To calculate the emergency call service level, a conservative comparison was applied. Using half of the 24-hour equivalency of 12 people (i.e., 6) and the County fire agencies' estimate of 82 annual calls per 1,000 population (Appendix I), it is estimated that the Project's 6 daylight employees would generate up to 0.5 calls per year ($[82 \div 1,000] \times 6$). Emergency service requirements during operation are not expected to be significantly impacted with an increase of up to 0.5 calls per year for the Boulevard Fire Station, which currently responds to one call per day in their respective primary service area (Appendix I).

Construction of the Project is expected to occur over approximately 14 months and employ a peak maximum of 561 construction workers, which would equate to an estimated 46 calls per year ($[82 \div 1,000] \times 561$) for the temporary construction period. During construction, a conservative estimate of 41 calls over a 14-month period is not expected to generate the need for a new fire facility, and implementation of the Boulder Brush Facilities CFPP (and a CFPP prepared to the satisfaction of the CRFPD for the Campo Wind Facilities) would lessen the risk of fire emergencies during construction. Additionally, potential calls for emergency response required for construction activities on the Reservation would be routed to CRFPD.

The Project would include fire access and circulation throughout the Project Site and adequate emergency access would be provided. Construction of the Project would not decrease or inhibit adequate response action or times from servicing fire stations and the Boulder Brush Developer would adhere to a Fire Service Developer Agreement with San Diego County/SDCFA that would provide funding to support improvements to future fire services; therefore, construction and implementation of the Boulder Brush Facilities would

not impair an adopted emergency response or adopted emergency evacuation plan. In addition, with implementation of an FPP prepared to the satisfaction of the CRFPD and Developer funding contributions to local fire and emergency response capabilities, construction and implementation of the Campo Wind Facilities would not impair an adopted emergency response or adopted emergency evacuation plan.

For the reasons stated above, impacts to emergency response and evacuation plans as a result of the Project would be **less than significant**.

Boulder Brush Facilities

Construction, operation and decommissioning of the Boulder Brush Facilities (except for the SDG&E-owned and operated switchyard and connection lines to Sunrise Powerlink, which would not be decommissioned) would result in a temporary increase in the demand for fire protection services in the area. However, travel time from the Boulevard Fire Station is approximately 12.2 minutes, which complies with the San Diego County General Plan response time threshold of 20 minutes for a rural area. The Boulder Brush Facilities would not adversely affect response times and, therefore, would not result in the need for increased fire protection facilities or services in the area during construction, operation or decommissioning. The Campo Wind Facilities would employ 10 to 12 full-time employees throughout the operating life of the Project; no additional employees would be required for Boulder Brush Facilities operations.

Additionally, as discussed in Section 3.8, Traffic and Transportation, a Construction Traffic Control Plan and notification procedures would be implemented to ensure safe and efficient traffic flow in the area during construction. The Plan would be prepared in consultation with the County and CEPA and would address transportation activities such as the delivery of turbine components, main assembly cranes, and other large pieces of equipment to reduce impacts to traffic flow. The Plan would also identify the requirements for road design, and construction.

The Boulder Brush Facilities would include fire access and circulation throughout the Boulder Brush Corridor and adequate emergency access would be provided. Construction of the Boulder Brush Facilities would not decrease or inhibit adequate response action or times from Fire Station 47, access roads to the Boulder Brush Facilities would be improved, and the Boulder Brush Developer would adhere to the Fire Service Developer Agreement with San Diego County/SDCFA that would provide funding to support improvements to future fire services consistent with the County General Plan. Therefore, construction and implementation of the Boulder Brush Facilities would not impair an adopted emergency response and emergency evacuation plan. Impacts to emergency response and evacuation plans as a result of the Boulder Brush Facilities would be **less than significant**.

Campo Wind Facilities

Construction, operation and decommissioning of the Campo Wind Facilities would result in a temporary increase in the demand for fire protection services in the area. However, as described above, the Project would not adversely affect response times; therefore, the Campo Wind Facilities would not result in the need for increased fire protection facilities or services in the area during construction, operation or decommissioning.

An indirect increase in demand for fire protection services could occur when a project causes an increase in population, which could possibly result in an increase in fire emergency service calls. According to the Developer, the Campo Wind Facilities would employ 10 to 12 full-time employees throughout the operating life of the Project. This on-site population would vary, and therefore does not fit into typical models to calculate projected call volume for emergency services. As discussed above, service level requirements are not expected to be significantly impacted with the increase of less than 0.5 calls per year for the Boulevard Fire Station or the Campo Reservation Fire Station, which currently responds to fewer than two calls per day in the respective service area.

As discussed above, fire access and circulation throughout the Campo Wind Facilities and adequate emergency access would be provided. Construction would not decrease or inhibit adequate response action or times from servicing fire stations. Furthermore, as discussed above, and in Section 3.8, Traffic and Transportation, a Construction Traffic Control Plan and notification procedures would be implemented to ensure safe and efficient traffic flow in the area during construction. The Plan would be prepared in consultation with the County and CEPA and would address transportation activities such as the delivery of turbine components, main assembly cranes, and other large pieces of equipment to reduce impacts to traffic flow. Therefore, construction and implementation of the Campo Wind Facilities would not impair an adopted emergency response and emergency evacuation plan.

BIA has jurisdiction over the Campo Wind Facilities and has prepared an EIS to evaluate Project effects under NEPA. The EIS analysis found that the Campo Wind Facilities would increase the potential for a wildfire and could impact the public and environment by exposure to wildfire due to construction activities (BIA 2019). However, the Campo Wind Facilities are not expected to result in significant public service impacts to fire protection with implementation of standard fire prevention procedures, such as fire management zones, regular inspections, and routine mechanical maintenance. As demand for fire protection related to the Campo Wind Facilities would not exceed the availability of services provided by the CRFPD, impacts would be **less than significant**.

2.9.3.2 Wildfire Risk

- b) *Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

Analysis

Project

Based on the wildfire analysis provided in the Boulder Brush Facilities FPP (Appendix I) and information provided in the EIS, the Project Area and surrounding communities are in an area of high wildfire risk due to the presence of vegetated slopes and occurrences of high winds. During construction, operation, and decommissioning of the Project, there would be increased human activity and ignition sources, including equipment that could create spark, be a source of heat, or leak flammable materials on the Project Site.

However, as described in detail in Section 3.1.8, Public Services, demand for fire protection related to the Project would not exceed the availability of services provided by the CRFPD or the SDCFA. The Project would include improved access roads allowing for emergency access and evacuation and would implement standard fire prevention procedures, such as fuel modification zones, regular inspections, and routine mechanical maintenance. The Project would be equipped with up to three water trucks each of 4,000-gallon capacity during construction, three 10,000-gallon water tanks dedicated for firefighting purposes would be installed near the high-voltage substation, and two 10,000-gallon water tanks dedicated for firefighting purposes would be installed at both the collector substation yard and operations and maintenance (O&M) facility. Additionally, the Project is not a residential project or commercial business project that would potentially expose a substantial number of occupants to pollutants from fire. Project occupants would consist of up to 12 O&M facility staff located On-Reservation, who would be required to complete worker safety training.

While the Project would comply with all applicable fire codes and provide design features for fire suppression, the Project would be located in a Very High Fire Hazard Severity Zone, as statutorily designated by CAL FIRE, and additional measures are warranted to mitigate the potential for wildfire. Therefore, impacts related to wildfire risk are determined to be **potentially significant (Impact WF-1/Impact WF-A)**.

Boulder Brush Facilities

The Boulder Brush Facilities include construction of a high-voltage substation, switchyard, and approximately 3.5 miles of overhead generation transmission (gen-tie) line in a rural setting that currently includes semi-distributed and undisturbed wildland fuels as well as existing electrical infrastructure (Sunrise Powerlink). In addition, the Boulder Brush Boundary is adjacent to other existing wind facilities (Kumeyaay Wind and Tule Wind). Land within the Boulder Brush Boundary is currently subject to ignition sources, including a substantial electrical transmission line easement on the northern portion of the property associated with the 500 kV Sunrise Powerlink and off-highway vehicle use. Other types of potential ignition sources that currently exist within the area include roadways, an electrical transmission line, and small gas powered machinery associated with rural residential uses such as small gas-powered combustion engines, trimmers, and chainsaws.

Construction and decommissioning of the Boulder Brush Facilities would include potential ignition sources, as discussed above. Potential ignition sources during operation of the Boulder Brush Facilities would include the gen-tie line, switchyard, substation, and vehicles in the Project Area. The Boulder Brush Facilities would also include FMZs, 24-hour surveillance proposed around the high-voltage substation and switchyard, and existing webcams (SDG&E fire watch cameras and University of California at San Diego HPwren [High Performance Wireless Research and Education Network] cameras), anticipated to aid in earlier observation and reporting of wildfires.

The Boulder Brush Facilities would comply with the County's Consolidated Fire Code, as applicable, and would provide additional measures that enhance fire safety and protection. The Boulder Brush Facilities would include fire access and circulation throughout the Boulder Brush Corridor. Permanent access roads on private land would be 16 to 30 feet wide and would be able to support fire apparatus. Fire access within the Boulder Brush Boundary would be improved from its current condition that provides only limited access. These improvements would improve emergency access for fire prevention and control. The Boulder Brush Facilities would not include any Project occupants during operation, that could be exposed to wildfire risk exposure or associated pollutant exposure. The primary goals of the Boulder Brush Facilities CFPP (Appendix A to the FPP, Appendix I of this EIR) are to address these identified sources and risks so personnel involved with construction and decommissioning have clearly defined protocols and procedures for reducing fire risk and maintaining a fire-safe worksite. To reduce fire risk and maintain a fire safe worksite, the following Fire Prevention Measures would be implemented for the Boulder Brush Facilities construction and decommissioning activities:

- Minimize combustible and flammable materials storage on site.

- Store any combustible or flammable materials away from ignition sources.
- Clear parking areas and fuel or oil storage areas of all grass and brush by a distance of at least 30 feet.
- Keep evacuation routes free of obstructions.
- Label all containers as to contents and store in the same location as flammable or combustible liquids.
- Perform hot works according to fire safe practices and guidelines in a controlled environment and with fire suppression equipment at the job site.
- Dispose of combustible waste promptly and according to applicable laws and regulations.
- Report and repair all fuel leaks without delay.
- Avoid overloading circuits and/or reliance on extension cords where other upgrades would be safer.
- Turn off and unplug electrical equipment when not in use.
- Restrict use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to outside of the official fire season to the greatest extent feasible. When the above tools are used, water tenders equipped with hoses, shovels, Pulaskis, and axes shall easily be accessible to personnel.
- Equip vehicles with a 3A-40BC Dry Chemical Fire Extinguisher, a 5-gallon backpack pump fire extinguisher, and a 48-inch round point shovel.

During significant emergency situations, an evacuation notice may be issued by the site manager or site safety officer. When an evacuation has been called, all site employees must gather at the designated assembly area and the site safety officer will account for all personnel. Once all employees are accounted for, vehicles will safely convoy from the site to safe zones, which are generally areas off site, away from the threat.

Construction activities would be limited and precautions may be taken on site during periods of a Red Flag Warning, when conditions such as low humidity and high winds are present. Upon announcement of a Red Flag Warning, red flags will be prominently displayed at the Boulder Brush Facilities entrance gate, and O&M facility, indicating to employees and contractors that restrictions are in place. Additionally, any “hot work” (work that could result in ignition sources or increase fire risk) or work conducted in close proximity to vegetation would be prohibited during Red Flag Warning conditions. Areas may be evacuated where personnel may be exposed to higher risks. If vehicles are required to be used during Red Flag Warning conditions, vehicles shall remain on paved roads.

While the Boulder Brush Developer would participate in a Fire Service Developer Agreement with the County, which would outline a fair-share funding agreement for fire services, and the Boulder Brush Facilities would comply with all applicable fire codes and provide design features for fire suppression as recommended and required by the FPP, the Boulder Brush Facilities are located in a Very High Fire Hazard Severity Zone, as statutorily designated by CAL FIRE, and additional measures are warranted to mitigate the potential for wildfire. As such, the Boulder Brush Facilities would result in a **potentially significant impact (Impact WF-1)** regarding wildfire hazards.

Campo Wind Facilities

The Campo Wind Facilities would include 60 turbines, an underground electrical collection system interconnected between each turbine, a collector substation, an O&M facility, approximately 5.5 miles of an overhead gen-tie line, and access roads. These facilities would be developed in a rural setting that currently includes semi-distributed and undisturbed wildland fuels as well as existing wind turbines (Golden Acorn, Kumeyaay Wind and Tule Wind) and other electrical infrastructure (Sunrise Powerlink and Southwest Powerlink). As previously discussed, the Campo Wind Facilities may incrementally increase potential ignition sources in the area with construction, ongoing O&M, and decommissioning activities, but would also reduce the available wildland fuels, and would result in a higher level of fire monitoring and awareness due to Project monitoring and security measures. The types of potential ignition sources that currently exist in the area include off-road-vehicles and roadways, electrical transmission lines, and machinery associated with rural residential land uses. Campo Wind Facilities would include potential ignition sources (transformers, gen-tie line, and wind turbines), but would also include conversion of ignitable fuels to lower-flammability landscape, and include 24-hour surveillance by a combination of on-site workers and electronic monitoring, anticipated to aid in earlier observation and reporting of wildfires. Additionally, a CFPP would be prepared to the satisfaction of the CRFPD for the Campo Wind Facilities would provide basic direction for fire safety awareness on-site during construction and decommissioning activities.

The Campo Wind Facilities would include fire access and circulation throughout the Campo Corridor including emergency access for fire prevention and control. The Campo Wind Facilities would include up to 12 full-time employees that would be located principally in the O&M facility. The 12 (maximum) O&M employees would be the only Project occupants, and would be required to complete worker safety training.

While the Campo Wind Facilities would comply with all applicable fire codes and provide project design features for fire suppression, the Campo Wind Facilities are located in a Very High Fire Hazard Severity Zone, as statutorily designated by CAL FIRE, and

additional measures are warranted to mitigate the potential for wildfire. As such, implementation of the Campo Wind Facilities would result in a **potentially significant impact (Impact WF-A)** regarding wildfire hazards.

2.9.3.3 Infrastructure Contribution to Increased Wildfire Risk

- c) *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?*

Analysis

Project

The Project would consist of 60 wind turbines, three permanent meteorological towers, an O&M facility, an electrical collection and communications system (ECCS), an approximately 8.5-mile-long gen-tie line, a collector substation, a high-voltage substation, and a switchyard to interconnect the Project to the existing SDG&E Sunrise Powerlink, water collections and septic systems, and access roads. Temporary facilities would include six temporary meteorological towers, a temporary concrete batch plant for use during construction, a temporary equipment staging and parking area for use during construction, and temporary construction access roads. With the installation and maintenance of associated infrastructure the primary wildfire ignition risks of the Project include:

- Earth-moving equipment that can create sparks, heat sources, or fuel and hydraulic leaks.
- Chainsaws that may result in vegetation ignition from overheating, spark, or fuel leak.
- Vehicles that may contain heated exhausts/catalytic converters in contact with vegetation that could result in ignition.
- Welders that can be an open heat source.
- Wood chippers that could include flammable fuels and hydraulic fluid that may overheat and spray onto vegetation with a hose failure.
- Grinders that could cause sparks from grinding metal components and may land on a receptive fuel bed.
- Torches that are a heat source and open flame, and resulting heated metal shards that may come in contact with vegetation.

- Blasting activities that may cause vegetation ignition from open flame, excessive heat, or contact of heated material on dry vegetation.
- Additional human-caused ignitions related to discarded cigarettes, matches, temporary electrical connections, inappropriately placed generators, poor maintenance of equipment, and other factors.
- Operational equipment on the Project Site including, transformers, electric collection and transmission lines, substations, switchyard, vehicles, and gas- or electric-powered small hand tools. This equipment represents a risk of sparking or igniting nearby fuels, particularly with off-site flammable vegetation and during high wind conditions.

The Project would increase the potential for a wildfire and could impact the public and environment by exposure to wildfire due to installation of a wind energy generation facility and associated infrastructure. However, the Project would also include Fuel Modification Zones (FMZs), and would include 24-hour surveillance by a combination of on-site workers and existing webcams (SDG&E fire watch cameras and University of California at San Diego HPwren cameras) proposed around the high-voltage substation and switchyard, anticipated to aid in earlier observation and reporting of wildfires.

FMZs would be established that would minimize potential fires to damage Project facilities or exacerbate wildfires. FMZs and Project-specific fire risk management measures would ensure the Project would not exacerbate the exposure of people or structures to a significant fire risk or result in increased temporary or ongoing contribution to wildfire risk. However, because of the high wildfire risk location, installation of Project infrastructure would result in a **potentially significant impact (Impact WF-2/WF-B)** to wildfire risk.

Boulder Brush Facilities

The Boulder Brush Facilities include approximately 3.5 miles of Off-Reservation gen-tie line, a high-voltage substation, and a 500 kV switchyard to interconnect the Project to the existing SDG&E Sunrise Powerlink, access roads, and defensible space (fuel modification zones).

While the Boulder Brush Facilities include potential ignition sources, as described above fuel modification zones would be implemented, and 24-hour surveillance proposed around the high-voltage substation and switchyard is anticipated to aid in earlier observation and reporting of wildfires. Additionally, the Boulder Brush Facilities would be designed and constructed in accordance with current fire codes. Moreover, Boulder Brush Developer participation in a Fire Service Agreement with San Diego County/SDCFA would provide for funds to support fire agency capabilities. During construction, one dedicated pickup truck to the satisfaction of SDCFA, outfitted with skid-mounted fire pump, hose, and

nozzle, will be located on the site. Additionally, the Project would be equipped with up to three water trucks, each with a 4,000-gallon capacity, during construction. Three 10,000-gallon water tanks dedicated for firefighting purposes would be installed near the high-voltage substation and switchyard. One pickup truck with skid mounted fire pump would remain on the Project Site during Project operations. The pick-up may also be used for other purposes; however, would remain on site for the life of Project operations, and will be staffed by personnel that are properly trained to use the equipment.

FMZs would be established that would minimize potential fires to damage the Boulder Brush Facilities and would minimize potential for the Boulder Brush Facilities to exacerbate wildfires. In addition, Section 7 of the Boulder Brush Facilities FPP includes a list of fire protection measures and design considerations that address the identified potential fire hazards on-site. The measures are independently established, but would work together to result in reduced fire threat and heightened fire protection. For example, measures include code-exceeding measures such as installing gen-tie line poles that would be non-combustible (steel) with lightning protection, Boulder Brush Developer annual FMZ inspections to ensure compliance with the FPP, and implementation of a CFPP. FMZs and Project-specific fire risk management measures would ensure the Project would not exacerbate fire risk or result in increased temporary or ongoing contribution to wildfire risk. However, because of the high wildfire risk location, installation of the Boulder Brush Facilities would result in a **potentially significant impact (Impact WF-2)** to wildfire risk.

Campo Wind Facilities

The Campo Wind Facilities include potential ignition sources including wind turbines, gen-tie line, the collector substation, and meteorological towers. However, as described above, the Project would include conversion of ignitable fuels to lower flammability landscape and include 24-hour surveillance, anticipated to aid in earlier observation and reporting of wildfires. Additionally, the Campo Wind Facilities would be designed and constructed to the satisfaction of the CRFPD and applicable fire codes. The Project would be equipped with up to three water trucks, each with a 4,000-gallon capacity, during construction for fire protection. In addition, two 10,000-gallon water tanks dedicated for firefighting purposes during operations would be installed at both the collector substation yard and O&M facility. Furthermore, fire risk management measures specific to the Campo Wind Facilities including preparation of an FPP prepared to the satisfaction of the CRFPD, would be required prior to construction of the Campo Wind Facilities. FMZs and Project-specific fire risk management measures would ensure the Project would not exacerbate fire risk or result in increased temporary or ongoing contribution to wildfire risk. However, because of the high wildfire risk location, installation of the Campo Wind Facilities would result in a **potentially significant impact (Impact WF-B)** to wildfire risk.

2.9.3.4 Post-Fire Impacts

- d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

Analysis

Project

The Project would not include any structures downslope or downstream of potential flooding or land slide areas. The Project layout is designed in a manner that would minimize impacts to existing drainage and flow paths. Project grading would avoid defined flow paths where possible. The crossing structures have been designed to pass storm flows in a similar manner to that of existing conditions, and would not alter the flow patterns, runoff quantity, or increase the erosive effects of the storm flow (Appendix K of this EIR).

During operation of the Project, no grading, trenching, or excavation activities are expected. As such, the drainage pattern of the Project Area would not be altered. As the Project does not include any structures located downslope or downstream, implementation of the Project would not expose people or structures to significant risks as a result of post-fire slope instability in the Project Area. Therefore, impacts would be **less than significant**.

Boulder Brush Facilities

The layout of the Boulder Brush Facilities is designed in a manner that would minimize impacts to existing drainage and flow paths. Grading for the Boulder Brush Facilities would avoid defined flow paths where possible.

During operation of the Boulder Brush Facilities, no grading, trenching, or excavation activities would occur. Additionally, the Boulder Brush Facilities do not include any structures that would be occupied. As the Project does not include any structures located downslope or downstream, implementation of the Boulder Brush Facilities would not expose people or structures to significant risks as a result of post-fire slope instability in the Project Area. Therefore, impacts would be **less than significant**.

Campo Wind Facilities

As discussed above, the Project would not include any structures downslope or downstream of potential flooding or land slide areas. The Project layout is designed in a manner that

would minimize impacts to existing drainage and flow paths, and proposed grading would avoid defined flow paths where possible. No structures within the Campo Corridor would be permanently occupied. As the Campo Wind Facilities do not include any structures located downslope or downstream, implementation of the Campo Wind Facilities would not expose people or structures to significant risks as a result of post-fire slope instability in the Project Area. Therefore, impacts would be **less than significant**.

2.9.4 Cumulative Impact Analysis

Emergency Response/Evacuation Plans

For emergency response, the cumulative study area would be the SDCFA, CRFPD and/or CAL FIRE jurisdictional boundaries. The Project and other projects may have a cumulative impact on the ability of local agencies to protect residents, workers and structures from wildfires. These facilities and other development in the cumulative study area would increase the population and/or activities and ignition sources in the Boulevard/Jacumba area, which may increase the chances of a wildfire and increase the number of people and structures exposed to risk of loss, injury, or death.

The potential cumulative impacts from multiple projects in a specific area can cause fire response service decline and must be analyzed for each project. The Project along with other solar and/or wind projects in the greater Boulevard/Jacumba region represent an increase in potential service demand along with challenges regarding rescue or firefighting within or adjacent to electrical facilities.

Despite the generally low calculated increase in number of calls per year anticipated from the Project, it contributes to the cumulative impact on fire services, when considered with other anticipated projects in the study area. The cumulative impact results in a situation where response capabilities may erode and service levels may decline.

In response, the Boulder Brush Developer will participate in a Fire Service Developer Agreement with San Diego County/SDCFA. Fire Service Developer Agreements ensure funding for firefighting and emergency medical resources to comply with General Plan Safety Element Policy S-6.3 for new development, which requires development projects to contribute fair-share funding toward fire services. Funding provided by projects result in capital that can be used toward firefighting and emergency response improvements so that the County's firefighting agencies are able to perform their mission into the future at levels consistent with the General Plan. Implementation of the FPP and CFPP, and project design features would reduce the Boulder Brush Facilities' proportionate share of fire impacts on a cumulative level, and the payment of fair-share fees would ensure consistency with County General Plan policies. The requirements described in the FPP (Appendix I), including ignition-resistive construction, fire protection systems, pre-planning, education and training, and FMZs, are designed to aid firefighting personnel such that

the Boulder Brush Facilities are defensible and on-site Project operations staff are protected and potential cumulative impacts to the fire authority are mitigated. In addition, implementation of FPP/CFPP plans prepared to the satisfaction of the CRFPD for the Campo Wind Facilities, would reduce fire impacts on a cumulative level.

The Project would include fire access and circulation throughout the Project Site including emergency access. Construction of the Project would not decrease or inhibit adequate response action or times from servicing fire stations, and the Boulder Brush Developer would adhere to a Fire Service Developer Agreement with San Diego County/SDCFA to help fund fire services that would be used to improve future fire services. The Developer would implement an FPP prepared to the satisfaction of the CRFPD for the Campo Wind Facilities as well as provide funding contributions to local fire and emergency response capabilities. Therefore, the Project, in combination with cumulative projects, would not impair an adopted emergency response and emergency evacuation plan, and **would not result in a cumulatively considerable impact**.

Wildfire Risk

Based on wildfire analysis provided in the Boulder Brush Facilities FPP (Appendix I) and information in the EIS, the wildfire risk in the vicinity of the Project Site has been analyzed and it has been determined that wildfires are likely occurrences. It is also possible that construction schedules for other projects (Torrey Wind, JVR Energy Park, Cameron Solar), should they be approved, would overlap with the Project's construction schedule. As required by the County's Consolidated Fire Code, Section 4903, proposed projects would be required to prepare CFPPs and FPPs to lessen fire risk during and after construction, and would likely include additional mitigation and design measures. Mitigation and/or design measures could include "hot work" restrictions, Red Flag Warning protocols, contractor fire suppression equipment mandates, and vegetation clearing and management, among others.

Once construction is complete, the Project would introduce potential ignition sources that do not currently exist on the Project Site. Equipment on the Project Site that may be ignition sources during operation include the wind turbines, transformers located within the fenced boundary of both collector and high-voltage substations, the switchyard, electric collection and transmission lines, vehicles, and gas- or electric-powered small hand tools. This equipment represents a risk of sparking or igniting nearby fuels, particularly with off-site flammable vegetation and during high wind conditions. To reduce the risk of fire on the site and improve the effectiveness of an emergency response should a fire occur on site, a site-specific FPP would be implemented for the Boulder Brush Facilities, as required by the Consolidated Fire Code, Section 4903. The FPP for the Boulder Brush Facilities would provide design measures to ensure compliance with the Consolidated Fire Code. Cumulative projects would undergo similar review for adequate fire protection, and would be required to implement design measures or mitigation measures, as

necessary. Such projects would be required to submit a project-specific FPP, required by the Consolidated Fire Code, Section 4903. The FPP for the Campo Wind Facilities would be subject to review and approval by the CRFPD to which equal rigor is applied as County Fire review for projects on private lands within the County.

Cumulative projects may also include mitigation that requires funding to assist the CRFPD and SDCFA in improving the response and firefighting effectiveness within their jurisdiction. County Fire Service Developer Agreements ensure funding for firefighting and emergency medical resources to comply with General Plan Safety Element Policy S-6.3 for new development, which requires development projects to contribute fair-share funding toward fire services. Funding provided by projects result in capital that can be used toward firefighting and emergency response improvements so that the County's firefighting agencies are able to perform their mission into the future at levels consistent with the General Plan. Implementation of the Boulder Brush Facilities FPP and CFPP (and FPP/CFPP plans prepared to the satisfaction of the CRFPD for the Campo Wind Facilities), and project design features would reduce the Project's proportionate share of fire impacts on a cumulative level, and the Boulder Brush Developer's payment of fair-share fees would ensure consistency with General Plan policies. While the Project would comply with all applicable fire codes and provide design features for fire suppression, the Project, and cumulative projects, would be located in a Very High Fire Hazard Severity Zone, as statutorily designated by CAL FIRE, and additional measures are warranted to mitigate the potential for wildfire. As such, the Project would result in a **potentially significant cumulative impact (Impact C-WF-3/C-WF-C)** regarding wildfire risk.

Infrastructure Contribution to Increased Wildfire Risk

The Project would consist of 60 wind turbines, three permanent meteorological towers, six temporary meteorological towers, a temporary concrete batch plant for use during construction, a temporary equipment staging and parking area for use during construction, an O&M facility, water collection and septic systems, access roads, an ECCS, an approximately 8.5-mile-long gen-tie line, a collector substation, a high-voltage substation, and a switchyard to interconnect the Project to the existing SDG&E Sunrise Powerlink.

As previously described, the Project and other projects may have a cumulative impact on the ability of local agencies to protect residents, O&M employees, and structures from wildfires. These facilities and other development in the study area would increase the population and/or facilities and ignition sources in the Boulevard area, which may increase the chances of a wildfire and increase the number of people and structures exposed to risk of loss, injury, or death. The Project along with other solar and/or wind projects in the greater Boulevard region represent an increase in potential service demand along with challenges regarding rescue or firefighting within or adjacent to electrical facilities.

FMZs would be established that would minimize potential fires to damage the Boulder Brush Facilities or exacerbate wildfires. In addition, Section 7 of the Boulder Brush Facilities FPP (Appendix I), includes a list of measures that address the identified potential fire hazards on the site. The measures would work together to result in reduced fire threat and heightened fire protection. These include code-exceeding measures such as gen-tie line poles would be non-combustible (steel) with lightning protection, Boulder Brush Developer annual FMZ inspections to ensure compliance with the FPP (Appendix I), and implementation of a CFPP. Implementation of an FPP plan prepared to the satisfaction of the CRFPD for the Campo Wind Facilities would be required.

Other cumulatively considerable projects under County jurisdiction would be required to comply with the County's vegetation clearance requirements, as outlined in County Fire Code to reduce the fuel load on vacant and developed properties in the County. The San Diego County Fire and Building codes, along with project-specific needs assessments and fire prevention plan requirements ensure that every project approved under County jurisdiction for construction includes adequate emergency access.

However, because of the high wildfire risk location, installation of Project infrastructure would result in a **potentially significant cumulative impact (Impact C-WF-4/C-WF-D)** related to infrastructure contribution to increased wildfire risks.

Post-Fire Impacts

It has been determined that the Project 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 layout is designed in a manner that would minimize impacts to existing drainage and flow paths, and Project grading would avoid defined flow paths where possible. Additionally, the Project does not include any structures that would be permanently occupied. As the Project would not include any structures downslope or downstream of potential flooding or land slide areas, the Project would not expose people or structures to significant post-fire risks. Therefore, the Project **would not result in a cumulatively considerable impact** associated with post-fire impacts.

2.9.5 Significance of Impact Prior to Mitigation

Emergency Response/Evacuation Plans

Project

The Project would include fire access and circulation throughout the Project Site including emergency access. Additionally, the Project would adhere to the adopted San Diego County Operational Area (OA) Emergency Operations Plan (EOP), including the Evacuation Annex

included within the Emergency Operation Plan (Annex Q). The OA EOP is used by the County and all of the cities within the county to respond to major emergencies and disasters. The OA EOP describes the roles and responsibilities of all county departments and the relationship between the County and its departments and the jurisdictions with the county. The OA EOP contains information of the hazards that the County has identified as being susceptible to, including wildfire. The Evacuation Annex (Annex Q) is intended to be used as a template for the development of other jurisdictional evacuation plans and will support or supplement the evacuation plans prepared and maintained by each local jurisdiction. The annex outlines strategies, procedures, recommendations, and organizational structures that can be used to implement a coordinated evacuation efforts in the San Diego County Operational Area (San Diego County OA EOP – Evacuation Annex Q). Construction of the Project would not decrease or inhibit adequate response action or times from servicing fire stations, the access roads to the facilities would be improved, and the Boulder Brush Developer would adhere to the Fire Service Developer Agreement to help fund fire service enhancements that would be used to improve future fire services; therefore, the construction and implementation of the Project would not impair an adopted emergency response and emergency evacuation plan. Impacts are determined to be **less than significant**, and no mitigation would be required.

Boulder Brush Facilities

Construction of the Boulder Brush Facilities would not decrease or inhibit adequate response action or times from Fire Station 47. Access roads to the Boulder Brush Facilities would be improved and the Boulder Brush Developer will adhere to the Fire Service Developer Agreement with San Diego County/SDCFA to help fund fire services that would be used to improve future fire services that are consistent with the County General Plan. Additionally, with implementation of an FPP, additional fire protection measures and emergency response measures would be enforced. Therefore, construction and implementation of the Boulder Brush Facilities would not impair an adopted emergency response and emergency evacuation plan, and impacts would be **less than significant**.

Campo Wind Facilities

As described above, the demand for fire protection as a result of the Campo Wind Facilities would not exceed the availability of services provided by the CRFPD. Access roads to Campo Wind Facilities would be improved, and the Developer would implement an FPP prepared to the satisfaction of the CRFPD for the Campo Wind Facilities as well as provide funding contributions to local fire and emergency response capabilities. Therefore, the construction and implementation of the Campo Wind Facilities would not impair an adopted emergency response and emergency evacuation plan. Additionally, with implementation of an FPP prepared to the satisfaction of the CRFPD for the Campo Wind Facilities, impacts as a result of the Campo Wind Facilities would be further reduced and would be **less than significant**.

Wildfire Risk

Project

The Project is not a residential project or commercial business project that would potentially expose a substantial number of occupants to pollutants from fire. Project occupants would consist of up to 12 O&M facility staff located On-Reservation, who would be required to complete worker safety training. However, during construction, operation, and decommissioning of the Project, there would be increased human activity and ignition sources, including equipment that could create spark, be a source of heat, or leak flammable materials on the Project Site. While the Project would comply with all applicable fire codes and provide project design features for fire suppression, the Project would be located in a Very High Fire Hazard Severity Zone, as statutorily designated by CAL FIRE, and additional measures are warranted to mitigate the potential for increased wildfire risk. As such, the Project would result in a **potentially significant impact (Impact WF-1/WF-A)** regarding wildfire hazards.

Boulder Brush Facilities

Although the Boulder Brush Facilities are not anticipated to expose Project occupants to pollutants from fire, due to the Boulder Brush Facilities location in a Very High Fire Hazard Severity Zone, additional measures are warranted to mitigate the potential for increased wildfire risk. As such, the Boulder Brush Facilities would result in a **potentially significant impact (Impact WF-1)** regarding wildfire hazards.

Campo Wind Facilities

Although the Campo Wind Facilities are not anticipated to expose Project occupants to pollutants from fire, due to the Campo Wind Facilities location in a Very High Fire Hazard Severity Zone, as statutorily designated by CAL FIRE, additional measures are warranted to mitigate the potential for increased wildfire risk. As such, the Campo Wind Facilities would result in a **potentially significant impact (Impact WF-A)** regarding wildfire hazards.

Infrastructure Contribution to Increased Wildfire Risk

Project

The Project would increase the potential for a wildfire and could impact the public and environment by exposure to wildfire due to installation of wind energy generation facility and associated infrastructure. However, the Project would include conversion of ignitable fuels to lower-flammability landscape, and include 24-hour surveillance by a combination of on-site workers and existing webcams (SDG&E fire watch cameras and University of California at San

Diego HPwren cameras), anticipated to aid in earlier observation and reporting of wildfires. Additionally, the Project would be designed and constructed to current fire codes. However, because of the high wildfire risk location, installation of Project infrastructure would result in a **potentially significant impact (Impact WF-2/WF-B)**.

Boulder Brush Facilities

The Boulder Brush Facilities include potential ignition sources such as the high-voltage substation, switchyard and Off-Reservation gen-tie line. However, the Boulder Brush Facilities would be designed and constructed to current fire codes, include FMZs, and would include 24-hour surveillance proposed around the high-voltage substation and switchyard, anticipated to aid in earlier observation and reporting of wildfires. Additionally, the Boulder Brush Developer's participation in a Fire Service Agreement with San Diego County/SDCFA would provide funds to support fire agency capabilities, and combined with other provided fire safety features at the Boulder Brush Facilities. Moreover, with implementation of an FPP, additional fire protection measures and emergency response measures would be enforced. However, because of the high wildfire risk location, installation of the Boulder Brush Facilities would result in a **potentially significant impact (Impact WF-2)**.

Campo Wind Facilities

The Campo Wind Facilities would include potential ignition sources (wind turbines, collector substation, and On-Reservation gen-tie line); however, as described above, the Project would include conversion of ignitable fuels to lower flammability landscape and include 24-hour surveillance, anticipated to aid in earlier observation and reporting of wildfires. Additionally, the Campo Wind Facilities would be designed and built to the satisfaction of CRFPD and applicable fire codes. Furthermore, fire risk management measures specific to the Campo Wind Facilities, and an FPP prepared to the satisfaction of the CRFPD, would be required prior to construction of the Campo Wind Facilities. However, because of the high wildfire risk location, installation of Campo Wind Facilities infrastructure would result in a **potentially significant impact (Impact WF-B)**.

Post-Fire Impacts

Project

As discussed in Section 2.9.3.4, Post-Fire Impacts, the Project 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. Impacts are determined to be **less than significant**.

Boulder Brush Facilities

The Boulder Brush Facilities 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, and impacts would be **less than significant**.

Campo Wind Facilities

The Campo Wind Facilities 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. Impacts are determined to be **less than significant**.

2.9.6 Mitigation Measures

Project

The mitigation measures outlined herein are provided to reduce impacts associated with the possibility of wildfire risk, infrastructure contribution to increased wildfire risk, and cumulative impacts to wildfire risk.

M-WF-1 would be required as part of the County's Major Use Permit approval to address impacts identified associated with the Boulder Brush Facilities (**Impact WF-1, Impact WF-2, Impact C-WF-3, and Impact C-WF-4**). **M-BI-C (h)** is the recommended mitigation measure to address wildfire in the EIS for the Campo Wind Facilities, subject to the BIA's record of decision (ROD) (**Impact WF-A, Impact WF-B, Impact C-WF-C, and Impact C-WF-D**).

Boulder Brush Facilities

M-WF-1 is provided to reduce impacts associated with the possibility of wildfires. This mitigation measure shall be required of Boulder Brush Facilities as part of the County's Major Use Permit approval to address wildfire risks associated with implementation of the Boulder Brush Facilities.

M-WF-1 Fire Protection Measures. To minimize the fire risk, all fire protection measures and features identified in the Boulder Brush Facilities Fire Protection Plan shall be implemented in conjunction with development of the Boulder Brush Facilities.

The following measures and design considerations identified in Section 7 of the FPP (Appendix I) would be employed:

- FMZs throughout the Boulder Brush Corridor for Off-Reservation gen-tie power line structures, high-voltage substation, switchyard, and access roads (required measure).

- A contiguous fuel modification zone 50 feet outside of the perimeter fences (approximately 100 feet from the electrical components) around the high-voltage substation and switchyard would be maintained. The high-voltage substation pad area will be free of vegetation around all electrical equipment (required measure).
- A technical report (See Appendix H to this FPP for more details) indicating special precautions for firefighting response (Code-exceeding measure).
- Up to 30-foot wide primary access road that connects to the high-voltage substation and switchyard. 16-foot wide roads provide access to Off-Reservation gen-tie power line structures (required measure).
- Off-Reservation gen-tie power line poles would be non-combustible (steel) with lightning protection (Code-exceeding measure).
- Participation in an Agreement with SDCFA, for funding firefighting and emergency medical resources, the details of which will be determined in the Fire Service Developer Agreement (required measure).
- Boulder Brush Developer annual fuel modification zone inspections to ensure compliance with this FPP (Code-exceeding measure).
- Motion sensor illuminated (and/or reflective) signage at main entrance (required measure).
- Preparation and implementation of a CFPP for the Boulder Brush Facilities (Code-exceeding measure).
- Class B/C, 15-pound portable carbon dioxide (CO₂) fire extinguishers mounted at high-voltage transformer units (required measure).
- Three 10,000-gallon water tanks will be installed near the switchyard and high-voltage substation dedicated for firefighting purposes (required measure).
- During construction, one pick-up truck would be outfitted with Skid-Mounted Unit, including fire pump, hoses, and nozzle, and personnel properly trained to use the firefighting equipment. After construction is completed, the pickup truck will remain on the Project Site and personnel will be trained to use the firefighting equipment (required measure).
- Boulder Brush Facilities contact information with local fire agencies/stations to assist responding firefighters during an emergency (required measure).
- On-going maintenance of all facility components for the life of the Boulder Brush Facilities (required measure).
- Maintenance logs to be kept and made available upon request to SDCFA/CAL FIRE (required measure).
- Consistent placarding and labeling of all components for fire safety/response (required measure).

Additional measures to reduce the risk of ignitions would also be employed, as appropriate, during each phase of the Boulder Brush Facilities (construction, operation, maintenance, and decommissioning). These measures would be enforced by the site Safety Officer (SSO) and through ongoing worker safety training:

- Fire rules shall be posted on the Facilities bulletin board at the contractor's field office or permanent operations and maintenance building in areas visible to employees. This shall include the field offices of all contractors and subcontractors if more than one.
- Internal combustion engines used for construction of the Boulder Brush Facilities shall be equipped with spark arrestors that are in good working order.
- Once initial two-track roads have been cut, light-duty trucks and cars shall be used only on roads where the roadway is cleared of vegetation. Mufflers on cars and light-duty trucks shall be maintained in good working order.
- A cache of shovels, Mcleods, and Pulaskis shall be available at staging sites. The amount of equipment shall be determined by consultation between SSO and SDCFA/CAL FIRE. Additionally, on-site pickup trucks would be equipped with first aid kits, fire extinguishers, and shovels. Contractor vehicles would be required to include the same basic equipment.
- Equipment parking areas and small stationary engine sites (e.g., generators) shall be cleared of extraneous flammable materials and provided with a gravel surface.
- Restrict use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives during Red Flag Warnings. When the above tools are used, water tanks equipped with hoses, fire rakes, and axes shall be easily accessible to personnel.
- A fire watch (person responsible for monitoring for ignitions) shall be provided during hot work and shall monitor for a minimum of 30 minutes following completion of the hot work activities.
- No smoking within 50 feet of combustible materials storage, 25 feet of dispensing, 20 feet of storage/refueling areas, and no smoking on Red Flag Warning days. No smoking signs shall be posted in these areas.
- Each construction area (if construction occurs simultaneously at various locations) shall be equipped with fire extinguishers and firefighting equipment sufficient to extinguish small fires.
- The Boulder Brush Developer shall ensure coordination with SDCFA/CAL FIRE to create a training component for emergency first responders to prepare for specialized emergency incidents that may occur at the Boulder Brush Facilities.
- Construction workers, plant personnel, and maintenance workers visiting the plant and/or transmission lines to perform maintenance activities shall receive training on the

evacuation plans and routes, proper use of firefighting equipment and procedures to be followed in the event of a fire. Training records shall be maintained and be available for review by the SDCFA/CAL FIRE.

- Employees shall participate in annual fire prevention and response training exercises with SDCFA/CAL FIRE.
- Implement ongoing fire patrols during Red Flag Warning periods. The SSO shall be assigned as fire patrol to monitor work activities when an activity risk exists for fire compliance. The SSO shall verify proper tools and equipment are on site, assess any fire agency work restrictions, and serve as a lookout for fire starts, including staying behind (e.g., a fire watch) to make certain no residual fire exists. The SSO shall perform routine patrols of the facilities during the fire season equipped with a portable fire extinguisher and communications equipment. SDCFA/CAL FIRE shall be notified of the name and contact information of the SSO in the event of any change.
- Remote monitoring of major electrical equipment (transformers and inverters) shall screen for unusual operating conditions. Higher than nominal temperatures, for example, could be compared with other operational factors to indicate the potential for overheating which, under certain conditions, could precipitate a fire. Units could then be shut down or generation could be curtailed remotely until corrective actions are taken.
- Fires ignited on site shall be immediately reported to SDCFA and CAL FIRE.
- The engineering, procurement, and construction contracts for the Boulder Brush Facilities shall clearly state the fire safety requirements that are the responsibility of any person who enters the Boulder Brush Facilities, as described in the CFPP.
- Upon completion of constructing the internal roadway network, light trucks and cars shall be used only on roads where the roadway is cleared of vegetation. Roads are to be kept free of ruts, drainages, wash boarding, and maintained in a hard-compacted state to support fire engines.
 - a) All site Vehicles used during construction, operation and maintenance, and decommissioning shall be equipped with the following fire prevention equipment (employee vehicles are not required to include this equipment):
 - 10 pound, 4A:80BC dry chemical fire extinguisher
 - 46-inch round-point shovel
 - 5 gallons of water or a 5-gallon water backpack
 - First aid kit

- No driving (cars, trucks, all-terrain vehicles, or similar) over unmaintained dry vegetation shall occur.
- Vehicles can be parked a minimum of 10 feet from vegetation as long as the vehicle is parked in an area previously cleared of vegetation.
- Site activities shall be restricted during Red Flag Warning weather periods; stay alert to fire and weather conditions and, in the event of an emergency, evacuate employees if it is safe to do so.
- Consultants/contractors shall conduct operations safely to limit the risk of fire.
- Minimize combustible and flammable materials storage on site.
- Store combustible or flammable materials that need to be on site away from ignition sources.
- Keep evacuation routes free of obstructions.
- Tanks and containers shall be labeled as required in CFC Chapter 34, to identify potentially hazardous materials with their contents, and store in the same location as flammable or combustible liquids.
- Perform “hot work”³ according to fire safety practices in a controlled environment and with fire suppression equipment at the job site. “Hot work” is defined as operations involving cutting, welding, thermite welding, brazing, soldering, grinding, thermal spraying, thawing pipe, or other similar operations. Hot work areas are defined as the areas exposed to sparks, hot slag, radiant heat, or convective heat because of the hot work.
- A fire watch person (Fire Patrol), with extinguishing capability (e.g. fire extinguishers), should be in place for all ‘Hot Work’ activities during construction. Ensure hot work adheres to the guidelines provided.
- Report and repair fuel leaks without delay.
- Do not overload circuits or rely on extension cords where other options would be safer.
- Turn off and unplug electrical equipment when not in use.

Campo Wind Facilities

M-BI-C (h) is recommended in the EIS and referenced herein, which would reduce impacts associated with the possibility of wildfires. This measure is the recommended mitigation measure included in the EIS, for the Campo Wind Facilities on the Reservation, subject to the BIA’s ROD.

³ ‘Hot work’ is defined as operations involving cutting, welding, thermite welding, brazing, soldering, grinding, thermal spraying, thawing pipe, or other similar operations. Hot work areas are defined as the areas exposed to sparks, hot slag, radiant heat, or convective heat because of the hot work.

M-BI-C (h) Fire Protection. To minimize the potential exposure of the Project to fire hazards, a Boulder Brush Fire Protection Plan (FPP) shall be prepared, and a Fire Protection Plan for the Campo Wind Facilities shall be prepared to the satisfaction of the CRFPD. The FPPs shall be implemented in conjunction with development of the Project.

Additionally, the following measures would be employed, as appropriate, during each phase of the Campo Wind Facilities (construction, operation and maintenance, and decommissioning) to reduce the risk of ignitions. These measures would be enforced by the SSO and through ongoing worker safety training:

- Fire rules shall be posted on the bulletin board at the contractor's field office or permanent operations and maintenance building in areas visible to employees. This shall include the field offices of all contractors and subcontractors if more than one.
- Internal combustion engines used at the Facilities site shall be equipped with spark arrestors that are in good working order.
- Once initial two-track roads have been cut and initial fencing has been completed, light-duty trucks and cars shall be used only on roads where the roadway is cleared of vegetation. Mufflers on cars and light-duty trucks shall be maintained in good working order.
- During construction, the Campo Wind Facilities site will have at a minimum one pick-up truck outfitted with Type-6 Skid-Mounted Units, including fire pump, hose, and nozzle, that are staffed with personnel properly trained to use the equipment.
- During construction, the Project shall be equipped with up to three water trucks each with a 4,000-gallon capacity. Each truck would be equipped with 50 feet of 0.25-inch fast response hose with fog nozzles. Any hose size greater than 1.5 inches shall use "national hose" couplings.
- A cache of shovels, Mcleods, and Pulaskis shall be available at staging sites. The amount of equipment shall be determined by consultation between SSO and CRFPD. Additionally, on-site pickup trucks would be equipped with first aid kits, fire extinguishers, and shovels. Contractor vehicles would be required to include the same basic equipment.
- Equipment parking areas and small stationary engine sites shall be cleared of extraneous flammable materials and provided with a gravel surface.
- The on-site contractor or Campo Wind Facilities staff shall restrict use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives during Red Flag Warnings. When the above tools are used, water tanks equipped with hoses, fire rakes, and axes shall be easily accessible to personnel.

- A fire watch (person responsible for monitoring for ignitions) shall be provided during hot work and shall monitor for a minimum of 30 minutes following completion of the hot work activities.
- No smoking within 50 feet of combustible materials storage, 25 feet of dispensing, 20 feet of storage/refueling areas, and no smoking on Red Flag Warning days. No smoking signs shall be posted in these areas.
- Each Facility construction site (if construction occurs simultaneously at various locations) shall be equipped with fire extinguishers and firefighting equipment sufficient to extinguish small fires.
- The on-site contractor or Campo Wind Facilities staff shall coordinate with the CRFPD to create a training component for emergency first responders to prepare for specialized emergency incidents that may occur on the Campo wind Facilities site.
- Construction workers, plant personnel, and maintenance workers visiting the plant and/or transmission lines to perform maintenance activities shall receive training on the evacuation plans and routes, proper use of firefighting equipment and procedures to be followed in the event of a fire. Training records shall be maintained and be available for review by the CRFPD.
- Vegetation near all buildings, substation electrical equipment, ancillary equipment, and access roads shall be controlled through periodic cutting and spraying of weeds. Vegetation near ancillary equipment and access roads shall be controlled through implementing weed management practices. The collector substation within the Campo Wind Facilities shall include contiguous fuel modification zone from 30 feet outside of the perimeter fence inward onto the pad area. The substation pad area shall be free of vegetation around electrical equipment.
- On-site employees shall participate in annual fire prevention and response training exercises with the CRFPD.
- The Campo Wind Facilities shall implement ongoing fire patrols during Red Flag Warning periods. The SSO shall be assigned as fire patrol to monitor work activities when an activity risk exists for fire compliance. The SSO shall verify proper tools and equipment are on site, assess any fire agency work restrictions, and serve as a lookout for fire starts, including staying behind (e.g., a fire watch) to make certain no residual fire exists. The SSO shall perform routine patrols of the facilities during the fire season equipped with a portable fire extinguisher and communications equipment. The Facilities staff shall notify the CRFPD FIRE of the name and contact information of the SSO in the event of any change.
- Remote monitoring of major electrical equipment (transformers and inverters) shall screen for unusual operating conditions. Higher than nominal temperatures, for example, could be

compared with other operational factors to indicate the potential for overheating which, under certain conditions, could precipitate a fire. Units could then be shut down or generation could be curtailed remotely until corrective actions are taken.

- Fires ignited on site shall be immediately reported to the CRPFD.
- The engineering, procurement, and construction contracts for the Facilities shall clearly state the fire safety requirements that are the responsibility of any person who enters the Campo Wind Facilities site, as described in the Fire Risk Analysis and Management Plan.
- Upon completion of constructing the internal roadway network and initial fencing completed, light trucks and cars shall be used only on roads where the roadway is cleared of vegetation. Roads are to be kept free of ruts, drainages, wash boarding, and maintained in a hard compacted state to support fire engines.
 - All site vehicles used during construction, operation and maintenance, and decommissioning shall be equipped with the following fire prevention equipment (employee vehicles are not required to include this equipment): 10 pound, 4A:80BC dry chemical fire extinguisher
 - 46-inch round-point shovel
 - 5 gallons of water or a 5-gallon water backpack
 - First aid kit
- No driving (cars, trucks, all-terrain vehicles, or similar) over unmaintained dry vegetation shall occur.
- Vehicles can be parked a minimum of 10 feet from any vegetation as long as the vehicle is parked in an area devoid of any vegetation.
- Clear parking areas and fuel or oil storage areas of grass and brush by a distance of at least 30 feet.
- Site activities shall be restricted during Red Flag Warning weather periods; stay alert to fire and weather conditions and evacuate employees, if safe to do so.
- Consultants/contractors shall conduct operations safely to limit the risk of fire.
- Minimize combustible and flammable materials storage on site.
- Store any combustible or flammable materials that need to be on site away from ignition sources.
- Keep evacuation routes free of obstructions.

- Tanks and containers shall be labeled as required in CFC Chapter 34, to identify potentially hazardous materials with their contents and store in the same location as flammable or combustible liquids.
- Perform “hot work”⁴ according to fire safety practices in a controlled environment and with fire suppression equipment at the job site. A fire watch person (Fire Patrol), with extinguishing capability (e.g. fire extinguishers), should be in place for all ‘Hot Work’ activities during construction. Ensure hot work adheres to the guidelines provided.
- Report and repair fuel leaks without delay.
- Do not overload circuits or rely on extension cords where other options would be safer.
- Turn off and unplug electrical equipment when not in use.

2.9.7 Conclusion

This section provides a synopsis of the conclusion reached in each of the impact analyses, and the level of impact that would occur after mitigation measures are implemented.

Emergency Response/Evacuation Plans

Project

As presented in Section 2.9.3.1, anticipated impacts to emergency response, emergency call volumes, and on-site evacuation as a result of the Project would be **less than significant**.

Boulder Brush Facilities

Anticipated impacts to emergency response, emergency call volumes, and on-site evacuation as a result of the Boulder Brush Facilities would be **less than significant**.

Campo Wind Facilities

Anticipated impacts to emergency response, emergency call volumes, and on-site evacuation as a result of the Campo Wind Facilities would be **less than significant**.

⁴ ‘Hot work’ is defined as operations involving cutting, welding, thermite welding, brazing, soldering, grinding, thermal spraying, thawing pipe, or other similar operations. Hot work areas are defined as the areas exposed to sparks, hot slag, radiant heat, or convective heat because of the hot work.

Wildfire Risk

Project

The Project could potentially create wildfire risk during construction, operation, and decommissioning activities due to increased activity and ignition sources (**Impact WF-1/WF-A**). However, with implementation of the Boulder Brush Facilities FPP and an FPP prepared to the satisfaction of the CRFPD for the Campo Wind Facilities (**M-WF-1/ M-BI-C (h)**), impacts would be less than significant because the FPPs would ensure compliance with applicable fire codes and wildfire-related regulations, and would provide project design features to minimize fire risk. Additionally, with implementation of a Construction Traffic Control Plan and required construction notification procedures, in addition to operational compliance with an FPP, impacts to access for emergency responders during a wildfire hazard during the construction, operation, and decommissioning phases would be **less than significant**.

Boulder Brush Facilities

The Boulder Brush Facilities could potentially create wildfire risk during construction, operation, and decommissioning activities due to increased activity and ignition sources (**Impact WF-1**). However, with implementation of the Boulder Brush Facilities FPP (**M-WF-1**), impacts would be less than significant as the FPP would ensure compliance with the Consolidated Fire Code and wildfire-related regulations, and would provide project design features to minimize fire risk. Implementation of a Construction Traffic Control Plan and required construction notification procedures, in addition to compliance with the Boulder Brush Facilities FPP, impacts to access for emergency responders during a wildfire hazard during the construction, operation, and decommissioning phases on private lands would be **less than significant**.

Campo Wind Facilities

The Project could potentially create wildfire risk during construction, operation, and decommissioning activities due to increased activity and ignition sources (**Impact WF-A**). Compliance with applicable fire codes, wildfire-related regulations, and implementation of an FPP prepared to the satisfaction of the CRFPD for the Campo Wind Facilities would minimize fire risk. Additionally, with implementation of a Construction Traffic Control Plan and required construction notification procedures, as well as operational compliance with the EIS recommended mitigation measure requiring implementation of an FPP prepared to the satisfaction of the CRFPD (**M-BI-C (h)**), impacts to access for emergency responders during a wildfire hazard during the construction, operation, and decommissioning phases on the Reservation would be **less than significant**.

Infrastructure Contribution to Increased Wildfire Risk

Project

Project infrastructure could potentially contribute to wildfire risk during construction, operation, and decommissioning activities due to increased activity and ignition sources (**Impact WF-2/WF-B**). However, with implementation of FPPs (**M-WF-1/ M-BI-C (h)**), impacts would be less than significant because the FPPs would ensure compliance with applicable fire codes and wildfire-related regulations, and would provide project design features to minimize fire risk. FMZs and Project-specific fire risk management measures outlined in the FPPs would reduce the potential for Project facilities to exacerbate fire risk or result in temporary or ongoing contribution to wildfire risk. Therefore, anticipated impacts to increased wildfire risk associated with Project-related infrastructure would be **less than significant with mitigation incorporated**.

Boulder Brush Facilities

The Boulder Brush Facilities could potentially contribute to wildfire risk during construction, operation, and decommissioning activities due to increased activity and ignition sources (**Impact WF-2**). However, with the implementation of the FPP (**M-WF-1**), impacts would be less than significant because the FPP would ensure compliance with the Consolidated Fire Code and wildfire-related regulations, and would provide project design features to minimize fire risk. FMZs and Boulder Brush Facilities specific fire risk management measures outlined in the FPP would reduce the potential for proposed and required infrastructure to exacerbate fire risk or result in temporary or ongoing contribution to wildfire risk. Therefore, anticipated impacts to increased wildfire risk associated with Boulder Brush Facilities-related infrastructure would be **less than significant with mitigation incorporated**.

Campo Wind Facilities

Campo Wind Facilities infrastructure could potentially contribute to wildfire risk during construction, operation, and decommissioning activities due to increased activity and ignition sources (**Impact WF-B**). However, with the implementation of the EIS recommended mitigation measure requiring implementation of an FPP prepared to the satisfaction of the CRFPD for the Campo Wind Facilities (**M-BI-C (h)**), impacts would be less than significant because the FPP would ensure compliance with the applicable fire codes and wildfire regulations, and would provide project design features to minimize fire risk. FMZs and Campo Wind Facilities-specific fire risk management measures outlined in an FPP prepared to the satisfaction of the CRFPD for the Campo Wind Facilities, would reduce the potential for Campo Wind Facilities-related infrastructure to exacerbate fire risk or result in temporary or ongoing contribution to wildfire risk. Therefore, anticipated impacts to increased wildfire risk associated with Campo Wind Facilities-related infrastructure would be **less than significant with mitigation incorporated**.

Post-Fire Impacts

Project

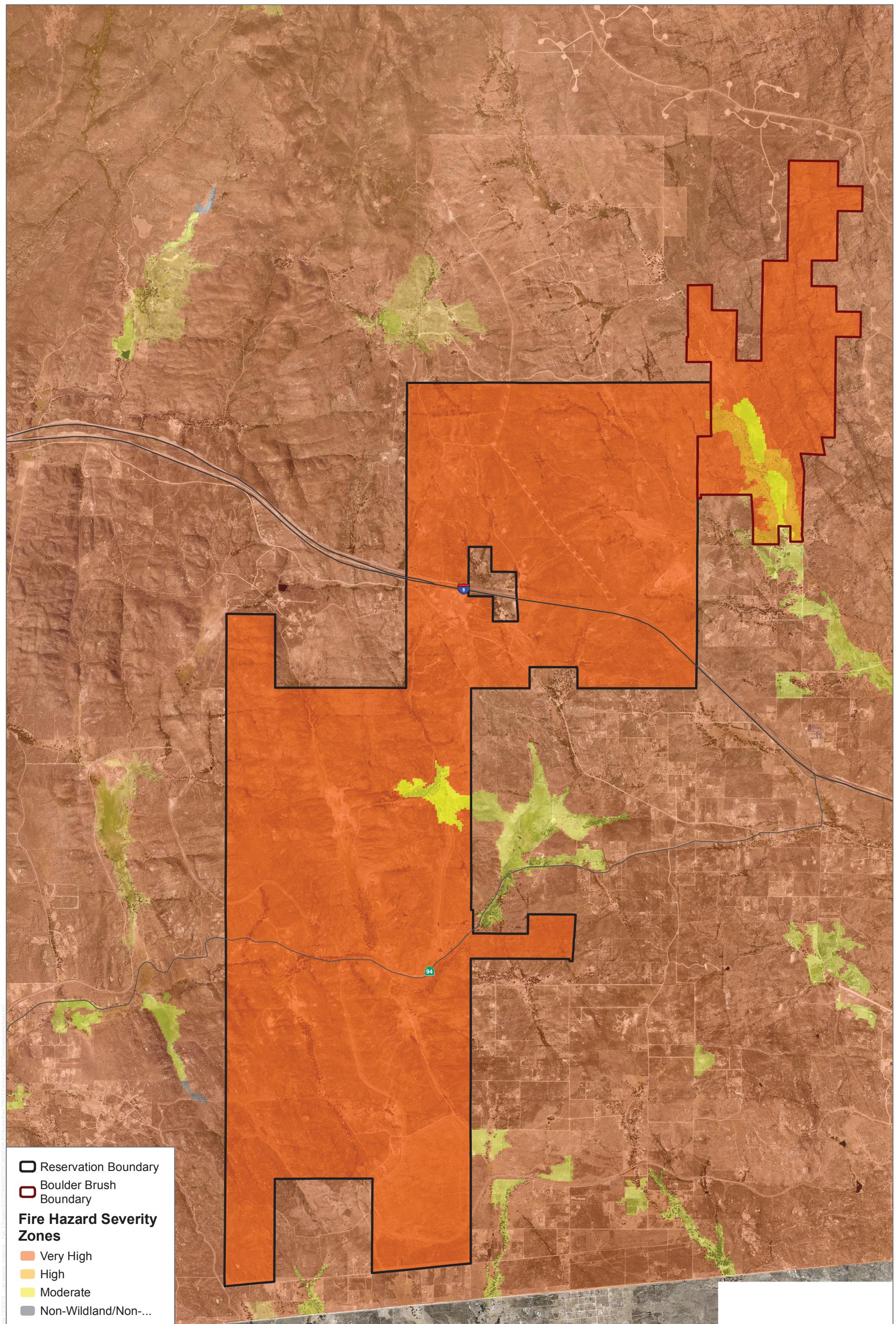
As presented in Section 2.9.3.4, anticipated impacts associated with post-fire erosion, flooding, or landslides as a result of the Project would be **less than significant**.

Boulder Brush Facilities

Anticipated impacts associated with post-fire erosion, flooding, or landslides as a result of the Boulder Brush Facilities would be **less than significant**.

Campo Wind Facilities

Anticipated impacts associated with post-fire erosion, flooding, or landslides as a result of the Campo Wind Facilities would be **less than significant**.



SOURCE: SANGIS 2017; CALFIRE 2019

DUDEK

0 2,550 5,100 Feet

Figure 2.9-1
Fire Hazard Severity Zones in Project Area
Campo Wind Project with Boulder Brush Facilities

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