

5. Environmental Analysis

5.17 WILDFIRE

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts related to wildfire due to implementation of the La Puerta School Site Specific Plan (Specific Plan) and the development area covered by the Specific Plan (Project Area). This section focuses on whether and to what extent implementation of the Specific Plan could increase the number or severity of wildfires or their spread.

5.17.1 Environmental Setting

5.17.1.1 REGULATORY BACKGROUND

Federal, state, regional and local laws, regulations, plans, or guidelines related to wildfire that are applicable to the Specific Plan are summarized below.

Federal

National Cohesive Wildfire Management Strategy

In the Federal Land Assistance, Management, and Enhancement Act of 2009 (FLAME Act), Congress mandated the development of a National Cohesive Wildland Fire Management Strategy for all lands in the United States. Wildfire management is guided by the National Cohesive Wildland Fire Management Strategy, which has three primary goals (USDI and USDA 2014):

- Resilient landscapes
- Fire adapted communities
- Safe and effective wildfire response

These three goals enable land managers to manage vegetation and fuels; protect homes, communities, and other values at risk; manage human-caused ignitions; and effectively and efficiently respond to wildfires. California is part of the Western Regional Strategy Committee, chartered to support and facilitate the implementation of the National Cohesive Wildland Fire Strategy.

National Fire Protection Association Standards

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. NFPA standards are recommended (advisory) guidelines for fire protection that are referenced in the California Fire Code. Specific standards applicable to wildland fire hazards include, but are not limited to:

- **NFPA 1141**, Fire Protection Infrastructure for Land Development in Wildlands
- **NFPA 1142**, Water Supplies for Suburban and Rural Fire Fighting
- **NFPA 1143**, Wildland Fire Management

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- **NFPA 1144**, Reducing Structure Ignition Hazards from Wildland Fire
- **NFPA 1710**, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations

State

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. CAL FIRE provides fire assessment and firefighting services for land in State Responsibility Areas (SRAs), conducts educational and training programs, provides fire planning guidance and mapping, and reviews general plan safety elements to ensure compliance with state fire safety requirements.

The Board of Forestry and Fire Protection is a government-appointed approval body within CAL FIRE. It is responsible for developing the general forest policy of the state, determining the guidance policies of CAL FIRE, and representing the state's interest in federal forestland in California. The Board of Forestry and Fire Protection also promulgates regulations and approves general plan safety elements that are adopted by local governments for compliance with State statutes.

The California Office of the State Fire Marshal supports the mission of CAL FIRE by focusing on fire prevention. These responsibilities include regulating buildings in which people live, congregate, or are confined; controlling substances and products which may, in and of themselves, or by their misuse, cause injuries, death and destruction by fire; providing statewide direction for fire prevention within wildland areas; regulating hazardous liquid pipelines; developing and renewing regulations and building standards; and providing training and education in fire protection methods and responsibilities. These are accomplished through major programs including engineering, education, enforcement, and support from the Board of Forestry and Fire Protection. For jurisdictions in SRAs or very high fire hazard severity zones (FHSZs), the Land Use Planning Program division of the Office of State Fire Marshal reviews safety elements during the update process to ensure consistency with California Government Code, Section 65302(g)(3).

Together, the Board of Forestry and Fire Protection, Office of State Fire Marshal, and CAL FIRE protect and enhance the forest resources of all wildland areas of California that are not under federal jurisdiction.

Fire Hazard Severity Zones and Responsibility Areas

CAL FIRE designates FHSZs as authorized under California Government Code Sections 51175 et seq. CAL FIRE considers many factors when designating fire severity zones, including fire history, existing and potential vegetation fuel, flame length, blowing embers, terrain, and weather patterns for the area. CAL FIRE FHSZs are designated as moderate, high, or very high. FHSZs are designated in two types of areas depending on which level of government is financially responsible for fire protection:

- **LRA: Local Responsibility Area.** Incorporated communities are financially responsible for wildfire protection.

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- **SRA: State Responsibility Area.** CAL FIRE and contracted counties are financially responsible for wildfire protection.

2018 Strategic Fire Plan for California

CAL FIRE produced the 2018 Strategic Fire Plan for California, with goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments (BFFP 2018). The 2018 Strategic Fire Plan focuses on fire prevention and suppression activities to protect lives, property, and ecosystems in addition to providing natural resource management to maintain state forests as a resilient carbon sink to meet California's climate change goals. A key component of the 2018 Strategic Fire Plan is the collaboration between communities to ensure fire suppression and natural resource management is successful (BFFP 2018).

California Building Standards Code

Building Design Standards

The California Building Code (CBC), Part 2 of 24 California Code of Regulations, identifies building design standards, including those for fire safety. It is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions under specific amendment rules prescribed by the State Building Standards Commission. Residential buildings are plan checked by local city building officials for compliance with the CBC and any applicable local edits. Typical fire safety requirements of the CBC include the installation of sprinklers in buildings and other facilities; the establishment of fire-resistance standards for fire doors, building materials, and particular types of construction in high FHSZs; requirements for smoke-detection systems; exiting requirements; and the clearance of debris. The City of Claremont regularly adopts each new CBC updated under the Claremont Municipal Code Chapter 15.04, Building Code.

Materials and Methods for Exterior Wildfire Exposure

Chapter 7A of the CBC, Materials and Methods for Exterior Wildfire Exposure, prescribes building materials and construction methods for new buildings in a FHSZ or Wildland Interface Fire Area. Chapter 7A contains requirements for roofing; attic ventilation; exterior walls; exterior windows and glazing; exterior doors; decking; protection of underfloor, appendages, and floor projections; and ancillary structures.

California Fire Code

The California Fire Code incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. This is the official fire code for the state and all political subdivisions. It is found in California Code of Regulations Title 24, Part 9 and, like the CBC, the California Fire Code is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions. The California Fire Code is a model code that regulates minimum fire safety regulations for new and existing buildings; facilities; storage; processes, including emergency planning and preparedness; fire service features; fire protection systems; hazardous materials; fire flow requirements; and fire hydrant locations and distribution. Typical fire safety requirements include installation of sprinklers in all buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance

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of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas. The City of Claremont regularly adopts the California Fire Code for the Consolidated Fire Protection District of Los Angeles as the Fire Code of the City under the Claremont Municipal Code Chapter 15.20, Fire Prevention.

Wildland-Urban Interface Areas

Chapter 49 of the California Fire Code, Requirements for Wildland Urban Interface Fire Areas, applies to any geographical area identified as a FHSZ by CAL FIRE, including the Project Area. It defines FHSZs, connects to the SRA Fire Safe Regulation requirements for defensible space, and parallels requirements for wildfire protection buildings construction and hazardous vegetation fuel management in other sections of the California Code of Regulations and the Public Resources Code. Chapter 49 of the 2022 California Fire Code, which went into effect January 1, 2023, includes a definition for the Wildland-Urban Interface (WUI) and provides requirements for fire protection plans, landslide plans, long-term vegetation management, and creation and maintenance of defensible space for all new development within the WUI.

California Public Utilities Commission

In 2007, wildfires in southern California were ignited by overhead utility power lines and aerial communication facilities near power lines. In response, the California Public Utilities Commission began considering and adopting regulations to protect the public from fire hazards posed by overhead power lines and nearby aerial communication facilities. The commission published a fire threat map—under Rulemaking 15-05-006, following procedures in Decision 17-01-009, revised by Decision 17-06-024—that adopted a work plan for the development of a utility high fire-threat district where enhanced fire safety regulations in Decision 17-12-024 apply (CPUC 2023a). The fire regulations require electrical utilities to:

- Prioritize the correction of safety hazards.
- Correct nonimmediate fire risks in “Tier 2” (elevated fire threat) areas in the high fire-threat district within 12 months, and in “Tier 3” (extreme fire threat) areas within 6 months.
- Maintain increased clearances between vegetation and power lines in the high fire-threat district.
- Maintain stricter wire-to-wire clearances for new and reconstructed facilities in Tier 3 areas.
- Conduct annual inspections of overhead distribution facilities in rural areas of Tier 2 and Tier 3 areas.
- Prepare a fire prevention plan annually if overhead facilities exist in the high fire-threat district. (CPUC 2023b)

Governor’s Office of Planning and Research Fire Hazard Technical Advisory

The Governor’s Office of Planning and Research published the Fire Hazard Technical Advisory in 2015 and revised it in 2022 as a planning guide for addressing fire hazards, reducing risk, and increasing resilience across California’s diverse communities and landscapes. The guide provides a range of goals, policies, and programs

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for fire hazard prevention and mitigation, disaster preparedness, and emergency response and recovery. The 2022 update includes specific land use strategies to reduce fire risk to buildings, infrastructure, and communities.

Regional

Los Angeles County Fire Department 2022 Strategic Fire Plan

The Los Angeles County Fire Department (LACFD) has executed a contract with the State of California to provide wildland fire protection in SRAs. LACFD has the responsibility as a contract county to implement the State's Strategic Fire Plan in Los Angeles County. Goals of the Strategic Fire Plan include identifying and evaluating wildland fire hazards, articulating and promoting the concept of land use planning as it relates to fire risk, supporting and participating in the collaborative development and implementation of wildland fire protection plans, increasing awareness, knowledge, and actions implemented by individuals and communities to reduce human loss and property damage from wildland fires, developing a method to integrate fire and fuel management practices with landowner priorities, determine the level of fire suppression resources necessary to protect the values and assets at risk, and addressing post-fire responsibilities for natural resource recovery (LACFD 2022).

Local

City of Claremont General Plan

The provision of fire protection and emergency services in the City is guided by the goals, objectives, and policies of the Claremont General Plan Public Safety and Noise Element. The goals and policies applicable to fire protection and emergency services are listed below:

Goal 6-7: Minimize the risks associated with urban and wildland fires.

- **Policy 6-7.1.** Work with the Fire Department to establish minimum standards for water supply and access for fire-fighting equipment.
- **Policy 6-7.3.** Enforce building fire codes and ordinances and continue to research and adopt best practices pertaining to fire management and fire hazards.
- **Policy 6-7.4.** Work with the Fire Department to establish an aggressive fire inspection and code enforcement program.
- **Policy 6-7.5.** Continue to disseminate information relating to fire prevention measures and resident response to emergency situations, with the understanding that an informed public can greatly aid in the reduction of fire loss.

Goal 6-10: Strive to maintain the highest level of emergency preparedness for natural and human-caused disasters and threats.

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- **Policy 6-10.1.** Educate residents of hazards and threats addressed in the Claremont Emergency Plan/ SEMS Multi-hazard Functional Plan and the Natural Hazard Mitigation. Basic Plan, and use these plans as a guide to prevention and mitigation of natural and human- caused hazards.
- **Policy 6-10.2.** Educate City staff to follow established procedures and responsibilities stated in the Emergency Plan/ SEMS Multi-hazard Functional Plan and the Natural Hazard Mitigation Basic Plan in the event of an emergency.
- **Policy 6-10.3.** Complete implementation of a reverse 911 system to facilitate evacuation in case of an emergency.
- **Policy 6- 10.4.** Respond to emergency calls for service within an average of less than four minutes.
- **Policy 6- 10.5.** Work to ensure the adequacy of disaster response and coordination of all segments and populations in the community.

City of Claremont Municipal Code

Chapter 2.52, Fire Protection, of the Claremont Municipal Code annexes the entire City into the Consolidated Fire Protection District of Los Angeles County so that all the territory within the City shall become part of the Consolidated Fire Protection District of Los Angeles County. Chapter 15.20, Fire Protection, adopts the 2022 Fire Code for the Consolidated Fire Protection District of Los Angeles County as the Fire Code for the City.

Chapter 15.04, Building Code, adopts the 2022 edition of the CBC with amendments, including those to Chapter 7A, Chapter 9, and Chapter 15. The City requires that spaces between the roof covering and roof decking are constructed to prevent the intrusion of flames and embers, and be fire-stopped with approved materials. Wood-shingle and wood shake roofs are prohibited in Very High FHSZs. All new structures, and every existing structure within the City is required to have at least a Class B fire retardant roof covering unless otherwise specified in Section 1505.1.1 of the CBC. Approved automatic sprinkler systems are to be provided in buildings over three stories in height, in all new non-residential buildings and additions constructed which have a total floor area of 5,000 square feet or more, throughout existing non-residential buildings whenever any remodeling or additions increase the floor area by 5,000 square feet or more within any twelve-month period, and if the existing building which exceeds 5,000 square feet has a change in occupancy classification such that the proposed use is more hazardous, based on life and fire risk, than the existing use.

City of Claremont Local Hazard Mitigation Plan

The City's Federal Emergency Management Agency-approved 2022 Local Hazard Mitigation Plan (LHMP) was prepared to guide hazard mitigation planning to better protect the people and property of the City from the effects of natural disasters and hazard events. This LHMP demonstrates the community's commitment to reducing risks from hazards, including wildfire, and serves as a tool to help decision makers direct mitigation activities and resources. The LHMP presents updated information regarding hazards being faced by Claremont and presents mitigation measures introduced and/or continued since 2015 to help reduce consequences from hazards, and outreach/education efforts within the community. Mitigation Action FR-5, Brush Clearance,

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requires the Fire Department to notify brush clearance directives to private property owners. The LHMP works in conjunction with other City plans, including the City General Plan, Emergency Operations Plan, and Capital Improvement Plan (City of Claremont 2022).

City of Claremont Multihazard Functional Plan

The City's Multihazard Functional Plan (MHFP), prepared in June 2017, addresses the City of Claremont's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies (City of Claremont 2017). The plan establishes the emergency management organization required to respond to significant emergencies and disasters, identifies the roles and responsibilities required to protect Claremont community members, and establishes the operational concepts for different emergencies, the Emergency Operations Center, and recovery processes. Evacuation routes outlined in the MHFP include State Route 210, Interstate 10, Arrow Highway, Foothill Boulevard, Claremont Boulevard, Monte Vista Avenue, and North Garey Avenue. The MHFP also provides directions for specific emergency scenarios, including wildfire. Fire response actions are to be coordinated by LACFD, with emergency response actions being coordinated by the Claremont Police Department.

5.17.1.2 EXISTING CONDITIONS

Wildfire Background

According to Public Resources Code Sections 4103 and 4104, the term “wildfire” refers to any uncontrolled fire spreading through vegetative fuels that threatens to destroy life, property, or resources. In recent years, wildfires have been moving from traditionally wildland areas with natural vegetation into more urban areas, that is, the WUI, threatening homes, businesses, and essential infrastructure. Though wildfires play an important role in the ecology of many natural habitats, risks to human safety and property increase as urban development moves into areas susceptible to wildfire hazards.

Types of Wildfires

There are three basic types of wildfires:

- **Crown fires** burn trees to their tops and are the most intense and dangerous wildland fires.
- **Surface fires** burn surface litter and duff and are known for being the easiest fires to extinguish and causing the least damage. Brush and small trees enable surface fires to reach treetops, and so are referred to as *ladder fuels*.
- **Underground fires** occur underground in deep accumulations of dead vegetation. These fires move very slowly and can be difficult to extinguish due to limited access (Natural Resources Canada 2018).

Wildfires burn in many types of vegetation—forest, woodland, scrub, chaparral, and grassland. Many species of native California plants are adapted to fire, and habitats such as chaparral shrubs and woodlands can recover from fire. For example, some species of chaparral plants, such as ceanothus, require intense heat for germination and therefore have flammable resins on leaves and roots that can quickly sprout up in burned areas

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(National Park Service 2018). Between 2010 and 2017, wildfires in California burned about 265,000 acres of forest land, 207,000 acres of scrub vegetation, 99,000 acres of grassland, 18,000 acres of desert vegetation, and 14,000 acres of other vegetation types (BFFP 2018). Wildfires have been observed to be more frequent and growing in intensity over the past several years, with 4,304,379 acres and 2,568,948 acres burning in 2020 and 2021, respectively (CAL FIRE 2023b).

Wildfire Causes

Although the term *wildfire* suggests natural origins, a 2017 study that evaluated 1.5 million wildfires in the United States between 1992 and 2012 found that humans were responsible for igniting 84 percent of wildfires, accounting for 44 percent of acreage burned (Balch et al. 2017). The three most common types of human-caused wildfires are debris burning (logging slash, farm fields, trash, etc.); arson; and equipment use (Pacific Biodiversity Institute 2007). Power lines can also ignite wildfires through downed lines, vegetation contact, conductors that collide, and equipment failures (Texas Wildfire Mitigation Project 2018). CAL FIRE determined that between 2017 and 2021, 1,344 fires and 639,437 acres burned due to electrical power and distribution lines (CAL FIRE 2023b). Lightning is the most common cause of nature-induced wildfire (Balch et al. 2017).

An analysis of US Forest Service wildfire data from 1986 to 1996 determined that 95 percent of human-caused wildfires and 90 percent of all wildfires were within 0.5 mile of a road, and that about 61 percent of all wildfires and 55 percent of human-caused wildfires were within approximately 650 feet (200 meters) of a road. The study concluded that the increase in human-caused ignition greatly outweighs the benefits of increased access for firefighters (Pacific Biodiversity Institute 2007).

There are three primary methods of wildfire spread:

- **Embers.** Embers are the most prolific cause of home ignition, at a rate of two out of every three homes destroyed. Embers are glowing or burning pieces of vegetation or construction debris that are lofted during a wildfire and can move up to a mile ahead of a wildfire, especially during high winds. These small embers or sparks may fall on the vegetation near a home (on dry leaves, needles, or twigs on the roof) and subsequently ignite the home. Embers can travel several miles during high wind events, such as the Santa Ana Winds, posing a potential risk to all structures without fire-resistant landscaping and construction within a mile of the fire.
- **Direct Flame Contact.** Direct flame contact refers to the transfer of heat by direct flame exposure. Direct contact will heat the building materials of the home, and if the time and intensity of exposure is severe enough, windows will break and materials will ignite.
- **Radiant Heat.** A house can catch fire from the heat that is transferred to it from nearby burning objects, even in the absence of direct flames or embers. By creating defensible space around homes, the risk from radiant heat is significantly reduced.

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Secondary Effects of Wildfires

After a high intensity wildfire is suppressed, the burn scar is typically bare of its vegetative cover, which had supported the hillsides and steeper slopes. As a result, rainstorms increase the possibility of severe landslides and debris flows in these areas. The intense heat from the fire can also cause a chemical reaction in the soil that makes it less porous, causing water to run off during precipitation events, which can lead to flooding downstream.

In addition to damaging natural environments, wildfires can injure and cause fatalities of residents and firefighters as well as damage or destroy structures and personal property. Wildfires also deplete water reserves, down power lines, disrupt communication services, and block evacuation routes, which can isolate communities. Wildfires can also indirectly cause flooding if flood control facilities become inadequate to handle increases in stormwater runoff, sediment, and debris that are likely to be generated from burn scars. Regionally, smoke from wildfires creates poor air quality that can last for days or weeks, depending on the scale of the wildfire and wind patterns.

Wildfire in the Project Area

Wildfire History

According to the 2022 Claremont LHMP, the City has experienced three major, named fires in the past two decades.

- The 2002 Williams Fire, which burned 37,240 acres, traveling from Azusa to La Verne, crossing into Claremont and threatening the northern neighborhoods of the city including Claraboya, Thompson Creek, and Padua Hills. Fortunately, the winds dissipated before causing property damage and threatening lives in Claremont.
- The 2003 Grand Prix fire, which ultimately combined with the Old Fire and Padua Fire to form a 40-mile front across the San Gabriel Mountains, consumed almost 60,000 acres and destroyed/damaged 71 homes in and around Claremont. Thousands of residents were forced to evacuate and seek temporary shelter. The damage caused by the fire in the city was estimated at \$20 million.
- Although there was no damage or impact to the city, the 2009 Station Fire costs included personnel responses in the form of mutual aid.

Wildfire Hazards

The geography, weather patterns, and vegetation in the Project Area and surrounding areas provide ideal conditions for recurring wildfires. As shown in Figure 5.17-1, *Fire Hazard Severity Zones*, the Project Area is not in a FHSZ in the LRA; however, the northwestern boundary of the Project Area abuts a Very High FHSZ in the LRA (CAL FIRE 2023a).

According to CAL FIRE, the WUI is subdivided into the intermix zone (where houses and wildland vegetation directly mingle), the interface zone (housing adjacent to wildland vegetation, but not mingled with it), and the

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influence zone (areas of wildfire-susceptible vegetation surrounding the other zones) (CAL FIRE 2019). The interface and intermix zones carry the highest risk for wildfires affecting developed areas. Unlike wildfire in wildland areas, fires in WUI areas are more likely to damage or destroy buildings and infrastructure that support populations, the economy, and key services in the city. While most of the Project Area is located in the influence zone, the northern portion of the Project Area lies within the WUI, as shown in Figure 5.17-2, *Wildland-Urban Interface*.

Factors Influencing Wildfire

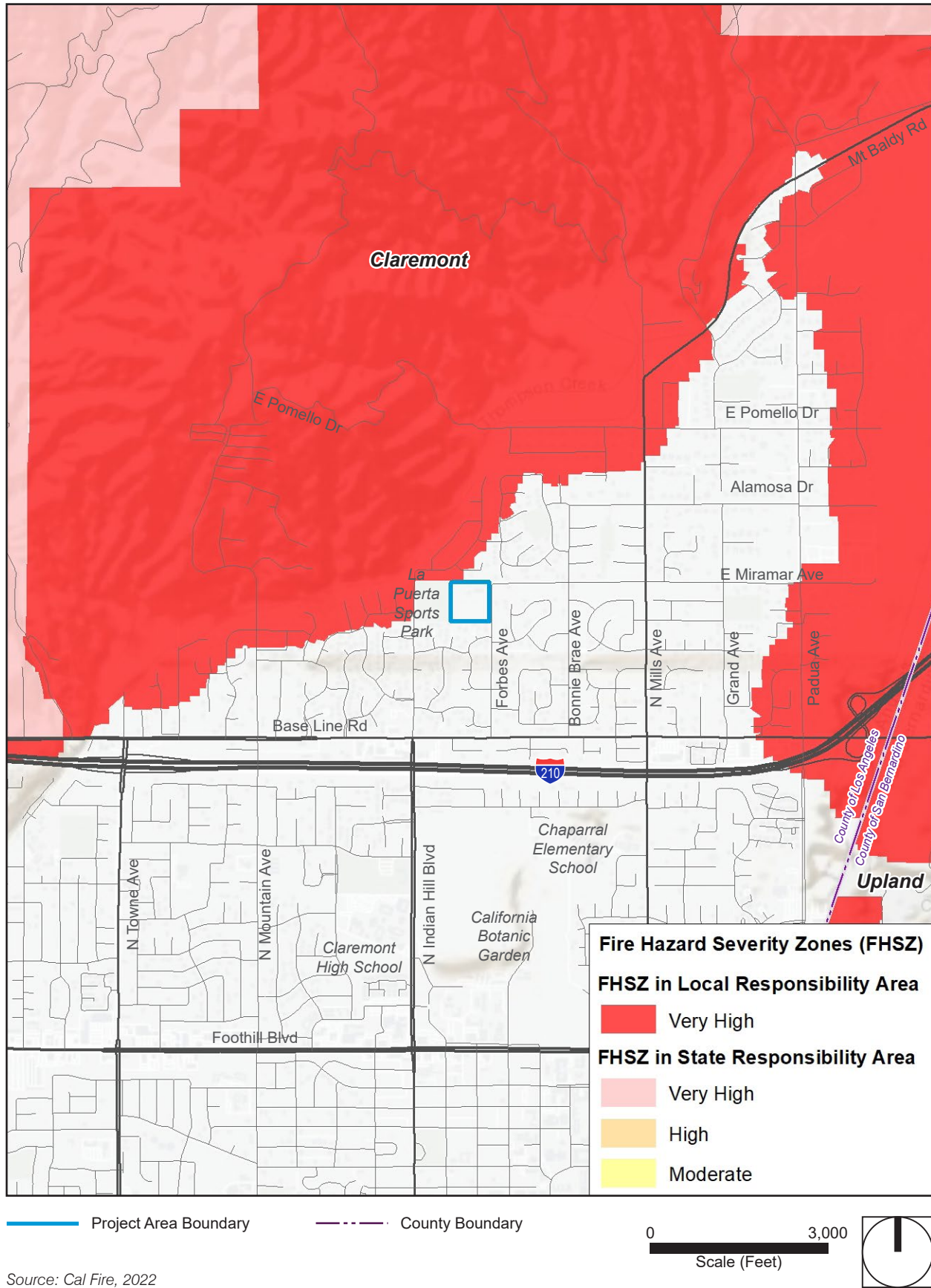
Several factors influence wildfire conditions and facilitate the spread of wildfires, including topography, fuels, weather conditions, and climate change. Human actions are also the leading cause of wildfires in California, increasing the risk of wildfire devastating natural lands and communities.

Weather

The climate in Claremont is generally referred to as “Mediterranean,” with hot, dry summers and cool, wet winters. Warm summers and cold winters with rainfall are common in the city. Rainfall typically occurs during the winter months due to storm fronts that move inland from the Pacific Ocean or south from the Sierra Nevada. The city receives an average of approximately 21.4 inches of precipitation annually (City of Claremont 2022). Because the summer months are generally hot and dry, the risk of wildfires has historically been greatest in summer and fall. Relative humidity is also an important fire-related weather factor. As humidity levels drop, the dry air causes vegetation moisture levels to decrease, thereby increasing the likelihood that plant material will readily ignite and burn; the risk of wildfire increases when lightning strikes occur during dry periods.

Wind is a primary weather factor of wildfire behavior. Santa Ana winds are warm easterly winds that flow from the Great Basin through the desert and through the passes of the coastal mountains. The City of Claremont is in the direct path of the ocean-bound Santa Ana winds. Wind speeds are typically at 35 knots (40 miles per hour (mph)) through and below passes, and canyons with gusts to 50 knots (57 mph). Stronger Santa Ana winds have gusts greater than 60 knots (69 mph) over widespread areas, and gusts greater than 100 knots (115 mph) in favored areas (City of Claremont 2022). As wind speeds increase, the rates of fire spread, intensity, and ember spread potential also increase. Gusty and erratic wind conditions, like those of the Santa Ana winds, can cause a wildfire to spread irregularly, making it difficult to predict its path and effectively deploy fire suppression forces. Winds from the southeast in the fall compound the severity of fire conditions, as does lower relative humidity, creating red-flag conditions. Santa Ana winds are especially dangerous because they are accompanied by low humidity, which can dry out trees and other fuel that may also be weakened by the winds. This can increase wildfire conditions in the area. Wind shifts can also occur suddenly due to temperature changes and interactions with steep slopes or hillsides, causing fires to spread unpredictably. Fall has historically been one of the most dangerous times for wildfire risk, as periods of very high temperatures, low humidity, and strong wind increases cause red flag warnings and extreme fire danger.

Figure 5.17-1 - Fire Hazard Severity Zones

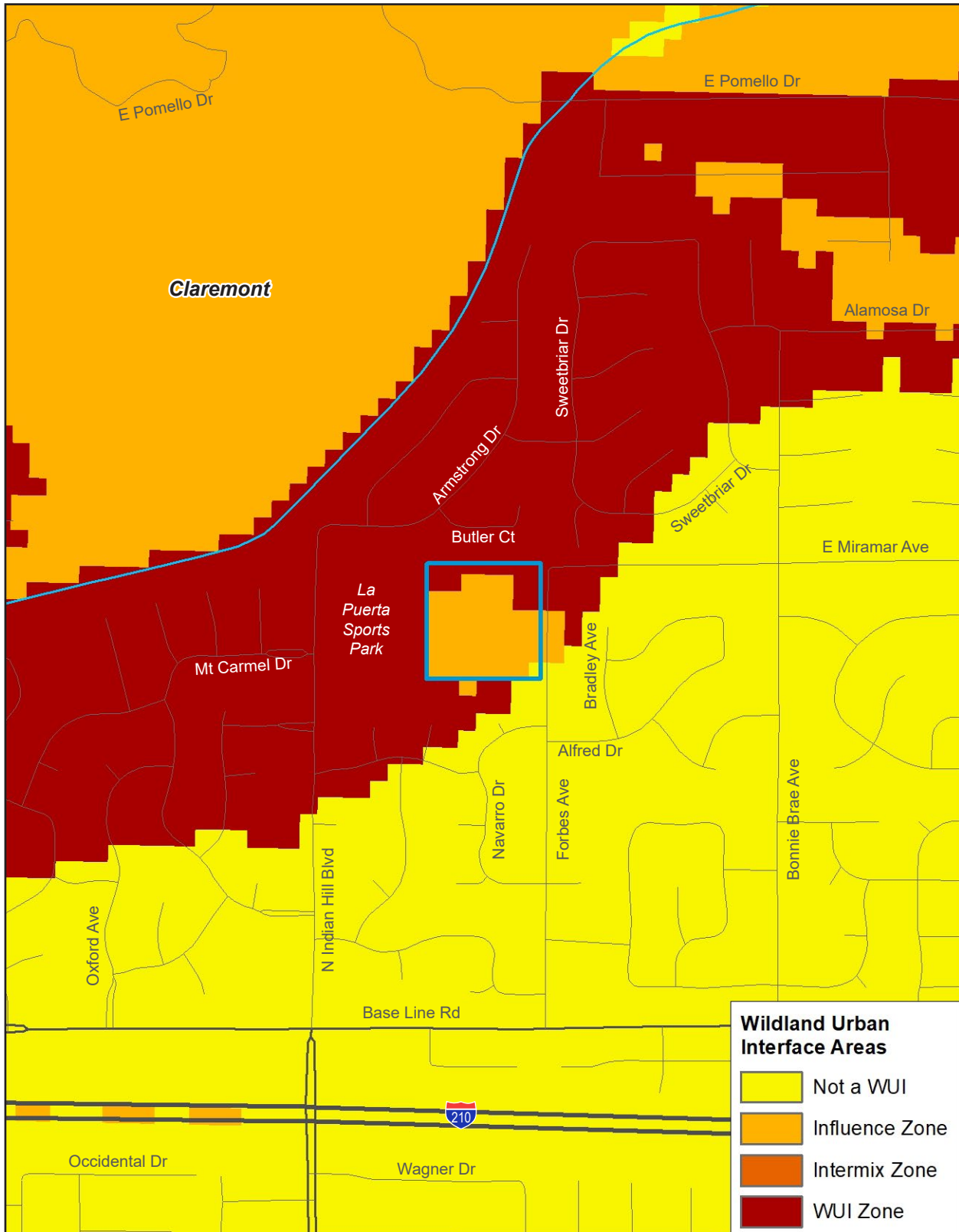


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Figure 5.17-2 - Wildland Urban Interface



Project Area Boundary

0 1,000
Scale (Feet)



Source: Cal Fire, 2021

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Fuel

Each type of vegetation contributes to fire hazard severity to varying degrees. The qualities of vegetation that directly influence fire risk include fuel type and size, loading, arrangement, chemical composition, and dead and live fuel moisture, which contributes to the flammability characteristics of the vegetation. Grass and brush fuel types react quickly to changes in weather such as low humidity or high wind speeds. Fires in areas covered by this vegetation type can spread quickly in gusty wind conditions. However, as described in Chapter 3, *Project Description*, and shown in Figure 3-1, *Aerial Photograph of Project Area*, of this DEIR, the Project Area is vacant and contains undeveloped, disturbed land with little vegetation (mostly shrubs and trees).

Topography

Steep terrain or slope plays a key role in the rate and direction in which wildfires spread since fires will normally burn much faster uphill. When the gradient of a slope doubles, the rate of spread of a fire will also likely double. These areas would also be more susceptible to debris flow after a fire. However, as described in Chapter 5.6, *Geology and Soils*, of this DEIR, the Project Area and adjacent properties are nearly flat, sloping gently to the southwest.

Human Actions

Most wildfires are ignited by human action, the result of direct acts of arson, carelessness, or accidents. Many fires originate in populated areas along roads and around homes and are often the result of the careless disposal of cigarettes, mowing of dead grass, electrical equipment malfunction, use of equipment, or burning of debris. Recreation areas with increased human activity that are in high or very high fire hazard areas also increase the potential for wildfires.

Climate Change

Climate change is likely to increase annual average maximum temperatures in Claremont from a historical 75 degrees Fahrenheit (°F), to 81 °F by 2050 and 84 °F by 2099 (Cal-Adapt 2022a). This will likely create warmer temperatures earlier and later in the year. Precipitation levels are projected to increase slightly over the course of the century, changing from a historical annual average of 22 inches per year to an annual average of 22 inches by 2050 and an annual average of 24 inches by 2099 (Cal-Adapt 2023a). Variations in precipitation patterns will also lead to an increase in frequency and intensity of heavy precipitation events as well as prolonged periods of drought. The combination of extreme heat and droughts can cause soils and vegetation to dry out, creating more fuel for wildfires. These factors are expected to increase wildfire conditions, creating the risk of more frequent and intense wildfires. Because wildfires burn the trees and other vegetation that help stabilize a hillside and absorb water, more areas burned by fire may also lead to an increase in landslides and floods. Historically, an average of 150 acres burned annually in the city (Cal-Adapt 2023b). Wildfires are projected to increase to an annual average in the city of 194 acres burned annually by 2050 and 169 acres burned annually by 2099 (Cal-Adapt 2023b).

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Fire Protection Resources

Los Angeles County Fire Department

In Claremont, LACFD provides firefighting, emergency response, and development review services for the City, which is home to three LACFD fire stations at various locations. Fire Station 62 located at 3701 North Mills Avenue is nearest the Project Area at 1.03 miles and has an average overall response time of 4 minutes or less. Station 102 at 2040 North Sumner Avenue is approximately 1.5 miles away from the Project Area and Station 101 at 606 West Bonita Avenue is approximately 2.4 miles away. Since LACFD serves emergency cases within the county regardless of city boundaries, services from stations in Pomona, San Dimas, or Glendora could be dispatched depending on availability and distance.

Evacuation and Access

Evacuation routes are designated roadways that allow many people to quickly leave an area due to a potential or imminent disaster. These routes should have sufficient capacity to accommodate the needs of the community, be safely and easily accessible, and allow people to travel far enough away to be safe from emergency conditions.

The primary evacuation route from the Project Area is Forbes Avenue, which connects to Miramar Avenue to the north and Base Line Road to the south. The City's designated emergency evacuation routes include State Route 210, Interstate 10, Arrow Highway, Foothill Boulevard, Claremont Boulevard, Monte Vista Avenue, and North Garey Avenue (City of Claremont 2017). The nearest evacuation route to the Project Area is State Route 210, via Base Line Road to the southeast. The City utilizes the Claremont Emergency Notification System through Everbridge to provide critical information quickly in a variety of situations, such as severe weather, unexpected road closures, missing persons, evacuation of buildings or neighborhoods, criminal activity, and emergency preparedness information (City of Claremont 2015).

5.17.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment related to wildfire if located in or near state responsibility areas or lands classified as Very High FHSZ and the project would:

- W-1 Substantially impair an adopted emergency response plan or emergency evacuation plan.
- W-2 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.
- W-3 Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

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W-4 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.

5.17.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.17-1: Implementation of the Specific Plan would not substantially impair an adopted emergency response plan or emergency evacuation plan. [Threshold W-1]

Impact Analysis: As discussed under Impact 5.8-4 in Section 5.8, *Hazards and Hazardous Materials*, of this DEIR, the construction and operational phases of development accommodated by the Specific Plan would not affect implementation of the City's MHFP.

Development accommodated by the Specific Plan would be required to go through the City's and LACFD's development review and permitting process and would be required to incorporate all applicable design and safety standards and regulations, as set forth in the California Fire Code and the City's municipal code, to ensure that they do not interfere with the provision of local emergency services (e.g., provision of adequate access roads to accommodate emergency response vehicles, adequate number of fire hydrants in appropriate locations).

The development of and construction in the Project Area under the Specific Plan would not require road closures or otherwise impact the functionality of Forbes Avenue or Miramar Avenue as public safety access routes. All construction activities would occur onsite within the boundaries of the Project Area and would be required to comply with the City's and LACFD's standards and regulations. On- and off-site access and circulation for emergency vehicles and services would be required during both the construction and operational phases. Emergency vehicle access to the Project Area would be provided via a residential roadway accessible from Forbes Avenue, which has been reviewed and approved as being adequate by LACFD. Development of the Project Area would not introduce any roadways or infrastructure that would bisect or transect established surrounding residential or recreational uses. Additionally, as described in Section 5.14, *Transportation*, of this Draft EIR, the permitted residential uses under the Specific Plan would not have any characteristics that would physically impair or otherwise interfere with the City's designated emergency access or evacuation routes.

Therefore, development accommodated by the Specific Plan would not substantially impair an adopted emergency response plan or emergency evacuation plan. Impacts would be less than significant.

Impact 5.17-2: Development accommodated by the Specific Plan would not exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. [Threshold W-2]

Impact Analysis: Development accommodated by the Specific Plan would involve grading of the residential lots that will create a small slope condition where the residential neighborhood would be slightly higher than

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the adjacent La Puerta Sports Park. This grading would occur on the easterly portion of the Project Area to provide streets and level pads for single-family homes. However, as discussed above, the Project Area and its surroundings are relatively flat, sloping gently to the southwest. There are no major slope conditions surrounding or within proximity of the Project Area. Therefore, wildfire risks in the Project Area would not be exacerbated due to slope conditions.

Development accommodated by the Specific Plan would not result in a change of prevailing winds. However, the northwestern boundary of the Project Area abuts a Very High FHSZ in the LRA (see Figure 5.17-1, *Fire Hazard Severity Zones*). Also, as discussed above in Section 5.17.1.2, *Existing Conditions*, the Project Area is prone to the Santa Ana winds. These winds are often accompanied by low humidity and can shift suddenly due to temperature changes and interactions with steep slopes. This creates dangerous conditions by drying out vegetation and enabling wildfire to spread more quickly. Section 5.17.1.1, *Regulatory Background*, describes plans, programs, regulations, and procedures that help to reduce wildfire risks. For example, the 2018 Strategic Fire Plan for California, CBC, California Fire Code, LACFD's 2022 Strategic Fire Plan, City's LHMP, and Claremont Municipal Code are intended to reduce wildfire hazards and respond to these hazards on a statewide and local scale. In addition, the South Coast Air Quality Management District provides air quality alerts, advisories, and provides resources for an interactive online map to view current air quality conditions in the region. Therefore, wildfire risks in the Project Area would not be exacerbated due to prevailing wind conditions.

Other factors, such as vegetation, have the potential to exacerbate wildfire risks. The Specific Plan's landscape design guidelines call for climate friendly, drought-tolerant plants to be used alongside native species. Additionally, the Project Area is not surrounded by or in proximity of wildland brush or flammable vegetation; these types occur further north of the Project Area within the foothills of the San Gabriel Mountains. Furthermore, due to the Project Area's location within the WUI, development accommodated by the Specific Plan would be required to comply with the requirements outlined in Chapter 49 of the California Fire Code, including requirements for fire protection plans. Adherence to the applicable requirements of the California Fire Code will be ensured through the City's and LACFD's building permit review process.

Therefore, impacts would be less than significant.

Impact 5.17-3: Development accommodated by the Specific Plan would not 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. [Threshold W-3]

Impact Analysis: Development accommodated by the Specific Plan would include construction of infrastructure in the Project Area to support the residential development, including new paved roads and utility connections. Based on the analysis in Section 5.16, *Utilities and Service Systems*, of this DEIR, implementation of the Specific Plan would not result in the need for expanded utility infrastructure off-site. However, development accommodated by the Specific Plan would introduce new people and electrical equipment to the Project Area, which could increase the risk of fire hazard.

As discussed in Chapter 3, *Project Description*, of this DEIR, development accommodated by the Specific Plan would result in a looped interior private street (see Figure 3-2, *Conceptual Site Plan*). The private street would

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provide direct access to the driveways of each single-family home, with the exception of any homes fronting onto and taking direct access off of Forbes Avenue, which is an existing public street. All vehicular access and circulation improvements would be designed and constructed to City standards, including the 36-foot road width requirement of the General Plan.

Paved areas create an opportunity for vehicles to create accidental wildfires, since dragging chains, dragging vehicle parts, worn brakes, and exposed wheel rims have the potential to create sparks on the roadway, which could fall onto dried lawns, shrubs, or trees. However, equipment with an internal combustible engine that uses hydrocarbon fuels, such as construction equipment, landscaping equipment, or vehicles, used on grass- or brush-covered areas within the Project Area would be required to comply with Public Resources Code Section 4442, which requires such engines be equipped with a spark arrester, and that these engines be maintained in effective working order to help prevent fire.

Development accommodated by the Specific Plan would also require the installation of new electrical connections throughout the Project Area. Power lines could ignite wildfires if overhead lines fall down and come into contact with vegetation. However, pursuant to the provisions of the Specific Plan, all new utility infrastructure would be installed underground or placed in enclosed spaces (e.g., above or below ground utility closets), minimizing the potential for electric lines sparking wildfires.

Furthermore, installation of emergency water systems (e.g., fire hydrants, fire sprinklers in each home) as part of development accommodated by the Specific Plan would not create ongoing impacts to the environment but rather serve as a benefit by minimizing fire risk.

The installation and maintenance of new roadways and utility connections inherently increases the risk of fire hazards. However, with adherence to state and local regulations, including California Fire Code, CBC, and Claremont Municipal Code, pertaining to fire safe development, implementation of the Specific Plan would not exacerbate wildfire risks and impacts would be less than significant.

Impact 5.17-4: Development accommodated by the Specific Plan would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, postfire slope instability, or drainage changes. [Threshold W-4]

Impact Analysis: Wildfire can create favorable conditions for other hazards, such as flooding and landslides, during heavy precipitation events. Implementation of the Specific Plan would result in a significant impact if—due to slopes, drainage patterns, or post-fire slope instability—it would expose people or structures to significant risks from landslides, debris flows, or flooding.

As discussed in Section 5.6, *Geology and Soils*, of this DEIR, the Project Area and surrounding properties are nearly flat and therefore not susceptible to landslides, debris flows or postfire slope instability. As discussed in Section 5.9, *Hydrology and Water Quality*, the Project Area is not within a FEMA designated 100-year flood zone and there are no nearby water bodies, streams, or other conditions that would result in flooding in the Project Area. The nearest creek to the Project Area is the San Jose Creek, approximately 0.4 mile to the northwest.

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Therefore, implementation of the Specific Plan would not expose people or structures to downslope or downstream flooding or landslides, and impacts would be less than significant.

5.17.4 Cumulative Impacts

The methodology used for the cumulative impact analysis is described in Chapter 4.0, *Environmental Setting*, of this DEIR. Implementation of the Specific Plan in conjunction with cumulative development projects in other areas of the City could introduce or exacerbate fire risks and could have the potential to contribute to cumulative wildfire risks. Such development in or near FHSZs and the WUI could subject people and structures to wildfire hazards. As discussed above, development accommodated by the Specific Plan would not substantially impair the City's MHFP; would not exacerbate fire risks or result in temporary or ongoing impacts to the environment due to the installation or maintenance of infrastructure; and would not expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. As demonstrated above, with implementation of mitigation, wildfire risk due to the Project Area's proximity to a Very High FHSZ and the presence of Santa Ana winds as a result of implementation of the Specific Plan would be reduced to a less-than-significant level. As with the Specific Plan, other development projects in the City would be subject to the same federal, state, and local regulations related to wildfire hazard reduction and would be required to undergo discretionary and CEQA review. Therefore, wildfire impacts of the proposed project would not combine with cumulative projects to create wildfire impacts.

5.17.5 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the following impacts would be less than significant: 5.17-1, 5.17-2, 5.17-3, and 5.17-4.

5.17.6 Mitigation Measures

No significant adverse impacts related to wildfire were identified and no mitigation measures are required.

5.17.7 Level of Significance After Mitigation

No significant adverse impacts relating to wildfire were identified.

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5.17.8 References

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