

5. Environmental Analysis

5.20 WILDFIRE

This section describes impacts of the proposed project on wildfire. The information in this section is based on review of the preliminary site plan, aerial photographs, street views, and other available information.

5.20.1 Environmental Setting

5.20.1.1 REGULATORY BACKGROUND

Federal

Stafford Disaster Relief and Emergency Assistance Act

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) is a federal law designed to bring an orderly and systemic means of federal natural disaster assistance for state and local governments in carrying out their responsibilities to aid citizens. The Stafford Act is a 1988 amended version of the Disaster Relief Act of 1974. It created the system in place today by which a presidential disaster declaration or an emergency declaration triggers financial and physical assistance through the Federal Emergency Management Agency.

State Regulations

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. The Office of the State Fire Marshal supports the CAL FIRE mission to protect life and property through fire prevention engineering programs, law and code enforcement, and education. The Marshal provides for fire prevention by enforcing fire-related laws in state-owned or -operated buildings, investigating arson fires in California, licensing those who inspect and service fire protection systems, approving fireworks for use in California, regulating the use of chemical flame retardants, evaluating building materials against fire safety standards, regulating hazardous liquid pipelines, and tracking incident statistics for local and state government emergency response agencies. Classification of a zone as moderate, high, or very high fire hazard is based on a combination of how a fire will behave and the probability of flames and embers threatening buildings. Each area of the map gets a score for flame length, embers, and the likelihood of the area burning. Scores are then averaged over the zone areas. Final zone class (moderate, high, and very high) is based on the average scores for the zone (CAL FIRE 2012).

Office of Emergency Services

The California Governor's Office of Emergency Services is responsible for coordinating overall state agency response to disasters; ensuring the state's readiness to respond to and recover from all hazards; and assisting local governments in their emergency preparedness, response, recovery, and mitigation.

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California Fire Plan

The California Fire Plan is the state’s road map for reducing the risk of wildfire through planning and prevention to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health. The California Fire Plan is a cooperative effort between the State Board of Forestry and Fire Protection and CAL FIRE.

Building Code

The California Building Code (CBC)—California Code of Regulations, Title 24, Part 2—identifies building design standards, including those for fire safety. The CBC is based on the International Building Code but has been amended for California conditions. It is updated every three years, and the current, 2019 CBC went into effect January 1, 2020. The CBC is effective statewide but a local jurisdiction may adopt more restrictive standards based on local conditions and under specific amendment rules prescribed by the State Building Standards Commission. Commercial and residential building plans are checked by local city and county building officials for compliance with the CBC. Typical fire safety requirements of the CBC include the installation of fire sprinklers in all new residential, high rise, and hazardous materials buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

Fire Code

The California Fire Code (CFC) incorporates by adoption the International Fire Code of the International Code Council, with California amendments (California Code of Regulations, Title 24, Part 9). The CFC is updated every three years, and the current 2019, CFC went into effect January 1, 2020. The CFC is effective statewide but a local jurisdiction may adopt more restrictive standards based on local conditions and under specific amendment rules prescribed by the State Building Standards Commission. The CFC regulates building standards, fire department access, fire protection systems and devices, fire and explosion hazards safety, hazardous materials storage and use, and standards for building inspection.

Building Standards for Structures in Fire Hazard Severity Zones

Chapter 7A of the CBC, “Materials and Methods for Exterior Wildfire Exposure,” prescribes building materials and construction methods for new buildings in a fire hazard severity zone. 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.

Chapter 49 of the CFC, “Requirements for Wildland-Urban Interface Fire Areas,” prescribes construction materials and methods in fire hazard severity zones; requirements generally parallel CBC Chapter 7A.

Defensible Space

California Public Resources Code (PRC) Sections 4291 et seq. require removal of brush, flammable vegetation, or combustible growth within 100 feet of buildings. Vegetation that is more than 30 feet from the

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building, less than 18 inches high, and important for soil stability may be maintained—as may single specimens of trees or other vegetation that is maintained to manage fuels and does not form a means of rapid fire transmission to a structure. Requirements regarding hazardous vegetation and fuel management are also in Sections 4906 and 4907 of the CFC.

PRC Section 4290 requires that all parcels one acre or larger provide a minimum 30-foot setback for buildings from all property lines and/or the center of the road.

Regional

County of Orange and Orange County Fire Authority Local Hazard Mitigation Plan

The mission of the County of Orange and Orange County Fire Authority Local Hazard Mitigation Plan is to promote sound public policy designed to protect residents, critical facilities, infrastructure, key resources, private property, and the environment from natural hazards in county unincorporated area, fire hazards in the Orange County Fire Authority (OCFA) service area, and County- and OCFA-owned facilities. The OCFA provides fire suppression and prevention services to county unincorporated areas and other jurisdictions and contracts under its joint powers authority.

Orange County Fire Authority Fire Prevention Guidelines

- “Fire Master Plans for Commercial & Residential Development” (Guideline B-09): This guideline pertains to the creation and maintenance of fire department access roadways, access walkways to and around buildings, and hydrant quantity and placement as required by the 2016 CFC and CBC and as amended by local ordinance. (OCFA 2017a)
- “Vegetation Management Guideline Technical Design for New Construction Fuel Modification Plans and Maintenance Program” (Guideline C-05): Fuel modification plans require that landscaped areas adjacent to new buildings be dedicated for permanent vegetation management activities. This guideline covers the timing of plans for construction, plan criteria needed for approval, the resource agency plant list for the zones, new construction inspection requirements, and introductory maintenance information. (OCFA 2017c)

Local

Brea Fire Department

Brea Fire Department provides 24-hour emergency response to a wide variety of critical situations, including fires and hazardous materials incidents. In addition, the department operates a very active Fire Prevention and Emergency Preparedness Program, which provides for fire inspections, hazardous process permitting, fire code enforcement, public education, and business emergency planning in accordance with the California Code of Regulations (Brea 2019a).

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Brea Very High Fire Hazard Severity Zone Requirements Technical Design for New Construction Fuel Modification Plans and Maintenance Program

The purpose of this guideline, dated January 14, 2019, is to provide information on how fuel modification zones in Brea are to be designed, installed, and maintained in order to meet safety requirements. Vegetation management practices are implemented and enforced through fuel modification and defensible space. Prior to beginning the grading and/or construction process, developers and builders are required to receive approval from Brea Fire for the design of a fuel modification plan and for the installation of fuel modification zones. Separately, the CFC and PRC require land owners to implement and annually maintain vegetation reduction activity and a defensible space of up to 100 feet between their structure and the wildfire area, measured from their structure to their property line. Defensible space is required for land owners in Brea when a fuel modification plan and installation were not previously approved. This guideline addresses only the fuel modification design and maintenance process requirements.

Emergency Response Planning

The City of Brea has an active emergency preparedness program coordinated by a professional emergency manager. Public programs available range from those provided upon the request of an organization or group, to the more structured Brea Community Emergency Response Team classes, offered periodically. The five key elements of the City's Emergency Preparedness Program are:

- Development and maintenance of the City's Emergency Response Plan.
- Development and maintenance of the City's Emergency Operations Center.
- Coordination of preparedness, training, and exercises for city staff to be sure they are ready to respond to any emergency.
- Public education and outreach to the residents and businesses of Brea.
- Funding recovery following disasters. (Brea 2019a)

City of Brea General Plan

The City of Brea General Plan Chapter 6, Public Safety, includes goals and policies aimed at ensuring public safety by protecting the community from hazards associated with hazardous materials, wildland fires, flooding, and seismic activity and geologic conditions. Applicable policies include:

- **Policy PS-1.6.** Impose special conditions as needed on development projects to ensure that adequate fire protection measures are in place and maintained.
- **Policy PS-6.2.** Encourage residents to plant and maintain fire retardant slope cover to reduce the risk of brush fire in areas adjacent to the canyons and develop and implement stringent site design and maintenance standards for areas with high fire potential. To the extent possible, native, noninvasive plant material are encouraged.

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- **Policy PS-6.3.** Assure provision of adequate fire equipment access and fire suppression resources to all developed and open space areas.
- **Policy PS-6.4.** Require new development to ensure that the City's five-minute fire response time be maintained.

City of Brea Municipal Code

The 2019 CBC is adopted with certain modifications as Chapter 15.08, Building Code, of the municipal code. The 2019 CFC is adopted with certain modifications as Chapter 16.04, Brea Fire Code, of the municipal code.

5.20.1.2 EXISTING CONDITIONS

A wildfire is an unplanned ignition in the wildland. Wildfires burn in many types of vegetation—forest, woodland, scrub (including chaparral, sage scrub, and desert scrub), and grassland. Many species of native California plants are adapted to fire, which has always been a natural component of the Earth's ecosystems. However, there is an important distinction between low-intensity natural wildfires that are set or controlled for a particular purpose by a land manager, and wildfires that burn out of control and are made unpredictable by changes in weather (CAL FIRE 1999).

Wildfire Trends in Recent Decades

Global climate change is raising temperatures in many forested areas in the North America. Higher temperatures contribute to increased tree mortality, lengthening of fire seasons, and increasing the number of large, high-intensity fires (CCI 2021). Warming and drying due to human-caused climate change is estimated to have approximately doubled the total area burned by forest fire in the western United States between 1984 and 2015, compared to the total area expected to have burned without climate change (Abatzoglou and Williams 2016). Frequent wildfires reduce recovery of shrubs and trees—especially shrubs and trees that must produce seeds to regenerate after fire—and increase invasion of nonnative grasses (USGS 2012). Nonnative grasses are generally more flammable than the chaparral and sage scrub vegetation they replace; thus, such conversion exacerbates wildfire hazards (UC ANR 2009).

Wildfires now burn year-round in California (SBFFP and CAL FIRE 2018), and Orange County experiences destructive wildland fires almost every year, particularly in the fall. Wildland fires in the county range from small, localized fires to fires covering thousands of acres (Orange County and OCFA 2021). Table 5.20-1 shows federal disaster declarations for fires, including wildfires, in Orange County.

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Table 5.20-1 Federal Disaster Declarations Related to Fire in Orange County

Disaster Number	Year	Incident Name or Type
FM-5383	2021	Bond Fire
FM-5381	2021	Blue Ridge Fire
FM-5380	2021	Silverado Fire
FM-5268	2018	Wildfires (Holy Fire)
DR-4344	2018	Canyon 2 Fire
FM-5213	2017	Canyon Fire
FM-2792	2008	Freeway Fire Complex
DR-1810	2008	Wildfires
FM-2737	2007	Santiago Fire
FM-2683	2007	241 Fire
EM-3279	2007	Wildfires
DR-1731	2007	Wildfires, Flooding, Mud Flows, and Debris Flows
FM-2737	2006	Sierra Fire
FS-2405	2002	Antonio Fire
EM-3120	1996	Severe Firestorms
DR-1005	1993	Fires, Mud/Landslide, Flooding, Soil Erosion
DR-657	1982	Urban Fire
DR-635	1980	Brush and Timber Fires

Source: Orange County and OCFA 2021.

Wildfire Effects

Debris Flows After Wildfires

Postfire landslide hazards include fast-moving, highly destructive debris flows in the years following wildfires and after high-intensity rainfall events, and flows that are generated over longer time periods and accompanied by root decay and loss of soil strength. Postfire debris flows are particularly hazardous because they can happen with little warning, sweep away objects in their paths, strip vegetation, block drainage ways, damage structures, and endanger human life. Debris flows carry larger fragments than mudflows.

Fires increase the potential for debris flows in two ways:

- Fires bake soil into a hard crust that repels water.
- Fires destroy vegetation that would slow and absorb rainfall, and whose roots would help stabilize soil. (USGS 2018)

Postfire debris flows are most common in the two years after a fire, usually triggered by heavy rainfall. It takes much less rainfall to trigger debris flows from burned basins than unburned. In southern California, as little as 0.3 inch of rainfall in 30 minutes has triggered debris flows, and any storm that has intensities greater than about 0.4 inch per hour can produce debris flows (USGS 2017). The burning of vegetation and soil on slopes more than doubles the rate that water will run off into watercourses (CGS 2018a).

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The USGS conducts postfire debris-flow hazard assessments for selected fires in the western US. The Canyon 2 Fire that burned 9,143 acres in the Anaheim Hills area was the only wildfire in Orange County with a debris flow hazard for the years 2017 and 2018 (USGS 2019). In 2018/19, the Holy Fire generated several significant debris flows in area of Trabuco Creek, and in 2020/21, the Bond Fire created debris impacts in the Silverado, Williams, and Modjeska Canyon areas (Orange County and OCF 2021).

Air Pollution from Wildfire

Smoke is made up of a complex mixture of gases and fine particles produced when wood and other organic materials burn. The biggest health threat from smoke is from fine particles that can penetrate deep into the lungs, causing a range of health problems, from burning eyes and a runny nose to aggravated chronic heart and lung diseases. Exposure to particle pollution is also linked to premature death. Some populations are more sensitive than others to smoke—for instance, people with heart or lung diseases, the elderly, children, people with diabetes, and pregnant women (Airnow 2018).

Fire Responsibility Areas

Wildland fire protection in California is the responsibility of either the state, local, or federal government. State responsibility areas (SRA) are where the State of California has the primary financial responsibility for the prevention and suppression of wildland fires. The SRAs form one large area over 31 million acres, and CAL FIRE provides a basic level of wildland fire prevention and protection services.

Local responsibility areas (LRA) include incorporated cities, cultivated agriculture lands, and portions of the desert. LRA fire protection is typically provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract to local government (CAL FIRE 2012). CAL FIRE uses an extension of the SRA model for fire hazard severity zones as the basis for evaluating fire hazard in LRAs. The LRA hazard rating reflects flame and ember intrusion from adjacent wildlands and from flammable vegetation in the urban area.

Fire Hazard Severity Zones

CAL FIRE is mandated by Public Resources Code Sections 4201 to 4204 and California Government Code Sections 51175 to 51189 to identify fire hazard severity zones (FHSZ) for all communities in California. These are areas of significant fire hazard based on fuels, terrain, weather, and other relevant factors. In SRAs, CAL FIRE has mapped three hazard ranges—moderate, high, and very high. In LRAs, the law only requires identification of very high FHSZs. Local governments accept CAL FIRE's determination or make other, local determinations.

Wildfire Potential in the Specific Plan Area

The project site is in the City of Brea's LRA as a very high FHSZ, and in the OCF's unincorporated LRA as a very high FHSZ (CAL FIRE 2011a and CAL FIRE 2011b). Figure 5.20-1, *Very High Fire Hazard Areas*, shows areas within very high FHSZs near the project site, which generally includes areas to the north and east.

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Brea is not in an area susceptible to debris-flow hazard. The western boundary of the area susceptible to debris-flow from the Canyon 2 Fire is seven miles southeast of the city (USGS 2019).

Firefighting Resources

Brea Fire and OCFA currently provide fire protection and emergency medical services to the project site. The closest fire stations to the Specific Plan area are Brea Fire Station #3 at 400 North Kraemer Boulevard, approximately 0.4 mile to the west, and Fire Station #4 at 198 N Olinda Place, approximately 2 miles to the east. OCFA's Battalion Station 34 is at 1530 N. Valencia Avenue, approximately 1.8 miles to the southwest in Placentia.

Fire suppression is an integrated, interagency effort. The California Fire Service and Rescue Emergency Mutual Aid System, established by the Governor's Office of Emergency Services, divides the state into six regions. Orange County is in Region 1, which consists of coastal counties from Orange County to San Luis Obispo County. If assistance were needed for a fire in Orange County, mutual aid would be lent by other agencies in Region 1 first, then other regions in California. The Los Angeles County Fire Department, Fullerton Fire Department, Orange County Fire Authority, and Placentia Fire and Life Safety Department provide mutual aid.

5.20.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project located in or near state responsibility areas or lands classified as very high FHSZs would normally have a significant effect on the environment if the project would:

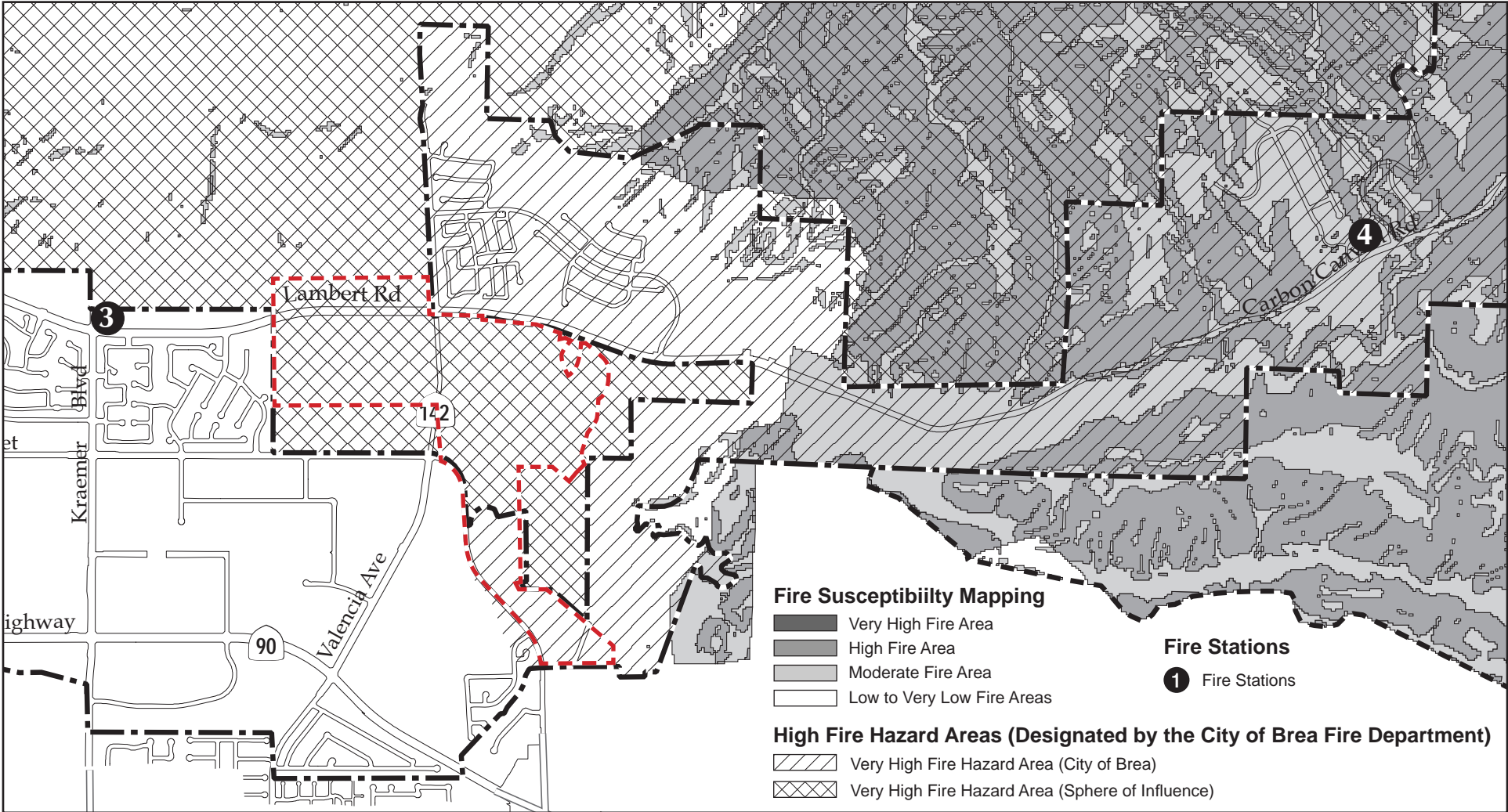
- W-1 Substantially impair an adopted emergency response plan or emergency evacuation plan.
- W-2 Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
- 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.
- 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.

5.20.3 Plans, Programs, and Policies

Regulatory Requirements

- PPP PS-1 New buildings are required to meet the fire regulations outlined in California Health and Safety Code (Sections 13000 et seq.).

Figure 5.20-1 - Very High Fire Hazard Areas
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--- City Boundary - - - Specific Plan Boundary
- - - Sphere of Influence

0 2,300
Scale (Feet)



Source: City of Brea, 2003

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- PPP PS-2 The project applicant is required to pay applicable development impact fees (e.g., dispatch impact fees, fire impact fees, fire service fees) or in-lieu fees as stipulated by the approved Development Agreement.
- PPP PS-3 All development associated with the Brea 265 Specific Plan will be designed, built, and operated in accordance with the City of Brea’s Municipal Code, Chapter 15.08, Building Code, and Chapter 16.04, Brea Fire Code.
- PPP PS-4 As part of the project review process, the City of Brea Fire Department will require approval of Building Plan Check for Site Plan and Emergency Access. Additional design features to address the City of Brea Fire Department’s requirements will be incorporated as conditions of approval for the Brea 265 Specific Plan.
- PPP PS-5 The project applicant is required submit an overall Fire Master Plan at the time of the Brea 265 Specific Plan approval to be reviewed and approved by the City of Brea Fire Department as conditions of approval. The conditions of approval will also require that the project applicant submit separate fire plans at the time of tentative tract map review process for individual planning area to be reviewed and approved by the Brea Fire Department.
- PPP PS-6 The project applicant is required to pay fees pursuant to the approved Development Agreement to provide two “Activated Snorkel Station–Heli-Hydrant” facilities as a means of immediate dipping sites for aerial firefighting aircraft tasked with responding to wildfires. The Activated Snorkel Station–Heli-Hydrant facilities will be located on a site owned by the project applicant and agreed to by the City of Brea.
- PPP PS-7 The project applicant is required to reserve a one-acre graded pad site at the northwestern corner of Lambert Road and Valencia Avenue for the construction of a public safety/civic uses purposes by the City of Brea.
- PPP PS-8 The Brea 265 Specific Plan will provide a minimum of 170 feet on-site of interface distance, as shown in Figure 5.20-2, *Fuel Modification Areas*, per the City of Brea’s Very High Fire Hazard Severity Zone–Fuel Modification requirements as reviewed and approved by the Fire Code Official. Fuel modification areas will be maintained by the homeowners association.
- PPP PS-9 All development associated with the Brea 265 Specific Plan will be designed, built, and operated in accordance with the Brea Fire Department’s Very High Fire Hazard Severity Zone–Fuel Modification requirements.
- PPP T-4 A site-specific construction worksite staging and traffic control plan will be prepared and submitted to the City of Brea for review and approval prior to the start of any construction work. This plan will include such elements as the location of any potential partial lane closures, hours during which lane closures (if any) would not be allowed, local traffic detours (if any), and protective devices and traffic controls (such as barricades, cones, flag persons,

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lights, warning beacons, temporary traffic signals, warning signs). The proposed project will be required to comply with the City-approved plan measures.

5.20.4 Environmental Impacts

The following impact analysis addresses the thresholds of significance; the applicable thresholds are identified in brackets after the impact statement.

Impact 5.20-1: Implementation of the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. [Threshold W-1]

The project site is in incorporated and unincorporated LRAs for very high FHSZs. Brea Fire provides emergency response for hazardous material incidents and administers the Fire Prevention and Emergency Preparedness Program. This program consists of the development and maintenance of the City's emergency response plan and emergency operations center. It addresses appropriate responses to major wildfires and other disasters, such as earthquakes, hazardous materials accidents, and dam failure. Program objectives include injury reduction and avoiding loss of life and property damage through effective management of emergency forces. The program describes how emergency response will be coordinated and how evacuation of residents will proceed. The proposed project would provide site-specific on- and off-site access and circulation for emergency vehicles and services during the construction and operational phases, and the site-specific access plans would comply with the existing Fire Prevention and Emergency Preparedness Program and would not impair any emergency evacuation plan (PPP PS-4 and PPP PS-5). Although the proposed project would increase the traffic volumes in the area, various roadway improvements would be provided to reduce roadway impacts within the City of Brea's jurisdiction to ensure that increased traffic does not delay traffic in the project area. Additionally, the design and construction of developments on the project site would comply with the CFC, as amended by Section 16.04 of the Brea Municipal Code. Therefore, implementation of the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

Level of Significance Before Mitigation: Less than significant impact with implementation of PPP PS-4 and PPP PS-5.





Impact 5.20-2: Project development would not exacerbate wildfire risks due to slope, prevailing winds, and other factors, and would not thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire [Threshold W-2]

A relatively large portion of Orange County is covered by natural (though modified) vegetation. Of these different vegetation types, coastal sage scrub, chaparral, and grasslands have the highest probability of ignition during the dry summer months and, under certain conditions, during the winter months. CAL FIRE maps show that the project site is on lands classified as very high FHSZ within an LRA.

Available information about wind direction for the project site indicates that the prevailing wind is toward the southwest and southeast (Visualcrossing.com 2021). Southwestern and southeastern winds would push a

Figure 5.20-2 - Fuel Modification Areas
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-  Zone A - Private Homeowner Maintained
-  Zone A - HOA Maintained
-  Zone B - Wet Zone (100% Removal of Undesirable Shrubs)
-  Zone C - Thinning Zone (50% Thinning Shrubs)

0 1,000
Scale (Feet)



Source: KTG Group, 2021

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wildfire in the very high FHSZ toward future development in the project site. Wildfire hazards in southern California are at their greatest when Santa Ana winds—hot, dry, westerly winds—are blowing, usually in autumn. Westerly winds could also push a wildfire in the VHFHSZ toward future development on the project site. However, the Specific Plan incorporates an extensive system of landscaped and natural open spaces along the eastern portion of the project site, adjacent to Carbon Canyon Regional Park. The project site would incorporate fuel modification zones as required by Brea Fire and OCFA. The fuel modification zones would provide noncombustible construction and plants and landscaping consistent with Brea's Very High Fire Hazard Severity Zone—Fuel Modification requirements (PPP PS-8 and PPP PS-9). The proposed fuel modification areas near Carbon Canyon Road and Carbon Canyon Regional Park are shown in Figure 5.20-2, *Fuel Modification Areas*. Additionally, much of the developed area would be impervious surfaces, most of which are nonflammable. Site vegetation would not exacerbate wildfire risk.

Elevations on-site range from 586 feet to 385 feet. The northeastern side of the project site can be characterized as moderate to locally steep hillside terrain with eroded canyons. Natural slopes in these canyon areas vary in slope ratio from approximately 1:1 to 5:1 (horizontal : vertical). The eastern side of the project site contains the highest elevations and slopes. The proposed landscaping within the open space areas and fire modification zones along the eastern side of the project site would contain plant material with deep root systems and/or fast-growing surface cover to stabilize the slope. All plant selections would comply with Brea Very High Fire Hazard Severity Zone—Fuel Modification requirements. Pursuant to Chapter 16.04, Brea Fire Code, fuel modification plans would be submitted and approved by the fire code official (PPP PS-3).

Therefore, the Specific Plan development would not exacerbate wildfire risks in the very high FHSZs upwind from or within the project site and thus would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire.

Level of Significance Before Mitigation: Less than significant impact with implementation of PPP PS-3, PPP PS-8, and PPP PS-9.

Impact 5.20-3: Project development 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]

Specific Plan development would not require construction of off-site infrastructure that may exacerbate fire risk or that may result in impacts to the environment. Adequate fuel modification zones would be provided as shown on Figure 5.20-2 to limit the spreading wildfire. All new on-site infrastructure would be in roadways and would not exacerbate wildfire risks. Once completed, all new improvements in the roadway would be underground, and the roadway would be returned to its current condition. During construction, standard conditions placed on encroachment permits that require notification of emergency services, paths of travel, and traffic management would ensure that the roadways remain available for emergency evacuation. Additionally, implementation of PPP PS-6 would improve the Brea Fire Department's ability to respond to wildfire calls by providing opportunities for the City to construct two Activated Snorkel Station—Heli-Hydrant facilities as dipping sites for aerial firefighting aircraft tasked with responding to wildfires in the City. It should

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also be noted that Mitigation Measure GHG-1 requires all buildings to be electric, meaning that electricity is the only permanent source of energy for water-heating, mechanical and heating, ventilation, and air conditioning (HVAC) (i.e., space-heating and space cooling), cooking, and clothes-drying and there is no gas meter connection. This mitigation is anticipated to improve fire safety for homeowners during a public safety power shutoff (PSPS) event from high winds or other fire hazard conditions.

Level of Significance Before Mitigation: Less than significant impact.

Impact 5.20-4: Project development could 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]

The proposed project would not expose people or structures to significant risks due to postfire slope instability or drainage changes. Specific Plan development would build out the project site and incorporate plant materials that would stabilize slopes, consistent with the City's Building Code (Municipal Code Chapter 15.08), Fire Code (Municipal Code Chapter 16.04), and Brea's Very High Fire Hazard Severity Zone–Fuel Modification requirements, as reviewed and approved by the Fire Code Official (PPP PS-3 and PPP PS-9). Project drainage and proposed drainage infrastructure are discussed further in Section 5.10, *Hydrology and Water Quality*, of this DEIR. As discussed in Chapter 5.10, the proposed project would result in a less than significant flooding impact to hydrology with the incorporation of Mitigation Measure HYD-2 and regulatory compliance measures. Mitigation Measure HYD-2 requires an Emergency Response Plan to be prepared prior to approval of any final subdivision map for the project area in the Carbon Canyon Dam inundation area. With respect to soil instability and landslides, Chapter 5.7, *Geology and Soils*, finds that the development under the proposed project would result in a less than significant impact with adherence to the California Building Code as adopted by the City of Brea (refer to PPP GEO-1 in Chapter 5.7).

Level of Significance Before Mitigation: Potentially significant impact.

5.20.5 Cumulative Impacts

The area considered for cumulative impacts are lands within Orange County that are categorized as SRA, federal responsibility area, or very high FHSZ in LRA. Projects in the region would exacerbate wildfire hazards due to factors such as slope and prevailing winds and could expose occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. Some projects could extend infrastructure such as roads and overhead power lines through very high FHSZs and thus could exacerbate wildfire risk. Projects could also cause flooding or debris flows due to postfire slope instability.

However, all cumulative development would be mandated to comply with requirements in the CBC and CFC for building materials and construction methods for buildings in FHSZs and the requirements of Brea Fire, Fullerton Fire, OCFA, the CFC, and PRC Sections 4290 et seq. for fuel modification and defensible space. Furthermore, the proposed project and other development projects would be required to pay increased property taxes, charges for services, and special fees, and such payments would fund the necessary infrastructure and staffing to reduce cumulative wildfire hazard impacts. Cumulative wildfire hazard impacts

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would be less than significant, and Specific Plan development impacts would not be cumulatively considerable.

5.20.6 Level of Significance Before Mitigation

Upon implementation of the plans, programs, and policies, the following impacts would be less than significant: 5.20-1, 5.20-2, and 5.20-3.

Without mitigation, the following impact would be **potentially significant**:

- **Impact 5.20-4** Implementation of the proposed project could expose people or structures to significant risks related to downstream flooding due to the project site's proximity to the Carbon Canyon Dam.

5.20.7 Mitigation Measures

Impact 5.20-4

HYD-2 Prior to approval of any final subdivision map for the Brea 265 Specific Plan, the project applicant shall submit an emergency response plan (Plan) that meets the approval of the Brea Fire Department. The Plan shall provide emergency response protocols, and for the final subdivision map east of Rose Drive within the Carbon Canyon Dam inundation area, the Plan shall also demonstrate compliance with the dam failure inundation buyer notification provisions of state law.

5.20.8 Level of Significance After Mitigation

The mitigation measure identified above would reduce potential impacts associated with wildfire to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to wildfire would remain.

5.20.9 References

- Abatzoglou, John, and A. Park Williams. 2016. "Impact of Anthropogenic Climate Change on Wildfire Across Western US Forests." *PNAS (Proceedings of the National Academy of Sciences of the United States of America)* 113, no 42 (October): 11770–75. <https://www.pnas.org/content/113/42/11770>.
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