

### INTRODUCTION

*This section discusses the wildfire hazards and evaluates the significance of potential impacts based on thresholds defined in the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, and includes measures to mitigate potentially significant impacts.*

*Information in this section draws upon information provided for the Ventura County Fire Department by Dudek in the 2021 Hitch Ranch Fire Protection Plan (FPP) for the Proposed Project, included as **Appendix 3.18** to this environmental impact report (EIR). The FPP evaluates and identifies the potential fire risk associated with the Proposed Project's land uses and identifies requirements for water supply, fuel modification and defensible space, access, building ignition and fire resistance, and fire protection systems, among other pertinent fire protection criteria. This assessment considers the fire risk presented by the site including the property location and its topography, geology, surrounding combustible vegetation (fuel types), climatic conditions, fire history and the proposed land use.*

### 3.18.1 EXISTING CONDITIONS

#### 3.18.1.1 Regional

Wildfire is a continuous threat in Southern California and is particularly concerning in the wildland urban interface (WUI), a geographic area where urban development either abuts or intermingles with wildland or vegetative fuels. The City of Moorpark within the County of Ventura contains several miles of WUI, where established development meets open space areas and canyons within urban and suburban areas. The region's climate, severe dry periods, vegetative fuel composition, and steep and varied terrain make the region susceptible to both wildland and WUI fires. The shrub-dominated plant communities occurring throughout the region are highly flammable. Adaptations to the local dry, Mediterranean climate include specialized roots, stems, and leaves. The latter two become available fuels of importance and contribute to wildfire intensity and spread.

Weather throughout Southern California is influenced by the Pacific Ocean and is frequently under the influence of a seasonal, migratory subtropical high pressure cell known as the "Pacific High." 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. Santa Ana winds bring hot, dry desert air from the east into the region during late summer and fall, which increases wildland fire hazards during these seasons. Dry vegetation, low humidity, and high air temperature can combine to produce large-scale fire events. As Santa Ana winds blow westward toward

denser development, fires driven by these winds have the potential to result in a greater risk of property damage.

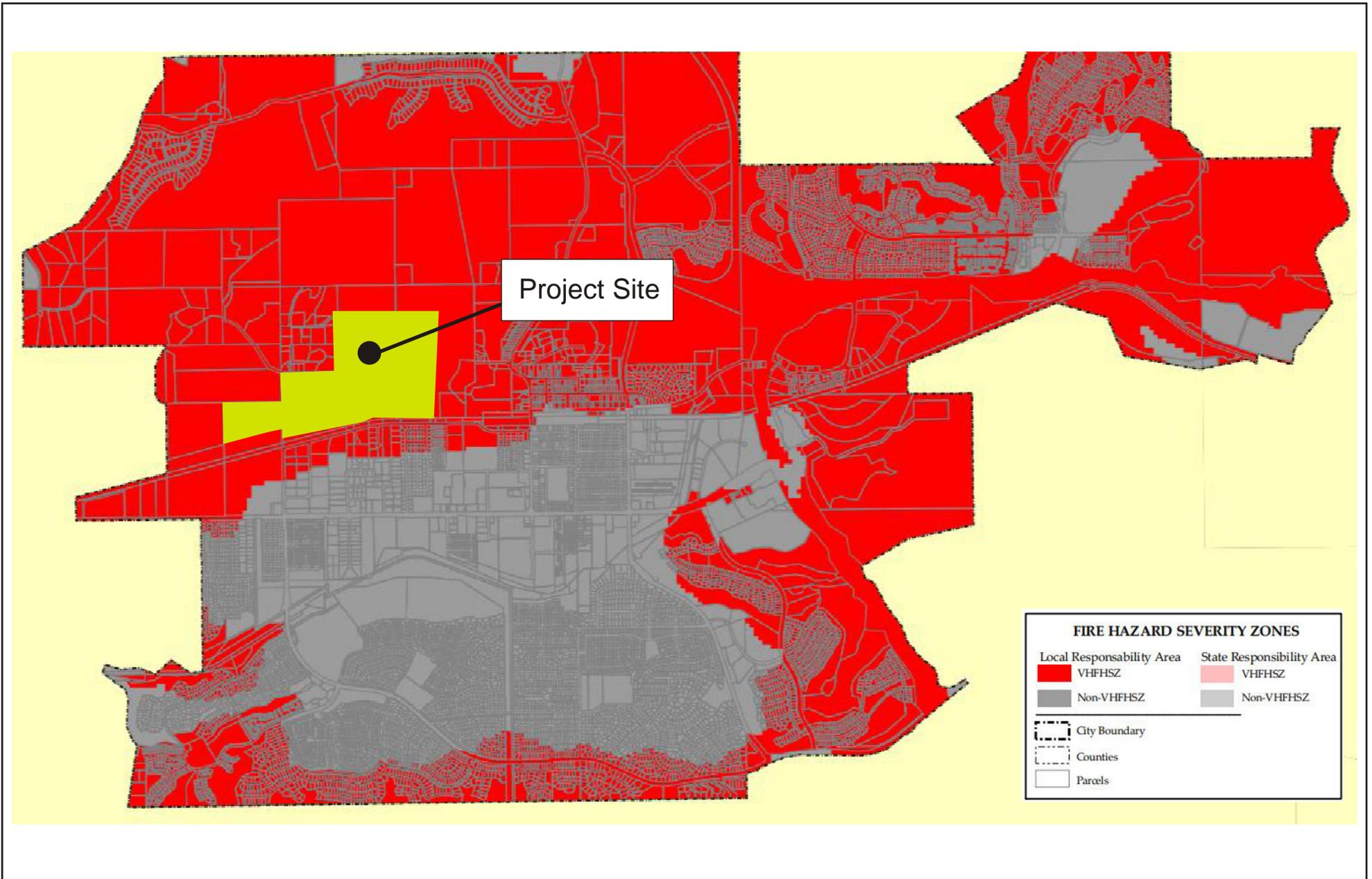
### 3.18.1.2 Project Site

The Project site is approximately 277.30 acres, inclusive of an approximately 23.44-acre parcel to be donated to the City of Moorpark, located in the western portion of the City of Moorpark. The Project site is currently undeveloped and is surrounded by a variety of land uses including residential, industrial, offices, agricultural, and open space lands. The site is located approximately 0.25 mile west of the Moorpark downtown area (See **Figure 2.0-1, Regional Location** and **2.0-2, Local Vicinity Map**). Local public services and facilities already exist in the general vicinity.

Fire environments are dynamic systems and include many types of environmental factors and site characteristics. Fires can occur in any environment where conditions are conducive to ignition and fire movement. Areas of naturally vegetated open space are typically comprised of conditions that may be favorable to wildfire spread. The three major components of fire environment are topography, vegetation (fuels), and climate. The state of each of these components and their interactions with each other determines the potential characteristics and behavior of a fire at any given moment. It is important to note that wildland fire may transition to urban fire if structures are receptive to ignition. Structure ignition depends on a variety of factors and can be prevented through a layered system of protective features including fire resistive landscapes directly adjacent the structure(s), application of known ignition resistive materials and methods, and suitable infrastructure for firefighting purposes. The following sections describe the existing wildland vegetation and urban fuel conditions on and adjacent to the site, which is necessary to understand the potential for fire within and around the Project site.

### 3.18.1.3 Fire Hazard Severity Zones

The Hitch Ranch Project site lies within an area considered a Very High Fire Hazard Severity Zone (VHFHSZ), as designated by the Ventura County Fire Department (VCFD) and California Department of Forestry and Fire Protection (CAL FIRE). The VHFHSZ 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. **Figure 3.18-1, Hitch Ranch Fire Hazard Severity Zone Map** shows the location of the Project site relative to the VHFHSZ.



SOURCE: Dudek Fire Protection Plan; CalFire, 2019.

FIGURE 3.18-1

Hitch Ranch Fire Hazard Severity Zone Map

### 3.18.1.4 Topography

Topography influences fire risk by affecting fire spread rates. Typically, steep terrain results in faster fire spread up slope and slower spread down slope. Terrain that forms a funneling effect—such as chimneys, chutes, or saddles—on the landscape can result in especially intense fire behavior, including faster spread and higher intensity. Conversely, flat terrain tends to have little effect on fire spread, resulting in fires that are driven by vegetation and wind.

The Project site is situated within the Transverse Ranges at the southern limit of the Simi Hills, between the Oak Ridge Mountains to the north and the Las Posas Hills to the south. The site is characterized by gently rolling hills and a series of north-south trending ridges and canyons. The topography ranges from moderately steep to relatively flat, and is highly variable; elevation at the site ranges from approximately 475 to 720 feet above mean sea level. The site has been previously disturbed by agricultural operations and several fires in recent years (see Section 3.18.1.7 for historical fire information). Numerous dirt roads, concrete foundations of old farm buildings, and culverts in old agricultural ditches are still present as well as a livestock shed and goats in a fenced pen. Several ephemeral drainages convey storm water down the steep slopes of the site, but no defined beds and banks or well-developed riparian plant communities were observed.

### 3.18.1.5 Climate

The Project site, like much of Southern California, is influenced by the Pacific Ocean and a seasonal, migratory subtropical high pressure cell known as the “Pacific High.” 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. The average high temperature for the project area is approximately 74°F, with daily highs in the summer and early fall months (July–October) exceeding 95°F. Precipitation typically occurs between December and March with average rainfall of 18 inches.<sup>1</sup>

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), averaging 2 miles per hour (mph). During the summer season, the diurnal winds may average slightly higher (approximately 19 mph) 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. The Hitch Ranch Project site does not include topography that would create

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<sup>1</sup> Dudek. 2020. *Hitch Ranch Fire Protection Plan*. January.

unusual weather conditions. However, the site is subject to periodic extreme fire weather conditions that occur throughout Ventura County.

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 Ventura County exceeded 30 mph and may exceed 50 mph during extreme conditions, as was the case during the most recent wildfire. 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 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 strong winds, such as Santa Ana winds.

### **3.18.1.6 Vegetation Dynamics (Fuel Loads)**

Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (bark thickness, leaf size, branching patterns), and overall fuel loading. For example, non-native grass dominated plant communities become seasonally prone to ignition and produce lower intensity, higher spread rate fires. In comparison, California sagebrush scrub can produce higher heat intensity and higher flame lengths under strong, dry wind patterns, but does not typically ignite or spread as quickly as light, flashy grass fuels.

It is important to consider the dynamic nature of vegetation communities. Fire presence and absence at varying cycles or regimes affects plant community succession. Succession of plant communities, most notably the gradual conversion of shrublands to grasslands with high-frequency fires and grasslands to shrublands with fire exclusion, is highly dependent on the fire regime. Further, biomass and associated fuel loading will increase over time if disturbance or fuel reduction efforts are not diligently implemented. It is possible to alter successional pathways for varying plant communities through manual alteration. Note: this concept is a key component in the overall establishment and maintenance of the proposed fuel modification zones (FMZs) for the Project site. The FMZs will consist of irrigated and maintained landscapes that will be subject to regular “disturbance” in the form of maintenance and will not be allowed to accumulate excessive biomass over time, which results in reduced fire ignition, spread rates, and intensity.

The majority of the site (over 54 percent, approximately 154 acres) is disturbed by active cattle grazing and covered in non-native brome grasslands, specifically to the east of Gabbert Road. Native plant communities present on site are substantially disturbed by grazing and include California sagebrush-deerweed scrub, California sagebrush scrub, cactus scrub, blue elderberry stands, and chaparral yucca scrub. Also present are disturbed areas that are actively disced, developed areas, and non-native woodland. **Table 3.18-1, Vegetation Types and Acreages** shows the vegetation communities on the Project site and the percentage that they cover.

**Table 3.18-1  
Vegetation Types and Acreages**

<b>Vegetation type</b>	<b>Acres*</b>	<b>% of Site</b>
Annual brome grassland	1.35.00	0.47
Annual brome grasslands (Disturbed/Grazed)	152.45	53.54
<b>Total Annual brome grassland</b>	<b>153.79</b>	<b>54.01</b>
<b>Non-native woodland</b>	<b>10.65</b>	<b>3.73</b>
Blue Elderberry Stands	1.62	0.56
Blue Elderberry Stands (Disturbed/Grazed)	5.38	1.88
<b>Total Blue Elderberry Stands</b>	<b>7.00</b>	<b>2.46</b>
California sagebrush-deerweed scrub	23.85	9.20
California sagebrush-deerweed scrub (Disturbed/Grazed)	12.92	4.53
<b>Total California sagebrush-deerweed scrub</b>	<b>39.13</b>	<b>13.74</b>
<b>Cactus Scrub (Disturbed/Grazed)</b>	<b>1.76</b>	<b>0.62</b>
<b>Chaparral yucca scrub (Disturbed/Grazed)</b>	<b>0.43</b>	<b>0.15</b>
<b>Developed</b>	<b>1.44</b>	<b>0.51</b>
<b>Disturbed/Disced</b>	<b>70.53</b>	<b>24.78</b>
<b>TOTAL</b>	<b>284.73</b>	<b>100.00</b>

\* Acreages include the 277.3-acre Project site and off-site improvement areas associated with the development (e.g., roadway connections) as depicted in Section 3.3 Biological Resources, Figure 3.3-2.

Source: Rincon Consultants, Inc., July 2021

### 3.18.1.7 Fire History

Fire History data provides valuable information regarding fire spread, fire frequency, ignition sources, and vegetation/fuel mosaics across a given landscape. One important use for this information is as a tool for pre-planning. It is advantageous to know which areas may have burned recently and therefore may provide a tactical defense position, what type of fire burned on the site, and how a fire may spread. The Fire and Resource Assessment Program (FRAP) summarizes fire perimeter data dating to the late 1800s,

but is incomplete due to the fact that it only includes fires over 10 acres in size and has incomplete perimeter data, especially for the first half of the 20th century. However, the data does provide a summary of recorded fires and can be used to show whether large fires have occurred in the project area.

According to available data from the CAL FIRE in the FRAP database<sup>2</sup>, twenty-nine (29) fires have burned in the vicinity of the Project site since the beginning of the historical fire data record, including the most recent Easy Fire which burned approximately 1,700 acres in October 2019. Recorded wildfires within 5 miles range from 11 acres (2018) to 115,537 acres (1970) and the average fire size is 12,472 acres (not including the 2003 Simi Fire or fires smaller than 10 acres). The Easy Fire (approximately 1,700 acres) is the most recent fire, which occurred approximately five miles east of the Project site (not included in FRAP data based because the fire occurred in October 2019). VCFD may have data regarding smaller fires (less than 10 acres) that have occurred on the site that have not been included herein. Two fires have burned on the Project site, including the 2003 Simi Fire (107,570 acres) and the 2006 Shekell Fire (13,618 acres). **Table 3.18-2, Fire History within Five Miles of the Hitch Ranch Project Site**, and **Figure 3.18-2, Fire History Map**, summarizes the fire history for the area.

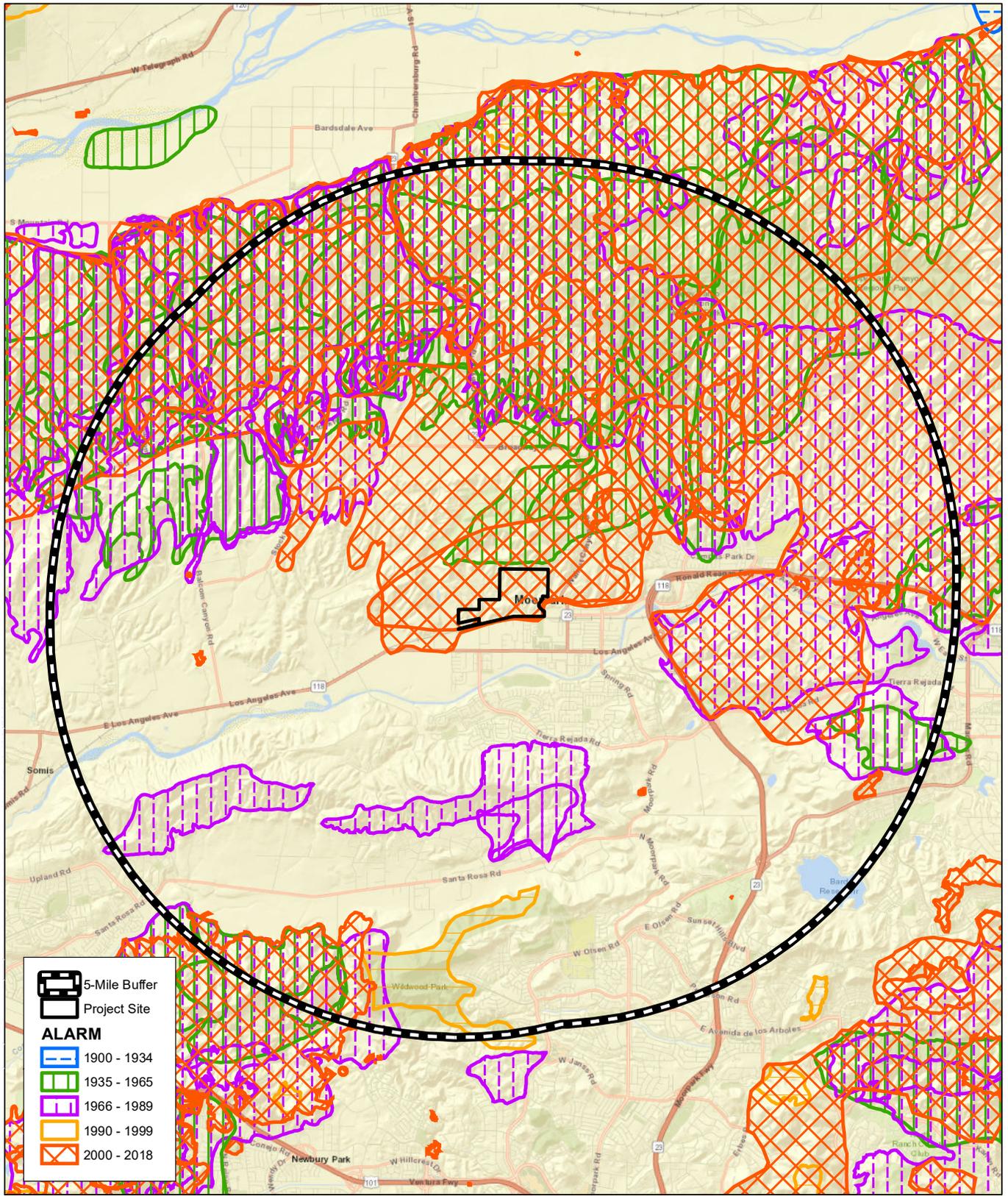
**Table 3.18-2**  
**Fire History within Five Miles of the Hitch Ranch Project Site**

Fire Year <sup>1</sup>	Fire Name	Interval (years)	Total Area Burned (acres)
1940	Camarillo Rifle Range	N/A	1,411
1943	Jones Canyon	3	522
1944	Long Canyon	1	462
1946	Wiley Canyon	2	21,266
1953	Shields Lease	7	11,775
1956	Bl Brush	3	1,595
1957	Simi Valley Ranch	1	468
1958	Santa Rosa	1	1,138
1958	Calumet Canyon	0	17,214
1958	Brea Canyon	0	1,244
1967	Sence Ranch	9	18,354
1970	Clampitt Fire	3	115,537
1973	Santa Rosa	3	424
1976	Arroyo	3	206
1980	Hill Canyon	4	11,975
1984	Grimes Fire	4	11,305
1985	Peach Hill	1	1,992
1987	Tierra	2	759
1995	Wildwood 1	8	799

<sup>2</sup> 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 1878–2018.

Fire Year <sup>1</sup>	Fire Name	Interval (years)	Total Area Burned (acres)
2001	Walnut Incident	6	36
2003	Simi Fire	2	107,570
2006	Shekell	3	13,618
2009	Guiberson	3	17,527
2011	Collins	2	60
2013	Happy Camp	2	45
2015	Princeton	2	44
2018	Collins	3	11
2018	Olsen	0	28
2018	Hill	0	4,310
2019	Easy	0	1,700

<sup>1</sup> CAL FIRE FRAP 2019, Impact Sciences, 2021.



SOURCE: Dudek, BASEMAP-ESRI, FIRE-CALFIRE, 2018

FIGURE 3.18-2

Fire History Map

### 3.18.1.8 Emergency Response and Fire Protection

The Ventura County Fire Protection District (also known as Ventura County Fire Department) provides contract fire protection services to the City, including wildfire protection and suppression.<sup>3</sup>

The City's Emergency Management Division is responsible for the operation of the City's Emergency Operations Center (EOC). The EOC is the focal point for coordination of the City's emergency planning, training, response, and recovery efforts for emergencies and major disasters. The EOC prepares for emergencies and major disasters such as fires, floods, earthquakes, and acts of terrorism.

In addition, the City participates in the Ventura County Multi-Hazard Mitigation Plan, which was last revised in 2015. The Plan assesses the risks posed by natural and human-caused hazards and establishes mitigation strategies for reducing these risks. Hazards addressed include flooding, tsunamis, earthquakes, wildfires, and agricultural biological hazards. Emergency response actions could also be triggered by a hazardous materials incident; water or air pollution; a major transportation accident; water, gas, or energy shortage; a health epidemic; a nuclear accident; or terrorism.<sup>4</sup>

The Project site is located within the jurisdiction of the VCFD. Therefore, the VCFD would provide initial response to the Project site for fire protection and emergency medical services. The VCFD jurisdictional response area encompasses approximately 848 square miles including the cities of Ojai, Port Hueneme, Moorpark, Camarillo, Santa Paula, Simi Valley, and Thousand Oaks, and a population of more than 480,000 people in the unincorporated areas of Ventura County. The VCFD currently operates 33 Fire Stations and consists of a staff of 395 full-time safety (including safety Chief Officers) and 158 full-time non-safety employees.<sup>5</sup>

In addition, the City participates in automatic aid agreements and dropped boundary agreements on first alarm or greater emergency calls with surrounding communities, ensuring that the closest unit will be dispatched, regardless of jurisdictional boundaries. Further, the County has Mutual Aid agreements that allow the Cities to request additional resources from county, state, and federal agencies to meet the needs of a given incident. The VCFD is responsible for the preparation, maintenance, and execution of Fire Preparedness and Management Plans. The County's Emergency Operations Center trains County staff and

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3 City of Moorpark. 2001. 2000-2005 Safety Element, City of Moorpark General Plan. Accessed May 2020. <https://www.moorparkca.gov/DocumentCenter/View/173/Safety-Element?bidId=>

4 County of Ventura. 2015. Ventura County Multi-Hazard Mitigation Plan. <http://www.vcfloodinfo.com/pdf/2015%20Ventura%20County%20Multi-Hazard%20Mitigation%20Plan%20and%20Appendices.pdf>

5 VCFD. 2019. Ventura County Fire Department. <https://vcfd.org/about-vcfd/overview>

outside agencies in their roles and responsibilities and coordinates operations in the event of an emergency or major event or incident. The VCFD is also part of the State of California Master Mutual Aid Agreements.

### 3.18.1.9 Emergency Service Level

The VCFD estimates approximately 44,742 total annual calls (VCFD's 2017 Annual Report) and Ventura County's population of approximately 480,000 (VCFD 2019). The per capita call volume is roughly 0.09 for the County of Ventura. Based on the proposed development plans, the project's estimated 2,333 residents (assumes an average of 3.09 occupants per residence for this type of community (SANDAG 2019) would generate roughly 210 calls per year, most of which are expected to be medical-related calls, consistent with typical emergency call statistics.

Service level requirements are not expected to be significantly impacted with the increase of approximately 210 calls per year or 0.58 calls per day for a station (VCFD Station 42) that currently responds to roughly 3 calls per day (1,130 calls<sup>6</sup> in 2017) in its primary service area. Therefore, the project is not expected to cause a decline in VCFD's emergency response times. Additional response, rounding out the effective firefighting force (the manpower needed to effectively fight a structure fire and/or respond to serious medical emergency) would be provided by Stations 40 and 57. Further information regarding Fire Protection Services can be found in **Section 3.13.2, Fire Protection**.

## 3.18.2 REGULATORY FRAMEWORK

### 3.18.2.1 Federal Laws and Regulations

#### *Robert T. Stafford Disaster Relief and Emergency Assistance Act, as Amended, and Related Authorities*

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 100-707), signed into law on November 23, 1988, amended the Disaster Relief Act of 1974 (Public Law 93-288). The Stafford Act constitutes the statutory authority for most federal disaster response activities especially as they pertain to FEMA and FEMA programs.

#### *Disaster Mitigation Act (DMA) of 2000*

DMA 2000 (Public Law 106-390) provides the legal basis for FEMA mitigation planning requirements for state, local and Indian Tribal governments as a condition of mitigation grant assistance. DMA 2000

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<sup>6</sup> Data derived from VCFD's 2017 annual report which states that there were 2,259 calls within the Moorpark service area. There are two stations within the Moorpark service area, so a rough estimate of 1,130 calls in 2017 was used for Station 42.

amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act by repealing the previous mitigation planning provisions and replacing them with a new set of requirements that emphasize the need for state, local, and Indian Tribal entities to closely coordinate mitigation planning and implementation efforts. The requirement for a state mitigation plan is continued as a condition of disaster assistance, adding incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans. DMA 2000 also established a new requirement for local mitigation plans and authorized up to 7 percent of HMGP funds available to a state for development of state, local, and Indian Tribal mitigation plans.

### ***Federal Response Plan***

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; (2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a Presidential declaration of a major disaster or emergency.

### ***Presidential Policy Directive 8: National Preparedness***

The National Response Framework (NRF) is an essential component of the National Preparedness System mandated in Presidential Policy Directive 8: National Preparedness (PPD-8). PPD-8 is aimed at strengthening the security and resilience of the United States through systematic preparation for the threats that pose the greatest risk to the security of the Nation. PPD-8 defines five mission areas— Prevention, Protection, Mitigation, Response, and Recovery—and mandates the development of a series of policy and planning documents to explain and guide the Nation’s collective approach to ensuring and enhancing national preparedness. The NRF presents the guiding principles that enable all response partners to prepare for and provide a unified national response to disasters and emergencies. It establishes a comprehensive, national, all-hazards approach to domestic incident response. The National Response Plan was replaced by the NRF effective March 22, 2008 and updated most recently in June 2016.

The NRF defines the principles, roles, and structures that organize response protocols as a nation. The NRF:

- Describes how communities, tribes, states, the federal government, private-sectors, and nongovernmental partners work together to coordinate national response;

- Describes specific authorities and best practices for managing incidents; and
- Builds upon the National Incident Management System (NIMS), which provides a consistent template for managing incidents.

### ***Federal Emergency Management Agency (FEMA) Regulation***

FEMA's mission is to reduce the loss of life and property and protect communities nationwide from all hazards, including natural disasters, acts of terrorism, and other man-made disasters. FEMA leads and supports the nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery and mitigation.

In March 2003, the Federal Emergency Management Agency (FEMA) became a department of the U.S. Department of Homeland Security (DHS), pursuant to 44 CFR, Chapter 1 Part 201. The primary mission of FEMA is to reduce the loss of life and property and protect the nation from all hazards, including natural disasters, acts of terrorism, and other human-made disasters, by leading and supporting the nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation. The project is under the jurisdiction of FEMA Region 9, which covers Arizona, California, Hawaii, Nevada, Guam, American Samoa, Commonwealth of Northern Mariana Islands, Republic of Marshall Islands, Federated State of Micronesia, and more than 150 sovereign tribal entities. In Southern California, FEMA Region 9 specifically plans for hazards such as major earthquakes and wildfires. A catastrophic earthquake could result in 1,800 fatalities, 9 million people displaced, and \$200 billion in losses.

### ***National Fire Plan***

The Department of the Interior's National Fire Plan is intended to ensure an appropriate federal response to severe wildland fires, reduce fire impacts to rural communities, and ensure sufficient firefighting capacity in the future. The plan addresses five key points: Firefighting, Rehabilitation, Hazardous Fuels Reduction, Community Assistance, and Accountability. The Rural Fire Assistance program is funded to enhance the fire protection capabilities of rural fire districts and safe and effective fire suppression in the wildland/urban interface. The program promotes close coordination among local, state, tribal, and federal firefighting resources by conducting training, equipment purchase, and prevention activities on a cost-shared basis.

### ***National Fire Protection Association (NFPA) 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. 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 laws 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.

### ***Federal Wildland Fire Management Policy***

The Federal Wildland Fire Management Policy was developed in 1995, updated in 2001, and again in 2009 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 acknowledgement 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, found in the Guidance for Implementation of Federal Wildland Fire Management Policy.<sup>7</sup>

- Firefighter and public safety is the first priority in every fire management activity.
- The role of wildland fire 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.

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<sup>7</sup> National Wildfire Coordinating Group. 2009. *Guidance for Implementation of Federal Wildland Fire Management Policy*. February 13, 2009.

- 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.

### ***International Fire Code***

Created by the International Code Council, the International Fire Code (IFC) 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 IFC places an emphasis on prescriptive and performance-based approaches to fire prevention and fire protection systems. Updated every 3 years, the IFC uses a hazards classification system to determine the appropriate measures to be incorporated to protect life and property (often times these measures include construction standards and specialized equipment). The IFC uses a permit system (based on hazard classification) to ensure that required measures are instituted (International Code Council 2017).

### ***International Wildland–Urban Interface Code***

The International Wildland–Urban Interface Code is published by the International Code and is a model code addressing wildfire issues.

#### **3.18.2.2 State**

### ***California Department of Forestry and Fire Protection (Cal Fire)***

Cal Fire protects the people of California from fires, responds to emergencies, and protects and enhances forest, range, and watershed values providing social, economic, and environmental benefits to rural and urban citizens. Cal Fire’s firefighters, fire engines, and aircraft respond to an average of more than 5,600 wildland fires each year. The Office of the State Fire Marshal supports Cal Fire’s mission by focusing on fire prevention. It provides support through a wide variety of fire safety responsibilities including by regulating buildings in which people live, congregate, or are confined; by controlling substances and products which may, in and of themselves, or by their misuse, cause injuries, death, and destruction by fire; by providing statewide direction for fire prevention in wildland areas; by regulating hazardous liquid pipelines; by reviewing regulations and building standards; and by providing training and education in fire protection methods and responsibilities.

### ***California Health and Services Code***

Fire regulations for California are established in Sections 13000 et seq. of the California Health and Services Code and include regulations for structural standards (similar to those identified in the California Building Code); fire protection and public notification systems; fire protection devices such as extinguishers and smoke alarms; standards for high-rise structures and childcare facilities; and fire suppression training. The State Fire Marshal is responsible for enforcement of these established regulations and building standards for all state-owned buildings, state-occupied buildings, and state institutions within California.

### ***California Fire Plan***

The Fire Plan is a cooperative effort between the State Board of Forestry and Fire Protection and the California Department of Forestry and Fire Protection. By placing the emphasis on what needs to be done long before a fire starts, the Fire Plan looks to reduce firefighting costs and property losses, increase firefighter safety, and to contribute to ecosystem health. The current plan was finalized in the summer of 2018.

### ***California Public Resources Code***

Fire Hazard Severity Zones – Public Resources Code Sections 4201–4204 Public Resources Code (PRC) Sections 4201–4204 and Government Code Sections 51175–89 direct Cal Fire to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as fire hazard severity zones (FHSZ), define the application of various mitigation strategies to reduce risk associated with wildland fires.

California Public Resource Code Section 4290 requires minimum fire safety standards related to defensible space that are applicable to residential, commercial, and industrial building construction in State Responsibility Area lands and lands classified and designated as Very High FHSZs. These regulations include road standards for fire apparatus access, standards for signs identifying roads and buildings, fuel breaks and green belts, and minimum water supply requirements. It should be noted that these regulations do not supersede local regulations which equal or exceed minimum regulations required by the state.

Public Resource Code Section 4291 requires a reduction of fire hazards around buildings located adjacent to a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands or land that is covered in flammable material. It is required to maintain a minimum 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. Further, PRC 4291 requires the removal of dead or dying vegetative materials from the roof of a structure, and trees and shrubs must be trimmed from within 10 feet of the

outlet of a chimney or stovepipe. Exemptions may apply for buildings with an exterior constructed entirely of nonflammable materials.

### ***California Fire Code***

The 2016 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety for and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas.

### ***California Building Code***

Part 2 of Title 24 contains the California Building Code (CBC). Chapter 7A of the CBC regulates to building materials, systems, and/or assemblies used in the exterior design and construction of new buildings located within a wildland–urban interface fire area. The purpose of this Chapter is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any FHSZ within a State Responsibility Area or a wildland–urban interface fire area to resist the intrusion of flames or burning embers projected by a vegetation fire, and to contribute to a systematic reduction in conflagration losses. New buildings located in such areas must comply with the ignition-resistant construction standards outlined in CBC Chapter 7A.

The VHFHSZ designation on the Project site would require buildings to implement ignition-resistive construction and provide up to 200-feet of defensible space (treated, maintained vegetation) between structures and open space areas. Since the entire Proposed Project site is classified as VHFHSZ, the requirements of Chapter 7A of the 2019 California Building Code (CBC), or then current edition, would apply to all project buildings.

### ***Title 14 Natural Resources***

Title 14, Division 1.5, Chapter 7, Subchapter 3, Fire Hazard, also sets forth requirements for defensible space if the distances specified above cannot be met. For example, options that have similar practical effects include noncombustible block walls or fences, 5 feet of noncombustible material horizontally around the structure, installing hardscape landscaping or reducing exposed windows on the side of the structure with

a less-than-30-foot setback, or additional structure hardening such as those required in the California Building Code (CBC), California Code of Regulations Title 24, Part 2, Chapter 7A.

### ***Senate Bill 1241***

In 2012, Senate Bill 1241 added Section 66474.02 to Title 7 Division 2 of the California Government Code, commonly known as the Subdivision Map Act. The statute prohibits subdivision of parcels designated very high fire hazard, or that are in a State Responsibility Area, unless certain findings are made prior to approval of the tentative map. The statute requires that a city or county planning commission make three new findings regarding fire hazard safety before approving a subdivision proposal. The three findings are, in brief: (1) the design and location of the subdivision and its lots are consistent with defensible space regulations found in PRC Section 4290-91, (2) structural fire protection services will be available for the subdivision through a publicly funded entity, and (3) ingress and egress road standards for fire equipment are met per any applicable local ordinance and PRC Section 4290.

### ***California Disaster Assistance Act (CDAA)***

The California Disaster Assistance Act (CDAA; CCR Title 19, Chapter 6) authorizes the Director of the California Governor’s Office of Emergency Services (Cal OES) to administer a disaster assistance program that provides financial assistance from the state for costs incurred by local governments as a result of a disaster event. Funding for the repair, restoration, or replacement of public real property damaged or destroyed by a disaster is made available when the Director concurs with a local emergency proclamation requesting state disaster assistance.

### ***California Emergency Services Act (AB 38)***

AB 38 gave Cal EMA responsibility for overseeing and coordinating emergency preparedness, response, recovery, and homeland security activities in the state. The Governor’s Office of Emergency Services (OES) mission statement is “Protect lives and property, build capabilities, and support our communities for a resilient California.” OES goals include:

- **Goal 1:** Anticipate and enhance prevention and detection capabilities to protect our State from all hazards and threats.
- **Goal 2:** Strengthen California’s ability to plan, prepare for, and provide resources to mitigate the impacts of disasters, emergencies, crimes, and terrorist events.
- **Goal 3:** Effectively respond to and recover from both human-caused and natural disasters.

- **Goal 4:** Enhance the administration and delivery of all state and federal funding, and maintain fiscal and program integrity.
- **Goal 5:** Develop a united and innovative workforce that is trained, experienced, knowledgeable, and ready to adapt and respond.
- **Goal 6:** Strengthen capabilities in public safety communication services and technology enhancements.

### ***2018 State Hazard Mitigation Plan (SHMP)***

Approved by FEMA in September 2018, as an Enhanced State Mitigation Plan, the 2018 SHMP update continues to build upon California’s commitment to reduce or eliminate the impacts of disasters caused by natural, technological, accidental, and adversarial/human-caused hazards, and further identifies and documents progress made in hazard mitigation efforts, new or revised state and federal statutes and regulations, and emerging hazard conditions and risks that affect the State of California. Resilience depends on the whole community and is a shared responsibility for all levels of government, private and nonprofit sectors, and individuals.

### ***Utility Wildfire Mitigation Plans (SB 901)***

After record-breaking drought in California from 2011 to 2017, perfect wildfire conditions allowed faulty PG&E utility lines to spark devastating fires that would scorch over 4,000 square miles of land across the state. In response to the deadly season, the California Legislature developed SB 901 as the “centerpiece measure” in its attempt to rectify damages from the 2017 wildfires and prevent future wildfire disasters. SB 901 mandates all electric utilities to prepare and submit wildfire mitigation plans that describe the utilities’ plan to prevent, combat, and respond to wildfires affecting their service territories. The California Public Utilities Commission (CPUC) will review and refine the plans before implementing and enforcing them. In the short-term, SB 901 allows PG&E to lean on its customers in paying for billions of dollars in fire-related damages. It also provides over \$1 billion for vegetation management over five years.<sup>8</sup>

### ***Forestry and Fire Prevention: Joint Prescribed Burning Operation (AB 2551)***

Approved in 2018, AB 2551 authorizes CAL Fire to collaborate with private landowners on controlled burns to reduce wildfire fuel. Mismanagement of the forests can lead to a build-up of forest underbrush that serves as a perfect fuel for wildfires. By allowing small, non-industrial landowners to choose to individually

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<sup>8</sup> California Public Utilities Commission (CPUC). *Utility Wildfire Mitigation Plans (SB 901)*. Available online at: <http://cpuc.ca.gov/SB901/>, accessed May 21, 2019.

implement various fire prevention programs, such as prescribed burns, AB 2551 promotes good, local forest management in the state.

### ***Price Gouging: State of Emergency (AB 1919)***

AB 1919 was one of the bills introduced to deal with insurance issues relating to, or originating from, wildfire. The bill prohibits landlords from increasing rental housing rates by more than 10 percent in the wake of a designated emergency. For renters affected by wildfire, a substantial increase in housing rates could be devastating and has the potential to result in homelessness. By stabilizing rental rates, AB 1919 protects current and future renters from being charged unfair prices in the wake of a disaster.

### ***Forest Resources: Fire Prevention Grant Fees (SB 1079)***

SB 1079 builds from existing laws establishing grants to private entities, Native American tribes, and public agencies to assist in the implementation and administration of projects and programs relating to improving forest health and reducing GHG emissions. SB 1079 authorizes CAL Fire to make advance payments to grantees (such as fire safe councils, Native American tribe, or special district), which receive funds from the healthy forest and local fire-prevention grant programs.

### ***California Strategic Fire Plan***

The 2018 Strategic Fire Plan for California reflects CAL FIRE's focus on (1) fire prevention and suppression activities to protect lives, property, and ecosystem services, and (2) natural resource management to maintain the state's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation. The Strategic Fire Plan for California provides a vision for a natural environment that is more fire resilient; buildings and infrastructure that are more fire resistant; and a society that is more aware of and responsive to the benefits and threats of wildland fire; all achieved through local, state, federal, tribal, and private partnerships.<sup>9</sup> Plan goals include the following:

1. Identify and evaluate wildland fire hazards and recognize life, property and natural resource assets at risk, including watershed, habitat, social and other values of functioning ecosystems. Facilitate the collaborative development and sharing of all analyses and data collection across all ownerships for consistency in type and kind.

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<sup>9</sup> CAL FIRE (California Department of Forestry and Fire Protection). 2018. 2018 *Strategic Fire Plan for California*. August 22, 2018.

2. Promote and support local land use planning processes as they relate to: (a) protection of life, property, and natural resources from risks associated with wildland fire, and (b) individual landowner objectives and responsibilities.
3. Support and participate in the collaborative development and implementation of local, county and regional plans that address fire protection and landowner objectives.
4. Increase fire prevention awareness, knowledge and actions implemented by individuals and communities to reduce human loss, property damage and impacts to natural resources from wildland fires.
5. Integrate fire and fuels management practices with landowner/land manager priorities across jurisdictions.
6. Determine the level of resources necessary to effectively identify, plan and implement fire prevention using adaptive management strategies.
7. Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.
8. Implement post-fire assessments and programs for the protection of life, property, and natural resource recovery.

### ***Mutual Aid Agreements***

The California Disaster and Civil Defense Master Mutual Aid Agreement, as provided by the California Emergency Services Act, provides statewide mutual aid between and among local jurisdictions and the state. The statewide mutual aid system exists to ensure that adequate resources, facilities, and other supports are provided to jurisdictions whenever resources prove to be inadequate for a given situation. Each jurisdiction controls its own personnel and facilities but can give and receive help whenever needed. The VCFD participates in these mutual aid, automatic aid and other agreements with surrounding fire departments. In some instances, the closest available resource may come from another fire department.

#### **3.18.2.2 Local**

The Proposed Project would be subject to state and federal agency planning documents described above, as well as the regional or local planning documents such as the Ventura County General Plan, City of Moorpark General Plan, the Ventura County Municipal Code, or the City of Moorpark Municipal Code. In

addition to the relevant plans, policies, and ordinances identified below, Section 3.13, Public Services, of this EIR provides information on the City's fire protection services.

### ***County of Ventura General Plan***

As indicated above, implementation of the fire hazard reduction goals and policies set forth in the Ventura County General Plan is Policy 6.1 of the Moorpark General Plan Safety Element. Therefore, the following goals and policies from the Ventura County General Plan Hazards Element have been included. The Hazards Element of the Ventura County General Plan contains a Fire Hazards chapter. The Fire Hazards chapter focuses on the rural or wildland areas of the County. The goals and policies that apply to fire hazards and may be applicable the project are as follows.

#### **Goals**

1. Minimize the risk of loss of life injury, damage to structures, and economic and social dislocations resulting from fire hazards.
2. Ensure that development in high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards.

#### **Policies**

1. All applicants for discretionary permits shall be required, as a condition of approval, to provide adequate water supply and access for fire protection and evacuation purposes.
2. All discretionary permits in fire hazard areas shall be conditioned to include fire-resistant vegetation, cleared firebreaks, or a long-term comprehensive fuel management program as a condition of approval. Fire hazard reduction measures shall be incorporated into the design of any project in a fire hazard area.
3. New residential subdivisions shall provide not less than two means of access for emergency vehicles and resident evacuation. A deviation from this policy is only allowed when the proposed road conforms to the County Road Standards and when the County Fire Chief approves the proposed road.
4. All applicants for subdivisions, multi-unit residential complexes, and commercial and industrial complexes shall be required to obtain, prior to permit approval, certification from the Fire Protection District that adequate fire protection is available, or will be available prior to occupancy.

### ***Ventura County Municipal Code***

Per Section 5111, Ventura County Fire Code, the Ventura County Code of Ordinances adopts by reference the 2019 California Fire Code, portions of the 2018 International Fire Code, and portions of Title 19 of the California Code of Regulations, with additions, deletions, and amendments. A county, city, or county and city may establish more restrictive building standards reasonably necessary because of local, climatic, geological, or topographical conditions.

### ***Ventura County Multi-Hazard Mitigation Plan***

The City of Moorpark is a participating jurisdiction in the Ventura County Multi-Hazard Mitigation Plan, which assesses the risks posed by natural and human-caused hazards and establishes a mitigation strategy for reducing these risks. Hazards addressed include flooding, tsunamis, earthquakes, wildfires, and agricultural biological hazards. Emergency response actions could also be triggered by a hazardous materials incident; water or air pollution; a major transportation accident; water, gas, or energy shortage; a health epidemic; a nuclear accident; or terrorism. Section 4 of the Plan identifies potential hazards faced by the County, including wildfires and post-fire debris flow.

### ***Ventura County Fire Department***

The Ventura County Fire Department is responsible for the protection of lives and property within its area of jurisdiction, which includes the City of Moorpark. The Department sets fire prevention standards and guidelines, such as Fire Hazard Reduction Program.

### ***City of Moorpark General Plan***

The Safety Element addresses safety issues arising from both naturally occurring and human-caused conditions, and presents goals and policies focused on reducing the potential risk of death, injuries, property damage, and economic and social dislocation resulting from hazards. Fire hazards are included as a public safety and service issue relevant to the City. The following goals and policies related to fire hazards may be applicable to the project.

**Goal 6.0:** Reduce the risk to the community from hazards related to wildfires and structural fires.

**Policy 6.1:** Continue to implement the fire hazard reduction goals and policies set forth in the Ventura County General Plan.

- Policy 6.2:** Develop education and mitigation strategies that focus on enhanced hazards in the months of August, September and October, when dry vegetation and Santa Ana winds coexist.
- Policy 6.3:** Continue to require noncombustible roofing materials for new and replacement roofing.
- Policy 6.4:** Continue a public education through the County Fire Protection District's Community Education/Public Information Division to inform residents as to how they can help reduce fire hazards.

### *City of Moorpark Municipal Code*

Section 15.08.060 of the Moorpark Municipal Code adopts Chapter 36 of the California Building Code, which addresses fire hazard zone requirements. Certain locations within the incorporated areas of the City of Moorpark shall be classified as High Fire Hazard by the VCFPD. The High Fire Hazard Area is defined as any area within 500 feet of uncultivated brush, grass, or forest-covered land wherein an authorized representative of said district determines that a potential fire hazard exists due to the presence of such flammable growth. Minimum construction building requirements in the High Fire Hazard Areas are outlined within Section 15.08.060.

### **3.18.3 THRESHOLDS OF SIGNIFICANCE**

According to Appendix G of the *State CEQA Guidelines* (Environmental Checklist Form), a project located in or near state responsibility areas or lands classified as very high fire hazard severity zones could have a significant impact when it would:

- Substantially impair an adopted emergency response plan or emergency evacuation plan.
- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

### 3.18.4 ENVIRONMENTAL IMPACTS

**Impact WIL-1                    Substantially impair an adopted emergency response plan or emergency evacuation plan.**

*Less than Significant Impact*

The Proposed Project would result in the development of a currently undeveloped area, including the development of site access. The Project site would be accessible from public roadways and access into the site would be provided via four entrances for vehicles and pedestrians.

The City of Moorpark does not currently have any specifically designated emergency evacuation routes.<sup>10</sup> However, the proposed circulation improvements to be implemented under the Hitch Ranch Specific Plan would provide additional access for potential movement of emergency equipment for locations north, east and west of the Project site. The proposed circulation improvements would provide alternative east/west access via the Casey Road, High Street, and “A” Street extensions, and ultimately via the four-lane arterial North Hills Parkway proposed through the central portion of the Project site once it has been constructed. Implementation of the Proposed Project would increase emergency access to the Project site and nearby uses.

The project would be required to comply with the County’s development review process, including review for compliance with the Ventura County Fire Apparatus Access Code - Ordinance 29 as well as compliance with applicable emergency access standards that would facilitate emergency vehicle access during project construction and operation. Additionally, an adequate water supply and an approved paved access roadway shall be installed prior to any combustibles on site.

The Project Applicant would be required to design, construct, and maintain structures, roadways, and facilities to comply with applicable local, regional, state, and federal requirements related to emergency access. Drive aisles, turning radii, and all access points would be designed with adequate emergency access. The project would be required to provide fire apparatus turnarounds on all dead-end fire apparatus access roadways over 150 feet in length, although the Fire Code Official is authorized to increase the length of a dead-end fire apparatus access roadway to a length of 250 feet, and provide a 40-foot horizontal turning

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<sup>10</sup> Three eastern Ventura County’s cities, Thousand Oaks, Simi Valley and Moorpark, have begun work on developing a joint regional evacuation plan for natural disasters such as wildfires and earthquakes. The plan will include the creation and implementation of a regional evacuation plan and procedures, including training for city and partner agency staff. The partner agencies are the Ventura County Sheriff’s Office, which authorizes evacuations, and the Ventura County Fire Department. More information available on the Ventura County Star’s website online at: <https://www.vcstar.com/story/news/local/2021/08/18/evacuation-plan-natural-disasters-gets-boost-east-ventura-county-cities/8148908002/>, published August 18, 2021.

radius of a fire apparatus access road, measured at the center line of the access road. All access roadways designed for one-way traffic shall have an unobstructed width of not less than 20 feet; all access roadways designed for two-way traffic shall have an unobstructed width of not less than 24 feet. Fire access roadways designed to allow parking shall provide a minimum clear width of not less than 32 feet for parking on one side and a clear width of not less than 36 feet for parking on both sides. All fire access roadways would have a vertical clearance of not less than 13 feet 6-inches for the full road width to allow access for fire apparatus. The proposed site plan is subject to approval by the County and the VCFD. Further, the project would be required to provide walking access to the rear of buildings, and ladder access for any windows facing the rear of the buildings.

The City of Moorpark, the County of Ventura, and the VCFD will review proposed modifications to existing roadways to ensure that adequate emergency access or emergency response would be maintained. Additionally, emergency response procedures would be coordinated through the County in coordination with the police and fire departments. Adherence to these requirements would ensure that that the project would not result in inadequate emergency access. No mitigation is required, and impacts would be less than significant.

**Impact WIL-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.**

*Less than Significant Impact with Mitigation*

The Project could result in an impact related to exacerbating wildfire risk and exposing project occupants to pollutant concentrations from a wildfire or the uncontrollable spread of a wildfire if it would increase the risk of a wildfire occurring and the climatic, topographic, vegetation, weather conditions, and other factors that aid in increasing the severity of such an occurrence.

**Construction**

Project construction would introduce potential ignition sources to the Project site, including the use of heavy machinery and the potential for sparks during welding activities or other hot work. However, the Project would be required to comply with City, State and VCFD requirements for construction activities in hazardous fire areas, including fire safety practices, to reduce the possibility of fires during construction activities. Further, the project would be subject to additional requirements, as required by VCFD, such as limiting or ceasing construction work during high-wind weather events. Additionally, as outlined in **Mitigation Measure WF-1**, vegetation management requirements would be implemented at the start of and would continue throughout all phases of construction, and combustible materials would not be

brought on site until site improvements (e.g., utilities, access roads, fire hydrants, fuel modification zones) have been implemented and approved by VCFD. Additionally, all new permanent power lines would be undergrounded for fire safety purposes. The pre-construction requirements outlined in **Mitigation Measure WF-1** would reduce the risk of wildfire ignition and spread on the Project site during construction activities. Vegetation management would also reduce the risk of wildfire spreading from within the active construction areas to offside fuel beds. Provided site improvements and vegetation management requirements are appropriately implemented and approved by VCFD, construction activities are not anticipated to exacerbate wildfire risk such that project workers would be exposed to the uncontrolled spread of a wildfire or pollutant concentrations from a wildfire. Therefore, with implementation of **Mitigation Measure WF-1**, construction impacts would be less than significant.

## Operation

The project includes the development of approximately 755 residential dwelling units, open space and recreational uses on approximately 277.30 acres in an area considered a VHFHSZ (see **Figure 3.18-1**). The Project site currently includes a variety of vegetation that could serve as potential fuel sources. Existing potential ignition sources near the Project site include surrounding roadways and vehicles, the Union Pacific Railroad right of way (ROW), off-site commercial areas, off-site residential neighborhoods, and arson related ignitions. Development of the project would introduce new potential sources of ignition to the Project site, including increased human activity on the Project site and additional vehicles traveling on internal and external roads. Due to the project's location in a VHFHSZ, the project would be required to design, construct, and maintain structures, roadways, and facilities in compliance with applicable local, regional, state, and federal requirements related to fire safety, emergency access, and evacuation, as well as building materials, setbacks, and defensible space requirements for development in fire hazard areas. The local, state, and federal rules, regulations, and policies set forth minimum standards for development strategies, building materials, and systems and fire prevention strategies for development in the wildland-urban interface and fire hazard areas to reduce the risk of wildfire damage and losses.

The FPP prepared for the project (included as Appendix 3.18) analyzes the wildland fire risk in the vicinity of the Project site and determined that wildfires may occur in wildland or naturally vegetated areas north of the Project site and in areas off-site to the west, east, and northeast. The closest off-site fuels that form large fuel beds are located north of the site. Further, as shown in **Figure 3.18-2**, multiple wildfires have burned within a 5-mile radius of the Project site, and two recent wildfires have burned onto the Project site (2005 Shekell Fire and 2003 Simi Fire). As part of the FPP, fire behavior modeling was conducted (using BehavePlus software package) to document the type and intensity of fire that would be expected to occur from west, north and east/northeast of the Project site. Pre- and post-Project site characteristics considered

in fire behavior modeling inputs (i.e. topography, vegetation, and weather) and modeling results are further discussed below.

### *Slope*

The Project site is currently undeveloped and vacant, consisting of naturally vegetated slopes and disturbed land. The topography ranges from moderately steep to relatively flat, and is highly variable with elevations ranging from approximately 475 to 720 feet above mean sea level (amsl). Topography and slope variations can influence surface winds, which impact wildfire behavior. While the topography of the Project site is highly variable, ranging from moderately steep slopes to relatively flat, the Project site does not include topography that would create unusual weather conditions. Once developed, the Project site would be graded and developed with roadways, residential and recreational uses. Open space areas that would remain would include landscaping improvements, including fuel modification zones (further discussed below), and recreational areas.

### *Prevailing Winds*

The prevailing wind pattern in the project area is from the west (on-shore), but a diurnal wind pattern results in winds from the west-southwest (Pacific Ocean) during the day and winds from the northeast (inland) at night, averaging 2 miles per hour (mph). During the summer season, the diurnal winds may average slightly higher speeds (approximately 19 mph) than the winds during the winter season due to greater pressure gradient forces. However, the Project site is subject to periodic extreme fire weather conditions that occur throughout Ventura County, associated with drought conditions and Santa Ana winds, when wind speeds may exceed 50 mph.

### *Vegetation Management and Setbacks*

As shown in **Table 3.18-1**, the majority of the site is covered in annual brome grassland, coyote brush scrub, and California sagebrush-deerwood, in addition to nonnative woodland and non-vegetated areas. Variations in vegetative cover type and species composition have a direct effect on fire behavior. For example, grasses produce lower intensity, higher spread rate fires, while California sagebrush scrub can produce higher heat intensity and higher flame lengths under strong, dry wind patterns, but does not typically ignite or spread as quickly as light, flashy grass fuels. When modeling fire behavior the corresponding fuel models for each of these vegetation types are designed to capture these differences.

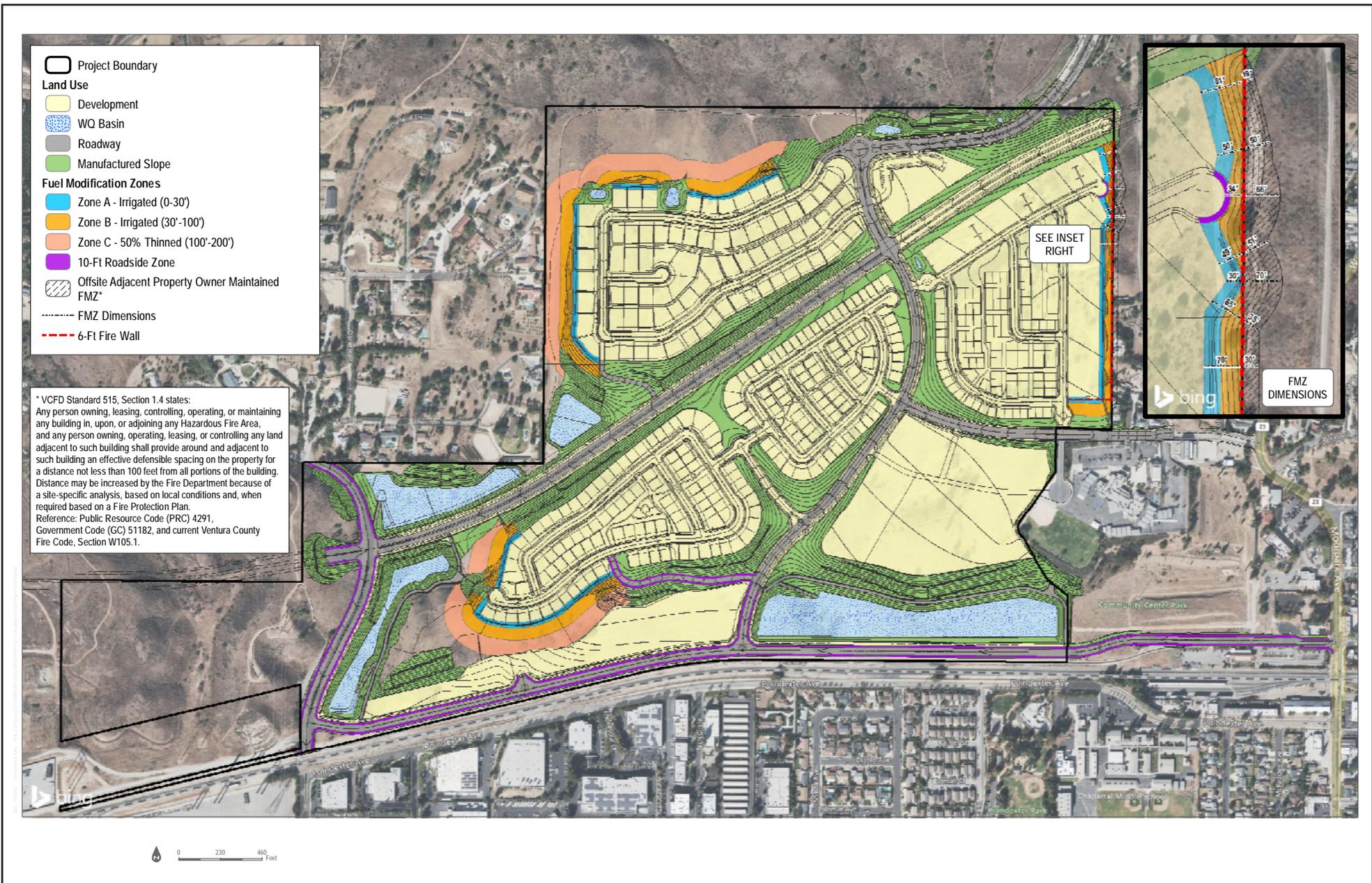
While development of approximately 755 dwelling units, open space and recreational uses would introduce new potential ignition sources to the Project site, the site would be largely converted from readily ignitable fuels to structures and landscaped areas, consisting of ignition resistant building materials and

an ignition resistant plant palette. The project would be developed according to all existing building codes and fire codes, as indicated in the Ventura County Fire Code (Ventura County Municipal Code Section 5111, Ordinance No. 31), which adopts the 2019 California Fire Code, and the City's fire hazard zone requirements (Moorpark Municipal Code Section 15.08.060). These codes include provisions for fuel modification and defensible space for fire prevention and safety.

While the project would convert readily ignitable fuels to structures and maintained landscaped areas, the project would be exposed to naturally-vegetated open space areas to the northern, eastern, and western portions of the site. The remainder of the Project site would be adjacent to residential communities to the northwest, south, and east, and commercial buildings to the south. Fuel modification zones (FMZs) would be implemented in areas adjacent to open space, in accordance with the VCFD's Ordinance 31 Appendix W, VCFD Standard 515 – Defensible Space and Fuel Modification Zones and Standard 517 – Application of Mulch and Chips in Defensible Space, including all manufactured and maintained slopes.

As required by the Fire Code, a FMZ is a strip of land where combustible vegetation has been removed and/or modified and partially or totally replaced with more adequately spaced, drought-tolerant, fire resistant plants in order to provide a reasonable level of protection to structures from wildland fire. Per VCFD standards, which are consistent with the 2019 California Fire Code (Section 4907 – Defensible Space), Government Code 51175 – 51189, and Public Resources Code 4291A, a FMZ is required around every building that is designed primarily for human habitation or use within a VHFHSZ. A typical landscape/fuel modification installation per the County's Fire Code consists of a 30-foot-wide irrigated zone (Zone A) and a 70-foot wide irrigated zone (Zone B) for a total of 100 feet in width on the periphery of the Project site, beginning at the structure. An additional 100-foot wide thinning zone (Zone C) is required for the areas adjacent to natural-vegetated, open space areas, such as is found north of the Project site.

The proposed fuel modification plan for the project is shown in **Figure 3.18-3, Conceptual Fuel Modification Plan**, including a minimum 30-foot wide limited planting area (Zone A), a minimum 70-foot wide limited planting area (Zone B), and a minimum 100-foot wide 50% thinning zone (Zone C), where feasible. In locations where the project abuts open space and where implementable, the project would include up to 200-feet of FMZ (including Zones A, B, and C) between the natural open space area and on-site structures.



SOURCE: Dudek, 2021.

FIGURE 3.18-3

Conceptual Fuel Modification Plan

Due to site constraints, it is not feasible to achieve the standard FMZ width on the entirety of the eastern property boundary. The project's eastern property line can only provide an area between 68 and 121 feet of structural setback from off-site fuel beds. Where the eastern property boundary abuts existing development, additional fire protection measures would not be required. However, where the Project site abuts open space areas and achievable FMZs are less than 100 feet, additional measures would be required to mitigate the non-conforming fire related threats and proposed reduced fuel modification zones. In order to provide compensating structural protection in the absence of a 100-foot wide FMZ, and in addition to the structures being built to the latest ignition-resistant codes, **Mitigation Measure WF-2** would require window upgrades in exceedance of code requirements to be implemented on the side of structures abutting open space areas to reduce the risk of structural loss or damage due to a wildfire. These measures are customized for the Project site based on the analysis results and focus on providing the functional equivalency of a County-defined, full FMZ. A 10-foot wide roadside FMZ along each side of the Project roads adjacent to the open space would be implemented as well. Fuel modification would occur throughout the Project site prior to construction and the Hitch Ranch Homeowner's Association (HOA) would conduct annual fuel modification (or more often, as determined by VCFD) to reduce the potential for fire ignition and spread.

Further, in accordance with **Mitigation Measure WF-3**, project landscaping would be implemented according to the VCFD Fire Hazard Reduction Program Plant Reference Guide and the VCFD Prohibited Plant List identified in the mitigation measure (as recommended by the Hitch Ranch Fire Protection Plan, Appendix 3.18).

### ***Building Materials and Other Factors***

The Project would be developed according to all existing building codes and fire codes, as indicated in the Ventura County Fire Code (Ventura County Municipal Code Section 5111, Ordinance No. 31), which adopts the 2019 California Fire Code, and the City's fire hazard zone requirements (Moorpark Municipal Code Section 15.08.060). These codes include provisions for building materials, infrastructure, and defensible space, site access, and fire protection systems (e.g., water, fire flow, fire hydrants, interior fire sprinklers). All new structures within the project would be constructed in accordance with Ventura County Fire Code, VCFD's Ordinance 31, and 2019 CFC standards. Each of the proposed dwelling units would comply with the enhanced ignition-resistant construction standards of the 2019 California Building Code (Chapter 7A). These requirements address roofs, eaves, exterior walls, vents, appendages, windows, and doors and result in hardened structures that have been proven to perform at high levels (resist ignition) during the typically short duration of exposure to burning vegetation from wildfires.

Further, infrastructure, such as Project roads, water service, fire hydrants, and automatic fire sprinkler systems would be implemented in accordance VCFD Fire Ordinance Standards (VCFD Ordinance No. 31), and nationally accepted fire protection standards, as well as additional requirements (**Mitigation Measure WF-2**) to assist in providing reasonable on-site fire protection.

### ***Fire Behavior Modeling***

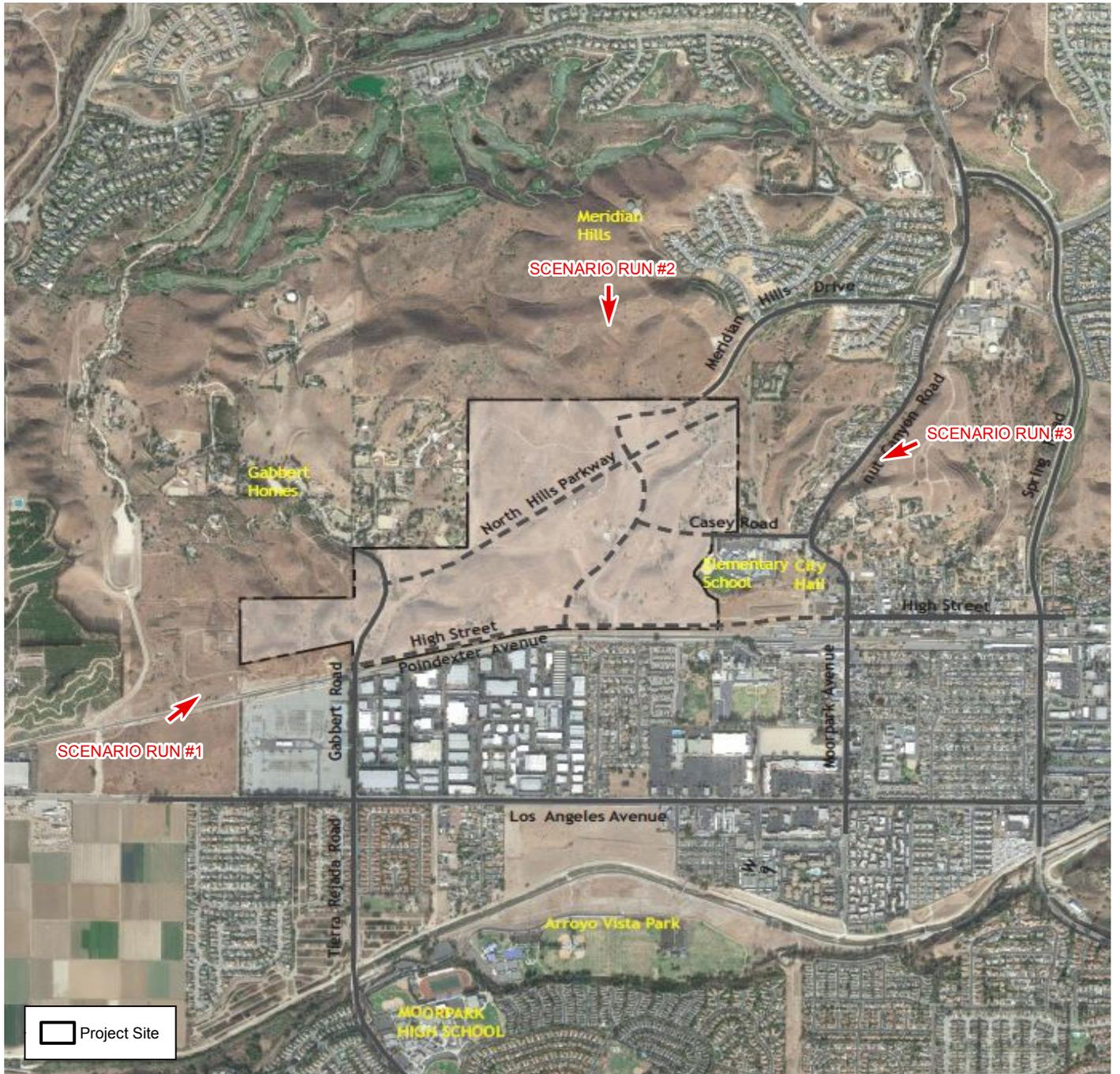
As presented in the FPP, fire behavior modeling was conducted for pre- and post-Project conditions to document the type and intensity of fire that would be expected to occur on and adjacent to the Project site given site characteristics (i.e., topography, vegetation, and weather). Three fire scenarios were evaluated for pre- and post-project conditions: a summer, onshore weather condition with a fire approaching from the west (Scenario 1) and two extreme fall, offshore weather conditions with a fire approaching from north (Scenario 2) and east/northeast (Scenario 3). The location and direction of each fire modeling scenario is presented in **Figure 3.18-4, Fire Modeling Scenarios**.

#### **Pre-Project Conditions**

**Table 3.18-3** presents the fire behavior modeling results for the anticipated fire behavior under pre-project conditions. As presented, wildfire behavior on the Hitch Ranch Project site is expected to be primarily of moderate to high intensity throughout the non-maintained grass dominated fuels north and northeast of the Proposed Project site. Worst-case scenario fire behavior is expected to occur in the non-maintained grass north and northeast of the Project site under peak weather conditions (represented by Fall Weather, Scenarios 2 and 3). A worst-case scenario fire would be anticipated to be a wind-driven fire from the north/northeast during the fall. Under such conditions, with wind speeds reaching over 50 mph, surface flame lengths would be expected to reach 74 feet, with fast spread rates of 20 mph and spotting distances of up to 3.5 miles away.

#### **Post-Project Conditions**

**Table 3.18-4** presents the fire behavior modeling results under post-project conditions. Under post-project conditions, fires burning into brush thinning zones of the proposed FMZs are expected to be less intense and generate lower flame lengths. As presented in **Table 3.18-4**, upon reaching FMZ Zone C, a worst-case scenario fire (Scenarios 2 and 3) would be expected to produce flames lengths up to approximately 18 feet with relatively slow spread rates of 2.1 mph and a potential spotting distance of up to 1.3 miles away. The 74-foot flame lengths predicted for non-native grassland fuels during pre-treatment modeling for fire scenarios 2 and 3 are reduced to approximately 18 feet by the time FMZ (Zone C) is reached and to approximately three-feet by the time FMZ (Zones A and B) are reached. These reduction of flame lengths and intensities are assumed to occur within the 200 feet of fuel modification (an irrigated Zone A and B and 50% thinning Zone C).



SOURCE: Dudek, Google Mapping Service, 2019.

FIGURE 3.18-4

Fire Modeling Scenarios

**Table 3.18-3  
BehavePlus Fire Behavior Modeling Results, Pre-Project Conditions**

<b>Fire Scenario</b>	<b>Flame Length (feet)</b>	<b>Spread Rate (mph)<sup>1</sup></b>	<b>Fireline Intensity (Btu/ft/s)</b>	<b>Spotting Distance<sup>2</sup> (Miles)</b>
<b>Scenario 1: 5% slope, Summer, Onshore, Summer Winds (Pre-Development)</b>				
High Load Grass (Gr7)	29.1'	3.5	8,616	1.1
<b>Scenario 2: 9% slope, Fall, Offshore Extreme Winds (Pre-Development)</b>				
High Load Grass (Gr7)	42.9' (74.6' & 87.1') <sup>3</sup>	6.0 (20.0 & 28.0) <sup>3</sup>	20,054 (66,781 & 93,536) <sup>3</sup>	1.2 (3.5 and 4.9) <sup>3</sup>
<b>Scenario 3: 5% slope, Fall, Offshore, Extreme Winds (Pre-Development)</b>				
High Load Grass (Gr7)	43.0' (74.6' & 87.1') <sup>3</sup>	6.0 (20.0 & 28.0) <sup>3</sup>	20,168 (66,846 & 93,591) <sup>3</sup>	1.2 (3.5 & 4.9) <sup>3</sup>
<i>Note:</i>				
<sup>1</sup> . MPH = miles per hour				
<sup>2</sup> . Spotting distance from a wind driven surface fire.				
<sup>3</sup> . The wind mph in parenthesis represents peaks gusts of 50 and 70 mph, respectively.				

**Table 3.18-4  
BehavePlus Fire Behavior Modeling Results, Post-Project Conditions**

<b>Fire Scenario</b>	<b>Flame Length (feet)</b>	<b>Spread Rate (mph)<sup>1</sup></b>	<b>Fireline Intensity (Btu/ft/s)</b>	<b>Spotting Distance<sup>2</sup> (Miles)</b>
<b>Scenario 1: 5% slope, Summer, Onshore, Summer Winds (Post-Development)</b>				
FMZ Zones A and B (FM8)	1.8'	0.1	20	0.2
FMZ Zone C (Gr2)	7.2'	1.1	420	0.4
<b>Scenario 2: 9% slope, Fall, Offshore Extreme Winds (Post-Development)</b>				
FMZ Zones A and B (FM8)	2.1' (3.0' & 3.0') <sup>3</sup>	0.1 (0.2 & 0.2) <sup>3</sup>	29 (63 & 63)	0.2 (0.4 & 0.5) <sup>3</sup>
FMZ Zone C (Gr2)	10.9' (18.0' & 18.0') <sup>3</sup>	2.1 (6.2 & 6.2) <sup>3</sup>	1,012 (3,037 & 3,037) <sup>3</sup>	0.5 (1.3 & 1.6) <sup>3</sup>
<b>Scenario 3: 5% slope, Fall, Offshore, Extreme Winds (Post-Development)</b>				
FMZ Zones A and B (FM8)	2.1' (3.0' & 3.0') <sup>3</sup>	0.1 (0.2 & 0.2) <sup>3</sup>	29 (63 & 63) <sup>3</sup>	0.2 (0.4 & 0.5) <sup>3</sup>
FMZ Zone C (Gr2)	10.9' (18.0' & 18.0') <sup>3</sup>	2.1 (6.2 & 6.2) <sup>3</sup>	1,018 (3,037 & 3,037) <sup>3</sup>	0.5 (1.3 & 1.5) <sup>3</sup>
<i>Note:</i>				
<sup>1</sup> . MPH = miles per hour				
<sup>2</sup> . Spotting distance from a wind driven surface fire.				
<sup>3</sup> . The wind mph in parenthesis represents peaks gusts of 50 and 70 mph, respectively.				

## Summary

Given the anticipated growing population of Ventura County's wildland urban interface (WUI) areas, including in the City of Moorpark, and the region's fire history, it can be anticipated that periodic wildfires will occur in the open space areas of Ventura County, with the natural open spaces north and northeast of the Project site being no exception. Given the climatic, vegetative, topographic characteristics, and local fire history of the area, the Project site, once developed, could be subject to periodic wildfires that may start on, burn onto, or spot into the site. The potential for an off-site wildfire encroaching on, or showering embers on the site is considered moderate, but risk of ignition from such encroachments or ember showers is considered low based on the type of construction and fire protection features that would be required for the structures.

The Proposed Project would introduce potential ignition sources to the site, however, all new structures would be constructed to Ventura County Fire Code, Ventura County Fire Protection District's Fire Ordinance 31, and 2019 CFC standards (or the current edition). As discussed, the ignition-resistant construction standards required for development in a FHSZ address roofs, eaves, exterior walls, vents, appendages, windows, and doors and result in hardened structures. The project would implement a fire hardened landscape, highly ignition resistant residential dwelling units, and conversion of flashy fuels (non-native grasslands) to developed areas, with designated review of all landscaping and maintenance of fuel modification areas. Fires from off-site would not have continuous fuels across this site and would therefore be expected to burn around and/or over the site via spotting. Based on the predicted fire intensity and duration along with flame lengths for the Project site and the provided FMZs, the greatest concern is considered to be from firebrands or embers as a principal ignition factor. Burning vegetation embers may land on project structures but are not likely to result in ignition based on ember decay rates and the types of non-combustible and ignition-resistant materials that will be used on site. The project would comply with applicable ignition-resistant fire and building codes and would include a layered fire protection approach which is designed to current codes and inclusive of site-specific measures that would result in a project that is less susceptible to wildfire than surrounding landscapes. These ignition-resistant features would form a redundant system of protection to minimize the likelihood of exposing residents and visitors, as well as structures, to the uncontrolled spread of a wildfire. This same fire protection system would provide protections from an on-site fire spreading to off-site vegetation. As such, accidental fires within the maintained landscape or structures in the Hitch Ranch project would have limited ability to spread. It should be noted that while these standards would provide a high level of protection to structures for the Proposed Project, there is no guarantee that compliance with these standards would prevent damage or destruction of structures by fire in all cases.

Wildlands near the Project site are expected to be exposed to periodic wildfire ignition and spread and may be subject to nearby wildfire. A response map update, including roads and fire hydrant locations, in a format compatible with current department mapping would be provided to the VCFD for approval. Further, adequate water supply, approved paved access roadways and site improvements within the active development area would be in place, including utilities, operable fire hydrants, an approved, temporary roadway surface, and fuel modification zones established, prior to any combustibles on site (**Mitigation Measure WF-1**).

The Proposed Project, once developed, would not facilitate wildfire spread and would reduce projected flame lengths to levels that would be manageable by firefighting resources for protecting the site's structures, especially given the ignition resistance of the structures and the planned ongoing maintenance of the entire site landscape. Therefore, wildfire occurrence, frequency or size would not be expected to be significantly exacerbated by construction of the Proposed Project.<sup>11</sup> With adherence to all required building and fire codes, and with implementation of the fire prevention measures and design features as outlined in **Mitigation Measures WF-1** through **WF-4**, the project would not exacerbate wildfire risks<sup>12</sup>, due to slope, prevailing winds, and other factors, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, and impacts would be less than significant with mitigation incorporated.

**Impact WIL-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.**

*Less than Significant Impact with Mitigation*

The Project involves the development of residential, open space and recreational areas on a previously undeveloped site. The Project would include installation and maintenance of associated infrastructure including driveways and roadways, connections to service utilities (e.g., water, wastewater, stormwater drainage, electric power, natural gas, and telecommunications services), water drainage and water quality improvements (e.g., stormwater retention basin), and fuel breaks (e.g., fuel modification zones). Installation

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<sup>11</sup> A decision by the California Third District Court of Appeal, filed June 16, 2021, in the *New Town Preservation Society vs. County of El Dorado*, has reaffirmed precedent finding that the key question for hazards, such as wildfire, in the context of CEQA is not the impact that the existing environment presents to the project, but whether implementation of the project would exacerbate hazard risks. [C092069.PDF \(ca.gov\)](#), accessed July 21, 2021.

<sup>12</sup> Ibid.

and maintenance of this associated infrastructure and the potential to exacerbate wildfire risk or result in impacts to the environment is further discussed below.

## Fuel Modification Zones

An important component of a fire protection system for the project is the provision of ignition resistant landscapes and modified vegetation buffers. FMZs are designed to provide vegetation buffers that gradually reduce fire intensity and flame lengths from advancing fire by strategically placing thinning zones, restricted vegetation zones, and irrigated zones adjacent to each other on the perimeter of the Wildland Urban Interface exposed structures.

The Proposed Project will be exposed to naturally-vegetated open space areas to the northern and western portions of the site. The rest of the proposed development is adjacent to a residential communities to the northwest, south, and east, the Moorpark County Club Course approximately half a mile to the north, and commercial buildings to the south. FMZs will be provided for those portions of the proposed development that are adjacent to open space areas in accordance with the VCFD's Ordinance 31 Appendix W, VCFD Standard 515 – Defensible Space and Fuel Modification Zones and Standard 517 – Application of Mulch and Chips in Defensible Space, including all manufactured and maintained slopes.

As previously discussed in Impact WIL-2, the Project would include up to 200 feet of fuel modification between the natural open space area to the north and west and on-site structures, and the eastern edge of the Project site would receive 68 to 121 feet of FMZs to the top of the grading limits (see Figure 3.18-3). FMZs would be maintained on at least an annual basis or more often as needed to maintain the fuel modification buffer function. Because FMZs are designed to gradually reduce fire intensity and flame lengths, the installation and maintenance of FMZs would reduce, rather than exacerbate, wildfire risk. Per **Mitigation Measure WF-1**, adequate defensible space must be created before bringing any combustible materials on to the Project site, and vegetation management activities would occur prior to the start of construction and throughout the life of the Project. Consequently, the associated vegetation management activities would not exacerbate fire risk, provided that fuel modification and other vegetation management activities are implemented and enforced according to VCFD and state requirements. The proposed vegetation management activities would reduce the fire risk by thinning or removing combustible vegetation and implementing a landscape plan with more adequately spaced, drought-tolerant, low-fuel-volume plants (in accordance with **Mitigation Measure WF-3**) in order to provide a reasonable level of protection to structures from wildland fire.

## Road Width and Circulation

The Project would involve construction of access roads by extending existing roads into the Project site, as well as an internal circulation network. The on-site roadway network would be integrated into the broader roadway network in the Project area. The presence of increased human activity and vehicles along newly installed roads would introduce new potential ignition sources to the Project area. However, vegetation management would be required along roadways within the Very High FHSZ for roads internal and external to the Project site. On-site roads would be constructed to current Ventura County Fire Apparatus Access Code standards (Ordinance Number 29) and 2019 CFC (or then current edition), including all fire access roadways designed for one-way traffic shall have an unobstructed width of not less than 20 feet; all access roadways designed for two-way traffic shall have an unobstructed width of not less than 24 feet. Fire access roadways designed to allow parking shall provide a minimum clear width of not less than 32 feet for parking on one side and a clear width of not less than 36 feet for parking on both sides and shall be improved with asphalt paving materials that support the imposed loads of fire apparatus (not less than twenty-tons or 80,000 lbs. after a 10-year storm). Turning radius for fire apparatus access roads will be 40 feet as measured at the center line of the access road.

Access to the site would be improved as indicated in the proposed amendment to Moorpark's General Plan Circulation Element associated with the Project, North Hills Parkway would ultimately be constructed as a four-lane roadway. Gabbert Road would be improved to a four-lane arterial roadway from North Hills Parkway to the Proposed Project terminus of High Street, tapering down to cross the Union Pacific Railroad tracks and continuing to the point of connection with Poindexter Avenue. North of North Hills Parkway, Gabbert Road would taper back to its existing width.

The circulation upgrades not only benefit the proposed Hitch Ranch project, but also provide a public benefit to the surrounding communities and elementary school by providing additional access to these existing one-way in and out communities. Access to the Gabbert Canyon neighborhood to the northwest will be improved by providing a new easterly evacuation route by extending High Street from its current terminus east of the Project site across the southern boundary of the Project site north to the railroad track to Gabbert Road. The Meridian Hills neighborhood to the northeast will be improved by providing a southerly evacuation route through Hitch Ranch by extending Meridian Hills Drive from the existing terminus and connecting it to "A" Street at North Hills Parkway. Finally, Walnut Canyon Elementary school to the east is currently accessed by a dead end, two-lane road off Moorpark Avenue. There presently are no evacuation routes or secondary vehicle access roads to the school. However, the Proposed Project would provide an additional evacuation route through the Hitch Ranch community by extending Casey Road from its terminus east of the Project site west into the project. As required under the Ventura County Fire Code, a FMZ of 10 feet on each side of fire apparatus access roads and driveways in addition to an

unobstructed vertical clearance of 13 feet, 6-inches above the roadways. Roadside fuel modification consists of mowing grasses to 6-inches in height and/or maintaining ornamental landscapes, including trees, clear of dead and dying plant materials. Roadside fuel modification would be maintained by the HOA. Therefore, installation and maintenance of site access roads in accordance with all relevant development codes would not exacerbate wildfire risk and would improve emergency access to the site and surrounding areas.

In addition, two secondary emergency vehicle access entry/exit roads are proposed within Planning Area 1 and Planning Area 2, to provide additional access to North Hills Parkway from Planning Area 1 and “A” Street from Planning Area 1. The secondary access roads will include a secondary access gate with Knox box switches allowing emergency vehicles access into and out of Planning Area 1 and Planning Area 2, as well as an automatic exit loop system allowing the residents of Planning Area 1 and Planning Area 2 to exit the communities. Any access gates will comply with Ventura County Fire Department 501 Apparatus Access Code Standard – Ordinance Number 29. Gates across fire apparatus access roads shall not be limited to emergency exit-only and shall provide for egress for all persons at all times without the use of keys, codes, remote controls, or special knowledge. Gates on private roads and secondary access roads will comply with VCFD standard for electric gates and will include a Knox box switch and automatic exit loops.

## Utilities

As discussed in **Section 3.17, Utilities and Service Systems**, existing utility service lines are located within the vicinity of the Project site, and connection to utility service lines would be implemented as part of the project. Connections to utility service lines, including those for water, wastewater, stormwater drainage, electric power, natural gas, and telecommunications services, would be extended from their current locations nearby the Project site to the proposed buildings. Given that connecting utilities from their current locations to the Project site would require ground disturbance and the use of heavy machinery associated with trenching, the installation of these utility service lines would introduce new potential sources of ignition to the site, such as the use of heavy machinery, welding, or other hot work. However, as previously discussed, vegetation management activities would occur prior to the start of construction, which would reduce the likelihood of fire ignition during installation and connection of utilities.

Further, other than lateral connections to nearby utility mains, the project would not require or result in the relocation or construction of new or expanded service utilities facilities, the construction or relocation of which could exacerbate wildfire risk or cause significant environmental effects.

Water service for the project would be provided by the Ventura County Waterworks District (VCWWD) No. 1 and would be consistent with VCFD requirements. The project would connect to existing water mains

running along Gabbert Road, Meridian Hills Drive, and Moorpark Avenue/Walnut Canyon Road. The water distribution system is designed to yield a minimum residual pressure of 40 pounds per square inch (psi) during peak hour demands and a minimum residual pressure of 20 psi during maximum day demands plus fire flow. Each fire hydrant would be capable of 1,500 gallons per minute (gpm) fire flow for minimum duration of two hours at 20 psi residual pressure. Hydrants would be located along fire access roadways as determined by VCFD to meet operational needs, at the beginning radius of cul-de-sac streets, regardless of parcel size, pursuant to Sections 507.5.1 through 507.5.7 of the VCFPD Ordinance Number 31 and Appendix C of the 2019 CFC for single- and multi-family residential units. Fire Hydrants would be consistent with applicable Design Standards. Installation of water service and fire hydrants would reduce, rather than exacerbate, fire risk on site.

All new power lines would be underground for fire safety, with the exception of temporary construction power lines would be allowed in areas that have been cleared of combustible vegetation.

The Hitch Ranch Homeowners Association (HOA) and/or a Community Facilities District (CFD) would be responsible for long term funding and maintenance of private roads and fire protection systems, including fire sprinklers and private fire hydrants. Per **Mitigation Measure WF-1**, all underground utilities, hydrants, water mains, curbs, gutters, and sidewalks would be installed, and the drive surface would be approved prior to combustibles being brought on site. As such, the installation and maintenance of utilities in accordance with regulatory requirements in conjunction with **Mitigation Measure WF-1** would not exacerbate wildfire risk.

## Summary

Installation and maintenance of project roads, service utilities, fuel modification, drainage and water quality improvements, and other associated infrastructure would not exacerbate wildfire risks provided that the appropriate fire prevention, access, and vegetation management activities are implemented as required by the VCFD, City code and state requirements.<sup>13</sup>

Given that the activities involved with installation or maintenance of associated infrastructure would require ground disturbance and the use of heavy machinery associated with trenching, grading, site work, and other construction and maintenance activities, the installation of related infrastructure could potentially result in temporary or ongoing impacts to the environment. However, the installation and maintenance of roads, service utilities, drainage and water quality improvements, and vegetation

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<sup>13</sup> A decision by the California Third District Court of Appeal, filed June 16, 2021, in the *New Town Preservation Society vs. County of El Dorado*, has reaffirmed precedent finding that the key question for hazards, such as wildfire, in the context of CEQA is not the impact that the existing environment presents to the project, but whether implementation of the project would exacerbate hazard risks. [C092069.PDF \(ca.gov\)](#), accessed July 21, 2021.

management activities are part of the Project analyzed herein. As such, any potential temporary or ongoing environmental impacts related to these components of the Proposed Project have been accounted for and analyzed in this EIR as part of the impact assessment conducted for the entirety of the project. Additionally, the project would be required to comply with all regulatory requirements and mitigation measures outlined within this EIR for the purposes of mitigating impacts associated with trenching, grading, site work, and the use of heavy machinery. No adverse physical effects beyond those already disclosed in this EIR would occur as a result of implementation of the project's associated infrastructure.

Therefore, the installation and maintenance of associated infrastructure would not exacerbate wildfire risk or result in impacts to the environment beyond those already disclosed and mitigated with **Mitigation Measures WF-1 through WF-3**, and impacts would be less than significant.

**Impact WIL-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.**

*Less than Significant Impact with Mitigation*

As discussed in **Section 3.9, Hydrology**, an evaluation of the debris production with Ventura County was calculated in order to determine if the five proposed debris basins (DB1A, DB1B, DB2, DB3, and Basin 2B) would be adequate in a 100-year flooding event. For detention basins with tributary watersheds totaling less than five square miles, the volume required for debris storage is 125 percent of the debris volume expected from the 100-year storm. The project includes five debris basins that are anticipated to be adequate to support the sediment yield of a 100-year flood event. Moreover, the proposed facilities, including the retention basins, provide a significant benefit to the overall systems. Under existing conditions, there is a significant amount of flow overtopping the Union Pacific Railroad tracks immediately upstream of Gabbert Road, which could impact the industrial/commercial area to the south. This issue will be completely eliminated under the Interim and Ultimate Conditions.

Hitch Ranch will be designed to limit downstream discharges to predevelopment levels. This will necessitate the temporary detention of floodwater. Because flood control basins are only infrequently filled with water, they lend themselves to multiple uses. Soccer fields, parks, wildlife habitat, and similar uses may be incorporated into detention basins at Hitch Ranch. The detention basins would be designed and constructed to meet or exceed minimum VCWPD design standards. The proposed regional basins would meet the performance and design requirements set forth in the Regional Watershed Master Plan for Walnut

and Gabbert Canyons, which were approved and accepted by both the City of Moorpark and VCWPD in 2006.<sup>14</sup>

With the implementation of Mitigation Measures **HYD-1** through **HYD-5**, while the project will increase the amount of impervious surfaces on the Project site, the drainage pattern will not be altered in such a way to result in increases in downslope or downstream flooding.

As discussed in **Section 3.6, Geology and Soils**, steep natural slopes are located within the southwestern area of the specific plan site. The slopes are about 70 to 80 feet in height. The slopes have gradients of 1-1/2 (horizontal [h]) to 1 (vertical [v]), and 2(h) to 1(v) or shallower. Engineering analyses have identified these slopes have factors of safety for stability that are less than required by governing construction codes. Habitable structures are proposed to be setback from these slopes to where the factors of safety for stability meet or exceed governing construction codes, and impacts would be less than significant.

Manufactured slopes within the development area are proposed to be constructed at a gradient of 2(h) to 1(v) or less. The highest or maximum cut slope in the development area would be about 75 feet in height and would be situated just north of Poindexter Avenue. The highest or maximum fill slope in the development area would be about 61 feet in height and occur along a south-facing slope near the south-central portion of the specific plan site. Lastly, a fill over cut slope of about 89 feet in height is proposed in the southeastern portion of the specific plan site. Proposed manufactured slopes on the specific plan site would result in a static safety factor of greater than 1.5, thus resulting in less than significant impacts. Cut slopes could exposed localized conditions of locally-adverse geologic structure, expose sandy bedrock materials that are friable and prone to erosion, or possible nuisance seepage issues. However, implementation of **Mitigation Measure GS-1** through **GS-3**, would reduce potential impacts related to this issue to less than significant.

Following the implementation of **Mitigation Measures HYD-1** through **HYD-5** and **GS-1** through **GS-3**, the Proposed 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, and impacts would be less than significant.

### 3.18.5 CUMULATIVE IMPACTS

The cumulative context considered for Project wildfire impacts is Ventura County, and more specifically, the Walnut Canyon watershed. CAL FIRE has mapped areas of fire hazards in the state based on fuels, terrain, weather, and other relevant factors. As described above, the Project site is located in a Very High

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<sup>14</sup> *Gabbert and Walnut Canyon Channels Flood Control Deficiency - Addendum*, dated August 2005.

FHSZ. The project, combined with other projects in the region, would increase the population and/or activities and potential ignition sources in the area, which may increase the potential of a wildfire and increase the number of people and structures exposed to risk of loss, injury, or death from wildfires. Individual projects located within Ventura County are required to comply with applicable County fire and building codes, which have been increasingly strengthened as a result of severe wildfires that have occurred in the last two decades. The fire and building codes include fire prevention and protection features that reduce the likelihood of a fire igniting in a specific project and spreading to off-site vegetated areas. These codes also protect projects from wildfires that may occur in the area through implementation of brush management and fuel management zones, ensuring adequate water supply, preparation of fire protection plans, and other measures.

Suggestions that placing new residential projects in the County's wildland-urban interface will increase the risk of fire ignition are not consistent with available research. According to the available evidence, no large fires in Southern California since 1990 were determined to have been started within a nearby master-planned, ignition-resistant subdivision or neighborhood. Syphard and Keeley<sup>15</sup> summarized all wildfire ignitions included in the CAL FIRE FRAP database dating back over 100 years. They found that in San Diego County (which is similar to the Ventura County fire environment), equipment-caused fires were by far the most numerous, and these also accounted for most of the area burned; power-line fires were a close second. Ignitions classified as equipment-caused frequently resulted from exhaust or sparks from power saws or other equipment with gas or electrical motors, such as lawn mowers, trimmers, or tractors.<sup>16</sup> These ignition sources are typically associated with lower-density housing, not higher-density housing such as that proposed in the project. In addition, electrical transmission lines would be undergrounded in the project area, mitigating the risk from electrical transmission line vegetation ignitions.

Data indicate that lower-density housing poses greater ignition risk. In the Southern California study, ignitions were more likely to occur close to roads and structures, and at intermediate structure densities.<sup>17</sup> This is likely because lower-density housing creates a wildland-urban intermix rather than an interface. The intermix places housing among unmaintained fuels, whereas higher-density housing, such as the Project, converts all fuels within the footprint and provides a wide, managed fuel modification zone separating homes from unmaintained fuel. Further, Syphard and Keeley<sup>18</sup> determined that "[t]he WUI [wildland-urban interface], where housing density is low to intermediate, is an apparent influence in most

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<sup>15</sup> Syphard, Alexandra D., and Jon E. Keeley. 2015. "Location, Timing and Extent of Wildfire Vary by Cause of Ignition." *International Journal of Wildland Fire*. 11 pp.

<sup>16</sup> Ibid.

<sup>17</sup> Ibid.

<sup>18</sup> Ibid.

ignition maps.” This further enforces the notion that lower-density housing is a larger ignition issue than higher-density communities. A different study found that “development of low-density, exurban housing may also lead to more homes being destroyed by fire.”<sup>19</sup> Neither of these studies considered the fire hazard and risk reduction associated with HOA-managed fire modification zones and ignition-resistant structures. The Fire Protection Plan plant palette restrictions (**Mitigation Measure WF-3**) combined with HOA maintenance and annual inspections (**Mitigation Measure WF-4**), would minimize the establishment and expansion of exotic plants, including grasses. Based on research of the relevant literature and extensive conversations with active and retired fire operations and prevention officers, there is no substantial evidence that new residential neighborhoods built to the requirements of Ventura County’s Fire and Building Codes increase the risk of wildfire ignition. Rather, the data indicate that roadways, electrical distribution lines, and lower-density residential projects (that do not have HOA-enforced restrictions and annual inspections) are the primary causes of increased wildfire ignition. The project would provide roadside fuel modification throughout the Project site, and electrical lines would be subterranean.

Furthermore, other cumulatively considerable projects would be required to comply with the County’s vegetation clearance requirements, as outlined in the County Municipal Code. The Ventura County Fire and Building Codes, along with project-specific needs assessments and fire prevention plan requirements, ensure that every project approved for construction includes adequate emergency access. Roads for all proposed projects are required to meet minimum widths, have all-weather surface, and be capable of supporting the imposed loads of responding emergency apparatus. The Hitch Ranch project and all other future development projects in the service area would be subject to discretionary review by the VCFD and would be required to comply with the County Fire Code and other relevant County Code requirements and other applicable local codes (e.g., City of Moorpark Fire Code) and regulations related to fire safety, building construction, access, fire flow, and fuel modification. Therefore, because all projects are required to comply with these requirements, cumulative impacts related to increased wildfire hazards and emergency response and access would be less than significant.

### 3.18.6 MITIGATION PROGRAM

#### 3.18.6.1 Project Design Features

Based on the results of the FPP’s analysis and findings, the following Project Design Features will be implemented by the Proposed Project.

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<sup>19</sup> Syphard, A.D., A. Bar Massada, V. Butsic, and J.E. Keeley. 2013. “Land Use Planning and Wildfire: Development Policies Influence Future Probability of Housing Loss.” PLoS ONE 8(8), e71708. doi:10.1371/JOURNAL.PONE.0071708.

- Project buildings will be constructed of ignition resistant<sup>20</sup> construction materials and include automatic fire sprinkler systems based on the latest adopted Building and Fire Codes for occupancy types.
- The project design incorporates the establishment and maintenance of up to 200 feet of Zone A, Zone B, and Zone C fuel modification zones (FMZs) for the Project site. The FMZs will consist of irrigated and maintained landscapes that will be subject to regular “disturbance” in the form of maintenance and will not be allowed to accumulate excessive biomass over time, which results in reduced fire ignition, spread rates, and intensity.
- Landscape plantings will not utilize prohibited plants that have been found to be highly flammable by the Ventura County Fire Protection District.
- Fire apparatus access roads (i.e., public and private streets) will be provided throughout the development and will vary in width and configuration but will all provide at least the minimum required unobstructed travel lanes, lengths, turnouts, turnarounds, and clearances required by applicable codes. Primary access and internal circulation will comply with the requirements of the VCFD.
- Water capacity and delivery provide for a reliable water source for operations and during emergencies requiring extended fire flow.
- The Hitch Ranch Homeowner’s Association will provide Hitch Ranch residents with information on, and encourage them to practice, and implement a “Ready, Set, Go!” (Ventura County Fire Department 2016) approach to site evacuation. The “Ready, Set, Go!” concept is widely known and encouraged by the state of California and most fire agencies, including the VCFD. Pre-planning for emergencies, including wildfire emergencies, focuses on being prepared, having a well-defined plan, minimizing potential for errors, maintaining the site’s fire protection systems, and implementing a conservative (evacuate as early as possible) approach to evacuation and site uses during periods of fire weather extremes.

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<sup>20</sup> A type of building material that resists ignition or sustained flaming combustion sufficiently to reduce losses from wildland-urban interface conflagrations under worst-case weather and fuel conditions with wildfire exposure of burning embers and small flames, as prescribed in CBC, Chapter 7A and State Fire Marshal Standard 12-7A-5, Ignition-Resistant Materials.

### 3.18.6.2 Mitigation Measures

**WF-1: Pre-Construction Requirements.** Vegetation management shall be conducted prior to the start of construction and throughout all construction phases by a qualified Ventura County Fire Department-approved third-party fuel modification zone inspector hired by the project applicant. Perimeter fuel modification shall be implemented and approved by the VCFD prior to bringing combustible materials on site. Adequate firebreaks at least 50 feet wide shall be created around all grading, site work, and other construction activities in areas where there is flammable vegetation. Existing flammable vegetation shall be reduced by 50% on vacant lots upon commencement of construction. Firebreaks and fuel modification shall be implemented in accordance with Appendix 3.18, Hitch Ranch Fire Protection Plan, and approved by VCFD.

The Project shall comply with the following risk reducing vegetation management guidelines:

- All new power lines shall be underground for fire safety. Temporary construction power lines may be allowed in areas that have been cleared of combustible vegetation. Existing 16 KV power lines within the project may be undergrounded or relocated to the extent practical.
- Caution must be used to avoid causing erosion or ground (including slope) instability or water runoff due to vegetation removal, vegetation management, maintenance, landscaping or irrigation.

**Timing/Implementation:** Prior to issuance of building permits, during grading and construction activities

**Enforcement/Monitoring:** Ventura County Fire Department, City of Moorpark Public Works Department

**WF-2:** In order to provide compensating structural protection in the absence of a 100-foot wide FMZ along the eastern property boundary, the structures along the entire eastern side of the development within Planning Area 3 shall include the following features for additional fire prevention, protection, and suppression:

- The proposed Triplex structures along the eastern edge of the development within PA3 that are adjacent to existing homes off Casey Road, shall be constructed with multi-

pane glazing with a minimum of one tempered pane, and a fire resistance rating of not less than 20 minutes when tested according to NFPA 257, or be tested to meet the performance requirements of State Fire Marshal Standard 12-7A-2 (see **Figure 3.18-3**).

- The remaining Triplex structures along the eastern edge of the development within PA3 are exposed to natural vegetation. Depending on the timing of development of the proposed Senior Living project which currently is not developed, the remaining Triplex structures within the Hitch Ranch development along the eastern edge of the development shall implement either; a.) if the proposed Senior Living development begins construction prior to the Hitch Ranch Project development begins construction, then dual pane single tempered windows will be acceptable, or b.) if the Senior Living development has not begun construction prior to Hitch Ranch Project construction at this site, then dual pane, dual tempered windows will be required for the Hitch Ranch developments that are north of the existing homes off Casey Road up to proposed North Hills Parkway, exceeding the CBC Chapter 7A code requirement (see **Figure 3.18-3**).
- Provide a noncombustible, 6-foot high concrete masonry unit (CMU) wall at the top of the manufactured slopes behind the units within PA3 along the eastern property boundary. These walls will be installed to function as heat-deflecting walls; vining plants will be established as landscape screening.

**Timing/Implementation:** Prior to issuance of building permits, during grading and construction activities

**Enforcement/Monitoring:** Ventura County Fire Department, City of Moorpark Community Development Department

**WF-3:** A fully irrigated landscape, planted with drought-tolerant, fire-resistive plants shall be implemented in accordance with VCFD Fire Hazard Reduction Program Plant Reference Guide (Appendix D of Appendix 3.18 of this EIR). No undesirable, highly flammable plant species shall be planted, as listed in the VCFD Prohibited Plant List (Appendix E of Appendix 3.18 of this EIR). The landscaping shall be routinely maintained and shall be watered by an automatic irrigation system that will maintain healthy vegetation with high moisture contents that would minimize ignition by embers from a wildfire.

**Timing/Implementation:** Prior to issuance of building permits

**Enforcement/Monitoring:** Ventura County Fire Department, City of Moorpark Community Development Department

**WF-4:** The project HOA shall hire a qualified Ventura County Fire Department-approved third-party fuel modification zone inspector to provide annual inspections. A copy of each inspection report should be provided to the City of Moorpark Community Development Director.

**Timing/Implementation:** Annually, following project occupancy.

**Enforcement/Monitoring:** Ventura County Fire Department, City of Moorpark Community Development Department

### 3.18.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The development of the Hitch Ranch Specific Plan project would have less than significant impacts related to wildfire with implementation of project design features and the mitigation program.