



# Safety



**MADE BY  
MOORPARK**

General Plan  
2050



## 8.1 INTRODUCTION

The Safety Element is a state-required General Plan element that identifies potential natural and human-caused hazards that could affect the city of Moorpark’s residents, businesses, visitors, environment, and services. The framework established by the Safety Element anticipates these hazards and prepares the community to reduce exposure to these risks. Some degree of risk is inevitable due to the climate, topography, vegetation, and water courses running through the city, and the potential for many disasters cannot be completely eliminated and/or predicted. However, the goal of the Safety Element is to reduce, to the greatest extent, the risk of injury, death, property loss, and other hardships associated with these hazards.

This Element conveys the city’s goals and policies to minimize hazards in and around Moorpark. It identifies the natural and human-caused hazards that affect existing and future development, describes how climate change will likely affect these hazards, and sets a range of policies for improved safety and welfare. The Safety Element also seeks to minimize physical harm to the buildings and infrastructure that support the local economic systems, community services, and ecosystems in and around Moorpark.

The Implementation section contains a set of actions to implement the goals and policies of the Safety Element. Cooperation and coordination between the city and surrounding emergency response agencies, such as Ventura County, Simi Valley, and Thousand Oaks, is a key component of this element.

The Safety Element serves the following functions:

- Develops a framework by which safety and resilience considerations are introduced into the land use planning process.
- Facilitates the identification and mitigation of hazards for new development, thus strengthening existing codes, project review, and permitting processes.
- Presents policies and implementation programs directed at identifying and reducing hazards in existing development.
- Strengthens hazard preparedness planning and post-disaster reconstruction policies.
- Identifies how hazards are likely to increase in frequency and intensity due to climate change, see Appendix A Climate Change Vulnerability Assessment, and provides policies to increase community resilience.

The Safety Element is divided into nine sub-sections addressing required or supplementary topics identified in California Government Code Section 65302(g). Each sub-section includes a Background section which provides an overview of the hazards, and a Goals and Policies section which provides goals and policies to reduce the effects of the hazards. These nine sub-sections include the following:

1. Emergency Management
2. Geologic and Seismic Hazards
3. Flooding Hazards
4. Fire Hazards
5. Severe Weather
6. Human Health Hazards
7. Hazardous Materials

- 8. Police Services
- 9. Fire Services

### 8.1.1 Regulatory Framework

The Safety Element addresses the required safety topics in accordance with State requirements, which are primarily defined in California Government Code Section 65302(g). State law requires that the Safety Element address the following:

- Protect the community from risks associated with a variety of hazards, including seismic activity, landslides, flooding, and wildfire.
- Map and assess the risk associated with flood hazards, develop policies to minimize the flood risk to new development and essential public facilities, and establish effective working relationships among agencies with flood protection responsibilities.
- Map and assess the risk associated with wildfire hazards, develop policies to reduce the wildfire risk to new land uses and essential facilities, ensure there is adequate road and water infrastructure to respond to fire emergencies, and establish cooperative relationships between fire protection agencies.
- Assess the risks associated with climate change on local assets, populations, and resources. Note existing and planned development in at-risk areas and identify agencies responsible for providing public health and safety and environmental protection. Develop goals, policies, objectives, and feasible implementation measures to reduce the risks associated with climate change hazards, including locating

new public facilities outside of at-risk areas, providing adequate infrastructure in at-risk areas, and supporting natural infrastructure for climate adaptation.

- Identify residential developments in any hazard area that do not have at least two emergency evacuation routes.
- Identify new information relating to flood and fire hazards and climate adaptation and resiliency strategies applicable to the city or county that was not available during the previous revision of the safety element, during each revision of the housing element or local hazard mitigation plan, but not less than once every 8 years.

### 8.1.2 Relationship with Other Documents

The Safety Element does not exist in a vacuum but is instead one of several plans that address public health, safety, and related topics. The Safety Element must be consistent with these other plans to minimize conflicts between documents and ensure the city has a unified strategy to address safety and hazard issues. The Safety Element incorporates information, technical analyses, and policies from other documents, where appropriate, to help support this consistency.

### Ventura County Multi-Jurisdictional Hazard Mitigation Plan

Ventura County's Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) is a plan to identify and profile hazard conditions, analyze risk to people and facilities, and develop mitigation actions to reduce or eliminate hazard risks in the county. The MJHMP contains a Moorpark Annex, which describes the hazards and

mitigation actions specific to the city of Moorpark, in accordance with the federal Disaster Mitigation Act of 2000 and the Federal Emergency Management Agency’s (FEMA’s) Local Hazard Mitigation Plan (LHMP) guidance. The mitigation actions in the MJHMP include both short-term and long-term strategies, and involve planning, policy changes, programs, projects, and other activities. The LHMP and Safety Element address similar issues, but the Safety Element provides a higher-level framework and set of policies, while the LHMP focuses on more specific mitigation, often short-term, actions. The MJHMP, most recently adopted by FEMA in July 2022, focuses on mitigation-related actions, while the Safety Element also includes policies related to emergency response and recovery activities. The current MJHMP is incorporated into this Safety Element by reference, as permitted by California Government Code Section 65302.6.

### City of Moorpark Emergency Operations Plan

The city is prepared to maintain its core level of service during emergency situations, such as fire, earthquake, flood, or other hazardous events through implementation of the Emergency Operations Plan (EOP). The EOP provides procedures for potential large-scale disasters that can generate unique situations requiring unusual emergency responses and may require the activation of the city’s Emergency Operations Center. The EOP addresses readiness, mobilization, and contingency planning to allow for uninterrupted

delivery of essential functions during disasters. The EOP aims to save lives, prevent property damage, protect, and assist the public with emergencies, and facilitate recovery after a disaster.

### 8.1.3 Climate Change Vulnerability

Climate change is expected to affect future occurrences of natural hazards in and around Moorpark. Many of these hazards will likely become more frequent and intense in coming years and decades. In some cases, these trends have already begun, such as increases in the frequency and intensity of severe weather, extreme heat, drought, and wildfires. According to California’s Fourth Climate Change Assessment<sup>1</sup>, Moorpark can expect to experience various changes to climate change hazards.

- Wildfires can be sparked by lightning, malfunctioning equipment, vehicle crashes, and many other causes. Warmer temperatures, an increase in drought conditions, and extreme wind events are likely to create more fuel for fires in natural areas, leading to a greater chance that a spark will grow into a dangerous blaze and move from wildland areas into more urbanized areas of Moorpark. Climate change is also expected to extend the fire season throughout much (or even all) of the year, creating an overlap with Santa Ana wind events. Because wildfires burn the trees and other vegetation that help stabilize a hillside and absorb water, more

<sup>1</sup> Bedsworth, Louise, Dan Cayan, Guido Franco, Leah Fisher, Sonya Ziaja. (California Governor’s Office of Planning and Research, Scripps Institution of Oceanography, California Energy Commission, California Public Utilities

Commission). 2018. Statewide Summary Report. California’s Fourth Climate Change Assessment. Publication number: SUMCCCA4-2018-013.

areas burned by fire may also lead to an increase in landslides and debris flows during or after heavy precipitation events.

- Both droughts and floods are expected to become more frequent as precipitation is expected to occur in fewer, more intense storms due to climate change. Although Moorpark is likely to experience only a slight increase in overall annual precipitation levels from climate change, the region is expected to see an increase in the number of extreme precipitation events, as well as droughts that last longer and are more intense. As a result, floods are expected to occur more often in Moorpark, and climate change may expand the parts of the city that are considered flood prone. The increase in frequency and severity of droughts will likely strain both habitats and water supplies in the city.
- Warmer temperatures are projected to cause an increase in extreme heat events. The number of extreme heat days is expected to rise in Moorpark, in addition to an increase in the average daily high temperatures. Extreme heat poses a significant human health risk, especially to children, outdoor workers, immigrant communities, and persons experiencing homelessness. Energy delivery infrastructure and services may be damaged by very high temperatures, constraining their ability to meet community needs.
- Severe weather events, such as high winds, thunderstorms, hail, and heavy rainfall, may become more frequent and intense due to climate change. Climate change is expected to cause an increase in intense rainfall, which can cause flooding. In Moorpark,

most severe weather is linked to hot, dry, high winds, known as the Santa Ana winds. These wind events tend to be most frequent during October to April and can have average speeds of 40 miles per hour. Severe weather can cause secondary hazards, such as Public Safety Power Shutoffs, which can harm those who rely on electricity-dependent medical devices. The types of dangers posed by severe weather vary widely and include injuries or deaths, damage to buildings and structures, and roads blocked by debris or fallen trees.

- Climate change can increase the rates of infection for various diseases because many of the animals that carry diseases are more active during warmer weather. There are a number of diseases that are linked to climate change and can be harmful to the health of Moorpark community members, such as hantavirus pulmonary syndrome, Lyme disease, and West Nile virus. Many of these diseases are carried by animals, such as mice and rats, ticks, and mosquitos, which are usually seen as pests even if they do not cause infections. Warmer temperatures earlier in the spring and later in the winter can cause these animals to be active for longer periods, increasing the time that these diseases can be transmitted.
- According to the 2020 County of Ventura Crop Report, agriculture and livestock production had a value of \$2 billion in 2020, strawberries, lemons, and nursery stock being the largest-grossing crops. Agricultural pests and diseases can affect crop plants, orchards, and nurseries surrounding Moorpark. The severity of this hazard is measured in terms of pests and

disease incidents, which are likely to increase as higher temperatures allow insects to reproduce more rapidly and increase the activity window for pests and diseases. Pests and diseases can slow the growth of plants, inflict damage, or lead to fatalities.

Under California Government Code Section 65302(g)(4), the Safety Element is required to include a vulnerability assessment that looks at how people, buildings, infrastructure, and other key community assets may be affected by climate change. The city conducted a Climate Vulnerability Assessment in Winter 2022 to analyze Moorpark's susceptibility to climate change hazards. The city's Climate Vulnerability Assessment, prepared in accordance with the most recent available guidance in the California Adaptation Planning Guide, assesses how eight different climate-related hazards (agricultural and ecosystem pests and diseases, drought, extreme heat and warm nights, flooding, human health hazards, landslides, severe weather, and wildfire and smoke) may affect 61 different population groups and community assets. Each population or asset received a score ranging from low vulnerability to high vulnerability for each relevant climate change hazard. The Climate Vulnerability Assessment indicates Moorpark populations and assets are most vulnerable to wildfire and flooding. The Climate Vulnerability Assessment Report provides an overview of the methods, summary of the climate change hazards, populations and assets included in the assessment, and the full list of results, which can be found in Appendix A. The results of the Climate Vulnerability Assessment are integrated into the hazard and other safety sections.

## 8.2 EMERGENCY MANAGEMENT

Emergency preparedness activities in the city are conducted through the Emergency Management Division of the Finance Department. The Emergency Management Division also coordinates with the Ventura County Office of Emergency Services and Public Health Department to prepare for and respond to acute events like heat emergencies or extreme heat days and power outages during critical fire weather. This division is responsible for the operation of the city's Emergency Operations Center, which provides coordination of the city's emergency planning, training, response, and recovery efforts for emergencies such as fires, floods, earthquakes, acts of terrorism, public safety power shutoff events, extreme weather events, and pandemics. When the Emergency Operations Center is activated, the Ventura County Fire Department and Sheriff's Office, who provide fire and police services, have primary and support roles in the management and operations divisions.

The Emergency Management Division also provides the public with access to a Community Emergency Response Team (CERT) training program. CERT is a six-week training course aimed at teaching residents how to help their families and neighbors during a disaster.

The city of Moorpark uses the Ventura County Alert Notification System (VC Alert), an Everbridge mass notification system, to notify the community and distribute emergency information and instructions before, during, and after a disaster. VC Alert provides community members with emergency notifications through telephone calls, text messages, and email

notifications. This system provides alerts in 12 languages—Danish, English (US and UK), German, Italian, Japanese, Norwegian, Portuguese, Russian, Spanish (Europe and Latin America), and Swedish.<sup>2</sup>

Other emergency alert systems include the Emergency Alert Systems (EAS) and the Emergency Digital Information System (EDIS). The EAS is a national public warning system commonly used by state and local authorities to deliver important emergency information, such as weather and AMBER alerts, to affected communities. EAS participants include radio and television broadcasters, cable systems, satellite radio and television providers, and wireline video providers. FEMA, the Federal Communications System, and the National Oceanic and Atmospheric Administration's (NOAA's) National Weather Service work collaboratively to maintain the EAS and Wireless Emergency Alerts, which are the two main components of the national public warning system and enable authorities at all levels of government to send urgent emergency information to the public. The EDIS is a wireless emergency and disaster information service operated by the State of California Governor's Office of Emergency Services and is an enhancement to the EAS. These systems are available in multiple languages.

### 8.2.1 Mutual Aid Agreements

The California Master Mutual-Aid Agreement has been adopted by the Standardized Emergency Management System and is designed to ensure that adequate resources,

facilities, and other support are provided to jurisdictions whenever their own resources are insufficient to cope with the needs of a given emergency. The city of Moorpark participates in the California Master Mutual-Aid Agreement. The State Office of Emergency Services Southern Administrative Region (Mutual Aid Region I) serves the mutual-aid region that encompasses Ventura County. Automatic aid pacts with Ventura County and incorporated cities within the county provide additional emergency management and response services in Moorpark during and after a disaster.

### 8.2.2 Evacuation

With advanced warning, evacuation can be effective in reducing injury and loss of life during a catastrophic event. **Figure SE-1, Evacuation Routes**, shows the evacuation routes throughout the city. Primary emergency access and evacuation routes include SR-23, SR-118, Tierra Rejada Road, Spring Road, Peach Hill Road, Walnut Canyon Road, Championship Drive, Princeton Avenue, Campus Park Drive, Collins Drive, Arroyo Drive, Grimes Canyon Road, and Poindexter Avenue. All evacuation routes in Moorpark face a potential disruption from a flood, earthquake, or wildfire event, which may block roadways, damage the roadway surface, or collapse bridges.

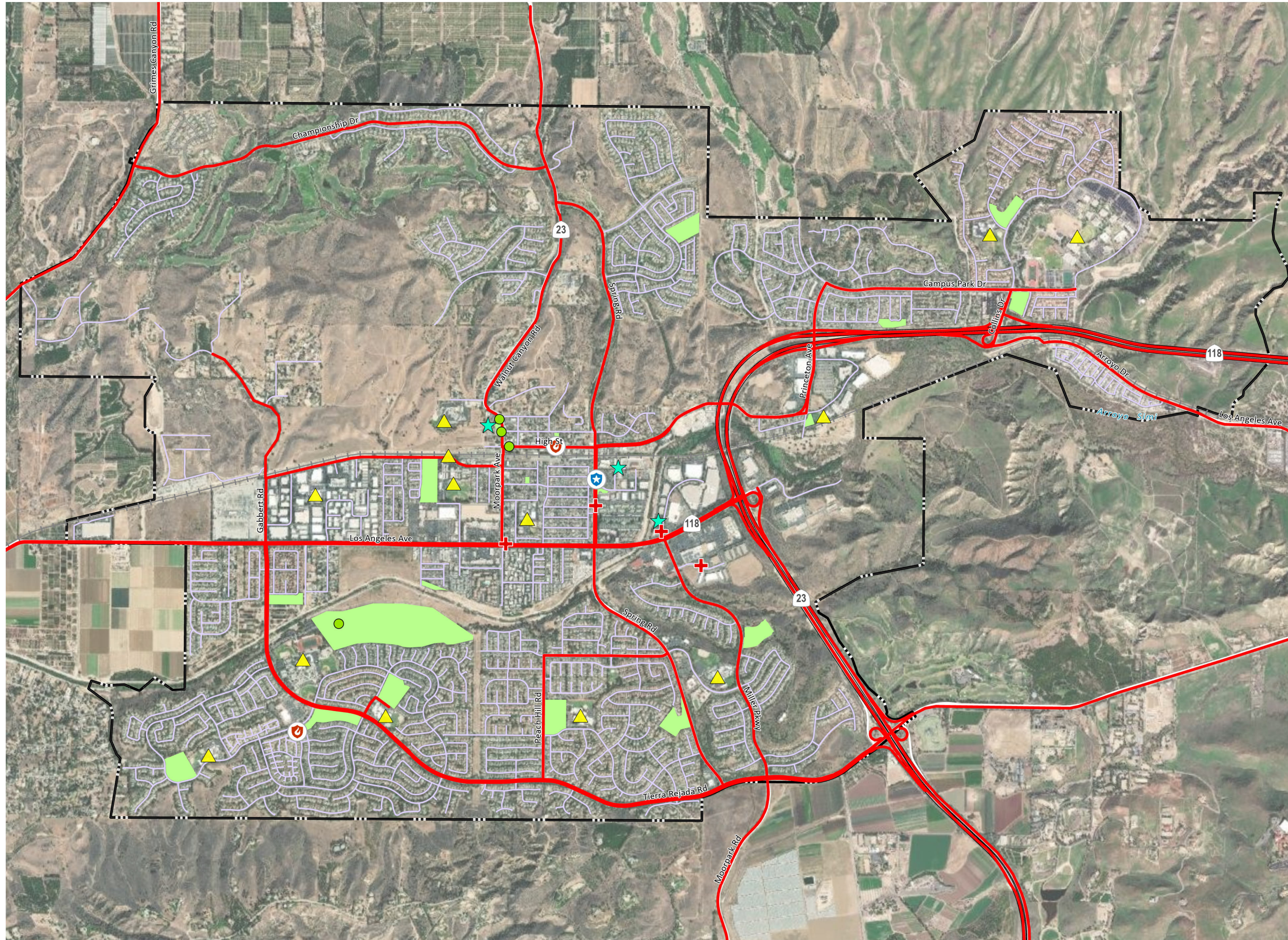
<sup>2</sup> Ventura County. 2020. VC Alert Frequently Asked Questions. [https://s29710.pcdn.co/wp-](https://s29710.pcdn.co/wp-content/uploads/2019/04/VC-ALERT-FAQ-FINAL-2019.pdf)










[content/uploads/2019/04/VC-ALERT-FAQ-FINAL-2019.pdf](https://s29710.pcdn.co/wp-content/uploads/2019/04/VC-ALERT-FAQ-FINAL-2019.pdf) accessed May 20, 2020.



Wildfire

### Figure 5.20-4 Evacuation Routes



-  City Boundary
-  Evacuation Routes
-  Police Services Center
-  Fire Station
-  Community Facility
-  Government Facility
-  Medical
-  School/College Campuses
-  Parks



Draft Environmental Impact Report



Source: City of Moorpark, 2022; PlaceWorks, 2022 Date: 2/27/2023

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In the event of widespread disruption to local evacuation routes, remaining evacuation routes may become congested, slowing down evacuation of the community or specific neighborhoods. This issue may be compounded since evacuation routes for Moorpark may also serve as evacuation routes for surrounding communities in Ventura County, and so potential disruptions may have regional effects.

An analysis of the city's roadway network and parcels conducted as part of the General Plan Update, as shown in **Figure SE-2, Evacuation Constrained Residential parcels**, shows that there are several evacuation-constrained residential parcels spread throughout the city, with the majority located north of Poindexter Avenue and Princeton Avenue, or south of Arroyo Simi. Many of the evacuation-constrained parcels in these areas could be subject to damage from wildfires, and if outside of a wildfire-prone area, could be subject to flooding. All evacuation-constrained parcels are located in at least one hazard-prone area and may have only one emergency evacuation route. The lack of multiple emergency access points limits roadway access for these properties, which may create difficulties if there is a need to evacuate.

## EMERGENCY MANAGEMENT

### GOAL SE 1

AN EMERGENCY MANAGEMENT FRAMEWORK THAT EFFECTIVELY PREPARES AND RESPONDS TO NATURAL AND HUMAN-CAUSED EMERGENCIES.

#### SE 1.1

**Multi-jurisdictional cooperation:** Continue the development of local preparedness plans,

multi-jurisdictional cooperation and training, and communication for emergency situations.

#### SE 1.2

**Emergency preparedness education:** Educate residents and businesses regarding appropriate actions to safeguard life and property during and immediately after emergencies.

#### SE 1.3

**Emergency coordination:** Coordinate with Ventura County, neighboring cities, and non-governmental partners to provide regular training and outreach to effectively prepare for and respond to hazards and natural disasters.

#### SE 1.4

**Emergency alerts:** Work with Ventura County Office of Emergency Services to provide alerts about potential, developing, and ongoing emergency situations through extensive early-warning and notification systems that convey information to all residents, in multiple languages and formats to ensure it is widely accessible, including persons with access and functional needs.

#### SE 1.5

**Hazard Mitigation Plan:** Incorporate the most recent version of the Ventura County Hazard Mitigation Plan, Moorpark Annex, most recently certified by FEMA in 2022, into this Safety Element by reference, as permitted by California Government Code Section 65302.6.

#### SE 1.6

**Community Emergency Response Team:** Expand the capabilities of the Community Emergency Response Team to provide more community members with the tools to respond to disasters.

#### SE 1.7

**Redundant communication:** Create redundancies in the communication infrastructure to ensure communication services are available during emergencies.

**SE 1.8**

**Renewable back-up energy:** Provide renewable back-up power supplies, such as solar, wind, and battery power, for critical facilities, including cooling centers and resilience hubs.

**SE 1.9**

**Multi-Hazard Evacuation Plan:** Identify evacuation routes and develop a multi-hazard evacuation plan, in coordination with surrounding jurisdictions, to ensure evacuation routes remain open and functional during emergencies. Reassess the effectiveness of the evacuation routes with the update of the Ventura County Multi-Jurisdictional Hazard Mitigation Plan.

**SE 1.10**

**Ingress and egress:** Require new development to have at least two ingress and egress routes that account for existing and proposed traffic evacuation volumes at buildout.

**SE 1.11**

**Secondary ingress and egress:** Explore secondary means of ingress and egress in areas with existing evacuation constraints, as shown in **Figure SE-2, Evacuation Constrained Residential Parcels**, for subdivisions or developments of 10 units or more.

**SE 1.12**

**Evacuation assistance program:** Develop an evacuation assistance program, in coordination with Moorpark city bus, paratransit, and dial-a-ride agencies to help those with limited mobility or lack of access to a vehicle evacuate safely.

**SE 1.13**

**Resilience hubs:** Establish a network of equitably located resilience hubs throughout Moorpark and ensure that resilience hubs are situated outside of areas at risk from hazard impacts to the extent possible, offer refuge from extreme heat and poor air quality due to regional wildfire smoke, and are equipped with renewable energy generation and backup power supplies: Such facilities should be in easily accessible locations and be available to all community members.

**SE 1.14**

**Resilient critical and lifeline facility siting:** Locate new critical<sup>3</sup> and lifeline<sup>4</sup> facilities outside of flood and dam inundation zones, very high fire hazard severity zones, and landslide susceptibility areas, when feasible. If not feasible, appropriately site, design, and construct new critical facilities to be resilient to flooding, fires, and landslides.

**SE 1.15**

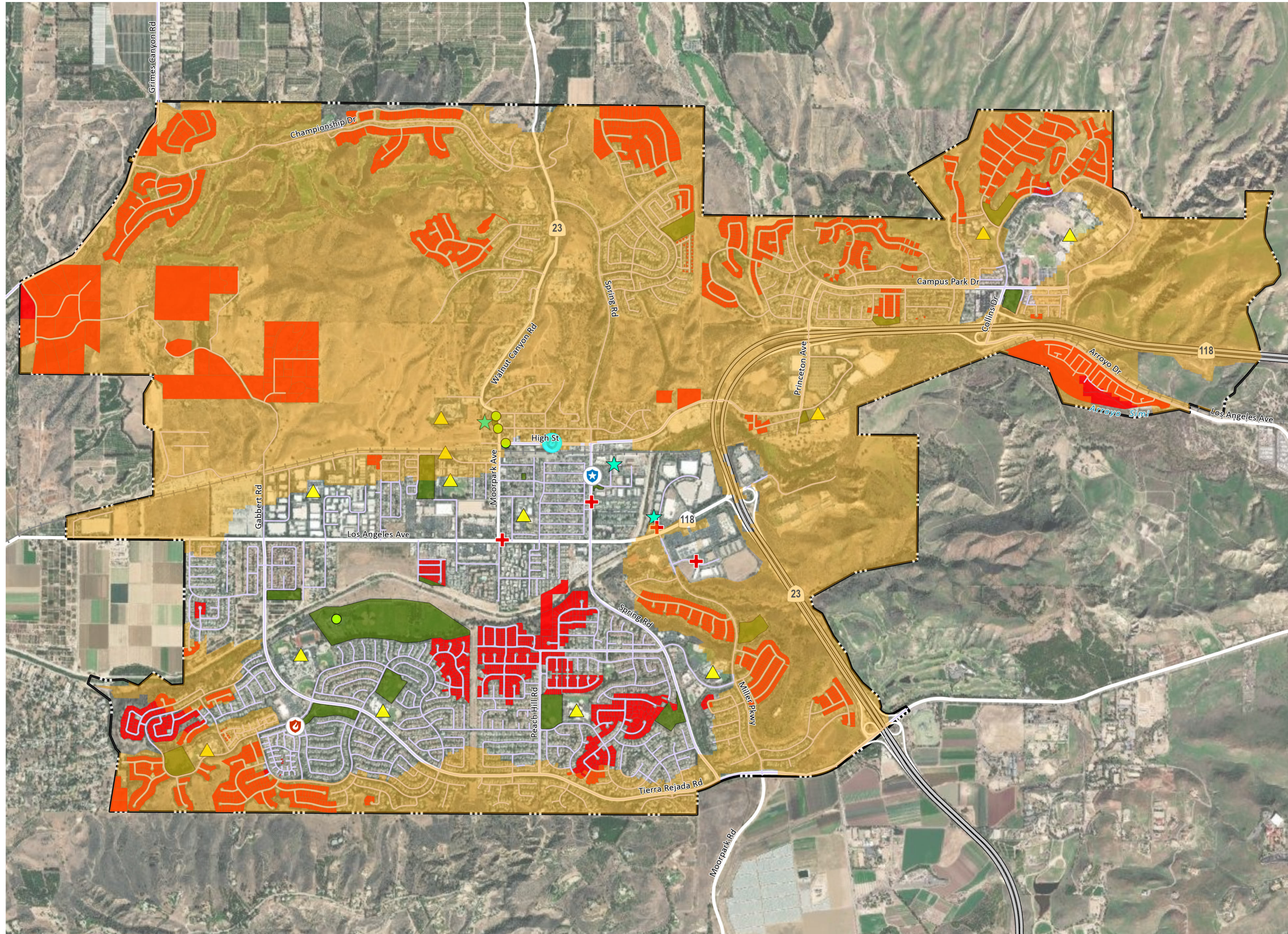
**Hazard mapping:** Update hazard mapping with each update to the Safety Element, or earlier, if new information becomes available, to ensure the city relies on best available hazard mapping to inform decisions.

**SE 1.16**

**Agency coordination:** Coordinate with Ventura County Fire Department, Ventura County Sheriff's Office, and City Manager's Office to ensure effective preparation, response, and recovery services are available throughout the community before, during, and after seismic and wildfire events.











<sup>3</sup> Critical facilities are buildings and infrastructure whose continued functioning is necessary to maintain public health and safety following a disaster, and facilities where damage or failure could pose hazards to life and property well beyond their immediate vicinity.

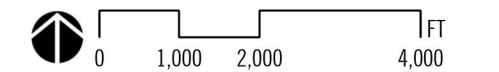
<sup>4</sup> Lifeline facilities are infrastructure that provides essential community services, such as electricity, natural gas, internet, communications, and water and wastewater infrastructure.



**SAFETY**

**Figure SE-2**  
**Evacuation Constrained Residential Parcels**

-  City Boundary
-  Very High Fire Hazard Severity Zone (LRA)
-  Residential Parcels with Evacuation Constraints
- Critical Facilities**
-  Police Services Center
-  Fire Station
-  Community Facility
-  Government Facility
-  Medical
-  School/College Campuses
-  Parks



Source: City of Moorpark, 2022; PlaceWorks, 2022; ESRI, 2022 Date: 2/24/2023

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**SE 1.17**

**Accessible hazard preparedness education and outreach:** Promote hazard preparedness with education and outreach available in multiple languages and formats appropriate for people with access and functional needs.

**SE 1.18**

**Ready Ventura County Program:** Coordinate with the Ventura County Sheriff’s Office of Emergency Services to update and coordinate the Ready Ventura County Program as relevant to the city of Moorpark.

**SE 1.19**

**Livestock and large animal evacuation:** Work with Ventura County Animal Services and Ventura County Office of Emergency Services to ensure that owners of livestock and large animals are prepared for and have the ability to evacuate during an emergency.

**SE 1.20**

**Disaster Response Training:** Coordinate with Ventura County Fire Department and Ventura County Sheriff’s Office of Emergency Services to conduct training for all employees to ensure basic understanding of Disaster Service Worker responsibilities, the State Emergency Management System, National Incident Management System, and the Incident Command System.

## 8.3 GEOLOGIC AND SEISMIC HAZARDS

Seismic and geologic hazards are risks caused by the movement of different parts of the Earth’s crust, or surface. Seismic hazards include earthquakes and hazardous events caused by them. Geologic hazards are other hazards involving land movements that are not linked to seismic activity and are capable of inflicting harm to people and/or property.

### 8.3.1 Seismic Hazards

Seismic activity occurs along boundaries in the Earth’s crust, called faults, most commonly in the form of earthquakes. Earthquakes can trigger ground shaking, surface rupture (cracks in the ground surface), liquefaction (causing loose soil to lose its integrity), landslides, and subsidence (sinking of the ground surface) in Moorpark.

#### Earthquakes

Earthquake risk is very high in Moorpark, due to the presence of several active faults in the region. Major fault zones in the region include the San Andreas Fault, Simi-Santa Rosa Fault, Oak Ridge Fault, San Cayetano Fault, and the Santa Susana Fault. These faults are all capable of producing earthquakes of magnitude 6.7 or greater. A major earthquake along any of these five faults could result in substantial casualties and damage resulting from collapsed buildings, damaged roads and bridges, fires, flooding, and other threats to life and property. The location of the epicenter, as well as the time of day and season of the year, would have a profound effect on the number of deaths, injuries, and property damage.

Most of the loss of life and injuries from earthquakes are due to damage and collapse of buildings and structures. Building codes for new construction have generally been made more stringent following damaging earthquakes. However, in Moorpark, structures built prior to the enactment of these improved building codes have generally not been upgraded to current standards and are vulnerable in earthquakes. Comprehensive hazard mitigation programs that include the identification and mapping of hazards, prudent planning and

enforcement of building codes, and expedient retrofitting and rehabilitation of weak structures can significantly reduce the scope of an earthquake disaster.

Earthquake shaking at a particular site is a function of both distance to the fault and site geology. Moorpark has a high potential for ground failure including liquefaction and settlement due to the close proximity of faults and Arroyo Simi. The city could suffer ground shaking strong enough to cause severe structural damage. As shown in **Figure SE-3, Earthquake Zones and Faults**, the Simi-Santa Susana Fault Zone crosses the southeastern corner of the city, which is also designated as an Alquist-Priolo Fault Zone. The Oak Ridge Fault, located three miles north of the city, is the fault that caused the 1994 Northridge Earthquake, which caused minor landslides and ridgetop shattering in the hills above Moorpark. Since 1994, three earthquakes have occurred with a 5.0  $M_w$  or greater near Moorpark, including a 5.4  $M_w$  earthquake in 2008 with an epicenter in Chino Hills, a 5.1  $M_w$  earthquake with an epicenter in Brea Springs, and a 5.3  $M_w$  earthquake with an epicenter on Santa Cruz Island.

Earthquakes are likely to continue to occur on an occasional basis and are likely to be small. Most are expected to cause no substantive damage and may not even be felt by most people. Major earthquakes are rare, but a likely possibility in the region. According to the United States Geologic Survey, there is a 25% chance of a 6.7  $M_w$  or greater earthquake occurring from the San Andreas Fault by 2044. Overall, scientists estimate that there is a 60% chance of a 6.7  $M_w$  or greater earthquake

occurring in the greater Los Angeles region, including Moorpark, by 2044.

If serious shaking does occur, newer construction is in general more earthquake resistant than older construction because of improved building codes. Manufactured housing is very susceptible to damage because the foundation systems are rarely braced for earthquake motions.

There is no evidence of a link between climate change and seismic activity, so climate change is not expected to change the frequency or intensity of hazards associated with earthquakes.

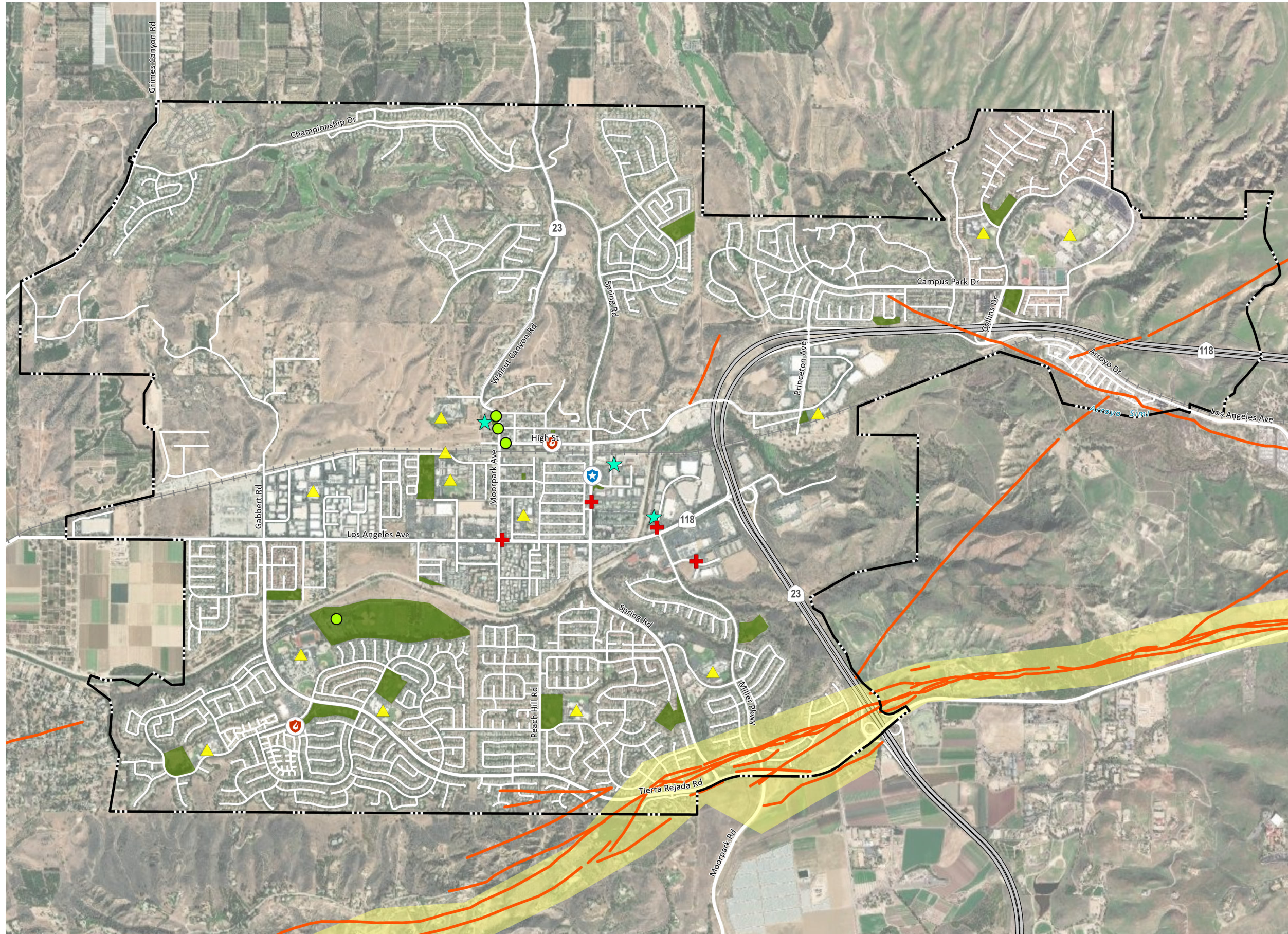
### Liquefaction

Liquefaction occurs when loose sand and silt that are saturated with water behave like a liquid when shaken by an earthquake. Earthquake waves cause water pressures to increase in the sediment and the sand grains to lose contact with each other. The soil can lose its ability to support structures and flow down even very gentle slopes. Many of these phenomena are accompanied by settlement of the ground surface, usually in uneven patterns that damage buildings, roads, and pipelines. In some cases of liquefaction, structures built on the soil may collapse completely. Liquefied soils may also damage or destroy underground utility lines. This can cause floods if water lines are broken or create a risk of fire if there is damage to natural gas lines. Liquefied soils may also flow more easily down slopes, increasing the risk for landslides and mudslides.











Geologic units that generally are susceptible to liquefaction include late Quaternary alluvial and fluvial sedimentary deposits and artificial fill. As shown in **Figure SE-4, Seismic Hazard Zones**, in




Moorpark, the city is in an area prone to liquefaction. Previous geotechnical reports conducted in areas of the city within the liquefaction zone concluded that there is high potential of liquefaction and recommended mitigation measures to reduce the impacts.



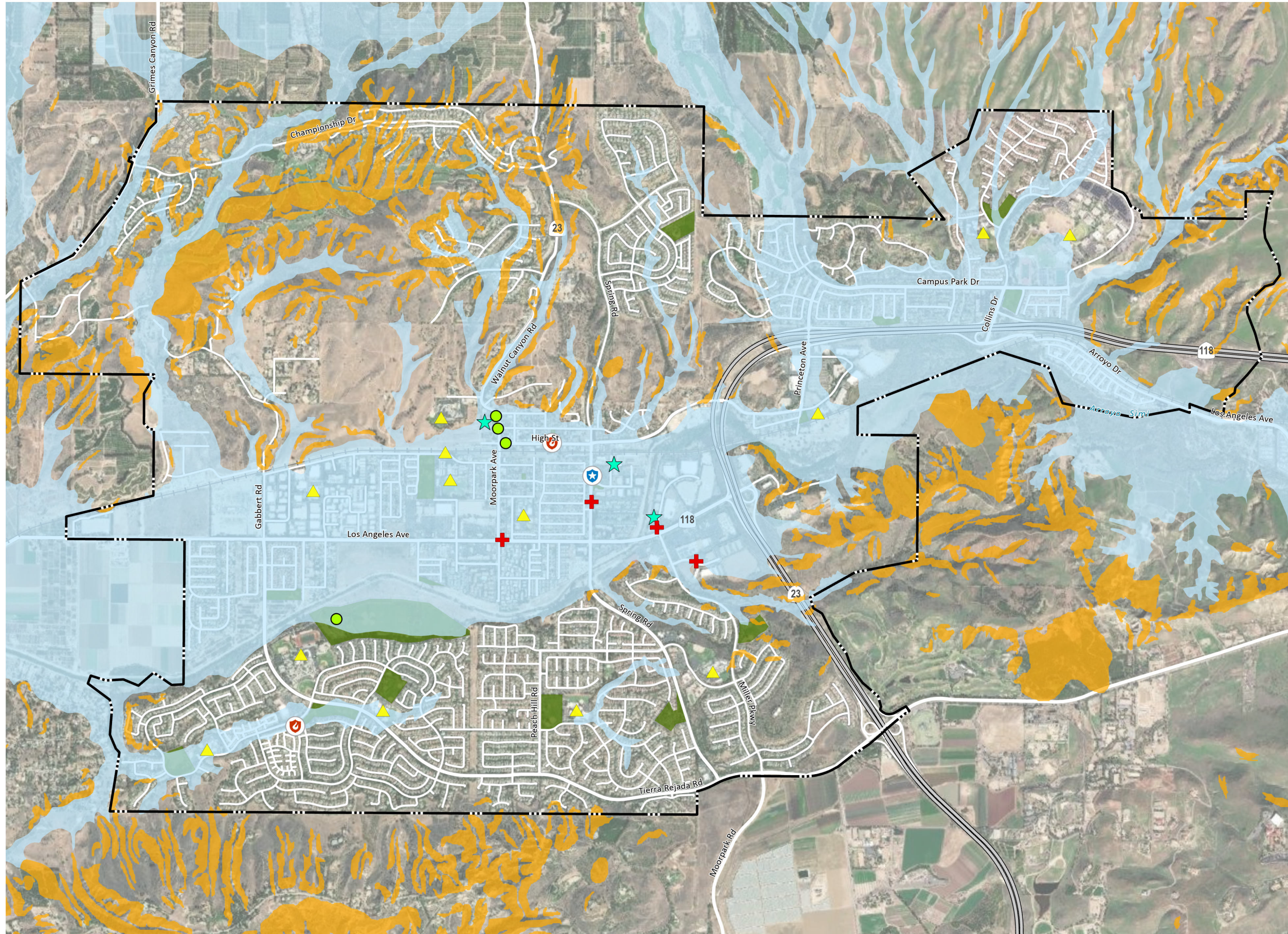
**SAFETY**  
**Figure SE-3**  
**Earthquake Zones and Faults**

-  City Boundary
-  Earthquake Faults
-  Alquist-Priolo Earthquake Fault Zone
- Critical Facility**
-  Police Services Center
-  Fire Station
-  Community Facility
-  Government Facility
-  Medical
-  School/College Campuses
-  Parks



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 Source: PlaceWorks, 2022 Date: 2/24/2023

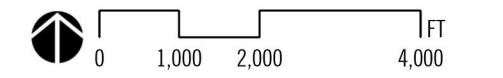
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SAFETY

Figure SE-4  
Seismic Hazard Zones

- City Boundary
- Earthquake-Induced Landslide Zones
- Liquefaction Zones
- Critical Facility**
- Police Services Center
- Fire Station
- Community Facility
- Government Facility
- Medical
- School/College Campuses
- Parks



Source: PlaceWorks, 2022 Date: 2/24/2023

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Approximately 48.6% of the city’s population live in areas prone to liquefaction.

In most cases, proper design and construction of subgrade soils and building foundations provides a mechanism to mitigate the risk of seismic hazards to an acceptable level in conformance with the California Building Code. The representation of areas having a liquefaction potential is only intended as notification to seek further site-specific information and analysis of this potential hazard as part of future site development.

### 8.3.2 Geologic Hazards

#### Landslides

A landslide is the downslope movement of soil and/or rock. Landslides can range in speed from very rapid to an imperceptible creep. Landslides can be caused by ground shaking from an earthquake or water from rainfall, septic systems, landscaping, or other origins that infiltrates slopes of unstable material. Boulder-strewn hillsides can also pose a boulder-rolling hazard from ground shaking, blasting, or a gradual loosening of their contact with the surface.

The likelihood of a landslide depends on an area’s geologic formations, topography, ground shaking potential, and human influences. Improper or excessive grading can increase the probability of a landslide. Land alterations such as excavation, placement of fill, removal of vegetative cover, and introduction of water from drainage, irrigation, or septic systems may further contribute to slope instability and

increase the likelihood of a landslide.

Undercutting support at the base of a slope or adding too much weight to the slope can also produce a landslide.

As shown in **Figure SE-4, Seismic Hazard Zones**, in Moorpark, the northwestern part of the city and areas to the northeast of the city are in areas prone to earthquake-induced landslides. According to the California Geological Survey (CGS), most development areas in Moorpark are in areas not classified for landslide susceptibility, while the northern and southern edges of the city have areas that are considered most susceptible or generally susceptible to landslides.<sup>5</sup>

Historically, rain-induced landslides have occurred in the Santa Susanna mountains to the north of Moorpark, most recently after heavy rain events in the winter of 2003 and 2017. Climate change is likely to change precipitation patterns, increasing the frequency and intensity of heavy precipitation events, which can increase the risk of slope failures. These types of landslides or debris flows are most common on steep slopes made up of loose or fractured material. Landslides and mudslides can move fast enough to damage or destroy homes or other structures in their path, block roadways, and injure or kill people caught in them.

#### Subsidence

Land subsidence is the gradual, local settling or shrinking of the earth’s surface, with little or no horizontal motion. Subsidence normally results from hydrocompaction (when soils collapse due to saturation); peat oxidation; or gas, oil, or

<sup>5</sup> California Department of Conservation Division of Mines and Geology. 1995. Landslide Hazards in the Moorpark and Santa Paula Quadrangles, Ventura County, California,

Landslide Hazards Identification Map No. 26. [ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR\\_95-07/](ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR_95-07/).

water extraction. Subsidence is not the result of landslide or ground failure. There is potential for subsidence in the alluvial deposits in the case of rapid groundwater extraction. **Figure SE-5, Subsidence Zones**, shows the areas of potential subsidence due to groundwater pumping. Extended periods of drought may cause a heavier reliance on groundwater to meet water demands, which could increase subsidence. Measures including increased use of reclaimed water, stormwater, and imported water, and protection of groundwater quality would mitigate this hazard.

### Expansive Soils

Soil permeability is the property of the soil to transmit water and air. The more permeable the soil, the greater the seepage, resulting in higher rates of infiltration. Pore size and number of pores closely relate to soil texture and structure and also influence permeability. Soils that transmit water faster (such as sandy soils) and have higher permeability have less shrink-swell potential because they retain less water. Conversely, soils that transmit water at a slower rate (such as soils with high clay content) have lower permeability and therefore higher shrink-swell potential and the potential for significant expansion.

As identified in the Seismic Hazard Zone Report, Moorpark is underlain by alluvial sediments deposited in lowland basins, canyons, and stream valleys. These sediments are generally characterized with fine sand and silt derived mainly from the Pliocene-Pleistocene Saugus Formation.<sup>6</sup> These units are generally low in

expansion potential, but they may contain layers of finer-grained soil such as clay and silty clays that are typically moderate to high in expansive potential.

When structures are located on expansive soils, foundations have the tendency to rise during the wet season and fall during the dry season. This movement can create new stresses on various sections of the foundation and connected utilities and can lead to structural failure and damage to infrastructure. Swelling soils can typically cause cracked foundations, floors, and basement walls. Damage to the upper floors of a building can also occur when motion in the structure is significant. While damage from expansive soils has occurred in the past, complying with the California Building Code and conducting site-specific geotechnical investigations minimizes the risk of damage to buildings and infrastructure from expansive soils.

## GEOLOGIC AND SEISMIC HAZARDS

### GOAL SE 2

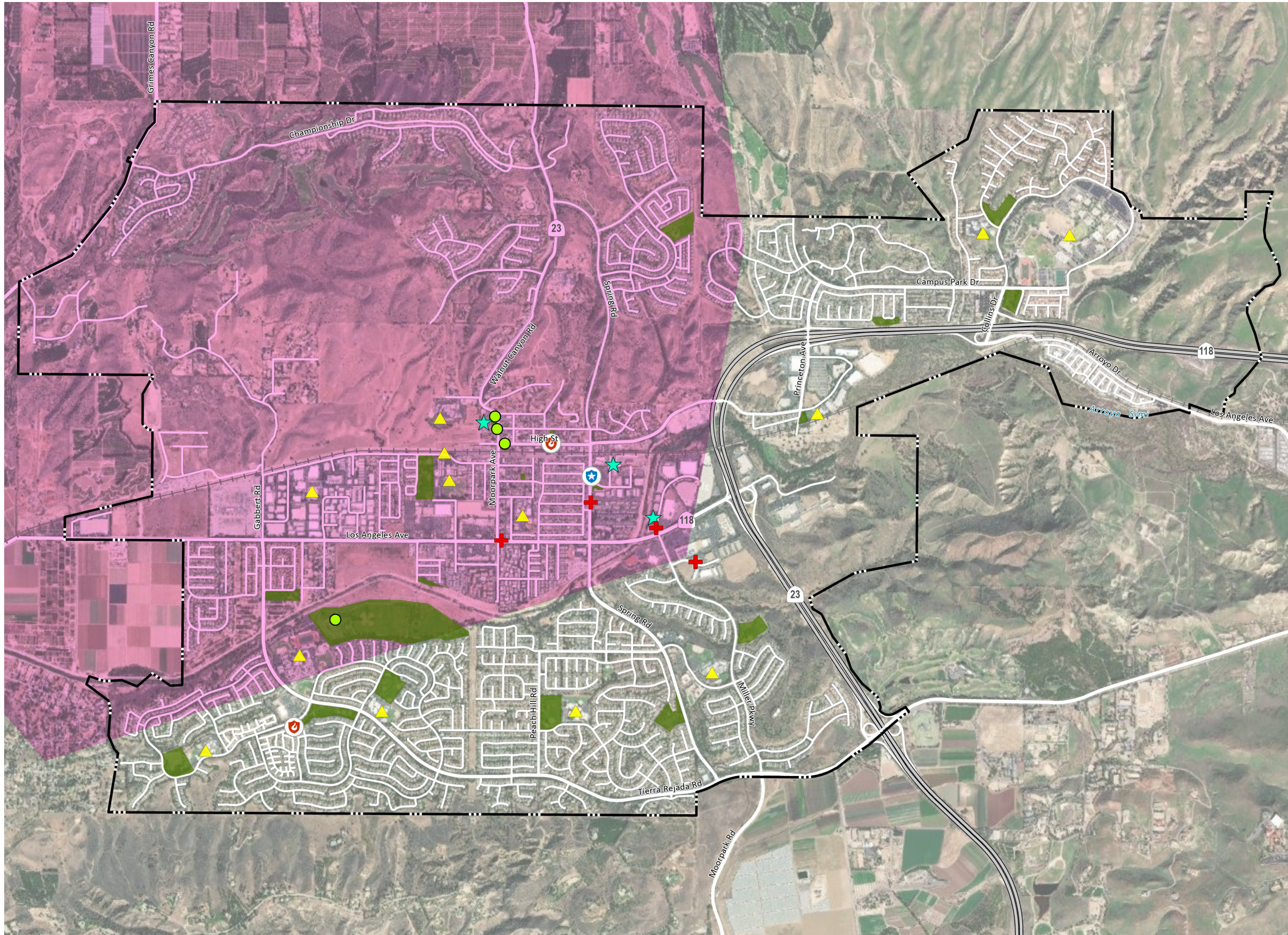
A COMMUNITY PROTECTED FROM SEISMIC AND GEOLOGIC HAZARDS, AVOIDING LOSS OF LIFE AND MINIMIZING DAMAGE TO STRUCTURES, SYSTEMS, AND SERVICES.

#### SE 2.1

**California Building Standards Code:** Continue to implement California Building Code seismic safety standards for construction of new buildings.

<sup>6</sup> California Department of Conservation Division of Mines and Geology. 2000. Seismic Hazard Zone Report For The Moorpark 7.5-Minute Quadrangle, Ventura County, California.

[https://gmw.conservation.ca.gov/SHP/EZRIM/Reports/S\\_HZR/SHZR\\_041\\_Moorpark.pdf](https://gmw.conservation.ca.gov/SHP/EZRIM/Reports/S_HZR/SHZR_041_Moorpark.pdf).



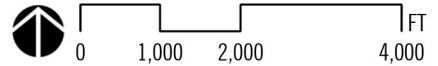
SAFETY

Figure SE-5  
Subsidence Hazard Zones

- City Boundary
- Subsidence Hazard Area

Critical Facility

- Police Services Center
- Fire Station
- Community Facility
- Government Facility
- Medical
- School/College Campuses
- Parks



Source: PlaceWorks, 2022 Date: 2/24/2023



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## SE 2.2

**Geologic studies:** Require the preparation of detailed geologic studies for new development within seismic and geologic hazard zones.

## SE 2.3

**Unreinforced masonry buildings:** Require existing unreinforced masonry buildings to be seismically retrofitted, based on an engineering evaluation, if deemed unsafe by a building official.

## SE 2.4

**Earthquake preparedness:** Participate in local, county, and State-sponsored earthquake preparedness programs.

## SE 2.5

**New development:** Require new development to comply with current state, regional, and local requirements for seismic and geologic safety.

## SE 2.6

**Slope stability analysis:** Require that slope stability analyses be conducted for new development in hillside areas and compliance with Section 17.38, Hillside Management of the Moorpark Municipal Code.

## SE 2.7

**Subsidence risk reduction coordination:** Coordinate with Ventura County Resource Management Agency to participate in regional measures that reduce risk of subsidence in the city of Moorpark and surrounding areas.

## SE 2.8

**Critical and lifeline facility operations:** Assess critical and lifeline facilities for seismic safety and earthquake performance to ensure they remain operational after a seismic event.

## 8.4 FLOOD HAZARDS

### 8.4.1 Flooding

Flooding is the rising and overflowing of a body of water onto normally dry land. Floods are among the costliest natural disasters in terms of human hardship and economic loss nationwide, causing substantial damage to structures, landscapes, and utilities, as well as life-safety issues. Flooding can be extremely dangerous, and even six inches of moving water can knock a person over given a strong current. Other hazards created by flooding include ground saturation that leads to slope instability; standing water that can damage buildings and increase human health hazards; as well as erosion, sedimentation, and degradation of water quality.

Floodwaters can damage buildings, carry large debris, and wash away soil that can weaken structures built on top, leading to collapse of building foundations. Flood can both pose a drowning hazard and cause mold and mildew to grow in buildings, creating poor indoor air quality. Flash floods are especially dangerous because they can happen suddenly and prevent effective evacuations.

Floods are usually caused by large amounts of precipitation, either from a period of very intense precipitation or a long period of steady precipitation. Historically, Moorpark has been at risk of flooding primarily during the winter and spring months when atmospheric river systems swell with heavy rainfall. Recent major flooding events in Moorpark have included winter storms in January 2005, flash flooding in January 2008, and winter storms in February 2017.

Prolonged, heavy rainfall causes high peak flows of moderate duration and a large volume of runoff, filling Arroyo Simi with water. When the ground is saturated by previous rainfall, flooding can be more severe. In impervious areas, such as areas covered in asphalt or cement, stormwater cannot absorb into the ground and flows faster over the surface. This can cause more extensive flooding in low lying areas. Flooding susceptibility in Moorpark is primarily associated with areas adjacent to Arroyo Simi and in the canyons on the hillsides in northern Moorpark.

Arroyo Simi runs through the center of Moorpark, which is bordered to the north and south by a levee system managed by the Ventura County Public Works Agency. This levee system includes Ventura County Levee 10, Ventura County Levee 19, and AS-4, which combined protect 781 people, 336 buildings, and \$245.9 million in property value.<sup>7</sup> During heavy rainfall, these levees protect people and structures from floodwater along Arroyo Simi. However, more intense storms are likely to occur due to climate change, which can cause overtopping of the levee system and flooding of the areas behind the levees.

Areas at an elevated risk of flooding are generally divided into 100- and 500-year flood zones. A 100-year flood zone has a 1% chance of experiencing a major flood in any given year and a 500-year flood zone has a 0.2% chance of flooding in any given year. **Figure SE-6, Flood Zones**, shows the 100- and 500-year flood zones in and around Moorpark. Flood hazard zones are primarily located along Arroyo Creek, with a

500-year flood hazard zone going north to Poindexter Avenue, and 100-year flood zones along the canyon areas of the hillsides in northern Moorpark.

Agencies responsible for flood control in Moorpark include:

- **Federal Emergency Management Agency (FEMA):** FEMA manages the National Flood Insurance Program (NFIP), providing insurance to the public in communities that participate in the program. FEMA is the main federal government agency contact during natural disasters and publishes the Flood Insurance Rate Maps (FIRM), which identify the extent of flood potential in flood-prone communities based on a 100-year flood (or base flood) event.
- **Federal Insurance Administration (FIA):** The FIA is the primary agency that delineates potential flood hazard areas and floodways through the FIRMs and the Flood Boundary and Floodway Map. Flood insurance is required of all homeowners who have federally subsidized loans.
- **Department of Water Resources (DWR):** DWR is responsible for managing and protecting California's water. DWR works with other agencies to benefit the state's people, and to protect, restore, and enhance the natural and human environments. DWR also works to prevent and respond to floods, droughts, and catastrophic events that would threaten public safety, water

<sup>7</sup> Source: FEMA and United State Army Corp of Engineers. N.d. "National Levee Database." <https://levees.sec.usace.army.mil/#/>.

resources and management systems, the environment, and property.

- **Ventura County Public Works Agency:** Ventura County Public Works Agency manages the Calleguas Creek watershed, in which Moorpark is located and Arroyo Simi flows through. Ventura County Public Works Agency operates and updates the levee system along Arroyo Simi

Due to the frequency of flooding in the past, flooding will likely occur in the future. Climate change is likely to increase the frequency and severity of flooding, as precipitation is expected to fall in fewer, more intense storms. This can affect what the community understands as a “normal” flood and expand the parts of the city that are considered flood prone. For example, what is currently considered a 100-year flood, or a flood that has a 1-percent chance of occurring in given year, may in future years have a 2 or 5% chance of occurring in a given year.

Increases in damaging flood events will cause greater property damage, public health and safety concerns, displacement, and loss of life. Displacement of residents can include both temporary and long-term displacement, increase in home and renters’ insurance rates, or restriction of insurance coverage in vulnerable areas.

### 8.4.2 Dam Inundation

A dam failure is an uncontrolled release of water from a reservoir through a dam because of structural failures in the dam, usually

associated with intense rainfall or prolonged flooding. Dam failures can range from minor to catastrophic and can potentially harm human life and property downstream from the failure. Although dam failures are very rare, they are not unprecedented.

Dam failures can occur from overtopping when a reservoir fills too high; foundation defects due to slope instability or settling in the foundation of the dam; piping and seepage failures due to erosion; and conduit or valve failures. Dams can also fail as a secondary effect of an earthquake or flooding event. The primary danger associated with dam failure is the high-velocity flooding downstream of the dam and limited warning times for evacuation. In a dam failure scenario, the greatest threat to life and property typically occurs in those areas immediately below the dam since flood depths generally decrease as the flood wave moves downstream.

There is no record of dams failing in Ventura County.

As shown in **Figure SE-7, Dam Inundation Areas**, Sinaloa Lake and Bard Reservoir have dam inundation areas that pass-through Moorpark. The dam inundation areas flow along Arroyo Simi with the Bard Reservoir inundation area extending north to Poindexter Road and south to Mountain Meadows Elementary School. Both of these dams are of earthen embankment material and have a satisfactory condition assessment as of 2020.<sup>8</sup>

All of the dams in Ventura County have Emergency Action Plans, which are reviewed and approved by the California Department of

<sup>8</sup> Ventura County. 2022. Ventura County Multi-Jurisdictional Hazard Mitigation Plan. <https://s29710.pcdn.co/wp->

[content/uploads/2022/06/2022-06\\_VenturaHMP\\_Vol1\\_Final.pdf](content/uploads/2022/06/2022-06_VenturaHMP_Vol1_Final.pdf).

Water Resources, Division of Safety of Dams. The Division of Safety of Dams also inspects each dam annually to ensure it is safe, performing as intended, and is not developing issues.

Although unlikely, dam failure does pose a risk to Moorpark due to the extensive damage that could occur. Dams are designed to withstand a probably maximum precipitation, but climate change may cause more frequent and severe precipitation events, which could overwhelm the dam structure, increasing the risk of dam inundation in Moorpark.

## FLOOD HAZARDS

### GOAL SE 3

MINIMIZE RISK OF LOSS OF LIFE, INJURY, DAMAGE TO PROPERTY, AND ECONOMIC OR SOCIAL DISLOCATIONS RESULTING FROM FLOOD HAZARDS.

#### SE 3.1

**National Flood Insurance Program:** Continue to participate in the Federal Emergency Management Agency’s National Flood Insurance Program to ensure building owners in Moorpark can obtain flood insurance.

#### SE 3.2

**Low impact development:** Minimize impervious areas by requiring development to include low impact development and green infrastructure that increase pervious surfaces to absorb impacts from stormwater and flooding.

#### SE 3.3

**Floodway management:** Consider floodway management design that includes areas where stream courses are left natural or as developed open space.

#### SE 3.4

**Flood control infrastructure:** Coordinate with Ventura County Public Works Agency to improve and maintain flood control structures, detention basins, channel reconstruction, and diversion systems within Moorpark and the greater Calleguas Creek watershed, using natural infrastructure where feasible.

#### SE 3.5

**Critical and lifeline facilities:** Maintain the structural and operational integrity of critical and lifeline facilities during and after flooding events.

#### SE 3.6

**Floodplain management requirements:** Require new development in the 100-year and 500-year flood hazard zones to comply with provision Moorpark Municipal Code Section 15.24, Floodplain Management.

#### SE 3.7

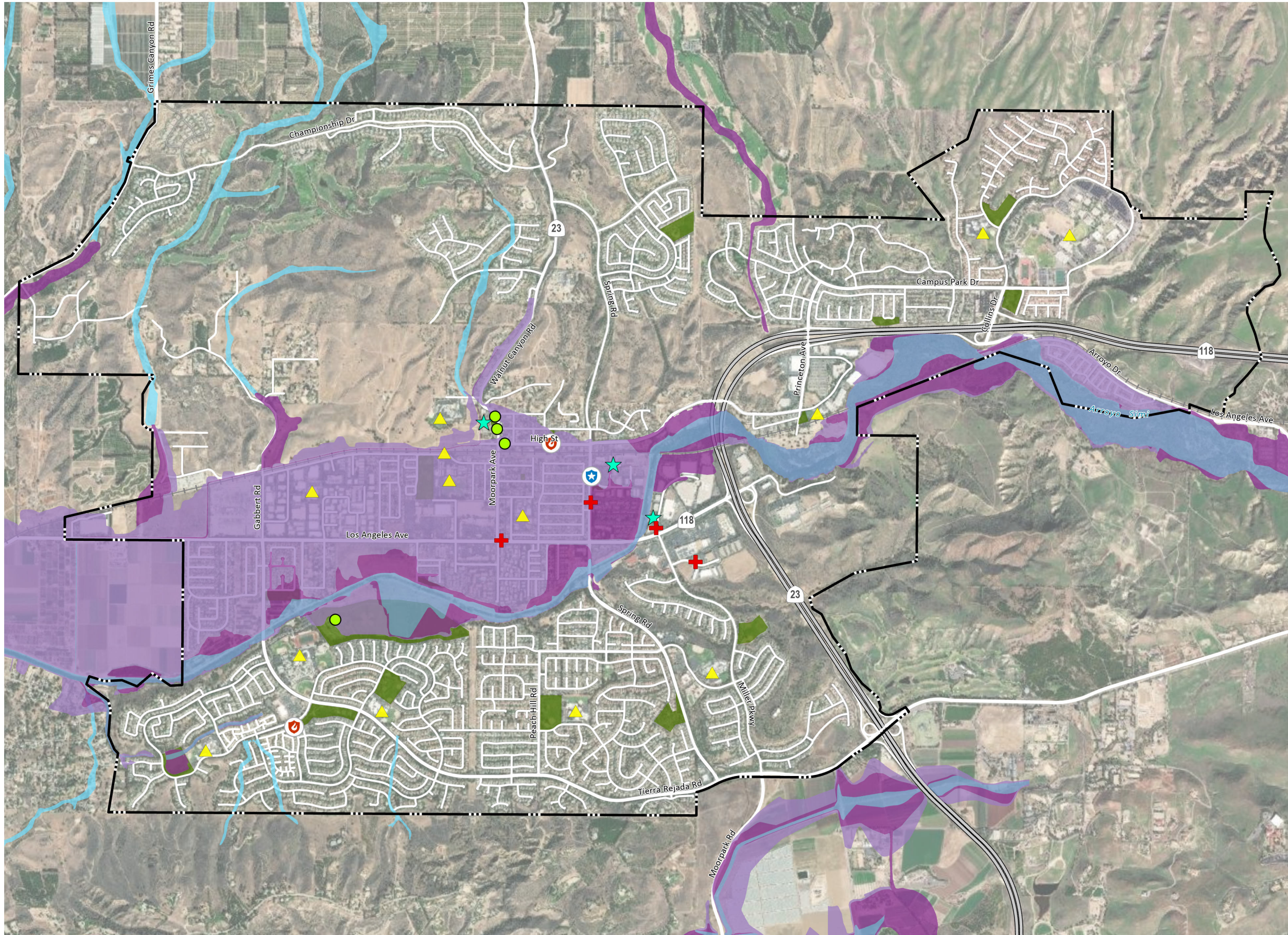
**Review of new flood control facilities:** Coordinate with the Ventura County Public Works Agency to review new development for flood control and flood hazard reduction from new development.

#### SE 3.8

**Flood safety plans:** Require new development within a designated flood hazard zone to submit flood safety plan for approval by the Floodplain Administrator.

#### SE 3.9

**Green infrastructure:** Promote the use of green infrastructure to convey stormwater and reduce flooding.



SAFETY

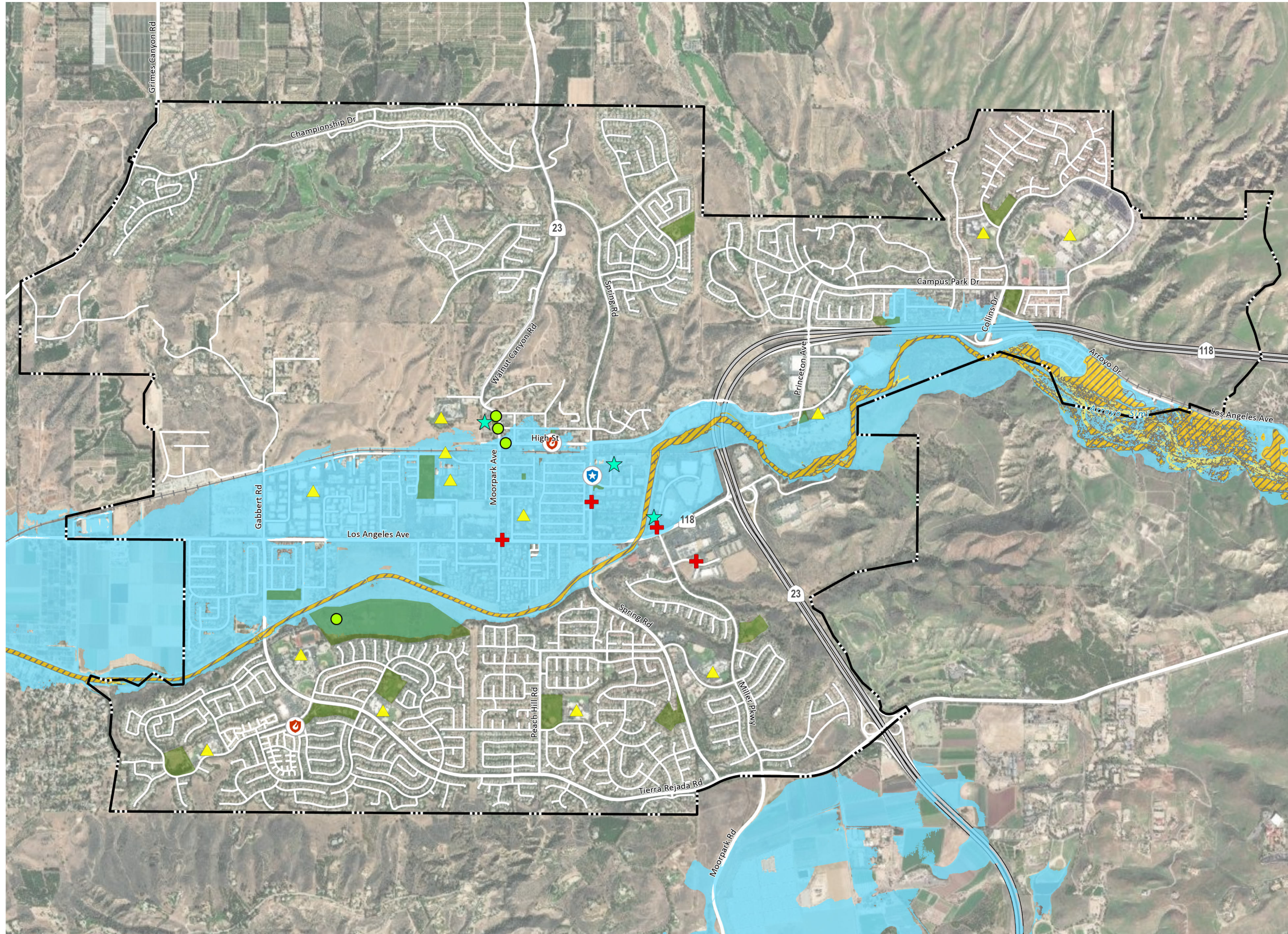
Figure SE-6  
Flood Zones

- City Boundary
- Flood Zones**
- 100 year Flood Zone
- 500 year Flood Zone
- Regulatory Floodway
- DWR Awareness 100 Year Flood Zone
- Critical Facility**
- Police Services Center
- Fire Station
- Community Facility
- Government Facility
- Medical
- School/College Campuses
- Parks



Source: PlaceWorks, 2022; FEMA, 2021; DWR, 2021 Date: 2/24/2023

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SAFETY

Figure SE-7  
Dam Inundation Areas

- City Boundary
- Dam Inundation Area**
  - Sycamore Canyon
  - Las Lajas
  - Sinaloa Lake
  - Wood Ranch
- Critical Facility**
  - Police Services Center
  - Fire Station
  - Community Facility
  - Government Facility
  - Medical
  - School/College Campuses
  - Parks



Source: PlaceWorks, 2022; DWR, 2021 Date: 2/24/2023



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## 8.5 FIRE HAZARDS

The combination of complex terrain, Mediterranean climate, and productive natural plant communities next to developed areas has created conditions for extensive wildfires in Moorpark. Fire conditions arise from a combination of factors and changing conditions have created an extended fire season that lasts for most or all of the year. Fire hazards in Moorpark include the following:

- Wildfires. Fires occurring in undeveloped or natural lands.
- Wildland-urban interface fires. Fires occurring where natural lands coexist with the built environment.
- Urban fires. Fires occurring only in the built environment.

Fire protection services, provided by the Ventura County Fire Department, are discussed in more detail in section 9.10, Fire Services.

### 8.5.1 Wildfires

A wildfire is an uncontrolled fire on undeveloped land that requires fire suppression. In Moorpark, grassland and woodland habitats provide highly flammable fuel that is conducive to wildfires. These ecosystems are typically capable of regeneration after a fire, making periodic wildfires a natural part of the ecology of these areas. However, frequent wildfires that burn at high temperatures can prevent regeneration. A Mediterranean climate with hot, dry summers and cool, wet winters, creates fuels that dry out during the summer and fall months, exacerbating wildfire hazards.

Wildfires can be sparked a variety of ways, but most commonly are either human-caused by debris burning, arson, and equipment use, or naturally by lightning. Once started, wildfires can spread via embers, direct flame contact, and radiant heat.

In Moorpark, wildfire season historically peaks in the fall, after long dry summers and dry, gusty downslope Santa Ana winds. Santa Ana winds come from the desert in the east, through the mountain canyons carrying extremely dry air at high velocities. These hot, dry winds can quickly desiccate vegetation and other combustible materials and can push a fire down or up a slope at very high speeds. Santa Ana winds typically occur from October to April, and during these events it is far more difficult to control a wildfire.

Wildfire is of most concern in the areas of the city with natural vegetation, such as undeveloped areas and larger lots with expansive un-irrigated vegetation. Much of these areas are covered in grasslands or brush, which are easily ignited, especially in the summer months. Grass and brush fires can be easier to control if they can be reached by fire equipment. If grass and brush fires can be reached by fire equipment, they are relatively easy to control. However, fast and hot burning wildfires can destroy vegetation cover, leading to flooding and debris flows when precipitation does return.

Areas adjacent to the city that are susceptible to wildfires are also of concern as these conditions could exacerbate vulnerabilities within the city. These areas include unincorporated Ventura County, Happy Camp Canyon Regional Park, Santa Rosa Valley, Simi Valley, and even Los Angeles County.

Wildfires can also create a secondary hazard of wildfire smoke, which degrades air quality and leads to respiratory illnesses. Wildfire smoke consists of a mix of gases and fine particulate matter from burning vegetation and materials, the most concerning of which is fine particulate matter (PM<sub>2.5</sub>). PM<sub>2.5</sub> from wildfire smoke can seep deep into lung tissue and affect the heart and circulatory system. Although wildfire smoke presents a health risk to everyone, sensitive groups may experience more severe acute and chronic symptoms from exposure to wildfire smoke, such as children, older adults, people with chronic respiratory or cardiovascular disease, or persons experiencing homelessness.

As shown in **Figure SE-8, *Historic Fires Within or Near Moorpark***, several fires have burned within or near Moorpark since the 1940s. The largest of these fires, the 2003 Simi Fire, burned approximately 107,560 acres, including areas in eastern Moorpark along SR-23. The second largest fire, the 1970 Clappett Fire, burned over 115,000 acres, including the open space area east of SR-24 and south of SR-118.

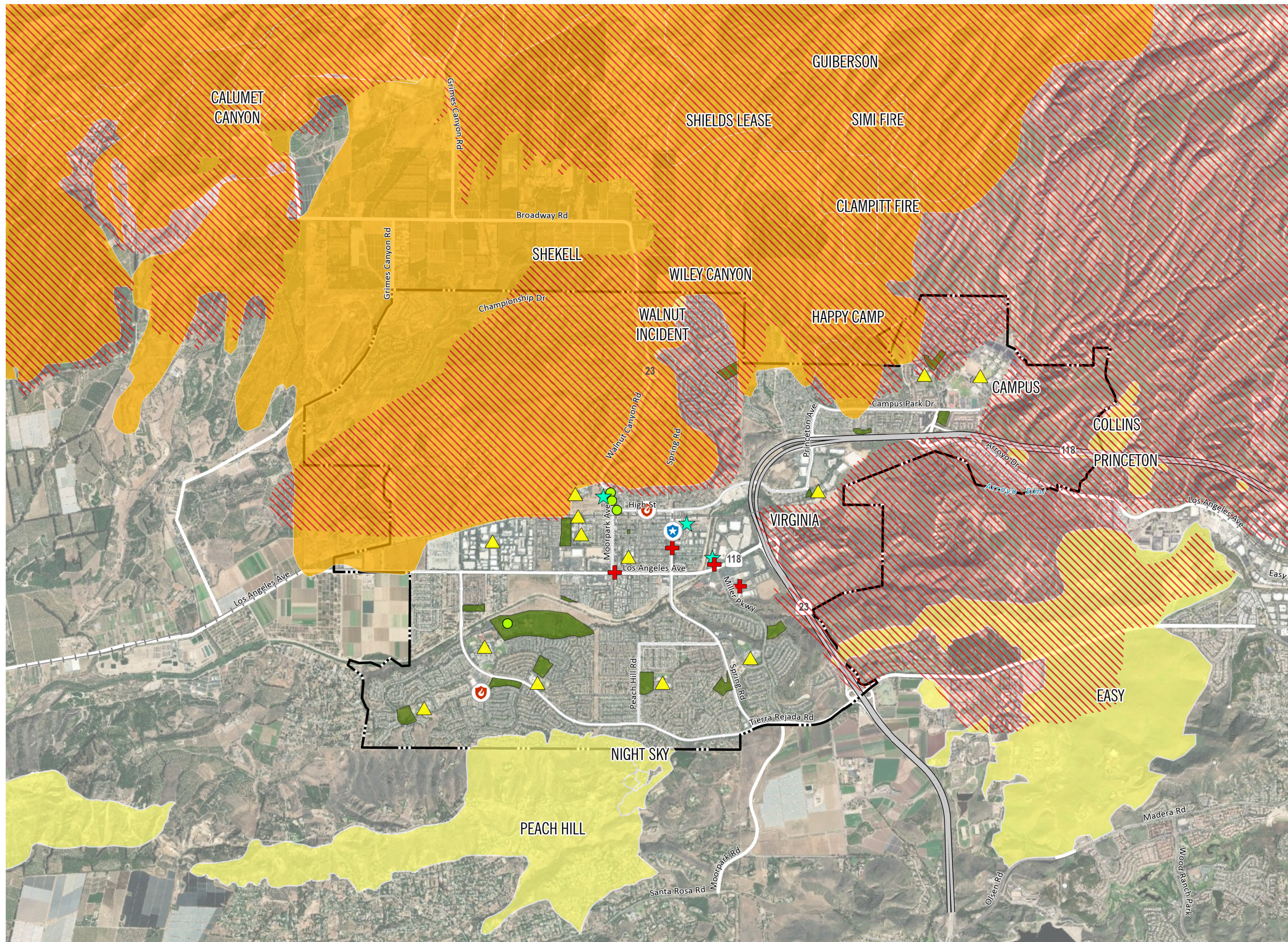
Wildfire will continue to be a high-risk hazard for personal safety and property damage in Moorpark and smoke impacts from local and regional wildfires are likely to continue to be problematic. Climate change will likely exacerbate these risks, as warmer temperatures worsen drought conditions, drying out vegetation and creating more fuel for wildfires. Increased winds may result in more erratic fire behavior, making fires harder to contain. Warmer temperatures are also expected to occur during more of the year, extending the wildfire season, which is likely to begin earlier in the year and extend later than it has historically. Wildfires occurring later or earlier in the year are more likely to occur during Santa Ana wind events, which can cause wildfires to move more

quickly and increase the likelihood of burning in the developed areas.

## 8.5.2 Wildland-Urban Interface Fires

The wildland-urban interface (WUI) is an area where buildings and infrastructure (e.g., cell towers, community facilities, homes) mix with areas of flammable wildland vegetation. The WUI is composed of the interface, intermix, and influence communities. The distinction between these is based on the characteristics and distribution of houses and wildland vegetation across the landscape. Intermix WUI refers to areas where housing and wildland vegetation intermingle, while interface WUI refers to areas where housing is in the vicinity of a large area of dense wildland vegetation. The Influence WUI refers to an area of wildfire-susceptible vegetation up to 1.5 miles from the WUI. Hundreds of homes now border major grassland and brush areas in California. Human-caused fires are the leading cause of wildland fires, and with thousands of people living near and visiting wildland areas, the probability of human-caused fires is growing.

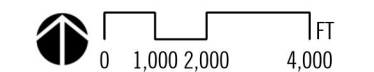
As shown in **Figure SE-9, *Wildland Urban Interface***, Moorpark has lands within the interface, intermix, and influence WUI zones. The interface zones are located in neighborhoods along Championship Drive, Poindexter and Princeton Avenues, Tierra Rejada Road, and near Moorpark college. The intermix zones are primarily located along SR-23 and in the hillsides in northern Moorpark. Influence zones are located in the hillsides and natural areas surrounding development in Moorpark.



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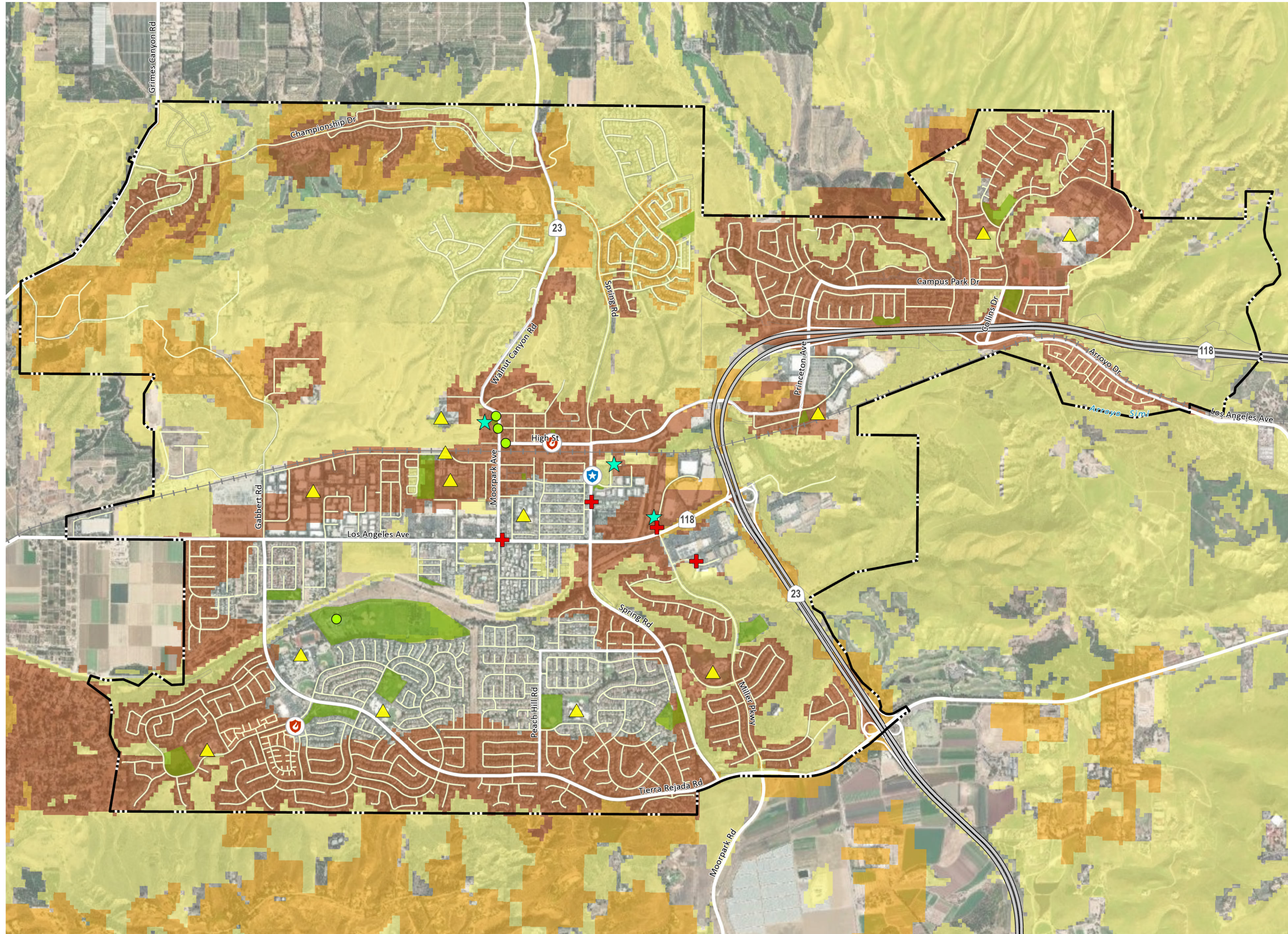
Figure SE-8  
Historic Fires within or near  
Moorpark by Acres Burned

- City Boundary
- Historic Fire Perimeter
- Acres
  - < 10,000 Acres
  - 10,000 - 20,000 Acres
  - 20,000 + Acres
- Critical Facilities
  - Police Services Center
  - Fire Station
  - Community Facility
  - Government Facility
  - Medical
  - School/College Campuses
  - Parks



Source: CalFire, 2020; PlaceWorks, 2022 Date: 2/24/2023

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**SAFETY**

**Figure SE-9  
Wildland Urban Interface**

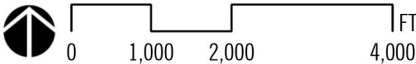
**CalFire Wildland/Urban Interface**

- Influence Zone: Wildfire-susceptible vegetation within 1.5 miles from the interface or intermix zones.
- Intermix Zone: Housing development or improved parcels interspersed in an area dominated by wildland vegetation subject to wildfire.
- Interface Zone: Dense housing next to vegetation, but not dominated by wildland vegetation, that can burn in a wildfire.

**City Boundary**

**Critical Facilities**

- ★ Police Services Center
- 🚒 Fire Station
- Community Facility
- ★ Government Facility
- + Medical
- ▲ School/College Campuses
- Parks



Source: CalFire, 2020; PlaceWorks, 2022 Date: 2/24/2023

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In the WUI, efforts to prevent ignitions and limit wildfire loss hinge on hardening structures and creating defensible space through a multi-faceted approach, which includes engineering, enforcement, education, emergency response, and economic incentive. However, even with these strategies, fires in the WUI are likely to increase in the future due to development being located near wildland vegetation areas. Climate change could increase the potential of a WUI fire occurring due to drier fuels and faster moving fires.

### 8.5.3 Urban Fires

Moorpark is also at risk from urban fires. These fires occur in built-up environments, destroying buildings and other human-made structures. Urban fires are often due to faulty wiring, mechanical equipment, or combustible construction materials in structures. The absence of fire alarms and fire sprinkler systems often exacerbate the damage associated with a structural fire. Urban fires are largely from human accidents, although deliberate fires (arson) may be a cause of some events. To minimize fire damage and loss, the city's Building Code, Ventura County Fire Code, and Ventura County Fire Apparatus Access Code, based on the California Building Standards Code, sets standards for building and construction. It requires the provision of adequate water supply for firefighting, defensible space, fire-retardant construction, and minimum street widths, among other things.

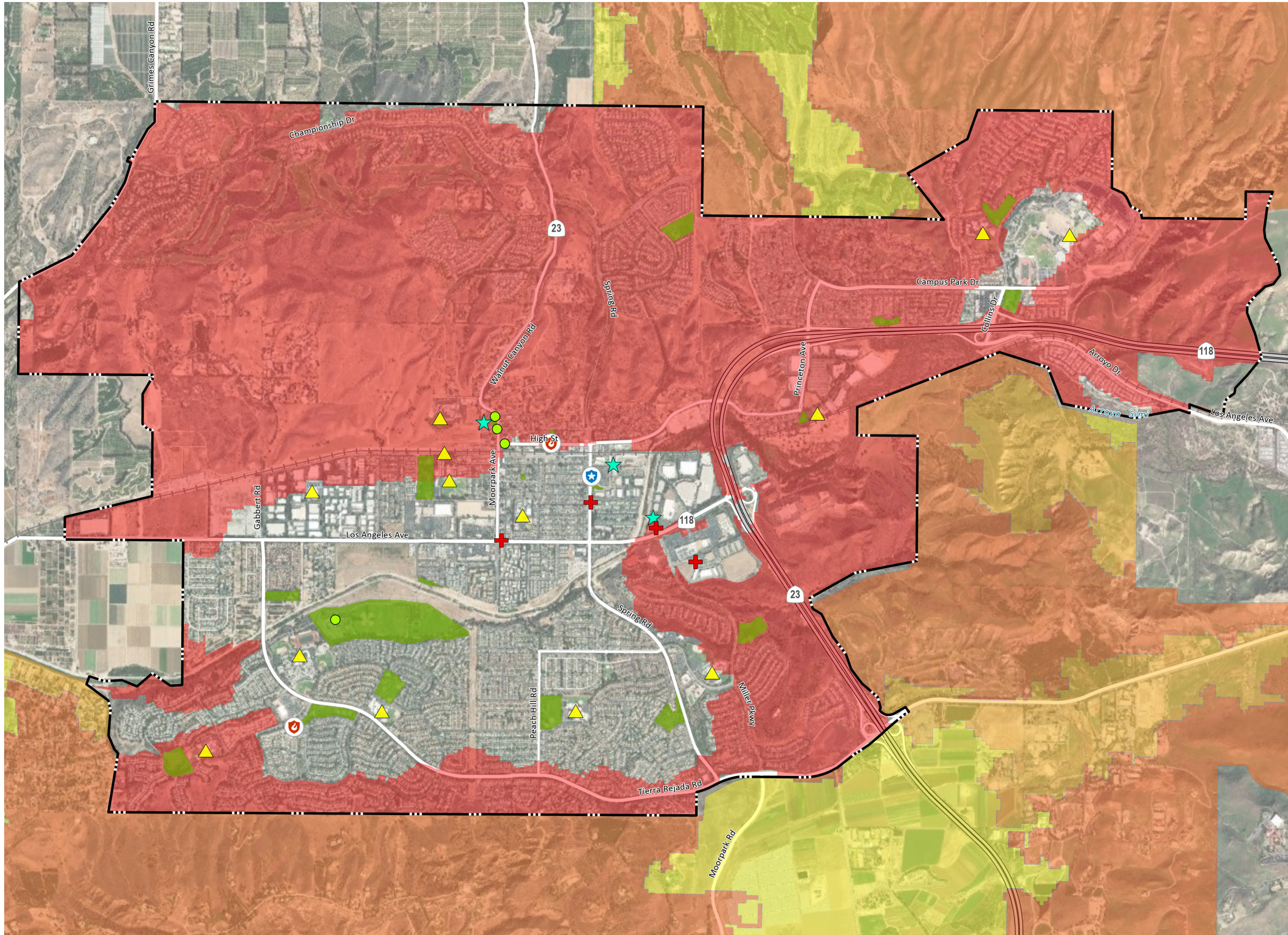
According to the Ventura County Fire Department, approximately 657 urban fires burned in the city between June 2007 and June 2020. Out of those 657 urban fires, 160 have been structural fires, with the most urban fires occurring in 2009 over the past 13 years.<sup>9</sup> The likelihood of urban fires occurring in the city is low since these fires are usually the result of human accidents or mechanical issues in buildings.

### 8.5.4 Fire Hazard Severity Zones

CAL FIRE establishes Fire Hazard Severity Zones (FHSZs) based on vegetation type, topography, wind pattern, and several other factors. FHSZs are designated as moderate, high, or very high severity. As shown in **Figure SE-10, Fire Hazard Severity Zone Areas**, northern and eastern Moorpark, as well as areas adjacent to Tierra Rejada Road are located in Very High FHSZs. These areas include eight school campuses, three community facilities, city hall, and Ventura County Fire Station 42. Some of these high-risk areas are also difficult to access due to single access roadways or winding roads bordering undeveloped hillsides. While large-scale wildfires do not occur every year, wildfire incidents driven by extreme weather are more likely to burn in Very High FHSZs than in other areas of the city.

<sup>9</sup> Ventura County Fire Department. June 2020. Moorpark Fire Incidents from the Ventura County Fire Department NFIRS.



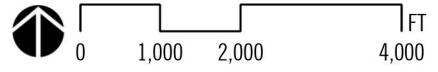


**SAFETY**

**Figure SE-10  
Fire Hazard Severity Zones**

- City Boundary
- Very High Fire Hazard Severity Zone (LRA)
- Very High Fire Hazard Severity Zone (SRA)
- High Fire Hazard Severity Zone (SRA)
- Moderate Fire Hazard Severity Zone (SRA)

- Critical Facilities**
- Police Services Center
  - Fire Station
  - Community Facility
  - Government Facility
  - Medical
  - School/College Campuses
  - Parks



Source: CalFire, 2020; PlaceWorks, 2022 Date: 2/27/2023

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## FIRE HAZARDS

### GOAL SE 4

MINIMIZED INJURY, LOSS OF LIFE, AND DAMAGE TO PROPERTY FROM WILDFIRE AND STRUCTURAL FIRES.

#### SE 4.1

**Fire hazard reduction:** Continue to work with the Ventura County Fire Department and the Ventura Regional Fire Safe Council to implement fire hazard reduction policies and projects, to the extent they are relevant to Moorpark, in the Ventura County Multi-Jurisdictional Hazard Mitigation Plan, the Ventura County Community Wildfire Protection Plan, the General Plan, and the Capital Improvement Program.

#### SE 4.2

**California Building Standards Code:** Coordinate with Ventura County Fire Department to continue to adopt and enforce the most recent version of the California Building Code and Fire Code, as well as California Fire Safe Regulations for new and existing development.

#### SE 4.3

**Sufficient water supplies for firefighting:** Work with Ventura County Fire Department to ensure that existing and future development in the city has sufficient water supplies, including adequate flow rates and back-up power supplies for fire-fighting purposes.

#### SE 4.4

**Fire protection plans:** New development within Very High Fire Hazard Severity Zones or the Wildland Urban Interface must prepare a fire protection plan for review and approval by the Ventura County Fire Department prior to issuance of building permit.

#### SE 4.5

**Ventura County Strategic Fire Plan:** The current version of the Ventura County Fire Department Strategic Fire Plan is hereby incorporated into this Safety Element, by reference, to ensure existing non-conforming development reduces fire hazards by implementing Fire Safe Regulations for roads and vegetation.

#### SE 4.6

**Vegetation management funding:** Coordinate with the Ventura County Fire Department and Ventura Regional Fire Safe Council to obtain funding for and conduct vegetation and fuel modification or management.

#### SE 4.7

**Egress and ingress:** Require new development within a Very High Fire Hazard Severity Zone to have at least two egress and ingress options, visible street signs that identify evacuation routes, visible street addresses, and adequate water supply for structural suppression in accordance with the California Fire Safe Regulations.

#### SE 4.8

**Traffic Control Plans:** Require development projects in the Very High Fire Hazard Severity Zone or WUI to prepare a Traffic Control Plan to ensure that construction equipment or activities do not block roadways during the construction period.

#### SE 4.9

**Redevelopment:** Require re-development in the Very High Fire Hazard Severity Zone to comply with current California Building Code, Ventura County Fire Code, and California Fire Safe Regulations.

#### SE4.10

**Re-Evaluate Development:** Re-evaluate development in Fire Hazard Severity Zones after a large wildfire.

## 8.6 SEVERE WEATHER

Severe weather can include extreme heat and warm nights, hail, lightning, and high winds, which are usually caused by intense storm systems, although types of high winds can occur without a storm. The most common severe weather events in Moorpark include extreme heat and high winds. While thunderstorms and hail occasionally occur in Moorpark, these meteorological phenomena are less likely to occur within the city.

### 8.6.1 Extreme Heat and Warm Nights

While there is no universal definition of extreme heat, California guidance documents define extreme heat as temperatures that are hotter than 98% of the historical high temperatures for the area, as measured between April and October of 1961 to 1990. Days that reach this level are called extreme heat days. In Moorpark, an extreme heat day occurs when temperatures reach above 94.9 degrees Fahrenheit citywide. Although this threshold is lower than other areas of California, residents in Moorpark are not accustomed to high temperatures due to the influence of the coast. The number of extreme heat days in Moorpark is projected to increase from a historic annual average of 3 extreme heat days per year to an average of 20 extreme heat days per year by midcentury and an average of 37 extreme heat days per year by end of century.

Extreme heat can also occur in the form of warmer nights when temperatures do not cool enough overnight to provide relief from the heat. In Moorpark, a warm night occurs when the temperature remains above 62.6 degrees

Fahrenheit citywide. The number of warm nights in Moorpark is projected to increase from a historic annual average of 4 warm nights per year to an average of 37 warm nights per year by midcentury and an average of 79 warm nights per year by the end of the century. During warm night events, residents are less likely to find relief from high temperatures if unable to access air conditioning.

Prolonged extreme heat and warm nights can cause heat-related illnesses, such as heat cramps, heat exhaustion, and heat stroke, in addition to exacerbating respiratory and cardiovascular conditions. Homes in Moorpark may lack air conditioning, and as a result people living in these homes may be more susceptible to harm from extreme heat events. If homes have air conditioning, residents may find increased use cost prohibitive, especially for older or less efficient systems. Indirectly, extreme heat puts more stress on power lines, which could cause them to run less efficiently. The heat also causes more demand for electricity (usually to run air conditioning units), and in combination with the stress on the power lines, may lead to power outages.

### 8.6.2 Severe Storms

Severe storms can include high winds, hail, and lightning, which are usually caused by intense storm systems, although high winds can occur without a storm. While the connection between climate change and severe storms is not as well established as other hazards, new evidence suggests that these forms of severe storms may occur more often than in the past due to climate change.

## High Winds

The most common form of high winds in Moorpark are the Santa Ana winds. These winds typically occur from October to April as hot, dry winds from the desert that flow over the Sierra Nevada and Santa Ana mountains towards the ocean. Gaps in mountains, such as Moorpark, form wind tunnels that increase the velocity of these winds. Santa Ana winds can have sustained wind speeds of 40 miles per hour and gusts of over 80 miles per hour. These winds peak in a 12- to 24-hour period but can also last for a few days. The winds are strong enough to cause trees to fall down, wildfires to spread uncontrollably, and debris to damage buildings or block transportation infrastructure. Since 2002, Ventura County has experienced 14 high wind events. Although climate change does not yet have a direct link to high winds, extreme heat, drought, and wildfires are more likely to coincide with high wind events, creating more dangerous conditions.

## Public Safety Power Shutoffs

Severe storms have caused electricity utilities throughout California, including Southern California Edison, to occasionally turn-off the electricity to powerlines that run through areas with an elevated fire risk. De-energizing the powerlines is intended to reduce the risk of the lines arcing and sparking a wildfire. These activities, called Public Safety Power Shutoff (PSPS) events, result in loss of electricity to customers in areas served by affected powerlines. PSPS events typically occur between October to April, when the Santa Ana winds are at their strongest, creating ideal wildfire conditions. The PSPS events could be limited to a specific neighborhood or affect broad swaths

of Ventura County depending on the severity of the wind event and the safety of the electricity infrastructure.

Since 2019, Southern California Edison has conducted PSPS events several times in Moorpark. In January 2021, a PSPS event lasted two days, turning off electricity to 8,362 customers in Moorpark for almost 40 consecutive hours. This outage included most of the areas along Los Angeles Avenue, where many of the businesses and employers are located. In November 2021, Southern California Edison conducted a PSPS event starting on November 24 that lasted for two days. Over 78,500 customers in six counties were without power during this time.

PSPS events can impact emergency management activities, including evacuation notifications. PSPS events can also create vulnerabilities for community members that lack backup power supplies and depend on electricity for medical equipment, to keep food and medications refrigerated, and heating or cooling homes and buildings. Additionally, community members may be faced with economic hardships and be unable to access important services, such as grocery stores, gas stations, and banks/ATMs. Traffic lights and other traffic-control systems may not work, which can complicate any evacuation needs and may hinder emergency response. Although critical public health and safety facilities often have backup generators, the loss of power may also disable other key infrastructure systems.

Moorpark is working with Southern California Edison to underground powerlines and protect electricity infrastructure from high winds. However, PSPS events are likely to occur in the

future during Santa Ana or other high wind events.

## SEVERE WEATHER

### GOAL SE 5

A RESILIENT COMMUNITY ABLE TO ADAPT TO SEVERE WEATHER EVENTS.

#### SE 5.1

**Extreme heat:** Elevate extreme heat as an important hazard of concern in Moorpark to adequately prepare and respond to extreme temperatures.

#### SE 5.2

**Retrofits and weatherization:** Increase the resiliency of city-owned structures to severe weather events and support homeowners and business owners to increase the resilience of their buildings and properties, through retrofits, weatherization, and other improvements.

#### SE 5.3

**Public transit:** Coordinate with Moorpark City Transit to identify alternative routes and stops if normal route infrastructure is damaged or closed due to severe weather.

#### SE 5.4

**Undergrounding electric utilities:** Continue to collaborate with Southern California Edison to underground electrical transmission infrastructure throughout the city, prioritizing high voltage transmission lines and areas within Very High Fire Hazard Severity Zones.

#### SE 5.5

**Drought-tolerant shade cover:** Promote and expand the use of drought-tolerant green infrastructure, including street trees and landscaped areas, as part of cooling strategies in public and private spaces.

#### SE 5.6

**Water conservation:** Prepare for more frequent and severe drought events by working with regional water providers to implement water conservation measures and ensure sustainable water supplies.

#### SE 5.7

**Sustainable and resilient facilities:** Encourage new developments and existing property owners to incorporate sustainable, energy-efficient, and environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience. Support financing efforts to increase the communities funding of these features.

#### SE 5.8

**Nature-based solutions:** Where feasible, encourage the use of existing natural features and ecosystem processes, or the restoration of, when considering alternatives for the conservation, preservation, or sustainable management of open space. This may include, but is not limited to, aquatic or terrestrial vegetated open space, systems and practices that use or mimic natural processes, and other engineered systems, to provide clean water, conserve ecosystem values and functions, and provide a wide array of benefits to people and wildlife.

#### SE 5.9

**Backup energy supplies:** Collaborate with Southern California Edison and organizations such as the Independent Living Resource Center to ensure that those who depend on electricity supply for medical devices and refrigerating medication have backup energy supplies during extreme heat and extreme wind events.

## 8.7 HUMAN HEALTH HAZARDS

Human health hazards are bacteria, viruses, parasites, and other organisms that can cause diseases and illness in people. Some of these diseases may only cause mild inconvenience, but others are potentially life threatening. These diseases can be and often are carried by animals such as mice and rats, ticks, and mosquitos. Human health hazards can also include poor air quality, which can affect respiratory systems of those exposed for prolonged periods or have existing chronic illnesses.

Populations most vulnerable to human health hazards are those who spend a disproportionate amount of time outdoors, those with fragile immune systems or existing illnesses, and those who may live in sub-standard housing or not have access to health insurance and medical care. Emergency medical response services can also be affected by human health hazards, as they may not be able to provide adequate services if there is an influx of health-related emergencies.

Isolated incidents of West Nile Virus, Valley Fever, Lyme Disease, and other vector-borne diseases have been reported in Ventura County almost every year. Other illnesses, such as influenza and COVID-19 occur frequently in the county. These events can strain healthcare services for community members.

Warmer temperatures and changes in precipitation patterns that lead to high levels of rainfall due to climate change can increase populations of disease-carrying animals. This increases the risk of vector-borne diseases occurring and rates of infection.

## HUMAN HEALTH HAZARDS

### GOAL SE 6

#### A COMMUNITY PREPARED FOR HUMAN HEALTH HAZARD EVENTS.

##### SE 6.1

**Reducing the spread:** Reduce the spread of human health hazards, including pests, diseases, and viruses.

##### SE 6.2

**Identifying health hazards:** Work with the Ventura County Department of Public Health and healthcare providers to identify health hazards of concern, including pests, diseases, and viruses, in Moorpark.

##### SE 6.3

**Planning for future health hazards:** Work with Ventura County Public Health to plan for future pandemic events, including securing necessary public health supplies, preparing effective messaging for preventative actions and treatments, and identifying and evaluating potential public health measures.

##### SE 6.4

**Outdoor workers resources:** Look for opportunities to ensure that workers in outdoor industries have the training and resources to be adequately protected from environmental hazards, including extreme heat, poor air quality, pests, and diseases.

##### SE 6.5

**Medical supply chain:** Collaborate with the Ventura County Department of Public Health and healthcare providers to minimize medical supply chain disruptions for facilities in Moorpark.

## 8.8 HAZARDOUS MATERIALS

Hazardous materials are materials that pose a significant risk to public safety or human or environmental health. These include toxic chemicals, flammable or corrosive materials, petroleum products, and unstable or dangerously reactive materials. They can be released through human error, malfunctioning or broken equipment, or as an indirect consequence of other emergencies (e.g., if an earthquake damages a hazardous material storage tank). Hazardous materials can also be released accidentally during transportation, as a consequence of vehicle accidents. In areas with oil extraction, malfunctioning piping can cause methane to leak into soil and groundwater layers, which is a highly flammable gas that can also cause ailments such as headaches, vomiting, and rashes.

The release or spill of large amounts of hazardous materials could result in fire, explosion, toxic cloud, or direct contamination of water, soil, and air. Health problems may be immediate, such as corrosive effects on skin and lungs, or gradual, such as the development of cancer from a carcinogen. Damage to property could range from immediate destruction by explosion to permanent contamination by a persistent hazardous material.

### 8.8.1 Hazardous Materials Sites

While there are no Superfund sites in or near Moorpark, there are Department of Toxic Substances and Control (DTSC) and State Water Resources Control Board sites. A search of the

EnviroStor database on August 26, 2022, yielded four hazardous materials sites. Two of these sites were listed as Tiered Permit Sites, which are authorized hazardous waste sites permitted to match their degree of risk, under another agency's jurisdiction. The remaining two were either inactive (withdrawn) or required no further action. A search on the GeoTracker database on August 26, 2022, yielded 64 hazardous materials sites. Of these 4 sites, there are currently 13 WDR (waste discharge requirement) sites, four of which are active; 36 "Completed-Case Closed" sites, 30 of which are leaking UST (underground storage tanks) cleanup sites; and 10 permitted UST sites.

Several businesses also handle or dispose of hazardous materials, which are recorded in the Resources Conservation and Recovery Action databases called Envirofacts and Enviromapper. A search on Envirofacts and Enviromapper on May 26, 2020, yielded 97 hazardous materials-related sites, which were primarily recorded from the Resource Conservation and Recovery Act Information database as a hazardous waste handler. This may include, but is not limited to, sites that serve as hazardous waste transporters, conditionally exempt small quantity generators, small quantity generators, and large quantity generators.

Moorpark also has oil and gas mining operations in the hills surrounding the city. According to the California Department of Conservation, Geologic Energy Management Division<sup>10</sup>, three oil fields (Moorpark West, Moorpark ABD, and Oak Park) are located on the northern border of Moorpark to the east,

<sup>10</sup> California Department of Conservation, Geologic Energy Management Division, N.d. "Well Finder", <https://maps.conservation.ca.gov/doggr/wellfinder/#/>.



north, and west, respectively. The oil fields contain the following oil and gas wells:

- Moorpark West: one active oil and gas well, two plugged wells, and one plugged dry hole.
- Moorpark ABD: one plugged oil and gas well and six plugged dry holes.
- Oak Park: five active oil and gas wells, one active injector, ten idle wells, two idle injectors, six plugged wells, and two plugged dry holes.

Oil and gas operations must obtain permits from the California Department of Conservation, Geologic Energy Management Division and the Ventura County Resource Management Agency prior to conducting drilling or other activities.

### 8.8.2 Transport of Hazardous Materials

Most hazardous materials in the city are transported on truck routes along major roadways and railways, such as SR-23, SR-118, and the Union Pacific railroad, which pass through Moorpark. The most vulnerable areas along these routes are considered the intersections, on-/off-ramps, and interchanges. Several small-scale hazardous materials releases have occurred along these roadways and the railway.

Hazardous materials and waste within Moorpark are managed by the Certified Unified Program Agency (CUPA), a local administrative agency within the Ventura County Environmental Health Department. The CUPA consolidates, coordinates, and makes consistent the regulatory activities of several hazardous materials and hazardous waste programs,

including the Hazardous Materials Business Plan program, hazardous waste and tiered permitting, underground and above ground storage tanks, the California Environmental Reporting System, and the California Accidental Release Program. Additionally, the city of Moorpark has contracted with household hazardous waste drop-off facilities in the nearby cities of Camarillo and Simi Valley for Moorpark residents to use.

If a hazardous material spill poses an imminent public health threat, the city will support local regulating agencies in notifying the public. The transport of hazardous materials/wastes and explosives through the city is regulated by the California Department of Transportation (Caltrans). SR-23 and SR-118 are open to vehicles carrying hazardous materials/wastes. Transporters of hazardous wastes are required to be certified by the United States Department of Transportation (DOT) and manifests are required to track the hazardous waste during transport. The danger of hazardous materials/waste spills during transport does exist and will potentially increase as transportation of these materials increase on SR-23 and SR-118. The Ventura County Fire Department is responsible for hazardous materials accidents at all locations within the city.

### 8.8.3 Likelihood of Future Occurrence

Due to the number of hazardous materials sites in Moorpark, mechanical failures or natural hazards could pose future risk of hazardous material releases. Seismic shaking can disturb soils and active or plugged oil wells, causing hazardous materials to move further into the

water and soil. Future risk of methane release from soils is possible due to presence of active and idle oil wells in Moorpark.

Climate change may indirectly increase the risk of hazardous materials release. For example, flooding, wildfires, and landslide events could cause the transport of hazardous materials to become more dangerous and increase the potential of an accident. These events could become more frequent and intense in the future due to climate change.

## HAZARDOUS MATERIALS

### GOAL SE 7

PROTECT RESIDENTS AND BUSINESS EMPLOYEES FROM POTENTIAL HAZARDS ASSOCIATED WITH THE USE, STORAGE, MANUFACTURE, AND TRANSPORTATION OF HAZARDOUS MATERIALS IN AND THROUGH THE CITY.

#### SE 7.1

**Hazardous materials education:** Work with the Ventura County Public Works Agency to continue educating the community regarding the proper storage, handling, use, and disposal of hazardous household materials.

#### SE 7.2

**Hazardous materials business plans:** Require business owners to incorporate into their business plans submitted to the Ventura County Environmental Health Department those measures necessary to minimize hazardous materials accidents due to intense ground shaking potential and flooding. Ensure that the plans are updated as necessary.

#### SE 7.3

**Hazardous waste:** Coordinate with the Ventura Environmental Health Department to manage

hazardous waste, including household hazardous waste.

#### SE 7.4

**Hazardous materials spills:** Coordinate with state and regional agencies to respond to hazardous materials spills.

#### SE 7.5

**Prohibiting hazardous materials facilities:** Prohibit new hazardous materials facilities adjacent to schools or residential areas.

#### SE 7.6

**Enforcing regulations:** Enforce regulations for the safe operations of sites that use toxic and hazardous materials, including hardening hazardous waste storage facilities against natural hazards.

## 8.9 POLICE SERVICES

The city of Moorpark contracts with the Ventura County Sheriff's Office (VCSO) for all police protection services, including administration, patrol, and investigation services. VCSO provides also provides four community services to the city of Moorpark, including Citizen Academy, Parent Project, Ride Along Program, and School Resource Officers. VCSO's Moorpark Police Service Center located in the city provides police protection services for Moorpark and unincorporated areas of Ventura County. The Police Service Center also coordinates all police volunteers and volunteer programs, including the Moorpark Volunteers in Policing (VIP) Program. VIP consists of citizens who are trained to perform routine police functions such as parking enforcement, vacation house checks, special event security, crime report writing, traffic control, station tours, and administrative work.

In 2020, the Moorpark Police Service Center employs 36.75 full time sworn and nonsworn officers, and professional staff. Based on current staffing levels the city provides one sworn officer for every 1,094 residents. VCSO’s response time target for Priority One calls—that is, life-threatening emergencies in progress—is under 7 minutes. VCSO does not have an established response time goal for Priority Two calls. In 2019 and 2020, the average time for Priority One calls was 5 to 6.5 minutes, and the average time for Priority Two calls was approximately 11.5 minutes.

## POLICE SERVICES

### GOAL SE 8

ADEQUATE AND EFFECTIVE LAW ENFORCEMENT SERVICES THAT PROTECT THE LONG-TERM SAFETY OF MOORPARK RESIDENTS, BUSINESSES, AND VISITORS.

#### SE 8.1

**Response times:** Work with the Ventura County Sheriff’s Office to achieve and maintain appropriate response times for all call priority levels to provide responsive police services for the safety of residents and visitors.

#### SE 8.2

**Staffing:** Coordinate with the Ventura County Sheriff’s Office to maintain optimum staffing levels for both sworn officers and civilian support staff to provide quality police services to Moorpark.

#### SE 8.3

**Community relations:** Work with the Ventura County Sheriff’s Office to maintain a dialogue with the community to improve relationships and continually explore innovative means to communicate with the public on police services.

#### SE 8.4

**Public Safety Services:** Ensure that all neighborhoods, business districts, and other locations in the city receive an equitable and effective level of public safety services and feel safe from natural hazards, crime, vehicle hazards, and discrimination.

## 8.10 FIRE SERVICES

The Ventura County Fire Department (VCFD) provides fire protection in Moorpark as a contract county for CAL FIRE. The VCFD provides a variety of public safety services, including fire protection, medical aid, rescue, hazardous materials response, and educational safety programs to children, adults, and seniors. Other services include fire code adoption, enforcement, and regulation, development plan reviews, home and business inspections, fire code permits, film permits, and a fire hazard reduction program. There are two VCFD fire stations within Moorpark—Station 40 at 4185 Cedar Spring Street and Station 42 at 295 East High Street. Both fire stations are staffed with one captain and two fire fighters. VCFD also maintains mutual aid agreements with cities and other jurisdictions to provide emergency fire protection services.

In 2019, VCFD responded to 48,188 calls for services, 2,278 of which were in the city of Moorpark. Response times depend on the type of incident, location, weather conditions, existing or potential emergencies, resources available, and the information VCFD is provided with. VCFD response time goals and response statistics are based on population density throughout its service area, which includes unincorporated county areas and cities. VCFD has a goal of 8.5 minutes for calls in the

suburban area and 12 minutes for calls in rural areas, to be achieved 90% of the time. In 2017 and 2018, 92% of suburban calls for services were responded to within 8.5 minutes, and 90% of rural calls for service were responded to within 12 minutes.

## FIRE SERVICES

### GOAL SE 9

FIRE SERVICES THAT EFFECTIVELY RESPOND TO URBAN AND WILDFIRE EMERGENCIES.

#### SE 9.1

**Fire safety services:** Work with the Ventura County Fire Department to provide fire prevention, protection, and emergency preparedness services that adequately protect residents, employees, visitors, and structures from fire and fire-related emergencies.

#### SE 9.2

**Staffing and equipment:** Coordinate with Ventura County Fire Department to ensure adequate staffing and equipment for fire protection services throughout the city to quickly respond to emergencies.

#### SE 9.3

**Fair share extension:** Work with Ventura County Fire Department to develop a program for new development to fund a fair share extension of fire services to maintain service standards, including personnel and capital improvements costs.