



5.13 Fire Protection



5.13 FIRE PROTECTION

5.13.1 PURPOSE

This section identifies fire protection services within the Study Area and provides an analysis of potential impacts associated with implementation of the General Plan Update. Potential impacts are identified and mitigation measures to address potentially significant impacts are recommended, as necessary.

5.13.2 EXISTING REGULATORY SETTING

STATE REGULATIONS

California Department of Forestry and Fire Protection

Under Title 14 of the Natural Resources of the California Code of Regulations (CCR), the California Department of Forestry and Fire Protection (CAL FIRE) has the primary responsibility for implementing wildfire planning and protection for State Responsibility Area (SRA) lands. CAL FIRE develops fire safe regulations and issues fire safe clearances for land within the SRA. The CAL FIRE Resource Management Program manages more than 31 million acres of California's privately-owned wildlands, and provides emergency services in 36 of the State's 58 counties via contracts with local governments.

In addition to fighting and planning for wildland fires, CAL FIRE's responsibilities involve responding to other types of emergencies that may occur on a daily basis, including residential or commercial structure fires, automobile accidents, heart attacks, drowning victims, lost hikers, hazardous material spills on highways, train wrecks, floods, and earthquakes.

Under CCR Title 24, *Regulations Development*, the Office of the State Fire Marshal is responsible for promulgating regulations that promote fire and life safety for inclusion into the State Building Codes, including the California Building Code, California Fire Code, California Electrical Code, California Mechanical Code, California Plumbing Code, and California Historical Building Code. The process incorporates a great deal of public participation and is guided by the State Building Standards Law.

California Occupational Safety and Health Administration

In compliance with CCR, Title 8, Sections 1270, *Fire Prevention*, and 6773, *Fire Protection and Fire Equipment*, the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of firefighting and emergency medical equipment, among others.



LOCAL REGULATIONS

City of Rancho Santa Margarita Municipal Code

The *City of Rancho Santa Margarita Municipal Code* (Municipal Code) Chapter 10.06, *California Fire Code – Adoption*, adopts the 2016 California Fire Code based on the 2015 International Fire Code. In addition, California Fire Code Chapter 49, *Requirements for Wildland-Urban Interface Fire Areas*, (with amendments) is adopted within Municipal Code Section 10.07.090, *Amendments to the California Fire Code*. California Fire Code Section 4906.3, *Vegetation*, follows the Orange County Fire Authority *Vegetation Management Guidelines*. In addition, California Fire Code Section 4908, *Fuel Modification Requirements for New Construction*, requires all new buildings built in hazardous fire areas to have preliminary and final fuel modification plans submitted to and approved by the fire code official, meet the *Vegetation Management Guidelines* criteria, and all elements would be maintained in accordance with the approved plan and subject to the enforcement process outlined in the California Fire Code.

5.13.3 EXISTING ENVIRONMENTAL SETTING

FIRE PROTECTION SERVICES

Orange County Fire Authority (OCFA) provides fire protection services within the incorporated boundaries of the City, and to the surrounding unincorporated areas. OCFA is a regional fire department that provides fire protection and emergency medical services to 23 cities in Orange County as well as all unincorporated areas of Orange County. Daily staffing for all 72 OCFA fire stations include a total of 332 personnel comprised of nine battalion chiefs, 79 captains 79 engineers 155 firefighters, and Air Operations staff.

OCFA has one fire station within the City, Fire Station 45 located at 30131 Aventura within the Rancho Santa Margarita Business Park. Three other stations are located just outside of the City, including OCFA Fire Station 18 located at 30942 Trabuco Canyon Road in Trabuco Canyon, OCFA Fire Station 31 located at 22426 Olympiad Road in Mission Viejo, and OCFA Fire Station 58 located at 58 Station Way in Ladera Ranch. Several other stations located outside of the Study Area respond to fire and other emergencies within the area. Table 5.13-1, *OCFA Fire Stations*, shows OCFA personnel and equipment and the approximate distance from the City for each fire station serving the City.¹

OCFA provides fire suppression, emergency medical, and rescue services, as well as public education programs for schools, businesses, community organizations, childcare providers and other members of the community. In addition, OCFA works with the City to adopt and enforce codes and ordinances relative to fire and life safety, and reviews development projects within the City for potential impacts on fire protection services. OCFA has agreements with all Orange County cities as well as agreements with

¹ City of Rancho Santa Margarita, *Rancho Santa Margarita General Plan Update Final Existing Conditions Report*, December 2017.



neighboring cities outside of Orange County, surrounding counties, as well as U.S. Forest Service and military installations.

**Table 5.13-1
OCFA Fire Stations**

Fire Station Location	Personnel and Equipment	Distance/Direction from City
OCFA Fire Station 45 30131 Aventura Rancho Santa Margarita	Engine 45/Engine 345 - BLS Engine - 1 Captain, 1 Engineer, 1 Firefighter (per shift) Truck 45 - 1 Captain, 1 Engineer, 2 Firefighters (per shift) Medic Van 45 - 2 Paramedics (per shift) Battalion 7- 1 Battalion Chief (per shift)	Within
OCFA Fire Station 31 22426 Olympiad Road Mission Viejo	Engine 31/Engine 131 - Paramedic Engine - 1 Captain, 1 Engineer, 2 Firefighter (per shift)	0.86-mile west of the City
OCFA Fire Station 18 30942 Trabuco Canyon Road Trabuco Canyon	Engine 18/Engine 318-ParamedicAssessmentUnit-I Captain, 1 Engineer, 1 Firefighter	0.11-mile north of the City
OCFA Fire Station 56 58 Station Way Ladera Ranch	Engine 56/Engine 356 – Paramedic Engine – 1 Captain, 1 Engineer, 2 Firefighters (per Shift)	4.49-miles south of the City
OCFA Fire Station 58 58 Station Way Ladera Ranch	Engine 58/Engine 358- Paramedic Engine- 1 Captain, 1 Engineer, 2 Firefighters (per shift) Division Chief	1.5-miles south of the City

Source: Written Communication, Tamera Rivers, Management Analyst, Orange County Fire Authority, July 24, 2017.

OCFA's established response standard for the first unit from receipt of call to on-scene time is seven minutes 20 seconds in urban/suburban communities and 12 minutes in rural communities. Table 5.13-2, OCFA Response Times Fiscal Year 16/17 (7/1/2016 – 6/30/2017), shows the average response time performance and response time performance at the 80th percentile (on core calls) for OCFA agency wide and for the City of Rancho Santa Margarita. Core emergencies are defined as those incidents that have a direct impact on the placement of fire stations and the resources in the stations. Advanced Life Support, rescue incidents, and structure fires are classified as core emergencies.²

² Orange County Fire Authority, *Standards of Cover*, https://www.ocfa.org/Uploads/Orange%20County%20Fire%20Authority%20SOC_FINAL.pdf, accessed November 15, 2018.



**Table 5.13-2
OCFA Response Times Fiscal Year 16/17 (7/1/2016 – 6/30/2017)**

Agency	Average Performance	Performance at 80th Percentile
OCFA	6:38	6:53
City of Rancho Santa Margarita	6:34	8:00

Source: Orange County Fire Authority Strategic Services Section, July 24, 2017.

In 2016, 2,507 incidents with 4,944-unit responses were generated in the City according to the OCFA 2016 Statistical Annual Report.³ Of these, 1,909 incidents occurred in the response area of OCFA Fire Station 45. Differences in distance between fire stations, the number of response units available within each jurisdiction, availability of automatic and mutual aid resources, and in some cases response workload, all contribute to response time. Given that OCFA resources located in the City also respond into the remote canyon areas of unincorporated Orange County, their average response time to those remote areas adds to the overall average of the City. Nevertheless, according to OCFA, current staffing levels and facilities adequately serve the City of Rancho Santa Margarita and there are currently no plans for new facilities within the City.

OCFA has become concerned recently regarding the increasing demand for paramedic services within the City. With large senior care facilities within the City and surrounding region, demands for paramedic services have dramatically increased. This demand continues despite the implementation of a new paramedic unit in OCFA Fire Station 58 in recent years. This unit provides service to portions of the City directly and as a backup/secondary unit to the entire City when others are busy. OCFA projects that this increased demand for paramedic services may require additional staff at an undetermined time in the future. OCFA recently began contracting with CARE Ambulance Services to assist in addressing this need. OCFA continues to closely monitor the emergency fire and life safety service needs of the City.⁴ OCFA will also be adding new facilities throughout Orange County, such as OCFA Fire Station 20, which is in the process of being made a permanent fire station in Irvine. Additionally, OCFA Fire Stations 67, 68, and 69 will be constructed in the new community of Rancho Mission Viejo. Funding for new facilities is acquired through secured fire protection agreements.

FIRE HAZARDS

CAL FIRE prepares wildfire hazard severity maps including mapping areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones (FHSZ), define the application of various mitigation strategies and influence how people construct buildings and protect property to reduce risk associated with wildland fires. A large portion of land within the City is open space and includes rugged topography with highly flammable native vegetation, making wildland fires a significant risk to the Study Area and within the sphere of influence

3 Orange County Fire Authority, 2016 Statistical Annual Report, <http://www.ocfa.org/Uploads/Transparency/OCFA%20Annual%20Report%202016.pdf>, accessed April 9, 2018.

4 City of Rancho Santa Margarita, Rancho Santa Margarita General Plan Update Final Existing Conditions Report, December 2017.



(SOI). Very High Fire Severity Zones (VHFHSZs) are located in the west, south, and east areas of the City.⁵

Wildland fires have occurred in Orange County, particularly in the fall, ranging from small localized fires to disastrous fires covering thousands of acres. The most severe fires have typically occurred during Santa Ana wind conditions. Wildland fires are difficult to control due to adverse weather conditions, such as excessive wind and heat; large quantities of combustible fuel; inaccessible terrain; nonexistent or very limited water supply; and large fire frontage requiring disbursement of fire forces.

Areas posing a significant risk to the City are subject to the Public Resources Code, Sections 4291-4299, which require property owners to conduct maintenance to reduce potential fire danger. OCFA has responsibility for wildfire suppression on all private land in the City. Any proposed development plans are reviewed by the OCFA to determine if fuel modification plans or other preventative measures are required. The fire flow rates from the Uniform Fire Code are also implemented by the OCFA and reviewed for any new development.

Refer to Section 5.9, Hazards and Hazardous Materials, for a discussion of potential impacts pertaining to wildland fires.

5.13.4 SIGNIFICANCE THRESHOLDS AND CRITERIA

Appendix G of the California Environmental Quality Act (CEQA) Guidelines contains the Initial Study Environmental Checklist, which includes questions relating to fire protection. The issues presented in the Initial Study Environmental Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it would have:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or result in the need for new or physically altered governmental facilities, the construction of which may cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives.

5 California Department of Forestry and Fire, *Rancho Santa Margarita Very High Fire Hazard Severity Zones in LRA*, October 2011, http://www.fire.ca.gov/fire_prevention/fhsz_maps/FHSZ/orange/c30_RanchoSantaMargarita_vhfhz.z.pdf, accessed January 2, 2019.



5.13.5 PROJECT IMPACTS AND MITIGATION MEASURES

FIRE PROTECTION SERVICES

- **IMPLEMENTATION OF THE GENERAL PLAN UPDATE WOULD NOT CAUSE SUBSTANTIALLY ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE PROVISION OF NEW OR PHYSICALLY ALTERED FIRE FACILITIES OR RESULT IN THE NEED FOR NEW OR PHYSICALLY ALTERED FIRE FACILITIES, THE CONSTRUCTION OF WHICH MAY CAUSE SIGNIFICANT ENVIRONMENTAL IMPACTS IN ORDER TO MAINTAIN ACCEPTABLE SERVICE RATIOS, RESPONSE TIMES, OR OTHER PERFORMANCE OBJECTIVES.**

Impact Analysis: Implementation of the General Plan Update would result in additional demands on existing fire and paramedic services, as individual projects are developed and associated increases in population are realized.

Future development projected in the General Plan Update may result in the need for additional OCFA resources (i.e., additional staffing, equipment, expanded/new facilities). At this time, it is unknown whether OCFA would need to expand or construct new facilities to meet the demand of future development in the Study Area. Current OCFA response times within the City average six minutes 34 seconds; as such, OCFA is currently surpassing their response time goal of seven minutes 20 seconds for urban/suburban communities. Additionally, future development is assumed to occur over several years through 2040; thus, any increase in demand for fire protection services would occur gradually as additional development and associated population growth is added to the City. OCFA would continue to regularly monitor fire department resources to ensure that adequate facilities, staffing, and equipment are available to serve existing and future development and population increases. Further, as development occurs, a proportional increase in property tax, charges for OCFA services, and other funding sources would increase and offset impacts of new development on OCFA's existing resources in the City.

Additionally, the new development projected in the General Plan Update would be required to comply with all applicable California Fire Code requirements for construction, access, water mains, fire flows, and hydrants. Individual project development plans would be reviewed by OCFA to determine specific fire requirements (e.g., fire flow capacities, emergency access, fuel modification plans) applicable to the specific development and to ensure compliance with these requirements.

The Safety Element includes policies to reduce the risk of wildfire hazards by working with homeowner and business park associations, property owners, and OCFA to maintain fire retardant landscaping and buffer zones (Safety Element Policy 4.1); identify methods to avoid or minimize wildfire risk and damage associated with new land uses (Safety Element Policy 4.3); ensure compliance with triennial updates to the California Fire Code (Policy 4.5); require new development to be located, designed, and constructed to provide adequate defensibility and fuel modification zones (Safety Element Policy 4.6). Additionally, Safety Element Policy 4.2 promotes inter-agency coordination to update, monitor, and maintain the most current fire hazard and fire protection information. Safety Element Policy 4.4 requires essential public facilities to be located away from wildfire risks,



including high fire hazard severity zones when feasible, and Safety Element Policies 4.7 and 4.8 encourage coordination with OCFA, Santa Margarita Water District, and Trabuco Canyon Water District to ensure new developments have adequate infrastructure for water supply and fire flow, and incorporate fire safe design.

As noted above, OCFA has determined that increased demands for paramedic services as a result of future development may require additional staff. Future development would be reviewed by OCFA to determine paramedic requirements applicable to specific development. Additionally, as future developments gradually occur, a proportional increase in property tax, charges for OCFA services, and other funding sources would gradually increase and offset impacts on OCFA's existing resources, including paramedic services and staffing. Additional paramedic staff could be hired at a later date when the need arises. Further, OCFA would continue to regularly monitor the emergency life safety service needs of the City.⁶ Impacts would be less than significant in this regard.

Proposed General Plan Update Goals and Policies:

SAFETY ELEMENT

Goal 4: Protect the community from loss of life or injury and damage to property due to wildfire hazards.

- Policy 4.1:** Reduce the risk of wildfire hazards by working with Homeowner Associations, Business Park Associations, and other property owners and Orange County Fire Authority (OCFA) to maintain fire retardant landscaping and buffer zones in areas of high wildfire risk.
- Policy 4.2:** Work with local, State, and Federal agencies to update, monitor, and maintain the most current fire hazard and fire protection information to disseminate to the public.
- Policy 4.3:** Identify methods to avoid or minimize wildfire risk and damage associated with new land uses.
- Policy 4.4:** Require essential public facilities to be located and designed to minimize potential wildfire risk, including locating outside of high fire hazard severity zones when feasible.
- Policy 4.5:** Reduce wildfire risks through adoption and implementation of triennial updates to the California Fire Code.
- Policy 4.6:** Require new development to be located, designed, and constructed to provide adequate defensibility and fuel modification zones, and minimize the risk of loss resulting from fires through pre-development review by OCFA and through on-going implementation of OCFA Fire Prevention Programs.

⁶ City of Rancho Santa Margarita, *Rancho Santa Margarita General Plan Update Final Existing Conditions Report*, December 2017.



Policy 4.7: In coordination with OCFA, encourage all new developments to incorporate fire safe design, including sufficient ingress/egress, evacuation routes, emergency vehicle access, defensible space, visible home addressing and signage, and fuel modification zones.

Policy 4.8: Coordinate with OCFA, Santa Margarita Water District, and Trabuco Canyon Water District to ensure adequate infrastructure for water supply and fire flow in new and existing developments.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant Impact.

5.13.6 CUMULATIVE IMPACTS

- **FUTURE DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE GENERAL PLAN UPDATE WOULD NOT RESULT IN CUMULATIVE IMPACTS TO FIRE PROTECTION SERVICES.**

Impact Analysis: Development projected in the General Plan Update would result in additional demands on existing fire services and equipment provided by OCFA. At this time, it is unknown whether OCFA would need to expand or construct new facilities to meet the demand at full buildout of the General Plan Update by 2040. Nevertheless, any new development would be required to comply with all applicable California Fire Code requirements for construction, access, water mains, fire flows, and hydrants. Individual projects would be reviewed by OCFA to determine the specific fire requirements applicable to the development being proposed and to ensure compliance with these requirements. In addition, the General Plan Update includes policies encouraging inter-agency coordination to ensure the most current fire hazard and fire protection information is available to the public (Safety Element Policy 4.2), and that homeowner and business park associations, property owners, and OCFA work together to maintain fire retardant landscaping and buffer zones in high wildfire risk areas of the City (Safety Element Policy 4.1). The Safety Element also includes several other policies that would help avoid or minimize wildfire risk associated with new development, such as locating new uses outside of high fire hazard severity zones when feasible; providing adequate defensibility and fuel modification zones; and coordinating with OCFA and applicable water districts to ensure adequate infrastructure for water supply and fire flow (Safety Element Policies 4.3 through 4.8). Overall, implementation of the California Fire Code requirements would minimize wildfire and urban fire risks, and in turn, reduce impacts to OCFA resources.

The City, in consultation with OCFA, would continue to consider impacts to fire services and facilities as part of the long-term planning process. OCFA funding for fire services and facilities would continue to be paid by property taxes, intergovernmental funds, charges for services, use of money/property, and others.⁷ As such, implementation of the General Plan Update would result in less than significant impacts to fire protection and

⁷ Orange County Fire Authority, 2016 Statistical Annual Report, <http://www.ocfa.org/Uploads/Transparency/OCFA%20Annual%20Report%202016.pdf>, accessed April 9, 2018.



emergency services, and the project would not result in cumulatively considerable impacts.

Proposed General Plan Update Goals and Policies: Refer to the General Plan Update goals and policies cited above.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant Impact.

5.13.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Fire protection impacts associated with implementation of the General Plan Update would be less than significant. No significant unavoidable fire protection impacts would occur as a result of the General Plan Update.

5.13.8 SOURCES CITED

California Department of Forestry and Fire, *Rancho Santa Margarita Very High Fire Hazard Severity Zones in LRA*, October 2011, http://www.fire.ca.gov/fire_prevention/fhsz_maps/FHSZ/orange/c30_RanchoSantaMargarita_vhfhsz.pdf, accessed January 2, 2019.

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