

**SECTION 5.12
FIRE PROTECTION**



5.12 FIRE PROTECTION

This section describes the fire protection services within the City of San Bernardino, including fire protection standards, existing facilities and staffing, mutual aid agreements, services, response times, existing water pressure systems, hazardous fire areas, and the City's insurance classification. The analysis in this section addresses potential impacts to fire protection services associated with the implementation of the proposed project. This section is based on the information obtained from the *General Plan Public Facilities and Services Element and Safety Element*, the *San Bernardino Final General Plan Update and Associated Specific Plans Environmental Impact Report*, the City of San Bernardino website, and the City of San Bernardino Fire Department.

5.12.1 REGULATORY SETTING

FIRE CODE

The City of San Bernardino uses the Uniform Fire Code (UFC), the California Fire Code (CFC) as amended, the California Building Code (CBC), the California Administrative Codes, Title 19 and Title 24, and the National Fire Codes as the basis for its enforcement programs. The UFC establishes the minimum safety standards for fire flow and water supply, road width, access, and turning radius for fire apparatus. The CFC establishes the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operations. The CBC is generally consistent with the UFC, with additional guidance and language specific to conditions germane to the State of California. Chapter 8.60 Fireworks, 8.61 Prohibited Fireworks, and 8.63 Explosives and Fires of the *San Bernardino Municipal Code* identify regulations regarding the sale and possession of fireworks, protection strategies, and standards and legalities involving explosives and fires. Along with these codes, the City has adopted more stringent fire regulations in the areas of building construction.¹

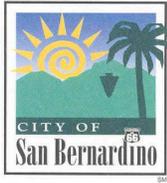
5.12.2 ENVIRONMENTAL SETTING

FIRE PROTECTION AGENCIES

The San Bernardino City Fire Department (SBCFD) services the City of San Bernardino, which includes the proposed project. The SBCFD serves a resident population of approximately 202,000 and covers a diverse service area of 59.3 miles. The service area includes 19 miles of wildland interface area, an international airport, a major rail yard, the County Seat, a jail, two major mall complexes, and three major interstate freeways (10, 210, and 215).² Unincorporated areas within the City receive fire protection and Emergency Medical Services (EMS) delivery from the Central Valley Fire District (CVFD) or the California Department of Forestry and Fire

¹ City of San Bernardino General Plan, Chapter 7, Public Facilities and Services Element, prepared by The Planning Center, dated November 1, 2005.

² City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/sbfd_facts.asp, accessed March 2, 2010.



Protection (CAL FIRE). San Bernardino County contracts with CAL FIRE for fire protection in areas not covered by other fire departments.³

CAL FIRE is responsible for the remaining unincorporated areas, including the unincorporated island within the City limits. CAL FIRE has three fire stations in the area: a station at Baseline and Central in Highland, which is responsible for the City of Highland, a station at 38th Street and Sierra Way in the City, and a station on Cajon Boulevard, at the Devore off-ramp in the northwest portion of the City.

FACILITIES AND STAFFING

The SBCFD staffs 12 fire engine companies, two aerial truck companies, one heavy rescue, five four-wheel drive brush engines, one hazardous material response rig, and one medic squad housed in 12 stations throughout the City of San Bernardino; refer to Table 5.12-1 City of San Bernardino Fire Stations and Characteristics. The Fire Chief's office is at the center of the Fire Administration. The total number of Emergency Operations Personnel is 161 divided among three platoons. The current "On-Duty" strength per shift (total number of personnel available to respond to emergencies including two battalion Chief Officers) is 53 spread among the 14 companies.⁴ The minimum staffing level is 48 fire fighters and two chief officers 24 hours a day.⁵ The average personnel work week is 56 hours.⁶

MUTUAL AID AGREEMENT⁷

In addition to stations within the SBCFD, all fire departments in the State are signatory to a master mutual aid agreement. The agreement was established to provide assistance for major incidents and emergencies. The agreement states in part that "political subdivision will reasonably exhaust local resources before calling for outside assistance." In addition to a master mutual aid agreement, the SBCFD has joint response agreements between the neighboring cities of Rialto, Colton, and Loma Linda, where units in these cities respond in the event of a multi-unit fire. The SBCFD also contracts with the County of San Bernardino to provide service for portions of Riverside County; refer to Table 5.12-1 above.

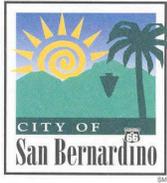
³ City of San Bernardino General Plan, Chapter 7, Public Facilities and Services Element, prepared by The Planning Center, dated November 1, 2005.

⁴ City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/sbfd_facts.asp, accessed March 2, 2010.

⁵ City of San Bernardino Fire Department, Chief Michael J. Conrad, letter correspondence, December 2009.

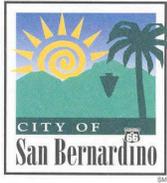
⁶ City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/sbfd_facts.asp, accessed March 2, 2010.

⁷ Final General Plan Update and Associated Specific Plans EIR, Public Services, prepared by The Planning Center, dated September 30, 2005.



**Table 5.12-1
City of San Bernardino Fire Stations and Characteristics**

Name	Location	Equipment/Personnel¹
Fire Station Main 221 (Administration)	200 E. 3 rd Street (Located within Central City East)	Medic Engine (3 staff) Aerial Ladder Truck (4) Battalion Command Vehicle (1) Air/Light Truck (staff as needed)
Station 222	1201 W. 9 th Street (East of Central City North)	Medic Engine (4)
Station 223	2121 Medical Center Drive	Medic Engine (4) Brush Engine (staff as needed)
Station 224	2641 N. E Street	Medic Engine (3) Aerial Ladder Truck (4) Battalion Command Vehicle (1)
Station 225	1640 W. Kendall Drive	Medic Engine (3) Brush Engine (staff as needed)
Station 226	1920 N. Del Rosa Avenue	Medic Engine (4)
Station 227	282 W. 40 th Street	Medic Engine (4)
Station 228	3398 E. Highland Avenue	Medic Engine (3) Brush Engine (staff as needed)
Station 229	202 N. Meridian Avenue	Medic Engine (3)
Station 230	502 S. Arrowhead Avenue (Located within Central City South)	Medic Engine (4) Brush Engine (staff as needed) Heavy Rescue Unit (staff as needed)
Station 231	450 E. Vanderbilt Drive (Located within Tri-City)	Medic Engine (3) HazMat Unit (staff as needed)
Station 232	6065 Palm Avenue	Medic Engine (4) Brush Engine (staff as needed)
Station 233	165 S. Leland Norton Way	2 each: <ul style="list-style-type: none"> • 1500 Gallon ARFF Units (staff as needed) • Quick Attack Unit (staff as needed)
Additional Units Provided by Mutual Aid Agreement		
San Manuel Station 241	26540 Indian Service Road	Medic Engine (4) Medic Quint (4) Battalion Command Unit (1)
USDA Station 36	2586 Hillview Road	Brush Engine (5 seasonal)
County Station 75	2156 W. Darby Street	Engine (3)
County Station 2	1511 Devore Road	Engine (3)
Source: City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/stations.asp , accessed March 2, 2010.		
1. <i>Final General Plan Update and Associated Specific Plans Environmental Impact Report</i> , Section 5.12 Public Services, Table 5.12-1, Page 5.12-2, prepared by The Planning Center, dated September 30, 2005.		



SERVICES

Besides fire protection services, the SBCFD includes a Fire/Arson Investigation Unit, Hazardous Materials Team, Disaster Preparedness Services, and Urban Search and Rescue (USAR). The Investigations Unit has ten personnel staff consisting of a senior investigator and nine other personnel certified as investigators, with all members of the unit holding peace office status. Members of the unit participate on a volunteer basis with 100 hours of on-scene training. The Hazardous Materials Response Team handles hazardous materials leakage, discharge, dumps, spills, and emissions within the City. The Disaster Preparedness Office, created by the City's Municipal Code, Chapter 2.46, is a division of the SBCFD. Under the direction of the Fire Chief, a major activity of the Disaster Preparedness Office is the development and approval of integrated emergency response plans for the City.⁸ The Department's USAR personnel are highly trained in and perform all technical rescues in the City, as well as surrounding areas when requested. Technical rescues include low-angle rope rescue, high-angle rope rescue, vehicle extrication, confined space rescue, trench rescue, swift water rescuer operations, structural collapse search and shoring, and forcible entry. USAR also includes the Rapid Intervention Crew. This crew is a special team that is comprised of two or more firefighters dedicated solely to search and rescue of other firefighters in distress.⁹

RESPONSE TIMES

Response time for a unit varies and depends on the location of the response site. However, the City's adopted response time standard is five minutes or less for 90 percent of the emergency calls for service. The response time is measured from when the responding unit goes in route to the call, to when the unit arrives on the scene of an emergency.^{10,11}

The Fire Department responded to 28,171 life and property threatening emergency incidents during the 2008 calendar year. Of these, 4,311 were fire and other types of alarms. The SBCFD responded to 23,790 medical emergencies during the same time, and processed an additional 4,116 Emergency Medical Dispatch (EMD) responses.¹²

WATER PRESSURE SYSTEM¹³

The water pressure system that supplies emergency water for fire services is comprised of three separate, interconnected systems: a lower, an intermediate, and an upper system. These are a combination of booster and gravity pump systems that transport water up elevation differences in order to maintain adequate water pressure. Water is obtained from 35 wells using 35 turbine pumps and released into the system using 44 booster pumps and approximately 422 miles of water mains. Twenty-one reservoirs, having total water storage of approximately 75 million gallons, are in use and there is a total production capability of about 71 million gallons per day.

⁸ Final General Plan Update and Associated Specific Plans EIR, Public Services, prepared by The Planning Center, dated September 30, 2005.

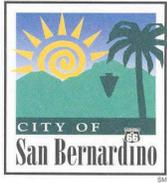
⁹ City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/emergency_operations/urban_search_n_rescue.asp, accessed March 2, 2010.

¹⁰ Final General Plan Update and Associated Specific Plans EIR, Public Services, prepared by The Planning Center, dated September 30, 2005.

¹¹ City of San Bernardino Fire Department, Chief Michael J. Conrad, letter correspondence, December 2009.

¹² City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/sbfd_facts.asp, accessed March 2, 2010.

¹³ Ibid.



The SBCFD has access to over 3,000 fire hydrants that are owned by various water districts throughout the City. The SBCFD does not own the fire hydrants.

HAZARDOUS FIRE AREAS

The SBCFD is a member of the Inland Empire Fuels and Management Alliance. This is a nine-member alliance developed to identify specific projects pertaining to vegetation management and wild land fuel reduction within San Bernardino and Riverside Counties. Each member participates in projects to prevent and minimize fire threats in and around their respective communities.

As the foothill areas adjacent to the San Bernardino Mountains are considered hazardous fire areas, the City has created a Foothill Fire Zone Overlay District. Within the District, the City identifies three foothill fire zones that have different degrees of hazard based on slope, natural barriers, and type of fuel present. The foothill fire zones are: A – Extreme Hazard, B – High Hazard, and C – Moderate Hazard. Fire Zone A includes areas with slopes of 30 percent or greater. Fire Zone B includes areas with slopes between 15 to 30 percent. Fire Zone C includes those areas with slopes of 0 to 15 percent. The proposed project is not located within hazardous fire areas.¹⁴ Furthermore, according to State Fire Hazard Severity Mapping, the Project Areas are not located in very high fire hazard severity zones.¹⁵

Urban and Wildland Fires

Fires in undeveloped areas result from the ignition of accumulated brush and woody materials, and are appropriately termed “wildland fires.” Such fires can burn large areas and cause a great damage to both structures and valuable open space land. Urban fires usually result from sources within the structures themselves. Fire hazards of this type are related to specific sites and structures, and availability of fire fighting services is essential to minimize losses.

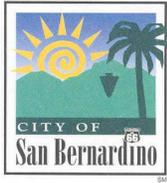
In urban areas, the effectiveness of fire protection efforts is based upon several factors, including the age of structures, efficiency of circulation routes that affect response times, and availability of water resources to combat fires. In wildland areas, taking the proper precautions, such as the use of fire resistant building materials, can protect developed lands from fires and, therefore, reduce the potential loss of life and property.

The City is susceptible to wildland fires due to steep terrain and highly flammable chaparral vegetation of the foothills of the San Bernardino Mountains and high winds that correspond with seasonal dry periods. The characteristics of the San Bernardino Mountains and winds in the area indicate that large uncontrollable fires on a recurring basis are inevitable.

The danger from wildland fires in the foothill locations is increased by the number of structures and encroachment of new development in the hillside areas. Specific concerns include the density of development, spacing of structures, building materials, access to buildings by fire equipment, adequacy of evacuation routes, property maintenance, brush clearance, and water availability. The capacity of the water systems to provide sufficient water to fight fires is a significant issue.

¹⁴ City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/sbfd_facts.asp, accessed March 2, 2010.

¹⁵ CAL FIRE Very High Fire Hazard Severity Zones in LRA, as recommended by CAL FIRE, November 13, 2008.



The U.S. Department of Forestry has records of wildland fires dating back to the beginning of the 20th century. The data indicates that fires occur on a regular basis almost every year and that very large fires occur approximately every ten years. According to the Department of Forestry, the large fires correspond to the age of the vegetation which, if not burned regularly, begins to accumulate dead material that is easily ignited and spreads fire faster than younger growth. Consequently, a decade can pass with few fires followed by a decade with several large fires. The occurrence of the largest fires also corresponds to periods of extremely high wind conditions. The large fires that are spread by winds periodically approaching and exceeding 90 to 100 miles per hour (mph) are considered uncontrollable by the California Department of Forestry and U.S. Forest Service. Other areas in southern California are being burned off periodically by way of controlled burns to remove aging vegetation. The controlled burn process is used very carefully in the San Bernardino Mountains because of the unpredictability and force of the winds in the area that could make controlled burns a potential hazard.¹⁶ Furthermore, according to State Fire Hazard Severity Mapping, the Project Areas are not located in very high fire hazard severity zones.¹⁷

INSURANCE CLASSIFICATION

The Insurance Service Office (ISO) Grading Schedule is a means of classifying cities with reference to their physical conditions and fire defenses. The insurance classification developed under the schedule is only one of several elements used in development of fire insurance rates.¹⁸ The ISO rating for the City is Class 3. The ISO rating is based on a scale from one to ten, with Class 1 being the best. In most insurance rates, the fire insurance costs are the same for single-family residential structures in the Class 2 through 4 rating. Multiple residential, commercial, and industrial insurance costs can be substantially affected by ISO ratings.¹⁹

5.12.3 SIGNIFICANCE THRESHOLD CRITERIA

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended, and used by the City of San Bernardino in its environmental review process, and is contained in Appendix A of the EIR. The Initial Study includes questions relating to fire protection. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

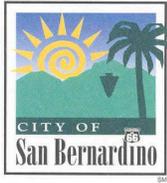
- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or result in the need for new or physically altered governmental facilities, the construction of which may cause significant environmental impacts in order to maintain acceptable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

¹⁶ City of San Bernardino General Plan, Chapter 7, Public Facilities and Services Element, prepared by The Planning Center, dated November 1, 2005.

¹⁷ CAL FIRE Very High Fire Hazard Severity Zones in LRA, as recommended by CAL FIRE, November 13, 2008.

¹⁸ Final General Plan Update and Associated Specific Plans EIR, Public Services, prepared by The Planning Center, dated September 30, 2005.

¹⁹ Ibid.



Based on these significance standards, the effects of the proposed project have been categorized as either “no impact,” a “less than significant impact,” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a “significant unavoidable impact.”

5.12.4 PROJECT IMPACTS AND MITIGATION MEASURES

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN THE NEED FOR ADDITIONAL FIRE PROTECTION SERVICES.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Implementation of the proposed project would result in the addition of 1,833 dwelling units, 6,122 persons, 6,200,590 square feet of non-residential development, and 16,601 jobs beyond existing conditions.

The additional 1,833 dwelling units represents approximately 2.5 percent of the projected 73,367²⁰ households, and the resulting 6,122 persons represents approximately 2.2 percent of the projected 276,264²¹ population at buildout of the *General Plan* for Horizon Year 2030. The additional 16,601 jobs represents approximately 4.9 percent of the projected 338,712²² employment at buildout; refer to [Section 5.2, Population, Employment, and Housing](#).

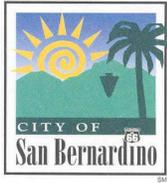
Future development associated with the proposed project would result in an increased demand for fire protection services within the Project Area. The future development within the Project Area is anticipated to result in increased calls and demands for fire protection services, which may create a need for additional fire protection services, personnel, and/or facilities. Additionally, implementation of the proposed project may result in increased response times due to the associated increase in redeveloped area. Indicators for the need to have additional personnel and facilities include response times, incident load, population, and square footage of developments. Response times are dependent on a combination of factors, including the geographic distribution of land uses and personnel level to population served. Although future development associated with the proposed project would occur in an urban area currently adequately served by the SBCFD, response times may increase if adequate personnel levels or facilities are not provided.

In order to determine if additional fire protection personnel and/or facilities are needed to maintain adequate levels of service, including response times, new development projects would be reviewed by the SBCFD on a project-by-project basis to determine project specific impacts to fire protection services. Individual projects would be reviewed by SBCFD to determine the specific fire requirements applicable to the individual development and ensure compliance with these requirements. Compliance with measures established by Federal, State, and local regulations would reduce fire protection impacts to less than significant.

²⁰ Final San Bernardino General Plan Update and Associated Specific Plans Environmental Impact Report, prepared by The Planning Center, dated September 30, 2005.

²¹ Ibid.

²² Ibid.



The SBCFD has indicated that the current fire protection staff levels and facilities in the City of San Bernardino are adequate for the existing development and land uses.²³ The SBCFD does not anticipate that implementation of the proposed project would result in the need for new fire protection facilities.²⁴ The SBCFD also anticipates that the required fees and taxes provided by new development associated with the proposed project would adequately mitigate the expected increase in fire and emergency medical service demand.²⁵ Furthermore, the anticipated growth has been planned for within the *General Plan* and permitted land uses within the Project Area would be those permitted by the *General Plan*. The *General Plan* Public Facilities and Services Element and Safety Element includes goals and policies to provide fire protection services. Compliance and/or adherence to the *General Plan* goals and policies would reduce impacts to fire protection services to a less than significant level.

General Plan Goals and Policies:

PUBLIC FACILITIES AND SERVICES ELEMENT

Goal 7.2 **Protect the residents and structures of San Bernardino from the hazards of fire.**

Policy 7.2.1 Assure that adequate facilities and fire service personnel are maintained by periodically evaluating population growth, response time, and fire hazards in the City.

Policy 7.2.2 Assess the effects of increases in development density and related traffic congestion on the provision of adequate facilities and services ensuring that new development will maintain fire protection services of acceptable levels.

Policy 7.2.3 Establish a program whereby new development projects are assessed a pro rata fee to pay for additional fire service protection to that development.

SAFETY ELEMENT

Goal 10.11 **Protect people and property from urban and wildland fire hazards.**

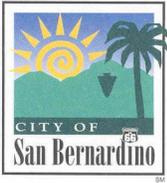
Policy 10.11.1 Continue to conduct long-range fire safety planning efforts to minimize urban and wildland fires, including enforcement of stringent building, fire, subdivision and other Municipal Code standards, improved infrastructure, and mutual aid agreements with other public agencies and the private sector.

Policy 10.11.4 Study the potential acquisition of private lands for establishment of greenbelt buffers adjacent to existing development, where such buffers cannot be created by new subdivision.

²³ City of San Bernardino Fire Department, Chief Michael J. Conrad, letter correspondence, December 2009.

²⁴ City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/sbfd_facts.asp, accessed March 2, 2010.

²⁵ Ibid.



Policy 10.11.5 Continue to require that all new construction and the replacement of 50 percent or greater of the roofs of existing structures use fire retardant materials.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

5.12.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

◆ **IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO FIRE PROTECTION SERVICES.**

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Implementation of the proposed project has the potential to create a significant impact on fire protection services. Response times may increase as a result of increased development and population. However, future development projects would be evaluated by the City of San Bernardino and the San Bernardino Fire Department on a project-by-project basis to determine potential impacts to fire protection services. Future development projects would be required to comply with all applicable fire code and ordinance requirements for construction, access, water mains, fire flows, and hydrants. Individual projects would be reviewed by the City and SBCFD to determine the specific fire requirements applicable to the specific development and to ensure compliance with these requirements. Compliance with measures established by Federal, State, and local regulations would reduce fire protection impacts to less than significant. In addition, adherence to the *General Plan* goals and policies would further reduce impacts resulting from the proposed project to a less than significant level. As such, implementation of the proposed project would not result in cumulatively considerable fire protection impacts.

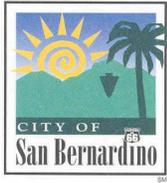
General Plan Goals and Policies: Refer to the goals and policies identified above.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the General Plan are required.

Level of Significance After Mitigation: Not Applicable.

5.12.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Fire protection impacts would be less than significant with compliance with *General Plan* goals and policies. Therefore, no significant unavoidable fire protection impacts would occur as a result of the proposed project.



5.12.7 SOURCES CITED

CAL FIRE Very High Fire Hazard Severity Zones in LRA, as recommended by CAL FIRE, November 13, 2008.

City of San Bernardino General Plan, Chapter 7, Public Facilities and Services Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino General Plan, Chapter 10, Safety Element, prepared by The Planning Center, dated November 1, 2005.

City of San Bernardino Fire Department, Chief Michael J. Conrad, letter correspondence, December 2009.

City of San Bernardino Fire Department website, https://www.ci.san-bernardino.ca.us/depts/fire/sbfd_facts.asp, accessed March 2, 2010.

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