

4.6 FIRE HAZARDS

This section describes the project site's existing fire hazards and defensibility and the impacts of the proposed project on existing fire hazards. This analysis was based on discussions with County Fire Department staff, information contained in a Water Supply Report prepared for the project by Penfield and Smith (2005), information contained in the Santa Barbara Ranch EIR, and site investigations by County staff.

4.6.1 ENVIRONMENTAL SETTING

The project site is a 1,784-acre ranch consisting of a mixture of vegetation types, including primarily non-native grasslands, irrigated orchards, riparian and oak woodlands, chaparral, and coastal scrub. It borders the Los Padres National Forest to the north, the Pacific Ocean to the south, and other agricultural and ranch lands to the east and west. The project site is located in a designated High Fire Hazard Area, as is the entire Gaviota Coast. The majority of the project area has not experienced any wildland fires in over 100 years. The northern portion of the project area, in the vicinity of the existing reservoir, burned in the Refugio Fire identified below. Major wildland fires in the vicinity of the project site since 1900 include:

- Refugio Fire, 1955 – burned 79,429 acres north, west, and northeast of the project site;
- Eagle Canyon Fire, 1979 – burned 3,765 acres just east of the project site, above the Naples township;
- Gaviota Fire, 2004 – burned 7,443 acres approximately 8 miles west of the project site around Gaviota State Park; and
- Gap Fire, 2008 – burned 9,445 acres approximately 5 miles east and northeast of the project site.

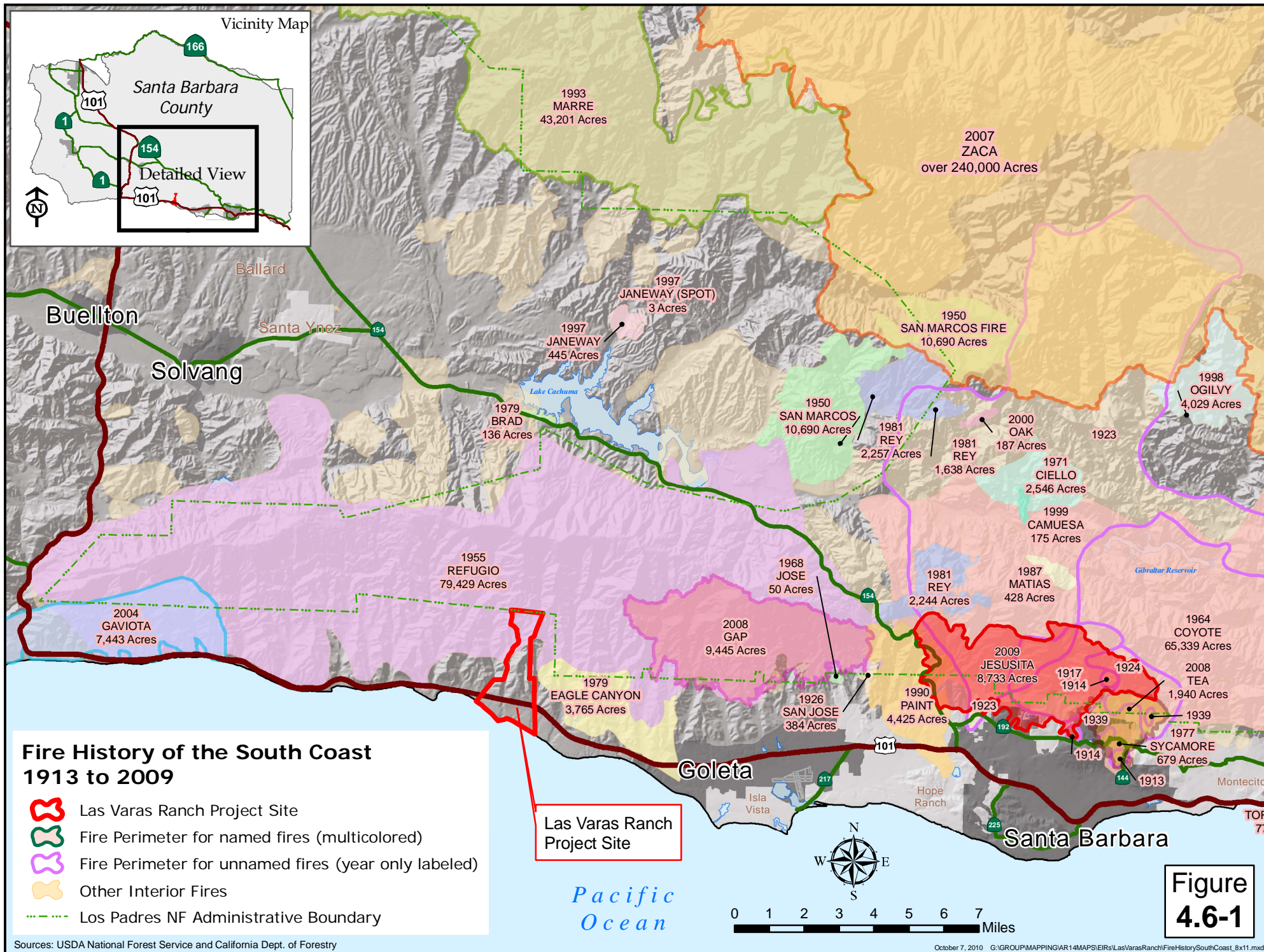
Numerous other wildland fires have occurred within the Santa Ynez Mountains along the South Coast of Santa Barbara County, reflecting the fire hazards that exist in this region, as indicated in **Figure 4.6-1**.

Vegetation

While the southern portion of the project site adjacent to and south of U.S. Highway 101 is characterized mostly by grazing land and irrigated orchards (with mature riparian vegetation within the drainages) with relatively low fuel loads, the northern portion of the project site is characterized by areas of more mature vegetation, including dense stands of chaparral and oak/riparian woodland communities. Portions of this area are maintained and cleared as part of the ongoing agricultural and ranching operation, providing opportunities for fuel breaks. However, due to the lack of any fires in this area in over 50 years, expanses of dead and decadent vegetation likely exist which may provide significant fuel loads in a wildland fire event.

Fire Protection Services

Fire protection services for the project site are provided by the Santa Barbara County Fire Department (Fire Department). The Fire Department provides fire protection services to an area of approximately 2,700 square miles that includes some of the incorporated areas of the County. The Fire Department is composed of 16 fire stations, with the nearest stations to the



project site being Stations 11, 14, and 12. Station 11 serves as the primary response unit to the project site and is located off Storke Road approximately seven miles east of the project site (see **Figure 4.6-2**). Station 11 services the City of Goleta west of Los Carneros Road and north of El Colegio Road and the unincorporated areas of Santa Barbara County north and west of the City of Goleta. Station 11 has both an engine and a truck company, with both units maintaining a full-time staff of three firefighters. Station 14 is the next closest fire station to the project area, located at 320 North Los Carneros Road approximately 8.5 miles east of the project site. Station 14 is staffed with three firefighters and maintains an engine company and a brush truck. Station 12 is located at 5530 Calle Real in Goleta, just west of North Patterson Avenue. This station is staffed with three firefighters and maintains two engines. All of these stations have a response time to the project area of 10 minutes or more.

The Los Padres National Forest Fire Department (LPNFFD) is primarily responsible for fire suppression and management within National Forest lands and lands managed by Forest Service partners. During the height of the fire season, there are more than 300 Forest Service employees working in fire management. During the winter, staffing is reduced by more than half as work emphasizes fuel management and preparation for the upcoming fire season. The LPNFFD is primarily responsible for fighting wildfires and has a mutual aid agreement with the Santa Barbara County Fire Department which allows for unified work efforts during large fire events. The LPNFFD is responsible for wildland fire protection in the northern portion of the project site; the closest LPNFFD fire engine to the project site is housed at the Santa Barbara Airport. The USFS is prevented from protecting property by presidential executive order, thus the County Fire Department is responsible for responding to and fighting structure fires within the entire project site.

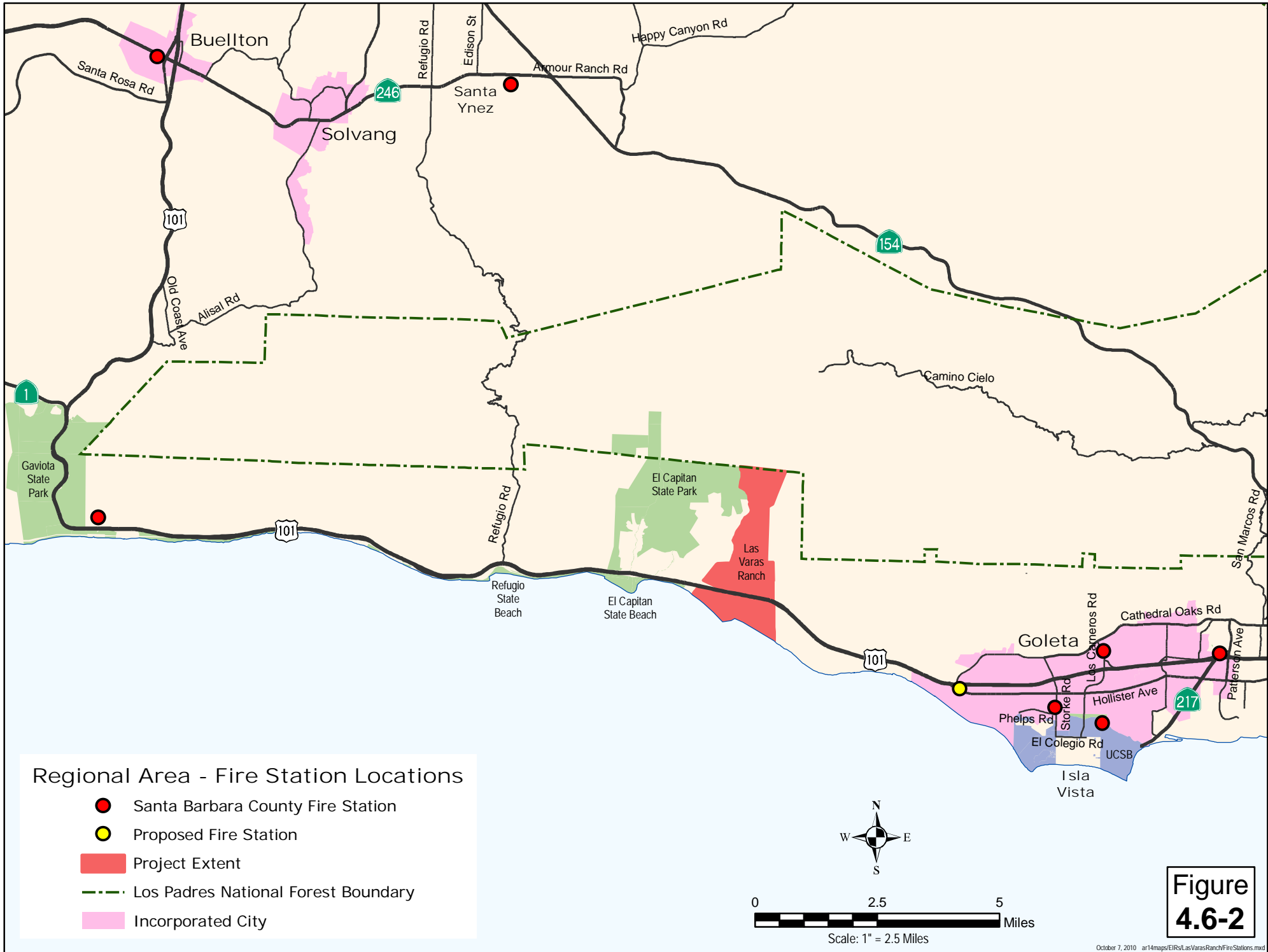
The California Department of Forestry (CDF) contracts with the County Fire Department to provide fire protection within State Responsibility Areas (SRAs). Section 4102 of the Public Resources Code defines SRAs as those areas of the State for which the State has the financial responsibility of preventing and suppressing fires. The project site is within a SRA. Through CDF's contract with the County Fire Department, the County Fire Department is the first responder to any fire within the areas of the project site slated for future development. If a fire requires additional personnel beyond the first responders, then CDF serves as one of many secondary responders. The closest CDF fire stations are located in San Luis Obispo County.

Sources of Ignition

Existing sources of ignition in the project area include vehicles traveling along U.S. Highway 101, careless acts by residents and/or the recreating public (e.g. discarded cigarettes, campfires/bonfires, and lawnmowers/power tools emitting sparks), power lines, and agricultural activities (e.g. tractors emitting sparks, sparks generated by welding irrigation lines and other maintenance activities, as in the case of the Zaca fire).

Access

Access to the project site is provided directly off of U.S. Highway 101 via an at-grade intersection. A network of paved and dirt ranch roads currently provide access throughout the Ranch. Much of the existing ranch road network would not meet County Fire Department requirements for all-weather surfaces, minimum road widths, and maximum grades.



Water Supply

The current water supply system serving Las Varas Ranch includes 1) a combination of Edwards Reservoir and Gato Creek diversion to supply water for irrigation and to support the cattle ranching operation, and 2) the Goleta Water District to supply the domestic water for the various residential and ranch-related structures throughout the site. There are also a number of wells that are used as backup to the reservoir during dry years.

Climate and Local Weather

Weather plays a critical role in the region's fire regime. The climate of southern California is classified as a Mediterranean type in which hot summer droughts are followed by winter season rainfall. The hot, dry summers subject vegetation to prolonged periods of moisture stress at times when wildfire is most likely. The long, dry summers result in the build up of vegetation with very low moisture levels and an accumulation of dead plant material annually during their dormant stages, which contributes to a build-up of volatile plant material and associated fuel loads. This vegetative response produces conditions that may exacerbate the intensity of potential fires, and thereby the degree of the fire hazard over time. In addition to the long, dry summers, the area is subject to "sundowner" type winds with speeds up to 50 MPH or more. These winds bring very warm, dry air onto the coastal plain, further removing moisture from vegetation and resulting in very high fire hazard conditions.

In addition, climate change caused by increased levels of greenhouse gases in the atmosphere, has the potential to substantially increase the risk and intensity of large wildfires in the region. Higher temperatures may result in increased precipitation during the winter. This would increase the growth of vegetation that becomes fuel during wildfires. Hotter temperatures and drier conditions during the summer potentially associated with the long-term effects of climate change would also exacerbate fire risks and result in longer periods of high fire hazard. No one knows to what extent the frequency of wildfires will increase; however, it is reasonable to suspect that any increase has the potential to exacerbate resources to fight fires when they occur, particularly when the state experiences several wildfires simultaneously. Such circumstances place greater risk on development in high fire hazard areas. Use of fire-resistant building materials, maintenance of defensible space around structures, ensuring adequate access to properties by emergency vehicles, and facilitating evacuation greatly reduce this risk.

4.6.2 REGULATORY FRAMEWORK

4.6.2.1 State Authorities

Public Resources Code Section 4291, Clearance Around Structures

This code requires that land covered with flammable material be maintained within 100 feet of defensible space from each side of a habitable structure. Fuels are required to be maintained so that a wildfire burning under average weather conditions would be unlikely to ignite a structure.

California Building Code (2007) (CBC)

The State of California provides a minimum standard for building design through the CBC. The CBC requires that buildings within designated high fire hazard areas be constructed with fire resistant building materials.

4.6.2.2 Local Authorities and Administering Agencies

Santa Barbara County Comprehensive Plan and Coastal Land Use Plan

Land Use Development Policy 4 of the Comprehensive Plan Land Use Element and Policy 2-6 of the Coastal Land Use Plan require the demonstration of adequate public or private services to serve new development, including fire protection, prior to approving a development project.

Santa Barbara County Fire Department Development Standards

The County Fire Department has established standards to ensure new development incorporates fire protection measures and does not hinder the ability of fire protection personnel to access the site and fight fires. These standards include requirements for private roads and driveways, hydrant spacing and flow rates, stored water systems (in rural areas), sprinkler systems, alarm systems, vegetation management, and access gates. All new development must adhere to these standards, as applicable and as determined by the County Fire Department.

4.6.3 THRESHOLDS OF SIGNIFICANCE

The County's *Environmental Thresholds and Guidelines Manual* does not include significance thresholds pertaining to fire hazards. The following significance thresholds are based on the County's Initial Study Checklist. Impacts would be considered potentially significant if a project would:

- Introduce development into an existing high fire hazard area;
- Cause a fire hazard;
- Introduce development into an area without adequate water pressure, fire hydrants, or adequate access for fire fighting;
- Result in development that would hamper fire prevention techniques such as controlled burns or back-firing in high fire hazard areas; or
- Result in development of structures beyond the safe fire department response times.

4.6.4 PROJECT IMPACTS AND MITIGATION

Impact Fire-1: Defensibility and Potential for Wildland Fires

Assuming up to one principal residence on each proposed lot, the proposed project would result in a net increase of six principal residences beyond what currently exists on site for a net increase of 19 people (based on an average of 3.1 people per residence) in a high fire hazard area requiring fire protection services. Given that most of the County outside of urban areas is designated as high fire hazard area, the addition of an estimated 19 people is not considered significant. The project

would not significantly increase existing fire hazards in or around the project site as the level of residential development would be low and agricultural activity would remain. Increased human activity associated with the proposed public access trails through the Ranch could potentially increase the chances of a fire starting by careless acts, such as discarded cigarettes. Vegetation management and fire clearance per County Fire Department standards (i.e. creation of 100 foot of defensible space around habitable structures and 10 feet alongside roads/trails) around future residential development within the identified development envelopes as well as along access roads and public trails would minimize the threat of fires affecting new development and similarly the potential for a fire started by a resident or member of the public spreading through the Ranch or adjacent areas. The proposed development envelopes are sited in locations that would accommodate necessary fuel modification areas, as most of the envelopes are in open areas away from trees and other stands of dense vegetation.

Future development associated with the proposed project would not significantly hamper fire prevention techniques such as controlled burns or back-firing within the project site. Future residential development of the site would occupy up to approximately 14 acres of the 1,784-acre ranch (assuming up to two acres of contiguous residential development on each parcel) and most of the upper portion of the ranch adjacent to Los Padres National Forest (the area most susceptible to a large wildfire event given existing fuel loads) would be unaltered by the proposed project. Thus, the extent and nature of development within the ranch would continue to allow opportunities for fire protection and suppression within the project site.

Each residence would be required to provide a water supply for firefighting purposes in compliance with County Fire Department standards. This includes fire hydrants flowing at 750 gallons per minute in areas served by a water purveyor or water storage of at least 2,500 gallons per residence for residences outside of a water purveyor's district. The applicant is proposing to rely on water storage to meet County Fire Department requirements. However, since a portion of the ranch is currently served by the Goleta Water District (GWD) and the rest of the ranch is outside of the district's annexed boundaries, a combination of approaches to meeting County Fire Department standards for water supply would need to be incorporated as part of the project unless a waiver is granted from the County Fire Department that would allow the use of water storage in lieu of fire hydrants even in areas served by the GWD. Existing unpaved ranch roads through the project site would be extended and paved with an all-weather surface, providing between 16 and 20 feet wide roadways serving each of the proposed development envelopes, consistent with County Fire Department standards. All access roads serving individual parcels would meet the 12% grade requirements of the County Fire Department. In addition, all future residential development would be required to comply with California Building Code requirements applied to development within high fire hazard areas, which ensures the use of fire-resistant building materials in construction. Given the scope of the project and the infrastructure improvements ensuring adequate water supply and emergency access for fire fighting, impacts are considered *adverse but less than significant (Class III)*.

Mitigation Measures

No mitigation is required. However, all future development, including the provision of the public trails within the project site, would be required to comply with County Fire Department standards for water supply, vegetation management, and access requirements including the provision of approved turnarounds and turnouts within the driveways and private roads.

Residual Impacts

The residual impact of FIRE-1 is **less than significant (Class III)** given compliance with County Fire Department standards applied to new development.

Impact FIRE-2: Fire Response Times and Service Levels.

One of the criteria used to determine adequacy of fire protection services is a five-minute response time for emergency personnel. This response time is considered critical in providing prompt fire protection within urban areas. Response times over five minutes are considered substandard. However, the five-minute response time standard applies to urban areas and not to rural areas such as the project site. Nonetheless, the response time to reach the entrance to the project site off Highway 101 is approximately 10 minutes, twice the time typically considered adequate for emergency response. Additional time would be needed to reach individual lots within the project site.

The Santa Barbara County Fire Department uses a countywide level of service ratio of one fire fighter per 4,000 people to identify the maximum population that can be adequately served (Goleta Community Plan, p. 115). A ratio of one fire fighter to 2,000 people is considered “ideal.” The population served by the three fire stations serving the project site presently meets or exceeds the 1:4,000 ratio. Thus, to maintain this level of service standard, any increase in population would require the County to hire additional fire fighters within the vicinity of the project site. Currently, the Fire Department budget is inadequate to maintain desired service level standards. In summary, the project is located beyond the five minute response time for the three nearest fire stations and any increase in the area population, even minor, would further exceed the service ratio limit necessary to maintain the minimum level of fire protection service.

The proposed project would result in a small increase in population requiring fire protection services. Based upon the Goleta Community Plan, it is clear that a new fire station must be constructed and staffed in order to support any further development in Western Goleta Valley, including development along the Gaviota Coast. Currently, the City of Goleta, Santa Barbara County Fire Department, and all affected applicants are working on a plan that will provide documentation of all of the required funding and sources of such funding for a new fire station. The County Fire Department has identified a location for a new Fire station (Station #10, across from Sandpiper Golf Course on Hollister Avenue) to serve the western portion of Goleta, and as of the date of this EIR, the City of Goleta had purchased the property but was well short of the funding required to commence construction. Given the scope of the project, the limited increase in population associated with buildout of the seven proposed lots, and the fact that no residential development is proposed at this time, the payment of standard development impact mitigation fees at the time of future development (i.e. 10 cents per square foot of new development) is considered a sufficient contribution towards the new fire station and no additional financial contributions are deemed necessary (Glenn Fidler, County Fire Department, pers. comm.). Impacts are considered *potentially significant but mitigable*.

Mitigation Measures

FIRE-1: Impact Fees. All applicable Development Impact Mitigation Fees in effect at the time of permit issuance for future residential development of the site shall be paid.

Plan Requirements and Timing. Payment of Development Impact Mitigation Fees to the County shall be made in the time, manner, and amount as prescribed by applicable fee schedules in effect at the time of Coastal Development Permit or Land Use Permit issuance.

MONITORING: P&D shall ensure payment of applicable fees is made at the appropriate times prior to permit issuance.

Residual Impacts

Upon implementation of the above mitigation measure, the residual impact of FIRE-2 is reduced to a **less than significant level (Class II)**.

4.6.5 CUMULATIVE IMPACTS

The proposed project, in conjunction with other planned and pending projects identified in Section 3.0, would result in an incremental increase in the temporary and permanent residential population in a high fire hazard area, thereby exposing additional residents and members of the public to potential fire hazards and increasing the potential for a fire to be ignited by human activities. These projects would be underserved by the County Fire Department due to their distance from the closest fire stations until such time as the new station is constructed and operational in western Goleta. This would result in a potentially significant cumulative impact. As discussed above, the proposed project would increase the total on-site residential population by approximately 19 people with residential buildout of the project site. In addition, provision of a public parking lot to serve the proposed beach access trail would result in an increase in the temporary population in this area by up to approximately 63 people (based on 2.1 people per vehicle) at any given time. This level of growth associated with the project would not exacerbate evacuation of area residents given the excess capacity of U.S. Highway 101 and the relatively short and straightforward ingress/egress routes. Fuel management and water storage capacities within the ranch would ensure the site is defensible from wildfire events and would not significantly exacerbate existing fire hazards. Therefore, the project's contribution to area fire hazards would *not be cumulatively considerable*.

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