

8.6 WILDLAND FIRE

Environmental Setting

Wildland fire risks are primarily an issue in the northern and eastern edges of the Planning Area, which are steeply sloped and covered with coniferous forest. The central and western portions of the Planning Area are predominately flat (see Geologic and Seismic Hazards Figure 8-4).

Humboldt County Master Fire Protection Plan

The 2006 Humboldt County Master Fire Protection Plan (HCMFPP) contains a wildland fire risk/hazard assessment prepared for the eleven fire planning compartments that cover the entire county. These planning compartments are based on watershed and planning boundaries and are designed to include areas with similar fire-planning characteristics. The Planning Area is located within the Humboldt Bay Fire Planning Compartment and extends south from Trinidad to Rio Dell and Carlotta, and east to Kneeland.

The RAMS (Risk Assessment and Management System) computer model was used for the HCMFPP risk/hazard assessment. Fire managers use the RAMS model as a comprehensive fire planning approach to analyze six primary risk/hazard rating factors contributing to the overall risk of catastrophic fire, including: fire-related fuel hazards; resources and economic assets at risk; wildland ignition risk; wildlife fire history; catastrophic fire potential; and fire protection capacity (Humboldt County 2006).

The RAMS analysis identifies the risk of wildland fire in the Planning Area as non-existent in the urban core and moderate to very high in the mountainous northern and eastern portions. In addition to the RAMS analysis, the HCMFPP contains a list of communities “at risk to wildfire” compiled by CAL FIRE. In preparing this list, CAL FIRE relied upon three categories:

- Fuel hazards: ranking vegetation types by its potential behavior during a wildfire;
- Assessing the probability of fire: the annual likelihood that a large, damaging wildfire will occur in a particular vegetation type; and
- Defining areas of suitable housing density that create wildland interface fire protection strategy situations. Note: Wildland interface is defined by the National Wildfire Coordinating Group as “the line, area, or zone where structures and other human development meet, or intermingle with, undeveloped wildland or vegetative fuels.”

The communities at risk to wildfire rankings range from one (lowest) to three (highest). According to the HCMFPP 2006, Fortuna has a wildfire risk ranking of two (Humboldt County 2006).

California Department of Forestry and Fire Protection (CAL FIRE)

CAL FIRE's mission statement emphasizes the management and protection of California's natural resources, a goal that is accomplished by providing fire protection services, ongoing assessment and study of the State's natural resources, and implementation of CAL FIRE's Resource Management Program. CAL FIRE is responsible for providing fire protection service on State land as well as on privately owned land (i.e., State Responsibility Areas or SRAs) not covered by local fire departments and special fire districts. CAL FIRE also contracts with local agencies to provide fire protection service.

The Planning Area is located in CAL FIRE's Humboldt - Del Norte Unit; the most northern Unit along the California coastline (CAL FIRE 2007). The Unit is approximately 180 miles in length and 50 miles wide. It includes 1,941,991 acres of SRA and 1,963,581 of direct protection areas. Approximately 70 percent of these areas are zoned for timber production and another ten-percent are recreation areas.

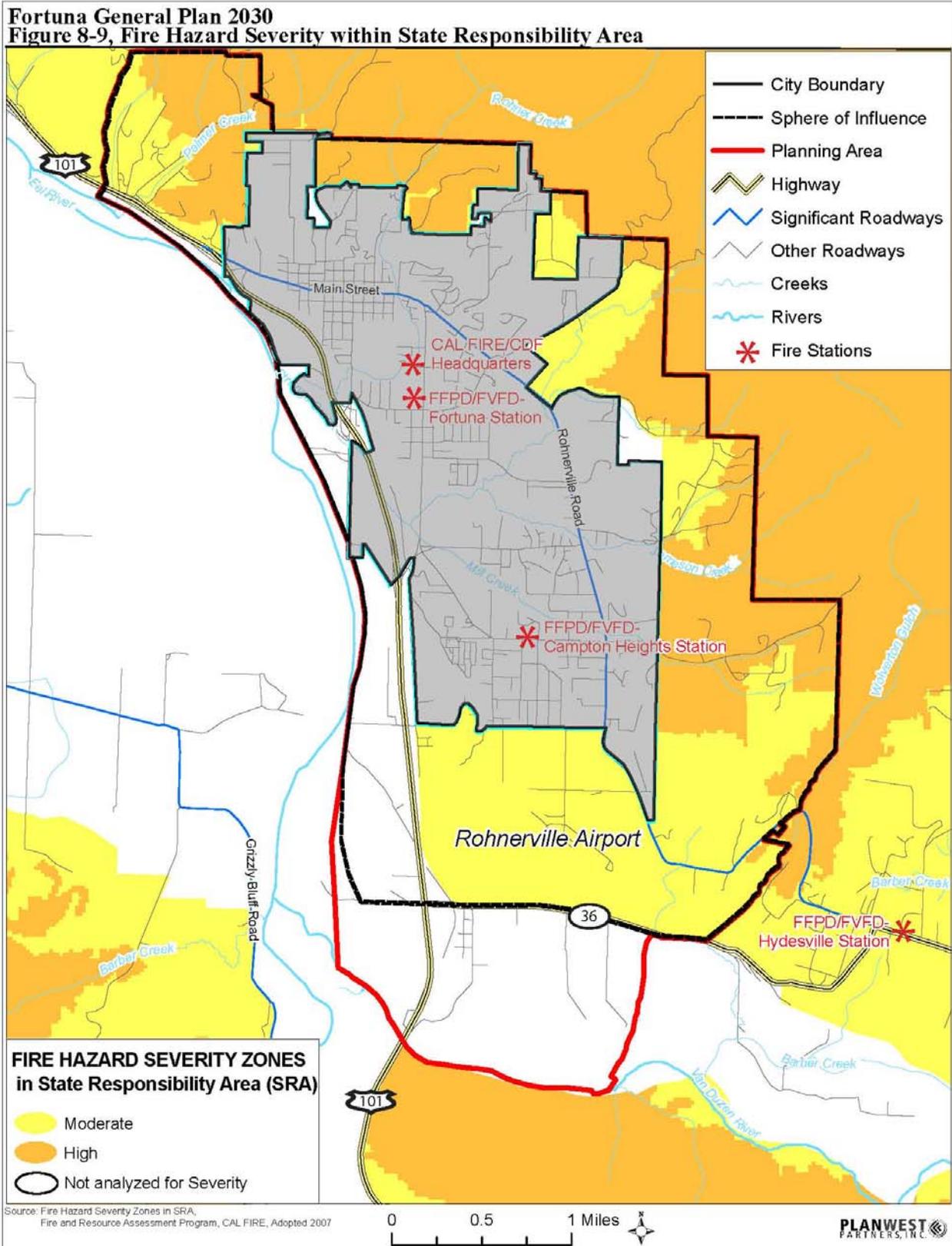
The existing unincorporated portions of the Planning Area are within SRA (Figure 8-9), except for the unincorporated portion of the Planning Area between SR 36 and the Van Duzen River that falls within the service area of the Fortuna Fire Protection District (FFPD).¹ Per Figure 8-9, the wildland fire severity hazard in the SRA portions of the Planning Area ranges from moderate to high (CAL FIRE 2007).

Fire Protection Services in the Planning Area

The Planning Area falls within the fire protection service area of two agencies (Figure 8-9); CAL FIRE in the SRA portions of the Planning Area and FFPD in the incorporated City and the area between SR 36 and the Van Duzen River. As indicated in Figure, CAL FIRE maintains one fire station in the Planning Area that houses CAL FIRE's Humboldt-Del Norte Unit Command as well as CDF's Fortuna Battalion, while FFPD maintains three fire stations operated by the Fortuna Volunteer Fire Department (FVFD). In some instances, SRA within the Planning Area extends into area covered by the FFPD. These represent joint response areas, with CAL FIRE serving as the incident commander for wildland fires and FFPD serving as the incident commander for structure fires.

In addition to the joint CAL FIRE and CDF fire station, CAL FIRE maintains the Rohnerville Air Attack Base at Rohnerville Airport. The Base is equipped with an air-attack spotting plane and an airborne tanker (water bomber), and houses up to ten air and ground personnel during wildland fire events (CAL FIRE 2005). The Base protects the Planning Area and approximately 4.0 million acres of southern Humboldt County.

¹ In the City of Fortuna and its environs, FFPD fire stations are staffed by the Fortuna Volunteer Fire Department (FVFD) which receives financial and material support from FFPD.



Wildland Fire History in the Planning Area

The Humboldt County Fire History Map 1908-2001, prepared by Humboldt County Community Development Services Department in October 2002, indicates that there has not been a major wildfire in the Planning Area in the last century.

Applicable Plans, Policies, Codes and Regulations

State

California Public Resources Code (PRC). The PRC establishes the California Department of Forestry and Fire Protection (CAL FIRE or CDF) and regulations covering the prevention and control of wildland fires. Relevant code sections include:

PRC § 4125 - 4128 –mandates that the Board of Forestry and Fire Protection (Board) classify all lands in the state for the purposes of determining areas in which the financial responsibility of preventing and suppressing wildfire is primarily the responsibility of the state. These lands are termed State Responsibility Areas (SRAs), and maps identifying these areas and the fire hazard severity (“low”, “medium”, and “high”) within them are updated every five years by the Board.

PRC § 4290 mandates the adoption of regulations to implement minimum fire safety standards related to emergency access, emergency water (fire flow), and perimeter wildland fire protection standards within SRA areas.

PRC § 4291 mandates fire prevention responsibilities (e.g., creating defensible space) for individuals who own, lease, control, operate, or maintain buildings or structures in, upon, or adjoining any mountainous areas or forest covered lands, brush-covered lands, grass covered lands, or any that land that is covered with flammable material in SRAs.

General Guidelines for Creating Defensible Space. Recent changes to Public Resources Code §4291 expand the defensible space clearance requirement, maintained around buildings and structures from 30 feet to a distance of 100 feet. The General Guidelines for Creating Defensible Space are intended to provide owners of property within an SRA (per § 4291) with examples of fuel modification measures that can be used to create appropriately defensible perimeters around buildings or structures. This provides firefighters with a working environment that allows them to protect properties from encroaching wildfires, as well as minimizing the chance that a structure fire will escape to the surrounding wildland.

Local

Humboldt County Code (“Fire Safe” Regulations). As authorized by PRC §4290, Title III, Division 11, Chapter 1, §3111 of the Humboldt County Code sets forth the SRA Fire Safe Regulations implemented by the County on the behalf of CAL FIRE. These regulations constitute the basic standards for wildland fire protection within SRAs, including emergency access, emergency water (fire flow), and perimeter wildland fire protection standards. The Code

requires these standards to appear as conditions of approval of construction permits, development permits, and tentative maps covered by the code.

Humboldt County Community Wildfire Protection Plan (Humboldt County Fire Safe Council). The Humboldt County Master Fire Protection Plan (HCMFPP) serves as the Community Wildfire Protection Plan (CWPP) for Humboldt County, California. The MFPP identifies and prioritizes areas for hazardous fuel reduction treatments. It recommends the types and methods of treatment to reduce the risk of wildfire to Humboldt County communities and resources. The MFPP summarizes the RAMS analysis used to identify areas of highest risk for loss of life, property, and resource values from catastrophic fire. The outcome of the RAMS assessment is a composite risk ranking for specific geographic areas of the county, accompanied by relevant information and maps used to identify appropriate fire mitigation strategies and allocation of resources. The HCMFPP also recommends measures to reduce the ignitability of structures throughout Humboldt County

The Humboldt County Master Fire Protection Plan goals are as follows:

- Assure adequate fire protection for people, property, and communities;
- Support development of local fire organizations and local Fire Safe Councils;
- Encourage effective and risk-based allocation of fire prevention and suppression services;
- Encourage local efforts to reduce or mitigate fire fuel loads for community fire prevention and protection;
- Promote local fire safe planning and education programs; and
- Support fire prevention and resource protection funding and technical assistance efforts of local fire organization and communities.

Methodology

Policy Background

The following policy background is used to assess the wildland fire impacts of the proposed plan:

- The risk of catastrophic fire for the Planning Area is moderate.
- The northern and eastern SRA portions of the Planning Area will continue to have a moderate to high risk of wildland fires;
- The risk of major wildland fires increases when new homes are placed in hilly or mountainous SRA areas. Therefore, the risk of major wildland fires in the Planning Area will increase as new homes are located at, or near, the wildland interface;
- CAL FIRE will continue to be responsible for providing wildland fire prevention and suppression in the SRA portions of the Planning Area, except as may be negotiated between CAL FIRE and FFPD in those portions of the Planning Area that may eventually be annexed to the City.

Thresholds of Significance

Implementation of the Proposed General Plan will have a significant wildland fire impact if it exposes people or structures to a significant risk of loss, injury or death involving wildland fires, including wildland adjacent to urbanized areas or where residences are intermixed with wildlands.

Implications of the Draft Land Use Diagram

The proposed General Plan provides for future development at the periphery of the City, in the wildland-urban interface, an area that is susceptible to wildland fires.

General Plan Policy Response

The proposed General Plan includes the following policies and programs relevant to wildland fires.

Policy HS-8.1 Wildland Fire Prevention Education. The City shall endeavor to educate residents living in the wildland interface about the State Board of Forestry and Fire Protection (BOF) California Department of Forestry and Fire Protection “General Guidelines for Creating Defensible Space” and Public Resources Code §4291 to reduce the wildland fire risk.

Policy HS-8.2 Fire Safe Regulations. The City shall adopt the fuel modification, emergency access, signage, and fire-fighting water supply requirements of the County’s Fire Safe Regulations, including the defensible space clearance requirements authorized by Public Resources Code §4291, and make these regulations applicable in State Responsibility Areas (SRAs).

Policy HS-8.3 FFPD Review of Proposed Development Plans. The City shall require that new subdivisions, PUDs, and other large development projects proposed in the SRA be submitted to CAL FIRE for review of proposed fuel modification, emergency access, signage, water supply and pressure, and other fire safe measures to protect against wildland fires.

Impacts and Mitigation

Impact 8.6-1: Increase Exposure to Wildland Fires

Proposed General Plan implementation could increase exposure of people or structures to a significant risk of loss, injury or death involving wildland fires, including wildland adjacent to urbanized areas or where residences are intermixed with wildlands.

Discussion

Under the proposed plan, some non-urban (e.g., agriculture, open space, timber, etc.) portions of the Planning Area in a SRA in will be designated for urban uses. This will occur primarily in the northern and eastern portions of the Planning Area, including:

- 1) Portions of the Carson Woods Road Annexation Area which are currently in timber use or vacant and would be designated as Rural Residential (up to 1 du/ac and 0.10 FAR);
- 2) A large portion of the Strongs Creek Annexation Area along Strongs Creek east of Rohnerville Road which is currently in agricultural use and would be designated as Residential Low (3-6.9 du/ac and 0.50 FAR);
- 3) A portion of the Rohnerville Annexation Area between Rohnerville Airport and Rohnerville road which is currently in rural residential and open space use and would be designated as Industrial; and
- 4) Areas between the eastern boundary of the incorporated City and the eastern boundary of the Planning Area which are currently in rural residential use and would be designated such that additional Rural Residential use could be developed.

These land use changes will facilitate the development of urban uses (primarily residential) in SRAs identified by CAL FIRE as having moderate to high fire severity hazard (Figure 8-9), the proposed plan will increase the exposure of people and structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. However, the following policies are proposed in the proposed plan to reduce this wildland fire hazard:

- Policy HS-8.1 requires the City to endeavor to reduce residents living in the wildland interface about defensible space to reduce the wildland fire risk;
- Policy HS-8.2 requires the City to adopt the fuel modification, emergency access, signage, and fire-fighting water supply requirements of the County's Fire Safe Regulations, and make these regulations applicable in SRA portions of the City; and
- Policy HS-8.3 requires that plans for new subdivisions, PUDs and other large development projects proposed in a SRA be submitted to CAL FIRE for review of proposed fuel modification, emergency access, signage, water supply and pressure, and other fire safe measures to protect against wildland fires.

Complying with these policies will reduce the wildland fire hazard by ensuring that development in SRAs occurs with sufficient defensible space to stop wildland fires, by ensuring available water to fight wildland fires, and by ensuring adequate access is provided for emergency fire-fighting equipment. However, implementation of these policies will not completely eliminate the wildland fire hazard because the policies do not specify the specific fire safe standards to be implemented. Without specifying these standards to the degree possible given the programmatic nature of this PEIR, the impact will be significant.

Determination of Level of Significance

Significant, but can be reduced to a less than significant levels with implementation of the recommended mitigation.

Mitigation

Mitigation Measure 8.6-1a: Add a new ordinance requirement in the Fortuna City Code as follows:

Fire Safe Regulations. New subdivisions proposed within SRA areas of the City shall comply with the emergency access, emergency water (fire flow), and defensible space standards set forth in the Humboldt County Fire Safe Regulations (Title III, Division 11, Chapter 1, §3111 of the Humboldt County Code). These standards include, but shall not necessarily be limited to, the following:

- Roads shall be constructed to Road Category 4 road standard for traveled way (18-20 feet) for subdivisions of greater than eight (8) parcels.
- The surface of all roadways shall provide unobstructed access to conventional drive vehicles, including sedans and fire engines.
- The grade for all roads, streets and private lanes shall conform to the standards for Road Category 4. No roadway grade in excess of 16 percent shall be permitted unless it has been demonstrated to be in conformance with the County Roadway Design Manual.
- Roadway radii shall conform to Road Category 4 standards. No roadway shall have a horizontal inside radius of curvature of less than 50 feet unless in conformance with the County Roadway Design Manual.
- Additional surface width of four (4) feet shall be added to curves of 50-100 feet radius, and two (2) feet to those from 100-200 feet.
- Turnarounds are required on driveways and dead-end roads, with a minimum turning radius of 40 feet from the center line of the road. If a hammerhead T is used, the top of the “T” shall be a minimum of 60 feet.
- The maximum length of dead-end roads, including dead-ends roads accessed from a dead-end road, shall not exceed between 800 and 7500 feet, depending on zoning.
- Visible/legible street signs shall be provided on all new streets, and buildings shall be posted with proper address numbers.
- Emergency water for wildland fire protection shall be available and accessible in quantities and locations specified by CAL FIRE’s and the County’s Fire Safe regulations, and shall be available on-site prior to completion of building construction.
- Fire water delivery systems shall meet the emergency water supply size and pressure requirements of the National Fire Protection Association.
- Fuel modification and greenbelts shall provide (1) increased safety for emergency fire equipment and evacuating civilians; and (2) a point of attack or defense from a wildfire.
- Defensible space, as defined by PRC §429, of at least 100 feet in width shall be maintained around buildings and structures.
- All parcels one (1) acre and larger shall provide a minimum 100 foot setback for buildings and accessory buildings from all property lines and/or the center of a road, with certain exceptions.

- For parcels less than one (1) acre, the same practical effect of the 100 foot setback shall be provided through any combination of provision of a community water system meeting the requirements specified by these regulations, establishment of a County Service Area or other acceptable district or association to provide maintenance of defensible space including vegetation modification, use of non-combustible or fire-resistive building materials or installation of sprinklers within buildings, development of greenbelts around the subdivision, etc.
- Subdivisions that propose greenbelts shall locate the greenbelts as a separation between wildland fuels and proposed structures.

If SRA portions of the Planning Area are annexed to the City, the County's Fire Safe standards shall continue to apply to these areas until such time as the City and CAL FIRE collectively determine that the areas are no longer subject to wildland fires (i.e., become too urbanized for wildland fires to represent a significant risk).

References Cited

CAL FIRE, 2005. Pers Comm. With Jeremy Monroe, CAL FIRE Humboldt-Del Norte Unit Fire Prevention Officer, November.

Humboldt County 2005. Draft Humboldt County Master Fire Protection Plan.
http://co.humboldt.ca.us/planning/fire_safe_council/fsc_default.asp. Accessed August 21, 2007.