

3. FIRE HAZARD ZONING

3.1 Background

Wildfire is a standard occurrence in California. It occurs with regular frequency, and can be most hazardous when combined with unawareness or denial by the public and/or policy makers. As long as history has been recorded, there have been reports of large conflagrations that affect residents. Lawmakers, planners and developers are all aware of the risks associated with developing the wild lands for residential and commercial usage. Residents, in some cases, are also aware of these risks. It seems, however, that many do not realize the level of responsibility they must assume for their own safety, because firefighters can not possibly protect every structure when a wildfire approaches. People might think, “The fire department will protect my home and family if we are in danger from wildfire,” but this view can be harmful or fatal. Fire prevention and protection agencies often work at maximum capacity to protect life, property and natural resources. But people who live in hazardous areas must also rely on the pre-fire strategies available to them for protection from wildfires. Those who do use these strategies will be at the lowest risk of destruction and the highest probability for intervention by firefighters and survival from a fire threat.



Figure 3.1 – Effective Defensible Space around a Structure

Fire hazard zoning is important to Californians, since the threat of wildfire is very real. The CDF firefighters, fire engines and aircraft respond to an average of 7,500 wildland fires per year, and over 1500 structures were destroyed by wildfires in 1999 alone. Fire hazard zoning can tell Californians where wildfire and other natural hazards exist. Similarly, planners and developers should responsibly consider such hazards when building in hazardous areas. State and local governments have a responsibility to public safety, and wildfire is a central issue in many jurisdictions. A useful definition for fire hazard zoning is: “A *planning and regulatory activity (typically conducted by a local agency such as a city or county) which provides criteria for what kinds, how many and under what conditions development or other activities should be regulated in areas of various hazard classifications*” (Harrell 1999).

Hazard identification (or [assessment](#)), [classification](#) and [zoning](#) are three distinct processes for purposes of this guide. It is important that the distinctions between these processes be clear to local planners and fire agencies. Assessment, classification and zoning of fire hazards can be used for several purposes, but they are most important for recognizing, delineating and mitigating such hazards. They are also effective tools for bringing fire safety issues into the public eye.

3.2 STATE LAND USE PLANNING RESPONSIBILITIES

“The board shall classify all lands within the state, without regard to any classification of lands made by or for any federal agency or purpose, for the purpose of determining areas in which the financial responsibility of preventing and suppressing fires is primarily the responsibility of the state. The prevention and suppression of fires in all areas that are not so classified is primarily the responsibility of local or federal agencies, as the case may be.” (Public Resources Code § 4125(a))

“It is the intent of the Legislature that decisions affecting the use of land in state responsibility areas result in land uses which protect life, property, and natural resources from unreasonable risks associated with wild land fires.” (Public Resources Code § 4128.5(a))

These sections of the [Public Resources Code](#) (PRC) clearly show that lands classified SRA for fire protection must also be developed in such a way as to help protect the public from wildfire risks. This need requires state and local agencies to cooperate in this regard, since CDF can make recommendations but does not dictate local land use planning decisions. Local governments ultimately decide what local actions will be.

3.2a. Hazard Assessment and Classification

[PRC Sections 4201-4204](#) were enacted statewide in 1982 after fires in San Bernardino, Napa, and Los Angeles Counties destroyed over 500 structures between 1980 and 1982. These sections required that the CDF classify all SRA lands into fire hazard severity zones according to the severity of fire hazards determined to exist in various areas. The purpose of this requirement was to identify measures to retard the rate of wildfire spread, and to reduce the potential intensity of wildfires that could destroy resources, life, and property. By law, the zones must embrace relatively homogenous lands, and the fire hazard severity rating must be based on [fuel loading](#), [slope](#), [fire weather](#), and [other relevant factors](#).

3.2b. Public Notification

For SRA fire hazard severity assessment, once those hazards have been identified by CDF, the information about hazards is transmitted to local governments. The public should be notified of the findings via public hearings and other local means. Maps containing the hazard severity information determined by CDF can be purchased by the public through [Teale Data Center](#). On the next page is a copy of an SRA fire hazard severity map.

3.2c. Designation of Hazard Areas

“No designation of a zone and assignment of a rating shall be adopted by the director until the proposed regulation has been transmitted to the board of supervisors of the county in which the zone is located at least 45 days prior to the adoption of the proposed regulation and a public hearing has been held in that county during that 45-day period.” (PRC 4203(b))

Even though CDF is responsible to identify hazards and assign severity ratings, it does not usually decide how those hazards will be dealt with. Local governments and other parties who choose to involve themselves with public hearings will determine whether or not and how wildfire hazards will be mitigated. Generating public support and playing an active role in public hearings can be an effective way for fire service personnel and other concerned citizens to help acknowledge and affect the need for fire safe standards.

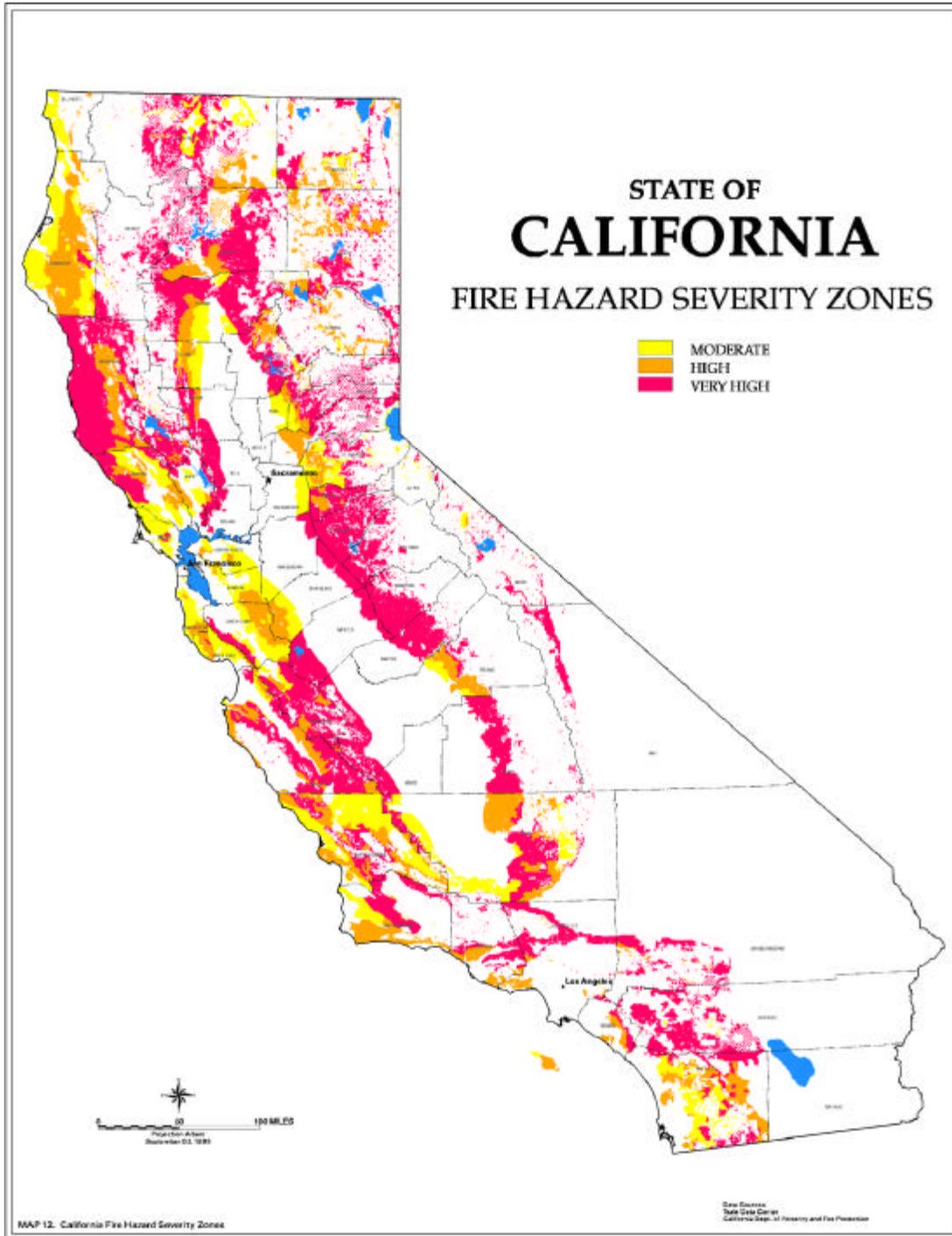


Figure 3.2 – State Responsibility Area Fire Hazard Severity Map

3.2d. Fire Safe Standards

With increasing development in the Urban-Wildland Interface, the 1980's and 1990's have shown Californians some of the most devastating wildfire damage ever experienced in the state. Nearly 1,500 structures in the 1980's and over 6,000 structures in the 1990's were destroyed by wildfires that encroached on Urban/Wildland Interface populations. California lawmakers were compelled to help mitigate these losses in the future. As a result of this dramatic increase in damages, related legislation began to emerge to address these problems directly. In 1991, Senate Bill 1075 (Rogers) passed, enacting minimum fire safety regulations in the SRA through [PRC Section 4290](#). Senator Rogers first introduced this bill in 1987. It was an attempt from a different angle to mandate fire safe land use planning where fire protection was under state jurisdiction. These lands were experiencing extensive rural and wildland development which needed to be managed to avoid undue loss from wildfire. However, these lands were and still are under local agency jurisdiction for the purpose of development and land use planning. Through SB 1075 and associated public hearings, the requirements found in PRC 4290 were enacted. The regulations are intended for the purpose of protecting natural resources from out-of-control structure fires, but it is important to note that they also serve to protect structures from wildfire at the same time. The regulations address several major elements of land use, development, and construction:

- Vegetation clearance around structures standards



Figure 3.3 – Vegetation Clearance



Figure 3.4 – No Vegetation Clearance

- Road and access standards



Figure 3.5 – Safe Fire Equipment Access



Figure 3.6 – Unsafe Fire Equipment Access

- Signage and building identification standards



Figure 3.7 – Street Sign



Figure 3.8 – Building Address

- Fuel break and greenbelt standards

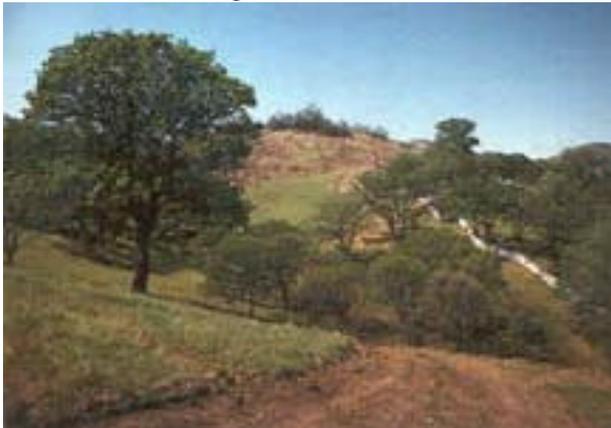


Figure 3.9 – Fuel break



Figure 3.10 – Greenbelt

- Private water supply requirements

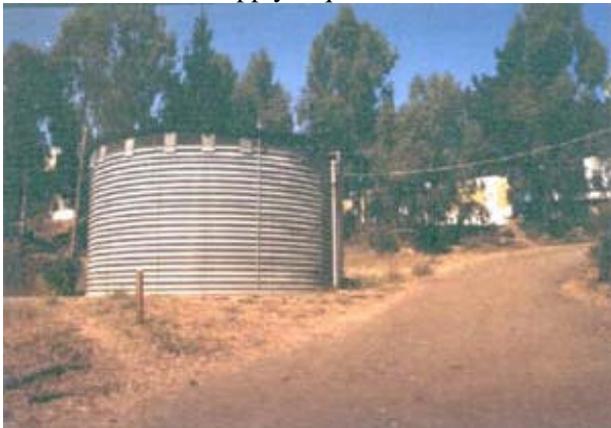


Figure 3.11 – Water Supply Tank



Figure 3.12 – Swimming Pool Source

The detailed fire safety standards adopted by the State Board of Forestry pursuant to PRC 4290 can be found in Title 14 of the California Code of Regulations, especially [Sections 1270-1276](#). Unless a county received certification of another ordinance through the State Board of Forestry prior to September 1, 1991, these regulations took effect as minimum standards in the SRA. They are triggered by application for a building or use permit for any non-existing structures, roads, or driveways being constructed in a state responsibility area. If they are not adopted by local ordinance, they are enforceable by default. However, identification of the enforcing entity remains a quandary. In these areas, code enforcement questions still arise that are not answered sufficiently by either local fire district personnel or local Ranger Unit personnel.

3.2e. Periodic Review

CDF is responsible to periodically review zones designated and rated according to SRA fire hazard zoning regulations and, as necessary, to revise zones or their ratings or repeal the designation of zones. Any revision of a zone or its rating or any repeal of a zone must conform to the requirements of [PRC Section 4203](#), which requires local public hearings ([PRC § 4204](#)). The same confusions about CDF and local government roles also apply in regard to periodic review, then, since local ratification of CDF recommendations must still occur.

3.3 LOCAL LAND USE PLANNING RESPONSIBILITIES

“Fires are extremely costly, not only to property owners and residents, but also to local agencies. Fires pose a serious threat to the preservation of the public peace, health, or safety. Since fires ignore civil boundaries, it is necessary that cities, counties, special districts, state agencies, and federal agencies work together to bring raging fires under control. Preventive measures are therefore needed to ensure the preservation of the public peace, health, or safety.... The prevention of fires is not a municipal affair..., but is instead, a matter of statewide concern.” (Government Code § 51175)

Local governments have a responsibility to regulate planning and development in consideration of local and regional public safety. Moderate, High and Very High fire hazards exist throughout the state, and fire knows no boundaries. As a result of this knowledge and in response to repeated, costly disasters, the California legislature has attempted to mandate certain minimum requirements for development and maintenance of fire hazardous areas. The first logical steps in this process would be to assess and classify the hazards present in a given area, then enact the appropriate zoning and development requirements in that area based on the hazards and risks identified. It sounds easy enough, but this process has proven problematic, since one must overcome several political hurdles to make such a legal designation. But these areas do contain substantial hazards and risks that must be acknowledged and mitigated. However, developers, local planners and residents all have a vested interest in maintaining a low profile when it comes to fire and other natural hazards, since it is perceived that such distinctions provoke negative reactions by real estate buyers and insurance companies.

3.3a. Hazard Assessment and Classification

In accordance with [Assembly Bill 337](#) (Bates), passed in 1992, CDF was required to identify and classify fire hazards in the LRA. Though this classification was referred to in the legislation as an identification of “[very high fire hazard severity zones](#)” (VHFHSZ), it was not technically “zoning,” since all land use planning decisions in the LRA are still under the local agency’s jurisdiction. Therefore, the use of the term VHFHSZ in the legislation served to confuse the agencies involved as to who was responsible for local fire hazard assessment, classification and zoning. This section will attempt to clear up any confusion about this issue.

After the Oakland/Berkeley Hills Tunnel Fire (and the disasters experienced in earlier years), state lawmakers then felt the time was appropriate to enact statewide fire safety measures in the LRA, so Assembly Bill 337 (Bates) was drafted and passed. The new state law mandated LRA fire hazard assessment and zoning, and included related minimum fire safety standards to be adopted at the local level (see Government Code § 51175-51189).

The Department of Forestry and Fire Protection was assigned the task of identifying VHFHSZ in the LRA based on present fire hazards, including fuels, weather, topography and structure density. This task was undertaken in cooperation with local agencies. A protocol was developed, along with a [Criteria and Factors](#) review sheet, then topographical maps of each county were reviewed and signed off by Ranger Unit personnel and local fire protection officers once any VHFHSZ had been identified. These reviews took place in late 1994 and throughout 1995. A resulting set of digitized maps are available in print form to the local agencies through [Teale Data Center](#) for an average cost of \$35, plus shipping and handling, if they wish to obtain them. These LRA VHFHSZ maps are also available on the Internet at <http://www.ceres.ca.gov/planning/nhd>.

3.3b. Public Notification

Local agencies containing VHFHSZ must make available to the public within 120 days of notification by CDF. The information presented to the public must be in an easy to understand format, including, but not limited to, maps ([Government Code § 51179](#)). Those local jurisdictions that contain one or more VHFHSZ were notified in writing by CDF of the identification and were alerted to the 120-day deadline for public notification. Any updates conducted by local agencies would fall under the same public notification requirements.

3.3c. Designation of Hazard Areas

According to Government Code §51179, enacted by the Bates bill, local agencies can accept or reject the CDF VHFHSZ assessment and delineation. Local agencies can also alter and update VHFHSZ boundaries as deemed necessary. Approximately fifty-two jurisdictions with areas that otherwise would have been identified with a VHFHSZ had claimed to meet or exceed the requirements of AB 337 at the time of the original assessment review in 1994 and 1995. Some have provided appropriate documentation of the minimum standards, while others have not. These jurisdictions were not required to designate a VHFHSZ because Government Code Section 51179 reads, “*A local agency shall be exempt from this requirement if ordinances of the local agency, adopted on or before December 31, 1992, impose standards that are equivalent to, or more restrictive than, the standards imposed by this chapter.*” This means that any jurisdiction that already had vegetation clearance regulations that were equal to or more stringent than [GC 51182](#), plus a Class B roofing minimum, could essentially ignore the VHFHSZ recommendations made by CDF. As a result, true hazards throughout the state were not necessarily identified pursuant to AB 337. In fact, there are many areas in the state of California that qualify, according to several different hazard assessment systems, as VHFHSZ. Local jurisdictions with a VHFHSZ identified by CDF but not recognized locally are nevertheless subject to Natural Hazard Disclosure requirements (see [Section 4](#)), even though they may not enforce the associated defensible space and roofing requirements.