

# WESTWOOD-CLEAR CREEK

## Community Fire Safe Plan

Lassen County



January 2004

**COUNTY OF LASSEN**  
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*Prepared by*

Lassen County Department of Community Development

*in cooperation with*

California Department of Forestry and Fire Protection

Lassen County Fire Safe Council

*with assistance under contract from*

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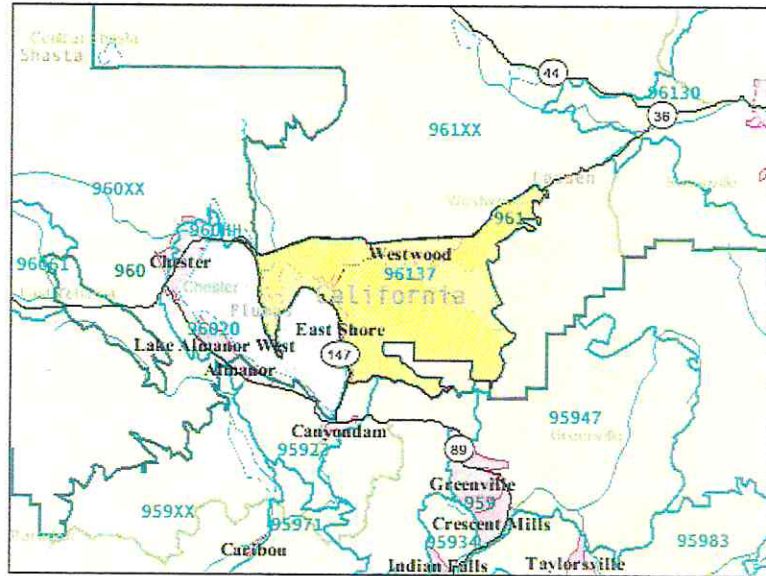
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## COMMUNITY DESCRIPTION

### Population

According to U.S. Census Bureau Data, the population for the Westwood Zip Code Area (96137) in 2000 was 4,152. The Westwood Zip Code Area also includes Pine Town, Clear Creek, and Hamilton Branch. The map below indicates the coverage area relevant to this information.



**Westwood Zip Code Area: 96137**  
**Scale: 40 Miles Across**

Westwood began as a mill town under Red River Lumber Company's initial development in 1913. Westwood was later sold to Fruit Growers Supply Company who ran the mill until 1957. At its peak, Westwood had a population of approximately 6,000. Upon the demise of the mill, the population shrank to a low of 1,200. Since then, the population has gradually risen. With the rise in popularity of second homes and the prospect of a four season mountain resort development nearby, the Westwood-Clear Creek community area may further gain in population and housing units.

The following table provides additional housing structure information from the 2000 census:

<b><u>HOUSING OCCUPANCY</u></b>		
	<b><u>No.</u></b>	<b><u>%</u></b>
Total housing units	3,557	100.0
Occupied housing units	1,779	50.0
Vacant housing units	1,778	50.0
For seasonal, recreational, or occasional use	1,462	41.1

Homeowner vacancy rate (percent)	6.4	(X)
Rental vacancy rate (percent)	15.9	(X)

**HOUSING TENURE**

	<u>No.</u>	<u>%</u>
Occupied housing units	1,779	100.0
Owner-occupied housing units	1,334	75.0
Renter-occupied housing units	445	25.0
Average household size of owner-occupied unit	2.2	(X)
Average household size of renter-occupied unit	2.6	(X)

**Values at Risk**

The Westwood-Clear Creek Community Fire Safe Plan Area includes the communities of Westwood, Pinetown, and Clear Creek. All of these communities are within the Westwood Planning Area defined in the Lassen County General Plan 2000. Within and surrounding these communities, there are many physical features that are potentially at risk from encroaching wildfires including residences, churches, schools, retail establishments, infrastructure, and most importantly the residents themselves.

A popular historic and recreational attraction, the 24-mile Biz Johnson Trail, traverses an old rail grade from Susanville and ends approximately 3 miles north of Westwood. Many hikers, bikers, equestrians, and other naturalists use this trail. Also in Westwood there is a small museum and historic references and remnants of the Lassen Emigrant Trail of 1848, and the great railroad system that was pioneered in conjunction with the Red River Lumber Company's great pine lumber mill.

Other more intrinsic, though possibly less tangible values at risk include visual impacts, aesthetics, security, wildlife habitat, and air quality. A loss of any number of the above physical features or intrinsic values may also impact employment, cost-of living, insurability and rates, health, and community stability.

**Natural Resources at Risk**

All of the land within and surrounding the communities of Westwood, Pine Town and Clear Creek is in private ownership. Roseburg Resources and clients of W.M. Beaty and Associates own the majority of this high value timberland and manage it mainly for sustained timber production. Other private ownership is mainly in the form of small residential lots. Federally managed land is at least three miles away from the Westwood-Clear Creek community area.

The nearby Mountain Meadows Reservoir and surrounding area is an important resource for recreation and wildlife. Many species of waterfowl, and some threatened and endangered species such as the Greater Sandhill Crane, the Bald Eagle, and the Willow Flycatcher, depend on the habitat provided by the area. Adding to the diversity of this area is the combination

of mountain slopes, meadows, forests, brush and grass fields, and creeks and springs.

### **Transportation**

State Route 36 serves as the northern boundary of the Westwood-Clear Creek community area. State Route 147 accesses the Clear Creek community. Lassen County Road A-21 passes through Westwood from State Route 44 and continues to where it intersects SR 147 at Clear Creek. There are several paved residential streets within the communities.

In addition to these roads, the community is served by a railroad line and maintenance yard run by the Burlington Northern Santa Fe.

### **Level of Service Provided to Community**

The Westwood-Clear Creek area is a combination of State Responsibility Area (SRA) and Local Responsibility Area (LRA). The California Department of Forestry and Fire Protection (CDF) bears the primary and responsibility for suppression of wildfires on SRA lands.

The Westwood CSD is a combination of LRA and SRA lands. The Westwood CSD Fire Department is responsible for structure and wildland fire protection within the LRA. The CDF provides wildland fire protection on the SRA.

The CDF has a fire station in Westwood that is staffed year-round. During the fire season, the station has two engines and a staffed. The staffing of the fire station during the winter is through a contract between CDF and Westwood CSD. (Reference #5)

The Clear Creek CSD is composed entirely of SRA land with the CDF providing wildland fire protection and the Clear Creek CSD Fire Department providing structure fire protection.

The following is a current equipment inventory for each of the volunteer stations: (Reference # 4 & 6)

**Westwood Community Services District Fire Department**

<u>Equipment</u>	<u>Type</u>	<u>Gallons</u>	<u>GPM</u>	<u>Drive</u>	<u>Other</u>
Engine	2	500	1000	2x4	
Engine	1	500	1250	2x4	Foam
Engine	2	500	1000	2x4	
Ambulance	ALS			4x4	
Rescue					Extrication: JAWS

**Clear Creek Community Services District Fire Department**

<u>Equipment</u>	<u>Type</u>	<u>Gallons</u>	<u>GPM</u>	<u>Drive</u>	<u>Other</u>
Engine		500	300	4x4	
Engine		500	350	2x2	
Portable pump		N/A	150		

Both CSD Fire Departments provide mutual aid support to each other and to the Hamilton Branch (Plumas County) Fire Protection District and the CDF. The primary mission of both Fire Departments is medical assistance and structure fires. In 2001, the Westwood CSD Fire Department responded to 15 wildfires and 15 dwelling fires out of their total response load of 340. For the same period, the Clear Creek CSD Fire Department had 3 wildfires and 5 dwelling fires out of a total response load of 21.

**Restricting Covenants and/or Ordinances**

The communities of Westwood and Clear Creek are unincorporated. As such, no specific restricting covenants and/or ordinances relating to wildland fire, other than those required by the State and policies adopted by the County and listed below, were identified that apply to these communities.

Enforcement of vegetation clearing around buildings on SRA land, per California Public Resources Code 4291 (PRC 4291), is the responsibility of the CDF. The CDF also serves as the permitting agency for State law governing commercial tree harvesting and burning on private land

Lassen County recognizes the problems associated with wildfire and has adopted appropriate policies. The following measures were included in Resolution No. 2552, adopted by the Board of Supervisors on September 3, 1974. This resolution is included as the *Safety and Seismic Safety Element* of the Lassen County General Plan 2000. Specific implementation measures include the following:

1. Implement a study to locate and identify areas of existing and potential fire, geologic, and health hazards.
2. Require all structures and developments to strictly adhere to Public Resource Code 4291 (clearing for defensible space).
3. Subdivision and minor land division ordinances should require that new roads be of sufficient width and that there be multiple ingress and egress options for evacuation routes.
4. Population centers should be encouraged to improve or install water systems with adequate storage capacities.
5. Communities should be protected by fuelbreaks together with fire suppression equipment backed up with an adequate water supply.
6. For the purposes of faster response time of fire suppression equipment, all major and minor roads should have signs identifying their names.

Resolution No. 88-117, adopted by the Lassen County Board of Supervisors on November 29, 1988 established "goals, policies and programs for residential development in areas of the unincorporated territory of Lassen County which are not located within the boundaries of any fire protection district or other agency which provides structural fire protection". This resolution specifically outlines actions, facilitated by the County, that may be taken by existing or newly formed fire protection districts to establish capital development revenue sources in order to provide adequate fire protection in designated County growth areas.

In addition, Ordinance No. 427-C was adopted by the Lassen County Board of Supervisors on June 13, 1989 and amended to Chapter 12.08 of the Lassen County Code. This section prohibits the use of wood shakes or shingles for new construction (roofing or siding) in the unincorporated territory of the County. The provision also applies to existing buildings when fifty percent (50%) or more of the roof or siding is to be replaced.

The Fire Safety Standards Ordinance No. 502 was adopted by the Lassen County Board of Supervisors on June 12, 1990, adding Chapter 9.16 to Title 9 of the Lassen County Code. A summary of the ordinance was published in compliance with the provisions of the California Government Code Section 25124(b) and reads as follows:

"Effective July 12, 1990, the Lassen County Fire Safety Standards Ordinance will establish the policy that all new development within the unincorporated area of the County will be required to meet minimum standards for the adequate fire protection for the particular type of development. These standards will not be applicable within the City of Susanville nor affect State or Federal agencies. Any law, regulation or ordinance involving fire safety which is more restrictive will control over the provisions of Ordinance.



The fire safety standards imposed by the proposed ordinance will apply to new development such as parcel map applications, subdivisions and other development, including commercial, industrial, residential and other development requiring a County permit, to ensure that firefighting equipment will be able to reach and effectively operate at all locations of the new development.

The regulations are broken down into three areas of development classification: Subdivision Standards, Building Standards and Recreational Vehicle/Mobilehome Park Standards. Each of these three classifications are further defined as to access requirements, identification standards, water requirements and construction standards."

This ordinance was immediately adopted in response to what was at the time "...an unprecedented rate of building development in its unincorporated forest and watershed areas" combined with "one of the driest summers in several decades and the hazard of forest and brush fires...at an unparalleled high level". Chapters 9.16, 12.20, and 12.24 of the Lassen County Code were subsequently amended, under Ordinance 502A, on September 24, 1991. This amendment delegated enforcement authority to the County Fire Warden and inspection, certification, and reporting requirements and procedures by the County Fire Warden to the County Building Inspector prior to issuance of a certificate of occupancy.

### **Community Legal Structure**

Westwood and Clear Creek, like most rural communities, are unincorporated. There is no formal legal or political structure beyond those provided by State and County governing bodies and the Westwood and Clear Creek CSD Fire Departments.

### **Media**

Primarily the Westwood Pine Press, a weekly newspaper published by Feather Publishing, serves the Westwood-Clear Creek community. As noted in the publication, it is "adjudicated a legal newspaper and qualified for publication of all matters required by law to be published in a newspaper". They may be contacted at (530) 257-5321, e-mail to [LCTime@AOL.com](mailto:LCTime@AOL.com).

Television stations are generally not receivable with standard antennas. Satellite dishes are widely used for television reception. The local distributor, SunTel Cable, maintains a community channel. Local radio service consists of JDX AM and FM and KABN 99 FM. There are also two bulletin boards located in front of the Post Office and in front of Buffalo Chips Pizza across from Young's Market. These boards are for public use and can be used to disseminate information.

## Schools

There are two main schools in the area. There is also a continuation high school and two charter schools. All the schools are operated within the Westwood Unified School District. The Fletcher Walker Elementary School, grades K-7, is located in Westwood. It has an enrollment of approximately 230 students. The school building is equipped with an up-to-date fire alarm system, however sprinkler systems have not been installed. Evacuation plans are in place and fire drills are conducted regularly during the school year. (Reference #13)

The Westwood Junior/Senior School, grades 8-12, is also located in Westwood. It has an enrollment of 210 students. The school building is equipped with a fire alarm system, but no sprinkler system. Evacuation plans are in place and fire drills are conducted regularly during the school year. (Reference #13)

## Physical Description

### Access/Roads

Most primary surface streets within the communities are paved, wide, and easily navigated with street signs and posted names. There are single ingress and egress streets in the community. The roads outside the communities but within the general area are more variable, and include less maintained dirt roads and private access roads. Most of these roads have posted road signs.

### Structures

Most of the buildings in the community are of ordinary wood frame construction, although there are a number of residential mobile homes as well. Roofing materials are generally metal or composition shingles, which help protect against embers from a wildfire or chimney.

### Utilities

Water and sewage disposal is provided to the Westwood and Clear Creek residents by their respective Community Service Districts. The Westwood CSD uses pumped spring water, storage facilities, and gravity fed pipes. Clear Creek obtains water from nearby springs, and the water system is in fair condition. Westwood and Clear Creek have fire hydrants. Power and telephone service is above ground.

### Obstacles to Emergency Response Vehicles

A common occurrence in Westwood is the existence of a narrow lane or alleyway between rows of houses. Some of these alleyways are cluttered with trash and other items, somewhat restricting access. Another potential

problem is the delay due to occasional rail traffic passing through both communities. (Reference #5)

## VEGETATION CONDITIONS WITHIN AND SURROUNDING COMMUNITY

### Vegetation Fuel Types, Condition, & Fuel Models

The map in "Appendix B" depicts the major vegetation fuel types within and surrounding the communities of Westwood and Clear Creek. The primary fuel type, depicted as green on the map, is categorized as mixed conifer light. Secondary fuel types include hardwood/lodgepole pine, shown as blue; grass, shown as pale yellow; and brush, shown as light pink.

**Mixed Conifer Light:** Actual on-the-ground conditions indicate a high degree of variability within this type. A primary variable is the amount of down woody material (slash). Timber stands that have been "biomass harvested" have very little down woody material, while conventional harvesting has resulted in a moderate slash load. Overall, the mixed conifer light fuel type most closely approximates Fire Behavior Fuel Model 10 and has the following characteristics important for estimating fire behavior (Reference #11):

Total fuel load, < 3-inch, dead and live	12.0	tons per acre
Dead fuel load, 1/4 inch	3.0	tons per acre
Live fuel load, foliage,	2.0	tons per acre
Fuel bed depth	1.0	feet



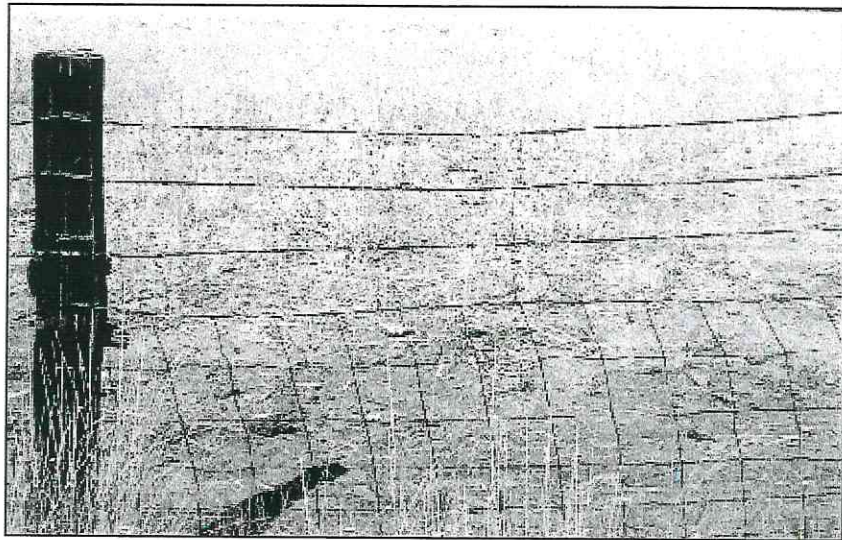
**Fuel Model #10: Mixed Conifer**

Under a 5-mile per hour wind and a fuel moisture content of 8%, fires in this fuel type are predicted to spread at the rate of 0.1 mile per hour with flame heights of 4.8 feet. 11/

**Hardwood/Lodgepole:** The hardwood/lodgepole pine type is associated with the riparian corridor of Robbers Creek between Westwood and Pinetown. The timbered edges of the riparian corridor are thick but fairly narrow. Fuels from this vegetation type best fit Fuel Model 10, with fire behavior estimated as stated above for the mixed conifer type.

**Grass:** The grass fuel type most closely approximates Fire Behavior Fuel Model 1 and has the following characteristics important for estimating fire behavior (*Reference #11*):

Total fuel load, < 3-inch, dead and live	0.74	tons per acre
Dead fuel load, 1/4 inch	0.74	tons per acre
Live fuel load, foliage,	0.0	tons per acre
Fuel bed depth	1.0	feet

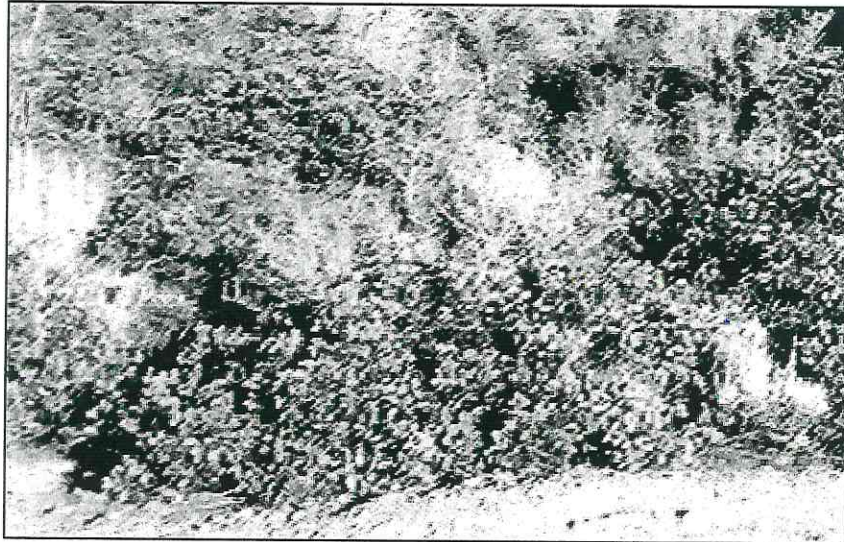


#### **Fuel Model #1: Grass**

In a common year, the grass types in the Westwood-Clear Creek area contain surface and vegetative moisture into the month of June. After that time, it is easy to ignite and can spread rapidly. Under the same wind speed and fuel moisture scenario as depicted for the mixed conifer type above, fires in annual grass are predicted to spread nearly one mile per hour and with flame lengths of 4 feet (*Reference #11*). Creating and maintaining adequate clearing and defensible space around buildings best mitigates the threat of life and property loss from fires generating in this fuel type.

**Brush:** Conditions within the brush type vary considerably based on size and density of the brush. Much of this type occurs along the south and west flanks of Westwood. It best equates with Fire Behavior Fuel Model 6 with the following characteristics (*Reference #11*):

Total fuel load, < 3-inch, dead and live	6.0	tons per acre
Dead fuel load, 1/4 inch	1.5	tons per acre
Live fuel load, foliage,	0.0	tons per acre
Fuel bed depth	2.5	feet



**Fuel Model #6: Brush**

Under a 5-mile per hour wind and a fuel moisture content of 8%, fires in this fuel type can spread at the rate of 0.4 miles per hour with flame heights of 6 feet. (*Reference #11*)

## **WILDFIRE THREAT EVALUATION**

### **Area Fire History**

Fires have occurred frequently within the forested areas surrounding Westwood and Clear Creek. The fire history map (see "Appendix C") reveals that large (300+ acres) fires have occurred in two areas in the past 20 years (*Reference #3*). Fire records indicate that ignition of smaller fires are expected to occur with high frequency in the Westwood area and moderate frequency in the Clear Creek area. Primary sources of ignition include lightning and escaped outdoor burning. The railroad is an infrequent but potential source of fires.

The threat of fire was well known by the managers of the Red River Lumber Company and Fruit Growers Supply Company. When the mill was running in

Westwood, a large firebreak was maintained surrounding the town. Especially on the western side of town, fires were repeatedly set to reduce fuels and maintain the firebreak to protect the town. (Reference #7)

The Westwood and Clear Creek communities are not listed in the Federal Register (August 17, 2001) as an *Urban Wildland Interface Community in the Vicinity of Federal Lands that are at High Risk from Wildfire*. The specific criteria for listing are not known but the assumption must be made that the lack of immediate proximity to federal land is a factor. The Lassen National Forest has designated the Westwood-Clear Creek community as being within an "Urban Defense" and "Urban Threat Zone".

### **Expected Fire Behavior**

The Westwood and Clear Creek communities lie within a forested environment. The area within the communities also has forest-like attributes including some native brush and scattered remnant trees. The topography is nearly level to gently sloping to the south towards Mountain Meadows Reservoir. The elevation ranges from 5,100 feet at Westwood to just under 5,000 feet at Clear Creek.

The climate is typical of mountainous areas of Northern California. Summer days are warm with considerable cooling at night. The average high temperature (as measured in Chester, 6 miles west of Westwood) for July and August is 85° F. Afternoon cloud build-ups can occur during the summer. They sometimes bring thundershowers and dry lightning. In general summer precipitation is negligible. During late summer and fall, daytime temperatures are warm and nights become cold and clear. Winter storms generally arrive by November with the majority of precipitation falling as snow. Annual precipitation is approximately 30-34 inches.

Many dwellings and other buildings within the community are old wood frame buildings that pre-date modern codes. The large number of dwellings in such a small, confined area tends to magnify the probability of accidental fires. Additionally, many lots are seen as lacking adequate defensible space. There is also a significant likelihood of a fire starting from outside the communities and spreading towards them. For these reasons, all buildings are at risk in the Westwood and Clear Creek communities. A large, wind driven crown fire could be expected to destroy many buildings, especially in the Westwood community.

### **Current Resource Management Wildfire Mitigation Measures**

W.M. Beaty and Associates manages most of the land surrounding Westwood and Pinetown and Roseburg Resources owns much of the land adjacent to the Clear Creek community. Both Beaty and Roseburg are aware of the threat to the community that fires from their land present. They are also cognizant of the mutual threat to their lands from fires initiating from within the community. Both companies produce annual fire plans which detail fire safe procedures, current activity areas, and contact information.

A typical type of harvest for both companies in this area is individual tree selection, targeting weaker and dying trees for harvest. Some stands are also "biomass harvested", a treatment that thins and opens forests by harvesting several of the smaller trees for biomass or hog fuel. These treatments greatly increase the chances of stopping the spread of wildfire. The result is forests that have a "clean" look and approximates defensible space standards.

Within the last 15 years, almost all the forested areas around Clear Creek and much of the area south of State Route 36 and east and west of Westwood have been biomass harvested. (Reference #7 & 8) W. M. Beaty & Associates has plans to biomass harvest their clients ownership to the south of Westwood in 2004 and has constructed a shaded fuel reduction zone around Pinetown.

## **RECOMMENDATIONS**

### **Community Recommendations**

#### **Community Fuelbreak**

Assets at risk within the community area can be protected by installing (where it currently does not exist) and maintaining a fuelbreak. A conceptual location for this fuelbreak is included on the "Fire History Map" in "Appendix C". As mentioned previously, much of the Roseburg Resources Company land and land managed by W. M. Beaty & Associates that borders the communities of Clear Creek and Westwood have been biomass harvested. This treatment has resulted in conditions that meet standards of a shaded fuelbreak. A shaded fuelbreak is considered to be beneficial in this area due to its ability to deter the establishment and growth of understory species such as brush and other ladder fuels. These fuelbreaks will need to be maintained in the future.

The State of California owns an easement, and in some cases the timber rights, along State Route 36 in the area. The State has done some clearing work along other segments of State highways, but full cooperation for the establishment of a fuelbreak may be difficult. There are three other larger private land parcels in the area, one just north of Clear Creek and two near Westwood. The Westwood Junior/Senior School owns a small strip on the western side of town. The superintendent indicated a willingness to participate in a fuel reduction project.

#### **Infrastructure Improvements**

The following specific measures, appropriate to individuals and residences within the Westwood and Clear Creek communities, are recommended to reduce the threat of wildfire:

1. A community shaded fuelbreak should be established and/or maintained on private land around both Westwood and Clear Creek (see "Appendix C"). An on-the-ground inventory is necessary to identify the specific location of this fuelbreak. Segments within this proposed fuelbreak should be prioritized based on existing fuel condition and proximity to dwellings.
2. Mail out appropriate informational packets developed for this purpose such as *Homeowners "Watch Outs!"* developed by the Fire Safe Council to all parcel owners. Use the Lassen County Assessor's roll to identify owners.
3. Identify specific private parcels with fuel conditions that threaten adjacent properties and make personal contact with these property owners.
4. Clean greenwaste/biomass is accepted at Mt. Lassen Power during May through October for a fee of \$1.50 per cubic yard.
5. Improve compliance with PRC 4291 provisions for removal of flammable vegetation, overhanging tree limbs, etc. from around buildings. Follow up law enforcement action should be taken as necessary to achieve compliance.
6. Encourage landowner/homeowner to comply with additional defensible space recommendations in Appendix D.

### Defensible Space

In order to protect structures from wildland fire it is recommended that a defensible space be constructed around all structures, particularly residences, within the communities of Westwood and Clear Creek.

Defensible space refers to *"that area which lies between a residence and an oncoming wildfire where the vegetation has been modified to reduce the risk of wildfire threat and which provides an opportunity for firefighters (and the homeowner) to safely defend the residence"*. All fuel types can be modified to create defensible space. Fuel modifications include thinning and pruning to break up fuel continuity and reduce or eliminate crown fires. Creating a defensible space around a residence involves the cutting, removing, and/or thinning of grass, brush, trees, or any other vegetation type to within a minimum specified distance, or farther, from structures. The amount of thinning and pruning needed to provide sufficient defensible space in and around the community is dependent upon characteristics such as fuel type, topography, and seasonal wind and weather patterns. The concept of "defensible space" also applies to roads, driveways and other access or escape routes that individuals, firefighters, or other emergency personnel may use to protect life or property.

The "Appendix D - Defensible Space" provides detailed information, including specific measures and illustrations, that can be applied to protect structures from the risk of wildland fire. In addition, the Lassen County Fire Safe



Council and CDF have several excellent publications that address the creation of defensible space.

#### Monitoring, Evaluation, and Maintenance

As part of the ongoing efforts to ensure that the Westwood and Clear Creek communities continue to be protected from the risk of wildland fires, efforts should be made to monitor and evaluate the implementation and effectiveness of community fire safe projects. Those projects designed to create defensible space around community structures and individual residences should be monitored on an annual basis to reinforce implementation and to ensure that they are properly and effectively carried out.

Other more long-term projects such as community fuelbreaks will require periodic inspections to evaluate vegetation re-growth and to plan for maintenance needs. A three to five year minimum re-inspection interval is recommended depending upon vegetation type, sprouting and seeding characteristics, growth rates, and litter buildup. Other factors that influence monitoring and maintenance needs and frequency may include equipment and manpower availability, access considerations, topography, past and current fire activity, storm events, and funding.

A monitoring program may simply require periodic or cursory spot checks or drive-by inspections. The monitoring process should include an inspection form to track inspection dates, condition, compliance, and to document maintenance needs. This process will also identify specific areas or properties with recurring compliance and/or maintenance needs for future reference when time, budget, or manpower is limited in order to better focus and utilize available resources.

#### Forest Health Recommendations

Currently, timber stands comprising the predominant vegetation type within the community are generally in good health. As a normal rule, tree growth and vigor can be improved and fire hazards reduced by thinning stands where crown canopies have closed, removing ladder fuels (small trees and brush), and pruning lower branches within 10 feet of the ground. In addition, dead trees and snags should be felled and removed to reduce the fuel loading and reduce the risk of ignition sources from dry lightning. The timber stands should be revisited and evaluated for mortality or beetle infestations in weakened trees, potentially leading to mortality, after extended periods of drought.

**Proposed Projects**

**Proposed Project**

**Responsible Party**

Disseminate fire safe information to residents of Westwood and Clear Creek.

CSDs'/LCFSC

Identify specific private parcels with fuel conditions that threaten adjacent properties and make personal contact with these property owners

CSDs'

Recruit cooperators for assistance in fuel reduction/removal.

CSDs' Fire Department/LCFSC

Identify the location and develop the specifications by ownership for a community fuelbreak.

CSDs' Fire Department/LCFSC

Inventory for additional FPD equipment & facility needs and seek appropriate funding sources.

CSDs' Fire Department

Encourage landowner/homeowner to comply with additional defensible space recommended in Appendix D

CSDs' Fire Department/CDF

**COMMUNITY EDUCATION, OUTREACH, AND INVOLVEMENT RECOMMENDATIONS**

The Westwood and Clear Creek communities are at risk from wildfires. This Community Fire Safe Plan is prepared to assist these communities in achieving a greater level of protection from wildfires. When fires erupt, many people rely on the fire department for their protection. This approach to safety is perilous in the urban/wildland interface. The individual property owner cannot rely solely on fire-fighting agencies to protect his or her property. The primary and initial burden for protection rests with the property owner. Residents, business owners, and local officials must take the necessary measures to prepare themselves and their communities in the event of fire and make it easier for firefighters to successfully do their jobs. Effective community education and outreach can mitigate the risk of wildfires to the Westwood and Clear Creek communities if initiated and maintained by citizens within the community. (Reference #12)

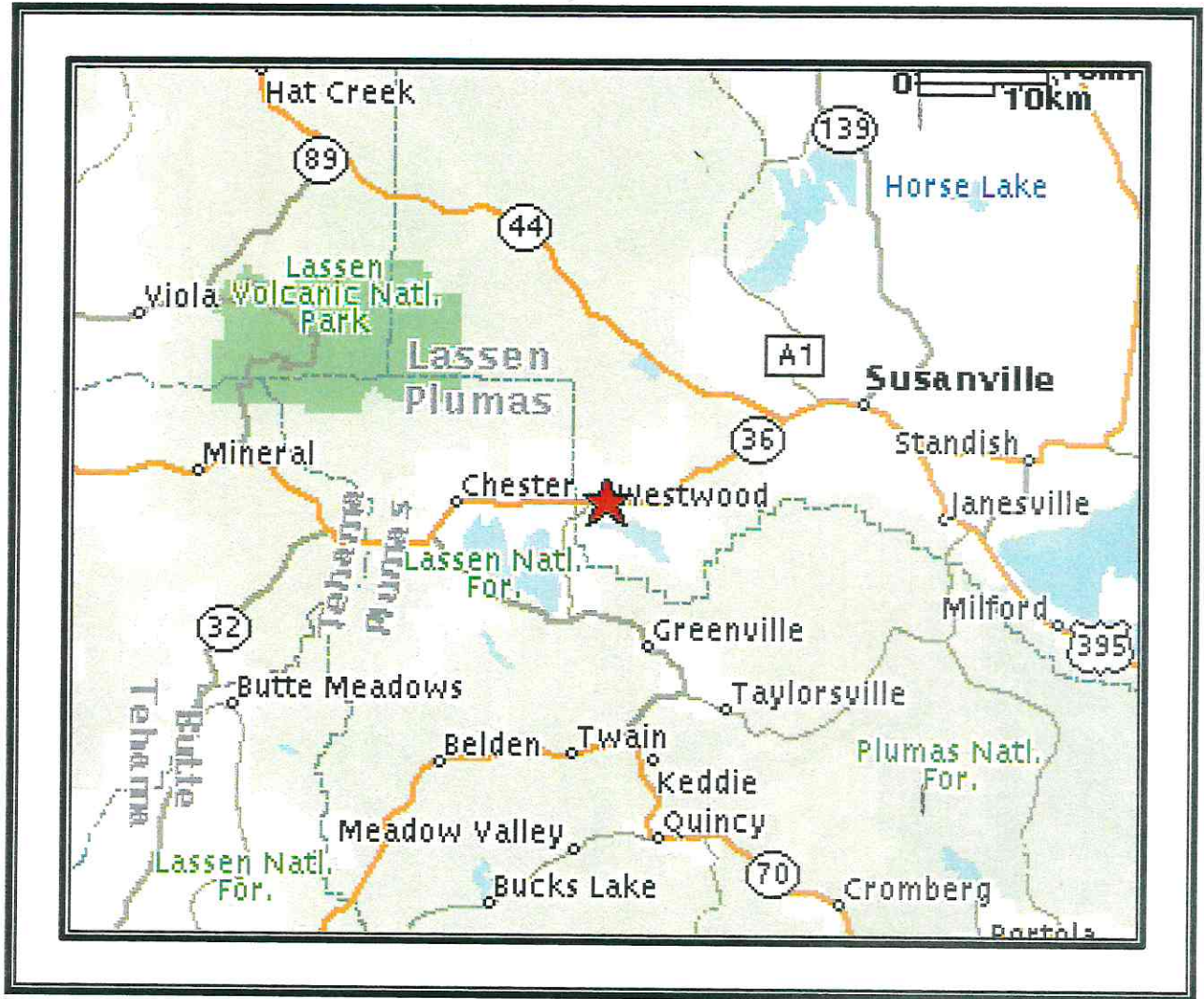
The Fire Safe Council was formed at the State level in 1993 to educate and encourage Californians to prepare for wildfires before they happen to reduce the risk to their communities, their homes, and their property. Since then, many local Fire Safe Councils have been established. Utilizing the combined expertise, resources and distribution channels of its members, the Fire Safe Council fulfills its mission to preserve California's natural and manmade resources by mobilizing all Californians to make their homes, neighborhoods and communities fire safe. (*Reference #12*)

This Plan is specifically prepared assuming that the Communities of Clear Creek and Westwood, Community Service Districts' Fire Departments, and Lassen County Fire Safe Council will provide the leadership role for acting on recommendations included in the plan. The Council has already been instrumental in gaining cost-share assistance to execute fuel reduction projects in Lassen County.

# APPENDICES

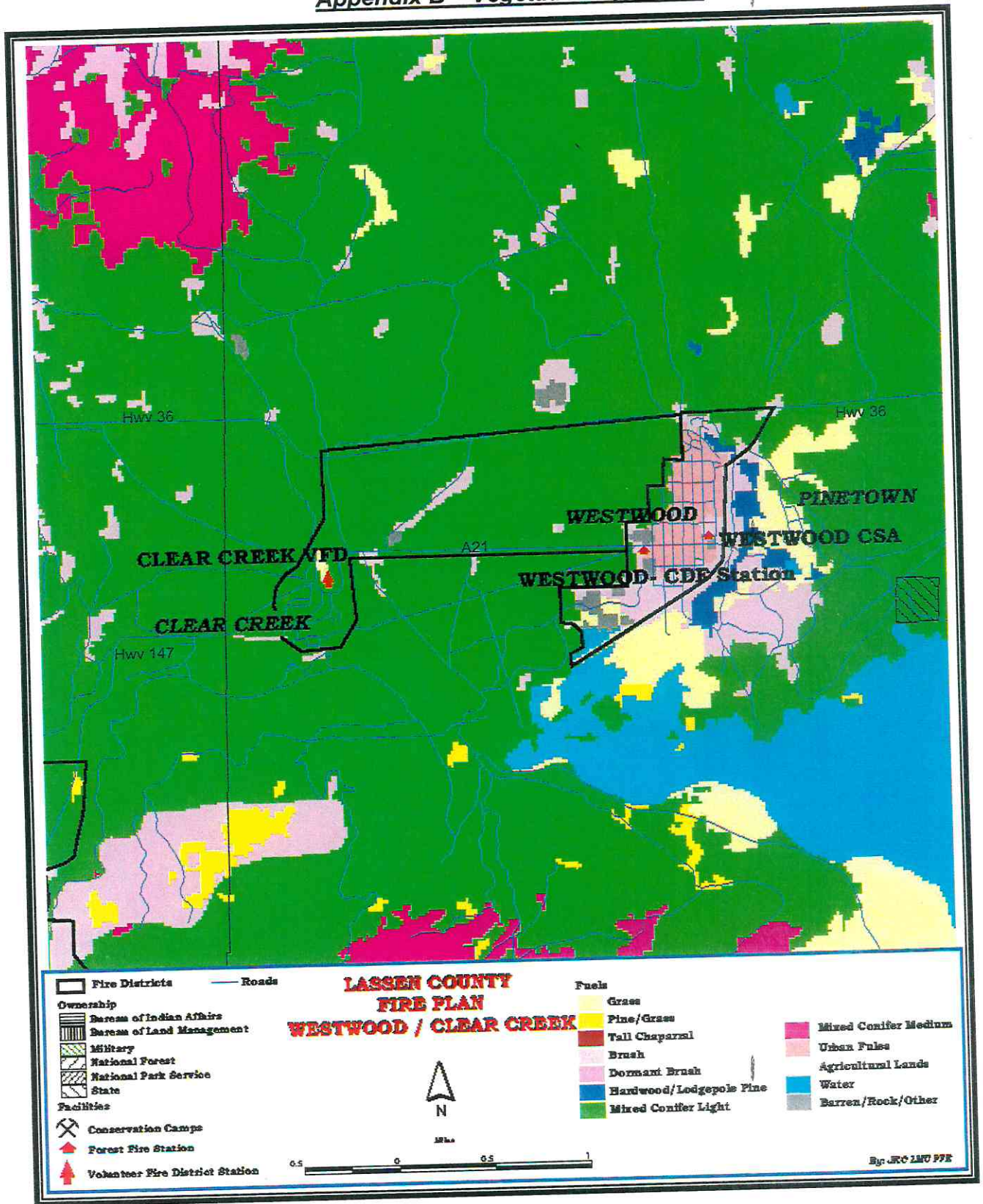
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Appendix A – Vicinity Map



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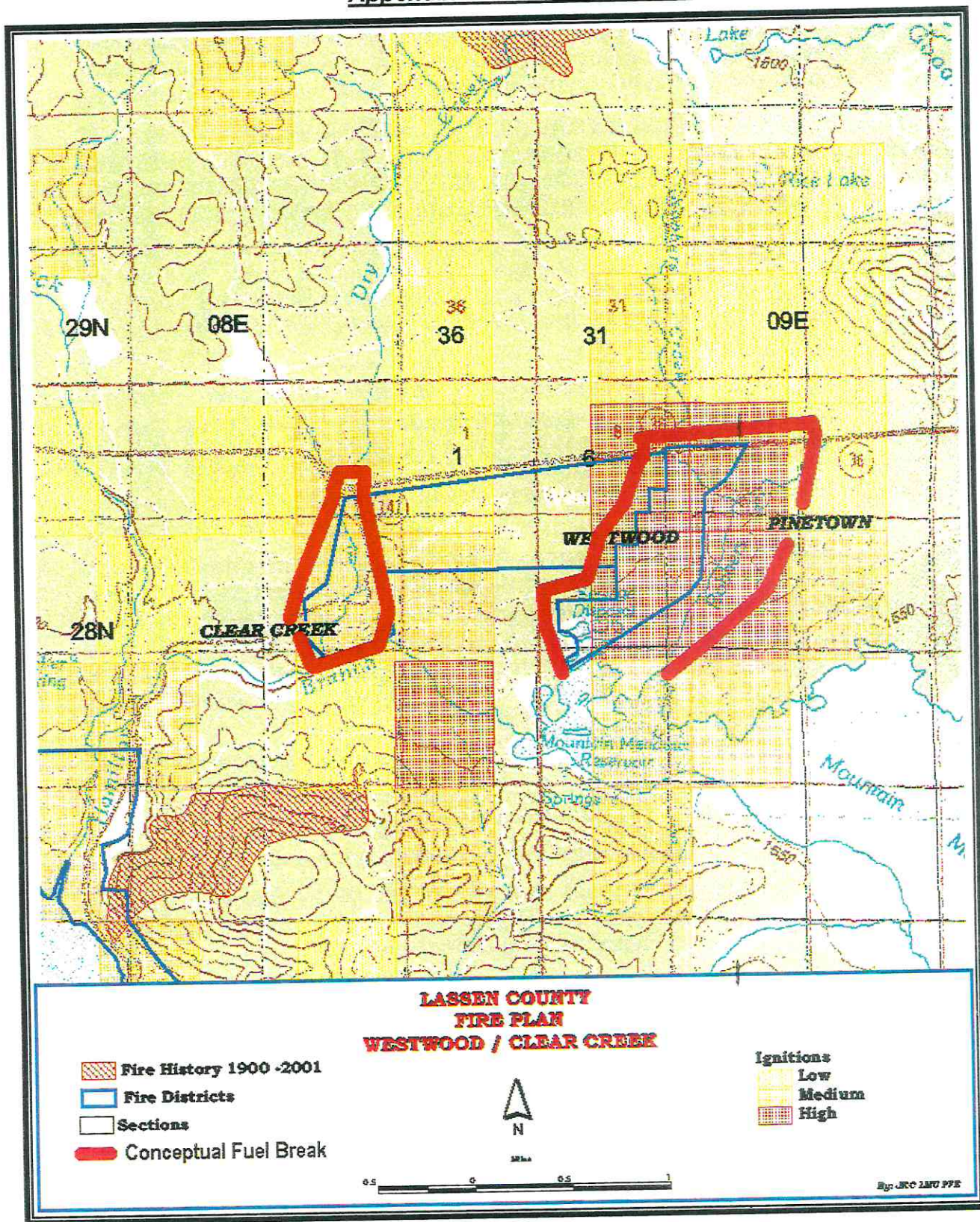
Appendix B – Vegetation Type Map












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**Appendix C – Fire History Map**



**LASSEN COUNTY  
FIRE PLAN  
WESTWOOD / CLEAR CREEK**

-  Fire History 1900 -2001
-  Fire Districts
-  Sections
-  Conceptual Fuel Break

-  Low
-  Medium
-  High



By: JCC LRU PFE

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## Appendix D – Defensible Space

Defensible space is the area between a house and an oncoming wildfire where the vegetation has been modified to reduce the wildfire threat and to provide an opportunity for firefighters to effectively defend the house.

**The clearing for defensible space is entirely under the control of the individual citizen. It is one of the easiest and most important pre-fire management activities, and one that could make the difference between a residence surviving a wildfire or being destroyed.**

The State of California has mandatory defensible space requirements of "any person that owns, leases, controls, operates, or maintains any building or structure" within the rural and wildland interface zone. These requirements are spelled out in Public Resources Code (PRC) 4291, which is included at the end of this section.

In brief, PRC 4291 requires the clearing of accumulated flammable vegetation from within 30 feet of buildings, and within 100 feet of buildings if directed by CDF because of "extra hazardous conditions". The statute also provides for the removal or maintenance of trees near chimneys, stovepipes, and roofs, the removal of flammable debris from roofs, and the maintenance of chimney or stovepipe screens.

The requirements specified in PRC 4291 are minimum requirements. Individual citizens are encouraged to voluntarily comply with the supplemental recommendations included within this section. In addition, both the CDF website (<http://www.fire.ca.gov/Education/IndoorFireSafety.asp>) and the Janesville Fire Safe Plan (pages 38-48) have excellent discussions of defensible space.

### Residence Protection Measures

#### **The Home Zone 0'-10'**

**Purpose:** To prevent the spread of fire from vegetation to structure.

**Actions:** Remove all flammable fuel sources from this zone. Conifer trees, brush, dry grass, leaves, needles, woodpiles, and flammable ornamentals are examples.

- Remember to remove leaves and needles from roofs, rain gutters, and under decks.

This zone can be landscaped with gravel, rock, concrete or left to bare mineral soil. Replace vegetation with less flammable plants: green lawns, and/or flower beds are good choices, if well watered. Keep flammable mulches away from base of house.

### **The Yard Zone 10'-30'**

Purpose: To provide an area where fuels have been substantially modified to reduce wildfire intensity and reduce potential exposure problems. (This fuel zone should be sufficient for grasslands, and is integrated into fuel reduction for brush and timberlands.)

Actions:

- 1) Thin trees so that spacing between crowns equals crown width.
- 2) Prune branches of trees to at least 10' above ground (trim not more than 1/3 of height for small trees).
- 3) Eliminate ladder fuels.
- 4) Limit litter layer to 1" to 2".
- 5) Remove any bitterbrush.
- 6) Remove snags and logs.
- 7) Break up horizontal continuity of fuels by use of low flammability plants, flower beds, green lawns, and gravel or concrete. Watering reduces flammability.
- 8) Propane tanks located 10' from structure or property line.
- 9) Oil tanks located 5' from home; 10' from property line.

(Check with County Building Department with questions concerning *Actions 8 and 9*)

### **The Screen Zone 30' to 100'**

Purpose: To keep wildfire on the ground, and to use vegetation to screen for privacy. This is the primary zone for fire suppression. Even though 100' of fuel reduction appears adequate for brush covered lands, further effort is necessary in timberlands.

Actions:

- 1) Thin trees so that spacing between crowns equals crown width.
- 2) Prune branches of trees to at least 10' above ground (trim not more than 1/3 of height for small trees)
- 3) Eliminate ladder fuels.
- 4) Remove snags and logs.
- 5) Thin bitterbrush and other species so that spacing equals plant height. Remove dead branches.
- 6) Separate patches and clumps of understory so they are spaced horizontally and vertically apart from the overstory.
- 7) Use vegetation to screen for privacy.

## **The Forest Zone 100' to 150'**

**Purpose:** To provide a space in which a wildfire will "cool down, slow down, and stay on the ground." This zone can provide cover for wildlife. Views within this zone can be enhanced to be more aesthetically pleasing.

### **Actions:**

- 1) Apply all recommendations for improving forest health.
  - 2) Thin trees so that spacing between crowns equals 1/3 of crown width.
  - 3) Prune branches of trees to at least 10' above ground (trim not more than 1/3 of height for small trees).
  - 4) Eliminate ladder fuels.
  - 5) Thin bitterbrush and other species so that spacing equals plant height. Small patches and strips can be left.
- Convert combustible roofing materials such as wood shakes or shingles to materials such as comp, metal, or tile.
  - Maintain the roof and gutters free of leaves, needles, or other dead vegetation.
  - Cover all exterior vents at the eaves or to the attic or under the floor and under any wood decks with wire screen with 1/2-inch or less mesh size.
  - Do not store combustible materials or trash near the house.
  - During the fire season, keep stacks of firewood and lumber at least 30 feet from the house, and keep loose leaves and other material 10 feet away from firewood or lumber stacks.
  - Locate all LPG (butane and propane) tanks at least 30 feet from the house and keep loose leaves, dead vegetation, and other material 10 feet away from the tanks.

### **Burning**

- Contact local fire department to see if open burning is allowed in your area; if so obtain a burning permit. Clear at least 10 feet around burn piles prior to burning.

### **Public Resources Code Section 4291 – Reduction of Fire Hazards around Buildings; Requirements; Exemptions**

**4291.** Any person that owns, leases, controls, operates, or maintains any building or structure in, upon, or adjoining any mountainous area or forest-covered lands, brush-covered lands, or grass-covered lands, or any land

which is covered with flammable material, shall at all times do all of the following:

- (a) Maintain around and adjacent to such building or structure a firebreak made by removing and clearing away, for a distance of not less than 30 feet on each side thereof or to the property line, whichever is nearer, all flammable vegetation or other combustible growth. This subdivision does not apply to single specimens of trees, ornamental shrubbery, or similar plants which are used as ground cover, if they do not form a means of rapidly transmitting fire from the native growth to any building or structure.
- (b) Maintain around and adjacent to any such building or structure additional fire protection or firebreak made by removing all brush, flammable vegetation, or combustible growth which is located from 30 feet to 100 feet from such building or structure or to the property line, whichever is nearer, as may be required by the director if he finds that, because of extra hazardous conditions, a firebreak of only 30 feet around such building or structure is not sufficient to provide reasonable fire safety. Grass and other vegetation located more than 30 feet from such building or structure and less than 18 inches in height above the ground may be maintained where necessary to stabilize the soil and prevent erosion.
- (c) Remove that portion of any tree which extends within 10 feet of the outlet of any chimney or stovepipe.
- (d) Maintain any tree adjacent to or overhanging any building free of dead or dying wood.
- (e) Maintain the roof of any structure free of leaves, needles, or other dead vegetative growth.
- (f) Provide and maintain at all times a screen over the outlet of every chimney or stovepipe that is attached to any fireplace, stove, or other device that burns any solid or liquid fuel. The screen shall be constructed of nonflammable material with openings of not more than one-half inch in size.
- (g) Except as provided in Section 18930 of the Health and Safety Code, the director may adopt regulations exempting structures with exteriors constructed entirely of nonflammable materials, or conditioned upon the contents and composition of same, he may vary the requirements respecting the removing or clearing away of flammable vegetation or other combustible growth with respect to the area surrounding said structures. No such exemption or variance shall apply unless and until the occupant thereof, or if there be no occupant, then the owner thereof, files with the department, in such form as the director shall prescribe, a written consent to the inspection of the interior and contents of such structure to ascertain whether the provisions hereof and the regulations adopted hereunder are complied with at all times.

**4291.1.** (a) Notwithstanding Section 4021, a violation of Section 4291 is an infraction punishable by a fine of not less than one hundred dollars (\$100), nor more than five hundred dollars (\$500). If a person is convicted of a second violation of Section 4291 within five years, that person shall be punished by a fine of not less than two hundred fifty dollars (\$250), nor more than five hundred dollars (\$500). If a person is convicted of a third violation of Section 4291 within five years, that person is guilty of a misdemeanor and shall be punished by a fine of not less than five hundred dollars (\$500). If a person is convicted of a third violation of Section 4291 within five years, the department may perform or contract for the performance of work necessary to comply with Section 4291 and may bill the person convicted for the costs incurred, in which case the person convicted, upon payment of those costs, shall not be required to pay the fine. If a person convicted of a violation of Section 4291 is granted probation, the court shall impose as a term or condition of probation, in addition to any other term or condition of probation, that the person pay at least the minimum fine prescribed in this section.

(b) If a person convicted of a violation of Section 4291 produces in court verification prior to imposition of a fine by the court, that the condition resulting in the citation no longer exists, the court may reduce the fine imposed for the violation of Section 4291 to fifty dollars (\$50).

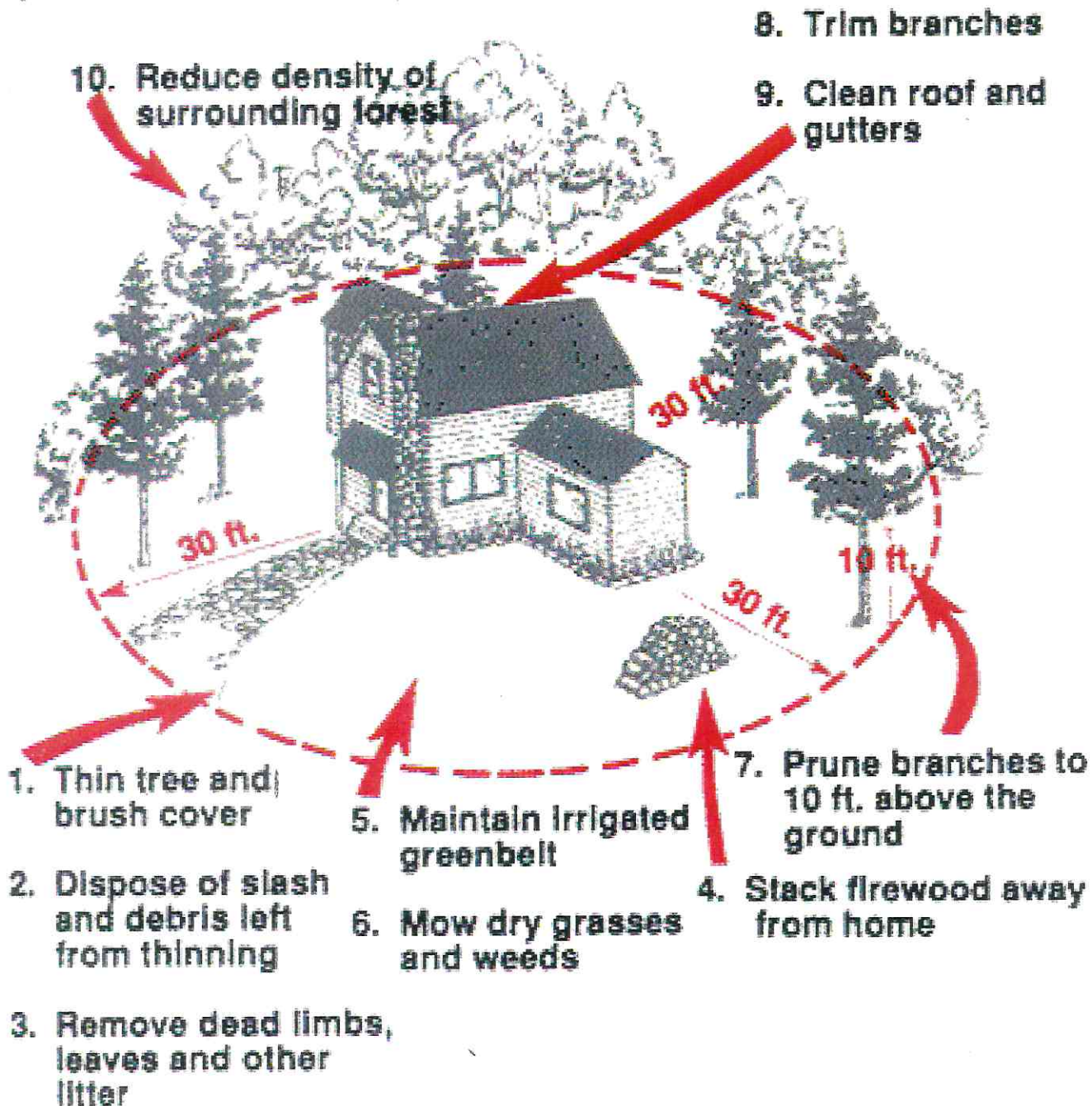
**Supplemental Defensible Space Clearances**

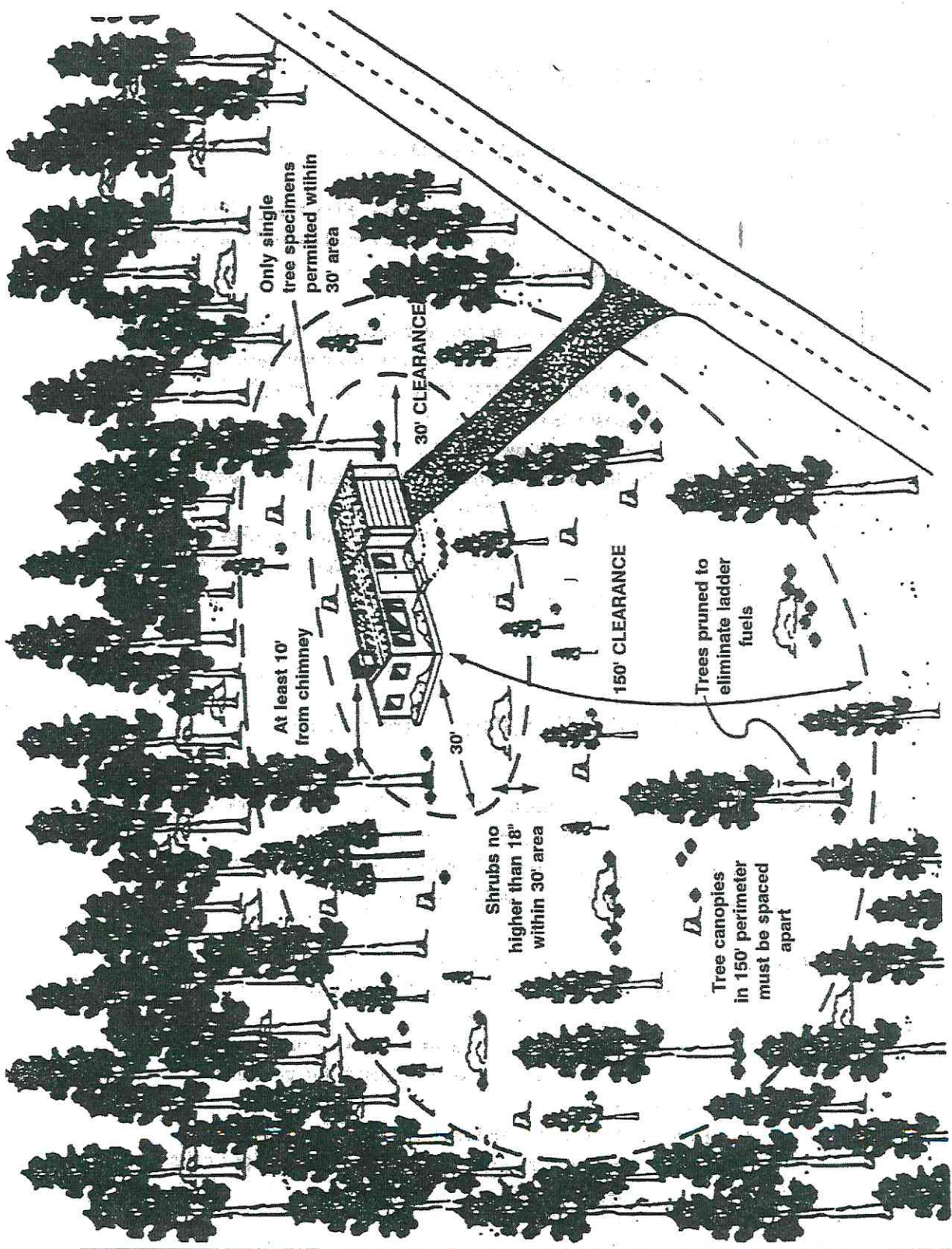
The following supplemental defensible space clearances, beyond the required minimum distance of 30 feet, are recommended by CDF in the following fuel types:

<b>Fuel Model #</b>	<b>Fuel Model Type</b>	<b>Recommended Fuel Reduction Distances</b>
1	Grass	30 feet
2	Pine/Sagebrush/Grass	100 feet
4	Tall Chaparral	100 feet
5	Brush/Dominant Brush	100 feet
6	Brush	100 Feet
9	Second Growth Pine	150 feet
10	Mixed Conifer	150 feet



## FOLLOW THESE GUIDELINES





Only single tree specimens permitted within 30' area

30' CLEARANCE

At least 10' from chimney

150' CLEARANCE

Trees pruned to eliminate ladder fuels

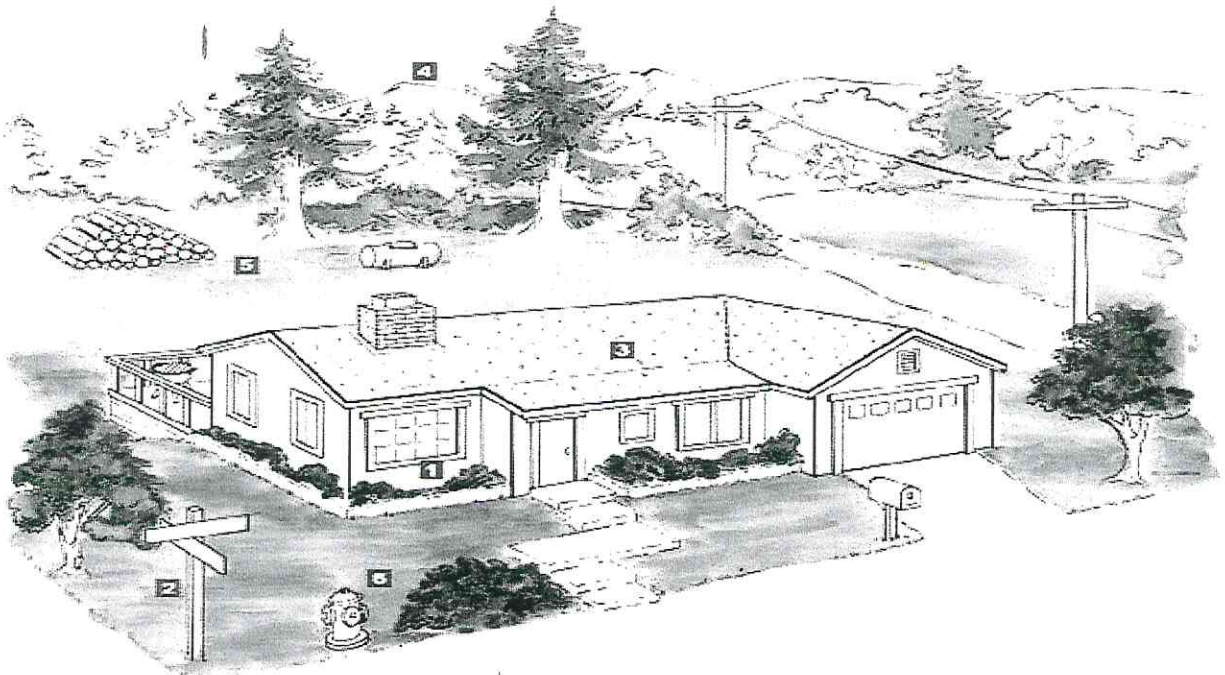
Shrubs no higher than 18" within 30' area

Tree canopies in 150' perimeter must be spaced apart

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# Homeowner's Checklist

# OUTSIDE



## 1 Design/Construction

- Consider installing residential sprinklers
- Build your home away from ridge tops, canyons and areas between high points on a ridge
- Build your home at least 30-100 feet from your property line
- Use fire resistant materials
- Enclose the underside of eaves, balconies and above ground decks with fire resistant materials
- Try to limit the size and number of windows in your home that face large areas of vegetation
- Install only dual-paned or triple-paned windows
- Make sure that electric service lines, fuse boxes and circuit breaker panels are installed and maintained as prescribed by code
- Contact qualified individuals to perform electrical maintenance and repairs

## 2 Access

- Identify at least two exit routes from your neighborhood
- Construct roads that allow two-way traffic
- Design road width, grade and curves to allow access for large emergency vehicles
- Construct driveways to allow large emergency equipment to reach your house
- Design bridges to carry heavy emergency vehicles, including bulldozers carried on large trucks
- Post clear road signs to show traffic restrictions such as dead-end roads, and weight and height limitations

- Make sure dead-end roads, and long driveways have turn-around areas wide enough for emergency vehicles
- Construct turnouts along one-way roads
- Clear flammable vegetation at least 10 feet from roads and five feet from driveways
- Cut back overhanging tree branches above roads
- Construct fire barriers such as greenbelts
- Make sure that your street is named or numbered, and a sign is visibly posted at each street intersection
- Make sure that your street name and house number are not duplicated elsewhere in the county
- Post your house address at the beginning of your driveway, or on your house if it is easily visible from the road

### **3 Roof**

- Remove branches within 10 feet of your chimney and dead branches overhanging your roof
- Remove dead leaves and needles from your roof and gutters
- Install a fire resistant roof. Contact your local fire department for current roofing requirements
- Cover your chimney outlet and stovepipe with a nonflammable screen of  $\frac{1}{2}$  inch or smaller mesh

### **4 Landscape**

- Create a "defensible space" by removing all flammable vegetation at least 30 feet from all structures
- Never prune near power lines. Call your local utility company first
- Landscape with fire resistant plants
- On slopes or in high fire hazard areas remove flammable vegetation out to 100 feet or more
- Space native trees and shrubs at least 10 feet apart
- For trees taller than 18 feet, remove lower branches within six feet of the ground
- Maintain all plants by regularly watering, and by removing dead branches, leaves and needles
- Before planting trees close to any power line contact your local utility company to confirm the maximum tree height allowable for that location

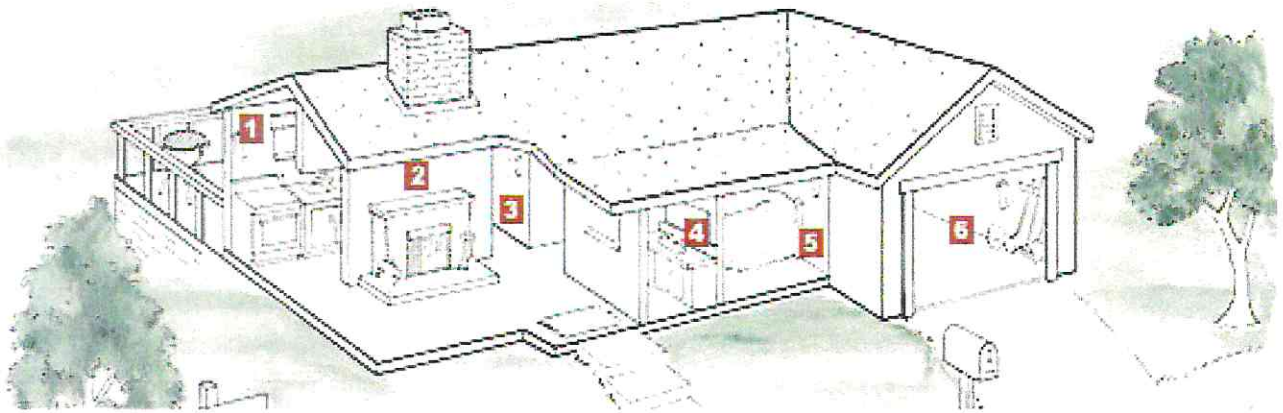
### **5 Yard**

- Stack woodpiles at least 30 feet from all structures and remove vegetation within 10 feet of woodpiles
- Locate LPG tanks (butane and propane) at least 30 feet from any structure and maintain 10 feet of clearance
- Remove all stacks of construction materials, pine needles, leaves and other debris from your yard
- Contact your local fire department to see if open burning is allowed in your area; if so, obtain a burning permit
- Where burn barrels are allowed, clear flammable materials at least 10 feet around the barrel; cover the open top with a non-flammable screen with mesh no larger than  $\frac{1}{4}$  inch

## 6 Emergency Water Supply

- \_\_\_ Maintain an emergency water supply that meets fire department standards through one of the following:
  - a community water/hydrant system
  - a cooperative emergency storage tank with neighbors
  - a minimum storage supply of 2,500 gallons on your property
- \_\_\_ Clearly mark all emergency water sources
- \_\_\_ Create easy firefighter access to your closest emergency water source
- \_\_\_ If your water comes from a well, consider an emergency generator to operate the pump during a power failure

## INSIDE



### 1 Kitchen

- \_\_\_ Keep a working fire extinguisher in the kitchen
- \_\_\_ Maintain electric and gas stoves in good operating condition
- \_\_\_ Keep baking soda on hand to extinguish stove-top grease fires
- \_\_\_ Turn the handles of pots and pans containing hot liquids away from the front of the stove
- \_\_\_ Install curtains and towel holders away from burners on the stove
- \_\_\_ Store matches and lighters out of the reach of children
- \_\_\_ Make sure that electrical outlets are designed to handle appliance loads

### 2 Living Room

- \_\_\_ Install a screen in front of fireplace or wood stove
- \_\_\_ Store the ashes from your fireplace (and barbecue) in a metal container and dispose of only when cold
- \_\_\_ Clean fireplace chimneys and flues at least once a year

### 3 Hallway

- \_\_\_ Install smoke detectors between living and sleeping areas
- \_\_\_ Test smoke detectors monthly and replace batteries twice a year, when clocks are changed in the spring and fall
- \_\_\_ Install child safety plugs (caps) on all electrical outlets
- \_\_\_ Replace electrical cords that do not work properly, have loose connections, or are frayed

#### **4 Bedroom**

- If you sleep with the door closed, install a smoke detector in the bedroom
- Turn off electric blankets and other electrical appliances when not in use
- Do not smoke in bed
- If you have security bars on your windows or doors, be sure they have an approved quick-release mechanism so you and your family can get out in the event of a fire

#### **5 Bathroom**

- Disconnect appliances such as curling irons and hair dryers when done; store in a safe location until cool
- Keep items such as towels away from wall and floor heaters

#### **6 Garage**

- Mount a working fire extinguisher in the garage
- Have tools such as a shovel, hoe, rake and bucket available for use in a wildfire emergency
- Install a solid door with self-closing hinges between living areas and the garage
- Dispose of oily rags in (Underwriters Laboratories) approved metal containers
- Store all combustibles away from ignition sources such as water heaters
- Disconnect electrical tools and appliances when not in use
- Allow hot tools such as glue guns and soldering irons to cool before storing
- Properly store flammable liquids in approved containers and away from ignition sources such as pilot lights

#### **Disaster Preparedness**

- Maintain at least a three-day supply of drinking water, and food that does not require refrigeration and generally does not need cooking
- Maintain a portable radio, flashlight, emergency cooking equipment, portable lanterns and batteries
- Maintain first aid supplies to treat the injured until help arrives
- Keep a list of valuables to take with you in an emergency; if possible, store these valuables together
- Make sure that all family members are ready to protect themselves with STOP, DROP AND ROLL
- For safety, securely attach all water heaters and furniture such as cabinets and bookshelves to walls
- Have a contingency plan to enable family members to contact each other. Establish a family/friend phone tree
- Designate an emergency meeting place outside your home
- Practice emergency exit drills in the house (EDITH) regularly
- Outdoor cooking appliances such as barbecues should never be taken indoors for use as heaters



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