RAVENDALE-TERMO

Community Fire Safe Plan

Lassen County



January 2004

COUNTY OF LASSEN

BOARD OF SUPERVISORS

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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

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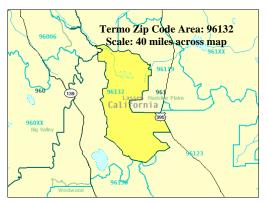
Ravendale-Termo Community Fire Safe Plan

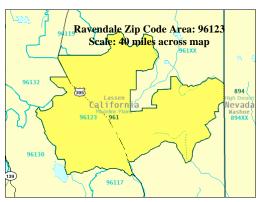
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COMMUNITIES DESCRIPTION

Population

The planning area for this Fire Safe Plan consists of the immediate area of the communities of Ravendale and Termo. The Census data for the Ravendale zip code area indicates a year 2000 population of 44 (see map below). Most people reside on widely scattered ranches and farms in the surrounding plains.





U.S. Census Data indicates a year 2000 population for the Termo zip code area of 61. The population for the more immediate area of Termo is estimated to be five people (welcoming road sign indicates a population of 26 that includes some of the surrounding area).

The following is additional housing data from the 2000 Census:

	<u>Ter</u>	<u>mo</u>	Rave	<u>ndale</u>
HOUSING OCCUPANCY	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Total housing units	99	100.0	46	100.0
Occupied housing units	28	28.3	19	41.3
Vacant housing units	71	71.7	27	58.7
For seasonal, recreational, or occasional use	26	26.3	4	8.7
Homeowner vacancy rate (percent)	32.4	(X)	33.3	(X)
Rental vacancy rate (percent)	0.0	(X)	0.0	(X)
HOUSING TENURE				
Occupied housing units	28	100.0	19	100.0
Owner-occupied housing units	23	82.1	16	84.2
Renter-occupied housing units		17.9	3	15.8
Average household size of owner-occupied unit	2.09	(X)	2.31	(X)
Average household size of renter-occupied unit	2.60	(X)	1.67	(X)

Values at Risk

In and around the communities of Ravendale and Termo, physical features that are potentially at risk from encroaching wildfires consist of existing residences and other structures, infrastructure, and most importantly the residents themselves. Other values at risk include visual impacts, aesthetics, security, wildlife habitat, and air quality. A loss of any number of these values may also impact employment, cost-of-living, insurability and rates, health, and community stability.

Natural Resources at Risk

The communities of Ravendale and Termo are located in the Madeline Plains in the east central part of Lassen County at approximately 5,300 feet in elevation. The vegetative cover is grass and brush (primarily sage and bitterbrush) on the valley floor with Juniper trees occurring at mid elevations on the surrounding hills. The land use is predominantly open range with some alfalfa and hay fields on the valley floor. Ranching and farming is the predominant occupation. On the steep and rolling terrain surrounding the communities, the Federal Government, managed by the Department of Interior - Bureau of Land Management (BLM), is a major landowner. The BLM lands are also predominantly used for open grass and brush range.

In addition to livestock grazing, these natural resources also provide wildlife habitat and recreational hunting opportunities as well. The natural vegetative cover in this semi-arid climate plays an important role in protecting soils from windblown erosion. These natural resources are all at risk from potentially devastating loss from wildland fire that in turn can impact, either directly or indirectly, other assets and values within the communities.

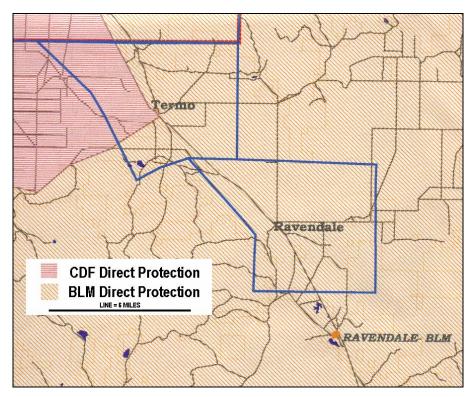
Transportation

US 395 traverses through Ravendale and Termo. Both communities are served by tributary County Roads extending from the center of the communities. The Termo Grasshopper Road connects Termo on US 395 to State Route 139 to the west. Located to the east of Ravendale is the Ravendale Airport.

Level of Service Provided to Communities

The California Department of Forestry and Fire Protection (CDF) generally bears the primary responsibility for suppression of wildfires on State Responsibility Areas (SRA). However, through inter-agency agreements the CDF transfers operational responsibilities for strategic and logistical reasons to Federal fire agencies.

The California Department of Forestry and Fire Protection (CDF) or the Bureau of Land Management (BLM) provides wildland fire protection for land in the Ravendale/Termo area depending on the location (see map below). The CDF has initial attack responsibility for the area north of the Grasshopper-Termo Road and west of US 395. The BLM, through agreement with CDF, covers all other areas east and south of Termo.



The CDF initial attack resources for wildland fires are dispatched from either the CDF Fire Station in Alturas, approximately 30 miles north of Madeline on US 395, or from the Grasshopper Fire Station located three miles north of the north shore of Eagle Lake.

A BLM Fire Station is located six miles south of Ravendale on US 395. The CDF station in Alturas and the BLM station are not staffed during the winter. Resources normally available at the BLM station are two Type 3 fire engines, a nine-person crew, and a Type 3 helicopter with 4-person flight crew.

Restricting Covenants and/or Ordinances

The communities of Ravendale and Termo 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 State Responsibility Area (SRA) is the responsibility of the CDF. The CDF also serves as the permitting agency for State law governing commercial tree harvesting.

Vegetation on Federal land adjacent to the communities is managed by the BLM.

Lassen County recognizes the problems associated with wildfire and has adopted appropriate policies. 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 roads constructed be of sufficient width and that there being 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.

These 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.

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 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

The communities of Ravendale and Termo are unincorporated. There is no formal legal or political structure beyond those provided by State and County governing bodies.

Media

Several newspaper publications are commonly available to the communities of Ravendale and Termo. The Modoc County Record is a weekly (Thursday) "newspaper of general circulation", published in Alturas. They may be contacted at (530) 233-2632, e-mail to record1@modocrecord.com. The

Lassen County Times is also a weekly (Tuesday) newspaper published in Susanville. 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.

Due to the surrounding mountains, radio and television reception is limited without satellite dishes. However, KCNO (AM 570, FM 94.5), a radio station based in Alturas, and KLAD (AM 960, FM 92.5), a radio station broadcast from Klamath Falls, are generally well received in the area. Community information is also regularly posted at the Ravendale and Termo Post Offices.

Schools

The Juniper Ridge School is located on the Termo-Grasshopper Road about three miles east of Termo. The school provides kindergarten through eighth grade instruction. The school has fire extinguishers and evacuation plans and conducts fire drills regularly.

Physical Description

Access/Roads

US 395 and portions of the County roads within the communities are paved. The remaining roads within the communities are improved native surface/gravel and are in relatively good condition in terms of access. The roads outside the communities are more variable, and include less maintained dirt roads and private access roads.

Structures

Buildings in the area include a mixture of mobile homes and normal wood frame construction with metal, composition, or flat tar/gravel roofs that help protect against embers from a wildfire or chimney. Some buildings are made of concrete blocks.

Utilities

There is no community water system in Ravendale or Termo. Individual residences are on wells. Power and telephone utilities are generally above ground.

Obstacles to Emergency Response Vehicles

There are currently no major obstacles to emergency response vehicles in the communities. Roads are generally wide and clear of overgrowth and debris.

<u>VEGETATION CONDITIONS WITHIN AND SURROUNDING</u> COMMUNITIES

Vegetation Fuel Types, Condition, & Fuel Models

Within and surrounding the communities of Ravendale and Termo, vegetation types include a combination of agricultural lands (primarily range), and natural fuels consisting of juniper trees, brush and grass (see "Appendix B – Vegetation Type Map").

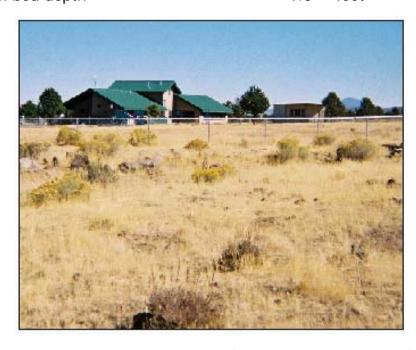
Sagebrush/Grass: The predominant vegetation type found in the area is best described as sagebrush/grass. The burning characteristics of this type pose a significant threat from wildland fire. Depicted in yellow on the "Vegetation Type Map" and described as pine/grass in the legend, the vegetation in the area is primarily comprised of sagebrush, bitterbrush, juniper, and grass as illustrated in the photos below. This fuel type most closely approximates Fire Behavior Fuel Model 2 and has the following characteristics important for estimating fire behavior (Reference #12):

Total fuel load, < 3-inch, dead and live 4.0 tons per acre

Dead fuel load, 1/4 inch 2.0 tons per acre

Live fuel load, foliage, 0.5 tons per acre

Fuel bed depth 1.0 feet



Fuel Model #2: Pine/Grass (Juniper Ridge School)



Fuel Model #2: Pine/Grass (Ravendale)

This fuel type ignites easily and once ignited, can spread rapidly under normal summer burning conditions. 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. High winds and extremely low humidity will increase the rate of spread. While creating and maintaining adequate clearing and defensible space around buildings can reduce the threat to life and property loss from wildfires occurring in this fuel type, secondary defenses such as fire breaks and fuelbreaks are necessary to fully mitigate the threat.

Wildfire Threat Evaluation

Area Fire History

Large (300+ acre) fires are a common occurrence on the mountainous slopes surrounding Ravendale and Termo (see "Appendix C – Fire History Map"). The ignition rate of smaller fires is a relatively infrequent event, primarily due to the small number of individuals residing in the area.

Ravendale has been 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.* Termo is not listed.

Expected Fire Behavior

The communities of Ravendale and Termo are located upon the Madeline Plaines with an approximate average elevation of 5300 feet. The climate of

this area is typical of high desert areas of northeastern California. Summers are hot, dry, and often very windy. As recorded by the National Weather Service station in Termo. The average summer maximum temperature for July and August is 84° F. Annual precipitation is 10.85 inches, with most accumulating as snow and rain during the winter months, November–March. The remaining moisture is contributed by regional spring rains and localized summer storm cells.

The normal fire season is from May through October, although wildfires can occur at any time of the year in the high desert, due to infrequent rainfall and persistent drought conditions. Peak fire season generally runs from July through September.

The most significant threat to dwellings and other buildings is from fires originating on or spreading to adjacent undeveloped property containing natural fuels. Another significant threat comes from fires originating on the slopes southwest of Ravendale that can be driven northeast by strong winds.

Existing fire hazards, in addition to lightning, within and surrounding the communities consist of the contiguous dry grass and brush vegetation, normal residential activities, and electrical power transmission lines. Vehicles traveling along US 395 can also be a contributing source for wildfire ignition, either through accidents or the careless discharge of burning material from the vehicle. Currently, few fire hazard mitigation measures, such as defensible space, have been undertaken within the communities. The exception is the spraying of weeds on the railroad right-of-way.

Current Resource Management Wildfire Mitigation Measures

The BLM manages a major portion of the land around the communities of Ravendale and Termo. The multiple use management concept and other management projects conducted on these lands can play an important role in reducing the risk to the communities from wildfire. The primary use for these lands is livestock grazing. This management use is beneficial from a wildfire perspective by reducing the light fuel loading, particularly the annual grasses, which often allow wildfires to spread through non-contiguous fuel types. Currently, the BLM has no management projects underway or planned to treat the larger fuel types immediately surrounding the communities, though they do have an ongoing juniper management (reduction) strategy currently being implemented in a number of areas on the District. (*Reference #14*)

Recommendations

<u>Infrastructure Improvements</u>

As part of the defensible space clearing measures, all propane and other fuel tanks should have all vegetation, including dry grass, removed from within a ten foot radius. In addition, the following specific measures, appropriate to individuals and residences within and around the Little Valley communities, are recommended to reduce the threat of wildfire:

- 1. Mail out appropriate informational packets developed for homeowners such as <u>Homeowners "Watch Outs!"</u> developed by the Fire Safe Council to all parcel owners within the Pittville community. Use the Lassen County Assessor's roll to identify owners.
- 2. Increase 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.
- 3. Identify specific private parcels, especially vacant lots, with fuel conditions that threaten adjacent properties and make personal contact with these property owners.
- 4. Encourage landowner/homeowner to comply with additional defensible space recommendations in Appendix D.

Defensible Space

The threat to dwellings and other buildings within the communities can be mitigated be implementing the basic clearing requirements of PRC 4291 and creating additional defensible space.

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 communities 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 excellent publications that address creation of defensible space.

Monitoring, Evaluation, and Maintenance

As part of the ongoing efforts to ensure that the communities of Ravendale and Termo continue to be protected or reduce the risk from 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 the communities' fuelbreak, if constructed, will require periodic inspections to evaluate vegetation regrowth and to plan for maintenance needs. A three to five year minimum reinspection 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.

Proposed Projects

Proposed Project	Responsible Party
Mail out fire safe information to all landowners within the Ravendale and Termo communities.	Lassen County Fire Safe Council (LCFSC)
Inventory for specific problem properties on private land.	BLM/CDF/Communities of Ravendale and Termo
Recruit cooperators for assistance in fuel reduction/removal.	Communities of Ravendale and Termo
Prepare fuel reduction zone plan for the southwest edge of town.	BLM/CDF/LCFSC

Proposed Project

Responsible Party

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

BLM/CDF/Communities of Ravendale & Termo

<u>Community Education, Outreach, and Involvement</u> Recommendations

Wildfires constitute a significant threat to portions of the Ravendale and Termo communities. This Community Fire Safe Plan is prepared to assist the communities in achieving a greater level of protection from wildfires. When fires erupt, most 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 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 Ravendale and Termo communities if initiated and maintained by citizens within the communities. (Reference #11)

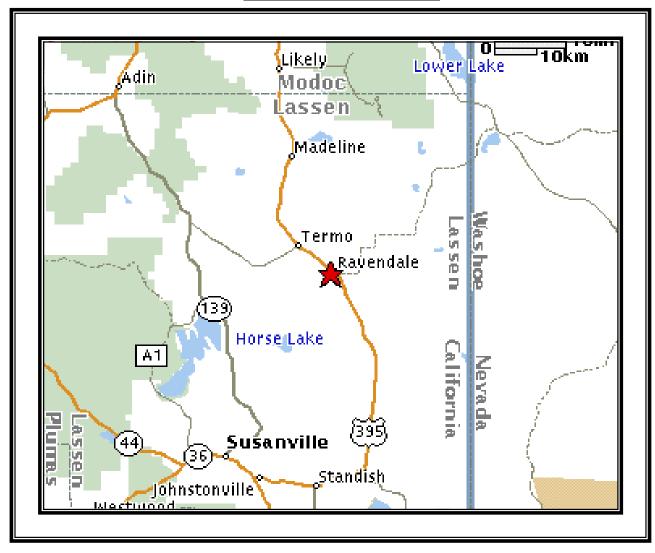
The Fire Safe Council was formed at the State level in 1993 to educate and encourage Californians to prepare for wildfires before they happen to reduce the risk to their communities, their homes, and their property. Since then, many local Fire Safe Councils have been established. Utilizing the combined 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 #11*)

This Plan is specifically prepared assuming that the communities of Ravendale and Termo 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 several fuel reduction projects in Lassen County.

Appendices

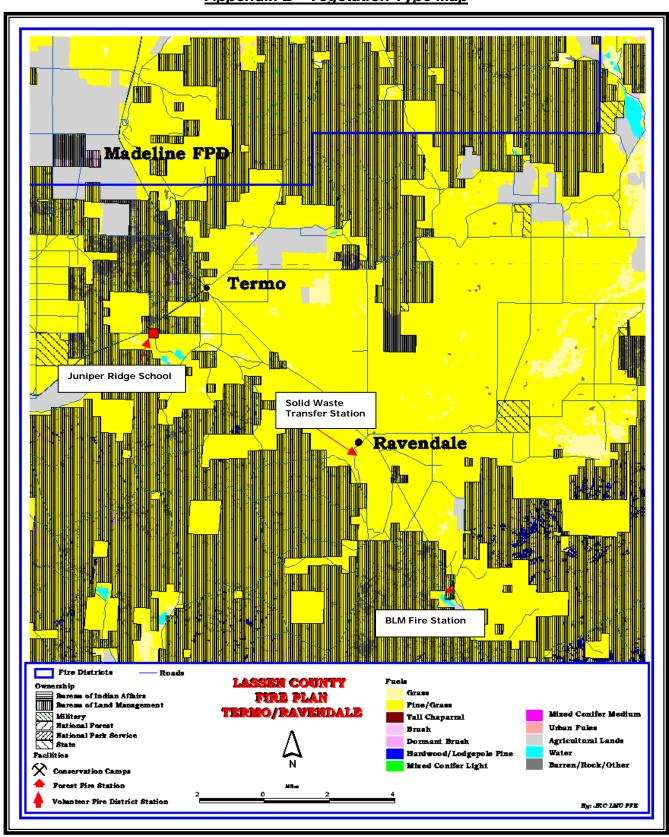


Appendix A - Vicinity Map



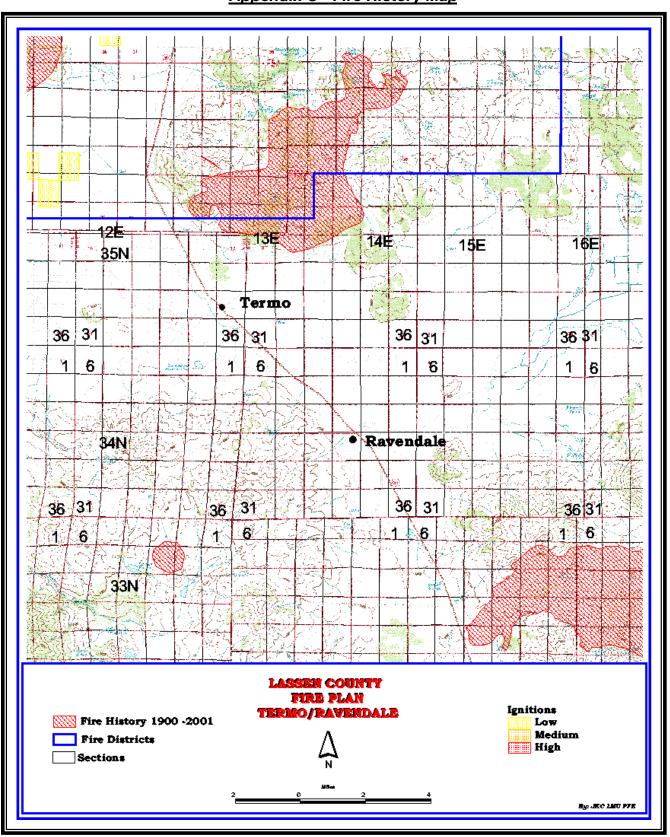


Appendix B - Vegetation Type Map

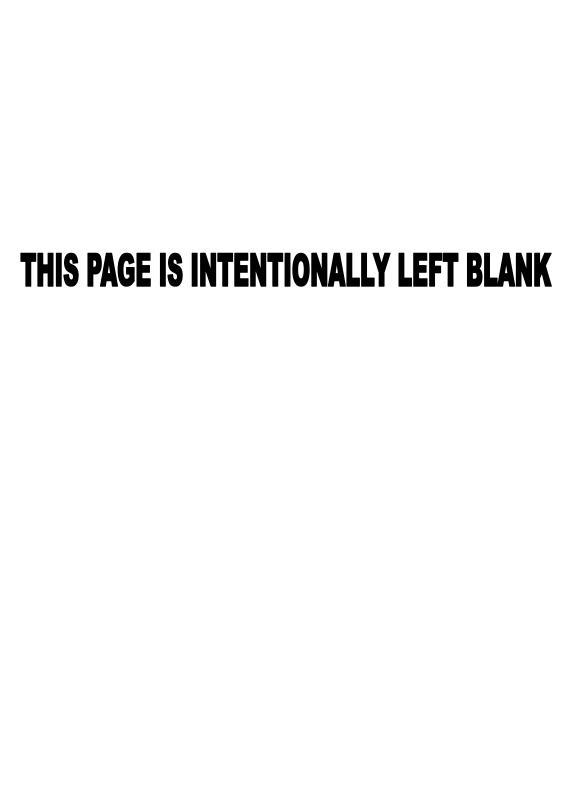


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Appendix C - Fire History Map



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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 prefire 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.

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The Yard Zone 10'-30'

<u>Purpose:</u> 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 tress 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'

<u>Purpose:</u> 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'

<u>Purpose:</u> 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 ½-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.

<u>Burning</u>

 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.

<u>Public Resources Code Section 4291 – Reduction of Fire Hazards</u> 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
- (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).

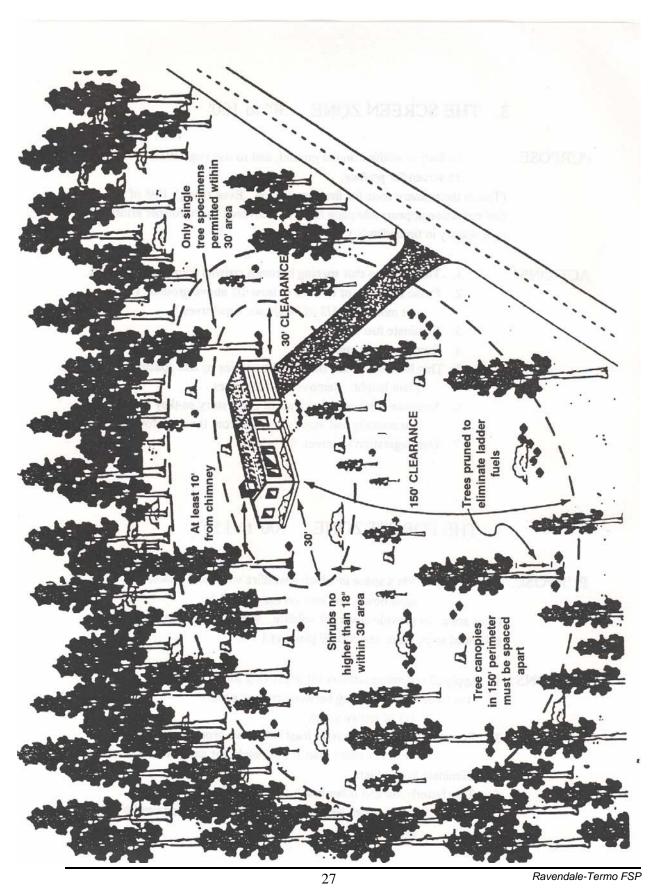
Supplemental Defensible Space Clearances

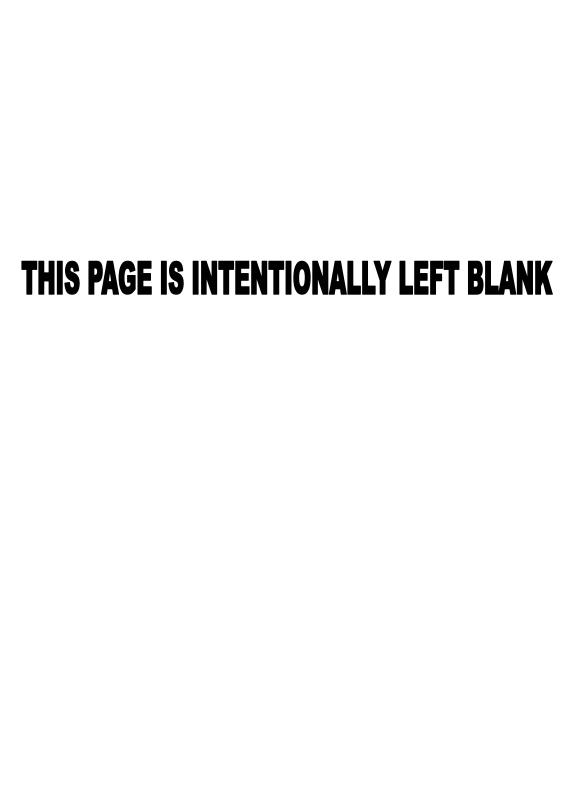
The following supplemental defensible space clearances, beyond the required minimum distance of 30 feet, are recommended by CDF in the following fuel types:

Fuel Model #	Fuel Model Type	Recommended Fuel Reduction Distances
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

25

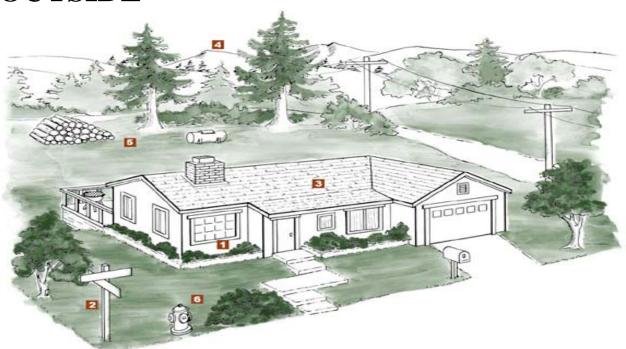
FOLLOW THESE GUIDELINES 8. Trim branches 10. Reduce density of Clean roof and surrounding fores gutters Prune branches to 1. Thin tree and 10 ft. above the brush cover 5. Maintain Irrigated ground greenbelt 2. Dispose of slash Stack firewood away from home and debris left Mow dry grasses and weeds from thinning 3. Remove dead limbs, leaves and other litter





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 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 _ Contact your local fire department to see if open burning is allowed in your area; if so, obtain a burning permit

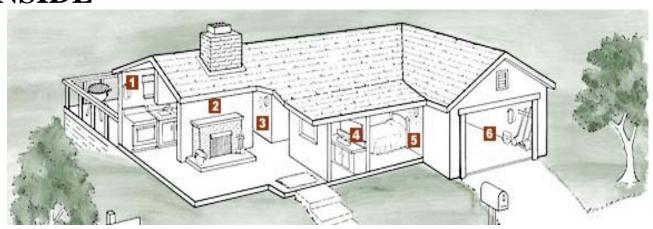
— Where burn barrels are allowed, clear flammable materials at least 10 feet around the barrel;

cover the open top with a non-flammable screen with mesh no larger than 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

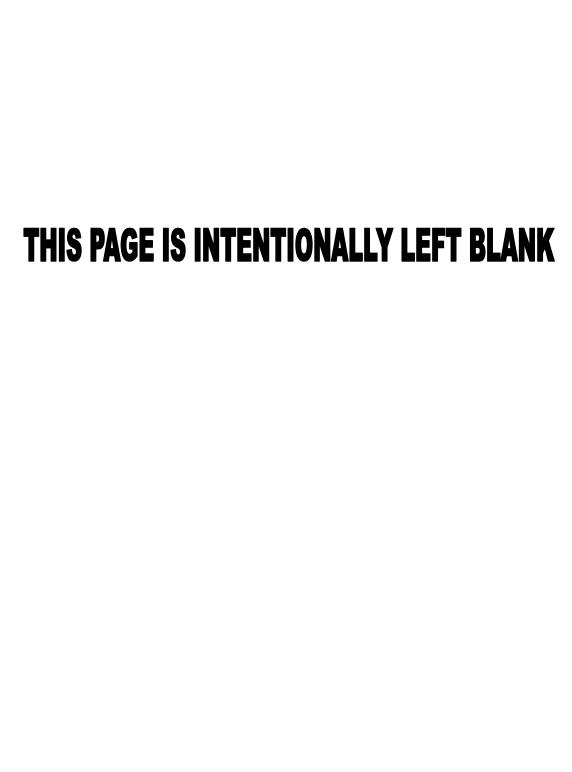
3 Hallway

- __ 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 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 __ 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

Outdoor cooking appliances such as barbecues should never be taken indoors for use as heaters

Practice emergency exit drills in the house (EDITH) regularly



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- 1. Lassen County General Plan 2000, September 1999.
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- 3. John Hughs, CDF Battalion Chief, Alturas, (530) 233-2723.
- 4. Steve Hawks, CDF Fire Apparatus Engineer, Eagle Lake Station (Temporary Assignment).
- 5. Jerry Wheeler, Acting Fire Management Officer, Bureau of Land Management, Alturas, 233-7910.
- 6. Pat Stone, BLM Fire Captain, Ravendale Station, (530) 234-2044.
- 7. Carl Todd, Fire Management, Bureau of Land Management, Susanville, (530) 257-0456.
- 8. Bob Beare, Dispatcher, Susanville Interagency Command Center, Susanville, (530) 257-5575.
- 9. http://www.fireplan.gov/communities_at_risk.cfm
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- 11. Fire Safe Council Web Site: www.firesafecouncil.org
- 12. Aids to Determining Fuel Models for Estimating Fire Behavior, Hal E. Anderson, General Technical Report INT-122, April 1982.
- 13. Tom Gauthier, Lassen Fire Safe Council, (530) 253-3627.
- 14. Richard Server, Fire Management, Bureau of Land Management, Alturas, (530) 233-4666.