HERLONG

Community Fire Safe Plan

Lassen County

January 2004

COUNTY OF LASSEN

BOARD OF SUPERVISORS

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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

Shasta Land Management Consultants

W. M. Beaty & Associates, Inc.

funded in part by

USDA Forest Service; National Fire Plan Federal Assistance Grant

January 2004

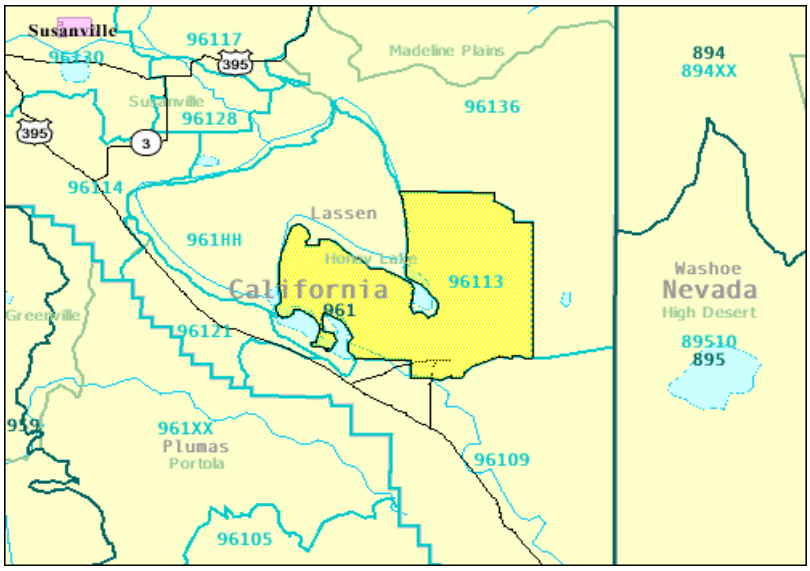
TABLE OF CONTENTS

Herlong Community Fire Safe Plan

COMMUNITY DESCRIPTION

Population

According to U.S. Census Bureau Data, the population for the Herlong Zip Code Area (96113 – see map below) in 1990 was 1,518 and the estimated population based on the 2000 census was 928 persons. The new prison being constructed just west of the Sierra Army Depot (SIAD) will generate additional housing demand and residential development in the Herlong community. The map below indicates the coverage area relevant to this information.



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

HOUSING OCCUPANCY	No.	%
Total housing units	515	100.0
Occupied housing units	369	71.7
Vacant housing units	146	28.3
For seasonal, recreational, or occasional use	8	1.6
Homeowner vacancy rate (percent)	2.4	(X)
Rental vacancy rate (percent)	40.9	(X)

HOUSING TENURE

Occupied housing units	369	100.0
Owner-occupied housing units	206	55.8
Renter-occupied housing units	163	44.2
Average household size of owner-occupied unit	2.36	(X)
Average household size of renter-occupied unit	2.66	(X)

Values at Risk

The Herlong Community Fire Safe Plan Area is defined as the area north of the Doyle Fire Protection District, east of the Milford Fire Protection District, south of Honey Lake, and west of the Sierra Army Depot. The community is within the Herlong Subarea of the Lassen Southeast Planning Area. The majority of the people living in the community of Herlong are associated with the Sierra Army Depot as military personnel and civilian employees. Private ranches and agricultural lands are also located in the community surrounding Herlong.

Within and surrounding the community of Herlong, physical features that are potentially at risk from encroaching wildfires consist of existing residences, churches, schools, a restaurant, infrastructure, and most importantly the residents themselves. 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 these physical features or intrinsic values may also impact employment, cost-of living, insurability and rates, health, and community stability.

Natural Resources at Risk

The community of Herlong lies within an open semi-arid, sagebrush covered valley drained by Long Valley Creek. Long Valley Creek empties into Honey Lake just north of Herlong Junction. Land ownership is a mixture of Federal, state and private. The Federal lands consist of the Sierra Army Depot (SIAD), administered by the Department of Defense (DOD), and Bureau of Land Management (BLM) lands. The California Department of Fish and Game administers the Doyle Wildlife Area encompassing 10,740 acres of wildlife habitat along Long Valley Creek and intermixed with SIAD. This habitat provides important winter range for mule deer as well as year-round and seasonal habitat for avian and other terrestrial wildlife. The private land consists of cropland, rangeland, and rural residential holdings.

Transportation

US 395 is the primary transportation route accessing the community of Herlong (see “Appendix A – Vicinity Map”). In addition to US 395, the community is served by County Roads A25, extending east-west, and A26, extending north-south, which roughly intersect at the community of Herlong

approximately 3 miles east and north of the Highway. A Union Pacific Railroad line also services the community. The Lassen County Herlong airport is located just south of County Road A25 between Herlong Junction and the Sierra Army Depot (SIAD).

Level of Service Provided to Community

The community of Herlong does not have an agency responsible for providing structure fire protection. The California Department of Forestry and Fire Protection (CDF) generally 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.

Within and around the community of Herlong, the BLM is responsible for providing wildland fire protection. The nearest BLM fire station is located approximately 11 miles south of Herlong in Doyle. The Doyle BLM Fire Station is staffed seasonally, March-November, with a full staff of 7-8 personnel during the peak fire season. Equipment includes one Type 3 Engine (500 gallon) and one Type 6 Engine (300 gallon). This station is administered out of the BLM Office in Carson City, Nevada.

The SIAD Fire Department has responsibility for providing fire protection within the Depot. However, they will also respond to fires within a 12-mile radius of the Depot, which includes the community of Herlong. The Susanville Interagency Fire Center reports the following equipment in service at the Sierra Army Depot:

Equipment	Type	Gallons	GPM	Drive	Other
Engine	1	500	1000		
Engine	1	660	1000		JAWS
Engine	3	250	250		
Engine	3	250	250		
Water Tender	2	1200	250		

The SIAD Fire Department will provide mutual aid to the BLM, CDF, USDA Forest Service, Milford FPD, and the Doyle FPD on a call by call basis. For over 30 years, the Base Commander has authorized the SIAD Fire Department to respond to incidents outside the base. During the period from May 2000 to May 2001, the Depot Fire Department reported the following off-base responses: 36 medical aid, 6 vehicle (extrication), 7 wildland fires, 3 structure fires, 2 vehicle fires, 1 false alarm, 1 flue fire, 2 smoke checks, 1 gas leak (haz mat), and 3 public service (*Reference #5*)

However, the primary mission of the SIAD Fire Department is fire and medical aid incident responses within the base. The SIAD Fire Department

could be tied up by a major incident within the Depot and not be able to respond to a call for assistance for an incident outside the base. Funding cutbacks by the military and the recent downsizing of the Depot could also jeopardize this role.

Restricting Covenants and/or Ordinances

The community of Herlong is 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 this community.

Enforcement of vegetation clearing around buildings on private land within State Responsibility Area (SRA) is the responsibility of the CDF. In the Herlong area this responsibility has been transferred to the BLM through a master agreement.

However, the CDF continues to serve 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. 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 Resources 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 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 fuel breaks together with fire suppression equipment backed up with an adequate water supply.

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 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

As are most rural communities, the community of Herlong is unincorporated. Other than the West Patton Village Community Services District, there is no formal legal or political structure beyond those provided by State and County governing bodies.

Media

The community of Herlong is served primarily by the Lassen County Times, 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.

Several television stations are available with standard antennas, via repeaters on the surrounding mountains, both from Reno as well as interior valley communities. Channel 19 is regularly used for local information broadcasts. Cable service is available within the Depot and satellite dishes are widely used as well for television reception.

Schools

There are four schools located in the Herlong community. Sierra Primary School (grades K-5), Fort Sage Middle School (6-8), Herlong High School (9-12), and Render Continuation High School (11-12) are all within the Fort Sage Unified School District. According to the California Department of Education, enrollment for the 2001-02 school year is 79, 54, 83, and 4, respectively. The school buildings are all equipped with a fire alarm system, however sprinkler systems have not been installed. Evacuation plans are in place and fire drills are conducted monthly during the school year. The Sierra Army Depot Fire Department also participates in these drills (*Reference #16*).

Physical Description

Access/Roads

Most primary surface streets are paved, wide, and easily navigated with street signs and posted names. There are single ingress and egress streets in the community.

The secondary roads outside the community of Herlong but within the assessment area are more variable, and include less maintained dirt roads and private access roads without proper road signs.

Structures

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

Utilities

Most residents in the community of Herlong are on wells for water as there is no central water system within the community. The exceptions are West Patton Village, a residential area located just west of the SIAD boundary referred to as “Title 9” by the military, and a privately owned trailer park located northwest of West Patton Village. West Patton Village has fire hydrants and water mains with water supplied by the SIAD. The trailer park has a domestic water supply only (*Reference #17*). There are no fire hydrants in the balance of the Herlong community. Power and telephone utilities are generally supplied above ground.

Plans are currently underway to develop a new water and wastewater system, including construction of transmission and distribution facilities that will service members of the Herlong Utility Cooperative (HUC). The HUC includes the Sierra Army Depot, West Patton Village CSD, Susanville Indian Rancheria, Fort Sage Unified School District, the Federal Bureau of Prisons, and the residents of the Herlong community. The plan calls for the existing Depot water system to continue to be used for non-potable purposes, fire and irrigation, and for the new water system to provide potable water throughout the HUC area and additional fire hydrant coverage where currently unavailable. It is expected to take several years for all phases of the project to be completed, depending upon funding availability for each of the various communities’ involved (*Reference #18*).

Obstacles to Emergency Response Vehicles

There are currently no major obstacles to emergency response vehicles in the community. Streets are wide and clear of overgrowth and debris.

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 community of Herlong.

Sagebrush/Grass: The predominant fuel type, depicted in pale yellow, is indicated as grass, though it is mainly comprised of sagebrush and annual grass. Sagebrush and annual grass is estimated to account for over 90% of the fuel type within the community area. This fuel type most closely approximates Fire Behavior Fuel Model 2 and has the following characteristics important for estimating fire behavior (*Reference #13*):

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

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 dramatically increase the rate of spread. Creating and maintaining adequate clearing and defensible space around buildings best mitigates the threat of life and property loss from fires occurring in this fuel type.

Fuel Model #2

Brush: Depicted in light purple, tall chaparral is the second most significant fuel type within the community, occupying less than 10% of the area, and is isolated to the area just east of US 395. This fuel type most closely approximates Fire Behavior Fuel Model 4 and has the following characteristics important for estimating fire behavior (*Reference #13*)

Total fuel load, < 3-inch, dead and live	13.0	tons per acre

Dead fuel load, 1/4 inch	5.0	tons per acre
Live fuel load, foliage,	0.5	tons per acre
Fuel bed depth	1.0	feet

Tall chaparral is an extremely hazardous fuel type. Once ignited, fires in this type can throw firebrands in front of the fire. Under the same wind speed and fuel moisture scenario as depicted for annual grass and sagebrush, fires in tall chaparral can spread nearly one mile per hour and have flame lengths of 19 feet. While creating and maintaining adequate clearing and defensible space around buildings can reduce the threat to life and property loss from fires occurring in this fuel type, secondary defenses in the form of fire breaks and fuel breaks are necessary to fully mitigate the threat.

Fuel Model #4

The balance of the area surrounding the community of Herlong is comprised of agricultural land and poses little or no threat with respect to wildfires.

Wildfire Threat Evaluation

Area Fire History

The “Appendix C - Fire History Map” shows two large (300+ acre) fires that have occurred on the north end of SIAD. The burned acreage was a combination of BLM, DOD, and private land. The past frequency of ignition incidents, i.e. fires less than 300 acres, does not appear to pose a serious

threat. In 2001, the SIAD Fire Department responded to seven wildland fires.

The Herlong community 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*.

Expected Fire Behavior

The climate in and around the community of Herlong is typical of high desert areas of northeastern California. Summers are hot, dry, and often very windy. The average summer maximum temperature for July and August is approximately 93º F. Average annual rainfall is approximately 6 inches. Most of the precipitation falls 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 elevation ranges from 4055 feet at the east end of the Herlong airport runway up to 4100 feet at the junction of County Road A25 and US 395.

Large fires originating on Federal land do not pose a significant threat to the community of Herlong. The most significant threat comes from fires originating in or in the immediate vicinity of dwellings and fires, either lightening caused or man-made, started along roads or vacant fields. The primary dwellings at risk are those where proper clearance, as per PRC 4291, has not been accomplished.

Current Resource Management Wildfire Mitigation Measures

Vegetation conditions on Federal lands are regulated by the agency controlling the land. Within and surrounding the community of Herlong, the two primary Federal land management agencies are the DOD and BLM. Both agencies are fully aware that hazardous fuel conditions on land they administer constitute a threat to communities in Lassen County. Both agencies have proposed and plan to execute projects to reduce hazardous fuel conditions. The BLM has established grant programs to assist local communities in reducing hazardous fuel conditions on private land along the interface with land they administer.

Recommendations

Community Prescriptions

Infrastructure Improvements

As noted above under “Level of Service Provided to Community”: The primary mission of the SIAD Fire Department is providing fire protection

within the base. The SIAD Fire Department could be tied up by a major incident within the Depot and not be able to respond to a call for assistance for an incident outside SIAD, and funding cutbacks by the military could jeopardize this role. For these reasons, the Lassen County Fire Protection Study 1983 recommended: *"Herlong should form a fire district or be annexed to the Doyle Fire District. This area should not continue depending on a response from the Depot Fire Department…"* (*Reference #17*)

The following specific measures, appropriate to individuals and residences within and around the Herlong community, are recommended to reduce the threat of wildfire:

1. The West Patton Village Community Services District (WPVCSD) should assume their fire protection authority, pursuant to the District's formation powers, and provide structural fire protection within the District. In addition, the CSD could annex adjacent areas of the larger community, as appropriate. The CSD could develop mutual aid agreements with the SIAD Fire Department and the neighboring fire districts of Doyle and Milford.

2. A second alternative to the preferred alternative above follows: The area north of County Road A-25 and west of the SIAD could be annexed to the Milford FPD. The area south of County Road A-25 and west of the SIAD could be annexed to the Doyle FPD (see "Appendix B – Vegetation Type Map" for possible annex areas).

3. An improvement and expansion of the community water system is being developed. Available water sources should be inventoried and the specific location of the water system infrastructure identified. Currently, a community water system feasibility study has been completed, a county permit was approved in January, 2003, and some construction (test well drilling) is underway.

4. 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.

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

6. Assist dwelling owners and tenants by providing chippers and/or a pick up service for cut fuels.

7. Increase compliance with PRC 4291 provisions for removal of flammable vegetation, overhanging tree limbs, etc. from around buildings and propane tanks. Follow-up law enforcement action should be taken as necessary to achieve compliance.
8. 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, with vegetation encroachment within the community of Herlong. Implementing the basic clearing requirements specified in PRC 4291 and creating additional defensible space can reduce the threat to dwellings and other buildings within the community.

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. 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 excellent publications that address creation of defensible space.

Monitoring, Evaluation, and Maintenance

As part of the ongoing efforts to ensure that the Herlong community continues 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.

Proposed Projects

Proposed Project	Responsible Party
WPVCSD assume fire protection authority/create FPD (under District formation powers)	WPVCSD/ Lassen County
Community fire hydrant system feasibility study & construction	Herlong Utility Co-op/WPVCSD
Inventory for specific problem properties	BLM/Herlong Community
Mail out fire safe information to all landowners within the community.	LCFSC
Encourage landowner/homeowner to comply with additional defensible space recommended in Appendix D	BLM, Herlong Community
Recruit cooperators for assistance in fuel reduction/removal.	Herlong Community

Community Education, Outreach, and Involvement Recommendations

The Herlong community, while not having a significant risk from large fires originating on private or Federal lands, is nonetheless at risk from wildfires. This Community Fire Safe Plan has been prepared to assist the community 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, 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 job. Effective community education and outreach can mitigate the risk of wildfires to the Herlong community if initiated and maintained by citizens within the community (*Reference #14*).

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 #14*).

This Plan is specifically prepared assuming that the community of Herlong, West Patton Village Community Services District, 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

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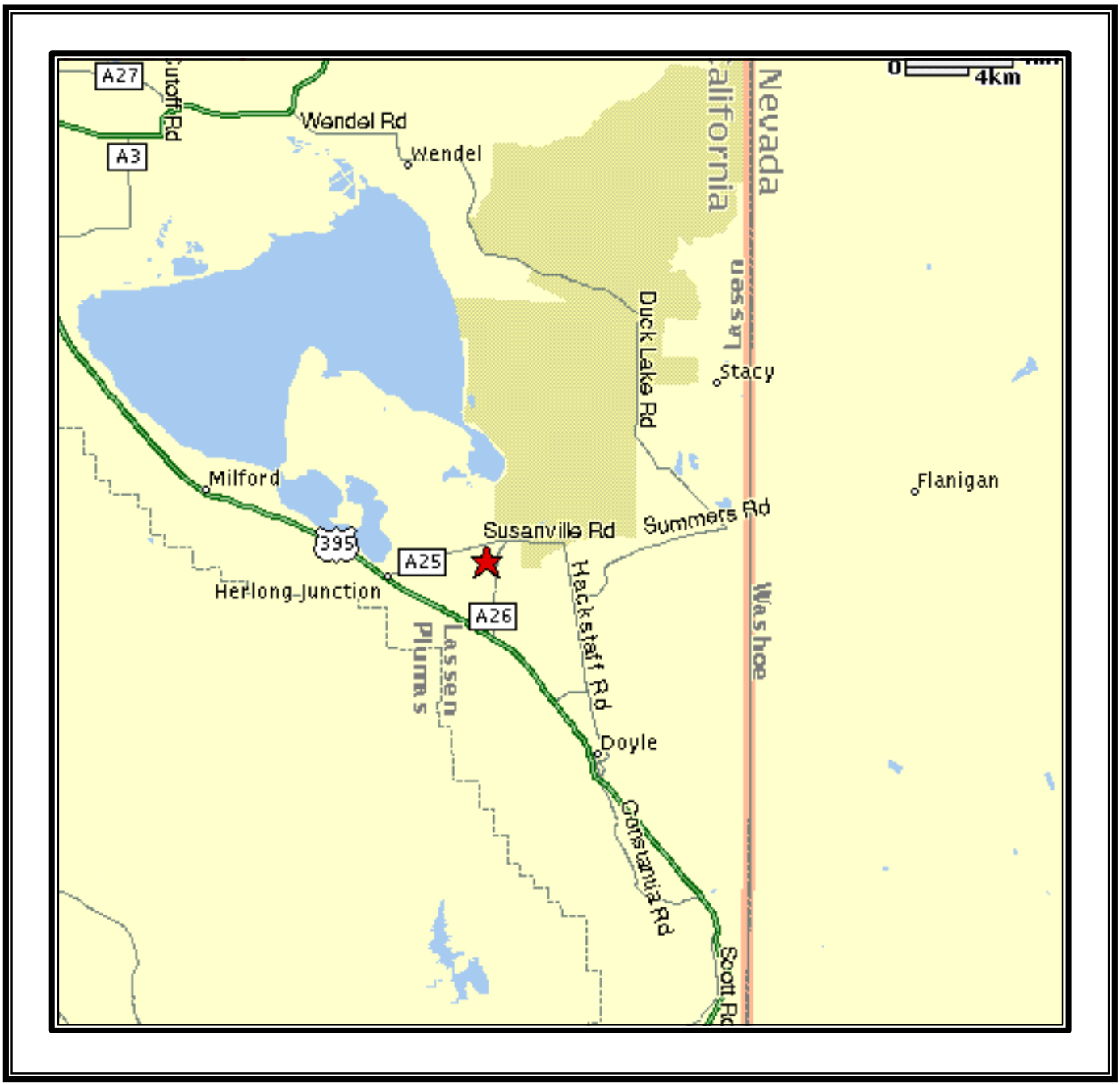
Appendix A - Vicinity Map



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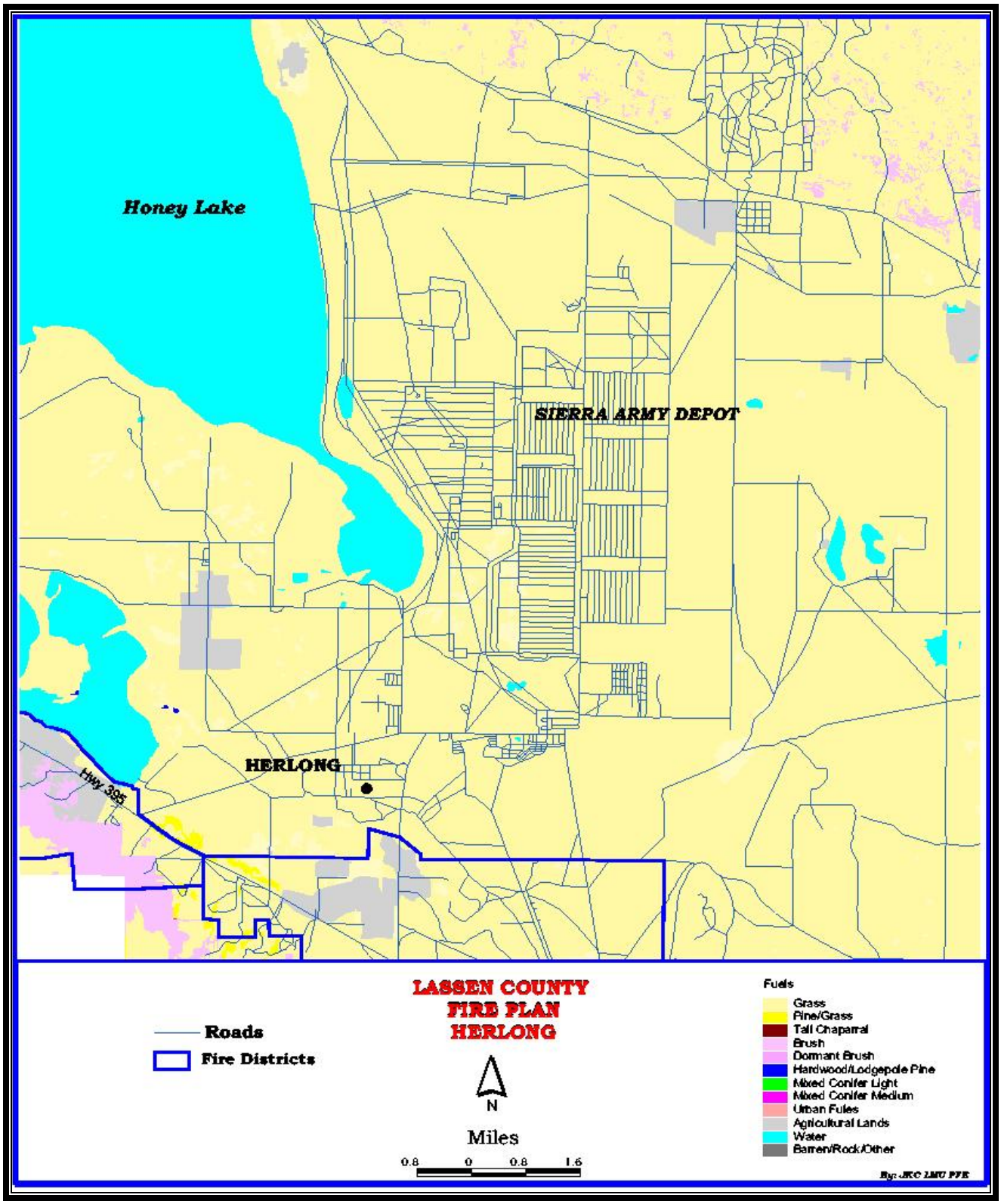
Appendix B - Vegetation Type Map



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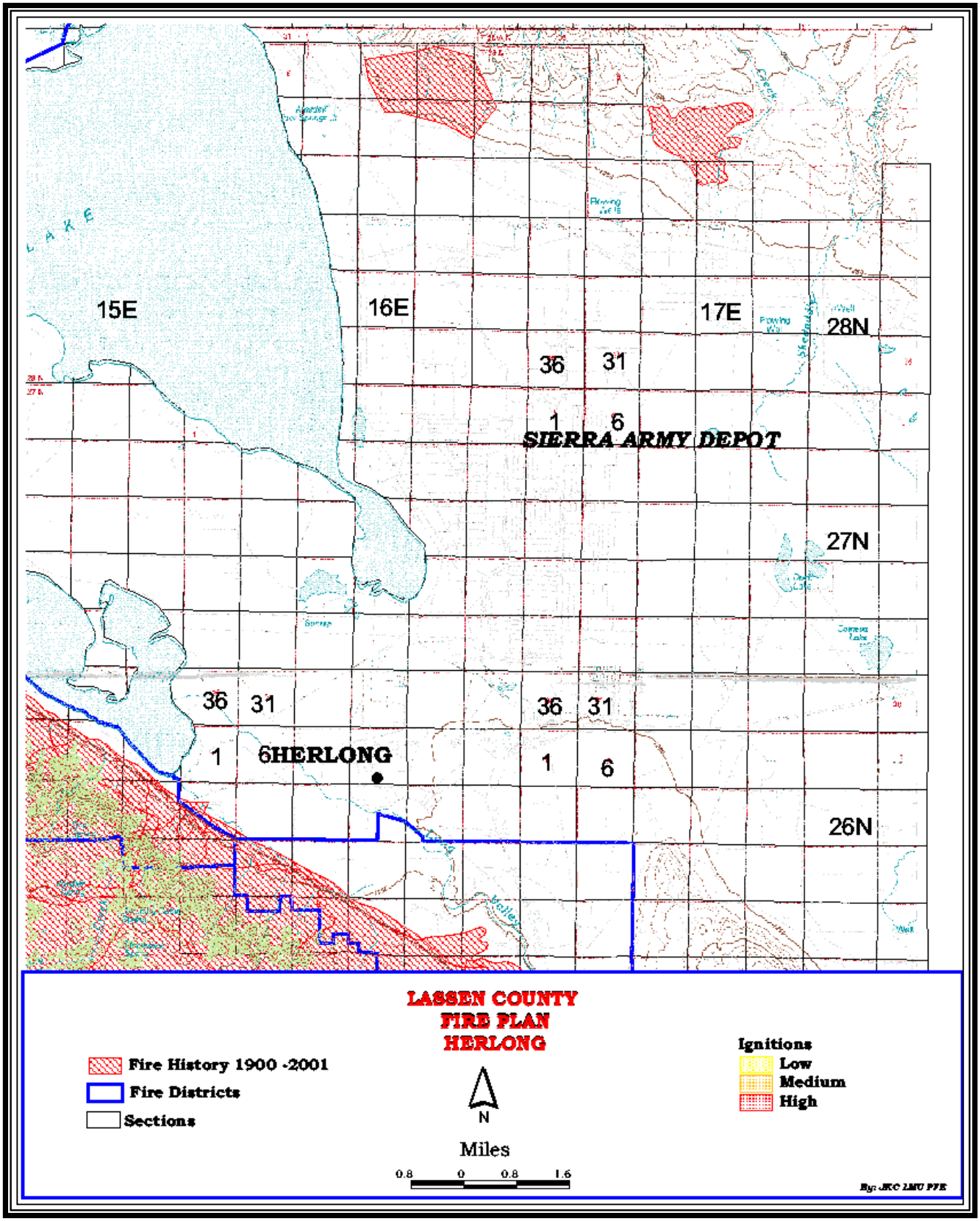
Appendix C - Fire History Map



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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 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'

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 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.

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:

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

Defensible Space Illustrations

Only single tree specimens permitted wtihin 30' area
30' CLEARANCE
At least 10' from chimney
30'
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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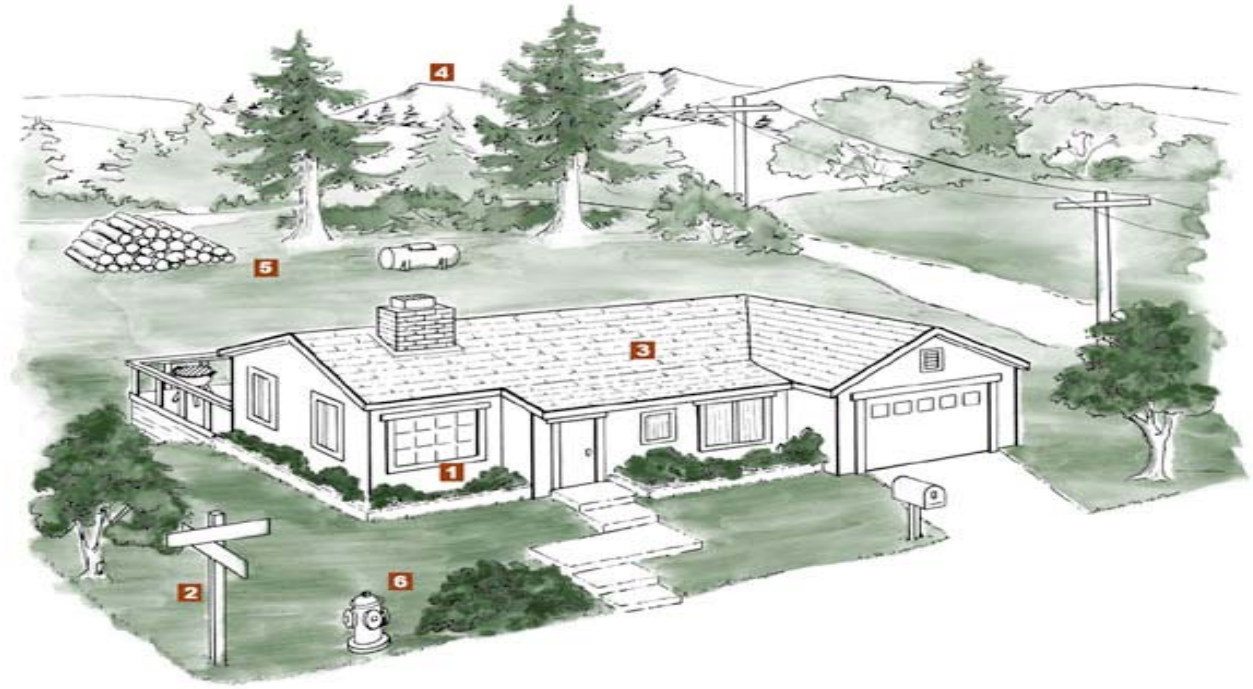
Homeowner's Checklist

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 $^1/_2$ 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 $^1/_4$ inch

6 Emergency Water Supply

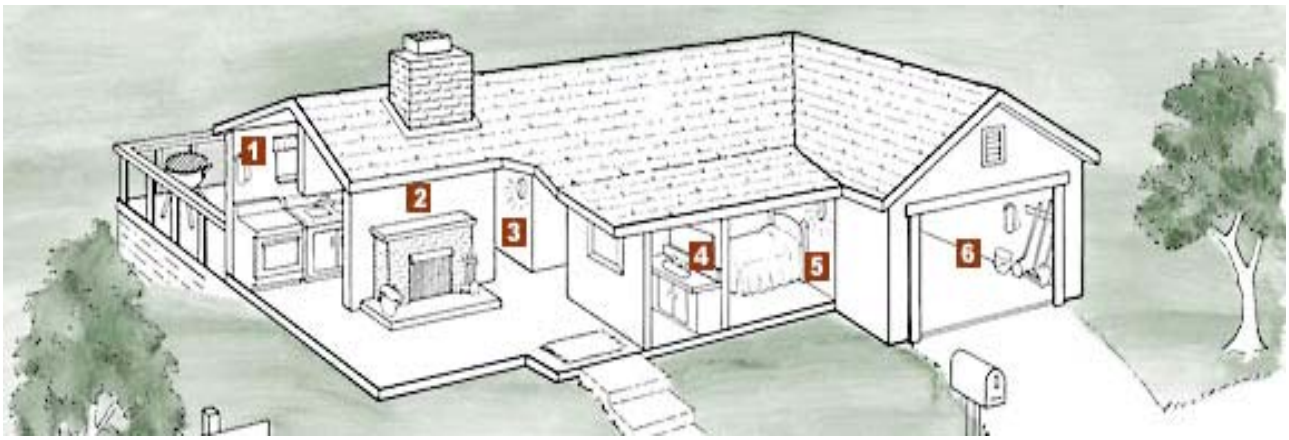
__ Maintain an emergency water supply that meets fire department standards through one of the following:
- a community water/hydrant system
- a cooperative emergency storage tank with neighbors
- a minimum storage supply of 2,500 gallons on your property

__ 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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