STANDISH-LITCHFIELD

Community Fire Safe Plan

Lassen County

January 2004

COUNTY OF LASSEN

BOARD OF SUPERVISORS

Robert Pyle, District 1
Jim Chapman, District 2
Lloyd Keefer, District 3
Brian Dahle, District 4
Jack Hanson, District 5

Prepared by

Lassen County Department of Community Development

in cooperation with

California Department of Forestry and Fire Protection

Lassen County Fire Safe Council

with assistance under contract from

Shasta Land Management Consultants

W. M. Beaty & Associates, Inc.

funded in part by

USDA Forest Service; National Fire Plan Federal Assistance Grant

January 2004

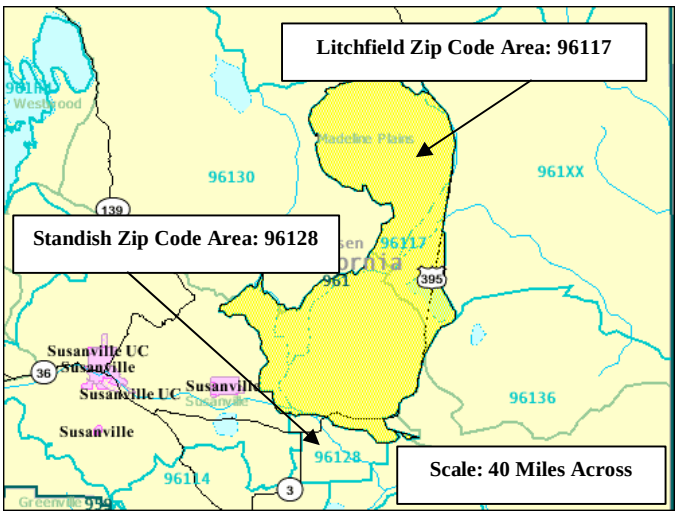
TABLE OF CONTENTS

Standish Litchfield Community Fire Safe Plan

COMMUNITY DESCRIPTION

Population

For the purposes of fire safe planning, the communities of Standish and Litchfield have been combined. The Standish-Litchfield Community Fire Safe Plan Area is defined as the area within the 88 square mile Standish-Litchfield Fire Protection District. The 1990 U.S. Census Data reported a population (based on zip code) for the combined Standish and Litchfield area of 363. The 2000 census reports a population of 764 for this area. The following map indicates the zip code and census data coverage area:



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

HOUSING OCCUPANCY	Standish No.	Standish %	Litchfield No.	Litchfield %
Total housing units	165	100.0	154	100.0
Occupied housing units	146	88.5	139	90.3
Vacant housing units	19	11.5	15	9.7
For seasonal, recreational, or occasional use	1	0.6	1	0.6
Homeowner vacancy rate (percent)	1.8	(X)	4.9	(X)
Rental vacancy rate (percent)	16.3	(X)	6.7	(X)

HOUSING TENURE	Standish No.	Standish %	Litchfield No.	Litchfield %
Occupied housing units	146	100.0	139	100.0
Owner-occupied housing units	110	75.3	97	69.8
Renter-occupied housing units	36	24.7	42	30.2
Average household size of owner-occupied unit	2.65	(X)	2.57	(X)
Average household size of renter-occupied unit	2.58	(X)	3.02	(X)

The new Federal prison being constructed just west of the Sierra Army Depot may generate additional housing demand and rural residences in the Standish and Litchfield areas.

Values at Risk

The communities are within the Standish-Litchfield Area Plan as adopted by Lassen County General Plan 2000. The maps in "Appendix B" and "C" depict the boundary. The plan area is bordered by the Janesville and Susan River Fire Protection Districts to the west, the California Department of Fish and Game Honey Lake Wildlife Area to the east, Honey Lake to the south, and Federal land, managed by the Bureau of Land Management's Eagle Lake Field Office (BLM), to the north starting at the toe of Shaffer Mountain.

Within and surrounding the communities of Standish and Litchfield, physical features that are potentially at risk from encroaching wildfires consist of existing residences and associated structures, two general stores, a restaurant, an RV park, churches, the Standish-Litchfield Fire Station, a feed store, numerous agricultural businesses, 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 Susan River alluvial plain is the area's dominant physical feature. Irrigated cropland makes up a large portion of the vegetation. The balance is wetland vegetation, annual grass rangeland, sagebrush and noxious weeds (Tall Whitetop). Sagebrush occupies much of the uncultivated fields in the valley and on the slopes leading to Bald Mountain, a prominent peak to the southwest of the community area. The elevation ranges from approximately 4,000 feet along the shore of Honey Lake to 5,221 feet on Bald Mountain.

The nearby BLM lands are heavily dominated by brush vegetation types, interspersed with some tree cover. They are managed by the Susanville District of the BLM under the multiple use concept, providing range, recreation, timber, wildlife habitat, and other resource values. The state lands in the area consist of the prison and the Honey Lake Wildlife Area,

where the focus is on waterfowl management. The private land assets primarily consist of cropland, rangeland, and rural residential holdings.

Both Standish and Litchfield have 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*. As demonstrated in the past, the natural resources within and surrounding Standish and Litchfield are all at risk from and highly susceptible to potentially devastating loss from wildland fire. This in turn can impact, either directly or indirectly, other assets and values within the community.

Transportation

The Standish and Litchfield communities lie approximately 15 miles south and east of Susanville on US 395. US 395 and the Susan River bisect the communities. In addition to US 395, the community is served by tributary County Roads and a Southern Pacific Railroad line. There are no airstrips within the community area, but the Susanville Municipal Airport is approximately seven miles west of Standish.

Level of Service Provided to Community

The communities of Standish and Litchfield are located within the Standish-Litchfield Fire Protection District (FPD) as well as State Responsibility Area (SRA) with wildland fire protection provided by the California Department of Forestry and Fire Protection (CDF). Bureau of Land Management (BLM) provides wildland fire protection to Federal Responsibility Areas (FRA).

The FPD is responsible for providing structure fire protection and responds to medical assistance calls. The FPD is also responsible for providing wildland fire protection to the Local Responsibility Area (LRA).

The FPD has mutual aid agreements with CDF, BLM, Forest Service, Susan River FPD, Janesville FPD, and the California Department of Correction's fire department.

The Standish-Litchfield Fire District currently has 10 volunteer firefighters and the following equipment inventory:

Equipment	Type	Gallons	GPM	Drive	Other
Engine	3	400	250	4x4	Foam
Engine	2	1000	1000	2x4	
Engine	2	750	1000	2x4	

Equipment	Type	Gallons	GPM	Drive	Other
Engine	3	650	500	2x4	
Water Tender		4000	800		4000 Gallon porta tank
Water Tender		2500	250		

Restricting Covenants and/or Ordinances

The communities of Standish and Litchfield 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 this community.

Enforcement of vegetation clearing around buildings on SRA private land is the responsibility of the CDF and BLM. The CDF also serves as the permitting agency for State law governing commercial tree harvesting.

While not restricting covenants and/or ordinances, 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.
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 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

As are most rural communities, the communities of Standish and Litchfield are unincorporated. There is no formal legal or political structure beyond those provided by State and County governing bodies and the Standish-Litchfield FPD.

Media

The Standish and Litchfield community 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.

Due to the surrounding mountains, television reception is limited, but usually one can receive a network signal from Chico and/or Reno. Radio AM 1610 provides the community with current information on traffic conditions and safety tips.

Schools

The Shaffer Elementary School, grades K-8, is located in Litchfield. The school building is equipped with a fire alarm system; however sprinkler systems have not been installed. Evacuation plans are in place and fire drills are conducted regularly during the school year.

Physical Description

Access/Roads

In addition to US 395, there are a number of paved streets within the community. The remaining roads within the community are native surface and/or gravel and are in relatively good condition.

The roads outside the communities but within the FPD are more variable, and include less maintained dirt roads. Roads traversing the steeper terrain often have access problems, particularly during the winter months.

Structures

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

help protect against embers from a wildfire or chimney. With few exceptions, the buildings are spaced widely apart.

Utilities

All residents are on wells for water as there is no central water system within the community. Power and telephone service is above ground.

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 vegetation (fuel) types within and surrounding the communities of Standish and Litchfield include agricultural lands and natural fuels dominated by various brush species. A large portion of the communities' FPD is located primarily on the valley floor, but also includes steeper terrain to the northeast and southwest. This area is predominantly composed of agricultural lands used for livestock grazing and alfalfa fields, and poses little or no threat with respect to wildfire (see "Appendix B – Vegetation Type Map").

A small percent of the planning area is classified as a mixture of open water, hardwood, and barren rock. In the Standish-Litchfield community, this type consists of hardwood vegetation associated with riparian corridors (see "Appendix B – Vegetation Type Map").

Sagebrush / Annual Grass: From a wildfire threat standpoint the most significant fuel type, depicted as yellow on the vegetation map, is indicated as pine/grass. Upon closer inspection, this type consists mainly of sagebrush and annual grass. Sagebrush and annual grass account for approximately 20% 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 #10*)

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

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 are predicted to 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. Creating and maintaining adequate clearing and defensible space around buildings best mitigates the threat of life and property loss from fires generating in this fuel type.

Annual Grass: Annual grass, depicted in pale yellow, occupies approximately 20% of the community area. This fuel type most closely approximates Fire Behavior Fuel Model 1 and has the following characteristics important for estimating fire behavior (*Reference #10*):

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

Fuel Model #1

Annual grass is easy to ignite and once ignited can spread rapidly. Under the same wind speed and fuel moisture scenario as depicted for annual grass and sagebrush above, fires in annual grass can spread nearly one mile per hour and have flame lengths of 4 feet. Creating and maintaining adequate clearing and defensible space around buildings best mitigates the threat of life and property loss from fires generating in this fuel type.

Wildfire Threat Evaluation

Area Fire History

The fire history in the Standish and Litchfield communities as illustrated on the map (see "Appendix C –Fire History Map") reveals that large (300+ acre) fires have occurred on the toe slopes of Shaffer Mountain and Bald Mountain. Fire records indicate that ignition of smaller fires occurs with low to medium frequency. Of particular concern are ignitions on the north face of Bald Mountain.

Both the Standish and Litchfield communities have been listed in the Federal Register (August 17, 2001) as Urban Wildland Interface Communities in the Vicinity of Federal Lands that are at High Risk from Wildfire.

Expected Fire Behavior

The climate in and around the communities of Standish and Litchfield is typical of high desert areas of northeastern California. Summers are hot, dry, and often windy. The approximate average summer maximum temperature for July and August is 91º F. Annual rainfall is approximately 8-10 inches.

Natural fuels within the Susanville River alluvial plain are isolated by irrigated crop fields and pose only a limited wildfire threat. Natural fuels, primarily sagebrush and annual grass, occur along the toe of Shaffer Mountain and Bald Mountain and pose a threat to dwellings in the immediate vicinity. Recent fires in both areas have served, at least in the short term, to mitigate the threat. The most significant threat comes from fires, either lightening caused or man-made, originating near dwellings, or along roads or vacant fields. The dwellings with the highest risk are those without adequate defensible space.

Current Resource Management Wildfire Mitigation Measures

Vegetation conditions on Federal lands are regulated by the agency controlling and managing the land. Within and surrounding the communities of Standish and Litchfield, the primary Federal land management agency is the BLM. The BLM is aware that hazardous fuel conditions on land they administer constitute a threat to communities in Lassen County. They have an on-going fuel management program to mitigate this threat, but at the present time, no specific fuel management projects are scheduled within the Standish-Litchfield area. The BLM has established grant programs to assist local communities in reducing hazardous fuel conditions on private land along their borders.

RECOMMENDATIONS

Community Recommendations

Other Recommendations

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

1. Mail out 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.

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

3. Improve compliance with PRC 4291 provisions for removal of flammable vegetation, overhanging tree limbs, etc. from around buildings. Follow up law enforcement action should be taken as necessary to achieve compliance.

4. 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 communities of Standish and Litchfield.

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

The "Appendix D – Defensible Space" provides detailed information, including specific measures and illustrations, that can be applied to protect structures from the risk of wildland fire. In addition, the Lassen County Fire Safe Council and CDF have excellent publications that address creation of defensible space.

Monitoring, Evaluation, and Maintenance

As part of the ongoing efforts to ensure that the Standish-Litchfield community area continues to be protected or reduce the risk from wildland fire, efforts should be made to monitor and evaluate the implementation and effectiveness of community fire safe projects. Those projects designed to create defensible space around community structures and individual residences should be monitored on an annual basis to reinforce implementation and to ensure that they are properly and effectively carried out.

Other more long-term projects such as community fuelbreaks, if constructed, will require periodic inspections to evaluate vegetation re-growth and to plan for maintenance needs. A three to five year minimum re-inspection interval is recommended depending upon vegetation type, sprouting and seeding characteristics, growth rates, and litter buildup. Other factors that influence monitoring and maintenance needs and frequency may include equipment

and manpower availability, access considerations, topography, past and current fire activity, storm events, and funding.

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

Proposed Projects

Proposed Project	**Responsible Party**
Mail out fire safe information to all landowners within the Standish-Litchfield FPD.	Standish-Litchfield FPD
Inventory for specific problem properties on private land.	Standish-Litchfield FPD
Recruit cooperators for assistance in fuel reduction/removal.	Standish-Litchfield FPD
Encourage landowner/homeowner to comply with additional defensible space recommended in Appendix D	Standish-Litchfield FPD/CDF/BLM

COMMUNITY EDUCATION, OUTREACH, AND INVOLVEMENT RECOMMENDATIONS

The Standish and Litchfield communities are at risk from wildfires. This Community Fire Safe Plan has been prepared to assist these 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, business owners, and local officials must take the necessary measures to prepare themselves and their communities in the event of fire and make it easier for firefighters to successfully do their jobs. Effective community education and outreach can mitigate the risk of wildfires if initiated and maintained by citizens within the community area. (*Reference #8*)

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 #8*)

This Plan is specifically prepared assuming that the communities of Standish and Litchfield, Standish-Litchfield Fire Protection 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 fuel reduction projects in Lassen County.

THIS PAGE IS INTENTIONALLY LEFT BLANK

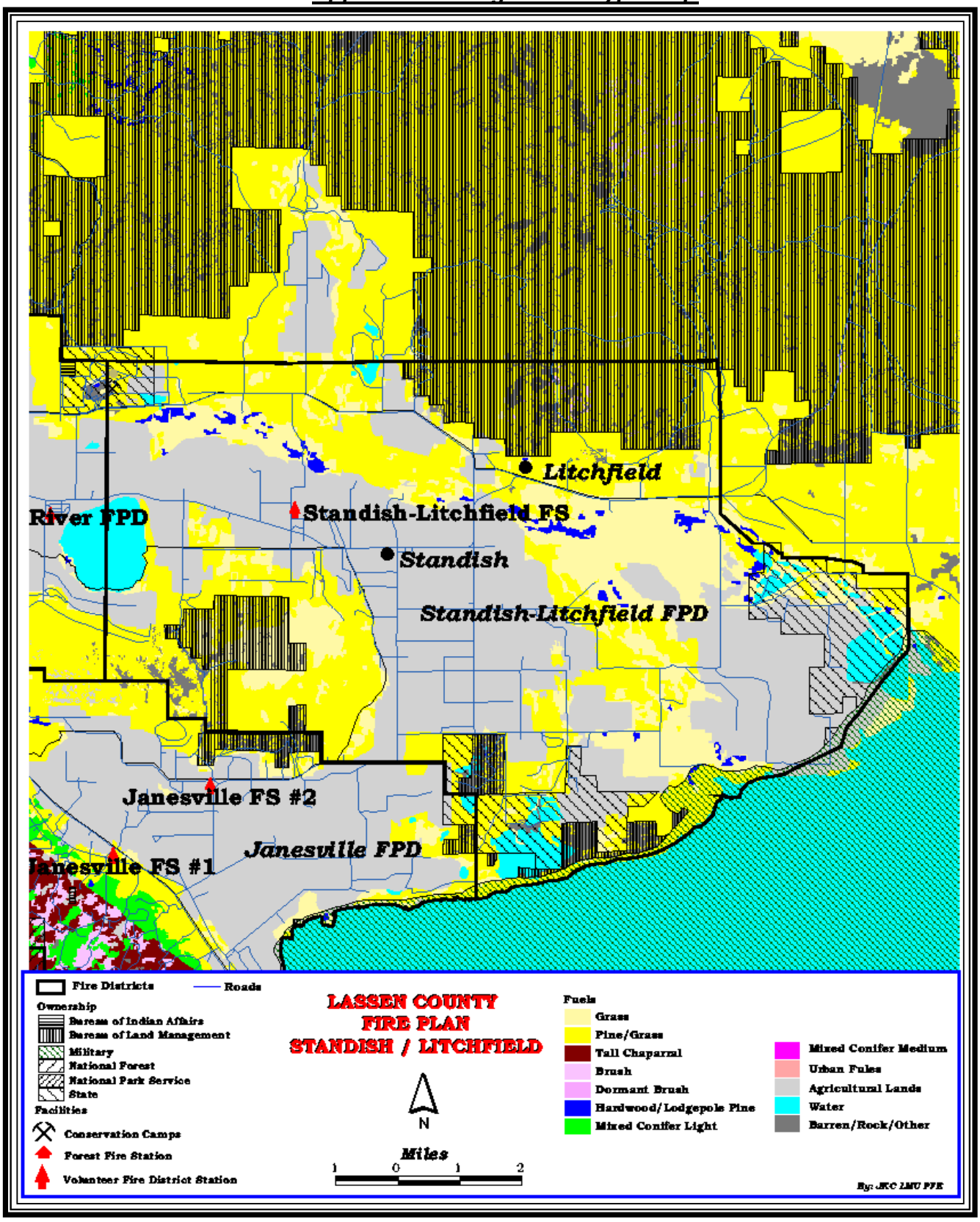
Appendices

THIS PAGE IS INTENTIONALLY LEFT BLANK

Appendix A - Vicinity Map

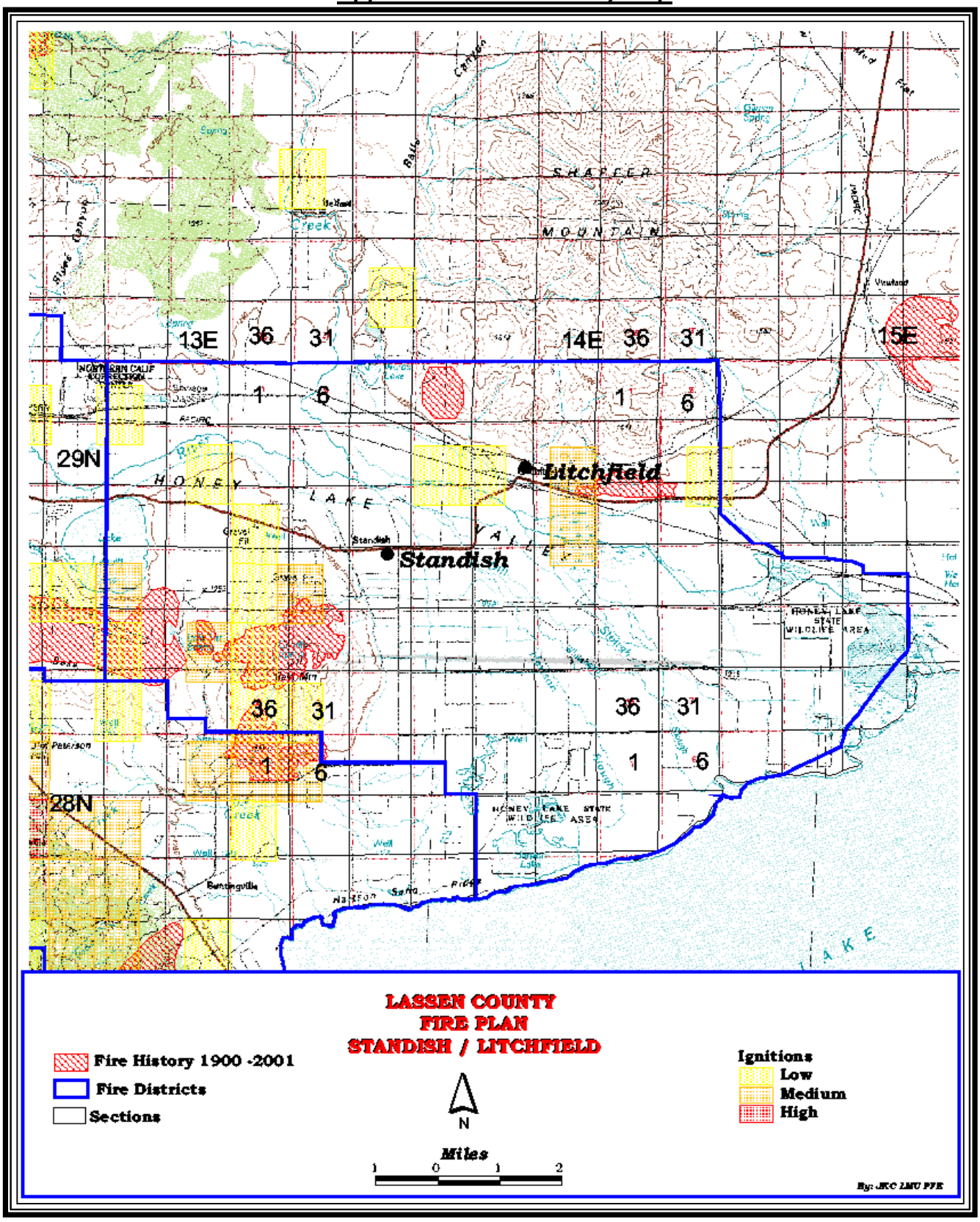
THIS PAGE IS INTENTIONALLY LEFT BLANK

Appendix B - Vegetation Type Map



THIS PAGE IS INTENTIONALLY LEFT BLANK

Appendix C - Fire History Map



THIS PAGE IS INTENTIONALLY LEFT BLANK

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

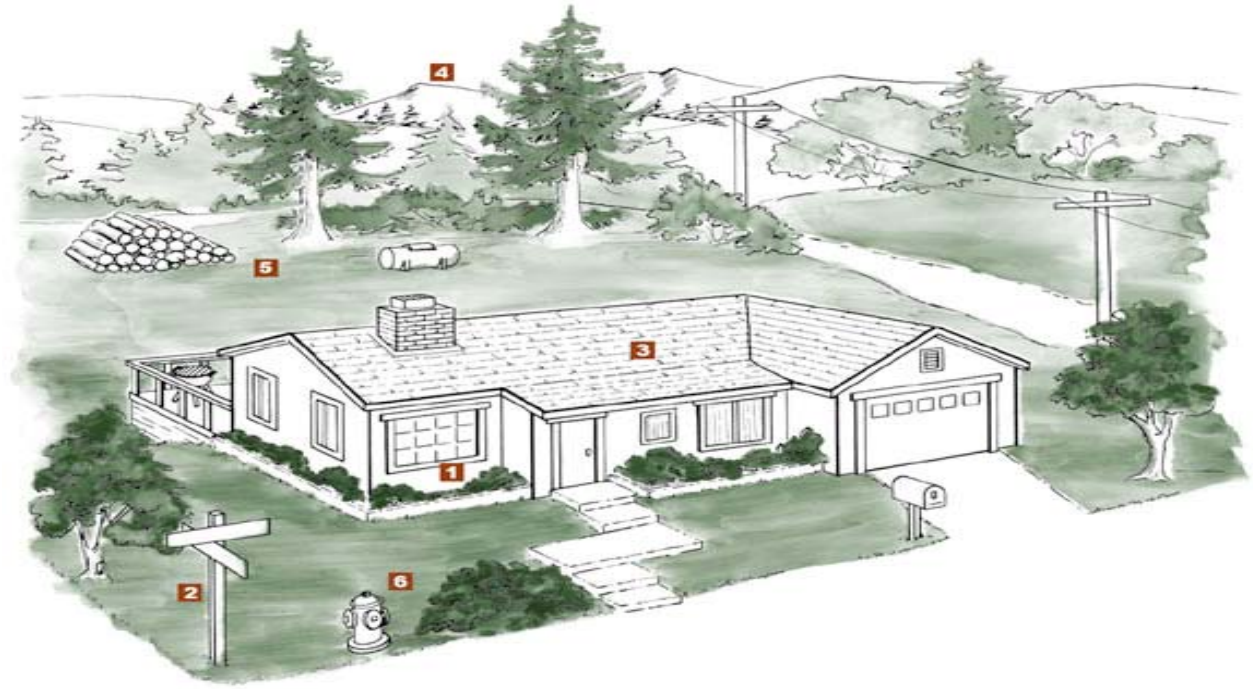
Defensible Space Illustrations

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

THIS PAGE IS INTENTIONALLY LEFT BLANK

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

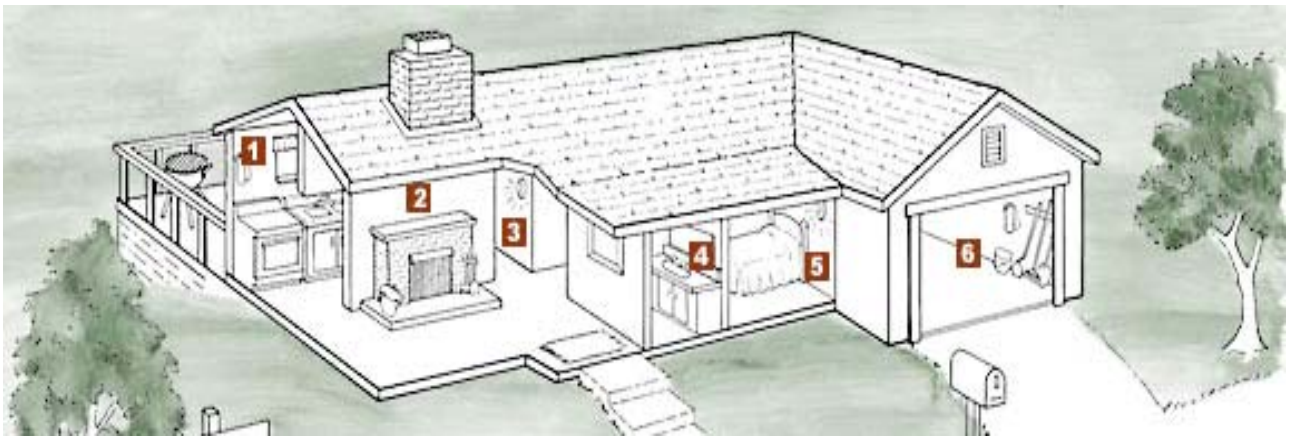
__ Maintain an emergency water supply that meets fire department standards through one of the following:
- a community water/hydrant system
- a cooperative emergency storage tank with neighbors
- a minimum storage supply of 2,500 gallons on your property

__ 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

THIS PAGE IS INTENTIONALLY LEFT BLANK

References

1. Lassen County General Plan 2000, September 1999.
2. John K. Crites, Fire Captain Specialist Pre-Fire Management, California Department of Forestry and Fire Protection, Lassen-Modoc Unit(530) 257-7360.
3. Jim Rauch, Chief, Standish and Litchfield Fire Protection District, (530) 254-6803.
4. Paul Whitcome, Fire Management, Bureau of Land Management, Susanville, (530) 257-0456.
5. http://www.fireplan.gov/communities_at_risk.cfm
6. http://www.fireplan.gov/community_2002.cfm
7. Aids to Determining Fuel Models for Estimating Fire Behavior, Hal E. Anderson, General Technical Report INT-122, April 1982.
8. Fire Safe Council Web Site: www.firesafecouncil.org
9. Tom Gauthier, Lassen County Fire Safe Council, (530) 253-3627.
10. Standish-Litchfield Area Plan, October 1986
11. Tom Reed, Susanville Interagency Command Center, Susanville, CA 530-257-5575
12. Karl W. Todd, Fire Prevention Officer, Bureau of Land Management, Susanville, 257-0456