

RICHMOND-GOLD RUN- JOHNSTONVILLE

Community Fire Safe Plan

Lassen County



January 2006

COUNTY OF LASSEN

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Lassen County Department of Community Development
and
Lassen County Fire Safe Council, Inc.

in cooperation with

California Department of Forestry and Fire Protection
USDA Forest Service
DOI Bureau of Land Management
USDA Natural Resources Conservation Service
Susanville Indian Rancheria
Sierra Pacific Industries

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
and
Title III Funds provided Lassen County through the Secure Rural School and Community
Self-Determination Act of 2000

January 2006

First Revision of the 2004 Lassen County Fire Safe Plan

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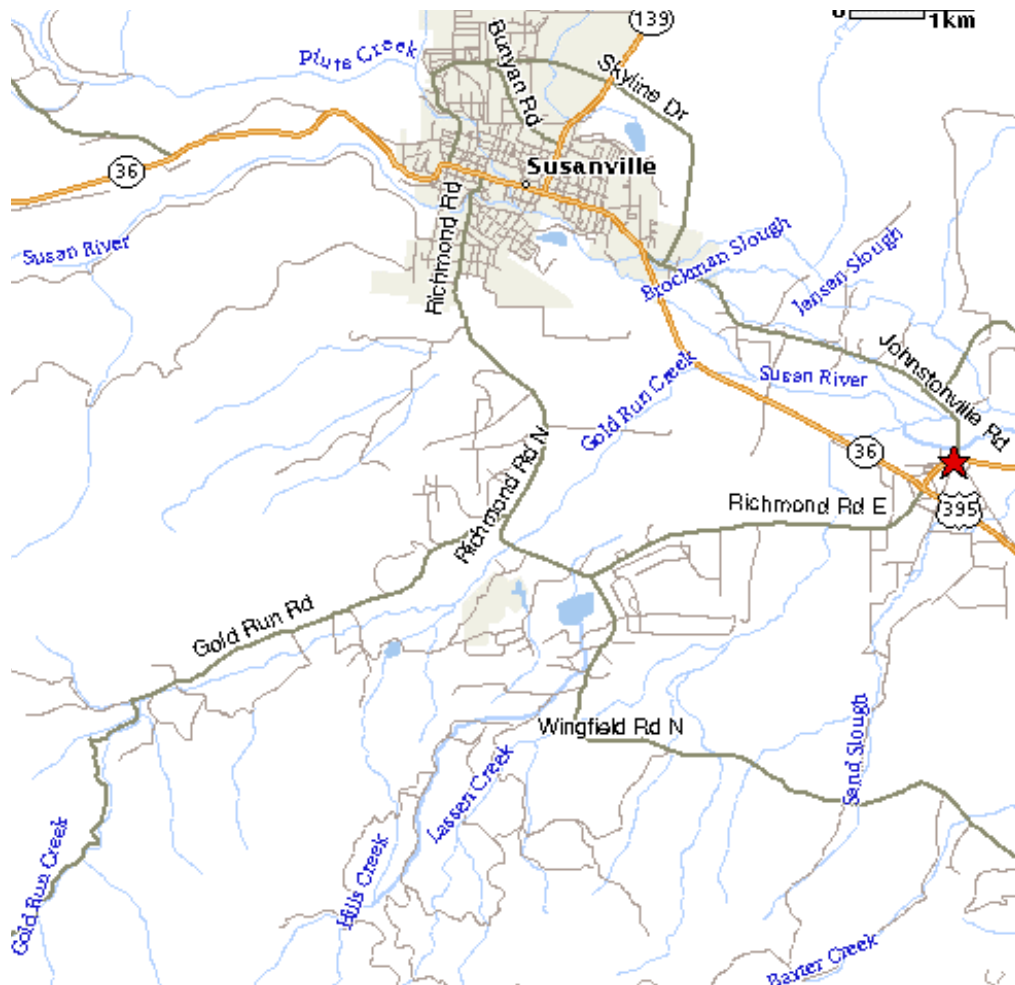
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COMMUNITY DESCRIPTION

Population

The area covered by this fire safe plan includes the Richmond/Gold Run Planning Area and the Johnstonville Planning Area as defined by the Lassen County General Plan 2000 (see map below). This entire area is within the Susan River Fire Protection District. Geographically, this area lies within only a few miles to the south and southeast of Susanville.



The population in this area is difficult to estimate, and is generally lumped in with the greater Susanville area. The U. S. Census data estimates Susanville's population at 13,574 (population total includes approximately 9,772 California Department of Correction's inmates [*Reference #1*]) for the year 2000. The Richmond/Gold Run and the Johnstonville community area is one of the fastest growing areas in Lassen County. Much of the growth can be attributed to new employees associated with recent prison expansion.

Values at Risk

Within and surrounding these communities, there are many physical features that are potentially at risk from encroaching wildfires including residences, commercial buildings and improvements, infrastructure, and most importantly the residents themselves.

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

Natural Resources at Risk

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). The topography within the community area ranges from alluvial flood plains to forested mountains. The elevation ranges from 4,100 feet at the surface of Lake Leavitt to peaks of the Diamond Mountains exceeding 8000 feet in elevation.

Land ownership is a mixture of Federal, State and private. The USDA Forest Service, Lassen National Forest (LNF) administers the majority of the Federal ownership. The Susanville District of the U.S. Department of the Interior Bureau of Land Management (BLM) administers isolated parcels in the Richmond/Gold Run Planning Area and portions of larger parcels in the Johnstonville Planning Area. The Federal lands are managed for multiple use.

W.M. Beaty and Associates and Sierra Pacific Industries (SPI) administer the majority of the larger private parcels adjacent to the community area. These lands are managed to produce a valuable and sustainable level of commercial forest products. Smaller occupied and absentee owner parcels with existing or future home sites comprise the balance of the private land. The primary use of the majority of the private land in the Johnstonville area is agriculture.

Transportation

The dominant transportation features through Johnstonville are State Route 36 and US 395. The Richmond/Gold Run community is served by Richmond and Gold Run Roads. There is also a rail line owned by Sierra Pacific Industries (near Susanville) and Southern Pacific Railroad. The Susanville Municipal Airport lies within the community area as well.

Level of Service Provided to Community

The initial attack responsibility for wildfires within the Richmond-Gold Run and Johnstonville area lies with the California Department of Forestry and Fire Protection (CDF) and the Susan River Fire Protection District (FPD),

depending on the location. Approximately 60 percent of the community area is located within CDF State Responsibility Area (SRA). The CDF has a fire station in Susanville equipped with two engines, one dozer, and resources of Antelope Camp fire crews. (*Reference #8*)

The Susan River FPD has initial attack responsibility in the Local Responsibility Areas (LRA). They have two stations in the area, including Susan River Station #1 on Richmond Road and Susan River #2 in Johnstonville (see Appendix B and D for the specific locations of the stations). Their primary mission is response to structure fires and wildfires. They do not respond to medical assistance emergencies but will respond to assist with vehicle accidents. In 2001, the FPD responded to 103 calls. The Susanville Interagency Fire Center reports the following equipment for the Susan River FPD:

<u>Equipment</u>	<u>Type</u>	<u>Gallons</u>	<u>GPM</u>	<u>Drive</u>	<u>Other</u>
Engine	1	1500	1250	2x4	Foam
Engine	3	500	350	4x4	
Engine	2	750	1200	2x4	Foam
Engine	3	500	350	4x4	Foam
Engine	4	300	1500	2x4	
Water Tender	1	2800	750		Trailer
Water Tender	1	3800	800	6x4	Foam
Water Tender	1	2750	750		Trailer

The Susan River FPD has 23 volunteers. The FPD has mutual aid agreements with the City of Susanville Fire Department, the Janesville Fire Protection District, the Standish-Litchfield FPD, CDF, BLM, and the Forest Service. The FPD is currently attempting to get a new fire station constructed in Johnstonville.

A casual review of the Richmond/Gold Run and Johnstonville community areas indicate that street signing and addresses within the FPD could be improved. While there is no central water system serving the entire Richmond-Gold Run or Johnstonville community area, newer subdivisions have fire hydrants served by their own water system sources. A recently completed water well in Johnstonville will be available to supply water to a fire station planned for future construction in the area(*Reference #3*).

Restricting Covenants and/or Ordinances

The communities of Richmond-Gold Run and Johnstonville 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 private land in the area is the responsibility of the CDF on the SRA lands and the Susan River FPD on LRA lands. The CDF also issues burning permits and enforces 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. The following measures were included in Resolution No. 2552, adopted by the Board of Supervisors on September 3, 1974. This resolution is included as the *Safety and Seismic Safety Element* of the Lassen County General Plan 2000. Specific implementation measures include the following:

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

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

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

The Fire Safety Standards Ordinance No. 502 was adopted by the Lassen County Board of Supervisors on June 12, 1990, adding Chapter 9.16 to Title 9 of the Lassen County Code. A summary of the ordinance was published in

compliance with the provisions of the California Government Code Section 25124(b) and reads as follows:

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

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

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

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

Community Legal Structure

Richmond/Gold Run and Johnstonville are unincorporated. There is no formal legal or political structure beyond those provided by State and County governing bodies and the Susan River FPD.

Media

The Lassen County Times, a weekly newspaper published in Susanville is the predominant publication serving the area. 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.

Generally residents can receive television network signals from Sacramento and/or Reno via repeaters or cable. A selection of local radio stations, which provide local news and weather, are available for broadcast reception.

Schools

The Johnstonville Elementary School on Bangham Lane is a public, K-8 grade school with an enrollment of 283 students. Richmond Elementary School on Richmond Road is also a public, K-8 grade school in the area. Enrollment is currently 230 students. Both school buildings are equipped with a fire alarm system. A sprinkler system has been installed at the Richmond School, but not at Johnstonville School. Evacuation plans are in place and fire drills are conducted regularly during the school year.

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 roads outside the community but within the FPD are more variable, and include improved dirt/gravel roads and private access roads without adequate signage.

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

Water and sewage disposal is generally provided privately by individual wells and septic systems or by residential subdivision systems. Electric power and telephone service for both areas are provided by above ground service lines.

Obstacles to Emergency Response Vehicles

There are currently no major obstacles to emergency response vehicles within these community areas that bear on this report.

VEGETATION CONDITIONS WITHIN AND SURROUNDING COMMUNITY

Vegetation Fuel Types, Condition, & Fuel Models

The community area supports a wide range of vegetation types (see "Appendix B and D – Vegetation Type Maps"). Distinct riparian zones occur along the banks of the Susan River and one of its primary tributaries, Gold Run Creek. Where irrigated, the flat land supports agricultural crops. Non-irrigated flat areas support sagebrush and annual grass. As elevation increases, the vegetation type transitions to a mosaic of forest types with components of chaparral and junipers. Second growth pine dominates the lower slopes with mixed conifer occurring at the highest elevations.



Fuel Model #2: Sagebrush/Grass

Sagebrush/Grass: From a wildfire threat standpoint the most significant fuel type, depicted as yellow on the Vegetation Type Map, is indicated as pine/grass. This type is actually predominantly comprised of sagebrush and annual grass. This vegetation type accounts for approximately 25% of the fuel type within the Johnstonville community area and 40% in the Richmond-Gold Run area. This fuel type most closely approximates Fire Behavior Fuel Model 2 and has the following characteristics important for estimating fire behavior (*Reference #12*):

Total fuel load, < 3-inch, dead and live	4.0	tons per acre
Dead fuel load, 1/4 inch	2.0	tons per acre
Live fuel load, foliage,	0.5	tons per acre
Fuel bed depth	1.0	feet

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 a rate of 0.4 miles per hour with flame heights of 6 feet 12/. 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 occurring in this fuel type.



Fuel Model #10: Mixed Conifer

Mixed Conifer Light: Actual observed field conditions exhibit a high degree of variability within this type. The primary variable exhibited is the amount of down woody material (slash). Timber stands that have been "biomass harvested" have very little down woody material while conventional harvesting has resulted in a moderate slash load. Overall, the mixed conifer light fuel type most closely approximates Fire Behavior Fuel Model 10 and has the following characteristics important for estimating fire behavior (*Reference #12*):

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

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 0.1 mile per hour with flame heights of 4.8 feet. Dwellings and other structures located along the edge of this fuel type would benefit from a secondary defense such as a fuelbreak in addition to adequate defensible space.



Fuel Model #1: Grass

Grass: Annual grass, depicted in pale yellow, occupies approximately 10% 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 #12*):

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

Dry annual grass fuel types are very easy to ignite and once ignited can spread rapidly. Under the same wind speed and fuel moisture scenario as described for the sagebrush/annual grass fuel type, 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 reduces the threat to residents and property loss from fires occurring in this fuel type.

WILDFIRE THREAT EVALUATION

Area Fire History

Large (300+ acre) fires have and will most probably continue to occur within the community area (see "Appendix C and E - Fire History Map"). The Devil Fire, in 2001, burned within the northern portion of the community in addition to several thousand acres adjacent to and north of the community area. Larger fires occur with less frequency within that portion of the community area located east of US 395. As indicated on the Fire History

Map, the ignition of smaller fires occurs with a moderate to high frequency. Of particular concern are ignitions that occur southwest of Emerson Lake and the area located just west of the Susanville Municipal airport. A recent example being the Diane Drive fire (September 2003, size 209 acres) started by kids playing with matches.

Johnstonville 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*. While the Richmond/Gold Run area is not listed, the adjacent city of Susanville has been listed in the Federal Register.

Expected Fire Behavior

The climate in the Richmond-Gold Run and Johnstonville area is typical of high desert areas of northeastern California. Summers are hot, dry, and often windy. The average summer high temperature for July and August is 88° F. Annual rainfall averages range from a low of approximately 8 inches in the northeastern portion of the Johnstonville Planning Area to approximately 36 inches in the Diamond Mountains located in the southern portion of the Richmond-Gold Run Planning Area. (*Reference #15*)

Natural fuels within the Susan River alluvial plain are isolated by irrigated crop fields and pose only a limited fire threat. The most significant exposure to risk within the community area is to dwellings along Richmond Road, Gold Run Road, Wingfield Road, and tributaries of these roads that are located adjacent to hazardous fuel types. Additionally, the risk from wildfires is high for any building where proper clearances per Public Resource Code 4291 have not been accomplished and adequately maintained. Careless outdoor burning, children playing with matches, escaped campfires and other human outdoor endeavors are significant sources of ignition in this area. (*Reference #3*)

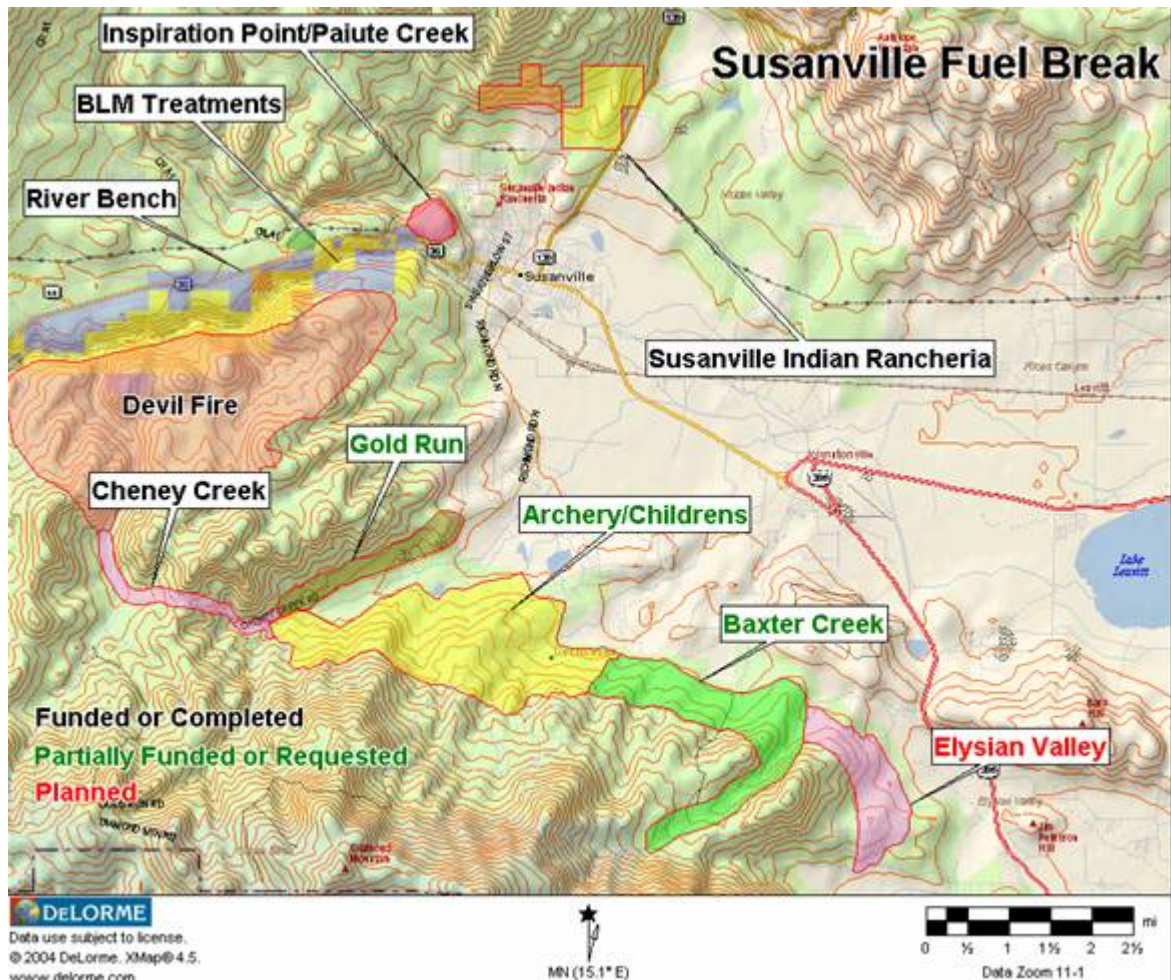
Current Resource Management Wildfire Mitigation Measures

Fuel conditions on Federal land are the responsibility of the agency controlling the land. The Forest Service and BLM administer the scattered Federal land blocks adjacent to the community area. Both agencies are cognizant that land they administer constitutes a threat to Lassen County communities. This is especially true in the Richmond-Gold Run area. Both agencies are attempting to mitigate this threat with on-the-ground projects.

Currently, the BLM is conducting the Hobo Camp Fuels Reduction Project along and in the vicinity of the Bizz Johnson Trail west of Susanville. This project, consisting of hand cut, chipping and pile burning, will reduce the threat to the community from fires that may be ignited along the trail and the Susan River, a high use recreational area. The BLM has indicated that there are plans to continue the project west along the trail. They also plan to complete a bio-mass thinning and fuels reduction project on the Susan Rim along the north side of the river that should help to slow the spread of fires that may come out of the canyon and cross the highway and threaten not

only the greater Susanville area but also the community of Lake Forest Estates to the west as well as homes that are immediately adjacent to the project area. The Forest Service (PNF) has several thousand acres of fuel treatment projects scheduled for the Diamond Mountain ridge area above the Richmond/Gold Run portion of the community. LCFSC has completed, on-going, and planned projects in the area that are designed to mitigate any unplanned prescribed fire escape from Federal activities or protect the community from any other wildfire occurrence. Some owners of small private parcels in the Richmond-Gold Run area have done clearing, chipping, and pruning work to create defensible space. This type of vegetation management work in the wildland urban interface area is critical in helping fire-fighting agencies save residences. Land managers of the private commercial timberlands in the area may have more difficulty implementing fuel reduction projects due to logistical, topographic, and ultimately economic constraints in employing biomass operations on steep timberlands surrounding portions of the community.

COMPLETED/ON-GOING/PLANNED PROJECTS, JANUARY 2006



RECOMMENDATIONS

Community Recommendations

Community Fuelbreak

It is recommended that the Susanville fuelbreak/shaded fuelbreak system be completed along the interface between developed properties and the natural vegetation. The location for the treatments has been clearly established, from the Susan River to the north, south along Cheney Creek and then along Gold Run Creek, extending east above Gold Run Road and south easterly above Wingfield Road, eventually tying into the northern portion of the Janesville fuelbreak (see map above). The north end of this proposed fuelbreak should coincide with other fuelbreak and hazard reduction work currently underway on BLM managed lands located west of Susanville. Additional investigation is required to identify properties where treatments have been completed and those that are in need of treatment. A strategy of "connecting the dots" should be followed. In addition, agreements must be obtained from landowners involved and mandated permitting requirements must be met prior to actual construction.

Infrastructure Improvements

The following specific measures, appropriate to individuals and residences within the Richmond-Gold Run and Johnstonville communities, are recommended to reduce the threat of wildfire:

1. Identify the specific location for the Richmond-Gold Run fuelbreak and prepare the necessary planning documents and landowner agreements.
2. Specific to the community of Johnstonville a community water system for fire emergencies should be developed consisting of strategically located storage tanks and/or pressurized fire hydrant system where appropriate. Available water sources should be inventoried and the specific location of the water system infrastructure identified. Once this is accomplished, a cost estimate can be prepared for inclusion in the appropriate grant proposal.
3. 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.
4. Identify specific private parcels with fuel conditions that threaten adjacent properties and make personal contact with these property owners.
5. Improve compliance with PRC 4291 provisions for removal of flammable vegetation, overhanging tree limbs, etc. from around buildings. Follow up law enforcement action should be taken as necessary to achieve compliance.

6. Encourage landowner/homeowner to comply with additional defensible space recommendations in Appendix D.

Defensible Space

In order to protect structures from wildland fire it is recommended that a defensible space be constructed around all structures, particularly residences, within the communities of Richmond-Gold Run and Johnstonville.

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

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

Monitoring, Evaluation, and Maintenance

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

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

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

Forest Health Recommendations

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

Proposed Projects

Proposed Project	Responsible Party
Complete the Susanville fuelbreak in Richmond-Gold Run area.	Susan River FPD/LNF/Lassen County Fire Safe Council (LCFSC)/CDF
Community water system feasibility study.	Susan River FPD/Lassen County/LCFSC
Mail out fire safe information to all landowners within the Susan River FPD.	Susan River FPD/LCFSC
Encourage landowner/homeowner to comply with additional defensible space recommended in Appendix D	Susan River FPD/CDF
Inventory for specific problem properties on private land.	LCFSC/Susan River FPD
Recruit cooperators for assistance in fuel reduction/removal.	LCFSC/Susan River FPD

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

The Richmond-Gold Run and Johnstonville communities are at risk from wildfires. This Community Fire Safe Plan is prepared to assist these communities in achieving a greater level of protection from wildfires. When fires erupt, many people rely on the fire department for their protection. This approach to safety is perilous in the urban/wildland interface. The individual property owner cannot rely solely on fire-fighting agencies to protect his or her property. The primary and initial burden for protection rests with the property owner. Residents, business owners, and local officials must take the necessary measures to prepare themselves and their communities in the event of fire and make it easier for firefighters to successfully do their jobs. Effective community education and outreach can mitigate the risk of wildfires to the Richmond/Gold Run and Johnstonville area if initiated and maintained by citizens within the community. (*Reference #13*)

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 #13*)

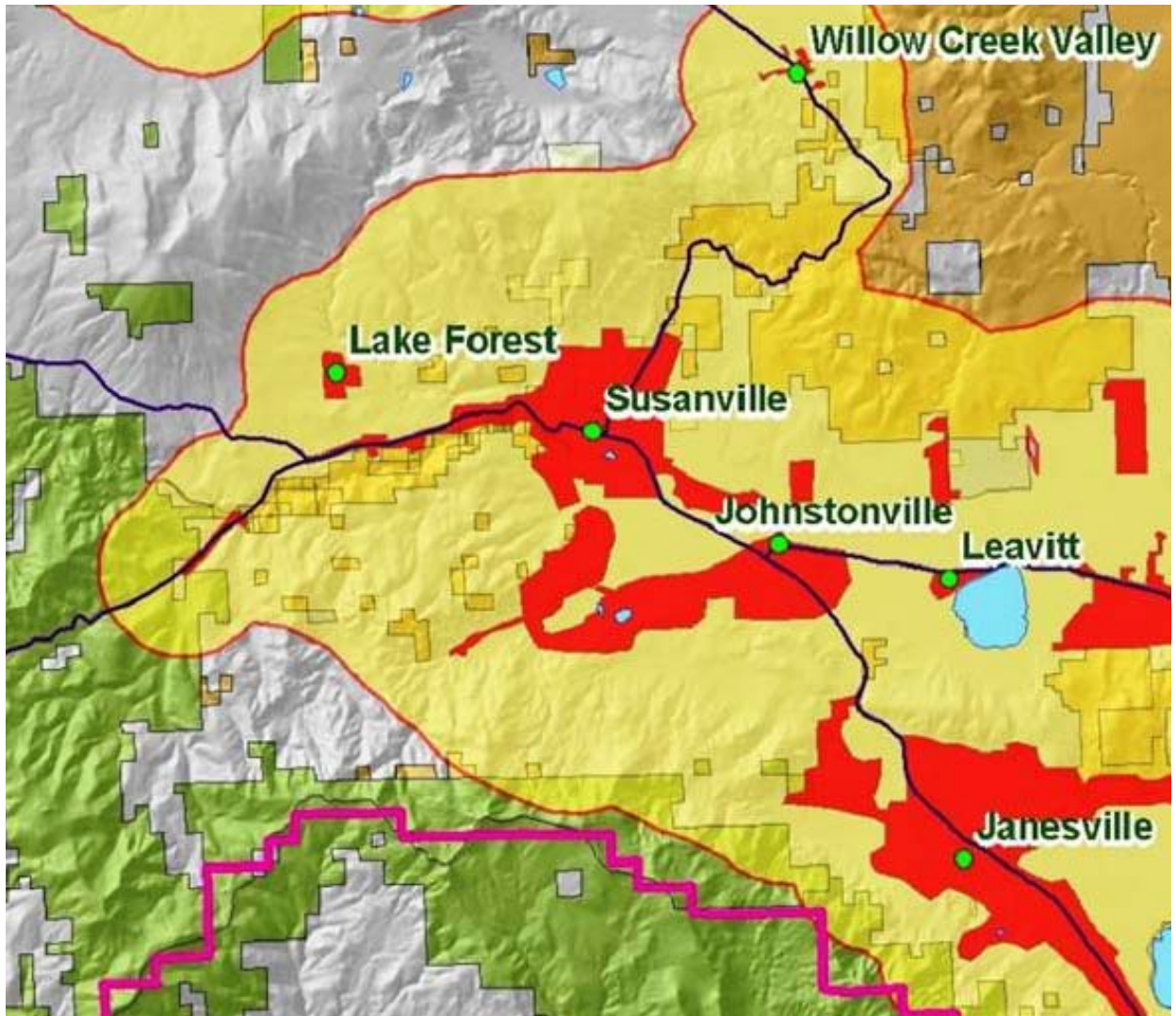
This Plan is specifically prepared assuming that the Communities of Richmond-Gold Run and Johnstonville, Susan River Fire Protection District, and Lassen County Fire Safe Council will provide the leadership role for acting on recommendations included in the plan. The Council has already been instrumental in gaining cost-share assistance to execute fuel reduction projects in Lassen County.

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APPENDICES

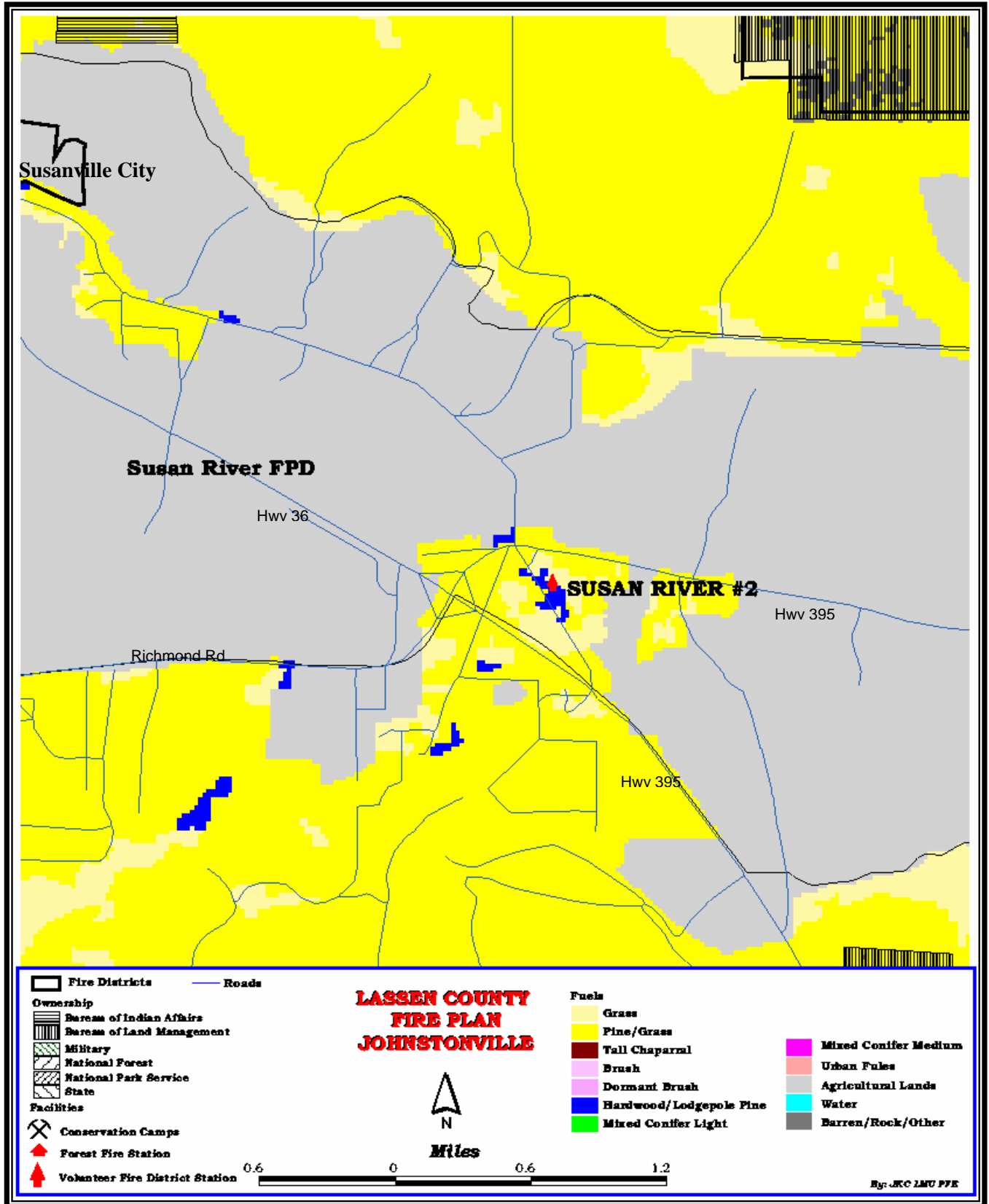
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Appendix A – Wildland Urban Interface Vicinity Map

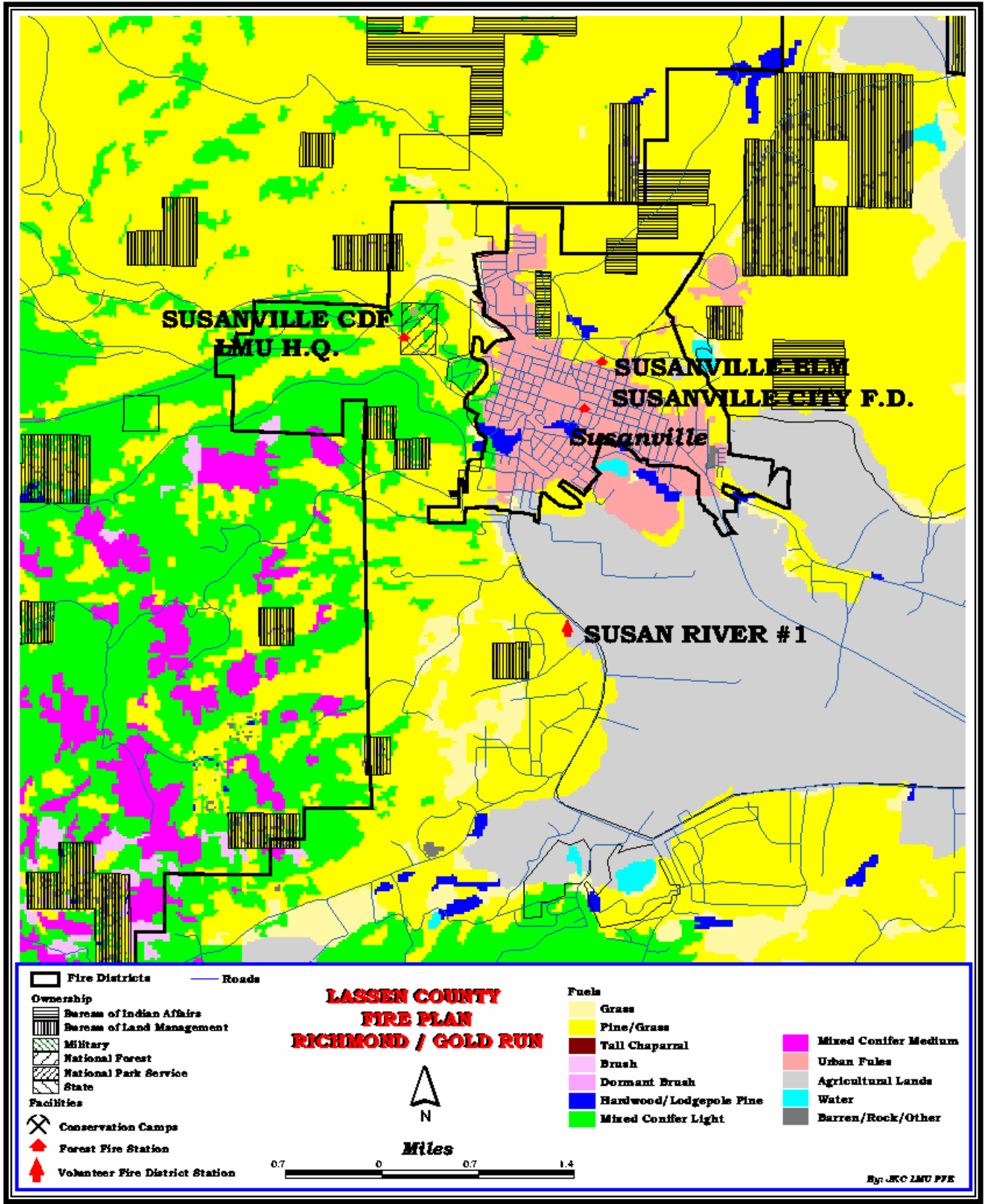


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Appendix B - Vegetation Type Maps

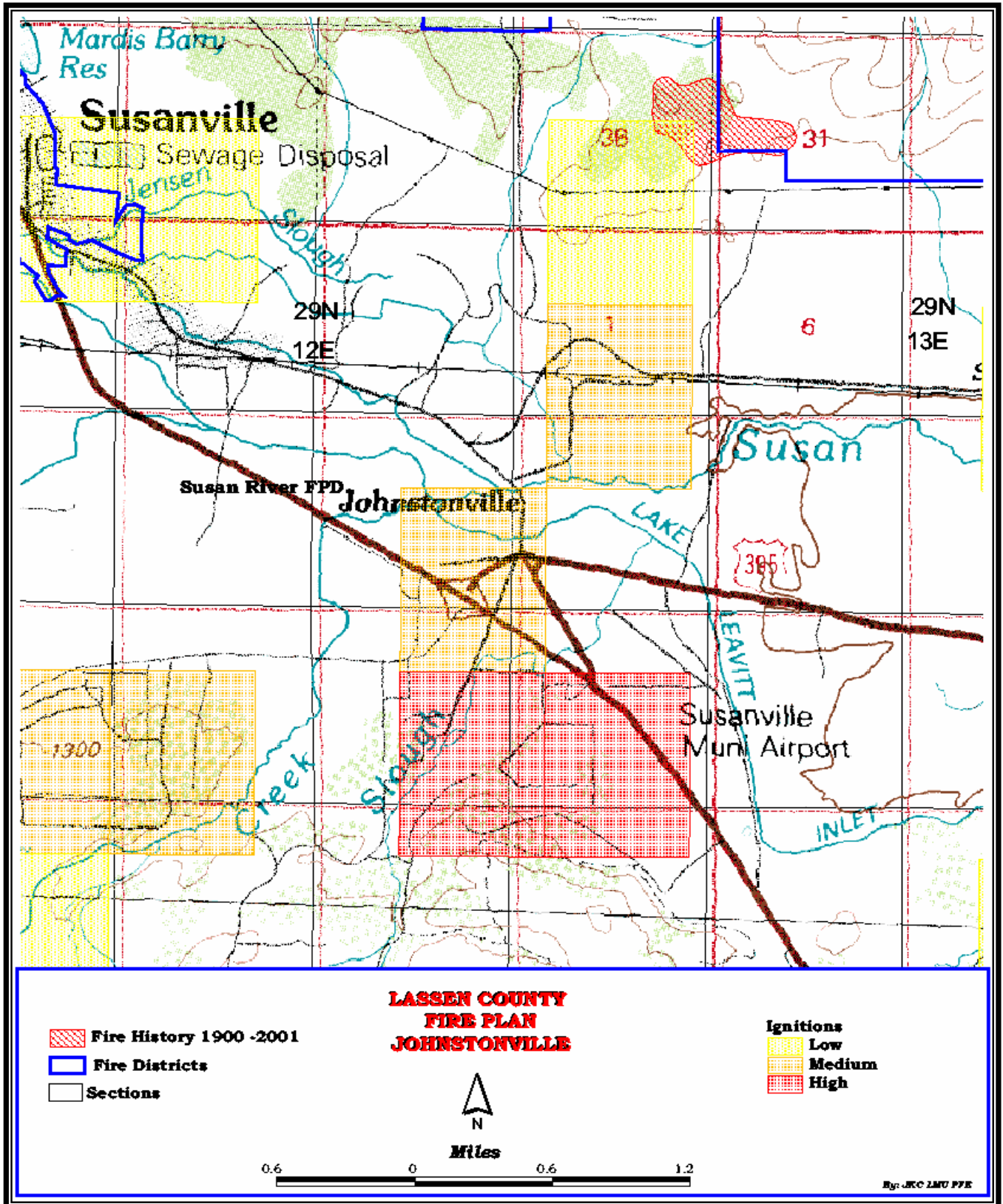


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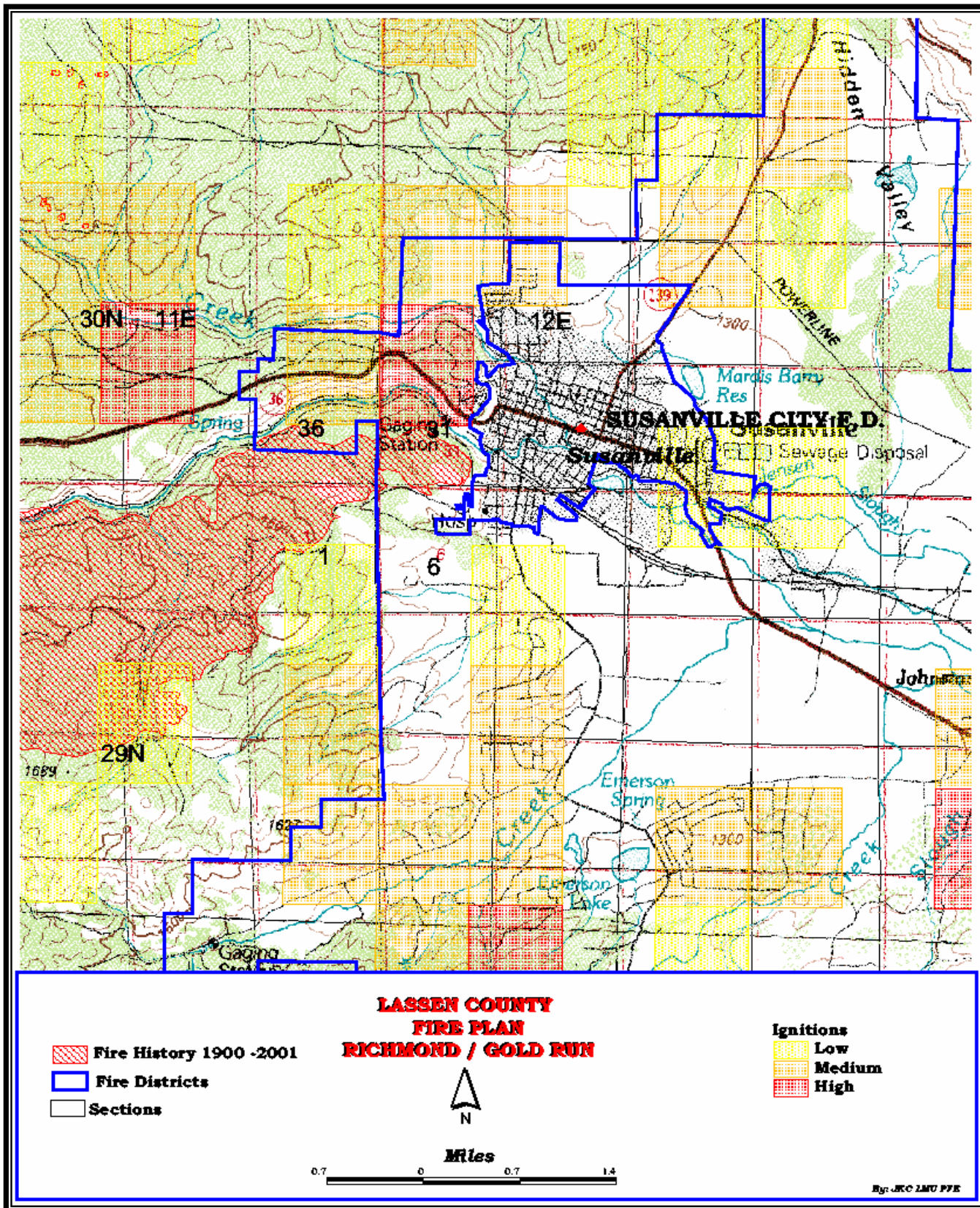


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Appendix C - Fire History Maps



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Appendix D – Defensible Space

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

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

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

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

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

Residence Protection Measures

The Home Zone 0'-10'

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

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

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

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

The Yard Zone 10'-30'

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

Actions:

- 1) Thin trees so that spacing between crowns equals crown width.
- 2) Prune branches of trees to at least 10' above ground (trim not more than 1/3 of height for small trees).
- 3) Eliminate fuel ladders.
- 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 fuel ladders.
- 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 fuel ladders.
- 5) Thin bitterbrush and other species so that spacing equals plant height. Small patches and strips can be left.

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. A person that owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining any mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or any land that is covered with flammable material, shall at all times do all of the following:

(a) Maintain around and adjacent to the building or structure a firebreak made by removing and clearing away, for a distance of not less than 30 feet on each side of the building or structure 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 or other vegetation that is well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to any building or structure.

(b) Maintain around and adjacent to the building or structure additional fire protection or firebreak made by removing all brush, flammable vegetation, or combustible growth that is located within 100 feet from the building or structure or to the property line or at a greater distance if required by state law, or local ordinance, rule, or regulation. This section does not prevent an insurance company that insures a building or structure from requiring the owner of the building or structure to maintain a firebreak of more than 100 feet around the building or structure. Grass and other vegetation located more than 30 feet from the 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. This subdivision does not apply to single specimens of trees or other vegetation that is well-pruned and

maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a dwelling or structure.

(c) Remove that portion of any tree that extends within 10 feet of the outlet of a chimney or stovepipe.

(d) Maintain any tree adjacent to or overhanging a building free of dead or dying wood.

(e) Maintain the roof of a structure free of leaves, needles, or other dead vegetative growth.

(f) Prior to constructing a new building or structure or rebuilding a building or structure damaged by a fire in such an area, the construction or rebuilding of which requires a building permit, the owner shall obtain a certification from the local building official that the dwelling or structure, as proposed to be built, complies with all applicable state and local building standards, including those described in subdivision (b) of Section 51189 of the Government **Code**, and shall provide a copy of the certification, upon request, to the insurer providing course of construction insurance coverage for the building or structure. Upon completion of the construction or rebuilding, the owner shall obtain from the local building official, a copy of the final inspection report that demonstrates that the dwelling or structure was constructed in compliance with all applicable state and local building standards, including those described in subdivision (b) of Section 51189 of the Government **Code**, and shall provide a copy of the report, upon request, to the property insurance carrier that insures the dwelling or structure.

(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 or she may vary the requirements respecting the removing or clearing away of flammable vegetation or other combustible growth with respect to the area surrounding those structures.

No exemption or variance shall apply unless and until the occupant thereof, or if there is not an occupant, the owner thereof, files with the department, in a form as the director shall prescribe, a written consent to the inspection of the interior and contents of the structure to ascertain whether this section and the regulations adopted under this section are complied with at all times.

(h) The director may authorize the removal of vegetation that is not consistent with the standards of this section. The director may prescribe a procedure for the removal of that vegetation and make the expense a lien upon the building, structure, or grounds, in the same manner that is applicable to a legislative body under Section 51186 of the Government **Code**.

(i) As used in this section, "person" means a private individual, organization, partnership, limited liability company, or corporation.

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 100 feet, are recommended by CDF in the following fuel types:

Fuel Model #	Fuel Model Type	Recommended Fuel Reduction Distances
1	Grass	100 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

100' Defensible Space Update

January 11, 2006



In January 2005 a new state law became effective that extended the defensible space clearance around buildings and structures from 30 feet to 100 feet. Proper clearance out to 100 feet dramatically increases the chance of your house surviving a wildfire. This defensible space also provides for firefighter safety when protecting homes during a firestorm. The following is the latest information to come out of last year's new law:

- State law now requires 100 feet of defensible space clearance in most rural areas of California. Some local jurisdictions have ordinances that require more than 100 feet while many municipalities may have no requirements
- The Board of Forestry and Fire Protection (Board) on Thursday January 5, 2006 received additional public comment on proposed defensible space regulations and guidelines designed to advise homeowners on how to comply with the new 100 foot requirement.
- The Board directed staff to issue revised regulations and guidelines based on oral testimony and written comments. Once issued, these revised documents will be available for public review and comment.
- The earliest the Board is expected to finalize the regulations is at the February meeting, but it could be continued until the March meeting.
- After the Board adopts final language, it must be approved by the Office of Administrative Law before it becomes official. This process usually takes 30 days.
- Now that the Board language is nearly finalized, CDF is embarking on a training program for its inspectors. Delivery of this training is expected by April, 2006.
- CDF is also preparing public information documents, brochures, and web content to explain to homeowners how to comply with the new regulations. The basis of this information will be the "Guidance" document prepared by the Board. This Guidance document takes into account the extreme variability of California's vegetation and ecological zones.
- Since the State law now requires 100 feet of defensible space, and even though these guidance documents are not yet official, CDF is performing inspections out to 100 feet from homes. Until such time that these regulations become effective, staff has been advised to use common sense and professional judgment when advising homeowners on whether they are in compliance with the 100 foot clearance requirement.
- CDF recognizes that for some homeowners, coming into compliance out to 100 feet can be difficult, may require hard work, and in some cases can be a financial burden. Therefore, the guidelines offer alternatives to achieve defensible space and reduce wildfire intensity.
- If compliance is met out to 30 feet, but not 100 feet, the homeowner will receive a written notice of violation, (similar to a traffic "fix it ticket") with recommendations to reduce the fire hazard. The Board and the Department wish to emphasize an educational and cooperative approach with the public to reduce fire hazards.

Make Your Home FIRE SAFE



100' DEFENSIBLE SPACE

Contact your local CDF office, fire department, or Fire Safe Council for tips and assistance.

www.fire.ca.gov



A Quick Checklist

Following these simple steps can dramatically increase the chance of your home surviving a wildfire!

- Create a **DEFENSIBLE SPACE** of 100' around your home. The area closest to your home is the most important.
- Try to get 10 to 15 feet of spacing, both vertically and horizontally between shrubs, large plants, and trees. If you have 4 foot high brush underneath larger trees with limbs, limb up the tree at least 14 feet. Breaks like this in the vegetation help to slow down an advancing fire and gives firefighters a fighting chance.
- Plan your landscape to eliminate a continuous path of vegetation. Do not have any combustible fuel within three feet of your home.
- For landscaping purposes, use of irrigated fire resistant plants is encouraged. Green lawn, rock, stone, and other materials can be used to create an attractive and fire safe landscape.
- Clear all vegetation and other flammable materials from beneath your deck. Enclose undersides of elevated decks with fire resistant building materials, or with screen mesh with openings no greater than 1/4 inch.
- Keep trees trimmed at least 10' from your chimney and trim all dead limbs hanging over your house or garage.
- Clean all needles and leaves from the roof, eaves, and rain gutters.
- Maintain your landscaping with regular watering and weeding to keep it fire safe.

More than 1,700 structures are destroyed by wildfire each year just within CDF's jurisdiction. Don't become a statistic...

Be Fire Safe, California!

May 2005

California Department of Forestry and Fire Protection

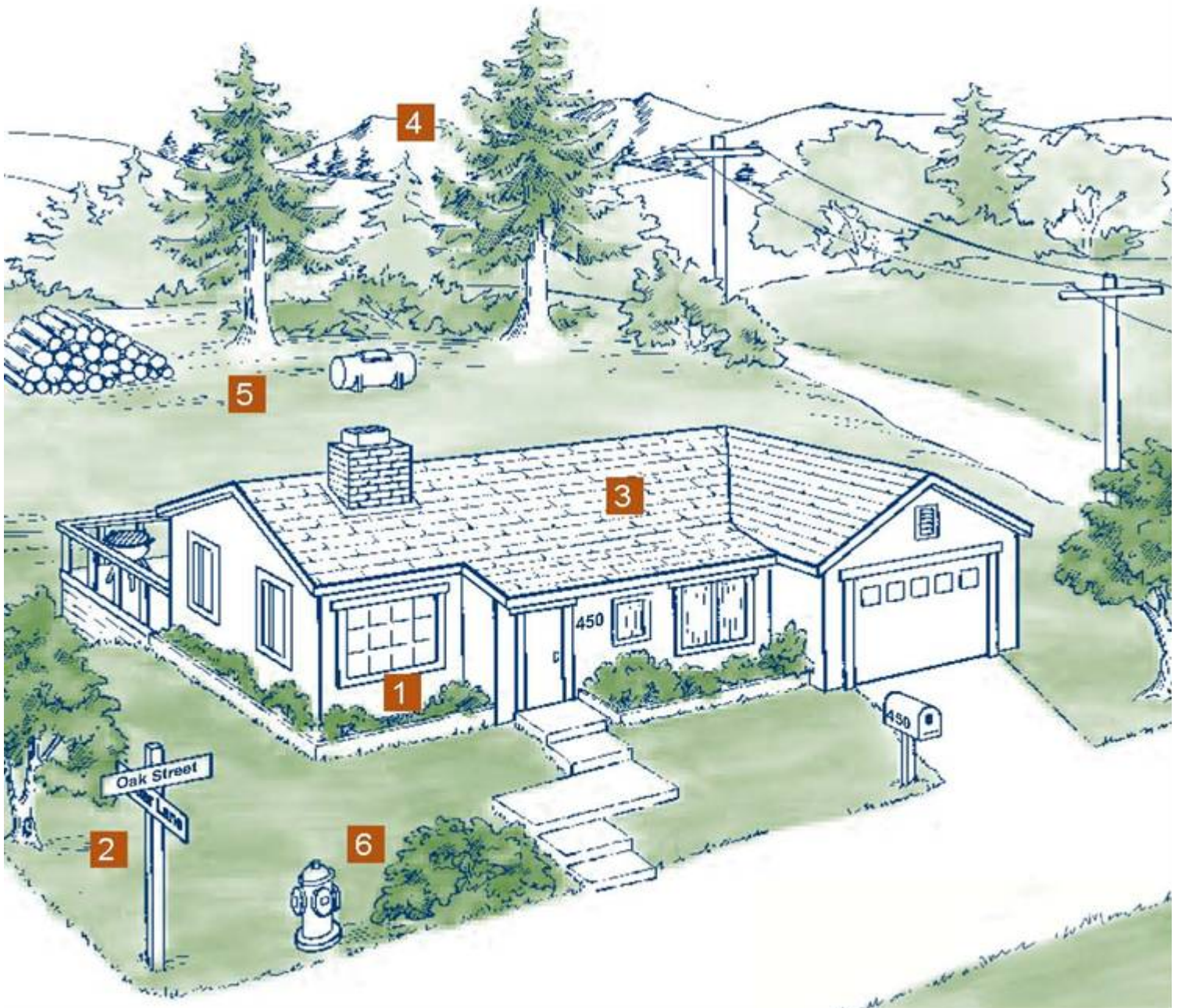
Homeowners Checklist



100 YEARS OF CDF
Preserving Our Legacy • Protecting Our Future

www.fire.ca.gov

How To Make Your Home Fire Safe



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 non-flammable screen of 1/2 inch or smaller mesh

4 Landscape

- Create a "defensible space" by removing all flammable vegetation at least 100 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 fire fighter 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

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

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

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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