

BIEBER-NUBIEBER

Community Fire Safe Plan

Lassen County



January 2004

COUNTY OF LASSEN
BOARD OF SUPERVISORS

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in cooperation with

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COMMUNITY DESCRIPTION

Population

Located in Big Valley, the year-round resident population within the communities of Bieber and Nubieber together is approximately 510 people. However, several ranches and homes located outside of the towns are also within the Big Valley Fire Protection District and include an estimated additional 50 to 75 people. These communities are not subject to significant seasonal fluctuations in the resident population.

Values at Risk

Physical features within these communities that are potentially at risk from encroaching wildfires consist of existing residences, churches, small businesses, stores, restaurants, a motel, schools, a railroad yard, infrastructure (including bridges, powerlines, and water systems), and most importantly the residents themselves. Other more intrinsic, though possibly less tangible values at risk include visual impacts, aesthetics, security, wildlife habitat, and air quality. A loss of any number of these physical features or intrinsic values may also impact employment, cost-of living, insurability and rates, health, and community stability.

A historic stone jail (no longer in use), a museum, and a segment of the Lassen Emigrant Trail (located at the NE corner of Veterans Lane and Bridge Street) all located in Bieber, and abandoned mill sites in both communities are the only known cultural or historic resource features that have been identified to be at risk from wildland fire within these communities.

Natural Resources at Risk

Both communities are geographically situated within Big Valley and surrounded by a variety of diverse natural resources including forestland, croplands, the Pit River, and natural vegetative cover. All are at risk from potentially devastating and catastrophic losses from wildland fire. A loss of or damage to these key natural resources would result in a negative impact as they play an important role in the stability of these communities.

The Bieber community is bordered by the Pit River to the west with irrigated hay fields, crops, and livestock grazing comprising the balance of the surrounding area. The land is mostly privately owned in the valley with no National Forest lands within the Big Valley Fire Protection District (BVFPD). Scattered Bureau of Land Management (BLM) parcels are located within the BVFPD. These lands are used for livestock grazing and wildlife habitat. Forested lands owned by Roseburg Resources Company on Big Valley Mountain encroach to the valley floor on the westerly border of the BVFPD. The Roseburg lands are managed primarily for timber production.

In addition to these uses, the natural resources in and around these communities and the habitat they provide create recreational opportunities such as hunting, fishing, and hiking. The forest and vegetative cover also nurtures the soil and reduces erosion and resulting sedimentation into nearby creeks and the Pit River. Protecting the natural resources surrounding these communities is essential in maintaining and enhancing the communities' economic stability.

Transportation

Primary access to Big Valley is by means of State Route 299, which travels directly through both communities. State Route 299 is a major transportation route east, providing access to Oregon and Nevada, and west to Interstate 5. There is also rail service for freight located in Nubieber, and the Lassen County Bieber Airport (Southard Field) is located just east of Bieber along State Route 299.

Level of Service Provided to Community

The BVFPD is a combination of Local Responsibility Area (LRA) and State Responsibility Area (State Responsibility Area) lands. The BVFPD has primary responsibility for providing fire protection to LRA lands and CDF has primary responsibility for providing fire protection to State Responsibility Area lands. Both entities provide assistance to each other through a mutual aid agreement. The BVFPD also provides assistance through agreements with the Lookout and Adin Fire Departments which serve the communities of the same name in Modoc County.

The CDF Station at Bieber has two Type III engines, one helicopter, and one bulldozer. The level of service provided is 24 hours a day 7 days a week during fire season which is generally the months of June to October. During the remainder of the year the station is staffed as personnel are available. The Intermountain Conservation Camp, located north of State Route 299 at the base of Big Valley Mountain, has four 17-person fire crews available for quick response if needed.

In addition, fire hydrants are well distributed throughout the community of Bieber with a municipal water system sufficient for emergency fire needs.

Ambulance service is provided to the community by Modoc Ambulance, responding from Adin with volunteer staff from the Adin FPD.

The BVFPD provides structure and wildland fire protection as well as medical assistance within the District. They have fire stations located at Bieber and Nubieber with the following equipment:

<u>Equipment</u>	<u>Type</u>	<u>Gallons</u>	<u>GPM</u>	<u>Drive</u>
Engine	2	500	750	2x4
Engine	2	750	1000	2x4
Engine	2	500	1000	2x4
Water Tender	1	3500	250	6x4
Water Tender	1	4000	250	6x4
Extrication JAWS				

The Department has ten active volunteer firefighters. The Department responds to 10 to 12 wildland fires and 2 to 3 structure fires in an average year. Medical assist responses comprise approximately 90% of the activity with about 50 to 60 medical assist responses per year (*Reference #3*)

Restricting Covenants and/or Ordinances

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

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

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

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

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

There is no formal legal or political structure beyond what is provided by State and County governing bodies, the Big Valley FPD, and Lassen County Municipal Water District #1.

Media

Several newspaper publications are regularly circulated in the communities of Bieber and Nubieber. The Modoc County Record is a weekly (Thursday) “newspaper of general circulation”, published in Alturas. They may be contacted at (530) 233-2632, e-mail to record1@modocrecord.com. The Intermountain News is a weekly (Wednesday) newspaper, published in Burney. They may be contacted at (530) 335-4533, e-mail to editor@im-news.com. The Mountain Echo is a weekly newspaper published in Fall River Mills. They may be contacted at (530) 336-6262, e-mail to mtecho@shasta.com. The Lassen County Times is also a weekly (Tuesday) newspaper published in Susanville, though not as widely read in the Big Valley 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.

Due to the surrounding mountains, radio and television reception is limited in Big Valley. However, KCNO (AM 570, FM 94.5), a radio station based in Alturas, and KLAD (AM 960, FM 92.5), a radio station broadcast from Klamath Falls, are generally well received and widely listened to in the area. With standard television antennas and some repeaters located on surrounding mountains, channel 7 (KRCR) in Redding and channel 12 (KHSL) in Chico are generally received in Big Valley, though most houses utilize satellite dishes.

Schools

Big Valley High School and Big Valley Intermediate School, grades 4-8, are located in Bieber adjacent to the CDF Station. School grades K-3 are provided in the community of Adin, ten miles east of Bieber on State Route 299. These schools are part of the Modoc-Lassen Joint Unified School District, administered by Lassen County. Both school buildings are equipped with fire alarm systems; however sprinkler systems have not been installed. Evacuation plans are in place and fire drills are conducted regularly during the school year (*Reference #11*)

Physical Description

Access/Roads

Both communities are easily accessed by means of State Route 299, which passes directly through them. Surface streets are mostly paved, wide, and easily navigated with street signs and posted names. There are single ingress and egress streets located in Bieber such as Fir Street, a small subdivision built on a cul-de-sac.

The roads outside the Bieber and Nubieber areas but within the Big Valley FPD are more variable, and may include less maintained dirt roads and private access roads without proper road signs (see Appendix A – Vicinity Map).

Structures

Most of the buildings in the community are of ordinary wood frame construction. 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

Though unincorporated, Bieber is within the Lassen County Municipal Water District #1. Fire hydrants are well distributed throughout the community. This community municipal water system is sufficient for emergency fire needs. Electrical and telephone service is primarily above ground with some below ground service in the newer developments.

Obstacles to Emergency Response Vehicles

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

VEGETATION CONDITIONS WITHIN AND SURROUNDING THE COMMUNITY

Vegetation Fuel Types, Condition, & Fuel Models

The community area is a mosaic of natural fuels and irrigated agriculture land. The map in Appendix "B" depicts the major vegetation fuel types within and surrounding the Bieber-Nubieber Communities. There are four primary vegetative types, (1) **Irrigated agriculture**, (2) **Riparian/Wetland Habitat**, (3) **Sagebrush/Grass**, and (4) **Pine and Mixed Conifer Forest**.

Irrigated Agriculture Lands: The irrigated land in and around the communities of Bieber and Nubieber and along the Pit River are depicted in gray on the map (see "Appendix B - Vegetation Type Map"). These are irrigated hay fields and pastureland. These areas occupy most of the valley floor. Little hazard or risk of catastrophic wildfire exists in this vegetation type. There are areas of dry annual grass and weeds located typically along fence lines that may burn; however, they are generally isolated small areas and corridors where fires should be easily controlled.

Riparian/Wetlands Habitat: These areas are scattered in the valley and are depicted in dark blue on the map (see "Appendix B - Vegetation Type Map"). These areas are the remnant swamps, sloughs, and creeks which support riparian vegetation including, sedges, cattails, willow, alder, cottonwood, and water grasses. These areas are very important in providing wildlife habitat. Little fire hazard exists within these areas during the summer fire season.

Sagebrush/Grass: From a wildfire threat standpoint the most significant fuel type, depicted in yellow on the map (see "Appendix B - Vegetation Type Map"), is indicated as pine/grass. The vegetation type in this area is actually composed primarily of sagebrush, annual grass, and junipers. This fuel type is typically found on the upland slopes in and around Big Valley. The fuel is a mixture of sagebrush and annual grass with scattered pine and juniper trees. This fuel type most closely approximates Fire Behavior Fuel Model 2 and has the following characteristics important for estimating fire behavior (*Reference #8*):

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

This fuel type ignites easily and once ignited, can spread rapidly under normal summer burning conditions. Under a 5-mile per hour wind and a fuel moisture content of 8%, fires in this fuel type can spread at the rate of 0.4 miles per hour with flame heights of 6 feet.

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



Fuel Model #2

Pine and Mixed Conifer Forest: This vegetation type is located on the west boundary of the Big Valley FPD, approximately one mile west of Nubieber. Though generally at the higher elevations, this vegetation type encroaches onto the valley floor at the base of Big Valley Mountain. This fuel type is depicted in green on the map (see "Appendix B - Vegetation Type Map"). This vegetation type is mainly young growth ponderosa pine, with a minor amount of other conifer species including, incense cedar, white fir, and Douglas-fir, with annual grass and brush understory. This fuel type most closely approximates Fire Behavior Fuel Model 10 and has the following characteristics important for estimating fire behavior (*Reference #8*):

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 dead fuel moisture content of 8%, fires in this fuel type can spread at a rate of 0.1 mile per hour with flame heights of 4.8 feet. High winds and extremely low humidity will increase the rate of

spread. The typical conditions for Fuel Model 10, as described in the above table, do not reflect past management activities that have taken place in this vegetation type. Most of the area has been logged which has increased the down (dead) fuel load on the ground as well as ladder fuels due to brush and reproduction. Conversely, several hundred acres have burned, been clear-cut, or thinned for biomass in the past 15 years in this fuel type, which may assist in fire management activities by providing breaks in the continuity of tree crown heights, ladder fuels, and fuel loads.



Fuel Model #10

This fuel type is well removed from the communities and therefore does not present an immediate wildfire threat to Bieber or Nubieber, however there are several home and ranches within and adjacent to this fuel type on the west side of the valley.

WILDFIRE THREAT EVALUATION

Area Fire History

The Fire History Map (see "Appendix C") indicates that the fire hazard and fire history is low within the Big Valley FPD. No large historical fires have burned in the valley. A contributing factor may be that Big Valley was historically a large swamp, sub irrigated by the Pit River and several other creeks and sloughs. The forested areas surrounding Big Valley to the south, west, and north have had a history of large fires, several over 300 acres. While these fires have burned forested areas, they did not threaten the communities of Bieber and Nubieber.

The Bieber and Nubieber 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 communities of Bieber and Nubieber are both situated in Big Valley, a large flat valley with elevations ranging from 4,100 to 4,150 feet. The elevation at the town of Bieber is 4,120 feet. To the west are the Big Valley Mountains with elevations of up to 6,000 feet. Big Valley Mountain is forested with pine and mixed conifer trees.

The climate is Great Basin high desert type with warm, dry summers and cold, dry winters. Thunderstorms are common over the adjacent mountains during the summer with dry lightning a common occurrence. The prevailing afternoon wind is S-SW at 5-15 mph. Normal afternoon high temperatures in the summer fire season average 80-85 degrees F. Annual precipitation is approximately 15 inches with most rain and snowfall occurring in the late fall and winter. Little precipitation can be expected during the summer months, June through October, and winters are typically cold and dry.

The normal fire season extends from June through mid-October, with July, August, and September being the peak fire season period. There is no history of large wildfires in the valley area. The frequency rate for fire in the valley is also low. Most fires in this area are started by equipment or lightning. Much of the vegetation in and around Bieber and Nubieber is irrigated in the summer providing a measure of protection to the community. Due to the presence of flammable grass, sagebrush, and trees on the slopes outside of town, a wind-driven wildfire could threaten some of the ranch buildings and outlying homes.

Existing fire hazards within the communities primarily consist of the natural vegetation, especially the annual grasses, as they continue to dry through the summer months. Sources of fire risk from within the communities include normal residential activities, particularly the common seasonal use of wood stoves for heating as well as the use of equipment and burn barrels.

Current Resource Management

Lands surrounding and adjacent to these communities are comprised primarily of private agricultural lands and utilized for hay crops or cattle grazing. As such, these lands covered in natural grasses and crops are managed by either grazing or harvesting and seasonal tilling. These practices significantly reduce the possibility of wildland fire.

Other lands within the vicinity of these communities are owned by the Federal government and under the management of either the BLM or the California Department of Fish and Game, which manages the Ash Creek Wildlife Area. Most of the BLM lands are outside the Big Valley Fire Protection District. Many of the BLM parcels located in Big Valley are landlocked and slated for disposal. Their current predominant use is for

cattle grazing and/or wildlife habitat. The BLM has had an aggressive timber stand improvement program on Big Valley Mountain in recent years, including underburns, mastication, and thinning projects. Two burn projects are planned in this area for the Spring of 2003 (*Reference 12*).

Caltrans is conducting an ongoing vegetation management project along 299 between Bieber and 89 to the west. The project consists of creating shaded fuelbreaks and increasing visibility along the right-of way, generally 50 to 100 feet from the centerline. In addition, along some stretches of the vegetation is being completely removed in preparation for a road widening project. Crews from the Intermountain Conservation Camp near Bieber are participating in this as well as the BLM projects underway on Big Valley Mountain. The conservation camps and fire centers provide community services to many small communities and sparsely populated areas in rural California (*Reference 13*)

The Ash Creek Wildlife Area, whose west boundary is approximately one mile northeast of Bieber, is managed for natural and cultivated habitat for wildlife species and for recreation. It contains a mosaic of wetlands, sloughs, watercourses, and canals which, with the exception of extended drought periods, maintain green vegetation reducing the risk of wildland fire. As the Fire History Map (see "Appendix C") indicates, there is no history of wildland fire in the wildlife area.

RECOMMENDATIONS

The most significant threat to dwellings and other buildings is from fires originating on or spreading from adjacent undeveloped property containing natural fuels. This threat can be mitigated by meeting the basic clearing requirements plus additional defensible space. This is not as critical as some other Lassen County communities, due to the irrigated fields and wetlands around town. Annual clearing of defensible space around the residence is an important responsibility of each homeowner. It is recommended that CDF and the Big Valley FPD provide annual inspections of homes for defensible space clearing.

Community Recommendations

No community fuelbreaks or fuels treatment projects are recommended within the communities of Bieber or Nubieber and no fuels management projects are recommended around the communities or within the Big Valley Fire Protection District at this time. However, the following specific measures, appropriate to individuals and residences within these communities, are recommended to reduce the threat of wildfire:

1. Mail out appropriate informational packets developed for homeowners such as *Homeowners "Watch Outs!"* developed by the Fire Safe Council to all parcel owners within the Big Valley Fire

Protection District. Use the Lassen County Assessor's roll to identify owners.

2. Increase compliance with PRC 4291 provisions for removal of flammable vegetation, overhanging tree limbs, etc. from around buildings and propane tanks. Follow-up law enforcement action should be taken as necessary to achieve compliance.
3. Encourage landowner/homeowner to comply with additional defensible space recommendations in Appendix D.
4. Identify specific private parcels, especially vacant lots, with fuel conditions that threaten adjacent properties and make personal contact with these property owners.

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 Bieber and Nubieber. Implementing the basic clearing requirements specified in PRC 4291 and creating additional defensible space can reduce the threat to dwellings and other buildings within the community.

Defensible space refers to *"that area which lies between a residence and an oncoming wildfire where the vegetation has been modified to reduce the risk of wildfire threat and which provides an opportunity for firefighters (and the homeowner) to safely defend the residence"*. 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 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 the creation of defensible space.

Monitoring, Evaluation, and Maintenance

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

Other more long-term projects such as 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.

Project Proposals

Proposed Project	Responsible Party
Inventory for additional FPD equipment & facility needs and seek appropriate funding sources.	FPD
Improve compliance with PRC 4291	FPD/CDF
Encourage landowner/homeowner to comply with additional defensible space recommended in Appendix D	FPD/CDF
Inventory for specific problem properties	FPD
Mail out fire safe information to all landowners within the community and FPD.	FPD/LCFSC

COMMUNITY EDUCATION, OUTREACH, AND INVOLVEMENT RECOMMENDATIONS

Wildfires constitute a minor threat to the communities of Bieber and Nubieber. However, some of the outlying homes and ranches, both within and outside the Big Valley Fire Protection District, that are located in the sage/annual grass and/or the pine/mixed conifer fuel types are at risk from wildland fire. This Bieber-Nubieber Fire Safe Plan has been prepared to assist the community in achieving a greater level of protection from wildfires. When fires occur, 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 to the community if initiated and maintained by citizens within the community (*Reference #9*).

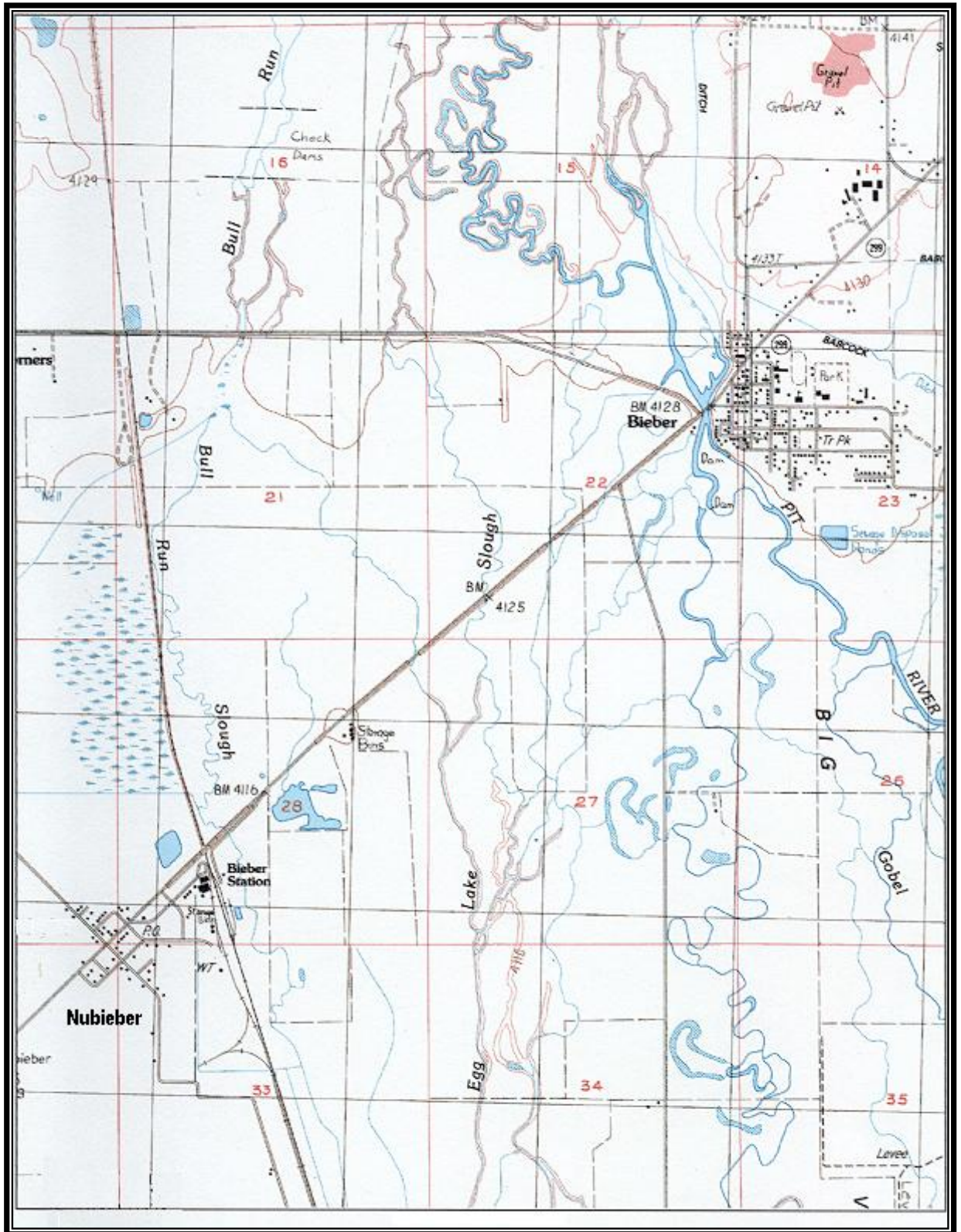
The Fire Safe Council was formed at the State level in 1993 to educate and encourage Californians to prepare for wildfires before they happen to reduce the risk to their communities, their homes, and their property. Since then, many local Fire Safe Councils have been established. Utilizing the combined 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 #9*).

This Plan is specifically prepared assuming that the Big Valley Fire Protection District, the communities of Bieber and Nubieber, and Lassen County Fire Safe Council will provide the leadership role for acting on recommendations included in the plan. The Council has already been instrumental in gaining cost-share assistance to execute fuel reduction projects in Lassen County.

APPENDICES

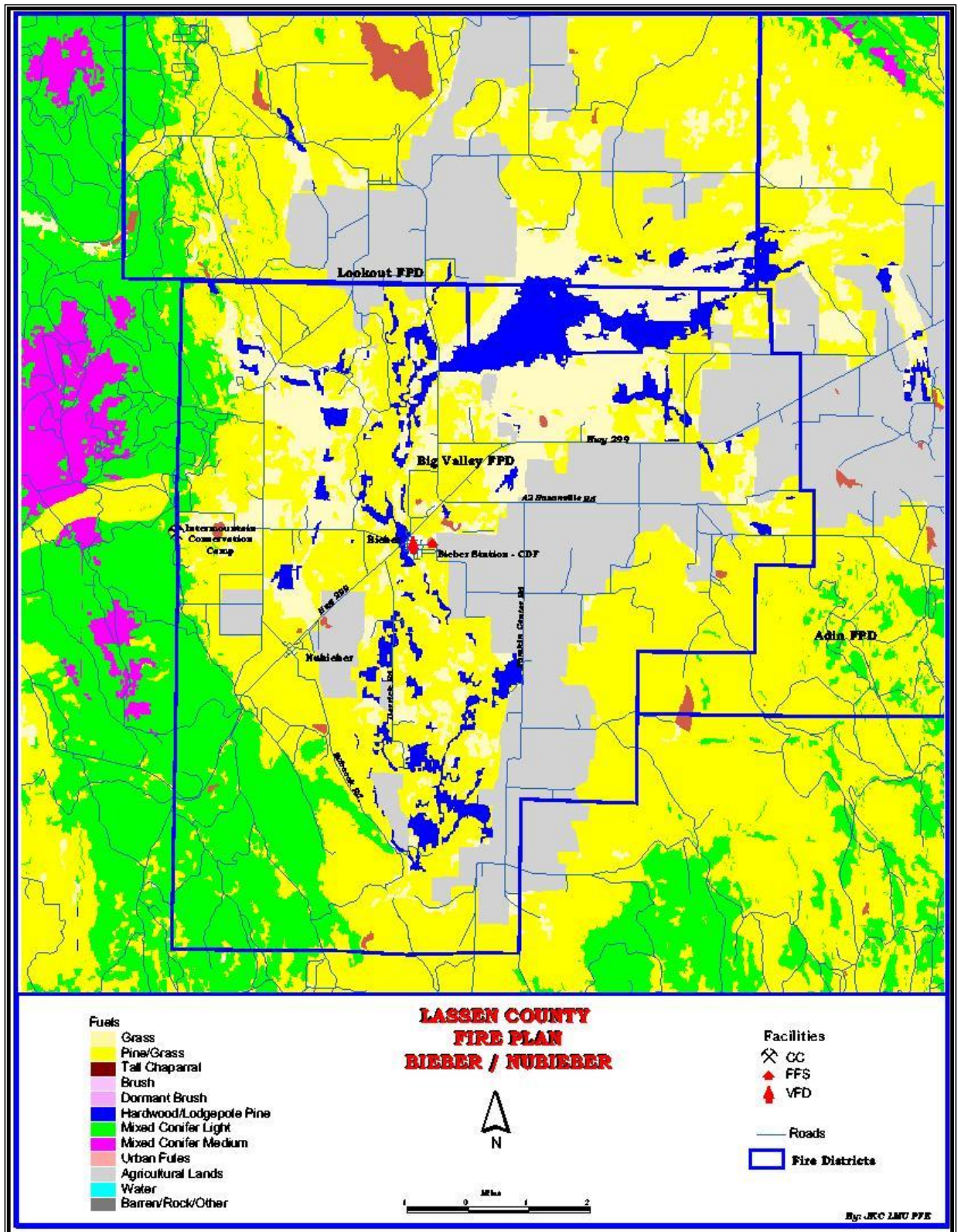
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Appendix A - Vicinity Map



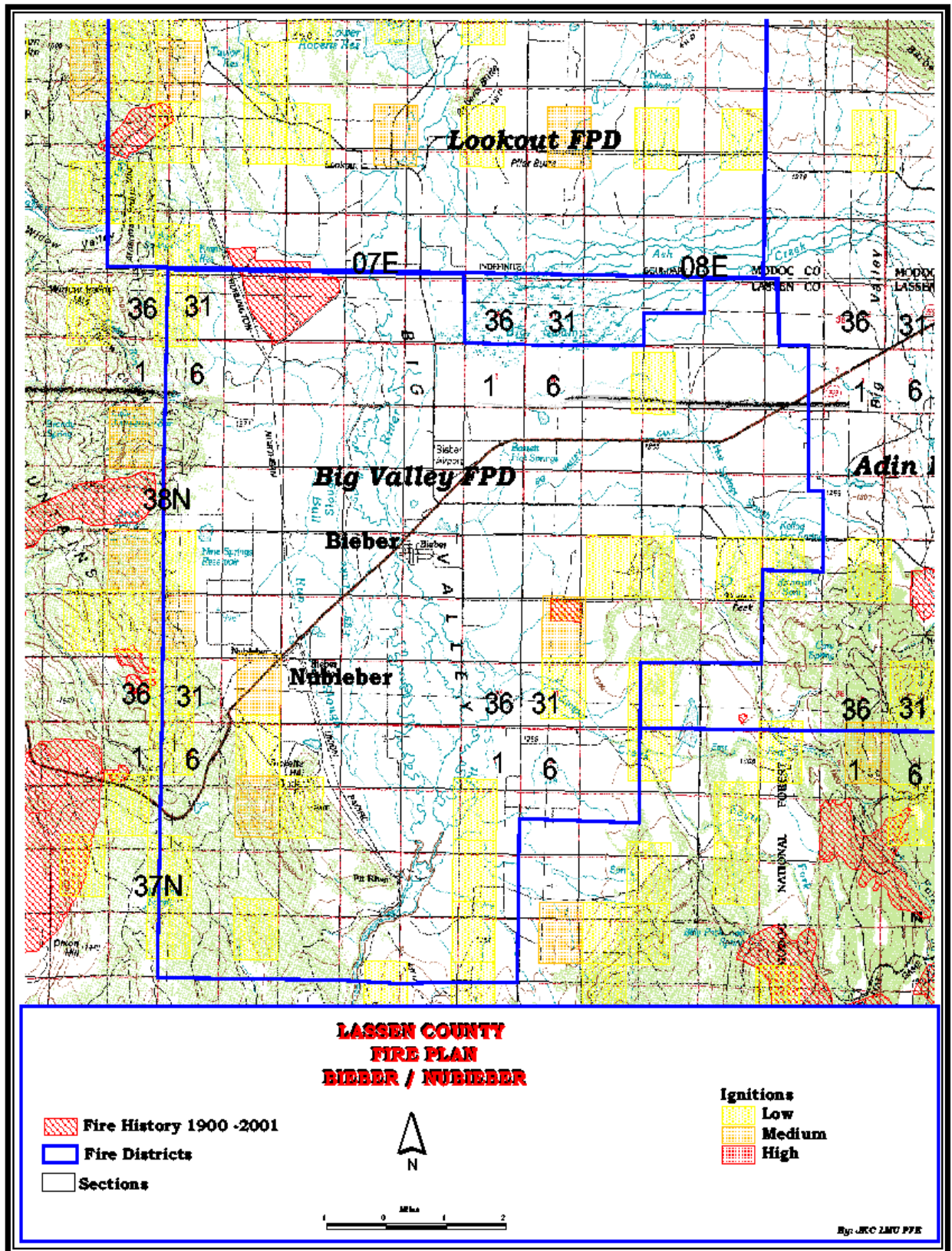
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Appendix B - Vegetation Type Map



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Appendix C - Fire History Map



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Appendix D – Defensible Space

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

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

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

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

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

Residence Protection Measures

The Home Zone 0'-10'

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

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

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

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

The Yard Zone 10'-30'

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

Actions:

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

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

The Screen Zone 30' to 100'

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

Actions:

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

The Forest Zone 100' to 150'

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

Actions:

- 1) Thin trees so that spacing between crowns equals 1/3 of 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) 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. 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.

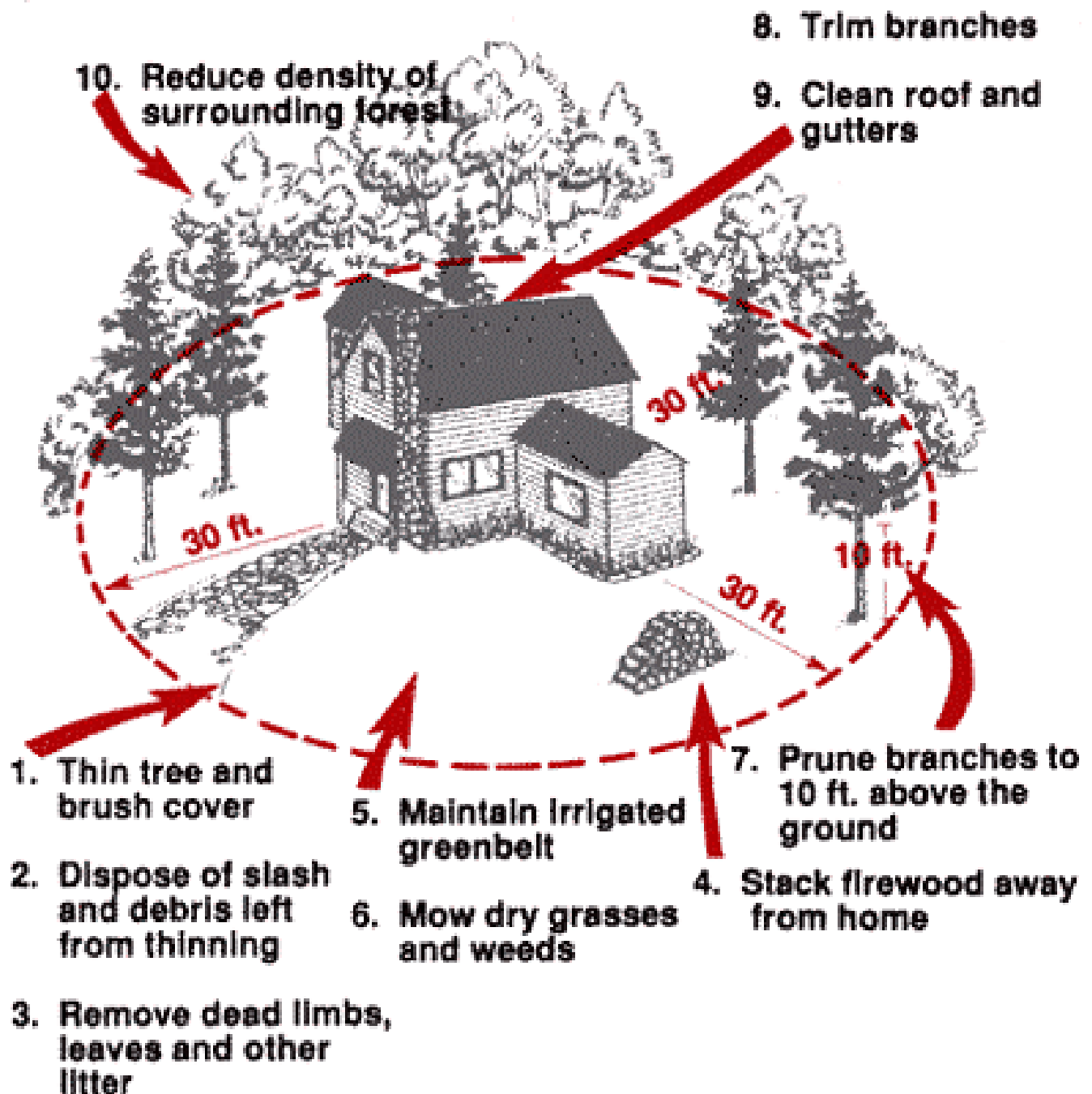
(b) If a person convicted of a violation of Section 4291 produces in court verification prior to imposition of a fine by the court, that the condition resulting in the citation no longer exists, the court may reduce the fine imposed for the violation of Section 4291 to fifty dollars (\$50).

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

FOLLOW THESE GUIDELINES



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Homeowner's Checklist

OUTSIDE



1 Design/Construction

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

2 Access

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

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

3 Roof

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

4 Landscape

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

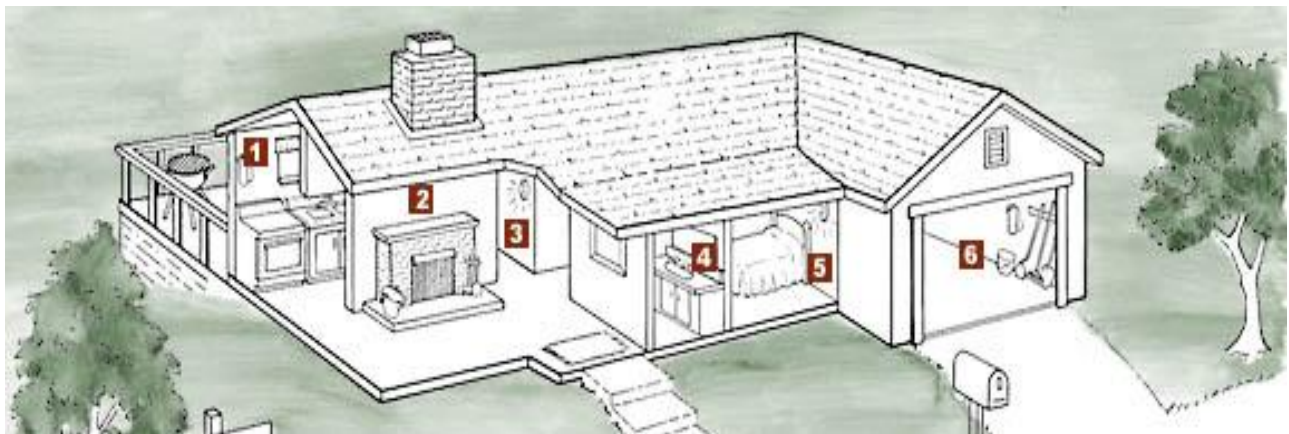
5 Yard

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

6 Emergency Water Supply

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

INSIDE



1 Kitchen

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

2 Living Room

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

3 Hallway

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

4 Bedroom

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

5 Bathroom

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

6 Garage

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

Disaster Preparedness

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

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5. Tim Williams, Dispatcher, Susanville Interagency Command Center, Susanville, CA 530-257-5575
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