

FIRE SAFE PLANNING AND HAZARDOUS FUEL REDUCTION at a GLANCE  
**BUTTE AND PLUMAS COUNTIES**

***The Problem***

California has one of the most complex ecosystems in the world with over 600 recognized individual ecotypes. Human impact on the land has forever changed many of the ecotypes and as a greater number of people utilize the land, the changes become more profound. Construction within the wildland urban interface has not only added a new fuel load component, it has shifted the focus of firefighting tactics to life safety and structure protection. The impacts brought about by people, however are not all negative with regard to the fire problem. For example, many landowners have elected to modify the fuels to provide for fire defense. Unfortunately, most individuals totally disregard the hazard presented when they build within the wildland urban interface and do nothing to protect themselves and their property against wildland fire.

It is important to remember that European habitation of these lands predates the current problem by decades if not centuries. The Spaniards complained of the brushy chaparral from which the word "chaps," worn by cowboys to protect against brush, originated. Researchers, like Dr. Jon Keeley believe that catastrophic wildfires in the chaparral ecosystems of the central coast and southern California are not the result of unnatural fuel accumulation, but rather a normal component of this ecosystem. Dr. Keeley, however cautions that increased fire frequency may negatively impact this shrubland ecosystem.

Closer to home, the affects of logging have changed the once mature forests, dominated by relatively few large conifers and little under-story fuels, with natural surface-fire-regimes in to second growth forests where catastrophic fire is more prevalent. These second growth forests are typified by mixed conifers and hardwoods with a relatively heavy accumulation of understory fuels which make them prone to intense fire behavior. Moreover, environmental and political constraints, including fire suppression, have added to the fuel accumulation, particularly understory fuels, in the second growth forests.

Human intervention is neither wholly the problem nor wholly the solution to the fire situation. Understanding the fire environment within each ecosystem, including the complexities brought about by people, and having sufficient resources to address the fire problem specific to each ecosystem almost defies resolution. Despite the best efforts of fire service professionals, resource managers and other stakeholders, large, damaging, costly fires will continue. The relative success of fire safe planning and hazardous fuel reduction efforts are largely dependent upon the understanding of the fire environment within a particular ecosystem, cooperation on the part of stakeholders, political constraints and the availability of resources, financial and otherwise. Moreover, a firm solution to the fuel reduction maintenance problem has yet to be resolved.

Each year fire control agencies allocate vast amounts of resources and spend millions of dollars protecting lives and property from wildland fire within the wildland urban interface. Because of the cost of protecting lives and property, coupled with the difficulty of achieving

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pre-fire management fuel reduction projects, future fuel reduction work should target the urban wildland interface, immediately in and around communities, and in particular individual property owners. Property owners must assume responsibility for their property, to this end they must create and maintain fire wise properties. By assisting individual property owners with fuel reduction and providing them with maintenance alternatives that fire safe councils we as fire service professionals can arguably realize the greatest good; the best cost to benefit.

It is through the forum of regional and local fire safe councils that industrial, environmental, and governmental concerns must find common ground, applying science, politics and available resources for the common benefit of reducing the fire problem on an ecosystem and community basis.

The below chart only begins to represent the fire environment problems within Butte and Plumas Counties.

<b>Butte and Plumas County 2000 Census Data</b>				
<b>County</b>	<b>Acreage</b>	<b>Population</b>	<b>Assessed Value</b>	<b>Number of Structures</b>
Butte County (SRA)	622,398	69,613	2,176,209,812	28,070
Town of Paradise	11,478	29,441	1,245,893,428	11,871
Plumas County	1,644,800	20,824		9,093

Figures derived using GIS analysis of 2000 Census Data for each county. Data for Butte County is for State Responsibility Land (SRA) where the responsibility for wildland fire protection rests with CDF; the balance of the County is not included. The number of structures was assessed using the population and the average number of occupants per household for the respective county.

Data for Plumas County is representative of the whole county, since the entire county is subject to catastrophic wildland fire. Approximately 82% (1,348,736 acres) of the 1,644,800 acres (2,618 square miles) within Plumas County is under the ownership and management of the US Forest Service, Plumas, Lassen and Tahoe National Forests, Bureau of Land Management and the National Park Service, Lassen National Park. The remaining 287,072 acres or 18% of the land is privately owned.

### **Action Plan**



Without question pre-fire management activities are paramount to reducing the impact of catastrophic wildland fire on life and property. Fire safe planning and hazardous fuel reduction is a collaborative effort involving public and private entities, citizens groups and most importantly property owners. The ability of public and private entities and citizens groups to cooperatively plan, organize and staff pre-fire management activities is contingent upon continued support through programs such as the National Fire Plan. The National Fire Plan, has provide the type of consistent funding needed to accomplish projects. This plan serves as the blueprint from which fire safe planning and hazardous fuel reduction projects develop within Butte and Plumas Counties.

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The table a few pages below, describes fire safe and hazardous fuel reduction projects completed as well as proposed projects with targeted completion dates over the next 5 years. Assumptions are made about funding, resources, environmental issues, and duration of tasks. This action plan will be reviewed annually for stakeholder involvement and fire safe council activity, changes in local land use plans, changes in the local wildland fire environment, and new data related to the fire plan assessments incorporated as it becomes available.

The Butte County Fire Management Plan was developed to address fire safe planning and hazardous fuel reduction concerns of federal, state & local fire agencies, fire safe councils and other stakeholders. The Fire Plan incorporates an across the board approach to reducing the occurrence and impact of wildland fire through a coordinated effort involving law enforcement, for instance PRC-4291 defensible space requirements, education and information, community fire safe and evacuation planning and hazardous fuel reduction with emphasis upon the urban wildland interface and in particular the homeowner and creating defensible space.

This Fire Management Plan incorporates an estimated 17,442+ acres of hazardous fuel reduction, including 318 lineal miles of shaded fuel breaks averaging 200 ft wide, in and around communities and at strategic locations throughout the landscape of private and public lands in northern and eastern Butte County. The emphasis on fuel reduction will be to educate, enforce and assist homeowners in creating defensible space on their property.

Shaded fuel breaks are also a large component of the overall fuel reduction effort with the CDF Butte Unit focusing on those fuel breaks that support the safe ingress of fire suppression forces and egress of civilians in and around communities such as the Paradise Pines/Firhaven Shaded Fuel Break. Many of the shaded fuel breaks included within this plan are a part of the Herger-Feinstein Quincy Library Group (HFQLG) pilot project on the Plumas & Lassen National Forests and Sierraville district of the Tahoe National Forest. The Herger-Feinstein Quincy Library Group Forest Recovery Act is a cohesive strategy designed to address hazardous fuel reduction and fire protection. Others include cooperative efforts to manage fuels between large private landowners, such as Sierra Pacific Industries and CDF under the Vegetative Management Program.

***Summary of Completed Projects and those Proposed over the next 5 years***

The following photo collage and tables are just recent examples of the Fire Safe planning and hazardous fuel reduction projects within Butte and Plumas Counties recently completed, underway or planned as a part of the Butte Unit Fire Management Plan, California and National Fire Plans.

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**Paradise Pines/Firhaven Shaded Fuel Break 2001/02 – Along Nimshew Rd.**



Pre-treatment



Post –treatment

**Community Chipping Project 2001 – Along Shuman Ln. Concow Area.**



Hazardous Fuel Reduction along roadway



Crews from Jarbo Gap Station, use Morbark chipper

**Vegetation Management Projects 2001/02**



SPI VMP, H-Line, Cohasset Area



Grey Lodge Wildlife Refuge VMP, Gridley Area

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CDF Battalion	Project Year(s)	Community Project Name	Comment/Status	Urban Interface Area			Wildland (Open) Area			By Ownership							
				Comp.	In-prog	Prop.	Comp.	In-prog	Prop.	USFS	BLM	Other	Private Indrial	Private Non-Ind			
				Mi/Ac	Mi/Ac	Mi/Ac	Mi/Ac	M/Ac	Mi/Ac								
Butte County	01 +	Butte County Area Community Chipping	Butte Fire Safe Council Project funding various grants	Project began in October 01, and continues during the fall, winter & spring months. See each community for individual acreage. Countywide totals through 5/31/2005 are 801 acres													
Butte County	02/03	Butte County Area Defensible Space Model	This project has been funded by the Bureau of Land Management in cooperation with the Sacramento Regional Foundation. This grant involves the development & distribution of defensible space brochures to assist homeowners with defensible space. The brochure addressing the brush model is nearly complete; work has begun on the timber & grass fuel model brochures. <b>Completed spring of 2004.</b>														

1	5 yr	Upper Ridge Area Surrounding Area	Totals for Upper Ridge Area	197 ac	158 ac	129 ac				15 ac	.75 mi 15 ac		92 mi 11 ac	84 ac
1	01/02	BLM Compton Rd., part of Paradise Pines Phase I	50 acres of BLM land, treatment funded by BLM using fire crews	.75 mi 15 ac							.75 mi 15 ac			
1	01/02	Paradise Pines/Firhaven Shaded FB Phase I	CDF/Upper Ridge Pres. Alliance Phase I, 00 and 01 WUI grants	8.2 mi 147 ac										8.2 mi 147 ac
1	03/04	Paradise Pines/Firhaven Shaded FB Phase II	Paradise Irrigation District Phase II, Funding 03 USFS grant		1.5 mi 57 ac	1.25 mi 45 ac								2.75 mi 102 ac
1	02 +	Paradise Pines POA POA Greenbelt	Treatment of 150 acres of POA greenbelt. Various funding sources	35 ac	11 ac	75 ac								121 ac
1	03/04	Paradise Pines POA Greenbelt Mang. Plan.	Paradise Pines Property Owners Association (POA) hired a consulting forester to prepare a fuels management plan for the approximate 500 acre POA greenbelt. Completed spring 2004. Funding through Butte County HR2389 program.											
1	03/04	Upper Ridge Wildfire Education	Paradise Pines Property Owners Association (POA) project to inform area citizens about the hazards of wildfire and fuel reduction work within the POA including information video, signs and print material. Completed spring 2004. Funding through Butte County HR2389.											
1	02/03	Upper Ridge Emergency Radio Sta	Upper Ridge Pres. Alliance project to install a low powered public broadcast radio station serving the Upper Ridge area which would provide information to the public on emergency preparedness and incident information. Funding through Butte County HR2389 program.											
1	05/06	Upper Ridge Coutilenc Rd.	Roadside shaded fuel break funded by CDF Proposition 40		4.5 mi 90 ac					.4 mi 5 ac			.92 mi 11 ac	

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Town of Paradise		<b>Paradise</b> surrounding Area	<b>Total for Town of Paradise</b>	9.55 mi 310 ac	6 mi 142 ac						.80 mi 13 ac			14.8 m 439 ac
Town of Paradise	99	Paradise Honey Run	Forest Stewardship grant to treat roadside along Honey Run Rd.	2.3 mi 28 ac										2.3 mi 28 ac
Town of Paradise	00/01	Paradise Paradise VMP w/CDF	Honey Run to Neal Rd under powerlines, 300' wide	3.2 mi 116 ac										3.2 mi 116 ac
Town of Paradise	02	Paradise Valley View Citizens	Citizen group fuel reduction around homes on Valley View	14 ac										14 ac
Town of Paradise	01/02	Paradise BLM Dean Road	30 acres of BLM land, treatment funded by BLM using CDF crews	.80 mi 10 ac							.80 mi 10 ac			.80 mi 10 ac
Town of Paradise	01	Paradise Quail Trails MHP	3 acres treatment on BLM land using BFC crews, private funding	3 ac							3 ac			3 ac
Town of Paradise	02/03	Paradise West Branch Project	Shaded Fuel Break along the east side of the Town of Paradise	3.3 mi 127 ac										3.3 mi 127 ac
Town of Paradise	04/05	Paradise Over the top of Paradise	Funding California Fire Safe Council Grant Clearinghouse		6 mi 122 ac									6 mi 122 ac
Town of Paradise	05/06	Paradise Dry Creek	Funding CDF Proposition 40		20 ac									20 ac
Town of Paradise	04/05	Paradise & Upper Ridge Evacuation Plan	Project includes updating the existing information & map for the Paradise Ridge (includes the Town of Paradise, Upper Ridge & Stirling City) evacuation plan and distribution. Completion expected late 04/early 05. Funding through Butte County HR2389 program.											

2		<b>Forest Ranch</b> surrounding Area		19 mi 318 ac										19 mi 318 ac
2	00/01	Forest Ranch Area Doe Mill Shaded FB	FEMA grant, fuel break completed using contractor	15 mi 180 ac										15 mi 180 ac
2	04	Forest Ranch Area Wilder Rd. SFB	Shaded Fuel Break along Wilder Rd. for emergency access	4 mi 50 ac										4 mi 50 ac
2	01	Forest Ranch Area Forestwise Landscape	Publication completed in 2001 to assist homeowners with forestwise landscaping & defensible space.											
2	98/99	Forest Ranch Area Community Fire Safe	Community Fire Safe Plan for Forrest Ranch. Cooperative effort between CDF & the Forest Ranch Preservation Alliance.											

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2		<b>Cohasset</b> Surrounding Area			24 ac		3 mi 145 ac		12 mi 582 ac					12.8 m 751 ac
2	00-05	Cohasset SPI H-Line Shaded FB	VMP program, 300 ft shaded fuel break along the H-line SPI land.				3 mi 145 ac		12 mi 582 ac					15 mi 727 ac
2	05/06	Cohasset Road Shaded Fuel Break	Proposed project		24 ac									24 ac
2	02	Cohasset Area Fire Safe & Evac Plan	Contractor Firestorm Wildland Fire Inc. to develop a community fire safe & evacuation plan for Cohasset. Draft of the plan completed June 02. Funding provide through USFS Economic Recovery Program grant 01-DG-11051150-020 to the Cohasset Community Association Inc.											

2		<b>Butte Meadows</b> Surrounding Area						1295 ac		295 ac				3.8 ac
LNF	LNF	Jonesville DFPZ	HFQLG Projects, Lassen National Forest – Jonesville DFPZ					880 ac		880 ac				
LNF	LNF	Philbrook DFPZ	HFQLG Projects, Lassen National Forest – Philbrook DFPZ					415 ac		415 ac				

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3		Yankee Hill/Concow Surrounding Area		2 mi 55 ac	5.8 mi 229 ac	3.2 mi 130 ac			19 mi 739 ac	3.8 mi 38 ac	2.5 mi 87 ac		7.4 mi 283 ac	30 mi 153 ac
3		Yankee Hill/Concow Area	HFQLG Projects, Plumas National Forest						15 mi 545 ac	3 mi 109 ac	1 mi 36 ac		5 mi 182 ac	15 mi 545 ac
3	03/04	Jordan Hill Road Shaded Fuel Break	CDF, BLM, USFS – PNF, SPI & Yankee Hill Fire Safe Council	1.5 mi 51 ac	3.3 mi 168 ac	3.2 mi 130 ac				.80 mi 29 ac	1.5 mi 51 ac		2.4 mi 101 ac	8 mi 349 ac
3	05/06	Crain Ridge Road Shaded Fuel Break	Funded by CDF Proposition 40 Program		2.5 mi 60.5 ac									2.5 mi 60.5 ac
3	02	Yankee Hill/Concow Area Detlow Demo Site	Detlow Road Demo site & public Assembly point	.5 mi 4 ac										.5 mi 4 ac
3	03-06	Yankee Hill/Concow Area SPI Shaded FB	VMP program, 300 ft shaded fuel break along the V-line.						4 mi 194 ac					4 mi 194 ac
3	02	Yankee Hill/Concow Area Homeowner Consultation	Funding provided to the Yankee Hill Fire Safe Council through a BLM Community-Based Wildfire Prevention Grant to conduct homeowner consultations in order to educate and assist homeowners about defensible space needs. Also would create a demonstration site.											
3	02	Yankee Hill/Concow Area Comm. Evacuation Plan	Yankee Hill/Concow Fire Safe Council project to revise the community evacuation plan including evacuation maps. Funding through Butte County HR2389 revenue. <b>Updated 2002 &amp; 2005</b>											
3	02	Yankee Hill/Concow Area Cherokee Clean Up	Yankee Hill/Concow Fire Safe Council project. The Cherokee clean up is a site that has 100's of tires, large appliances and fire hazard materials, a gate will be put up to discourage future dumping. Funding through Butte County HR2389 revenue. <b>Completed 2002</b>											
3	02	Yankee Hill/Concow Area Poe Fire Cleanup	Yankee Hill/Concow Fire Safe Council project. Dumpsters used to assist Poe Fire victims who need assistance, overall community clean up and removal of abandoned and burned vehicles. Funding through Butte County HR2389 revenue. <b>Completed 2002</b>											
3	02	Yankee Hill/Concow Area Calendar	Yankee Hill/Concow Fire Safe Council project. An educational calendar on fire safety and issues. Funding through Butte County HR2389 revenue. <b>Completed 2002</b>											
3	02	Yankee Hill/Concow Area Water Source Signs	Yankee Hill/Concow Fire Safe Council project. 100 water signs will be made on white reflective aluminum with a blue (W) in the center. These signs will be posted on all water sources fire personnel can use and a map will be made to direct them to these sources. HR2389											
3	02/03	Yankee Hill/Concow Area Camelot Water Source	Yankee Hill/Concow Fire Safe Council project. Camelot is a remote neighborhood in the Concow area. The neighborhood pond would be improved to provide a water source for fire suppression resources. Funding through Butte County HR2389 revenue. <b>Nearly complete</b>											
3	04/05	Yankee Hill/Concow Area Emergency Radio Sta	Yankee Hill FSC project to install a low powered public broadcast radio station serving the Yankee Hill/Concow area which would provide information to the public on emergency preparedness and incident information. Funding through Butte County HR2389 program FY 04.											

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5		<b>Berry Creek Area</b> Surrounding Area		25 ac										
5	04	Berry Creek Area Comm. Evacuation Plan	Berry Creek Fire Safe Council project to complete a community evacuation plan including evacuation maps. Funding through Butte County HR2389 FY 04.											
5	04	Berry Creek Demo	Fuel Reduction Demonstration Site	3 ac										
5		<b>Feather Falls Area</b>				8.25 mi								3.25 mi
						202 ac								202 ac
5	05/06	Lumpkin Road Shaded Fuel Break	Shaded Fuel Break along Lumpkin Road, community of Feather Falls			8.25 mi								8.25 mi
						202 ac								202 ac
5		<b>Robinson Mill Area</b>	IFQLG Projects, Plumas National Forest											
6		<b>Oroville Area</b>		.14 ac										14 ac
6	05	Oroville Demonstration Project		.14 ac										.14 ac
7	02-08	<b>Tridley Area</b> Gray Lodge Wildlife Area	MP program, hazardous fuel reduction & habitat improvement				3618 ac		6000 ac				3618 ac	
Plumas County	02	<b>Plumas County FSC</b> Wildfire Mitigation Plan	The Plumas County Fire Safe Council is developing a Community Fire Protection Plan for the county. That plan contains information pertaining to the Plumas County Fire Safe Council projects. The Plumas County Fire Plan is complete and was adopted spring 2005.											

<b>Butte Unit Fire Management Plan</b> Butte and Plumas Counties			<b>TOTALS</b>			50 mi	8.1 mi	18 mi	3763 ac	1295 ac	2382 ac	3.8 mi	4.6 mi	7.4 mi	85 mi
						1551 ac	366 ac	754 ac				443 ac	115 ac	283 ac	1039 ac