

PRE-FIRE MANAGEMENT PRESCRIPTIONS

BATTALION 1 – Battalion Chief Mike Santuccio

And the Upper Ridge Preservation Alliance – Coordinator Don Steele

Purpose Statement

Battalion 1 of the CDF Butte Unit is located in the northeastern corner of Butte County. Almost all of the area's population lies on the Paradise Ridge. This main ridge includes the incorporated Town of Paradise, and the unincorporated areas of Paradise Pines/Magalia, DeSabra, and Stirling City. These areas represent a significant "urban interface" wildland fire protection problem where relatively high density housing abruptly joins wildland areas. The remainder of Battalion 1 is comprised of scattered homes of low density comprising an "urban intermix" fire protection problem. Most of the battalion is predominantly heavy mature brush (fuel model #6) below the main ridge, and commercial timber (fuel model #9) to the north and east of the populated areas.

Historically, most of the large damaging fires within Battalion 1 have occurred in the drainages that boarder the populated Paradise/Paradise Pines ridge. Although in some cases, these fires mostly driven by upslope or up canyon winds have posed a serious threat to portions of Paradise and Paradise Pines, to date the fires have been contained prior to reaching these communities. The greatest risk to the ridge communities is from an East Wind driven fire that originates above the communities and blows downhill through developed areas. This is the same type of fire that impacted the Oakland Berkeley Hills during the October 20, 1991 firestorm.

Fire cause statistics for Battalion 1 during the year 2003 are very similar to those from previous years. The leading causes of preventable vegetation fires were equipment use, debris burning, and arson respectively. Equipment use cause fires are relatively common and can be the result of failure to comply with laws governing equipment use, such as spark arrestors. The debris fires generally are not of the nature that result in an escape fire, rather they are the result of citizens burning debris piles out of hours or during periods where burning has been suspended. The arson problem is largely teenagers or children "playing with fire." Generally, the reduction of unwanted fires comes through fire prevention efforts, such as code enforcement and public education.

Upper Ridge Preservation Alliance

Contact: Don Steele

Email: dndsteele@aol.com

14282 Sinclair Circle

Magalia, CA 95954

The Upper Ridge Preservation Alliance was formed to address the pre-fire management needs of the Upper Ridge Communities. Through a coordinated effort with CDF, the Alliance and has been integral in the planning, development, and completion of a number of fire safe and fuel reduction projects on the ridge.

Objectives

- Continue a balanced fire prevention program.

- ❑ Continue dooryard hazard reduction programs around residential structures.
- ❑ Improve awareness and involvement with local law enforcement agencies on arson problems.
- ❑ Continue input and assistance for stakeholders in fuel modification projects.

Prescriptions

- ❑ Establish target areas for engine companies to complete PRC 4291 hazard reduction inspections.
- ❑ Coordinate and provide career fire officer follow-up of VIP hazard reduction inspections.
- ❑ Provide general fire prevention contacts and programs to local groups and schools.
- ❑ Inspect and post the Forks of the Butte area for illegal campfires.
- ❑ Maintain and update a spot map of arson fires at the BCSO Upper Ridge substation.
- ❑ Assist with Sierra Pacific Industries (SPI) sheltered fuel breaks as availability allows.
- ❑ Adopt the Upper Ridge Area Fire Load Reduction Program and the Town of Paradise Fuel Load Reduction Program as part of the Battalion Fire Prevention Plan.
- ❑ Provide input for the Fire Load Reduction Program as funding becomes available.
- ❑ Continue VIP fire prevention patrols for out of hours burning and burning after permit suspension.

Accomplishments for 2003

- ❑ **Paradise Pines/Firhaven Shaded Fuel Break Phase I** - On the ground treatment began in October of 2001 and as of the spring of 2002 roughly 70% had been completed under. Approximately 12 of the 17 mile, 100 to 200 foot wide fuel break have been completed equating to nearly 300 acres under phase I of the project. Funded by 2000 and 2001 Wildland Urban Interface (WUI) grants. The project was a cooperative effort between numerous entities, primarily CDF and the Paradise Pines Preservation Alliance.
- ❑ **Paradise Pines Property Owners' Assn (PPPOA) Greenbelt Fuel Reduction Plan** –A County Project under the HR-2389 program funded a Greenbelt Fuel Reduction plan for the PPPOA's 500+ acre greenbelt. This plan was completed in conjunction with fuel reduction work over 68 acres which was funded by a BLM national fire plan grant and EQIP grant. The goal of the project was to remove the ladder fuels from the overgrown sections of PPPOA's greenbelt that posed a significant wildfire threat to residential neighborhoods of the community. The grooming process included the use of goats to remove the green leafy vegetation. Material not consumed by the goats was removed by crews and then chipped or burned.

Plans for 2004 and beyond

- ❖ **Paradise Pines/Firhaven Shaded Fuel Break Phase II**
Funding to complete approximately 2.75 miles, totaling 100 acres, of the remaining 5 miles of Shaded Fuel Break has been secured by the Upper Ridge Preservation Alliance in conjunction with the Paradise Irrigation District through a national fire plan grant with the USFS. In addition, \$20,000.00 in matching funds for project planning and education from the Butte County HR-2389 has been secured by the PID. A maintenance plan and funding for maintenance is needed to maintain the completed work in Phase I of the fuel break, however.

Butte Unit
Fire Management Plan
2005

Existing budget funds secured @ \$210,000.00
Funds needed for maintenance @ \$50,000.00

❖ **Reduce fuel accumulation and maintain fuel reduction on the 500+ acre Greenbelt owned by the Paradise Pines Property Owners' Assn (PPPOA).**

Work has begun on a shaded fuel break over an estimated 150 acres of the 500+ Acre PPPOA Greenbelt in areas of level to steep slopes adjacent to PPPOA lots. 68 acres of this project were completed in 2003. A shaded fuel break will be created using fire crews or contractors applying manual removal techniques and chipping debris, returning the chips to the treated areas. All dead material ¼" to 3" in diameter will be removed and chipped. Larger dead material (over 3") will be left in place. Brush will be cut and chipped. Conifers and hardwood trees will be removed if under 8 inches DBH (diameter at breast height). The remaining conifers will be pruned to a 20 foot height or one-third of the healthy, live crown, whichever is less. Remaining hardwood trees will be pruned so that no branches extend within 10 feet of the ground. Spacing between remaining conifers and hardwoods shall be a minimum of 20 feet between stems. CDF's role in this project would be limited to consultation only.

Budget @ \$150,000.00 partial money received from the following grants

BLM National Fire Plan	\$100,000.00	
NRCS EQIP	\$ 15,000.00	
HR-2389 Title III maintenance plan & education.		\$ 20,000.00

❖ **Upper Ridge Wildfire Evacuation Plan**

Update and distribute the existing wildfire evacuation plan covering the Town of Paradise, Upper Ridge communities and Stirling City.

Budget @ \$4,250.00 funded through HR-2389 FY03/04

❖ **Annual Fire Safe Fair (Wildland/Urban Interface Education Event)**

The Paradise Pines Property Owners' Assn. has indicated willingness to host the location for this one day event.

Budget @ \$1,500.00, seeking private funding

❖ **Public displays with fuel reduction education information**

Designated location will be selected for signs and messages appropriate for public education regarding fire protection, emergency evacuation and etc. In addition, a public information and educational video has been produced to illustrate the importance of fire safe planning and homeowner defensible space. This project will be sponsored by the Upper Ridge Preservation Alliance and has been funded for \$20,000.00 through a matching fund project under Title III of the Butte County HR-2389 program, complementing the PPPOA's BLM national fire plan grant for greenbelt fuel reduction.

❖ **Clear a Sheltered Fire Break on Coutolenc Road**

Clear fifteen (15) miles groomed 75 feet wide on both sides of Coutolenc Road from Skyway (near the Magalia Dam) to Skyway Road (at Lovelock). A 275 acre shaded fuel break will be created using fire crews or contractors applying manual removal techniques

and chipping debris, returning the chips to the treated areas. All dead material ¼" to 3" in diameter will be removed and chipped. Larger dead material (over 3") will be left in place. Brush will be cut and chipped. Conifers and hardwood trees will be removed if under 8 inches DBH (diameter at breast height). The remaining conifers will be pruned to a 20 foot height or one-third of the healthy, live crown, whichever is less. Remaining hardwood trees will be pruned so that no branches extend within 10 feet of the ground. Spacing between remaining conifers and hardwoods shall be a minimum of 20 feet between stems. CDF's role in this project would be limited to consultation only.

Budget @ \$275,000.00

- ❖ **Clear a Sheltered Fire Break on Nimshew Cemetery, Via DeMaia and Bugle Roads**
Clear a 1.8 mile shaded fuel break (22 acres) will be created using fire crews or contractors applying manual removal techniques and chipping debris, returning the chips to the treated areas. All dead material ¼" to 3" in diameter will be removed and chipped. Larger dead material (over 3") will be left in place. Brush will be cut and chipped. Conifers and hardwood trees will be removed if under 8 inches DBH (diameter at breast height). The remaining conifers will be pruned to a 20 foot height or one-third of the healthy, live crown, whichever is less. Remaining hardwood trees will be pruned so that no branches extend within 10 feet of the ground. Spacing between remaining conifers and hardwoods shall be a minimum of 20 feet between stems. CDF's role in this project would be limited to consultation only.

Budget @ \$22,000.00

PPPOA DOOR YARD EDUCATION PROGRAM

ORGANIZATION

Paradise Pines Property Owners' Assn., Inc. (PPPOA)
14211 Wycliff Way, Magalia, CA 95954
Manager, Tim Douglass
Tel (530) 873-1114

PROJECT NAME

PPPOA DOOR YARD EDUCATION PROGRAM

FUNDING REQUESTED

Grant Funding	\$14,500.00
Matching Funding	\$40,680.00

PROJECT SUMMARY

This project will establish an inspection program for fire safe conditions where the improved properties within the Paradise Pines Property Owners Assn., Inc. (PPPOA) will be viewed for compliance with the PPPOA Covenants Conditions & Restrictions and Public Resource Code 4291 requirements.

Butte Unit
Fire Management Plan
2005

The PPPOA would partner with California Department of Forestry/Fire Protection (CDF), Butte Fire Safe Council (BFSC) and Paradise Fire Department (PFD) to select and train volunteer inspectors/educators.

An inspection form would be developed using the PRC 4291 requirements with added items useful to the PPPOA.

This program could be extended to housing developments adjacent to the PPPOA (Firhaven and Sierra Del Oro) and county wide after the pilot effort has matured and a cadre of inspectors/educators have been recruited and trained to be effective in the education efforts.

Action Plan:

1. Request and receive grant funding to pay for startup costs related to this program.
2. Volunteer inspectors will apply to and be selected by a designated committee appointed by the POA Board of Directors. This group will be specifically trained for and assigned to do dooryard education activities not presently being covered by the ACC
3. Where possible, compensate agencies for being involved in selecting, training and evaluating the completeness and accuracy of the work product done by the inspectors.
4. To begin this program, dooryard visits would occur upon the voluntary request from the owner of property within the POA boundaries.
5. ACC would be first to follow-up on properties found in violation(s) and representing a serious threat to the neighborhood.
6. Properties remaining out of compliance, after reasonable follow-up effort, would be referred to the appropriate Public Agency for official compliance action.
7. Partners in this project will hold public meeting forums and include project information in their publications. Some partners will provide consulting services as needed.
8. PPPOA will manage the grant, prepare progress reports and submit a final report, after closing the grant.

STARTING TIME

The official starting date will depend on funding success. The recruiting process for volunteer inspectors/educators was started in February 2004. Forms to be used to record observations are being designed and reviewed periodically for completeness and usefulness.

The grant period is expected to extend over 18 months to develop useful forms, upgrade training methods, review training skills and visit up to 3,100 improved properties within the PPPOA. This program will be on going with future funding being provided by the PPPOA.

PARTNERS

Any agency interested in contributing information or support to this project is invited to be involved. Organizations that have expressed interest and/or have made contributions include Butte Fire Safe Council, Paradise Fire, Upper Ridge Coordinating Council, Yankee Hill Fire Safe Council, Save our Watershed, California Department of Forestry/Fire Protection, Bureau of Land Management, University of California Extension and Plumas National Forest

❖ Clear a Sheltered Fire Break on Humbug Road

Clear a 6 mile shaded fuel break (14 acres for a 100' wide fuel break) will be created using fire crews or contractors applying manual removal techniques and chipping debris, returning the chips to the treated areas. All dead material ¼" to 3" in diameter will be removed and chipped. Larger dead material (over 3") will be left in place. Brush will be cut and chipped. Conifers and hardwood trees will be removed if under 8 inches DBH (diameter at breast height). The remaining conifers will be pruned to a 20 foot height or one-third of the healthy, live crown, whichever is less. Remaining hardwood trees will be pruned so that no branches extend within 10 feet of the ground. Spacing between remaining conifers and hardwoods shall be a minimum of 20 feet between stems. CDF's role in this project would be limited to consultation only.

Budget @ \$14,000

❖ **Community Fire Safety Evacuation Drill**

This event would be coordinated through Town and County Governments, Law Enforcement and CDF Fire personnel.

Budget @ \$10,000.00

❖ **Community tabloid newspaper insert or special news paper release**

This insert or news paper would carry fire protection information and specific recommendations for all safety issues from CDF Fire, Law Enforcement, FEMA, etc.

Budget \$3,000.00

❖ **Public Meetings**

The UPPER RIDGE COORDINATING COUNCIL will serve as the regularly scheduled monthly forum to disseminate current information to the community. This forum would publish the monthly meeting minutes and other pertinent information of a timely nature in a news letter.

Budget @ \$4,000.00

❖ **Road Markers and Turn-out areas on Centerville Road**

An 18 mile course of mile marker signs and graded turnout areas on this road will support First Response capabilities for fire fighting personnel and equipment. The slope and character of the terrain does not support the cost of a shaded fuel break over most of this road. A Shaded Fuel Break near the intersection of Centerville and Nimshew Roads could be effective in protecting lots with residential improvements near the intersection.

Budget @ \$8,000.00

Future Needs

CDF's presence on the Paradise and Upper Ridge areas began in the 1930's, and consisted of the Paradise and Stirling City stations each housing two fire engines. In the early 1990s, one engine from Stirling City was eliminated by the state as a cost cutting measure. The loss of this engine has reduced CDF Butte Unit's initial attack capabilities for the Paradise and Upper Ridge and adjoining areas as well as CDF's overall statewide resource pool. In addition, the assets protected by CDF on the Upper Ridge have grown substantially over the years as has

Butte Unit
Fire Management Plan
2005

the emergency incident workload. Despite this the State has never restored the funding for this critical component of the Department's fire protection mission. The lost engine was an integral part of the Unit's initial attack capabilities and CDF's overall fire protection, and therefore should be replaced.

Until January 5, 1976, the Butte County Fire Department did not staff a career station on the Upper Ridge. Prior to that time, fire protection for the unincorporated areas of the Upper Ridge was provided by the DeSabra and Magalia Volunteer Fire Companies. The typical membership in these companies was 25 to 30 members for the DeSabra VFC and 10 to 12 members for the Magalia volunteer fire company. During the 1990's, there was a dramatic decline in volunteerism resulting in the merger of the two companies.

By the mid 1970s, the Paradise Pines Subdivision had grown to a population of around 6,000 residents when the Upper Ridge Fire Station was initially staffed. Initially, staffing consisted of one year round Fire Apparatus Engineer (FAE) and one seasonal Firefighter I. During 1999, staffing was increased to provide for two on duty personnel. When the new Upper Ridge Fire Station was opened in September 1977, the engine company was responding to approximately 300 emergency calls per year. In 2001, the population had grown to over 16,000 residents and engine company response exceeded 1,000 emergency incidents.

What we are experiencing is a significant increase in emergency activity and a significant decrease in fire fighting staff. In 1978, there was 1.5 permanent staff on the engine and 35 volunteer fire fighters to handle 300 yearly emergencies. In 2002, there was 2.0 staffing on the paid engine and 12 volunteer fire fighters to handle over 1,100 yearly incidents. A second staffed station is necessary to provide acceptable levels of fire fighting. Aside from the increased call volume federal law requires a minimum of 4 fire fighters be present before entry is made into a structure fire. With the reduced volunteer levels this can only be made up for with another paid engine.

"Upper Ridge Fire Fuel Load Reduction Program"

Name of Applicant Organization

BUTTE COUNTY FIRE SAFE COUNCIL

Contact persons

Jim Broshears

jbroshears@townofparadise.com

767 Birch St.

Paradise, Ca 95969

Telephone Number: (530) 872-6266

Darrel Wilson

15001 Trails End Road

Magalia, CA 95954

Telephone Number: (530) 873-6456

The name of individuals responsible for managing the program.

Jim Broshears - Darryl Wilson - Don Steele - Ed Chombeau

The names and area of expertise of resource professionals or cooperating groups involved with the project.

- ❖ University of California
- ❖ Butte County OES
- ❖ Paradise Fire Dept.
- ❖ CDF Fire
- ❖ Butte County Fire Department
- ❖ Upper Ridge Coordinating Council
- ❖ Butte Creek Watershed Conservancy
- ❖ Chico Creek Watershed Conservancy
- ❖ United States Forest Service
- ❖ Butte County Planning Department
- ❖ Air Quality Management District
- ❖ Paradise Pines POA, Inc.
- ❖ Calif. State University Chico

The Problem

The UPPER RIDGE area of Butte County lies west of the West Branch of the North Fork of the Feather River, north of the Town of Paradise and includes all land parcels between the West Branch of the Feather River and Butte Creek north to Inskip above Stirling City. The residential density is comprised mainly of the 3,300+ lot Planned Unit Development of the PARADISE PINES PROPERTY OWNERS ASSOCIATION, Inc (PPOA), the adjacent 1200+ lot FIRHAVEN area and other parcels in the immediate surrounding area. Much of the land in this upper watershed area of Butte County is forest covered. When fires burn hot enough, they can kill microorganisms within the soil, making it difficult for plants to re-establish themselves on the burned area. These barren slopes are much more prone to erosion than those covered with vegetation, because of this; fires can damage water quality as well as destroy the forest and manmade improvements. Under the common late-summer conditions of low humidity and afternoon up-slope winds, the areas along the ridge tops are places where brush fires, burning up from the canyon bottoms and slopes, can move up onto the ridge top into the urban interface and conifer forests.

The UPPER RIDGE of Butte County has experienced a large increase in residential housing within the forest and chaparral ecosystems of the watershed. This has increased the danger of catastrophic fire and complicated pre-fire management actions.

The UPPER RIDGE population density lies atop the peninsula bounded by (east and south) Little Butte Creek, (West) Middle Butte Creek, Slaughterhouse Ravine and Upper Centerville Canal and (North) Nimshew road. The area elevation is between 2,000 and 3,000 feet. The ridge top has a conifer forest dominated by Ponderosa Pine, Douglas Fir and Black Oak. As the flat ridge top drops away quickly on the sides, the vegetation covering the steep canyon wall is thick with chaparral representing some of the highest fire danger. Thus, the nature of the landscape surrounding Paradise and the UPPER RIDGE creates conditions that make the area extremely vulnerable to a catastrophic wildfire.

The average lot in Paradise Pines and along the western edge of the UPPER RIDGE area is between 10,000 and 20,000 square feet (one quarter to one half of an acre) in area. The PPOA has a 500+ acre greenbelt within its boundaries which needs an extensive fuel reduction to remove crowded forest understory and improve access routes for fire fighting personnel and equipment. The FIRHAVEN area has unimproved lots which have not been groomed for many years and fire fighting access is near non-existent. Lots on Nimshew are usually very large and rarely groomed except when homes or other improvements are planned. Skyway Road crosses the Magalia Reservoir Dam that bridges what was once the canyon of Little Butte Creek. The Skyway is the only direct access to the 5,000+ parcels located in the dense UPPER RIDGE area.

The Opportunity

The opportunity exists under this proposal to work with the Upper Ridge communities in order to identify strategic pre-fire management projects. This proposal would modify the model developed in the Butte County Community of Forest Ranch through previous Forest

Stewardship funding and apply the modification to the dense population portion of the UPPER RIDGE of Butte County. This action would provide a comprehensive community-based planning process that would identify needed projects. By working with the community, the project(s) would be developed and reviewed locally and provide improved acceptance by the citizens. This project would use this year's fires (1999 fire season "Butte Complex") and education of the alternatives to address fire prevention and mitigation on a local basis.

Project Description

This project will take the knowledge and experience developed in the Forest Ranch community of Butte County and extend that "community-based fire planning" to the UPPER RIDGE of Butte County. An early task of this project is to assemble base information on the risk assessment for the community. The base of this information exists with several sources; Butte County Fire, Butte Creek Watershed Conservancy, Calif. State University Chico, Chico Creek Watershed Conservancy, United States Forest Service, and the Butte County Office of Emergency Services. The information will be used as an education packet for the community to understand the risk, assist in developing project plans to mitigate the risk and participate in the plan execution. An assigned committee person will work with the Forest Service to coordinate the actions taken under the "Herger-Finestein Quincy Library Group" (QLG) bill with local community fire defense plans to maximize the public investment.

PRE-FIRE COST-EFFECTIVE MANAGEMENT INVESTMENTS

PHASE 1 Budget \$7,200 (Exhibit 1) This was funded by Wildland Urban Interface (WUI) 2001.

First Response Support

The ability by FIRE PROTECTION personnel to effectively execute an attack on fire is critical. Paths, roads or other access areas need to be marked and/or identified to eliminate guesswork.

Fire Pre-plan book: contains maps, intersection names, street addresses, trail names, location signs, etc. Budget @ \$2,000.00

Installed Signs: Fire Access Road, Trail name and location number and Other as designated by Fire Protection personnel. Budget @ \$1,800.00

Fire Access Road Designation: Assign areas where equipment and personnel could assemble for re-supply or re-group. Budget @ \$400.00

Topographical Map: A current detailed map showing trails, streets, access routes, gates (locked and unlocked) and other detail which could aid in orienting fire fighters.

Budget @ \$3,000.00

PHASE 2 Budget \$120,000.00 (Exhibit 3) This was funded by Wildland Urban Interface (WUI) 2001.

Establish a shaded fuel break on approximately 17 miles of established roads, stream beds and near private owned property having expensive improvements. Woody debris will be cleared using a manual means and all large trees will be limbed to a 10 foot minimum to reduce ladder fuels. The width of the fire break will range from 100 to 200 feet as designated by a CDF/Fire Protection officer.

Budget @ \$6,000.00/mile \$120,000.00

Butte Unit
Fire Management Plan
2005

INTEGRATED INTERGOVERNMENTAL APPROACH

Reduced costs for the initial project would be obtained by using Upper Ridge Occupant volunteers, Fire Protection Personnel, University Faculty and Students, California Conservation Corps personnel, Inmate labor, Dept. of Human Resources applicants and the Welfare system recipients. Once this project is completed there will be need for maintenance. Volunteer, minimum wage and inmate personnel are fully capable of doing the initial clearing and future maintenance work under supervision.

Time Line of Project

Fuels treatment on the Paradise Pines/Firehaven Shaded Fuel Break began in mid October of 2001 and to date (Spring 02) the project is approximately 70% completed, or roughly 12 miles and 220 acres. Existing funding for the project has nearly been exhausted. Other funding will need to be secured in order to complete the remaining 5 miles of the project.

Budget:

Matching Funds: Labor @ \$20.00/hour	\$110,000.00
Grant Funding	<u>\$107,200.00</u>
Total:	\$217,200.00

Butte Unit
 Fire Management Plan
 2005

