



Application for a New License
Major Project – Existing Dam

Fire Prevention and Response Plan

Security Level: Public

Yuba River Development Project
FERC Project No. 2246

April 2014

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Attachment B	Instructions and Agency Checklist for Determining Project Activity Levels Variances
Attachment C	2005 Butte Unit Fire Management Plan

GLOSSARY – DEFINITIONS OF TERMS, ACRONYMS AND ABBREVIATIONS

Term	Definition
Building or structure	Any structure used for support or shelter of any use or occupancy
CALFIRE	California Department of Forestry and Fire Protection
CPRC	California Public Resource Code
Defensible space	The area within the perimeter of a parcel where basic wildfire protection practices are implemented; this area provides the key point of defense from an approaching wildfire or escaping structure fire. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, street names and building identification, and fuel modification measures.
ERD	Emergency Response Document
FERC	Federal Energy Regulatory Commission
Fire Precautionary Period	May 15 to November 1 in the Tahoe and Plumas National Forests
Forest Service	United States Department of Agriculture, Forest Service
FSM	Forest Service Manual
GVICC	Grass Valley Interagency Command Center
Land and Resource Management Plan (LRMP)	A document prepared with public participation and approved by an agency administrator that provides general guidance and direction for land and resource management activities for an administrative area. The LRMP identifies the need for fire's role in a particular area and for a specific benefit. The objectives in the LRMP provide the basis for the development of fire management objectives and the fire management program in the designated area.
PAL	Project activity levels
Plan	Fire Prevention and Response Plan
PNF	Plumas National Forest
Prevention	Activities directed at reducing the number of person-caused fires, including public education, law enforcement, dissemination of information, and the reduction of hazards
Primary Project Access Roads	Non-general use roads, used primarily for the Project and located within the FERC Project Boundary. Primary Project Roads are identified in the Transportation System Management Plan (YCWA, <i>in press</i>) included in the new License.
Project	Yuba River Development Project, FERC Project No. 2246
Project Area	The area comprised by the FERC No. 2246 Project Boundary
SNFPA	Sierra Nevada Forest Plan Amendment
Suppression	All the work of extinguishing or containing a fire, beginning with its discovery
TNF	Tahoe National Forest
Wildfire	An unplanned and unwanted wildland fire, including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the fire out
YCWA	Yuba County Water Agency

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SECTION 1.0

INTRODUCTION

In April 2014, the Yuba County Water Agency (YCWA), pursuant to Section 5.18 of Title 18 of the Code of Federal Regulations (C.F.R.), files with the Federal Energy Regulatory Commission (FERC or Commission) an Application for a New License for Major Project – Existing Dam – for YCWA’s 361.9 megawatt Yuba River Development Project (Project), FERC Project Number 2246. The initial License for the Project was issued by the Federal Power Commission, FERC’s predecessor, to YCWA on May 16, 1963, effective on May 1, 1963. The Federal Power Commission’s May 6, 1966, Order Amending License changed the License’s effective date to May 1, 1966, for a term ending on April 30, 2016.

YCWA included in its Application for a New License this Fire Prevention and Response Plan (Plan).

The United States Department of Agriculture, Forest Service’s (Forest Service) Federal Power Act Section 4(e) authority only applies in this Plan to Project facilities on National Forest System (NFS) land, and the United States Army Corps of Engineers’ Federal Power Act Section 4(e) authority only applies in this Plan to Project facilities on federal land administered by the United States Army Corps of Engineers. The Forest Service administers the Plumas National Forest (PNF) in conformance with the PNF Land and Resource Management Plan (Forest Service 1988), as amended, and administers the Tahoe National Forest (TNF) in conformance with TNF Land and Resource Management Plan (Forest Service 1990), as amended.

1.1 Background

1.1.1 Yuba River Development Project

The Project is located in Yuba, Sierra and Nevada counties, California, on the main stems of the Yuba River, the North Yuba River and the Middle Yuba River, and on Oregon Creek, a tributary to the Middle Yuba River. Major Project facilities, which range in elevation from 280 feet to 2,049 feet, include: 1) New Bullards Bar Dam and Reservoir; 2) Our House and Log Cabin diversion dams; 3) Lohman Ridge and Camptonville diversion tunnels; 4) New Colgate and Narrows 2 power tunnels and penstocks; 5) New Colgate, New Bullards Minimum Flow and Narrows 2 powerhouses; and 6) appurtenant facilities and features (e.g., administrative buildings, switchyards, roads, trails and gages). The existing Project does not include any aboveground open water conduits (e.g., canals or flumes) or any transmission lines.

In addition, the Project includes 16 developed recreation facilities. These include: 1) Hornswoggle Group Campground; 2) Schoolhouse Campground; 3) Dark Day Campground; 4) Cottage Creek Campground;¹ 5) Garden Point Boat-in Campground; 6) Madrone Cove Boat-in

¹ Cottage Creek Campground was burned in 2010 and has not been rebuilt. YCWA is in discussions with the United States Department of Agriculture, Forest Service (Forest Service) regarding rebuilding the burned campground.

Campground; 7) Frenchy Point Boat-in Campground; 8) Dark Day Picnic Area; 9) Sunset Vista Point; 10) Dam Overlook; 11) Moran Road Day Use Area; 12) Cottage Creek Boat Launch;² 13) Dark Day Boat Launch, including the Overflow Parking Area; 14) Schoolhouse Trail; 15) Bullards Bar Trail; and 16) floating comfort stations.³ All of the recreation facilities are located on NFS land, with the exception of the Dam Overlook, Cottage Creek Boat Launch and small portions of the Bullards Bar Trail, which are located on land owned by YCWA. All of the developed recreation facilities are located within the existing FERC Project Boundary, except for a few short segments of the Bullards Bar Trail to the east of the Dark Day Boat Launch. In addition, the Project includes two undeveloped recreation sites at Our House and Log Cabin diversion dams, both located on NFS land and within the existing FERC Project Boundary.

Figure 1.1-1 shows the Project Vicinity,⁴ proposed Project, and proposed FERC Project Boundary.⁵

² Emerald Cove Marina provides visitor services at Cottage Creek Boat Launch, including houseboat and boat rentals, boat slips and moorings, fuel and a general store. The marina is operated under a lease from YCWA by a private company.

³ The Project recreation facilities included one campground that is no longer part of the Project. Burnt Bridge Campground was closed initially by the Forest Service in 1979 due to low use levels. FERC, in an August 19, 1993 Order, which approved YCWA's Revised Recreation Plan, directed YCWA to remove all improvements and restore the Burnt Bridge Campground to the condition it was in prior to development of the facility. YCWA consulted with the Forest Service and all that remains of Burnt Bridge Campground today is the circulation road and vehicle spurs; all other facilities were removed.

⁴ For the purpose of this Plan, "Project Vicinity" refers to the area surrounding the proposed Project on the order of United States Geological Survey (USGS) 1:24,000 quadrangles.

⁵ The FERC Project Boundary is the area that YCWA uses for normal Project operations and maintenance. The Boundary is shown in Exhibit G of YCWA's Application for New License, and may be changed by FERC with cause from time to time during the term of the new license.

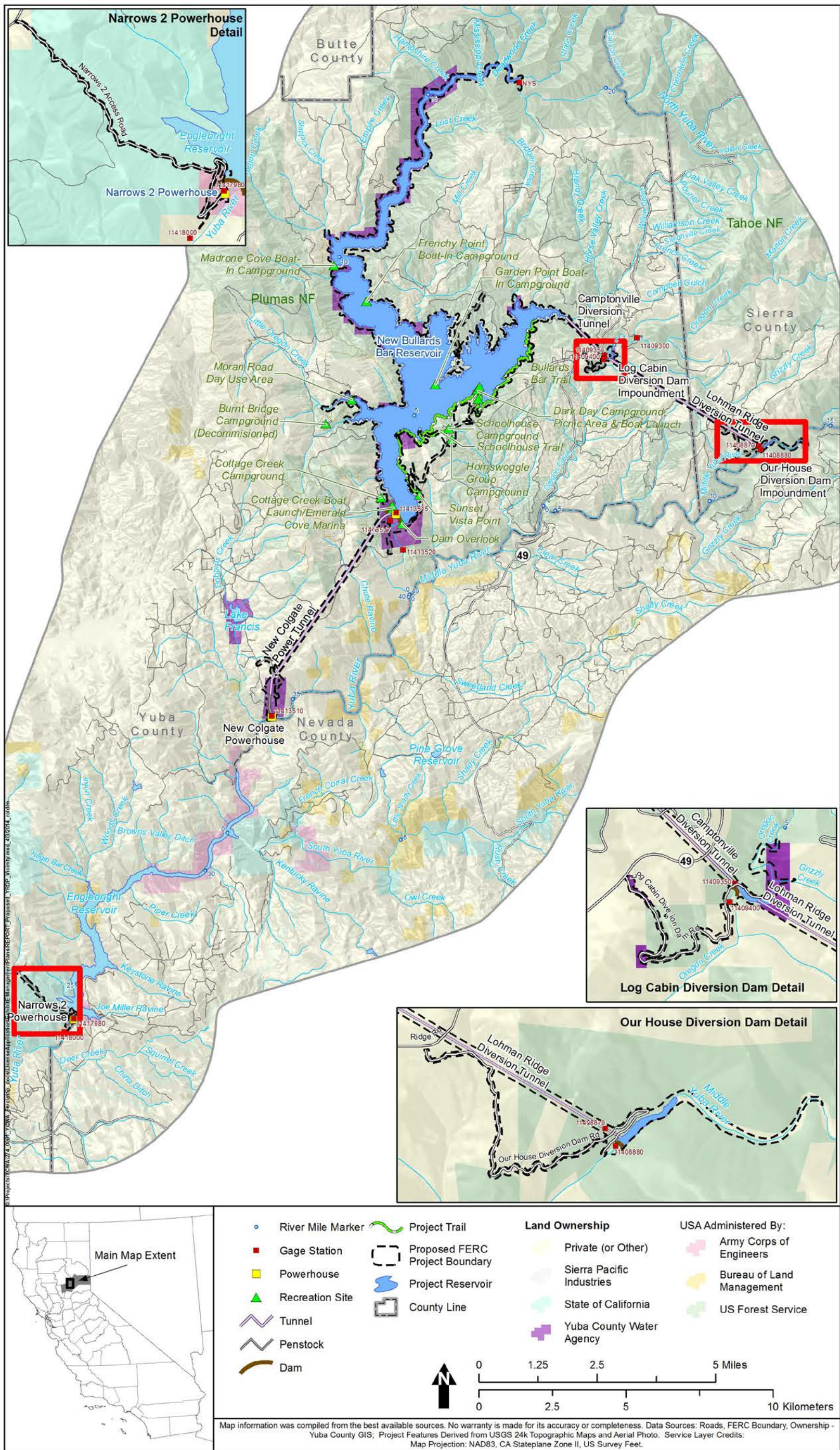


Figure 1.1-1. Yuba County Water Agency's Yuba River Development Project and Project Vicinity.

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1.2 Purpose of the Fire Prevention and Response Plan

The purpose of this Plan is to provide fire prevention procedures, reporting, and safe fire practices for YCWA personnel and contractors responsible for operating and maintaining the Project, with emphasis on NFS land. Figure 1.2-1 shows the Project Area with fire hazard levels as designated by the Forest Service and the California Department of Forestry and Fire Protection (CALFIRE).

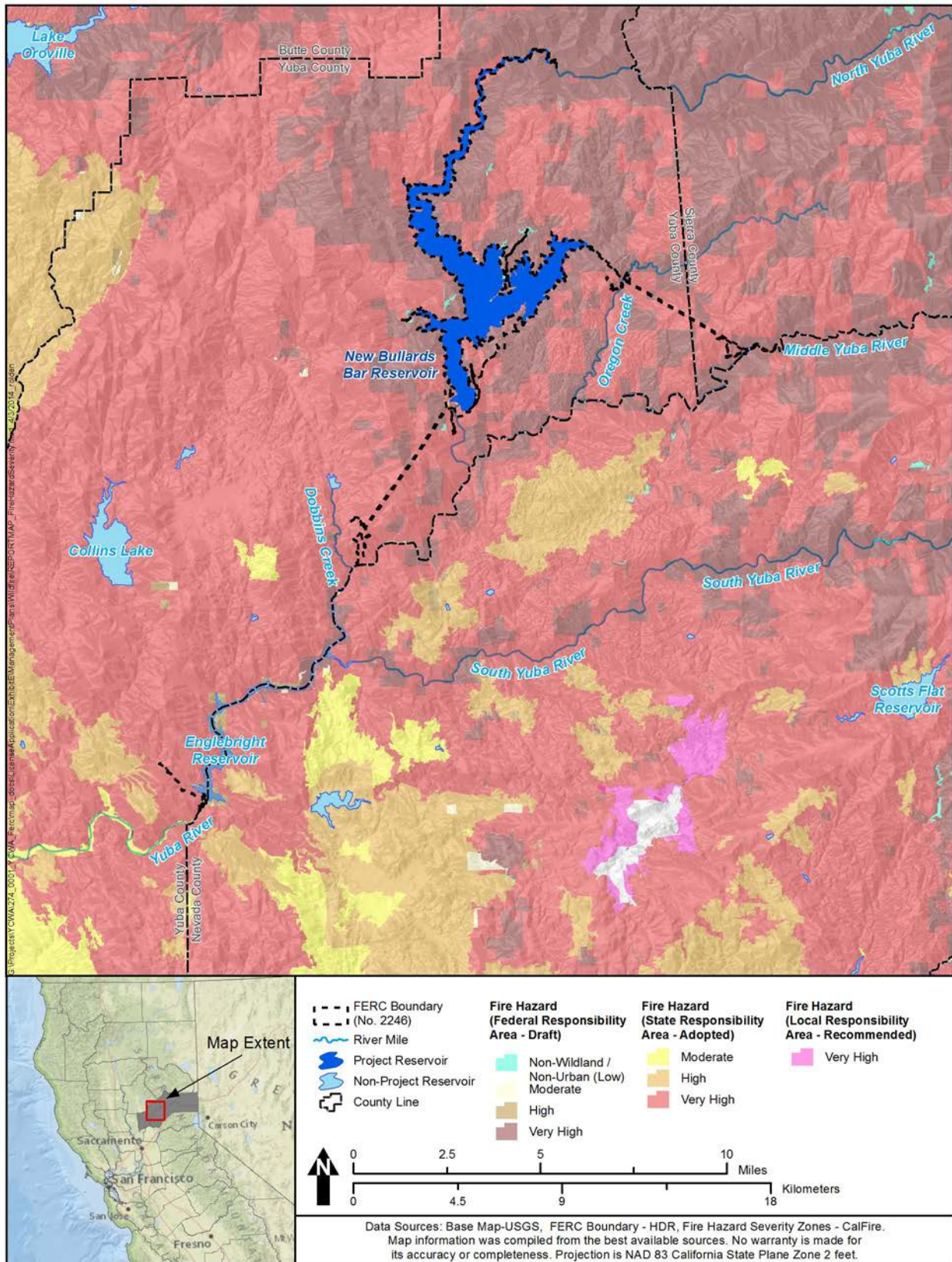


Figure 1.2-1. Fire hazard levels in the Yuba River Development Project Area.

YCWA will coordinate, to the extent appropriate, the efforts required under this Plan with other Project resource efforts, including implementation of other resource management plans and measures included in the new license.

1.3 Goals and Objectives of the Fire Prevention and Response Plan

The goals of the Plan are to ensure that Project operations and maintenance are conducted in a manner intended to prevent the ignition and spread of wildfires and to guide response should wildfires occur.

The objective of the Plan is to provide necessary guidelines to meet Plan goals.

1.4 Contents of the Fire Prevention and Response Plan

This Plan includes the following:

- Section 1.0. Introduction. This section includes the purpose, goals and other introductory information for the Plan.
- Section 2.0. Methods. This section describes the research conducted and relevant documents consulted for the development of the Plan.
- Section 3.0. Fire Prevention and Protection Actions. This section describes fire prevention and protection measures for the Project.
- Section 4.0. Fire Response Actions. This section describes fire response measures for the Project.
- Section 5.0. Consultation and Plan Review. This section details consultation and other commitments under the Plan between YCWA and the Forest Service.
- Section 6.0. References Cited. This section provides a list of the references cited in the Plan.

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SECTION 2.0

METHODS

A variety of methods and research were utilized in the development of this Plan, all of which are summarized in the sub-sections that follow.

2.1 Information/Data Collection and Research

The information sources and data listed below relating to fire prevention, suppression, and fuel management on lands within the Project Area were reviewed to provide appropriate background and technical reference for the development of this draft Plan.

2.1.1 Federal Agency Land Use and Resource Management Plans

- The Sierra Nevada Forest Plan Amendment (SNFPA) Final Environmental Impact Statement (Forest Service 2001)
- The SNFPA Draft Supplemental Environmental Impact Statement (Forest Service 2004)
- The SNFPA Final Supplemental Environmental Impact Statement, Final Record of Decision, 2004, and Alternative S2 (Appendix A Standards & Guidelines) (Forest Service 2010)
- The TNF Land and Resource Management Plan (LRMP) (Forest Service 1990); as amended and updated by the Sierra Nevada Forest Plan Supplements of 2001 and 2004.
- The PNF LRMP (Forest Service 1988), as amended and updated by the Sierra Nevada Forest Plan Supplements of 2001 and 2004
- The PNF Forest Plan Monitoring Report: Fiscal Years 2006-2010 (Forest Service 2012a)

2.1.2 Fire Management, Fire Prevention, Fire Response, and Fuel Management Plans

- Interagency Standards for Fire and Fire Aviation Operations, 2013
- Tahoe National Forest Fire Management Plan
- Plumas National Forest Fire Management Plan
- CALFIRE, Nevada-Yuba-Placer Fire Management Plan, 2011
- Forest Service Manual (FSM) 5103.1 – Forest Service Policies for Wildland Fire Management – Risk Management Risk Reduction (Forest Service 2012b)
- Forest Service Handbook 5109.18 – Forest Service Wildland Fire Prevention Handbook (Forest Service 2012b), attached to FSM 5103.1
- CALFIRE, Strategic Fire Plan for California, 2010

- Nevada County Fire Plan, attached to Nevada-Yuba-Placer Fire Management Plan (2007)
- Wildland Fire Leadership Council Interagency strategy for the implementation of federal wildland fire management policy, 2003
- Butte Unit Fire Management Plan, Plumas County (2005) (Attachment C)

2.1.3 Agency Management Goals for Implementation of Fire Prevention and Response Actions

As defined by the Interagency Standards for Fire and Fire Aviation Operations (2013), agency management goals for implementing fire prevention and response actions on NFS land within the Project Area are identified as follows:

- Protect human life, property, and natural/cultural resources both within and adjacent to agency-administered land.
- Identify problem areas, causal factors, and increasing trends and implement measures aimed at reducing human-caused fires in these areas.
- Apply maximum prevention efforts to minimize the ignition of human-caused fires in watersheds and high value areas identified as high hazard.
- Minimize and, where necessary, mitigate human-induced impacts to resources, natural processes, or improvements attributable to wildland fire activities.
- Prevent and investigate all unplanned human-caused fires.
- Focus cost effective prevention activities in the priority areas.

2.1.4 Cooperative Agreements, Regulations, and Codes

Applicable federal, state, and local agencies' cooperative agreements, regulations, and codes related to fire protection, prevention, and suppression activities within the Project Area were compiled, reviewed, utilized, and referenced as appropriate. These references included: California Public Resource Codes (CPRC) 4291-4293, 4421-4423, 4425, 4427-4428, 4430-4431, 4433, 4442, 4442.5, 4443, and 4446; California Health and Safety Codes 12101, 13000, 13001, and 13005; the FSM 5130; California Department of Forestry and Fire Protection (CALFIRE) Power Line Fire Prevention Field Guide; and the Cooperative Fire Protection Agreement (2001).

2.1.5 Emergency Communication Plans

Federal, state, and local fire agency emergency management, fire dispatch, and mobilization plans and documents were compiled, reviewed, utilized, and referenced as appropriate.

- Project-related fire prevention and safety plans

- Grass Valley Interagency Command Center (GVICC) – Emergency Response Document-Mobilization Plans.

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SECTION 3.0

FIRE PREVENTION AND PROTECTION ACTIONS

3.1 General Fire Prevention and Protection Action Summary

The following summarizes the Project's fire prevention action items identified in this section:

- During the Project's general fire precautionary period(s) (the TNF and PNF fire precautionary period is May 15 to November 1), YCWA will comply with the following codes, regulations, requirements, measures, and activities:
 - All applicable laws of the CPRCs listed in Section 5.1.4 of this document.
 - The general fire prevention requirements applicable to Project-related operations, maintenance, equipment, tool use, and fire use activities.
 - TNF's and PNF's project activity levels (PAL) fire restrictions.

3.2 Specific Fire Prevention and Protection Requirements Applicable to Project-Related Operations & Maintenance on Federal Lands

For the purposes of this Plan, YCWA will comply with the following:

- YCWA shall comply with all applicable laws of the State of California, CPRCs, and California Health and Safety Codes.
- YCWA must secure a special written permit from the appropriate national forest District Ranger, District Fire Management Officer, CALFIRE battalion chief, or any of their officially designated representatives, before engaging in any of the activities listed below:
 - Blasting and storage of explosives and detonators (explosives permit required by California Health & Safety Code, Section 12101)
 - Burning, as authorized under current operating plan.
 - Air pollution (issued by local state or county air pollution control districts, as applicable)
 - Camp, lunch, and warming fires
 - Welding and cutting
- YCWA shall provide a communication system connecting each operation with the designated Forest Service and/or CALFIRE dispatch center, in consultation with the Forest Service and/or CALFIRE. The communications system shall be capable of notifying the agency's dispatch center upon the discovery of a fire on Project lands. This communications system will be operable by YCWA's Project operations staff during the fire precautionary period.

- YCWA will ensure that each vehicle has the following fire fighting equipment:
 - A round point shovel with an overall length of not less than 46 inches (for clearing away flammable materials). A rake may be used, but it may not be a substitute for the shovel on the vehicle.
 - One back pack water pump ready for use.
 - One 5-pound or greater ABC fire extinguisher.
 - An axe and saw.
 - Radio.
 - During fire precautionary periods, every work group will also have a water trailer with one of the vehicles.

All firefighting equipment must be accessible at the job site in the event of an emergency.

National Fire Protection Association placards will be posted at all locations with hazardous materials to alert emergency responders.

YCWA will contact the TNF and PNF daily, as appropriate, during the fire precautionary period season to determine the Project Activity Level fire index rating. When the fire rating is "Very High," YCWA will follow the Project-related activities requirements in Attachment A

If emergency repairs (necessary for public safety or to prevent damage to facilities) are necessary that require welding or cutting and YCWA does not have a permit, YCWA will endeavor to follow the "Very High" fire rating restrictions, will have appropriate fire safety equipment available on site, and notify the Forest Service within 8 hours following the emergency.

3.3 Project Operations Requiring the Use of Fire/Burning

Under the current operating agreement guidelines and/or with prior Forest Service approval, YCWA and its subcontractors will obtain the necessary burn permit from the appropriate CALFIRE unit(s) and respective air quality management district(s), as appropriate, prior to burning on NFS land.

3.4 Protection, Applicable Codes, and Code Compliance Actions

YCWA is responsible for complying with all applicable laws of the State of California, CPRCs, California Health and Safety Codes, and Forest Service codes.

YCWA practices ongoing fire protection measures to comply with applicable codes and safeguard Project assets. For example, YCWA creates a defensible space around all Project structures, including powerhouses, and recreation facilities, by routinely clearing vegetation in their immediate vicinity. This includes periodic inspections to determine the need for vegetation

removal, hazard tree trimming/removal, and compliance with CPRC clearance requirements. These efforts are expected to provide an effective level of fire protection and prevention within the Project.

3.4.1 Applicable Codes

YCWA will ensure that the Project is managed for compliance with CPRC Section 4291 – Building Clearance Guidelines, and other applicable codes and orders, unless otherwise exempt.

YCWA is also responsible for complying with all Forest Service rules and California public laws that are applicable to Project operations. Any fire code or operating violation will be corrected by YCWA to the satisfaction of the appropriate Forest Service and/or CALFIRE representative.

3.4.2 Project Area Code Compliance and Inspections

Inspections of equipment utilized in maintaining the Project facilities and surrounding vegetation are the responsibility of YCWA. Project compliance inspections will be completed at periodic intervals to comply with appropriate State of California Codes and Forest Service regulations.

The purpose of the inspections is to look for missing or damaged equipment that may be an ignition source and identify vegetation that does not comply with all applicable codes.

3.5 Fire Prevention Requirements for Project Area Tool and Equipment Use

YCWA operations staff involved with any type of equipment/tool use within the Project Area will be required to take specific fire prevention actions and measures during the fire precautionary periods. Tools and equipment may be inspected by CALFIRE or the Forest Service to ensure compliance with fire safety rules. YCWA will follow the equipment use-specific restrictions detailed by PAL ratings, as identified in Attachment A.

3.6 Project Activity Level Planning Requirements for the Project Area

The Forest Service has a fire prevention process that determines fire danger each day as displayed by PAL. The PAL is implemented and administered to regulate activities of private companies performing work on NFS land. All YCWA operations that involve any type of equipment/tool use within the Project Area during the respective fire precautionary period (will be required to monitor fire danger conditions and comply with the appropriate PAL fire prevention requirements. Project vicinity lands reside within TNF and PNF PAL jurisdictions. TNF and PNF have implemented a forest-specific fire prevention process that determines fire danger restrictions each day, as displayed by a PAL rating.

During the period from May 15 to November 1, the TNF and PNF will, in most cases, determine the following day's activity level by 4:00 PM each afternoon. YCWA can obtain Project Area PAL fire and activity restrictions for the following day by contacting the Supervisor's Office or Ranger District Office, respective to the project location, after 4:00 PM. PNF can be contacted by calling 1-800-847-7766. TNF can be contacted by calling 1-530-265-4531. YCWA must then comply with the prescribed requirements and restrictions for that day.

It is important to note that the Project Area PAL rating may be changed at any time if, in the judgment of the Forest Service, fire danger is higher or lower than predicted and such change is consistent with Forest Service management objectives. The decision to change the activity level, and when, and how to take weather observations for that purpose, are within the discretion of the Forest Service.

SECTION 4.0

FIRE RESPONSE ACTIONS

4.1 Emergency Response Preparedness

YCWA crew vehicles and contractor vehicles are each required to have axes, saws, shovels, and radios at all times, while in the field to facilitate YCWA's emergency response preparedness and avert small fires. Every work group will also have a water trailer with one of the vehicles. The water trailer will meet specific guidelines as specified in Attachment A.

4.2 Reporting Fires

All Project-related fires and any fire detected in the Project Area will be immediately reported to the Forest Service by calling 911.

When reporting a wildland fire, YCWA personnel should provide the following information:

- Incident type (wildland fire, vehicle accident, hazardous material spill, search and rescue, etc.)
- Reporting party's name
- Radio number; office or cell phone call back number
- Fire location or jurisdiction:
 - Legal or global position system location description (township, range, section or latitude and longitude)
 - Descriptive location (road or geographic reference point)
- Best access routes
- Incident size (in acres)
- Incident status
- Estimated rate of fire growth or spread
- Weather conditions
- Radio frequencies
- Special hazards and concerns
- Additional resource needs

4.3 Fire Control/Extinguishing Fires

The GVICC is the focal point for coordinating the mobilization of resources for wildland fire and other incidents throughout the TNF, and Nevada, Yuba, and Placer CALFIRE units. The Plumas

National Forest Communication Center coordinates throughout the PNF. The TNF, PNF, and CALFIRE are responsible for wildland fire protection and suppression on lands in the Project Area, under their jurisdiction (Figure 4.3-1).

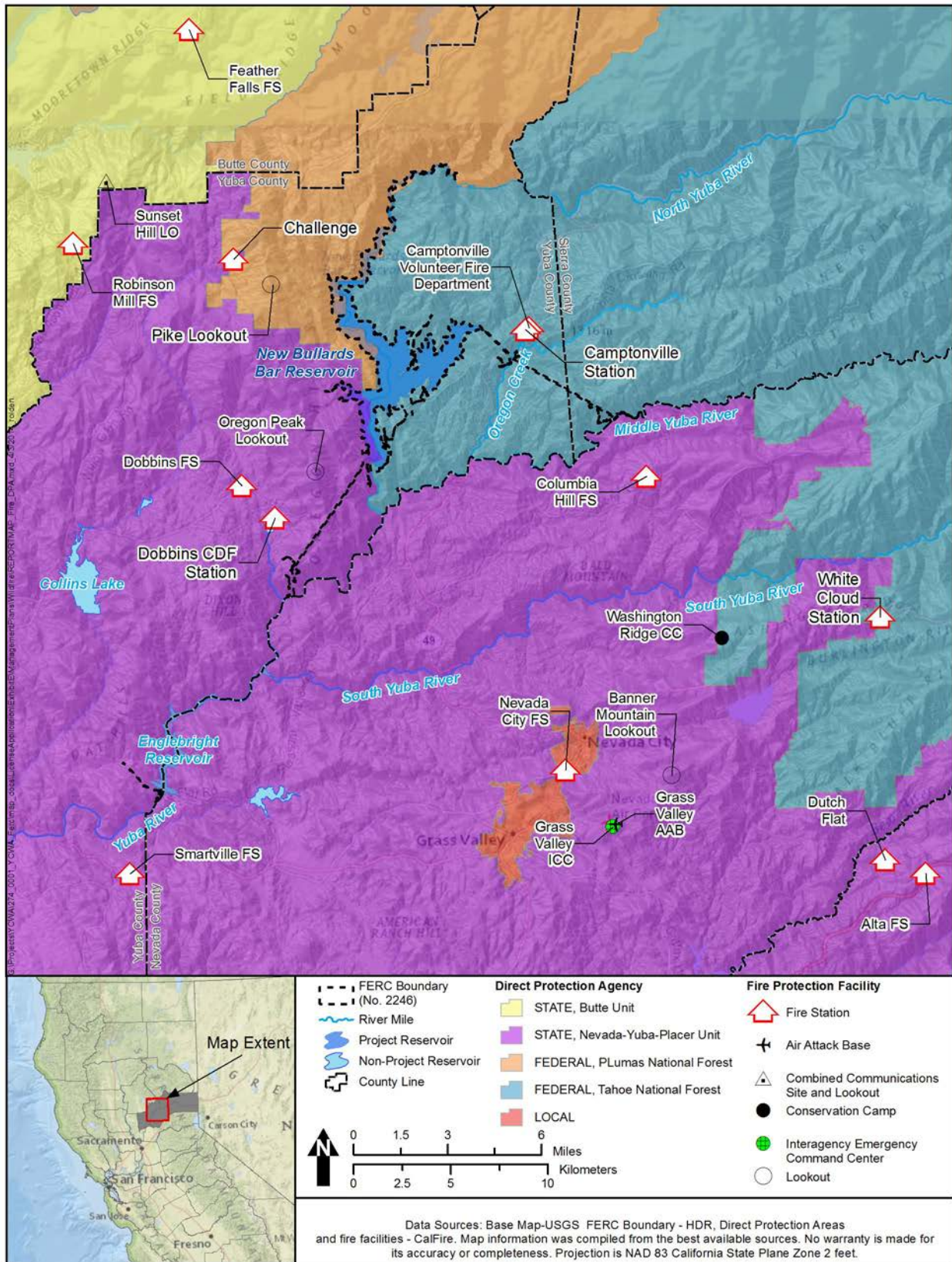


Figure 4.3-1. Fire-fighting jurisdictions in the Yuba River Development Project Area.

4.4 Road Access

Portions of the Project Area are accessible by fire suppression crews through state, county, and Forest Service roads and by YCWA's Primary Project access roads. A description of these vehicular access routes by development is provided below.

4.4.1 New Colgate Powerhouse Development

From YCWA's Project office in Marysville, access to the New Colgate Powerhouse Development is from California State Highway 20 East. From Highway 20 East, turn left onto Marysville Road; turn right to continue on Marysville Road /County Road 20. Follow Marysville Road until reaching Old Dobbins Road. Turn right on Old Dobbins Road immediately after the elevated foot bridge across Marysville Road, and then left onto Lake Frances Road. Follow Lake Frances Road. down to the river and the New Colgate Powerhouse facility.

From YCWA's Project office in Marysville, access to the New Bullards Bar Dam Development is from California State Highway 20 East. From Highway 20 East, turn left onto Marysville Road; turn right to continue on Marysville Road/County Road 20. Continue following Marysville Road until reaching the New Bullards Bar Dam.

Sections of Marysville Road fall within the PNF boundaries. The majority of the New Bullards Bar Reservoir falls within the PNF and/or TNF boundaries; however, there are also small sections of private land.

4.4.2 Narrows 2 Powerhouse

From YCWA's Project office in Marysville, access to the Narrows 2 Development is from California State Highway 20 East. From Highway 20 East, turn left onto Peoria Road and continue straight onto Scott Forbes Road /Long Bar Road for just over 4 miles past the University of California Sierra Foothills Research Extension Area offices. Then, turn right onto an unnamed road opposite a large metal building on the left side of the road and follow it downhill for over 2 miles until reaching Harry L. Englebright Dam.

4.5 Helicopter Landing Areas within the Project Boundary

While all Project Facilities may be accessed by road, fire suppression activities may require the use of helicopters. No formal helipads are located within the Project Boundary but helicopters can land in the Cottage Creek Day Use Area⁶ and Dark Day Campground parking lots; on wide sections of New Colgate Powerhouse and Narrows 2 Powerhouse access roads; New Colgate Powerhouse Access Road [(W) 121 11.709 (N) 39 19.835]; and Narrows 2 Powerhouse Access Road [(W) 121 16.298(N) 39 14.474].

⁶ Cottage Creek Day Use Area parking lot may also be used as a staging area for emergency vehicles and crews.

4.6 Fire Suppression Equipment and Personnel

YCWA does not own fire suppression equipment suitable for combating wildland fires (e.g., fire trucks, helicopters). Fire suppression equipment owned by YCWA within the Project Area primarily consists of fire extinguishers located at all Project buildings and in employee vehicles. Other fire suppression equipment owned by YCWA is located at various Project Facilities (i.e., New Colgate Powerhouse shop, Narrows 2 Powerhouse, and the YCWA warehouse at New Bullards Bar Reservoir) and consists of permanently installed CO₂ systems within powerhouses and a water trailer, as mentioned in Attachment A, back-pack water tanks, shovels, picks and axes. This portable equipment is deployed along with YCWA work crews that are participating in activities that potentially may require fire suppression equipment above and beyond hand-held extinguishers (e.g., welding, facilities and equipment repair in heavily vegetated areas, use of heavy equipment).

While equipment for suppression is limited, water from all Project reservoirs is available to agencies responding to wildland fires in the vicinity of the Project.

YCWA has personnel available to provide technical information/support for Forest Service fire operations in and adjacent to the Project. YCWA employees and contractors will immediately respond to fires that are a result of their activities, if the circumstances permit the safe containment and extinguishment of the fire.

4.7 Investigation of Project-Related Fires

YCWA agrees to fully cooperate with the proper authorities on all fire investigations related to the Project. YCWA shall produce, upon request, all materials and witnesses not subject to the attorney-client or attorney-work product privileges, over which YCWA has control, related to the fire and its investigation including:

- All investigation reports
- All witness statements
- All photographs
- All drawings
- All analysis of cause and origin
- All other, similar materials and documents regardless of how collected or maintained

YCWA shall preserve all physical evidence and give custody to the proper authority of all physical evidence requested. YCWA shall have reasonable access to the physical evidence and documents YCWA requires in order to defend any and all claims, which may arise from a fire resulting from Project operations, to the extent such access is not precluded by ongoing criminal or civil litigation.

4.8 Key Personnel Contact Directory

4.8.1 Forest Service Contacts - Tahoe National Forest

TNF fire management contacts for non-emergency Project vegetation or fire related issues:

- TNF Supervisor's Office: (530) 265-4531
- Yuba River Ranger District: (530) 288-3231

4.8.2 Forest Service Contacts – Plumas National Forest

PNF fire management contacts for non-emergency Project vegetation or fire related issues:

- PNF Supervisor's Office: (530) 283-2050
- Feather River Ranger District: (530) 534-6500

4.8.3 YCWA Contacts – Yuba River Development Plan

YCWA contacts for non-emergency Project vegetation or fire related issues:

- New Colgate Office: (530) 740-7000
- New Colgate Operations Center: (530) 740-7100
- General Manager Office: (530) 741-5015; Cell: (530) 701-6800

SECTION 5.0

CONSULTATION AND PLAN REVISIONS

5.1 Consultation

Each year during the term of the License, YCWA shall arrange to meet with the Forest Service to discuss fire resources on NFS land within the FERC Project Boundary. YCWA plans that the meeting will occur concurrently with the meeting in YCWA's proposed Condition GEN1.

5.2 Plan Revisions

YCWA, in consultation with the Forest Service and other appropriate agencies, will review, update, and/or revise the Plan, as needed, when significant changes in the existing conditions occur. Any updates to the Plan will be prepared in coordination and consultation with the Forest Service and other appropriate agencies. Sixty days would be allowed for the Forest Service and other appropriate agencies to provide written comments and recommendations before YCWA files the updated plan with FERC for FERC's approval. YCWA would include all relevant documentation of coordination/consultation with the updated Plan filed with FERC. If YCWA does not adopt a particular recommendation by the Forest Service or other appropriate agencies, the filing would include the reasons for not doing so, based on Project-specific information. YCWA will implement the Plan as approved by FERC.⁷

⁷ The Plan will not be considered revised until FERC issues its formal approval.

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SECTION 6.0

REFERENCES CITED

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Fire Prevention and Response Plan

Attachment A

Tahoe National Forest, also used by Plumas National Forest, Fire Plan for Construction and Service Contracts

Yuba River Development Project FERC Project No. 2246

April 2014

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FIRE PLAN FOR CONSTRUCTION AND SERVICE CONTRACTS
08/02/2012

1. SCOPE:

The provisions set forth below outline the responsibility for fire prevention and suppression activities and establish a suppression plan for fires within the contract area. The contract area is delineated by map in the contract. The provisions set forth below also specify conditions under which contract activities will be curtailed or shut down.

2. RESPONSIBILITIES:

A. CONTRACTOR

- (1) Shall abide by the requirements of this Fire Plan.
- (2) Shall take all steps necessary to prevent his/her employees, subcontractors and their employees from setting fires not required in completion of the contract, shall be responsible for preventing the escape of fires set directly or indirectly as a result of contract operations, and shall extinguish all such fires which may escape.
- (3) Shall permit and assist in periodic testing and inspection of required fire equipment. Contractor shall certify compliance with specific fire precautionary measures in the fire plan, before beginning operations during Fire Precautionary Period and shall update such certification when operations change.
- (4) Shall designate in the Fire Plan and furnish on Contract Area, during operating hours, a qualified fire supervisor authorized to act on behalf of Contractor in fire prevention and suppression matters.

B. Forest Service

The Forest Service may conduct one or more inspections for compliance with the Fire Plan. The number, timing, and scope of such inspections will be at the discretion of agency employees responsible for contract administration. Such inspections do not relieve the Contractor of responsibility for correcting violations of the fire plan or for fire safety in general, as outlined in paragraph 2.A above.

3. DEFINITIONS:

The following definitions shall apply:

Active Landing: A location the contractor may be skidding logs into, or performing other operations such as delimiting, log manufacturing, and chipping logs. Except for EV and E days, loading logs or stockpiling chips only, on a cleared landing, does not constitute an Active Landing.

Hot Saw: A harvesting system that employs a high-speed (>1100 rpm) rotating felling head, i.e., full rotation lateral tilt head.

Mechanical Operations: The process of felling, skidding, chipping, shredding, masticating, piling, log processing and/or yarding which requires the use of motorized power which includes, chainsaws, chippers, motorized carriages, masticators, stroke delimiters, skidders, dozers etc.

4. TOOLS AND EQUIPMENT:

The Contractor shall comply with the following requirements during the fire precautionary period, as defined by unit administering contracts:

The Fire Precautionary Period is set by the State of California which is April 1 through December 1 of any year.

- This contract requires, does not require, a Fire Box and associated Fire Tools according to CPRC Section 4428.

A. **Fire Tools and Equipment:** Contractor shall meet minimum requirements of Section 4428 of the California Public Resources Code (C.P.R.C.). Fire tools kept at each operating landing shall be sufficient to equip all employees in the felling, yarding, loading, chipping, and material processing operations associated with each landing. Fire equipment shall include two tractor headlights for each tractor dozer used in Contractor's Operations. Tractor headlights shall be attachable to each tractor and served by an adequate power source. All required fire tools shall be maintained in suitable and serviceable condition for fire fighting purposes.

Trucks, tractors, skidders, pickups and other similar mobile equipment shall be equipped with and carry at all times a size 0 or larger shovel with an overall length of not less than 46 inches and a 2-1/2 pound axe or larger with an overall length of not less than 28 inches.

Where cable yarding is used, Contractor shall provide a size 0 or larger shovel with an overall length of not less than 46 inches and a filled backpack can (4 or 5 gallon) with hand pump within 25 feet of each tail and corner block.

B. **Fire Extinguishers:** Contractor shall equip each internal combustion yarder, fuel truck, and loader with a fire extinguisher for oil and grease fires (4-A:60-B:C).

Skidders and tractors shall be equipped with a minimum 5-BC fire extinguisher.

All Fire Extinguishers shall be mounted, readily accessible, properly maintained and fully charged.

Contractor shall equip each mechanized harvesting machine with hydraulic systems, powered by an internal combustion engine (chipper, feller/buncher, harvester, forwarder, hot saws, stroke delimeter, etc), except tractors and skidders, with at least two 4-A:60-B:C fire extinguishers or equivalent.

C. **Spark Arresters and Mufflers:** Contractor shall equip each operating tractor and any other internal combustion engine with a spark arrester, except for motor vehicles equipped with a maintained muffler as defined in C.P.R.C. Section 4442 or tractors with exhaust-operated turbochargers. Spark Arresters shall be a model tested and approved under Forest Service Standard 5100-1a as shown in the National Wildlife Coordinating Group Spark Arrester Guide, Volumes 1 and 2, and shall be maintained in good operating condition. Every motor vehicle subject to registration shall at all times be equipped with an adequate exhaust system meeting the requirements of the California Vehicle Code.

D. **Power Saws:** Each power saw shall be equipped with a spark arrester approved according to C.P.R.C. Section 4442 or 4443 and shall be maintained in effective working order. An Underwriters Laboratories (UL) approved fire extinguisher containing a minimum 14 ounces of fire retardant shall be kept with each operating power saw. In addition, a size 0 or larger shovel with an overall length of not less than 38 inches shall be kept with each gas can but not more than 300 feet from each power saw when used off cleared landing areas.

- This contract requires, does not require, Section 4E of the Fire Plan.

E. **Tank Truck or Trailer:** Contractor shall provide a water tank truck or trailer on or in proximity to Contract Area during Contractor's Operations hereunder during Fire Precautionary Period. When Project Activity Level B or higher is in effect, a tank truck or trailer shall be on or immediately adjacent to each active landing, unless otherwise excepted when Hot Saws or Masticators are being used. See Section 6 for specific contract requirements.

The tank shall contain at least 300 gallons of water available for fire suppression. Ample power and hitch shall be readily available for promptly and safely moving tank over roads serving Contract Area. Tank truck or trailer shall be equipped with the following:

- (1) Pump, which at sea level, can deliver 23 gallons per minute at 175 pounds per square inch measured at the pump outlet. Pumps shall be tested on Contract Area using a 5/16 inch orifice in the Forester One

Inch In-Line Gauge test kit. Pump shall meet or exceed the pressure value in the following table for nearest temperature and elevation:

Temp	Sea Level		1000 Feet		2000 Feet		3000 Feet		4000 Feet		5000 Feet		6000 Feet		7000 Feet		8000 Feet		9000 Feet		10000 Feet	
55	179	23	174	23	169	23	165	22	161	22	157	22	153	22	150	21	146	21	142	21	139	21
70	175	23	171	23	166	22	162	22	158	22	154	22	150	21	147	21	143	21	139	21	136	20
85	171	23	168	23	163	22	159	22	155	22	151	21	147	21	144	21	140	21	136	20	133	20
100	168	23	164	23	159	22	155	22	152	22	148	21	144	21	141	21	137	20	133	20	131	20
	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M	P S I	G P M

The pump outlet shall be equipped with 1-1/2 inch National Standard Fire Hose thread. A bypass or pressure relief valve shall be provided for other than centrifugal pumps.

- (2) 300 feet of 3/4-inch inside diameter rubber-covered high-pressure hose mounted on live reel attached to pump with no segments longer than approximately 50 feet, when measured to the extreme ends of the couplings. Hose shall have reusable compression wedge type 1-inch brass or lightweight couplings (aluminum or plastic). One end of hose shall be equipped with a coupling female section and the other end with a coupling male section. The hose shall, with the nozzle closed, be capable of withstanding 200 PSI pump pressure without leaking, distortions, slipping of couplings, or other failures.
- (3) A shut-off combination nozzle that meets the following minimum performance standards when measured at 100 P.S.I. at the nozzle:

	G.P.M.	Horizontal Range
Straight Stream	10	38 feet
Fog Spray	6 - 20	N/A

- (4) Sufficient fuel to run the pump at least 2 hours and necessary service accessories to facilitate efficient operation of the pump.

When Contractor is using Hot Saws or Masticators, an additional 250 feet of light weight hose, approved by the Forest Service, shall be immediately available for use and be capable of connecting to the 300 feet of hose and appurturances in (2) and (3) above.

This equipment and accessories shall be deliverable to a fire in the area of operations and is subject to the requirements for each specific activity level identified in Section 6.

- F. **Compressed Air Foam System:** A Compressed Air Foam System (CAFS) is a fire suppression system where compressed air is added to water and a foaming agent. By agreement, Contractor may substitute a CAFS or functional equivalent in lieu of the tank truck, trailer or fire extinguishers, provided it meets or exceeds the following specifications and requirements:
 - 1. Variable foam expansion ratio – 10:1 to 20:1.
 - 2. Units shall be kept fully charged with air; water and foam concentrate as recommended by the manufacturer and have the appropriate tools to service the system.
 - 3. The unit shall contain enough energy to empty tank and clear hose prior to exhausting propellant.
 - 4. The unit shall be capable of being completely recharged within 10 minutes.

5. When used on cable yarding landings, the unit shall be outfitted for immediate attachment to carriage and transported without damage to the unit.

Fire extinguishers required for Hot Saws, Masticators and similar equipment identified in Section 4 B. above may be substituted with a 3 gallon CAFS.

Tank truck, trailer or equivalent may be substituted with a 30 Gallon CAFS with at least 550 feet of one inch hose and an adjustable nozzle with enough water, air and foam concentrate for at least one recharge.

This equipment and accessories shall also be deliverable to a fire in the area of operations and subject to the requirements for each specific activity level identified in Section 6.

5. GENERAL

- A. **State Law:** In addition to the requirements in this Fire Plan, the Contractor shall comply with all applicable laws of the State of California. In particular, see California Public Resource Codes.
- B. **Permits Required:** The Contractor must secure a special written permit from the District Ranger or designated representative before burning, welding or cutting metal or starting any warming fires. If contract requires Blasting and Storing of Explosives and Detonators, an Explosives Permit may be required pursuant to the California Health and Safety Code, Section 12101.
- C. **Blasting:** Contractor shall use electric caps only unless otherwise agreed in writing. When blasting is necessary in slash areas, a Fire Patrolperson equipped with a size 0 or larger shovel with an overall length of not less than 46 inches and a filled backpack can (4 or 5 gallon) with hand pump shall remain in the immediate area for an hour after blasting has been completed.
- D. **Smoking:** Smoking shall not be permitted during fire season, except in a barren area or in an area cleared to mineral soil at least three feet in diameter. In areas closed to smoking, the CO may approve special areas to be used for smoking. The Contractor shall sign designated smoking areas. Contractor shall post signs regarding smoking and fire rules in conspicuous places for all employees to see. Contractor's supervisory personnel shall require compliance with these rules. Under no circumstances shall smoking be permitted during fire season while employees are operating light or heavy equipment, or walking or working in grass and woodlands.
- E. **Storage and Parking Areas.** Equipment service areas, parking areas, and gas and oil storage areas shall be cleared of all flammable material for a radius of at least 10 feet unless otherwise specified by local administrative unit. Small mobile or stationary internal combustion engine sites shall be cleared of flammable material for a slope distance of at least 10 feet from such engine. The COR shall approve such sites in writing.
- F. **Reporting Fires:** As soon as feasible but no later than 15 minutes after initial discovery, Contractor shall notify Forest Service of any fires on Contract Area or along roads used by Contractor. Contractor's employees shall report all fires as soon as possible to any of the following Forest Service facilities and/or personnel listed below, but not necessarily in the order shown:

	Name	Office Address	Office telephone
Dispatch Center			
Nearest FS Station			
Inspector			
COR			
District Ranger			

When reporting a fire, provide the following information:

- Your Name
- Call back telephone number
- Project Name

- Location: Legal description (Township, Range, Section); and Descriptive location (Reference point)
 - Fire Information: Including Acres, Rate of Spread and Wind Conditions.
- This contract requires, does not require, Section 5G of the Fire Plan.
- G. Communications:** Contractor shall furnish a serviceable telephone, radio-telephone or radio system connecting each operating side with Contractor's headquarters. When such headquarters is at a location which makes communication to it clearly impractical, Forest Service may accept a reasonable alternative location. The communication system shall provide prompt and reliable communications between Contractor's headquarters (or agreed to alternative) and Forest Service via commercial or Forest Service telephone.
- This contract requires, does not require, Section 5H of the Fire Plan.
- H. Fire Patrolperson:** Contractor shall furnish a qualified fire patrolperson each operating day when Project Activity Level C or higher is in effect. When on duty, sole responsibility of patrolperson shall be to patrol the operation for prevention and detection of fires, take suppression action where necessary and notify the Forest Service as required. This Fire patrol is required on foot, unless otherwise agreed. By agreement, one patrolperson may provide patrol on this and adjacent projects. No patrolperson shall be required on Specified Road construction jobs except during clearing operations unless otherwise specified.

The Contractor shall, prior to commencing work, furnish the following information relating to key personnel:

Title	Name	Telephone Number
Fire Supervisor		
Fire Patrolperson		

- I. Clearing of Fuels:** Contractor shall clear away, and keep clear, fuels and logging debris as follows:

Welding equipment and stationary log loaders, yarders and other equipment listed in California State Law:	10 feet slope radius
Tail or corner haulback blocks:	All running blocks shall be located in the center of an area cleared to mineral soil at least 15 feet in diameter.
Lines near, between or above blocks:	Sufficient clearing to prevent line from rubbing on snags, down logs and other dead woody material.

6. EMERGENCY PRECAUTIONS

Contractor's Operations shall conform to the limitations or requirements in the Project Activity Level (PAL) table below. Project Activity Levels applicable to this project shall be the predicted activity levels for the Fire Danger Rating Area(s), or fire weather station(s) stated in the Contract Area Map Legend on Integrated Resource Service Contracts (IRSC's), and other contracts where applicable.

Fire Danger Rating Area/Fire Weather Station for Project: _____

The Forest Service, in its sole discretion, may change the predicted activity level if the current fire suppression situation, weather and vegetation conditions warrant an adjustment. If practicable, Forest Service will determine the following day's activity level by 6:00 PM. Contractor shall obtain the predicted Project Activity Level from the appropriate Ranger District Office before starting work each day.

Phone Number or Website to obtain Predicted Activity Levels: _____

Forest Service may change the Project Activity Level Table to other values upon revision of the National Fire Danger Rating System. When Contractor is notified, the revised Project Activity Levels will supersede the levels in the Project Activity Level Table below.

PROJECT ACTIVITY LEVEL

Level	Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.
A	Minimum requirements noted above in Sections 4 and 5.
B	1. Tank truck, trailer, or approved CAFS substitute shall be on or adjacent to the Active Landing.
C	1. When Hot Saws or Masticators are operating, a tank truck, trailer, or approved CAFS substitute shall be within ¼ mile of these operations. Effective communications shall exist between the operator and the Active Landing. 2. Immediately after Mechanical Operations cease, Fire patrol is required for two hours.
D	1. Immediately after Hot Saw or Masticator operations cease, Fire patrol is required for three hours. 2. No Dead Tree felling after 1:00 PM, except recently dead. 3. No burning, blasting, welding or cutting of metal after 1:00 PM, except by special permit.
Ev	1. The following activities may operate all day: <ul style="list-style-type: none"> a) Loading and hauling logs decked at approved landings. b) Loading and hauling chips stockpiled at approved landings. c) Servicing equipment at approved sites. d) Dust abatement, road maintenance (Chainsaw use prohibited), culvert installation within cleared area, chip sealing, paving, earth moving or rock aggregate stock pile loading and installation (does not include pit or quarry development). e) Chainsaw and log processing operations associated with loading logs or other forest products at approved landings. 2. Hot Saws or Masticators may operate until 1:00 PM; provided that: <ul style="list-style-type: none"> a) A tractor or other equipment with a blade capable of constructing fireline is on or adjacent to the active landing or within ¼ mile of the operating equipment. This piece of equipment shall have effective communication with the Hot Saw or Masticator. b) Any additional restrictions specified by the Forest. 3. All other conventional Mechanical Operations are permitted until 1:00 PM. 4. Some operations may be permitted after 1:00 PM, on a case-by-case basis, under the terms of a PAL Ev Variance Agreement. Activities for which a Variance may be issued are: <ul style="list-style-type: none"> • Rubber Tire Skidding • Chipping on Landings • Helicopter Yarding • Fire Salvage When approved by a Line Officer, a Variance Agreement can be implemented when the criteria specified in the agreement are met and mitigation measures are in place. This approval is good for ten (10) days unless cancelled sooner or extended by the Contracting Officer for an additional ten (10) days. Variance approval can be withdrawn at the sole discretion of the Forest Service. Variance approval is contingent on the 7-day fire weather forecast, fuel conditions, site characteristics, current fire situation, state of Contractor's equipment for prevention and suppression readiness, type of operation and social and community considerations etc. (See attached Project Activity Level Variance Agreement).

Level	<i>Project Activity Minimum Requirements and Restrictions. Restrictions at each level are cumulative.</i>
E	<p>The following activities may operate all day:</p> <ol style="list-style-type: none"> 1. Loading and hauling logs decked at approved landings. 2. Loading and hauling chips stockpiled at approved landings. 3. Servicing Equipment at approved sites. 4. Dust abatement, road maintenance (chainsaw use prohibited) or loading stock piles and rock aggregate installation (does not include pit or quarry development). 5. Chainsaw operation associated with loading at approved landings. <p>All other activities are prohibited.</p>

This Project utilizes “The Project Activity Level” (PAL), an industrial operation’s fire precaution system. The following Climatology Chart indicates the Historic Activity Levels for the Project Fire Danger Rating Area or Fire Weather Station utilized on this Project. This is only a historical average of the Activity Levels for the identified Fire Danger Rating Area or Weather Station.

Project Activity Level Climatology								
Fire Danger Rating Area/Weather Station					Years Analyzed			
	A	B	C	D	E_y	E	Days	
Month	Expected Days per Month at Each PAL Value						Analyzed	
July								
August								
September								
October								

Region 5 Project Activity Level (PAL) Ev Variance Application/Agreement

Project Name: _____
 Contract Number: _____
 Contractor Name: _____
 Request #__, for period: _____
 Units/Subdivisions Affected: _____

Location of operation:	
Slope	
Aspect	
Elevation	
Fuels on site	
Fuels in surrounding area	
7 Day PAL Outlook	
Short range predictions (Red Flags)	
Fuel Moistures	
Response time of suppression resources	
Potential for ignition	
RAWS location	
Current Fire Situation:	
Draw down information	
National Readiness Level	
Contractual considerations:	
Normal Operating Season	
Frequency of recent contract fires in area	
Type of operation	
Contractors past/current performance & equipment readiness	
Other site specific mitigation or precaution (i.e. Contractors proposals)	
Social & Community Considerations:	
Proximity of high value resources	
Sensitivity of location	

Proposed Actions: Description of Mitigation Measures: Remarks:

 Fire Management Officer Concurrence Date

 Line Officer Approval Date

I have considered the above request and determined the specified mitigation measures or actions must be implemented to continue operations in Project Activity Level Ev. Unless extended, the approval remains in effect for ten (10) calendar days unless cancelled sooner or extended by the Forest Service for an additional ten (10) days. At the sole discretion of the Forest Service, this variance can be modified and/or cancelled at no cost to the government.

 Contracting Officer Date

 Contractor Representative Date

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Fire Prevention and Response Plan

Attachment B

Instructions and Agency Checklist for Determining Project Activity Level Variances

Yuba River Development Project FERC Project No. 2246

April 2014

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Instructions for Determining Variances for Continued Operations within Specific Units and With a Specific Time Frame

1. Variances are in **addition** to the stated requirements for the Predicted Activity Level.
2. The Line Officer in consultation with the Forest Fire Management Officer or his/her representative will evaluate the items in the above check list as they relate to the existing and planned activities, add any mitigation measures as needed and the Line Officer will advise the Contracting Officer to execute the variance. The name of the Fire Management Representative and the Line Officer involved must be filled in but a signature is not required.
3. The delegated authority can be at the FSR/COR level since they would usually have more knowledge of the ground and access to the District Ranger.
4. The project area should be evaluated for differences in potential fire activity if a fire starts. This could necessitate the use of multiple forms. Examples of this would be units on a north slope near riparian areas vs. Those on south slopes that would be dryer and expected to have more severe fire conditions or there is a significant difference from the predicted PAL and the actual conditions.
5. The Purchaser/Contractor or their representative should be consulted when determining types of variances that are being considered. They might be able to come up with other options.
6. Examples of written variances are:
 - A. Local assessment determines that existing precautions are adequate
 - B. Use of specialized detection equipment such as an infrared detection device for locating heat sources is required
 - C. Provide additional fire suppression resources (i.e. crews, equipment etc.) to achieve shorter response time.

PROJECT ACTIVITY LEVEL VARIANCE CHECKLIST

Project Name: _____

Contract Number: _____

Purchaser/Contractor Name: _____

Request #__, for period: _____

Units/Subdivisions Affected: _____

Location of Operation:	
Slope Aspect Elevation	
Fuels on site	
Fuels in surrounding area	
10 day Forecast	
Short range predictions (Red Flags)	
Fuel Moistures:	
Response time of suppression resources	
Potential for ignition RAWS location	
Current Fire Situation:	
Draw down information	
National Readiness Level	
Contractual considerations:	
Operating Season	
Frequency of recent contract fires in area	
Type of operation	
Purchaser/Contractors past performance	
Other site specific mitigation or precaution (i.e. Purchaser/Contractors proposals)	

Social and Community Considerations:	
Proximity of high value resources	
Sensitivity of location	
Remarks:	

I have considered the above items and have determined the following actions must be implemented to continue operations in Project Activity Levels _____ through EV

Fire Management Consulted _____

Name _____
 Date _____

Line Officer Concurred _____

Name _____
 Date _____

Contracting Officer or Delegated Representative _____

Name _____
 Date _____

Purchaser/Contractor Rep. _____

Name _____
 Date _____

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Fire Prevention and Response Plan

Attachment C
Butte Unit Fire Management Plan 2005

Yuba River Development Project
FERC Project No. 2246

April 2014

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Butte Unit
Fire Management Plan
2005

PLUMAS COUNTY

**CDF Area Forester – Alan Klem
Plumas County Fire Safe Council**



The mission of the Plumas County Fire Safe Council is to reduce the loss of natural and manmade resources caused by wildfire through pre-fire activities.

Demographics

Plumas County's population as of the 2000 census was 20,824, an increase of over 1000 residents or 5.6% in the last decade. The county's population is expected to increase to 28,000 by 2020. Five community areas account for almost fifty percent of the County's population. These communities include Portola/Sierra Valley with 4000, Chester/Lake Almanor and Quincy/Meadow Valley/Feather River Canyon with 2000 each, Greenville/Indian Valley with 1500, and Graeagle/Mohawk Valley with 1200. Portola is the only incorporated city in the county. Plumas County's population is older on average than that of the state as a whole. People 65 years of age and older constitute 22% of the county's population; more than double the percentage in the state as a whole (10.6%).

Plumas County is approximately 2,618 square miles, or 1,644,800 acres, in size. Approximately 18% or 287,072 acres are privately owned lands, with the remaining 82% being public lands. Of those public lands, the Plumas National Forest manages 70% (1,151,360 acres), and the Tahoe and Lassen National Forests, the Bureau of Land Management and Lassen Volcanic National Park manage the remaining 10%.

Geographically Plumas County is located at the north end of the Sierra-Nevada Range and the south end of the Cascade mountain range, where the uplifting Sierras meet the volcanically created Cascades. The County rises out of the Sacramento Valley on the west at an elevation of about 1,900 feet and goes east to meet the great basin at an elevation of over 5,000 feet with Mt. Ingall being the highest point near the center of the County at 8,372 feet. There are over 30 peaks above 7,000 feet in elevation.

Wildfire Protection

The California Department of Forestry and Fire Protection has statutory responsibility for wildfire protection of private lands in California. The Butte Unit is administratively responsible for fire protection of private lands in Plumas County, except within the Lake Almanor Basin, which is the responsibility of the Lassen-Modoc Unit. Wildfire Protection for vegetation fire on private lands, for most of Plumas County, except in the Lake Almanor Basin, has been granted to the Plumas National Forest through a cooperative agreement. Fire protection for all other fire emergencies, structure, vehicle, etc. is the responsibility of the local fire agency. The Local Responsibility Area (LRA) in Plumas County includes the City of Portola, portions of Quincy and East Quincy and the portion of Sierra Valley south of the railroad.

The Plumas NF provides wildfire protection including most of the prevention law enforcement activities with 17-5 person engine companies, one medium helicopter with a 14 person helitack/rappel crew, one Type I hotshot crew, 2-20 person IA hand crews, 3 IA dozers, 2 IA

Butte Unit
Fire Management Plan
2005

water tenders, 11 fire prevention technicians, 6 lookouts, and 14 chief officers.

Fire protection for other than vegetation fires is provided to some of the communities by nineteen fire departments located throughout the county. Some of these departments have a paid Chief and some staff, but more commonly these departments are comprised entirely of volunteers.

Vegetation in the County is varied and diverse. There are 10 of the 13 NFFL fuel models represented within the County. There are dense forest on the Westside with Douglas fir and oak hardwoods, to heavy mixed conifer with both pine and fir species dominating, to pure fir and sub alpine fir stands, to lodgepole stands surrounding high mountain lakes and meadows some with stringers of aspens, to eastside ponderosa pine stands, all interspersed with brush fields and plantations from prior large fires and forest management activities, and into the rangelands and great basin sage brush on the eastside.

IA Success

The Plumas National Forest provides wildfire protection responsibility for much of Plumas County and averages about 170 ignitions per year, with 60% caused by lightning and 40% from humans. Of the human caused fires, smoking and escaped campfires constitute 8%, escaped debris burns 5%, equipment 4%, children 3%, Arson 3%, railroad activities 1% and on 16%, the cause was unable to be accurately determined. The Plumas NF has averaged about 23,000 acres per year burned over the last 5 years. The majority of fires, 97%, are caught on initial attack and suppressed at less than 10 acres. The 3% that escape initial attack are responsible for 99% of the acres burned. The majority of fires, 87%, occur from May through September. Amongst the National Forest in California, the Plumas NF usually ranks from between third to fifth for number of fires and acres burned.

In 2003, Fire occurrence on the Plumas NF was up 35% over the 5 year average. While lightning fire occurrence was up 78% with 134 ignitions, person caused fires were down 20% with only 49 ignitions. Initial attack was extremely successful in 2003, with only 109 acres burned, for 5% of the five year average.

Assets Protected

Plumas County has a population of approximately 21,000 in with a dramatic rise, often doubling or tripling that number, during the months of July, August and September. In addition to increasing seasonal populations of second home residents, other outdoors recreation opportunities on the lakes, rivers, creeks, roads, trails, resorts and golf courses bring in a high volume of visitors to the entire County. Plumas County's housing development is on a continual rise in the eastern and northern parts of the County (Graeagle, Portola, Sierra Valley and Chester, Lake Almanor).

Assets protected include over 50 residential communities and subdivisions; private timberlands; public timberlands; 7 large recreational lakes and numerous small lakes; dozens of rivers and streams all feeding two major drainages and three forks of the Feather River and into Lake Oroville; hundreds of recreational sites developed and undeveloped; the Feather

River hydro electric project of Pacific Gas & Electric, domestic water supply and storage sources for local and statewide residents, game and non-game wildlife; private and public rangelands, wild and scenic river and scenic highway corridors; and critical infrastructure features of communication sites, highways and railroads.

The level of fire protection funding provided by the Plumas NF is a function of Congress and the President's desire. Currently the Forest Service is being allocated most of which it has identified in need according to the National Fire Management Analysis System (NFMAS). NFMAS is an economic model that considering fire occurrence history, acres burned and assets at risk; computes the most effective suppression program considering Cost (pre-suppression and suppression) and Net Value Change (damage or loss of resources following a fire) (C+NVC). C+NVC is the basis of the model that the Forest Service uses to show Congress how much money is needed to meet the Most Efficient Level (MEL) over a ten-year period. The Plumas NF is currently at 95% of MEL.

Fire Management Prescriptions

Suppression

The Plumas National Forest manages most of the public lands Plumas County, with the Lassen and Tahoe NF's and the Bureau of Land management managing a much smaller portion. In Plumas County on public lands managed by the USFS and BLM, the suppression prescription is "Control". There are no areas of modified suppression of "Confine" or "Contain" or "let Burn". All fires receive rapid aggressive initial attack within the limits of and capabilities of resources. About 3-4 days per year the Plumas NF has more that 10 ignitions at the same time (from lightning), with 30 –50 per day not uncommon. In those cases, available resources are allocated according to risks of public safety, residential developments, growth potential and suppression difficulty. The primary objective is public and firefighter safety first.

Vegetation Management – Public Lands

The Herger-Feinstein Quincy Library Group Forest Recovery Act (HFQLGFRA) and the more recent Sierra Nevada Forests Plan Amendment (Sierra-Nevada Framework) govern vegetation management on public lands, managed by the three National Forests. The HFQLGFRA plan is for the construction of a network of Defensible Fuel Profile Zones (DFPZ's) and creates buffers around communities with Community Defense Zones (CDZ's). The HFQLGFRA law was passed in 1998, directing the three Forest's to plan an implement this network of fuelbreaks within five years that would create fire resistant breaks to reduce the size of catastrophic wildfires. These DFPZ's are planned along the network of highways and road systems that transverses the three National Forests and around designated communities, for about ¼ mile in width. The silvicultural prescription is for thinning from below and some canopy removal with focus on treating surface and ladder fuels. The HFQLGFRA goal is for the treatment of 40,000- 60,000 acres per year, with about 60% being within Plumas County. However for a variety of reasons, only 16% of the total project acres have been treated.

A limited number of other vegetation management activities are occurring in the form of prescribed burning, but most are in support of the HFQLGFRA.

Vegetation Management – Private Lands

Vegetation treatment on Private lands is the responsibility of the landowners for the most part. Large industrial landholders such as Sierra Pacific Industries, Collins Pine, Chy and Graeagle Land & Water, are treating their lands through a variety of silvicultural prescriptions. They have created fuelbreaks along major travel corridors, performed commercial thinning, sanitation removal, shelterwood removal and also created regeneration units. Follow-up activities of hazard reduction and plantings have occurred. All activities have been in compliance with the California State Forest Practices Act.

Additionally, a number of landowners are in various stages of sub-division development. Subdivisions in Plumas County must be approved through the County Planning Department and must conform to CDF Fire Safe Standards, PRC 4291. The fastest development is occurring in the eastern and northern parts of the County (Graeagle, Portola, Sierra Valley and Chester, Lake Almanor). Many of the home sites and homes are being purchased and developed are for second or third homes, adding to the seasonal population changes and growing recreational development.

The Plumas County Fire Safe Council (PC FSC) has also become more active in the last couple years and is growing under funding, for treating hazardous fuels with USFS and BLM grant monies provided by increased federal funding under the National Fire Plan; and with Title II and Title III funds from PL 106-393, "Secure Rural School and Community Self-Determination Act of 2000" funds. In 2002, the Council has applied for grant funding to accomplish Hazardous Fuel Reduction (HFR) in a number of areas. The Council is working in 2003 on a grant from the Plumas NF to create demonstration hazardous fuel reduction projects on 100 acres of private lands across the County, and have contracted for the services of a Registered Professional Forester to lead that effort. Additionally, PC FSC obtained funding in 2002 to treat 50 acres of public lands adjacent to a community. Planning efforts are currently underway. The PC FSC also has 11 new HFR projects in development for 2003 to reduce hazardous fuels on 800 acres of public and private land.

Pre-Fire Planning

Under the operating plan of the Four Party Agreement, the Plumas National Forest conducts most of the prevention law enforcement activities that would normally be conducted by CDF. However, a State law exist which prohibits Federal officers in northern California, from going on to private lands to enforce State laws except by invitation or threat of wildfire. An exemption exists but requires the County Sheriff to enact it. To date this has not happened. Current activities on private land include the issuance of burning permits, residential inspections for those whom request it and wildland fire investigation.

Plumas County has Weed and Hazard Abatement Ordinance, but lacks the resources to perform inspections. They will respond to complaints, but there is currently no process for assessing civil penalties without filing a complaint with the District Attorney's office. At this time there are no scheduled or annual residential fire hazard inspections. Most of the residents are left to police themselves or their neighbors. Concerned residents can file a complaint with the County or CDF and request an inspection.

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The Four Party Agreement however does not include fire safe planning on State Responsibility Area (SRA) lands. The Fire Protection Planning Bureau handles this responsibility through its Fire Protection Planning, pre-development review of plans for fire safe requirements (PRC-4290). The Plumas County Fire Safe Council furthers the fire safe efforts through fire wise community and evacuation planning, and hazardous fuel reduction.

There are two active Fire Safe Councils in Plumas County; the Plumas County, and the Lake Almanor Basin Fire Safe Councils. The Plumas Fire Safe Council began in 1997 and at that time representatives from the Lake Almanor region participated. In 2000 the Lake Almanor FSC was formed because of the desire to be more localized and because the region is in the jurisdiction of the Lassen-Modoc CDF Unit. The Plumas County Fire Safe Council will continue to function as the umbrella council for the County and will coordinate with and work on behalf of others when requested.

The Plumas County Fire Safe Council has retained the services of a private wildland fire management consultant, with over 30 years of experience, to develop and manage grants which include planning for hazardous fuel reduction, implementing 13 community homeowner educational projects, Council coordination, and other public education activities.

Other Fiscal - CDF Support to Plumas County

As 78% of Plumas County is timberland, the timber industry has traditionally been the primary employer. One person, an area forester, located in Quincy, staffs the Plumas County area of the CDF Butte Unit. The primary function of this position is to regulate timber-harvesting activities on private lands within Plumas County, with the exception of the Lake Almanor Basin and Indian Valley areas.

As a collateral duty the Area Forester has assumed some of the fire protection planning and prevention duties in order to maintain CDF interaction with the county and the public. The Area Forester responds to requests for information from County Planning regarding subdivision maps, parcel maps, General Plan amendments, timberland conversions, and planned development permits. In addition, the Area Forester responds to requests from the public, County Building Department, and developers for site inspections regarding Fire Safe Regulation compliant driveways, subdivisions, setback variances, and harvesting and landscaping methods to reduce fuel loads.

Butte Unit Objectives - 2004

1. Participate in the meetings and activities of the Plumas County Fire Safe Council.
2. Assist the Plumas County Fire Safe Council with the development and implementation of a Plumas County Wildland Fire Plan.
3. Assist the Plumas Fire Safe Council with their effort to update the "Communities at Risk" listing to include those Plumas County communities not currently listed.
4. Participate in the Plumas County Fire Safe Councils fuel reduction efforts.
5. Actively participate in State Park fuel reduction control burns.
6. Support community pre-attack planning and community wildfire hazard planning in the WUI

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areas of Plumas County.

7. With regard to current budgetary constraints, ultimately add staff dedicated to addressing fire planning and enforcement issues in Plumas County.

Butte Unit Prescriptions - 2004

1. Maintain CDF presence in Plumas County at current levels using the Unit Pre Fire Captain as the council liaison, area forester and VMP battalion chief, with the long-term plan to fund a fire planning / enforcement position for Plumas County.

Plumas County Fire Safe Council

P.O. Box 1225 - Quincy, CA 95971

(530) 283-0829 (800) 973-3320

www.plumasfiresafe.org



For further information on the activities and projects through the Plumas County Fire Safe Council see the Plumas County Wildland Fire Mitigation Plan.

2004 Annual Goals

1. To develop and implement a Countywide Community Wildland Fire Plan with community based planning.
2. Increase public knowledge and awareness of the wildland fire hazard and efforts they can make to reduce their threat.
3. Develop more community-based involvement.
4. Implement community hazardous fuel reduction projects.
5. Develop guidelines for selection criteria for hazardous fuel treatment projects.
6. Continue to pursue grant funds.

Major Past Accomplishments

- ✓ 2001 - Plumas FSC awarded its first national fire plan grants, \$100K for Firewise Consultation & Education through the USFS and \$62K for FSC coordination from BLM.
- ✓ 2002 - Jerry Hurley hired to coordinate FSC activities and the FSC became incorporated and received its 501C3 status from the Franchise Tax Board. Plumas FSC website developed www.plumasfiresafe.org. Evacuation plans completed for 7 communities. FSC created an educational display board for community events.
- ✓ 2003 – MOU completed with Plumas Corporation to be the FSC fiscal manager. Homeowner consultations expanded to 13 communities. Hazardous fuel reduction work has begun on 250 acres, on four projects, in 6 communities across the county. A one day Firewise workshop was presented in eastern Plumas County.

2004 Accomplishments to date

- ✓ A one day Firewise workshop in Almanor was presented by PC FSC in March
- ✓ The elderly and disabled defensible space program received funding and began work.
- ✓ Planning has begun for fuel treatment on 587 acres. Grant request have been submitted to treat an additional 637 acres.
- ✓ Council members are working aggressively with California Department of Forestry & the

Board of Forestry to streamline timber harvesting operations for hazardous fuel reduction projects next to communities. Emergency exemptions were approved by the Board of Forestry at their June meeting.

2004 Projects

The Plumas County Fire Safe Council has several fire safe planning and fuel reduction projects underway in 2004. For further information, see the grant table in section 3 of this document.

1. **Countywide Community Wildland Fire Plan** - The highest priority project for the Plumas County Fire Safe Council is the development and implementation of a Countywide Community Wildland Fire Plan with community based planning. This project began in the fall of 2003 with the Fire Safe Council developing a GIS layer identifying the counties WUI (wildland urban interface) areas.
2. **Communities at Risk** – work through the California Fire Alliance process to add the remaining Plumas County communities not currently listed on the national registry as “communities at risk” from wildfire.
3. **Plumas County Hazardous Fuels Assessment Strategy** – Wildland Rx hired to complete an assessment of fuels countywide, and develop fire behavior predictions along with general fuels treatment recommendations. The FSC will then develop a prioritization of areas and projects based upon the contractor’s findings.
4. **Hazardous Fuels Reduction** – fuel reduction work scheduled to begin on several projects throughout Plumas County in the fall of 2004 following the fire season.

Almanor Basin FSC

The Almanor Basin Fire Safe Council is active and a dedicated community member has worked passionately to develop educational information for the Basin. They are under the administrative jurisdiction of the Lassen Modoc Unit. This Council is also working aggressively with the Lassen-Modoc Unit, Plumas County, and the Lassen and Plumas NF’s to seek grants for chipping and reducing hazardous fuels in and around communities, seeking an alternate route for a at risk community at the end of a one-way road, community fuel reduction, and the completion of a fuelbreak around the entire Lake Almanor Basin.

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PLUMAS FIRE SAFE COUNCIL MEMBERS

Name	Organization	Name	Organization
Andy Anderson	Quincy Fire Protection District	Sue McCourt	Plumas National Forest
Art Buss	Graeagle FD	Carl McDonald	Greenhorn VFD
Henri Brachais	CDF – Butte Unit	Rob Mac Whorter	USFS, Plumas National Forest
Carl Butz	Sierra County Fire Safe Council	Dennis Miller	Plumas Planning Department
Jaye Chasseure	Citizen	Jack Millet	Consulting Forester
Dick Castaldini	Quincy Community Services District	Dennis Neves	USFS, Plumas National Forest
Dick Chapman	Camp Layman Association	Ray Nichol	Quincy FD/FS Grant Liaison
LouAnn Charbonnier	USFS, Plumas National Forest	Phil Noia	Citizen
Curt Clarkson	Graeagle Property Owner	Vincent Obersinner	USDA – NRCS Greenville
Richard Cox	C Road/Beckworth VFD	George Ozanich	Air Quality
Ron Cross	C Road Citizen	Jim Pena	USFS, Plumas National Forest
Michael DeLasaux, Chair	University of California Cooperative Ext.	Gary Pini	Penninsula Fire Protection District
Angie Dillingham	USFS, Plumas National Forest	Mark Reno	West Almanor FD
Bob Farnworth	Feather River RCD	Dave Reynolds	USFS, Plumas National Forest
John Gay	USFS, Plumas National Forest	Bob Rodgers	Meadow Valley FD
Jim Graham	Plumas County Planning	Claude Sanders	Citizen
Warren Grandall	MVFD/FS Grant Liaison	Jack Scheer	Citizen
Jim Hamblin	Indian Falls Fire Dept.	John Sheehan	Plumas Corporation
David Hawks	CDF – Butte Unit	George Sipel	Gold Mtn. Homeowners Association
Ron Heinbockel	Plumas National Forest	Larry Sternberg	Long Valley Fire
Mary Huggins	CDF - Butte Unit	Jan Stine	Consulting Forester
Jerry Hurley, Coordinator	Coordinator Plumas FSC	Frank Stewart	Quincy Library Group Forester
Karen Jeska	Mt. Hough RD Plumas NF	Chuck Thayer	Sierra Valley Fire Dept.
Mike Kerby	Meadow Valley FD/High Sierra Fire	Jerry Vice	High Sierra Fire Company
Dick Keilhorn	Quincy Community	Brian Wayland	Consulting Forester
Dale Knutsen	Almanor Basin FSC	Larry Weaver	Citizen
Jim Krantz	Beckworth Fire Dist.	John & Mary Weddle	Citizen
Bruce Livingston	Crescent Mills FD/Indian Falls	Brian West	Sierra Pacific Industries
Jim Marty	Consulting Forester	Steve Windward	Consulting Forester
		Cindy Woods	Woods Fire & Emergency Services

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