

SALMON RIVER COMMUNITY WILDFIRE PROTECTION PLAN

OCTOBER 30, 2007 FINAL

PREFACE

“The most important aspect of hazardous fuels reduction is reducing the threat to local communities. When it comes to reducing threat, we need to protect communities and help the communities to help themselves through changing the landscape from high risk to low risk. We’ll accomplish that by working closely with communities on major projects.”

USDA Forest Service Chief, Dale Bosworth

From his “Statement on the 2000 National Fire Plan”

The Salmon River Community Wildfire Protection Plan (CWPP) has developed a prioritized list of projects to focus and guide implementing landowners, organizations and funders. A key product of this Plan is the development of wildfire safety zones to reduce citizen and firefighter risks from future large wildfires. This project list consists of structure protection needs, prevention measures, pre-treatment and shaded fuelbreak construction to protect life and property in towns, residential areas, emergency access areas, and private/public interface areas. Other activities, such as adequate accessible water systems, plantation thinning, underburning, and natural fire management will be recommended. This Plan will also make recommendations that homeowners and communities can take to reduce the ignitability of structures throughout the Salmon River Watershed. The Plan will contain a Suppression Response plan and updating of the Residential Risk Assessment for Structures, Improvements and Wildfire readiness. The Salmon River Fire Safe Council (FSC) is sponsoring the development of this project. Cooperators on the FSC include community members, the U.S. Forest Service, California Department of Forestry, other managing agencies, the Karuk Tribe, the Salmon River Volunteer Fire and Rescue (SRFR), the Orleans/Somes Bar Fire Safe Council, and the Salmon River Restoration Council (SRRC).

The Salmon River CWPP is tiered to various documents and direction, including:

- 1) U. S. Forest Service National Fire Plan, August 2000
- 2) California Fire Plan, March 1996
- 3) Land & Resource Management Plan – KNF, July 1995
- 4) Fire Management Plan – KNF, February 2004
- 5) Six Rivers National Forest Fire Management Plan FY 2001
- 6) Forest Wide and specific LSR Assessments – KNF, Various dates
- 7) Salmon River Subbasin Restoration Strategy – KNF/SRRC, April 2002
- 8) Watershed (Ecosystem) Analysis – KNF, Various dates
- 9) Salmon River Roads Assessment and Planning – KNF/SRRC, June 2002
- 10) Salmon River Residential Risk Assessment – KNF/SRVFR, 1994
- 11) Private Land Management Plans i.e. Godfrey Ranch Ecosystem Management Plan
- 12) Dialog of continued Karuk culture management strategies
- 13) SRRC Community Restoration Plan, February 2006
- 14) Salmon River Noxious Weed Management Plan, SRRC, 2003
- 15) Long Range Plan For The Klamath River Basin Conservation Area, January 1991
- 16) USDA, Forest Service – Northwest Forest Plan, 1995

1. Executive Summary

1.1 Problem Overview

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The Salmon River is the highest wildfire risk watershed in the Klamath Basin. An analysis completed as part of the Fire Safe Council of Siskiyou County Community Wildfire Protection Plan found that the 480,000 acre Salmon River watershed has had over 408,000 acres burned since 1911. This makes the Salmon River the highest per acre wildfire region in the County. There is evidence that the more recent fires are also occurring at a higher intensity.

1.2 Process Overview

The Salmon River Fire Safe Council has held monthly meetings since its inception in December of 2000. Many of these meetings have been used to develop this CWPP.

1.3 Overall Goals

The overall goals of this CWPP are to educate the public and agencies, assess area for high value and high risk areas, plan and implement fuel reduction, and plan for the reintroduction of fire into its natural role in appropriate areas.

1.4 Methodology

The Salmon River Fire Safe Council (SRFSC) is the lead cooperator for this plan. Starting in December of 2000, the SRFSC has held monthly meetings to deal with many issues, including: development of Community and Neighborhood detailed fire safe plans; water source (tanker fill sites) identification, mapping and signing; road signing; private properties universal number signage, helispot location and mapping; community outreach, and education; training; Water tanks and hydrant systems; general cooperation and sharing with stakeholders and agencies.

It was quickly realized that the development of a basin-wide Fire Safe Plan, or CWPP was necessary to help focus and generate a list of action items for Fire Safe and Fuel Reduction projects. The items below are elements needed generate stakeholder involvement and to bring this plan together.

1. Wildland Urban Interface Identification
2. Prescriptions for Structure and surroundings, Private/Public, Landscape
3. Designation of Emergency Escape and Access Routes
4. Prioritization Process
5. Identify Fire Safe Plan Elements
6. Education/Prevention
 - A) Circulate Outreach Tools (Posters, Flyers, Handouts)
 - B) Provide Presentations
 - C) Circulate Checklist to prevent Fires,
 - D) Have Annual Inspections – Outside and Inside Structures
 - E) Hold Annual Fire Week–
 - 1) Training,
 - 2) Planning,
 - 3) Community Clean-Up
 - F) Hold Workshops

Another planning step is to identify opportunities for returning fire to the ecosystem in appropriate areas. For the purposes of this plan, “returning fire to the ecosystem” refers to treating areas (or creating isolated areas)

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where it will be possible for fire to burn through with maximum benefit and minimum negative impacts. This can be accomplished with a multi-stage approach. Areas can be treated with a shaded fuel break, pull-back, lop and scatter, mechanical treatment-mastication, pile burning, jackpot burning, controlled burning, or a combination of prescriptions. These methods will reduce the fire intensity, thus increasing benefits and minimizing negative impacts when fire returns to the area. The particular series of events will vary depending on the area and surroundings. To the extent practicable, existing roads, trails, and streams will be used as firebreaks.

A Fuel Modification Zone (FMZ) is any area being assessed for the benefit of reducing fire risk. Actions within a FMZ can include anything from no action, to shaded fuel breaks, to areas cleared to bare ground. The above list is not in order of importance – prioritization will be a component of the Plan.

1.5 Strategic Plan Summary

This CWPP will present a environmental, economic and fire history background of the Salmon River, describe the current and desired future condition, discuss fire behavior and principles, develop a residential risk assessment, provide information on fire safety and how to reduce the potential for structural ignitability, and develop action and priority matrices for the Salmon River.

1.6 Priority Projects Summary

Priority projects primarily relate to fuel reduction activities on private property and on WUI areas in the Salmon River watershed. Other priority projects include assessment, planning and education components concerning wildfire on the Salmon River.

1.7 Acknowledgements

Many thanks to all the interested groups, agencies, businesses, tribes, and community members who have participated and provided input into this planning process.

2. Introduction

2.1 Background, History of Accomplishments

Background of the planning process; How did you get to this point; What else did we do

2.2 Mission of Group

“The Primary Mission of the Salmon River Fire Safe Council is to help plan, implement and monitor the reinstatement of natural fire regimes in the Salmon River ecosystem in a manner that protects life, property, improves forest health, and enhances the resources valued by its stakeholders.”

2.3 Planning Area Boundaries

The area covered by this Plan is the Salmon River Watershed.

2.4 Current Process and Plan Development

The specific goals of this plan are to:

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1. Plan the development of wildfire safety zones to reduce citizen and firefighter risks and help protect property and other high value areas from future large fires.
2. Increase awareness of residents and other stakeholders of fire's role in the Salmon River ecosystem, and how to be compatible with fire.
3. Enlist local residents support to create fire safe conditions inside and outside of their structures.
4. Plan for the reintroduction of fire into its natural role in appropriate areas of the Salmon River basin in a manner that reduces the risk of future unnaturally high intensity fire and increases the safety for residents, managers, and resource users.
5. Develop a Suppression Response plan and Residential Risk Assessment for structures, improvements, and Wildfire readiness.
6. Plan fire protection and fire reintroduction activities in the Salmon River watershed that foster business and employment opportunities.
7. To support the continuation of the Salmon River Volunteer Fire Department, and coordinate and share information with them to streamline fire preparedness and emergency fire response efforts.
8. Increase capability of landowners to maintain fuels and manage fire on their property.
9. Enlist active support from all key stakeholders.

The identified objectives that will achieve the above goals are:

1. Identify private properties, residences, and improvements on the Salmon River.
2. Identify other high value areas, such as special cultural and natural resource areas (Unique, Corridors and Core areas).
3. Break out Basin into Towns, Neighborhoods, and Isolated Residence Zones:
 - a. Somes Bar
 - b. Forks of Salmon
 - c. Sawyers Bar
 - d. Cecilville
 - e. Outlying Neighborhoods
 - f. Isolated Residences
4. Identify upcoming Forest Service, Private, and Tribal fuel reduction and fire management activities.
5. Coordinate Forest Service, Tribal, and Private fuel reduction activities.
6. Catalog and map completed fuel reduction projects and assess their effectiveness.
7. Identify high fuels risk areas in towns and residential areas.
8. Identify high fuels risk areas in public/private interface areas.
9. Identify roads and trails used for emergency response to towns and residential areas (and roads and trails used for emergency egress) to reduce the risk to life and utilize in creating firesheds for management.
10. Prioritize fuels reduction in private and public/private interface areas.
11. Determine actions required for each fuels reduction area.
12. Develop list and map of known firebreaks and fuelbreaks for future fire suppression use, and evaluate on a 3 year rotation. Identify which ones are good to go and which ones need work.
13. Update Residential Risk Assessments for fire suppression and emergency response use.
14. Promote annual inspections by Forest Service or Fire and Rescue to encourage fire compliance.
15. Increase cooperation among managing agencies, local community groups, tribes, and local community members.
16. Identify certain areas for special management considerations (i.e. areas of interest – not in Neighborhood: Water systems, Native American Cultural Sites).

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17. Continue to identify and sign residences and other facilities for emergency response.
18. Continue to identify and improve Water Sources that can be used for emergency response.
19. Promote funding for emergency response equipment and training for community emergency responders.
20. Integrate fire and fuels management with other resources – water, weeds, roads, recreation etc.
21. Develop a landscape approach to protecting and managing resources to maintain key values.

2.5 Stakeholders: Who, What, When, Why

The key stakeholders in the Salmon River are:

- U. S. Forest Service – Lead managing agency for 98.7% of the land
- Salmon River Restoration Council – Non-Profit watershed education and management organization.
- Mid Klamath Watershed Council – Non-Profit watershed education and management organization.
- Orleans/Somes Bar Fire Safe Council
- U. S. Fish and Wildlife Service – Regulatory agency
- NOAA Fisheries – Regulatory agency
- California Department of Fish and Game – Regulatory agency
- California Department of Forestry and Fire Protection – Fire protection agency
- Regional Water Quality Control Board – Regulatory agency
- Karuk Tribe of California
- Quartz Valley Rancheria
- Shasta Nation
- Salmon River Volunteer Fire and Rescue
- Forks of Salmon and Junction elementary schools
- Salmon River Outpost (Somes Bar store), Forks Store, and Doyle’s Camp (Cecilville store)
- Local residents and non-resident landowners
- Assorted local businesses
- Siskiyou County
- Siskiyou Public Works, Planning and Education Departments
- Siskiyou County Air Quality Management District
- California Indian Basketweaver’s Association

3. Community Description

3.1 General Environmental Conditions

3.1.1 Landscape/Land Use

An estimated 98.7% of the Salmon River subbasin land base is administered by the Forest Service with the remaining 1.3% in other ownership (private, state and county). Of the National Forest lands within the subbasin, 45% are managed as federally designated wilderness and approximately 25% as Late-Successional Reserve. The Karuk Tribe of California's Ancestral Territory occupies 60% of the subbasin. Several thousand acres of public lands are reserved as mining claims in accord with the 1872 Mining Law that entitles the claimant to mineral rights.

3.1.2 Topography, Slope, Aspect, Elevation

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Slopes are generally steep with very little flat ground. The region has all aspects, but generally facing west. Elevation ranges from 456 feet to 8,819 feet.

3.1.3 Meteorology

The area has a Mediterranean climate with dry summers and wet winters. Summer temperatures get up to over 100 degrees Fahrenheit, winter temperatures rarely get down to 10 degrees. Precipitation within the Salmon River Watershed varies from over 80 inches in upper Wooley Creek to less than 40 inches along the South Fork. Intense, localized summer showers frequently occur, and have been associated with soil erosion and debris torrents. Historic weather data for the Salmon River from 1956 shows the average rainfall dropping from 48.75 inches to 43.59 inches in 2000 (rainklamath.xls from website).

3.1.4 Hydrology

The Salmon Basin (4th field hydrologic unit) is subdivided into four major watersheds (5th field hydrologic units), North Fork (130,468 acres), South Fork (185,608 acres), Wooley Creek (95,188 acres) and Main Stem (69,362 acres). Approximately 1,414 miles of stream drain these watersheds. The largest of the watersheds, the South Fork has 509 miles of stream or 36% of the total. The Salmon River subbasin contains sixty-three drainages (7th field hydrologic units), ranging in size from 3,300 to 14,500 acres, while averaging 7,625 acres.

Along much of its course, the river flows through a rugged gorge in which rock outcrops and bluffs are common. Several temporary landslide dams have formed along the Salmon River and its tributaries this century, with local influences on in-channel habitat and possibly fish passage. Periods of high precipitation, seismic events, and activities that disturb the soil or the vegetation can initiate landslide activity, which in-turn has resulted in major channel alterations through out the watershed. The hydrologic characteristics of the watershed are defined by climate and topography. Average annual discharge for the Salmon River is approximately 1.2 million acre feet.

3.1.5 Ecosystem Types

The Salmon River is known as one of the richest regions of species diversity in the temperate zone. The Salmon River basin is primarily a forested landscape with about 90% in forest cover. The majority of the forested land (81%) is coniferous forest with 9% in hardwood forests. The coniferous forests can be divided into the mixed conifer, Douglas-fir, and true fir types. There is also a small amount of knobcone pine forest type (> 1%). Evidence taken from Forest repeat photography, air photos and personal accounts, leads to the conclusion that forest settings 200 years ago were generally more open than today. Denser stands of conifers were found on north aspects, good soils, and in drainages. South aspects generally supported less dense stands of conifers with more hardwoods. Areas more intensely modified by American Indians generally are located within deep canyons adjacent to the Salmon River and tributaries.

The earliest timber harvest occurred in conjunction with mining and homesteading activities. Commercial harvest on public land did not begin until the 1950's. By 1974, there were about 7,500 acres of harvested public land in the watershed, and by 1989, there were about 30,000 acres. In several logged areas where little or no fuels treatment occurred, catastrophic fires have occurred over the landscape increasing erosion and water temperatures. The 1989 figures include about 18,000 acres of harvested

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land burned by the fires of 1977 and 1987. Several thousand acres are currently in plantation. These densely stocked plantations have a high likelihood of being consumed by wildfire before reaching maturity. They also increase the chance for stand replacing fires in adjacent larger stands.

3.1.6 Threatened and Endangered Habitat Types

The Salmon River watershed is home to many wildlife species such as: fishers, northern spotted owl, wolverine, and more recently elk. More than 25% of the Salmon River is designated as Late Succession Reserve. It is known for having rich botanical diversity, boasting one of the most diverse coniferous stands on the planet.

As a result of the large fires in 1977 and 1987, logging, and road building, there is less late-successional habitat and that habitat is fragmented and more isolated. These conditions expose animals to increased predation and make dispersal more difficult. The recent trend of frequent large fires will make it difficult to maintain late-successional habitat or grow early-seral stands to late-successional habitat.

The Salmon River also has Summer and Winter runs of wild Klamath Mountains Province Steelhead, Spring and Fall Chinook Salmon, Coho Salmon, Sturgeon, Lamprey, and other species of fish.

All of the fish and wildlife species found in the Salmon River have adapted to the natural disturbance regime of infrequent large-scale disturbance and more frequent moderate and small disturbances. A return to a disturbance regime that more closely follows the natural regime should benefit most wildlife species.

3.2 Population, Demographics

There are approximately 250 people that currently reside within the subbasin.

Residences are dispersed throughout the subbasin with concentrations located in, or near, the towns of Sawyers Bar, Cecilville, Somes Bar and Forks of Salmon. In addition the community is made up of several outlying small neighborhoods and isolated forest residencies. Significant neighborhoods include Butler Creek, Crapo/Nordheimer Creeks, Knownothing Creek, Taylor Creek (South Fork), Upper South Fork, Godfrey/Blue Ridge/Black Bear, Eddy Gulch, Pollocks Gulch, Little North Fork, Finley Camp, and Taylor Creek (North Fork). Private properties are widely dispersed with a few properties in wilderness areas.

There are currently several interest groups in the Salmon River subbasin: the United States Forest Service; California Department of Fish & Game, California Department of Forestry and Fire Protection; Siskiyou County, Karuk Tribe of California, resource users (mining, logging, grazing, recreation, fishing and others) and various community entities such as: Salmon River Restoration Council, Volunteer Fire & Rescue, schools and stores.

Neighborhood Descriptions

Sawyers Bar – (T. 401 N., R. 11 W., Sections 28, 29, & 32)

This contains the Sawyers Bar Township, Flapjack Bar (Immediately upriver), and properties extending downriver, including Little North Fork. Prior to occupation of the Sawyers Bar area by Euro-American and Chinese settlers spawned by the California Gold Rush of 1849, Native American Tribes populated

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the region. The major Tribes were the Konomihu, the Shasta, and the Karuk. Of these tribes, the Karuk is currently the only federally recognized Tribe, although the Shasta Tribe still has descendants living on the river. Sawyers Bar was probably a major Native American village and trading area, although artifacts were undoubtedly lost during the hydraulic mining era that stripped the soil from most of the Sawyers Bar Townsite.

The first Euro-American settlers came to the river shortly after the mid-California Strike, as noted on the Historic Plaque located outside the Sawyers Bar Town Hall: *“Sawyers Bar is perhaps the most picturesque of the Northern mining towns. It was founded in 1850 by Captain John Best & Party, who were guided to the spot by a friendly Indian. The town was originally called Bestville and had over 3,000 inhabitants. It owes its present name to the fact that on an adjacent gravel bar stood the camp of early day Mill Sawyers. The most noteworthy features are the block of century old frame buildings and the famous Catholic Church, counterpart of the southern mission. The Town’s first postmaster was John Daggett who, in 1882 became the (Lieutenant) Governor of California.”* Mining also brought in many support businesses, such as: stores, hotels, stables, etc. Sawyers Bar was also a major regional center, providing goods and services to the many other towns, mines, and homesteads in the area.

The major economy in Sawyers Bar from 1850 through the 1930s was mining. In its early days much of the surrounding timberlands were denuded of trees and vegetation for lumber to build houses, businesses, and other structures. Mining timbers were also used in great quantities to shore up the underground hard rock and placer mines that proliferated in the area. The miners may have also intentionally started fires so they could get a better look at potential mining ground. This maximum extraction and destruction of resources were in stark contrast to pre-mining management and use by Native Americans.

The first school district was established in 1875 and was housed in the Catholic Church located on the west end of town. This Church was the first Catholic Church in Northern California and continues to stand in its original location. The town now consists of approximately 87 private and county parcels on about 165 acres. Approximately 30 people now live in the town on a permanent basis, with another 40 people residing on a seasonal basis. Water is supplied by a municipal water system administrated by the Sawyers Bar County Water District. The water system is comprised of the 2000-acre Jessups Gulch watershed, and the 900-acre Tanners Gulch watershed. A series of hydrants and fire hose boxes are located throughout the town for fire protection. Water storage consists of two metal tanks located to the north and above the center of town – one with an 11,560 gallon capacity and one with a 36,720 gallon capacity.

Sawyers Bar Fire History and Current Fuels Conditions

The early day miners cut timber for wood and burned off the surrounding landscape. The Townsite itself was hydraulically mined, which cleared most of the vegetation prior to the building of the town. The major recent fire influences on the Sawyers Bar area were a 9-acre fire in 1963 that burned part of the western side of town, and a larger fire in early 1965 (after the December, 1964 flood). The 1965 fire burned most of the historic buildings in the center of town, and burned much of the vegetation and other structures above town. This burned area now has predominantly dense brush/hardwood/conifer vegetation. Forested areas in and around the town tend to have high fuel loading where fuel reduction has not recently occurred. Recently, the SRRC has completed approximately 20 acres of fuel reduction activities on private property in the town of Sawyers Bar. The FS has completed 265 of property buffer handpiled shaded fuel breaks and will be underburning another 2500 acres in the WUI area. Also in the Sawyers Bar WUI area, the FS will be completing 943 acres of fuel reduction activities with the Garden Gulch LSR. Mastication is also being completed in Jessups watershed timber sale units.

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Eddy Gulch Neighborhood – (T. 39 N., R. 11 W., Section 9)

The Eddy Gulch Neighborhood lies 2.5 miles up the Eddy Gulch Road on the North Fork Salmon River. Historically, the mining town of Rollin was up Eddy's Gulch near the Humpback Mine. It was named for Rollin Fergundes, who discovered the mine. There was a school, quartz mill, sawmill, boarding house and several homes. The post office was established in 1889. It was incorporated into the post office in Sawyers Bar in 1927.

Currently the Eddy Gulch Neighborhood consists of 6 parcels of private property, with 5 permanent residences.

In 2000-2003 SRRC contracted a local crew to perform fuels reduction on much of the private property in the neighborhood. In 2002 and 2003 the USFS thinned the forest and made hand piles in Glassups Timber Sale Units adjacent to County Road 1E001 in the Eddy Gulch Neighborhood. There was an estimated 150 acres treated. There are 429 acres of additional acres that will be underburned in the near future.

Black Bear Ranch –

The Black Bear Ranch property was a mining town from 1862 until the 1950s, supporting the Black Bear Mine. The Black Bear Mine is up Black Bear creek to the northeast of the Ranch property. The town had its own Post Office, sawmill, trading center, iron foundry, church, school, general store, and boasted a population of over 2,000 people at its height. During the active mining years, the land on and surrounding the property was heavily impacted. Historic pictures show a very open and often treeless landscape. Wood was used for mining timbers, building construction, fuel, etc. In the late 1960s, the property was sold to a group of San Francisco hippies who established a commune on the property that still exists today.

The Black Bear Ranch property is a 70-acre parcel that is jointly owned by numerous people, formed as the Black Bear Family Trust. The property still has 2 historic houses, (John Daggett's Homestead and the original school house run by Hallie Daggett), as well as the original Black Bear Barn and what used to be the Black Bear general store. The ranch also has numerous cabins and several sheds and outbuildings. Other valued features include community water systems, two potential helispots and community safety areas, extensive gardens and orchards, and a county-maintained access road. In the commune's heyday, there were over a hundred residents. Fuel wood in the area was collected by the many people and goats free ranged, leaving an open and uncluttered forest. More recently, there are 3-15 residents, with 50-100 visiting on holidays and special occasions, especially during the summer and late fall.

Black Bear Ranch Fire History and Current Fuels Conditions

The 1987 lightning fires burned lightly through the property, on the east side of Black Bear creek and the south side of Callahan Creek. During this fire, Black Bear residents put in a fireline above the houses on the southwest side of the property as the fire was creeping down, saving the structures. The property is surrounded by publicly owned land. Large areas of medium and high intensity fire occurred below the ranch to the south and west in 1987 (3,681 acres). A number of clear cuts were created in late 1980s and early 1990s on the public land in the watershed below Black Bear Ranch. The 1987 fire, combined with logging, has created high-risk fuel areas below the Black Bear Ranch property. These high risk areas, and the fact that the steep and narrow county road is the only drivable emergency access or egress in case of a fire coming from below, makes for a very dangerous situation. With 140 years of occupancy, 35

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years of woodcutting and maintenance, 20 years of goat grazing, and the absence of over-story removal for over 60 years the forest under-story on the property is quite clear. The forest can be generalized as mature, 2nd growth, conifer stands with scattered hardwoods, increasing on the south and west facing slopes. The under-story is clear of brush for the most part, however there has been an increase in dead and down in several small pockets on the property. For the past 9 years there hasn't been a steady herd of goats at Black Bear Ranch. As a result, under-story vegetation has increased somewhat in forested areas, and encroachment of seedlings, brush, and other flammable vegetation has greatly increased in the open, meadow areas and along roads and streams. The FS has completed approximately 500 acres of underburning on areas around the Black Bear drainage.

Finley Camp Neighborhood and Rainbow Mine –

Finley Camp is located on the North Fork Salmon River, 5 miles upstream from Sawyers Bar. Historically, the site had a large sawmill. The neighborhood consists of 14 parcels on 96 acres with 4 permanent residences, 2 part time residences and seasonal use on the Lost Dutchman Mining Association's property. County road 1C01 (Sawyers Bar Rd.) divides the east and west sides of most parcels. Two systems provide water to the residences and there is an existing Type 1 helispot,

The Rainbow property is a 254-acre parcel that is jointly owned by Mr. and Mrs. Richard Watts and Rita Watts. The property has 4 home sites and 4 large shop buildings. Other valued features include two water systems, a potential helispot, and access roads. No fires have burned on the Rainbow property boundary since 1911, except for part of a 1,767 acre fire in 1917 that burned the lower east side of the property. Fire starts around the property have been mainly lightning caused, except for near the North Fork Salmon (downslope from Rainbow) where there have been fires started from campfires and debris burning. The property is surrounded by publicly owned land, and on the south side, two 3-acre private parcels, a 1-acre private parcel, and a 0.5 acre private parcel. A number of clear cuts were created in the 1970s through the 1990s on the public land in the Rainbow watershed. The Rainbow property was logged (partial cut) in the 1990's.

Forks of Salmon – (T. 10 N., R. 8 E., Section 13)

Located at the confluence of the North and South Forks of the Salmon River this mining town was the supply center for many miles in all directions. For many years, supplies were brought to Forks by pack trains. There was a sawmill, a two-story hotel, bars and a store. Dorsey built the first hotel of any size. It was later owned by the Bennett Co. The hotel was fortified by the miners during an Indian raid. The post office was started in 1858 and still serves the communities down river and on the South Fork. The school was the second one established in the district. The oldest school at Forks, a log cabin, was located at the present site of Otter Bar, between Forks of Salmon and Nordheimer Creek. The Old School, which replaced it, was built in Forks in 1915. The Old School, was built in 1930s, and still serves as a community club. The new school was built in 1962, with buildings added in 1978 and 1985. The hotel was torn down in 1940s by Charlie Woodburn, who used the lumber to build a house just up river.

The Forks of Salmon community includes Downtown Forks of Salmon, and extends down the Mainstem to Otter Bar, up the North Fork to Pollacks Gulch, and up the South Fork ½ mile. Downtown Forks currently consists of 12 residences on 5 parcels, a school, a post office and a community club. It should be noted that the 150 acre Rosemary Butte property has now changed hands and is in the process of being developed by a community organization. The Mainstem neighborhood consists of 7 residential parcels and the County road maintenance facility.

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Water is supplied to the Downtown Forks of Salmon area by a resident maintained town water system. The pipeline comes out of McNeil Creek about 1 mile above town. The residences in the surrounding neighborhoods have varying individual water systems, maintained by the owners.

Forks of Salmon Fire History and Current Fuels Conditions

Like Sawyers Bar, early day miners cut timber for wood and burned off the surrounding landscape. More recent fire history shows fire burned down to the road at Forks of Salmon in the 1977 Hog Fire, and also the 1987 fire burned close to the town. In 2002 the Forks fire burned 1,400 acres to the north and east of Forks of Salmon. The FS has no current or near future planned fuel reduction activities, but acknowledges the need for fuel reduction in the Forks of Salmon area. Fuel reduction projects have been completed on portions of the private properties on the north fork, south fork and mainstem surrounding Forks of Salmon. There is still much of the private property with hazardous fuels, especially in downtown Forks of Salmon. As mentioned above, the Forest Service closed its fire station in the early 1990s, leaving the only close fire suppression crew available – the Salmon River Volunteer Fire & Rescue.

Knownothing Creek Neighborhood –

From 1888 to 1893, there was a post office in the town of Novelty, on Knownothing Creek, which served the mines in the Knownothing area. In 1893 the post office was incorporated into the post office at Forks of Salmon.

The Knownothing Creek neighborhood lies on the South Fork Salmon River, approximately two miles upstream from Forks of Salmon. Knownothing Creek consists of 15 residences spread over two miles.

The Knownothing Creek ditch originally supplied water to many of the residences in the neighborhood, but has been out of use for a number of years. The ditch is currently being considered for a renovation. Nine residences could benefit from the repair of this central water system.

Godfrey Ranch Neighborhood –

The Godfrey Ranch is a 180 acre private in holding surrounded by National Forest lands. The Godfrey Ranch is divided into 7 separately owned parcels. There are 21 people who are the landowners. There are 15 residents on the 7 parcels of private land that make up the Godfrey Ranch. Currently at the Godfrey Ranch there are 12 residences, 8 of which are occupied year-round. Current resource uses on the Godfrey Ranch include: subsistence gardening, orchards, a small native plant nursery, residencies, related water uses and storage, firewood cutting, falling and milling individual trees for small portable sawmills, wild-crafting of native plants and mushrooms, roads and road maintenance, trails, 12 free range horses that heavily use the meadow areas, and numerous other domesticated animals including, rabbits, chickens, dogs, and cats. Many hunters use the Negro and surrounding drainages to hunt for deer each year in the fall, due to the high density of deer on and surrounding the Godfrey Ranch.

Godfrey Ranch Recent Fire History – 1970 to Present

The presence of open meadows, abundant water, and large oaks at the Godfrey Ranch suggests a high likelihood of use by local indigenous people. If this is true, the flat, open areas of the ranch and beyond would have been burned frequently, if not annually to promote valued resources. The current presence of knobcone pine, as well as the west and southwest exposure, also suggests that there was a frequent fire return rate at and around the Godfrey Ranch.

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Godfrey Ranch has been subject to three recorded fires of any size. A disgruntled neighbor started the first recorded fire in 7 places below Godfrey, in 1919. Local fire fighting forces stopped the fire at 35 acres, sparing the houses, barns, and even the garden and outhouse. However, the fire consumed the gold ore processing stamp mill in the southwestern portion of what is now the 37.5 acre, McCullough parcel. In the 1977 Hog Fire, one house was burned but otherwise most of the Ranch remained intact, an island of green in the heavily burned Negro Creek drainage. In 1987, a re-burn of the Hog Fire caused a firestorm destroying 9 of the 13 dwellings. More than 95% of the vegetation was consumed in a crown fire. None of the original structures survived this fire. This fire seriously altered both the makeup of the community and the environment at Godfrey Ranch.

The current residents have worked on fuels reduction efforts and the Salmon River Restoration Council has helped the landowners to initiate a shaded fuel break system at the Godfrey Ranch, utilizing road corridors, skid trails, and ridges. Fuels conditions on the Ranch are, however, extremely high. Fuels conditions on the surrounding federal land also continue to create a high hazard fire problem for the Godfrey Ranch and the rest of the watershed. Each parcel of land at the Godfrey Ranch has received some fuels treatment by the landowners or caretakers; continued coordination of fuels treatment across the Godfrey landscape is necessary. It has been strongly voiced by the entire body of stakeholders, as well as numerous specialists, that the threat of wildfire is a number one concern for the Godfrey Ranch and its residents, and will continue to grow if treatment is not continued. The FS has completed 400 acres of mastication in plantations around Godfrey Ranch in the last four years.

Blue Ridge Ranch –

Located on the south facing slope of Blue Ridge, Blue Ridge Ranch ranges in elevation from 4,045 feet to 3,600 feet. The property burned with medium to high intensity in the 1987 Wildfire. Fuels conditions on the Ranch are moderate to extremely high. Fuels conditions on the surrounding federal land also continue to create a high hazard fire problem for the Ranch and the rest of the watershed. The Salmon River Restoration Council has helped the landowners to initiate a shaded fuel break system at the Godfrey Ranch, utilizing road corridors, skid trails, and ridges. The FS has completed many acres of mastication in plantations around Blue Ranch in the last four years.

Cecilville Neighborhood (including Taylor Creek) – (T. 38 N., R. 11 W., Section 29)

First known as Sisselville, the town was founded by John B. Sissel. Both town and the nearby creek were named after him. Town and creek both carried this spelling until the town was mined out and moved down river to its current site, at which time the spelling of the creek and town changed from Sissel to Cecil.

The old Cecilville occupied both sides of the river upriver and downriver of the current bridge across the Salmon River just downstream from Cecil Creek. The town had been second in size and importance only to Petersburg. The billiard-saloon had been brought from Buell's Post in 1858. The dates vary, but sometime between 1873 and 1890, the town, except for the school, moved down river to Crawford Creek. The school, at its original site, is currently used as a community center. Although uncertain of the date of the move, it is clear that George Sightman had bought what was left of Cecilville by at least 1890. At that time there was a post office, a store, a hotel, a saloon, and a livery stable located on the flat that runs along Crawford Creek, across from the current store at Doyle's Camp.

George Sightman was host, storekeeper, bartender, hostler, and U.S. Postmaster in the early 1890s. He had cattle, which roamed wild on the mountains around. Sightman sold beef on the hoof; the buyer had to find and shoot the animal. Sightman charged four cents a pound for the dressed meat. Sightman and his

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boarding housekeeper, Carrie Roff (later Mrs. Clifford Phares), were Cecilville's only full-time residents. George Green Brown of Brownsville on the East Fork came frequently to keep books for Sightman. George Sightman was a kind and generous man, and extended credit to all. About 1897 he lost the store to his primary creditor, the Denny Bar Co. of Callahan.

The new owners put Thomas Markham in charge. Clifford Phares became postmaster. Sightman lived with the Phares family until his death in 1903. He was buried in the cemetery near Cecilville. The store passed from the Denny Bar Co. to John McBroom in 1921, who continued the store and ran a pack train. The post office was moved upstream when John McBroom's daughter, Frances (Dove) Kaiser, became postmaster. The post office was merged into the Forks of Salmon post office in 1972. The store was purchased by Joe and Eileen Snipes in 1977. The old store and the one remaining old cabin were destroyed by fire in 1987. The Snipes built a new store and bar across the road from the old site and continued operating them until 1999, when Jim and Leni Doyle purchased them.

Cecilville Fire History and Current Fuels Conditions

Recent fire history shows fire burned down to the road west of Cecilville during the 1987 fire. Approximately 10,000 acres have been control burned by the Forest Service since 1993 on public lands surrounding Cecilville. An additional 3,000 acres are planned over the next few years. The SRRC has completed fuel reduction activities on approximately 100 acres on private properties in the Cecilville area. Fire suppression crews are available in the summer months (Forest Service) and year round (Salmon River Volunteer Fire & Rescue).

Butler Creek Area –

The Butler Creek property is an 87-acre parcel that is jointly owned by numerous people, formed as the Butler Creek Community Corporation. The property has 8 designated home sites, currently 6 of these sites are distinct residential high value areas. Other valued features include a community water system with 5 fire hydrants, a potential helispot and community safety area, and well-maintained access roads. No fires have burned on the Butler Creek property boundary since 1911, but the 1977 Hog fire burned within ½ mile to the east and south of the property, and the 1987 fire burned within ½ mile to the northeast of the property. The property is surrounded by publicly owned land, and on the north side, a 14-acre private parcel, and a 4-acre private parcel. There is 0.5 acre in-holding near the northeast corner of the Butler Creek property (the Davis cemetery). A number of clear cuts were created in 1980 on the public land in the Butler Creek watershed. The Butler Creek property was logged in the 1950's. In January of 2005 a snowdown event brought down a number of trees that have created a fuel situation in need of treatment.

Adjoining the Butler Creek property are two parcels locally called Butler Flat. These properties are relatively undeveloped but also has a large field that could be a community safety area and a helispot.

Somes Bar – (T. 11 N., R. 6 E., Section 3)

In 1852 the year of the Klamath River gold rush records show that there were five hundred to a thousand miners seeking their fortunes at the junction of the Klamath and Salmon Rivers.

The first camp was at what is now Offield Ranch. In 1860 Abraham Somes had acquired property on the Salmon River 2 miles up from the mouth of the river and was called Somes Bar. In 1868 Somes sold his store to Alexander Brizzard and it became one of several Brizzard stores in the area. By 1875 there was a hotel and post office at Somes Bar. The Junction School was established April 4, 1892 and a school at

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Irving Creek in 1918 when the crews were working on the Klamath River Road. The Irving Creek school was disbanded in 1940.

Mining continued for quite some time at the more promising claims. Further up the Klamath there were several claims being worked at Sandy Bar, one by Chinese. Below this there was the Stanshaw Mine also employing many Chinese. There was a hydraulic mine at Horseshoe Bend owned by Billy Lord, who also owned a large ranch which he sold to John Spinks. George Teneyck had a hydraulic mine 2 miles above the mouth of the Salmon. This was the oldest mine in the area and later became known as the Hickox Mine owned by Luther Hickox.

Up the Salmon River, the Oak Bottom Mine and the Grant's Mine and Mill were located at Butler Flat. The Halverston Mine was located at Irving Creek.

Abe and Jim Fry started a store and stock business at what became known as Hay Press Meadows as a press was built to care for the tons of hay that was grown there. The brothers maintained a pack business packing from Trinidad to supply their store.

Carl Langford, an engineer came to study the possibilities of a power plant on the Klamath just above the confluence of the Salmon River. A site had been chosen and a tunnel started to divert water for construction of a dam when the voters in 1924 passed legislation prohibiting the construction keeping the area for recreation and maintaining the fishing rights of the Karuk Tribe.

In 1964 a flood destroyed the bridge and store at Somes Bar. The bridge was replaced (and moved and replaced once again) and the store moved to another location no longer on the Salmon but just above the confluence with the Klamath River.

3.2 Socio-Economic History

Post European settlement historic economic patterns in the Salmon River have been driven by resource extraction. In 1850 gold was discovered on the river and the rush was on. Over 20 towns sprung up and the population in the basin numbered in the thousands. Mining was a major occupation of residents through the 1930s. During the mining period, timber was used in the basin for mines and buildings. Beginning in the late 1940s, the Forest Service began earnestly selling timber off the National Forest lands. Timber production reached a peak in the late 1980s. Current timber production is low and geared more towards forest health than meeting production quotas. Another historic employment opportunity was government service. The Forest Service had their district headquarters in Sawyers Bar and stations in Cecilville, Forks of Salmon, and Somes Bar. In the early 1980s, the USFS Salmon River District's office moved out of the watershed to Etna, which reduced the population in the basin. The Forks of Salmon Fire Station was closed and torn down in the early 1990s. Population levels have continued to drop to the current level of approximately 250 permanent residents. Summertime population levels increase to over 350. This low population has impacted the communities dramatically. Infrastructure facilities such as stores have closed and we are losing our schools.

Past land management activities, combined with effective fire suppression and the wettest century in the last 1000 years, have produced unnaturally high intensity fires that have destroyed homes and resources.

3.3 Infrastructure: Roads, Driveways, Utilities, Communication, Water Supply, Schools, Hospitals, Airports

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There are approximately 900 miles of County, private, and Forest Service roads in the Salmon River. The majority of the roads are Forest Service, originally built to access natural resources in the area. The main County roads are: 2B01, the mainstem Salmon River road that goes from Highway 96 near Somes Bar in a southeasterly direction to Forks of Salmon; 1C01, the North Fork Salmon River road that goes from Forks of Salmon in a northeasterly directly, through Sawyers Bar, to Etna (in Scott Valley); 1C02, the South Fork Salmon River road that goes from Forks of Salmon in a generally eastern direction, through Cecilville to Callahan (in Scott Valley). The County roads are the primary emergency routes in the Salmon River as well as many forest roads that provide ingress and egress to those residences away from County roads (see risk assessment section).

Telephone service is available on the North Fork, South Fork and a portion of the Mainstem. Telephone Microwave repeaters are located in Sawyers Bar and outside of Cecilville. Telephone cables are mostly buried throughout the watershed. Electrical service is only available approximately 3 miles up the Mainstem from Somes Bar. There are no hospitals or airports in the watershed, but there are 34 helispots mapped throughout the basin. There are two schools servicing the area: Forks of Salmon elementary and Junction elementary. The Sawyers Bar School is currently used as an office by the Salmon River Restoration Council. Sawyers Bar, Somes Bar and Forks of Salmon each have a U.S. Post Office.

There are numerous water supplies throughout the watershed, including those providing domestic water, hydrant systems in Sawyers Bar and Forks of Salmon and numerous Tanker Fill Sites (see Appendix 4 Tanker Fill Site Map).

There is a store, restaurant and Bar in Cecilville, a small store in Forks of Salmon, and a store in Somes Bar. Gas is available in Forks of Salmon and Cecilville.

3.4 Emergency Services (see Appendix 3 for map of all helispots)

The Forest Service and the Salmon River Volunteer Fire and Rescue (SRVFR) are the main fire responders in the Salmon River. The SRVFR has fire response capabilities in Forks of Salmon and Cecilville. The SRVFR also has ambulance services in Forks of Salmon and Cecilville with EMTs on call. The lower mainstem Salmon River will have response from SRVFR and Orleans Volunteer Fire Department (in Humboldt County). Etna and Orleans Ambulance Services respond to emergency calls. Helicopter evacuation is provided by Mercy Air out of Weed and Medford Air.

The Salmon River region is in a high fire danger zone. The Forest Service has seasonal fire stations in Sawyers Bar, Petersburg (near Cecilville) and Oak Bottom (near Somes Bar).

3.5 Community Legal Structure, Jurisdictional Boundaries –

The Salmon River Volunteer Fire and Rescue response area extends from Somes Bar (junction with Hwy 96) up the North Fork to Cow Creek on County Rd. 1C01 (23 river miles from Forks), and up the South Fork to Sixmile Creek on County Rd. 1C02 (30 river miles from Forks). The US Forest Service, Salmon River District, covers the entire watershed above Nordheimer Creek on the mainstem (river mile 14.75). The lower mainstem (below Nordheimer) is administered by the Six Rivers National Forest.

3.6 Fire Safe Councils, Watershed Councils, Resource Conservation Districts (RCD), Non-Governmental Organizations –

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The Salmon River is home to the Salmon River Restoration Council, the Salmon River Fire Safe Council, Salmon River Volunteer Fire and Rescue, the Forks of Salmon Community Club, the Sawyers Bar Town Hall Association and the Cecilville Community Center. The Salmon River is within the Siskiyou RCD boundary. In the lower Mainstem area, the Orleans/Somes Bar Fire Safe Council and the Mid Klamath Watershed Council cooperate on fire and fuel reduction planning and restoration activities.

3.7 Land Use/Development Trends –

The Forks of Salmon community will see a population increase as the 150 acre Rosemary Butte property has now changed hands and is in the process of being developed by a community organization. The Cecilville has seen an increase in families in the last few years. The Forest Service has made land exchange deals on outlying parcels and has also purchased at least one 40 acre private property. There are Tribal land allotments in Forks of Salmon and down the Mainstem. Occupancy on Mining Claims has virtually been eliminated in the last 20 years, but there has been a marked increase in Recreational Mining, adding seasonal residents. Other Recreational uses include rafting, kayaking, camping, hiking, hunting, fishing, and biking. Land prices are rising.

There is a shortage of jobs and a distinct lack of housing for people wanting to live on the Salmon River

4. **Current Fire Environment** [For overall area; can divide into sub-areas as well.]

4.1 Wildfire Problem Definition

Prior to European settlement, wildfire occurrence interval was between 10-25 years. While suppression forces have kept wildfires from significantly impacting residential areas since the 1987 fire year, increasing fuel loads are making this task more difficult in many areas.

4.2 Local Fire Ecology

The typically dry summers, localized human fire activity, steep topography, and existing vegetation types and seral stages within the Planning Area indicate that wildfires have been a major component of the local ecosystems. In the Salmon River area, many ecosystem types have evolved with fire, including mixed hardwood/coniferous forests, coniferous forests, oak woodlands, grasslands, and riparian plant communities. Fire is a natural process in these ecosystems.

Cultural Perspective –

The Salmon River is within Native American Ancestral Territory. The Karuk Tribe has had a continual aboriginal presence and history in the area, and has a continuing interest in fire related issues. Fire has been utilized by tribal people since time immemorial for protecting and enhancing resources valued by individuals, as well as family groups. Bringing the use of fire back to a level in which humans are once again an integral part of this natural ecological process, is a high priority for tribal and community members alike.

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Before fire suppression, the landscape was extensively managed as a part of everyday life. As with everything in nature, there was no taking without giving. One could not kill a deer for food without allowing ample time for it to reproduce and ensure it had a healthy environment in which to live. Low intensity fire was a critical component of this process. In burning for the management of any resource, there would be an abundance of healthy forage materials for all creatures to share.

Some Tribal Members would dedicate a good portion of their lives to picking up the ground fuels and breaking down the ladder fuels just to pack them home for heating and cooking. This kept lightning fires burning at such low intensities that these fires would creep around until the rains came and the fire would go out. With these two “natural” processes combined at regular intervals, there was a constant cycle of low-intensity fire maintaining a natural ecological balance to a preexisting healthy environment.

Burning by individuals would take place in many forms for many reasons. People would burn piles in tanoak groves after the acorn harvest. The accumulated fuels and bug-infested acorns would be piled as gathering occurred, and set on fire as they traveled home. As these piles burned the smoke would settle at tree level and the bugs remaining in the branches would drop to the ground. Many of these bugs would burn up as the fires slowly burned together and went out over night. This process also ensured that these areas did not become overcrowded with brush because most of the acorns would be picked up and the smaller seedlings would be scorched.

Eighty percent of the plants utilized by Karuk people are fire dependent species. These plants depend on fire for germination, as well as the use quality and quantity of the plant materials. Basketry materials are required to be specific sizes for various types of baskets. Specific fire use intervals are required to properly manage these resources, and these intervals vary between different cultural use plant species.

After 90 years of effective fire suppression and the halting of large-scale traditional treatments, the levels of forest fuels have risen dramatically. The current fuel loading and preceding fire intensities are considered by the Karuk Tribe to be in an unnatural state. Areas around homes and communities are a logical place to begin the reinstatement of these large-scale treatments, while protecting the public from the inevitable onslaught of extremely intense catastrophic wildland fires.

The past fire regime, prior to European settlement, within the Salmon River subbasin is described as having frequent fires (1-25 year intervals). Two recent fire history studies looked at fire regimes for two vegetation types found in the Klamath National Forest. Wills (1991) did a fire history study on Hotelling Ridge, located in the South Fork Salmon River watershed. This study revealed a pre-suppression fire return interval of 10-17 years in Douglas-fir/hardwood stands. In the Thompson Ridge area on the Happy Camp Ranger District, Taylor and Skinner (1994) have estimated pre-suppression fire return intervals for Douglas-fir/sugar pine between 15 and 25 years. Lightning and American Indian burning were the causes of ignition. Stand-replacing events were common in the subbasin, occurring when vegetative conditions were susceptible and ignition and weather opportunities were presented. However, they were only a few acres in size to a few hundred acres.

The southern exposures and drier sites tended to burn with higher severity. Fire would burn into the crowns in some locations while burning only in the ground fuels in others. This created a mosaic of vegetation types, sizes, and age classes within the watershed. During this fire regime, the south slopes were usually in a more open condition. Fire-created openings were larger on south slopes than on north slopes. Also, the lower on the slope the fire started, the larger the opening created.

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Much of the Salmon River watershed is at risk of unnaturally severe fire. Years of fire suppression have had its effect on the fuels build up of the area. In 1911, the United States Congress passed the Weeks Act. Traditional aboriginal burning, uncontrolled European settler burning practices, and a severe fire year in 1910, particularly in the western U.S, precipitated this Act. The Act set up the collaboration between federal and state fire agencies for the purpose of systematically and efficiently suppressing forest fires. Since 1911, records show that 44% of the Salmon River subbasin has burned in forest fires. Fire suppression, coupled with an abnormally wet century (increased vegetation growth), and federal agency management activities (such as logging with insufficient fuel cleanup and silvicultural practices), have contributed to the increased fire risk and damage from fire in our forests. A major heavy snow/wind storm in the winter of 1996 exacerbated the heavy fuels condition by breaking out the tops of trees and knocking trees over in many areas of the watershed. Previous years of drought and overstocking have also resulted in areas of heavy mortality. In areas which were predominately hardwoods, conifers have been encroaching, and they are also encroaching in meadows.

4.3 Fire History

Under the California Fire Plan, the California Department of Forestry and Fire Protection, Siskiyou Ranger Unit, has designated the Salmon River area as having a High Fire Risk. Salmon River Subbasin Restoration Strategy – 2002 states: “Many areas within the Salmon River subbasin are considered to be a fuel model 10... (Timber Litter with under story)...”. This fuel model makes most of the subbasin at high risk. It has a high natural frequency of lightning occurrence (see Fire Start Map). In recent years, the Offield Fire (1973) burned 8,277 acres near the river confluence. The Hog Fire (1977) burned extensively in the lower North and South Fork watershed and in Nordheimer and Crapo Creeks. The total area was about 80,000 acres. In 1987, wildfires burned 90,900 acres in four separate areas, covering much of the Salmon River subbasin. In 1994, the Specimen fire burned approximately 7,000 acres (3,045 acres within the LSR). Approximately 30% of the Salmon River subbasin has burned since the early ‘70s. Unnaturally high intensity fires in this area are known to denude riparian and upslope areas, which increases water temperatures, especially in previously burned areas and areas of bug kill. The Salmon Subbasin Sediment Analysis (USFS, 1994) provides evidence that denuding of these steep, granitic slopes drastically increases the amount of sediment entering the streams and rivers below.

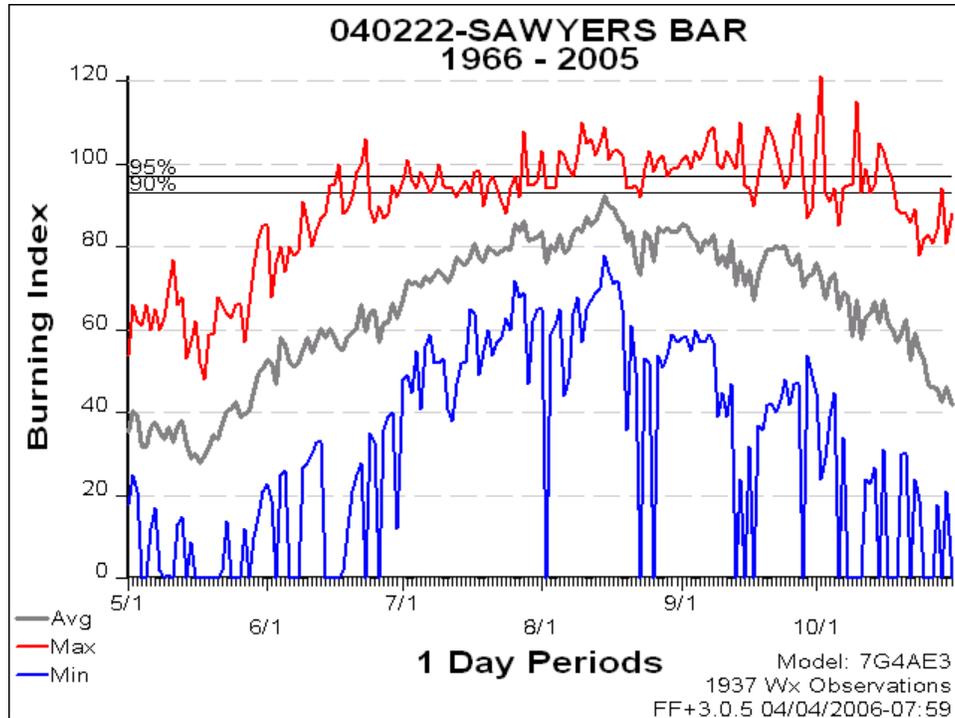
The conditions and threats in the watershed mandate that we identify short and long-term needs and prioritize and complete strategic projects that are integrated in a timely manner to protect life, property, and natural and cultural resources in this unique ecosystem. We must also reintroduce a natural fire regime to the Salmon River watershed. Fire suppression and fuels reduction activities are currently being used in the watershed. There is a critical need for more fuels reduction. As we look at the range of conditions and concerns, we can begin to piece together a cohesive strategy that will detail areas needing specific treatment or protective measures. The identification of priority areas on private and public interface lands will include the influence of these areas on each other and on adjacent areas – this will allow managers to treat smaller areas that will have an impact on the larger landscapes in the basin.

A completed Community Wildfire Protection Plan allows for the design of projects that will meet the objectives of the plan as well as provide economic opportunities to the community. Projects on private properties will provide employment for planning, assessment, education and outreach, fuels reduction, survey, and monitoring crews. Projects on public property are more extensive and potentially provide work for the long term. Both private and public lands will generate material that will have to be burned, chipped, used, or removed. Utilization of alternative forest products should be looked at as an option

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for removed vegetative material. There is a strong potential for the development of a cottage industry built around the utilization of alternative forest products. These different kinds of employment opportunities will diversify the economy of the Salmon River for the long term. The development of a sustainable economy in the basin will partially depend on the willingness of the federal managing agency to provide reasonable contracting and employment opportunities to local community residents and companies (Community-based Forestry and the National Fire Plan, Briefing Paper, April 2003, www.americanforests.org/downloads/fp/reports_pubs/hartzell_natl_fire_plan.pdf).

4.4 Fire Weather



Sawyers Bar RAWS for 30 years (90th and 95th %)

What is the Burn Index? The burn index (BI) represents a combination of fire spread and intensity, which is an indicator of the difficulty to contain and control a wildfire. The BI incorporates seasonal trends calculated from precipitation, temperature, relative humidity, and wind. The BI is scaled so that a value of 55 indicates a predicted flame length of 5.5 feet.

The burn index is one indicator used by wildland fire managers to help determine fire fighter staffing levels each day. It is also used by some structure fire departments for the same reason.

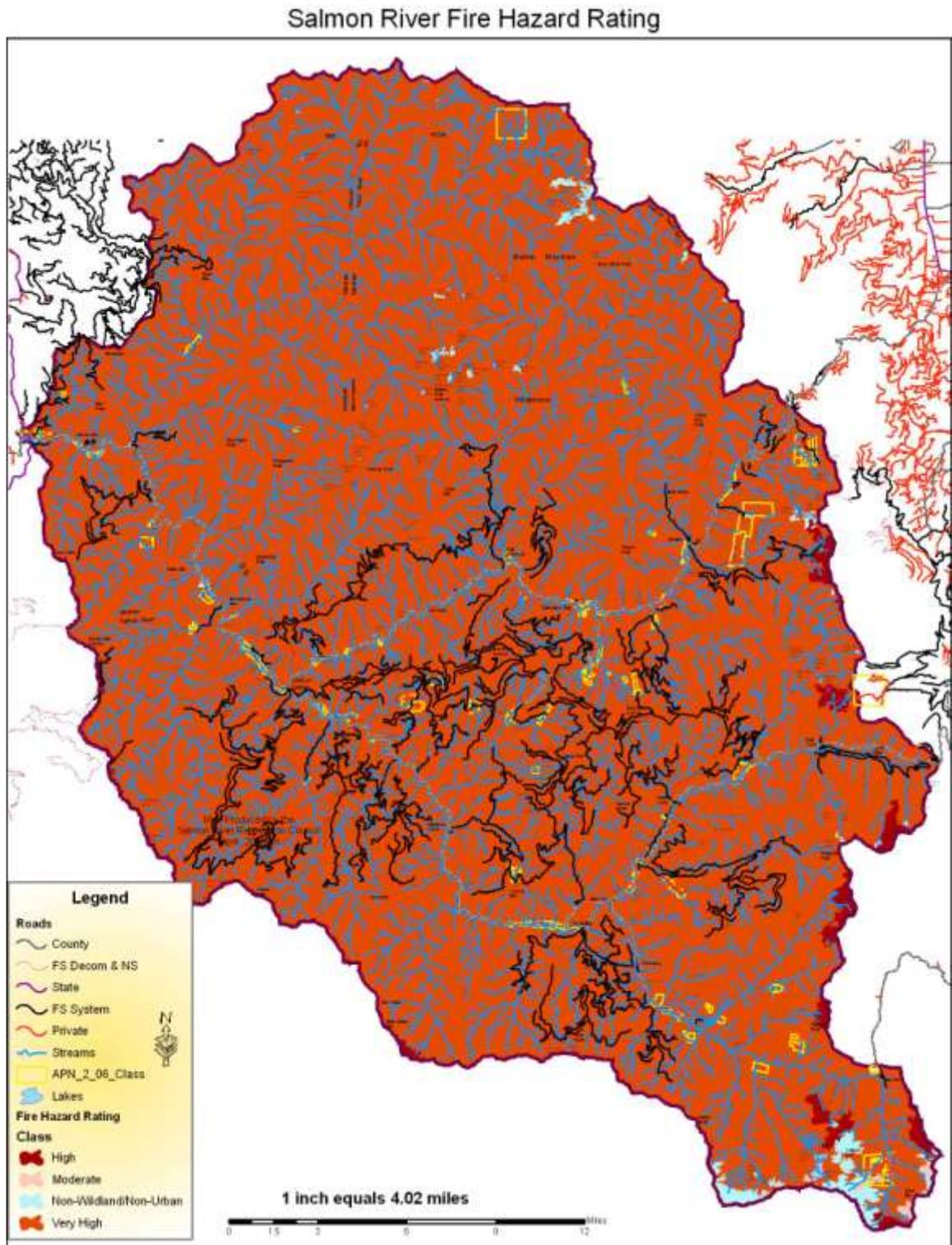
Fuel reduction: Design fuel reduction projects in conifer forest types (including 3x plantation types) to achieve the following standards within the treatment area:

- An average of 4-foot flame length under 90th percentile fire weather conditions.
- Surface and ladder fuels removed as needed to meet design criteria of less than 20 percent mortality in dominant and co-dominant trees under 90th percentile weather and fire behavior conditions.

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- Tree crowns thinned to meet design criteria of less than 20 percent probability of initiation of crown fire under 90th percentile weather conditions.

4.5 Hazardous Fuels

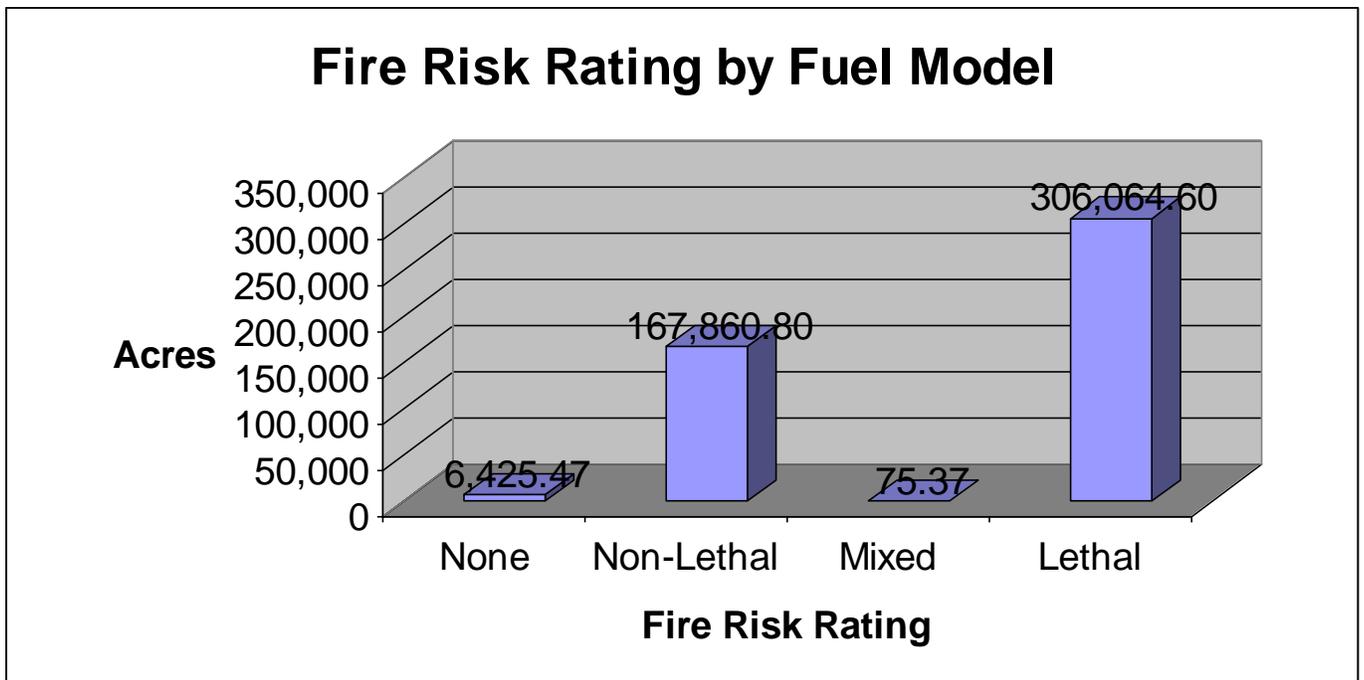


Data taken from Cal FIRE FRAP Fire Hazard Severity Zoning DRAFT, 2007
This data has not been verified by local Fire Experts (see Information Needs Appendix).

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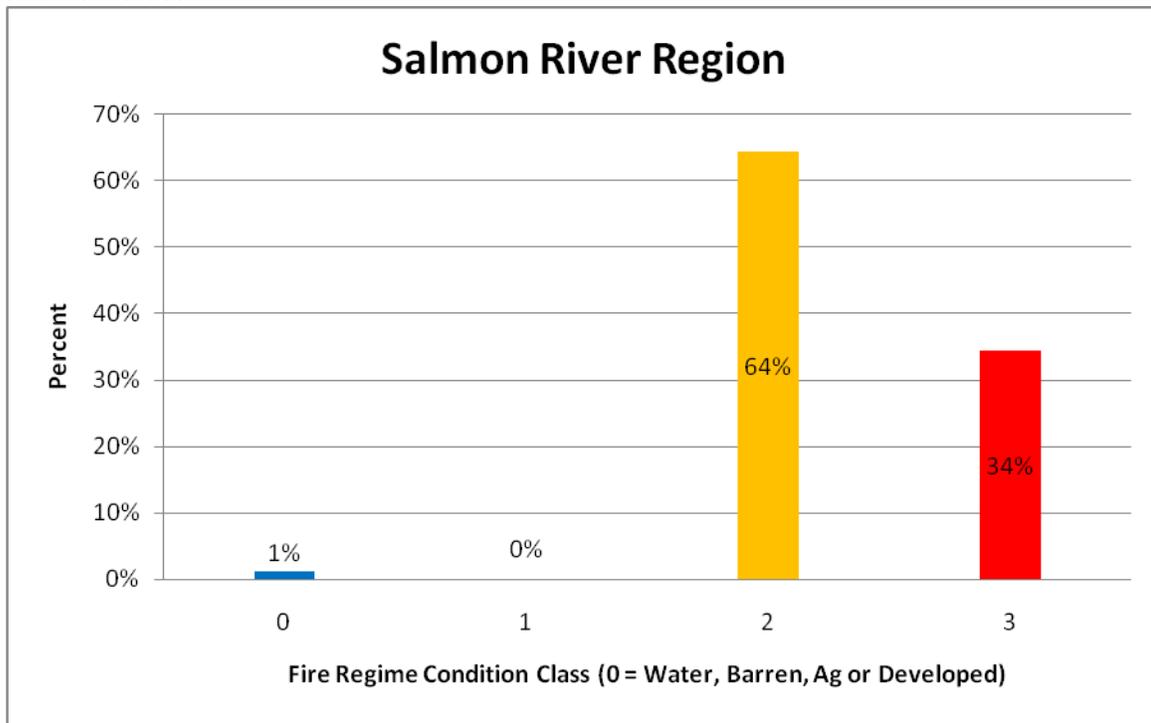
Salmon River Fire Hazard Severity Zoning Breakdown				
Hazard Rating	Non-Wildland/Non-Urban	Moderate	High	Very High
Area (sq m)	21,659,592.21	3,921,193.61	47,075,790.89	1,905,137,900.89
Area (acres)	5,352.2	968.9	11,632.6	470,767.94

4.5.1 Fuel Hazard Ranking



Based on US Forest Service Region 5 Fireshed Assessment Team Fuel Model Layer. The accuracy is questionable based on local Fire Experts (see Information Needs Appendix).

4.5.2 Condition Class



Percentages: Condition Class 1 = 0%; Condition Class 2 = 64%; Condition Class 3 = 34%. From Landfire.gov FRCC data (see Information Needs Appendix).

A natural fire regime is a general classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence of aboriginal burning (Agee 1993, Brown 1995). Coarse-scale definitions for natural (historical) fire regimes have been developed by Hardy et al. (2001) and Schmidt et al. (2002) and interpreted for fire and fuels management by Hann and Bunnell (2001). The five natural (historical) fire regimes are classified based on average number of years between fires (fire frequency) combined with the severity (amount of replacement) of the fire on the dominant overstory vegetation. These five regimes include:

- I – 0-35 year frequency and low (surface fires most common) to mixed severity (less than 75% of the dominant overstory vegetation replaced);
- II – 0-35 year frequency and high (stand replacement) severity (greater than 75% of the dominant overstory vegetation replaced);
- III – 35-100+ year frequency and mixed severity (less than 75% of the dominant overstory vegetation replaced);
- IV – 35-100+ year frequency and high (stand replacement) severity (greater than 75% of the dominant overstory vegetation replaced);
- V – 200+ year frequency and high (stand replacement) severity.

As scale of application becomes finer these five classes may be defined with more detail, or any one class may be split into finer classes, but the hierarchy to the coarse scale definitions should be retained.

A fire regime condition class (FRCC) is a classification of the amount of departure from the natural regime (Hann and Bunnell 2001). Coarse-scale FRCC classes have been defined and mapped by Hardy et al. (2001) and Schmidt et al. (2001) (FRCC). They include three condition classes for each fire regime. The classification is based on a relative measure describing the degree of departure from the historical natural fire regime. This departure results in changes to one (or more) of the following ecological components: vegetation characteristics (species composition, structural stages, stand age, canopy closure, and mosaic pattern); fuel composition; fire frequency, severity, and pattern; and other associated disturbances (e.g. insect and diseased mortality, grazing, and drought). There are no wildland vegetation and fuel conditions or wildland fire situations that do not fit within one of the three classes.

The three classes are based on low (FRCC 1), moderate (FRCC 2), and high (FRCC 3) departure from the central tendency of the natural (historical) regime (Hann and Bunnell 2001, Hardy et al. 2001, Schmidt et al. 2002). The central tendency is a composite estimate of vegetation characteristics (species composition, structural stages, stand age, canopy closure, and mosaic pattern); fuel composition; fire frequency, severity, and pattern; and other associated natural disturbances. Low departure is considered to be within the natural (historical) range of variability, while moderate and high departures are outside.

4.5.3 Natural Fire Breaks

There are very few Natural Fuel Breaks – Generally, they consist of riverine and stream riparian areas and small meadows. In the wilderness areas there are some with large outcroppings. Anthropomorphic landscape features such as roads, trails and openings that serve as Fuel Breaks.

4.6 Ignition History: Source, Season, Slope, Aspect

Ignition History comes from a KNF GIS coverage that was built from the original Individual Fire Reports (Form 5100-29) dating back to 1922. 1,757 fires were started by lightning, 48 fires were started by debris burning, 100 fires were started by campfires, 14 fires were started by children, 40 fires were started by equipment, 85 fires were started by incendiary, 117 fires were started by smokers, and 85 fires were started by miscellaneous causes. In general there seems to be a pattern of more strikes in Picayune, Upper South Fork, and Marble Mountain ridgetop areas.

5. Risk Assessment: Identifying and Evaluating Assets at Risk

Suppression Response Plan and Residential Risk Assessment

Goals 11 through 13 above will be completed as part of a Suppression Response Plan and updating of the Residential Risk Assessments (section 2.4). The Suppression Response Plan will provide information on previously used fire breaks, water tender fill sites, potential fire camp locations, existing Forest Service and Volunteer Fire and Rescue Engines locations, and other fire infrastructure resources. This information will be used to develop detailed plans for towns/neighborhoods/residences; critical emergency access routes; and landscape management of firesheds. Also to be included in this Response Plan will be a mechanism for the Forest Service to coordinate with community/Fire Safe Council Neighborhood Liaisons, who have experiential knowledge of past fires and fire behavior in their neighborhoods. These Liaisons will be prepared with information from this CWPP, specific Fire and Fuels Management Plans for private lands, and up to date GIS data in order to coordinate with the incident command team. The Liaisons will also be

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responsible for providing information to (and from) the community (see Appendix 9.1.8 – Fire Safe Council/Community Liaison Program).

The Residential Risk Assessments were completed in the early 1990s and were intended to provide information to emergency response personnel about the access conditions into a property, hazards such as fuel storage and septic systems, water availability, fuel description, slope hazard factors, legal description, construction type, structure type, roof material, and significant terrain features. The assessment also suggests which resources will be needed for protection in case of an approaching wildfire. Promoting annual fire inspections will provide residences and landowners with valuable suggestions to keep their properties defensible.

5.1 Structures/Density

The density of structures in the Salmon River is relatively low. Generally, the private parcels are located throughout the watershed, with a few neighborhoods having a greater structural density. See Neighborhood Descriptions under item 3.2.

5.2 Businesses, Commercial, Recreation

Except for the USFS Guard Stations at Petersburg, Sawyers Bar, and Oak Bottom, the main business areas are currently limited to Forks of Salmon and Cecilville. In Forks of Salmon there is a small store with gas available, and Cecilville has a store, restaurant, bar, gas, and rental cabins. There are several packing and guide businesses offering pack trips into our surrounding wilderness areas, and Otter Bar Lodge runs a kayaking school. Many residents run home cottage industries selling jewelry, soaps, oils, puppets, and other items. Road and bicycle tours are popular in the summer months as are rafting, kayaking, swimming, backpacking and hiking.

5.3 Cultural Resources

Cultural resources, for the purposes of this plan, refer to the integration of cultural practices with those aspects of the native environment that sustain and contribute to the continuity of tribal life. From this perspective cultural resources are much more than simple “human values” that need to be integrated into watershed planning in order to “balance” human concerns with non-human ecosystem functioning. Indigenous cultural resources currently exist as part of a historically identifiable relationship between land and people. These relationships form an essential component in the restoration of natural disturbance regimes, with low intensity human directed fires as a critical component of a restored native ecosystem.

Traditional Ecological Knowledge is a cultural “resource” in itself, and every bit as important to future tribal cultural survival as hunting, fishing, gathering and sacred ceremonial activities. Tribal medicine, basketry and other crafts, foods, ceremonies, spirituality and quality nutrition are byproducts, or a “value added benefit” of utilization of this knowledge when coupled with the human resources found in the local and tribal community. This knowledge is also a critical ecosystem component in the form of a “human interacted ecosystem maintenance regime” that is at risk of loss from high intensity wildland fire, if not incorporated into the restoration of natural fire regimes.

Eighty percent of cultural-use plants are fire dependent species. Each of these species requires a specific fire return interval, to ensure useable quantities and quality. Tribally significant fish and large game species are cultural resources that require the balanced ecosystem function found in pre-historic natural fire

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regimes. When the human interacted ecosystem maintenance component is recognized as a contributing factor in the restoration of culturally based restoration activities in entire watersheds, this balance is restored and all cultural resources maintain a significant level of protection and can be enhanced with a well thought out wildland fire use strategy.

Archaeological resources are cultural resources that exist throughout the plan area. SHPO concurrence is required on activities that can potentially impact archaeological resources. Wildfires are exempt from this process, but the Karuk Tribe believes there is critical need to prepare watersheds for future fire returns so as to help mitigate these impacts prior to fire occurrence. These resources are only irreparably harmed when fires consist of high intensity and are of long duration.

5.4 Ecologically Sensitive Areas: Wildlife Habitat, Plants, Ecosystem Health, Primitive Areas –

Fire can cause extensive changes in Wildlife Habitat, Plants, Ecosystem Health, and Primitive Areas, especially in large stand replacing fires. Loss of Species Core areas, Corridors, and Unique areas such as the Russian Wilderness, unusual species such as Brewers Spruce wildlife habitat, sensitive plants and wilderness values over large areas can drastically change the characteristics of these areas for a long period of time.

5.5 Water and Watersheds –

Fire can cause extensive changes in a watershed, including: burning of vegetation and litter, which releases plant nutrients (such as N, P) and metals (such as Hg, Mn); heating of soils, which alters soil properties and flow paths; and post-fire erosion, which may increase turbidity and sediment loads. These changes can impact water quality; however, the nature and degree of the impact is largely unknown, leaving water managers unprepared to mitigate water quality impairment.

High intensity wildfires denude large areas of vegetation, causing destabilization of soil, mass wasting, increased sediment delivery to streams, and increased water temperature. These fire impacts are highly detrimental to fish at a time when fish surveys have been recording record low numbers. If the fire burns hot enough and the creek is small enough, it will cook the fish. It will kill them. There are also negative consequences for fish populations because of the toxicity of fire fighting chemicals to fish and the potential for invasives to take burned areas, replacing native plants.

5.6 Air Quality –

Slash burning is only one of many kinds of outdoor burning. Outdoor burning also includes residential burning such as leaf and yard waste burning, and agricultural burning of farm fields. Outdoor burning releases carbon monoxide, particulate matter, and volatile organic compounds into the air. Carbon monoxide is a gas that interferes with the body's ability to absorb oxygen. It can cause headaches, drowsiness, and even death at high concentrations. Particulate matter is made up of tiny particles of soot, dust, and unburned fuel suspended in the air. Visible smoke is largely composed of these particles. Chronic diseases such as emphysema, asthma, chronic bronchitis, and cancer have been linked to exposure to fine particulate matter. Particulate matter also contributes to smoke haze that obscures Siskiyou County's scenery. Volatile organic compounds contribute to the formation of ozone pollution. Ozone can irritate and inflame the breathing passages in the lungs, throat, nose, and sinuses. It can cause coughing, wheezing, chest tightness, dry throat, headaches, or nausea. Outdoor burning is also known to

release toxic air pollutants. Much of this pollution is released during half of the year, making its impact more concentrated.

5.7 Biological Impacts of Fire Suppression

Firelines: Constructing firelines by handcrews or heavy equipment results in a number of direct environmental impacts: it kills and removes vegetation; displaces, compacts, and erodes soil; and degrades water quality. When dozerlines are cut into roadless areas they also create long-term visual scars that can ruin the wilderness experience of roadless area recreationists. Site-specific impacts of firelines may be highly significant, especially for interior-dwelling wildlife species sensitive to fragmentation and edge effects.

Tree Felling: Besides habitat loss and scenic degradation, an additional impact of tree felling along firelines is, ironically, the creation of new fuel hazards by leaving "windthrows" of downed woody debris and vegetation.

Chemical Use: A host of different toxic chemical fire retardants are used during fire suppression operations. Concentrated doses of retardant in aquatic habitats can immediately kill fish, or lead to algae blooms that kill fish over time. Some retardants degrade into cyanide at levels deadly to amphibians. When dumped on the ground, the fertilizer in retardant can stimulate the growth of invasive weeds that can enter remote sites from seeds transported inadvertently by suppression crews and their equipment.

Suppression Firing: The most routine form of suppression firing, "burnout," occurs along nearly every linear foot of perimeter fireline. Another form of suppression firing, "backfiring," occurs when firefighters ignite a high-intensity fire near a wildfire's flaming edge, with or without a secured containment line. In the "kill zone" between a burnout/backfire and the wildfire edge, radiant heat intensity can reach peak levels, causing extreme severity effects and high mortality of wildlife by entrapping them between two high-intensity flame fronts.

Burning out is commonly used on wildfire "complexes" (a cluster of smaller wildfires) in order to merge them together into a single large fire perimeter. As well, large unburned "green islands" located far inside firelines are often deliberately ignited. During indirect attack strategies, burnout operations can take place several miles away from the edge of a wildfire, or alternately, several miles away from firelines. Consequently, firing operations can greatly add to the total acreage of wildfires, and cause a range of low to extreme fire behavior and severity.

Road Reconstruction: Roads that have been blockaded, decommissioned, or obliterated in order to protect wildlife or other natural resource values are often reopened for firefighter vehicle access or use as firelines.

Spread of Noxious Weeds: Both vegetation removal and soil disturbance by wildfire and suppression activities can create ideal conditions for the spread of invasive weeds, which can significantly alter the native species composition of ecosystems, and in some cases can change the natural fire regime to a more fire-prone condition. Firefighters and their vehicles can be vectors for transporting invasive weed seeds deep into previously uninfested wildlands.

6. Mitigation Strategy, The Action Plan

6.1 Desired Future Conditions

At the end of the first decade, there will be changes in the Forest. In some cases, random ecological processes, independent of Forest management actions, will have shaped the landscape. In other cases, management actions implemented to meet resource objectives will have influenced the outcome.

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The Forest will remain a place of high geologic diversity. The natural processes of landslides and hillside erosion will continue to shape and influence Forest ecosystems. Many landslides associated with past management activities will be stabilized. Much of this will be the result of the Forest's aggressive restoration activities. Productive forest soils will continue to provide the basic medium for the ecosystem. High quality water in Forest streams and rivers will continue to provide the medium for healthy riparian and aquatic habitats. The air quality over the Forest will be of high quality. Natural and prescribed fires will produce smoke over a longer period of the year than at present. During the summer months, there will be fewer periods of time when high levels of smoke emissions from wildfires fill the air.

Some watersheds that are currently in poor condition due to catastrophic fires or past management activities will begin to respond to restoration activities. In general, forested cover will be increasing while erosion and sediment production decrease.

The Forest will continue to be one of the most biologically diverse areas in the Nation. Biological diversity, although variable within natural limits at the stand and landscape levels, will be essentially the same as it is today at the Forest level. There will be a mosaic of vegetative patterns across the Forest. The composition and structure of forest, rangeland, and aquatic ecosystems will be within the natural range of variability. These ecosystems will function in a healthy manner and be resilient to changes, including repeated fires. Quality habitat will be present for aquatic and terrestrial species. Habitat will be conducive to the movement and interaction of species and to movement across landscape and Forest boundaries. The distribution of species will help insure perpetuation of healthy populations.

Ecological processes will be the primary influence evident in late-successional and "old growth" habitats, specifically in locations where wildfires are no longer suppressed. Over time, a larger portion of terrestrial habitat will favor species dependent on older forest habitats instead of those that thrive in younger, more open forests. However, overall species richness will remain essentially as it is today. Habitat components, such as snags and down logs, will be distributed across the Forest at levels that support species and organisms that depend on these forest attributes for existence. The Forest will be capable of supporting a growing population of Threatened, Endangered, and Sensitive (TE&S) species due to the increase in late-successional habitat, river and stream habitat, and other habitat conditions essential to these species. The population of Roosevelt elk will be large enough to support sport hunting of this reintroduced species.

High quality aquatic habitat will be capable of supporting abundant populations of anadromous and resident fish and other aquatic species. Pool frequency and depth as well as key rearing habitats will be increased. These ecosystems will be healthy and resilient to change.

The mixture of seral stages for forest and rangeland cover types will be capable of providing for a diversity of species. Wildfires and vegetative management activities will provide patches of early seral stages in a variety of patch shapes and sizes throughout the landscape.

The amount of acres burned in high intensity wildfires will have decreased significantly due to the large, aggressive fuel management program reducing fuel loading throughout the Forest. There will be more acres of lower intensity fires similar to conditions prior to 1900. These lower intensity fires will begin to create a more open forested condition in many areas.

The landscape will appear to be primarily shaped by ecological processes, rather than management activities. Openings in the forest canopy created by vegetation management will not be readily evident. Existing clear-cut units that are apparent today will blend into the surrounding vegetation in the future, as planted trees mature and visual restoration projects soften sharp contrasts in line, form, and color.

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Wilderness areas and Research Natural Areas (RNAs) will be primarily shaped by ecological processes, although trails, livestock, and other evidence of human use might be noticeable. Management activities, while visible in local areas, would not be obtrusive.

Land patterns in some areas of the Forest will be modified to accommodate the planned development of specific communities within the Forest boundaries. Acquisition or disposal of some priority lands will result in less mixed ownership across the Forest.

Mineral development on the Forest will continue as primarily small operations. Large-scale development will be driven by National demand.

6.2 Mitigation Goals

- ▶ Improve firefighter safety.
- ▶ Reduce fuels in the Wildland/Urban Interface.
- ▶ Return fire to the ecosystem where practical.
- ▶ Implement Firewise practices.
- ▶ Establish fire prevention partnerships.
- ▶ Provide the appropriate resources to maintain an effective emergency response system to structure and wildland urban interface fires in the Salmon River.
- ▶ Promote education on fire prevention and structure protection inside and out.
- ▶ Create a flexible plan that is updated regularly when needed.
- ▶ Identify infrastructure status and needs.
- ▶ Establish regional cooperation and communication.
- ▶ Determine and evaluate economic impacts.
- ▶ Identify bi-products to offset costs.
- ▶ Create short and long term funding strategies.
- ▶ Reduce the introduction of invasives.

6.3 Current Projects

1. Develop Inventory of Actions taken to Date
2. Complete Fire Plans:
 - A. All Towns, Neighborhoods, and Isolated Residences
 - B. Public/Private Interface – WUI's
 - C. Develop GIS Coverage for Emergency Escape and Access Routes
 - D. Fireshed/Watershed Scale
3. Update Residential Risk Assessment –
 - A. Develop and Implement Rx to make residences conform to 100' defensible space,
 - B. Identify and/or Install Suppression Lines
4. Design and Implement Prevention Program – (See Above)
5. Tanker Fill Sites – Identify and Improve as Needed
6. Complete Emergency Response Signage
7. Design and Implement Bulletin Board Plan
8. Implement Prioritized Fuels Reduction –
 - A. Emergency Routes,
 - B. Defensible space around structures,
 - C. Private Lands,
 - D. Private Public Interface,
 - E. Public Landscape

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F. Develop Maintenance Plan for A-E Actions,

G. Identify How/When Natural Fire Returns in A-E Actions

9. Develop Emergency Response Plan

10. Develop Fire Suppression Plan

11. Identify and Install Emergency Water Systems for Wetting Structures in fire event

12. Develop Alternative Forest Products Feasibility Study – Firewood, etc.

13. Make water supply available on each property for fire suppression use.

14. Continue education, outreach, coordination with community, community workdays and workshops through annual fire awareness weeks and other events

15. Integrate Appropriate Fuels Management in Timber Sales

6.4 Prioritization/Process

Private properties lie widely dispersed throughout the Salmon River basin. All properties or groups of properties are surrounded by forested public property. Limited time and funding mandate that we rank properties in order to plan for fuel reduction on the properties that are most at risk. The Prioritization Strategy was developed through the Salmon River Fire Safe Council, and is based on: occupancy, location, access (slope position, aspect, and distance from fire department), fuel loading, and resource values and assets at risk (See Appendix 1).

6.4.1 Project Prescription – See Prescription Policy – Appendix 2

6.4.2.1 Wildland Urban Interface (WUI) Areas

Public meetings have been held in Cecilville, Forks of Salmon and Sawyers Bar to gain input on WUI areas. WUI areas for the Salmon River are being defined by community members, the US Forest Service, US Fish and Wildlife Service, Karuk Tribe, Salmon River Fire Safe Council, and Salmon River Volunteer Fire and Rescue. The areas generally apply to public property surrounding private property. We've expanded the definition to include high value areas in addition to residential, including historic sites, municipal water supplies, emergency access and escape routes, and high fire risk drainages that threaten residential areas. Also, special consideration is given to connecting with Forest Service under-burn and other fuels management activities projects.

We have divided prescriptions into several initial categories that are rated by the level of fire risk (High, Medium, and Low) (See Appendix 2 for prescription policy tables). Fire risk is defined as the fuel loading in an area combined with other factors (i.e. ignition sources, slope, aspect, and elevation).

The technique generally used for the fuel reduction prescriptions mainly call for a standard Shaded Fuel Break (emphasizing use of existing roads, trails, old breaks and natural features where appropriate) that breaks up fuel continuity and the fuel ladder and leaves canopy cover of at least 60%. As shown in numbers 2 and 3, proximity to a structure or other high value area would prescribe more vegetative material removed (with higher maintenance) than in outlying areas.

- 1 Sensitive and Unique Areas (i.e. ESA, Historical sites, and other Special areas on private and public properties). Shall be analyzed on a site-specific basis with input from all appropriate federal, state, and tribal agencies that have responsibility for the resources at risk.

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- 2 Residences and High Value Areas (i.e. water tanks and systems, communication systems, fuel storage, etc.). New State law defines the minimum distance of defensible space surrounding a residence as 100ft.
- 3 Emergency Access (ingress and egress) Routes – Does not guarantee that fire fighters will be able to access area under extreme fire conditions.

The Salmon River Fire Safe Council is responsible for helping to plan, implement and monitor the reinstatement of natural fire regimes in the Salmon River ecosystem in a manner that protects life, property, improves forest health, and enhances the resources valued by its stakeholders. Along with cooperators, the FSC is developing prescriptions for fuel reduction activities in WUI areas. These treatment variations are described below for the 5 different WUI area types that have been established.

1. Emergency Access and Escape Routes – Approximately 200 feet above and below road (use number 3 in prescription policy tables).
2. Property Buffers – Approximately 200 foot areas on public property surrounding individual properties, neighborhoods, and towns (Use number 2 in prescription policy tables).
3. Domestic Water Use – Use handpiling in jackpot areas, pullback from leave trees where appropriate, and underburning to achieve fuel reduction and watershed protection. 300 foot Shaded Fuel Breaks on ridge tops to protect watershed from outside fires, where appropriate.
4. ¼ Mile Buffers – On public property surrounding individual properties, neighborhoods, and towns. Use handpiling in jackpot areas, pullback from leave trees where appropriate, and underburning to achieve fuel reduction and watershed protection.
5. Special Areas – These would include areas below properties located high on slopes, as well as culturally or biologically significant areas (Use number 1 in prescription policy tables).

These are suggested treatments; costs, fuel type and terrain will dictate treatments in specific areas. Treatment areas will also be prioritized based on maximum benefit to private residences, other high value areas and protection of public resources.

6.4.2 Resources Available, Project Readiness, Responsible Parties, Agency Involvement

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Resources Available	Project Readiness	Responsible Party
Collaborative Process includes non-profits, fire departments, community members, agencies, & businesses	recommends all fire related projects, several private property fuel reduction projects on private property either funded or ready to go	Salmon River Fire Safe Council (SRFSC)
Non-profit, experience w/project administration	writing proposals for planning and implementation of fire related projects, currently implementing 1 project on private property, w/another starting in fall - projects recommended by SRFSC	Salmon River Restoration Council (SRRC)
Non-profit, experience w/project administration	implementation of water related projects, currently implementing 1 hydrant project, with a water tank project starting in fall - projects recommended by	Salmon River Volunteer Fire & Rescue
Federal agency, experience w/land management & project administration	planning and implementation of fire related projects on public property	US Forest Service

6.5 Possible Actions

6.5.1 Vegetation Management/Fuel Modification Projects – The following are the methods that will commonly be used:

- Thinning and Brushing
- Prescribed Burning
- Fuel Breaks (Shaded, Strategic, DFPZ’s)
- Industrial Resource Management
- Green Belts
- Debris Disposal

6.5.2 Community Capacity Building – The following are the methods that will commonly be used:

- Job Training/Employment
- Integrated Development Funding
- Stakeholder Collaboration
- Green Belts
- Debris Disposal

6.5.3 Infrastructure Improvements

- Water Supply – Increase water storage (see Action Matrix and Sawyers Bar, Forks of Salmon, Cecilville, and neighborhood CWPPs)
- Roads/Access – There is a need for periodic maintenance or improvement of emergency access routes to keep them functional
- Communication – Develop a communication Plan, including a phone tree and a CB tree

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6.5.4 Emergency Response

- Readiness
- Equipment – have list of local resources under Emergency Equipment Rental Agreements
- Firefighter and Public Safety Training, Certification, and Qualification
- Strategic Fuel Breaks/Defensible Polygons

6.5.5 Defensible Space

- Roads: Ingress, Egress – have been identified and mapped
- Clearing, Fire-Resistant Landscaping – 100 ft. Defensible Space

6.5.6 Evacuation Plan

- 6.5.6.1 Emergency Communication System/Neighborhood Teams/Phone Trees
- 6.5.6.2 Potential Safety Zones, Assembly areas – have been mapped (see Appendix 5).
- 6.5.6.3 Emergency access Routes – have been identified and mapped (see Appendix 5).
- 6.5.6.4 Education: How, What – Meetings, letters, flyers, posters.
- 6.5.6.5 Fire Safe Councils: Process (define meetings and mission statements, Stakeholders include all, Resources – existing community, agencies, tribes and local groups equipment and staffing.)
- 6.5.7 Fire Safe Inspector Program – see Goal # 13
- 6.5.8 Senior/Disabled Assistance – Identify Senior Citizens and Disabled individuals who may need special assistance during a fire emergency
- 6.6 Watershed Protection – obey federal and state protection laws and follow established Ecological Restoration Principles.
- 6.7 Permitting, Exemptions – Obtain all pertinent permits, permissions and exemptions needed to complete projects.
- 6.8 Prioritized Actions, Implementation Plan and Timeline (see Appendix 6 – Action Matrix)
- 6.9 Monitoring and Evaluation (see Appendix 6 – Action Matrix)

7. Summary and Conclusions

7.1 Analysis and Findings

Fire has been a significant evolutionary factor in the Salmon River watershed. Past fire suppression has helped to create extreme fuels conditions that increase the probability of stand replacing wildfires. If the land managing agencies and landowners use this Plan and the included Priority Matrix (Appendix 7) there is an opportunity to make the area able to withstand future wildfires without having stand-replacing events. As actions are completed on private properties and WUI areas, there will also be less likelihood for loss of life and property from future wildfires.

7.2 Plan Update Process

This Plan will be updated every 5 years unless significant events occur or significant information is brought forward.

8. What is Fire Safety?

The general principle behind *fire-safing* an area (making it as safe as possible for when a fire might eventually pass through) is to reduce the amount of fuel that the fire can consume. Three factors dictate the extent and severity of fire: fuel, oxygen, and heat. If any one of these elements is missing, a fire won't burn. Usually it



is difficult to control the oxygen and heat available to a fire (i.e., trying to control the weather!). That leaves the option of controlling the fuel. When there is a lot of fuel, a fire can burn very hot, and move very quickly. When there is little fuel present, fires tend to slow down and to burn cooler. Those cooler fires are much easier to control. It is in your best interest to reduce the amount of fuels around your home to reduce the risk of a wildfire consuming it. That's what it means to *fire-safe* your home—reduce the amount of fuels a fire could consume, as well as reduce other risks that increase fire, such as possible ignition sources.

Inside Your Home

Smoke detectors have saved many lives by alerting residents to fires inside the home. Smoke detectors should be positioned on the wall or ceiling just outside each bedroom. If you have a multi-level home, install a detector on every floor. Sleep with your bedroom door closed, but make sure you can clearly hear the detector in the hall. If there is any doubt, or if you smoke, place an additional detector inside your bedroom. ***Be sure to test your smoke detectors monthly and replace batteries twice a year, perhaps when clocks are changed in the spring and fall.***

Portable fire extinguishers save lives and property by putting out or containing small fires until the fire department arrives. It is most important to place fire extinguishers in your kitchen and garage. Make sure that each member of your family can hold and operate your fire extinguishers and knows where they are located inside the home. ***Remember that fire extinguishers need to be maintained and must be recharged after every use.***

Consider installing a home sprinkler system. ***Home sprinkler systems are one of the most reliable and effective ways to protect your home because they provide an immediate response to extinguish a fire.*** They also can extinguish a fire when you are asleep or when you are away from home.

Make sure your appliances (Refrigerators, stoves, hot water heaters, heaters, lights, etc.) are fire safe.

There has been a lot of literature developed on fire safety issues. Several fire-safe documents and/or references are contained in Appendix 18. Fire-Safe Literature.

How to be Ready When Fire Comes

8.1 Before the Fire:

8.1.1 Defensible Space

8.1.1.1 Legal Requirements

Public Resources Code 4291

The State recognizes the basic principles behind fire safety, and hence enacted a law—Public Resources Code (PRC) 4291—about the amount of fuels you can have around your property. Yes, it is a law. In the past, it has been rarely enforced, but it is on the books, and it could be enforced if you happen to be the one to start the fire in your neighborhood. This is one of those laws that actually makes sense, since many people, especially those new to rural areas, are not sure what to do to reduce fire risks. PRC 4291 is a good summary of the basics of fire-safing. For the text of the entire PRC 4291, please see Appendix 18. Fire-Safe Literature.

The California Department of Forestry and Fire Protection (CDF) has the responsibility of both fire suppression and enforcement on all state and private lands in California.

CDF REMINDS YOU THAT PRC 4291 REQUIRES:

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1. Maintain around and adjacent to building or structures a fuelbreak for a distance of not less than 100 feet on each side, or to the property line, whichever is nearer. This does not apply to single trees, ornamental shrubbery, or similar plants which are used as ground cover, if they do not form a means of rapidly transmitting fire from the native growth to any building or structure.
2. Remove that portion of any tree which extends within 10 feet of the outlet of any chimney or stovepipe.
3. Maintain any tree adjacent to or overhanging any building free of dead or dying wood.
4. Maintain the roof of any structure free of leaves, needles, or other dead vegetative growth.

8.1.1.2 Clearing, Landscaping, Relocation of Flammable Materials

Use appropriate vegetation in landscaping. Information available from the Salmon River Fire Safe Council, CDF, USFS and the Salmon River Volunteer Fire and Rescue

8.1.1.3 Neighborhood Preparedness Programs

Several Community Wildfire Protection Plans have been developed for towns (Sawyers Bar, Forks of Salmon, and Cecilville), neighborhoods (Butler Creek, Black Bear Ranch, and Rainbow). The Godfrey Ranch Neighborhood has also developed a Land Management Plan with a large fire component. These plans tier to this Basin-Wide plan therefore increasing the detail of information available for the entire Salmon River.

8.1.1.4 Recommended Building Materials/Fire Wise Construction

Information is available from the Salmon River Fire Safe Council, CDF, USFS and the Salmon River Volunteer Fire and Rescue. Also visit www.firewise.org

8.1.2 Neighborhood Emergency Response Teams – Utilize existing agency and Volunteer Fire & Rescue Organizations and Neighborhood Liaison Program (see Section 5 above)

8.1.3 Water Sources – Identified and Mapped – Install sprinklers, misters, and foam units on outside of homes.

8.1.4 Agency Fire Response Plan – Klamath and Six River Fire Management Plans and Dispatch Plans

8.1.5 Emergency Communication – Utilize existing agency and Volunteer Fire & Rescue Communication plans and Neighborhood Liaison Program (see Section 5 above)

8.1.6 Evacuation Plans (see Appendix 11)

8.3 After the Fire: Assess Your Success, Evaluate and Plan for How to Be Better Prepared Next Time

9. Appendices

1. Prioritization Strategy
2. Prescription (Rx) Policy
3. Map of Helispots
4. Map of Tanker Fill Sites
5. Map of Emergency Access Routes
6. Fire History Map
7. Fire Start Map
8. Wildland Urban Interface Areas
9. Action Matrix
10. Priority Matrix
11. Bibliography
12. Emergency Contact Lists

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13. Glossary
14. Evacuation Plan example
15. List of Process Participants
16. Fire Safe Council/Community Liaison Program
17. Current and Potential Funding Sources
18. Educational Materials, Literature
19. Internet Links
20. Information needs

Appendix 1 Prioritization Strategy November 8, 2007

The Salmon River Fire Safe Council needs to move forward in prioritizing what properties are at the greatest threat from future fires in the Salmon Basin. In our Salmon River Cooperative Fire Safe Plan – Phase I, we identified 7 actions needed to realize fire risk reduction:

1. Identify private properties, residences, and improvements on the Salmon River.
2. Catalog fuels reduction projects that have been completed and rank their effectiveness.
3. Identify high fuels risk areas in towns and residential areas.
4. Identify high fuels risk areas in public/private interface areas.
5. Identify roads used for emergency response to towns and residential areas (and roads used for emergency egress).
6. Prioritize fuels reduction areas in private and public/private interface areas.
7. Determine Actions required for each fuels reduction area.

To date, we have been improving the accuracy of the Siskiyou County Assessors Parcel Layer, and building a layer containing government, commercial, and residential Structures located in the Salmon River Basin.

In our prioritization scheme, we are assuming that the highest priority value in the Salmon Basin is human life, followed by property/resources, water sources, emergency access routes, etc.

Those of us who have worked and lived on the river for years have ideas on which areas are the highest risk. Our current thinking on a valid scheme for prioritizing areas and properties has developed around private properties, public/private interface areas and emergency access routes. We can use a weighting scheme to determine the highest priority properties given a set of criteria. The suggested criteria and ranking nomenclature follows:

- Structures – presence or non presence of cabin or home on property. Also, is the existing cabin or home a full time residence.
 - Scoring would be:
 - 1 – no structure (or abandoned?)
 - 2 – part time residence
 - 3 – full time residence
 - Scoring could also include
 - 4 – stacked residences (internal community increase in risk)
- Slope position and Aspect – is the property located at or near the bottom of a river or tributary or upslope. What direction does the property face?
 - Scoring would be:
 - 1 – within a distance of a river or tributary where riparian vegetative influences will affect fire potential
 - 2 – midslope position
 - 3 – midslope position, south facing
 - 4 – upper 1/3rd slope position

Appendix 1 Prioritization Strategy November 8, 2007

- 5 – upper 1/3rd slope position, south facing
- Accessibility and Response time
 - Scoring would be:
 - 1 – adjacent to major road (State or County) – Short response time
 - 2 – adjacent to major road (State or County) – Long response time
 - 3 – adjacent to main Forest Service Road (continual maintenance) – Short response time
 - 4 – adjacent to main Forest Service Road (continual maintenance) – Long response time
 - 5 – off main travel routes and/or single roaded access
 - 6 – access only by trail
- Private Property Fuel Condition
 - Scoring would be:
 - 1 – recently or continually maintained – kept in park-like condition
 - 2 – older stands without heavy fuel buildup or brush
 - 3 – older stands with heavy buildup and/or brush
 - 4 – burned or managed stands with small trees, brush, and down fuel – or large slash piles
- Private/Public Interface Fuel Condition
 - Scoring would be:
 - 1 – recently or continually maintained – kept in park-like condition
 - 2 – older stands without heavy fuel buildup or brush
 - 3 – older stands with heavy buildup and/or brush
 - 4 – burned or managed stands with small trees, brush, and down fuel – or large slash piles
- Resource Values/Assets at Risk
 - Scoring would be:
 - 1 – Low
 - 2 – Medium
 - 3 – High

Appendix 10 Salmon River CWPP Priority Matrix

Implement Defensible Space Projects on Private Property				
Priority	Location	Timeline	Who	Amount
1	100' Defensible Space on Upper Slope Properties with little or no recent fuel reduction work			
	1. Godfrey Ranch	2007/08 Winter	SRFSC & Landowners	\$ 2,400.00
	2. Blue Ridge Ranch	2007/08 Winter	SRFSC & Landowners	\$ 1,200.00
	3. Offield Mountain	2007/08 Winter	SRFSC & Landowners	\$ 1,200.00
	4. Taylor Hole	2007/08 Winter	SRFSC & Landowners	\$ 3,600.00
2	100 ft. Defensible Space on Lower Slope Properties throughout the Salmon River	2007/08 Winter	SRFSC & Landowners	\$ 20,000.00
3	Upper Slope Properties with little or no recent fuel reduction work	<5 years	SRFSC & Landowners	\$ 100,000.00
4	Lower Slope Properties with little or no recent fuel reduction work	<5 years	SRFSC & Landowners	\$ 200,000.00
5	Upper Slope Properties in need of rework	<5 years	SRFSC & Landowners	\$ 50,000.00
6	Lower Slope Properties in need of rework	<5 years	SRFSC & Landowners	\$ 100,000.00
7	Upper Slope Shaded Fuelbreaks along Private Roads	<5 years	SRFSC & Landowners	\$ 75,000.00
8	Lower Slope Shaded Fuelbreaks along Private Roads	<5 years	SRFSC & Landowners	\$ 200,000.00
Implement Fuel Reduction Projects on public property				
1	Upper Slope Shaded Fuelbreaks 200 feet around Private Properties Boundaries			
2	Lower Slope Shaded fuelbreaks 200 feet around Private Properties Boundaries			
3	Upper Slope Shaded Fuelbreaks along Public Roads (E-Access Routes)			
4	Lower Slope Shaded Fuelbreaks along Public Roads (E-Access Routes)			
5	Domestic Water Use Areas with no recent Fire or Treatment			
6	Special WUI Areas with no recent Fire or Treatment			
7	Domestic Water Use Areas with recent Fire or Treatment			
8	Special WUI Areas with recent Fire or Treatment			
9	Forest roads and ridges, where reasonable, to create firesheds			

Appendix 10 Salmon River CWPP Priority Matrix

Implement Fuel Reduction Projects on public property			
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Pre-commercial Thinning Handpiles:

Godfrey Ranch, 94 acres, T39N,R12W,Sec 19,20,29,30,31 MDM	Fall/Winter07/08	USFS
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Roadside Clearance Handpiles:

Sawyers Bar WUI, 180 acres, T40N,R11W,Sec 29,30 MDM T40N,R12W,Sec 23,24,25 MDM	Fall/Winter07/08	USFS
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Crawford Creek, 55 piles, along Crawford Creek Road	Fall/Winter07/08	USFS
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Timber Sale Piles:

Robinson Flat, 5 acres, T40N,R10W, Sec 19 MDM, T40N,R11W,Sec 24,25 MDM Taylor Creek, 12 piles, T38N,R10W, Sec 3 MDM Shadow Creek, 15 piles, T39N,R11W Sec 24 and 25 MDM	Fall/Winter07/08	USFS
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Upper South Fork Underburn:

400 acres South of Cecilville	Fall/Spring07/08	USFS
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Long/Gibson Underburn:

2800 acres, annual burn of 1000 - 1200 acres next 2-3 years	Fall/Spring 07-09	USFS
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Glassups Underburn:

525 acres South of Sawyers Bar (Eddy and Jessups Gulch)	Fall/Spring 07-09	USFS
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Sawyers WUI Underburn:

2600 acres North of Sawyers Bar (Croaks, Tanners, Rattlesnake Gulch)	Fall/Spring 08-11	USFS
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Eddy Underburn:

1100 acres ,(Blue Ridge, McNeilCreek, Music Creek, Bacon Rind Road)	Fall/Spring 08-11	USFS
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Appendix 11 Bibliography

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Appendix 12 Emergency Contact List

The following list is for emergency contacts and information.

Call 911 to report fires or other emergency response needs.

For information on Forest Service projects call the following numbers:

Klamath National Forest Supervisor's Office in Yreka – 530-842-6131

Six Rivers National Forest Supervisor's Office in Eureka – 707-442-1721

Salmon River Ranger District in Fort Jones – 530-468-5351

Salmon River Ranger District Sawyers Bar Guard Station – 530-462-4600

Salmon River Ranger District Petersburg Guard Station – 530-462-4683

Orleans/Ukonom District Orleans Work Station – 530-627-3291

For information on Other Community Organizations call the following numbers:

Salmon River Volunteer Fire and Rescue – 530-462-4706

Salmon River Restoration Council – 530-462-4665

Appendix 13 Glossary of Fire Terminology

Glossary of Fire Terms

Aerial Fuels: All live and dead vegetation in the forest canopy or above surface fuels, including tree branches, twigs and cones, snags, moss, and high brush.

Aerial Ignition: Ignition of fuels by dropping incendiary devices or materials from aircraft.

Air Tanker: A fixed-wing aircraft equipped to drop fire retardants or suppressants.

Agency: Any federal, state, or county government organization participating with jurisdictional responsibilities.

Anchor Point: An advantageous location, usually a barrier to fire spread, from which to start building a fire line. An anchor point is used to reduce the chance of firefighters being flanked by fire.

Aramid: The generic name for a high-strength, flame-resistant synthetic fabric used in the shirts and jeans of firefighters. Nomex, a brand name for aramid fabric, is the term commonly used by firefighters.

Aspect: Direction toward which a slope faces.

Backfire: A fire set along the inner edge of a fireline to consume the fuel in the path of a wildfire and/or change the direction of force of the fire's convection column.

Blow-up: A sudden increase in fire intensity or rate of spread strong enough to prevent direct control or to upset control plans. Blow-ups are often accompanied by violent convection and may have other characteristics of a firestorm (see flare-up).

Brush fire: A fire burning in vegetation that is predominantly shrubs, brush, and scrub growth.

Bucket Drops: The dropping of fire retardants or suppressants from specially designed buckets slung below a helicopter.

Buffer Zones: An area of reduced vegetation that separates wildlands from vulnerable residential or business developments. This barrier is similar to a greenbelt in that it is usually used for another purpose such as agriculture, recreation areas, parks, or golf courses.

Burning Index: An estimate of the potential difficulty of fire containment as it relates to the flame length at the most rapidly spreading portion of a fire's perimeter.

Candle or candling: A single tree or a very small clump of trees that is burning from the bottom up.

Campfire: As used to classify the cause of a wildland fire, a fire that was started for cooking or warming that spreads sufficiently from its source to require action by a fire control agency.

Control a fire: The complete extinguishment of a fire, including spot fires. Fireline has been strengthened so that flare-ups from within the perimeter of the fire will not break through this line.

Appendix 13 Glossary of Fire Terminology

Control Line: All built or natural fire barriers and treated fire edge used to control a fire.

Cooperating Agency: An agency supplying assistance other than direct suppression, rescue, support, or service functions to the incident control effort; e.g., Red Cross, law enforcement agency, telephone company, etc.

Coyote Tactics: A progressive line construction duty involving self-sufficient crews that build fire line until the end of the operational period, remain at or near the point while off duty, and begin building fire line again the next operational period where they left off.

Creeping fire: Fire burning with a low flame and spreading slowly.

Crown fire (crowning): The movement of fire through the crowns of trees or shrubs more or less independently of the surface fire.

Debris burning: A fire spreading from any fire originally set for the purpose of clearing land or for rubbish, garbage, range, stubble, or meadow burning.

Defensible Space: An area either natural or manmade where material capable of causing a fire to spread has been treated, cleared, reduced, or changed to act as a barrier between an advancing wildland fire and the loss to life, property, or resources. In practice, "defensible space" is defined as an area a minimum of 30 feet around a structure that is cleared of flammable brush or vegetation.

Deployment: See Fire Shelter Deployment.

Detection: The act or system of discovering and locating fires.

Direct Attack: Any treatment of burning fuel, such as by wetting, smothering, or chemically quenching the fire or by physically separating burning from unburned fuel.

Dispatch: The implementation of a command decision to move a resource or resources from one place to another.

Dispatcher: A person employed who receives reports of discovery and status of fires, confirms their locations, takes action promptly to provide people and equipment likely to be needed for control in first attack, and sends them to the proper place.

Dispatch Center: A facility from which resources are directly assigned to an incident.

Division: Divisions are used to divide an incident into geographical areas of operation. Divisions are established when the number of resources exceeds the span-of-control of the operations chief. A division is located with the Incident Command System organization between the branch and the task force/strike team.

Dozer: Any tracked vehicle with a front-mounted blade used for exposing mineral soil.

Dozer Line: Fire line constructed by the front blade of a dozer.

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Drip Torch: Hand-held device for igniting fires by dripping flaming liquid fuel on the materials to be burned; consists of a fuel fount, burner arm, and igniter. Fuel used is generally a mixture of diesel and gasoline.

Drop Zone: Target area for air tankers, helitankers, and cargo dropping.

Drought Index: A number representing net effect of evaporation, transpiration, and precipitation in producing cumulative moisture depletion in deep duff or upper soil layers.

Dry Lightning Storm: Thunderstorm in which negligible precipitation reaches the ground. Also called a dry storm.

Duff: The layer of decomposing organic materials lying below the litter layer of freshly fallen twigs, needles, and leaves and immediately above the mineral soil.

Energy Release Component (ERC): The computed total heat released per unit area (British thermal units per square foot) within the fire front at the head of a moving fire.

Engine: Any ground vehicle providing specified levels of pumping, water and hose capacity.

Engine Crew: Firefighters assigned to an engine. The Fireline Handbook defines the minimum crew makeup by engine type.

Entrapment: A situation where personnel are unexpectedly caught in a fire behavior-related, life-threatening position where planned escape routes or safety zones are absent, inadequate, or compromised. An entrapment may or may not include deployment of a fire shelter for its intended purpose. These situations may or may not result in injury. They include "near misses."

Escaped fire: A fire that has exceeded or is expected to exceed initial attack capabilities or prescription.

Escape Route: A preplanned and understood route firefighters take to move to a safety zone or other low-risk area, such as an already burned area, previously constructed safety area, a meadow that won't burn, natural rocky area that is large enough to take refuge without being burned. When escape routes deviate from a defined physical path, they should be clearly marked (flagged).

Escaped Fire: A fire which has exceeded or is expected to exceed initial attack capabilities or prescription.

Extended Attack Incident: A wildland fire that has not been contained or controlled by initial attack forces and for which more firefighting resources are arriving, en route, or being ordered by the initial attack incident commander.

Extreme fire behavior: "Extreme" implies a level of fire behavior characteristics that ordinarily precludes methods of direct control action. One or more of the following is usually involved: high rate of spread, prolific crowning and/or spotting, presence of fire whirls, strong convection column. Predictability is

Appendix 13 Glossary of Fire Terminology

difficult because such fires often exercise some degree of influence on their environment and behave erratically, sometimes dangerously.

Faller: A person who fells trees. Also called a sawyer or cutter.

Field Observer: Person responsible to the Situation Unit Leader for collecting and reporting information about an incident obtained from personal observations and interviews.

Fine (Light) Fuels: Fast-drying fuels, generally with a comparatively high surface area-to-volume ratio, which are less than 1/4-inch in diameter and have a timelag of one hour or less. These fuels readily ignite and are rapidly consumed by fire when dry.

Fingers of a fire: The long narrow extensions of a fire projecting from the main body.

Firestorm: Violent convection caused by a large, continuous area of intense fire. Often characterized by destructively violent surface indrafts, near and beyond the perimeter, and sometimes by tornado-like fire whirls.

Fire Break: A natural or constructed barrier used to stop or check fires that may occur, or to provide a control line from which to work.

Fire Cache: A supply of fire tools and equipment assembled in planned quantities or standard units at a strategic point for exclusive use in fire suppression.

Fire Crew: An organized group of firefighters under the leadership of a crew leader or other designated official.

Fire Intensity: A general term relating to the heat energy released by a fire.

Fire Line: A linear fire barrier that is scraped or dug to mineral soil.

Fire Load: The number and size of fires historically experienced on a specified unit over a specified period (usually one day) at a specified index of fire danger.

Fire Management Plan (FMP): A strategic plan that defines a program to manage wildland and prescribed fires and documents the Fire Management Program in the approved land use plan. The plan is supplemented by operational plans such as preparedness plans, preplanned dispatch plans, prescribed fire plans, and prevention plans.

Fire Perimeter: The entire outer edge or boundary of a fire.

Fire Season: 1) Period(s) of the year during which wildland fires are likely to occur, spread, and affect resource values sufficient to warrant organized fire management activities. 2) A legally enacted time during which burning activities are regulated by state or local authority.

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Fire Shelter: An aluminized tent offering protection by means of reflecting radiant heat and providing a volume of breathable air in a fire entrapment situation. Fire shelters should only be used in life-threatening situations, as a last resort.

Fire Shelter Deployment: The removing of a fire shelter from its case and using it as protection against fire.

Fire Storm: Violent convection caused by a large continuous area of intense fire. Often characterized by destructively violent surface indrafts, near and beyond the perimeter, and sometimes by tornado-like whirls.

Fire Triangle: Instructional aid in which the sides of a triangle are used to represent the three factors (oxygen, heat, fuel) necessary for combustion and flame production; removal of any of the three factors causes flame production to cease.

Fire Use Module (Prescribed Fire Module): A team of skilled and mobile personnel dedicated primarily to prescribed fire management. These are national and interagency resources, available throughout the prescribed fire season, that can ignite, hold and monitor prescribed fires.

Fire Weather: Weather conditions that influence fire ignition, behavior and suppression.

Fire Weather Watch: A term used by fire weather forecasters to notify using agencies, usually 24 to 72 hours ahead of the event, that current and developing meteorological conditions may evolve into dangerous fire weather.

Fire whirl: Spinning vortex column of ascending hot air and gases rising from a fire and carrying aloft smoke, debris, and flame. Fire whirls range in size from less than one foot to more than 500 feet in diameter. Large fire whirls have the intensity of a small tornado.

Fire whirl (center) shoots up from a crown fire.

Firefighting Resources: All people and major items of equipment that can or potentially could be assigned to fires.

Flame Height: The average maximum vertical extension of flames at the leading edge of the fire front. Occasional flashes that rise above the general level of flames are not considered. This distance is less than the flame length if flames are tilted due to wind or slope.

Flame Length: The distance between the flame tip and the midpoint of the flame depth at the base of the flame (generally the ground surface); an indicator of fire intensity.

Flaming front: The zone of a moving fire where the combustion is primarily flaming. Behind this flaming zone combustion is primarily glowing. Light fuels typically have a shallow flaming front, whereas heavy fuels have a deeper front. Also called fire front.

Flanks of a fire: The parts of a fire's perimeter that are roughly parallel to the main direction of spread.

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Flare-up: Any sudden acceleration of fire spread or intensification of a fire. Unlike a blow-up, a flare-up lasts a relatively short time and does not radically change control plans.

Fuel: Combustible material. Includes, vegetation, such as grass, leaves, ground litter, plants, shrubs and trees, that feed a fire. (See Surface Fuels.)

Fuel Bed: An array of fuels usually constructed with specific loading, depth and particle size to meet experimental requirements; also, commonly used to describe the fuel composition in natural settings.

Fuel Loading: The amount of fuel present expressed quantitatively in terms of weight of fuel per unit area.

Fuel Model: Simulated fuel complex (or combination of vegetation types) for which all fuel descriptors required for the solution of a mathematical rate of spread model have been specified.

Fuel Moisture (Fuel Moisture Content): The quantity of moisture in fuel expressed as a percentage of the weight when thoroughly dried at 212 degrees Fahrenheit.

Fuel Reduction: Manipulation, including combustion, or removal of fuels to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control.

Fuel Type: An identifiable association of fuel elements of a distinctive plant species, form, size, arrangement, or other characteristics that will cause a predictable rate of fire spread or difficulty of control under specified weather conditions.

Fusee: A colored flare designed as a railway warning device and widely used to ignite suppression and prescription fires.

Ground Fuel: All combustible materials below the surface litter, including duff, tree or shrub roots, punchy wood, peat, and sawdust, that normally support a glowing combustion without flame.

Hand Line: A fireline built with hand tools.

Hazard Reduction: Any treatment of a hazard that reduces the threat of ignition and fire intensity or rate of spread.

Head of a Fire: The side of the fire having the fastest rate of spread.

Heavy Fuels: Fuels of large diameter such as snags, logs, large limb wood, that ignite and are consumed more slowly than flash fuels.

Helibase: The main location within the general incident area for parking, fueling, maintaining, and loading helicopters. The helibase is usually located at or near the incident base.

Helispot: A temporary landing spot for helicopters.

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Helitack: The use of helicopters to transport crews, equipment, and fire retardants or suppressants to the fire line during the initial stages of a fire.

Helitack Crew: A group of firefighters trained in the technical and logistical use of helicopters for fire suppression.

Holding Actions: Planned actions required to achieve wildland prescribed fire management objectives. These actions have specific implementation timeframes for fire use actions but can have less sensitive implementation demands for suppression actions.

Holding Resources: Firefighting personnel and equipment assigned to do all required fire suppression work following fireline construction but generally not including extensive mop-up.

Hose Lay: Arrangement of connected lengths of fire hose and accessories on the ground, beginning at the first pumping unit and ending at the point of water delivery.

Hotshot Crew: A highly trained fire crew used mainly to build fireline by hand.

Hotspot: A particular active part of a fire.

Hotspotting: Reducing or stopping the spread of fire at points of particularly rapid rate of spread or special threat, generally the first step in prompt control, with emphasis on first priorities.

Incident: A human-caused or natural occurrence, such as wildland fire, that requires emergency service action to prevent or reduce the loss of life or damage to property or natural resources.

Incident Action Plan (IAP): Contains objectives reflecting the overall incident strategy and specific tactical actions and supporting information for the next operational period. The plan may be oral or written. When written, the plan may have a number of attachments, including: incident objectives, organization assignment list, division assignment, incident radio communication plan, medical plan, traffic plan, safety plan, and incident map.

Incident Command Post (ICP): Location at which primary command functions are executed. The ICP may be co-located with the incident base or other incident facilities.

Incident Command System (ICS): The combination of facilities, equipment, personnel, procedure and communications operating within a common organizational structure, with responsibility for the management of assigned resources to effectively accomplish stated objectives pertaining to an incident.

Incident Commander: Individual responsible for the management of all incident operations at the incident site.

Incident Management Team: The incident commander and appropriate general or command staff personnel assigned to manage an incident.

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Incident Objectives: Statements of guidance and direction necessary for selection of appropriate strategy(ies), and the tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed.

Infrared Detection: The use of heat sensing equipment, known as Infrared Scanners, for detection of heat sources that are not visually detectable by the normal surveillance methods of either ground or air patrols.

Initial Attack: The actions taken by the first resources to arrive at a wildfire to protect lives and property, and prevent further extension of the fire.

Ladder Fuels: Fuels which provide vertical continuity between strata, thereby allowing fire to carry from surface fuels into the crowns of trees or shrubs with relative ease. They help initiate and assure the continuation of crowning.

Large Fire: 1) For statistical purposes, a fire burning more than a specified area of land e.g., 300 acres. 2) A fire burning with a size and intensity such that its behavior is determined by interaction between its own convection column and weather conditions above the surface.

Lead Plane: Aircraft with pilot used to make dry runs over the target area to check wing and smoke conditions and topography and to lead air tankers to targets and supervise their drops.

Light (Fine) Fuels: Fast-drying fuels, generally with a comparatively high surface area-to-volume ratio, which are less than 1/4-inch in diameter and have a timelag of one hour or less. These fuels readily ignite and are rapidly consumed by fire when dry.

Lightning Activity Level (LAL): A number, on a scale of 1 to 6, that reflects frequency and character of cloud-to-ground lightning. The scale is exponential, based on powers of 2 (i.e., LAL 3 indicates twice the lightning of LAL 2).

Line Scout: A firefighter who determines the location of a fire line.

Litter: Top layer of the forest, scrubland, or grassland floor, directly above the fermentation layer, composed of loose debris of dead sticks, branches, twigs, and recently fallen leaves or needles, little altered in structure by decomposition.

Live Fuels: Living plants, such as trees, grasses, and shrubs, in which the seasonal moisture content cycle is controlled largely by internal physiological mechanisms, rather than by external weather influences.

Mop-up: To make a fire safe or reduce residual smoke after the fire has been controlled by extinguishing or removing burning material along or near the control line, felling snags, or moving logs so they won't roll downhill.

National Fire Danger Rating System (NFDRS): A uniform fire danger rating system that focuses on the environmental factors that control the moisture content of fuels.

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National Wildfire Coordinating Group: A group formed under the direction of the Secretaries of Agriculture and the Interior and comprised of representatives of the U.S. Forest Service, Bureau of Land Management, Bureau of Indian Affairs, National Park Service, U.S. Fish and Wildlife Service and Association of State Foresters. The group's purpose is to facilitate coordination and effectiveness of wildland fire activities and provide a forum to discuss, recommend action, or resolve issues and problems of substantive nature. NWCG is the certifying body for all courses in the National Fire Curriculum.

Overhead: People assigned to supervisory positions, including incident commanders, command staff, general staff, directors, supervisors, and unit leaders.

Pack Test: Used to determine the aerobic capacity of fire suppression and support personnel and assign physical fitness scores. The test consists of walking a specified distance, with or without a weighted pack, in a predetermined period of time, with altitude corrections.

Prescribed fire: Any fire ignited by management actions under certain predetermined conditions to meet specific objectives related to hazardous fuels or habitat improvement. A written, approved prescribed fire plan must exist, and Environmental Protection Agency requirements must be met prior to ignition.

Prescribed Fire: Any fire ignited by management actions under certain, predetermined conditions to meet specific objectives related to hazardous fuels or habitat improvement. A written, approved prescribed fire plan must exist, and NEPA requirements must be met, prior to ignition.

Prescribed Fire Plan (Burn Plan): This document provides the prescribed fire burn boss information needed to implement an individual prescribed fire project.

Prescription: Measurable criteria that define conditions under which a prescribed fire may be ignited, guide selection of appropriate management responses, and indicate other required actions. Prescription criteria may include safety, economic, public health, environmental, geographic, administrative, social, or legal considerations.

Prevention: Activities directed at reducing the incidence of fires, including public education, law enforcement, personal contact, and reduction of fuel hazards.

Project Fire: A fire of such size or complexity that a large organization and prolonged activity is required to suppress it.

Project fire: A fire of such size or complexity that a large organization and prolonged activity is required to suppress it.

Rappelling: Technique of landing specifically trained firefighters from hovering helicopters; involves sliding down ropes with the aid of friction-producing devices.

Rate of Spread: The relative activity of a fire in extending its horizontal dimensions. It is expressed as a rate of increase of the total perimeter of the fire, as rate of forward spread of the fire front, or as rate of

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increase in area, depending on the intended use of the information. Usually it is expressed in chains or acres per hour for a specific period in the fire's history.

Reburn: The burning of an area that has been previously burned but that contains flammable fuel that ignites when burning conditions are more favorable; an area that has reburned.

Red Card: Fire qualification card issued to fire rated persons showing their training needs and their qualifications to fill specified fire suppression and support positions in a large fire suppression or incident organization.

Red Flag Warning: Term used by fire weather forecasters to alert forecast users to an ongoing or imminent critical fire weather pattern.

Rehabilitation: The activities necessary to repair damage or disturbance caused by wildland fires or the fire suppression activity.

Relative Humidity (Rh): The ratio of the amount of moisture in the air, to the maximum amount of moisture that air would contain if it were saturated. The ratio of the actual vapor pressure to the saturated vapor pressure.

Remote Automatic Weather Station (RAWS): An apparatus that automatically acquires, processes, and stores local weather data for later transmission to the GOES Satellite, from which the data is re-transmitted to an earth-receiving station for use in the National Fire Danger Rating System.

Resources: 1) Personnel, equipment, services and supplies available, or potentially available, for assignment to incidents. 2) The natural resources of an area, such as timber, crass, watershed values, recreation values, and wildlife habitat.

Resource Management Plan (RMP): A document prepared by field office staff with public participation and approved by field office managers that provides general guidance and direction for land management activities at a field office. The RMP identifies the need for fire in a particular area and for a specific benefit.

Resource Order: An order placed for firefighting or support resources.

Retardant: A substance or chemical agent which reduced the flammability of combustibles.

Run (of a fire) -- The rapid advance of the head of a fire with a marked change in fire line intensity and rate of spread from that noted before and after the advance.

Running: A rapidly spreading surface fire with a well-defined head.

Safety Zone: An area cleared of flammable materials used for escape in the event the line is outflanked or in case a spot fire causes fuels outside the control line to render the line unsafe. In firing operations, crews progress so as to maintain a safety zone close at hand allowing the fuels inside the control line to be consumed before going ahead. Safety zones may also be constructed as integral parts of fuel breaks;

Appendix 13 Glossary of Fire Terminology

they are greatly enlarged areas which can be used with relative safety by firefighters and their equipment in the event of a blowup in the vicinity.

Scratch Line: An unfinished preliminary fire line hastily established or built as an emergency measure to check the spread of fire.

Slash: Debris left after logging, pruning, thinning or brush cutting; includes logs, chips, bark, branches, stumps and broken understory trees or brush.

Sling Load: Any cargo carried beneath a helicopter and attached by a lead line and swivel.

Slash: Debris left after logging, pruning, thinning or brush cutting; includes logs, chips, bark, branches, stumps and broken understory trees or brush.

Sling Load: Any cargo carried beneath a helicopter and attached by a lead line and swivel.

Slop-over: A fire edge that crosses over a control line or natural barrier intended to contain the fire.

Smokejumper: A firefighter who travels to fires by aircraft and parachute.

Smoke Management: Application of fire intensities and meteorological processes to minimize degradation of air quality during prescribed fires.

Smoldering fire: A fire burning without flame and barely spreading.

Snag: A standing dead tree or part of a dead tree from which at least the smaller branches have fallen.

Spot fire: A fire ignited outside the perimeter of the main fire by flying sparks or embers.

Spotting: Behavior of a fire producing sparks or embers that are carried by the wind and start new fires beyond the zone of direct ignition by the main fire.

Staging Area: Locations set up at an incident where resources can be placed while awaiting a tactical assignment on a three-minute available basis. Staging areas are managed by the operations section.

Structure fire: Fire originating in and burning any part or all of any building, shelter, or other structure.

Surface Fuels: Loose surface litter on the soil surface, normally consisting of fallen leaves or needles, twigs, bark, cones, and small branches that have not yet decayed enough to lose their identity; also grasses, forbs, low and medium shrubs, tree seedlings, heavier branchwood, downed logs, and stumps interspersed with or partially replacing the litter.

Test fire: A small fire ignited within the planned burn unit to determine the characteristics of the prescribed fire, such as fire behavior, detection performance, and control measures.

Torching: The ignition and flare-up of a tree or small group of trees, usually from bottom to top.

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Uncontrolled fire: Any fire which threatens to destroy life, property, or natural resources.

Underburn: A fire that consumes surface fuels but not trees or shrubs.

Wildland fire: Any nonstructural fire, other than prescribed fire, that occurs in the wildland.

Wildland Fire Use: The management of naturally ignited wildland fires to accomplish specific prestated resource management objectives in predefined geographic areas outlined in Fire Management Plans.

Wildland Urban Interface: The line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

WILDLAND FIRE EVACUATION PLAN



FROM THE SALMON RIVER FIRE SAFE COUNCIL
(Adapted from the Modoc Fire Safe Council Publication)

Emergency contact list:

- ❑ Call 911 for emergency.
- ❑ Alternative emergency number (sheriff's dispatch) for fire, medical, or law enforcement - 841-2900 or 1-800-404-2911
- ❑ Sheriff's Office non-emergency - 842-8301
- ❑ Family's Out-of-Area Contact: _____
- ❑ Other Numbers: _____

Returning home

- ❑ Emergency officials will determine when it is safe for citizens to move back into their homes. This will be done as soon as possible.
- ❑ Announcements will be made at shelters, information points, safety zones, and through the media.
- ❑ Be alert for downed power lines.
- ❑ Check for hazards before bringing children or animals back.
- ❑ Contact your utility companies before turning electricity or gas back on.
- ❑ Be prepared to show identification and proof of ownership when claiming animals from a shelter or holding facility.
- ❑ Confine large animals in a safe place until fences are checked and hazards are removed.

Where to Learn More

- ❑ Fire Safe Council of Siskiyou County - or to learn about your local Fire Safe Council, call Dale or Giselle Nova at (530) 926-5071 or Jim Villeponteaux at (530) 462-4665
- ❑ California Department of Forestry, Fairlane Rd, CA 96097 (530) 842-3516 - lots of information on defensible space and fire prevention
- ❑ Siskiyou County Office of Emergency Services, 311 Lane St, Yreka, CA 96097 (530) 842-8379- information on emergency preparedness and kinds of disasters that might affect our area; also information on physical addresses
- ❑ Nearest office of the US Forest Service and Bureau of Land Management - both have information on fire prevention

During evacuation

- ❑ Follow the instructions of emergency personnel concerning routes and safe locations.
- ❑ Take what you need the most. You will not be able to come back into the area for additional belongings or animals.
- ❑ Turn your headlights on and drive carefully. Expect smoke to make visibility poor.
- ❑ Watch for and avoid downed power lines.
- ❑ When you are clear of the evacuation area, **check in at the Red Cross shelter, even if you do not plan to stay there!!** Leave word where you plan to stay. This helps officials keep track of who has reached safety and they will know where to contact you if necessary.
- ❑ Follow your family's reunion plan to meet with family members who were not at home at the time of the evacuation.
- ❑ Call your family's agreed-upon out-of-area telephone contact. This is your personal information center, how you find out about other family members, and how they can find out about you.
- ❑ If you become trapped by fire while evacuating in your car, park in an area clear of vegetation, close all vehicle windows and vents, cover yourself with a blanket or jacket and lie on the floor.
- ❑ If you are trapped by fire while evacuating on foot, find an area clear of vegetation or lie face down in a ditch.

Four Basics to Remember!

- ❑ If you are asked to evacuate, GO! Your life and the lives of emergency responders may depend on it. Remember, nothing is more important than your safety and the safety of other people!!
- ❑ Keep checklists and maps ready with all the actions you will take prior to and during an evacuation!
- ❑ This plan can be used for threats other than wildfire.
- ❑ Knowing what is in this plan can make the difference between panic and prompt, effective action.

Pre-Fire Preparation

- Maintain defensible space around your home.
 - Clear all flammable vegetation within 100 feet of structure.
 - Clean needles and leaves from roof, eaves, and rain gutters.
 - Trim all dead limbs within 10 feet of house.
- Make sure your street address is clearly posted and visible from the road.
- Know where your safety zones and possible escape routes are located. Drive the routes in advance so you will be prepared for the confusion of an actual emergency.
- Have a personal plan for what valuables, important documents, medications and other personal items you want to take in case of an evacuation.
- Keep a battery-powered radio and spare batteries on hand.
- Have a reunion plan for where to meet family members who may not be home when a disaster strikes.

Sheltering in Place

- If you are told to go, GO! Your life is at risk if you stay.
- If you are unable to evacuate when a fire approaches or are instructed to shelter in place, stay inside your house and away from outside walls if the fire approaches.
- Keep all doors and windows closed but leave doors unlocked.
- Keep your entire family together and REMAIN CALM. Remember, if it gets hot in the house, it will be much hotter and more dangerous outside.
- Pets are best confined in carriers so they do not slip collars when panicked.
- After the danger has passed, immediately check the exterior and roof and extinguish any sparks and embers. Use caution if you must climb on the roof.
- Check inside the attic, underneath decks, and in other hidden areas for burning embers.
- Check your yard for burning woodpiles, trees, fence posts, or other materials.

How will Citizens be notified and what to do then

- Emergency personnel will notify people:
 - By Law Enforcement or their volunteers going home-to-home or
 - By the Emergency Alert System (EAS) on radio
 - NOAA Weather Radio 162.5
 - KYRE FM 98 or KSYC AM 1490
- Do not hesitate to ask someone for identification to assure it is official notification.
- Residents will be given instructions on travel routes and safe locations.
- When advised of the possibility of evacuation, residents should prepare for the following alternatives:
 - Shelter-in-Place – when emergency officials believe that it would be safe to stay or more unsafe to travel. *Good defensible space around a home may influence this decision.*
 - Safety Zones – temporary safe havens distributed through the community close to residences. Not all may be available due to conditions at the time.
 - Shelters – Red Cross shelters will provide housing and care of evacuated residents. They will not take pets and are not equipped to deal with special medical needs.
 - Alternative locations – Residents may choose to stay with friends or relatives, get a motel room, or make other private arrangements instead of going to shelters. **(Check in at the shelter anyway so someone knows where you are.)**

What would happen in an actual evacuation

- Emergency agencies will decide what areas need to be evacuated and when. They will notify occupants.
- Law enforcement agencies are responsible for carrying out the evacuation. They may use Sheriff's Deputies, Police Officers, Sheriff's Posse members and registered disaster volunteers. Law enforcement agencies are responsible for security in evacuated areas.
- Representatives of local communities will work closely with emergency service agencies to ensure that local needs are communicated.
- The Red Cross will establish shelters where people can go during the evacuation.
- Law enforcement will control traffic flow and maintain access for emergency equipment. They may utilize workers from CalTrans, local public works departments, the Sheriff's Posse, or mutual aid Law Enforcement Officers from other jurisdictions.

What to do if a Wildfire is approaching

- ❑ **Park your vehicle facing out. Put the car keys where you can find them rapidly.**
- ❑ Load valuables, important documents, medications, and other personal items in vehicles, ready to evacuate if necessary.
- ❑ Load animals while things are relatively calm. Don't wait for the last minute.
- ❑ Close windows, shutters and heavy drapes.
- ❑ Leave electricity on, leave some inside lights on, and leave doors unlocked so the emergency personnel can check the property.
- ❑ Place a garden hose and buckets around the house.
- ❑ Place a ladder outside for roof access.
- ❑ Wear protective clothing, including long pants, long sleeved shirt, goggles or glasses, a hat, and a bandana to cover your face. 100% cotton clothing is preferred.
- ❑ **Turn off propane and fuel oil at the tank.**
- ❑ Review locations of safety zones.
- ❑ Review the primary travel routes to safety zones and to escape the area. Direction of your evacuation will be dictated by the location of the fire, its direction, and the speed at which it is spreading. Some escape routes may be blocked.

Pets and Livestock

- ❑ Don't be faced with having to abandon your animals. Plan to evacuate them with you.
- ❑ Know the best place to take your animals after you evacuate.
- ❑ Do not turn animals loose to fend for themselves. Loose animals cannot protect themselves from a wildfire and are a danger to emergency responders and people trying to evacuate the area.
- ❑ Be sure each animal has identification on its collar, harness, or halter or with tattoos, microchips, or brands.
- ❑ Have current photos and take them with you when you go. If you lose an animal, this will help you relocate and identify it.
- ❑ Keep current medical records including vaccinations, information on medications, and any special feeding instructions along with the name, address, and phone number of your veterinarian.
- ❑ Have a way to transport your animal. Carriers are best for small animals. With large animals, have a suitable truck or trailer and be certain your animals are trained to load easily.
- ❑ Do not try to rescue wildlife. Report them to California Department of Fish and Game or the Sheriff's Office.

Evacuation Routes

Draw or paste a map of the area around your home on the next page. Mark your house on the map. Your goal is to exit your neighborhood to a safe location. You are already familiar with the usual way of reaching your house. Remember that, during an evacuation, your neighbors will also be leaving and emergency vehicles will be using the same roads. Identify the main roads out of the area and decide how you would get to them? Identify at least two possible routes from your house if possible. What route you will need to use will depend on the situation at the time. Take time now to drive around the neighborhood and investigate other routes in case one becomes blocked.

Your notes:

List of Priority Items to Take When Evacuating (include vital papers, family photos, irreplaceable items, necessary medications, and other essentials. Fill in with pencil for easy changes.)

ITEM	WHERE TO FIND IT

Appendix 15 Salmon River Fire Safe Council – List of Participants

- ❖ Salmon River Fire Safe Council
- ❖ Salmon River Restoration Council
- ❖ Salmon River Volunteer Fire & Rescue
- ❖ Salmon River Businesses
- ❖ Salmon River Community Members
- ❖ U.S. Forest Service, Klamath National Forest
- ❖ U.S. Forest Service, Six Rivers National Forest
- ❖ U.S. Fish & Wildlife Service, Yreka Office
- ❖ Orleans/Somes Bar Fire Safe Council
- ❖ Natural Resource Conservation Service (U.S.)
- ❖ NOAA Fisheries (U.S.)
- ❖ California Department of Forestry & Fire Protection – Siskiyou Unit
- ❖ Siskiyou County Road Department
- ❖ Siskiyou County Planning Department
- ❖ Karuk Tribe of California
- ❖ Quartz Valley Rancheria
- ❖ Klamath Forest Alliance (Environmental Group)
- ❖ EPIC (Environmental Group)
- ❖ KSWild (Environmental Group)

Appendix 16 Fire Safe Council/Community Liaison Program

The purpose of this program is to facilitate communication between Forest Service Fire Suppression Incident Management Teams, the Salmon River Fire Safe Council (FSC) and local community members during a large wildfire event.

When a single wildfire event or a fire complex (several wildfires) becomes more than the local fire crews can handle, an Incident Management Team (Team) is brought in to manage the fire suppression operation, the Team needs to be brought up to date on many aspects including location of private properties and structures, Tanker Fill Sites, and other infrastructure and community information. Many of the current Salmon River community members have lived here through many wildfire events and know about fire behavior, fuel conditions, topography, and the community residents. The FSC has completed 6 Detailed town and neighborhood Community Wildfire Protection Plans and a Salmon River Community Wildfire Protection Plan. The FSC also has extensive GIS capabilities and information that would be very useful to an Incident Management Team in their wildfire management role. The community members are always concerned and want to know everything about the fire(s). The Incident Management Team is often unprepared and reluctant to listen to many community members trying to give input to the Team at morning fire briefings.

The FSC will develop a team of FSC/Community Liaisons (Liaisons) that will be prepared with all the important information that will be valuable to the Team, attend briefings and report back to the community. This will not negate the need for formal community meeting which gives the Team and community members to have periodic face to face information sharing, but will build cooperation and information exchange that will increase the Team's effectiveness in protecting residents and residences and provide the maximum amount of information to the communities affected.

The Liaisons will be selected to participate in the program by their willingness and knowledge of the community and fire history and behavior. The FSC will supply them with a cache of maps and other information that can be provided in the case of a wildfire emergency. Liaisons will be expected to attend the annual Fire Safety Refresher in order to be able to work in a fire camp. On an annual basis, in spring, the Liaisons will be re-evaluated and data will be updated by the FSC.

The Forest Service District will make the Team aware of the existence of the Liaison program and encourage the Team to cooperate with the Liaison.

Appendix 17 Current and Potential Funding Sources

Program: California Fire Safe Council Grants Clearinghouse

Source: California Fire Safe Council (FSC), Site host. The Council hosts the site in cooperation with its fellow members of the California Fire Alliance.

Description: One-stop shop that simplifies the process of finding and applying for grants to improve California's community wildfire preparedness. The Council's mission is to preserve and enhance California's manmade and natural resources by providing leadership and support that mobilizes all Californians to protect their homes, communities and environment from wildfires. The Council accomplishes its mission through public education programs and by funding community fire safety projects. The Alliance is a cooperative membership dedicated to the support of pre-fire principles and activities ensuring that pre-fire management provides for public and community safety, minimizes costs and losses, and maintains and improves the quality of the environment. The Alliance constitutes an interagency forum for coordinating member agencies' efforts in an integrated fashion.

More info: <http://www.grants.firesafecouncil.org/>

Program: Rural Fire Assistance

Source: U.S.D.A. Forest Service Cooperative Fire Funding (Cooperative Forestry Assistance Act of 1978, CFAA). The California Department of Forestry and Fire Protection (CDF) administers this program.

Description: The Rural Fire Assistance Program is a Department of the Interior program to enhance firefighter safety and strengthen fire protection capabilities. Safe and effective fire suppression in the wildland urban interface demands close coordination among local, state, tribal, and federal firefighting resources. Funding will be used to provide technical assistance, Otraining, supplies, equipment and public education support to rural fire departments.

More info: Jim Troehler, 916.653.6179, Jim_Troehler@fire.ca.gov

CA Department of Forestry & Fire Protection Cooperative Fire Programs, P.O. Box 944246
Sacramento, CA 94244-2460

Program: Communities at Risk

Source: USDA Forest Service

Description: Assistance to communities for hazardous fuels reduction projects in the wildland urban interface; includes funding for assessments and mitigation planning.

More info: Matt Mathes 707-562-9004

Program: State Fire Assistance

Source : US Forest Service

Description: USFS grants to state foresters through state and private grants, under authority of Cooperative Forestry Assistance Act. Grant objectives are to maintain and improve protection efficiency and effectiveness on non-federal lands, training, equipment, preparedness, prevention and education.

More info: www.fireplan.gov

Program: State Fire Assistance Hazard Mitigation Program

Source: National Fire Plan

Appendix 17 Current and Potential Funding Sources

Description: These special state Fire Assistance funds are targeted at hazard fuels treatment in the wildland-urban interface. Recipients include state forestry organizations, local fire services, county emergency planning committees and private landowners.

More info: Governor's Office of Emergency Services, OES Hazard Mitigation Contacts, Phone: 916-845-8150

Program: Volunteer Fire Assistance

Source: Montana Department of Natural Resources and Conservation

Description: VFA, Title IV, is a federal matching funds program with dollars provided through the USDA Forest Service. The program is administered by the California Department of Forestry and Fire Protection. Title II/IV authorizes the Secretary of Agriculture to provide funds and technical assistance to the CALFire to organize, train and equip local forces for preventing and suppressing wildfires.

More info: US Forest Service Dennis Orbus, 916-364-2851, dorbus@fs.fed.us

California Department of Forestry and Fire Protection, Karen Mayer, 916-653-6179, Karen.Mayer@fire.ca.gov

Program: Forest Land Enhancement Program

Source: US Forest Service

Description: The 2002 Farm Bill repealed the Forestry Incentives Program (authorized in 1978) and Stewardship Incentive Program (1990) cost share programs and replaced it with a new Forest Land Enhancement Program (FLEP). FLEP purposes include 1) Enhance the productivity of timber, fish and wildlife habitat, soil and water quality, wetland, recreational resources, and aesthetic values of forest land through landowner cost share assistance, and 2) Establish a coordinated, cooperative federal, state and local sustainable forestry program to establish, manage, maintain, enhance and restore forests on non-industrial private forest land.

More info: www.usda.gov/farmbill

Program: Economic Action Program

Source: US Forest Service

Description: A USFS, state and private program with involvement from local Forest Service offices to help identify projects. Addresses long-term economic and social health of rural areas; assists the development of enterprises through diversified uses of forest products, marketing assistance, and utilization of hazardous fuel byproducts.

More info: Bruce Goines, USDA Forest Service, 1323 Club Drive, Vallejo, CA 94592

Phone: 707-562-8910, Fax: 707-562-9054, E-mail: bgoines@fs.fed.us

Program: Forest Stewardship Program

Source: US Forest Service

Description: Funding helps enable preparation of management plans on state, private and tribal lands to ensure effective and efficient hazardous fuel treatment.

More info: Sandra Stone (Forest Stewardship Program), USDA Forest Service, 1323 Club Drive, Vallejo, CA 94592, Phone: 707-562-8918, Fax: 707-562-9054, E-mail: sstone01@fs.fed.us

Appendix 17 Current and Potential Funding Sources

Program: California Forest Improvement Program (CFIP)

Source: CALFire

Description: Cost share for forestry, watershed, and riparian protection and enhancement.

More info: Funding varies each year. Call 1-800-738-TREE for current status.

Program: Pre-Disaster Mitigation Program

Source: Federal Emergency Management Agency

Description: Emergency management assistance to local governments to develop hazard mitigation plans.

More info: www.usfa.fema.gov

Program: Fire Management Assistance Grant Program

Source : Readiness, Response and Recovery Directorate, FEMA

Description: Program provides grants to states, tribal governments and local governments for the mitigation, management and control of any fire burning on publicly (nonfederal) or privately owned forest or grassland that threatens such destruction as would constitute a major disaster. The grants are made in the form of cost sharing with the federal share being 75 percent of total eligible costs. Grant approvals are made within 1 to 72 hours from time of request.

More info: www.fema.gov

Program: Catalog of Selected Federal Grants and Assistance

Source : National Association of Conservation Districts

Description: Provides several lists of potential federal funding sources supporting the National Fire Plan.

More info: <http://www.forestry.nacdn.org/biomass/Funding/SpecificSources.htm>

Program: Building Better Rural Places

Source : U.S. Department of Agriculture in collaboration with the Michael Fields Agricultural Institute

Description: This guide is written for anyone seeking help from federal programs to foster innovative enterprises in agriculture and forestry in the United States. Specifically, the guide addresses program resources in community development; sustainable land management; and value-added and diversified agriculture and forestry. Thus, it can help farmers, entrepreneurs, community developers, conservationists, and many other individuals, as well as private and public organizations, both for-profit and not-for-profit.

More info: <http://attra.ncat.org/guide/index.html>

Program: Fuels for Schools and Beyond

Source : Fuels for Schools Partnership

Description: To promote and encourage the use of wood as a renewable, natural resource to provide a clean, readily available energy source suitable for use in heating systems in public and private buildings. To facilitate the removal of hazardous fuels from our forests by assisting in the development of viable commercial uses of removed material.

Appendix 17 Current and Potential Funding Sources

More info: <http://www.fuelsforschools.org/>

Appendix 18 Educational Materials, Literature

CALFire: Before During and After:

http://www.fire.ca.gov/education_content/downloads/BeforeDuringAfter.pdf

CALFire: 100' Defensible Space:

100 Feet of Defensible Space is the Law

In January 2005 a new state law became effective that extended the defensible space clearance around homes and structures from 30 feet to 100 feet. Proper clearance to 100 feet dramatically increases the chance of your house surviving a wildfire. This defensible space also provides for firefighter safety when protecting homes during a wildland fire.

Contact your nearest CDF Facility for more information.

Defensible Space Movies and Song

- * Why 100 Feet (1.9 MB Flash movie)
- * 100' Defensible Space (1.4 MB Flash movie)
- * Defensible Space Zone Song (600K MP3)
(Song provided by CDF, courtesy of Mark Crisp ©)

Defensible Space Billboards

As part of its ongoing Defensible Space Campaign, CDF now has billboard space in Southern California (Inland Empire) courtesy of Lamar Advertising. The company donated the space and will move the boards to various sites depending upon demand by paying customers. This will get the Why 100 feet? campaign out to those stuck in traffic.

http://www.fire.ca.gov/education_100foot.php

CALFire: Recommended Web Sites For Emergency Preparedness

CDF Fire Safety Education

Find information that will help you make your home and your family more fire safe all year round.

<http://www.fire.ca.gov/education.php>

In a State as fire prone and as populated as California you can never be too fire safe. CDF has a long history of providing fire prevention, fire safety, and natural resource protection education to the citizens and visitors of this State.

CDF's Fire Safety Education Programs are spread statewide and come in the form of school programs, fair exhibits, posters, flyers and thousands of other printed materials, radio and television spots, community meetings, one-on-one contacts with wildland homeowners, and in recent years, the Internet.

In this section you will find information that will help you make your home and your family more fire safe all year round.

For more information contact your nearest CDF facility and speak to a fire prevention officer.

OES, Emergency Preparedness Checklist

Appendix 18 Educational Materials, Literature

The Governor's Office of Emergency Services provides a checklist to help you go it alone for three days.
Emergency Supplies Checklist

Can You Go It Alone for Three Days

The first 72 hours after a major emergency or disaster are critical. Electricity, gas, water, and telephones may not be working. In addition, public safety services such as police and fire departments will be busy handling serious crises. You should be prepared to be self-sufficient — able to live without running water, electricity and/or gas, and telephones — for at least three days following a major emergency. To do so, keep on hand in a central location the following:

Essentials

Water — 1 gallon per person per day (a week's supply of water is preferable)
Water purification kit
First aid kit, freshly stocked
First aid book
Food
Can opener (non-electric)
Blankets or sleeping bags
Portable radio, flashlight and spare batteries
Essential medications
Extra pair of eyeglasses
Extra pair of house and car keys
Fire extinguisher — A-B-C type
Food, water and restraint (leash or carrier) for pets
Cash and change
Baby supplies: formula, bottle, pacifier, soap and baby powder, clothing, blankets, baby wipes, disposable diapers, canned food and juices.

Sanitation Supplies

Large plastic trash bags for waste; tarps and rain ponchos
Large trash cans
Bar soap and liquid detergent
Shampoo
Toothpaste and toothbrushes
Feminine hygiene supplies
Toilet paper
Household bleach

Safety and Comfort

Sturdy shoes
Heavy gloves for clearing debris
Candles and matches
Light sticks
Change of clothing

Appendix 18 Educational Materials, Literature

Knife or razor blades
Garden hose for siphoning and firefighting
Tent
Communication kit: paper, pens, stamps

Cooking

Plastic knives, forks, spoons
Paper plates and cups
Paper towels
Heavy-duty aluminum foil
Camping stove for outdoor cooking (caution: before using fire to indoors)

Tools and Supplies

Axe, shovel, broom
Adjustable wrench for turning off gas
Tool kit including a screwdriver, pliers and a hammer
Coil of ½" rope
Plastic tape, staple gun and sheeting for window replacement
Bicycle
City map

Useful Web Links

Additional emergency preparedness information can be found at the following addresses:

The U.S. Department of Homeland Security (www.ready.gov)
American Red Cross (www.redcross.org/services/disaster/beprepared/)
Federal Emergency Management Agency
(<http://www.fema.gov/library/prepandprev.shtm>)

Kent, Douglas. *Firescaping: Creating Fire-Resistant Landscapes, Gardens, and Properties in California's Diverse Environments*. Wilderness Press, 2005. A comprehensive, new hands-on guide to fireproofing your home turf that includes tips and resources on fire-resistant landscaping and construction, including lists of fire resistant plants tailored to the myriad climates of California.

Pyne, Stephen J. *Tending Fire: Coping with America's Wildland Fires*, Island Press, 2004. Former "hotshot" firefighter Pyne examines the historic and contemporary relationship between fire and humanity and the controversy between the "let burn" and "control burn" camps.

Hunter, Captain Geoffrey. *Oakland Fire Department, California (Images of America)*. Arcadia Publishing SC, 2005. Backtracking some 150 years, Captain Hunter's tribute to Oakland's volunteer engine hook and ladder companies, heroes that fought fire with leather and brass hoses, as well as the social strides of racial integration and, in time, women firefighters.

Appendix 18 Educational Materials, Literature

After the Vision Fire: Report of the Phoenix Team of the Environmental Action Committee of West Marin (www.nps.gov/pore/fire_visionfire.htm) or (<http://eacmarin.org>) (Look under EAC Publications). Also known as the Phoenix Report, this 91-page publication gives an overview and chronology of the Vision Fire, as well as the Phoenix Team's recommendations on home design, fire-resistant structures, restoration, fire hazard management, defensible space, and reference/resource lists.

Leonard Tennyson's First-Hand Accounts of the Mount Vision Fire (www.nps.gov/pore/fire_visionfire.htm) includes interviews of everyone in every profession touched by the Point Vision fire: rancher, firefighter, park ranger, fire strategist, fire warden, water district manager, inmate firefighters, naturalist, an observer, burned-out home owners, and those home-owners spared by the fire.

The CFSC has several resources for homeowners, including Homeowners Checklist and Fire Safe Landscaping (www.firesafecouncil.org/education/index.cfm).

Putting Wildfires in Perspective

(www.californiachaparral.com/images/WildForests.org_fire_pamphlet.pdf) is a brochure that tackles several issues, including the relationship between logging and wildfires, and the ways in which forests, wildlife, and fisheries can benefit from wildfires.

For those in the field of wildland and urban-interface fire management, Wildfire Magazine (www.iawfonline.org/magazine.shtml), the official magazine of the International Association of Wildland Fire, covers wildland fire issues on the local, state, federal, and international level.

Making a Home for Homeless Wildlife in Aftermath of California Fires (www.cnpsd.org) (Look under After the Fire link) is an informative brochure from the National Wildlife Federation. Suggestions include providing sources of clean water, and planting native plants in your garden to provide natural food and shelter for wildlife that has been chased from its habitat by wildfire.

Native American and Fire

USDA Forest Service historical analyst Gerald W. Williams' References on the American Indian Use of Fire in Ecosystems (www.wildlandfire.com/docs/biblio_indianfire.htm) brings together a wealth of works under the idea that supposed "natural fires" might instead have been caused intentionally by Native Americans.

Bibliographies

Some Fire and Post-Fire Reseeding References

www.cnpsd.org/fire/firereseeding-reference.pdf

A list of references on fire and reseeded compiled by the San Diego Chapter of the California Native Plant Society.

InterfaceSouth www.interfacesouth.org/resources/literature.html

Though located on the East Coast, this searchable literature database organized by the USDA Forest Service's will connect you to journal abstracts on wildland fire (just select "Fire" and click "go»."

Appendix 18 Educational Materials, Literature

Annotated Bibliography for Fire Ecology in California

www.ice.ucdavis.edu/cafe/tab_info_biblio.html

A searchable bibliography that canvasses electronic databases, scientific literature, and other sources.

Selected Fire References Related to the Sierra Nevada

www.nps.gov/seki/fire/fire_bib.htm

The Sequoia and Kings Canyon National Parks have built this “Fire Information Cache” for the southern Sierra. This bibliography is organized into “general literature/information,” “technical and scientific literature,” and “historic and background literature.” Several references are available as pdfs.

Appendix 19 Internet Links

California Fire Safe Council: <http://www.firesafecouncil.org/>

California Fire Alliance: <http://www.cafirealliance.org/>

Home Owner's Checklist: http://www.fire.ca.gov/education_checklist.php

Klamath National Forest: <http://www.fs.fed.us/r5/klamath/>

Six River National Forest: <http://www.fs.fed.us/r5/sixrivers/>

CAL FIRE: <http://www.fire.ca.gov/index.php>

Landfire: <http://www.landfire.gov/index.php>

National Fire Plan: <http://www.forestsandrangelands.gov/NFP/index.shtml>

Communities at Risk: <http://www.firesafecouncil.org/about/communitiesatrisk.cfm>

Firewise Communities Program: <http://www.firewise.org/>

Salmon River Restoration Council: www.srrc.org

Mid Klamath Watershed Council: www.mkwc.org

Appendix 2 Fuel Reduction Prescription Policy October 1, 2007

The Salmon River Fire Safe Council is responsible for helping to plan, implement and monitor the reinstatement of historic fire regimes in the Salmon River ecosystem in a manner that protects life, property, improves forest health, and enhances the resources valued by its stakeholders. As part of our responsibility, the FSC needs to develop a programmatic policy for recommended prescriptions that details acceptable methods for fuel reduction activities under a variety of possible conditions and scenarios.

This first draft is the beginning of an ongoing effort to develop an adaptive prescription policy with which we will continually perfect our techniques with projects, education, and monitoring. We have divided prescriptions into several initial categories that are rated by the level of fire risk (High, Medium, and Low). Fire risk is defined as the fuel loading in an area combined with other factors (e.g. ignition sources, slope, aspect, and elevation). **Distances in this policy are recommended minimums. For example, the use of a shaded fuel break may recommend 300 feet – this would be at a minimum of 300 feet.**

The technique generally used for the fuel reduction prescriptions mainly calls for a standard shaded fuelbreak that breaks up fuel continuity and the fuel ladder and leaves canopy cover, for the purpose of reducing brush regrowth. The theory of a shaded fuelbreak is that thinning out flammable and overstocked vegetation in the understory, as well as dead and down fuel, will reduce a future fire's ability to move through the forest with high (and destructive) flame lengths. It must be understood that a shaded fuelbreak will not stop a fire, but will give suppression forces and landowners extra time for safely fighting the fire and accessing or evacuating the fire area. The trimming of the branches to 6-8 feet up the stem of the remaining trees will reduce a future fire's ability to climb the "Fuel Ladder" and burn the crowns of the remaining trees. Selection of plants to thin is based on density and flammability, with the idea of fire being reintroduced at some point in the future. Specifically, we want to maintain diversity of species and age classes while reducing the risk of future stand replacing fire.

In order to prevent the regrowth of brush in treated stands, this Prescription Policy recommends keeping the overstory canopy at a 60% minimum (in areas where it exists). The Policy also recommends an upper diameter limit of 27 inches. In areas where managers recommend reducing the canopy below 60% or removing trees over 27 inches, the collaborative stewardship group shall review the options. As shown in numbers 2 and 3, proximity to a structure or other high value area would prescribe more vegetative material removed (with higher maintenance) than in outlying areas.

- 1 Sensitive and Unique Areas (e.g. areas of importance to endangered species, historical sites, and other special areas on private and public lands). These areas shall be analyzed on a site-specific basis with input from all appropriate federal, state, tribal agencies, and the collaborative stewardship group that have responsibility for the resources at risk.
- 2 Residences and High Value Areas (e.g. water tanks, communication systems, fuel storage). These are minimum recommendations that should be customized on an individual basis with the landowner(s).

Appendix 2 Fuel Reduction Prescription Policy October 1, 2007

Residences and High Value Areas				
Fire Risk Reduction Goals	Description	Fire Risk		
		High	Med	Low
Exclusion of Ground Fire	Fire will not burn in this area because there is little or no fuel (bare or green - no flammable material)	100-200 feet	100 feet	100 feet
Reduce Risk of Crown Fire	Use Shaded Fuelbreak - this breaks up fuel continuity and the fuel ladder. For Late Seral Stands: leave 70 - 100% Canopy Cover (if available); For Mid Seral Stands (40' - 80'): leave 50 - 80% Canopy Cover (if available); For Early Seral Stands (conifer < 40'): leave 50 - 70% Canopy Cover (if available); For Early Seral Stands (conifer/hardwood mix < 40'): leave 40 - 60% Canopy cover (if available); For Oak/Hardwood Stands: leave 30 - 80% Canopy cover (if available)	300 feet	200 feet	100 feet
Reduce Risk of Crown Fire	Reduce Jackpot Fuels From Shaded Fuelbreak	1000 feet	600 feet	300 feet
Reduce Risk of Carrying Fire and Hazards	Remove All Snags From Shaded Fuelbreak	Includes One Tree Length Below (downhill side), and 1.5 Tree Length Above (uphill side).		

Prescriptions will vary depending on the exact vegetation mix. In areas without consistent overstory canopy cover, less flammable vegetation species should be encouraged to promote future shading.

- Emergency Access (and egress) Routes – Does not guarantee that fire fighters will be able to access area under extreme fire conditions.

Appendix 2 Fuel Reduction Prescription Policy October 1, 2007

Emergency Access Routes				
Fire Risk Reduction Goals	Description	Fire Risk		
		High	Med	Low
Reduce Risk of Fire Jumping Road & Provide Safe Access & Egress	>50% Slope: *	250' below road, 200' above road	200' below road, 150' above road	150' below road, 100' above road
Reduce Risk of Fire Jumping Road & Provide Safe Access & Egress	<50% Slope: *	200' below road, 150' above road	150' below road, 100' above road	100' below road, 75' above road
Reduce Risk of Spreading Crown Fire	Reduce Jackpot Fuels	1000 feet	600 feet	300 feet
Reduce Risk of Carrying Fire and Hazards	Remove Snags **	Includes One Tree Length Below (downhill side), and 1.5 Tree Length Above (uphill side). Up to 250' above road.		

* Use Shaded Fuelbreak - this breaks up fuel continuity and the fuel ladder. For Late Seral Stands: leave 70 - 100% Canopy Cover (if available); For Mid Seral Stands (40' - 80'): leave 50 - 80% Canopy Cover (if available); For Early Seral Stands (conifer < 40'): leave 50 - 70% Canopy Cover (if available); For Early Seral Stands (conifer/hardwood mix < 40'): leave 40 - 60% Canopy cover (if available); For Oak/Hardwood Stands: leave 30 - 80% Canopy if available.

**Snag removal may entail removal from area if felled snags would significantly impact fuel loading. Snags should be felled to avoid jackpotting. Snags that are being used for nesting by sensitive wildlife should be kept and their location recorded for reference in case of a wildfire entering the area, perform additional fuel treatments around these wildlife snags.

4. ¼ Mile Buffer WUI Area: Reduce jackpot fuels and use underburning to reduce the risk of a spreading crown fire.

5. Domestic Water Use and Special WUI areas – Reduce jackpot fuels and use underburning to reduce the risk of a spreading crown fire. In Domestic Water Use WUI Areas, ridgetop shaded fuelbreaks, where reasonable, should be used to further protect the watersheds from wildfire.

Appendix 20 Information Needs – Salmon River CWPP

Add Before and After Pictures

Add Table of Contents

Accurate Fuel Model and vegetation information

Fire lines:

1. When last used
2. Condition
3. Maintenance needed, type and timeline

Accurate and up to date Fuel Reduction treatments

1. Maintenance needed, type and timeline

Accurate Fire Hazard Severity Zoning

Accurate Fire Risk Rating by Fuel Model

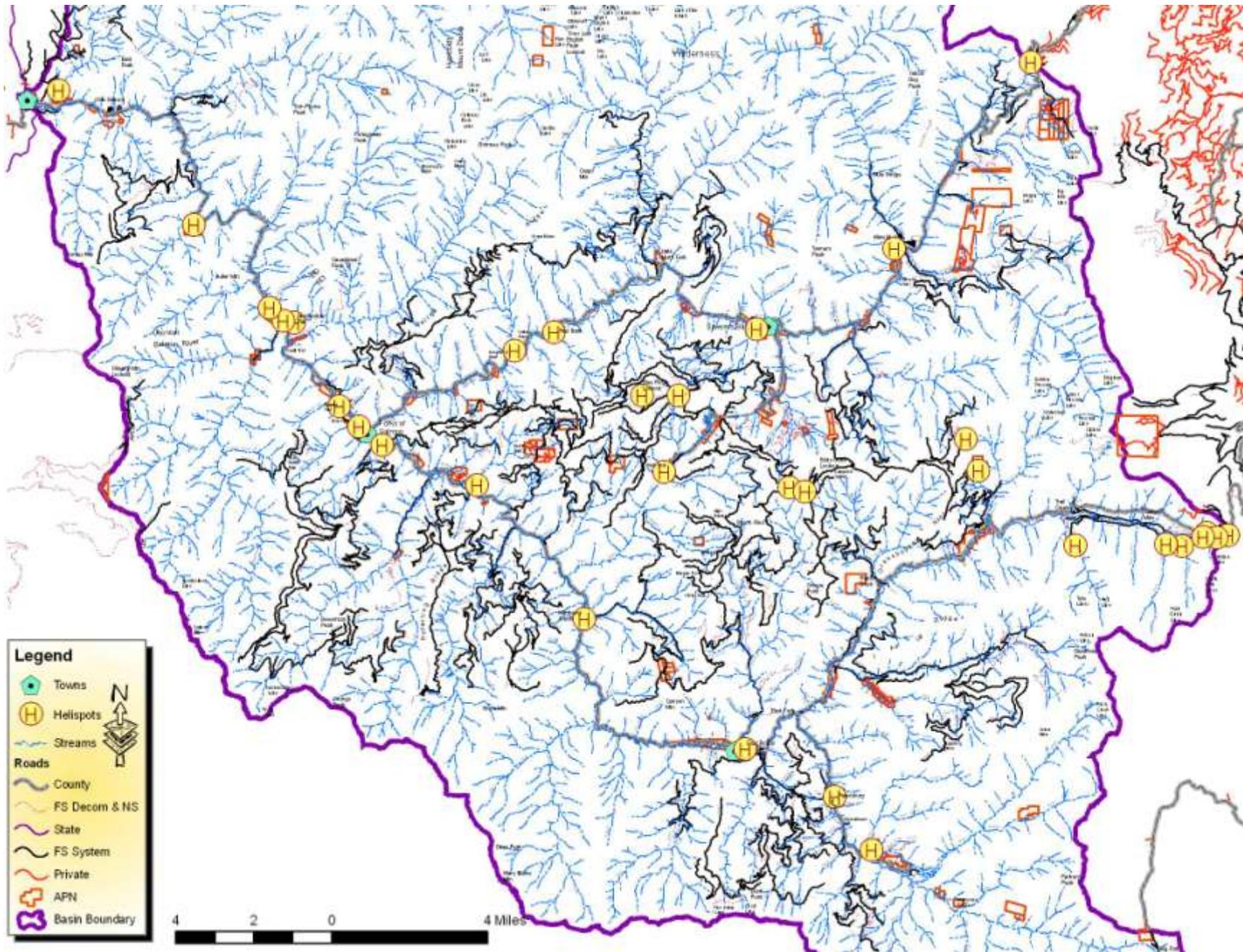
Accurate Fire Regime Condition Class

Accurate Residential Risk Assessment using RedZone

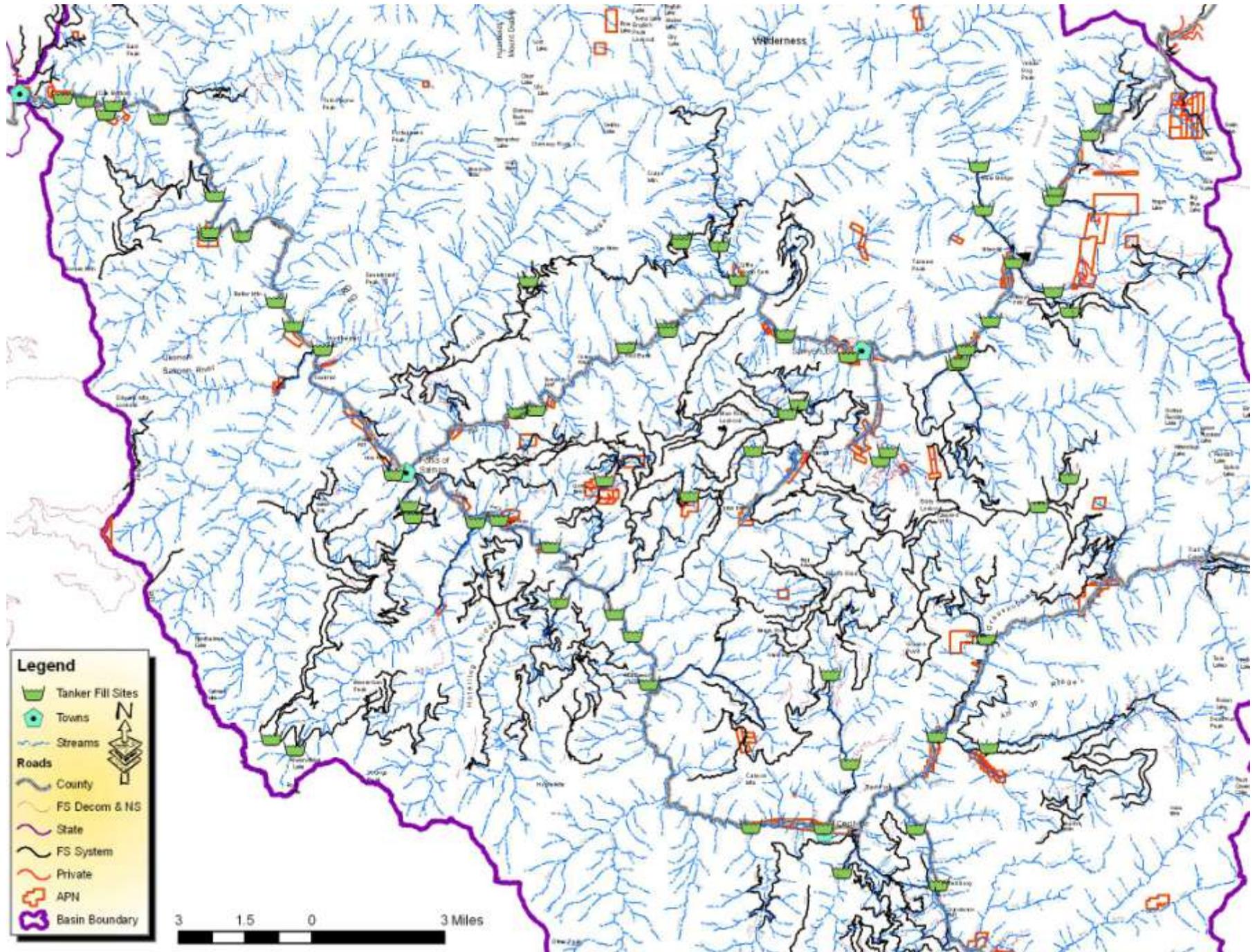
Emergency Access Routes

1. Surface Material
2. Width
3. Condition
4. Maintenance Needs

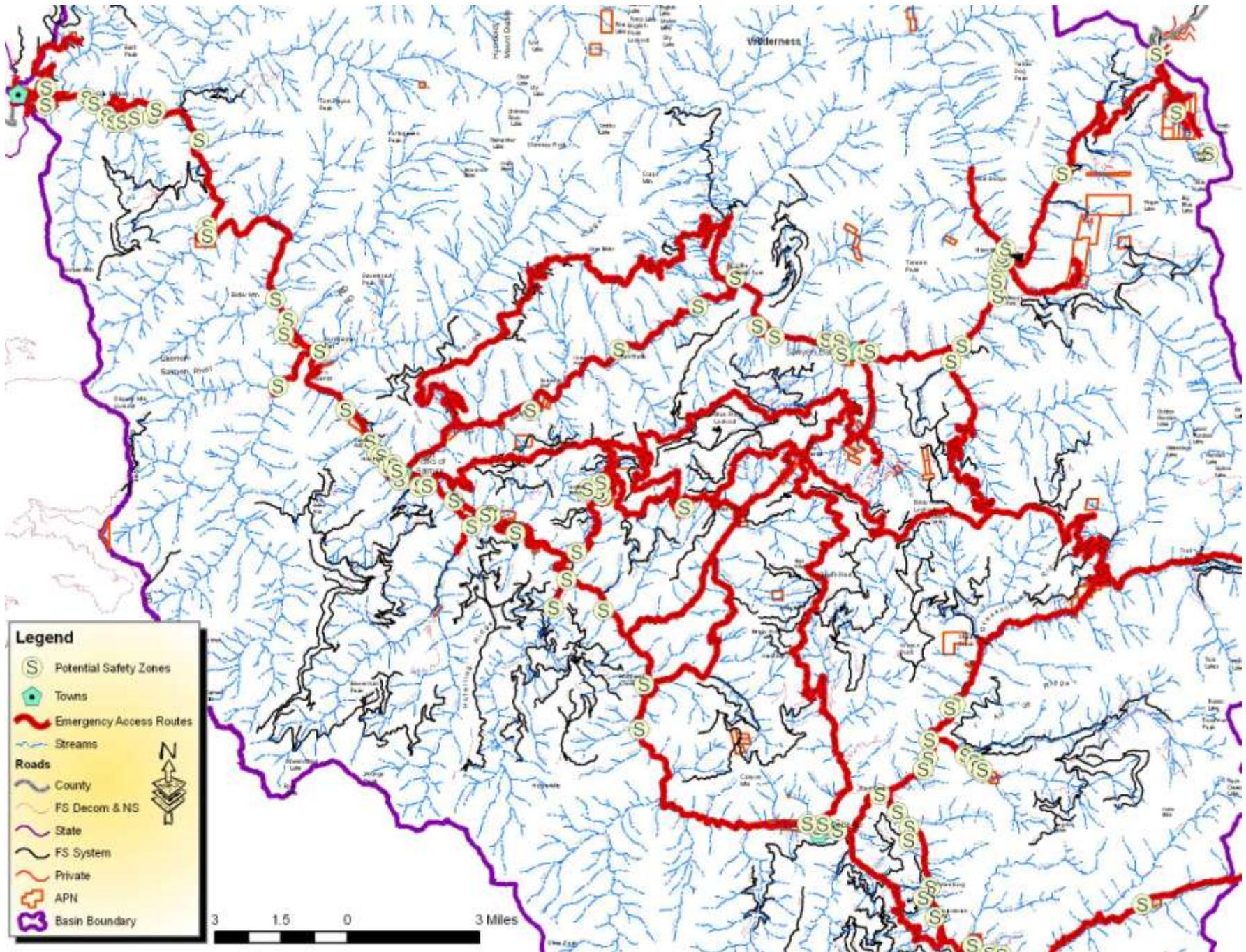
Appendix 3 - Helispots



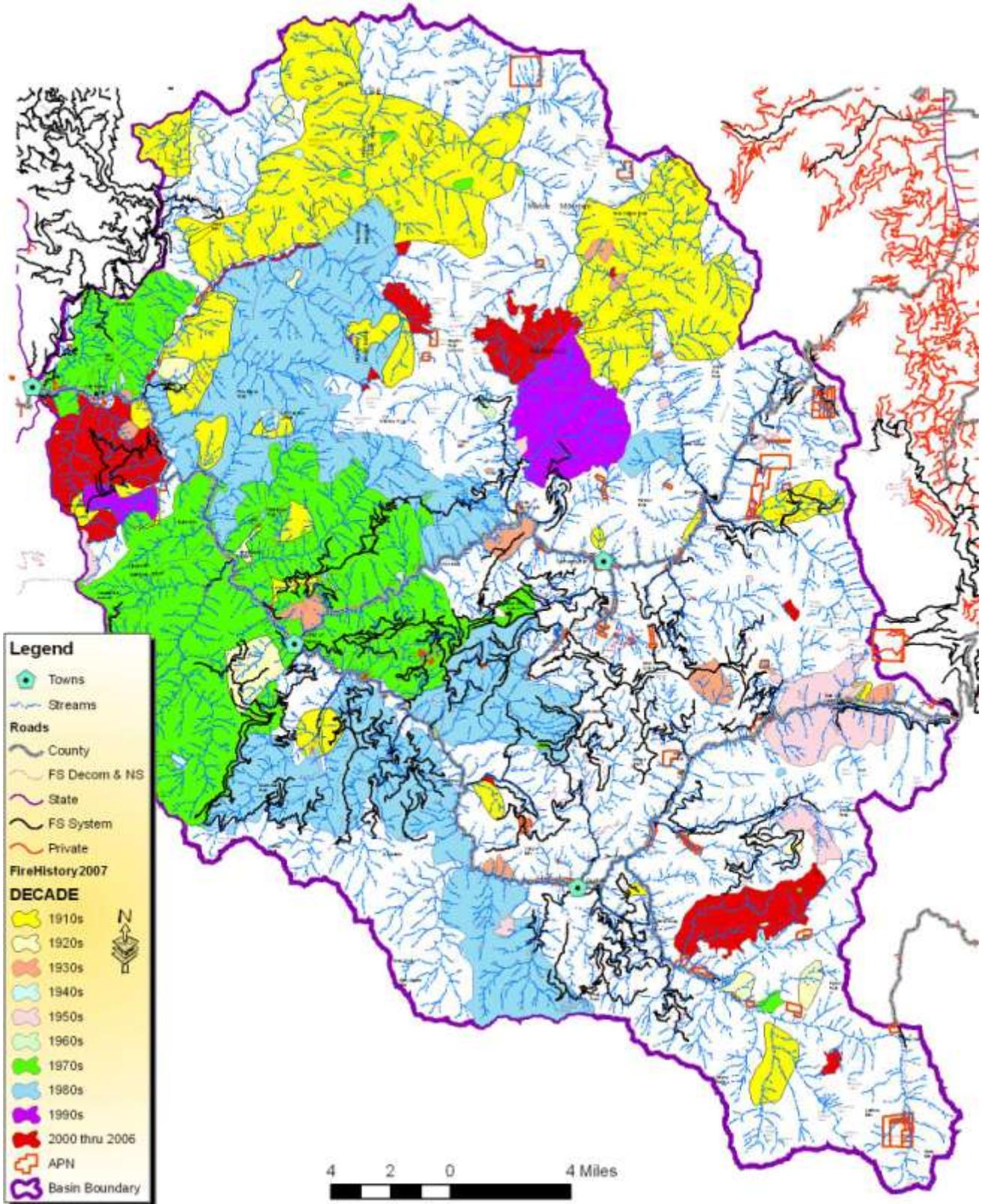
Appendix 4 Tanker Fill Sites



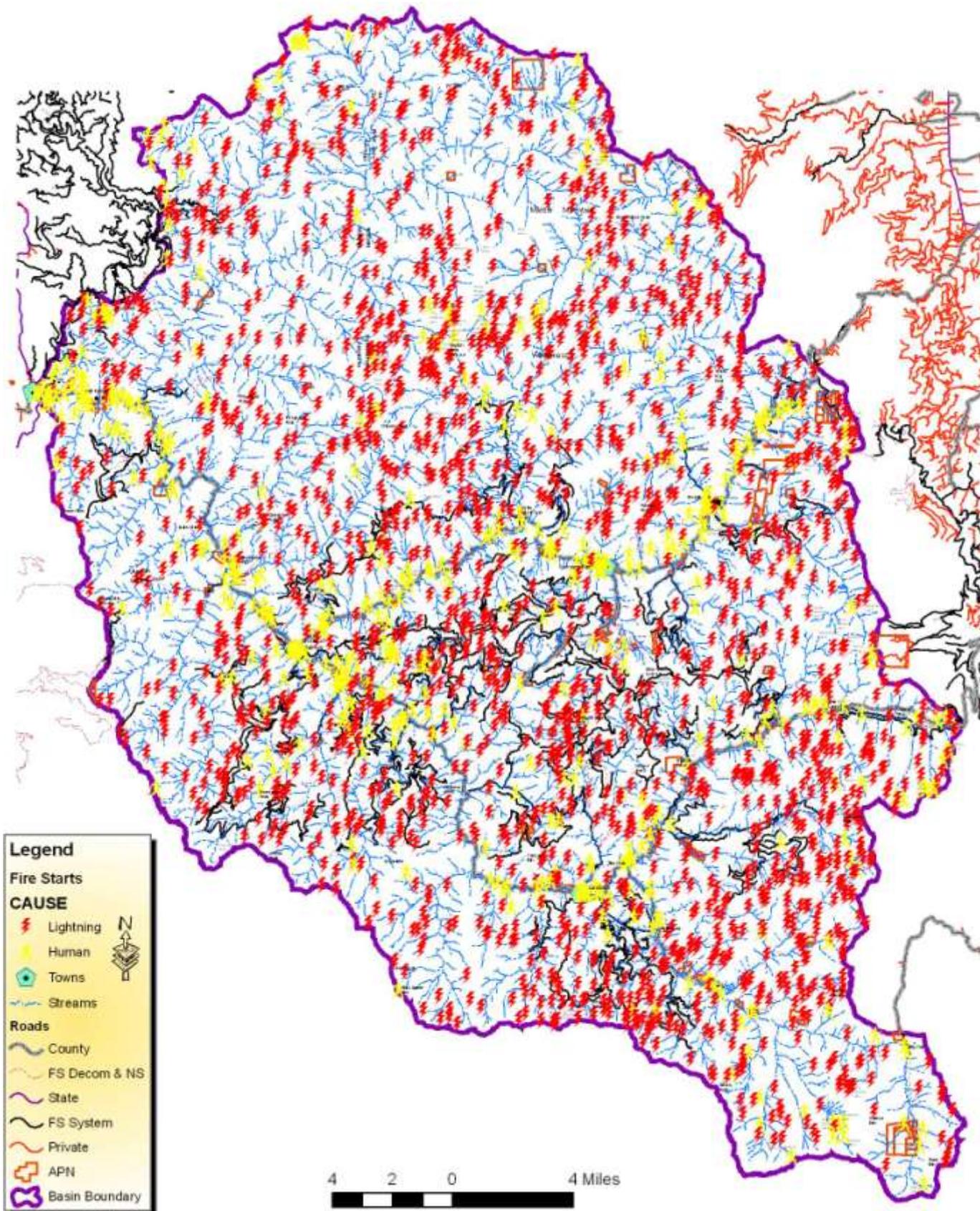
Appendix 5 – Emergency Access Routes and Potential Safety Zones



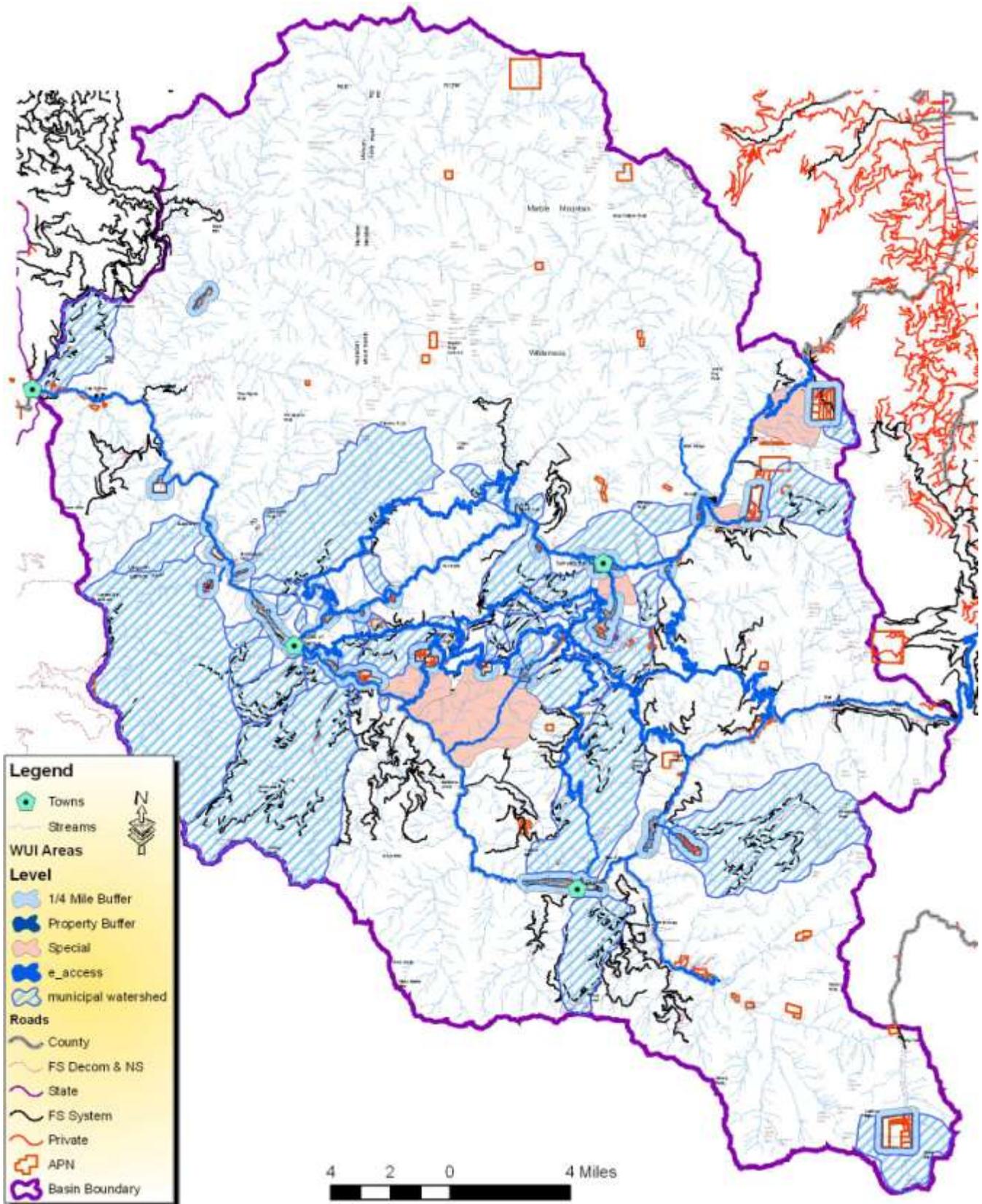
Appendix 6 Fire History Map



Appendix 7 Salmon River Fire Starts



Appendix 8 Wildland Urban Interface Areas



Appendix 9 Salmon River CWPP Action Matrix

Action	YEAR		
	< 1 year	10 years	> 10 years
Assessment of Vegetation & Fuels			
	Investigate Funding Possibilities for Comprehensive Vegetation & Fuels Assessment Proposal	Seek and Secure Funding for Vegetation & Fuels Assessment	Update Vegetation & Fuels Assessment
Planning & Coordination			
	Continue Fire Safe Council Meetings	Continue Fire Safe Council Meetings	Continue Fire Safe Council Meetings
	Develop Description and Map of Firebreaks	Update Description and Map of Firebreaks	Update Description and Map of Firebreaks
	Coordinate Fuels Projects with other projects (e.g. Roads, Restoration)	Coordinate Fuels Projects with other projects (e.g. Roads, Restoration)	Coordinate Fuels Projects with other projects (e.g. Roads, Restoration)
	Complete Salmon River Community Wildfire Protection Plan	Update Salmon River Community Wildfire Protection Plan	Update Salmon River Community Wildfire Protection Plan
	Develop detailed Community Wildfire Protection Plans for communities and Neighborhoods	Develop detailed Community Wildfire Protection Plans for communities and Neighborhoods	Update detailed Community Wildfire Protection Plans for communities and Neighborhoods
	Update existing "Fuels Reduction on Public Property Participating Agreement"	Update existing "Fuels Reduction on Public Property Participating Agreement"	Update existing "Fuels Reduction on Public Property Participating Agreement"
	Develop Large Fire Suppression Coordination Plans involving Forest Service and FSC/Community	Update Large Fire Suppression Coordination Plans involving Forest Service and FSC/Community	Update Large Fire Suppression Coordination Plans involving Forest Service and FSC/Community
	Develop Pre-Suppression Map of Logical Fireline Placements In Planning Area	Update Pre-Suppression Map of Logical Fireline Placements in Planning Area	Update Pre-Suppression Map of Logical Fireline Placements in Planning Area
	Develop Fire Suppression "Fire Camp" Plans	Update Fire Suppression "Fire Camp" Plans	Update Fire Suppression "Fire Camp" Plans
	Develop Fire/Fuels Communication and Coordination Plans (Phone Tree, Community Liaison)	Update Fire/Fuels Communication and Coordination Plans	Update Fire/Fuels Communication and Coordination Plans
	Develop Collaborative Stewardship Committee and Projects	Develop Collaborative Stewardship Projects	Develop Collaborative Stewardship Projects
	Prioritize Collaborative Stewardship Projects	Prioritize Collaborative Stewardship Projects	Prioritize Collaborative Stewardship Projects
	Develop Alternative Forest Products and Biomass Utilization Plan	Update Alternative Forest Products and Biomass Utilization Plan	Update Alternative Forest Products and Biomass Utilization Plan
	Develop Programatic fall burning policy	Update Programatic fall burning policy	Update Programatic fall burning policy
Implementation			
	Implement FR07 & Defensible Space Projects on private property	Implement Prioritized Projects on private property	Implement Prioritized Projects on private property
	Implement Garden Gulch, Sawyers Bar, South Taylor, Glassups, and other Projects on public property WUI areas	Implement Prioritized Projects on public property WUI areas	Implement Prioritized Projects on public property WUI areas

Appendix 9 Salmon River CWPP Action Matrix

Action	YEAR		
	< 1 year	10 years	> 10 years
Implementation	Implement Highest Priority Projects on public property that are covered under the Participating Agreement for WUI areas	Implement Highest Priority Projects on public property that are covered under the Participating Agreement for WUI areas	Implement Highest Priority Projects on public property that are covered under the Participating Agreement for WUI areas
	Implement Highest Priority Collaborative Stewardship Projects	Implement Highest Priority Collaborative Stewardship Projects	Implement Highest Priority Collaborative Stewardship Projects
	Implement Alternative Forest Products and Biomass Utilization Plan	Continue to Implement Alternative Forest Products and Biomass Utilization Plan	Continue to Implement Alternative Forest Products and Biomass Utilization Plan
	Keep E Access roads drivable where possible	Keep E Access roads drivable where possible	Keep E Access roads drivable where possible
	Treat fuels on prioritized firebreaks	Treat fuels on prioritized firebreaks	Treat fuels on prioritized firebreaks
	Update Communication system to cover entire subbasin	Update Communication system to cover entire subbasin	Update Communication system to cover entire subbasin
	Implement Programatic fall burning policy	Implement Programatic fall burning policy	Implement Programatic fall burning policy
Education			
	Disseminate Fire Safe Information to Community	Disseminate Fire Safe Information to Community	Disseminate Fire Safe Information to Community
	Hold general Fire/Fuels workshops and trainings	Hold general Fire/Fuels workshops and trainings	Hold general Fire/Fuels workshops and trainings
	Hold 100' Defensible Space workshops and trainings	Hold 100' Defensible Space workshops and trainings	Hold 100' Defensible Space workshops and trainings
	Local, Regional and National outreach	Local, Regional and National outreach	Local, Regional and National outreach
Fire Suppression Resources	Maintain and Support State and Federal agencies, Tribes and others who are engaged in fire suppression		
	Maintain and Support the Local Fire & Rescue Organization to meet community needs	Maintain and Support the Local Fire & Rescue Organization to meet community needs	Maintain and Support the Local Fire & Rescue Organization to meet community needs
Monitoring			
	Develop Implementation & Effectiveness Monitoring Plan	Continue Implementation Monitoring Plan	Continue Implementation Monitoring Plan
	Develop CWPP Monitoring Plan	Continue CWPP Monitoring Plan	Continue CWPP Monitoring Plan