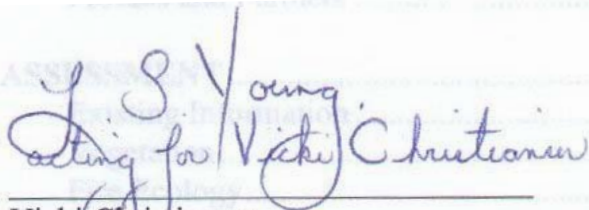


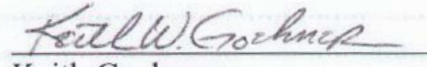
FINAL

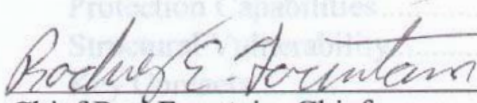
# Lake Wenatchee/Plain Area Community Wildfire Protection Plan

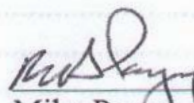
July 2007


Prepared by  
Chelan County Conservation District  
with assistance from the  
Washington Department of Natural Resources, Chelan County Fire District #9,  
United States Forest Service and concerned citizens of Chelan County

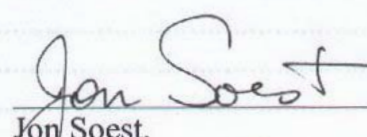
  
Vicki Christiansen  
Executive Director of Regulatory Programs  
Washington State Forester

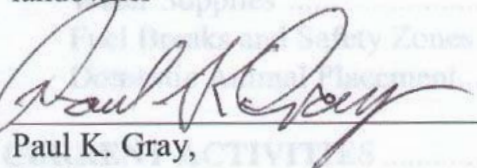
  
Keith Goehner,  
Chelan County Commissioner

  
Chief Rod Fountain, Chief  
Chelan County Fire District #9

  
Mike Payne,  
landowner

  
Jim Passage,  
landowner

  
Jon Soest,  
landowner

  
Paul K. Gray,  
landowner

# Table of Contents

<b>1. INTRODUCTION</b> .....	1
Vision and Goals.....	1
Community Awareness .....	1
Values .....	1
<b>2. PLANNING AREA</b> .....	2
General Description of the Area .....	2
General Description of Planning Area Regions .....	4
<b>3. PLANNING PROCESS</b> .....	7
Background.....	7
Process and Partners .....	8
<b>4. ASSESSMENT</b> .....	15
Existing Information .....	15
Vegetation.....	15
Fire Ecology.....	16
Fire History .....	17
General Fire Behavior Potential.....	17
Fuels/Hazards.....	18
Protection Capabilities .....	18
Structural Vulnerability .....	19
Key Contacts.....	20
<b>5. RISK EVALUATION</b> .....	20
Access .....	20
Evacuation.....	21
Staging Area for Tactical Resources.....	21
Command Post Locations .....	21
Water Supplies .....	21
Fuel Breaks and Safety Zones.....	21
Domestic Animal Placement.....	22
<b>6. CURRENT ACTIVITIES</b> .....	22
Protection Measures.....	22
Existing Procedures .....	22
Project Proposals.....	22
Coordination with Public Agencies .....	22
Landowner Committees .....	23
<b>7. PLAN MAINTENANCE</b> .....	24

<b>8. MITIGATION ACTION PLAN</b> .....	25
Fuels Reduction .....	25
Education and Outreach .....	26
Improving Protection Capabilities/Human Safety .....	27

### **List of Maps**

Overview of the Lake Wenatchee CWPP Area .....	3
Vegetation Types .....	10
Fire History 1970-2006.....	11
Reported Fire Starts & Causes 1970-2003.....	12
Fire Risk Assessment and Insect & Disease Survey Data .....	13
Planned and Proposed Projects .....	14

## **1. Introduction**

Residents in the Lake Wenatchee and Plain area are concerned about the effects of wildfire on their community. Recent wildfires in the area have prompted local residents, government officials, and fire department personnel to join together to proactively plan and implement actions to protect human life and property and to reduce the risk of future wildfire related disasters.

For the purpose of this project, the entire planning area is considered to be in the Wildland Urban Interface (WUI).

### Vision and Goals

Through the development of a Community Wildfire Protection Plan (CWPP), residents of the Lake Wenatchee and Plain area aim to protect their community from the effects of wildfire through outreach, education, strategic planning, and action. They wish to face each fire season confident that they have done everything possible to prepare for and mitigate the effects of a potential forest fire in their area.

The primary goal of the CWPP is to protect human life, private property, and essential infrastructure and resources through the implementation of fire prevention projects that work to increase public awareness, improve forest health, sustain local wildlife, and preserve the natural beauty of the area.

In an effort to minimize waste options for the utilization of biomass produced from fuels reduction projects will be pursued.

### Community Awareness

Residents in the Lake Wenatchee and Plain area are aware of the impact from wildfires and the need to develop a comprehensive wildfire prevention and protection plan. The planning area is bordered on all sides by public lands that are a source of vegetative fuels and wildfires are a common occurrence. Concerned residents began organizing in winter 2007. Their input and guidance have played an essential role in the creation of this CWPP.

### Values

The Lake Wenatchee and Plain area residents value their homes, privacy, wildlife habitat, and beauty of the surrounding forest. They want to improve the safety of their community and play an active role in land management decisions affecting adjacent federal and state lands.

## **2. Planning Area**

### General Description of the Area

The Lake Wenatchee area community wildfire protection planning area is located in the south west portion of Chelan County. It includes areas within Chelan County Fire District #9, as well as adjacent private, state and federal forestlands (Figure 1). The entire planning area is considered to be in the Wildland Urban Interface (WUI). Total acreage in the planning area is approximately 155,500 acres. Federal agencies manage 126,488 acres (80%), State agencies manage approximately 865 acres (0.5%); 415 acres by Washington State Department of Fish and Wildlife and 450 acres by State Parks, and Private and Other manage 29,012 acres (19%).

Drainages in the Lake Wenatchee and Plain area are primarily glacial U-shaped valleys with steep sidewalls. Dominant vegetation includes mixed conifer and open pine forests. Residential development is largely rural in nature and density varies with topography and proximity to the lake and other scenic areas. According to 2003 Chelan County records approximately 921 individual private parcels currently have a building assessed value of at or above \$75,000 in the planning area. An additional number of properties remain undeveloped. Many residences are second homes that are seasonally or intermittently occupied. In some cases the homes are very large, but neighbor much smaller recreational cabins. As of 2003 the total assessed value of homes in the planning area was approximately \$177 million. The area is a popular recreation destination, particularly during the summer and winter months. Lake Wenatchee State Park is located with in the planning area.

Highway 2, Lake Wenatchee Highway (highway 207), and the Beaver Valley Road provide the main access roads in and through the planning area. Other primary roads are Forest Roads leading up the Chiwawa, Little Wenatchee, and White Rivers. The Chiwawa and White River roads are one way in and one way out roads. The Little Wenatchee River road allows access to Highway 2 (Stevens Pass) via Rainy Creek. Many areas are served by a single point of access providing only one way in and one way out. Most of these roads are too narrow for fire protection vehicles to easily access and maneuver in.

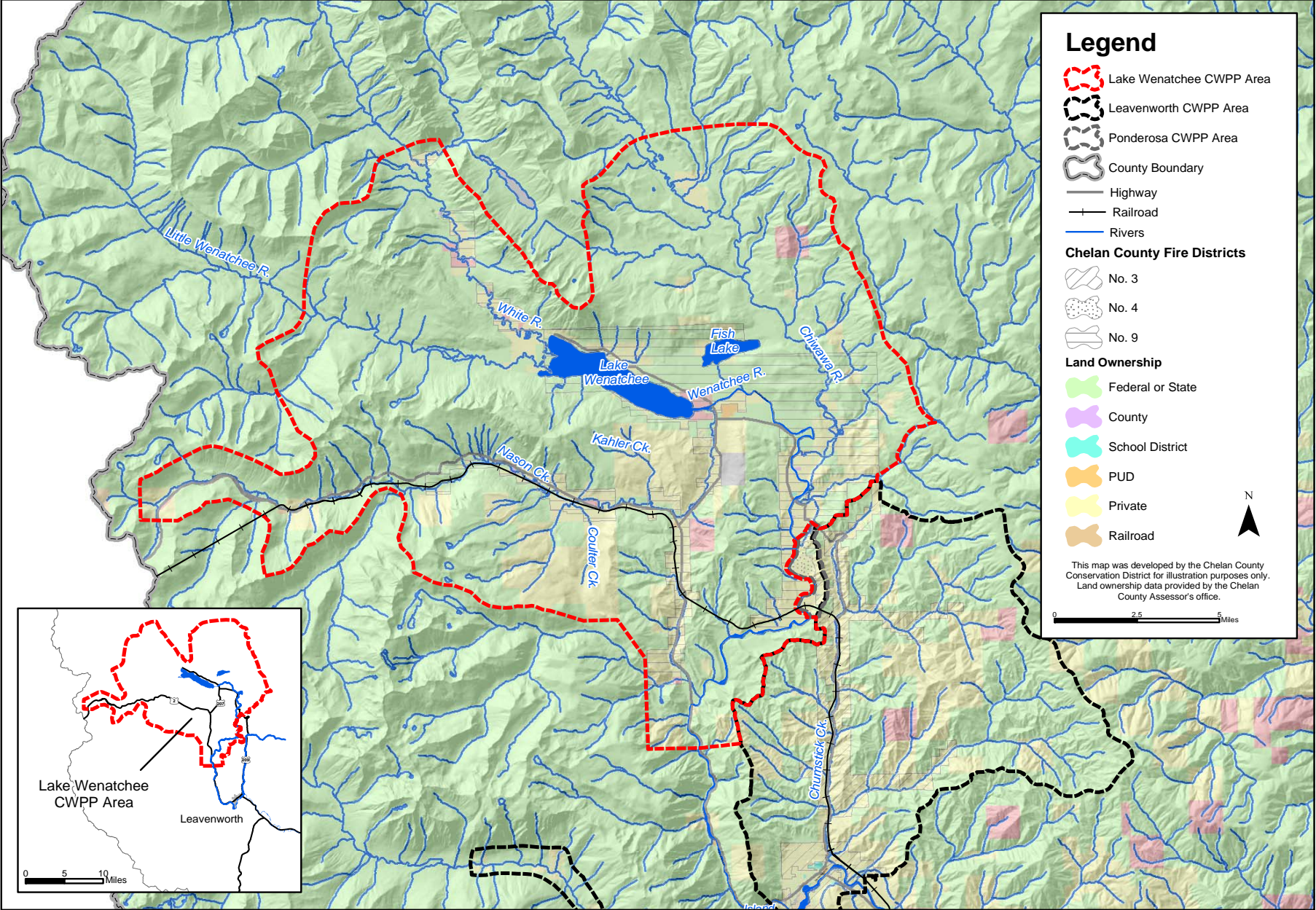
Primary land uses in the planning area consist of forest land, limited agriculture, recreational areas (golf course, campgrounds and State Park), and rural residential.

For the purpose of this CWPP, the Lake Wenatchee planning area has been divided into nine regions. The regions are 1) Lake Wenatchee and Fish Lake, 2) Plain Area, 3) River Road, 4) Chiwawa River Pines, 5) Nason Creek/Highway 2 corridor 6) Kahler Glen, 7)Shugart Flats, 8) White River regions, and 9) Coles Corner/Pine River Ranch/Kahler Glen.



# Lake Wenatchee Community Wildfire Protection Plan

## Overview of the CWPP Area



## General Description of Planning Area Regions

- 1) Lake Wenatchee and Fish Lake** – This region is comprised of high density development primarily along Wenatchee and Fish Lakes; other developed areas include Whispering Pines, Cascade Hideaways, Alpine, Idyllwild, Stellerwood, and Kahler Glen golf course. This region includes two Washington State Parks with 198 campsites and a group site covering a combined 450 acres of land), one Forest Service campground (Nason Creek), and two private campgrounds (The Cove at Fish Lake and Mid-Way). The region is dominated by the two lakes. It is surrounded by steep slopes with dense stands of conifers and brush. Highway 2 provides the main access through the area and accesses the Lake Wenatchee (207) and Beaver Valley Road. The Lake Wenatchee Highway and Chumstick Highway provide the main access routes to other roads in the area which typically are county and forest service. Another main road is South Shore; a dead end road that accesses homes along the south side of Lake Wenatchee. Numerous forest service roads are located in the area, but are not a reliable means for escape during a fire. Spur and private roads are narrow and steep. The majority of residents get their water from private wells, but a domestic water system serves Whispering Pines and Kahler Glen. None of these systems was designed for providing water for extended fire fighting operations.

A recent fuels reduction demonstration project was implemented on about 350 acres of State Park land. This project, which is at a highly visible site and consists of under story thinning, serves as a demonstration and interpretation site for the purpose of fuels reduction work and what it looks like when completed.

- 2) Plain Area** – This region extends from the top of Beaver Hill to the junction of the Lake Wenatchee and Chumstick Highway near Nason Creek (and Headwaters store). Most of the area in this region is truly plain like in character with open grass fields and clumps of trees. Approximately 200 homes exist in this region and are typically large homes on several acres. A small grocery store, hardware store, and a mini storage business make up the community of Plain.
- 3) River Road** – The River Road region extends from its intersection with Beaver Valley Road, near Fire District 9 station 3 and the Plain School, for approximately five miles along the Wenatchee River to where the County Road and the pavement ends. Historically, River Road extended south to Highway 2 just above Tumwater Canyon. River Road is bounded by private property. The properties on the east side of the road are along the banks of the Wenatchee River. On the west side, Wenatchee National Forest is located behind the private property. The BNSF railroad also owns some land and crosses River Road at mile 3.8.

There are over 250 homes in this region and most are single family homes. A small percentage of these homes are used as permanent, full time dwellings. Many others are used as weekend and vacation cabins, weekend and vacation rentals, or full time rentals. Three businesses (Grunewald Guild, Cornerstone Lodge and Featherwinds B&B exist

along River Road and are used as lodging for relatively large numbers of guests. Most of the housing is recreational/seasonal homes and is not occupied year-round. Many of those homes are offered as vacation rentals.

River Road can be blocked by slides in two locations, a railroad crossing, and falling trees. Major private access roads include West Side Road, Muletail Flats Road and Mecham Road. There are several driveways that access multiple homes. These roads and driveways are narrow and primitive; many lack adequate turnaround space. Forest Service roads (6601 and 6602) intersect River Road at road miles 1.6 and 2.7.

Some property owners have systematically reduced the fuel concentration on their forest property. In some cases, maintenance is needed as brush is beginning to return in significant amounts. Thus even these property owners will need some guidance and physical or financial support to maintain the status of their fuel reduction.

While the Wenatchee River parallels River Road the entire length, the presence of a high bank limits access to the river for fire fighting to a few locations. The Chiwawa-Plain Irrigation District ditch flows parallel to River Road to road mile 2.3. However, since it is located above the properties that it serves, it is not easily accessed except about ½ mile up Forest Service Road 6601, at road mile 1.6, and at the return to the River at road mile 2.1. Since most of the area along River Road that has use of the ditch is near the end of the ditch, there is limited water available for fire suppression.

- 4) **Chiwawa River Pines** – The area extends from the Chiwawa River to Meadow Creek Road (FS 6300 off of Forest Road 62). This area mostly encompasses Chiwawa River Pines Development and some scattered homes along the Chiwawa River. The area is predominately private lands surrounded by National Forest on sides. The surrounding National Forest area has many areas of overstocked small trees and dense ladder fuels with some grass. The Chiwawa River Pines development is comprised of 376 single family lots on 450 acres. Currently there are 301 land owners. This development lies at the confluence of the Wenatchee and the Chiwawa Rivers. Roads are County owned and maintained. 80% of the lots are second homes used for recreation. Water is supplied by a community water system comprising of 5 wells and a 164,000 gallon holding tank. Fire hydrants are located ever 2,000 feet throughout the community. The single water tank is located at the top of a hill in the community. The majority of the lots have ample fuel supply with dead trees, wood piles, and underbrush. Lot maintenance concerning fire fuel is not done on a regular basis. The community is bordered by the two rivers, Forest Service land, and Thousand Trails. Chelan County Fire District 9 station #2 is located within the community. A large portion of the lots are owned by west side residents who do not have knowledge of fire danger on the east side of the Cascades during the summer. Growth is currently at about 4-6 new homes a year.
- 5) **Nason Creek / Highway 2 Corridor** – This area extends from Tumwater Canyon to near the top of Stevens Pass. It includes small clustering of homes in the Merritt, Winton and Yodelin communities. Approximately 95 homes are scattered along this corridor area with most homes used as part time residences. This corridor is bordered by National Forest on all sides with Longview Fibre owning sections of land on Round Mountain and



in the Gill, Roaring and Coulter Creek drainages to the south of the Nason Creek rest stop area. A small recently closed sawmill is located at Winton.

- 6) **Shugart Flats** – This region extends from the bridge that crosses the Chiwawa River immediately north of Thousand Trails on the Chiwawa Loop Road to Beaver Valley Road plus the roads leading off the Chiwawa Loop Road including the Shugart Flats area. The distance from the bridge to Highway 209 is approximately 4 miles. The land in the area is owned by private individuals, corporations, partnerships, and the Forest Service. Three significant commercial enterprises operate in the area; Mountain Springs Lodge and Conference Center, Stonewater Ranch, and Thousand Trails Campground. Numerous rental properties are also located in this area. On a busy weekend approximately 2,000 or more people may be in this part of the planning area.

There are three main roads; Chiwawa Loop Road, Shugart Flats Road, and Wending Lane. These roads access a total of 169 dwellings plus a comparable number of garages and outbuildings. Most parcels are several acres in size. There is only one road in and out of Shugart Flats. There are 66 homes and associated driveways/roads in Shugart Flats. Wending Lane area has 22 dwellings and a like number of out buildings. Most homes have some level of fuels reduction immediately surrounding the structures. The hill side on the south side of Wending Lane has a lot of material that could be fuel for a fire. The number of dwellings on the 6100 Road is eleven with a similar number of out buildings. Wending Lane and Chiwawa Court are both one way in and out.

Wending Lane and Stonewater Ranch have their own water systems. Thousand Trails and Mountain Springs also have community water systems and ponds. Most homes have wells with limited water available to fight fires. There is water available from the Wenatchee and Chiwawa Rivers plus the irrigation canal that provides water to the planning area.

- 7) **White River** – This region begins near the upper end of Lake Wenatchee where the White River road begins. The area consists primarily of private lands along White River Road bordered by National Forest lands. Access into this area is limited to the main White River Road which is a one way in and out route.
- 8) **Pine River Ranch** – This region is comprised of high density development primarily in the developed areas of the Pine River Ranch (approximately 50 houses), Karl Road (approximately 40 houses), and Brae Burn Road (approximately 40 houses with at least 20 developed lots). There are also a number of businesses running down highway 207, including the Pine River Ranch B&B, The Blue Grouse Lodge, The Headwaters Pub and Resturant as well as the Park Place Grocery and Gas station. The Pine River Ranch development has two community wells, and individual wells supply the water for the residents of Brae Burn Road. The region is boarded by Karl Road to the South, Nason Creek to the West, the top of Natapoc Ridge to the East, and Brae Burn Road on the North Side of the Wenatchee River. The area is surrounded by steep slopes with dense stands of conifers and brush. Highway 207 provides the main access through the area and accesses the State Parks. Numerous forest service roads are located in the area, but

are not a reliable means for escape during a fire. Spur and private roads are narrow and steep. A large portion of the lots are owned by west side residents who do not have knowledge of fire danger on the east side of the Cascades during the summer. The area is a mixture of private and National Forest Land. On some of the private land which was previously logged, large piles of dried out branches are present.

### **3. Planning Process**

#### Background

The enactment of the Healthy Forest Restoration Act (HFRA) of 2003 created the opportunities for counties to participate in community based forest planning and vegetation treatment project prioritization. This landmark legislation includes the first meaningful statutory incentives for the US Forest Service (USFS) and the Bureau of Land Management (BLM) to give consideration to the priorities of local communities as they develop and implement forest management and hazardous fuels reduction projects.

In order for communities to take full advantage of this opportunity, a Community Wildfire Protection Plan must first be prepared. The Lake Wenatchee/Plain Area CWPP is meant to conform to the intent and letter of HFRA. Once implemented, the CWPP should help reduce the risk of a catastrophic wildfire in this community.

The process of developing a CWPP is intended to help the communities of Chelan County clarify and refine priorities for the protection of life, property, and critical infrastructure in the wildland-urban interface (WUI). It can also lead community members through valuable discussions regarding management options and implications for the surrounding watersheds.

The language in the HFRA provides flexibility for a community to determine the substance and detail of CWPP's and the procedures used to develop them. Because the legislation is general in nature, Chelan County is providing assistance in the preparation of CWPP. CWPP's are being developed on the county fire district boundary scale in coordination with the landowners; fire district staff, and representatives of the United States Forest Service, Bureau of Land Management, and Washington State Department of Natural Resources. There are ten Fire Districts in Chelan County and CWPPs are being developed for each. These CWPP's will be addendums to the Chelan County-Wide Community Wildfire Protection Plan. Priorities developed for each Fire District will be ranked for the County.

The CWPP's for Chelan County will be updated as appropriate (no more than once every three years) by the Chelan County Conservation District. It is expected that updates will be necessary in order to reflect work done to address issues identified in the CWPP's. Another important aspect of these plans will be the monitoring of effectiveness of projects implemented.

The wildland urban interface (WUI) is the zone where structures and other human development meet and intermingle with undeveloped wildland or vegetative fuels. This WUI zone poses tremendous risk to life, property, and infrastructure in associated communities and is one of the most dangerous and complicated situations firefighters face.

Both the National Fire Plan and the Ten-Year Comprehensive Strategy for Reducing Wildland Fire Risks to Communities and the Environment place a priority on working collaboratively within communities in the WUI to reduce their risk from large-scale wildfire.

The HFRA builds on existing efforts to restore healthy forest conditions near communities and essential community infrastructure by authorizing expedited environmental assessments, administrative appeals, and legal review for hazardous fuels projects on federal land.

The Act emphasizes the need for federal agencies to work collaboratively with communities in developing hazardous fuel reduction projects, and it places priority on treatments identified by communities themselves in a CWPP.

The HFRA provides communities with a tremendous opportunity to influence where and how federal agencies implement fuel reduction projects on federal lands, and how additional federal funds may be distributed for projects on nonfederal lands. A CWPP is an effective way to take advantage of this opportunity.

The HFRA requires that three entities (listed below) must mutually agree to the final contents of a CWPP:

- The applicable local government (County or Cities)
- The local fire departments; and
- The state entity responsible for forest management.

In addition, these entities are directed to consult with and involve local representatives of the USFS and BLM and other interested parties or persons in the development of the plan. The process is open and collaborative, as described in the Ten Year Strategy. Local and state officials, federal land managers, and a broad range of interested stake holders are involved.

In the absence of a CWPP, the HFRA limits the WUI to within ½ mile of a community's boundary or within 1½ miles where mitigating circumstances exist, such as steep slopes or the presence of a critical evacuation route. At least 50 percent of funds appropriated for projects under the HFRA must be used within the WUI as defined by either a CWPP or by the limited definition provided in the HFRA where no CWPP exists. For the Lake Wenatchee CWPP, the WUI is defined as the entire project area (see map on Page 3).

#### Process and Partners

The Dirty Face Fire in 2005 (1,150 acres) illustrated the need for wildfire preparedness to residents of the Lake Wenatchee area. During the Dirtyface fire two FireWise Workshops were held at the Lake Wenatchee State Park and approximately 50 local community members attended each meeting. The FireWise workshops stressed the benefits of defensible space. Videos of the approach were shared with attending property owners and visitors to the State Park. Homeowners in the area were provided with FireWise information and urged to clean up around their homes, driveways, and forest lands.

The Dirtyface Fire brought about an increased awareness of wildfire in the community. As part of fire updates made during the Dirtyface Fire residents became aware of Community Wildfire Protection Planning efforts in the state and county. By the winter of 2007 a group of approximately 10 landowners, along with assistance from Chelan County Fire District #9, United States Forest Service, Washington Department of Natural Resources, Lake Wenatchee State Park and Chelan County Conservation District staff initiated the effort to develop a CWPP. This effort is coordinated with the adjacent CWPP effort for the Leavenworth area (Fire District #3).

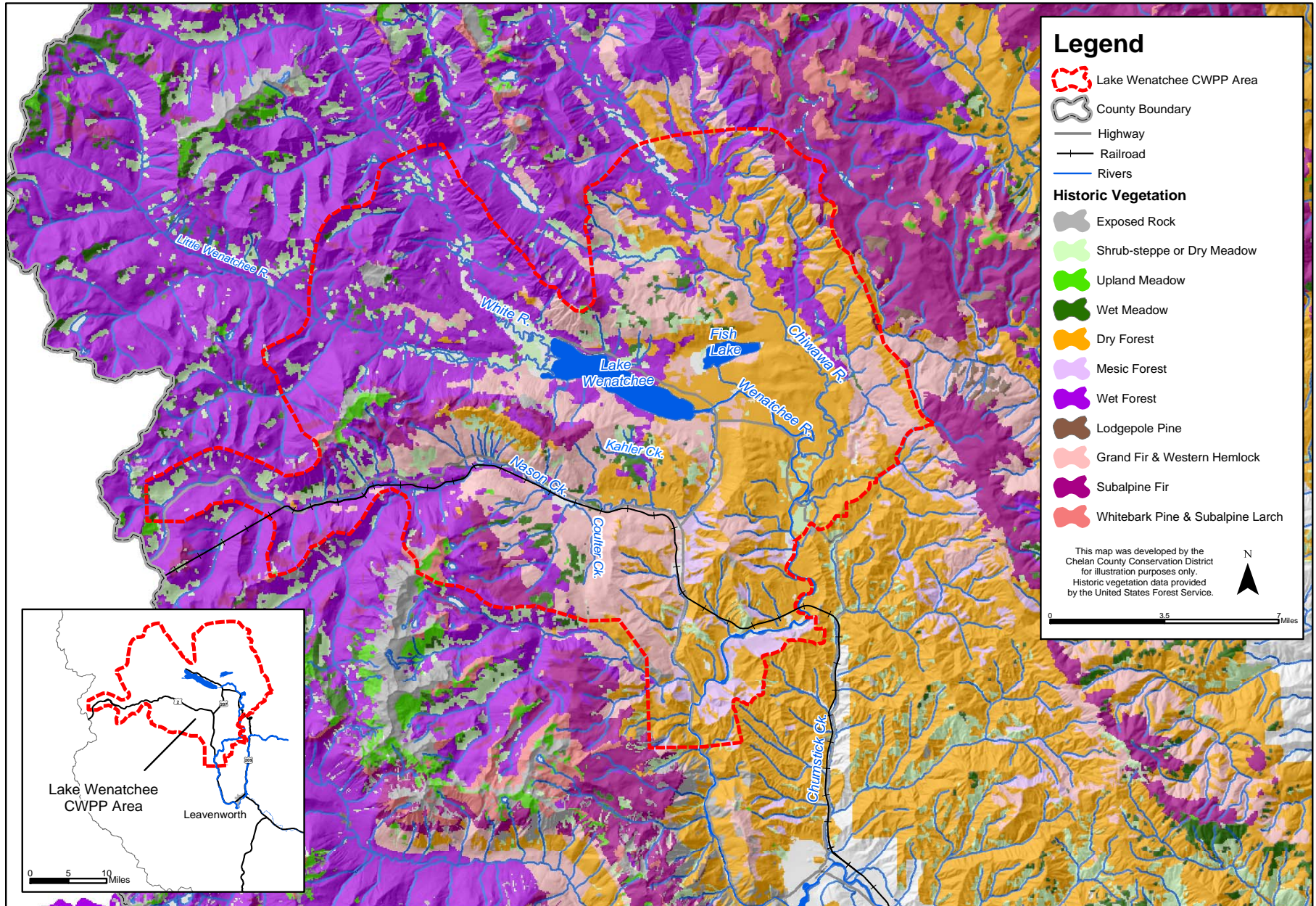
A community meeting was organized and a broad cross-section of stakeholders including citizens and property owners, representatives from CCFD#9, WDNR, Conservation District and USFS staff attended and discussed the objective of creating such a plan and to review a draft plan developed for the area.

The Lake Wenatchee/Plain Area CWPP is the result of partnerships between private, local, state, and federal interests. The Lake Wenatchee/Plain Area CWPP is part of the foundation of the county-wide community wildfire protection plan. By basing the county-wide plan on individual CWPP's, such as the Lake Wenatchee/Plain plan, the goals, objectives, and recommended projects will be developed by and remain specific to each community (See Section 8. Mitigation Action Plan)



# Lake Wenatchee Community Wildfire Protection Plan

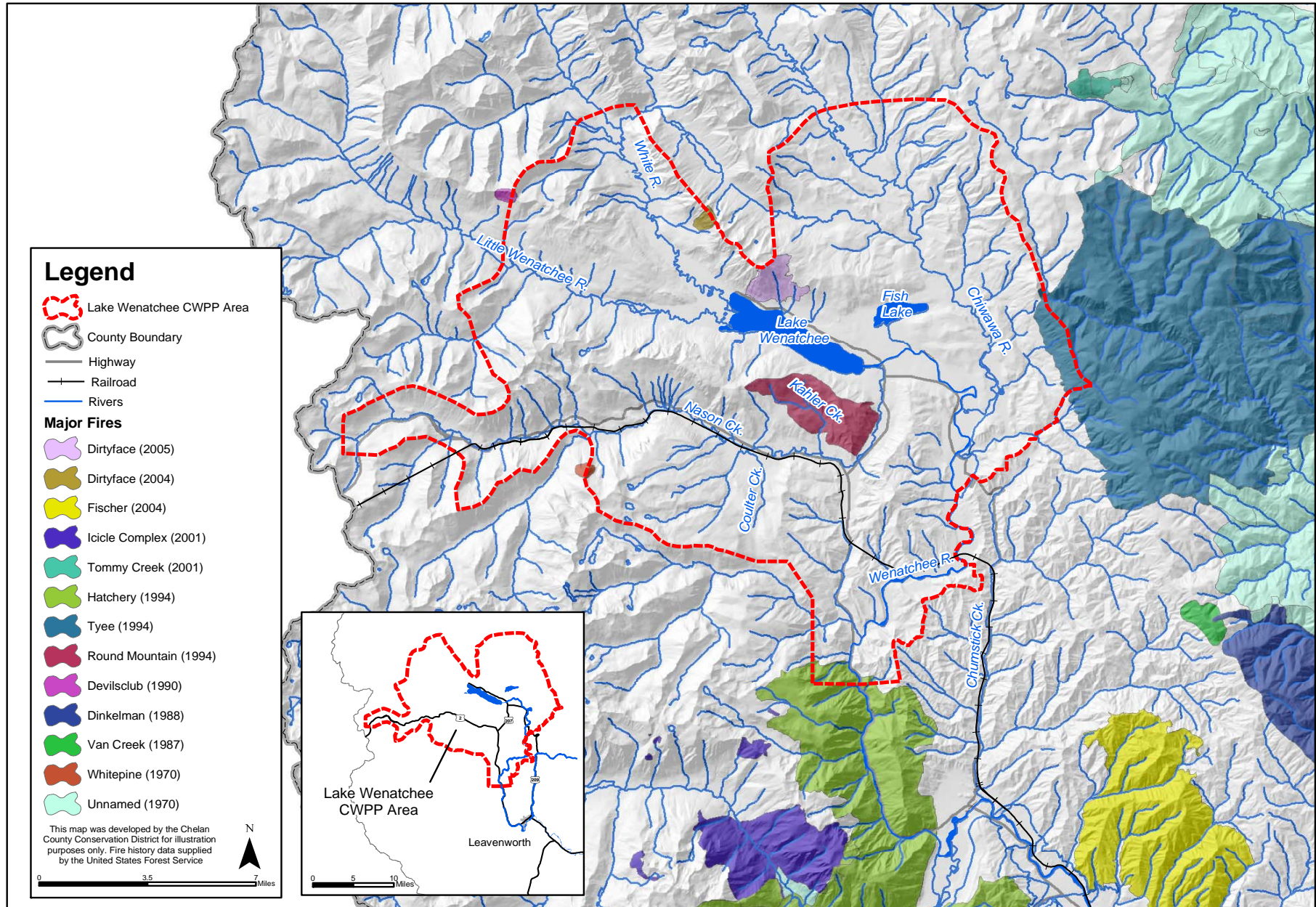
## Vegetation Types





# Lake Wenatchee Community Wildfire Protection Plan

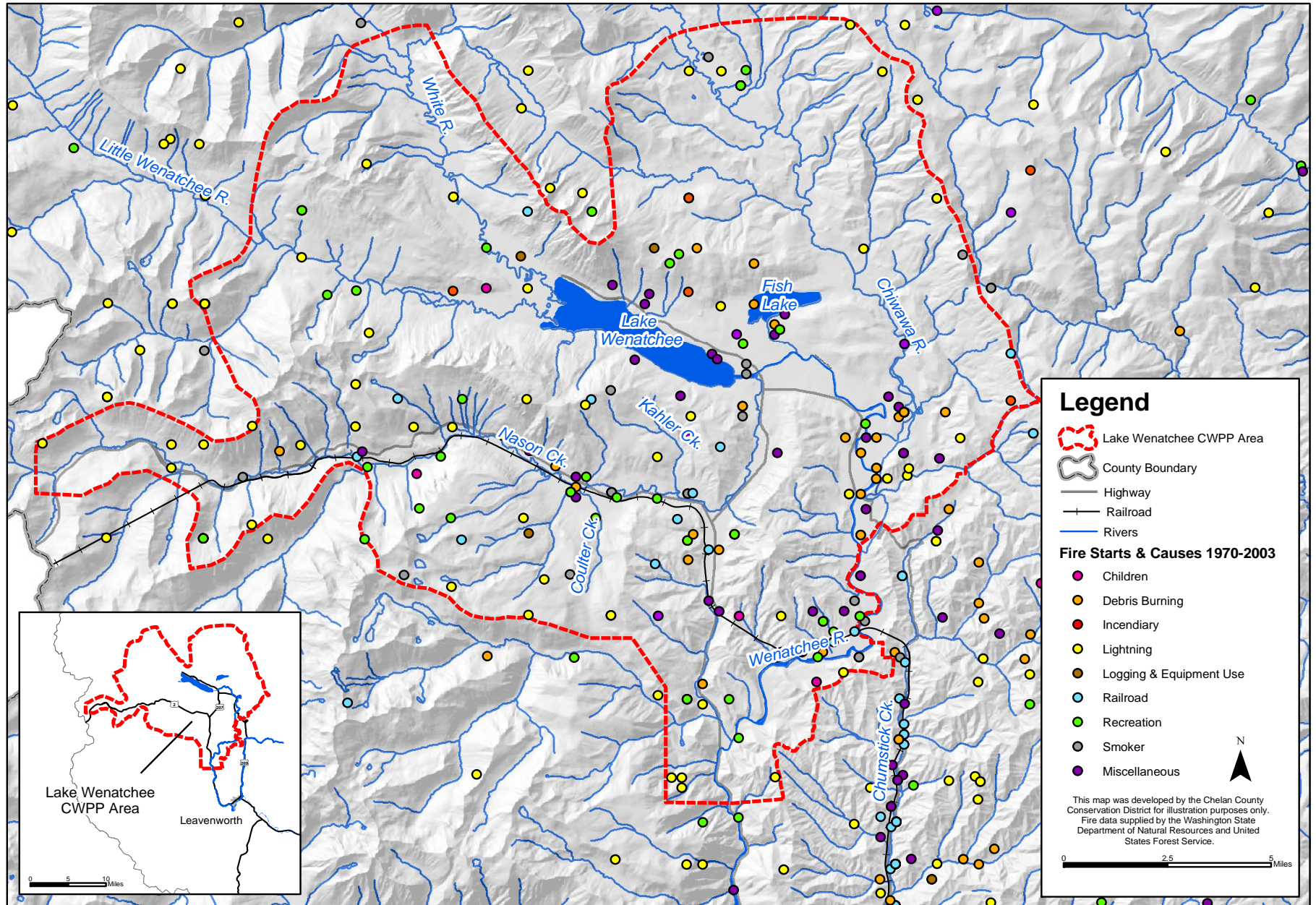
## Fire History 1970-2006





# Lake Wenatchee Community Wildfire Protection Plan

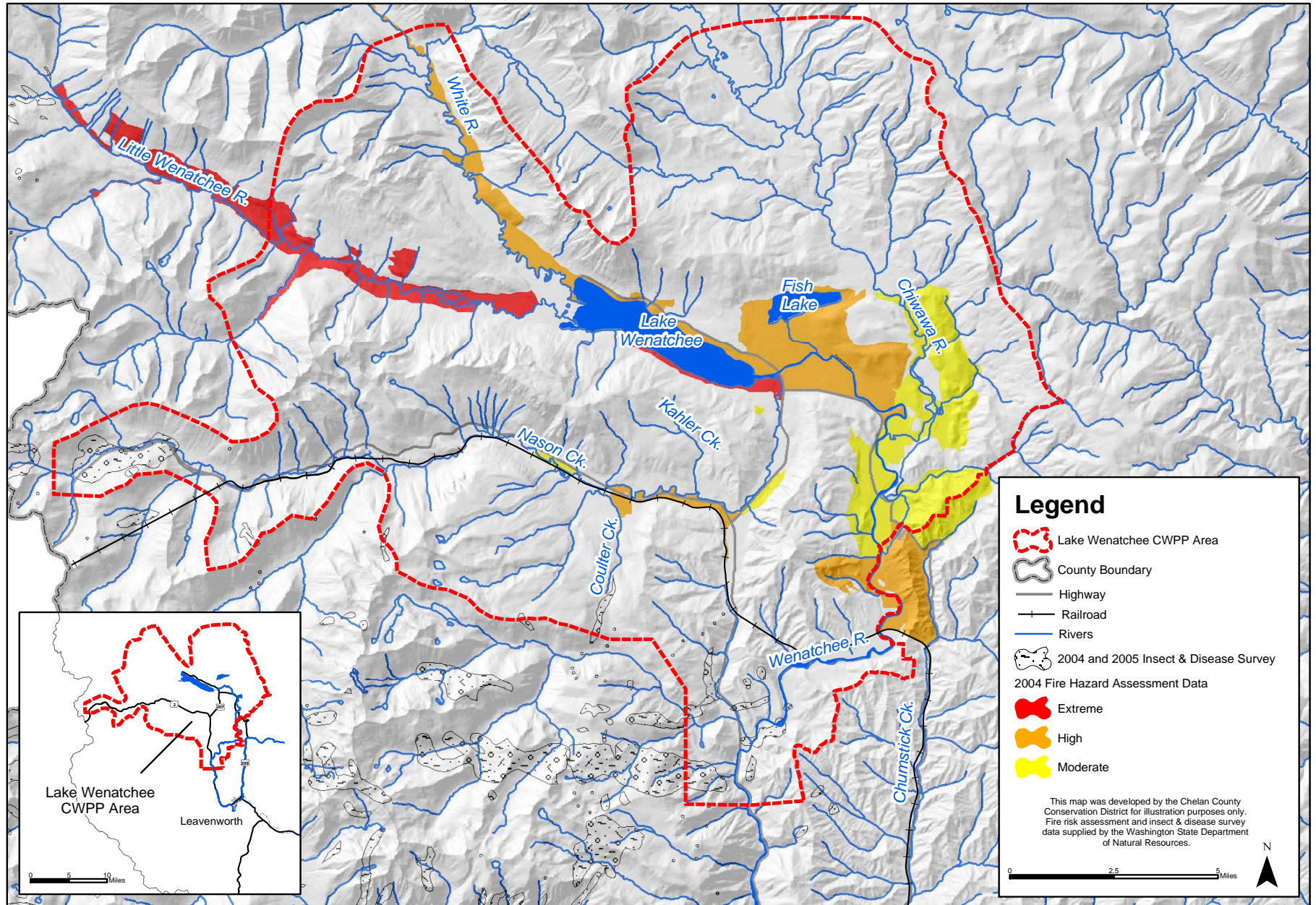
## Reported Fire Starts & Causes 1970-2003





# Lake Wenatchee Community Wildfire Protection Plan

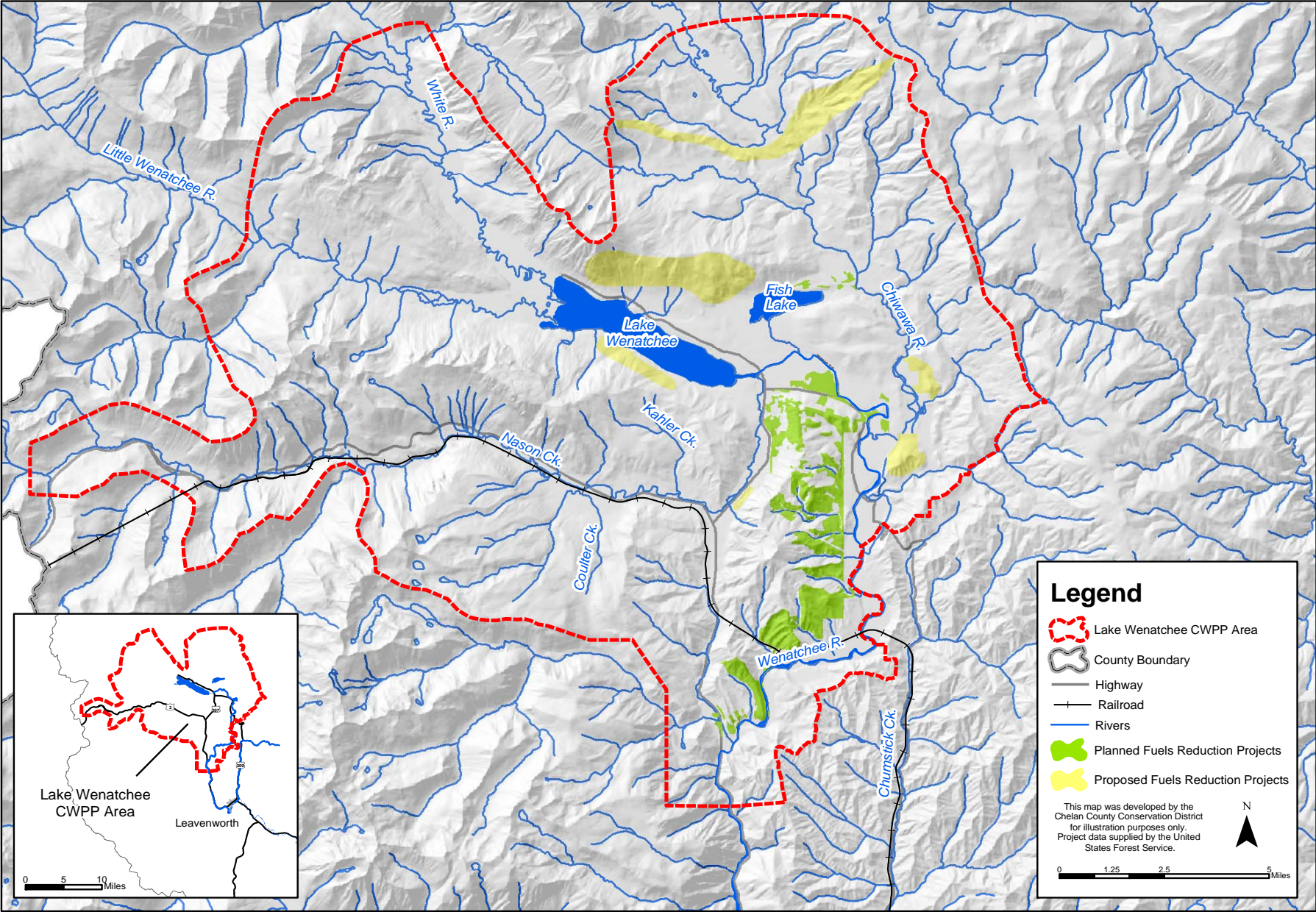
## Fire Risk Assessment and Insect & Disease Survey Data





# Lake Wenatchee Community Wildfire Protection Plan

## Planned & Proposed Projects



## 4. Assessment

### Existing Information

Primary data used in this plan came from the USFS-Wenatchee-Okanogan National Forest, Wenatchee River Ranger District, National Forest Fire Management Plan, Mainstem Wenatchee Watershed Assessment 1999, Little Wenatchee and White River Watershed Assessment 1998, Chiwawa Watershed Assessment 1997, Nason Creek Watershed Assessment 1995, Chelan County Fire District No. 9 (structure protection plan and evacuation plan, etc.), and WDNR (historic/potential vegetation, topography, fire cause statistics). *Note: Portions of this document include intellectual property of the WDNR and are used herein by permission. Copyright 2004, WDNR. All Rights Reserved.*

### Vegetation

The Lake Wenatchee/Plain Area Community Wildfire Planning area is located towards the western edge of the Okanogan-Wenatchee National Forest in north-central Washington. The planning area varies in elevation from 4056' in the upper reaches of the Nason Creek watershed near Stevens Pass to 1680' at the upper end of Tumwater Canyon. The annual precipitation at the lower end of Lake Wenatchee is approximately 28-30 inches/year and increases to 60 inches/year near the Cascade Crest to the north and west (most in the form of snow). This range of precipitation combined with elevation provides a broad spectrum of forest and vegetation communities.

The large majority of the planning area (45%) is dry forest vegetation of predominately Douglas-fir with some ponderosa pine and small amounts of grand fir. Douglas-fir and ponderosa pine stands dominate the landscape covering 63,042 acres (40%) of the planning area. More mesic sites (e.g. north slopes and creek beds) have developed stands of Douglas-fir and some grand fir on 7,570 acres (5%). These drier forest types dominate the landscape south of Fish Lake and east of Lake Wenatchee to Maverick Saddle and Entiat Ridge. It also encompasses the entire communities of Plain, Shugart Flats and Chiwawa Pines, which have the highest densities of residents. Moist vegetation groups and more moist montane meadows exist in higher reaches of drainages such as in the Nason, White River, Little Wenatchee, and upper Chiwawa River with general elevation gain. These include: moist grand fir, silver fir and hemlock, subalpine fir and whitebark pine.

Historically, the area around the communities of Plain, Shugart Flats, Kahler Glen, north shore of Lake Wenatchee, and Chiwawa Pines supported both pure stands of open canopy ponderosa pine, mixed ponderosa pine, lodgepole pine, and some mixed conifer (ponderosa pine, Douglas-fir, and dry grand fir), dominated by stands of age classes ranging from seedling to very large diameter. The Douglas-fir and grand fir stands were primarily located on higher north slopes and in the creek bottoms.

Currently, the primary vegetation type for the Lake Wenatchee/Plain Area is overstocked ponderosa pine forest with large amounts of Douglas-fir regeneration and intrusions of grand fir. Ponderosa pine is a shade intolerant species naturally adapted to survive in areas that experience fire on a regular basis. This frequent fire regime with a fire interval every 2-20 years was standard for the entire lower Wenatchee River valley. North aspect slopes may act as fire refugia

and not experience fire on the same interval. Fire plays a major role in how ponderosa pine is established and sustained on the landscape. Regular burning allows pine stands to flourish by removing underbrush and smaller competing trees. As the pines mature their bark thickens and their lower branches are self-pruned, which also makes them better adapted in a fire environment. Older, pure ponderosa pine stands subjected to frequent fire often have a wide, open, park-like feel with scattered large trees (12-25/acre) with a grass and scattered brush species understory. Fire also provides benefit by providing a mosaic of microhabitats across the landscape by creating openings, snag patches, and opportunities for a variety of plant species. In addition, these naturally occurring low intensity frequent fires would keep insects and plant diseases in check. The resulting increase in vegetative diversity benefits wildlife, as well as forest health/disease resistance. Conversely, the exclusion of fire over the last 60-90 years has allowed for the continuous horizontal and vertical fuel profiles of ponderosa pine and Douglas-fir to develop and increase the susceptibility for high intensity, stand replacement fires.

### Fire Ecology

When the natural fire regime within these dry forests has been altered (primarily through fire exclusion) ponderosa pine stands become denser. Shading and competition inhibit the growth of pine and allow more shade tolerant species, such as Douglas fir and grand fir, to become established along with other understory brush species. This overstocked condition produces vertical and horizontal fuel profile continuities which often result in high intensity stand replacement fires. Additionally, denser stands are often more susceptible to the spread of insects and disease which provide more dead standing and down fuels. Vegetation within frequent fire regimes (with fires at intervals of 0-35 years) become unstable as fire frequency is disrupted (e.g. by fire suppression or fire exclusion). These forest types rely on the dynamics of fire to lower competition amongst species, keep areas of disease and insects in check, and clean up the dead and downed materials (fuel). If there are no fires in a 0-35 year period to manipulate the dry forest (and in the absence of other treatments which emulate fire such as thinning), the forest is considered to be Condition Class II (Condition Class I is considered a normally functioning and structured forest community). No fires over a longer period produce a densely stocked stand of pines and shade tolerant species. This Condition Class III situation will result in the loss of forest cover, damage to watersheds, altered wildlife habitat, and potential soil damage when the inevitable high intensity fire occurs. Most of the dry forest areas in the Lake Wenatchee/Plain CWPP area are in Condition Classes II and III (98%, 69,200 acres). Recently thinned areas (along the north shore of Lake Wenatchee, around Fish Lake and near Lake Wenatchee State Park) and recently burned areas (e.g. Dirtyface and Round Mountain fire areas) have been converted and improved toward Condition Class I state.

Thinning may be warranted in an effort to emulate fire as a process (that is, to consume and break up the pattern of fuels) and to increase the area conducive to lower intensity fires that allow access to fire suppression forces. Thinning and prescribed burning activities can take place within or adjacent to the Lake Wenatchee/Plain CWPP area in an attempt to lower the trend of increasing fuels. The Natapoc Ridge area was recently analyzed to conduct these types of treatments across approximately 4,500 acres and will hopefully be implemented in the near future to augment those treatments in the area listed above.

Other areas in the Lake Wenatchee/Plain CWPP area are wetter forests or mountain meadows that don't experience fire with the same regularity and are subject to long interval (50-200+ years) stand replacement fires. Because fires that occur in these ecosystems are typically of high intensity, actions and treatments are necessary around homes to protect against loss of life and property. Full fire suppression and fire exclusion have made a number of these areas (e.g. upper Chiwawa drainage) susceptible to landscape scale pathogens and insects which will predispose these areas to large fires as the incidence of mortality increases and fuel accumulates. The upper Chiwawa River drainage is currently in the early stages of an epidemic outbreak of spruce budworm which can defoliate thousands of acres in a few years.

### Fire History

Since 1970, over 557 fires have occurred within the Lake Wenatchee/Plain CWPP area (See Fire History map on page 11 for summary and location of fire starts). Fires are started naturally by lightning in the planning area nearly annually and are typically concentrated along ridge tops though random strikes may occur anywhere. In addition, human-caused fire starts are also occurring (and increasing with increased development and recreational use) as a result of other activities, such as dispersed and motorized recreation and debris burning. The Wenatchee River drainage, particularly in the Natapoc area, has seen a very high number of fire starts along the Burlington Northern-Santa Fe Railroad tracks in the past, but that concentration has diminished somewhat with new maintenance practices employed by the railroad. The size of the fires may vary, but typically small fires of a few to several acres occur on a 5-10 year interval. Large fires have been experienced near and within the planning area and conditions are conducive to large, high severity fires. Large fires (those greater than 1000 acres) have occurred in 1994 (Round Mountain Fire, 4,300 acres and Tyee Fire, 120,000 acres), 2003 (Maple Fire, 2,410 acres) and 2004 (DirtyFace Fire, 1150 acres). Conditions are still conducive for a large, high severity fire, particularly in the Chiwawa drainage where spruce budworm (a conifer defoliator) activity has expanded from a few acres in 2001 to nearly 70,000 acres.

### General Fire Behavior Potential

Weather, topography, and fuels affect wildfire behavior. The Lake Wenatchee/Plain Area, like other areas of Chelan County, is prone to severe weather conditions (hot, dry, and windy) in late summer that can support extreme fire behavior. The terrain is an extremely important aspect of expected fire behavior in this area.

The landscape is dominated by three major west to east drainages (Nason, White, and Little Wenatchee) and two north to south drainages (Chiwawa and Wenatchee). The west/east oriented drainages funnel frontal winds or afternoon diurnals as the Columbia Basin heats up and develops a strong pressure gradient, drawing in cooler air from the Cascade crest. The Lake Wenatchee area experiences this effect frequently in the summer and is a popular windsurfing area as a consequence. Remote access weather stations (RAWS) in the area show measurable winds 75% of all days in the year. Historical fire activity has reflected typical wind driven fire behavior. When winds align with slope, extreme fire activity can occur. The most densely populated areas around Lake Wenatchee and Plain have many areas of dense stands dominated by ponderosa pine and thickets of Douglas-fir, with the largest trees primarily less than 18 inches in diameter. Stands in the area are dense and continuous, a perfect setting for large, lethal wildfire. Many stands have closed canopies and abundant ladder fuels. Continuous, tall



underbrush also predominates. Insect infestations of western pine beetle and/or fir engraver beetle are becoming more prevalent as are root rot pathogens which kill patches of all ages of trees providing jackpots of fuel.

Areas in the mid to lower portions of the Nason, White, and Little Wenatchee River drainages may not experience fire as often, but the density and stratification of fuels is such that an initially small fire could grow quickly to a large high intensity fire with potential for spotting well ahead of the main fire front. Focused treatments around homes and other improvements to maximize defensible space, incorporating fire resistant building materials, thinning, and easily negotiable emergency access are critical to the protection of these homes and minimize the potential for fatalities of residents and firefighters.

Since the weather and topography of a community cannot be changed, the best approach to minimize the risk to people and potential property losses is to modify and/or reduce fuels surrounding the home, as well as at the landscape level. Fuels treatments within and adjacent to a community can improve safety for fire fighters, help overall fire suppression efforts be successful, and reduce potential risk/damage to individual structures/property. Wildlife habitat benefits can also be gained through fuels reduction and natural vegetation restoration projects.

#### Fuels/Hazards

The WDNR has classified the areas surrounding and including the Lake Wenatchee/Plain area as ranging from moderate risk (see map on Page 13) to 'extreme risk' WUI. The variation is, in part, due to the large planning area. Past activities such as logging, grazing, and fire suppression have altered the normal fire regime, stand species composition, and affected forest health. Dense, overstocked stands of trees are increasing the fire hazard in the Lake Wenatchee/Plain Area CWPP. Many stands of ponderosa pine are dominated by trees less than 18 inches in diameter. Numerous dense pockets of standing and dead fallen trees have been/or are being affected by low level (~0.3 to 4.5 trees/acre) infestation by mountain pine beetle and/or fir engraver (WDNR GIS; see previous Vegetation map) and root rot (disease). Stands often have contiguous crowns and ladder fuels in the form of young conifers and tall brush species. These variables provide a continuous fuel profile which can create conditions for an intense and fast moving fire.

#### Protection Capabilities

Chelan County Fire District #9 is responsible for protection of private property in the area surrounding the communities in the Lake Wenatchee and Plain area. The WDNR is the primary agency responsible for fire protection on forested private and state lands while the USFS is the primary agency responsible for management of fires on federal land. Areas outside the boundaries of the Fire Protection District #9 are not guaranteed fire response from the District. DNR will respond to forest fires; however, they do not have responsibility for structures. The District maintains mutual aid agreements with WDNR and fire districts within Chelan and Douglas Counties.

Fire District #9 is a small combination department is responsible for protection of private property in the area surrounding Plain / Lake Wenatchee area covering approximately 54 square miles. District boundaries extend from the top of Beaver Hill and mile post 90 on Highway #2 to

approx. mile post 67 near the summit of Stevens Pass. The District employs four part-time employees and estimated 25 volunteers. CCFD #9 has four stations; the main station is located at 21696 Lake Wenatchee Hwy, Leavenworth, WA. District boundaries extend from the top of Stevens Pass on the west to Tall Timbers Ranch up the White River on the north to top of Tumwater Canyon on the south and Plain to the east.

#### District 9 Equipment:

- 3 type 1 structure engines
- 1 type 3 wildland engines
- 2 type 6 brush trucks
- 3 water tenders, 1,500; 2,000; and 3,000 gallons
- 2 Command vehicles
- 1 Rescue Truck

The objective of the CCFD#9 structure protection plan is to safely and efficiently manage resources to protect life, property, and resources in the event of an approaching wildfire. Strategy decisions shall take into account the following tactical considerations:

1. Bottomlands are commonly grasslands with some scattering of timber and creek beds. Steep slopes range from heavily timbered to patches of scattered trees. Fire may move rapidly through bottomlands igniting slopes where spotting, torching, and crowning can occur. Slopes and bottomlands are heavily populated with structures.
2. Most homes will require maximum effort to defend, requiring prompt implementation of this plan and the need to triage (determine which can safely be defended) structures for defensibility.
3. Access to areas differs in locations. Bottomlands are commonly accessed by county road or state highway. Slopes are accessed by long private drives in varying conditions. Access to remote structures is critical in completing structure triage.
4. Homes range from small trailer homes to very large stick frame and log dwellings to large community buildings dispersed through out the District.
5. Small community water systems exist at Chiwawa Pines, Wending Lane, Pine River Ranch, and Stonewater Ranch. Thousand Trails and Mountain Springs have water systems and ponds. Several other small community water systems exist in the planning area, but none that could support fire fighting efforts.
6. CCFD#9 and its cooperators cannot assemble enough structure protection capabilities to protect all resources within the District. Successful defense from wildfire will depend upon structural triage and time for pre-treatment with mobile tactics. Resources from state and federal agencies will be necessary to implement the strategies described.

#### Structural Vulnerability

Residences within the boundaries of CCFD#9 are typically widely dispersed and are somewhat entwined into the forest landscape. However, concentrated areas of development do exist around Lake Wenatchee and on private land around Fish Lake, at the Chiwawa Pines development, and the Plain/River Road area. Access, topography, slope, and fuels play a role in each structure's fire risk; timber mixed with light fuel is conducive to fast moving wildfires. For these reasons,

residences located in areas of heavy fuels and poor access roads are at the highest risk for fire loss. Not having water systems in the planning area limits the amount of protection the district can supply.

Key Contacts

Organization	Contact	Phone Number
Chelan County Fire District #9	Main Station RiverCom	(O) (509) 763-3034 911 or (509) 663-9911
Chelan County Fire District #9 Administration	Chief Rod Fountain Asst. Chief Mike LaMar Admin. Asst. Terri Woods	(O) (509) 763-3034  (O) (509) 763-3034
Chelan County Sheriff	Sheriff Mike Harum  RiverCom	(O) (509)667-6851 (C) (509)630-1700 911 or (509) 667-6851
Wenatchee River Ranger District (USFS)	FMO Michelle Ellis	(509) 548-6977 Ex - 240
Central WA Interagency Comm. Center (CWICC)	Mark Hayes	(O) (509) 662-4393
Chelan County P.U.D.	Rick Riazzi	(O) (509) 663-8121 (E) (877) 783-8123

**5. Risk Evaluation**

An area risk assessment was completed by WDNR (NFP-299 area risk assessment) that grouped the area rather than analyzing risk to individual structures.

Access

There are several main roads that serve as designated emergency evacuation routes including Beaver Valley Road (old Highway 209), State Route 207, Lake Wenatchee Hwy, Highway 2, River Road, etc. However, several of the roads that access canyons or valleys are dead end roads. Not all roads in the planning area are paved or in suitable condition for fire equipment. Therefore, road access has been identified as a concern. The lack of improved roads that could serve for two access roads for emergency evacuations has been identified as a concern in some areas.

### Evacuation

The Chelan County Emergency Management Program administers the evacuation of the area surrounding Lake Wenatchee/Plain area in the event of a wildfire.

### Staging Area for Tactical Resources

If a fire threatens the area surrounding Lake Wenatchee/Plain, WDNR is primary agency for fire protection on forested private and state lands, and USDA Forest Service is the primary agency responsible for management of fires on federal lands. Chelan County Fire Protection District #9 will provide first response with mutual aid resources available throughout the county. These resources may respond to a pre-designated staging area.

Staging area options include;

- Plain Commercial Area
- Fish Lake Airstrip
- Coles Corner
- Nason Creek Rest Area

If fire threatens any portion of Fire District #9, the District will respond with mutual aid resources throughout Chelan and Douglas County. These resources may use any one of the following locations.

- Chelan County Fire Protection District #9, Station #91 at 21696 Lake Wenatchee Hwy
- Beaver Valley Elementary School, 19265 Beaver Valley Road

### Command Post Locations

Chelan County Fire Protection District #9, Station #91 at 21696 Lake Wenatchee Hwy

Mainline	(509) 763-3034
Fax line	(509) 763-8800
Email	<a href="mailto:ccfd9@nwi.net">ccfd9@nwi.net</a>

Two other possible command post locations include Fish Lake Airstrip and the Lake Wenatchee Recreation Club. Additional Phone lines would need to be connected.

### Water Supplies

The location of water sources available for fire fighting efforts has been identified. Water sources are primarily surface water withdrawal sites located on private land and right-of-ways at stream crossings. Instead of locating additional sites for water storage tanks for fire fighting purposes, obtaining portable pumping stations has been identified as a means to provide water for fire fighting. Finding funding for the purchase of portable pumping stations will be pursued as part of the Mitigation Action Plan of this CWPP.

### Fuel Breaks and Safety Zones

A primary treatment goal in the CWPP area is the creation of strategically-placed fuel breaks on federal and state managed lands and private lands in the planning area and along roads to allow for safe ingress and egress.

### Domestic Animal Placement

In the event of a fire, the Wenatchee Valley Humane Society will work with landowners to find a safe location for livestock as well as domestic animals for homeowners who can not take their animals with them.

## **6. Current Activities**

### Protection Measures

Fire protection for the Lake Wenatchee/Plain area is provided by CCFD#9. Depending on the location within the planning area, response times range between 2-25 minutes.

### Existing Procedures

A group of landowners in the planning area organized themselves to address fire issues in the community. This group hopes to provide direction, through this plan, on the management of federal and state lands inside and adjacent to the planning area. In addition, the group desires to implement actions identified in the Mitigation Action Plan portion of the plan, page 25.

### Project Proposals

No specific projects have been submitted yet. However, as the result of developing this plan specific project areas have been identified on state, federal and private lands (See Planned and Proposed Projects on page 14). Additionally, the CWPP effort expects to prioritize where future project proposals will take place.

### Coordination with Public Agency Activities

In order to maximize the fuels reduction work planned for private land, it would be desirable for complementary projects to take place on adjacent federal and state managed lands in and adjacent to the Lake Wenatchee/Plain Area CWPP planning area. The CWPP is recognized as the instrument necessary to organize and educate the public to further encourage and suggest design of such future projects.

The USFS-Wenatchee River Ranger District has prepared a 5-year Action Plan that will prioritize fuels reduction projects in the WUI. Within the Lake Wenatchee/Plain Area CWPP, there are existing and planned Forest Service projects that include pre-commercial thinning, commercial thinning, pruning, piling, burning, and under burning treatments (Natapoc, Fish Pole). The development of this document will facilitate the identification of areas to be included in the Mitigation Action Plan that will meet the objective of landscape fuels reduction and discontinuity in the pattern of fuels in the proximity of WUI. In the future, the entire Lake Wenatchee/Plain Area CWPP planning area will be annually reviewed for potential landscape fuels treatments in order to maintain a 5-year Action Plan.

Lake Wenatchee State Park has a 350 acre fuels reduction (thinning) and education project on State Park land in the planning area. An interpretive trail through the project area will have multiple educational signs explaining the project purpose. This trail and project will serve as an excellent opportunity for local residents and out of area people to learn about wildfire and fuels reduction efforts and objectives.

Efforts will continue to be made to coordinate projects that maximize the benefits of landscape fuels reduction involving other public and private entities. The Lake Wenatchee/Plain Area CWPP Mitigation Action Plan can be considered for inclusion in future amendments to the USFA-Wenatchee River Ranger District 5 Year Action Plan.

State agencies manage approximately 865 acres or 0.5% of the planning area (415 acres managed by Washington State Department of Fish and Wildlife, approximately 450 acres managed by State Parks). Department of Fish and Wildlife lands located in the planning area are managed primarily for riparian habitat.

The Washington State Department of Natural Resources has a continuing management strategy for state trust land parcels. The prescriptive practices are accomplished at various times throughout the management cycle for each parcel. The DNR recognizes the need to accomplish fuels reduction on state trust land parcels. The DNR works to include fuels reduction into management prescriptions as well as times when design of joint ownership projects will benefit all landowners involved.

#### Landowner Committee

A landowner committee was established for the purpose of assisting with development of the Lake Wenatchee/Plain Area CWPP. This committee (a few of which signed the plan) was made up of concerned homeowners who live, work, and play in the WUI, and who responded to information about developing a Community Wildfire Protection Plan for the area. Many of these homeowners were already involved with fuels reduction efforts in the area as part of homeowner association led efforts or simply on their own. The committee provided the bulk of feedback from community members during the development of the plan. It was decided by the committee that the focus of this CWPP is to help ensure human safety and structure protection on private land. Based on this, committee members decided to have the Mitigation Action Plan concentrate on safety issues in the following categories: education and outreach, fuels reduction, and improved protection capabilities. Projects that address human safety issues will be of a higher priority than projects that benefit homes. No home is worth a life.

Education and outreach was identified as one of the most important tools and first priority to be included in the plan. It was recognized by the committee that landowners will need to be informed of the need and means to “FireWise” their property and ensure safety. In addition, education and outreach will need to reach people who are only part time residents or visit frequently, but may not live in the planning area. A high percentage of the homeowners do not live full time in the area. Several items were identified as a means to get fire information out to the public (See 8. Mitigation Action Plan, page 25). The objective of this portion of the plan is to provide information to landowners and visitors to increase knowledge and understanding of fire related issues. Education will also provide landowners the knowledge needed to begin reducing the fire risk around homes. Some things considered to accomplish this include hosting future “FireWise” presentations and workshops and work to support the volunteer firefighter program.



Fuels reduction, both around homes and across the landscape was the second priority of the landowner committee. The committee agreed that implementing defensible space around homes was the first priority for fuels reduction and the second priority was the general landscape. Landowners will be encouraged (and information provided on how) to create a defensible space around their own homes. Financial assistance should be provided to assist those landowners that do not have the funds or ability to do it all on their own. Landscape level treatments (such as shaded fuel breaks or thinned areas) provide a substantial means of defense from the spread of wildfire and will be pursued for implementation. The scale of this landscape level work will not return the immediate benefits that come from creating defensible space around individual homes. Creating defensible space and maintaining it to protect structures will provide an additional form of “back-up” if/when fires spread to private lands. Landscape treatments and shaded fuel breaks should be located based on terrain, fuel conditions, etc., and the treatments should take place where needed regardless of ownership.

The landowner committee (with support from county, state, and federal partners) will assist with investigating and prioritizing on-the-ground wildfire prevention and protection projects in the Lake Wenatchee/Plain Area CWPP (Mitigation Action Plan, Page 25). In general, projects will be prioritized based upon their proximity to densely developed areas within the planning area and work outward toward adjacent public lands. The focus will first be on protecting areas of densest developments within the planning area.

Communication was identified as another item to be addressed in the plan. Specifically, immediate communication of accurate information to landowners and appropriate emergency personnel in the event of a fire related emergency is critical. Through this planning effort, the best means of developing an improved method of communication between landowners will be established.

The steep, rugged topography of the Lake Wenatchee/Plain Area CWPP limits most roads to valley bottoms and ridge tops. Limited roads, particularly a lack of secondary access roads into populated areas of the planning area, were identified as a substantial concern to safety. Means to improve/upgrade existing roads to provide for secondary access during emergency evacuation conditions should be pursued with the appropriate landowner and/or manager.

## **7. Plan Maintenance**

The landowner committee, with support from county, state and federal partners, will be responsible for monitoring existing projects and communicating that information to the Conservation District, so that accomplishments can be tracked. The landowner committee will propose and prioritize future projects aimed at wildfire prevention and protection in the Lake Wenatchee/ Plain Area CWPP. Members of this committee will take on the task of coordinating with outside groups and agencies to investigate, write, and submit future grants. This group is also responsible for partnering with appropriate agencies to review and update this CWPP on an annual basis (no less than once every three years) under the direction and assistance of the CCFD#9 and the Chelan County Conservation District and with assistance from state and federal land managers.

## 8. Mitigation Action Plan

There are three main categories of mitigation actions identified by members of the Lake Wenatchee/Plain Area CWPP committee. Categories include fuels reduction, education and outreach, and fire prevention and suppression in the WUI area. Natural vegetation and habitat restoration activities are incorporated into fuels reduction projects. Recommendations are organized into categories, but are not listed in order of priority. Rather, each project type identified is of equal value to the community.

- Fuels Reduction

1. Implement “FireWise” recommendations within 200 feet of private homes and essential infrastructure. Actions include the establishment of defensible space, adequate turn-around space for emergency equipment, and clear consistent address signs.
2. Implement fuels reduction on strategically located areas that will have the greatest benefit for the entire project area. The objective of the proposed project (see map on Page 14) is to help reduce the potential of a wildfire moving from public to private lands and vice versa across the landscape. Particular attention will be placed on Forest Service property on Sunshine Mountain adjacent to Shugart Flats.
3. Encourage the USFS to continue current fuels reduction activities at the landscape scale with an emphasis of restoration of low intensity fire regime and creating strategic fuel breaks that will enhance local fire suppression efforts and utilize “natural” fuel breaks where feasible (such as orchards, ridge tops, highways, rock outcrops and irrigated pastures). Encourage similar activities on other National Forest lands adjacent to private ownership within the CWPP area as the risk assessment and prioritization process continues (see map on Page 14 for areas identified during this planning process).
4. Encourage Chelan County to acquire a smaller, more mobile chipper(s) that can be used by folks in the CWPP area to dispose of brush generated through fuels reduction efforts rather than burning. This will reduce the potential that homeowner managed burns develop into wildfires.
5. Identify and develop sites for the short term collection of material generated from fuel reduction efforts on private land. Multiple temporary collection sites will allow for easier access for home and landowners in the planning area
6. Identify extreme hazard sites and work with landowners to reduce fuel loads of these sites to improve safety for an entire area.
7. Treat vegetation along roads and driveways to improve site access and fire fighting. Removing the material rather than letting it lay is desired. This can include shaded canopy defensible space on both sides of the roads.

8. Develop and maintain safe areas, shelters, and staging locations as a base for fire fighting operations.
  9. Encourage adjacent landowners and agencies to perform complementary treatments on their land by being more involved in the public planning process and inviting neighboring private landowners to participate in annual “FireWise” workshops to be held locally.
  10. Investigate biomass conversion technology for opportunities to implement biomass utilization technology in the CWPP area and County wide as part of fuel reduction projects.
- Education and Outreach
    1. Distribute fuels reduction and fire precaution pamphlets yearly to landowners in the Lake Wenatchee/Plain CWPP area. This should include essential “Firewise” information and distribute it to landowners in and adjacent to the Lake Wenatchee/Plain CWPP area. Information presented should cover landowner responsibilities and residential security options (i.e. creating defensible spaces and fire breaks, “FireWise” construction materials, etc.), and individual preparedness (i.e. how to create a Personal Emergency Action Plan, what to do and what not to do in the case of a wildfire, etc).
    2. Utilize existing billboards on main roads and establish new ones on other main roads to provide fire-related information such as fire danger level, burn ban regulations, informational messages or reminders (i.e. “No campfires” or “use your ashtray”), and/or what to do if smoke or a fire is detected. Explain what current conditions mean and what that obligates people to do (or not do). Describe penalties for non compliance with regulations.
    3. Through grant funding offer risk assessments of individual structures and essential infrastructure in each region or area in the entire planning area and implement identified recommendations with willing landowners on a voluntary basis. Include names of individuals or companies who can help with recommendations and list of potential state and federal funding sources.
    4. Participate with Forest Service opportunities. Community members will work with the Forest Service to pursue fuel treatments on private lands that complement adjacent federal and state fuel reduction efforts. Emphasis on public lands nearest to private property should have the highest priority for fuel reduction efforts. Opportunities to incorporate cooperative agreements (such as utilization of the Wyden act) should be pursued. Fuels reduction treatment on the landscape scale as opposed to individual efforts which increases cost and reduces efficiency will be pursued.
    5. State agencies such as the DNR should be encouraged to work in conjunction with federal and private landowners when possible on joint projects or work into management

objectives for state parcels appropriate fuels reduction projects that will compliment the overall fuels reduction strategies for the area.

6. Incorporating burn bans, campfire closures, etc. into the CWPP is highly appropriate based on community concerns. This would require special orders or dictate closer interagency communication (USFS, WDNR, and Fire Protection Districts) which is a desired outcome of the process. Potentially could propose campfire closures to coincide with the appropriate Fire Precaution Level and County burn bans. Coordinate fire danger level with Interagency Fire Precaution Level (IFPL), currently it can be extreme fire danger and still at an IFPL 2.
  7. Provide information to non-residents who own property and/or vacation homes about steps they can do to reduce the threat of fire to their homes and property. Especially since their non-action is putting their neighbor's lives and properties at risk.
  8. Produce emergency evacuation route maps - Provide maps of emergency evacuation routes and emergency contact information to landowners in the CWPP area
  9. Work with the County planning department - to get FireWise building materials information provided to developers and home builders during the permitting process.
- Improving Protection Capabilities/Human Safety
    1. Emergency Safety Issues
      - A. Establish addresses in a logical and consistent manner for all roads and homes.” Many lanes/driveways/roads do not have addresses at the beginning of the lane. This could cause emergency responders to lose valuable time searching for the correct location.
      - B. Emergency Evacuation Escape routes – get information from Emergency Management Services (EMS) on current emergency evacuation plan/routes and provide this information to the public. Update plan or provide input as appropriate.
      - C. Develop Emergency Communication Strategy and safe escape routes, including the following:
        - a. Mark exit routes on maps (Emergency Management may already have).
        - b. Make directional emergency exit signs (may require State and County involvement).
        - c. In case of Emergency tune radios to KOHO (FM) and KPQ (AM).
        - d. Establish communication trees for each “region” (identified on page 4)
    2. Reduce fuels along County roadways. The Fire District should prioritize roadways for fuel reduction efforts. Neighbors should be encouraged to organize their own clearing projects too (these might include driveways and clearing along non-county roads). The Fire District should collaborate on roadway projects with neighbors and landowners.

Mitigation actions should improve access for fire equipment and evacuation for residents while maintaining and enhancing the neighborhood's sense of place and aesthetic value.

3. Reduce fuels along primitive roadways. Chelan County has established road standards, conditions of design and construction. However many of the rural roads in the Fire District are classified as primitive. These primitive roads can be steep, narrow, dead-ended, and seasonal or in some other way limit access to fire fighting equipment. The considerable expense of upgrading these roads means that most will remain primitive for the foreseeable future and the most cost effective way to make these roads passable during a fire is to reduce fuels along them.
4. Obtain landowner permission and install uniform, simple connections to irrigation water (where available) via an individual connection for pumper trucks to access water.
5. Develop safe staging locations for individuals to gather in cases where secondary or alternative evacuation routes do not exist.
6. Secure funding to purchase portable pumping stations to be used for fire fighting.