

Peshastin Creek Drainage Community Wildfire Protection Plan

September, 2005

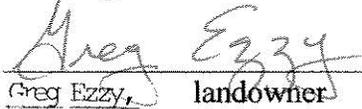
Prepared by
Chelan County Conservation District
with assistance from the
Washington Department of Natural Resources, Chelan County Fire District #6
United States Forest Service and Concerned Citizens of Chelan County



Pat McElroy
Executive Director of Regulatory Programs
Washington State Forester



Keith Goehner,
Chelan County Commissioner



Greg Ezzy, landowner



Bob Wildfang,
Chelan County Fire District #6



Jim Bartelme, landowner



Paul DeLaVergne, landowner



Bryan Williams, landowner



Cindy Marotta, landowner

Table of Contents

INTRODUCTION	1
Vision and Goals.....	1
Community Awareness	1
Values	1
PLANNING AREA	2
General Description of the Area	2
General Description of Existing Subdivisions	5
PLANNING PROCESS	7
Background.....	7
Process and Partners	8
ASSESSMENT	10
Existing Information.....	10
Vegetation.....	10
Fire Ecology.....	12
Fire History	12
General Fire Behavior Potential.....	12
Fuels/Hazards.....	16
Protection Capabilities	16
Structural Vulnerability	17
Key Contacts.....	17
RISK EVALUATION	19
Access	19
Evacuation.....	19
Staging Area for Tactical Resources.....	19
Water Supplies	20
Fuel Breaks and Safety Zones.....	20
CURRENT ACTIVITIES	20
Protection Measures.....	20
Education	20
Existing Procedures	21
Project Proposals.....	21
Coordination with Public Agencies	21
Landowner Committees	22
PLAN MAINTENANCE	23
MITIGATION ACTION PLAN	25
Fuels Reduction	25
Education and Outreach.....	26
Improving Protection Capabilities	26

List of Maps

Peshastin CWPP Area Overview	4
Historic Vegetation	11
Major Fires 1970-2004	14
Reported Fire Starts 1970-2003	15
WDNR Fire Hazard Assessment and Insect & Disease Aerial Survey Data.....	18
Planned and Proposed Projects	24

1. Introduction

Residents of the Peshastin Creek drainage of Chelan County value their homes and the surrounding forestlands (Figure 1). They are concerned about the effects of wildfire on their homes and the neighborhoods of the Peshastin Creek drainage. 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 reduce the risk of future wildfire related disasters.

Vision and Goals

Through the production of a Community Wildfire Protection Plan (CWPP) residents of the Peshastin Creek drainage 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 all that is humanly possible to prepare for and mitigate the effects of a potential forest fire.

The primary goal of the Peshastin Creek drainage CWPP is to protect human life, private property, and essential infrastructure and resources through the implementation of fire prevention projects that work to improve forest health and preserve the natural beauty of the area.

In an effort to remain true to the environment that the citizens of the Peshastin Creek drainage live in, all options for the utilization of biomass produced from fuels reduction projects will be pursued.

Community Awareness

The Peshastin Creek drainage community is surrounded by public lands that are largely undeveloped and a source of vegetative fuels (Figure 1). Following the Fischer fire in 2004 the local newspaper published a story about the current fire situation in Chelan County with a focus on the Peshastin Creek drainage area. Residents are very aware of the need to develop a comprehensive wildfire prevention and protection plan. Their energy, input, and guidance have played an essential role in the creation of this CWPP. It is their hope that this document will not only help to protect their community but serve as an example for other communities in the region.

Values

The citizens of the Peshastin Creek drainage value their homes, and the privacy and beauty of the surrounding forestlands. They want to improve the safety of their community, and have already conducted work parties to implement fuels reduction efforts around the homes of people who would otherwise be unable to perform the task themselves. Citizens also wish to play an active role in land management decisions affecting adjacent Federal and State lands.

2. Planning Area

General Description of the Area

Residential development on private lands within the Peshastin Drainage area is rural in nature. The largest residential development that exists in the planning area is Valley Hi, but most homes are either scattered throughout and separated by large areas of open forest, patches of dense forest, and grass or brush and concentrated along the bottoms of the drainages particularly along Hwy 97. Peshastin is the closest town to the planning area and is approximately 3 miles northwest of the planning area boundary. There are several retail businesses along the highway. These include restaurants, gas station, sand and gravel sites, and seasonal fruit stands.

The Peshastin Creek drainage CWPP area comprises approximately 37,980 acres and the entire area is considered to be a Wildland Urban Interface (WUI). The drainage is located in the south central portion of Chelan County, Washington. It is situated south of the Wenatchee Mountains, east of the Stuart Range, and west of Tronsen Ridge. Peshastin Creek drains from south to north and enters the Wenatchee River at river mile (RM) 17.8 near the communities of Dryden and Peshastin (Figure 1).

Major tributaries to Peshastin Creek include Scotty Creek, Tronsen Creek, Ruby Creek, Camas Creek, Ingalls Creek, and Mill Creek. Endangered Steelhead and bull trout utilize Peshastin Creek and some of its tributaries for spawning and rearing. Within the Peshastin drainage, approximately 41% (15,666 acres) of the area is federally owned; state owned lands, such as the Camas Meadows Natural Area Preserve, compose approximately 6% (2,280 acres) of the area and County property makes up (<1%) 36 acres. Private lands account for 53% of the 37,980 total acres; with Longview Fiber being the largest single private landowner (8,223 or 22%) and 11,775 acres owned by other private landowners or 31%. The entire planning area is considered to be wildland/urban interface (WUI). The total assessed value for parcels owned by "private and other" in and overlapping with the Peshastin CWPP boundary is approximately \$123,864,940.

State Route 97 (SR97) is the primary artery providing access through the Peshastin Creek drainage. Other main roads in the planning area include Campbell Road, Camas Creek Road, and Valley Hi Road. Many neighborhoods are served by a single access route providing residents with only one way in and one way out. Evacuation and defense of such areas will be difficult in the event of a fast-moving fire.

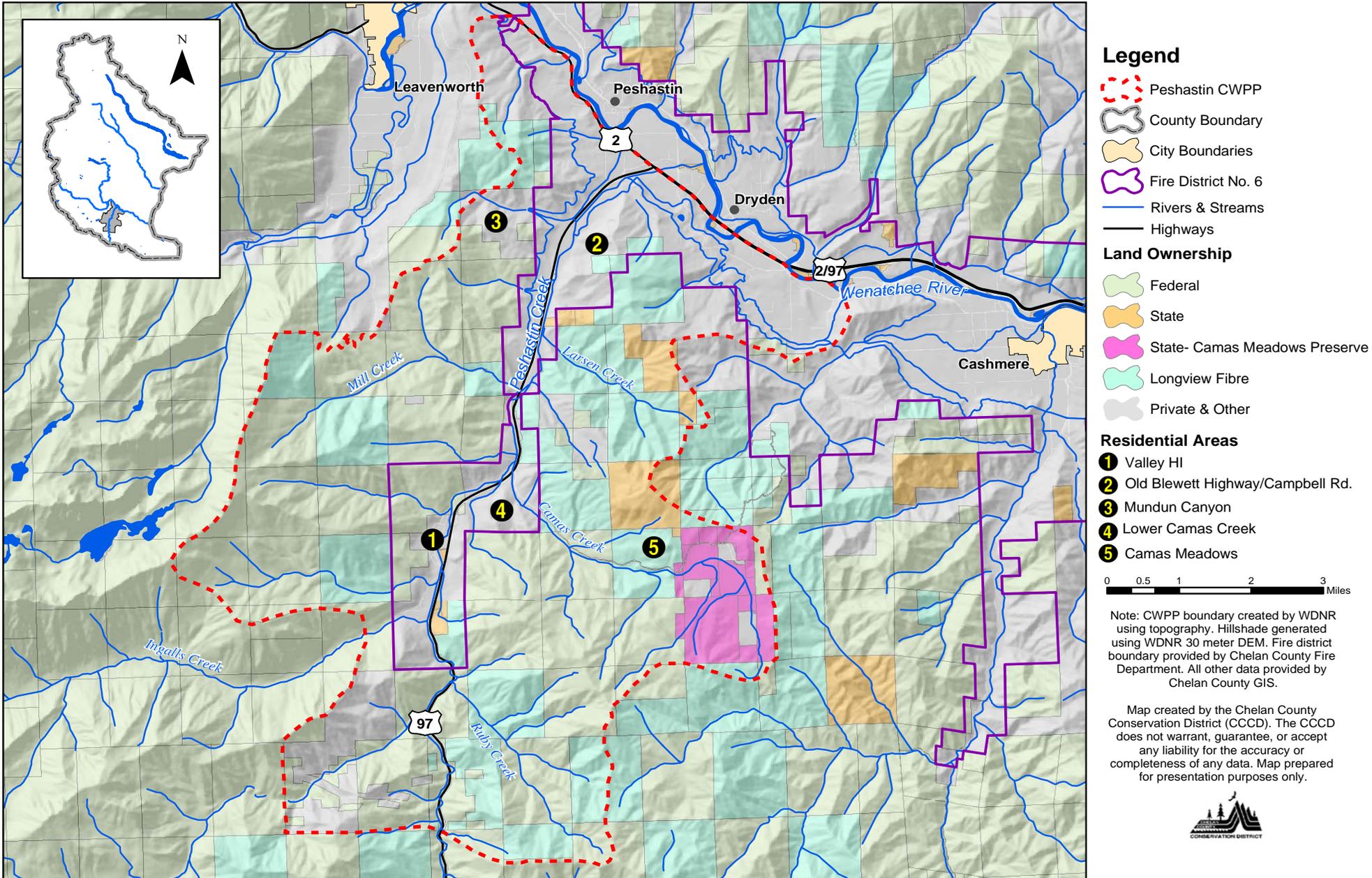
Small, loosely grouped neighborhoods exist within the Peshastin Creek drainage including Mundun Canyon, Valley Hi, Old Blewett Highway/Campbell Road, Camas Meadows, Noyes Short Plat and Lower Camas. Residential development is largely rural in nature and Valley Hi is the only "planned" subdivision. Most homes are either concentrated along the main and side drainage valleys or scattered between large areas of open forest, dense forest, and/or grass and brush. Very few home sites include adequate defensible space. Common areas, or areas within and adjacent to individual homes or "neighborhoods" are stocked with medium to heavy fuels. Fuel types include grass and bitterbrush beneath pine along the lower slopes, grading to open

pine stands, and finally mixed conifer types including mature Douglas-fir, and western larch along the ridges and upper slopes.

Valley Hi residents are served by an association operated Group A water system. There is a Group B water system in the Noyes Short Plat. All other residents of the Peshastin Creek drainage obtain their water from private wells. Power service is distributed via a mix of overhead and underground lines.

Peshastin Drainage Community Wildfire Protection Planning Area

Peshastin CWPP Area Overview



Legend

- Peshastin CWPP
- County Boundary
- City Boundaries
- Fire District No. 6
- Rivers & Streams
- Highways

Land Ownership

- Federal
- State
- State- Camas Meadows Preserve
- Longview Fibre
- Private & Other

Residential Areas

- 1** Valley HI
- 2** Old Blewett Highway/Campbell Rd.
- 3** Mundun Canyon
- 4** Lower Camas Creek
- 5** Camas Meadows

0 0.5 1 2 3 Miles

Note: CWPP boundary created by WDNR using topography. Hillshade generated using WDNR 30 meter DEM. Fire district boundary provided by Chelan County Fire Department. All other data provided by Chelan County GIS.

Map created by the Chelan County Conservation District (CCCD). The CCCD does not warrant, guarantee, or accept any liability for the accuracy or completeness of any data. Map prepared for presentation purposes only.



General Description of Existing Subdivisions

Valley Hi –

Valley Hi is the only “planned” development in the Peshastin Creek drainage and it is the most populated subdivision. Approximately 115 single family residences that are generally older construction with most having metal roofs are found in this area. Valley Hi is served by a single access road, leaving residents with only one way in and out of the subdivision. The Valley Hi Neighborhood Association operates a domestic water system and power service is distributed via overhead lines. There is one unrated fire hydrant and a pond available as water sources. Fuels reduction work has occurred and is continuing in the area. Adjoining fuels vary from light in the common area to heavy in the adjacent USFS land. The Valley Hi area includes a small store, guest lodge, restaurant, and Washington State Department of Transportation (WADOT) facility located on the east side of Peshastin Creek from the residential area of Valley Hi. Also located near the WADOT facility is the Blu Shastin RV Park which includes a private residence. These structures compose the commercial center of the Peshastin Creek drainage. Access is directly off State Route 97 at mile post 178. No fire hydrants exist on this side of the highway. A thinning cut is currently in progress just east of the Store.

Old Blewett Highway/Campbell Road –

The Old Blewett Highway/Campbell Road neighborhood is comprised primarily of single family residences that stretch between the Big Y and mile post 181. There is a mix of residences with older and new construction. The only orchard land in the Peshastin drainage is located in this general area. Small farms and homes with livestock are more common in this area of the planning area as well. Road access in and out of the area ranges from good to poor condition. Fuel loads on adjacent lands are heavy.

Camas Meadows/Lower Camas Creek Road -

The Camas Meadows Bible Camp, Camas Meadows Natural Area Preserve, and eleven developed single family residences make up the Camas Meadows “neighborhood”. Several undeveloped lots exist among the developed lots. Most of the parcels are one acre with a few owners having 2 to 3 parcels. Home construction is typically newer (10-15 years old or newer) and all homes have metal roofs. A single track dirt and gravel road provides access in and out of the area. Fuel loading within the area is moderate to heavy. The fuel type surrounding the Camas area is mostly dense ponderosa pine stands that, in some areas, are overgrown with heavy brush and/or Douglas-fir regeneration. Some developed lots are adjacent to DNR land in this condition and the undeveloped lots are generally in this condition. Much of the Camas land basin (including areas within 1/4 mile of structures) contains a mixture of ponderosa pine, Douglas-fir, western larch, and grand fir. In places, the Douglas-fir and grand fir are quite dense.

One family has three horses, but no other livestock exist in the area. There is a pond located at the bible camp, a beaver pond on the creek (inside Natural Area Preserve) adjacent to Forest Road 7200 and there is a 1,500 gallon storage tank located at a private residence. Some fuels reduction work has been accomplished on individual lots with homes. Thinning on private (Longview Fiber property) west of the meadows was recently completed (3 to 5 years ago).

Lower Camas Creek Road is a paved road that services twelve homes in the lower ½ to ¾ mile. The homes in this area sit on parcels between 2.5 and 20 acres and have underground power and all are on individual wells. One 100 acre parcel has recently been subdivided into eight 10 acre parcels along lower Camas Creek Road and building sites developed on those parcels.

Noyes Short Plat -

The very small subdivision called Noyes Short Plan is located upstream from the lower Camas Road (about 6 miles from the Big Y). This area is bounded on the north by the lower Camas subdivision, on the south by National Forest land, on the east by the highway and on the west by Peshastin Creek.

A single private dirt road provides primary access to the four homes in the short plat. There are two wells and one reservoir (an existing 1,500 gallons with a replacement to 3,000 gallons planned) and shared road easements. The roads and water system are maintained and operated by the landowners through a maintenance agreement.

The homes are recently reconstructed and have metal roofing. FireWise work is ongoing currently around the homes. All power lines are buried. The vegetation on the adjacent National Forest land is an overstocked stand of pine and fir containing many dead and dying trees. Fuel loads on adjacent lands are heavy.

Mundun Canyon -

This small valley is located in Sections 29 and 30 Township 24 N Range 18 E in Chelan County. It is the first valley on the west on Highway 97 going south over Blewett Pass from the Highway 2/97 interchange. It is about 2 miles in length from the turnoff on Corcoran Road to the end of the road. The elevation varies from 1000 ft at the highway to 1600 near the end of the roadway. Homes have been in the lower valley since the early 1900s with the road platted in 1907. The upper valley was homesteaded in the 1920's and permanent residents have lived there since 1965. The lower valley is planted in an irrigated pear orchard up to the first ¾ mile point. Beyond that there are 10 - 20 acre or large properties with 6 permanent dwellings and 2 vacation trailers. Only 3 properties have no improvements.

Chelan County declared the single lane Mundun Canyon road as primitive and unmaintained in 1999 after performing minor maintenance in the 1960's and early 70's. The upper valley property owners contribute a private maintenance fund annual to grade and rock the roadbed.

The Wenatchee National Forest has forest holdings on the northwest side of the canyon with an additional 80 acre parcel on the southeast. Douglas fir grows on the north facing slope with Ponderosa pine on the opposite side of the valley. Cottonwoods and other deciduous trees and shrubs grow along the valley bottom. A small class 4/5 stream flows in the bottom of the valley feed from springs at along its length.

Approximately 5% of the homes in the planning area have wood shake roofs. Shakes are easily lofted, and represent an excellent firebrand source for starting new spot fires. Should structures become involved; spotting potential from the structures themselves will be significant.

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 Peshastin Creek Drainage CWPP is meant to conform to the intent and letter of HFRA and consistent for Chelan County which is an at risk community of catastrophic wildfire.

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 of in the HFRA provides maximum flexibility for a community to determine the substance and detail of CWPPs and the procedures used to develop them. Because the legislation is general in nature, a Chelan County is providing assistance in the preparation of CWPP. Currently, CWPPs are being developed on the County Fire District boundary scale in coordination between the landowners of the county, County Fire District staff and representatives of the United States Forest Service and Washington State Department of Natural Resources are providing assistance to the effort. There are nine Fire Districts in Chelan County and the CWPPs being developed for them will form the basis of the Chelan County Community Wildfire Protection Plan. Priorities developed for each Fire District will be ranked for the County.

Updates and edits to the CWPPs developed for Chelan County will be performed yearly and will be coordinated by the Chelan County Conservation District with local citizens and the Fire Advisory Board (made up of representatives of the local, state and federal fire managers). It is expected that updates will be necessary in order to reflect recent work done to address issues identified in the CWPPs. Another important aspect of these plans will be the monitoring of effectiveness of projects implemented under these plans.

The wildland urban interface (WUI) is commonly considered s 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 the most effective way to take advantage of this opportunity.

The HFRA requires that three entities 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 intended to be open and collaborative, as described in the Ten-Year Strategy, involving local and state officials, federal land managers, and the broad range of interested stakeholders.

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 all 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.

Process and Partners

In 2005 the community organized themselves to develop a plan to address fuel loads on private lands and educate the landowners of the planning area about the risk of fires.

Education of landowners in the planning area began through one-on-one contact, through the FireWise workshop that took place in October 2004 and other community gatherings. The FireWise workshop explained the need to homeowners to clean up around their homes and drive ways, especially in forested areas. FireWise information was provided to homeowners that explained how to create defensible space around their homes.

Landowners in the Peshastin Creek drainage were not the only ones concerned about fire and fuel loads. In 2001 Chelan County received a grant to develop a fire plan that would identify and prioritize fuel treatment efforts in the County. After a few years of inactivity on the grant, Chelan County contracted with the Conservation District to develop a County Fire Plan in 2004. The timing of the County Fire Plan dovetailed well with the efforts and awareness of citizens

from throughout Chelan County. Currently, the Conservation District, with assistance from the Chelan County Fire District No. 6, the Washington Department of Natural Resources, U.S. F.S., Wenatchee-Okanogan National Forest, Emergency Medical Service, representatives and property owners, has initiated the development of an overall Community Wildfire Protection Plan for the Peshastin Drainage area. A community meeting was organized and a broad cross-section of stakeholders including citizens, local elected officials, and agency representatives who attended and discussed the feasibility of creating such a plan.

The Peshastin Drainage Community Wildfire Protection Plan is the result of these locally-led efforts and partnerships between private, local, state and federal interests. The Peshastin Drainage CWPP serves as part of the foundation of the County-wide community wildfire protection plan that is currently being developed. By basing the County-wide plan on individual CWPP's, such as the Peshastin Drainage plan, the goals, objectives and recommended projects will be developed by and remain specific to each community (See Section 8. Mitigation Action Plan).

4. Assessment

Existing Information

A substantial amount of data is already available from several sources. Primary fire planning information/GIS data used in this plan came from Chelan County Fire District No. 6 (structure protection plan and evacuation plan, etc.), USFS Wenatchee River Ranger District (large fire history, vegetation information) and WDNR (historic/potential vegetation, topography, fire cause statistics). *Note: Portions of this document include intellectual property of the Department of Natural Resources and are used herein by permission. Copyright 2004, Washington State Department of Natural Resources. All Rights Reserved.*

Vegetation

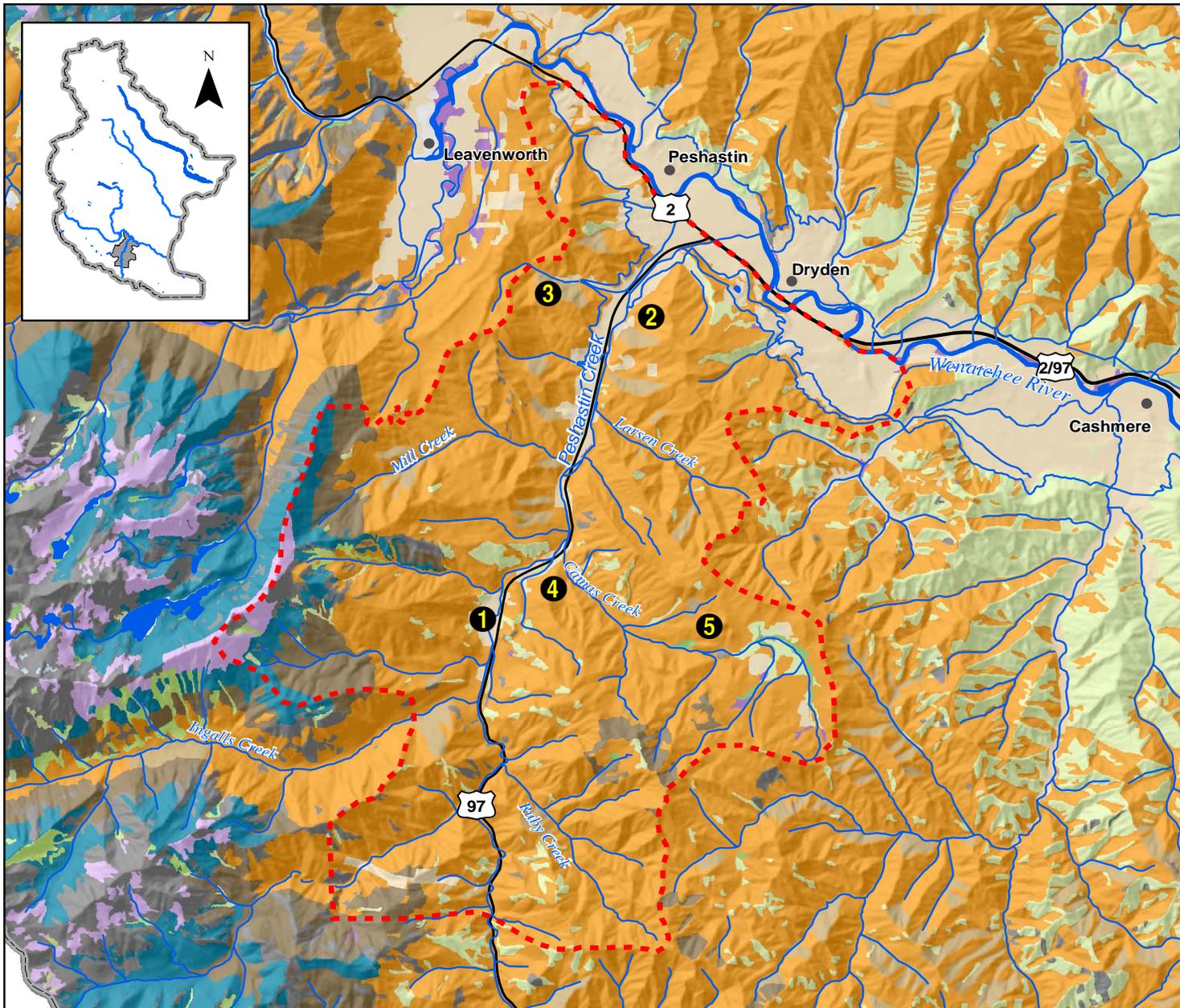
The Peshastin Drainage Community Wildfire planning area is located towards the eastern edge of the Wenatchee National Forest in central Washington. The planning area varies in elevation from 4400' at Tronsen Ridge to 1000' at the Big Y intersection of Hwy 2 and Hwy 97. Vegetation types range from moist grand fir and larch at higher elevations to ponderosa pine on the lower portion of Peshastin Creek. However, the large majority of the planning area is dominated by stands within the Dry Forest Vegetation Group (39,358 acres, 70%) and mesic sites (1,383 acres, 2%) within the Dry Forest (ponderosa pine, Douglas-fir and the drier associations within the grand fir series). More moist vegetation groups such as moist grand fir, subalpine fir and montane meadows exist in higher reaches of side drainages such as Ingalls and Tronsen and with general elevation gain toward Blewett Pass.

Historically, upper draws and ridge top areas in the lower end of Peshastin Creek supported both pure stands of ponderosa pine and mixed conifer/ pine dominated stands of age classes ranging from seedling to very large diameter. Larch, Douglas-fir, grand fir and other mesic forest types occurred at higher elevations but at higher stand densities due to less frequent fires.

Currently, the primary vegetation type for the Peshastin CWPP area is ponderosa pine forest with large amounts of Douglas-fir regeneration. Ponderosa pine is a shade intolerant species naturally adapted to survive in areas that experience fire on a regular basis (i.e. frequent fire regime, fire interval every 2-20 years for lower Wenatchee valley). 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. 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 stands to develop, encouraged an increase in insect populations, and increased the possibility for high intensity, stand replacement fires across the landscape.

Peshastin Drainage Community Wildfire Protection Planning Area

Historic Vegetation



Legend

- Peshastin CWPP
 - County Boundary
 - Rivers & Streams
 - Highways
- #### Historic Vegetation
- Ice/Snow
 - Exposed Rock
 - Shrub-Steppe, Brush, or Dry Meadow
 - Upland Meadow
 - Wet Meadow
 - Dry Forest
 - Moist Douglas Fir
 - Moist Grand Fir
 - Subalpine Fir
 - Whitebark Pine
 - Riparian Deciduous
 - Urban, Residential, Ag., or Mining

Residential Areas

- 1 Valley Hi
- 2 Old Blewett Highway/Campbell Rd.
- 3 Mundun Canyon
- 4 Lower Camas Creek
- 5 Camas Meadows



Note: CWPP boundary created by WDNR using topography. Hillshade generated using WDNR 30 meter DEM. Vegetation data supplied by USFS. All other data provided by Chelan County GIS.

Map created by the Chelan County Conservation District (CCCD). The CCCD does not warrant, guarantee, or accept any liability for the accuracy or completeness of any data. Map prepared for presentation purposes only.

Fire Ecology

When the natural fire regime is altered (primarily through fire exclusion) ponderosa pine stands become denser. Shading and competition will inhibit the growth of pine and allow more shade tolerant species, such as Douglas fir, to become established along with other underbrush species. This overstocked condition will produce 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 standing and down dead fuels. Frequent fire regimes (with fires at intervals of 0-35 years) become unstable as fire frequency is disrupted (e.g. by fire suppression). 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 0-70 year period to manipulate the dry forest, the forest is considered in a Condition Class II. No fires over a longer period produce a densely stocked stand of pines and shade tolerant species which often results in stand replacement fires. 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 uncharacteristic high intensity fire occurs. Most of the forested areas in the Peshastin drainage are in Condition Classes II and III.

The forest types on the upper slopes and ridges are composed of more shade tolerant species (e.g. true firs) and have fire regimes that experience fire on longer fire return intervals (35-100 years). Most of these forests are in Condition Classes I and II where fire has not been suppressed so long as to significantly destabilize them. Thinnings may be warranted in an effort to emulate fire as a process and increase the area conducive to lower intensity fires that allow access to fire suppression forces. Thinnings and prescribed burning activities have already taken place in the Deer Park Spring, Camas Creek, Little Camas Creek, Mill Creek and TipTop areas which are within or adjacent to the Peshastin CWPP area in an attempt to lower the trend of increasing fuels.

Fire History

Fires are started naturally by lightning in the Peshastin drainage area annually, but they are also often started as a result of other causes, such as recreation (campfires) and debris burning (Large Fire History map on page 14 for summary and location of fire starts). The majority of fires starts are from lightning. 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 (those greater than 1000 acres) have occurred in 1970, 1976, 1994 and 2003 and conditions are still conducive for a large, high severity fire (see Large Fire History Table 1, page 13).

General Fire Behavior Potential

Weather, topography, and fuels affect wildfire behavior. The Peshastin CWPP area, like other areas of Chelan County, is prone to severe weather conditions that can support extreme fire behavior. The terrain is an extremely important aspect of expected fire behavior in this area. Peshastin Creek runs generally north and south but has varied topographic conditions and side drainages that funnel the winds across the Peshastin Creek drainage where the velocity increases as air is forced into the confined area. This influence on fire behavior was observed in 1994 when the Rat Creek fire came out of the Icicle drainage over Mill Creek and across Hwy 97 on its spread to Brender Canyon further east.

The landscape has many valleys with steep slopes and 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 or conifer regeneration also predominates. Insect infestations of western pine beetle and/or fir engraver beetle are becoming more prevalent.

Residences in the Peshastin Creek drainage are adjacent to areas of grass, sagebrush and open pine fuels on the lower slopes. The mid to upper slopes are more heavily forested. The green common areas adjacent are similar in nature. Fire may move rapidly through these common areas with the potential for spotting highest in the adjacent forested areas and could be difficult to manage if wind is a factor. These brush and dense forest fuel types could produce fast moving fires in areas of steep slopes or by sustained winds. The threat would soon be in all areas of the communities with fire potential to involve all adjacent structures. Areas less susceptible to rapid rate of spread wildfires are the irrigated orchard areas and open pastures.

The ignition of fine fuels (i.e. grasses) in the recently burned areas (1994 Rat Creek Fire) is conducive to high rates of spread and higher ignitability in the near term. This type of fire (depending on seasonal timing) can be more difficult and more dangerous to suppress. Regeneration and succession of other fuel types (e.g. shrubs and conifers) will eventually alter the fuel models towards slower rates of spread but of a higher resistance to control. The best possible scenario would be to maintain open canopy conditions (i.e. widely spaced trees with discontinuous horizontal and vertical fuel profiles) through thinning and prescribed burning.

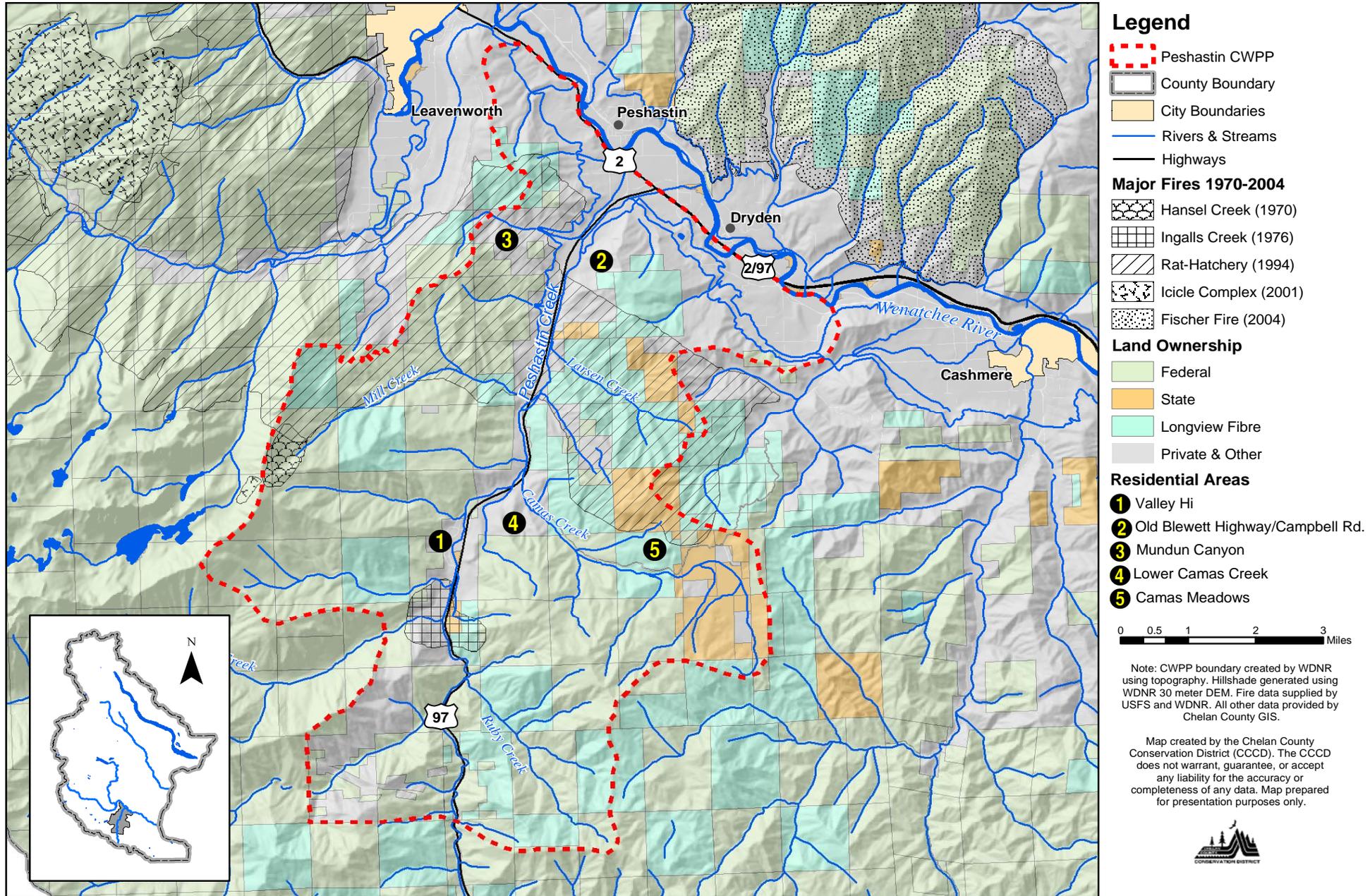
Table 1. Peshastin Creek drainage area large fire history (fires greater than 100 acres)

Fire Name	Year	Approximate Acreage burned	Cause
Hansel Creek	1970	211	Unknown
Ingalls Creek	1976	549	Lightening
Rat-Hatchery *	1994	41,681	Lightening
Crystal	2003	1,300	Lightening

* - Hatchery fire lightening caused and Rat Creek fire human caused. These two fires burned together, no separate acreage available.

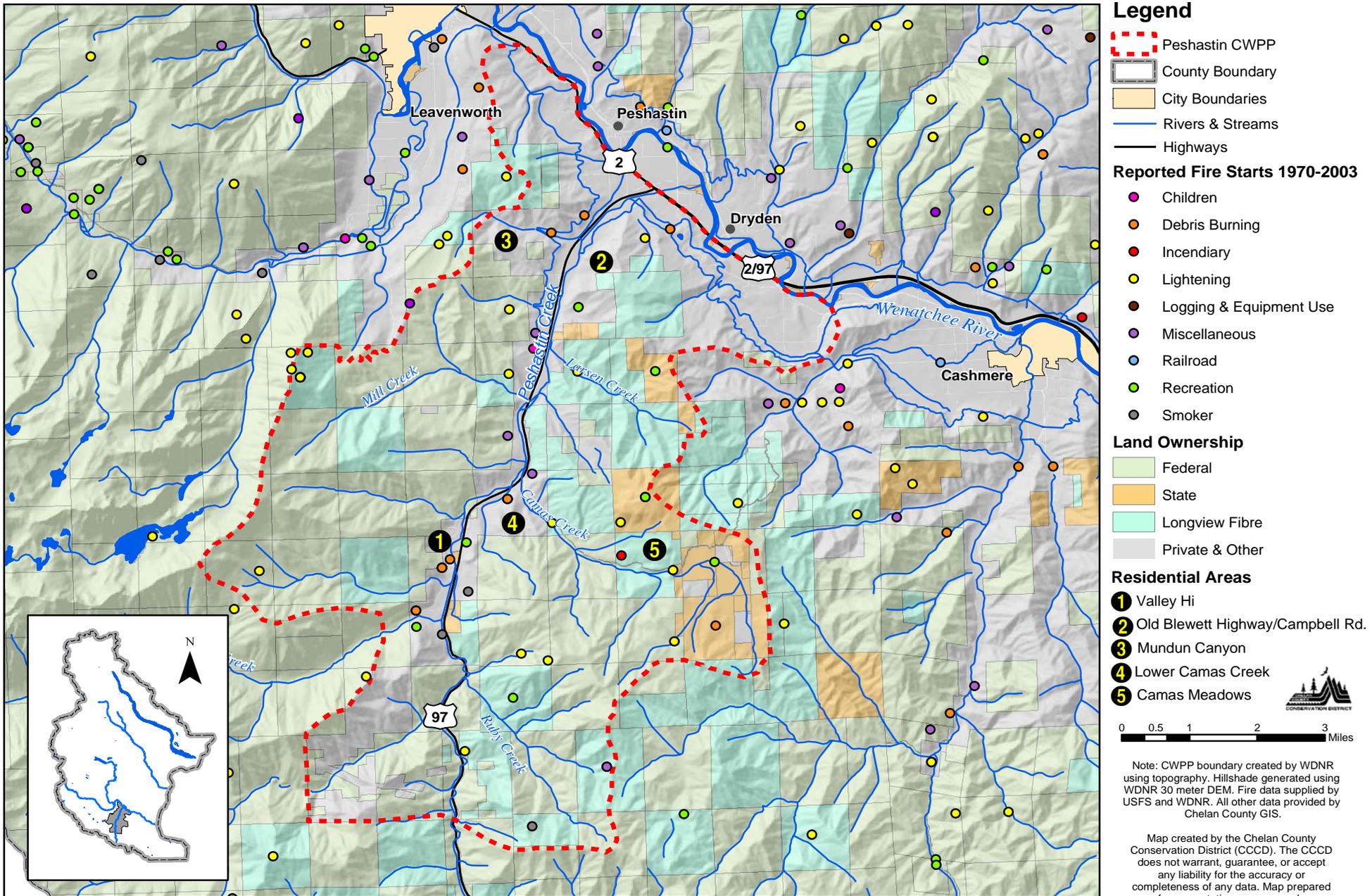
Peshastin Drainage Community Wildfire Protection Planning Area

Major Fires 1970-2004



Peshastin Drainage Community Wildfire Protection Planning Area

Reported Fire Starts 1970-2003



Fuels/Hazards

The WDNR has classified the Peshastin Creek drainage area as a ‘high risk’ Wildland/Urban Interface community. Past activities such as logging and fire suppression have altered the normal fire regime, stand species composition and forest health. Dense, overstocked stands of trees are increasing the fire hazard in the Peshastin Drainage CWPP area. Many stands of ponderosa pine are dominated by trees less than 18 inches in diameter. Pockets of trees are being affected by mountain pine beetle and/or fir engraver infestations further increasing fuel loads (WDNR GIS). Trees often have contiguous crowns and adjacent ladder fuels, and continuous tall underbrush also predominates on the landscape. All of these variables provide a continuous fuel profile which can create conditions for an intense and fast moving fire.

Protection Capabilities

Chelan County Fire District #6 provides fire protection for most private lands in the Peshastin Creek drainage. They are also responsible for providing initial attack response to state and federal lands in the area per an interagency agreement. The WDNR and USFS are the primary agencies responsible for management of wildland fires on public lands in and around the Peshastin Creek drainage.

The objective of the Peshastin Creek drainage structure protection plan is to safely and efficiently manage resources to protect human life, property, essential infrastructure and resources in the event of a wildland fire. Strategy decisions should take into account the following tactical considerations:

1. Common areas have heavily forested pockets with some steep slopes. Fire may move rapidly through these areas with torching, crowning and spotting.
2. Some homes would require maximum effort to defend, requiring prompt activation of this plan and the need to triage structures.
3. Access to area subdivisions is described as “one way in one way out”. Traffic control and apparatus staging and placement must be carefully considered.
4. The homes range from average to large with approximately 5% of the homes in the area having composition or wood roofing materials.
5. A community water system with hydrant a single hydrant exists at Valley Hi, however a water shuttle using water tenders may be necessary to support engines. No community water system exists outside of Valley Hi and homes are served by individual wells. Except for a few irrigation wells, many of the wells have a very low flow rate (less than 10 gallons per minute) and will not support fire-fighting needs.
6. Chelan County Fire District #6 and its cooperators cannot assemble enough structure protection resources to simultaneously protect all residential structures in the Peshastin Creek drainage area. Successful defense will require structural triage, time for pre-treatment and/or highly mobile tactics, and burnout operations.

7. Resources from the state and federal wildland cooperators will be necessary to implement the strategies described in this CWPP.

Structural Vulnerability

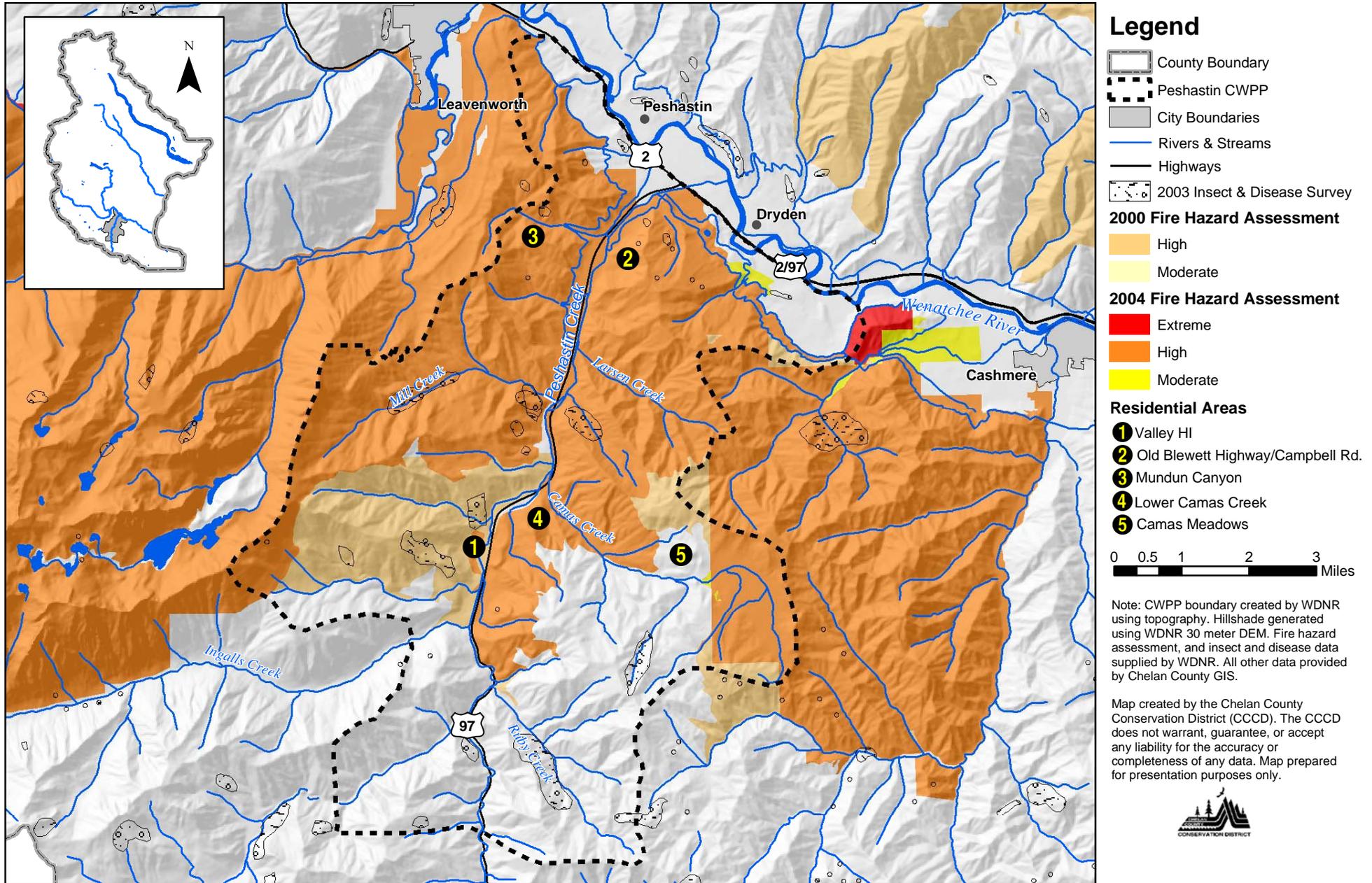
Residences within the Peshastin Creek drainage are widely dispersed and woven into the forest landscape. Accessibility, topography, and the surrounding vegetation all contribute to structural susceptibility to fire. Actions implemented in the Mitigation Action Plan portion of this document primarily address improving the ability of structures to be defended in the event of a wildfire.

Key Contacts

Organization	Contact	Phone Number
RiverComm		911 or (509) 663-9911
Chelan County Fire District #6	Bob Wildfang <i>Board President</i>	(O) (509) 782-1121
	Bryan Williams <i>Blewett Pass Station Chief</i>	(O) (509) 548-4385 (C) (509) 433-1113
Chelan County Sheriff	Mike Harum <i>Sheriff</i>	(O) (509) 667-6851 (C) (509) 630-1700
Wenatchee River Ranger District United States Forest Service (USFS)	Keith Satterfield <i>Fire Management Officer</i>	(509) 548-6977
Central Washington Interagency Committee Center (CWICC)		(O) (509) 884-3473
Chelan County P.U.D.		(O) (509) 663-8121 (E) (877) 783-8123

Peshastin Drainage Community Wildfire Protection Planning Area

WDNR Fire Hazard Assessment and Insect & Disease Aerial Survey Data



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. The fire risk assessment for Peshastin Drainage ranked the area as high.

Access

SR97 is the main emergency evacuation route oriented in a North-South direction with outlets in both directions. Secondary roads range from paved two-lane loops to primitive one-way dead ends unsuitable for fire equipment.

Mountain Home Road, also known as Forest Service Road 7300, joins SR 97 at approximately Mile Post 178. It is a single lane forest road that provides the only east-west access during non-winter months into and out of the lower Peshastin Creek drainage. There is an old road between the Camas Meadows area down to Brender Canyon and Cashmere. It is in a poor state, but could be upgraded or at least maintained and kept open for access.

Road access has been identified as a potential concern in the event of a wildfire. Roads are limited due to the influence of drainage topography (steep slopes). However, where existing roads can be improved/up graded to allow for use as emergency evacuation routes should be pursued.

Evacuation

The Chelan County Sheriffs Office is the responsible agency in charge of evacuation. The Peshastin Creek drainage will need to be evacuated early in the case of an approaching fire. Evacuation may be a level 3 (mandatory) depending on fire conditions and trigger points. Each incident will provide unique challenges and require a coordinated effort.

Staging Areas for Command Post & Tactical Resources

Should communities in the Peshastin Creek drainage be threatened by a wildfire, Chelan County Fire District #6 will provide first response. Additional resources are available in the county as well as additional state and federal response units. Tactical resources and command posts may be operated from the following locations

- ✦ Blewett Pass Fire Hall
Allen Lane, Peshastin, WA
(509) 548-7706

- ✦ Dryden Gun Club
Saunders Road, Peshastin, WA
(509) 782-2105

- ✦ Peshastin Dryden Elementary School
1001 School Road, Peshastin, WA
School Office (509) 548-5832
Cascade School District 228 Superintendent's Office (509) 548-5885

Water Supplies

Water supplies in the Peshastin Creek drainage include several private reservoirs, drafting sites along Ingalls and Peshastin Creeks, one unrated hydrant in the Valley Hi neighborhood, and a 500,000 gallon gravity-fed pond maintained by the Valley Hi neighborhood association.

The location of water sources available for fire fighting efforts has been identified and consists primarily of sites along Ingalls and Peshastin Creek. Water sources are primarily surface water withdrawal sites located on private land. Private residences with reservoirs that could be filled with water for firefighting have also been identified. In addition, water tenders can be filled at Dryden via the PUD domestic water system in emergency situations.

Fuel Breaks and Safety Zones

An immediate primary treatment goal in the CWPP area is the creation of 200-foot wide shaded fuel breaks adjacent to Valley Hi.

Safety zones identified in the Peshastin Creek drainage include the Valley Hi Community Park and Camas Meadows. The Chelan County Fairgrounds have been identified a location that can accommodate livestock in the event of a wildfire. The Wenatchee Valley Humane Society (WVHS) will work with landowners to find a safe location for livestock and domestic animals. WVHS is located at 1474 S Wenatchee Ave. in Wenatchee, WA and can be reached at (509) 662-9577.

Safety zones will be approved by the Incident Commander or his designee and may change upon fire conditions.

6. Current Activities

Protection Measures

Chelan County Fire District #6, the Washington State Department of Natural Resources (WADNR), and the USFS are responsible for providing initial attack response in the event of a wildfire in the Peshastin Creek drainage. Mutual aid will be supplied by other Chelan and Douglas County fire districts when needed.

Education

Each April the Blewett Pass Fire Department along with Valley Hi residents conduct a pond clean up day. The community pond, located in the center of the community, is under agreement with the Forest Service for fire protection. During the pond clean up, the fire department and local residents work together to maintain the pond and surrounding area as a safety zone for Valley Hi. Blewett Pass Fire Department also hosts a fire prevention open house as part of this effort. This presents a great opportunity for the volunteer fire fighters and community members to meet. Fire prevention information and provide defensible space material is provided. The Forest Service participates in this effort as well. The Blewett Pass Fire Department continually attempts to provide interagency cooperation during these public education opportunities.

Existing Procedures

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.

Landowners have organized a landowner committee in an effort to set priorities and spearhead fire prevention and protection activities in the planning area. A “Firewise” workshop was held in October 2004 and was well attended. Many homeowners have begun to take measures to protect their property by reducing fuel loads on their property and maintaining defensible space.

The Forest Service also is currently conducting fuels reduction activities in the Camas Creek, Little Camas Creek, and Mill Creek areas. The Lower Peshastin EA (2002) provided 2322 acres of treatment in these and adjacent areas of mechanical thinning and prescribed burning.

Project Proposals

Grant funds are tentatively approved for a fuel break west of Valley Hi that encircles the neighborhood. The project is scheduled to be implemented by the DRN for 2005 (See Peshastin Creek Drainage CWPP Area Planned and Proposed Projects on page 25). Another DNR grant application is currently pending for the establishment of an eastern fuel break. The project is expected to be completed in 2006/2007.

The Washington Department of Natural Resources is planning on applying for grant funds to implement larger fuels reduction projects and shaded fuel breaks. A new section of 200-foot wide fuel break is being proposed for creation on private lands adjacent to federal lands.

Future funding will be sought to address high fuel loads in the Allen Creek area adjacent to Valley Hi. Additional concerns include a secondary access road in and out of the Valley Hi neighborhood, water system improvements, and additional fire protection and prevention projects. A project encouraging participation in the volunteer firefighter program would also be beneficial.

Coordination with Public Agencies

In order to maximize the fuels reduction work planned for private land, it would be desirable for complementary projects to take place on adjacent Forest Service managed lands in and adjacent to Peshastin Creek drainage. Specifically, the Lower Peshastin EA (2002) identified fuels reduction work to be implemented. While landscape scale treatments are being undertaken in the Camas Creek, Little Camas Creek, Mill Creek, Shaser Creek, Ruby Creek, Deer Park Spring and Hansel Creek areas previously and currently, opportunities exist for future additive treatments. The CWPP is recognized as the instrument necessary to organize and educate the public to further encourage and suggest design of such future projects.

Landowner Committee

A single landowner committee was established during the development of the Peshastin Creek drainage CWPP. The landowner committee provided the bulk of feedback from community members during the development of the plan. It was decided by the landowner committee that the focus of the Peshastin Creek Drainage CWPP is to help insure human safety and protecting structures on private land. Based on this, the committee members decided to have the Mitigation Action Plan concentrate on safety issues in the following categories: education and outreach, fuels reduction, evacuation, and improved protection capabilities. Projects that address human life issues will be of a higher priority than projects that benefit homes.

Education and outreach was identified as one of the most important tools to be included in the plan. It was recognized by the landowner committee that landowners will need to be informed of the need and means of how to “FireWise” their property and ensure safety. In addition, education and outreach of fire issues will reach people who visit but may not live in the planning area. Several items were identified as a means to get fire information out to the public (See 8. Mitigation Action Plan, page 24). 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. Some things considered to accomplish this include hosting future “FireWise” presentations and workshops and work to support the volunteer firefighter program. In addition, the steering committee felt that the focus of the projects should be around insuring human safety (such as escape routes) and protecting homes and structures on private land. Projects that address human life issues such as escape routes should be of higher priority than projects that benefit homes. No home is worth a life.

Fuels reduction, both around homes and across the landscape was the second priority of the landowner committee. The landowner 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 do it) to all work to create a defensible space around their own homes, but financial assistance should be provided to assist those landowners that do not have the funds or ability to do it all on their own. While the shaded fuel breaks maybe the first line of defense and should be pursued to be implemented, the scale of this work will not return the immediate benefits that come from creating defensible space (or “FireWise”) around individual homes. Benefits from creating defensible space will provide immediate benefits. Creating defensible space and maintaining it to protect structures will provide a type of “back-up” if in the future fire escapes the shaded fuel breaks. The most important thing about the shaded fuel breaks is that they are located where appropriate based on geographic features and vegetation type and do not stop and start due to public/private ownership. The location should be based on terrain, fuel conditions, etc. and the treatments take place where needed regardless of ownership.

The landowner committee will assist with investigating and prioritizing on-the-ground wildfire prevention and protection projects in the Peshastin Creek drainage (Mitigation Action Plan, Page 24). In general, projects will be prioritized based upon their location in the planning area. The focus will first be on in the neighborhoods contained within the planning area and work outward toward adjacent public lands.

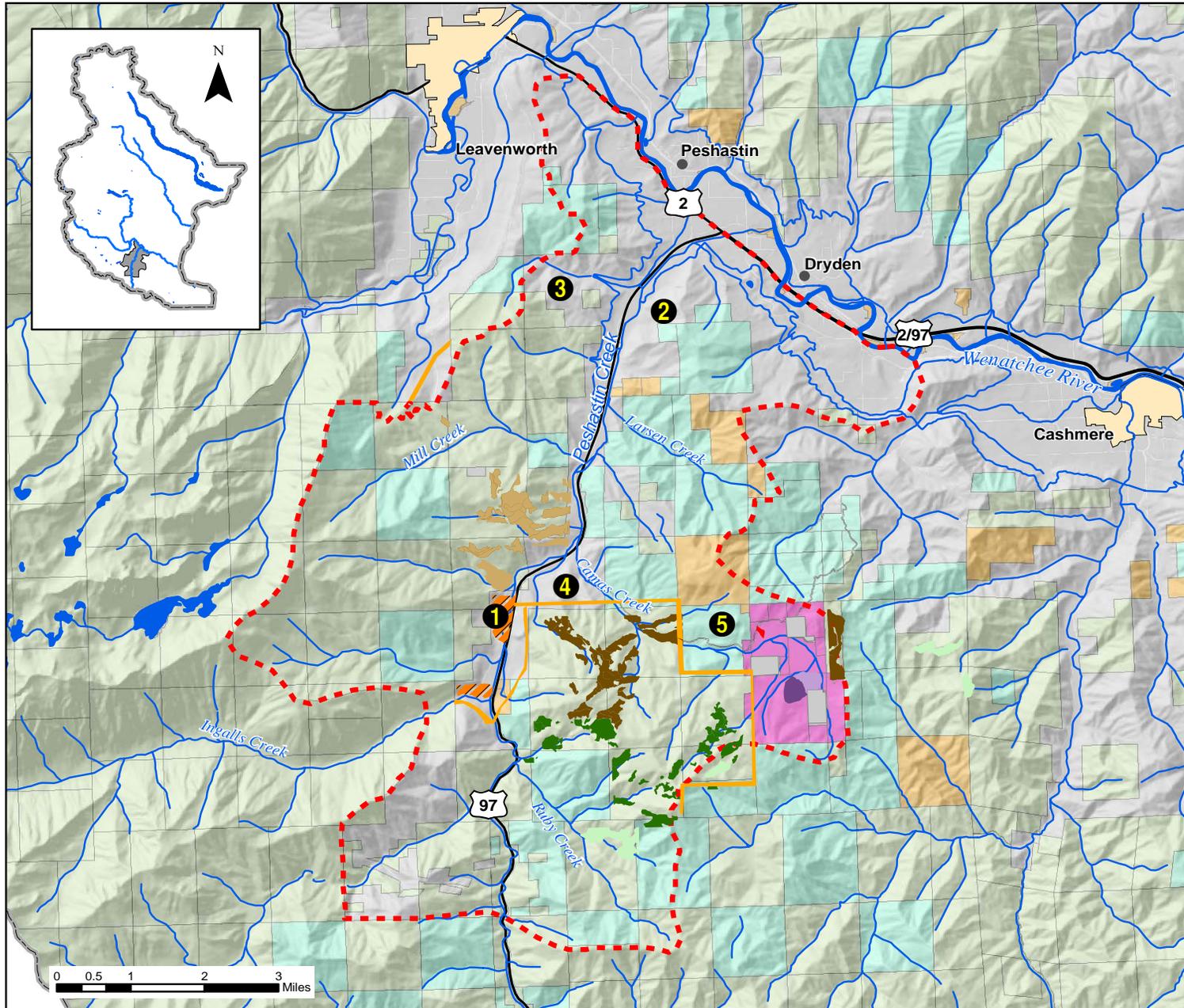
Communication was identified as another item to be address in the plan. Specifically, communication of accurate and immediate information to landowners and appropriate emergency personnel in the event of a fire related emergency is very important. Through this planning effort, the best a means of developing a defined method of communication between landowners will be pursued. For example, Mundun Canyon’s two year round residents maintain a telephone and email tree to the remaining property owners advising them of the fire situation.

The rugged topography and steep valley walls of the Peshastin Creek drainage limits most roads to valley bottoms and ridge tops. Limited roads, particularly 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.

7. Plan Maintenance

The landowner committee will be responsible for monitoring existing projects and proposing and prioritizing future projects aimed at wildfire prevention and protection in the Peshastin Creek drainage. Members of this subcommittee 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 at least once a year under the direction and assistance of the Chelan County Fire District #6 and the Chelan County Conservation District.

Peshastin Drainage Community Wildfire Protection Planning Area Planned & Proposed Projects



Legend

- Peshastin CWPP
- County Boundary
- City Boundaries
- Rivers & Streams
- Highways
- Land Ownership**
- Federal
- State
- State- Camas Meadows Preserve
- Longview Fibre
- Private & Other
- USFS Projects**
- Orchard
- Torchard
- Lupine
- Cowcam
- WDNR Projects**
- Proposed Fuel Breaks
- Proposed Fuel Break & Defensible Space
- Camas Meadows Preserve Projects**
- Mowing Unit
- Thinning Unit 1
- Thinning Unit 2
- Prescribed Burn Unit 1
- Prescribed Burn Unit 2
- Residential Areas**
- 1 Valley Hi
- 2 Old Blewett Highway/Campbell Rd.
- 3 Mundun Canyon
- 4 Lower Camas Creek
- 5 Camas Meadows

Note: CWPP boundary created by WDNR using topography. Hillshade generated using WDNR 30 meter DEM. Fire data supplied by USFS and WDNR. Camas Meadows data supplied by WDNR. All other data provided by Chelan County GIS.

Map created by the Chelan County Conservation District (CCCD). The CCCD does not warrant, guarantee, or accept any liability for the accuracy or completeness of any data. Map prepared for presentation purposes only.



8. Mitigation Action Plan

There are three main categories of mitigation actions identified by members of the Peshastin Creek drainage 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 and listed in order of priority.

- Fuels Reduction

1. Implement “FireWise” recommendations within 200 feet of all 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. Create 200 foot wide shaded canopy fuel breaks in the planning area on strategically located areas that will have the greatest benefit for the entire project area. The objective of the proposed project 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 lands adjacent to the Valley Hi neighborhood and other more densely populated areas. Grant funding for this project has been applied for by the Washington State Department of Natural Resources.
3. Solicit the Forest Service to continue current fuels reduction activities and encourage similar activities on other Forest Service lands adjacent to private ownership within the CWPP area as risk assessment and prioritization process continues.
4. Treat vegetation within 100 feet of roads and driveways. This can include shaded canopy defensible space on both sides of the road, road signs, and clearly marked evacuation routes.
5. Develop and maintain a safe area, shelters, and staging location in the Valley Hi neighborhood as a base for fire fighting operations.
6. 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 “FireWise” workshops.
7. Current County regulations on riparian management and set back along Peshastin Creek are problematic for implementing effective fire orientated vegetation management. Many homes along the creek may not be able to do the needed vegetative work and still comply with these rules. Thus, for the short term, request a waiver or special standard could be established for this type of work. Alternatively, a more comprehensive solution for County management consideration that accommodates ecological and social values may be a better long term solution for all interests. Accurately mapping specific high value areas for streamside protection rather than a one size fits all.

- Education and Outreach

1. Conduct risk assessments of individual structures and essential infrastructure, and implement identified recommendations.
2. Utilize existing billboard on highway 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. (i.e. “Report signs of smoke or fire immediately Call 911” or perhaps establish with the local telephone company an easy-to-remember number that connects directly to the Chelan County Fire District #6 station, such as “Dial #FIRE”)
3. Compile essential “FireWise” information and distribute it to landowners in and adjacent to the Peshastin Creek drainage. 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).
4. Participate in Forest Service and State Forest Management policy issues during amendment processes to provide input to insure local land/home owner interests are considered. Input to the Forest Plan revision is a good conveyance of community concerns for all aspects of forest management. There are land allocations in the drainage that are not conducive to effective fire prevention or control. It is hoped that through the development of this CWPP and WUI designation for the planning area, that this will allow for fuel reduction management in areas that would not normally allow for it due to the land allocation identified in the Forest Plan. Existing allocations may limit the degree and extent of fuels reduction treatment in areas that may need it the most
5. 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 (Forest Service, DNR, and Fire Protection Districts) which is a desired outcome of the process. It would require discussion amongst agencies but SHOULD be inserted into the CWPP as a community concern. Potentially could propose campfire closures to coincide with the appropriate Fire Precaution Level and County burn bans from the trailhead to the first horse camp (about mile post 4 or 5). This covers the most hazardous area and the area of greatest threat to the more populated area in the Peshastin Drainage. A similar request should be made along Peshastin Creek from the Wenatchee River up the canyon to Ruby Creek.

- Improving Protection Capabilities/Human Safety

1. Establish second road into/out of Valley Hi

2. Develop another fire hydrant in Valley Hi
3. Emergency Safety Issues
 - Address coordination
 - Road Signs
 - Evacuation Escape routes
Develop warning systems and safe escape routes, including the following:
 - Mark exit routes on maps. (Emergency Management may already have)
 - Make directional emergency exit signs. (may require State and County involvement)
 - Procure and install warning siren.
 - Contact radio station for possible help with emergency information.
 - Make signs saying in case of emergency tune your radio to **KOHO**.
4. Address coordination - Chelan County is in the process of assigning addresses in Peshastin drainage, which when completed will allow for the development of mapping the area. After completion of address assignments we suggest the following.
 - Standardize location of address signs.
 - Standardize appearance of signs?
 - Contact person at Chelan County responsible for assigning addresses to assist and verify correct information.
 - Road signs - Develop uniformity of all road signs and install signs at strategic locations. Sign design will meet County and State (if appropriate) requirements.
 - Location
 - Size and type of lettering.
 - Mounting heights.
 - Special signage (i.e. dead ends, curves, fire risk area, FireWise block watch community etc.).