



Photo of Herman Creek Fire (Cascade Locks, OR), September 2, 2003. Skamania Fire District 1 was the first responder (Image: O. T. Helgerson, WSU).

Greater Wind River, WA Community Wildfire Protection Plan

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**Greater Wind River
Community Wildfire Protection Plan
Signatures of Support
2007**

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HFRA Healthy Forests Restoration Act in November 2003. It provides new tools and additional authorities to treat more acres more quickly to expedite restoration goals. It strengthens public participation and provides incentives for local communities to develop community wildfire protection plans. It limits the complexity of environmental analyses for hazard reduction projects, provides a more effective appeal process and instructs the courts that are being asked to halt projects, to balance the short-term affects of implementing the projects against the harm from undue delay and long-term benefits of a restored forest (Douglas County 2005).

Title I of the Act addresses vegetation treatments on certain types of National Forest System and Bureau of Land Management (BLM) lands that are at risk of wildland fire or insect and disease epidemics. More specifically, it:

- Encourages streamlined environmental analysis of HFRA projects;
- Provides for administrative review of proposed HFRA projects on National Forest System lands before decisions are issued;
- Contains requirements governing the maintenance and restoration of old-growth forest stands when the USDA Forest Service (FS) and BLM conduct HFRA projects in such stands;
- Requires HFRA projects in the FS and BLM to maximize retention of larger trees in areas other than old-growth stands, consistent with the objective of restoring fire-resilient stands and protecting at-risk communities and Federal lands;
- Encourages collaboration between Federal agencies and local communities when community wildland fire protection plans are prepared;
- Requires using at least 50% of the dollars allocated to HFRA projects to protect CAR of wildland fire if identified in CWPPs;
- Requires performance to be monitored when agencies conduct hazardous-fuel reduction projects and encourages multiparty monitoring that includes communities and other interested parties; and
- Encourages courts that consider a request for an injunction on an HFRA-authorized project to balance environmental effects of undertaking the project against the effects of failing to do so.

Community Wildfire Protection Plan

Title I of the HFRA encourages the development of CWPPs under which communities will designate their Wildland Urban Interface (WUI), and where HFRA projects may take place. Half of all fuel reduction projects under the HFRA will occur in the community protection zone as defined by HFRA. HFRA also encourages biomass energy production through grants and assistance to local communities to create market incentives for removal of otherwise valueless forest material. The HFRA is linked to the Rural Schools and Community Self-Determination Act of 2000, PL 106-393, through funding provisions found in two separate Titles of PL 106-393. Title III provides counties with funds for expenditure on projects that fall within certain categories, one of which is county planning efforts to increase the protection of people and property from wildfire (Douglas County 2005). The CWPP planning process under HFRA is clearly an authorized use of Title III funds under PL 106-393(Douglas County 2005), and Skamania County utilized Title III funds to create the GWR CWPP.

CWPP REQUIREMENTS

The HFRA requires 3 components in a CWPP

- 1) Collaboration:** A CWPP must be collaboratively developed by local and state government representatives, in consultation with federal agencies and other interested parties.
- 2) Prioritized Fuel Reduction:** A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure.
- 3) Treatment of Structural Ignitability:** A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the area addressed by the plan.

PLANNING PROCESS

The planning process for the GWR CWPP follows recommendations from “Preparing a Community Wildfire Protection Plan: a Handbook for Wildland-Urban Interface Communities” and information gathered from successful CWPP’s (National Association of State Foresters 2004).

Step One: Convene Decision Makers, Federal Agencies and Interested Parties

The GWR CWPP Steering Committee includes a core group (made of local government, local fire authority and state representatives), federal agencies and interested parties/community members. The core group is essentially responsible for the development of a CWPP as described in the HFRA and must mutually agree on the plan’s final contents. The GWR Steering Committee met three times to establish, review and critique the planning components (Appendix A- Meeting Agendas, Minutes and Steering Committee Sign-in Sheets). The GWR Steering Committee consists of the following entities:

Core group (Decision makers)

- **Bob Hildenbrand** - Skamania County Fire District 1 (FD1) Carson Volunteer Fire Department Fire Chief
- **John Carlson** - Skamania County Department of Emergency Management Coordinator
- **Marlon Morat** - Skamania County Fire Marshall and Building Inspector
- **Russ Hovey** – Washington State Department of Natural Resources (WADNR) Pacific Cascade Region Fire Program Specialist

Federal Agencies

- **Greg Page** – FS, Gifford Pinchot National Forest (GPNF) - Mt Adams Ranger District Lead Fire Prevention Technician
- **Rod Altig** - FS Columbia River Gorge National Scenic Area (CRGNSA) Fire Management Officer

Interested Parties/Community Members

- **Amanda Hildenbrand** - Stabler Community Council Vice President
- **Tom Linde** - Stabler/Carson community member
- **Heather Stiles** - Home Valley community member
- **Robert Evert** - WKO Representative
- **Jim Shank** - Carson community member
- **Terry Ellison** - Skamania County FD1 Carson Volunteer Fire Department Assistant Fire Chief
- **Gail Bouchard** - Home Valley community member
- **Kathleen Carlson** - CERT Representative

CWPP Team Facilitators

- **Ole Helgerson** - WSU Extension Director and Area Forester
- **Sara Zielin** - Skamania County Wildfire Prevention Coordinator

Step Two: Establish Planning Area

The GWR CWPP planning area was identified by the Klickitat and Skamania County, WA Community Wildfire Protection Plan (Figure 1). The dual-county plan established ‘communities’ based on geographic, political and economic features. A large section of the GPNF was included in the planning area because these lands significantly influence the economy of the GWR CWPP area. This original community boundary was adjusted by the Steering Committee to include the complete service area of Skamania County FD1. The boundary covers approximately 280 square miles and encompasses 3 unincorporated communities.

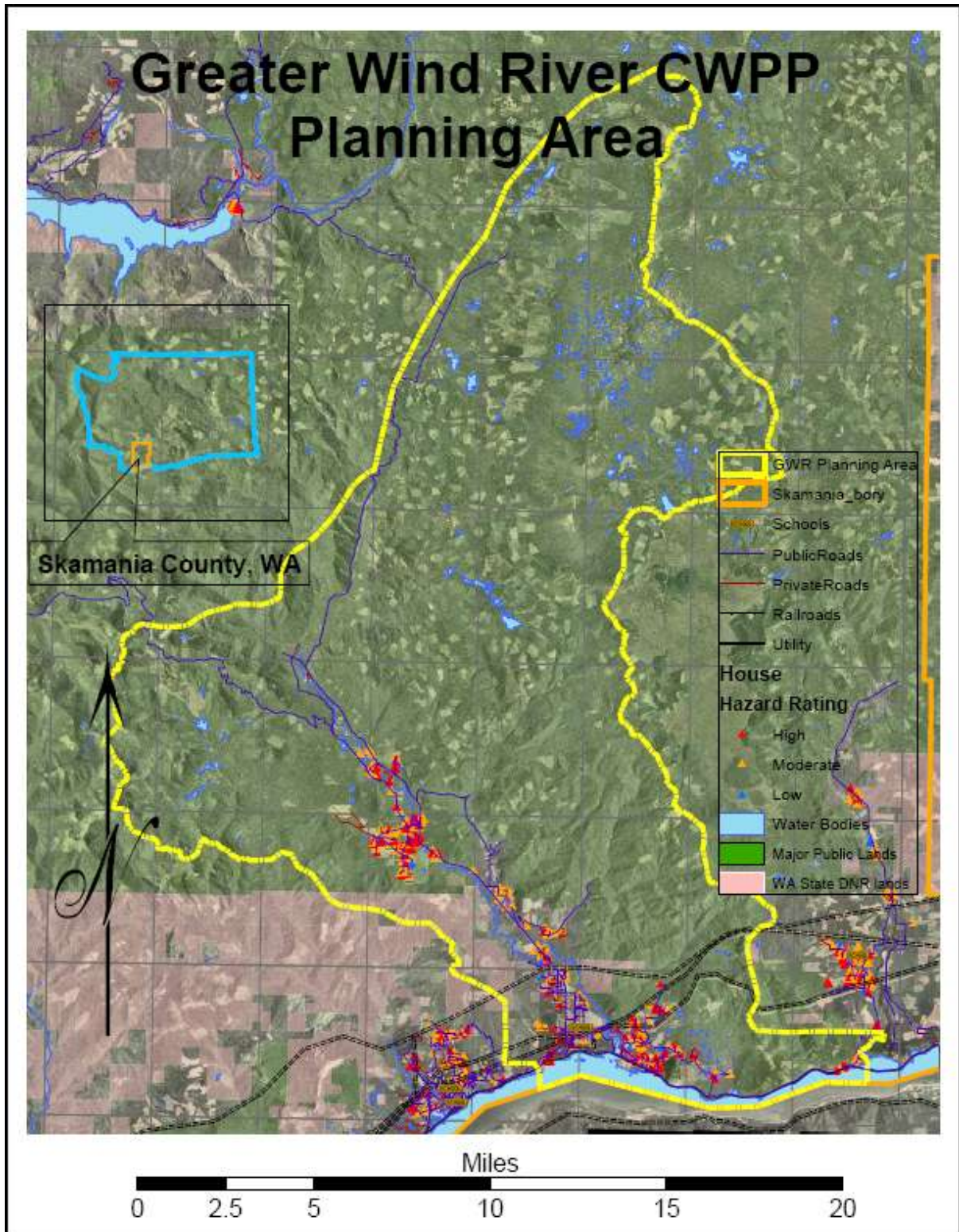


Figure 1. Appendix H1- Greater Wind River CWPP Base Map (Cartographer: Sara Zielin).

Step Three: Community Outreach

Community members from Carson, Home Valley and Stabler served on the GWR Steering Committee to represent the public throughout the process. A questionnaire was created and dispersed within the community in March 2007 (Appendix B – Community Questionnaire). The survey results were reviewed by the committee, and applied to different aspects of the plan. This project was presented to the Stabler Community Council on March 6, 2007. This plan was also open for public comment from August 29, 2007 to September 27, 2007.

Step Four: Community Risk Assessment

The community risk assessment took place in two phases. The GWR Steering Committee carried out phase one by reviewing basic risk factors such as: risk of ignition, hazards, values protected and wildfire protection capabilities. The committee created a list of elements that fell under each risk factor to more specifically define risks within the planning area.

In phase two, the committee further defined risk factors and identified site specific problems by completing two workshops: 1) gap establishing workshop and 2) map workshop.

The gap workshop identified constraints, 'bottle necks', missing links and/or gaps in the fire fighting system within the GWR planning area. Solutions to the gaps were established as fuel mitigation, planning, education and equipment, staffing and exercise projects.

The map workshop assessed several different aspects of the GWR planning area such as fire history, population density, fuel loads and future developments and identified 'high risk areas' and/or CAR that exist and then established fuel mitigation projects, classed by risk to better protect life, property and natural resources.

Step Five: Establish Community Priorities and Recommendations

Based on risks identified in Step Four, the committee discussed and defined each project establishing a list of priority projects.

This section describes solutions to problems identified in the gap and map workshops and documents projects supporting the goals and objectives of the GWR CWPP (...to protect life, property and natural resources). Projects are divided into 4 categories: 1) Fuel Mitigation 2) Planning Projects 3) Education Projects and 4) Equipment, Training and Exercise Projects. Some projects tie to two or more categories. Other project categories may be developed in the future.

Step Six: Develop an Action Plan and Assessment Strategy

The GWR CWPP Steering Committee collectively agreed to meet annually at a minimum and as needed otherwise to review the plan and make needed revisions. The core group will oversee and approve any plan amendments as well as grant applications referencing the GWR CWPP. The Title III Firewise Project offers initial CWPP project follow-up and grant application assistance while legislated funding is still available. Because this is

not a permanent funding source, a fulltime position to develop CWPP projects and prepare grants will be pursued.

Step Seven: Community Wildfire Protection Plan Approval

The core group, considering feedback from the steering committee and public comment, will determine the final plan. The GWR CWPP will seek the Skamania County Board of Commissioner’s approval.

COMMUNITY PROFILE

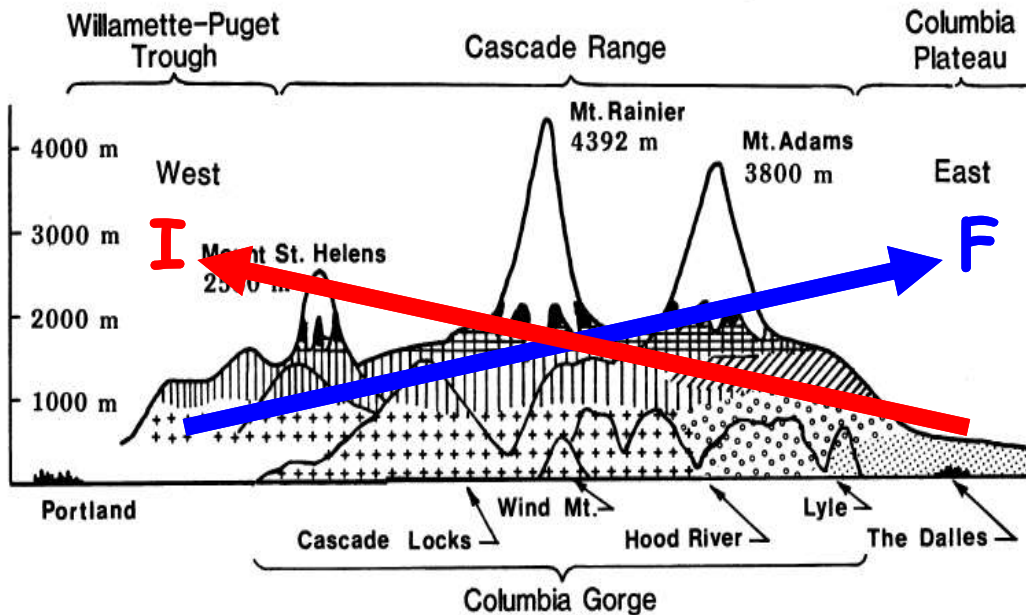
Climate

The GWR CWPP planning area is located in south-central Skamania County, WA in the Cascade Mountains. In general, Skamania County enjoys a mild but variable climate, with the climate becoming drier and more continental as one travels from west to east. The average annual rainfall for Stabler, WA is 99 inches (Skamania County Chamber of Commerce 2007).

Forests and Vegetation

Skamania County is predominantly forest covered. Forests range from mesic western hemlock, western red cedar and Douglas-fir in the west to more xeric Douglas fir-grand fir and Oregon oak-ponderosa pine in the east (Figure 2).

FIGURE ON FOLLOWING PAGE



I = Fire intensity (how fast and hot a fire burns)

F = Fire frequency (how often fire occurs)

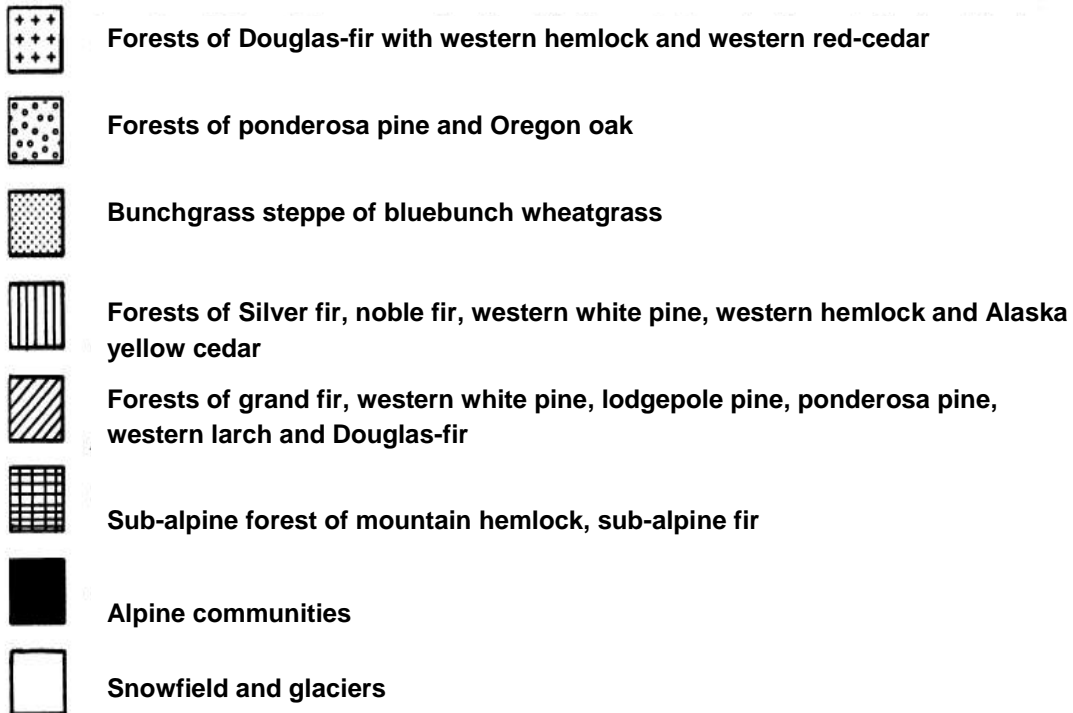


Figure 2. Vegetation profile and generalized historic fire frequency and fire intensity in the Columbia River Gorge (adapted from Troll (1955) in Topik et al. (1986) and James K. Agee, University of Washington).

Location

The GWR planning area encompasses 3 unincorporated communities: Carson, Home Valley and Hemlock/Stabler. Hemlock/Stabler is located along Wind River Road, approximately 8 miles north of SR14. Carson is located 1 mile north of Highway SR14 on Wind River Road. Home Valley is located on SR14 mile post 50.

Population

According to the Skamania County Chamber of Commerce, the human population of the Carson/Home Valley region is approximately 2,000 and Hemlock/Stabler 1,000.

Transportation

Roads that service the 3 communities are SR14 and Wind River Road. Transportation to and from Stabler is handled via Wind River Road that intersects Highway SR14 at Carson. Unpaved single lane forest roads connect Carson west to Stevenson and east to Mill A and Trout Lake. The north end of the GWR area connects west to Swift Reservoir and I-5 by paved Forest Service roads.

Critical Infrastructure

Critical infrastructure in the Greater Wind River CWPP includes:

- Fire satellite station structures and equipment
- Schools
- Power lines
- PUD structures
- Industrial sites
- Water treatment facilities, reservoirs, wells, water pumping and supply areas
- Dams
- Bridges
- Railroads
- Emergency Communication towers
- Historical and cultural sites
- Commercial areas of economic value to the communities
- Gas and fuel pipelines
- SR14 and Wind River Road
- Bear Creek Watershed

Fire History

The GWR CWPP planning area lies with a mixed fire regime including smaller more frequent fires and larger less frequent fires (Figure 3). Historically known large wildfires have usually resulted from strong east winds following periods of summer drought (Topik 1986). The Yacolt Fire stands out as being the greatest fire to move through the area. The fire started near Stabler, WA on Sept. 10, 1902. Driven by strong east winds, it killed 38 adult “white” people and destroyed over 12 billion board feet of lumber on 238,900 acres. It stopped near the town of Yacolt in Clark County when the wind died. In 2003, the Herman Creek fire across the Columbia River in Cascade Locks, OR burned 375 acres in about 4 hours driven by an east wind. Fire fighting there was hampered by

lack of knowledge of the terrain by the first responders. A structure was lost because it was regarded as too hazardous to protect.

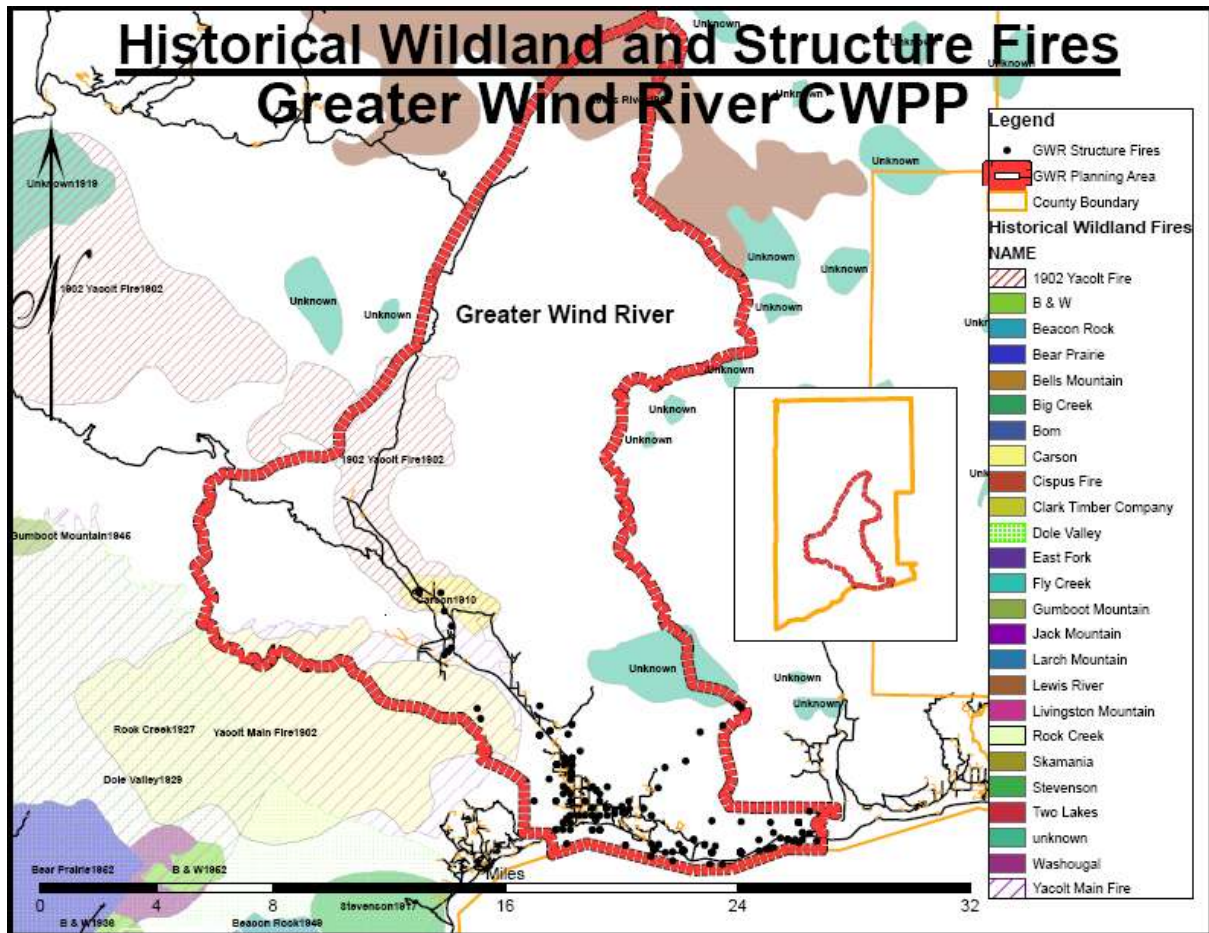


Figure 3. Appendix H2 - Historic wildland and structure fires within the Greater Wind River CWPP planning area (Cartographer: Sara Zielin).

Data Collection

In 2003, a National Fire Plan project was funded in Skamania, Hood River, Wasco and Klickitat Counties that targeted: 1) Locating and risk-ranking WUI structures using NFPA-299 protocol (Appendix C - NFPA-299 Hazard Rating Form) into a Geographic Information System (GIS) database; 2) working with rural volunteer fire districts to identify and remedy equipment and training, and 3) educating rural dwellers in wildfire survivability and damage prevention.

Using Title III funding, three of the four counties (Skamania, Hood River and Wasco) completed the NFPA-299 survey in a GIS database. The NFPA-299 survey data describes conditions affecting structure flammability. It provides information to emergency planners and responders allowing safer response during wildfire (Columbia Gorge 2003).

In Skamania County the project also collected data on fire hydrants, water sources, and other features. WADNR GIS data (RAMS) describes high risk areas in Skamania County along with public road networks and hydrology.

WILDFIRE RISK ASSESSMENT

A risk assessment was performed by the GWR CWPP Steering Committee and the following components were discussed.

Risk of Ignition

GWR's wildfire ignition risks include and are not limited to: structure fires, railroads, debris burning, fireworks, recreational fires (camping and/or forest product camps), discarded cigarettes, lightning, power lines, gas lines, arson, off-highway vehicles, logging, and welding.

Structure Fires

Structure fires will continue to occur within the planning area. With many new homes being built adjacent to forest lands, the probability for a structure fire igniting from a catastrophic wildfire is high especially during fire season.

Railroad

The Burlington Northern-Santa Fe Railroad runs the length of the southern boundary of the planning area. This busy railroad has the potential of starting a large wildfire that could affect homes and residents in the planning area. Although Highway SR14 forms a fuel break, ample fuels exist in the strip between the railroad and the highway to support a significant wildfire with potential for it to spot across the highway and ignite the heavy forest fuels on the steep slopes below Carson, and Home Valley. Railroad maintenance activities, especially track grinding, also have a high potential for starting fires (Hulbert 2004).



Figure 4. To minimize chances of wildfire, burn debris when chances of wildfire ignition are low (Image adapted from: Edgeplot

<http://www.flickr.com/photos/edgeplot/356582184>)

Debris Burning

Debris burning is legal in Skamania County with a valid permit October 1 through June 30 unless otherwise noted by the Fire Marshall (Figure 4). The debris pile dimensions must be no larger than 10ft by 10ft by 5ft tall and may not to exceed a total of 100 square feet for multiple piles (Skamania County Ordinance 2006). WADNR burning regulations also apply to residents within Skamania County who are performing Silvicultural practices. Burn pile dimensions are 4ft by 4ft (rule burn) from July 1st thru July 15th and 10ft by 10ft October 16th thru June 30th. Illegal burning does occur and is an important risk factor for wildfire ignition.

Fireworks

According to the Revised Code of Washington 70.77.395 it is legal in the state of Washington to use fireworks between the dates of June 29th and July 5th (Revised Code 2007). Fireworks are banned otherwise. However, illegal use of fireworks still occurs for most of the year and can ignite a wildfire. Over the July 4th weekend, 2005, there were numerous firework-ignited wildfires that burned hundreds of acres in the Columbia River Gorge (Hulbert 2004).

Recreational Fires

Recreational fires from hikers, campers and forest product camps are a source of wildfire ignition. There are many hiking and backpacking destinations within the GPNF and CRGNSA that thousands of people visit every year. Recreational campfires are permitted when optimal conditions exist and are banned during peak fire season. People have been cited for having fires during a ban that have also been cause to larger fires.

Discarded Cigarettes

Lit cigarettes tossed from a moving vehicle, have long been source of wildfire ignition. Because of the miles of roads within the planning area, pinpointing exact high risk locations is difficult. In general, the potential is greatest where suitable fuels adjoin roads.

Lightning

Lightning has historically caused many wildfires in the planning area. With the right weather conditions and fuel characteristics, a major regional lighting storm could spawn many wildfires potentially overwhelming response capabilities. Although, lightning cannot be controlled, we do have the ability to manage hazardous fuels around structures and properties reducing the chances of ignition.



Figure 5. Power lines broken by a tree caused the 2003 Herman Creek Fire (Image: S. Zielin, Skamania County).

Power lines

Power lines located throughout the planning area include two major Bonneville Power Administration (BPA) lines and several smaller lines serving the Skamania County Public Utility District (PUD) #1. Branches or trees falling on power lines can ignite a wildfire (Figure 5). The Skamania County PUD #1 does not have a formal wildfire response plan. However, they do monitor fire radio frequencies and will disconnect power to the area as necessary.

Gas lines

Williams Northwest Pipeline operates 1,400 miles of pipeline and 13 compressor stations in the state of Washington. Strain gauges continually monitor the pipeline at various locations. The pipeline runs along the

southern border of the GWR planning area. On February 26th, 1999 a landslide ruptured the 22 inch natural gas pipeline which then ignited in Skamania County North Bonneville, WA. During fire season this could have been cause to a catastrophic wildfire. Williams Northwest has a public safety manual available to the public for disaster situations (Williams 2007).

Arson

Arson caused seven fires within the planning area, between 1972 and 2006 according to WADNR fire statistics GIS data (DNR GIS 2007). The acreage burned is minimal, totaling at approximately half an acre. Causes of arson include grudges, pyromania and other. A person who would start a fire for vengeance would likely be a person who would not consider time of year, humidity, wind and other aspects that would allow a fire to become uncontrollable (Davis 2005). Although arson has not been the leading cause of fire starts within the CWPP area it has the potential to cause a catastrophic wildfire.

Off Highway Vehicles, Logging and Welding

These ignition sources were discussed by the Steering Committee and were regarded as low risk. Even so, each source has caused small acreage fires and with the right conditions could be the source of a major wildfire.

Hazards

Fire season in the GWR community area runs from approximately mid-May to October. After ignition, major conditions affecting wildfire spread are: weather, topography and fuels.

Weather

Wind is an element of wildfire hazard because it pushes the flame front, increases the rate of fire spread, and decreases moisture in both the air and fuel (Davis 2005). The most prominent weather hazards that influence fire in the GWR area are extreme east and west winds and low humidity. Strong east winds caused the extensive Yacolt Burn and the smaller Herman Creek Fire

Wind driven wildfires can throw burning embers downwind up to a mile igniting spot fires ahead of the main flame front. This presents a major hazard for many of the Greater Wind River's structures and properties. Research shows that flying embers ignite about one-half of homes lost during wildfire.

Relative humidity and precipitation largely determine fuel moisture. Extended periods of drought can increase wildfire, as lack of precipitation and snow in and around a community lead to drier fuels and increased risk of ignition (Davis 2005).

Topography

Slope accelerates heat transfer in fires. The estimated rate of fire spread is twice as fast up a 30 percent or greater slope as compared to a level surface. Along the Wind River Valley floor, densely vegetated slopes from 20 to 70 percent branch in all directions (Figure 6). Although fire primarily burns uphill, structures at the base of slopes are also at risk because fire can move downhill. Thus, structures built on slopes are at risk from

both directions (Davis 2005). For residents living in sloping topography, consulting with the GWR CWPP core group or Carson FD1 Fire Chief is recommended.

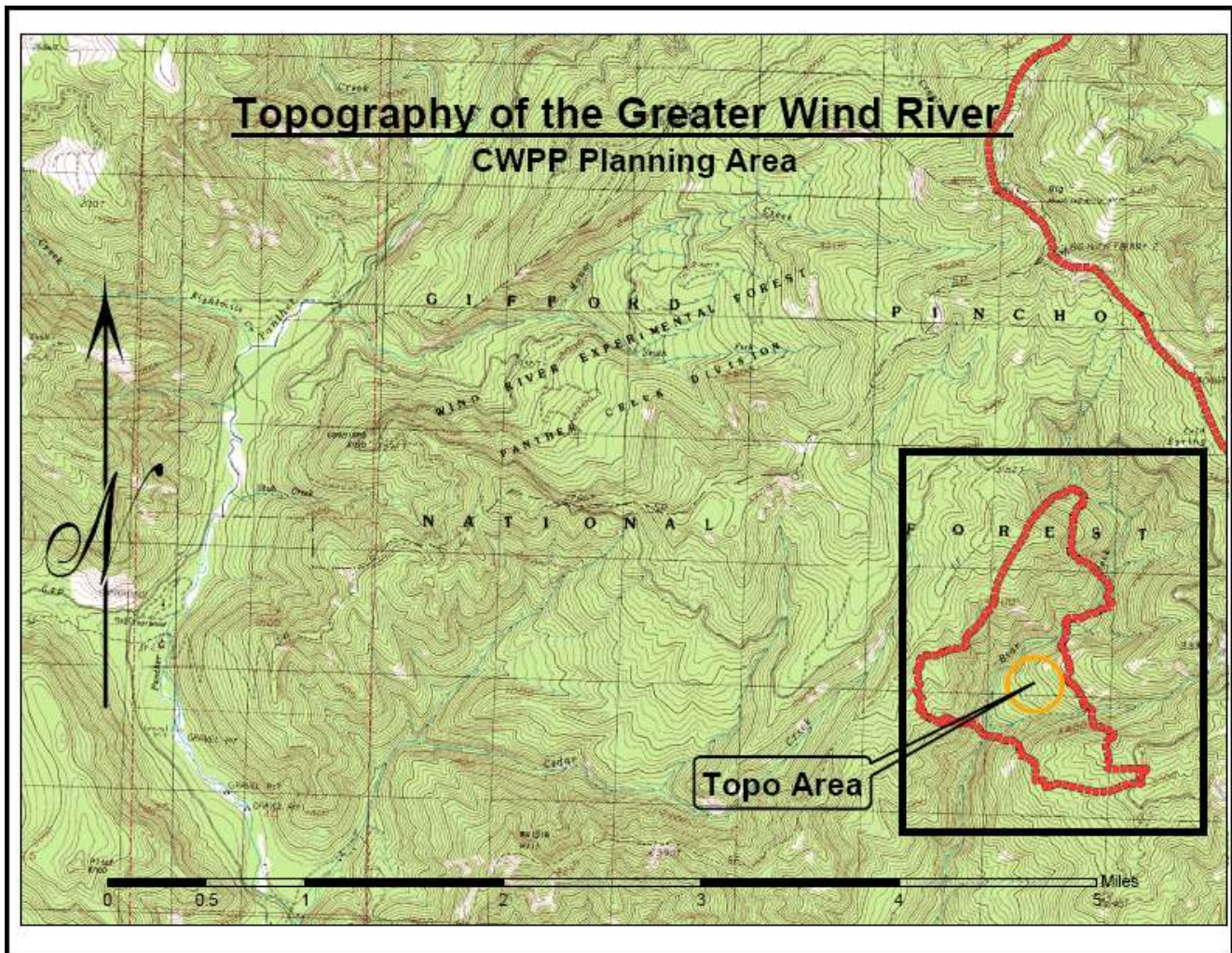


Figure 6. Appendix H3 - Example canyon topography within the Greater Wind River CWPP planning area (Cartographer: Sara Zielin).

Fuels

There are many structures and properties within the CWPP planning area that are adjacent to high fuel loads. Without adjacent fuels mitigation, home ignition occurs from heat radiated and convected from nearby fire. The following fuel models were taken from the NFPA-299 form and were used in assessing the GWR's wildfire hazard.

Light-Flashy Fuel (grass, forbs, and shrubs)

This fuel type can be found throughout the planning area, especially along roads and within or near the valley floor.

Moderate Fuel (light brush and small trees)

A significant area of the community is regarded as consisting of moderate fuel intermixed with other fuel types. Moderate fuels can create fire ladders, allowing a ground fire to spread vertically into the forest canopy.

Heavy Fuel (dense brush, timber, and hardwoods)

The majority of areas outside the valley floor fall into this category. Ground fire can ignite heavy fuels and increase risk of crown fires when ladder fuels are present.

Slash (timber harvest residue)

Slash and debris piles and stacked wooden building materials can ignite easily, and subsequently threaten closely adjoining structures. When ignited they are extremely difficult to extinguish. Locating piles away from structures and other combustible fuels and burning during safe conditions can reduce risk from this hazard.

Because they present a source of concentrated heat, stored fuels can quickly turn into a very serious structural threat when ignited. Locating fuel storage units at prescribed distances from structures reduces risk.

Values Protected

- Commercial Timber
- Infrastructure
- Recreation Values
- Watersheds
- Historical Sites
- Endangered Species
- Archaeological Sites
- Fish Hatcheries

Emergency Equipment and Staffing Inventory

This section includes inventories for all the fire fighting agencies within the GWR planning area as of April 2007 (Appendix D - Wildfire Protection Capabilities).

Carson Fire District 1

Carson, Home Valley and Stabler communities are serviced by Carson FD1. Personnel and equipment inventory includes:

- 39 volunteer firefighters
- 3 – Type 1 engines
- 1 – Type 6 engine
- 1 – 1500 gallon tender
- 1 – 3000 gallon tender
- 1 – Rescue/air rig
- 1 – Command vehicle

FD1 has compiled an inventory list that documents the current status and future needs of equipment (Appendix E - Current Inventory and Future Needs). Wildland fire protection

outside of the Fire District boundary is provided by the CRGNSA, GPNF and WADNR under mutual aid agreements. The following federal and state fire fighting resources are not stationed within the planning area and response time may take from 60 to 90 minutes.

Columbia River Gorge National Scenic Area

The CRGNSA has available the following inventory depending on level and location of wildfire:

- 3 – Type 6 wildfire engines
- 1 – Fire prevention module
- 2 – Command vehicles
- 2 – Cooperative engines with WADNR
- 1 – Cooperative engine with ODF
- 9 Employees staffed 7 days a week from 7/1 – 10/1

Mt Adams Ranger District GPNF

The Mt. Adams Ranger District of the GPNF provides fire protection primarily on federal lands in the Greater Wind River CWPP area, with the following inventory depending on level and location of wildfire:

- 2 – Type 6 wildfire engines w/foam 300 gallons
- 1 – Type 6 prevention module 320 gallons
- 1 – Type 7 prevention module 80 gallons
- 11-14 on duty employees staffed per day from 7/4 – 10/15
- Estimated 35 employees line qualified firefighters available as needed from approximately 7/4 – 10/15

Washington State Department of Natural Resources

WADNR provides fire protect primarily on private and state lands and has the following inventory depending on level and location of wildfire:

- 2 – Type 6 wildfire engines
- 6 – Firefighters

Phase II

Gap Workshop

The purpose of the gap workshop was to identify any constraints, 'bottle necks', missing links and/or gaps within the GWR planning area fire fighting system. Following are the “gaps” identified by the GWR Steering Committee:

PROJECTS

The following projects were identified to reduce the risk of wildfire and protect life, property and natural resources within the GWR planning area. These projects are subject to modification depending on changes in local priorities. The GWR CWPP core group (see page 6 for definition) will oversee and approve any project amendments or grant applications that reference the GWR CWPP.

Projects were classed into four categories: 1) Fuel Mitigation Projects 2) Planning Projects 3) Education Projects 4) Equipment, Training and Exercise Projects. Some

specific project types, such as landowner fuels mitigation have components in two or more categories. Priority rankings reflect importance among all projects; not just within a category.

Fuel Mitigation Projects

The primary goal of fuel mitigation projects is to reduce wildfire risk by physically reducing fuel densities in selected areas to specified levels. Specific target areas and fuel densities will be assessed using computer models, NFPA-299 data, professional judgment and other appropriate and available methods.

Project 1: Firewise homeowner protection – High Priority

- Create defensible space around homes

Induce homeowners to create and maintain their own “firewise” landscape by advertising, holding classes and demonstrations and using other suitable media. The “Living with Fire” brochure (Appendix F – “Living With Fire, A Guide for the Homeowner”) indicates fuel reduction treatments, types and methods that homeowners should implement. Fuel treatments will also comply with Skamania County and Columbia Gorge National Scenic Area requirements.

Implementing “firewise” methods such as creating defensible space, thinning dense vegetation, providing access, having established escape routes for homes and neighborhoods to an adequate safety zones can greatly reduce a community’s risk from wildfire (Davis 2005).

Project 2: Fuel breaks around ‘communities at risk’ – High Priority

The Steering Committee chose as risk criteria existing population density, future development, fire history (wildland and structure) and fuel loads. The Committee then used professional judgment to establish boundaries encompassing high risk areas based on these criteria. These areas were designated CAR within the GWR planning area. The Committee suggested that strategic fuel breaks be created by thinning, limbing or clearing mechanically or by hand to better protect the following CAR (Figure 7):

- Bear-Panther
- Stabler
- Columbia River Zone East
- Columbia River Zone West

MAP ON FOLLOWING PAGE

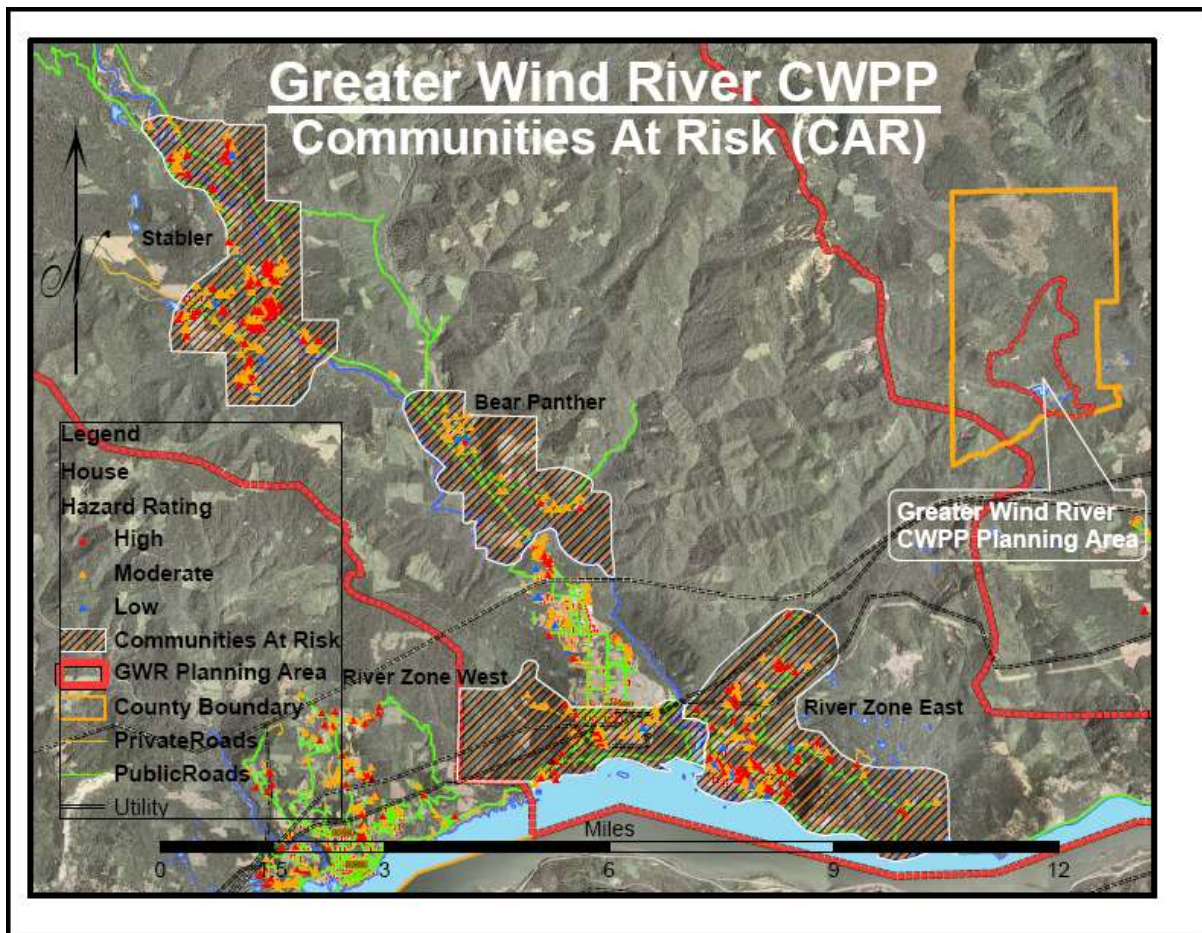


Figure 7. Appendix H4 - Communities at Risk as defined by existing and potential human populations, fire history and fuel loads (Cartographer: Sara Zielin).

Project 3: Establish a fuels disposal program – Moderate Priority

Establish a site where residents can easily dispose of small trees and brush removed as part of establishing defensible space around their homes. This would reduce wildfire risk from on-site burning and the amount of unwanted smoke. Potential cooperators include Skamania County, WADNR, USDA Forest Service and Skamania County among others.

Project 4: High use recreation areas – Low Priority

Create defensible fuel zones and fire breaks along roads accessing high-use recreation to protect recreation sites and users from wildfire. The following roads access high use recreation areas, especially during the summer months and may extend beyond the CWPP boundary but are included for the sake of continuity:

- GPNF Road #65 Panther Creek Road from Wind River Road to 4 Corners
- GPNF Road #65 Panther Creek Road from 4 Corners to Indian Heaven Wilderness
- GPNF Road #30 from Lone Butte to 24 Road
- GPNF Road #24 from 88 Road to SR141
- GPNF Road #60 from 65 Road (4 Corners) to SR141

Project 5: Strategic Fuel Reduction within Bear Creek Watershed – Moderate Priority

Strategic fuel reduction within Bear Creek Watershed will better protect this critical infrastructure. This watershed provides most of Skamania County PUD #1 potable water that serves Carson Valley. The upper section of the watershed is a main area of concern. This project corresponds with the GPNF RAC Bear Creek Watershed Protection Proposal.

Project 6: Fuel Breaks along Carson-Stevenson Ridge – Moderate Priority

Based on community feedback to Chief Hildenbrand this project includes maintaining defensible space and fuel breaks along WADNR 2200A Road from Carson Creek Road junction (mile 1.5) to 2200 Loop (mile 2.5). This area is considered “Moderate Risk” area and is above dense second growth Douglas-fir stands. This road has a history of arson and vehicle accidents involving spilled fuel and serves as the only alternate route between Carson and Stevenson when SR14 is closed.

Planning Projects

The primary goals of planning projects are to further refine education and fuels mitigation projects and reduce or eliminate constraints in response and interagency cooperation.

Project 1: Prioritizing Residential Fuel Mitigation Projects – High Priority

This project relates to Project 1 under “Fuels Mitigation.” It will use wildfire survey data, WADNR RAMS classifications, community input and other suitable data to further rank human habitation areas within the GWR community for fuels treatment.

Project 2: Establish, Improve and Maintain Evacuation and Response Routes – High Priority

This project further identifies and ranks evacuation and response routes using timber stand data, wildfire survey data, air photo imagery and other information. Not only will this project establish response routes but will also give improvement and maintenance priority to the routes listed. Potential routes include:

- GPNF Road #30 – Wind River Road
- GPNF Road #90
- GPNF Road #51 – Curly Creek Road
- GPNF Road #60
- GPNF Road #54
- GPNF Road #24
- GPNF Road #65 – Panther Creek Road
- 2200A Carson-Stevenson Ridge Road
- Hot Springs Road/Sandhill Road
- Bear Creek Road
- State Highway 14
- Wind Mountain Road (Home Valley to Girl Scout Road)

Project 3: Designate Emergency Areas (Staging, Helicopter LZ and Evacuation) – Moderate Priority

Review potential locations for designated emergency areas and make land-use agreements with landowners and emergency agencies. Possible locations for emergency areas are: Wind River PDA fields, Carson Elementary and Middle Schools and fields, Skamania County Home Valley Park and the United States Fish and Wildlife Service (USFWS) Carson Fish Hatchery. This information will also be included in the Mobilization Handbook (Planning Project 5).

Project 4: Achieve Communication Interoperability – High Priority

Currently Skamania County Emergency Management Services (EMS) including FD1 does not communicate on the radio system used by GPNF and CGNSA and WADNR. Local emergency services use UHF and the state and federal governments use VHF and digital radios. The CWPP Steering Committee recommends that EMS, USDA FS and WADNR work together in achieving radio system interoperability by methods such as by providing FD1, EMS, and Sherriff’s Department access to particular frequencies, necessary radios and/or gateway devices.

Project 5: Community Mobilization Handbook with Maps – High Priority

This would be a guide to the GWR CWPP area intended for outside responders. This document would allow the user to identify current hazards such as those related to public and private roads, bridges and weight limitations, gates, road accessibility, power lines, gas lines, decommissioned roads, and resources such as fire hydrants, water sources, staging areas, evacuation routes and areas and other items deemed to be of use. A standardized GIS map will be prepared for sake of continuity with WADNR, FS maps and other Skamania County CWPP plans. Achieving this requires an on-going county GIS presence and establishing M.O.U.’s as needed between FS, WADNR, FD1, local timber industries and adjoining counties for sharing of GIS data and like resources.

Education Projects

The primary goal of education projects is to raise public wildfire awareness to the point where residents will take the initiative for creating and maintaining defensible space around their own homes and structures.

Project 1: “Firewise” Public Education Workshops – High Priority

This project ties to Project 1 “Fuel Mitigation” and Project 1 “Planning” and may include the following components:

- Mass distribution of fire education materials and workshop, evening class and demonstration announcements
- Defensible space “demo” house
- Advertising in traditional media (newspapers, radio, cable television)
- Utilizing the “Good House vs. Bad House” demonstration kit (CRGNSA), at the Skamania County Fair, classes or other venues
- Preparing an adult focused fair booth and outreach
- Developing e-media –webpage on Skamania County website, CD’s, DVD’s, blogs

Project 2: Distribute “Living with Fire” brochures – High Priority

Distribute the “Living with Fire” brochure with flyers would be either a stand-alone activity or part of education courses that teach “firewise” principles. The goal is to engage community members to learn how to protect themselves against wildfire while retaining a rural atmosphere. This may include:

- Creating a “Living with Fire” brochure specific to the GWR area
- Inserting “Living with Fire” brochure or flyer with County Burn Permits

Project 3: Teach and enforce proper debris burning techniques – High Priority

According to WADNR wildfire statistics, debris burning one of the top three causes of fires within the CWPP planning area. Enforcing debris burning regulations is difficult. The Steering Committee feels that teaching the public proper techniques to prepare and ignite burn piles would decrease the number of escaped fires. To achieve this, FS, WADNR and FD1 will work together to develop education that teaches safe and effective pile burning. Education approaches include developing a course and debris burning flyer providing guidelines on how to burn safely to be distributed with burn permits. The Committee will also work with WADNR and Skamania County Sheriff to reduce violations.

Project 4: Junior “Firewise” programs – Moderate Priority

The main focus of this program is to teach fundamental principles and knowledge about wildfire hazards and risk reduction techniques to young adults. Groups such as 4-H, Girl Scouts, Boy Scouts, local schools, and existing youth groups are the main groups of interest. Potential partners include WADNR, FS, and Northwest Service Academy (NSA) AmeriCorp Volunteers.

Project 5: Develop a Volunteer “Firewise” Group utilizing CERT volunteers

The objective of this group would be to work with ‘communities at risk’ and teach “firewise” practices in coordination with the Skamania County Wildfire Coordinator and DEM, CERT. A potential partner is the Trout Lake, WA National Service Academy.

Equipment, Staffing and Exercise Projects

The primary goal of Equipment, Staffing and Exercise projects is to increase the wildfire response capabilities of the CWPP planning area fire agencies by defining and addressing equipment, staff and training needs.

Project 1: Attain adequate communications equipment for Fire District 1 – High Priority

- Research and purchase VHF and/or “gateway” device for Fire District 1 to communicate with the other firefighting agencies.
- Purchase laptops for FD1 for GIS data access and analysis. The Skamania County Title III program has gathered NFPA-299 GIS data on homes within the county describing variables such as type of siding, roofing and defensible space. This data was gathered to support volunteer firefighters, EMS, and police responding to a call.

Project 2: Organize and perform a multi-agency training/mock drills – High Priority
Organize a mock drill with FS, WADNR, USFWS and FD1 that tests the fire fighting systems and capabilities and identifies problems within the system.

Project 3: Identify staffing needs for GWR planning area –High Priority
A full time secretary, support staff and/or grant writer position to support the Carson Volunteer Fire District 1 within Skamania County will be evaluated. Fire District 1 desperately needs full time assistance to implement the CWPP.

Currently, Skamania County does not support a coordinated Geographic Information Systems Program. Individual departments must autonomously develop and maintain their own GIS data. A central GIS location would greatly assist collecting and using GIS data. The Steering Committee suggests that a GIS Coordinator position be created and maintained under Skamania County government that supports FD1 and other Skamania County emergency service providers.

Project 4: Develop ‘common protocol’, training and standards among Skamania County Emergency Responders – Moderate Priority

- Enhance mutual aid agreements
- Create efficiencies in training such as ‘red card’ training with Washington DNR and FS that would include multiple Fire Districts.

Project 5: Multi-agency Fire Station – Moderate Priority

Seek grant funds through Bureau of Indian Affairs (BIA) and other agencies to establish a multi-agency Fire Station serving entities such as FD1, EMS, Sheriff’s Department, WADNR and FS. This would serve as a central location for fire agencies to store equipment. Keeping fire vehicles at this site would improve response time to fires and other emergency response services within south central Skamania County.

The Greater Wind River Action Plan

Education projects will teach the public proper “firewise” techniques and recommend measures that homeowners can take to reduce structure ignitability. The goal is to get community members to make it their personal priority to take steps to protect themselves during wildfire. Phase 1 of the action plan includes seeking a Wildfire Prevention Intern that will develop “firewise” education classes, write grants pertaining to CWPPs and recruit a “firewise” volunteer cadre. The position would serve FD1 and other Fire Districts. The GWR CWPP Core Team will continue to work with Wildfire Prevention Coordinator with prioritizing work for CWPP intern. Lastly, utilize the Skamania County Wildfire Prevention Coordinator for CWPP support while funding still exists.

Structure Ignitability

The Greater Wind River CWPP Steering Committee recommends that the homeowners within the planning area use the “Living with Fire: A guide for the homeowner” brochure as an initial guide to reducing structure ignitability (Appendix F).

MONITORING AND EVALUATING

Vegetative changes occur continuously and are, at times, difficult to notice. To help document changes, before and after photos should be taken of fuel mitigation project areas. Pictures demonstrate the effectiveness of the project and changes from year-to-year. Recording GPS coordinates of the photo locations are strongly suggested (Hulbert 2004). Software such as Landscape Modeling System (LMS) can help predict when re-treatment will be necessary.

A CWPP is a living document and annual re-evaluation will be performed by the Greater Wind River Steering Committee. The Steering Committee will also convene to discuss CWPP updates and to share any new project, grant developments and amendments as needed.

The GWR CWPP has recognized FEMA Pre-Disaster Mitigation (PDM) Plan Requirements. The table in Appendix G, indicates how the GWR CWPP meets FEMA PDM compliancy and what components are missing for future acceptance.

APPENDICES

- A – Agendas, Meeting Minutes, Steering Committee Sign-in Sheets
- B – Community Questionnaire
- C – NFPA-299 Hazard Rating Form
- D – Wildfire Protection Capabilities
- E – Current Inventory and Future Needs
- F – “Living With Fire, A Guide for the Homeowner”
- G – FEMA Pre-Disaster Mitigation Compliance
- H – Maps 1, 2, 3, 4

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Greater Wind River CWPP

Meeting 1 Minutes - February 27th, 2007

Meeting started at 6:00pm

- Introductions
- Sara and Ole presented the general information of a CWPP and handed out maps of our area as well as objectives, an example CWPP from Douglas County and our agenda.
- Group agreed to give our plan the title of: Greater Wind River, WA Community Wildfire Protection Plan - with the goal to impact on reducing fire risks, to make the communities, forest service and DNR accessible to federal \$ to act on these crucial areas.
- Group outlined risk assessments/ignition risks of our tentative plan:

Man

Railroads
Debris Burning
Fireworks
Recreational fires
Smoking/cigarettes
Arson
Exhaust/vehicles
Logging
Welding
Power lines
Structure fires

Natural

Lightning

- Hazards of our area were identified – including weather, topography, fuel loads, types of fuels, rate of fire spread etc.

Weather – extreme wind, low humidity, topography, aspect

Fuels – fuel moisture, fuel chains, fuel types, fuel models (local types being within 10, 11, 12 and 13), fuel density, crown fires and accessibility.

- Values protected were discussed, including commercial timber, water sources, life, economics, recreational values, historical sites, endangered species, archaeological sites, residential properties and structures, infrastructures and personal property.
- Protection Capabilities were discussed, but it was decided that Fire District 1, Federal and State entities needed to later identify their gaps, needs and intentions.
*Communication gaps between forces were also discussed at length.

Next meeting set for March 27th, 2007 - 6:00pm SCFD#1 Station 1
Meeting was adjourned by 8:00pm.

Carson Community Wildfire Protection Plan Steering Committee
Sign-in sheet – Meeting 1

Date: 2007/02/27 Time: 1800 - _____ Location: Carson Fire Station

NAME	SIGNATURE	REPRESENTATION	EMAIL
ROD ALTIG		CGNSA	raltig@fs.fed.us
JOHN CARLSON		SKAMANIA CO. DEM	johnc@co.skamania.wa.us
OLE HELGERSON		FACILITATOR	ole@co.skamania.wa.us
AMANDA HILDENBRAND		STABLER COMMUNITY COUNCIL	amandap98610@yahoo.com
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RUSS HOVEY		WADNR	russ.hovey@dnr.wa.gov
TOM LINDE		STABLER COMMUNITY	tl@gorge.net
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SARA ZIELIN		FACILITATOR	Skamaniawfc@saw.net
ROBERT EVERET		WKO	Wbosferg@saaw.net
Russ Hovey		WADNR	
TERRY ELLISON		SCFD #1	RE:HS@hennards@coos.wa.us

Meeting 2 – Agenda, Minutes, Attendance Sign-in Sheet

<p>March 27, 2007 GWR Community Wildfire Protection Plan Meeting Carson Fire Station, 992 Wind River Rd. Carson, WA 98610 AGENDA</p>		
<p>GOALS: 1) Review Projects 2) Add New Projects 3) Prioritize Projects 4) Create an Action Plan</p>		
Time	Speaker(s)	Topic
6:00-6:10	Zielin, All	Introductions, agenda review, meeting minutes from 2/27/07
6:10-6:20	Zielin	Gap Identification Workshop <ul style="list-style-type: none"> • What limitations and/or constraints to our ability to fight wildfire exist within the GWR CWPP planning area?
6:20-7:00	Zielin, All	Map Workshop <ul style="list-style-type: none"> • Population Density • Future Development • Fire History • Fuel Loads
7:00-7:05	Zielin, Page	Grants <ul style="list-style-type: none"> • Many types and requirements
7:05-7:15	Community	Community Questionnaire <ul style="list-style-type: none"> • Concerns from community
7:15-7:45	Zielin	Project Workshop <ul style="list-style-type: none"> • Fuel Mitigation Projects • Planning Projects • Education Projects • Equipment/Staffing/Exercise

Greater Wind River CWPP

Meeting 2 Minutes - March 27th, 2007

Meeting started at 6:00pm

Gap Identification Workshop

- Communication Systems between FD, FS and WADNR
- Designated Evacuation Routes
- Common Knowledge of Infrastructure between FD's, WADNR, and FS
- Designated Staging Areas
- Designated Helicopter Base
- Designated Evacuation Center
- Equipment M.O.U.'s between FD's, WADNR, and FS

Map Workshop – Looked at Population, Development, Fire History and Fuel Loads and established 'area of concern'. Four areas of concern were drawn and named within the CWPP planning area:

- River West
- River East
- Bear-Panther
- Stabler

* The purpose of this exercise was to identify high risk areas that would be severely affected by a wildfire and also be the ignition source of a catastrophic wildfire
Community Concerns – Reviewed the Questionnaire and presented community response

Grants and Requirements – Briefly reviewed grants and discussed how requirements change on a yearly basis

Established Projects – Listed projects that would help bridge the identified gaps established during the workshop

- Fuel Mitigation Projects
 - P1 – 'Firewise' projects for homeowners – High
 - Defensible space for homes
 - Defensible space for evacuation routes that access homes
 - P2 – Establish a fuels disposal program/site – High
 - P3 – High use recreation areas – Moderate
 - P4 – Create access in Bear Creek Watershed - Moderate
- Planning Projects
 - P1 – Prioritizing Residential Fuel Mitigation Projects – High
 - P2 – Establish Evacuation/Response Routes – High
 - P3 – Establish M.O.U.'s for mapping resources - High
 - P4 – Achieve Communication Interoperability – No Priority
 - P5 – Community Mobilization Handbook w/Maps – No Priority
- Education Projects
 - P1 – 'Firewise' Workshops – High
 - Mass mailings, Demo house, Media, Good Fire vs. Bad Fire @ fair or class, Adult focused fair booth or outreach, E-Media – website, CD's, DVD's

- P2 – Disperse ‘Living with Fire’ brochures – High
 - Create customized version for GWR CWPP
- P3 – Teach proper debris burning techniques – High
- P4 – Perform Junior “Firewise” programs – Moderate
- Equipment/Staffing/Exercise Projects
 - P1 – Attain adequate communication equipment for FD1 – High
 - P2 – Perform a Multi-agency mock drill – High
 - P3 – Identify staffing needs for FD1 and/or GWR – High
 - P4 – Train and perform M.O.U.s, ‘Common Protocol’ – High

Project Prioritization – Prioritized projects High, Moderate and Low priority within each project category

Next meeting set for May 8th, 2007 - 6:00pm SCFD#1 Station 1
Meeting was adjourned by 8:00pm.

**Greater Wind River Community Wildfire Protection Plan Steering Committee
Sign-in sheet – Meeting 2**

Date: 20070327 Time: 1800 - _____ Location: Carson Fire Station

NAME	SIGNATURE	REPRESENTATION	EMAIL
ROD ALTIG		CGNSA	raltig@fs.fed.us
JOHN CARLSON		SKAMANIA CO. DEM	johnc@co.skamania.wa.us
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TERRY ELLISON	NOT PRESENT	SCFD1 - ASSISTANT CHIEF	alaskacomand@gorge.net
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KATHLEEN CARLSON
GAIL BOUCHER

EOC
TERRAN

20070327@co.skamania.wa.us

Meeting 3 – Agenda, Minutes, Attendance Sign-in

<p>May 8, 2007 GWR Community Wildfire Protection Plan Meeting Carson Fire Station, 992 Wind River Rd. Carson, WA 98610</p> <h3 style="margin: 0;">AGENDA</h3>		
<p>GOALS: 1) Review Projects 2) Add/Remove Projects 3) Prioritize Projects 4) Create an Action Plan</p>		
Time	Speaker(s)	Topic
6:00-6:10	Zielin, All	Introductions, agenda review, meeting minutes from 3/27/07
6:10-7:00	Zielin, All	Review and make changes to project descriptions <ul style="list-style-type: none"> • Fuel Mitigation • Planning • Education • Equipment/Staffing/Exercise
7:00-7:20	All	Add/Remove projects
7:20-7:30	All	Prioritize projects <ul style="list-style-type: none"> • Prioritize new projects • Re-prioritize previous projects if necessary
7:30-7:45	All	Create an action plan <ul style="list-style-type: none"> • CWPP sustainability
7:45-7:50	Zielin, Helgerson	CWPP and FEMA Pre-Disaster Mitigation Plan Compliancy
7:50-8:00	All	Review meeting, adjourn meeting <p style="text-align: center;">THANK YOU FOR ALL OF YOUR HELP!!!</p>

Greater Wind River CWPP

Meeting 3 Minutes May 8th, 2007

Meeting started at 6:00pm

- 1) Project Description Review – The Committee reviewed all of the projects established from the previous meeting along with the descriptions revised by Ole and Sara. Projects were further refined per the GWR Steering Committees recommendations.

- 2) Action Plan Review
 - a. An action plan was discussed and it was decided that the Steering Committee would meet annually at a minimum.
 - b. The Title III Wildfire Prevention Coordinator suggested her lead on planning projects, to initially get things started while the grant position still exists and as time allows.
 - c. Greg Page presented an example of how the Trout Lake CWPP has been successful in sustaining their plan:
 - i. CWPP Team consisted of a part-time Fire Specialist, CWPP Coordinator and an AmeriCorp Volunteer
 - ii. The Trout Lake CWPP Team persistently provided the community with meetings, newsletters and information about CWPP's, resulting in the formation of community sub-area groups such as the Yellow Brick Rd.
 - iii. The Yellow Brick Rd group has formed their own committee, listed their objective and goals and created an action plan for projects that better protect their neighborhood.

*It became apparent that multiple full-time positions are necessary to follow through with the CWPP projects and to essentially get the public involved to the point where they take over various projects

- 3) FEMA Compliancy – The GWR CWPP will attempt to be as FEMA compliant if feasible within the GWR CWPP's main objectives and goals

- 4) Finalizing CWPP – The Committee discussed the upcoming steps to finalize the GWR CWPP:
 - a. Review Draft and suggest any changes
 - b. Allow time for public review and comment
 - c. Present public comment to Steering Committee
 - d. Make changes as recommended by Core Group
 - e. Core group signs final document
 - f. Send to DNR for approval






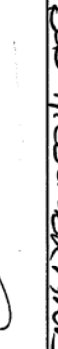





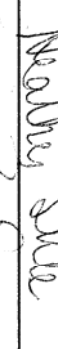




Meeting was adjourned by 8:00pm.

Greater Wind River Community Wildfire Protection Plan Steering Committee

Sign-in sheet – Meeting 3

Date: 20070508 Time: 1800 -

Location: Carson Fire Station

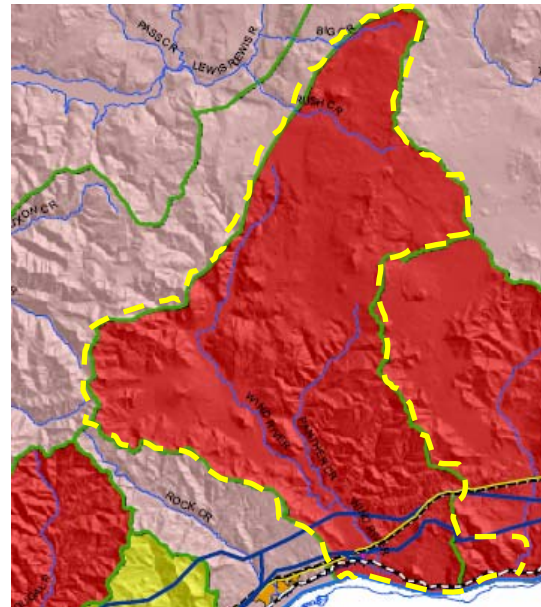
NAME	SIGNATURE	REPRESENTATION	EMAIL
ROD ALTIG		CGNSA	raltig@fs.fed.us
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KATHLEEN CARLSON		EOC	eocadmin@co.skamania.wa.us

Appendix B – Community Questionnaire

The Greater Wind River Community Wildfire Protection Plan (CWPP) Survey

March 2007

The purpose of this survey is to involve community members in the Greater Wind River Community Wildfire Protection Plan. One objective is to determine what natural and manmade features you believe are important to protect in the case of a wildfire. The map to the right depicts the planning area boundary in yellow. The Greater Wind River CWPP Steering Committee determined goals and objectives for our plan such as protecting life, property and natural resources. What we need from you are ideas about specific areas that you, as a local, want to protect. For example: homes, recreation spots, water sources, unknown cemeteries, hunting grounds, archaeological sites, etc.



Please use the backside of this survey if necessary

- As a community member what areas within the Greater Wind River planning area do you want protected in the event of a wildfire? Please be as specific as possible.
-
- Do you support the idea of seeking grant funds to upgrade our local, state and federal fire fighting organization's equipment?
- Any other suggestions, comments, or questions regarding the Wind River CWPP.

To stay connected to the Greater Wind River CWPP please fill out the following confidential information.

Name(s) _____
Address _____
Phone _____
Email _____

Please return this survey by March 19th to: Firewise, PO Box 790, Stevenson, WA 98648 OR send and email to Skamaniawfc@saw.net OR call (509) 427-4130

Appendix C – NFPA-299 Hazard Rating Form

Wildfire Hazard Severity Form Checklist NFPA 299

This form may be used for individual houses or larger areas like developments or other types of applications.

Name of area or address receiving assessment

A. Subdivision Design	Points	House or area	Notes
1. Ingress and egress			
Two or more roads in/out	0		
One road in/out	7		
2. Road width			
Greater than 24 feet	0		
Between 20 and 24 feet	2		
Less than 20 feet wide	4		
3. All-season road condition			
Surfaced, grade < 5%	0		
Surfaced, grade > 5%	2		
Non-surfaced, grade < 5%	2		
Non-surfaced, grade > 5%	5		
Other than all-season	7		
4. Fire service access			
< = 300ft, with turnaround	0		
> = 300ft, with turnaround	2		
< = 300ft, no turnaround	4		
> = 300ft, no turnaround	5		
5. Street signs			
Present (4 in. in size and reflective)	0		
Not present	5		
B. Vegetation (Fuel Models)			
1. Predominant vegetation			
Light (grasses, forbs)	5		
Medium (light brush and small trees)	10		
Heavy (dense brush, timber, and hardwoods)	20		
Slash (timber harvest residue)	25		
2. Defensible space			
More than 100 ft of treatment from buildings	1		
More than 71 -100 ft of treatment from buildings	3		
30-70 ft of treatment from buildings	10		
Less than 30 feet	25		
C. Topography			
1. Slope			
Less than 9%	1		
Between 10-20%	4		
Between 21-30%	7		
Between 31-40%	8		
Greater than 41%	10		

Totals for this page

D. Additional Rating Factors	Points	House or area	Notes
1. Topography that adversely affects wildland fire behavior	0 - 5		
2. Area with history of higher fire occurrence	0 - 5		
3. Areas of unusually severe fire weather and winds	0 - 5		
4. Separation of adjacent structures	0 - 5		
E. Roofing Materials			
1. Construction material			
Class A roof (metal, tile)	0		
Class B roof (composite)	3		
Class C roof (wood shingle)	15		
Non-rated	25		
F. Existing Building Construction			
1. Materials (predominant)			
Noncombustible siding/ deck	0		
Noncombustible siding/ wood deck	5		
Combustible siding and deck	10		
2. Setback from slopes > 30%			
More than 30 feet to slope	1		
Less than 30 feet to slope	5		
Not applicable	0		
G. Available Fire Protection			
1. Water source availability (on site)			
500 gpm pressurized hydrants < 1000ft apart	0		
250 gpm pressurized hydrants < 1000ft apart	1		
More than 250 gpm non-pressurized, 2 hours	3		
Less than 250 gpm non-pressurized, 2 hours	5		
No hydrants available	10		
2. Organized response resources			
Station within 5 miles of structure	1		
Station greater than 5 miles	3		
3. Fixed fire protection			
Sprinkler system (NFPA 13, 13R, 13D)	0		
None	5		
H. Utilities (Gas and Electric			
1. Placement			
All underground utilities	0		
One underground, one aboveground	3		
All aboveground	5		
Totals for this page			
I. Totals for Risk Assessments			
Totals for page 1 and 2			
1. Low Hazard:	< 39 points		
2. Moderate Hazard:	40-69 points		
3. High Hazard:	70-112 points		
4. Extreme Hazard:	113 > points		
Census Data			
Track number			
Block group number			
Block number (s)			

Appendix D – Wildfire Protection Capabilities

Greater Wind River Community Wildfire Protection Plan Inventory List

March 2007

Inventory Type (Use 'other' section if needed)	Current Status FS CGSA	Current Status FS GPNF	Current Status WADNR	Current Status FD1
Fire Station(s)	Herman Creek Work Center, Cascade Locks and Hood River	Mt. Adams RD USFS Trout Lake, WA Mt St Helens RD USFS Amboy , WA		1 Main Station 2 Satellite Stations
Vehicles (Command, rigs, pumpers, tenders, brush rigs, etc.)	2 Command vehicles, 1 Fire Prevention Unit, 3 FS type 6 engines, 2 Cooperative engines with WADNR, 1 Cooperative Engine with ODF	# 2 Type 6X Engines/ w Foam 300 gal #1 Type 6X Prevention Module 320 gal #1 Type 7X Prevention Module 80 gal DUTY STA. Trout Lake, WA At Amboy, WA The USFS has: #1 Type 6X Engine /w Foam 300 gal #1 Type 6 Prevention Module 200 gal #2 Type 7 Prevention Modules 50 & 100 Gal	2Type 6 Wildfire Engines	3- Type 1 Engines 1- Type 6 Engine 1- 1500 gallon Tender 1- 3000 gallon Tender 1- Rescue/ Air Rig 1- Command Vehicle
Staffing	7 day a week staffing from 7/1-10/1	We Staff 7 days a week From approx. July 4 th Through Fire Season Oct 15th	3 FF/Engine TOTAL -6	39 volunteers
Uniforms/Clothing/PPE		Normal PPE		Wildland PPE Structural PPE
Training				33-FF2 or better 33-Red Card
Radios	Bendix King	Bendix King Radios	2-portable Kings/engine 1mobile in each engine	8- VHF mobiles 7- VHF portables
Pumps and hose lay	Fire Cache in Cascade Locks, and a type 3 fire trailer.	Dist Cache	1500 feet 1" hose Pump with foam Capabilities Mark III pump with 1000 gal portatank	2- small portable pumps 600' 1½" wildland hose 1000' 1" wildland hose Assorted fittings and nozzles
Wildfire response capability and sustainability	Can increase our capability by bringing in resources from the GPNF, Mt Hood NF, or other federal units for ongoing fires or when there is a increased fire risk.	Extended Attack : As requested by the Dispatch centers, resource availability and fire Type (.1-5)		
Other		Gifford Pinchot Mobilization Plan Northwest Mobilization Guide and Directory Northwest Interagency Coordination Center	6 - 10 person type 2 hand crews-2hour response. Additional overhead including type 3 team	

Appendix E – Current Inventory and Future Needs

Wildfire Response Capabilities

March 2007

Fire Organization: Carson Fire District 1

Inventory Type	Current Status	Inventory Needed
Fire Station(s) 1 Main Station 2 Satellite Stations	1920's conversion 1- 3 Bay/ 1- 2 bay	Need New adequate facility (no water)
Vehicles 3- Type 1 Engines 1- Type 6 Engine 1- 1500 gallon Tender 1- 3000 gallon Tender 1- Rescue/ Air Rig 1- Command Vehicle	Excellent Good Excellent Poor Fair Good	Update Needed
Staffing 39 volunteers	33-FF2 or better	Advanced Training
Uniforms/Clothing Wildland PPE Structural PPE	Good Good	Boots, Wildland Packs and Shelters Needed
Training	33-FF2 or better 33-Red Card	
Radios 8- VHF mobiles 7- VHF portables	New	VHF Portables, UHF Portables
Pumps and hose lay 2- small portable pumps 600' 1½" wildland hose 1000' 1" wildland hose Assorted fittings and nozzles	Fair Good Good	2 – Mark V Pumps 600' 1.5" hose 1000' 1" hose Need More Fittings and Nozzles
Wildfire response capability and sustainability	SEE ADDITIONAL DOCUMENT FOR DETAILS	SEE ADDITIONAL DOCUMENT FOR DETAILS
Other		
Other		

**Skamania County Fire District #1
Wildfire Response Capabilities and Sustainability**

Prepared By: Bob Hildenbrand

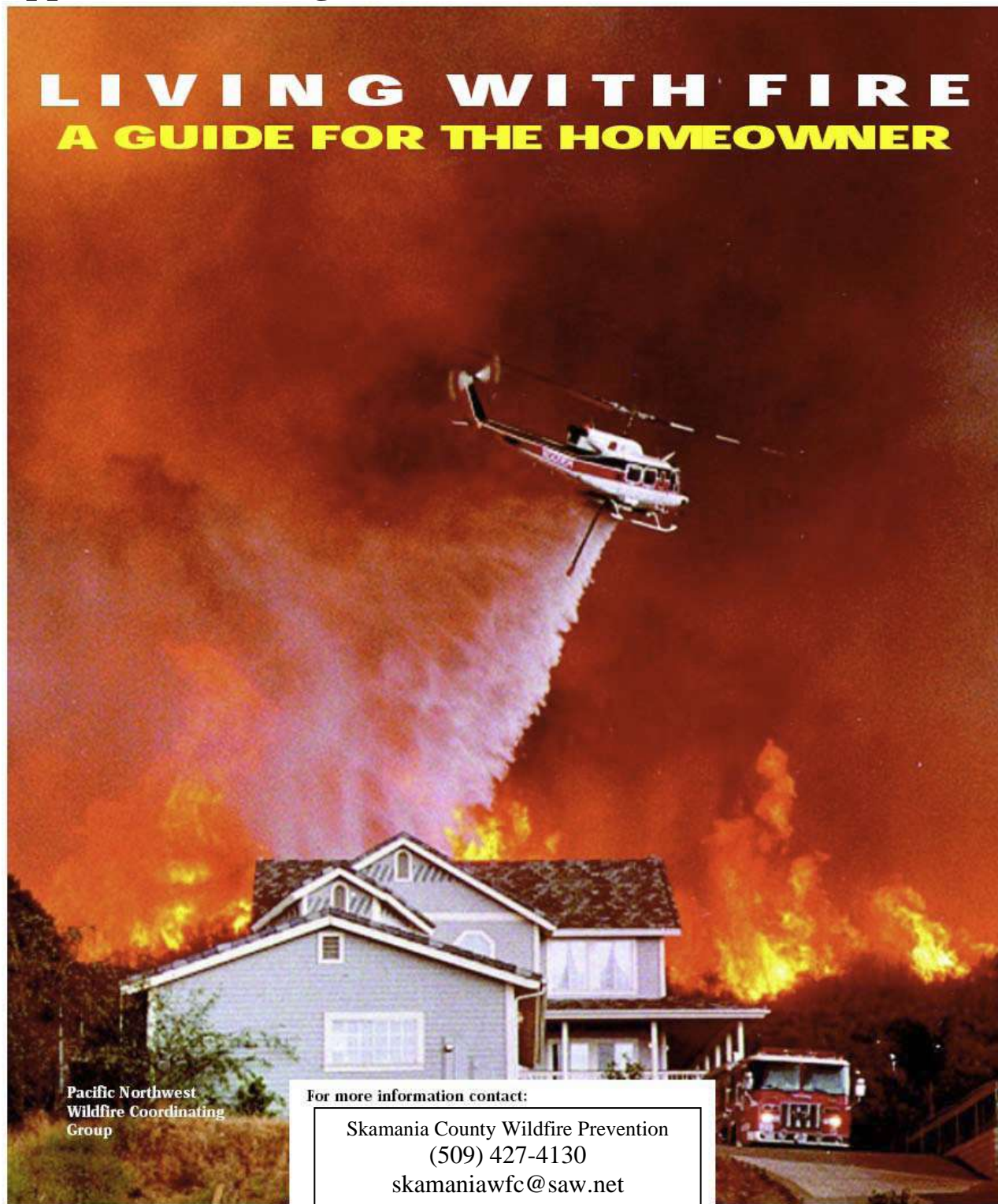
March 25, 2007

Historically we have had very quick and effective wildfire response. With 33 red carded volunteers, it allows us to have adequate staffing for our initial attack. As far as sustainability in our District we would be able to provide crews for prolonged periods of time up to 2 weeks. This is in compliance with our State Mobilization agreement. However, any incident that is apparent will last for a period of 24 hours or longer we will call for Regional or State Mobilization. Also, Skamania County Fire agencies have mutual aid agreements in place that will enhance our resources substantially in the interim.

As far as response into the GP, Skamania County Fire District #1 has no working mutual aid agreement in place. We have responded to fires in the past and been reprimanded by GP officials for it. Fire District #1 is receptive to and would strongly encourage the USFS to enter into some type of first response agreement.

For a number of years we have participated in a suppression agreement with the DNR which has proven to be quite beneficial for all parties involved.

Appendix F – Living With Fire, A Guide for the Homeowner



Pacific Northwest
Wildfire Coordinating
Group

For more information contact:

Skamania County Wildfire Prevention
(509) 427-4130
skamaniawfc@saw.net

Available online at: <http://extension.oregonstate.edu/emergency/livingwithfirepnw.pdf>

Appendix G – FEMA Pre-Disaster Mitigation Compliancy

Greater Wind River CWPP

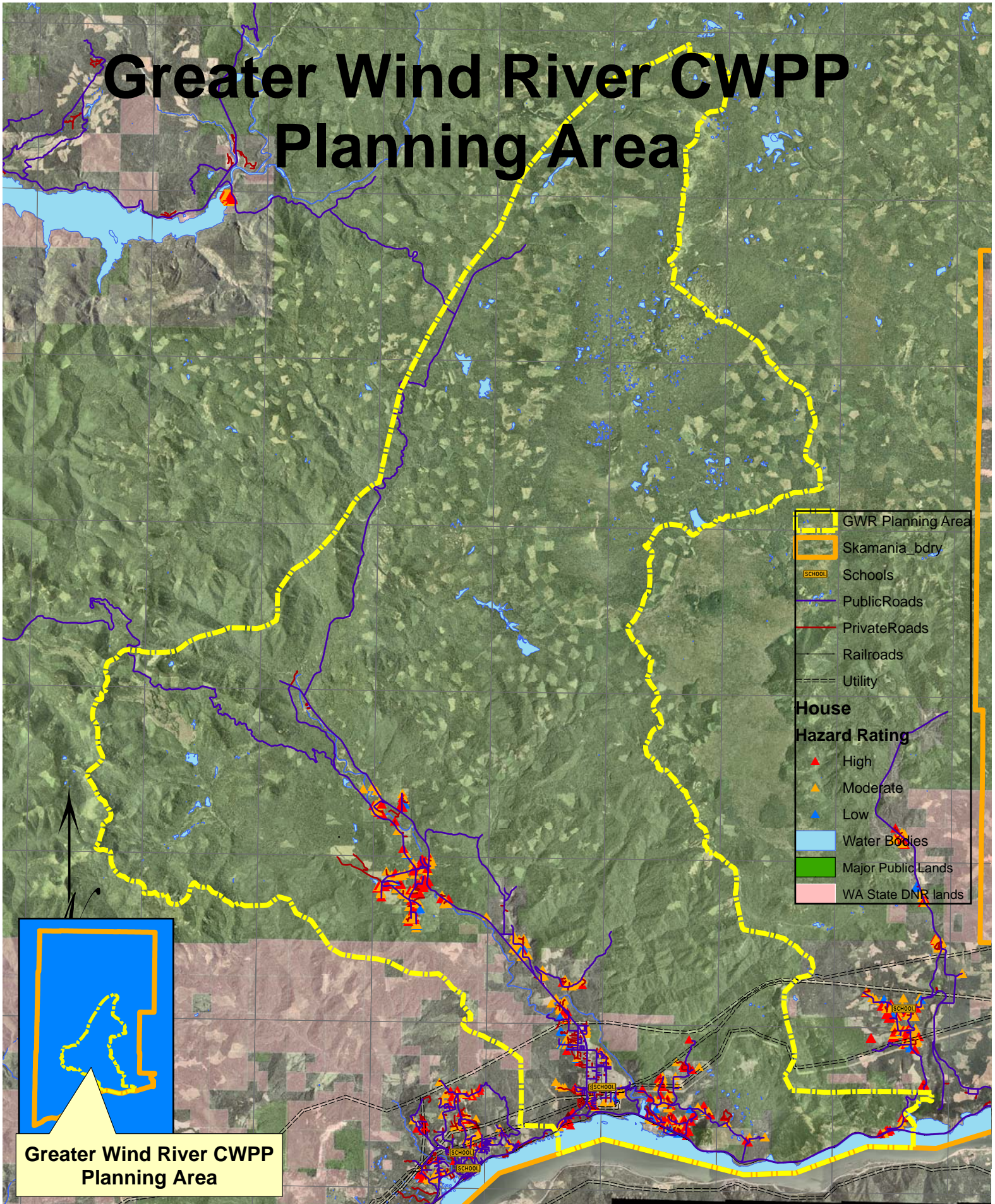
FEMA Pre-Disaster Mitigation Plan Requirements

PDM Requirements	check list	How GWR plans to accomplish
<ul style="list-style-type: none"> Public Comment Opportunity 	<p style="text-align: center;">✓</p>	<ul style="list-style-type: none"> A press release was posted announcing the project and public comment was open 30 days before approval
<ul style="list-style-type: none"> Neighboring Communities, local and regional agencies involved in hazard mitigation activities 	<p style="text-align: center;">✓</p>	<ul style="list-style-type: none"> Steering Committee includes representatives from the community (stakeholders, business owners, homeowners), Fire District 1, Skamania County, Washington DNR and Forest Service, see Appendix A, "Attendance Sign-in"
<ul style="list-style-type: none"> Review and incorporate into other plans if applicable 	<p style="text-align: center;">✓</p>	<ul style="list-style-type: none"> Klickitat and Skamania County Plan reviewed, Trout Lake, White Salmon and Cascade Locks plans used as reference throughout planning process
<ul style="list-style-type: none"> Documentation of planning process including how prepared, who was involved and particularly public 	<p style="text-align: center;">✓</p>	<ul style="list-style-type: none"> The planning process is included within the actual document as 7 planning steps (pages 6-10). Actual public involvement is documented in Appendix A, "Attendance Sign-in"
<ul style="list-style-type: none"> Local risk assessment that describes the type, location and extent of all natural hazards 	<p style="text-align: center;">✓</p>	<ul style="list-style-type: none"> A Risk assessment was performed in two phases. Phase I included documenting Risk of ignition, hazards, values protected and wildfire response capabilities specific to the planning area. Phase II included documenting "gaps" in the system and "high risk areas"
<ul style="list-style-type: none"> Information on previous occurrences of hazardous events and the probability of future hazardous events 	<p style="text-align: center;">✓</p>	<ul style="list-style-type: none"> This was completed by viewing fire history and current hazards that could potentially cause a catastrophic wildfire. "High risk areas" were designated and encompassed the major communities that fell within the planning area
<ul style="list-style-type: none"> Summary of each hazard from the risk assessment and a description of vulnerability in terms of: type and number of structures and critical infrastructure, potential dollar loss and land uses and development trends 		<ul style="list-style-type: none"> Structures based on NFP299 GIS data ranking houses by risk; GIS identification of clusters of houses and important infrastructure in GWR community, dollar loss calculated by multiplying average cost of home in Skamania County to be calculated in future by estimated chance of loss in say five categories, e.g. 0.00, 0.25, 0.50, 0.75, 1.00, by number of houses in each category and by average value
<ul style="list-style-type: none"> Multi-jurisdictional plans will include details for each jurisdiction's risks where they vary from the entire planning area 		<ul style="list-style-type: none"> Wildfire response governed by Federal and Washington state policy with local MOU's coordinating roles of local, state and federal agencies

<ul style="list-style-type: none"> Mitigation strategy that provides the jurisdiction's blueprint for reducing potential losses from the risk assessment and includes: goals to reduce vulnerability to hazards, analyzing mitigation actions/projects considered to reduce the effects of the hazards with an emphasis on new and existing buildings and infrastructure 		<ul style="list-style-type: none"> The mitigation strategy calls for planning to increase radio interoperability and coordination of resources in preventing and fighting wildfire in the GWR community.
<ul style="list-style-type: none"> Description of how projects will be prioritized implemented and administered by the local jurisdiction. Will include emphasis on the extent to which benefits are maximized 		<ul style="list-style-type: none"> This plan provides a first approximation of project importance as determined by the steering committee and approved by the Chief. At the Chief's discretion, projects and their implementation will be reviewed, revised and re-ranked annually by the core committee and CERT committee.
<ul style="list-style-type: none"> Multi-jurisdictional plans must include identifiable action items specific to the jurisdiction requesting FEMA approval 	✓	<ul style="list-style-type: none"> An action plan was discussed and documented. Future development is needed to suit FEMA's specific requirements
<ul style="list-style-type: none"> Description of plan maintenance including: methods, schedule of monitoring, evaluating and updating the mitigation plan within a 5 year cycle 	✓	<ul style="list-style-type: none"> At the Chief's discretion, projects and their implementation will be reviewed, revised and re-ranked annually by the core committee and CERT committee.
<ul style="list-style-type: none"> Description of the process by which the local government will incorporate the requirements of mitigation plan into other plans 	✓	<ul style="list-style-type: none"> This plan will serve as an appendix to the Skamania County FEMA Emergency management plan.
<ul style="list-style-type: none"> Discussion on how the community will continue public participation in the plan maintenance process 	✓	<ul style="list-style-type: none"> At the Chief's discretion, projects and their implementation will be reviewed, revised and re-ranked annually by the core committee and CERT committee.
<ul style="list-style-type: none"> Documentation that the plan has been formally been adopted by each jurisdiction requesting approval of the plan 	✓	<ul style="list-style-type: none"> The plan is to be signed by the Fire District #1 Fire Chief and the Skamania County board of Commissioners.

Appendix H1 - CWPP Maps - Greater Wind River CWPP Basemap

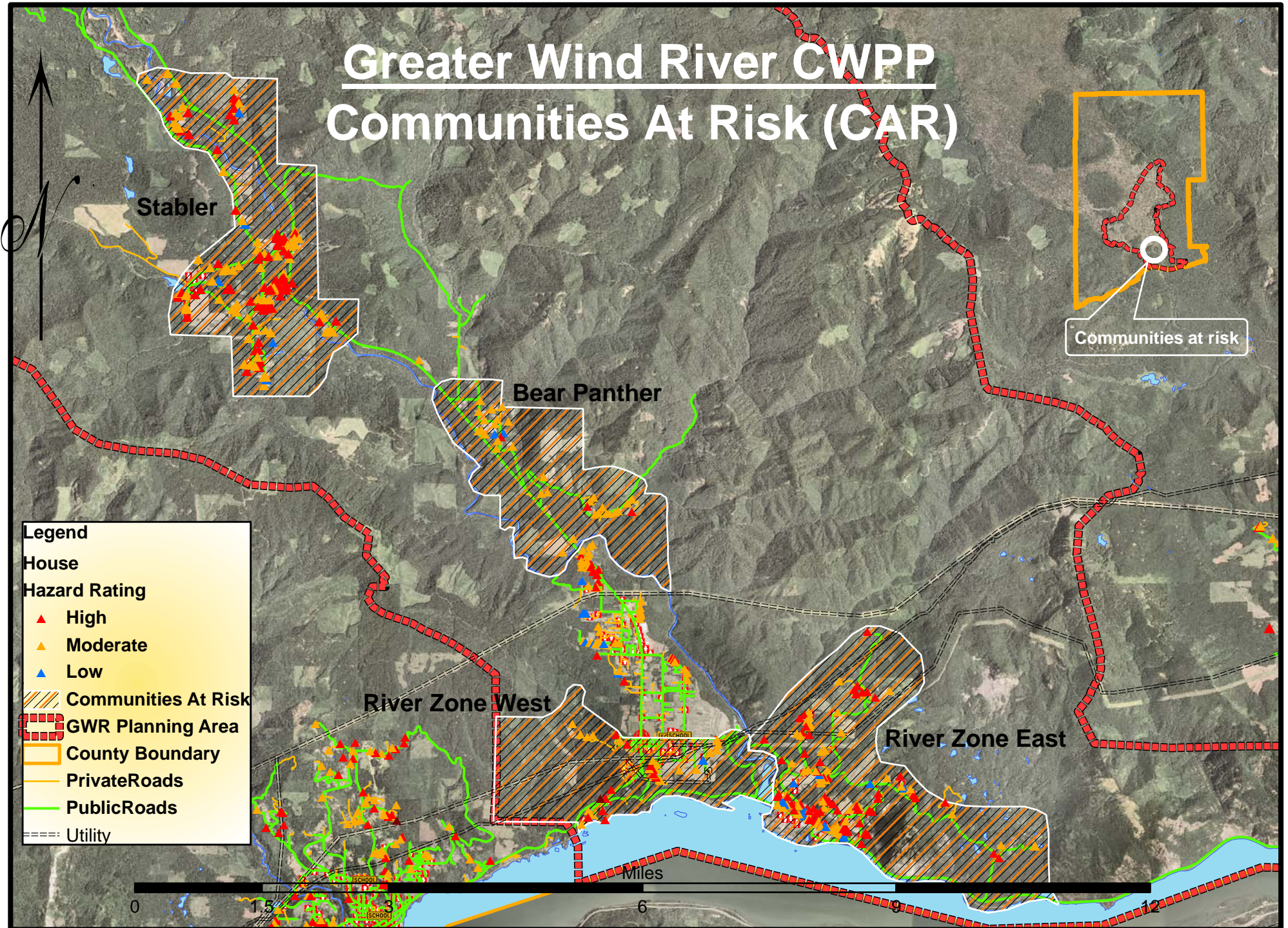
Greater Wind River CWPP Planning Area



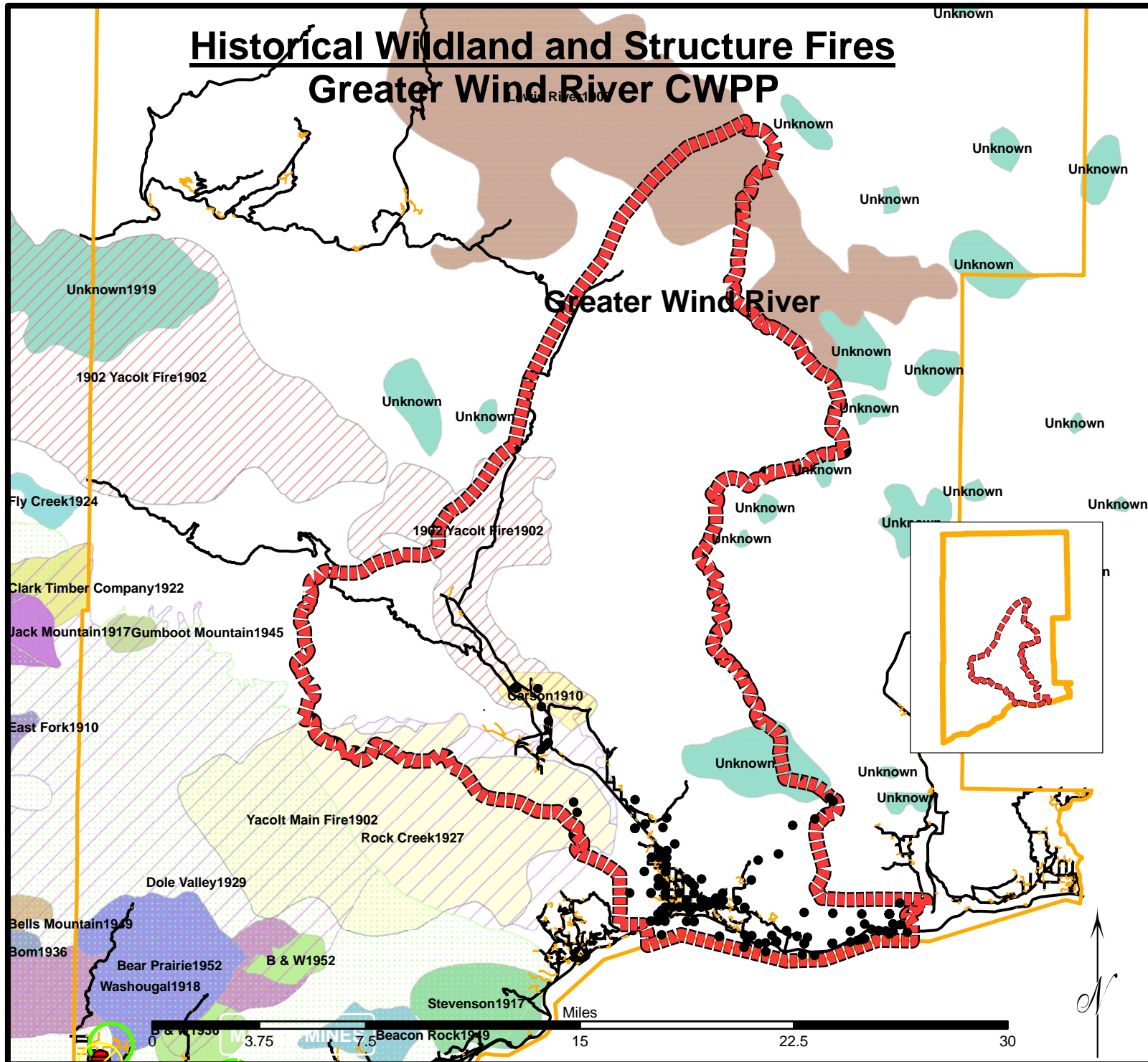
Greater Wind River CWPP Planning Area

Appendix H2 - CWPP Maps - CAR

Greater Wind River CWPP Communities At Risk (CAR)



Appendix H3 - CWPP Maps - Historical Wildland and Structure Fires



Legend

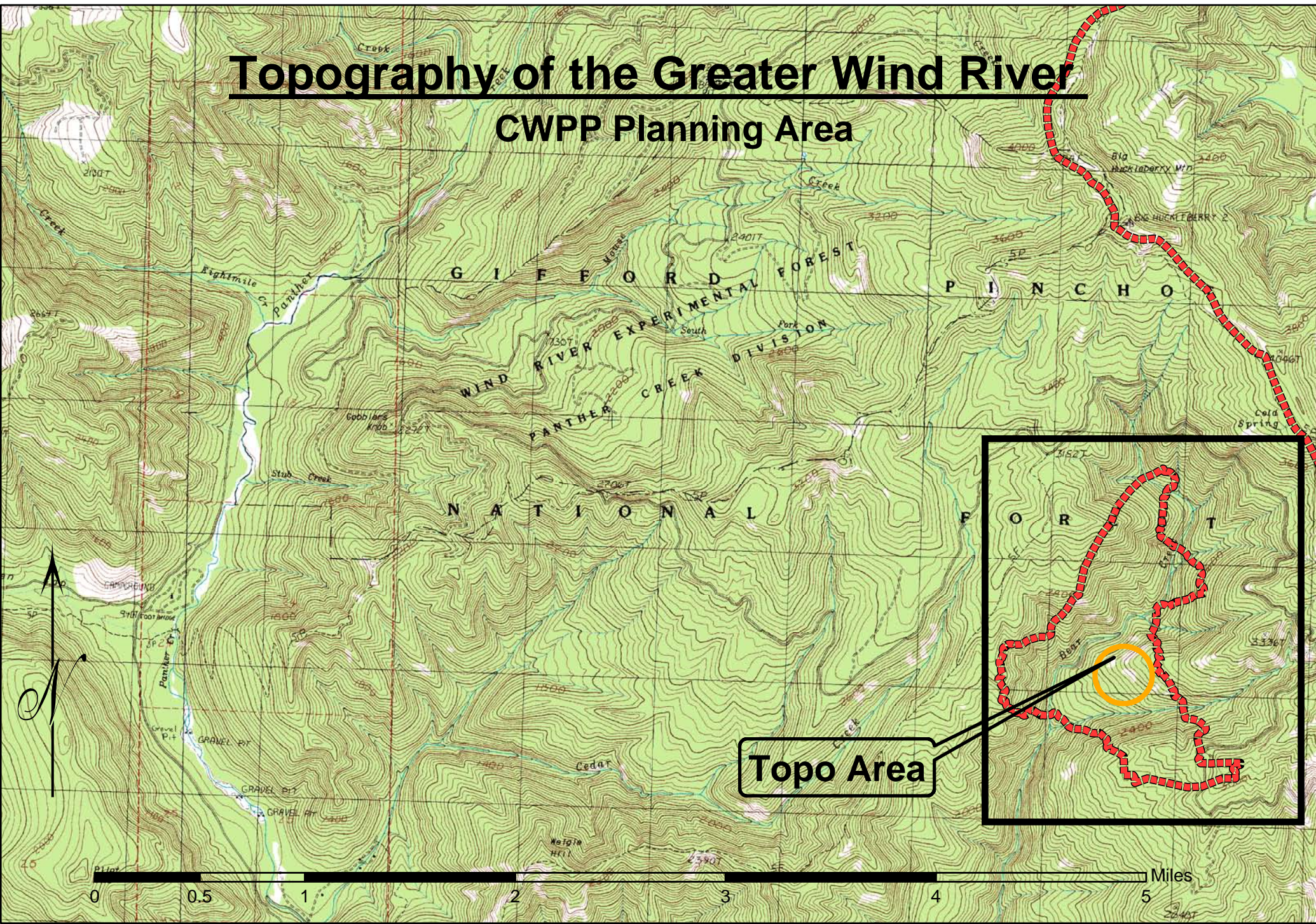
- GWR Structure Fires
- ▭ GWR Planning Area
- ▭ County Boundary

Historical Wildland Fires

NAME	Color/Pattern
1902 Yacolt Fire	Red diagonal lines
B & W	Light green
Beacon Rock	Teal
Bear Prairie	Blue
Bells Mountain	Brown
Big Creek	Dark green
Bom	Dark blue
Carson	Yellow
Cispus Fire	Red
Clark Timber Company	Olive green
Dole Valley	Green dotted pattern
East Fork	Purple
Fly Creek	Light blue
Gumboot Mountain	Light green
Jack Mountain	Dark purple
Larch Mountain	Blue
Lewis River	Brown
Livingston Mountain	Pink
Rock Creek	Light green
Skamania	Olive green
Stevenson	Green
Two Lakes	Red
unknown	Light blue
Washougal	Purple
Yacolt Main Fire	White with diagonal lines

H4 - CWPP Maps - Greater Wind River Topography Map

Topography of the Greater Wind River CWPP Planning Area



Topo Area

Miles