



**Photo of Herman Creek Fire (Cascade Locks, OR), September 2, 2003. (Image: O. T. Helgerson, WSU).**

# **“West End Community” Skamania County, Washington Community Wildfire Protection Plan**

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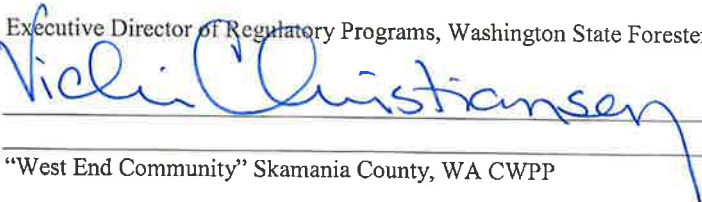
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# **INTRODUCTION AND MISSION**

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## **Introduction**

Wildfire is a “fact of life” for rural communities in the state of Washington. It is a key part of the forest ecosystems that comprise the twenty-two million acres of private, state, and federal forests that cover nearly fifty percent of the state. Because it also threatens human life and property, wildfire has long been suppressed. But in ecosystems adapted to frequent fires, suppressing fire does not make the threat go away. To the contrary, decades of successfully suppressing fire has led to a widespread decline in forest health. Many drier forests are out of balance (overcrowded, weakened by disease, dominated by the wrong species) and heavily loaded with woody fuel. Adding human population growth to these factors creates a recipe for catastrophic wildfires. Fortunately, throughout the West, state and federal agencies, local communities, private contractors, non-profit groups, and individual citizens are now teaming up to reduce that risk (Washington DNR 2007).

The West End Community Wildfire Protection Plan (CWPP) was prepared through a Title III grant from Secure Rural Schools and Self Determination Act of 2000 in Skamania County. The plan will serve as a chapter to the Klickitat and Skamania County, WA CWPP and as a stand alone document. The primary purpose of this plan is to provide a framework to emergency responders, property owners and interested parties within the planning area that will increase the communities’ capacity to be better prepared for a wildfire. The plan identifies ‘communities at risk’ (CAR) and other values that would be vulnerable during a wildfire (Hulbert 2004).

## **Mission**

The West End CWPP mission is to protect life, property and natural resources from wildfire. To better support the CWPP’s mission, the West End Steering Committee has developed projects that reinforce the protection mission. The following three goals were developed to guide Steering Committee’s projects:

1. Improve survivability of people, homes, and the environment during wildfires.
2. Promote wildfire awareness and education for citizens located in ‘risk areas’.
3. Engage in community-developed fuels treatment projects that reduce wildfire vulnerability to CAR.

## **HEALTHY FOREST RESTORATION ACT AND CWPP’s**

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The Healthy Forest Restoration Act (HFRA), signed into law by President Bush in 2003, calls for the development of Community Wildfire Protection Plans. This section describes these requirements.

### **Healthy Forests Restoration Act / Healthy Forests Initiative**

In 2002, President Bush announced the Healthy Forests Initiative (HFI) designed to identify and remove barriers to the implementation of projects that were developed to restore the health of the nation’s forests (Douglas County 2005). Congress enacted the 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 West End CWPP.

# CWPP REQUIREMENTS

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## 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

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The planning process for the West End 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 West End CWPP Steering Committee includes a core group (local government, local fire authority and state agencies), federal agencies and interested parties/community members. The core group is responsible for the development of a CWPP as described in the HFRA and must mutually agree on the plan’s final contents. The West End 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 West End Steering Committee consists of:

#### **Core group (Decision makers)**

- **Donald Ochs** - Skamania County Fire District 4 (FD4) West End Volunteer Fire Department Fire Chief
- **Keith Brown** - Skamania County Fire District 4 (FD4) West End Volunteer Fire Department Fire Commissioner
- **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

### **Interested Parties/Community Members**

- **Kathleen Carlson** - CERT Representative
- **Cindy Soliz** - West End community member
- **Jerry Harteloo** - West End community member
- **Roy Burns** - West End community member
- **Dale Grams** - West End community member

### **CWPP Team Facilitators**

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

### Step Two: Establish Planning Area

The West End 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 WADNR land was included in the planning area because these lands significantly influence the economy of the West End CWPP area. This original community boundary was adjusted by the Steering Committee to include the complete service area of Skamania County FD4 and exclude the area that is outside of Skamania County (Figure 2). The boundary covers over 108 square miles and nearly 70,000 acres.

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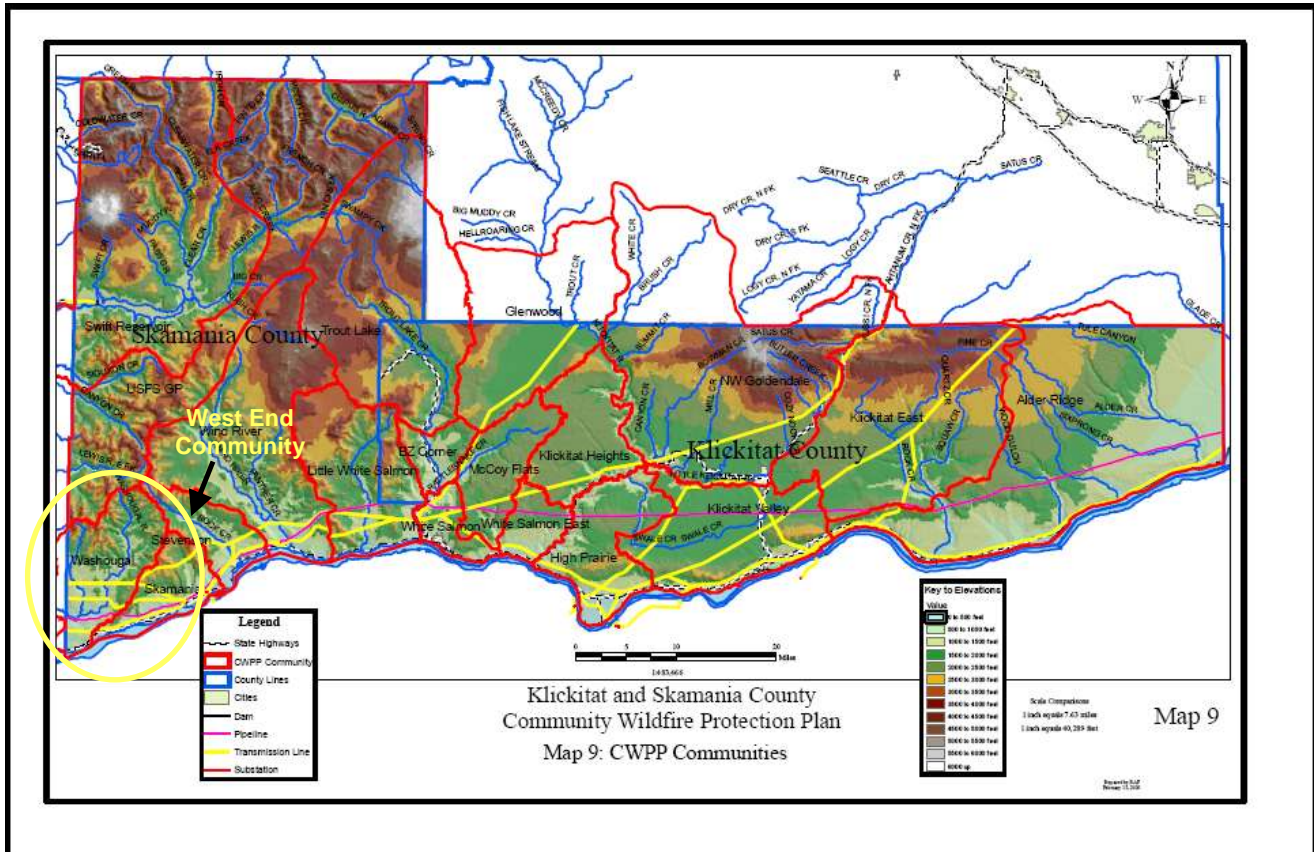


Figure 1. Klickitat and Skamania County Community Wildfire Protection Plan “Communities” map. Cartographer: Bill Alexander (adapted by Sara Zielin).

**FIGURE ON FOLLOWING PAGE**



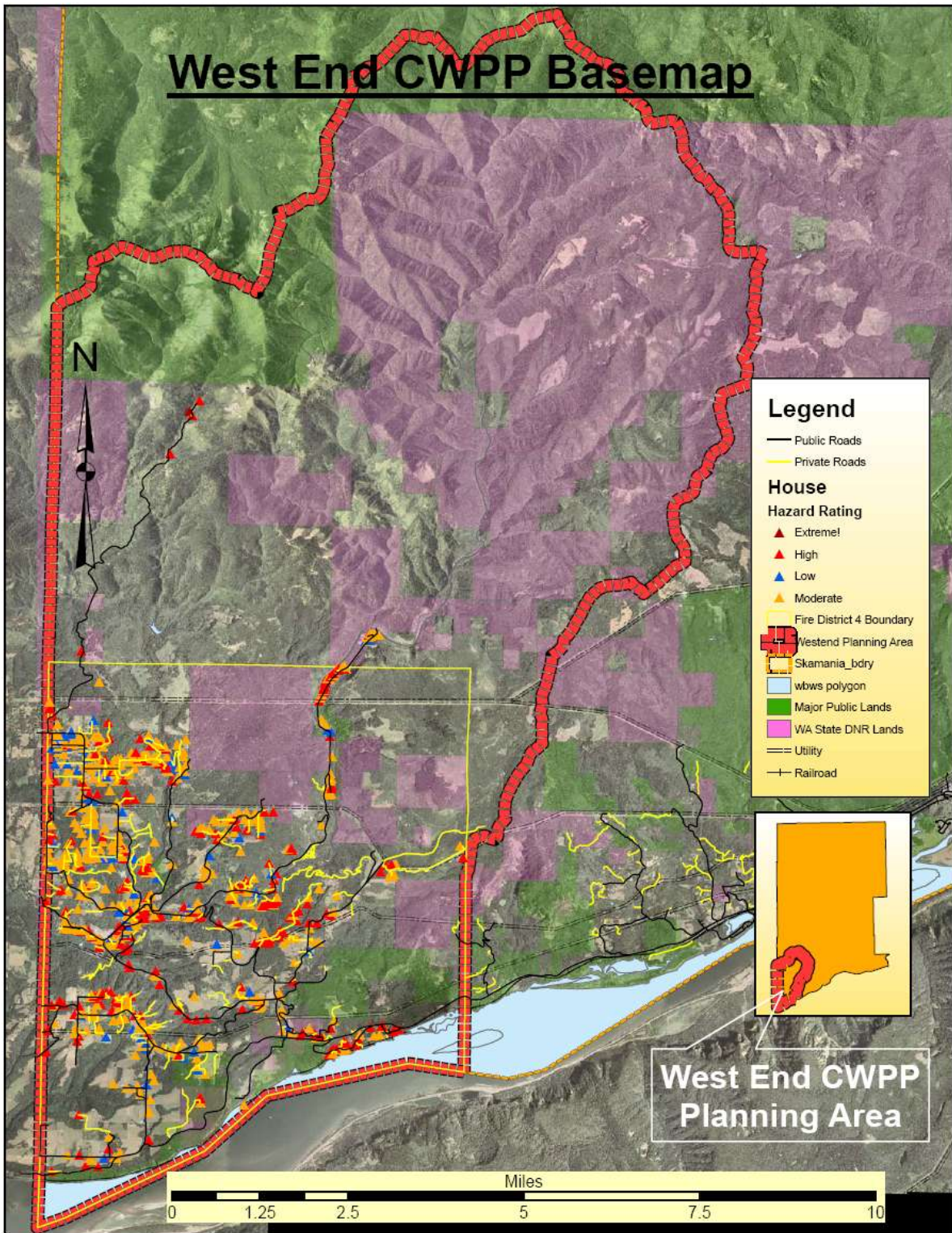


Figure 2. Appendix H1- West End CWPP Base Map (Cartographer: Sara Zielin).

**Step Three: Community Outreach**

Community members from the West End served on the Steering Committee to represent the public throughout the process. A questionnaire was created and dispersed within the community in April 2007 (Appendix B – Community Questionnaire). The survey results

were reviewed by the committee, and applied to different aspects of the plan. This plan was also open for public comment from October 31, 2007 until November 30, 2007.

#### **Step Four: Community Risk Assessment**

The community risk assessment took place in two phases. The West End 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 defined lists of elements under each risk factor to more specifically describe risks within the planning area.

In phase two, the committee further defined risk factors and identified site specific problems in 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 West End 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 West End 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 West End 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 West End 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 West End 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 West End CWPP will seek the Skamania County Board of Commissioner's approval.

## **COMMUNITY PROFILE**

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### **Climate**

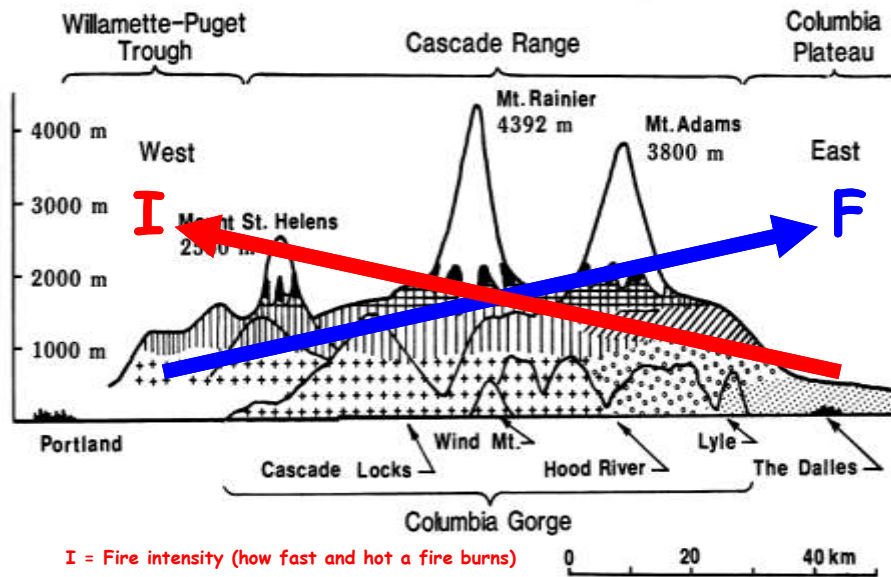
The West End CWPP planning area is located in southwest Skamania County, WA in the Cascade Mountains. In general, Skamania County enjoys a mild but variable climate, with the climate becoming drier and more continental as one travels from west to east. The average annual rainfall in the West End is estimated at around 56 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, typical of the area encompassed by the West End CWPP area to more xeric Douglas fir-grand fir and Oregon oak-ponderosa pine in the east (Figure 3).

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

F= Fire frequency (how often fire occurs)









-  Forests of Douglas-fir with western hemlock and western red-cedar
-  Forests of ponderosa pine and Oregon oak
-  Bunchgrass steppe of bluebunch wheatgrass
-  Forests of Silver fir, noble fir, western white pine, western hemlock and Alaska yellow cedar
-  Forests of grand fir, western white pine, lodgepole pine, ponderosa pine, western larch and Douglas-fir
-  Sub-alpine forest of mountain hemlock, sub-alpine fir
-  Alpine communities
-  Snowfield and glaciers

Figure 3. Vegetation profile, 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

Within the CWPP planning area, the Skamania County West End Community Comprehensive Subarea Plan designates the West End Community to the lands located within Township 1 North, Range 5 East; Township 2 North, Range 5 East; Township 3 North, Range 5 East; Township 1 North, Range 6 East; Township 2 North, Range 6 East;

Township 3 North, Range 6 East, Willamette Meridian, lying north of the CRGNSA boundary and south of the GPNF boundary (Witherspoon 2007).

## **Population**

According to the West End Community Comprehensive Subarea Plan, the human population of the West End community is nearly 2,000 people. The West End has high growth potential and according to building permit statistics the number of residences is growing at a rate of 3.9% annually. The West End Subarea residences are projected to increase by 868, totaling at 1,583 residences by 2025. The population is correspondingly expected to climb and reach 4,135 people by 2025. Land Use Designation amendments being proposed by the Subarea Plan will provide a framework for this impending growth.

## **Transportation**

Main roads that service the West End region are SR14, Washougal River Road, Salmon Falls Road, and Canyon Creek Road. Transportation to and from the West End can be handled by several different routes. SR14 runs west-to-east in the south along the Columbia River Gorge. SR14 intersects Salmon Falls Road east of milepost 26 which leads to Washougal River Road. Unpaved single lane forest roads of varying quality connect to the West End from the north, east and west.

## **Critical Infrastructure**

Critical infrastructure in the West End CWPP includes:

- Fire, ambulance and police stations and equipment
- Power lines
- PUD structures
- Schools
- Wells and water pumping and supply areas
- Dams
- Bridges
- BNSF Railroad and railroad tunnels
- Commercial areas of economic value to the communities
- Gas and fuel pipelines
- Main highways

## **Fire History**

The West End CWPP planning area lies within a mixed fire regime including smaller more frequent fires and larger less frequent fires. Several larger fires have occurred here (Figure 4). 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 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 that came from out of the area. A structure was lost because it was regarded as too hazardous to protect.

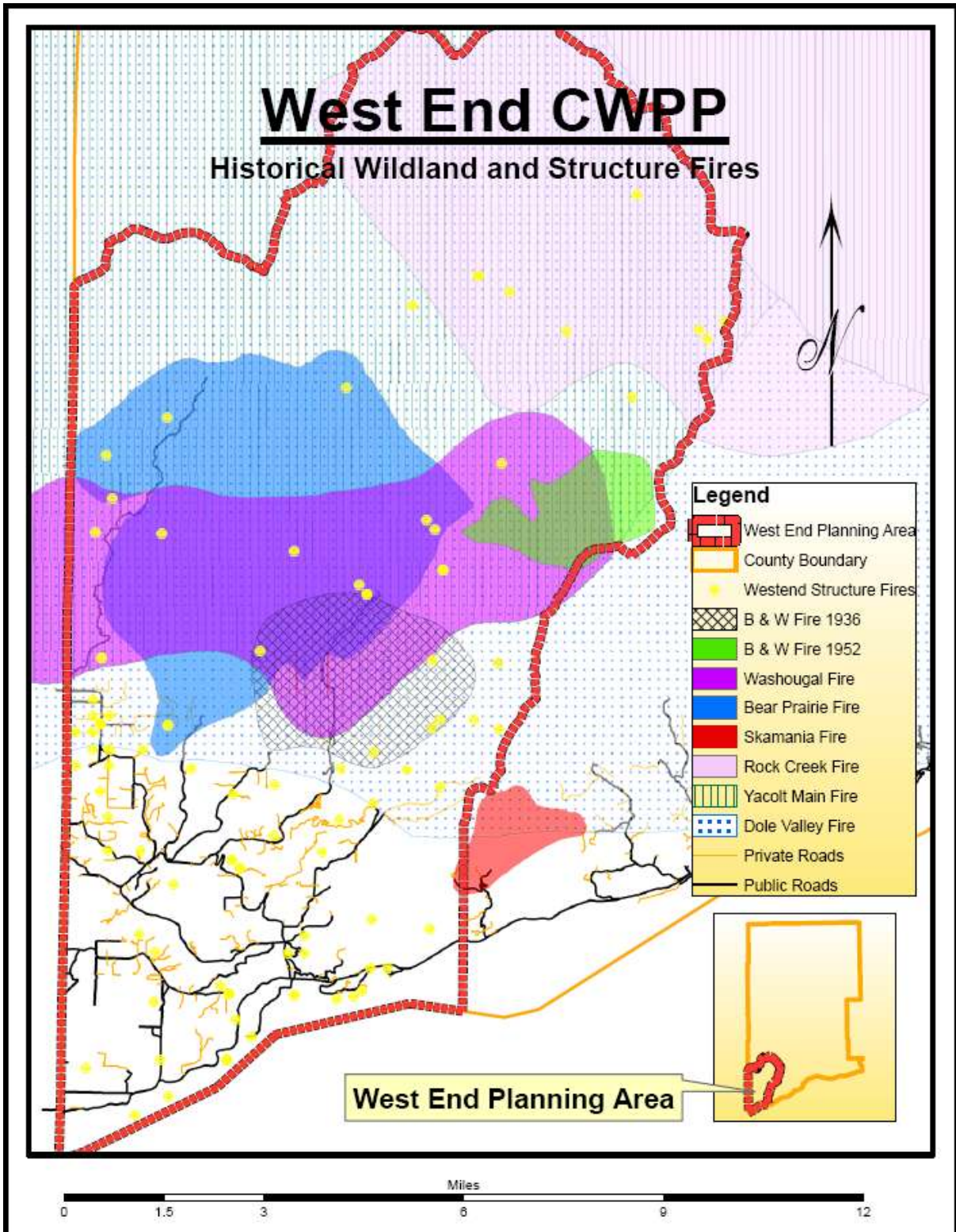


Figure 4. Appendix H2 - Historic wildland and structure fires within the West End, WA CWPP planning area (Cartographer: Sara Zielin).

### Data Collection

In 2003, a National Fire Plan funded project in Skamania, Hood River, Wasco and Klickitat Counties 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. Publicly available WADNR GIS data describes wildfire risk areas in Skamania County (RAMS), public road networks and hydrology.

## **WILDFIRE RISK ASSESSMENT**

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Risk assessments were performed by the West End CWPP Steering Committee in two phases. Phase I covered risk of ignition, hazards, values protected, and emergency equipment and staffing inventory. Phase II included a “gap” workshop that defined response capabilities in need of strengthening and a map workshop that designated areas of high risk.

### **Phase I**

#### **Risk of Ignition**

West End 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 within or adjacent to forest lands, the probability of a structure fire igniting from a catastrophic wildfire, or vice-versa, 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 section between the railroad and the highway (over 1.7 sq miles on a south-facing slope) 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 the West End community. Railroad maintenance activities, especially track grinding, also have a high potential for starting fires (Hulbert 2004).



## **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 5). The debris pile dimensions must be no larger than 10 feet by 10 feet (horizontally) by 5 feet (vertically) 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 (regulated by WADNR) are 4feet by 4feet (rule burn) from July 1<sup>st</sup> thru July 15<sup>th</sup> and 10feet by 10feet October



**Figure 5. 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>)

around the CWPP area that thousands of people visit every year. Recreational campfires are permitted when suitable conditions exist, but are banned during peak fire season. People have been cited for having fires during a ban.

## **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, particularly around high-use areas.

## **Lightning**

Lightning has historically caused many wildfires in the planning area. With the right weather conditions and fuel characteristics, a major regional lightning 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 their ignition from wildfire.

## **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

16<sup>th</sup> 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 29 and July 5 (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 4 weekend, 2005, numerous firework-ignited wildfires 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, CRGNSA, WADNR and private lands in and



Public Utility District (PUD) #1. Branches or trees falling on power lines can ignite a wildfire (Figure 6). 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.



**Figure 6. Power lines broken by a tree caused the 2003 Herman Creek Fire (Image: S. Zielin, Skamania County).**

### **Gas pipelines**

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 West End planning area. On February 26<sup>th</sup>, 1999 a landslide ruptured the 22 inch natural gas pipeline which then ignited in North Bonneville (Skamania County), WA. During fire season this could have caused 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 1973 and 1998 according to WADNR fire statistics GIS data (DNR GIS 2007). The acreage burned is minimal,

totaling approximately one 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 West End 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 West End 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 West End's structures and properties. Research indicates that flying embers ignite about one-half of homes lost during wildfire.

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

### **Topography**

Slope accelerates upward 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 Washougal River Valley floor, densely vegetated slopes from 20 to 70 percent branch in all directions (Figure 7). 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 West End CWPP core group or West End FD4 Fire Chief is recommended.

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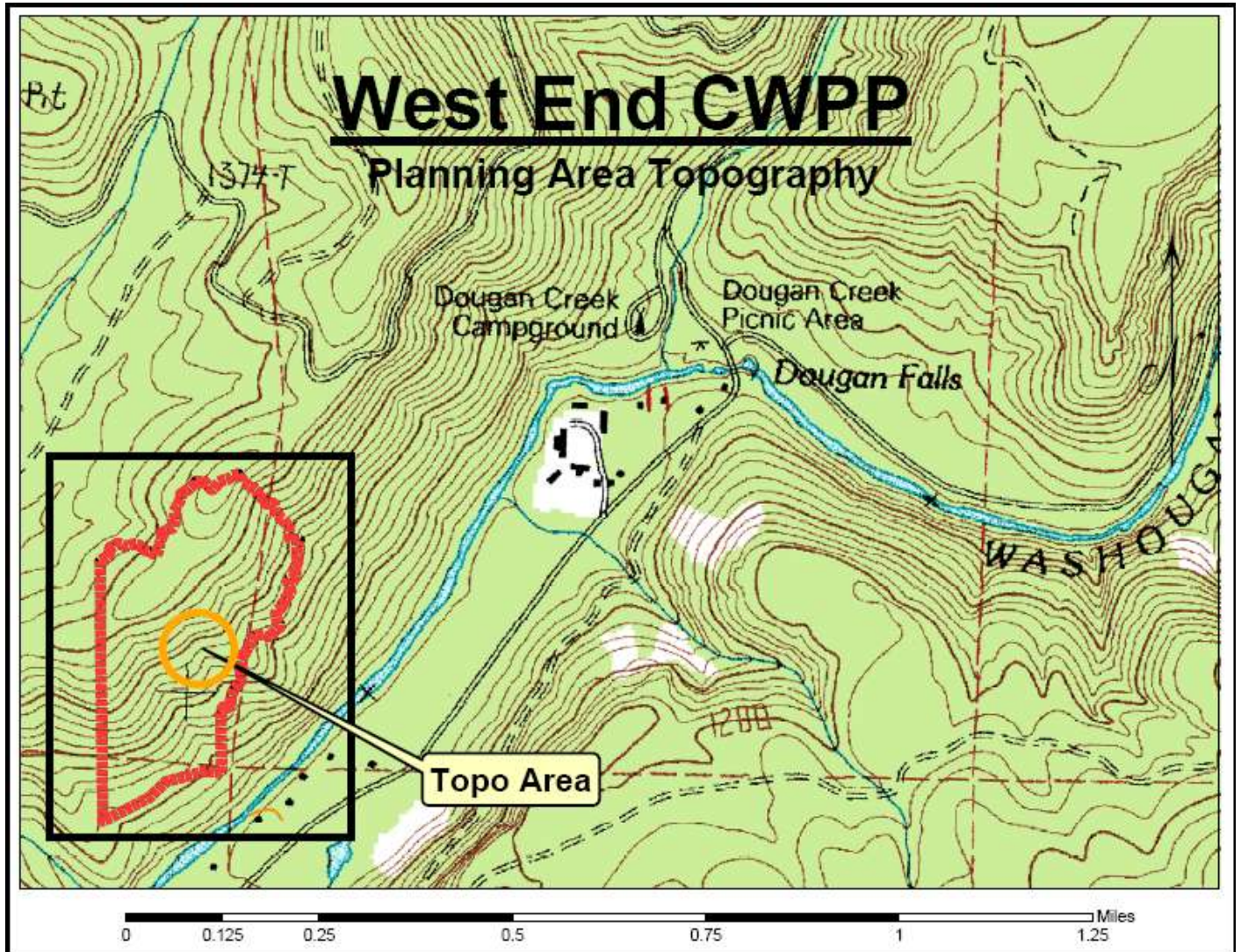


Figure 7. Appendix H3 - Example canyon topography at a popular recreation area within the West End CWPP planning area (Cartographer: Sara Zielin).

### **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 can occur from heat radiated and convected from nearby fire. The following fuel models were taken from the NFPA-299 form and were used in assessing West End 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 also debris piles and stacked combustible building materials can ignite easily and threaten closely adjoining structures. When ignited, they are extremely difficult to extinguish. Locating combustible piles away from structures and other 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**

This section lists specific values (not in order of importance) within the West End planning area identified by the Steering Committee that should be protected from wildfire.

- Commercial Timber
- Infrastructure (roads, power lines, gas lines, railroad, bridges, etc.)
- Schools
- 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 West End planning area as of May 2007 (Appendix D - Wildfire Protection Capabilities).

### **West End Fire District 4**

The West End Community is serviced by West End FD4. Personnel and equipment inventory include:

- 21 volunteer firefighters (10 EMS responders, 8 ‘red card’ holders)
- 2 – Type 1 structural engines
- 2 – Type 2 water tenders
- 1 – Type 3 wildland engines with CAFS (compressed-air foam systems)

FD4 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 GPNF and WADNR under mutual aid agreements. The following federal and state fire fighting resources are not stationed within the planning area and estimated response times are from 60 to 90 minutes, but may be longer.

## **Mt Adams Ranger District GPNF**

The Mt. Adams Ranger District and Mt St Helen's National Volcanic Monument of the GPNF provides fire protection primarily on federal lands in the West End CWPP area with the following inventory depending on level and location of wildfire:

Trout Lake, WA Duty Station (Mt Adams Ranger District)

- 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

Amboy, WA Duty Station (Mt St Helen's National Volcanic Monument)

- 1 – Type 6 wildfire engines w/foam 300 gallons
- 1 – Type 6 prevention module 200 gallons
- 2 – Type 7 prevention module 50 & 100 gallons

## **Washington State Department of Natural Resources**

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

- 6 – Firefighters
- 2 – Type 6 wildfire engines

## **Phase II**

### **Gap Workshop**

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

1. Potential staging areas locations:
  - Hwy. 14 MP 23
  - Camp WiRiKi
  - Mabee Mines
2. Communications - West End FD4 currently uses UHF radios and WADNR & FS use VHF radios; need compatibility with other fire fighting agencies.
3. Established helicopter landing zones
4. Established evacuation routes
5. Third fire station, potential location at the top of Salmon Falls Road
6. Public notification system
7. Ample water supply
8. Red Card Certification for volunteer firefighters
9. Community education

## Map Workshop

The purpose of the map workshop was to 1) assess several different aspects of the West End planning area such as fire history, population density, fuel loads and future developments and identify 'high risk areas' and/or CAR that exist, and then 2) establish fuel mitigation projects, classed by risk to better protect life, property and natural

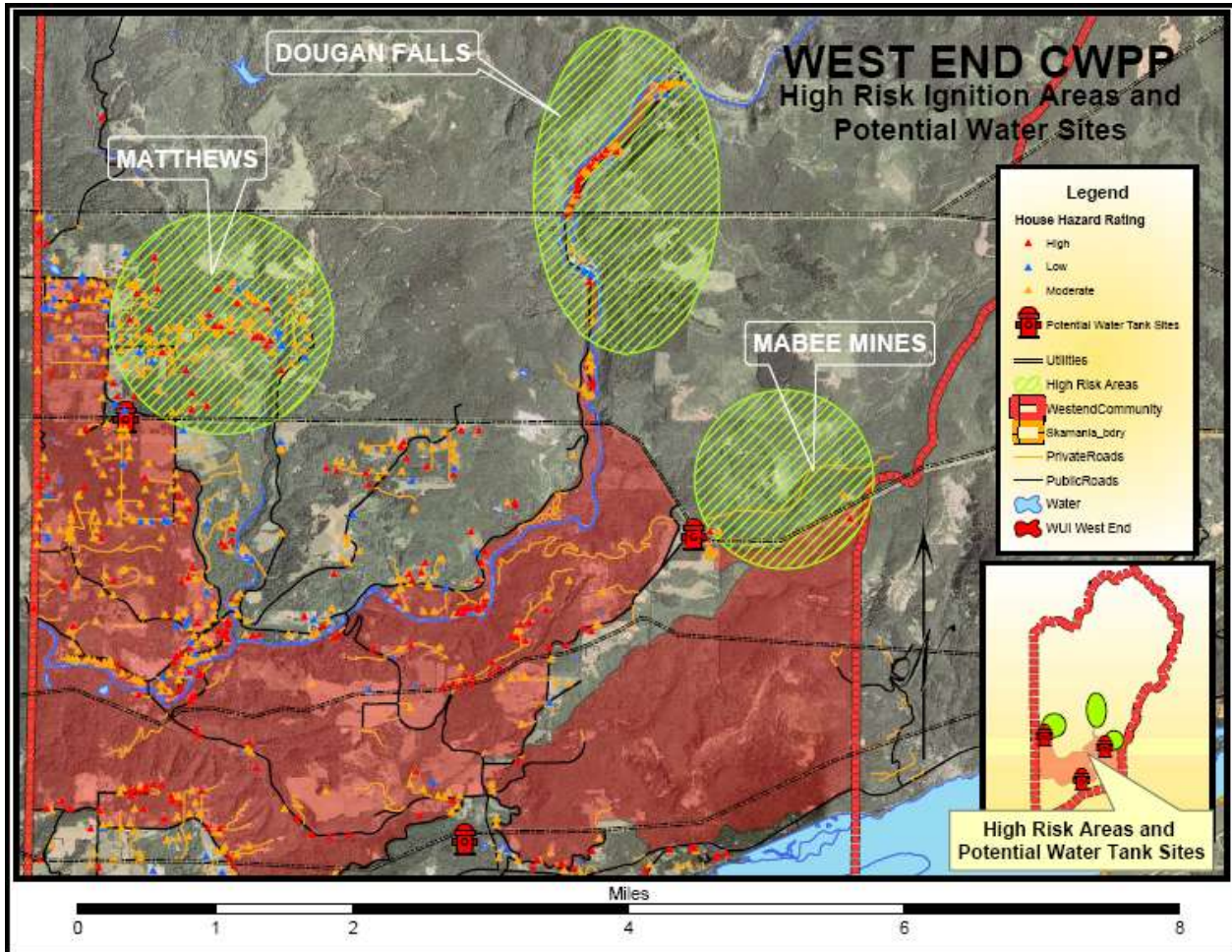


Figure 8. Appendix H4 – High Risk Areas and Potential Water Tank Sites within the West End CWPP planning area (Cartographer: Sara Zielin).

resources. Figure 8 depicts potential water tank sites and 'high risk areas' that the West End CWPP Steering Committee outlined. The three major elements that drove the designation of the high risk areas were human use, historical fires and fuel loads.

## **PROJECTS**

The following projects were identified to reduce the risk of wildfire and protect life, property and natural resources within the West End planning area. These projects are subject to modification depending on changes in local priorities.

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: Creating Access on Private Roads – High Priority

Many homeowners live on private roads within the West End CWPP planning area. Private roads having poor maintained road surfaces, excessive fuels and improper clearance prevent fire fighters from responding safely. The Steering Committee will identify the ‘major risk roads’ as determined by characteristics such as road width, surface condition, grade, vertical clearance, number of turnouts, types of turnarounds, signs present, adjoining fuels and the number homes the road accesses. The second step to this project is to prioritize roads according to fuel risk and take action. This project would be one of the first steps in reaching the public; professional opinion is that many community members within the West End CWPP planning area are not fully aware of “firewise” programs importance. This roads project is a first step, sparking homeowner cooperation regarding the benefits of practicing “firewise” principals around their homes.

### Project 2: Thinning around homes and other structures- High Priority

Fuel reduction around homes within the planning area is important especially for those within the “high risk areas” mapped by the Steering Committee. Treatments (thinning, brushing, planting fire resistant plants, cleanliness) described in the “Living with Fire” brochure (Appendix F) can be applied to individual homes.

### Project 3: Thinning around critical infrastructure – Medium Priority

Reduce fuels around all listed critical infrastructure as feasible. Critical infrastructure includes, fire, ambulance and police stations and equipment, schools and community centers, power lines, dams, bridges, railroads and tunnels, gas and fuel pipelines, main highways, emergency communication towers and fish hatcheries. Fuel treatments will follow the Living with Fire recommendations and professional knowledge.

## **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: Establish Evacuation Plan – High Priority

Currently, the West End lacks an evacuation plan that describes a public notification system, escape routes, escape areas, staging areas (potential sites include: Hwy 14 MP 23, Camp WiRiKi, Mabee Mines), and helicopter landing zones (LZ) that will be utilized in the case of an emergency such as a wildfire. The Steering Committee will review potential sites for designated emergency areas and make land-use agreements with landowners and emergency agencies.

### Project 2: Establish a water supply location for acquisition – High Priority

Currently, the West End has minimal water sources especially in higher elevation areas and near SR14. Designated water containment tank sites would significantly increase the FD4's ability to protect life, property and natural resources. The following list includes the potential water tank locations:

- Matthews
- Mabee Mines
- Salmon Falls SR14

### Project 3: Mobilization Handbook – Moderate Priority

This guide for the West End CWPP area is 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.

### Project 4: Livestock Evacuation Plan – Low Priority

Not all livestock owners have the ability to haul all their animals to safety in the event of a fast moving wildfire. Many livestock owners have too many animals to haul in one load. A fire evacuation could cause traffic jams that would not allow for the livestock owner to make more than one trip in a timely manner. A livestock evacuation plan is simply an overland route that runs contiguously between landowners. Essentially, landowners provide gates that would have a combination or remain unlocked so that livestock could be herded overland from property to property to safe areas. This route could be utilized for foot or ATV traffic as well. An overland route would keep livestock off of roadways, and reduce potential traffic hazards if owners are inclined to herd their animals down the roads. Evacuation corridors could also provide access to areas for fire fighters and their equipment to fight fire. Landowner participation in providing access for an evacuation corridor promotes cooperation between neighbors, and awareness of fire safety.

### Project 5: Logistics Planning for Fuel Mitigation Project 1 – High Priority

This project will outline details to Fuel Mitigation Project 1.

## **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: Engage the CWPP planning area community members – High Priority

The Steering Committee discussed the importance of engaging community members in "firewise" activities. The concept behind this project is that homeowners are essentially responsible for protecting their homes and property from wildfire. It was thought that a "firewise" community can be developed using tactics to engage the community members, such as:

- Dispersing "Living with Fire" brochure via mail with fire safety event invitations.



- Holding a community firewise event with info, speakers and food.
- Designating a demonstration house. This would physically show homeowners the “what, where, when, why and how” of creating defensible space around their homes.
- Working with the Skamania County Fire Marshall in dispersing firewise information to the community when building new homes and structures.

#### Project 2: E-Media – Moderate Priority

Develop Fire District 4’s information page on the Skamania County Extension Firewise website. Information will include but is not limited to: Meeting times and dates, new happenings, and others. Secondly develop and distribute firewise DVD’s for interested residents such as:

- Reducing Wildfire Risk in the Columbia River Gorge Area
- FireSafe Spokane
- Ciscoe on: FIRE
- Wildfire: Preventing Home Ignition

### **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: ‘Red card’ training for FD4 Volunteer Firefighters – High Priority

Skamania County Volunteer Fire Districts including FD4 will coordinate with DNR and FS on scheduling ‘red card’ training to increase volunteer fire abilities to attend.

#### Project 2: Ensuring compatible radio communication system - High Priority

Continually updating the West End FD4’s communication system including, but not limited to, radios and gateway devices is the main focus of this project. This is very important because technology is ever-changing and updating is essential to maintain an effective and efficient communication system.

#### Project 3: Third fire station in planning area – Moderate Priority

A third fire station is needed to service the West End planning area’s growing population. The Skamania County Planning Department amended the County Comprehensive Plan “A” with the West End Community Comprehensive Subarea Plan as of February 2007 which identified potential population growth over the next 25 years. The human population and related dwellings are projected to nearly double within the West End CWPP planning area. More residents and structures require more staffing, equipment, and fire stations to protect life and property. A potential location for an additional fire station is the intersection of Salmon Falls Road and Mabee Mines Road.

#### Project 4: Update Technology – Moderate Priority

GPS units and laptops are needed by Fire District 4 to improve response time efficiency and safety. Many homeowners live on private roads that are not suitable for fire vehicles and equipment due to the lack of proper signage and road clearance to their homes. GPS units will serve as a tool for recording hazards, real time routing, and keeping inventory. Laptops loaded with software such as X-Map and Skamania County NFPA299 data will help responders make safe decisions in the field.

### Project 5: Update Foam Truck – Low Priority

It was determined by the FD4 Fire Chief that a foam truck will be needed in the West End to protect the growing population. The Steering Committee supports fundraising and grant researching for this vital piece of equipment.

### **The West End Action Plan**

Education projects will teach “firewise” measures that homeowners can take to reduce structure ignitability. The goal is to get community members to make it their personal responsibility to take steps to protect themselves during wildfire. Phase 1 of the action plan includes seeking a Wildfire Prevention Planning Intern who will develop “firewise” education classes, write grants pertaining to CWPPs and recruit a “firewise” volunteer cadre. The position would serve FD4 and other Fire Districts. The West End CWPP core group will continue to work with Wildfire Prevention Coordinator in prioritizing work for CWPP intern. Last, utilize the Skamania County Wildfire Prevention Coordinator for CWPP support while funding still exists.

### **Structure Ignitability**

The West End 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**

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To help document changes, before and after photos should be taken of fuel mitigation project areas. Pictures demonstrate the effectiveness of the project and subsequent changes from year-to-year plan growth. 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 of forest fuels will be necessary.

A CWPP is a living document and annual re-evaluation will be performed by the West End 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 West End CWPP has recognized FEMA Pre-Disaster Mitigation (PDM) Plan Requirements. The table in Appendix G, indicates how the West End CWPP meets FEMA PDM compliancy and what components are missing for future acceptance.

## **APPENDICES**

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- 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
- H1 – CWPP Map – West End Basemap
- H2 – CWPP Map – Historical Wildland and Structure Fires
- H3 – CWPP Map – West End Topography
- H4 – CWPP Map – High Risk Areas and Potential Water Sites

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## Appendix A – Meeting Agendas, Minutes and Attendance Sign-in Sheets

### **Meeting 1 – Agenda, Minutes, Attendance Sign-in Sheet**

<p>March 19, 2007 Westend Community Wildfire Protection Plan Meeting                  Westend Fire Station, 10042 Washougal River Rd., Washougal, WA 98671  <b>AGENDA</b></p>		
<p><b>GOALS: 1) Outline CWPP Process 2) Review Planning Area 3) Establish Goals and Objectives 4) Create a Risk Assessment</b></p>		
Time	Speaker(s)	Topic
6:00-6:10	Zielin, All	Introductions, agenda review
6:10-6:20	Zielin	Community Wildfire Protection Plan Synopsis <ul style="list-style-type: none"> <li>• Roles</li> <li>• Background</li> <li>• Process</li> <li>• Requirements</li> <li>• Completed Data Collection</li> <li>• Current Status</li> <li>• Main Limitations and Douglas County CWPP as a model</li> <li>• Westend CWPP Outline</li> </ul>
6:20-6:30	All	<ul style="list-style-type: none"> <li>• Questions</li> </ul>
6:30-6:40	Zielin, Helgerson	Review Westend Planning Area <ul style="list-style-type: none"> <li>• Klickitat and Skamania County CWPP</li> <li>• Westend Base Map</li> </ul>
6:40-7:00	Helgerson, Zielin, All	Establish the Westend CWPP Objectives and Goals <ul style="list-style-type: none"> <li>• Protection of Life, Property and Resources</li> </ul>
7:00-7:45	Helgerson, Zielin, All	Westend Risk Assessment Workshop Process <ul style="list-style-type: none"> <li>• Ignition Risk</li> <li>• Hazard – weather, topography, fuel loads and types</li> <li>• Values Protected – infrastructure and other</li> <li>• Protection Capabilities – What we have, what we need and what gaps exist in the system</li> </ul>
7:45-8:00	All	Review meeting, set next meeting date, adjourn

# West End CWPP

## Meeting 1 Minutes – March 19, 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: West End, 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:

<u>Man</u>	<u>Natural</u>
Railroads	Lightning
Debris Burning	
Fireworks	
Recreational fires	
Smoking/cigarettes	
Arson	
Logging	
Power lines	
Structure fires	
- 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 and accessibility.  
Topography – very steep canyon topography
- Values protected were discussed, including commercial timber, water sources, life, recreational values, historical sites, fish hatcheries residential properties and structures, infrastructures and personal property.
- Protection Capabilities were discussed, but it was decided that Fire District 4, Federal and State entities needed to later identify their gaps, needs and intentions. A wildfire protection capabilities form was dispersed for completion by fire agencies.

Next meeting set for April 19<sup>th</sup>, 2007 - 6:00pm SCFD#4 Station  
Meeting was adjourned by 7:30pm.

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

Date: 20070319 Time: 6:00 - \_\_\_\_\_ Location: \_\_\_\_\_

NAME	SIGNATURE	REPRESENTATION	EMAIL
KEITH BROWN		FIRE COMMISSIONER, FIRE DIST. 4	humansol@teleport.com
ROY BURNS	Attended alternative meeting 4/2/07	WESTEND COMMUNITY	
JOHN CARLSON		SKAMANIA CO. DEM	johnc@co.skamania.wa.us
DALE GRAMS	Attended alternate meeting 4/2/07	WESTEND COMMUNITY	dalegrams@prodigy.net
JERRY HARTELOO		WESTEND COMMUNITY	lharteloo@wa-net.com
OLE HELGERSON		FACILITATOR	ole@co.skamania.wa.us
RUSS HOVEY		WADNR	russ.hovey@dnr.wa.gov
MARLON MORAT		SKAMANIA CO. FIRE MARSHALL	morat@co.skamania.wa.us
DON OCHS		FIRE CHIEF, FIRE DISTRICT 4	donald.ochs@verizon.net
GREG PAGE		GIFFORD PINCHOT NF	wgpage@fs.fed.us
CINDY SOLIZ	Attended alternative meeting 4/2/07	WESTEND COMMUNITY	ursa@pacifier.com
SARA ZIELIN		FACILITATOR	Skamaniawfc@saw.net
KARLSON CARLSON		EOC	eoacadmin@co.skamania.wa.us

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

April 19, 2007 Westend Community Wildfire Protection Plan Meeting  
Westend Fire Station, 10042 Washougal River Rd., Washougal, WA 98671

### AGENDA

**GOALS: 1) Identify Gaps 2) Identify Problem Areas 3) Review Community Concerns 4) Identify Projects 5) Prioritize Projects**

Time	Speaker(s)	Topic
6:00-6:10	Zielin, All	Introductions, agenda review, meeting minutes from 3/19/07
6:10-6:20	Zielin	Gap Identification Workshop <ul style="list-style-type: none"> <li>• What limitations and/or constraints to our ability to fight wildfire exist within the Westend CWPP planning area?</li> </ul>
6:20-7:00	Zielin, All	Map Workshop <ul style="list-style-type: none"> <li>• Population Density</li> <li>• Future Development</li> <li>• Fire History</li> <li>• Fuel Loads</li> </ul>
7:00-7:05	Zielin, Page	Grants <ul style="list-style-type: none"> <li>• Many types and requirements</li> </ul>
7:05-7:15	Community	Community Questionnaire <ul style="list-style-type: none"> <li>• Concerns from community</li> </ul>
7:15-7:45	Zielin	Project Workshop <ul style="list-style-type: none"> <li>• Fuel Mitigation Projects</li> <li>• Planning Projects</li> <li>• Education Projects</li> <li>• Equipment/Staffing/Exercise</li> </ul>
7:45 - 7:55	Helgerson, All	Prioritizing Projects <ul style="list-style-type: none"> <li>• High Priority</li> <li>• Moderate Priority</li> <li>• Low Priority</li> </ul>
7:55-8:00	All	Review meeting, set next meeting date, adjourn



# West End CWPP

Meeting 2 Minutes – April 19<sup>th</sup>, 2007

Meeting started at 6:00pm

## Introductions

### Gap Identification Workshop

1. Staging areas for resources
  - Hwy. 14 MP 23
  - Camp WiRiKi
  - Mabee Mines
2. Communications - UHF, DNR & FS are VHF, will need compatibility to narrowband, currently wideband
3. LZ's-some are already established
4. Established evacuation routes
5. 3rd fire station needed-Top of Salmon Falls?
6. No public notification system
7. Water Supply issues
8. Red Card Certification for Volunteer Fire Fighters
9. Education to community

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:

- Matthews
- Dougan Falls
- Mabee Mines

\* 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

\*Areas for potential water sources were also drawn at ideal locations and are mapped within the document (Appendix H4 – High Risk Ignition Areas and Potential Water Tank Sites).

Community Concerns – Livestock Evacuation Plan by Cindy Soliz was briefly discussed and was added as a project.

Grants and Requirements – Briefly reviewed grants and discussed how requirements change on a yearly basis. Greg Page discussed Trout Lake, WA CWPP and grants

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

- Fuel Mitigation Projects
  - P1 – Access to Private Roads – High Priority
  - P2 – Around Homes – High Priority
  - P3 – Critical Infrastructure – Moderate Priority
- Planning Projects
  - P1 – Establish Evacuation/Response Routes – High Priority
  - P2 – Establish water supply site location for acquisition – High Priority

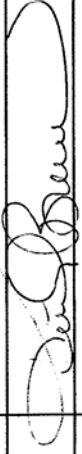








- P3 – Community Mobilization Handbook w/Maps – Moderate Priority
- P4 –Livestock Evacuation Plan – Low Priority
- Education Projects
  - P1 – Engage Community – High Priority
    - Disperse “firewise” info via mail
    - Community Event with info, speakers, food
    - Demo house
    - Dispersal of “firewise” info via County Fire Marshall to community members with building permits
  - P2 – E-media (webpage, DVD’s, CD’s) – Moderate Priority
- Equipment/Staffing/Exercise Projects
  - P1 – “Red Card” training in coordination with FD4 and WADNR – High
  - P2 – VHF radios and/or “gateway” devices – High Priority
  - P3 – Third Fire Station within planning area for growing number of people in the service area – Moderate Priority
  - P4 – Technology – laptops, GPS units – Moderate Priority
  - P5 – Foam

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

Next meeting set for May 24<sup>th</sup>, 2007 - 6:00pm SCFD#4 Station  
 Meeting was adjourned by 8:00pm.

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

Date: 20070419 Time: 6:00 - \_\_\_\_\_ Location: \_\_\_\_\_

NAME	SIGNATURE	REPRESENTATION	EMAIL
KEITH BROWN		FIRE COMMISSIONER, FIRE DIST. 4	humansol@teleport.com
ROY BURNS		WESTEND COMMUNITY	
JOHN CARLSON		SKAMANIA CO. DEM	johnc@co.skamania.wa.us
DALE GRAMS		WESTEND COMMUNITY	dalegrams@prodigy.net
JERRY HARTELOO		WESTEND COMMUNITY	lharteloo@wa-net.com
OLE HELGERSON		FACILITATOR	ole@co.skamania.wa.us
RUSS HOVEY		WADNR	russ.hovey@dnr.wa.gov
MARLON MORAT		SKAMANIA CO. FIRE MARSHALL	morat@co.skamania.wa.us
DON OCHS		FIRE CHIEF, FIRE DISTRICT 4	donald.ochs@verizon.net
GREG PAGE		GIFFORD PINCHOT NF	wgpage@fs.fed.us
CINDY SOLIZ		WESTEND COMMUNITY	ursa@pacifier.com
SARA ZIELIN		FACILITATOR	Skamaniawfc@saw.net
KATHLEEN CARLSON		EOC	eocadmin@co.skamania.wa.us

## Meeting 3 – Agenda, Minutes

May 24, 2007 - West End Community Wildfire Protection Plan Meeting  
West End Fire Station, 10042 Washougal River Rd., Washougal, WA 98671

### AGENDA

**GOALS: 1) Review Projects 2) Add/Remove Projects 3) Prioritize Projects 4) Create an Action Plan**

Time	Speaker(s)	Topic
6:00-6:10	Zielin, All	Introductions, agenda review, meeting minutes from 3/19/07
6:10-7:00	Zielin, All	Review and make changes to project descriptions <ul style="list-style-type: none"> <li>• Fuel Mitigation</li> <li>• Planning</li> <li>• Education</li> <li>• Equipment, Staffing and Exercise</li> </ul>
7:00-7:20	All	Add/Remove projects
7:20-7:30	All	Prioritize projects <ul style="list-style-type: none"> <li>• Prioritize new projects</li> <li>• Re-prioritize previous projects if necessary</li> </ul>
7:30-7:45	All	Create an action plan <ul style="list-style-type: none"> <li>• CWPP sustainability</li> </ul>
7:45-7:50	Zielin, Helgerson	CWPP and FEMA Pre-Disaster Mitigation Plan Compliancy
7:50-8:00	All	Review meeting, adjourn meeting  <b>THANK YOU FOR ALL OF YOUR HELP!!!</b>

# West End CWPP

## Meeting 3 Minutes May 24<sup>th</sup>, 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 Sara. Projects were further refined per the West End 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 West End CWPP will attempt to be as FEMA compliant if feasible within the West End CWPPs main objectives and goals
  
- 4) Finalizing CWPP – The Committee discussed the upcoming steps to finalize the West End 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

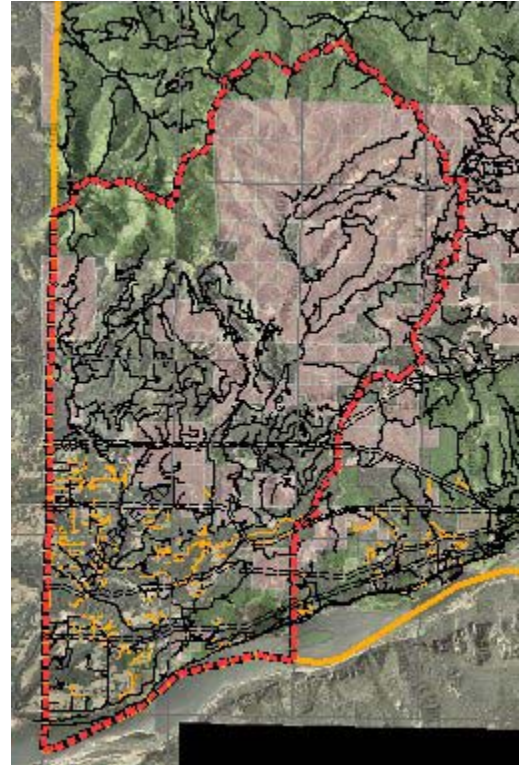
Meeting was adjourned by 7:00pm.

# Appendix B – Community Questionnaire

## The Westend CWPP Questionnaire

April 2007

The purpose of this survey is to involve the community members in the Westend 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. The Westend 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 member of the community, want to protect. For example: water sources, wilderness areas, recreation spots, unknown cemeteries, watersheds, hunting grounds, archaeological sites, roads, etc.



### **Please use the backside of this survey if necessary**

- As a community member what areas within the Westend planning area do you want protected in the event of a wildfire?
- What projects do you think could improve the community's fire awareness and responsiveness?
- Do you support the idea of seeking grant funding to upgrade our local, state and federal fire fighting organization's equipment?
- Any other suggestions, comments, or questions regarding the Westend CWPP.

To stay connected to the Westend CWPP please fill out the following confidential information.

Name(s) \_\_\_\_\_  
Address \_\_\_\_\_  
Phone \_\_\_\_\_  
Email \_\_\_\_\_

**Please return this survey to: Firewise, PO Box 790, Stevenson, WA 98648 OR email 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
<b>1. Ingress and egress</b>			
Two or more roads in/out	0		
One road in/out	7		
<b>2. Road width</b>			
Greater than 24 feet	0		
Between 20 and 24 feet	2		
Less than 20 feet wide	4		
<b>3. All-season road condition</b>			
Surfaced, grade < 5%	0		
Surfaced, grade > 5%	2		
Non-surfaced, grade < 5%	2		
Non-surfaced, grade > 5%	5		
Other than all-season	7		
<b>4. Fire service access</b>			
< = 300ft, with turnaround	0		
> = 300ft, with turnaround	2		
< = 300ft, no turnaround	4		
> = 300ft, no turnaround	5		
<b>5. Street signs</b>			
Present (4 in. in size and reflective)	0		
Not present	5		
<b>B. Vegetation ( Fuel Models)</b>			
<b>1. Predominant vegetation</b>			
Light ( grasses, forbs )	5		
Medium ( light brush and small trees)	10		
Heavy ( dense brush, timber, and hardwoods)	20		
Slash ( timber harvest residue)	25		
<b>2. Defensible space</b>			
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		
<b>C. Topography</b>			
<b>1. Slope</b>			
Less than 9%	1		
Between 10-20%	4		
Between 21-30%	7		
Between 31-40%	8		
Greater than 41%	10		

**Totals for this page**

<b>D. Additional Rating Factors</b>	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		
<b>E. Roofing Materials</b>			
1. Construction material			
Class A roof ( metal, tile)	0		
Class B roof ( composite)	3		
Class C roof ( wood shingle)	15		
Non-rated	25		
<b>F. Existing Building Construction</b>			
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		
<b>G. Available Fire Protection</b>			
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		
<b>H. Utilities ( Gas and Electric</b>			
1. Placement			
All underground utilities	0		
One underground, one aboveground	3		
All aboveground	5		
<b>Totals for this page</b>			
<b>I. Totals for Risk Assessments</b>			
<b>Totals for page 1 and 2</b>			
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 Response Capabilities

## West End CWPP Wildfire Response Capabilities

Forest Service, Washington DNR, Skamania County Fire District 4

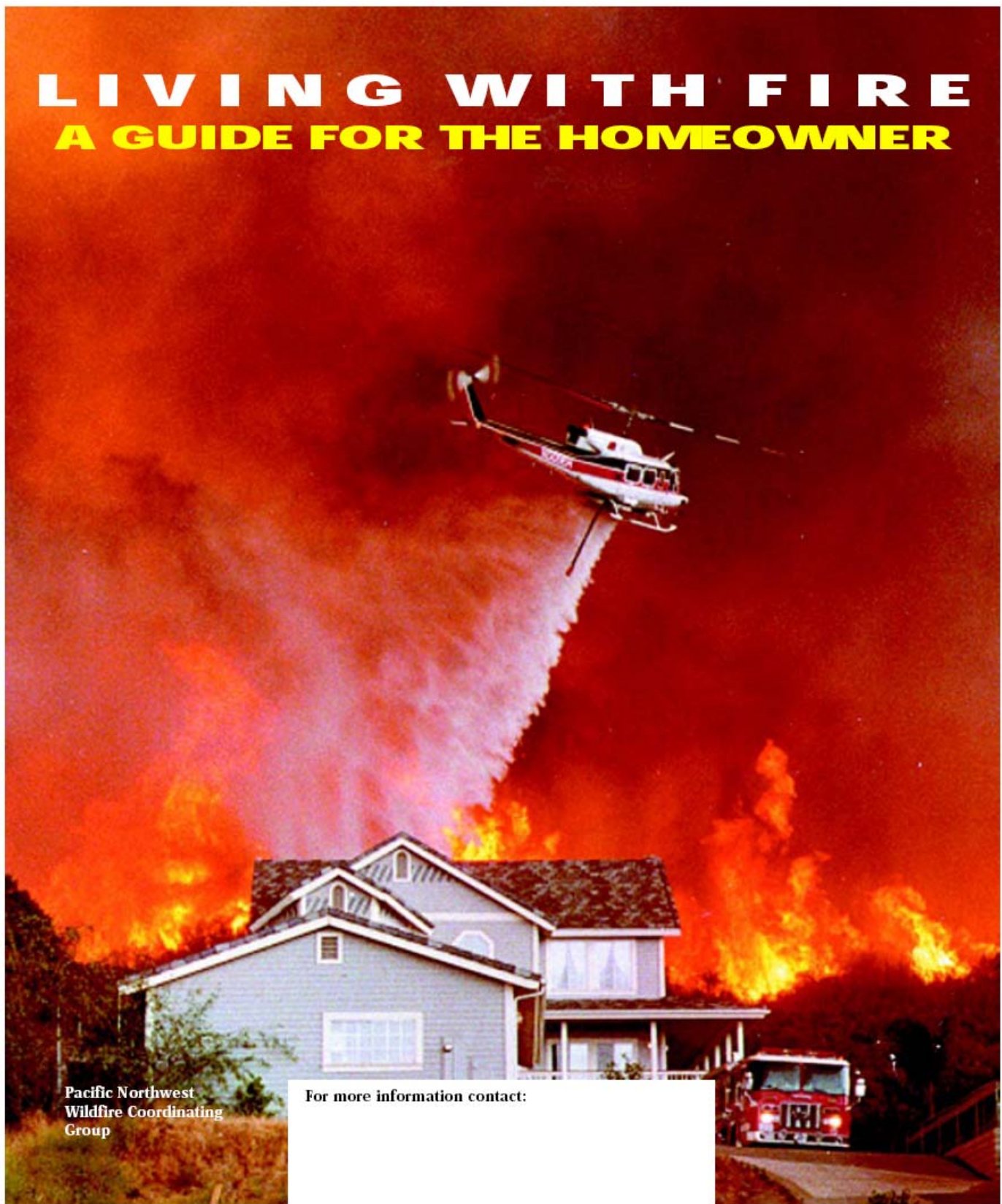
Inventory Type (Use 'other' section if needed)	Current Status <b>FS GPNF</b>	Current Status <b>WADNR</b>	Current Status <b>Fire District 4</b>
Fire Station(s)	Mt. Adams RD USFS Trout Lake, WA  Mt St Helens RD USFS Amboy , WA		<u>2 Fire Stations</u> #1 Three-Bay Station with Training Room #1 Two-Bay Station - No Training Room
Vehicles (Command, rigs, pumpers, tenders, brush rigs, etc.)	# 2 Type 6X Engines/ w Foam 300 gal #1 Type 6X Prevention Module 320 gal #1 Type 7X Prevention Module 80 gal <b>DUTY STA. Trout Lake, WA</b>  <b>At Amboy, WA The USFS has:</b> #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	<u>5 Vehicles</u> #2 Type 1 Structural Engines #1 Type 2 Water Tenders #1 Type 3 Wildland with CAFS
Staffing	We Staff 7 days a week From approx. July 4 <sup>th</sup> Through Fire Season Oct 15 <sup>th</sup>	3 FF/Engine TOTAL -6	<u>All Volunteer - 21 Members</u> (10 EMS Responders, 8 Red Card)
Uniforms/Clothing/PPE	Normal PPE		26 Sets Structural Fire PPE 9 Sets Wildland PPE Complete 12 SCBA with 12 Spare Bottles
Training			All Fire Fighters complete basic Wildland Urban Interface - 19 fully trained 8 'Red Card' Fire Fighters
Radios	All Firefighters carry Bendix King Radios	2-portable Kings/engine 1mobile in each engine	3 CDM 1550 VHF, 1 P1225VHF, 6 MT 1000UHF 6 HT 1250 UHF 5 M 1250 UHF 2 Mobile Repeater UHF *All units Motorola
Pumps and hose lay	Dist Cache	1500 feet 1" hose Pump with foam Capabilities Mark III pump with 1000 gal portatank	All Type 2 Structure 1250 gpm All Type 2 Tenders 1000 gpm Wildland/CAFS 300 gpm Type 2 Tenders and Pump Carry
Wildfire response capability and sustainability	<b>Extended Attack :</b> As requested by the Dispatch centers, resource availability and fire Type (.1-5) Gifford Pinchot Mobilization Plan		1 Type 3 Wildland Engine with CAFS – five personnel avg 2 Type 2 Water Tenders
Other	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

### FD4 Wildfire Response Capabilities and Needs

Inventory Type (Use other section if needed)	Current Status (Include type and quantity)	Inventory Needed (Include type and quantity)
Fire Station(s)	<u>2 Fire Stations</u> 1 Three-Bay Station with Training Room 1 Two-Bay Station - No Training Room	1 Two-Bay Station with heat – No Training room needed
Vehicles (Command, rigs, pumpers, tenders, brush rigs, etc.)	<u>5 Vehicles</u> 2 Type 1 Structural Engines 1 Type 2 Water Tenders 1 Type 3 Wildland with CAFS	1 Type 5 Engine 1 Foam Truck
Staffing	<u>All Volunteer - 21 Members</u> (10 EMS Responders, 8 Red Card)	13 Additional 'Red Card' Fire Fighters
Uniforms/Clothing	26 Sets Structural Fire PPE 9 Sets Wildland PPE Complete 12 SCBA with 12 Spare Bottles	
Training	All Fire Fighters complete basic Wildland Urban Interface - 19 fully trained 8 'Red Card' Fire Fighters	13 Additional 'Red Card' Fire Fighters
Radios	3 CDM 1550 VHF, 1 P1225VHF, 6 MT 1000UHF 6 HT 1250 UHF 5 M 1250 UHF 2 Mobile Repeater UHF *All units Motorola	3 – VHF Portable Radios
Pumps and hose lay	All Type 2 Structure 1250 gpm All Type 2 Tenders 1000 gpm Wildland/CAFS 300 gpm Type 2 Tenders and Pump Carry	Wildland Engine 900ft 1" Hose 200ft 1 ½ Hose 1200ft Plus Hose
Wildfire response capability and sustainability	1 Type 3 Wildland Engine with CAFS – five personnel avg 2 Type 2 Water Tenders	6 more 'Red Card' Firefighter to reach average response to 8 needed
Other		
Other		
Other		

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



# LIVING WITH FIRE

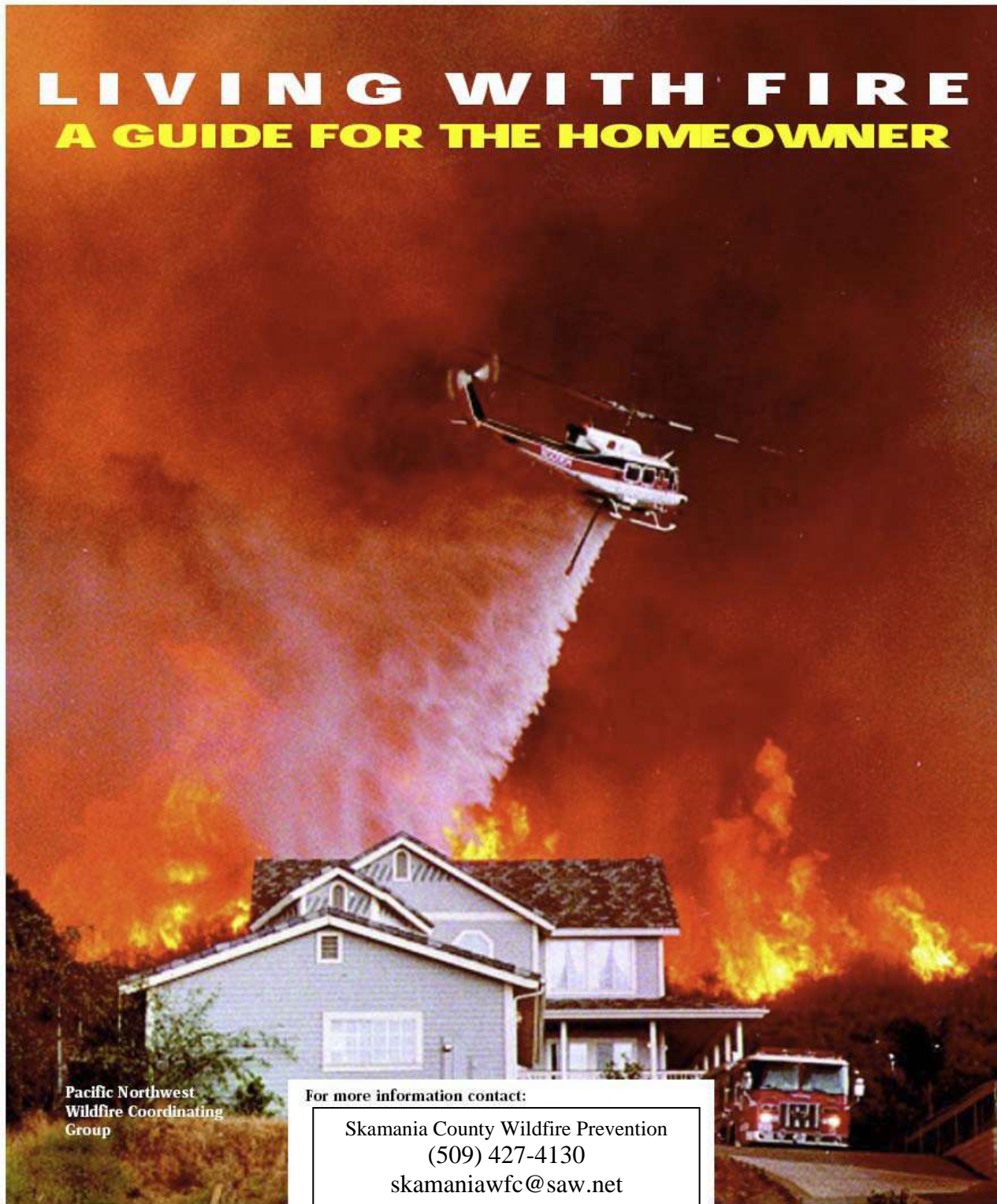
## A GUIDE FOR THE HOMEOWNER

Pacific Northwest  
Wildfire Coordinating  
Group

For more information contact:



## 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

## West End CWPP

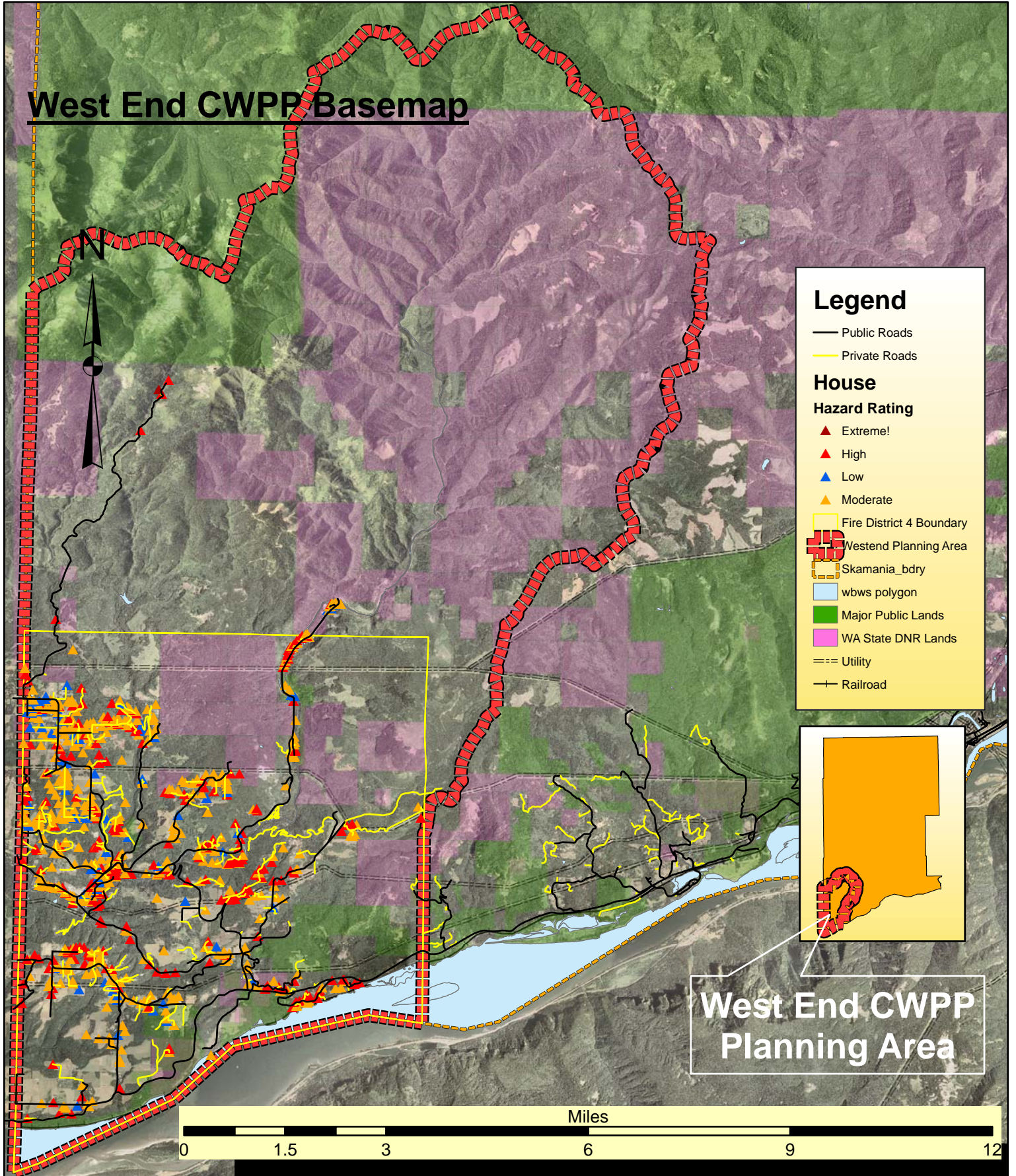
### FEMA Pre-Disaster Mitigation Plan Requirements

PDM Requirements	check list	How GWR plans to accomplish
<ul style="list-style-type: none"> <li>Public Comment Opportunity</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>A press release was posted announcing the project and public comment was open 30 days before approval</li> </ul>
<ul style="list-style-type: none"> <li>Neighboring Communities, local and regional agencies involved in hazard mitigation activities</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>Steering Committee includes representatives from the community (stakeholders, business owners, homeowners), Fire District 4, Skamania County, Washington DNR and Forest Service, see Appendix A, "Attendance Sign-in"</li> </ul>
<ul style="list-style-type: none"> <li>Review and incorporate into other plans if applicable</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>Klickitat and Skamania County Plan reviewed, Trout Lake, Douglas County, White Salmon and Cascade Locks plans used as reference throughout planning process</li> </ul>
<ul style="list-style-type: none"> <li>Documentation of planning process including how prepared, who was involved and particularly public</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>The planning process is included within the actual document as 7 planning steps (pages 6-9). Actual public involvement is documented in Appendix A – Meeting Agendas, Minutes and Sign-in Sheets.</li> </ul>
<ul style="list-style-type: none"> <li>Local risk assessment that describes the type, location and extent of all natural hazards</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>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"</li> </ul>
<ul style="list-style-type: none"> <li>Information on previous occurrences of hazardous events and the probability of future hazardous events</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>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</li> </ul>
<ul style="list-style-type: none"> <li>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</li> </ul>		<ul style="list-style-type: none"> <li>Structures based on NFPA299 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</li> </ul>
<ul style="list-style-type: none"> <li>Multi-jurisdictional plans will include details for each jurisdiction's risks where they vary from the entire planning area</li> </ul>		<ul style="list-style-type: none"> <li>Wildfire response governed by Federal and Washington state policy with local MOU's coordinating roles of local, state and federal agencies</li> </ul>

<ul style="list-style-type: none"> <li>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</li> </ul>		<ul style="list-style-type: none"> <li>The mitigation strategy calls for planning to increase radio interoperability and coordination of resources in preventing and fighting wildfire in the West End community.</li> </ul>
<ul style="list-style-type: none"> <li>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</li> </ul>		<ul style="list-style-type: none"> <li>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.</li> </ul>
<ul style="list-style-type: none"> <li>Multi-jurisdictional plans must include identifiable action items specific to the jurisdiction requesting FEMA approval</li> </ul>	✓	<ul style="list-style-type: none"> <li>An action plan was discussed and documented. Future development is needed to suit FEMA's specific requirements.</li> </ul>
<ul style="list-style-type: none"> <li>Description of plan maintenance including: methods, schedule of monitoring, evaluating and updating the mitigation plan within a 5 year cycle</li> </ul>	✓	<ul style="list-style-type: none"> <li>At the Chief's discretion, projects and their implementation will be reviewed, revised and re-ranked annually by the core group and steering committee.</li> </ul>
<ul style="list-style-type: none"> <li>Description of the process by which the local government will incorporate the requirements of mitigation plan into other plans</li> </ul>	✓	<ul style="list-style-type: none"> <li>This plan will serve as an appendix to the Skamania County FEMA Emergency management plan.</li> </ul>
<ul style="list-style-type: none"> <li>Discussion on how the community will continue public participation in the plan maintenance process</li> </ul>	✓	<ul style="list-style-type: none"> <li>At the Chief's discretion, projects and their implementation will be reviewed, revised and re-ranked annually by the core group and steering committee. An AmeriCorp volunteer is scheduled to be hired for 2008 to support wildfire education and Skamania County CWPPs.</li> </ul>
<ul style="list-style-type: none"> <li>Documentation that the plan has been formally been adopted by each jurisdiction requesting approval of the plan</li> </ul>	✓	<ul style="list-style-type: none"> <li>The plan is to be signed by the Fire District #4 Fire Chief and the Skamania County board of Commissioners.</li> </ul>

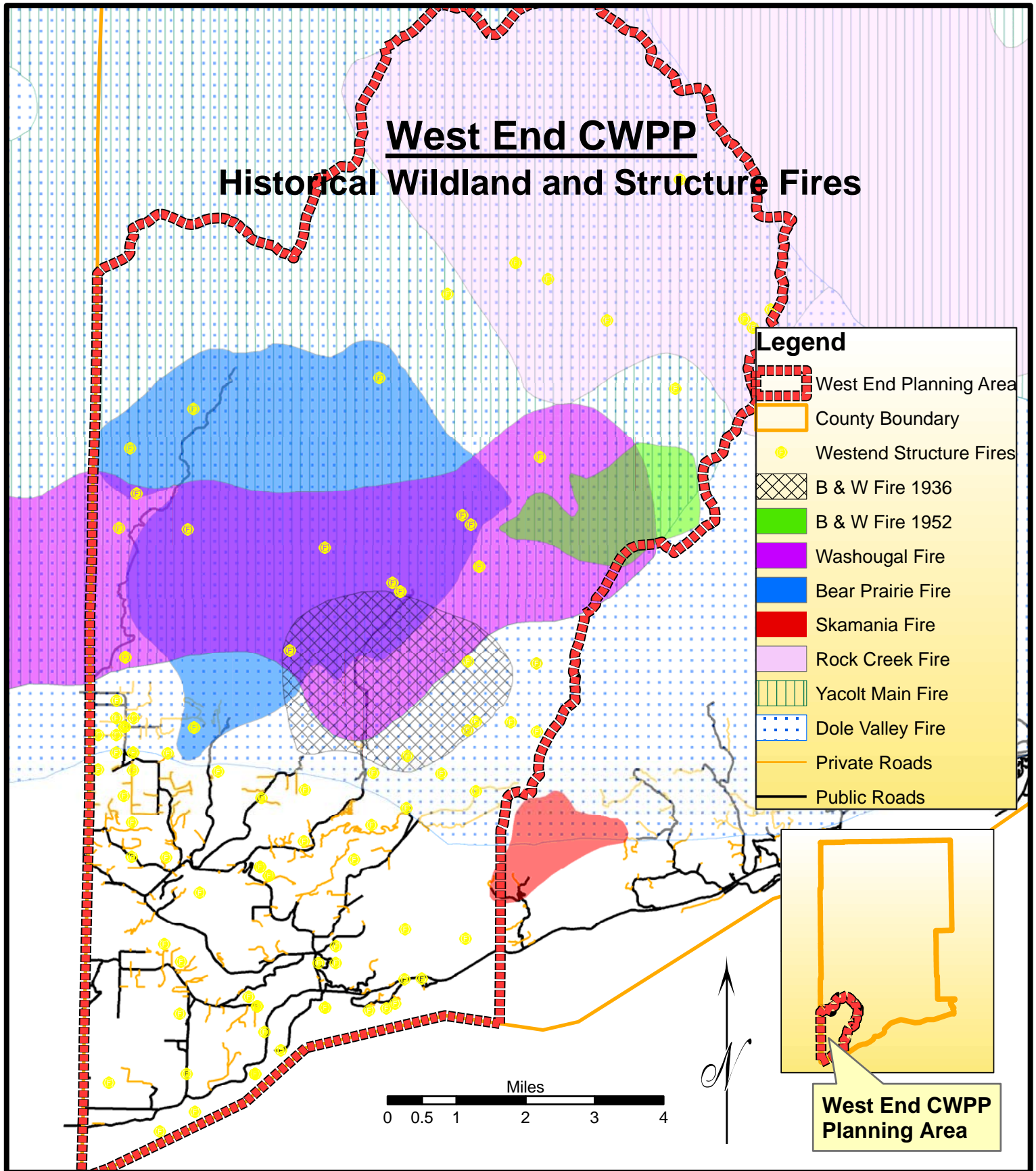


# Appendix H1 - CWPP Maps - Basemap



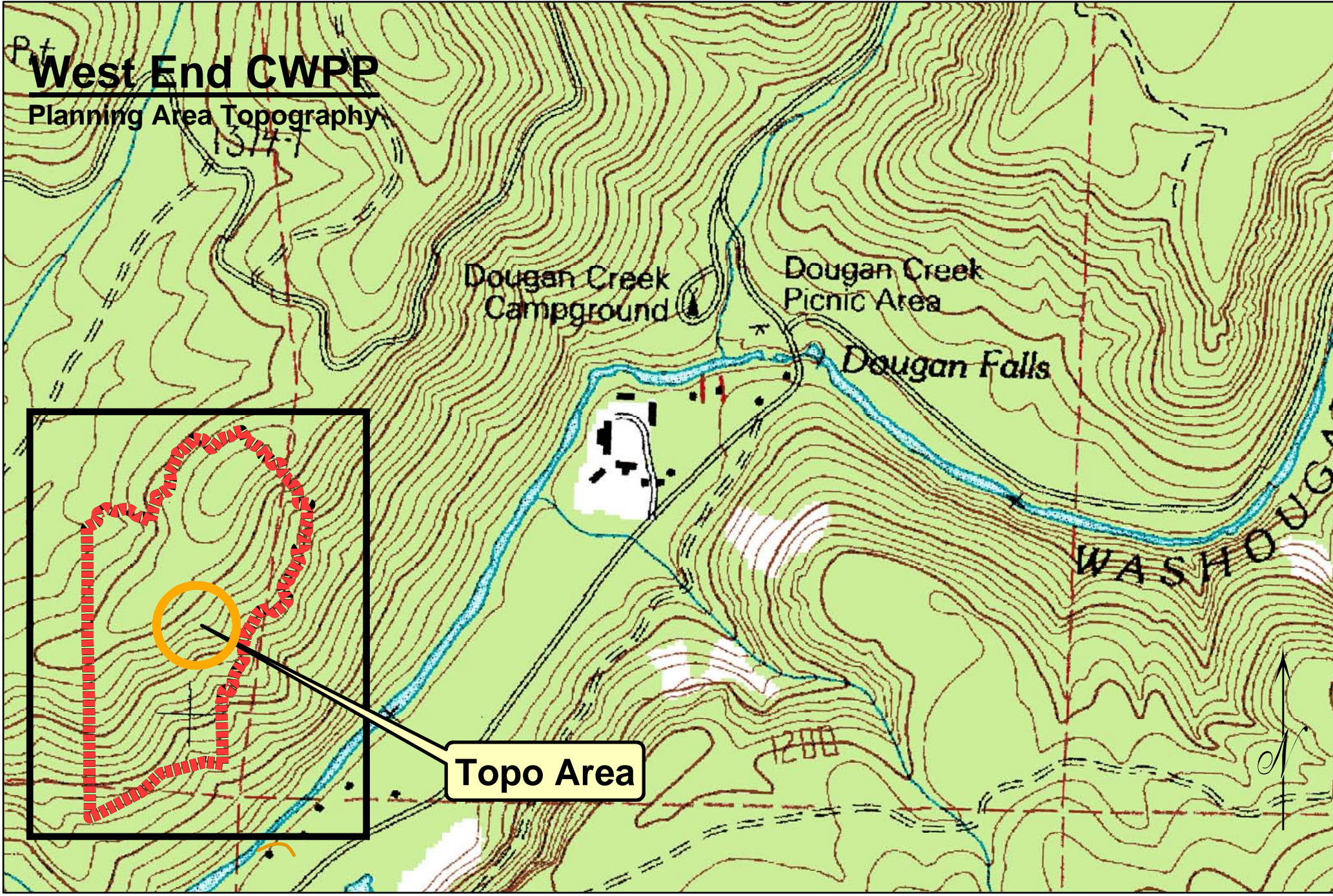


# Appendix H2 - CWPP Maps - Historical Fires





# Appendix H3 - CWPP Maps - West End Topography





# Appendix H4 - CWPP Maps - High Risk Areas and Potential Water Sites

