

# PONDEROSA PARK COMMUNITY WILDFIRE PROTECTION PLAN April 2014



Prepared By:  
Ponderosa Park Owners Association's  
Firewise Committee  
With assistance from:  
Washington Department of Natural Resources, Rural 7 Fire and Rescue,  
United State Forest Service and landowners within the planning area



*"Striving to become a more complete Fire Adaptive Community"*





# COMMUNITY WILDFIRE PROTECTION PLAN

April 2014

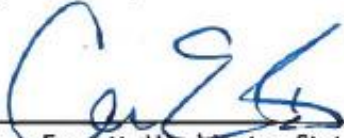
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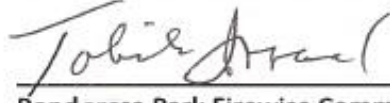
Aaron Everett- Washington State Forester



Klickitat County Commissioners



Tony Browning- Chief: Rural 7 Fire and Rescue



Ponderosa Park Firewise Committee



Landowner



Landowner



Landowner



Landowner

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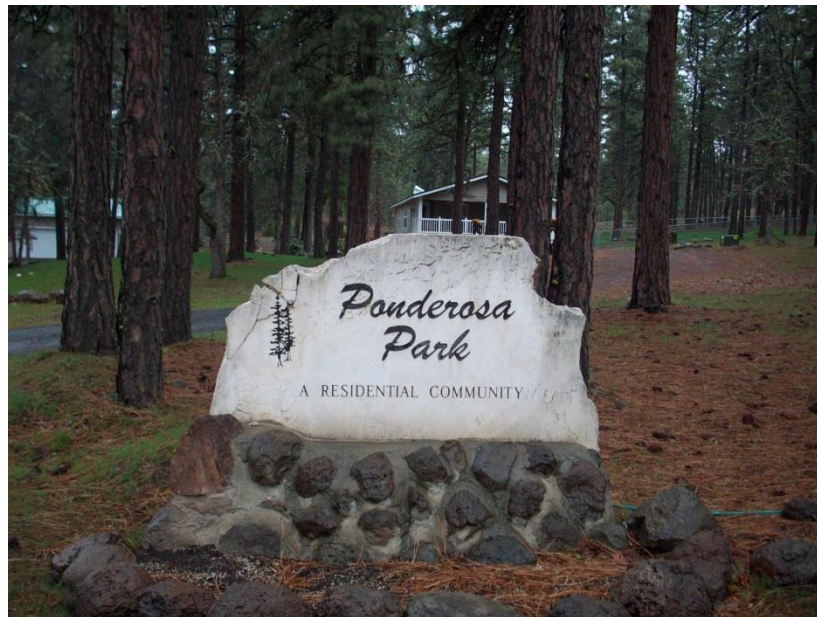
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## 1.0 BACKGROUND INFORMATION

### 1.1 INTRODUCTION

Historically, Ponderosa Park was a one thousand eighty-nine (1,089) acre cattle ranch. In 1977 the property was purchased and subdivided into over 200 parcels approximately 5 acres in size. The “Park” is overseen by the Ponderosa Park Owners Association (PPOA) which is a 5 member Board of Directors who are elected for a 2 year term. The Board of Directors is responsible for establishing committees, and as a result of a resident petition, formed a Firewise Committee in October of 2007 to work on the creation of a neighborhood Community Wildfire Protection Plan (CWPP). The Firewise Committee is composed of volunteers, one of whom is a representative of the Board of Directors.



The legal description of the “Park” is portions of Sections 29 through 33, Township 5 North, Range 16 East W.M

Recent wildfires in the area have prompted PPOA members, Department of Natural Resources (DNR), Central Klickitat Conservation District (CKCD) and Klickitat County Fire District #7 to join together to plan and implement actions to protect life, property and reduce the risk of future wildfire related disasters.

### 1.2 VISION AND GOALS

The PPOA’s vision and goals are to work in concert with the Vision and Goals approved in the Klickitat County Countywide CWPP, adopted in 2006, to provide an overall vision of fuels related risks and mitigation planning for the entire county. While this plan can be seen as an overall umbrella approach to the fuels and associated fire risks, it is not specific to that of the Ponderosa Park vicinity and therefore, the Firewise Committee has developed a Vision and Goals statement which is specific to the Ponderosa Park area.

*“Through the production of Community Wildfire Protection Plan (CWPP) residents of Ponderosa Park aim to protect their community from the effects of wildfire through strategic planning, education, and mitigating actions. The primary goal of the CWPP is to identify and implement projects that will protect*

*people within the CWPP area, including firefighters and emergency response personnel, as well as residents, from injury and loss of life. The secondary goal is to minimize or eliminate danger or loss of property and essential infrastructure due to wildfire.”*

### **1.2a Goal of a Community Wildfire Protection Plan**

The goal of a CWPP is to enable local communities to improve their wildfire mitigation capacity while working with government agencies to identify high fire-risk areas and prioritize areas for mitigation, fire suppression, and emergency preparedness. The minimum requirements for a CWPP, as stated in the HFRA, are as follows:

- 1. Collaboration:** Local and state government representatives, in consultation with federal agencies or other interested groups, must collaboratively develop a CWPP (Society of American Foresters [SAF] 2004).
- 2. Prioritized Fuel Reduction:** A CWPP must identify and prioritize areas for hazardous fuels reduction and treatments, and, further, it must recommend the types and methods of treatment that will protect one or more at-risk communities and their essential infrastructures (SAF 2004).
- 3. Treatments of Structural Ignitability:** A CWPP must recommend measures that communities and homeowners can take to reduce the ignitability of structures throughout the area addressed by the plan. (SAF 2004).

### **1.3 COMMUNITY AWARENESS**

The community of Ponderosa Park has become very aware of the need to develop a CWPP. Ponderosa Park landowners have provided the community energy, input and guidance essential to the creation of this document. It is the hope of the Ponderosa Park community that residents will start (or continue) efforts to make their properties “Firewise” and implement defensible spaces around their homes. New residents of the planning area will be made aware of this plan and information packets will be developed and provided to new residents to increase their awareness of the risk of wildfire within the area. This information will include types of non-combustible construction material (roofing, siding and decking, fire resistant plants/shrubs, etc.)

### **1.4 VALUES**

Landowners of Ponderosa Park value their homes, privacy, and the beauty of the surrounding forests and they want to improve the safety and sustainability of their community over time. Residency within the Park is a mix of permanent and seasonal residents all seeking the values that they have found being part of the Park. Over time they have hosted annual meetings, and created a community website that is consistently maintained and updated with new information. Over the years they have conducted extensive work parties to implement fuels reduction efforts. Community members also want to play an active role through collaborative discussion in land management decisions affecting their neighboring large landowners such as, Bonneville Power Administration and Western Pacific Timber.

Some of the values expressed by community members are:

- Landowner Safety
- Association Covenants and policies
- Individual homeowner’s privacy
- Sustaining environmental values
- Reduction in forest pest and disease infestations
- Reductions in overall fire risks to the Park



## **1.5 Five Objectives of the Ponderosa Park CWPP**

### **1.5.1 Develop a fluid Community Wildfire Protection Plan**

- Show regional fire history with influencing weather and topographical features.
- Define planning area and entities involved.
- Summarize current prevention and fuel management strategies, educational outreach efforts, and develop a mitigation plan.
- Convey this information to community and agencies.
- Provide for reduce risk of fire and community safety.

### **1.5.2. Map locations of local infrastructure**

- Conduct surveys utilizing GPS/GIS technology.
- Identify on maps things such as homes, evacuation routes, safety zones, locations of livestock, access roads, water sources, and major power and communication systems.
- Identify areas of community importance and value.
- Provide maps to firefighters and emergency response agencies.

### **1.5.3. Develop a coordinated system for emergency communications**

- Research, define, and convey a coordinated system of emergency communications for valley residents, Klickitat County Fire District #3 Volunteer Fire Department, neighboring fire departments, and cooperating fire departments.
- Develop and annually update a database that lists by organization and location: firefighting equipment and contact information of fire managers.
- Research the potential of placing new cell towers up in areas with no coverage.
- Research the potential of a reverse 911 system.
- Develop a community evacuation strategy plan.

### **1.5.4. Educate residents on how to protect their homes and property from wildfire**

- Provide information for community residents to make structures and property safer from wildfire.
- Teach "Firewise" concepts to community and school.
- Educate community residents on ways to reduce structural ignitability.
- Conduct community outreach activities.

### **1.5.5. Develop and implement strategies for fuel reduction and fire suppression**

- Identify critical access roads that can't handle fire department equipment.
- Develop a long- term fuel reduction plan and maintenance schedule.
- Recruit groups to remove hazardous fuels.
- Assist seniors and disabled individuals to create defensible space around homes.
- Encourage local landowners to remove hazardous fuels on their property.
- Research incentive programs for landowners to control hazardous fuels on their property.

## **2.0 PLANNING AREA**

### **2.1 General Description of the area**

Ponderosa Park is a 1000 acre residential development with homes surrounded by dense forest and with some open meadows of grass and brush. The community of Goldendale is the closest town to the planning area and is approximately 5 miles southwest of the planning area boundary. Ponderosa Park is located in the south central portion of Klickitat County, Washington and is situated on the southern slopes of the Simcoe Mountains, southeast of Mount Adams and north of the Columbia River National Scenic Area. The entire planning area is considered to be wildland urban interface (WUI) and the Firewise Committee has begun assessing and mapping the community for hazardous fuel reduction projects with the assistance of KCCD and DNR.



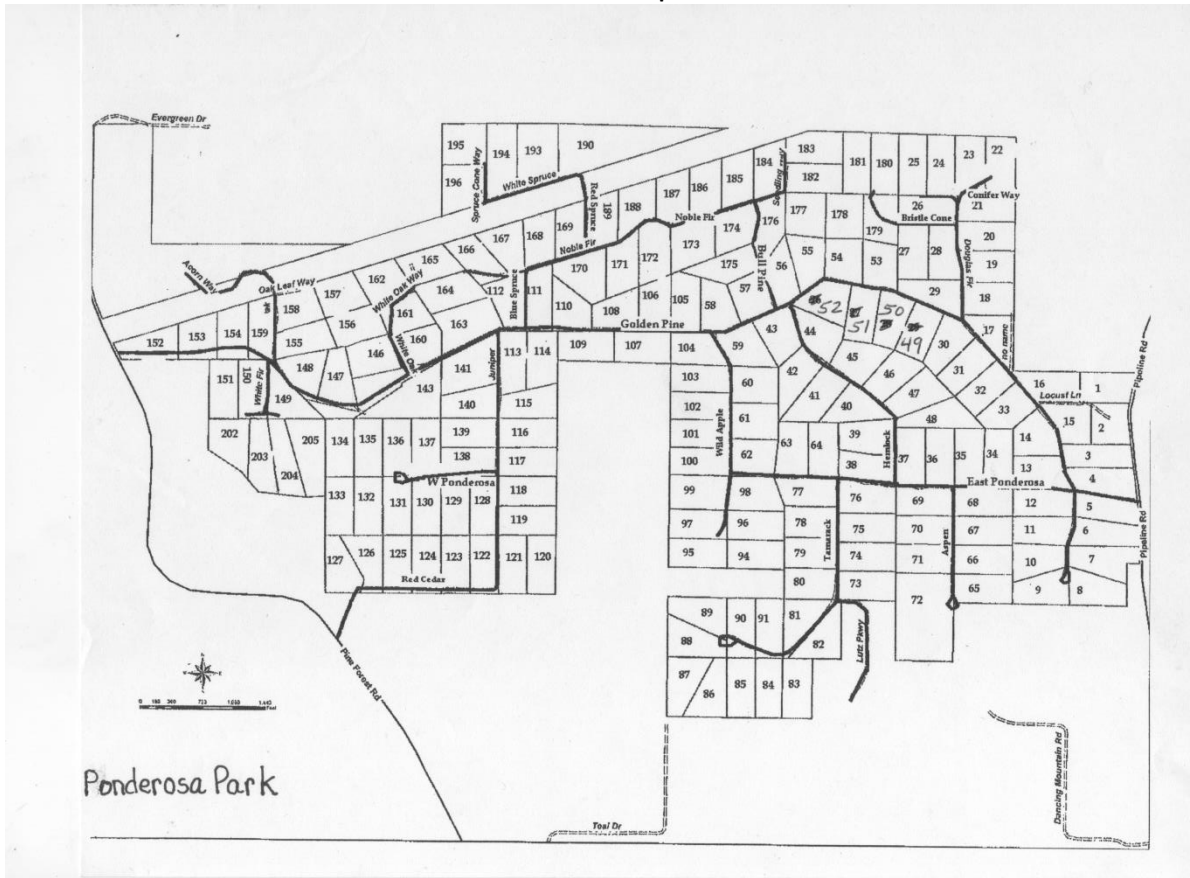
**Plate 2.1 Vicinity Map of Ponderosa Park- Park is located north of Goldendale, WA**

Currently in the Klickitat Countywide CWPP the community falls within the NW Goldendale community area as designated on the countywide mapping on Map 9 of the countywide plan. Neighborhood planning is to work in collaboration with plans done at the community and county levels.

### **2.2 Community planning boundaries**

Ponderosa Park is bounded on the east by the Pipeline Road, and the west by the Pine Forest Road. The northern border is the right-of-way for the Bonneville Power Authority (BPA) utility lines, and the southern boundary is largely comprised of properties owned by private landowners. There are approximately 10 miles of gravel roads in Ponderosa Park. There is one main through road, Golden Pine, which runs between Pipeline Road and Pine Forest Road. It is gated on the west end at Pine Forest so that traffic does not normally go through, but keys have been provided to Rural #7 Fire Department fire trucks for use in case of fire. The gate is open during the summer when wildfire danger is high. Access to Pine Forest Road is also available from Juniper and Red Cedar Roads.

**Plate 2.2 Ponderosa Park Parcels- Roads and parcel numbers associated with the Park**



**2.2 Other planning area information**

Ponderosa Park has one Class A water system that provides water for the community, and is managed by the Klickitat County Public Utility District. PUD has completed an expansion of the water system to provide water hook ups to landowners on the west side of the Park. The lack of water has limited the number of homes on the west end. It is projected more homes will be built and more people will live there on a permanent basis now that this expansion is complete. Due to the lack of year round residential use on the west end of the Park, the area is more forested with moderate to heavy fuel loading. This is mostly made up of ponderosa pine stands with moderate numbers of Oregon white oak scattered in the overall stand mix with some areas containing overgrown undergrowth of brush species. There are some stands of Douglas fir scattered throughout Ponderosa Park. Power service is distributed via underground lines. Some homes are powered by solar electric systems.

The vast majority of the home construction is typically newer (10-15 years old or newer). It must be noted that in many ways home ownership was heavily attributed to the aesthetics of the area and the actual home sites chosen which at the time the majority of them did have a high level of fuel loading and multilayered canopy composition. *Home sites are being assessed to determine if there is adequate defensible space using the Risk Assessment Form 299/1144. (See Plate 2.3 in Attachment A)*

## **3.0 Planning Process**

### **3.1 Background**

With both the enactment of the National Fire Plan (NFP)(2000) and more importantly the Healthy Forest Restoration Act (HFRA)(2003) created opportunities for counties and communities to participate in community based fuels reduction review and fuel reduction oriented forest planning, and vegetation treatment projects' along with other activities that a community might feel they need to complete to make their communities more aware of the danger so that there was a greater opportunity for a wider participation at the grass roots level.

This legislation also included the first meaningful statutory incentives for the United States Forest Service (USFS), the Bureau of Land Management (BLM) and the Bureau of Indian Affairs (BIA) to give consideration to the priorities of local communities as they develop and implement forest management and hazardous fuels reduction projects.

One of the most important concepts to come out of this process is that of community based discussions which are not driven by agencies telling the local community what they should do. The agencies act in an advisory role to the community, local government, fire districts to develop the plan at the grass roots level.

What this really means is that collaboration with all partners in this process is exceedingly important to the success of the process.

The SAF, in collaboration with the National Association of Counties, the National Association of State Foresters, the Western Governors' Association, and the Communities Committee developed a guide titled "*Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities*" to provide communities with a clear process to use in developing a CWPP. This guide can be accessed at <http://www.safnet.org/policyandpress/cwpphandbook.pdf>; outlines eight steps for developing a CWPP and has been followed in preparing this Ponderosa Park CWPP. The eight recommended steps are as follows:

**Step One: Convene Decision Makers.** Form a Core Team made up of representatives from the appropriate local governments, local fire authorities, and state agencies responsible for forest management.

**Step Two: Involve Federal Agencies.** Identify and engage local representatives of the USFS and the BLM. Contact and involve other land management agencies as appropriate.

**Step Three: Engage Interested Parties.** Contact and encourage active involvement in plan development from a broad range of interested organizations and stakeholders.

**Step Four: Establish a Community Base Map.** Work with partners to establish a baseline map (or maps) defining the community's WUI and showing inhabited areas at risk, forested areas that contain critical human infrastructure, and forest areas at risk for large-scale fire disturbance (see Appendix A for the County's base maps).

**Step Five: Develop a Community Risk Assessment.** Work with partners to develop a community risk assessment that considers fuel hazards; risk of wildfire occurrence; homes, businesses, and essential infrastructure at risk; other CVARs; and local preparedness capability. Rate the level of risk for each factor and incorporate this information into the base map(s) as appropriate.

**Step Six: Establish Community Priorities and Recommendations.** Use the base map(s) and community risk assessment to facilitate a collaborative community discussion that leads to the identification of local priorities for fuel treatment, structural ignitability reduction, and other issues of interest, such as improving fire response capability. Clearly indicate whether priority projects are directly related to protection of communities and essential infrastructure or related to reducing wildfire risks to other community values.

**Step Seven: Develop an Action Plan and Assessment Strategy.** Consider developing a detailed implementation strategy to accompany the CWPP, as well as a monitoring plan that will ensure its long-term success.

**Step Eight: Finalize Community Wildfire Protection Plan.** Finalize the CWPP and communicate the results to community and key partners.

In order for communities to take full advantage of this opportunity, a Community Wildfire Protection Plan, (CWPP) must first be prepared. This happens at two levels, one which is at the countywide level. This plan has a number of effects associated with it. For one, the county is the lowest level of government that FEMA feels comfortable working through for emergency and other matters. This does not mean that the federal government does not work with cities, towns, and communities, but does allow for a standard base relationship from which to administer actions. Countywide planning can be viewed as an umbrella to the entire county discussing overall demographic information, fire history, community risk and overall basic strategies to be employed to reduce fire hazard risk at the countywide level. This document is to provide a certain level of discussion on direction for the entire county.

The next level is the actual community level based CWPPs. In countywide plans the county can be blocked out into communities which have traditionally fallen within fire district lines or topographic areas. Depending on the fire district's boundaries the size of these geographical outlines can vary dramatically.

*The Ponderosa Park Community is unique in the fact that they are an isolated 1000 acre community within the much larger Rural 7 Fire and Rescue that can define its boundaries and needs within the residents of the community. (See Plates B12 in attachment B)*

These plans also look at the general areas of the county which are designated as Wildland Urban Interface (WUI). WUIs are areas or zones where structures and human development meet and intermingle with undeveloped wildland and vegetative fuels. The nature of this interface poses tremendous risk to life, property, and infrastructure associated with these communities. One of the interesting cultural sidebars is that a number of the residents of Ponderosa Park came to this community due to the aesthetics of the area even though they did not understand the risks that are created with the overstocking, stand structure and composition risks associated with the current forest stands. Therefore there are a number of landowners that want to leave things the way they are. Education of as much of the community as possible to give them risk analysis information is one of the best ways to give them a more insightful set of options to move forward with.

It should be noted that in the absence of a CWPP, the HFRA limits the WUI to within ½ mile of a community's boundary or within 1½ miles where mitigating circumstances exist, such as steep slopes or the presence of a critical evacuation route. At least 50 % of the funds appropriated for projects under the HFRA must be used within the WUI as defined by either a CWPP or by the limited definition provided

in the HFRS where no CWPP exists. For the Ponderosa Park vicinity the WUI is defined as the entire project area both in this plan as well as in the county-wide CWPP.

The Klickitat County Countywide CWPP has been adopted by the County Commissioners of Klickitat County in 2006. This was a joint effort with Skamania County. Therefore the document reflects the needs and intentions of both counties. Skamania County has gone one step further and completed the community level plans for the entire county. Overall the countywide document will have periodic review to revise objectives and direction mentioned in the document over time.

This is a broad brush approach to the collaboration of all concerned entities regarding wildland management and fuels reduction practices. The next level of refinement the community based planning process. As mentioned, most of the county plans do demonstrate a breakdown of the county into communities that attempt to have some collaboration with fire district boundaries.

This level planning is more precise as to what specific areas should be reviewed and specific concerns and needs looked at. The specific areas that the community has concerns with are more readily addressed at this level. The collaboration is more precise as to specific project requirements and timelines. Budgetary needs are more easily spelled out and needs for specific funding more easily assessed.

The Ponderosa Park plan takes the Community level CWPP into another more precise level and that is of the “neighborhood level”. Community level planning may still be large enough to be somewhat cumbersome. In attaining a productive level of community participation, it has been demonstrated time and time again that the neighborhood level of planning and participation seems to be more successful, especially when dealing with projects that may require some additional assistance from local, State and Federal funds and/or collaboration. Neighborhoods are much better at working through areas of concern such as structural protection planning, local communication options, working with fire districts in specific collaborative processes. It is also a much more effective platform for education on fuels and vegetative planning options. More importantly the neighborhood level appears to be one level where updating of the plan is more readily accomplished.

It also appears that there is more effective use of collaboration with technical assistance agencies since there appears to be a more readily available platform for one to one educational opportunities, eventually providing more positive results.

Information developed from the neighborhood and community level CWPP planning is then attached to the higher level planning, usually at the countywide level, as addendums to the County plan and pathway.

### **3.2 Planning process schedule**

As with any process there has been a tentative schedule of steps to be taken and then timing of these steps to make the process work. Plate 3.2a is the tentative schedule that has been used through the planning process and has been modified over time.

Table 3.2.a CWPP planning Schedule: *A tentative schedule of public input timing for the drafting of the CWPP*

<i>Action</i>	<i>Timing</i>	<i>Participation</i>	<i>Results</i>
<i>Initial Meeting</i>	<i>November 2007</i>	<i>Firewise Committee</i>	<i>Organization and timing review</i>
<i>Second Steering Committee Mtg.</i>	<i>January 2008</i>	<i>Firewise Committee</i>	<i>Review of schedule, overview of community needs, begin to draft plan</i>
<i>First Community Meeting (Homeowner's annual meeting)</i>	<i>October 2008</i>	<i>Firewise Committee and community members</i>	<i>Refinement of community concerns, risk review and potential mitigate projects</i>
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<i>Review of 1<sup>st</sup> draft</i>	<i>December 2008 – September 2011</i>	<i>Firewise committee</i>	<i>Review CWPP and discuss options. Firewise committee made editorial changes</i>
<i>Second Community Meeting</i>	<i>October 2011</i>	<i>Firewise Committee, and community members</i>	<i>Refinement of draft and project clarification and scheduling final review</i>
<i>Review of final draft</i>	<i>November 2012</i>	<i>Firewise Committee and Association Board, and Fire District</i>	<i>Final review and agreement to plan</i>
<i>Commissioner Review</i>	<i>April 2014</i>	<i>Firewise and Klickitat County Commissioners</i>	<i>Review and endorsement of the plan as part of the Klickitat County CWPP</i>
<i>State Forester's Review</i>	<i>April 2014</i>	<i>Review by State Forester</i>	<i>Final signatures are completed</i>
<i>Final Plan adoption</i>	<i>March 2014</i>	<i>Community</i>	<i>Plan is adopted with an overall scheduling of specific projects planned out as well as a review process put in place</i>

### **3.3 Planning Partners**

The residents of Ponderosa Park have been concerned about wildland fire for many years. A number of fires have been near the area, which has raised the concern of the community.

As stated earlier in this document, Ponderosa Park has organized their own “Firewise” committee specifically to look into the issues of viable vegetation management within the boundaries of the Ponderosa Park Homeowners Association. This plan is an outgrowth of the discussion within the community and additional work by the Firewise Committee in efforts to produce a “Fire Adaptive Community”.

In addition to the community impute, this work has been done in collaboration with other entities. Klickitat Fire District # 7, Central Klickitat Conservation District, Washington State Department of Natural Resources (DNR), Bonneville Power Authority (BPA) as well as the Klickitat County Commissioners has knowledge of this planning venture. (See complete listing in Attachment D Plate D3.3)

## **4.0 Risk Assessment**

### **4.1 Existing Vegetative information**

The vegetation of the Ponderosa Park community is a mix of two major vegetative habitats. Due to the elevation of the area and the juxtaposition of the site the area lies within the boundaries of what is called the Ponderosa pine and mixed conifer vegetative habitats. Normal topographical elevations for these habitat run from 1500' to 4500' with the Ponderosa Park area falling within elevations of 2300' up to 2500' in elevation with a majority of the area being a southerly facing slope.

Currently the primary vegetation type is PIPO/CARU/AGSP. Ponderosa pine (*Pinus ponderosa*) with scattered stands of Oregon white oak (*Quercus garryana*) and Douglas fir (*Pseudotsuga menziesii*) making up the vast majority of the overstory stand composition. Ponderosa pine is a shade tolerant species adapted to survive in areas that experience frequent fire occurrences. The majority of the area is made up of Forest Risk Rating classes 2 and 3. Fire plays a major role in how ponderosa pine is established on the landscape. Historical regular burning allows ponderosa pine stands to flourish by removing underbrush and smaller competing trees. As the pine mature their bark thickens, this provides an insulation factor from fire and makes them more adaptable to survival in a fire environment. Older pure ponderosa pine stands often exhibit wide and open park like spacing (12 to 25 trees per acre) with intermittent brush, small trees and native grass species.

Oregon white oak is also somewhat fire resistant and will be sustained over time in stands where fire occurrences happen. Therefore fire intensities are not at the stand replacement level. Additional species that normally would be part of these habitats would be, bitterbrush, serviceberry, ceanothus, Carey balsam root, Slim larkspur, yarrow, sulphur lupine, showy phlox, and bluebunch wheatgrass and the ever persistent invasive cheatgrass to name a few.

The historic evidence of fire return intervals associated with this sort of area is around 7-15 years. While the benefits of natural fires are debated by experts, many believe that fire also provides benefit by creating a mosaic of microhabitats on the landscape.

Resulting increase in vegetation diversity from fire benefits wildlife, as well as forest health and resistance to disease. Conversely, the exclusion of fires over the last 40-60 years has allowed the continuous horizontal and vertical fuel profiles of ponderosa pine and Douglas fir stands to develop, encouraged an increase in insect populations, and increase in possibility for high intensity stand replacement fires across the landscape.

Additionally one can look at Fuel Model classifications. Table 4.1 is a quick review of a number of the modeling classifications associated with the Park. A full modeling exercise was not attempted with this review so there is no mapping associated with the process.

Table **Error! No text of specified style in document..1.** Fuel Model Classification for the Ponderosa Park planning area

<b>1. Nearly pure grass and/or forb type (Grass)</b>
<b>GR1:</b> Grass is short, patchy, and possibly heavily grazed. Spread rate is moderate (5–20 ch/h); flame length low (1–4 feet [0.3–1.2 m]); fine fuel load 0.40 (tons per acre [t/ac]).
<b>GR2:</b> Moderately coarse continuous grass, average depth about 1 foot (0.3 m). Spread rate high (20–50 ch/h), flame length moderate (4–8 feet [1.2–2.4 m]); fine fuel load 1.10 (t/ac).
<b>2. Mixture of grass and shrub, up to about 50% shrub cover (Grass-Shrub)</b>



**GS1:** Shrubs are about 1 foot (0.3 m) high, low grass load. Spread rate moderate (5–20 ch/h); flame length low (1–4 feet [0.3–1.2 m]); fine fuel load 1.35 (t/ac).

**GS2:** Shrubs are 1–3 feet (0.3–0.9 m) high, moderate grass load. Spread rate high (20–50 ch/h); flame length moderate (4–8 feet [1.2–2.4 m]); fine fuel load 2.1 (t/ac).

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**3. Shrubs cover at least 50% of the site; grass sparse to nonexistent (Shrub)**

**SH2:** Moderate fuel load (higher than SH1), depth about 1 foot (0.3 m), no grass fuels present. Spread rate low (2–5 ch/h); flame length low (1–4 feet [0.3–2.4 m]); fine fuel load 5.2 (t/ac).

**SH4:** Low to moderate shrub and litter load. Spread rate is high (20–50 ch/h), flame length moderate (8–12 feet [2.4–3.7 m]). Fine fuel load is 3.4 (t/ac).

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**4. Grass or shrubs mixed with litter from forest canopy (Timber-Understory)**

**TU1:** Fuel bed is low load of grass and/or shrub with litter. Spread rate low (2–5 ch/h); flame length low (1–4 feet [0.3–1.2 m]); fine fuel load 1.3 (t/ac).

**TU5:** Fuelbed is high load conifer litter with shrub understory. Spread rate is moderate (5–20 ch/h); flame length moderate (4–8 feet [1.2–2.4 m]); fine fuel load 7.0 (t/ac).

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**5. Dead and down woody fuel (litter) beneath a forest canopy (Timber-Litter)**

**TL1:** Light to moderate load, fuels 1–2 inches (3–5 cm) deep. Spread rate very slow (0–2 ch/h); flame length very low (0–1 foot [0.0–0.3 m]); fine fuel load 1.0 (t/ac).

**TL4:** Moderate load fine litter and coarse fuels. Spread rate is low (2–5 ch/h); flame length is low (1–4 feet [0.3–1.2 m]). Fine fuels load is 0.5 (t/ac).

**TL5:** High load conifer litters, light slash. Spread rate is low (2–5 ch/h), flame length is low (1–4 feet [0.3–1.2 m]); fine fuel load is 1.15 (t/ac)

**TL8:** Moderate load and compactness, may include small amount of herbaceous load. Spread rate moderate (5-20 ch/h); flame length low (1–4 feet [0.3–1.2 m]); fine fuel load 5.8 (t/ac).

**TL9:** very high load conifer litter, spread rate moderate (5-20 ch/h); flame length moderate (8–12 feet [2.4–3.7 m]); fine fuel load 6.65 (t/ac).

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**6. Insufficient wildland fuel to carry wildland fire under any condition (Non-burnable)**

**NB1:** Urban or suburban development; insufficient wildland fuel to carry wildland fire.

**NB2:** Snow/Ice.

**NB3:** Agricultural field, maintained in non-burnable condition.

**NB8:** Open water.

**NB9:** Bare ground.

**Notes:**

Based on Scott and Burgan's (2005) 40 Fuels Model Systems.

Climate is arid to semiarid for all fuel types.

#### **4.2 Current Fire Ecology**

Weather, topography, and fuels affect wildfire behavior. Ponderosa Park CWPP area, like other areas in Klickitat County, is prone to severe weather conditions that can support extreme fire behavior. When the natural fire regime is altered (primarily through fire exclusion) Ponderosa pine stands become denser. This includes the other species found in the habitat producing multi-layered vegetation and ladder related fuel loads. The Ponderosa Park landscape has many areas of dense stands dominated by ponderosa pine, which are primarily less than 18 inches in diameter. This overstocked condition has caused many trees to have commingled crowns and ladder fuels and small pockets to be affected by low-level (0.3 to 5 trees/acre) infestations of mountain pine beetle and/or engraver beetle. Continuous, tall underbrush also predominates.

Historically this area falls within the 7 to 30 years fire re-occurrence cycle which would have taken much of the understory out, done natural thinning of stand by burning out smaller trees and brush leaving an open savanna look over time. With the exclusion of natural fire occurrence cycles the lower and intermediate stand levels have over populated a number of areas within the Park.

Complex fuel loads that have changed the historical stocking, structure and composition allow the fire intensity to sustain its effects over larger expanses of the landscape than what would traditionally be found in those acreages where the fuel loads have been sustained at traditionally lower levels, with not as much ladder diversity found within stands in a continuous basis.

#### **4.2.1 Historical Disturbance Regimes and Current Fire Conditions**

##### **4.2.1.1 Ponderosa Pine Forest**

Generally, estimates of fire-return intervals in ponderosa pine forests range from a minimum of about two years to a maximum of nearly 40 years, and many agree that fires were frequent and generally of low severity (Agee 1994; Cooper 1960; Covington and Moore 1994; Richardson 1998); according to Cooper (1960), crown fires were not a component of the historical fire regime. The effects of fire exclusion on forest structure are thought to be most profound in forests that previously sustained frequent, low-intensity surface fires (Westerling et al. 2006), and it is likely that fire exclusion was a primary cause of departure from historical conditions in ponderosa pine forests. For the most part, frequent fire consumed fuels on the ground surface and culled young trees to maintain an uneven age distribution and mosaic pattern throughout the forest (Allen et al. 2002). Frequent fire disturbance maintained an open, park-like forest structure with canopy openings and an abundant herbaceous and shrubby understory (Agee 1994; Biswell 1973; Cooper 1960; Weaver 1947).

##### **4.2.1.2 Mixed Conifer/Subalpine Fir Forests**

Often forest patches affected by low and high-severity fire are closely juxtaposed in a transition zone made up of a forest type known as mixed conifer (Fulé et al. 2003). Fire histories in mixed conifer forests vary with forest composition, landscape characteristics, and human intervention, but tend to exhibit mixed-severity fire regimes, with both low-intensity surface fires and patchy crown fires (Touchan et al. 1996). Mixed-severity fire regimes are the most complex fire regimes in the western United States (Agee 1998) because of their extreme variability (Agee 2004). A mixed-severity fire regime exists where the typical fire, or combination of fires over time, results in a complex mix of patches of different severity, including unburned, low severity, moderate severity, and high severity (Agee 2003).

Ponderosa pine was once co-dominant in many mixed conifer forests with relatively open stand structures, but fire suppression has allowed the development of dense sapling understories, with regeneration dominated by the more fire-sensitive Douglas-fir, white fir, and grand fir. Herbaceous understories have been reduced by denser canopies and needle litter, and nutrient cycles have been disrupted. Heavy surface fuels and a vertically continuous ladder of dead branches have developed, resulting in increased risks of crown fires (Touchan et al. 1996).

##### **4.2.1.3 Grasslands**

Many authors have suggested that the historical fire-return intervals for grasslands throughout the seventeenth to early nineteenth centuries are thought to have been every 5 to 10 years (Leopold 1924; McPherson 1995; Swetnam et al. 1992). Fire-suppression policies may have contributed to declining fire frequency in this cover type as well, but other interacting factors may have contributed as well. Intensive livestock grazing around the time of the Civil War is thought to have been responsible for a decline in grassland fires (West 1984). Heavy grazing reduced the fuel available to propagate fire spread and also reduced competition with herbaceous plants, tipping the balance in favor of the woody species. Woodland encroachment, increased tree density, and altered fire behavior characterize many former grasslands of the West. Once woody plants become dominant, their long life spans and their ability to

extract both shallow and deep soil moisture can maintain a woodland condition indefinitely (Burgess 1995). Frequent fire plays a significant role in grassland nutrient cycling and successional processes, and long-term exclusion may produce irreversible changes in ecosystem structure and function (McPherson 1995).

### **4.3 Fire History**

Natural wildfires are part of this ecology. Weather conditions found in the Columbia Gorge area contribute to the overall frequency and in many cases to the wind effects associated with these storms. Most of the more intense storms are those that can be attributed to a low pressure front coming north from California that builds in intensity as it moves up through Eastern Oregon and continues its northerly march and sometimes easterly advance. Along with southwesterly winds associated with the fronts advance there is also higher westerly winds coming up through the gorge. This does not mean that isolated storms do not develop for they do and rapidly as they become associated with the effects of the gorge induced weather patterns.

As mentioned earlier, historically these fires would have normally been smaller in size, crept on the ground, and taken out what ladder fuels had accumulated since the past fire. At times due to weather conditions fires would have the potential to gain in size. Historic natural fire occurrence associated with this area would have been in the 7-30 year range. Human caused fires would have also been part of the historic fire frequency of this landscape. Some Native American practices have used fire in the area to induce certain native plants to thrive.

**Plate 4.3 Fire History Near the Ponderosa Park Area** (See Plate D1 for definitions of incident complexity) A list of recent fire history near the Ponderosa Park Community was compiled from over the past several years beginning with several of the large incidents in East Klickitat County over the past twenty years or so. This list is not all inclusive but briefly summarizes many of the responses to wildland fires only. This list does not include structure fires that did not escape into the wildland or illegal burns (such as burn barrels) where only local volunteer fire district resources or law enforcement responded.

(see next page)

### Large Fire Summary

<b>Year</b>	<b>Fire Name</b>	<b>Acres Burned (approx.)</b>	<b>Incident Complexity</b>
1998	Cleveland	20,000	2
2010	Highway 8	2,500	2
2012	Monastery	3,500	2
2012	Columbia Hills	14,000	3 (State Mob)
2013	Mile Marker 28	26,000	2

#### 2005

<b>Wildfire Name</b>	<b>Size (acres)</b>	<b>Incident Complexity</b>
Teal Road Fire	.25	Type 5
Halter Road	.25	Type 5
Mill Creek	.10	Type 5
Dry Creek	2	Type 4
Hwy 97 / MP25	Vehicle Fire (threat to forest land)	Type 5
Gatesville	.25	Type 5
Garrison Road	104	Type 3

#### 2006

<b>Wildfire Name</b>	<b>Size (acres)</b>	<b>Incident Complexity</b>
Orchard Heights	.50	Type 5
Hawks Feather	.10	Type 5
Mill Creek	2.5	Type 4
Fairgrounds Road	.10	Type 4
High Mountain	8	Type 4
Double Klick	2	Type 4

Butler	.10	Type 5
Stage Coach	.25	Type 5
2006 “Lightning Bust”	9 Separate Fires	Type 4

**2007**

Evergreen Road	.25	Type 5
Pipeline Road	.10	Type 5
MP 20 / Hwy 97	.10	Type 5
Satus Loop Road	.25	Type 5
Blowtorch	.10	Type 5
Boss Road	.10	Type 5
Harris Road	.50	Type 5
Schilling Swale	17	Type 4
Horseshoe Bend	.25	Type 5
Firewood Road	.10	Type 5
Pine Forest	.10	Type 5
2007 “Lightning Bust”	10 Separate Fires	Type 4

**2008**

Satus Loop	.25	Type 5
Rimrock Road	.10	Type 5
Stacker butte	.25	Type 5
Jeep Fire	.10	Type 5
Airport	.10	Type 5
Bickelton Highway	.25	Type 5
Observatory Complex (3 fires)	140 (Lightning)	Type 3
Lightning Bust	7 fires	Type 4

**2009**

Mercy Road	.10	Type 5
England Road	.10	Type 5
MP10 / Hwy 97	.25	Type 5
Pipeline	.10	Type 5
Counts Road	.50	Type 5
Homestead Run	1	Type 5
Heartland	.25	Type 5
Grey Digger	.10	Type 5

**2010**

Old mountain Road	.75	Type 5
Hill Road	.10	Type 5
Four Corners	.10	Type 5
Hanging Rock	.50	Type 5
Jenkins Creek	.25	Type 5
Milepost 8	.25	Type 5
Palomino	4	Type 5
Box Run	115	Type 3

**2011**

Bowman Creek	.10	Type 5
Monument	.50	Type 5
Black tail	20	Type 4
Old Mountain	.10	Type 5
H Cell	.10	Type 5
1700 Road	.10	Type 5

## 2012

Milepost 5	.10	Type 5
Pinto	.10	Type 5
Fairgrounds	.10	Type 5
Idlewood	.10	Type 5
Knotty Pine	.10	Type 5
Burn pile	.33	Type 5
Frog Hollow	1	Type 4
Lightning Bust	6 Fires	Type 4

### 4.3.1 Fire Regime Classifications

A natural or historical fire regime is a general classification describing the role fire would play throughout a landscape in the absence of modern human intervention, but includes the influence of burning by Native American groups (Agee 1993; Brown 1995; Hann et al. 2003).

Fire regime classes (FR I–V) are based on the average number of years between fires (also known as fire frequency or mean fire-return interval) combined with the severity (i.e., the amount of vegetation replacement) of the fire and its effect on the dominant overstory vegetation (Hann et al. 2003).

The five fire regime classes are:

- FR I: Frequency of 0 to 35 years, and low (mostly surface fires) to mixed severity (less than 75% of the dominant overstory vegetation is replaced).
- FR II: Frequency of 0 to 35 years, and high severity (more than 75% of the dominant overstory vegetation is replaced).
- FR III: Frequency of 35 to 200+ years, and mixed severity (less than 75% of the dominant overstory vegetation is replaced).
- FR IV: Frequency of 35 to 200+ years, and high severity (more than 75% of the dominant overstory vegetation is replaced).
- FR V: Frequency of 200+ years, and high severity (more than 75% of the dominant overstory vegetation is replaced).

Other forms of human starts are normally not started in the fashion of those centuries ago. The past century of Euro-Asian inhabitation of the area has culturally seen the quick suppression of fire when possible with most fires small in nature. This has allowed for accumulations of heavy vegetation in the form of a larger presence of brush species as well as ladder fuels to become a larger portion of the fuel loadings found in the area. Risks of incidental fire starts, normally accidental in nature but sometimes due to carelessness are an ever expanding percentage of the fires near the area. Due to the amount of

fuels present these fires have a higher risk of not being suppressed at a smaller acreage, tend to grow with risks of higher intensities and therefore raise more risks to people, animals and property.

There have been a few large fires in the immediate proximity of the Ponderosa Park area, with the Monastery Fire of September 2011, coming within 5 miles of the north boundary of the Park. This fire made the community very aware of what could happen. During the Park's annual homeowner's meeting a review of some of the after action information was presented and discussed by the homeowners. (See Plate B.8 in Attachment B)

#### **4.4 Fuels and Hazard Review**

DNR has classified the immediate area around the Ponderosa Park community as being in the "High Risk" level when looking at wild land/urban interface (WUI) communities. This classification is supported by all agencies responsible for fire protection in the Ponderosa Park area of Klickitat County. Past activities such as logging as well as fire prevention and suppression have altered the normal fire regime, stand species composition, and forest health. (See Plate B.5 in Attachment B)

Numerous stands within Ponderosa Park are second growth stands that have not had any management done in them for a number of years; therefore the stocking is at levels of between 1000-2500 stems per acre. Along with the overstocking problems, stand structure has built up and ever increasing amount of ladder fuels that will allow a fire to sustain itself in the canopy. Specie composition is not at a sustainable level with a large amount of Douglas fir scattered throughout many of the sites that should be Ponderosa Pine dominated to maintain stand thriftiness and health.



**Plate 4.4- Typical overstocked stand found in the Park**

Overall assessment of specific neighborhoods do show that the overall risk ranking should be classified in the "very high" , due to the dense stands of second growth ponderosa pine and ladder fuels found on



a large amount of the neighborhood acreage. Many of the stands are dominated by trees of less than 18" DBH with pockets of trees affected by infestations of mountain pine beetle as well as fir engraver and other pests which are currently at endemic levels. Trees often have contiguous crowns, with small patches of mistletoe and ladder fuels, associated with continuous tall underbrush that also predominate on the landscape. All of these can create conditions for an intense and fast moving fire. (see Plate 4.4) and Table 4.1)

#### **4.5 Protective Capacities**

Rural 7 Fire and Rescue provides structural protection for the Ponderosa Park area and DNR provides fire protection on private lands in and around the area. Recently a fire hall has been built within Ponderosa Park, expanding Rural 7's overall capabilities and reducing the immediate response time. While these resources are at levels that would take care of most emergencies, they are not at levels which would be able to suppress wildfire occurrences that may happen on days with very adverse conditions. Rural 7 Fire and Rescue is primarily a volunteer fire suppression organization, and therefore overall responses may have different levels of staffing associated with each call.



**Plate 4.5 Fire District #7 Ponderosa Park Station**

The objective of the Ponderosa Park structural fire protection plan is to safely and efficiently manage resources to protect human life, essential infrastructure, and resources in the event of a wildfire. Strategic decisions should take into account the following tactical considerations:

Overall ingress and egress of the neighborhood is one of the highest concerns when assessing overall structural protection strategies. Currently this is fairly well maintained gravel base road but there are some heavy concentrations of fuels on the road right-of-way that need to be assessed for overall risks. Some homes would require maximum effort to defend, requiring prompt activation of this plan and the need to triage structures.



**Plate 4.5 Example of Rural 7 Fire and Rescue apparatus – Engine 718 Tender**

Access to some homes is described as “one way in and out”. Traffic control and apparatus staging and placement must be carefully considered.

The homes in the area range from small to large with most structures having composition or metal roofing.

A community water system exists in Ponderosa Park and has 13 water outlets which will support engine refilling. As examples, a 3” stand pipe on the east end of the Park at the corner of Golden Pine and Bull Pine Road is connected to the reservoir and can be used to fill and refill water trucks and engines. On the west end of the Park, the Red Cedar well, which is not presently being used for domestic water supply, can be used for firefighting purposes. In addition, some homes are served by individual wells which may be used to support firefighting efforts on a limited basis.

Rural 7 Fire and Rescue and its cooperators cannot assemble enough structural protection resources to simultaneously protect all residential structures in the Ponderosa Park neighborhood in the case of a fast moving fire. Successful defense will require structural triage, time for pre-treatment and/or highly mobile tactics and burnout operations citing current vegetative conditions.

It should be noted that Rural 7 Fire and Rescue has built a new Fire Hall (#11) in the Ponderosa Park Community that houses Structural and Brush engines.

Table 4.5 includes a quick listing of fire suppression resources that are available to the Ponderosa Park area for initial attack as well as long duration assignments. It should be noted that these are local resources and depending on the fire’s complexity the local fire chief in consultation with Klickitat

Emergency Services may make the determination that an incident needs to be sent to Washington State Patrol for upgrading status of a fire requesting statewide mobilization. At that time there will be a determination on the complexity of the incident and the additional needed fire suppression resources.

**Table 4.5- A listing of fire suppression capabilities near Ponderosa Park**

<b>1. Klickitat Fire Districts Initial Attack forces</b>
<ul style="list-style-type: none"> <li>● <b>Station 11 located within the park is equipped with</b> <ul style="list-style-type: none"> <li>○ Brush Engine with 275 gal. capacity</li> <li>○ Water Tender 1000 gal. capacity</li> <li>○ 10 Volunteers</li> <li>○ Estimated roll-out time 12-15 minutes</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● <b>The Main Hall located in downtown Goldendale is equipped with</b> <ul style="list-style-type: none"> <li>○ Fire Trucks</li> <li>○ Water Tenders</li> <li>○ Dozer</li> <li>○ Volunteers</li> <li>○ Chief Anthony Browning</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● <b>Additional satellite stations that would respond include</b> <ul style="list-style-type: none"> <li>○ Box Canyon Fire Hall with 1 Type 6 Brush Engine</li> <li>○ 1-2200 gallon Water Tender</li> <li>○ Woodland Road Fire Hall with 1 Type 6 Brush Engine</li> <li>○ Blockhouse Fire Hall with 1 Type 6 Brush Engine</li> <li>○ Cedar Valley Fire Hall with 1 Type 6 Brush Engine</li> </ul> </li> </ul>
<b>2. Additional fire engines available to respond from the City of Goldendale include</b>
<ul style="list-style-type: none"> <li>○ 2 Type 1 Structure Engines</li> <li>○ 1 Type 6 Brush Engine</li> <li>○ 1 Water Tender</li> </ul>
<b>3. Local WADNR resources available to respond include</b>
<ul style="list-style-type: none"> <li>○ 3 Type 5 Brush Engines each equipped with 420 gallons of water, portable pumps, deck pumps, a minimum of 3 Firefighters, hand tools, chainsaws and approximately 1500 feet of hose and fittings.</li> <li>○ 1 Type 6 Brush Engine equipped with 240 gallons of water, portable pump, a minimum of 3 Firefighters, hand tools, chainsaws and approximately 1200 feet of hose and fittings</li> <li>○ A minimum of 3 Overhead Personnel</li> </ul>
<b>4. Other local resources available to respond for mutual aid include</b>
<ul style="list-style-type: none"> <li>○ 3 Type 5 Brush Engines each equipped with 420 gallons of water, portable pumps, deck pumps, a minimum of 3 Firefighters, hand tools, chainsaws and approximately 1500 feet of hose and fittings.</li> <li>○ 1 Type 6 Brush Engine equipped with 240 gallons of water, portable pump, a minimum of 3 Firefighters, hand tools, chainsaws and approximately 1200 feet of hose and fittings</li> <li>○ A minimum of 3 Overhead Personnel</li> </ul>

<b>5. Other local resources available to respond for mutual aid include</b>
<ul style="list-style-type: none"> <li>● <b>Centerville Fire District 5</b> <ul style="list-style-type: none"> <li>○ Multiple Type 6 Brush Engines</li> <li>○ Multiple Water Tenders</li> <li>○ Chief Lawrence Browning (volunteer)</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● <b>High Prairie Fire district 14</b> <ul style="list-style-type: none"> <li>○ Multiple Type 6 Brush Engines</li> <li>○ Multiple Water Tenders</li> <li>○ Chief Doug Hutchison (volunteer)</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● <b>Columbia Gorge National Scenic Area (Scenic Area)</b> <ul style="list-style-type: none"> <li>○ 1 Type 6 Brush Engine with 3 Firefighters</li> <li>○ 1-10 Person Type II Handcrew</li> <li>○ Multiple Overhead personnel</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● <b>Oregon Department of Forestry (ODF)</b> <ul style="list-style-type: none"> <li>○ Multiple Type 5 and Type 6 Brush Engines</li> <li>○ Multiple Overhead Personnel</li> <li>○ Single Engine Air Tankers (SEATS)</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● <b>Yakama Nation</b> <ul style="list-style-type: none"> <li>○ Type 4 Brush Engine with minimum 3 Firefighters</li> <li>○ Dozers</li> <li>○ Multiple Overhead Personnel</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● <b>Additional Air Resources available through WADNR dispatch center include:</b> <ul style="list-style-type: none"> <li>○ Minimum of 3 Type 2 Helicopters equipped with ground personnel and bucket</li> <li>○ Air Tankers for retardant drops located at several locations throughout the northwest to include Moses Lake, WA and Pendleton, OR.</li> </ul> </li> </ul>

#### 4.6 Review and Assessments

Residences within the Ponderosa Park community are widely dispersed and woven into the forest landscape. Accessibility, topography, and the surrounding vegetation all contribute to structural susceptibility to fire. The objective of the Ponderosa Park neighborhood plan is to make a complete assessment of overall risks working from the individual landowner up through the overall neighborhood assessment. To accomplish this task, the Home Assessment form (Form 299/1144) (see plate 2.3.1 and 2.3.1 in appendix A) will be used by all landowners to do this type of assessment in the Ponderosa Park CWPP area. To assist in the understanding of the use of the form, the process of assessments, and the cataloging of information the Ponderosa Park community will use the assistance of the Central Klickitat Conservation District, as well as staff from Rural 7 Fire and Rescue and DNR to complete the neighborhood assessments.



**Plate 4.6- On the site home assessment being done by staff members of CKCD**

Through this process a risk code will be assigned to each structure based primarily on the ability of firefighters to reach and protect the structure in question without jeopardizing firefighter safety. The risk codes will include the level at which defense of the structures can be assessed from low (easiest to defend), to moderate, or high (most difficult to defend safely) using the current conditions. The information will be updated as homeowners accomplish fuels reduction work on their property.

This process is completely voluntary and is not required by the association or by any entity. Information that is gathered from the assessments will be given to the landowner to make their own plan on how to carry out any fuels reduction treatment(s) that are suggested in the assessment procedures.

The desired outcome is that this assessment process will raise the level of awareness of all residents in the Ponderosa Park community, stimulate discussion of potential improvements and create a list of projects to mitigate the current and future risk from wildfire.

## **5.0 Risk Evaluation**

### **5.1 Individual Home Assessments**

Individual home assessment will be done using the standardized Home Assessment form 299/1144. Federal, State and local assessment groups to standardize the risk analysis of individual home sites, has used this.

To meet the needs of completing this form of assessment a number of tactics may be employed. The first is to use the services of the Central Klickitat County Conservation District's personnel to assist in the one on one site visitations and assessments. While this may work in most cases there is also some competition for this time and therefore the individual one on one assessment process may be supplemented through use of Rural #7 Fire and DNR staff.



**Figure 5.1- Looking at a landowner's stands beyond the 150' zone around structures**

This process is somewhat insightful when looking at risks to neighbors and an individual's own property and therefore it may be advantageous to have a community level training where staff from the Fire District, CKCCD, and DNR could instruct those attending the training on how they can do their own assessment, then have it reviewed when they complete the process. If an individual homeowner chooses to, they can go through the process of assessment and potential mitigate actions. This would be supplemented with assistance after the assessment by agency staff.

The overall plan is to have 80% assessment rate of all landownerships complete by spring of 2014.

Information developed from this assessment process would then be catalogued using an agreed to format so that it is accessible to the association, Fire District and DNR. The potential of using this information as part of the information available to outside forces will be assessed and formatted during 2012 and updated as work is accomplished.

## 5.2 Type and Density of Structures

As stated earlier, Ponderosa Park is a 1000 acre tract subdivided into approximately 200, 5 acre parcels. The structures consist of single family dwellings and associated outbuildings.

Action required: the residences, along with the type and location of access and egress, need to be plotted onto a map to assist in location and evaluation of fire risk and defensibility.



**Plate 5.2. Example of structures on a residence**

## 5.3 Access

Access and egress to and from Ponderosa Park is via the Pipeline Road on the east end of the Park and via Pine Forest Road on the west end. There are two park roads which front onto Pine Forest Road. The main access on the west side is via Red Cedar Road to Juniper Road. The secondary access is Golden Pine just south of the BPA power line right-of-way. There are approximately ten plus (10+) miles of all-weather gravel roads within the Park. (See B-19 in Appendix B)

The main thru roads within the Park, East Ponderosa Drive and Golden Pine, are all weather gravel roads suitable for two-way traffic. The remaining connecting roads are all weather gravel and will allow two vehicles to pass in most places.

Actions required: 1) Most of the dead-end access roads have turnarounds at the ends. These will have to be wide enough to meet the needs of a maximum size fire vehicle which can negotiate the turnaround and so marked on the base map. Any turnarounds which are too tight will need to be reconstructed and any dead end roads lacking turnarounds will be identified and turnarounds constructed where feasible, 2) While all new road signage has been installed, some individual home addresses are missing, or are hard to read from one side and many are not reflective. Homeowners are encouraged to obtain reflective house numbers from Rural 7 Fire and Rescue and post them where they are easily seen and visible at night.

#### **5.4 Water Supplies**

The Park water supply currently consists of two KPUD administered wells and a 76,000 gallon reservoir tank. The water system has recently been upgraded to include a second well. There are currently 13 hydrants in the system which can be used to fill tender trucks. There is one 3000 gallon privately owned tank on lot 120 which could be used in case of fire. Fittings would need to be organized to access this water.

#### **5.5 Fuel Breaks and Safety Zones**

Some of the residents have made commendable efforts to eliminate or minimize ground and ladder fuels on their properties starting the creation of fuel break patterns in some areas. These efforts are currently not designed with any community level risk reduction in mind, but they will be mapped. As strategies are designed they will become part of the overall fuel break strategy for the Park. These efforts will need to work in concert with some of the natural and other open breaks that are present throughout the Park.

Another fuel break strategy is providing overall fuel reduction on the boundary of the Park this will reduce the risk of crown fires spreading from outside as well as within some areas. This could be accomplished by designing a shaded fuel break around the entire Park. This would provide a level of sustainability, in an aesthetically pleasing forest appearance, while eliminating fuel loads, which allow fire to be carried in the crowns of the residual stands adjacent to the BPA right of way, would be an additional corridor of fuels reduction.

Additionally, reducing the amount of fuel along the major road rights-of way will place additional fire breaks within the community as well as improving ingress/egress during emergency situations.

Safety zones also need to be created. These should be large enough to provide a safe area for residents and firefighters who need to stay within the Park during fire activity. The Firewise Committee is working with DNR and KCFD #7 to assess what size of Safety Zone would be needed. The community will work to achieve an area to meet the recommendation.

To accomplish the requirements of both the fuel breaks and the safety zones, the suggested actions are:

- Creation of a 100-200 foot shaded fuel break in designated areas
- Education of homeowners regarding the creation and maintenance of defensible space around their homes and structures
- Creation of these defensible spaces using Firewise techniques
- Identification of Safety Zones within or adjacent to the planning area
- Research additional funding sources to augment the projects required to meet the goals of the community

Currently in the development stage of this plan, the community has completed a number of fuels reduction projects through cost share funding provided by the WADNR to achieve defensible space and shaded fuel break work.

#### **5.6 Staging areas**

Staging areas are different than a safety zone in that a staging area is a place to stage resources that can be used in suppression efforts or other emergencies. They provide a location from which these resources can be dispersed quickly and efficiently. Currently the fire hall is the designated staging area.





**Plate 5.6 Rural District #7 Station 11-The Park's staging location**

### **5.7 Evacuation**

As stated in the goals and objectives of this document, it is the number 1 goal of the residents of the Park to protect life. It is the overall responsibility of the Klickitat County Sheriff's office for evacuation of the Park in case of fire or other hazards. The Firewise Committee will work with the Sheriff as well as Rural 7 Fire and Rescue in the creation of a neighborhood evacuation plan. This plan will be a written document that will be available to all Park residents so they have a clear understanding of what happens at each level of the evacuation plan.

The neighborhood level evacuation plan is meant to better inform all residents so that they are prepared and have a more thorough understanding of the process if there is a situation where the plan must be used.

Copies of the plan will also be kept by Rural 7 Fire and Rescue, Klickitat Sheriff Department and Klickitat County Emergency Management so that it can be used in an orderly fashion if the need arises.

In addition, Map B19 in Section B shows the overall evacuation routes to access main county roads.

## **6.0 Community activities**

### **6.1 Overview**

Section 6 of the Klickitat County Countywide CWPP talks about how there should be collaboration with state and federal agencies but does not set out any guidelines on how the Park's planning strategies for mitigation will collaborate with those of the other levels of CWPP planning. Therefore the Park will work independently cooperating with the Rural 7 Fire and Rescue as well as state and federal agencies to schedule specific projects to compliment other efforts in the area and focus in on areas where funding may be available.

It is further hoped that these projects can be collaborative in nature encouraging residents of Ponderosa Park to work with other neighborhoods and individual landowners in the area to compliment one another's efforts.

In addition a summary of the Park's efforts can be sent annually to the Klickitat County Commissioners for their review.

## **6.2 Activities**

Activities in the mitigation strategy, concerns as well as potential projects, can be broken down into four broad areas, these are: 1) Education and Outreach; 2) Improving Prevention in the WUI; 3) Fuels Reduction; 4) Infrastructure.

Concerns and issues will be placed into one of these four categories, and their importance assessed. Projects will be developed to address residents' concerns and issues.

Depending on the neighborhood's needs and interest emphasis may change over time. This brings up another key point and that not everything can be done overnight. Efforts will be based on the listing of various mitigate activities in a long-term as well as a short-term view. This may be demonstrated through the use of a 10 year developmental plan which would then be broken further down to include the first five year activity strategy and, most importantly, a 2 year implementation plan.

An overall review of this can be found in Appendix A of this plan. The intention is that this will changed over time depending on a number of influences that will be placed on the overall strategy due to other projects in the area, funding source availability, and most importantly the enthusiasm of the neighborhood to take on each individual project and carry it out to a successful conclusion.



**Plate 6.0 Defensible space activities within the Park**

## **7.0 Mitigation Action Plan**

### **7.1 Overview**

The mitigation plan has been broken down into four areas which can be deleted from or added to at any time but the Park will look at a strategy of bringing forth ideas for changes to projects through the Firewise Committee at the annual meeting. This does somewhat coincide with the grant application cycle with most known grant sources.

Therefore, what is being presented in the Mitigation plan is a listing of various concerns in project form that fall into one of the four categories. From this listing the actual specific activity strategy and implementation plan can be more defined and found in Appendix A.

### **7.2 Education and Outreach**

- 7.2.1 Post fire hazard level signs at the Park's entrances.
- 7.2.2 Distribute Firewise and other pertinent information at owner meetings, and community gatherings, and on community bulletin boards and community website.
- 7.2.3 Hold workshops for residents and community on Firewise landscaping, birdhouse construction, insect control, fire resistant construction methods, and other pertinent subjects.
- 7.2.4 Encourage the use of the Firewise website, and other appropriate sites and make fire protection information available on the Ponderosa Park website.
- 7.2.5 Employ local media such as newspapers and radio to let the community know about Firewise activities and information.
- 7.2.6 Provide opportunities for residents, communities and agencies such as Rural 7 and the DNR to provide input to the planning and implementation of fire protection of the Park.
- 7.2.7 Integrate new educational materials into the education and terms such as Fire Adaptive Communities.

### **7.3 Improving Prevention in the Wildland/Urban interface (WUI)**

- 7.3.1 Conduct individual home risk assessments and work towards the completion of wildfire hazard forms in conjunction with Rural 7 and DNR. (See note in Section 5.1)
- 7.3.2 Annually update and refine mapping of the Park to include topographic features, individual resident locations, structures, and water sources for Rural 7.
- 7.3.3 Complete annual updating and distribution of the emergency phone tree for residents.
- 7.3.4 Complete and distribute an evacuation plan to all residents.
- 7.3.5 Contact surrounding landowners and work together to find solutions to mutual fire prevention problems.
- 7.3.6 Inform and coordinate prevention efforts with Rural 7, DNR and Klickitat County.

### **7.4 Fuels Reduction and Forest Pest Mitigation**

- 7.4.1 Encourage and assist residents to implement Firewise recommendations individually, through work parties, and contractual agreements.
- 7.4.2 Create defensible space around all homes and essential infrastructure.
- 7.4.3 Thin, limb and clear all road easements.
- 7.4.4 Assess and create both internal and perimeter fuel breaks.
- 7.4.5 Encourage and assist adjacent landowners and agencies to perform fuel reduction on adjacent lands.
- 7.4.6 Work with local landowners, Rural 7, federal, state and county agencies on continuing dialogue about slash disposal planning and timing.

7.4.7 Explore and employ methods to recycle biomass from fuel reduction project waste, construction waste and other wood products.

7.4.8 Seek out funding sources from different entities to help support the fuel reduction efforts.

(Note: Ponderosa Park has received two WSFM grants to do fuels reduction work in the past two years.)



**Plate 7.4 Example of fuel reduction work within the Park**

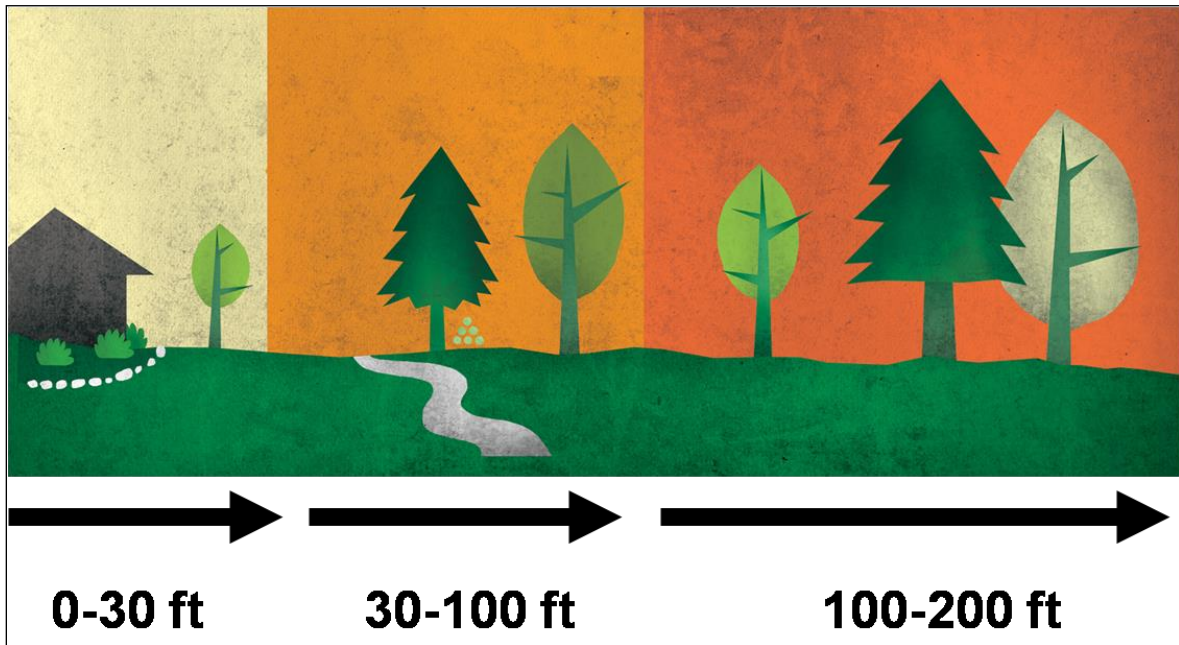
#### **7.4.9 Defensible Space Recommendations**

Recommendations concerning defensible space apply to both new and existing buildings located in Urban-Wildland areas. The recommendations specifying fuel modification are voluntary but give landowners prescriptions/treatments to fulfill normal pathways to reduce fire risks around structures. These recommendations suggest fuel modification for a distance of 30 feet around structures in a Moderate Hazard Urban Wildland Area, 50 feet in areas of High Hazard and 100 feet in Extreme Hazard areas. In all other areas, the fuel modification distance shall be no less than 10 feet.

Ornamental vegetative fuels or cultivated ground cover, such as green grass, ivy, succulents or similar plants used as ground cover, are allowed to be within the designated defensible space provided they do not form a means of readily transmitting fire from the native growth to any structure.

Trees are allowed within the defensible space provided the horizontal distance between crowns of adjacent trees, and crowns of trees and structures, overhead electrical facilities, or unmodified fuel is not less than 10 feet. Deadwood and litter shall be regularly removed from trees.

At all times one must recall that any prescriptions that are recommended are purely voluntary and improvements may happen over time as landowners become more accustomed to these improvements with a better understanding of risk reduction and forest health issues over time.



**Figure 7.4.9 Defensible Space Zones**

## **7.5 Infrastructure**

7.5.1 Maintain all roads and identify with 2-sided signage.

7.5.2 Encourage the use of reflective address signs on all lots.

7.5.3 Clear and create "turn around" to assure easy access, ingress, egress, for both residents, and firefighting apparatus.

7.5.4 Assess improvements to water sources and the current water supply system along with potential ponds in remote corners of the Park

7.5.5 Work with Rural 7 Fire and Rescue in a support mode to encourage upgrading Rural 7's Fire Hall #11's equipment and overall firefighting capabilities

7.5.6 Development of staging areas and safety zone which may also work as part of the fuel break strategy around the entire Park

## **7.6 Funding**

Funding for a number of the activities desired by the community has come through two different sources. Community activities that are driven from either Park funding sources or what is commonly called sweat equity where landowners personally will contract or do the work. It is amazing to see the accounting of this sort of support. Much of the work has been done at what is called 50/50 cost share but never really reaches the 50% share when it comes to any support grant funding since the sweat equity usually has billings that are more than 50%.

Cost sharing is achieved through use of grant funding that currently is coming from funds granted to the State of Washington through either National Fire Plan (NFP) Grants or Western State Fire Manager (WSFM) funds. Both are an outgrowth of the Healthy Forest Restoration Act (HFRA) of 2002. The funding that the Park has used over the past few years has been from WSFM funding.

As this plan was developed Ponderosa Park has received two Western States Fire Managers (WSFM) grants to do defensible space around homes as well as shaded fuel break work on major roads and along the exterior boundary of the Park. The Park's residents understand their responsibility to support these activities. For some of these projects, finding comprehensive funding will be difficult and the actual implementation of some projects will need to be supported through additional outside funding. Acknowledging this, the Park is prepared to learn where these potential funding sources exist and then pursue assistance at the private, county, state and federal levels to find appropriate funding.

## **8.0 Plan Maintenance**

### **8.1 Overview**

While the Ponderosa Park CWPP has boundaries that isolate its overall process it is not exclusive to the area. The Klickitat Countywide CWPP has defined general long-term objectives and pathways for the County in general. Since the Ponderosa Park community is currently a "Firewise USA Community" and has an active Firewise Committee, this maintenance plan is being developed over time, and specifics in the plan will be influenced by the recommendations of the Firewise Committee.

More importantly there will be impacts on suggested projects in this plan from the directions that come out of the discussions in the local working group forum. This group is moving in conjunction with Rural 7 Fire and Rescue strategies of fuel reductions within the entire Fire District's planning area. Therefore participation in this forum by residents of the Ponderosa Park area is important to insure that the strategy employed by the residents of Ponderosa Park is known and discussed at the forum level. Projects that are taken on at the level should compliments those of other neighborhoods in the watershed for effective and efficient use of available funds and overall fuel reduction accomplishments.

### **8.2 Project Maintenance Discussion**

One of the areas that need more discussion and planning is that of the overall "maintenance" of any of the projects taken on through this plan. While it is obvious that anything that is done to manipulate the vegetation will require work in the future to maintain a certain level of lessened risk, projects such as evacuation plans, structural protection planning, road and safety zone maintenance are just a few of the project areas that will need updating over time.

But this does bring up one of the glaring challenges at the Community level and that is how does one maintain projects and on the ground practices over time when there have been no funding of long-term maintenance of completed practices. It has been in current policy that once a practice has been completed it is up to the landowner or neighborhood to maintain the level of risk that is associated with the completed project. In many cases that may be difficult to sustain over time and space.

One strategy that could be employed through the use of this plan is a clear understanding and influencing of potential projects and funding sources found to assist in the maintenance of vegetation manipulation as well as other areas which no have no options as to how to support the maintenance of completed projects over time.



