Wasco County, Oregon

Community Wildfire Protection Plan

December 21, 2005

Prepared by
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Signature Page

The contents of this document have been agreed upon and endorsed by the Wasco County Court, the District Forester of the Central Oregon District for Oregon Department of Forestry, the Wasco County Fire Defense Board Chief, and the South Wasco County Fire Defense Chief. This plan is not legally binding as it does not create or place mandates or requirements on individual jurisdictions. It is intended to serve as a planning tool for the fire and land managers of Wasco County, and to provide a framework for those local agencies associated with wildfire suppression and protection services to assess the risks and hazards associated with wildland urban interface areas and to identify strategies for reducing those risks. This is a working document to be reviewed by members of the Steering Committee and updated as necessary.

Dan Ericksen, Wasco County Judge Date

Scott McKay, Wasco County Commissioner Date

Sherry Holliday, Wasco County Commissioner Date

Robert Young, Central Oregon District Forester Date
Oregon Department of Forestry

Joe Richardson, Wasco County Fire Defense Board Chief Date

Eugene Walters, South Wasco County Fire Defense Chief Date

Executive Summary

This Community Wildfire Protection Plan for Wasco County was initiated by the Wasco County Court in the spring of 2005. The primary purpose for the plan is to identify and prioritize wildfire hazards and to develop a strategy to reduce those hazards. The plan will assist the county, its communities and fire districts in securing National Fire Plan grants and other funding sources to treat hazard fuel situations and to better prepare residents for wildfires that may occur. It includes a strategy with action projects which, when implemented, will decrease the potential for large wildfires in the county and reduce the potential loss of property values and threat to human life.

The planning process was designed to meet the guidance in the National Fire Plan and the Healthy Forest Restoration Act of 2003 (HR-1904). A Steering Committee with representatives from the various agencies and local jurisdictions responsible for wildfire suppression and protection worked together to guide the planning process. Numerous meetings were held during development of the draft and final plan to gain input from representative interest groups. Goals for the planning process were:

- Identify and evaluate wildfire hazards with an emphasis on Communities at Risk as listed in the Federal Register.
- Improve wildfire response capability of fire districts and better prepare Wasco County residents to survive and save their property during a wildfire situation.

- Make the county and their respective fire districts and communities eligible for funding assistance to reduce wildfire hazards and to prepare residents for wildfire situations (National Fire Plan, Healthy Forest Restoration Act, FEMA and other sources).
- Develop recommended strategies for private, state, and federal lands to reduce hazardous fuel situations and reduce the risk for damage to lives and property from wildfires.
- Complete the plan by mid October , 2005

This plan describes the various agencies and local jurisdictions responsible for wildfire protection in the county. It explains the pertinent programs and laws associated with wildfire issues in the county. Section V gives an overall assessment of the wildfire risk in the county and considers and rates: ignition risk, wildfire hazards, values protected, protection capability, and structural vulnerability. A Wildland Urban Interface boundary is established and includes portions of National Forest and private lands. Section VI offers action projects designed to reduce the wildfire risk for the county as a whole, and for specific zones and communities.

I. Introduction

The primary purpose for the Wasco County Community Wildfire Protection Plan is to identify and prioritize areas in the county with high levels of wildfire hazards and to develop a strategy to reduce these hazards. Completion of the plan will make the county and its communities and fire districts eligible for National Fire Plan grants and other funding sources to treat hazard fuel situations and to better prepare residents for wildfires that may occur. The plan describes projects which, when implemented, will reduce the potential for large wildfires in the county. It offers a strategy and methods designed to reduce the potential loss of property values and threat to human life from wildfires.
This Community Wildfire Protection Plan for Wasco County was prepared through a Title III grant from Wasco County. The planning process was designed to meet the guidance in the National Fire Plan and the Healthy Forest Restoration Act of 2003 (HR 1904).
Wasco County is large in size and contains a diverse set of wildfire hazard and risk situations. Conditions throughout the county are conducive to large and destructive wildfires. Numerous Wildland Urban Interface[1] (WUI) areas exist with the strong potential for property and human life loss during a wildfire event. Following are conditions and concerns found in portions of the county which contribute to the wildfire threat and potential for catastrophic losses:

[1] "The urban-wildland interface community exists where humans and their development meet or intermix with wildland fuel." This definition is found in the Federal Register Vol. 66, Thursday, January 4, 2001, Notices; and in "Fire in the West, the Wildland/Urban Interface Fire Problem," A Report for the Western States Fire Managers, September 18, 2000. http://www.bianifc.org/fuels/fuels_pa.html.

- Heavy fuel loads on National Forest and private forest lands along the western portion of the county. The concern is for large forest fires beginning on these lands and moving to adjacent private lands, especially those with residential developments.
- Residential developments in areas with heavy fuel loads. Many homes in these areas do not have adequate defensible space around them and, or, suitable access for fire fighting equipment and evacuation purposes. New development in these areas is strong and adds to the concern.
- Climatic and topographic conditions conducive for large wildfires. Hot and dry conditions exist during the fire season throughout the county. Some portions, especially in the Columbia River Gorge area, have frequent high winds which can contribute to fast moving fires that are difficult to control. Much of the county has moderate to steep slopes which add to the rate of wildfire spread and suppression difficulty.
- Large agricultural areas planted to mainly wheat fields experience fast moving fires which can destroy valuable crops in short periods of time. A significant portion of these areas do not have organized wildfire protection districts.
- Risk factors for starting wildfires. Major railroads cross east to west and north to south across the county and represent significant ignition sources for wildfires. The north/south railroad is in the remote Deschutes River Canyon where access for fire fighting purposes is difficult. Lightning starts many wildfires: there are some patterns across the county caused by east moving storms around Mt. Hood to the west. Power lines, highways (including Interstate Highway 84), debris burning and farming activities add to the risk. Most wildfires in the county are human caused.
- Unprotected areas and fire districts with limited resources. Portions of the county do not fall within an organized fire district. Some of the ten different districts have limited resources for effective wildfire fighting. Many residential areas are located a considerable distance from a fire protection source.

Wasco County has experienced serious wildfires in the past and there will continue to be fires in future years. The outlook is for more and larger wildfires, unless an active and continuing program of hazard fuel reduction and public awareness is undertaken. Each year the existing vegetation continues to grow and more and more people will build homes in areas prone to wildfires. It is only a matter of time before “perfect storm” conditions occur and the county experiences a catastrophic wildfire that will destroy homes and possibly, take human lives. The time to act is now and this plan will be the basis for needed action to reduce the growing threat.

The planning area for the purpose of this study includes the entire area within Wasco County, including portions of the Confederated Tribes of the Warm Springs Indian Reservation.

II. Planning Process

In the spring of 2005, the Wasco County Court decided to utilize Title III funds from the USDA Forest Service to develop a Community Wildfire Protection Plan for the county. The County hired a contractor, Jim Hulbert, to conduct the planning process. The planning process used was patterned after the handbook for Wildland-Urban Interface Communities titled, Preparing a Community Wildfire Protection Plan. The following steps were followed:

A. Step one: Convene Decision Makers

A Core Team designed to act as an advisory committee was formed to work with the contractor. The Core Team met several times during the planning process. The team helped establish the planning process and reviewed and critiqued planning documents. The Core Team consisted of representatives from the following entities:

- Fire Districts
- Wasco County Court, Planning, GIS, Planning
- Oregon Department of Forestry
- USDA Forest Service (Barlow Ranger District and Columbia River Gorge National Scenic Area office)
- Oregon Fire Marshall's Office
- Warm Springs Tribes
- Oregon Department of Fish and wildlife
- BLM

B. Step Two: Establish Planning Area Boundary and Planning Goals

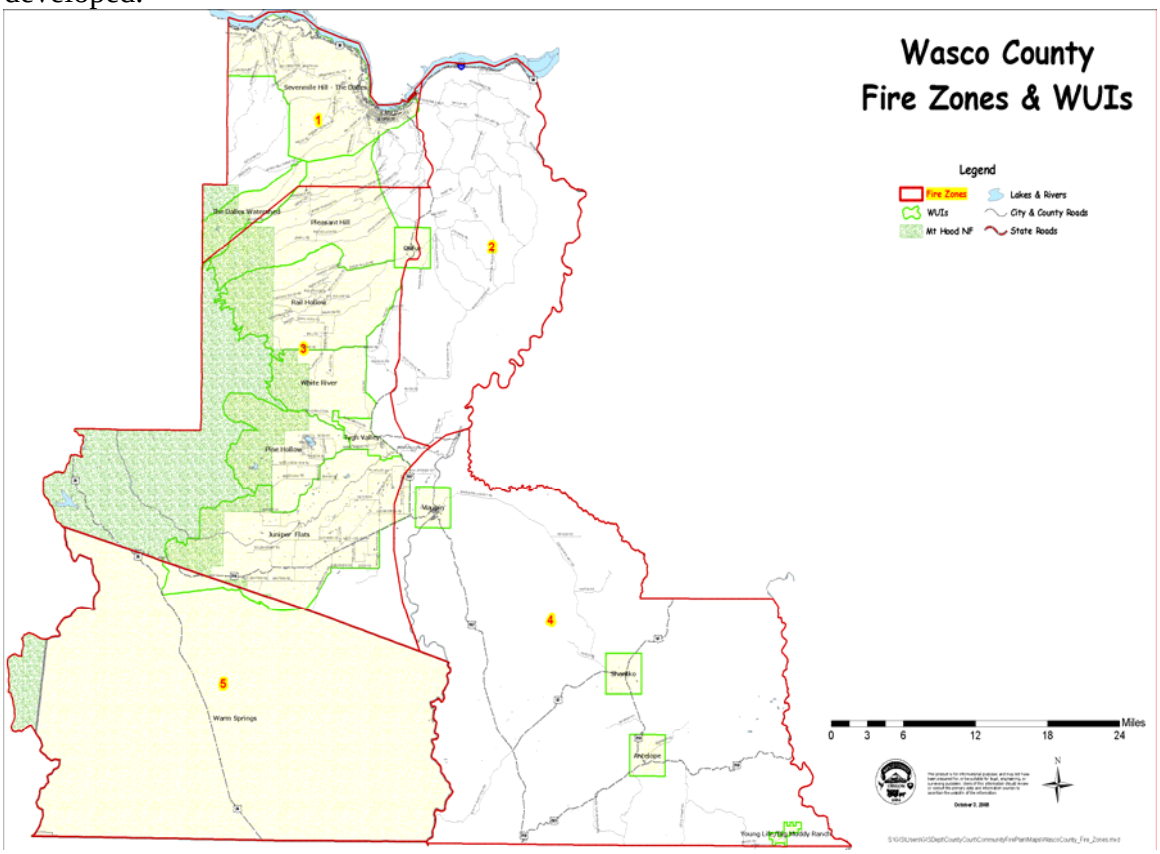
The Core Team decided the planning area would include the entire county (2,396 square miles) including that part of the Warm Springs Reservation in Wasco County (a portion is in Jefferson County and will be covered by their plan).
The following goals for the Community Wildfire Protection Plan were agreed to by the Core Team:

- Identify and evaluate wildfire hazards with an emphasis on Communities at Risk as listed in the Federal Register.
- Improve wildfire response capability of fire districts and better prepare Wasco County residents to survive and save their property during a wildfire situation.
- Make the county and their respective fire districts and communities eligible for funding assistance to reduce wildfire hazards and to prepare residents for wildfire situations (National Fire Plan, Healthy Forest Restoration Act, FEMA and other sources).
- Develop recommended strategies for private, state, and federal lands to reduce hazardous fuel situations and reduce the risk for damage to lives and property from wildfires.

- Complete the plan by mid October , 2005

C. Step Three: Establish a Community Base Map

A series of county base maps were developed using the Wasco County GIS mapping system. Colored orthophoto maps of each fire district and agency responsibility were initially developed. Later, maps showing historic wildfire occurrence and population density were made. The Forest Service provided GIS maps showing Fire Regimes and Condition Class. The maps were used as part of the hazard assessment and eventually led to the development of a strategy including specific projects to reduce wildfire hazards. A base map showing Wildland-Urban Interface and county zone boundaries was eventually developed.



Wasco County Community Base Map (original map on file with Wasco County GIS Coordinator)

D. Step Four: Wildfire Risk Assessment

A wildfire risk assessment was completed for Communities at Risk and for zones in the county. Methodology for the Risk Assessment was developed by the Oregon Department of Forestry[2]; it involves five factors: Risk, Hazard, Values, Protection Capability and

[2] Identifying and Assessment of Communities at Risk in Oregon, draft prepared on October 18, 2004.

Structural Vulnerability. The methodology includes a scoring system for each factor. The scores are cumulative and the total score for individual communities or zones indicate a low, moderate, or high overall Wildfire Risk rating.
Criteria developed as part of the NFPA-1144 survey assessment program were used to establish hazard ratings for individual home sites (Structural Vulnerability). Individual home surveys were completed by a Wasco County crew in the summers of 2003, 2004, and 2005. The criteria used to rate individual parcels are in Appendix A. Overall, there was a continuum from a fire-safe condition up to a high hazard situation; every property had a unique set of conditions. Results of this survey will be added to this plan when available.

The following steps were taken in the assessment:

- GIS maps and data created by the county, ODF, and Forest Service were used to assess the hazardous fuel situation and wildfire risk in, and adjacent to, communities within the study area. Field trips to verify conditions on the ground were conducted. Ideas and input from community members, especially fire district representatives, were an important part of the assessment.
- Specific wildfire hazards were identified within the study area, including nearby National Forest Lands.
- A Wildland Urban Interface (WUI) zone was identified and mapped for communities near federal lands.
- Major risk factors which cause wildfires to start within the study area were identified.
- When available, information from the NFPA 1144 surveys completed by the county will be referred to with implications described.
- Wildfire occurrence history was mapped and described.
- Available resources and resource needs by fire district were identified.

E. Step Five: Establish Community Priorities and Recommendations

The Core Team considered the results of the hazardous fuel situation assessment both from an area basis and for individual parcels and then established a list of priority projects within the planning area. The type of projects considered includes:

- Development of defensible space and fuel reduction around individual homes.
- Treatment of National Forest lands within identified wildland urban interface areas.
- Hazard fuel removal along access routes.
- Ingress and egress concerns.
- Structural material hazards.
- Fire district equipment needs.
- Methods to distribute wildfire protection information to homeowners.
- Forest management practices, healthy forest restoration etc.

Criteria used in selecting priority projects include:

- Likelihood for acceptance by property owners,

- The best chance for successful implementation,
- The best cost-benefit ratio,
- Likelihood of getting funding assistance for implementation.

F. Step Six: Collaboration and Public Input

A strategy to collaborate and communicate information for the plan was devised using a combination of informational meetings. The Steering Committee representing various agencies involved with wildfire protection at the local, state and federal level met several times during the planning process to help form the plan. Those groups included ODF, BLM, BIA, USFS, CRGNSA, OSFM, ODF&W, and representatives from the Wasco County Court.

Initial meetings were held with Fire District personnel in Mosier, The Dalles, Dufur, Tygh Valley, Pine Grove, Juniper Flats, Maupin, Columbia Rural, Sportsman Park, Pine Hollow, and Shaniko. Follow-up meetings with the fire districts were conducted when the draft plan was ready. Also, presentations were made with local Watershed Councils in The Dalles and Mosier, the Sportsman Park and Sportsman Paradise homeowners, Mill Creek collaborative working group, South Wasco Chiefs Association, Bakeoven citizens group, Deschutes River Club, and the Wasco County Court. Input and comments from all of these groups was considered and incorporated into the final plan.

The draft plan was placed on the Wasco County Web Site which was available to the public. Public meetings designed for the general public were not held as it was felt the members of the steering committee, fire district personnel and watershed council members and those other group contacts would adequately represent the views of the general public. Comments were considered and incorporated in the plan throughout the process. Revisions to the Draft Plan as a result of the public input included the following:

- Mitigation project #7 for the entire county was changed to add training in addition to equipment and facilities for rural fire district assistance.
- The description of the Pine Hollow fire organization was modified to better describe the facilities and volunteer organization at the Sportsman's Park area.
- Various edits were made throughout development of the Draft Plan to help present a clear description of the organizations involved with wildfire protection in the county.
- Modifications were made to the WUI boundaries based on personal knowledge of agency personnel.
- Wildlife habitat concerns were incorporated into the plan.

Importantly, agency representatives and fire district personnel will communicate the intent of the plan to homeowners during face-to-face contacts when the plan is complete. During these contacts, homeowners will learn specifics about what is needed to reduce wildfire hazards on their property, and what options are available to assist them.

III. County Profile

A. General Description

Wasco County is very large (2,396 square miles) and diverse. With the exception of the City of The Dalles (population 12,230[3]), the total county population (24,150) is sparse with an overall average of 10 persons per square mile. Principle industries providing employment in the county are agriculture, timber and food processing[4]. In the year 2000, there were 10,651 housing units in the county (9,401 occupied), of which 5,246 were in The Dalles.[5] The number of housing units reported in the 2000 census had increased by just 1.7 percent from 1990. The per-capita personal income in the county during 2000 was 24,120 which was just 82 percent of the national average.

The physical makeup of Wasco County varies considerably from north to south and from west to east. The western part of the county is mainly forest and comprises much of the flanks of Mt. Hood. Elevations on portions of the Mt. Hood National Forest range from above 5000 feet while the north boundary along the Columbia River is around 110 feet. Vegetation in the cooler high elevation portions of the National Forest is a Grand Fir type typical of cooler sites. Going east from the National Forest lands the vegetation transitions to an oak/pine type and then a grass/shrub type in the central and eastern portions of the county. Much of the central portion of the county is farmed and in dry-land wheat fields. A considerable portion has been taken out of production and is in the Conservation Reserve program (CRP).

Climate also varies across the county but hot/dry conditions are common throughout the fire season. The average precipitation in The Dalles is 14 inches and is about the same in the more centrally located city of Maupin (13.7 inches). Importantly, most of the precipitation occurs in the winter months. High winds occur frequently across the county during the fire season, but are more common along the Columbia River Gorge, especially in the northwest portion. The average humidity in The Dalles during July, the warmest month, is 34 percent.

B. Wildfire Protection Roles – Agencies

This section describes the role and concerns of county, state and federal agencies for wildfire protection in Wasco County.

1. Oregon Department of Forestry

Unit Forester – David Jacobs
170,000 acres in Wasco County

The Dalles Unit of the Central Oregon District has wildland fire protection responsibilities for approximately 170,000 acres located mainly west of Highway 197 in Wasco County. ODF's protection responsibility covers some of the highest priority lands from a standpoint of wildland fire prevention, resource protection, and wildland fire suppression. The Dalles Unit has dual protection responsibilities with several rural fire

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[3] 2001 PSU Population Estimates, Oregon Blue Book

[4] Oregon Employment Department, Covered Employment and Payroll Reports, 1998.

[5] 2,000 Census.

districts including: Mosier, Mid Columbia Fire and Rescue, Dufur, Tygh Valley, Pine Hollow/Rock Creek, and Juniper Flats, in addition to mutual assistance agreements with Warm Springs Confederated Tribes, BLM, and the USFS.

Wildland fire protection is the responsibility for the district throughout the year. The district is also responsible for administration of the Oregon Forest Practices Act which provides resource protection on private lands.

The Dalles Unit has its main station at the western end of The Dalles, and a guard station on Dodson Road near the Pine Hollow Reservoir. The station at The Dalles maintains one Type 6 and one Type 5 engine, plus a dozer and lowboy. The White River Guard Station has two Type 6 engines. In addition two engines are stationed at Parkdale in Hood River County. The unit has two full time, funded employees responsible for wildland fire prevention and suppression and 12 seasonal staff. The district receives support from other ODF Districts and its mutual aid agreements with federal agencies, rural fire districts, and the Warm Springs Reservation.

Fires that occur on lands protected by ODF, and which overlap jurisdiction with a rural fire district, are handled with a joint or unified Incident Command structure. The rural district and ODF typically combine resources to provide protection to the structures as well as the associated wildlands. ODF does not take direct action on any structure fire but the rural districts can and do assist with wildland fires. If the fire becomes large in size, the rural district may request support through the Conflagration Act which will allow agencies from outside the area to respond. ODF has the ability to request Incident Management Teams in large fire situations that will work with all fire agencies in the suppression of large fires. ODF has a mutual aid agreement with every rural and city fire district in Wasco except Antelope, as well as all federal wildland agencies.

While most (80 %) of the wildfires that occur in The Dalles Unit are human caused, the Sheldon Ridge fire of 2002 was lightning caused. This 12,600 acre wildfire which started on July 23 threatened over 200 homes and a major power line; no residences were lost. The fire started about eight miles northwest of The Dalles and, driven by strong westerly winds, burned to within three miles of the city before being extinguished. It burned in forest and rangeland and caused the evacuation of over 500 people.

The northwestern portion of Wasco County is considered the highest overall priority for wildfire protection by the ODF. This area has a high population density, high fuel loading, and weather conditions conducive to large and fast moving fires. Until the mid 1900s the area was heavily grazed in large blocks but this activity has been sharply curtailed and fuel levels have steadily increased since. Fuel type is mainly grass, oak, and mixed pine and fir. Much of the area is now made up of five or ten acre tracts with home developments. Other high priorities for ODF in the county include the Mill Creek Watershed (City of The Dalles Municipal Watershed), Dufur Municipal Watershed, Pine Grove, Pine Hollow and Sportsman's Park, Sportsman's Paradise, Taylor Grade, and Friend areas.

Since 2002, ODF has been involved with a hazard fuel reduction program in the northwest portion of their district. The district has applied for and received, five grants for a total of slightly more than $950,000 dollars through the National Fire Plan program to support these activities. The treatment areas are located in the Seven Mile, Dry Creek, Rowena and Chenowith Creek portions of the unit. The program is on a cost-share basis and landowners can receive from 80 to 90 percent of the cost for removing hazardous

fuels on their property. As of June, 2005 about 838 acres have been treated out of a total of 1,582 acres signed up under the program. ODF feels the program has been effective in significantly reducing the hazard fuel level in the area, as well as improving overall forest health. Some pertinent points about the program are:

- Landowners who are accepted in the program are paid from 80 to 90 percent of the cost for hazard fuel removal.
- The average cost per acre for hazardous fuel reduction is about $600 per acre.
- Most participants are homeowners with from 5 to 10 acres.
- Fuels are treated by burning, chipping, or other approved forms of utilization.
- Funding priority is given to lots with improvements and for those projects where the fuels are utilized for pulp production, firewood use, hog fuels, compost, or other acceptable uses.
- The landowners may do the work themselves at established rates of re-imbursement, or they may contract to accomplish the work.
- The majority of the area accepted in the program must be treated but some provisions for wildlife needs may be approved.
- Landowners have signed agreements stating they will maintain the site for ten years.

ODF applied for another hazard fuel reduction grant in 2005 under the National Fire Plan and is waiting to see if they are successful. The City of The Dalles has also applied for a grant for fuels reduction on non-federal lands within the Mill Creek Municipal Watershed. If these grant requests are approved, funding for these projects would be available in 2006.
ODF considers portions of the National Forest lands within The Dalles Unit to be a threat to neighboring private lands. The agency feels there is a great need to treat and reduce hazardous fuels on these nearby National Forest lands. The areas of greatest priority are those next to developed communities and The Dalles Municipal Watershed. These lands have been included within the Wildland Urban Interface identified in this Community Wildfire Protection Plan.

2. Oregon Department of Fish and Wildlife (ODF&W)

<u>White River Wildlife Management Area</u>
Responsible Official – Josh Molton, Wildlife Manager 3
Acreage – 35,000
The White River Wildlife Management Area consists of several separate units located just east of the National Forest Boundary from the Friend Road south to the Pine Grove area. It is managed mainly for big game winter range habitat. The area supports from 4,000 – 6,000 black tail deer and 300 – 1,000 elk during the winter months[6]. While the area manager is not directly involved with wildfire suppression or prevention activities, he is concerned with the effects a large wildfire could have on the winter range habitat.

[6] Conversation with Josh Molton on June 12, 2005.

There are some areas on the Wildlife Management Area that have developed heavy and un-natural fuel loads and are subject to the threat of an uncharacteristic wildfire which could have severe negative effects on wildlife habitat. The Pine Grove area is considered to have the greatest problem with hazard fuels.

The Management Plan for the wildlife area states that prescribed burns may be used to reduce hazard fuels and to enhance wildlife habitat. Because the problem areas have such a heavy fuel loads now, mechanical thinning methods would need to be applied before prescribed fire could be safely introduced. Some thinning has occurred on the area and more is planned but funding is a concern. The wildlife area has relied on volunteers to accomplish much of its needed work but the use of power tools for thinning operations presents liability concerns. The wildlife area uses domestic livestock grazing during the summer when big game animals are at higher elevations. This practice helps to reduce hazard fuels and improve winter feed.

General Wildlife Values and Concerns

The Oregon white oak/ponderosa pine transitional lands found from the Columbia River on into the Confederated Tribes of the Warm Springs Reservation are a valuable source of wildlife habitat. These lands, both private and public, provide essential habitat for many game, sensitive and non-game species including: deer, elk, turkey, Mt. quail, silver gray squirrel, Lewis' woodpecker and Western pond turtle.

As valuable as these oak/pine lands are to wildlife, they are also prized as areas of rural residential development. The encroachment of human development on private lands has caused some dramatic decreases in the wildlife habitat quality in the oak/pine forests. Not only have the footprints of the dwellings, outbuildings, driveways, etc. reduced the amount of wildlife habitat, but the associated fences, pets, vehicle traffic, etc have further reduced wildlife habitat effectiveness of these private lands. Further encroachment on these lands is expected to continue over time.

The majority of communities in Zones 1 & 3, which this plan addresses, are located in or adjacent to the oak/pine forests. Some strategies/practices listed for these zones may be in direct conflict to the protection or enhancement of wildlife habitat. Conversely some strategies/practices may benefit some wildlife habitat components. When consultations are made with private landowners on fuel reduction and forest health practices, these landowners should also be made aware of the important role their private lands contribute to wildlife populations and habitat.

3. USDA Forest Service

Responsible officials,

Mike Hernandez, Barlow District Ranger, Mt. Hood National Forest

Dan Harkenrider, Area Manager, Columbia River National Scenic Area

The USDA Forest Service is responsible for management and protection of National Forest lands in Wasco County. Most National Forest land in the county is administered by the Barlow Ranger District with headquarters in Dufur. A small portion of National Forest lands in the Mill Creek drainage is managed by the Hood River Ranger District. The National Scenic Area (NSA) office in Hood River administers National Forest lands in the NSA in the north end of the county.

Most of the National Forest lands on the Barlow Ranger District are heavily forested with high hazardous fuel situations. The Forest Service estimates that most of these lands are in a Fire Regime Condition Class 2 or 3, including those lands which have been recently treated. Fire Regimes for the National Forest land is a Category I with some of the drainages being a III. The National Forest lands under the greatest threat of wildfire are those adjacent to, or near, private lands with residential developments. Communities at Risk in Wasco County (categorized by the closest federal agency) that have been listed in the Federal Register are:

Near BLM lands
Antelope
Big Muddy Ranch
Maupin

Warm Springs Reservation
Kah-Nee-Tah
Bear Springs

Near the National Scenic Area
Lower Columbia Gorge
Rowena
Chenoweth
Cherry Heights
Dry Creek
Mosier/7 Mile Hill
Mill Creek Municipal Watershed

Near Barlow Ranger District
Taylorville/Sportsman Paradise
Wamic/Pine Hollow/Sportsman's Park

The Barlow Ranger District has been conducting a collaborative process with the residents of Sportsman's Park. The goal is to have the residents help the Forest Service identify the Wildland Urban Interface (WUI) boundary and to recommend treatments to reduce hazard fuels within the WUI. Reducing nearby hazardous fuels will reduce the potential for large wildfires on National Forest Lands that would threaten the community. The projects are designed to thin the forest stands and effectively reduce the crown cover density which in turn will lower the risk of crown fires. Hazard reduction projects will begin in the spring and summer of 2005.

The Barlow and Hood River Ranger Districts are conducting a collaborative process for the Mill Creek Municipal Watershed which provides water for the City of The Dalles. The watershed is an identified priority management area for the Forest Service. The City of The Dalles and the Forest Service have formal agreements which identify the protection of water quality for a municipal water supply as a priority management objective within the Municipal Watershed. Two separate assessments completed for the

federal lands within the Municipal Watershed since 1997 indicate that current conditions include elevated levels of fire fuels and an increased risk of catastrophic wildfire.

The Forest Service eventually plans to conduct collaborative processes for all of the communities listed as "Communities at Risk" in the Federal Register, and near to National Forest lands. This CWPP will identify 'communities at risk' that will revise the federal register.

In addition to the communities on the Federal Register, the Forest Service considers the Camp Baldwin Boy Scouts property located within the National Forest to be a high risk area. The camp has recently been doing hazard fuel reduction projects for wildfire protection purposes.

The Barlow Ranger District maintains two Type 3 and one type 4 engines for wildfire suppression purposes. Additionally, they have two single person patrols (Type 7 pickups with a 200 gallon water capacity) and a water tender at Bear Springs. During the fire season the district fills 12 temporary positions for fire related duties.

The Forest Service office for the Columbia River Gorge National Scenic Area (NSA), located in Hood River, has a wildfire protection role in Wasco County. The Forest Service administers some National Forest lands in the NSA. Additionally, they have a mutual aid cooperative agreement with the ODF and the Mid Columbia Fire and Rescue District and will respond to wildfires on lands protected by them. The Forest Service maintains an engine in Hood River and one in Cascade Locks. These engines are manned by three persons, seven days a week. Also, they share an engine with ODF which is stationed in The Dalles and with two Washington DNR engines stationed in Washington. The Forest Service (NSA) will not respond to a wildfire east of highway 197, unless it involves lands in the Deschutes River corridor for which they do have a cooperative agreement with the BLM, (Central Oregon District).

4. BLM, Prineville District Office

Mike Benefield
Fire Management Officer

The BLM administers lands in Wasco County, primarily in the Deschutes River corridor. They protect these lands from wildfires and will respond to wildfires on nearby private lands if the fire constitutes a threat to their land. This is a judgment call by the BLM managers and would depend on what other priorities they are faced with. They do have a mutual aid agreement with Wasco County and could respond to any fire within a 24 hour period under the agreement.

The closest BLM fire station to Wasco County is in Grass Valley. This station maintains a Type 4 and a Type 6 engine with six employees and one manager. As with the Forest Service, the BLM will not fight a structure fire but will help to keep the fire from spreading to the wildlands. The BLM has a Fire Management Plan which allows it to conduct some prescribed fire activities. They have done some prescribed fires in juniper types in the eastern part of Wasco County.

The BLM and the Forest Service cooperate and have formed the Central Oregon Fire Management Service. This agreement allows a "blended service" concept and allows the two federal agencies to work together easily.

5. Wasco County

Emergency Management, Jack Linderman
The County Emergency Manager plays a support role in wildfire situations. Unless requested, he usually does not respond to most wildfire events. However, during large events, he would respond and lend support for law enforcement and evacuations. When he applies for grants he tries to find resources for the various districts.
Concerns and observations as expressed by the Emergency Manager:

- All rural fire districts share a general shortage of resources, especially when it comes to large wildfire events
- There are several "no-man's lands" in the county which have no protection. There is a need to identify and map these areas.
- It is difficult to contact some residents in the more remote areas of the county during an emergency.
- The railroad along the Deschutes River, especially below the town of Maupin, is a significant ignition source. Access is a problem as there are no roads along the tracks there.
- During wildfire events, suppression crews should throw everything they have and hit the fire hard. They should not hesitate to use retardant to assure success in the early stage of the fire (note, this is only an option for State and Federal wildland agencies and not normally to rural departments alone).
- There are good mutual aid agreements between the various fire departments now and good cooperation between districts.
- Pine Hollow, Maupin, Mosier and Wamic are areas of big concern because of the number of structures and the interface with the areas with heavy fuels.
- The heavy development of homes in the urban rural interface is a big concern for future wildfire protection.

GIS Coordinator, Tyco Grandville
The County GIS Coordinator plays an important role by providing mapping assistance before and during a fire. Maps developed during a wildfire are used by fire planners to build a suppression strategy and by field crews involved with suppression activities.
County Planning Department, Todd Cornett
County planners ultimately approve where and how buildings get located. The results of their decisions help determine the degree of wildfire risk on the properties which are developed and the safety of those responsible for fighting fires.

6. Oregon State Fire Marshal

Sarah Poet

The mission of the Oregon State Fire Marshal is "Protecting citizens, their property and the environment from fires and hazardous materials". The Fire Marshal is responsible for code enforcement and fire investigation.
The representative from the State Fire Marshal serving Wasco County sees her role in wildfire protection as follows:

- To coordinate with the County Court and the various fire departments when the Conflagration Act is called for.
- Assist with fire district development and training needs.
- Work with the County Planning Department to implement fire siting requirements for water and access needs

7. Confederated Tribes of the Warm Springs Indian Reservation

The Warm Springs Reservation covers portions of Wasco and Jefferson Counties. The Reservation includes 646,514 acres of which 372,338 acres are in Wasco County. It is bordered on the West by the Cascade Mountain range, on the East by the Deschutes River and on the South by the Metolius River. The mountains are home to approximately 401,781 acres of timbered land that supply about 50 million board feet of marketable timber to the tribe each year. The other 250,000 acres are rangeland and have tribal sub-divisions, resorts, grazing lands and industrial areas.
The Tribes have a Wildland Fire Prevention Plan (WFPP) which covers the Reservation; it tiers to their Fire Management Plan. The purpose of the plan is to analyze historical fire data, identify risk areas and provide a general plan of action that is in accordance with national policies of the BIA. The WFPP objectives include: fire fighter safety, reduction of human caused fire, continuation of the prevention education program, dissemination of prevention material to the public, continuation of a burn permit system and fire investigation.
The Fire Prevention program at the Warm Springs agency uses RAMS (Risk Assessment Mitigation/Strategies). RAMS is a program that takes into consideration types of fuels, hazards, property values, suppression capabilities and past fire occurrences. The program divides the Reservation into zones, compartments and communities for management purposes.

FIRE PREVENTION ZONES

The reservation is broken into three fire prevention zones based on fuel types and historical fire occurrence:
Zone 1 (144,769 acres)
The major population centers of the Reservation are contained within this zone including the towns of Warm Springs and Simnasho, Kah-Nee-Ta Resort, the subdivisions of Upper Dry Creek, Wolfe Point, Sunnyside and numerous rural residences. Natural resource values are minimal throughout the zone although the concentration of structures gives the zone an inherently high value to the Tribes and Tribal members. The primary fuel type is sagebrush-grass with intermittent juniper stands.

Historic fire data indicates that the majority of human caused fires and most large fires occur within this zone. High intensity levels, extreme rates of spread and high resistance

to control in combination with heavy concentrations of high value urban interface areas place this area at the top of the fire prevention priority list.

Zone II, (296,269 acres)

This zone is characterized by an over story of old growth ponderosa pine with an under story of poles and young saw timber. Incense cedar has encroached into areas of the zone and is a significant ladder fuel component. Ground fuels consist of perennial grasses, forbs and bitterbrush with ceanothus, manzanita and other shrubs becoming more prevalent as elevation increases. The majority of the timber is within the commercial forest base. Sidwalter and County Line urban areas and the HeHe ceremonial grounds are located along the eastern boundary of this zone. Two isolated fire lookout stations are also located within the zone at Sidwalter and Shitike Buttes.

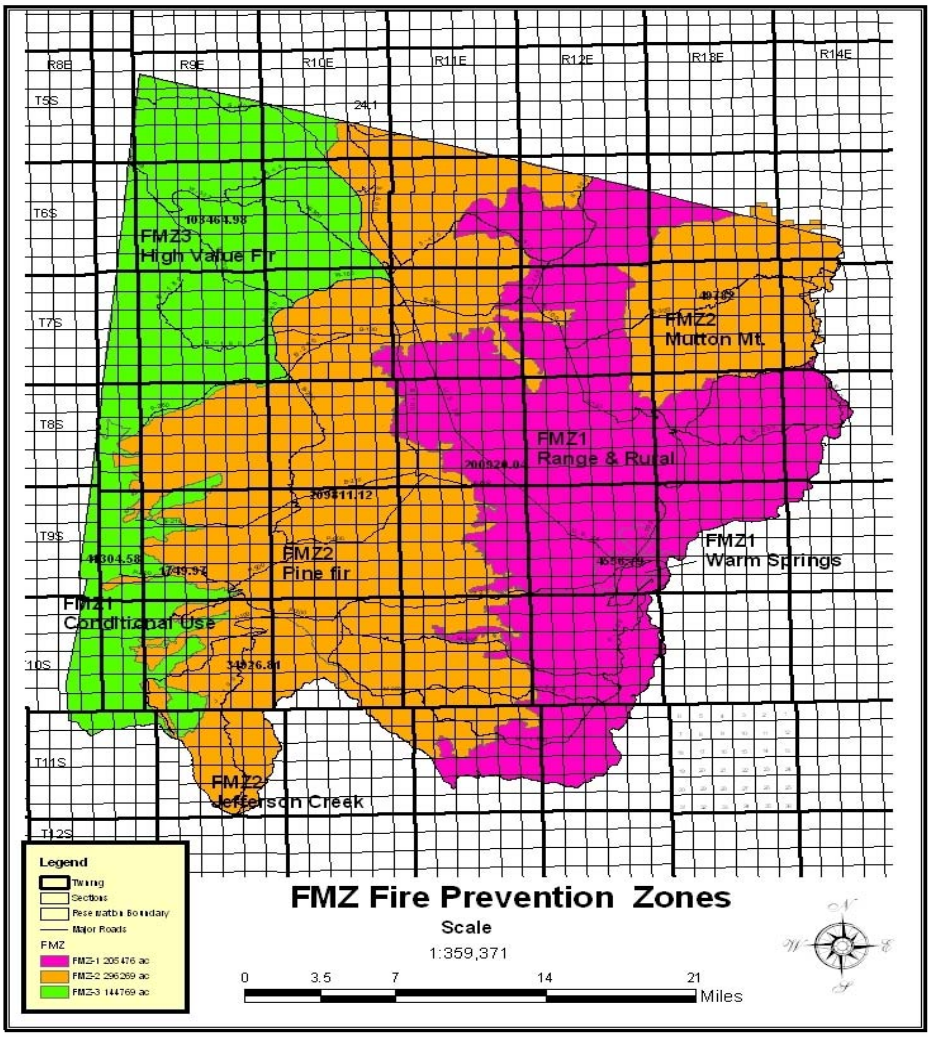
Historic fire data indicated that the majority of fires within this zone are lightning caused, however a significant number of fires are caused by human, industrial or recreational use activities.

Zone III (205,476 ac)

This zone contains the highest timber values and volume on the Reservation. Vegetation consists mainly of the mixed conifer type with some sub alpine species occurring at the higher elevations. Predominant over-story trees are Douglas-fir and ponderosa pine with western larch, noble fir, western white pine and western hemlock becoming more prevalent with increased elevation. Ground fuels consist of perennial grasses, forbs, ceanothus, manzanita and other shrub and brush species. The USFS Bear Springs Work Center and an Oregon Department of Transportation Maintenance Station are located on the extreme north end of the zone. The rest of the zone is devoid of structures except for an isolated lookout station at Clear Lake Butte.

Historic fire data indicates that most fires occurring in this zone are lightning caused. The few human caused fires that have occurred were started from activities related to

industrial or recreational use.



COMPARTMENTS

The RAMS planning process divides FMZ's into seven compartments by using common denominators, such as timber species, timber & range and range. The compartments were divided by calculating various values: timber, urban interface, natural terrain breaks, varying types of vegetation or fuel models and tree species within a FMZ. Fuel hazards, fire history, catastrophic fire potential, protection capability and ignition risk factors were issues used to determine an assessment of the compartment. Each compartment issue has a list of characteristics with evaluation factors that help determine a fire rating. RAMS evaluates the input and performs risk assessments modeling to establish the rating.

<u>COMPARTMENT 1 - 103,465 acres:</u> The unit in the northwest part of the Reservation

has no campgrounds and no structures within its boundary, but is crossed with power lines from east to west. The compartment has year-round logging activity. It is used as a hunting area and has many wilderness trails that are used 8 months of the year. It has traditional food areas and cultural sites.

COMPARTMENT 2 - 41,305 acres: This area located in the southwest portion of the Reservation is crossed by several hiking trails and has a heavy fuel load. The compartment has two campgrounds, a cultural food area and cultural sites within its boundaries, but no structures.

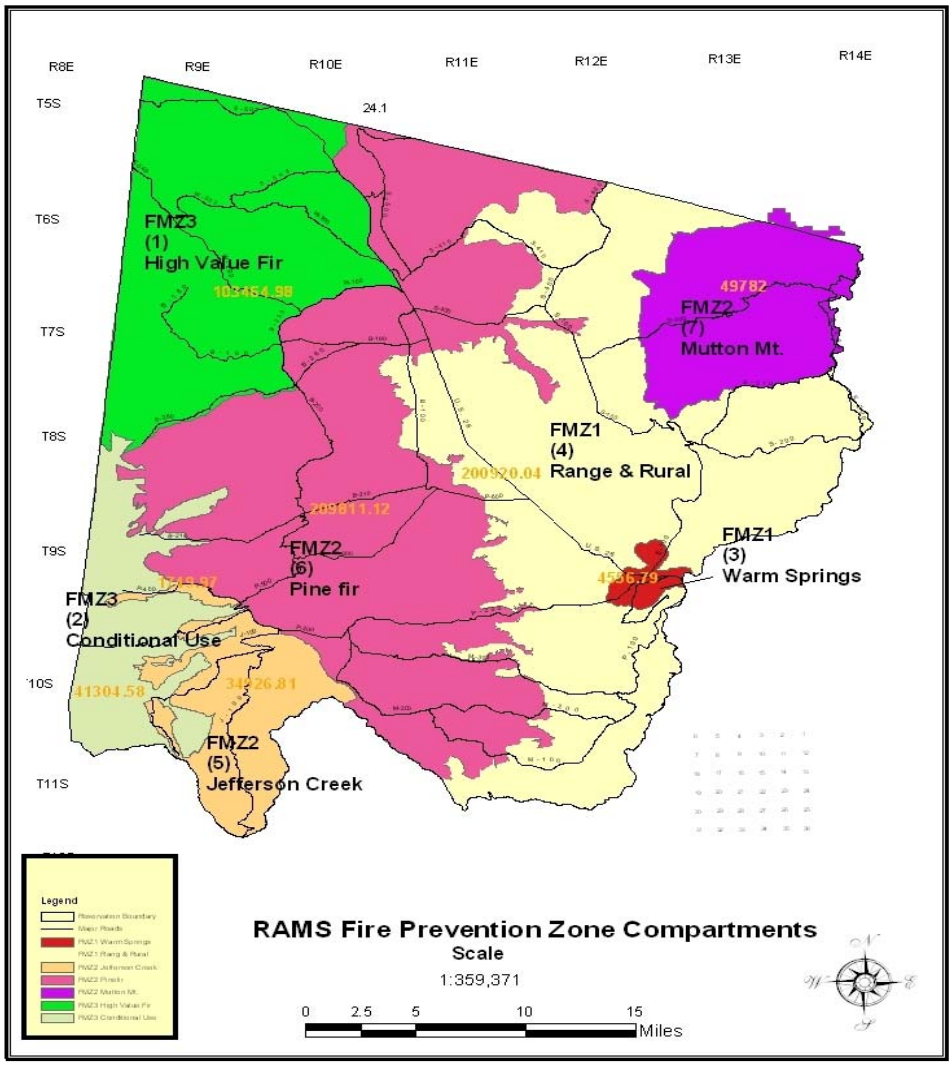
COMPARTMENT 3 – 4,557 acres: Compartment 3 is the Warm Springs urban area of high-density commercial and residential and industrial complexes. Location is on Highway 26 on the eastern side of the reservation. It has the most fire starts of any compartment or community on the reservation.

COMPARTMENT 4 – 200,920 acres: This Range and Rural compartment encompasses the eastern side of the reservation from the north to the south boundary. It contains mainly rangeland and has several communities of varying sizes. There are many individual houses that are not included in any type of community or structured sub-division. There is a resort along with campgrounds, power lines, electronic sites and recreation areas.

COMPARTMENT 5 – 34,927 acres: Compartment 5 is in the south central part of the Reservation. It is mainly timbered land consisting of pine and fir. There is logging and recreation activity, but no structures or campgrounds.

COMPARTMENT 6 – 209,811 acres: This is the largest compartment and runs from the north boundary to the south end through the center of the reservation. The compartment contains communities, individual area homes, logging, high traffic volumes, campgrounds, wood cutting, hunting areas and power lines.

COMPARTMENT 7 – 49,782 acres: Compartment 7 is an area on the northeast corner of the reservation called Mutton Mountains. It is mainly timber and rangeland and provides important winter range for big game. It has an abundance of roads and is easily assessable for hunting and other types of activities. The compartment is bordered by the river on the east that has a high recreational use during all months of the year.



COMMUNITIES

Using the FMZ's and the Compartment zone maps, community areas were identified based on population density and urban-rural interface issues. Communities are the areas of highest concentration of fire starts and where intense educational projects outlined in the WFPP can be directed to reach the largest concentration of population. The same criteria for assessing compartment ratings were used but they were more specific to the communities. RAMS evaluates the input and performs a risk assessments modeling and establishes a rating for each community. The community priorities for Warm Springs based on the assessments are listed in Section VI.

<u>WARM SPRINGS:</u> Warm Springs Community (13,031 acres) is the largest, most populated, and has the most housing and commercial infrastructure. It has the highest number of fires and highest risk of potential financial loss.

SIMNASHO: Simnasho is a small community (568 acres) in the north central part of the reservation. It is 26 miles from the Fire Management Compound, but does have a rural fire department. It is an area that has high potential for catastrophic fire.

SIDWALTER: Sidwalter is in the central part of the Reservation; it has 10,526 acres. Homes in the area are widely dispersed throughout the timber and rangeland. Vegetation is mainly Pine, Juniper, Sage and Grass lands and presents the potential for a fast moving, highly destructive fire.

COUNTY LINE: This community is located in a range and forest area with high volumes of traffic from a highway in close proximity. Housing is scattered with significant distances between most of them. Dispatch time from Fire Management is approximately 40 minutes.

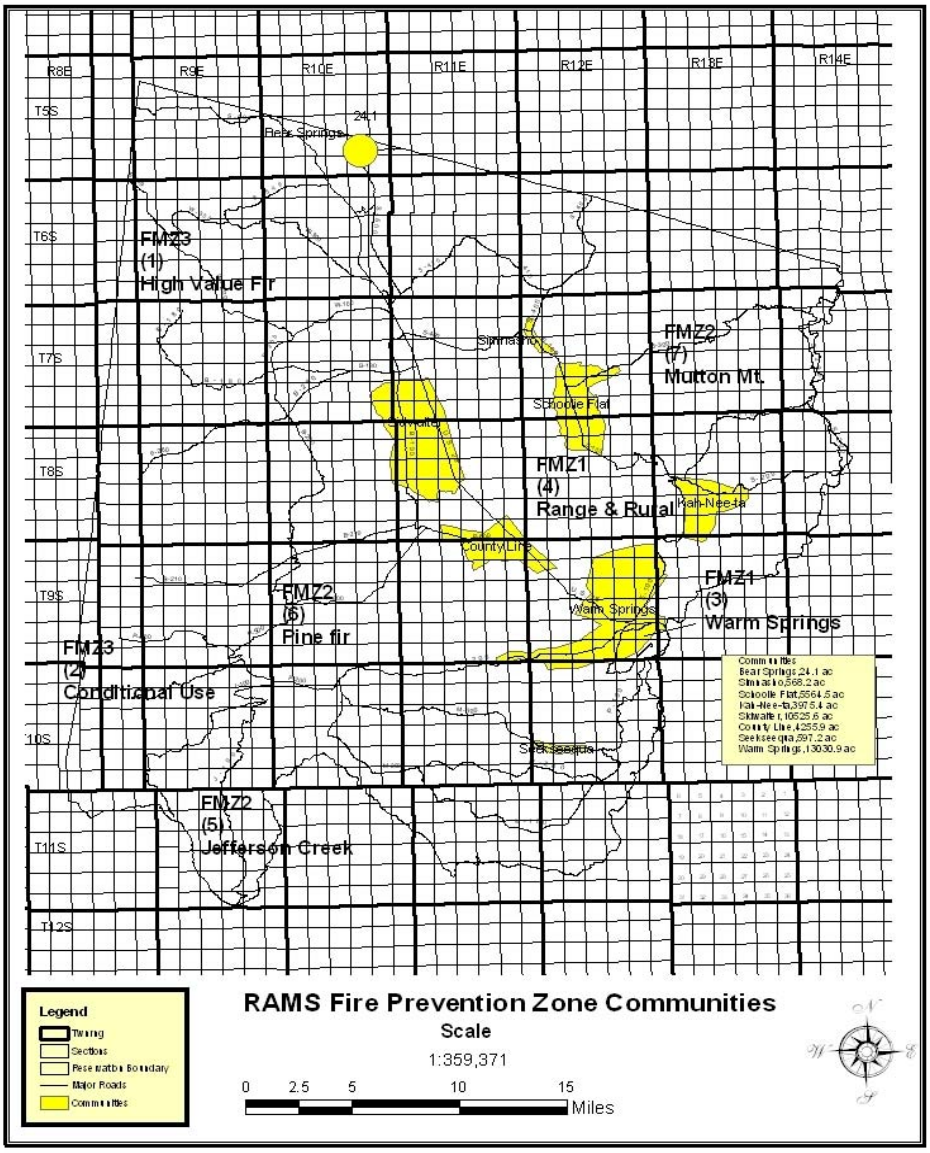
BEAR SPRINGS: Bear Springs (24 acres) is an area of structures on the northwest corner of the reservation along Highway 216. The USFS compound is located here on land owned by the Confederated Tribes of Warm Springs.

KAH-NEE-TAH: Kah-Nee-Tah (3975 acres) is a resort area located along the Warm Springs River and east of Highway 3. It is a high value area and very important to the economy of the Confederated Tribes of Warm Springs.

SEEKSEEKQUA: Seekseekqua (597 acres) is rangeland with steep slopes and historically fast moving fires. The lightning potential is high. The community is widely dispersed but does have a rural fire station.

SCHOOLIE FLAT: The Schoolie Flat community (5,564 acres) is rangeland, juniper and sage type vegetation. The highway through is well traveled. The nearest fire protection is Simnasho, approximately 10 miles away.

Of the eight communities, five are located in Wasco County: Bear Springs, Sidwalter, Schoolie Flat, County Line (portions are in Jefferson Co.), Kah-Nee-Tah, Simnasho.



Operational Plan

Wildland fire incidents adjacent to or within interface areas create special problems and concerns that affect both wildland and structure fire protection departments. These incidents also directly affect the Tribal Police and other Tribal and /or bureau departments on the Reservation. In order to provide for public and fire fighter safety, ensure coordinated suppression efforts, clarify operational procedures and reduce costs, the following guidelines and procedures are established.

1. Responsibility – The following is a description of the primary responsibilities of the three emergency response departments on the Warm Springs Reservation.

A. Warm Springs Fire & Safety, Chief Daniel Martinez, Responsible for all structure/vehicle fire protection on the Reservation. This department also provides medical aid, transport, search and rescue and HAZMAT response.
B. Warm Springs Fire Management, FMO-Garrett Cooke: Responsible for all wildland fire protection on the Reservation. Warm Springs Fire Management is also responsible for primary investigation and point of origin protection on all wildland fires.
C. Warm Springs Police Department- Chief Jim Soules: Responsible for law enforcement on the Reservation. This department is also responsible for public evacuations and is the primary contact for the American Red Cross. Warm Springs Police Department is responsible to complete all fire investigations and initiate legal actions.

2. Dispatch – Warm springs Fire & Safety and the Warm Springs Police Departments are dispatched by the Warm Springs "911" Dispatch Center. The Fire Management Dispatch Office dispatches Warm Springs Fire Management resources. It is the responsibility of the dispatcher on duty to inform the other dispatch center of any fire activity.

A. Warm Springs Fire & Safety will dispatch suppression resources to any reported structure/vehicle fire and any fire of unknown character. During periods when Fire Management is not available, after hours and during the off-season, Fire and safety will provide wildland fire protection until Fire Management resources become available.

B. Warm Springs Fire Management will dispatch suppression resources to any reported wildland fire or fire of unknown character.

C. Warm Springs Police department may dispatch police officers to any reported fire.

C. Fire Districts

This section describes the roles and concerns of the various fire districts in Wasco County

1. Mid Columbia Fire and Rescue

Chief, Joe Richardson
68,655 acres
Mid Columbia Fire and Rescue (MCFR) is a district encompassing 110 square miles of fire protection coverage surrounding the City of The Dalles. It is very diverse and not only includes The Dalles, (Population 12,230[7]) but agricultural lands (both orchard and grain), forests and grasslands as well. It borders the Columbia River for approximately 23 miles. A portion of the district lies within the Columbia River Gorge National Scenic Area, including Mayer State Park. Major transportation routes include I-84, US 197, and the Union Pacific railroad. The district borders the Mosier Rural Fire Protection district

[7] PSU Population Estimates, 2001

to the west and the Columbia River to the north as well as Columbia Rural Fire District to the east.

MCFR includes a large area of urban-rural interface country including the suburbs of The Dalles and rural developments. The area is experiencing some growth and development, within the city as well as the rural zones. The economy of the area has been poor for a long period but is showing signs of improvement. The anticipated areas of new construction for residential development are around the Columbia View Heights to the east as well as to the west and south of the city. The area to the west continues to have the most severe wildfire concerns and highest population density.

Highway 197 forms most of the eastern boundary for the district. However, the district does extend east of highway 197 running adjacent to I-84 to Moody Road. This area is mainly agriculture land with the exception of the MCFR/BIA contracted settlement at Celilo. This area experiences fast moving grass and grain fires but does not have the wildland urban interface concerns (except for Celilo Village) that exist in the western portion of the district. Fire protection at Celilo Village is provided through an agreement with Mid-Columbia Fire and Rescue and the BIA. This agreement is for structure fires and fires threatening structures only.

MCFR is the only fire district in the county with paid career personnel. There are 23 career staff and 35 volunteers. Of the career staff, 18 are line, three are staff and two serve as office personnel. All career personnel are cross-trained for EMS, structure and wildland fires. Volunteers have the option to receive cross training. The district averages 6.5 calls a day, 80% of which are EMS and 20% fire responses. Volunteer Firefighters meet each Tuesday night and some weekends for training.

Policy decisions for the district are made by a Board of Directors, which meets on the third Monday of each month. The board consists of five citizens who are elected for four-year terms. The Board appoints a Budget Committee to approve the annual budget for the district.

Funding to operate the district comes from property taxes on real estate property in the district and ambulance revenue. The district also bills for some fire suppression responses such as railroad fires and transportation incidents occurring on I-84. In some cases the district contracts with and provides protection for landowners that live within a mile of the fire district boundary. The district has been successful in the past few years in obtaining additional funds from federal grants.

The district currently maintains two fire stations. The main station is located somewhat central of the district boundaries on Webber and 8th Street in The Dalles. The second station is unmanned and is located in Columbia View Heights on the east side of The Dalles.

The ISO (Insurance Service Organization - rating office) rating for the district ranges from a class 4 to 9. Structures (excluding commercial) within 5 miles of a fire station and within 1000 feet of a fire hydrant are class 4. Structures within 5 miles without a hydrant are rated class 8. Structures beyond 5 miles are rated class 9. Commercial structures within 5 miles with hydrants are rated 4, otherwise they are rated a class 9.

The district enjoys a good working relationship with the United States Forest Service (USFS) and Oregon Department of Forestry (ODF) as well as all the surrounding fire departments that provide the district with mutual aid. The district also provides mutual

aid to all the surrounding fire departments as well as ODF. ODF also has protection responsibilities on about half of MCF&R's district.
There are some potential planning conflicts regarding fuel reduction policies within the lands in the Columbia River Gorge National Scenic Area (CRGNSA). The CRGNSA attempts to maintain vegetative cover to screen structures in an attempt to enhance scenery while the district encourages landowners to reduce vegetation for wildfire protection purposes. The district also works closely with the Wasco County Planning Department on road access requirements during construction of dwellings.
Areas of Concern:
Seven Mile Hill**:** The Seven Mile Hill area is the district's largest area of urban-interface. ODF and USFS National Scenic Area jurisdictions overlap the fire district's jurisdiction. Mosier Rural Fire Protection District adjoins the District's boundary to the west. All fires are handled with a Unified Incident Command structure. All of these agencies have worked together to educate the public in providing defensible spaces for their dwellings.
Rowena Dell: A main concern with this development is access; there is only one means of access and egress. Also, the development sits in a canyon, or chute, which would cause an approaching fire to burn fast and erratically.
Tooley Terrace: This area is considered to be a box canyon. It has numerous manufactured homes and has experienced many fires there in the past.
Chenowith Road to Mill Creek Road: Medium to heavy fuels in the form of oak-pine forest with grass and brush underneath. There are some access problems, such as bridges and restricted access roads. Numerous structures are developed on five to twenty-acre plots
Railroad Tie Plant – The Dalles: This site has the potential for an intense fire due to a large inventory of wooden railroad ties which could be difficult to control.
Major Risk Factors: Fireworks, illegal or unsafe open and barrel burning, railroad and highway caused fires.
Hazard Factors: High and erratic wind conditions and heavy fuels on steep slopes. Winds speed up to 50 MPH can develop making firefighting both difficult and hazardous. High winds will also increase the potential for large wildland incidents. There are many dead end roads within the fire district.
Construction Site Requirements: Mid-Columbia Fire and Rescue's Fire Marshal works closely with the State Fire Marshal's Office and the local Deputy in the areas of fire prevention and public fire education. The district's Fire Marshal utilizes the International Fire Code as a standard for road construction. These standards address fire apparatus access roads and include specifications for type of road surface, weight bearing capacity, width, grade, and turning radius. Dead-end roads in excess of 150 feet must meet special width and turnaround specifications. These requirements are dependant upon the length of the road. Gates on roads have requirements for minimum width, construction material, type of opening, and opening devices. Where required, fire access roads must be posted with appropriate no-parking signs.

2. Tygh Valley

Chief: Pat Chastain
20,409 acres

The Tygh Valley Rural Fire District has a population of about 260 people; they have about 20 volunteers of which about 10 are active. The volunteers meet once a month for practice. The district works under the Water District's "Special District" designation. There are no taxes for fire protection in the district. The fire department asks for a $30 donation; about 80% of homeowners contribute.

The district would like to upgrade the Flag Point repeater. Mid-Columbia Fire and Rescue District has a grant to update communications in Wasco County and plans to update Flag Point as part of their effort. Communications in Butler Canyon is a problem as cell phones do not work there.

Their present buildings and vehicles meet their needs but they have ongoing need to update equipment. They get some new equipment each year through RFA/VFA grants. The Shady Brook area is their biggest concern. The southern and western portions of town present the main concerns from a wildfire standpoint. There are lots of older mobile homes in Tygh Valley, which would burn fast. There are 20 hydrants well distributed in town. The ISO is 6 in Tygh Valley and 9 in the west end of the district.

A large portion of their district is under the Davis Ranch ownership. It is mainly non-forested and the grasses and sagebrush make for fast moving fires; access is very limited. Since few people live on the ranch, fires are not as big a concern as compared to more inhabited areas.

Most (about 85%) of their fire responses are for wildfires, mainly grass. Wood stoves cause most house fires. Farmers can burn for farming purposes during burn bans and this has caused some problems in the past. Recreation use and the railroad on the Deschutes River cause some wildfires as well as, cigarettes and lightning.

Access is generally good in the district but there are some areas the department could not get to. Shake roofs are a real concern. It is very dry in Tygh Valley so vegetation grows slower, but dry grass does burn fast. This is the number one fire danger in the fall season. ODF has protection responsibilities on about half of Tygh Valley's district.

3. Dufur

Chief, Jon Keyser

516 acres

Dufur Fire district has nine volunteer firefighters, two engines, an ambulance and rescue vehicle. The volunteers meet the first Tuesday of each month at 7PM and Saturdays at 8AM.

The City has applied under a FEMA grant to get a first response, quick attack vehicle. This is their first priority. They also need up to three brush rigs, if the district expands. Brush rigs would be stationed at the Grange Hall, Mike Johnson's place, and in Boyd. The Dufur City Council recently approved letting the fire department go outside of the city limits. Currently, the fire district includes just the city limits of Dufur. The district would like to expand its boundaries to take in areas surrounding the city. There are many homes, especially west of the city, which are not protected now, (Eight Mile Creek, Wolf Creek, Sportsmen's Paradise). The district will need funds to do the planned boundary

expansion (RFA/VFA can be applied for to cover some of this cost). The department has three or four fire responses per year on average. They will have more now that they can go outside of the city limits. Until they get brush rigs, the district will only respond to structure fires outside of the city. The chief can enforce burn permit requirements outside of the city if he is accompanied by county sheriff's deputy. There is a need to coordinate with Tygh Valley on who protects the area four miles south of Milepost 28. For motor vehicle accidents, the fire department goes to protect the ambulance crew.
Wheat stubble fires are a threat to the city. Fifteen Mile Creek runs through town. While it provides some moist areas, the creek has lots of vegetation and could be a hazard in dry conditions. Homes on the west and north sides of the city are most vulnerable from range fires. A fire break on the north side of the city would help protect the city. The ISO is 5. The water source for Dufur is from wells. There is good coverage by hydrants. The city has a 500,000 gallon water storage reservoir. If the district is expanded, there will be a need to identify and plot water sources. Some farmers have good wells.

Aerial view of Dufur

Average Weather in Dufur

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average temp. (°F)	33.5	38.1	44.0	49.3	55.8	61.9	68.2	68.0	61.4	50.9	40.3	33.7
High temperature (°F)	40.7	46.8	55.6	63.0	71.2	78.3	86.4	86.1	78.2	64.7	48.6	40.3
Low temperature (°F)	26.3	29.3	32.4	35.6	40.4	45.4	49.8	49.8	44.6	37.1	32.0	27.1

Precipitation (in)	2.1	1.5	1.3	1.0	0.8	0.6	0.3	0.4	0.5	0.9	1.8	2.0

4. Pine Hollow

Chief, Keith Peterson
Assistant Chief, Michael Hunt
28,881 acres
Pine Hollow Rural Fire District contains three communities; Pine Hollow, Sportsman's Park and Wamic. The communities, especially Pine Hollow, are basically retirement communities. There are few, if any, jobs to be had in the communities. Pine Hollow is the second largest community in the county during the summer as many people come for tourism activities.
Pine Hollow subdivision was developed during 1969 to 1971 and lots were first sold in 1973. There are 550 lots in the subdivision and about 90 percent have homes on them. About 40 percent of the lots have full-time residents on them, but 15 percent of these leave in the winter. Pine Hollow has no Community Council; it has a water district and the fire district.
Sportsman's Park is located at the west end of the district and borders National Forest land; it has about 175 lots and about 130 homes. It has no Community Council but does have a water department, which maintains a community water system.
Wamic, with 75 lots, is a part of the district; it has no community council. There are three water fills available for a portion of the year when the irrigation system is operating.
The fire district is in the process of forming a taxing district. At this time they get their operating funds from volunteer donations and various fund raisers. They will adjust their district boundary on the north end. Pine Hollow recently joined with Rock Creek Rural Fire District (Sportsman's Park). ODF has protection responsibilities within Pine Hollow/Rock Creek's district.
The district has about 35 volunteers with wildland fire suppression qualifications, 15 are qualified to respond to mutual aid requests and five are qualified for structure fire. The average age of responders is in the late 50s. They meet for four hours on the first Saturday of each month for a general board meeting and training. They want to begin meeting twice a month. The volunteers actively participate in the S. Wasco Co. Training held in the Spring, Winter, and Fall.

The district maintains equipment at fire stations in Pine Hollow and Sportsman's Park (Rock Creek Station). Much of their equipment is old. The Pine Hollow Station has a structure type engine, three brush rigs, two smaller brush rigs and three 1,200 gallon water tenders. They would like to have a water tender with a 3,000 gallon capacity. The Rock Creek Station has three 1000+ gallon trucks available as well as a 250 gallon fast response pickup.

In the past 12 years the district has had only four structure fires. They do get a lot of chimney fires as there are many wood burning stoves in the district. Their volunteers help residents clean chimneys when asked. They average about six to ten grass/brush type fires per year.

The district has good communications with all new radios and a new repeater at Sportsman's Park. There is an emergency fire call line in Pine Hollow; residents can either call 544-3000 or 911 to report a fire. Pine Hollow has three dispatchers; each has a base radio in their home or they can dispatch from the fire hall.
Pine Hollow has seven fire-fills served by wells. There are several ponds in the district which they can use to draft water from. There are no formal agreements with the ranchers to use their water but they are working on getting such agreements. Four of their fire fighting vehicles can draft water. In about five years the Pine Hollow Water District will have an eight inch water line, hydrants and a 100,000 gallon reservoir.
Each year the fire district sends a newsletter to all residents emphasizing the need to clean up dead woody material and to create defensible space around their buildings.
Special areas of concern:
1. Sportsman's Park. This area is a high concern from a wildfire standpoint. There are 175 lots and most are small in size. There is considerable woody vegetation and some critical access problems. Importantly, the community is adjacent to National Forest lands which are heavily timbered. Most of the developed lots have either manufactured homes or trailers. The Forest Service has been working with community leaders in a collaborative approach to identify a WUI boundary and to develop a strategy to reduce the hazard fuel level on nearby National Forest lands. The use of ORVs (Off Road Vehicles) on nearby National Forest lands is a concern of some residents who feel they increase the risk of wildfire starts.
2. Pine Hollow. The two draws coming into the west side of Pine Hollow are the main concern. The church camp is especially vulnerable; there are many standing and down dead trees which need to be removed.
3. Wamic. The concern is for the Three Mile Creek draw which runs into the community from the west. The draw has heavy fuels and a fire beginning there could threaten the community. There are from 50 to 75 homes in Wamic.
4. Badger Creek, Rock Creek, White River. There is a heavy fuel load in the draws but few homes so the concern is not so high as compared with the developed communities.
5. National Forest lands. The concern is for fires starting on National Forest lands and spreading to nearby private lands. Also, the district would like to be able to take initial attack on fires on National Forest lands. Currently, the Forest Service does not want the district to attack fires on National Forest lands unless they direct them to do so. The district feels they can reach many fires on National Forest lands before the Forest Service can and they are better trained now. The Forest Service feels there is a liability issue involved.
6. Water supply. Except for a few ponds, there is a general lack of available water around the district.

5. Shaniko/Antelope

Shaniko Chief – Richard Roberts
Antelope Chief – Brian Sheer.
Shaniko and Antelope are closely located and respond to each other's fire calls. They are both incorporated since 1901 and have elected City Councils. Each community has a small building for its fire equipment. The ISO rating for both communities is an 8 by default.

The population of Shaniko is only 19 year-round people but there are many tourists in the summer season. The economy is strictly tourism oriented around the general theme of an old western style town. There is no fire protection tax base and the city doesn't take donations now but may in the future. The city budgets a small amount each year for the fire district and they go after some grants for resources. The district is trying to get organized and would like to do more but there are few able bodied persons available to volunteer. Some of their volunteers work on ranches and there are some people available on weekends. The fire district is still learning.

The Shaniko district has from eight to ten volunteers, all qualified for structure fires. The district boundary is a 15 mile radius around the community. In 2004 they began getting qualified for wildland fires. The district does not meet regularly, just when needed. Shaniko has one 750 gallon engine and two brush rigs (one is on a flat bed truck). The community gets water from a spring and there are six or seven water fills available. There is a lot of water available but they can't pump very fast. The city maintains 50 gallon barrels filled with water along city streets in the summer. Gunny sacks are also available.

Antelope, with a population of 45, also has no tax base for fire protection purposes and does not take donations now but may in the future. The city budgets a small amount each year for the district and they go after some grants for resources. In April of 2005 the district had only one volunteer, the fire chief. They have one structure unit and one older brush rig. The community has hydrants but they have limited water available.

There is a lot of BLM land near Antelope and Shaniko. The BLM has been cooperative with the district. When a fire occurs, the landowners generally show up with equipment and help the fire districts and agencies.

Concerns:

1. The basic concern for the Shaniko and Antelope Rural Fire District has to do with resource needs rather than hazard reduction. They need hand tools and a newer brush rig. In the past they have gotten a lot of "hand-me-down" equipment which others don't need or want anymore. They could use a new computer to get e-mail messages from the Fire Marshal. There is no DSL service for the two communities.
2. There is a concern for losing the entire town of Shaniko to a fire. Most of the buildings in town are old and made of wooden material. They are close together and if a fire were to start in one, it could quickly spread to others.
3. The districts would like to be better prepared to respond to incidents on the highway.

6. Maupin

Chief – Rod Woodside

Maupin is located about 45 miles south of The Dalles, it has been incorporated since 1922. Slightly more than 400 people reside in Maupin but the population swells in the summer season with river users. The city includes about 1.3 square miles and it is at an elevation of 1041 feet above sea level. The overall climate is dry with 13.7 inches of average annual precipitation. During the main fire season from June through September the total rainfall averages just 1.8 inches. High wind conditions are common; the average velocity is about seven miles per hour during June through September.

The Deschutes River flows through the city and receives heavy recreation use during the

City of Maupin

summer and fall seasons when the fire danger is high. A railroad parallels the river. Both river users and the railroad are sources of wildland fire ignitions. Lightning is also a factor. The district responds to fires along the Deschutes River and usually arrives on scene before the BLM. Access to fires in the river canyon can be difficult. The community is surrounded by wildland, some with high levels of hazardous fuels.

The community has a good water source in the form of a large spring which surfaces within the city. Water is pumped to, and stored in, a 1.5 million gallon reservoir. The city maintains about 60 hydrants for fire fighting purposes. The ISO for the city is 5, unless a structure is more than 300 feet from a hydrant in which case it is 8.

The fire district consists of the urban growth boundary but they do go outside the district on mutual aid requests. A city ordinance limits the district to 25 volunteers but as many as 36 plus support staff could show up for a fire. About 12 of the volunteers have been well trained for structure and wildland fire suppression. District meetings are twice a month on the second and fourth Mondays. One meeting is for business and one is for training. The district would like to attract some younger members.

Equipment maintained by the district includes two structure engines, one brush rig and four pickups with slip-on pumpers. They would like to acquire a water tender for use on wildland fires. Also, the district needs a larger building or shop to store their equipment. Wildland fires make up about 90 percent of the fires they respond to. The district has mutual aid agreements with Tygh Valley, Pine Hollow, and Juniper Flats.

Concerns:

1. The old Brownfields lumber yard towards the west end of the city has large bark piles. If a fire were to start in these piles it would be difficult to suppress. The site is now being used to manufacture log homes. It is on the county's list of sites needing cleanup attention.

2. Railroad. A rail-line runs along the Deschutes River on the south side of the city. The railroad has been a frequent source of ignitions in past years. The rail line runs south to

the Columbia River through a remote portion of the canyon where access if difficult; it often carries hazardous materials.

3. Windy conditions and steep slopes. Strong and erratic winds during the fire season make firefighting difficult and increase the potential for large wildland fires. Steep slopes within the city and along the Deschutes Canyon add to this concern. The city has experienced large fires in the past. In 1912 the city was nearly destroyed by a wildfire; it was again threatened in the late 1960s.
4. Access. There are several portions of the city which are served by only one means of ingress and egress. District personnel are concerned about being able to safely get their equipment to some homes. There is also concern for residents being trapped during a fast moving wildland fire. Access in the Deschutes River Canyon can also be a concern.
5. Coverage. The district responds to many wildland fires and they are concerned about leaving enough resources and volunteers in the city to respond to a fire there.

7. Juniper Flats

Chief – Eugene Walters
58,420 acres
The Juniper Flats Fire District is made up of a rural area with scattered farms, ranches, and increasingly, subdivision development. Light, flashy fuels and frequent down-canyon winds often result in fast moving wildland fires. The district contains 225 tax lots. The largest concentration of development is in the Pine Grove area at the west end of the district. The district is rapidly changing in ways which will make wildfire prevention and protection more and more important. From 10 to 15 years ago district residents were mainly farmers and ranchers. These residents did start their share of fires but they also had lots of equipment which could be used for fire suppression. In recent years there has been a strong trend for people to acquire smaller parcels for recreation objectives. Some parcels are too small to get building permits so owners bring in camping trailers for short-term stays. Also, some properties are being developed without following county ordinances creating unsafe conditions from a wildfire protection standpoint.
The fire district is very well organized and equipped. Eugene Walters has been the chief since 1979; he also serves as the South County Fire Defense Chief allowing other south county chiefs to go through him for resource needs. Eugene has helped coordinate and accomplish training for other districts in the south county area. Some joint training exercises are carried out and the south county chiefs meet often to coordinate efforts. There is a new main fire station at Walters Corners which needs to be completed. Satellite stations are maintained at Pine Grove and Juniper Flats. The district has 14 vehicles, all in good condition. There is a need to get a 20,000 gallon water tank from a surplus source. The ISO for the district is 6 for homes within 1,000 feet of a hydrant; those farther than 1,000 feet are rated an 8. Pine Grove is the only area in the district with a water storage reservoir and hydrants (16). The district feels it has good communications. It will soon have new digital equipment under Project 25 which will allow cross communications with all agencies.
The district has 20 volunteers; most are trained for both structure and wildland fires. A board meting is held the first of each month and training conducted every week on

Thursday. Property owners in the district pay a fire protection tax. The district sends fire prevention information to lot owners and will provide fire screens for burn barrels. Juniper Flats participates along with Maupin and Tygh Valley in an automatic aid agreement. Under the agreement, all districts automatically respond to any structure fire occurring more than 1,000 feet from a hydrant. The district also maintains other mutual aid agreements. ODF has protection responsibilities on about half of Juniper Flat's district.

Concerns:

1. The Pine Grove community is the biggest concern for the fire district. This community is situated in, and adjacent to, a highly hazardous fuel situation. Most dwellings are mobile or manufactured homes and many have heavy fuels near them. There is a need to develop defensible space around many homes sites. Some areas have access problems for getting fire fighting equipment close, and for evacuation of residents in an emergency. Some defensible space work is being accomplished by the landowners with big holdings to the west of the community.
2. Some rural developments do not meet fire siting codes. There are several roads in the western portion of the district which would not provide safe access for fire fighting equipment, or allow for safe evacuation of residents during an emergency. The Endersby and Kelly Springs roads are examples.
3. The White River road crossing. This is a heavily used recreation site and sits at the bottom of a steep canyon with heavy fuels around and above. Many river recreation users occupy this area during the fire season and are a source of wildland fire ignition. Fires starting here would be difficult to suppress because of the remoteness of the canyon. There is a need to do hazardous fuel reduction around the recreation site.
4. Information needs. There is a big need to get more information about wildfire prevention and protection to people who come to the area just on the weekends.
5. Wildland fires starting from power lines, lightning, and week-end recreation-users. There are less wood burning stoves now, but more weekend barbeques.

8. Columbia Rural Fire District

Chief, Rich Kortge
76,577 acres

Columbia Rural is a non-tax fire district without traditional firefighting resources. The district covers a large area consisting of mainly wheat farms and includes about 75 landowners. It is bordered by the Deschutes River to the east, the Columbia River to the north, and highway 197 to the west.

Typical fires are fast moving, involve wheat fields or grass/brush, and last for only an hour or so. When a fire occurs, farmers drop whatever they are doing and come to assist their neighbor(s). They use what ever farm equipment they have to attack the fire. There is little organization, rules or command structure; the members just go to work and seem to know what to do to get the fire out. They don't train or hold organizational meetings. The members view the process as "neighbors helping neighbors" and are eager to assist because they know they will be helped when a fire happens on their property. They sometimes receive help from outside the district and especially appreciate assistance for structure fires. The ODF maintains a mutual aid agreement with the district and the BLM sometimes responds.

Among the main concerns for the district are:

- Hot, dry and windy conditions during much of the summer and fall.
- Fires started by the railroad which runs along the north and east boundary of the district.
- Hazardous and fast burning fuels in the form of crops which are their livelihood.
- Lack of equipment for structure fires.

9. Mosier Fire District

Chief, Dan Garcia
14,511 acres
The Mosier Fire District is located in the northwest corner of the county; it generally contains a high level of hazardous fuel conditions and the potential for serious wildfires. The district includes the incorporated city of Mosier but about 95 percent of the workload is in the rural area.
The district maintains three fire stations with the main one being in Mosier. The structures mentioned are not traditional fire stations. These structures are primarily buildings used to house the fire engines but provide no facilities for fire fighters to use such as bathrooms, storage for equipment, or supplies. Equipment includes two engines (one for structure and one for rural fires), three water tenders and three brush rigs and a mini pumper which is used as a medical supply truck. The district feels they have enough equipment but much of it needs to be replaced with newer models. Communications have been recently improved and are considered adequate now. Coordination and cooperation with federal and state agencies have been a concern in the past, but are better now through the efforts of continuous interagency communications. The district has 15 volunteers who can be counted on and another five who show up sometimes. The volunteers meet on the first three Mondays of the month with the first one set aside for business activities. The makeup of the volunteer force is a serious concern for the district. Most of the volunteers are older and it has been difficult to recruit younger members. Standards are high and difficult to achieve for most of the volunteers.
The Fire Chief reports to a five person Board of Commissioners and to the Mosier City Council. He also meets with the board for the Mosier Valley Volunteers. A considerable amount of time is required of the chief for administrative duties, training and equipment needs, and to respond to the County Planning office for housing development permits and National Scenic Area requirements. There is a high level of development occurring in the district. The chief feels there is a need to establish a paid position (one day per week) to manage the administrative duties for the district.
Fuel conditions vary but a large portion of the district has a high hazard fuel condition level. Much of the lower portion of the district involves oak/pine types scattered with brush and grasses. Moderate to very steep slopes are common and high wind conditions frequent. There is considerable residential development throughout the district and a high growth level continuing. Much of the residential development is in five acre tracts. The ODF has been working with many of the property owners in the district to reduce fuel levels and to create defensible space but considerable work remains. Grants from the

National Fire Plan program are being used for this work. ODF has protection responsibilities within the Mosier District.

Concerns:

- Railroad ignited fires.
- Strong westerly winds and hot, dry conditions during much of the summer season.
- Need for better equipment and a new fire hall.
- An aging volunteer fire fighting force.
- Large amount of administrative work for volunteers to manage. There is a need for a paid position.
- National Scenic Areas requirements which hamper hazard fuel treatments in the Special Management Areas.
- Adequate training of volunteers.
- Community education and awareness.
- Recruitment.

10. Unprotected Lands.

A portion of Wasco County (southeast area) is not covered by a rural fire district. These unprotected lands are mainly farm or ranches, many of them large in size. Ranchers in these areas work together when a wildfire occurs and use what farm equipment they have. The BLM will assist the landowners if federal lands are threatened and can request help from nearby rural districts. In these situations the landowners are in charge of the fire but the BLM employees follow their standard operating procedures while assisting. The ranchers know their lands well and are often in the best position to determine how best to gain access to the fire by existing roads. The landowners could apply and form a Rangeland Protection Association which would allow them to apply for grants to acquire equipment, but they are not interested in doing so at this time.

Some concerns of landowners in these unprotected lands include:

- There is considerable CRP (Conservation Reserve Program) land on the ranches. The lands are taken out of production and maintained for soil and water protection. The lands represent serious wildfire concerns during the fire season and ranchers would like to create fuel breaks on them. There is an opportunity to construct fuel breaks on these lands. A burn plan is required and once completed, there is funding through the local conservation district to fund this type of project. The BLM is willing to write the necessary burn plans.
- Federal crews that assist during wildfires on these ranches are used to doing business on public lands and need to operate somewhat differently on these private lands. They need to respect and be courteous to the landowners and to understand that the ranchers have their own way of fighting fires. The ranchers don’t have the same concerns for liability as the agencies have.

- Agencies should seek permission to use water from the rancher's ponds and tanks when fighting fires. Ranchers need to give information to the agencies about road and pond locations.
- There have been problems between the ranchers and the BLM in the past but it doesn't have to be that way in the future; communication between the two is key.
- The landowners of the 1,600 acre Deschutes River Club located about 20 miles south of Maupin on the Deschutes River breaks are concerned about the threat of wildfire. There are about 60 homes (mostly older and made of wood) on the property but it is served by only one road for access. The club has an old fire engine and a portable pump. Because they are located so far from any assistance, they must rely on their residents for any initial attack during a wildfire event. Communications is a problem and they could use a satellite and mobile phone.

IV. Special Considerations

A. Senate Bill - 360

The Oregon Forestland-Urban Interface Fire Protection Act of 1997 (SB-360) is the State of Oregon's response to several escalating wildland fire problems. Wildfires are burning homes in the interface and firefighters are working in increasingly hazardous situations. Fire suppression costs are increasing significantly in Oregon. Fire fighting resources are limited and in some cases emergency service agencies cannot provide equipment and personnel to all structures threatened by a wildfire. SB-360 addresses these concerns and enlists the aid of the only people who can make fuel reduction changes to residential property: the landowners themselves.

The vegetation treatment prescription found in the act is derived from research conducted at the Rocky Mountain Research Station in Missoula, Montana (Cohen and Saveland , 1996). The measures are simple and easy to apply and include:

- Removing pine needles and leaves from the roof.
- Pruning limbs from trees, keeping trees healthy.
- Removing shrubs near the home and close to trees.
- Mowing dead grass near the home.
- Storing firewood and other flammable material at least 20 feet from the home (during fire season).
- Removing tree limbs within 10 feet of a chimney opening.
- Maintaining a shaded fuel break near the house and in some cases around the property line.
- Maintaining driveways that are over 150 feet long clear of branches and trees that could prevent emergency vehicles from gaining access to the structure.

The act applies to lands protected by the Oregon Department of Forestry and does not apply to other properties outside of ODF protection. Each county will establish a classification committee that will identify the hazard class of each area affected by the act. Once classified, landowners are provided a certification package and given two years to certify that their lands meet the standards. The Central Oregon District of the Oregon Department of Forestry will work closely with local emergency management

personnel, conduct public meetings, hearings and community workshops along with providing onsite consultation for landowners affected by the act.
The Forestland-Urban Interface Fire Protection Act of 1997 is intended to be both voluntary and self certifying by the homeowner. By design, the Oregon Department of Forestry developed a program that recruits the assistance of each homeowner, offers defensible space prescriptions and allows affected homeowners the option of certifying their property or not. The act contains no statutory provisions, homeowners will not be cited or required to appear in court if they choose not to participate. The act does contain a potential civil liability if the homeowner does not certify their property in two years after notification. If a fire originates on that property and spreads through the area that should be treated and the Oregon Department of Forestry must utilize extraordinary suppression efforts to contain that fire, a home owner could be liable for up to one hundred thousand dollars of suppression costs.

B. Emergency Conflagration Act

Under circumstances when wildfires create a serious threat to life and property, the Governor may invoke the Emergency Conflagration Act. Once invoked, the Act authorizes the Governor to use the resources of any county, city, or district fire suppression organization to assist fire-fighting efforts anywhere in the state. The Act requires the state to reimburse the political subdivision for costs in providing such fire suppression assistance. The Governor can also declare a "state of emergency" authorizing the participation of all public agency personnel and equipment, including the Oregon National Guard, to assist in the battle against wildfires. During a Governor-declared "state of emergency," the Oregon State Police coordinates National Guard resources through the Office of Emergency Management and structural fire fighting resources through the Office of the State Fire Marshal. The Oregon Military Department also provides both staff and equipment for emergency fire fighting needs.

C. Federal Emergency Management Act (FEMA) Eligibility

Federal fire management financial assistance is provided through the President's Disaster Relief Fund and made available by FEMA. Only fires involving structures or homes can be declared eligible for FEMA reimbursement. Cost reimbursement can only occur if the Governor invokes the Emergency Conflagration Act and the Office of Emergency Management requests assistance and provides information on the estimated amount and severity of the threat to structures or homes through the FEMA Region 10 office. Each incident requires separate approval. After validating the nature and extent of the threat, the FEMA regional office requests approval by the FEMA director in Washington, D.C. Once approved, subsequent fire fighting costs on all FEMA approved fires are eligible for approximately 70% cost reimbursement under an approved grant for managing, mitigating, and controlling designated fires during the incident time period as established by FEMA.
The following fires (8 out of 9) in the 2002 fire season were approved by FEMA and were eligible for cost reimbursement:

Cache Mountain Fire	Deschutes County
Biscuit (Florence) Fire	Josephine County
Timbered Rock Fire	Jackson County

Sheldon Ridge Fire	Wasco County
Flagtail Fire	Grant County
Squire Peak Fire	Jackson County
Winter Fire	Lake County
Eyerly Fire	Jefferson County

D. Healthy Forest Restoration Act (HFRA)

The November 2003,Healthy Forest Restoration Act (HFRA) offers new tools and additional authorities for treating more acres in a timely fashion to meet forest restoration goals. It provides new authorities to treat fuels on federal land that require NEPA at the EA or EIS level. HFRA strengthens public participation by providing incentives for the local communities to develop their own community wildfire protection plans. It limits the complexities of Environmental Analyses for hazard reduction projects. It provides a more effective appeal process and instructs the Courts to balance short-term affects of implementing projects against the harm caused by delay and long-term benefits of a restored forest.

HFRA Title I addresses vegetation treatments on National Forest System and Bureau of Land Management lands that are at risk of wildland fire or insect and disease epidemics (emphasis is on Fire Regime I, II, and III in Condition Class 2 & 3). Title II encourages each community to develop their own CWPP and to designate their own specific WUIs where restoration projects might occur. Half of all fuel reduction projects under the HFRA must occur in the community protection zone as defined by HFRA. It also encourages biomass energy production through grants and assistance to local communities to help create market incentives for the removal of otherwise valueless forest material.

E. National Fire Plan (NFP)

Following the explosive fire season of 2000, the National Fire Plan was established to respond to severe wildland fires and their impacts to communities. It is an umbrella term that covers a variety of government programs and ideas addressing wildland fire issues. The NFP is a long-term investment that will help protect human lives, communities, and natural resources, while fostering cooperation and communication among federal, state, and local governments, tribes, and interested publics. Federal fire agencies worked closely with these partners, and the Western Governor's Association to complete a 10-Year Comprehensive Strategy in August 2001. An Implementation Plan was developed in May 2002 to provide consistent and standard direction for implementing the NFP and the Strategy.

The NFP is focused on firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability. The guiding principle for dealing with fire risks is the reduction of hazardous fuel loads threatening communities and wildland ecosystems. The NFP offers grant opportunities for hazard fuel reduction, wildfire planning, wildfire prevention, and fuel utilization. Most NFP funding in Oregon goes to wildfire preparedness and hazardous fuel treatment projects.

F. Oregon Statewide Land Use Planning Goals

Since 1973, Oregon has maintained a strong statewide program for land use planning. The foundation of that program is a set of nineteen statewide planning goals. The goals express the state's policies on land use and related topics. The program is administered through the Department of Land Conservation and Development (DLCD), and Oregon's cities and counties. Cities and counties implement the requirements of the statewide planning goals through state-approved local comprehensive land use programs.

Planning goals related to WUI fire hazards are Goal 4 – Forest Lands, Goal 7 – Natural Hazards, and Goal 14 – Urbanization. Goal 4 requires local governments to minimize risks associated with wildfire when new dwellings or other structures are allowed in forestlands. Goal 7 requires local governments to develop programs to reduce risks to people and property from a variety of natural hazards, including wildfire. Goal 14 mandates that cities have urban growth boundaries (UGBs) to provide for urban uses and limit urban-type development on rural resource lands outside of UGBs.

G. County Emergency Management

The Wasco County Emergency Manager maintains an Emergency Operations Center (EOC), an Emergency Operations Plan (EOP), and a Hazard Identification and Vulnerability Analysis (HIVA) as part of the county's all-hazards Emergency Management program. A Fire Services section is contained within the EOP as a Functional annex. Wildland Fire is addressed in the Natural Hazards portion of the HIVA. The Vulnerability Analysis for wildland fire in the chapter concludes the following for Wasco County:

- Home building in and near forests increases risks from forest fires,
- Structures have been built with minimal awareness for the need for protection from exterior fire sources,
- The existence of open range lands, large forested areas, increasing population and recreation activities, and the uncertain impact of changing climate combine to suggest a High Probability of wildfire occurrence in the county.
- The destruction of large tracts of forest land would have immediate economic impact to the county through loss of jobs, reduced taxes, and increased public support needs. Collateral economic and social effects could impact the county for years, suggesting Moderate Vulnerability**.** Accordingly, a High Risk for wildfire occurrence in Wasco County has been assigned.

The county Functional Annex B for Fire Services provides Wasco County with a fire fighting plan to meet demands of a disaster incident. It assigns responsibilities and task assignments of the various fire services during a disaster situation. The Direction and Control section assigns the Designated County Fire Chief as the Unified Incident Commander, Chairman of the Emergency Operations Center Operations Group, and gives that person authority to establish response priorities.

H. Fire Safety Standards

Wasco County and the State Fire Marshal Office have fire safety standards which apply to new home development in the county. The purpose of the standards is to protect home-owners and fire fighting personnel during a fire on their property, as well as surrounding lands. The county standards vary by zones and enforcement of them is not consistent across the zones due to the adopted review process. Categories of county standards include: construction material, fuel breaks, setbacks from ridge-tops, cliff and bluffs, access roads, water source, power supply, chimney screens.

State Fire Marshal Office standards address water source and access for properties with structures; they are basically the same throughout the county. Homes larger than 3,500 square feet require a water source for fire fighting purposes. For access, the State requires a way to get fire fighting vehicles to within 150 feet of the structure. Homes within the Mid Columbia Fire and Rescue District must have access with a turning radius of 48 feet. For other areas in the county the turning radius is determined by the fire official.

As mentioned, the enforcement of county fire safety standards is inconsistent due to the adopted review process:

Existing Standards Enforced Through Conditions of Approval

A-1 Zone (Exclusive Farm Use) – Non Farm and Forest Dwellings
F-1 Zone (Industrial Forest) – All Structures
F-2 Zone (Forest) – All Structures
R-R(10) (Rural Residential) – All structures

Existing Standards Not Enforced as Result of Adopted Review Process

R-R (5) (Rural Residential) All structures
R-2 (Rural Residential) All structures

No Standards

A-1 Zone (Exclusive Farm Use) – Farm Dwellings
R-C (Rural Commercial)
R-1 (Rural Industrial)
RC-TV-R (Tygh Valley Residential)
EC-TV-C (Tygh Valley Commercial)
RC-TV-M1 (Tygh Valley Medium Industrial)
RC-TV-M2 (Tygh Valley Heavy Industrial)
RC-TV-AG (Tygh Valley Agricultural)
RC-Wam-R2 (Wamic Residential)
RC-Wam-R5 (Wamic Residential)
RC-Wam-C2 (Wamic Commercial)
RC-Wam-M2 (Wamic Industrial)

National Scenic Area

Existing Standards Enforced Through Conditions of Approval

A-1 (Large Scale Agriculture) – All structures
A-2 (Small Scale Agriculture) – All structures

F-1 (Large Scale Forest) – All structures
F-3 (Small Scale Forest) – All structures
R-R (Rural Residential) – All structures
No Standards
A-S (Agriculture Special)
O-S (Open Space)
R-R (Public Recreation) – Fire safety standards added during recent updates

Wasco County will update their fire safety standards in 2006. Prior to that, they plan to update the standards for their F-1 and F-2 zones because they are out-of-date and there is likely to be increased opportunities for residential development. In summary, fire safety standards for Wasco County may be:

- Out of date
- Inconsistent
- Not enforced as result of adopted process
- Non-existent

There is a need to update the standards to:

- Make them consistent throughout the county
- Make them consistent with state standards

Additionally, there is a need to:

- Improve cooperation between local and state officials
- Consider Adoption of Senate Bill 360 on non-ODF protected lands, and be involved in the establishment of classification standards for SB 360 lands so that they can be consistently applied within the National Scenic Area.

V. Wildfire Risk Assessment

This assessment for the wildfire risk in Wasco County was completed at the zone level. The risk level for individual communities within each zone was also addressed. This chapter presents the methodology used and the results for the zones and communities.

A. Methodology

A Wildfire Risk Assessment was completed for the five zones in the county. The assessment resulted in a rating of Low, Moderate, or High Overall Risk for each zone and the communities within the zones. The ratings were based on scores assigned to four risk factors. The five factors considered were: Ignition Risk, Hazard, Values, and Protection Capability (a fifth factor, Structural Vulnerability, was not included in the rating as the results of the home-site surveys were not complete at the time of this writing). Each of the four scoring factors has from two to five criteria designed to better describe it. These criteria were given weighted scores established by the ODF. Criteria scores were added giving a total score for the factor. The scores for the factors were added and used to establish the overall rating of Low, Moderate, and High for the zone or community. In summary, the assessment used the following process:

- Each community and zone was assessed separately based on four factors.

- The factors have from two to five criteria to better describe them.
- Each criteria was given a score based how important it was.
- A rating of Low, Moderate, or High was assigned to each factor based on the cumulative scores of the criteria involved.
- The cumulative scores of the five factors determined the Overall Risk rating of Low, Moderate, or High for the community or zone.

The following describes the four factors and the scoring system used to rate the communities and zones:

Ignition Risk is the likelihood of a wildfire occurring. The assessment for Ignition Risk looks at three criteria; historic fire occurrence (number of fires per 1000 acres per 10 years), density of homes per 10 acres, and other risk factors (examples include - transmission power lines, active logging, construction, debris burning, dispersed camping, off road vehicle use, flammables present, fireworks, mowing grass, woodcutting, railroads, highways, lightning prone areas, etc.). The ratings for Risk criteria are:

Fire Occurrence – per 1,000 acres per 10 years

0-.1	5 points
.1-1.1	10 points
1.1+	20 points

Home Density (homes per 10 acres)

0-.9(rural)	0 points
1-5(suburban)	5 points
5.1+(urban)	10 points

Other Ignition Risk Factors Present in Vicinity (transmission power lines, power substations, active logging, construction, debris burning, slash burning, mining, dispersed or developed camping, off road vehicle use, flammables present, fireworks, mowing grass, woodcutting, railroads, highways, lightning prone areas, arson, schools, business, ranch/farm, dump.)

<8 present	0 points (if railroad present add 5 points)
8-15 present	5 points
>15 present	10 points.

Ignition Risk Factor Rating(cumulative score of the three criteria)

0-13	Low
14-27	Moderate
28-40	High

Hazard is the resistance to control once a wildfire starts. It includes weather, topography, and vegetation (fuel) that adversely affects suppression efforts. The criteria and scoring system for Hazard follows:

Weather (The number of days per season that forest fuels are capable of producing a significant fire event)

All communities and zones in Wasco County are assigned the maximum score of 40 points by default.

Slope

0-25%	0 points
26-40%	2 points
>40 %	3 points

Aspect

N,NW,NE	0 points
W,E	3 points
S,SW, SE	5 points

Elevation

All Wasco County areas in the planning area are less than 3,500 feet and assigned 2 points.

Surface Fuels (based on Fire Behavior Fuel Models). Hazard Value 1 or HV1 produces flame lengths up to five feet with little spotting, torching or crowning. HV2 has flame lengths from 5-8 feet with sporadic spotting, torching or crowning. HV3 has flame lengths of over 8 feet with frequent spotting, torching and crowning.

Non-forest	0 points
HV1	5 points
HV2	10 points
HV3	30 points

Aerial Fuels (Crown Fire Potential)

Passive – Low	0
Active-Moderate	5
Independent	10

Hazard Factor Rating (cumulative score of the six criteria)

Low	0-9
Moderate	10-40
High	41-60
Extreme	61-80

Values Protected is the human and economic value associated with communities or landscapes. Protection of life is the number one priority with all agencies and is measured by the density of homes. In addition, the presence of community infrastructure is another consideration.

Home Density (homes per 10 acres)

.1-.9 (rural)	2 points
1.0-5.0 (suburban)	15 points
5.1+ (urban)	30 points

Community Infrastructure (power substations and corridors, communication sites and facilities, transportation corridors, major manufacturing and utilities facilities, municipal watersheds, water storage and distribution, fuel storage facilities,

hospitals and health care facilities, landfills and waste treatment sites, schools, churches, community centers, and stores).

None present	0 points
One present	10 points
More than one	20 points

Values Protected Rating (cumulative score of the two criteria)

Low	0-15 points
Moderate	16-30 points
High	31-50 points

Protection Capability includes the capacity and resources to undertake fire suppression and prevention activities. It involves a combination of capacities of the fire protection agencies, local government and community organizations. A high score represents a high risk/low protection capability.

Fire Response

Organized structural response < 10 minutes	0 points
Inside fire district, but structural response > 10 minutes	8 points
No structural protection, wildland response < 20 minutes	15 points
No structural response & wildland protection > 20 minutes	36 points

Community Preparedness (proven mitigation efforts by the community that will make the fire response effective)

Organized stakeholders group, community fire plan, phone tree, mitigation efforts	0 points
Primarily agency efforts	2 points
No effort	4 points

Protection Capability Rating (cumulative score of the two criteria)

Low	0-9 points
Moderate	10-16 points
High	17-40 points

Structural Vulnerability is the likelihood that a structure will be destroyed during a wildfire event. The practices controlled by the landowner within the home ignition zone accounts for 90% of the likelihood of a wildfire threatening a structure. The three primary criteria involved are roofing assembly, defensible space, and presence of suppression action (access).

Wasco County will complete an assessment of Structural Vulnerability through on-site visits and the use of evaluation criteria and a scoring system (NFPA-1144). The result will be the assignment of a low, moderate or high rating for individual structures in the WUI areas. This information will be added to the CWPP when it is available. The rating criteria for NFPA 1144 is in Appendix A.

Overall Wildfire Risk Rating

An overall Wildfire Risk rating for each zone and community was assigned based on the cumulative scores of the four risk factors (Structural Vulnerability will be added when this information becomes available). The break points for the overall rating are:

Low	0-46
Moderate	47-113

High 114-190

B. Assessment of Zones

Five zones were delineated for the county and a wildfire risk assessment completed for each. The zone boundaries are based on similar topographic, land use and jurisdictional characteristics. The portion of the Warm Springs Reservation in Wasco County is one zone by itself (zone 5). A low, moderate, or high wildfire risk rating was assigned to each zone based on an assessment of the five risk factors described in the Methodology section. Within each zone there are from zero to several developments considered Communities at Risk. These communities are addressed as part of the assessment by the zone of which they are a part. The complete assessment of communities and their ratings are in Appendix B.

1. Zone 1: Northwest Wasco County

Zone 1 is located in the northwest portion of the county. It is bordered to the south by Zone 3, to the east by US Route 197, to the north by the Columbia River and the west by the county line. It is the smallest zone but represents some of the most complex wildfire hazards and risks. Two incorporated cities are within the zone, The Dalles and Mosier. The zone is protected by two fire districts, Mid Columbia Fire and Rescue and the Mosier Rural Fire Department. The zone, except for the very eastern portion, is within the ODF protection boundary. Portions of the northern part of the zone are within the Columbia River Gorge National Scenic Area (CRGNSA) which receives wildfire protection from the USDA Forest Service. An additional area is within the Mt. Hood National Forest administered by the Barlow Ranger District.
About 5,000 acres of zone 1 is within the CRGNSA. Of this, about 3,000 acres are National Forest lands and 780 are state owned. The Forest Service has mapped the fire occurrence, vegetation, fire regimes and condition classes for the portion of Zone 1 located within the CRGNSA. The following summarizes these descriptions:

Fire History There were 34 fires in the CRGNSA portion of zone 1 between 1992 and 2004. They were all human caused by fireworks, cigarettes, railroad, farm equipment and power lines. Nine of the fires were classed as significant based on size and/or complexity.
Fire Behavior Steep slopes, flashy fuels, and strong wind patterns combine to make explosive wildfire behavior with rapid rates of spread in the NSA portion of zone 1. These conditions within a wildland urban interface create significant public and firefighter safety concerns.
Vegetation The vegetation in the CRGNSA portion of zone 1 is classified as ponderosa pine/Oregon oak woodlands, Oregon oak woodlands, and east conifer.[8] Plant communities are mainly oak and open grasslands, or oak and pine with occasional Douglas fir. The Forest Service feels there is a need to thin many of the stands to bring them into higher fire resiliency and create a more stable community over time.

[8] Rowena Plan, USDA Forest Service, Columbia River Gorge National Scenic Area. Draft, 8-8-2005

Fire Regimes/Condition Class Fire regime is the historic frequency and severity of wildland fires. Condition Class is an expression of the departure of the current condition from the historical fire regime. Zone 1 lands in the CRGNSA are a mixture of Fire Regime I and II. Fire regime I historically experienced wildfires frequently, 0-35 years, and they were typically ground fires which did little damage to larger trees. Fire Regime II areas had wildfires just as frequently but they were more severe and are termed "stand replacing" meaning most, if not all, trees are killed.
Most of the CRGNSA lands in zone 1 are in Condition Class 2 or 3. Condition Class 2 lands have a moderately altered Fire Regime, have a moderate risk for losing key ecosystem components and could expect moderate changes in the pattern, size, frequency and severity of fires. Condition Class 3 areas have a significantly altered Fire Regime and could expect dramatic changes to the size, pattern, frequency and severity of fires.

Zone 1 lands outside of the CRGNSA and the Mt. Hood National Forest have not been mapped for Fire Regime or Condition Class. However, it is safe to say that most of these lands are also in Condition Class 2 or 3 because of wildfire suppression efforts for the past 100 years. Vegetation is a mixture of pine, Douglas fir, oak and open grasslands.
Zone 1 received a **high overall wildfire risk** with a total of 174 points for the four factors considered:

Ignition Risk	40 points - High
Hazard	74 points - High
Values	50 points - High
Protection	10 points - Moderate
Total	174 – High Overall Risk Rating

Ignition Risk There is a high Ignition Risk in Zone 1 because this area has experienced a large number of wildfires in the past, it has a high density of homes, and it contains a large number of other ignition sources. Heavy residential development in the WUI zone has been occurring in the past ten years. Most fires in that period have happened in these developments and have been human caused. Development continues and the likelihood of fires in the future will increase. Heavy fire occurrence has happened along the I-84 corridor, many of these from railroad activities. Other areas with a high density of homes and fire occurrence include the Seven Mile Hill Road, Rowena, Browns Creek Road, and the Cherry Heights Road. Other important ignition sources include the railroad paralleling the Columbia River, I-84 corridor, major overhead transmission lines, power substations, active logging, construction, ORV use, woodcutting, equipment use, county roads, ranch/farms, camping, lightning.
Hazards Zone 1 received a High rating for hazards because of climate conditions, lower elevations, and surface and aerial fuel conditions. High winds and hot, dry conditions are common during the fire season so when fires start there is a high probability they will become large in size and be difficult to control. Further, much of the area has slopes from 25-40 percent adding to the rate of spread and difficulty of control. Vegetation includes tall, flammable grasses, heavy brush and mature timber. There is potential for severe fire behavior with flame lengths over eight feet in length, and frequent spotting, torching or crowning. Suppression is difficult and dangerous for firefighters.
Values Zone 1 received the highest score for values of all the five zones. A high rating is assigned to Zone 1 because of the dense home development and the large amount and

type of infrastructure involved. Overall, the zone has an average of more than five homes per ten acres. Many of these are expensive homes in areas with heavy fuel conditions. Most home-owners value the forest or wildland type setting they live in which would change with a severe wildfire event. Community infrastructure provides significant other value to the zone: transmission lines, power substations, transportation corridors, ranch/farms facilities, orchids, municipal water supplies, state parks, National Scenic Area, historic highway. The Mill Creek Watershed which supplies the City of The Dalles with its municipal water source is in the zone. A major wildfire would have serious negative effects on water quality in Mill Creek.

Protection Capability Zone 1 is rated a moderate risk based on protection capability. The Mid Columbia Fire and Rescue and Mosier Fire Department are well organized and equipped for structure and wildland fires but many homes in their protection districts are located with more than a ten minute response time. The zone does have the advantage of additional close-by protection from the Oregon Department of Forestry (Chenoweth) and the USDA Forest Service . Community preparedness is considered low at this time and consists mainly of agency efforts. The Oregon Department of Forestry has been successful lately working with home-owners to assist them with hazard fuel reduction measures and defensible space creation.

Structural Vulnerability The individual home survey is yet to be completed at this time. However, it is safe to say there are homes in the zone which will receive high wildfire risk ratings. These will be based on situations with heavy fuels close to structures, access limitations, and combustible roofing material. The efforts made possible by ODF to assist landowners to reduce hazard fuels and improve forest health on their property have reduced the threat level on many homes in the district.

Oak/pine woodlands with wildfire vulnerable home in upper center.

2. Communities in Zone 1

There are five Communities in Zone 1 which are listed in the Federal Register as Communities at Risk: Rowena, Chenoweth, Mosier/7Mile, and Cherry Heights, Mill

Creek Municipal Watershed. The complete assessment and ratings for these are in Appendix B. Rating summaries for the communities are:

Community	Risk Rating	Hazard Rating	Values Rating	Protection Rating	Overall Rating
Rowena	30H	62H	35H	10M	137H
Chenoweth	40H	64H	50H	0L	154H
Cherry Hts.	40H	67H	50H	0L	157H
Mosier/7Mile	35H	74H	35H	4L	148H
Mill Creek	20M	77H	37H	10M	144H

Rowena has a high risk rating largely because of the railroad, I-84 corridor, and high recreational use in the community. Fuels are moderate to high throughout the community. High wind and low humidity conditions are frequent during the summer season so fires which do start are often difficult to suppress. There are many high value homes in the community. Fire protection response time varies but is usually good given the multiple agencies involved (ODF, Mosier, and MCF&R have protection responsibilities within this area).

Chenoweth makes up a typical wildland urban interface with the City of The Dalles. The risk for fire starts is high based on fire history, home density and other factors. Fuel loads vary from moderate in the more open conditions to high in the forested areas. Value protected is high considering the large number of homes involved. Response time from suppression crews is fast given the location of ODF and Mid Columbia Fire and Rescue resources.

Cherry Heights has a high fire occurrence history combined with a moderate to high home density. Fuel types range from open fields to heavily forested areas. Values protected are high based on home density and the number of infrastructure present. Response time for protection is generally quick from the Mid Columbia Fire and Rescue and ODF.

Mosier/7Mile includes the incorporated city of Mosier plus the outlying area to the south and east. There are several risk factors including the railroad, I-84, scattered homes in the wildland urban interface, and a high level of historical fires. Hazards include strong gorge winds and heavy fuels in a forest setting over much of the area. Values are high with many homes in a rural setting, orchards, and the City of Mosier. Protection is good with response coming from the Mosier, Mid Columbia Fire and Rescue, Forest Service and ODF.

Mill Creek: Mill Creek Municipal Watershed is the source of water for the City of The Dalles. It is unpopulated but has high values because of the importance of the water supply for the city. Its risk for fire starts is moderate since there are few homes involved and fire occurrence has been moderate over the past ten years. However, the hazard rating is one of the highest based on the heavy forest fuels throughout the watershed and the strong potential for crown fires. Values protected received the highest rating for all communities because of the importance of the water supply provided. Protection capability was moderate with a response time of more than 10 minutes. Since a portion of the watershed is on National Forest lands, the Forest Service would be involved with suppression efforts along with the ODF and MCF&R.

3. Zone 2: Northeast Wasco County

This zone makes up the northeast portion of Wasco County. It is bordered on the west by US Route 197, the south by County Road 216, the east by the Deschutes River, and the north by the Columbia River. It is very lightly populated and made up of primarily ranches and farms. The zone is protected by Columbia Rural which is a non-tax fire district without traditional firefighting resources. Fire suppression is mainly by landowners who come together and assist each other during an incident.

Zone 2 received a **Moderate Overall Wildfire Risk** rating with a total score of 98 points for the four factors considered:

Ignition Risk	10 Low
Hazard	47 High
Values	22 High
Protection	19 High
Total	**98 Moderate Overall Risk Rating**

Ignition Risk The likelihood of wildfires starting in Zone 2 was rated as low based on home density, past fire occurrence and other factors present. Home density is very low with only about 75 homeowners throughout the zone (less than one per ten acres average). Homeowners are scattered with little concentration. It is thought that fire occurrence has been low (less than one per 10,000 acres per 10 years) but record keeping has been minimal and is mainly anecdotal. There is the risk of wildfire ignition from farming activities. Other ignition risk factors include: a railroad along the Deschutes and the Columbia Rivers, overhead transmission lines, I-84 corridor, state and county roads, recreation users on the Deschutes River, hunters, field burning.

Hazard A high rating for hazards was assigned to the zone based on climate and surface vegetation. Windy conditions and hot, dry weather during most of the fire season keeps fuels dry and flammable. The Deschutes Canyon and I-84 Corridor have steep slopes with heavy grass and brush fuels throughout. Much of the zone is planted to wheat offering highly flammable fuels when cured. Flame lengths with high wind conditions can be more than eight feet resulting in suppression difficulties.

Values This factor was rated as moderate based on the value of the wheat fuels and infrastructure consideration. Home density overall is low but the value of each person's property is considered high for them. At certain times of the season, when the wheat fields cure out and during harvest season, there are very high values involved with the crops. Important infrastructure considerations include state and county roads and overhead transmission lines.

Protection Capability This was scored high (indicating a high risk/low protection capability) because of there is only a wildland response (with limited capability), and there is minimal community preparedness. The wildland response is from a volunteer organization without a tax base for financial support. Available equipment is mainly farm resources and response is from those available at the time (although considered adequate by those involved).

Structural Vulnerability While the home surveys have not been completed at the time of this writing, it is expected that there will not be many homes rated as high risk from an access, near-by fuels, or structural material standpoint. Most of the ranch structures will have adequate access and low fuel situations near to their homes.

4. Communities in Zone 2

There are no Communities at Risk listed on the Federal Register. The American Indian settlement at Celilo is a small community which should be considered at risk from the threat of wildfire. There are serious risk factors next to the settlement including the railroad and I-84. The hazard situation involves flashy dry grass with strong westerly winds during most of the fire season. Values include homes, a longhouse, and fishing equipment. Fire suppression is mainly from the Forest Service and through a contract with the MCFR and would typically be more than 10 minutes away. The settlement would likely receive a high wildfire risk rating.

5. Zone 3: West-Central Wasco County

Zone 3 is situated along the foothills of Mt Hood and the Mt. Hood National Forest on the west and transitions east to the drier and flatter areas of the county. It contains a mixture of forest, grass/brush, and farm lands. The zone is bordered on the north by zone 1, the Mt. Hood National Forest to the west, the Warm Springs Indian Reservation on the south and a combination of US 197 and the Deschutes River to the east. It is generally sparsely populated with a few small communities and some subdivision development in forest settings. There are several areas within the zone considered at high wildfire risk. Fire protection is provided by four fire districts: Dufur, Tygh Valley, Pine Hollow and Juniper Flats and by ODF. There is one incorporated city, Dufur.
Zone 3 received a **High Overall Wildfire Risk** rating with a total score of 147 points distributed as followed:

Ignition Risk	25 Moderate
Hazard	77 High
Values	35 High
Protection	10 Moderate
Total	**147 High Overall Risk Rating**

Ignition Risk The likelihood of fires occurring in zone 3 is considered moderate based on past fire occurrence, home density and other risk factors. Reported fire occurrence during the past 10 years has been moderate and, for the most part, fairly well distributed throughout the zone. There is a slight concentration in the more developed communities such as Pine Hollow and Pine Grove. Fire occurrence on National Forest land is also well distributed with some concentration along forest roads and around Clear Lake.
Home density is generally low except for the more developed areas including Dufur, Tygh Valley, Pine Hollow, Sportsman's Park and Pine Grove. Some new home development is occurring adding to the ignition risk factor. Other ignition risk factors include: state and county roads systems, White River recreation users, National Forest visitors, ORV users, farm/ranching activities, overhead transmission lines, active logging, wood cutting, wood stove use, slash burning, camping, hunters/fishermen, lightning.
Hazard This zone has the highest hazard risk rating of the five zones. The rating is based on severe weather conditions, steep slopes with an east facing aspect, and heavy fuel loads with potential long flame lengths and high crown fire likelihood. Strong westerly winds off the slopes of Mt. Hood and high lightning occurrence are common. Fuel types transition from the more flatland areas with grass and brush on the eastside of the zone to the heavy forest fuels with steep slopes on National Forest lands to the west. The

majority of National Forest lands have been mapped as Condition Class 2 or 3, indicating they have missed one or more natural fire events and now contain unnaturally high fuel situations. Canopy closure on much of the National Forest land is conducive to crown fire events.

Values Zone 3 has a high rating for values. The rating is based on home density and infrastructure considerations. Many homes are situated in small communities or subdivisions; a high proportion are made up of second homes to serve recreation goals. Most home-owners also value the forest or wildland type setting they live in which would be negatively affected with a severe wildfire event. Other considerations under the value category include; transmission lines, road systems, community centers, recreation areas, fish and wildlife habitat.

Protection Capability This zone received a moderate rating for protection capability. While there are four fire districts in the zone, many homes are located more than 10 minutes away from wildfire response times. The fire districts are generally well equipped for wildland fire events but rely totally on volunteers for suppression activities. The ODF provides protection for most of the zone and there are mutual aid agreements with the Forest Service and BLM. Community preparedness is mainly in the form of agency efforts.

Structural Vulnerability The individual home survey is yet to be completed at this time. However, it is safe to say there are homes in the zone which will receive high wildfire risk ratings. These will be based on situations with heavy fuels close to structures, access limitations, and combustible roofing material. There are numerous homes which rely on a road system with only ones means of ingress and egress. The Sportsman's Park and Sportsman's Paradise subdivisions have some of the best examples of home situations which need attention to reduce vulnerability during a wildfire event.

Narrow subdivision road with heavy fuel load in Zone 3.

6. Communities in Zone 3

There are five communities in Zone 3 which are listed on the Federal Register as Communities at Risk: Pine Grove, Taylorville/Sportsman's Paradise, Wamic/Pine Hollow/Sportsman's Park, Dufur and Tygh Valley. The complete assessment and ratings for these are in Appendix B. Rating summaries for the communities are:

Community	Risk Rating	Hazard Rating	Values Rating	Protection Rating	Overall Rating
Pine Grove	35H	75H	35H	0L	145H
Taylorsville/Sportsman's Paradise	30H	79H	25M	34H	168H
Wamic/Pine Hollow/Sportsman's Park	40H	65H	50H	0L	155H
Dufur	40H	47H	50H	0L	137H
Tygh Valley	30H	42H	50H	0L	122H

Pine Grove: This community has a high risk rating based on fire occurrence and home density. It has the second highest hazard rating of the communities in Wasco County. This high score is justified from the type of fuels involved and the crown fire potential. Additionally, road access problems present special risks for home-owners and fire fighters. Values protected are high with the high density of homes involved. The protection capability is considered very good because of the rural fire district involved (ODF and Juniper Flat RFD both have protection responsibilities within this area).

Water source for fire fighting purposes.

Taylorville/Sportsman's Paradise: This community received the highest overall score (168) of the communities rated in Wasco County. Sportman's Paradise is a privately-owned, 1,700 acre subdivision located about eight miles southwest of Dufur on the foothills of Mt. Hood. The area is served by the Taylorville Road from the east. It has been divided into 170 lots of which less than one-forth have been developed thus far. Only about four lot owners live year-round in the development. Some owners bring trailers to their lot for temporary stays during the summer and fall months. This development is a serious wildfire risk for the following reasons:

- The area is served by one low standard, narrow gravel/dirt road with some steep grades and sharp curves; it is poorly maintained. With the exception of a primitive, four-wheel drive road, there is only one means of ingress and egress for residents and visitors. In the event of a wildfire, it would be difficult and dangerous for fire fighting equipment to safely enter the area and for residents to leave.

- The entire subdivision has hazardous fuels either in the form of un-mowed flashy grass and brush fields, or dense forest cover in the form of pine/fir and/or, oak. Also, the area surrounding the development is forested with largely high hazard

fuel loads. To the west of Sportsman's Paradise is National Forest ownership that remains basically untreated for fuels reduction and is a potential threat to the subdivision from large wild fires.

- The area is located on a ridge with moderate to steep, south facing slopes.
- There is no on-site, organized fire protection. Wildfire protection is provided only by ODF which has fire fighting resources in The Dalles and at the White River Guard Station, both about 45 minutes away. ODF does not provide structure protection but during ODF fire season would standby and attempt to prevent a structure fire from expanding to the wildland area.
- Electricity is available to only a small portion of the subdivision. Nearly everyone burns wood for their heat source. Wood burning stoves are a significant risk for starting wildfires.
- Although there are three wells and a near-by pond, there is a general shortage of readily available water for fire fighting purposes in the development.
- Some of the streets/roads are named and signed but the lots are not numbered.

Interface of farmlands and Foothills of Mt. Hood.

Wamic/Pine Hollow/Sportsman's Park: This is actually three separate, close-by communities, each with unique wildfire issues. The area as a whole is rated quite high with an overall score of 155. Of the three communities, Sportsman's Park has the greatest concerns from a wildfire hazard standpoint. This subdivision is located adjacent to National Forest lands to the west, south and north and state wildlife lands to the east; all with heavy fuel load situations. The development has serious access shortfalls with narrow roads and only one route for evacuation and fire fighter access. The risk for fire starts is high based on the high density of homes and fire history. Value protected is high because of the large number of homes. Protection capability from the Rock Creek Station varies depending on the time of year. Response time is better in the summer as compared with the winter/spring period as there are more residents and volunteers available. Assistance is available from the Pine Hollow Station, about seven miles away, and ODF.

Pine Hollow has high home density giving it a high risk for fire starts. However, with a few exceptions, fuel loads are not high. Values are high and the protection level is good

because of available volunteers and equipment. Wamic is located about one mile from Pine Hollow. It has a small population and more moderate fuel loads as compared with Sportsman's Park. Protection is from the Pine Hollow Rural District and ODF.
Dufur: This incorporated city has a well organized volunteer fire department but is equipped mainly for structure fires. It has a high risk of fire starts but the fuel load situation within the city is low. There is a serious risk of wildfires approaching the city from adjacent wheat fields. Value for this community is very high and protection capability is good. It has a high overall wildfire risk rating but is at the lower end of this category when compared with the other communities in Wasco County.

Wheat field and forest interface.

Tygh Valley: This community has a high density home situation with fairly heavy fuel loads in and adjacent to it. The fire district is well organized but in need of upgraded equipment. The risk for fire starts is high based on home density and fire occurrence history. Value protected is high and response time is good (ODF also has protection responsibilities within this area).

7. Zone 4: South-East Wasco County

Zone 4 is the largest of the five zones in Wasco County. Except for three small incorporated communities - Maupin, Shaniko, and Antelope - it is sparsely populated. The zone is bordered to the east and north by the Sherman and Wheeler Counties boundary, to the west by the Deschutes River and US 197, and the south by the Wasco/Jefferson Counties boundary.
Zone 4 received a **Moderate Overall Wildfire Risk** rating with a total score of 97 points for the four factors considered:

Ignition Risk	15 Moderate
Hazard	50 High
Values	22 High
Protection	10 Moderate
Total	**97 Moderate Overall Risk Rating**

Ignition Risk: Zone 4 has a moderate ignition Risk based on past fire occurrence and other risk factors. Most of the zone falls outside of an organized fire protection district so reports of past fire occurrence are mainly anecdotal. Home density is very sparse except

for the three incorporated communities. Other ignition risk factors include: transmission power lines, state and county road corridors, farm/ranching activities, ORV use, railroad, recreation use in the Deschutes and John Day River corridors, hunting, lightning.
Hazard: This zone has a high hazard level based mainly on hot and dry climatic conditions during the fire season. Slope is a consideration in the canyons including the Deschutes and John Day River corridors. Fuels are generally light but the grass and brushy areas can result in fast moving fires with erratic fire behavior.
Values: Values are rated as high because of community infrastructure facilities. Although home density is sparse overall, there are concentrations in the incorporated communities. Infrastructure facilities include: state and county road systems, transmission lines, community centers, churches and schools, businesses, fuel storage, river recreation facilities.
Protection Capability: There are two fire departments recognized by the state, Maupin and Shaniko. Antelope has a Fire Chief and minimal equipment but is not recognized as separate fire district. Shaniko and Antelope help each out during a fire event. Protection for most homes outside of incorporated cities is more than 10 minutes away. Most of these are outside of any protection service and must rely upon themselves for fire suppression. The Deschutes Club, located along the Deschutes River, has no fire protection except for some minimal equipment kept on the premises. Community preparedness throughout the zone is mainly from agency efforts.
Structural Vulnerability: While the home surveys have not been completed as of this writing, it is expected some will have a high rating for structural vulnerability. The Deschutes Club structures will likely have some access problems and combustible material situations.

8. Communities in Zone 4

There are four communities in Zone 4 which are listed on the Federal Register as Communities at Risk: Antelope, Shaniko, Maupin, and Big Muddy. The complete assessment and ratings for these are in Appendix B. Rating summaries for the communities are:

Community	Risk Rating	Hazard Rating	Values Rating	Protection Rating	Overall Rating
Antelope	35H	45H	22M	34H	136H
Shaniko	35H	50H	22M	0L	107M
Maupin	40H	55H	50H	0L	145H
Big Muddy	35H	50H	50H	10L	145H

Antelope: This small, incorporated community has a high risk for fire starts, mainly structures fires because of home density and fire occurrence history. Fuel loads are generally light on the outskirts of the community. Value protected is moderate and protection capability is low.
Shaniko: Shaniko is incorporated with a very small population. Its main concern is for structure fires as most of the buildings are made with wood materials and are old. The risk for fire starts is high based on density and past fire occurrence. There is a small risk

of wildfires entering the city from outside, but the main concern is structure fires beginning within. The main north/south state highway and vehicle fires are a definite risk to the community.
Values are high and protection capability is good based on response time. Overall, Shaniko has a moderate fire risk rating.
Maupin: This is the largest community in the zone. It is incorporated and has a well equipped and organized fire department. It has a high risk for fire starts based on home density, fire history and other factors. The railroad and recreation use along the Deschutes River are prime sources for fire starts. The hazard level is high because of the steep slope the city is located on, and the nearby, flashy fuel loads. Values are high and the protection capability is good.
Big Muddy: This small community at the southeastern end of the zone has a high risk rating for fire starts because of fire occurrence history and home density. Fuel loads are light but the flashy conditions are conducive for severe and unpredictable fire behavior. Value protected is high and the protection capability is moderate. The community is involved, but in need of suitable equipment.

9. Zone 5: Confederated Tribes of the Warm Springs Indian Reservation

Zone 5 is the portion of the Warm Springs Indian Reservation within Wasco County. The remaining portion of the Reservation is in Jefferson County and will be covered by their CWPP. The Warm Springs Tribes have completed a wildfire risk assessment for the Reservation. This section is based on the Tribes assessment will address the compartments and communities in Wasco County identified by the Tribes. Seven compartments and eight communities have been identified by the Tribes. Of these, four compartments and six communities are all, or partially, within Wasco County and will be considered here.
This assessment first looked at the four compartments, 1,4,6,&7. It evaluated the various criteria and assigned a Low (L), Moderate (M), or High (H) rating for each. An overall rating for the compartment or L,M, or H was then assigned. The same process was used for the communities. The following table gives the ratings for the four compartments.

	Compartment Wildfire Risk Rating			
Criteria	**Compartment 1**	**Compartment 4**	**Compartment 6**	**Compartment 7**
Fuels, Flame lengths produced	L	M	H	M
Crowning potential	L	L	M	M
Slope	H	L	M	M
Aspect	M	M	M	M
Elevation	M	H	M	M
Fire History	M	H	H	L
Catastrophic Fire Potential	M	H	M	M
Response Time	H	M	M	M
Suppression Complexity	H	L	M	H
Ignition Risk	M	H	H	M

Values	M	H	M	L
Overall Rating	**M**	**H**	**H**	**L**

10. Communities in Zone 5

Compartment 1 has 103,465 acres and is located in the northwest part of the reservation. There are no communities in the compartment but it is crossed with power lines for east to west. The compartment has year around logging activity, wilderness trails that are used 8 months of the year and hunting use. It has traditional food areas and cultural sites. The Compartment was assigned an overall Wildfire Risk rating of Moderate primarily because no people live there and it has a low fuel hazard level. Most of the evaluation criteria received either a moderate or low rating.

Compartment 4 with 200,920 acres contains mainly rangeland and has several communities of varying sizes. There are many individual houses that are not included in any type of community or structured sub-division. Also, there is a resort along with campgrounds, power lines, electronic sites and recreation areas. The overall Wildfire Risk rating for the compartment is High based largely on the amount and type of development and high ignition risk. Four of the eight Warm Springs Tribal communities at risk are located all, or partially, within this compartment.

Compartment 6 with 209,811 acres is the largest compartment in the Reservation; it runs from the north boundary to the south end through the center of the reservation. The compartment contains communities, individual homes, logging, high traffic volumes, campgrounds, wood cutting areas, hunting areas and power lines. Four of the eight communities identified at risk by the Tribes are partially, or completely, within the compartment. It has a High overall Wildfire Risk rating based on fuel load hazards, ignition risk, and past fire history.

Compartment 7 has 49,782 acres in the northeast corner of the Reservation in an area called Mutton Mountains. It is mainly timber and rangeland and provides important winter range for big game. It has an abundance of roads and is easily assessable for hunting and other types of activities. The compartment is bordered by the Deschutes River on the east; this area has high recreational use during all months of the year. The compartment has an overall Wildfire Risk rating of Moderate. There are no developments and the area has a low historical fire record.

Community Wildfire Risk Rating

Criteria	**Sidwalter**	**Schoolie Flat**	**County Line**	**KahNee-Tah**	**Simnasho**	**Bear Springs**
Compartment #	6	4	4&6	4	4&6	6
Fuels, Flame lengths produced	M	M	M	M	L	L
Crowning potential	H	H	M	L	M	M
Slope	L	L	L	M	L	L

Aspect	M	M	H	H	H	M
Elevation	H	H	H	H	H	M
Fire History	H	M	M	L	H	L
Catastrophic Fire Potential	H	H	M	M	M	M
Response Time	M	H	M	M	H	H
Suppression Complexity	M	M	M	H	M	M
Ignition Risk	H	L	H	M	M	M
Values	M	M	M	H	L	H
Overall Rating	**H**	**M**	**M**	**M**	**M**	**L**

Discussion

Simnasho is a small community (568 acres) in the north central part of the reservation; it located within portions of Compartments 4 and 6. It is 26 miles from the Fire Management Compound, but does have a rural fire department. It is an area that has high potential for catastrophic fire. The community received an overall Wildfire Risk rating of Moderate based primarily on low values, a moderate ignition risk and low fuel loads.

Sidwalter is in the central part of the Reservation and is a part of compartment 6; it has 10,526 acres. Homes in the area are widely dispersed and within the timber and rangeland zone. Vegetation is mainly Pine, Juniper, Sage and Grass lands and presents the potential for a fast moving, highly destructive fire. The community received an overall Wildfire Risk rating of High based on a high ignition risk and fire history. It is considered to have a high potential for a catastrophic fire.

County Line is located in a range and forest area with high volumes of traffic from a highway in close proximity; it is part of Compartments 4&6. Housing is scattered with significant distances between most of them. Dispatch time from Fire Management is approximately 40 minutes. The community has a Moderate overall Wildfire Risk rating mainly based on moderate values and fuel load hazards.

Bear Springs (24 acres) is an area of structures on the northwest corner of the Reservation in Compartment 6 and along Highway 216. It is the USFS compound that is on land owned by the Confederated Tribes of Warm Springs. The community has an overall Wildfire Risk rating of Low based on a low fire history and low fuel loads hazards.

Kah-Nee-Tah (3,975 acres) is a resort area located along the Warm Springs River and East of Highway 3; it is in Compartment 4. It is a high value area and very important to the economy of the Confederated Tribes of Warm Springs. It has a Moderate overall Wildfire Risk rating because of moderate ignition risk and fuel load hazard.

The Schoolie Flat community (5,564 acres) is Rangeland, Juniper and Sage type vegetation and located in Compartment 4. The highway going through the community is well traveled. The nearest fire protection is Simnasho, approximately 10 miles away. The community is rated as a Moderate Wildfire Risk with a low ignition rate and moderate

fuel loads and fire history

VI. Wildfire Mitigation Strategy

This section establishes a strategy designed to mitigate the wildfire risk concerns in Wasco County. It presents some projects which should be implemented throughout the county and some which apply to specific zones. The strategy establishes the priority of each project as High, Moderate, or Low. It also gives the time frame in which it should be implemented (immediate, mid-term, and long-term) and the agency responsible for doing so. Some of the projects may require grant funding in order to be successful.

A. Strategy for Entire County (Excluding the Warm Springs Reservation)

1. Assign a County Wildfire Coordinator to represent Wasco County in matters pertaining to the county and the implementation of this CWPP. Update the CWPP as needed.

   Priority – High
   Time Frame – immediate and continuing
   Responsibility – Wasco County Court

2. Update County Fire Safety Standards to:
   - Make them consistent throughout the county
   - Make them consistent with state standards
   - Improve cooperation between state and local officials

   Priority – High
   Time Frame – Mid-Term
   Responsibility – Wasco County Planning Department & OSFM for fire codes

3. Consider adoption of SB-360 classification standards on non-ODF protected lands to provide uniformity across the county. Include County Planning Department officials, ODF and citizens from the ODF classification committee for implementing SB-360.

   Priority – High
   Time Frame - Mid Term
   Responsibility – ODF, County Planning Department

4. Complete a road hazard assessment to address existing road situations which could result in problems for evacuation of residents and limit fire apparatus response during a wildfire situation. Priority areas include:

   1. Pine Grove
   2. Sportsman's Park

3. Taylorville/Sportsman's Paradise
4. Mosier/Seven Mile Hill
5. Shady Brook area
6. Pine Hollow

Priority – High
Time Frame – Mid-Term
Responsibility – Wasco County, ODF

5. Bring all unprotected lands in the county under some type of formal wildland fire protection coverage. Establish Rangeland Associations where appropriate.

Priority – High
Time Frame – Immediate and continuing.
Responsibility – ODF, Wasco County Court, OSFM if structures are present.

6. Complete survey and evaluation of home-sites using NFPA 1144 evaluation criteria. Enhance the county wildfire data base and add more site specific information. Notify homeowners with high and extreme ratings and advise them of their situation and what they can do to lower their risk rating. Incorporate survey results into this plan. Make survey results available to all fire districts.

Priority – High
Time Frame – Immediate and continuing
Responsibility – Wasco County GIS Coordinator

7. Assist Rural Fire Districts in upgrading their firefighting equipment, facilities and training as needed.

Priority – High
Time Frame – Immediate and continuing
Responsibility – ODF, Fire Chiefs, Forest Service, BLM, Wasco County

8. Encourage and support collaborative efforts between the Forest Service, BLM and communities at risk from wildfires. Help identify needed hazard fuel reduction work on federal lands within the WUI.

Priority - High
Time Frame – Immediate and continuing
Responsibility – Forest Service, BLM

9. Conduct county-wide wildfire prevention efforts including:

- Distribution of fire prevention literature and material to home owners in WUI areas.

- Placement of fire prevention signs at strategic locations. Develop a county-wide fire prevention sign plan in cooperation with ODF, Forest Service and the BLM to identify type of signs, locations, maintenance schedule, etc.
- Place public service announcements about fire prevention on local and regional mass media outlets including the radio, TV and newspapers. Work with local media to produce public service announcements using local fire personnel and community members.
- Conduct fire prevention programs in county schools
- Do one on one landowner contacts to discuss fire prevention, provide on site assessments, suggestions and assistance.
- Assist communities to become "Firewise Communities".
- Help communities to get organized and form neighborhood-type associations. Work with them help identify fire prevention programs for their areas of concern.

Priority – High
Time Frame – Immediate and continuing
Responsibility – ODF, Forest Service, Fire Chiefs, BLM, Wasco County, Mid-Columbia Fire Prevention Coop.

10. Work with the railroad to limit rail maintenance work along the Columbia and Deschutes Rivers to time periods outside of the fire season. Assure that the provisions in the railroad's Fire Management Plan are complied with including vegetative management in their ROW and the presence of fire suppression apparatus during maintenance activities.

Priority – Moderate
Time Frame – Immediate and continuing
Responsibility – ODF, Wasco County, Fire Districts

11. Map Fire Regimes and Fire Regime Condition Classes on areas in the county where it has not been done as yet.

Priority – High
Time Frame - Mid-Term
Responsibility – Wasco County GIS Coordinator, Forest Service, ODF

12. Provide landowners with signs for the posting of addresses at the entrance of driveways to assist fire responders in locating the home. Include up-to-date information to indicate the wildfire risk rating for the individual home.

Priority – High
Time Frame – Mid Term
Responsibility – Rural Fire Chiefs, ODF, Prevention Cooperative

B. Strategy by Zones

Zone 1

1. Support implementation of SB-360 on ODF protected lands.

   Priority - High
   Time Frame – Near Term
   Responsibility – ODF, Wasco County Court

2. Encourage home-owners who have done defensible work to maintain what has been accomplished.

   Priority – High
   Time Frame – Immediate and continuing
   Responsibility – ODF, Fire Chiefs

3. Apply for grants to do defensible space and hazard fuel reduction work in WUI areas including the Mosier/Seven Mile Hill, Mill Creek, Chenoweth, Rowena and Cherry Heights communities.

   Priority – High
   Time Frame – Immediate and continuing
   Responsibility – ODF, Fire Departments

4. Conduct Firewise workshops in The Dalles and Mosier; target community leaders and developers.

   Priority – Moderate
   Time frame – Mid Term
   Responsibility – ODF, Fire Chiefs, Prevention Cooperative.

5. Apply for a grant to do hazard fuel treatment on city-owned lands in The Dalles Municipal Watershed.

   Priority – High
   Time frame – Immediate
   Responsibility – City of The Dalles, ODF, USFS (Title II).

6. Support and continue collaborative efforts with the Forest Service, City of the Dalles, and committee members in an effort to identify and complete hazard fuel reduction work on National Forest lands in The Dalles Municipal Watershed. Adopt agreements reached between the Forest Service and committee members.

   Priority – High

Time Frame – Immediate and continuing
Responsibility – Forest Service, City of The Dalles

Zone 2

1. Apply for a NFP grant to create defensible space and hazard fuel reduction work in the Celilo Village WUI.

   Priority – Moderate
   Time Frame – Mid Term
   Responsibility - BIA

Zone 3

1. Assist the Dufur Fire District in expanding its district boundary to include lands to the east and west of Dufur, including the Taylorville/Sportsman's Paradise development. Identify and plot water sources in the expanded area.

   Priority – Moderate
   Time Frame – Mid Term
   Responsibility – City of Dufur, ODF, Oregon State Fire Marshal

2. Support implementation of SB-360 on ODF protected lands.

   Priority – High
   Time Frame – Near Term
   Responsibility - ODF, Wasco County Court

3. Apply for grants to do defensible space and hazard fuel reduction work in the WUI areas including the Pine Hollow/Wamic/Sportsman's Park, Pine Grove, Taylorville/Sportsman's Paradise, and Tygh Valley communities.

   Priority – High
   Time Frame – Immediate and continuing
   Responsibility – ODF, Fire Departments

4. Provide Firewise-type materials and conduct one-on-one contacts with home-owners. Conduct community workshops to educate residents on the need to do defensible space and hazard fuel reduction work on their property.

   Priority – High
   Time Frame – Immediate and continuing
   Responsibility – ODF, Fire Departments

5. Support collaborative efforts with the Forest Service in an effort to complete fuels reduction work on National Forest lands in the WUI area around the

Sportsman's Park development. Adopt agreements between the Forest Service and the Sportsman's Park residents as result of the collaborative work.

Priority – High
Time Frame – Immediate and continuing
Responsibility – Forest Service, ODF, Wasco County

6. Work with the Sportsman's Paradise residents to develop defensible space, reduce hazardous fuels, develop water sources and improve road access for ingress and egress.

   Priority – High
   Time Frame – Mid Term
   Responsibility – ODF, Wasco County

7. Assist Pine Hollow, Sportman's Park, and Wamic communities in the formation of a fire district with a tax base. Apply for RFA/VFA for money to assist with this effort.

   Priority – High
   Time Frame – Mid Term
   Responsibility – ODF, Wasco County, Pine Hollow/Sportsman's Park Fire Department, Oregon State Fire Marshal.

8. Conduct a collaborative process with the Camp Baldwin Community.

   Priority – High
   Time Frame – FY 06
   Responsibility – Forest Service, ODF, Community.

Zone 4

1. Apply for grant funding to clean up the bark piles in the old Brownfields lumber yard in Maupin.

   Priority – High
   Time Frame – Mid Term
   Responsibility – City of Maupin, Wasco County

2. Improve road access problems in portions of Maupin which limit firefighter vehicle access and the evacuation of residents during an emergency.

   Priority – Moderate
   Time Frame – Mid Term

Responsibility – City of Maupin

3. Support south county fire chiefs in improving deployment of resources to assure adequate coverage during large wildfire situations.

   Priority – High
   Time Frame – Mid Term
   Responsibility – South County Fire Chiefs, ODF, US Forest Service, Oregon State Fire Marshal, BLM.

4. Work with the federal agencies and Conservation Districts to develop burn plans and fund the creation of fuel breaks around high risk CRP fields in the county.

   Priority – Moderate
   Time Frame – Mid Term
   Responsibility – Forest Service, BLM, Conservation Districts.

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Zone 5

The Confederated Tribes of the Warm Springs in cooperation with the BIA have several hazard fuel reduction projects on-going and planned. These projects involve fuel breaks in the Simnasho, Schoolie, County Line and Sidwalter communities. The projects include thinning, piling, and burning to create defensible space. There are also mowing projects in all those areas. Projects are planned through 2009.

The Tribes plan to improve response times through better identification of residences. They will also look for ways to upgrade access to homes which have limitations as described in their home site surveys. Finally, they will increase wildfire prevention efforts as outlined in their Fire Prevention Plan including signing, home inspections and public education.

Priority – High
Time Frame – Immediate and continuing
Responsibility – BIA, Confederated Tribes

VII. Continuing Actions

The Wasco County Wildfire Coordinator will be responsible for keeping this CWPP up-to-date. The coordinator will maintain a Steering Committee with representatives from the various agencies involved with wildfire protection. Periodic meetings will be held to address wildfire hazards and concerns. Efforts will be made to revise the CWPP as needed. Mitigation projects as listed in the CWPP will be evaluated and updated as needed. Decisions as to project priority for grant application will be made by the steering

committee. As new projects are identified they will be added to the CWPP as an addendum, completed projects will be deleted from the plan. The County Wildfire Coordinator will keep notes of steering committee meetings and distribute them to the steering committee members and the County Court.

Since this is a working document it is expected that any minor additions or changes will not require the plan to be re-signed unless those changes result in significant adjustments or changes in the overall philosophy of the plan.

VIII. Appendices

Appendix A: Home-site Survey Rating Criteria

National Fire Protection Association Standard 1144 (NFPA 1144)
(Formally NFPA 299)

A	**Subdivision Design**	Points
1	Ingress & Egress	
	Two or more in/out	0
	One way in / out	7
2	Primary Road Width	
	Greater than 24ft	0
	Between 20 and 24 feet	2
	Less then 20 feet	4
3	All Season Road Condition	
	Surfaced, grade < 5%	0
	Surfaced, grade > 5%	2
	Non-surfaced, grade < 5%	2
	Non-surfaced, grade > 5%	5
	Other than all-season	7
4	Fire Service Access	
	< = 300ft, with Turnaround	0
	> = 300ft, with Turnaround	2
	< = 300ft, No Turnaround	4

	> = 300ft, No Turnaround	5
5	Street Signs	
	Present [4in (10.2 cm) in size and reflectorized]	0
	Not present	5
B	**Vegetation (Fuel Models)**	
1	NFDRS fuel models	
	Light (Grasses, forbs, sawgrasses and tundra.)	5
	Medium (Light brush and small trees)	10
	Heavy (Dense brush, timber and hardwoods)	20
	Slash (Timber harvesting residue)	25
2	Defensible space	
	More than 100ft (30.48m) of treatment from buildings	1
	More than 71 - 100 ft of treatment from buildings	3
	30 - 70ft of treatment from buildings	10
	Less than 30ft	25
C	**Topography**	
1	Slope	
	Less than 9%	1
	Between 10 and 20%	4
	Between 21 and 30%	7
	Between 31 and 40%	8
	Greater than 41%	10
D	**Additional Rating Factors**	
1	Topography that adversely effects wildland fire behavior	0 - 5
2	Areas with a history of higher fire occurrence	0 - 5
3	Areas of unusually severe fire weather and winds	0 - 5
4	Separation of adjacent structures	0 - 5
E	**Roofing**	
1	Construction Material	
	Class A roof [metal, tile]	1
	Class B roof [composite]	3
	Class C roof [wood shingles]	15
	Not rated	25
F	**Existing building construction**	
1	Materials (predominant)	
	Noncombustible siding/deck	0
	Noncombustible siding/wood deck	5
	Combustible siding and deck	10
2	Setback from Slopes > 30%	

	More than 30 ft to slope	1
	Less than 30 ft to slope	5
	Not Applicable	0
G	**Available Fire Protection**	
1	Water Source availability (on site)	
	500 gpm (1892.7 lpm) hydrants <1000ft (304.8m) apart	0
	250 gpm (1892.7 lpm) hydrants <1000ft (304.8m) apart	1
	More than 250 gpm non-pressurized, 2hrs	3
	Less than 250 gpm non-pressurized, 2hrs	5
	No hydrants	10
2	Water source availability (off site)	
	Sources within a 20 min round trip	1
	Sources within a 21 - 45 min round trip	5
	Sources > 46 min round trip	10
H	**Utilities (Gas and Electric)**	
1	All underground utilities	1
	One underground, one above ground	3
	All above ground	5
I	Totals for subdivision	
	Point totals	
	Low Hazard < 39 points	
	Moderate Hazard 40 - 69 points	
	High Hazard > 70 points	

Appendix B: Wildfire Risk Assessment – Zones, Communities

	Zones				
RISK	**Zone 1**	**Zone 2**	**Zone 3**	**Zone 4**	**Zone 5**
Fire Occurrence(1)					
0-.1		5			
.1-1.1 10 pts			10	10	10
1.1-+ 20 pts	20				
Home Density (2)					
0-0.9 (Rural) 0 pts		0		0	0
1-5 (Suburban) 5 pts			5		
5.1+ (Urban) 10 pts	10				
Other factors (3)					

<1/3 present 0 pts					
1/3 - 2/3 present 5 pts		5		5	
>2/3 present 10 pts	10		10		10
Risk Category Rating	**40-H**	**10-L**	**25-M**	**15-M**	**20-M**
HAZARD					
Weather					
Zone 3 40 pts	40	40	40	40	40
Slope					
0-25% 0 pts		0		0	
26-40% 2 pts	2		2		2
41% + 3 pts					
Aspect					
N,NW,NE 0 pts	0	0			
W,E 3 pts			3	3	3
S,SW,SE 5 pts					
Elevation					
5,001+ 0 pts					
3,500-5,000 1 pt					
0-3,500 2 pts	2	2	2	2	2
Vegetation (4)					
Non-forest 0 pts					
HV-1 5 pts		5		5	
HV-2 15 pts					15
HV-3 20 pts	20		20		
Crown Fire Potential	**Zone 1**	**Zone 2**	**Zone 3**	**Zone 4**	**Zone 5**
Passive-Low 0 pts		0		0	
Active-Moderate 5 pts					5
Independent-High 10 pts	10		10		
Hazard Category Rating	**74-H**	**47-H**	**77-H**	**50-H**	**67-H**
VALUES PROTECTED					
Home Density (per 10 acres)					
.1-.9 2 pts		2		2	2
1-5.0 15 pts			15		
5.1 + 30 pts	30*				
Infrastructure (5)					
None 0 pts					
One 10 pts					
> One 20 pts	20	20	20	20	20
Values Protected Rating	**50-H**	**22-M**	**35-H**	**22-M**	**22-H**
PROTECTION CAPABILITIES					
Fire Response					
Structure < 10 minutes 0 pts					

Protection > 10 minute 8 Pts	8		8	8	8
Only Wildland Response 15 pts		15			
No Protection 30 pts					
Community Preparedness					
Prepared/organized 0 pts					0
Mainly agency efforts 2 pts	2		2	2	
No effort 4 pts		4			
Protection Capability Rating	**10-M**	**19-H**	**10-M**	**10-M**	**8-L**
Total Risk Rating	**174-H**	**98-M**	**147-H**	**97-M**	**117-H**

* Increased score because of the high values associated with the Mill Creek Watershed.

Communities RISK	Antelope	Shaniko	Bear Springs	Chenoweth	Cherry Hts.	Taylors ville/S.P.	Maupin	Mill Creek	Mosier 7 mile	Pine Grove	Rowena	Wamic PH./S.P	Dufur	Tygh Valley	Big Muddy
Fire Occurrence(1)															
0-.1 5pts															
.1-1.1 10 pts								10							
1.1-+ 20 pts	20	20	20	20	20	20	20		20	20	20	20	20	20	20
Home Density (2)															
0-0.9 (Rural) 0 pts								0							
1-5 (Suburban) 5 pts						5			5		5				
5.1+ (Urban) 10 pts	10	10	10	10	10		10			10		10	10	10	10
Other factors (3)															
<1/3 present 0 pts														0	
1/3 - 2/3 present 5 pts	5	5	5			5				5	5				5
>2/3 present 10 pts				10	10		10	10	10			10	10		
Risk Category Rating	**35-H**	**35-H**	**35-H**	**40-H**	**40-H**	**30-H**	**40-H**	**20-M**	**35-H**	**35-H**	**30-H**	**40-H**	**40-H**	**30H**	**35-H**
HAZARD															
Weather															
Zone 3 40 pts	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Slope															
0-25% 0 pts	0	0	0							0	0	0	0	0	0
26-40% 2 pts				2	2	2		2	2						
41% + 3 pts							3								
Aspect															
N,NW,NE 0 pts				0					0		0		0	0	
W,E 3 pts	3	3			3			3		3		3			3
S,SW,SE 5 pts			5			5	5								
Elevation															
5,001+ 0 pts															
3,500-5,000 1 pt															
0-3,500 2 pts	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Vegetation (4)															

Non-forest 0 pts	0													0	
HV-1 5 pts		5					5						5		5
HV-2 15 pts				15	15						15	15			
HV-3 20 pts			20			20		20	20	20					
Crown Fire Potential	**Antelope**	**Shaniko**	**Bear Springs**	**Chenowith**	**Cherry Hts.**	**Taylors Ville/SP**	**Maupin**	**Mill Cr.**	**Mosier/7 Mile**	**Pine Grove**	**Rowena**	**Wamic/PH/ SP**	**Dufur**	**Tygh Valley**	**Big Muddy**
Passive-Low 0 pts	0	0					0						0	0	0
Active-Moderate 5 pts				5	5						5	5			
Independent-High 10 pts			10			10		10	10	10					
Hazard Category Rating	**45-H**	**50-H**	**77-H**	**64-H**	**67-H**	**79-H**	**55-H**	**77-H**	**74-H**	**75-H**	**62-H**	**65-H**	**47-H**	**42-H**	**50-H**
VALUES PROTECTED															
Home Density (per 10 acres)															
.1-.9 2 pts	2	2	2					2							
1-5.0 15 pts						15			15	15	15				
5.1 + 30 pts				30	30		30					30	30	30	30
Infrastructure (5)															
None 0 pts															
One 10 pts			10			10									
> One 20 pts	20	20		20	20		20	35*	20	20	20	20	20	20	20
Values Protected Rating	**22-M**	**22-M**	**12-L**	**50-H**	**50-H**	**25-M**	**50-H**	**37-H**	**35-H**	**35-H**	**35-H**	**50-H**	**50-H**	**50-H**	**50-H**
PROTECTION CAPABILITIES															
Fire Response															
Structure < 10 minutes 0 pts		0		0	0		0			0		0	0	0	
Protection > 10 minute 8 Pts			8					8	4		8				8
Only Wildland Response 15 pts															
No protection 30 pts	30					30									
Community Preparedness															
Prepared/organized 0 pts		0		0	0		0		0	0		0	0	0	
Mainly agency efforts 2 pts			2					2			2				2
No effort 4 pts	4					4									
Protection Capability Rating	**34-H**	**0-L**	**10M**	**0-L**	**0-L**	**34-H**	**0-L**	**10-M**	**4-L**	**0-L**	**10-M**	**0-L**	**0-L**	**0-L**	**10-M**

Total Risk Rating	**136-H**	**107-M**	**134-H**	**154-H**	**157-H**	**168-H**	**145-H**	**144-H**	**148-H**	**145-H**	**137-H**	**155-H**	**137-H**	**122-H**	**147-H**

Appendix C: Fire Regime Condition Class

A natural Fire Regime is a classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence of aboriginal burning[9]. The five natural (historical) Fire Regimes are classified based on average number of years between fires (fire frequency) combined with the severity (amount of replacement) of the fire on the dominant vegetation. The five regimes are:

- Regime I, 0-35 years frequency and low intensity (surface fire most common) to mixed severity (less than 75% of the dominant over story vegetation replaced.
- Regime II, 0-35 year frequency and high severity (greater than 75% of the dominant over story vegetation replaced).
- Regime III, 35-100 plus year frequency and mixed severity (less than 75% of the dominant over story replaced).
- Regime IV, 35-100 plus year frequency and high severity.
- Regime V, 200 plus year frequency and high severity.

A Fire Regime Condition Class (FRCC) is a classification of the amount of departure from the natural regime[10]. Three classes have been described[11]:

- Condition Class 1, These areas are within the natural (historical) range of variability of vegetation characteristics including fuel composition, fire frequency, severity and pattern, and other associated disturbances.
- Condition Class 2, Moderate departure from the natural regime of vegetation characteristics. Fire behavior and effects are moderate and risk of loss of key ecosystem components is moderate.
- Condition Class 3, High departure from the natural (historic) regime of vegetative characteristics. Fire behavior and effects are high and risk of loss of key ecosystem components is high.

Appendix D: Acronyms

BIA – Bureau of Indian Affairs

BLM – Bureau of Land Management
CRGNSA – Columbia River Gorge National Scenic Area
CRP – Conservation Reserve Program

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[9] Agee 1993, Brown 1995.

[10] Hann and Bunnell, 2001

[11] Hardy, et al.,

2001 and Schmidt et al., 2001

CWPP – Community Wildfire Protection Plan
DNR – Department of Natural Resources
EOC – Emergency Operation Center
EOP – Emergency Operation Plan
EMS – Emergency Management Services
FEMA – Federal Emergency Management Agency
FMO – Fire Management Officer
FMZ – Fire Management Zone
FRCC – Fire Regime Condition Class
GIS – Geographic Information System
HAZMAT – Hazardous Materials
HFRA – Healthy Forest Restoration Act
HIVA - Hazard Identification & Vulnerability Analysis
HV – Hazard Value
ISO – Insurance Service Organization
MCFR – Mid Columbia Fire and Rescue
NFP – National Fire Plan
NFPA National Fire Protection Association
NSA – National Scenic Area
ODF – Oregon Department of Forestry
ODF&W – Oregon Department of Fish and Wildlife
ORV – Off Road Vehicle
RAMS – Risk Assessment Mitigation Strategy
RFA – Rural Fire Assistance
VFA – Volunteer Fire Assistance
UGB – Urban Growth Boundary
USDA – United States Department of Agriculture
USFS – United States Forest Service
WFPP – Wildland Fire Protection Plan
WUI – Wildland-Urban Interface

Appendix E. Glossary

Canopy: The stratum containing the crowns of the tallest vegetation present, (living or dead) usually above 20 feet.
Combustion: The rapid oxidation of fuel in which heat and usually flame are produced. Combustion can be divided into four phases: pre-ignition, flaming, smoldering, and glowing.
Conflagration: A raging, destructive fire. It is often used to connote a fire with a moving front as distinguished from a fire storm.
Control a fire: To complete control line around a fire, any spot fire there from, and any interior island to be saved; burn out any unburned area adjacent to the fire side of the control lines, and cool down all hot spots that are immediate threats to the control line, until the lines can reasonably be expected to hold under foreseeable conditions.

Cooperating agency: An agency supplying assistance including but not limited to direct tactical or support functions or resources to the incident control effort (e.g. Red Cross, law enforcement agency, telephone company, etc.).

Crown fire: A fire that advances from top to top of trees or shrubs more or less independent of a surface fire. Crown fires are sometimes classed as running or dependent to distinguish the degree of independence from the surface fire.

Dead fuels: Fuels with no living tissue in which moisture content is governed almost entirely by absorption or evaporation of atmospheric moisture (relative humidity and precipitation).

Debris fire: In fire suppression terminology, a fire spreading from any fire originally ignited to clear land or burn rubbish, garbage, crop stubble, or meadows (excluding incendiary fires).

Extreme fire behavior: Extreme implies a level of fire behavior characteristics that ordinarily precludes methods of direct control action. One or more of the following is usually involved: high rate of spread, prolific crowning and/or spotting, presence of fire whirls, strong convection column. Predictability is difficult because such fires often exercise some degree of influence on their environment and behave erratically, sometimes dangerously.

Fire cause: For statistical purposes fires are grouped into broad cause classes. The nine general causes used in the U.S. are lightning, campfire, smoking, debris burning, incendiary, machine use (equipment), railroad, children, and miscellaneous.