

Jefferson County

**Community Wildfire  
Protection Plan**

**November 2005**

**Jefferson County  
Community Wildfire Protection Plan**

As required by the Healthy Forest Restoration Act, the undersigned representatives of Jefferson County, Jefferson County Fire Chief, and Oregon Department of Forestry acknowledge that they have reviewed and approve the contents of this plan.

**Jefferson County**

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Date

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## **1.0 Introduction**

### **1.1 Purpose:**

Wildland fire is not new or novel in Oregon (see Map 1 in Appendix E). Like many of our neighboring states, it is quite common for large wildfires to move across the landscape--- like they have done for thousands of years. In the early 1900's, European settlers began to suppress these fires, resulting in an unnatural fuels buildup. In the last 25 years the wildfires have impacted communities to an increasing degree. The communities in Oregon are growing at a rapid rate, each year pushing farther and farther into the wildland. The result has been an increase in the number of homes lost each decade to wildfire. Most of these losses have occurred in or adjacent to the Wildland-Urban Interface (WUI)--- an area where wildland fuels and residences are intermixed.

Congress recently passed two significant pieces of legislation to address the growing problem of people living in the WUI, often away from structural and wildland response to fires. The Healthy Forest Initiative (HFI) of 2002 reduces the amount of administrative delays for accomplishing hazardous fuels reduction projects. The Healthy Forests Restoration Act (HFRA) of 2003 improves statutory processes for hazardous fuel reduction projects on federal and private land, especially where communities are "at risk" from the effects of wildland fire. The HFRA invites communities to develop Community Wildfire Protection Plans (CWPP) in collaboration with local governments, local fire departments and state foresters in consultation with their federal partners. The purpose of the CWPP is to identify communities at risk, identify what constitutes the risk, and develop an action plan to mitigate the risk thereby providing for a community that is more resilient to the effects of wildland fire.

In March of 2005, Jefferson County decided to complete a CWPP. The CWPP for Jefferson County will cover the entire county except for the area covered by the Greater Sisters Country CWPP in the southwest corner of Jefferson County. It also includes that portion of Crooked River Ranch that is in northern Deschutes County. The CWPP that covers northern Deschutes County is expected to be developed in late 2005 or early 2006.

### **1.2 Collaboration:**

This plan was developed in collaboration with representatives from Jefferson County Government, Jefferson County Fire District #1, Jefferson County Sheriff's Office, Three Rivers Volunteer Fire Department, Crooked River Ranch Rural Fire Department, Oregon Department of Forestry, Crooked River National Grasslands, Bureau of Land Management, Central Oregon Fire Management Service, Confederated Tribes of Warm Springs (CTWS), a representative from the community of Ashwood, and other private landowners.

Additionally, the CWPP team held 5 community meetings in order to obtain Jefferson County citizen input to the planning process. These meetings were held prior to development of the Draft plan. Comments from the meetings can be found in Appendix A, of this document.

### 1.3 The CWPP Format & Framework

Following passage of the Healthy Forests Restoration Act, a variety of planning framework models developed throughout the country. At the same time, many agencies were also developing or completing Natural Hazard Mitigation Plans (NHMP) which include a wildland fire component where wildfire is a threat, to meet FEMA guidelines. Of the two predominate CWPP models being used in Oregon, one provides a mechanism to also address the wildland fire component of the NHMP process as well as the CWPP requirements. The other model is entitled “Preparing a Community Wildfire Protection Plan-A Handbook for Wildland-Urban Interface Communities”. This framework was developed by the National Association of State Foresters, National Association of Counties, Society of American Foresters and others. This framework, known as the “NASF” model, was chosen for the Jefferson County CWPP process. Figure 1-1 provides a summary of the steps identified in the process.

<b><u>SUMMARY-NASF</u></b>
<b>COMMUNITY WILDFIRE PROTECTION PLAN</b>
<b>Step 1:</b> Convene Decision makers
<b>Step 2:</b> Involve Federal Agencies
<b>Step 3:</b> Engage Interested Parties
<b>Step 4:</b> Establish a Community Base Map
<b>Step 5:</b> Develop a Community Risk Assessment
<b>Step 6:</b> Establish Community Priorities and Recommendations
<b>Step 7:</b> Develop an Action Plan and Assessment Strategy
<b>Step 8:</b> Finalize Community Wildfire Protection Plan

**Figure 1-1 NASF Model-Community Wildfire Protection Plan**

A complete copy of the NASF framework is included in Appendix E: Reference Documents & Maps.

Step 4 of the framework (Figure 1-1 above) calls for the development of a base map. The base map is also attached in Appendix E, and is labeled as Map 2.

### 1.4 The Goals of the Jefferson County CWPP:

- Protect against losses to life, property and natural resources from the threat of wildfire.
- Instill a sense of personal responsibility for taking preventative actions regarding wildfire.

- Strengthen partnerships to build and maintain active participation in mitigation and suppression of wildfire from each fire protection agency and unprotected area.
- Increase the ability to prepare for, respond to and recover from wildfires within the County.
- Increase public understanding of living in a fire prone ecosystem.
- Reintroduce fire in fire adapted ecosystems.
- Develop and distribute easy-to-use, self-help guides for property owners living in fire prone areas, or building homes in fire prone areas.
- Generate site development standards to enhance structural survivability in fire-prone areas.

It is intended that the Jefferson County CWPP be viewed as a county-wide, strategic assessment of the risks, hazards, and mitigation and prevention opportunities associated with wildfire in our communities.

Additionally, this plan is intended to be a living document which is reviewed, updated, amended as needed and distributed as needed, on a biannual basis.

## **2.0 Jefferson County Community Profile**

As is the case with much of central Oregon, Jefferson County is experiencing a period of rapid growth. Between the years 2000 and 2004, Jefferson County experienced a 4.5% population increase. This trend is expected to continue in the foreseeable future.

There has been a corresponding growth in residential development within the urban growth boundary, rural areas and in portions of the county traditionally occupied by natural vegetation. This trend is expanding Jefferson County's wildland-urban interface, exposing more residents to the potential impact of wildland fire.

## **2.1 Geography & Environment**

Jefferson County is located in Central Oregon. Jefferson County's topography is varied with its highest point being the top of Mt. Jefferson at 10,497 feet. The lowest elevation in the county is 1300 feet where the Deschutes River crosses into Wasco County. The Northwest corner of the county is the Warm Springs Indian Reservation. The southwest corner is public land managed by the Deschutes National Forest. From the coniferous forests on the west, the elevation decreases as you move to the east, finally reaching the Deschutes River. The city of Madras is located on the Deschutes-Umatilla plateau with an elevation of approximately 2000 feet. From Madras to the east, the elevation gradually increases again and the terrain becomes hilly and broken.

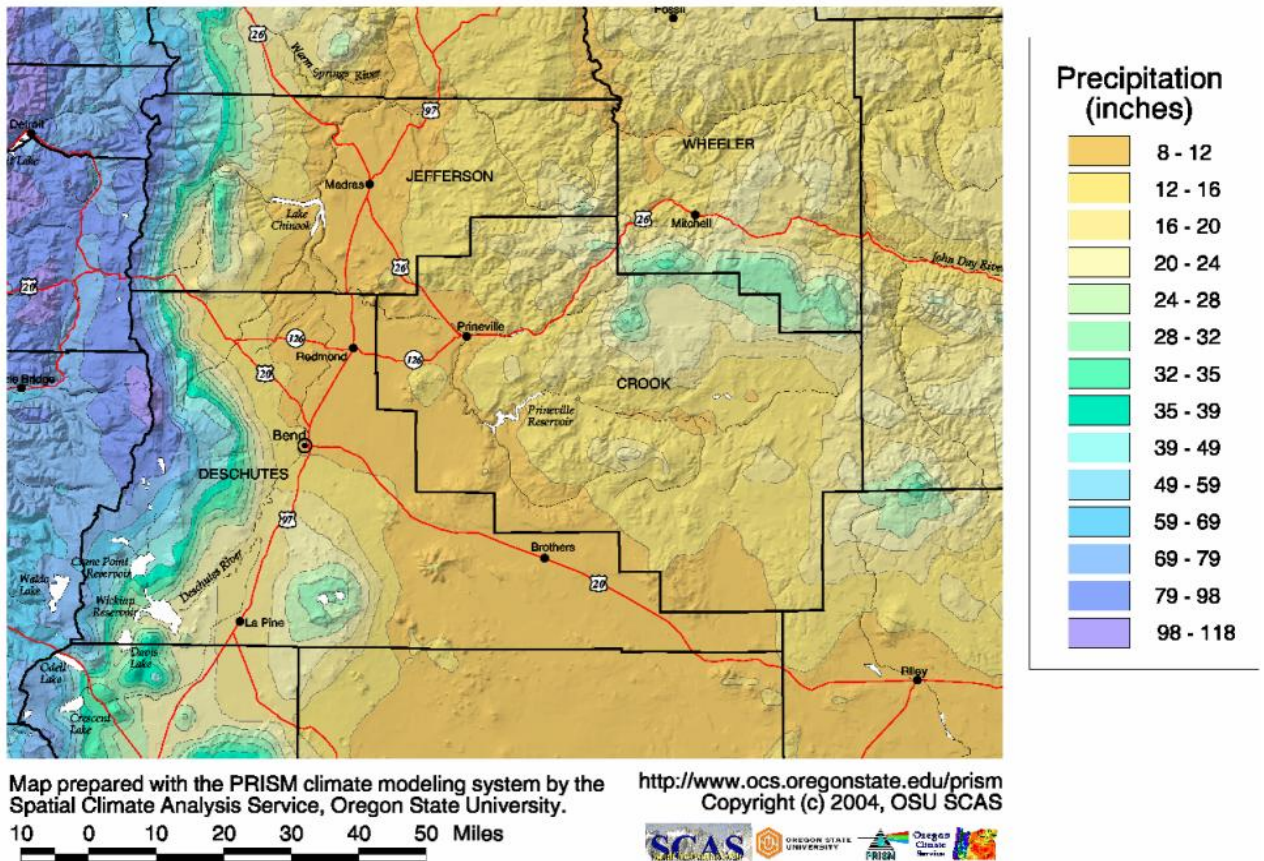
Precipitation amounts for Jefferson County are varied with the western (mountainous) portion receiving amounts of 28 to 60 inches annually, primarily in the form of snow.

The rest of the region is classified as high desert, and generally receives 8-12 inches of precipitation each year.

Vegetation in the county is as varied as its precipitation amounts. The higher elevation mountains are mostly covered with coniferous forests. At about 3000 feet elevation, the vegetation changes to Juniper/grass/sagebrush. The central portion of the county is occupied by sagebrush, but a significant portion of this land has been converted to agricultural lands that support a variety of crops such as mint, potatoes, alfalfa, grass, barley, and oats.

Most of the wildland-urban interface (WUI) areas of the county occur in areas dominated by Juniper/sage/grass sites.

Figure 2-1 below, illustrates Jefferson County precipitation patterns, and the rain shadow effect from the Cascades.



Central Oregon Annual Average Precipitation Map (1961-1990). Map prepared by Oregon State University, Spatial Climate Analysis Service.

## **2.2 Communities & Critical Infrastructure**

The Healthy Forests Restoration Act (HFRA) requires that as communities develop Community Wildfire Protection Plans (CWPPs) that the focus be placed on fire-safety considerations of both communities and critical infrastructure. Traditionally, most concentrations of community development in the county were located in valley areas, near water and grazing for livestock. Over the last two decades, development has moved outward into areas of drier vegetation, farther from main roads, with more wide-spread utility systems to support residential development.

As a result, the analysis of a community's ability to withstand the destructive effects of wildfire must address not only actual fire threat to residences, but also the impacts of fire on utilities, including electrical service, telephone, water systems and communications systems used by emergency personnel. Road systems must be adequate to accommodate both residential/recreational evacuation and ingress for emergency responders. Hazardous vegetation must be treated not only around homes, but along travel routes. Travel routes must not only be adequate for effective two-way travel, but also must provide enough extra width to accommodate significant amounts of evacuation traffic while still remaining functional to support ingress for responding emergency responders.

As measures are identified to improve the county's ability to respond to and recover from wildfire, hazardous fuel treatments and standards for adequate access must be considered. These standards need to be applicable to future as well as existing development, and incorporated into the development planning for areas of new growth.

## **2.3 Communities "At Risk"**

The CWPP Team identified the following communities as "at risk" to the effects of wildfire:

- Three Rivers
- Crooked River Ranch
- Ashwood
- Gateway
- Round Butte
- North Madras Heights
- Juniper Crest
- Madras Ranchos/Canyon View
- High Chaparral
- Forest, Rim, & Air Parks
- Shamrock Estates
- Juniper Butte
- High Chaparral
- See's



- Seekseequa
- Warm Springs
- County Line

Critical infrastructure that has also been identified as “at risk” includes:

- Lake Simtustus RV Park
- Lake Billy Chinook Campground
- Haystack Reservoir
- The Cove State Park
- Pelton Park
- Montgomery Shores/Robinson Headwaters/Monty Campground area
- Cyrus Horse Camp
- Skull Hollow Camp
- Transmission lines from Pelton/Round Butte hydroelectric facilities
- Madras Natural Gas compressor station
- Grizzly Electric Substation
- Opal Springs domestic water source

## 2.4 Fire Protection

Portions of Jefferson County receive fire protection (*See figure 2.4 below*) from one or more of the following:

- Jefferson County Fire District #1
- Crooked River Ranch Fire Department
- Three Rivers Fire Department
- Confederated Tribes of Warm Springs
- Bureau of Indian Affairs
- Oregon Department of Forestry (ODF-Central Oregon District)
- United States Forest Service-- Crooked River National Grasslands and Deschutes National Forest\*
- Bureau of Land Management-Prineville District\*

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 \* The fire management functions of the Ochoco N.F. and Prineville BLM have been merged with that of the Deschutes N.F under Central Oregon Fire Management Service (COFMS).

Jefferson County Fire District #1 provides responses to structural and wildland fires within Jefferson County Fire District, which generally covers the central 200 square miles of the county.

Crooked River Ranch Fire Department responds to structural and wildland fires within the Ranch.

Three Rivers Volunteer Fire Department provides responses to wildland fires within the subdivision. (Will fight structure fires from the outside of the structure)

Oregon Department of Forestry (ODF) provides wildland fire response for fires burning on or threatening state forest land and private forestlands paying Forest Patrol Assessment within the ODF-Central Oregon District. There are some wildland-urban interface areas that receive dual protection from ODF and JCFD because they are located within the rural fire protection district and are also classified as forest land within the ODF district.

Central Oregon Fire Management Services (COFMS) provides wildland fire response for fires burning on, or threatening, all U.S. Forest Service, National Grasslands and Bureau of Land Management managed lands within the county.

The Confederated Tribes of Warm Springs provides structural fire response to fires burning on tribal lands, and the BIA provides wildland fire protection on the reservation.

In addition, all of the above-listed agencies are signatory to the Central Oregon Cooperative Wildland Fire Agreement that provides for mutual aid wildland fire support among all of the wildland and structural agencies and departments in Crook, Deschutes and Jefferson counties. The multiple agency structural/wildland agency fire response in Central Oregon has been recognized as one of the most efficient and best coordinated in the state.

**Figure 2-4  
Jefferson County Fire Protection  
Statistics**

		<b>% of Jeff. Co.</b>
Jefferson County	1,139,840 ac.	100%
Warm Springs I.R.	255,805 ac	22.40%
Jefferson FD #1 protection	94,720 ac.	8.30%
COFMS protection	311,680 ac.	27.30%
Three Rivers VFD	3,840 ac.	0.30%
Crooked River Ranch RFD	10,240 ac.	0.80%
ODF protection	271,360 ac.	23.80%
Unprotected land	286,080 ac.	25.00%

*Note: some areas in the County receive protection from multiple agencies. Approximately 350,000 acres have overlapping protection.*

See Map 3 in Appendix E, for display of protection jurisdictions.

## **2.5 Unprotected Lands**

As can be seen in Figure 2-4 (above) there are extensive areas of private land within the county that receive no wildland fire protection and no structural fire protection.

Please refer to the Jurisdictional Map in Appendix E, labeled as Map 3. Areas colored grey are unprotected and cover about 286,000 acres within the county. This map is current as of March, 2005 and as additional areas are annexed into cities, the picture may change.

The unprotected lands issue has remained unresolved legislatively for more than a decade. In early 2004, as an outcome of an ODF agency-wide protection review, a “Fire Protection Coverage Working Group” was formed with leadership provided by representatives of the Oregon State Fire Marshal’s Office and Oregon Department of Forestry. The working group membership reflected a broad representation of interested parties with the intent of exploring opportunities to address the unprotected lands issue in Oregon. One of the short-term recommendations of the working group was that this issue be incorporated into the Community Wildfire Protection planning process. The options for potential development of fire response capacity and increasing resiliency to wildland fire in the unprotected area of the county is discussed further in Section 3.4.04 of this plan.

## **3.0 The Risk Assessment**

The most critical portion of the CWPP process is the Risk Assessment. The Team used an ODF model entitled “Identifying and Assessment of Communities at Risk in Oregon” which was developed in 2004. Use of this Risk Assessment is compatible with “The Oregon Forestland-Urban Interface Fire Protection Act of 1997.”

### **3.1 Risk Assessment Process**

Early in the development of the plan, an inventory of existing natural resource data was developed from all participating agencies. The analysis process then proceeded in a series of progressive steps.

1. Review, screen and consolidate appropriate GIS natural resource data layers from land management agencies. Produce county base maps.
2. Screen GIS data layers through the ODF assessment model, *Identifying and Assessment of Communities at Risk in Oregon*. Incorporate fire occurrence data from all fire service agency records and transportation infrastructure data. Identify unique operational and tactical challenges based on topography and transportation infrastructure limitations.
3. Identify those communities which are “at risk” from the threat of wildfire.
4. Develop draft recommendations for wildland-urban interface (WUI) boundaries.

5. Incorporate input from community meetings and presentations.
6. Identify mitigation priorities and recommendations for each community using the ODF Risk Assessment Model.
7. Finalize WUI boundary (Map 4 in Appendix E), mitigation and priority recommendations.
8. Finalize action plan and further assessment needs.

Upon completing steps 1 through 3 (above), the Jefferson County CWPP committee began evaluating the wildland urban interface according to the general guidelines outlined in the Central Oregon Fire Management Service Fire Management Plan and direction for creating a Community Wildfire Protection Plan. This evaluation included identifying neighborhood groups into “communities,” and considering a buffer area that, if treated, would result in flame lengths manageable by ground-based suppression forces. These communities were analyzed to determine the relative level of risk to life, property, and natural resources. In addition to these communities, however, the committee evaluated the potential for wildfire to damage lives, property and infrastructure in these community groups and in other parts of the county.

Although the density of residences in the areas outside the communities was too low to evaluate, this plan increased the WUI boundary to account for the presence of critical and valuable infrastructure scattered throughout the county. While these areas will not be specifically analyzed according to the Statewide Risk Assessment model, they will be incorporated into an overall WUI boundary and will have general treatment and protection recommendations. These areas include low density residential sites, communication sites, power stations, power lines, critical ingress/egress roads, private resources (such as livestock watering facilities), and historic sites and high-use recreation sites.

Title I of the Healthy Forest Restoration Act provides flexibility for communities when identifying wildland urban interface (WUI) areas. The Act states that a WUI area is “an area within or adjacent to an at-risk community that is identified in a community wildfire protection plan.” The presence of key infrastructure either located adjacent to the communities or providing service to the communities enables the overall WUI boundary to extend farther than the traditional 1 ½ miles.

The checkerboard pattern of land ownership throughout much of Jefferson County means that many residences can be found on small private parcels of land scattered throughout the Crooked River National Grassland. These properties rely on the utility lines crossing the Grassland, as well as on the roads through the Grasslands for ingress and egress. Specifically, many sites in Jefferson County are served by the communication sites on Gray Butte, Grizzly Mountain, Juniper Butte and Highway 20 near Devine Well. Although the utilities on Grizzly Mountain are in Crook County and are covered under the Crook County CWPP, the potential for wildfire to move from the Jefferson County side of Grizzly and up to these sites is a concern.

In addition to communication sites, many residents are served by the Grizzly Electric Substation and the Madras Natural Gas Compressor Station. Roads on the west side of the Grassland provide escape routes for residents evacuating from such areas as Stevens Canyon and Fremont Canyon. Extending the WUI boundary to cover these areas also provides the flexibility to address future developments west of the Grassland.

There are also many private resources that have the potential to be impacted by a wildfire. These resources include private timberlands (primarily east of the Grassland), livestock forage, agricultural and dry crop fields, and remote businesses such as Opal Springs (which, in addition to bottling Earth H<sub>2</sub>O, provides drinking water to the greater Madras area and the cities of Culver and Metolius).

Residents move to and recreate in central Oregon and value the many outdoor activities that are possible. In addition to planning for peak-use days on Lake Billy Chinook, this plan also recognizes the need to plan for and address the wildfire hazard around other recreation areas. Key camping areas include Rimrock Springs, Skull Hollow, Cyrus Horse Camp, Haystack Reservoir and Alder Springs. Concerns in these areas not only include potential evacuation needs in the event of an emergency, but also the potential for recreationists to inadvertently start wildfires through improper campfire use, smoking or ATV use.

Finally, many people chose to live in central Oregon for the cultural interest and aesthetic values. This CWPP also recognizes the need to protect key historic sites such as the Grassland Headquarters, McCain Orchards, Cyrus Orchards, Eddelman's Plots and the Gray Butte Cemetery.

Those areas not covered by the community assessments have general issues including, but not limited to, the absence of formal fire protection and extended response times, dense vegetation capable of causing flame lengths greater than four feet, insufficient water supply, insufficient ingress/egress, and combustible structures. Recommendations to address these issues include improving local fire response capabilities, improving and maintaining ingress/egress routes, implementing programs such as Fire Free or Fire Wise to improve owner responsibility for creating defensible space, thinning or removing vegetation to reduce potential flame lengths, and implementing education programs and efforts to encourage or require use of fire-resistant building materials and methods for existing and future construction.

### **3.2 The Risk Assessment Format**

- **Risk**-What is the likelihood of a fire occurring (either lightning or human caused)?
  - a. Fire Occurrence (number of fires per 1000 acres per decade) 0 to .1=5 points, 0.1 to 1.1=10 points, 1.1+ = 20 points.
  - b. Ignition risk (number of homes per 10 acres) 0-.9 = 0 points, 1-5 = 5 points, 5.1+ = 10 points

- c. Other factors that could start fires. (Industrial sites, logging areas, recreational sites, railroads, etc) 11 activities = 0 points, 12-22 activities = 5 points, 23 or more activities = 10 points.  
Maximum number of *Risk* points possible = 40    Minimum number = 5
- **Hazard**-What is the resistance to control once a wildfire starts, including weather, topography and fuels?
    - a. Weather (the entire East side of the Cascade Range gets 40 points)
    - b. Topography (slope) 0-25% = 0 points, 26-40% = 2 points, 41%+ = 3 points.
    - c. Aspect (the direction a slope faces) N,NW,NE = 0 points, W or E = 3 points, S/SW or SE = 5 points
    - d. Elevation--- above 5001' = 0 points, 3501 to 5000 = 1 point, 0-3500 = 2 points.
    - e. Vegetation (based on the vegetation, what is the anticipated fire behavior-- specifically what is the anticipated flame length?) Fuels producing flame lengths of less than 5 feet = 5 points, fuels producing flame lengths of 5-8 feet = 15 points, fuels producing flame lengths over 8 feet = 20 points  
Maximum number of points possible for *Hazard* = 70 points  
Minimum number = 45 points
  - **Protection Capabilities**-What are the risks associated with wildfire protection capabilities, including capacity and resources to undertake fire prevention measures?
    - a. Is there an organized structural or wildland fire response?
      - Both structure/wildland response = 5 points
      - Wildland response only = 15 points
      - No response = 40 points
    - b. Response times.
      - Organized structural response in less than 10 minutes = 0 points.
      - Structural response in more than 10 minutes = 8 points
      - Wildland response only in less than 20 minutes = 15 points
      - No response or a wildland response of more than 20 minutes = 36 points
    - c. How well prepared is the community for a large fire?
      - Organized stakeholder group, community fire plan, phone tree, etc = 0 points.
      - Primarily agency efforts (mailings, fire free, etc) = 2 points
      - No efforts = 4 points

Maximum number of points possible for *Protection Capabilities* = 80 points  
Minimum number = 5 points
  - **Values Protected**-What are the human and economic values associated with communities or landscapes?
    - a. Home density (number of homes per 10 acres)
      - 0.1 to 0.9 = 2 points

1 to 5 = 15 points

5.1+ = 30 points

- b.** How much infrastructure is present? (includes power lines, transportation corridors, cell towers, recreational/cultural sites, etc.)

None = 0 points

One = 10 points

More than one = 20 points

Maximum points possible for *Values Protected* = 50 points

Minimum points = 2 points

- **Structural Vulnerability**-What is the likelihood that structures will be destroyed by wildfire?
  - a.** How combustible is the roofing?
    - Class A = 0 points
    - Class B = 5 points
    - Class C = 10 points
    - Non-rated roof = 20 points
  - b.** How combustible is the siding and decks?
    - Fire resistant siding, eaves, and deck = 0 points
    - Fire resistant siding, but eaves and deck are combustible = 5 points
    - Combustible siding and deck = 10 points
  - c.** How far back from a slope is the building set back?
    - 0 to 30 feet = 1 point
    - More than 30 feet = 5 points
  - d.** Does the home have adequate defensible space? (the space between the home and wildland fuels)
    - More than 100 feet = 1 points
    - 71 to 100 feet = 3 points
    - 30 to 70 feet = 10 points
    - Less than 30 feet = 25 points
  - e.** What is the distance between structures?
    - More than 100 feet apart = 0 points
    - 60-100 feet apart = 3 points
    - Less than 60 feet apart = 5 points
  - f.** Is there adequate ingress/egress?
    - Two or more roads in/out = 0 points
    - One road in/out = 7 points
  - g.** Is road width adequate to permit fire equipment to get to the home?
    - More than 24 feet wide = 0 points
    - 20 to 24 feet wide = 2 points
    - Less than 20 feet wide = 4 points
  - h.** What is the condition of the road?
    - Surfaced road with a grade of less than 5% = 0 points
    - Surfaced road with a grade of more than 5% = 1 point
    - Non-surfaced road with a grade less than 5% = 1 point
    - Non-surfaced road with a grade of more than 5% = 3 points

Other than all-season road = 4 points  
Maximum points possible for *Structural Vulnerability* = 80 points  
Minimum points = 2 points

### 3.3 County-wide Risk Assessment

For the purposes of looking at the county in a very broad sense, we divided the county into three geographical zones: West, Central, and East. The West Zone contains most of the coniferous forests in the county. The Central Zone is the flattest zone and contains most of the population as well as the majority of the agricultural activities. The East Zone is largely comprised of rolling hills with grass, juniper and sagebrush and is sparse in population.

For these zones, we only considered “risk” and “hazard” and performed the risk assessment based on these two items (see Maps 5 and 6 in Appendix E).

It should be noted that the reason the East Zone is rated as a “moderate” risk is due to the fact that it lacks population and has fewer industrial and recreational activities, thus fewer human caused fires than the West and Central Zones.

### 3.4 Community Risk Assessments

After the county wide assessment was complete, the CWPP Team then completed risk assessments (as described in 3.2 above) on each of the communities identified as “at risk”. The results of the assessment are summarized below followed by a tabular format including a list of action items as identified by each community.

#### 3.4.01 Summary Sheet

The chart below (Figure 3-4) summarizes the information for each community and provides an opportunity to compare the communities within Jefferson County. The adjective rating for each community is for relative comparison purposes *only* as the Oregon Risk Assessment Model does not provide information for overall adjective ratings.

The CWPP team developed point breaks so that an adjective rating could be established. The Team felt that an adjective rating would help us to focus on the communities that were most “at risk”. Those breaks are as follows:

170 points + = High  
130 to 169 = Moderate  
Less than 130 = Low



Again, the adjective ratings are for comparison purposes only. Use of these adjective ratings in any other way may be misleading.

**Figure 3-4**  
**Jefferson County CWPP Risk Assessment -- Summary Sheet**

<b>Community Name</b>	<b>Risk</b>	<b>Hazard</b>	<b>Protection</b>	<b>Values</b>	<b>Str.Vuln.</b>	<b>Total Pts.</b>	<b>Rating</b>
Three Rivers	25	67	15	12	40	159	Moderate
Crooked River Ranch	25	67	8	22	58	180	High
Ashwood	15	70	36	22	51	194	High
Gateway	30	57	40	30	32	189	High
Round Butte	30	69	12	30	42	183	High
North Madras Heights	30	65	4	30	60	189	High
Juniper Crest	30	67	4	30	38	169	Moderate
Mad Ranchos/Canyon View	30	65	4	22	32	153	Moderate
Forest, Rim, & Air Parks	30	67	39	2	83	221	High
Shamrock Estates	30	62	4	30	36	162	Moderate
Juniper Butte	30	64	12	30	38	174	High
High Chaparral	30	64	12	30	28	164	Moderate
See's	30	62	12	30	44	178	High
Seekseequa	35	54	10	35	21	155	Moderate
Warm Springs	35	61	2	35	46	179	High
County Line	35	62	10	35	21	163	Moderate

### 3.4.02 Three Rivers

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20	0	5	40	0	5	2	20

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
15	0	2	10

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
5	5	1	13	16

Total Points = 159

Adjective Rating = Moderate

Three Rivers is a remote community that has been impacted by wildfire in the last decade. Since the community is within a high fire occurrence area, residents should expect additional wildfire events in the future and prepare accordingly.

The priority items for Three Rivers are;

1. **Fuels Reduction.** Three Rivers is at risk from fire spreading through fuels within the boundaries of the subdivision and from adjacent lands that are owned by PGE, Crooked River National Grasslands, BLM, CTWS and privately owned parcels. Fuels need to be reduced in all these areas, especially in the canyon areas near residences and around safety zones. Failure to implement fuels reduction in these areas could result in loss of life or property.
2. **Access.** Evacuation and fire apparatus response are hindered by a lack of access routes and driveways which are too narrow to maneuver larger pieces of fire equipment.
3. **Defensible Space.** Residents need to continue to widen and maintain the space between wildland fuels and adjacent homes & structures.

### 3.4.03 Crooked River Ranch

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20	0	5	40	2	3	2	20

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
8	0	2	20

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
0,10,5,10	10,5,10,10	5,1,5,5	25,28,25,30	7,10,12,14

Note: the four numbers appearing in each box of *structural vulnerability* depict the four zones of the ranch. See Chief Langley for additional information.

Total Points = 180 (average for the four zones)

Adjective Rating = High

The priority items for Crooked River Ranch are:

1. Fuels reduction. The ranch is at risk from fuels on adjacent lands managed by Crooked River National Grasslands and BLM, and by privately owned lands, some of which are owned by the Ranch. These fuels need to be reduced to assist with structure protection and wildland fire suppression activities.
2. Access and egress. There is a need to improve existing evacuation routes and develop additional evacuation routes on the Ranch.
3. Defensible space. Homeowners need to continue to work on widening the space between structures and combustible fuels.
4. Establish “Safe Zones” within CRR boundaries. Safe Zones are areas where humans can survive a passing wildfire front within the confines of their car. Safe zones need to be pre-identified, signed and maintained.

### 3.4.04 Ashwood

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
15	0	5	40	3	5	2	15

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
36	0	2	20

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
10	10	5	13	13

Total Points = 194

Adjective Rating = High

The priorities for Ashwood:

1. Develop additional water sources. Water supply opportunities are limited in the Ashwood area.

*Editor's note:*

In honoring the Ashwood community's individuality need, we have captured the one need (additional water sources) that was brought to the Team's attention. At some point in the future, the Ashwood residents may want to consider the formation of a Rangeland Protection Association (RPA). An RPA is simply an association of local residents providing wildland fire protection to an area—the size of which would be identified by the RPA membership. The Board of Directors of the RPA (people from Ashwood) would determine the assessment amount for each landowner that they protect. This assessment could vary and could be as little as zero dollars. Because an RPA is acknowledged by the State as a legitimate fire protection association, there could be some distinct advantages to the Ashwood residents:

1. Obtaining help from State and Federal agencies during severe fire situations through the use of "Mutual Aid Agreements".
2. The RPA would have access to fire equipment through FEP (Federal Excess Program).
3. Fire training could be obtained from other agencies in conjunction with a Mutual Aid Agreement.

Additional information is available at the Central Oregon ODF office in Prineville. Contact Bob Young at (541) 447-5658.

### 3.4.05 Gateway

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20	10	0	40	0	0	2	15

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
36	4	30	0

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
0	10	1	10	11

Total Points = 189

Adjective Rating = High

The priority items for Gateway:

1. Fire Protection. The homeowners need to consider alternatives for providing fire protection to their neighborhoods.
2. Defensible Space. Homeowners need to continue to work on widening the space between themselves and combustible fuels.
3. Public Education. Homeowners and the recreating public need to understand that they are living and playing in a fire-prone environment. They need to know where to go and what to do when a fire occurs in their vicinity. They need to understand what building materials should be used and what kind of access is necessary for firefighters to adequately protect their homes.

### 3.4.06 Round Butte

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20	10	0	40	2	5	2	20

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
8	4	30	0

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
10	10	5	10	7

Total Points = 183

Adjective Rating = High

The priorities for Round Butte Subdivision:

1. Defensible Space. Homeowners need to continue to work on widening the space between structures and combustible fuels.
2. Fuels Reduction: Private, BLM, and National Grasslands land managers need to take action to reduce fuels on their lands when they are adjacent to Wildland Urban Interface areas. The fuels need to be reduced so that firefighters can fight the fires on the ground. Fuel loads need to be altered and maintained so that no more than a 5 foot flame length is produced on the average worst day in fire season.
3. Public Education. Homeowners and the recreating public need to understand that they are living and playing in a fire-prone environment. They need to know where to go and what to do when a fire occurs in their vicinity. They need to understand what building materials should be used and what kind of access is necessary for firefighters to adequately protect their homes.

### 3.4.07 North Madras Heights

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20	10	0	40	0	3	2	20

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
0	4	30	0

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
10	10	5	25	10

Total Points = 189

Adjective Rating = High

The priorities for North Madras Heights:

1. Defensible Space. Homeowners need to continue to work on widening the space between structures and combustible fuels.
2. Fuels Reduction: Private land owners/managers need to take action to reduce fuels on their lands when they are adjacent to Wildland Urban Interface areas. The fuels need to be reduced so that firefighters can fight the fires on the ground. Fuel loads need to be altered and maintained so that no more than a 5 foot flame length is produced on the average worst day in fire season.
3. Public Education. Homeowners and the recreating public need to understand that they are living and playing in a fire-prone environment. They need to know where to go and what to do when a fire occurs in their vicinity. They need to understand what building materials should be used and what kind of access is necessary for firefighters to adequately protect their homes.
4. Develop additional escape routes. This will be especially important with future development that is likely to occur in this area.

### 3.4.08 Juniper Crest

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20	10	0	40	0	5	2	20

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
0	4	30	0

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
0	10	5	13	10

Total Points = 169

Adjective Rating = High

The priorities for Juniper Crest:

1. Defensible Space. Homeowners need to continue to work on widening the space between structures and combustible fuels.
2. Fuels Reduction: Private and Crooked River National Grasslands land managers need to take action to reduce fuels on their lands when they are adjacent to Wildland Urban Interface areas. The fuels need to be reduced so that firefighters can fight the fires on the ground. Fuel loads need to be altered and maintained so that no more than a 5 foot flame length is produced on the average worst day in fire season.
3. Public Education. Homeowners and the recreating public need to understand that they are living and playing in a fire-prone environment. They need to know where to go and what to do when a fire occurs in their vicinity. They need to understand what building materials should be used and what kind of access is necessary for firefighters to adequately protect their homes.



### 3.4.09 Madras Ranchos/Canyon View

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20,20	10,5	0,0	40,40	0,0	3,3	2,2	20,20

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
0,0	4,4	30,15	0,0

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
10,0	10,10	1,1	13,10	4,4

Total Points = 153 (Average)

Adjective Rating = Moderate

The priorities for Ranchos and Canyon View:

1. Defensible Space. Homeowners need to continue to work on widening the space between structures and combustible fuels.
2. Fuels Reduction: Private and Crooked River National Grasslands land managers need to take action to reduce fuels on their lands when they are adjacent to Wildland Urban Interface areas. The fuels need to be reduced so that firefighters can fight the fires on the ground. Fuel loads need to be altered and maintained so that no more than a 5 foot flame length is produced on the average worst day in fire season.
3. Public Education. Homeowners and the recreating public need to understand that they are living and playing in a fire-prone environment. They need to know where to go and what to do when a fire occurs in their vicinity. They need to understand what building materials should be used and what kind of access is necessary for firefighters to adequately protect their homes.

### 3.4.10 Forest, Rim, & Air Parks

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20 all	5 all	5 all	40all	0 all	5 all	2 all	20 all

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
15 all	4 all	2 all	0 all

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
5 all	10,5,5	5,1,5	28,30,30	22 all

Total Points = 221

Adjective Rating = High

The priorities for Forest Park, Rim Park and Air Park:

1. Fuels Reduction: Private, BLM and Crooked River National Grasslands land managers need to take action to reduce fuels on their lands when they are adjacent to Wildland Urban Interface areas. The fuels need to be reduced so that firefighters can fight the fires on the ground. Fuel loads need to be altered and maintained so that no more than a 5 foot flame length is produced on the average worst day in fire season.
2. Access and Egress: Roads need to be improved and/or added to provide for a safe evacuation route for local residents to escape an on-coming wildfire while firefighting vehicles are trying to make their way into the area to protect the structures. Additionally, driveways need to be improved so as to permit the passage of structural protection vehicles.
3. Defensible Space. Homeowners need to continue to work on widening the space between structures and combustible fuels.
4. Public Education. Homeowners and the recreating public need to understand that they are living and playing in a fire-prone environment. They need to know where to go and what to do when a fire occurs in their vicinity. They need to understand what building materials should be used and what kind of access is necessary for firefighters to adequately protect their homes.
5. Fire Protection. The homeowners need to consider alternatives for providing fire protection to their neighborhoods.

### 3.4.11 Shamrock Estates

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20	10	0	40	0	0	2	20

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
0	4	30	0

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
0	10	1	13	12

Total Points = 162

Adjective Rating = Moderate

The priorities for Shamrock Estates:

1. Defensible Space. Homeowners need to continue to work on widening the space between structures and combustible fuels.
2. Fuels Reduction: Private, BLM, and Crooked River National Grasslands land managers need to take action to reduce fuels on their lands when they are adjacent to Wildland Urban Interface areas. The fuels need to be reduced so that firefighters can fight the fires on the ground. Fuel loads need to be altered and maintained so that no more than a 5 foot flame length is produced on the average worst day in fire season.
3. Public Education. Homeowners and the recreating public need to understand that they are living and playing in a fire-prone environment. They need to know where to go and what to do when a fire occurs in their vicinity. They need to understand what building materials should be used and what kind of access is necessary for firefighters to adequately protect their homes.

### 3.4.12 Juniper Butte

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20	10	0	40	2	0	2	20

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
8	4	30	0

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
5	10	5	10	8

Total Points = 174

Adjective Rating = High

The priorities for Juniper Butte Subdivision:

1. Defensible Space. Homeowners need to continue to work on widening the space between structures and combustible fuels.
2. Fuels Reduction: Private and Crooked River National Grasslands land managers need to take action to reduce fuels on their lands when they are adjacent to Wildland Urban Interface areas. The fuels need to be reduced so that firefighters can fight the fires on the ground. Fuel loads need to be altered and maintained so that no more than a 5 foot flame length is produced on the average worst day in fire season.
3. Public Education. Homeowners and the recreating public need to understand that they are living and playing in a fire-prone environment. They need to know where to go and what to do when a fire occurs in their vicinity. They need to understand what building materials should be used and what kind of access is necessary for firefighters to adequately protect their homes.
4. Access and Egress: Roads need to be improved and/or added to provide for a safe evacuation route for local residents to escape an on-coming wildfire while firefighting vehicles are trying to make their way into the area to protect the structures. Additionally, driveways need to be improved so as to permit the passage of structural protection vehicles.

### 3.4.13 High Chaparral

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20	10	0	40	2	0	2	20

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
8	4	30	0

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
0	10	1	13	4

Total Points = 164

Adjective Rating = Moderate

The priorities for High Chaparral:

1. Defensible Space. Homeowners need to continue to work on widening the space between structures and combustible fuels.
2. Fuels Reduction: Private, State, BLM, and Crooked River National Grasslands land managers need to take action to reduce fuels on their lands when they are adjacent to Wildland Urban Interface areas. The fuels need to be reduced so that firefighters can fight the fires on the ground. Fuel loads need to be altered and maintained so that no more than a 5 foot flame length is produced on the average worst day in fire season.
3. Public Education. Homeowners and the recreating public need to understand that they are living and playing in a fire-prone environment. They need to know where to go and what to do when a fire occurs in their vicinity. They need to understand what building materials should be used and what kind of access is necessary for firefighters to adequately protect their homes.

### 3.4.14 See's

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20	10	0	40	0	0	2	20

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
8	4	30	0

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
0	10	1	13	20

Total Points = 178

Adjective Rating = High

The priorities for See's Subdivision:

1. Defensible Space. Homeowners need to continue to work on widening the space between structures and combustible fuels.
2. Fuels Reduction: Private, State, BLM and Crooked River National Grasslands land managers need to take action to reduce fuels on their lands when they are adjacent to Wildland Urban Interface areas. The fuels need to be reduced so that firefighters can fight the fires on the ground. Fuel loads need to be altered and maintained so that no more than a 5 foot flame length is produced on the average worst day in fire season.
3. Public Education. Homeowners and the recreating public need to understand that they are living and playing in a fire-prone environment. They need to know where to go and what to do when a fire occurs in their vicinity. They need to understand what building materials should be used and what kind of access is necessary for firefighters to adequately protect their homes.
4. Access and Egress: Roads need to be improved and/or added to provide for a safe evacuation route for local residents to escape an on-coming wildfire while firefighting vehicles are trying to make their way into the area to protect the structures. Additionally, driveways need to be improved so as to permit the passage of structural protection vehicles

### 3.4.15 Seekseequa

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20	5	10	40	2	5	2	5

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
8	2	15	20

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
0	10	1	10	0

Total Points = 155

Adjective Rating = Moderate

The priorities for Seekseequa are:

1. Mapping the location of homes.
2. Prevention education programs.
3. Maintaining fuel breaks.
4. Brushing and limbing of trees in and around housing.

### 3.4.16 Warm Springs

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20	5	10	40	0	5	1	15

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
0	2	15	20

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
0	10	1	30	5

Total Points = 179

Adjective Rating = High

The priorities for Warm Springs:

1. Mapping of houses by name and numbers.
2. Defensible space around homes.
3. Brushing and limbing of trees in and around housing developments.



### 3.4.17 County Line

Risk			Hazard				
Fire Occurrence	Ignition Risk	Other Factors	Weather	Slope	Aspect	Elevation	Vegetation
20	5	10	40	0	5	2	15

Protection Capability		Values Protected	
Fire Response	Community Prep.	Home Density	Infrastructure
8	2	15	20

Structural Vulnerability				
Roofing	Building Mat.	Setback	Def. Space	Access
0	10	1	10	0

Total Points = 163

Adjective Rating = Moderate

The priority projects for County Line:

1. Fuels reduction projects and development of fuel breaks.
2. Limb trees adjacent to homes.
3. Develop fire education programs directed to area problems.
4. Maintenance of fuel breaks.
5. Provide for defensible space around homes.

#### **4.0 County Hazard Reduction Priorities**

Each of the communities listed above have specific measures that would reduce their overall score, indicating less susceptibility to the effects of wildland fire. The priorities listed for each community should be pursued to make that community more resilient to the effects of a wildfire. Additionally, some serious problems surfaced during the risk assessment process that should be considered for accomplishment within the next calendar year:

- 1) Forest Park/Rim Park/Air Park. These communities are most “at risk” in Jefferson County. Federal and private land owners need to begin to reduce fuels within the WUI. Crown fire potential should be eliminated and fuels altered and maintained to produce no more than a 4-foot flame length during the height of the fire season. Homeowners in these communities need to provide defensible space around their structures and consider replacing existing flammable building materials with fire resistant materials.
- 2) Crooked River Ranch, Three Rivers, & Forest/Rim/Air Park. These communities presently have a lack of adequate evacuation routes. The county needs to work with ODOT, private landowners and federal land managers in establishing alternate or additional evacuation routes, and designated safe zones within the communities.
- 2) General comments:
  - a. All Communities. A common problem that was found during the risk assessments was a lack of safe zones for residents to go to instead of clogging the roads with evacuation traffic. All communities in Jefferson County need to identify, develop, sign and maintain areas in which residents can survive a wildfire simply by staying inside of their vehicles.
  - b. The County. The CWPP team identified a number of items that the county could undertake in order to assist with some of the problems noted in the risk assessment process. These are:
    - Review building codes to ensure that citizens living in fire prone areas are not contributing to an existing problem.
    - Engage federal and private landowners in reducing wildland fuels on the land they manage in order to protect adjacent communities.
    - Establish a public education program that will educate local citizens regarding:
      - a. living in a fire prone environment,
      - b. evacuation routes and “safe” areas,
      - c. fire resistant building and roofing materials, and
      - d. the need to provide defensible space around homes and other structures.

- Explore ways to provide safe access and egress during wildfire events,
- Look for opportunities to provide structure protection to communities that need it, and
- Support development of infrastructure protection. This includes key recreation sites that have not been included in established communities. (See “Critical Infrastructure” below).

## **5.0 Recommendations to Reduce Structural Ignitability**

Landowners need to share responsibility in protecting their homes from the effects of wildfire. This can be accomplished by:

1. Installing and maintaining a fire resistant roof.
2. Install and maintain fire resistant siding and decking.
3. Establish and maintain defensible space around structures.
4. Limb up trees to reduce ladder fuels.
5. Use only fire resistant vegetation next to buildings.
6. Practice aggressive debris management, particularly on roofs, eaves and gutters, under decks, and around structures.
7. Plan for, install and maintain access/egress to their property for structure protection vehicles.

The county should develop an aggressive fire safety public education program, should provide pamphlets and other educational materials to property owners applying for building permits, and adopt regulations that require the landowner to make new structures fire resistant.

## **6.0 Critical Infrastructure**

In addition to the “at risk” communities, the CWPP committee also had discussions regarding critical infrastructure. Communication sites, electrical transmission lines, gas lines, highways, state parks, campgrounds, bridges, and railroad lines are located in Jefferson County. Of the critical infrastructure considered, no one item deserves more attention than evacuation routes from recreational sites. First and foremost among these is the evacuation route from The Cove State Park which receives approximately one million visitors annually. The CWPP committee encourages the county to look more closely at this potential problem so as to avoid life-threatening situations when the time comes to evacuate that particular area. The steep, narrow, winding road that provides access and egress to this popular spot could easily be made impassable during a critical situation. Hundreds of lives could be at risk during one fire episode. In addition to the recommendations contained in previous sections, the CWPP Team recommends the following item for accomplishment with regards to critical infrastructure by June of 2006:

Coordinated efforts by County Roads Department, ODOT, Jefferson County Sheriffs Office, and Oregon State Parks to develop additional evacuation routes or improve existing routes. The priorities for this task are the Cove State Park, Three Rivers, and Crooked River Ranch.

## **7.0 Action Plan**

It is the recommendation of the CWPP Team that, as a minimum, the following actions take place in 2006.

1. Develop short and long-range fuels treatment plans on private and federal land near Air Park/Rim Park/Forest Park to reduce the hazard near that community. Implement those plans as soon as possible.

Recommended Lead: Bryan Scholz and Rena Thompson

Recommended Support Group: Crooked River National Grasslands Manager, COFMS Fire Management Officer, Prineville BLM District Manager, Ochoco National Forest Supervisor, Three Rivers VFD Chief, and Homeowners groups.

2. Reduce fuels created by the Eyerly fire in Three Rivers. The evacuation routes are unsafe due to the number of standing dead trees. These trees need to be felled and removed so as not to contribute to an existing problem.

Recommended Lead: Gary Cook and Rena Thompson

Recommended Support Group: PGE Manager, WS Tribe FMO, Three River VFD Chief, and Homeowners Association.

3. Improve evacuation routes/add evacuation routes for Three Rivers, Crooked River Ranch, and The Cove Pallisades State Park.

Recommended Lead: Jefferson County Sheriff Emergency Operations

Recommended Support Group: ODOT Manager, State Parks District Manager, Jefferson County Road Manager, and Jefferson County Sheriff.

## **8.0 Monitoring & Annual Review**

An effective monitoring process for the CWPP is important to ensure that resources are being utilized effectively, efforts from various agencies are well coordinated and complimentary, and that duplication of effort is minimized.

### **Biannual Review**

Not less than biannually, the Jefferson County CWPP Steering Committee will conduct a review of the overall CWPP effort. They will identify changes or updates needed in the Plan, evaluate effectiveness of coordination between cooperating agencies, community groups and neighborhoods, evaluate progress in meeting specific performance measures,

and adjust any established monitoring protocols as needed. Coordination and communication will be the critical operative requirements.

The CWPP Steering Committee will be made up of the following at a minimum:

- Fire Chief, Jefferson County Fire District #1.
- Emergency Management Director, Jefferson County Sheriff's Office
- Unit Forester, Oregon Department of Forestry
- Representatives from Three Rivers, Crooked River Ranch, and Ashwood.
- Recommended additional representation would include as a minimum, *ex officio* representation from Central Oregon Fire Management Services (Ochoco National Forest Service and Prineville District, Bureau of Land Management).

Recommended performance measures for the steering committee include the following:

**1. Understand the scope of the wildfire problem and potential in Jefferson County.**

Performance measures:

- Communities and at-risk infrastructure identified and mapped. Updates completed, documented and incorporated into the CWPP.
- Wildland-urban-interface (WUI) identified and mapped. Any need for updates is evaluated and documented.
- Fire Atlas compiled and updated annually.

**2. Reduce hazardous fuels.**

Performance measures:

- Lowered risk assessment scores for communities within the county as assessed by local fire departments.
- Reduction in potential flame lengths. In areas where the potential flame lengths exceed 5', reducing the fuels so that the potential flame length is 5 feet or less. This needs to be accomplished on federal lands, tribal, state and private lands and should be measured in acres. Accomplishment reporting to be submitted at annual CWPP review meeting.
- Total number of acres treated through fuel reduction measures. Accomplishment to be reported at the annual CWPP review meeting.

**3. Reduce structural ignitability.**

Performance measures:

- Number of acres/local community areas where defensible space is established around individual homes or clusters of homes. Assessment and reporting to be accomplished by local fire departments.
- Number of structures lost to wildland fire. Report to come from appropriate wildland protection agency.

**4. Coordinate WUI treatment activities on adjoining public and private lands.**

Performance measures:

- Number or percentage of WUI areas where complementary treatments occurred (within two years). Report to come from land manager or land owner and submitted at annual CWPP review meeting.
- Number or percentage of WUI treatment areas where public and private mitigation measures were conducted simultaneously or under a unified plan. Report to be submitted by appropriate land manager or land owner and presented at annual CWPP meeting.

#### **5. Provide for safety of public during wildfire incidents.**

Performance measures:

- County-wide and local community evacuation processes developed. Progress report to come from Jefferson County Sheriffs Office and submitted at the annual CWPP review meeting.
- Number of fire response or evacuation drill exercises performed. Jefferson County Sheriffs Office would submit accomplishment report at annual CWPP review meeting.
- Number of “safe zones” that have been established within a community. Local Homeowners Groups in coordination with local fire departments would report accomplishments at annual CWPP review meeting.

#### **6. Promote community involvement and awareness**

Performance measures:

- Number of outreach or education events held. Each local fire department or homeowner group would record and report this information at the annual CWPP review meeting.
- Assessment of overall participation in neighborhood fuels treatment initiatives. This would be assessed by the local fire departments or homeowners group and would be reported annually at the CWPP review meeting.

The ability to predict fire behavior based on treatment effects and levels could be a powerful tool in gaining community understanding, acceptance and support for engaging in fuels treatments around homes. This approach could be used to enhance community involvement.

## **Appendix A: Summary of Public Comments**

### **-Madras meeting 8/11/2005 held at Jefferson Co. FD#1 Fire Station:**

{3 citizens attending}

Comment 1: *The County needs to ban the use of burn barrels in communities that are high risk to wildfire.*

Comment 2: *The County needs to ban the use of fireworks.*

### **-Crooked River Ranch meeting 8/15/2005 held at CRRRFPD main station:**

{12 citizens attending}

Comment 1: *The Ranch needs to pursue alternate evacuation routes.*

### **-Three Rivers meeting 8/17/2005 held at Three Rivers Recreation Hall:**

{22 citizens attending}

Comment 1: *PGE & The Tribe adjoins our land. It burned in the Eyerly Fire. Their trees are falling across our road and we had reps come up. They will do nothing about the trees and only seemed to be interested in the past that the grass was growing. This afternoon I watched kids on an ATV drive right by the “No Trespassing” sign that we had put up and drive through that tall dry grass. Why can’t we have a buffer zone?*

Comment 2: *Multiple ownership on multiple lots only being charged for one lot of fire protection—should be a lot-by-lot charge.*

Comment 3: *Concern about parties on lands outside of 3 Rivers and not being adequately patrolled by themselves (BLM).*

Comment 4: *Possibly involve large landowners such as PGE to see what they would be able to do to help make fuel break or buffer adjacent to 3 Rivers.*

Comment 5: *(Need) siren system or larger flag on pole if fire (occurs).*

Comment 6: *What about evacuation of folks w/disabilities?*

Comment 7: *Clean up of burned trees from past fires.*

Comment 8: *Grant \$ for older/disabled residents to help with defensible space.*

Comment 9: *Weekend ATV use and party fires—(Need) County planner’s involvement (to develop) potential for punitive results. Where are the “teeth” (for dealing with) weekenders and non-residents?*

Comment 10: *(Need) handouts and prevention materials.*

Comment 11: *Reducing fuels on the outside (areas that are out of control).*

Comment 12: *Quarterly newsletter submissions.*

Comment 13: *Need to analyze/remove hazard trees along main roads or evacuation routes.*

Comment 14: *We are concerned about evacuation routes for Crooked River Ranch, also.*

### **-Warm Springs I.R. Meeting 8/22/2005 held at Fire Center:**

{No citizens attended the meeting}

-Ashwood meeting 8/24/2005 held at Ashwood School:

{8 citizens attending}

Comment: *The idea of developing a WUI boundary is not significant to this group as the majority of the land in the area is privately-owned. Since this area is unprotected, most fire response is neighbor helping neighbor. Developing water sources would help improve this effort and the water sources would also be available to other agencies as needed to suppress wildland fires.*

### **Appendix B: Core Team Members**

Jefferson County CWPP Core Team:

Earl Cordes, Fire Chief, Jefferson County FD#1  
Larry Langley, Fire Chief, Crooked River Ranch Rural FD  
Rena Thompson, Assistant Fire Chief, Three Rivers VFD  
Chris Gannon, Jefferson County Planning  
John Marston, Resident of Ashwood  
Bryan Scholz, Crooked River National Grasslands  
Lisa Clark, COFMS  
Rock Gerke, Oregon Dept. of Forestry, Central Oregon District  
Allison Waite, Jefferson County Emergency Services  
Gary Cook, Confederated Tribes of Warm Springs FMO  
Ken Lydy, Confederated Tribes of Warm Springs  
Mike Skeels, Crooked River Ranch RFD  
Ann Walker, Oregon Dept. of Forestry, Salem,

Jefferson County CWPP Writers/Editors:

Writer: Rock Gerke  
Lisa Clark  
Editors: Earl Cordes  
Chris Gannon  
Ann Walker

### **Appendix C: Documentation of Biannual Review**

This section will contain future documentation of the biannual review process including, but not limited to:

- a- meeting notes
- b- attendance records
- c- task assignments
- d- due dates & time lines, and
- e- reports & recommendations



## **Appendix D: Glossary of Terms and Acronyms**

Aspect – the direction a slope faces (e.g., a slope that faces north has a northern aspect).

BLM – Bureau of Land Management.

Community at Risk – a community that has significant amount of wildland fuels. Untreated, these fuels pose a threat to the safety of the residents and a danger to the homes occupied by the residents.

COFMS – Central Oregon Fire Management Service. Comprised of Prineville BLM, Ochoco National Forest, Deschutes National Forest, Crooked River National Grasslands.

CRNG – Crooked River National Grasslands.

Flame Height – the vertical distance between the bottom of the flame and the top of the flame.

Flame Length – the length of the flame from where it occurs on the lowest portion of a fuel to the very tip of the flame.

Fuel – anything that will burn when exposed to the combustion process.

Hazard – for the purposes of this CWPP, hazard is comprised of the fuels present on a site, the topography, and the weather. Also considered is the flame length that a fuel or forested area will produce during the driest portion of the fire season.

ODF – Oregon Dept. of Forestry.

OHV – off highway vehicle.

Risk – for the purposes of this CWPP, risk is defined as the likelihood of a fire occurring and considers both natural ignitions (lightning) as well as any human activity that could cause an ignition.

Safety Zone – an area where a wildland firefighter can go to escape an oncoming fire without needing to deploy his/her fire shelter.

Safe Zone – (for the purposes of this CWPP) a large area that is free of combustible fuel that is designated, signed, and maintained in a condition where humans in automobiles may park and survive a passing wildfire. The person(s) would stay in their automobile during the passage of the wildfire.

Unprotected land – Land that has no organized fire suppression response when a fire—either structural or wildland—occurs.

Wildland – areas that have natural occurring vegetation and are, for the most part, not groomed or cultivated.

Wildland fuel – all dead and/or living vegetative matter which will combust and contribute to the spread of a fire.

### **Appendix E: Reference Documents & Maps**

This section contains all the reference documents and maps referred to throughout the main document. These are found on the following pages and labeled for ease of use.