

Jefferson County Community Wildfire Protection Plan

May 2011



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

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Date

Jefferson County Fire Chief

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Oregon Department of Forestry

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This Community Wildfire Protection Plan represents the efforts and cooperation of a number of organizations and agencies working together to improve preparedness for wildfire events while reducing factors of risk.

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1.0 EXECUTIVE SUMMARY

The Jefferson County Community Wildfire Protection Plan (CWPP) was originally written in 2005 and updated in 2010-2011. The current CWPP contains 19 communities and covers a total of 1,139,840 acres. Using the Oregon Department of Forestry risk model, *Identifying an Assessment of Communities at Risk in Oregon (2004)* a quantitative risk model was produced. Additional adjective ratings were assigned and used as a relative comparison between community risks and hazards. Of the total communities, ten have an extreme adjective rating. Collectively, the Steering Committee created an Action Plan and Performance Measure Evaluation Matrix, which will be assessed annually. The Action Plan details the action needed including hazardous fuels reduction, community infrastructure development, defensible space, fire readiness and prevention education. For each of these actions priorities were assigned to each community and corresponding lead agencies responsible for implementation were listed. Annual reviews will be conducted every year in the fall with a five-year review and risk assessment analysis in 2016.

2.0 INTRODUCTION

The Jefferson County Community Wildfire Protection Plan (CWPP) is a county-wide, strategic assessment of the risks, hazards, and mitigation and prevention opportunities associated with wildfire in our communities. This plan was initially developed in 2005 and updated in 2010-11. Funding for the update was provided by the Jefferson County Board of County Commissioners from the Secure Rural Schools Title III Program. The CWPP will be reviewed annually to identify changes or updates; evaluate effectiveness of coordination between cooperating agencies, community groups and neighborhoods; evaluate progress in meeting specific performance measures; and will adjust any monitoring protocols as needed. Coordination and communication will be the critical operative requirements. The CWPP Steering Committee will conduct a thorough review and risk assessment analysis every 5 years.

The Steering Committee will be composed of the following (at minimum):

- Jefferson County Fire Chiefs
 1. Jefferson County Fire District #1
 2. Crooked River Rural Fire Protection District
 3. Three Rivers Rural Fire District

- Emergency Management Director, Jefferson County Sheriff's Office
- Jefferson County Planner
- Unit Forester, Oregon Department of Forestry
- Confederated Tribes of Warm Springs (CTWS)/Bureau of Indian Affairs
- Representatives from the Rangeland Fire Protection Associations

Recommended additional representation includes Central Oregon Fire Management Service (combined Forest Service and Bureau of Land Management fire organization), Department of State Lands, Portland General Electric, and Oregon State Parks.

2.1 PURPOSE

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.

For thousands of years wildland fires have moved across Oregon's landscape. In the early 1900's, European settlers began to suppress these fires resulting in unnatural fuels buildup. As a result, wildfires have increasingly impacted communities, especially those developing in the Wildland-Urban Interface (WUI); an area where wildland fuels and residences are intermixed. The result has been an increase in the number of homes lost each decade to wildfire.

In response to a growing population living in and near the WUI, and often away from structural and wildland response, two significant pieces of legislation were passed. The Healthy Forest Initiative (HFI) of 2002, which reduces the amount of administrative delays for federal land management agencies to accomplish 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. 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.

In March of 2005, Jefferson County completed the first version of the CWPP. This plan covers Jefferson County and a portion of the Crooked River Ranch that extends into northern Deschutes County, and excludes the southwest corner of Jefferson County, which is covered under the Greater Sisters Country CWPP.

2.2 COLLABORATION

This plan was developed in collaboration with representatives from:

- Jefferson County
- Jefferson County Fire District #1
- Jefferson County Sheriff's Office
- Three Rivers Rural Fire District
- Crooked River Ranch Rural Fire Protection District
- Oregon Department of Forestry
- Crooked River National Grassland
- Bureau of Land Management
- Central Oregon Fire Management Service
- Confederated Tribes of Warm Springs (CTWS)
- Representatives from the communities of Ashwood, Gateway, and Young Life

2.3 COMMUNITY ENGAGEMENT

In 2005, the CWPP team held five 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.

In March of 2011 the CWPP team held a community meeting for the public to provide information about the plan in general and to solicit comments and feedback.

2.3 THE CWPP METHODOLOGY

After the establishment of the Healthy Forests Restoration Act, a variety of planning framework models were 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 Federal Emergency Management Agency (FEMA) guidelines. Of the two predominant 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. Below is a summary of the steps identified in the process.

Step 1: Convene Decision makers

- Step 2: Involve Federal Agencies
- Step 3: Engage Interested Parties
- Step 4: Establish a Community Base Map
- Step 5: Develop a Community Risk Assessment
- Step 6: Establish Community Priorities and Recommendations
- Step 7: Develop an Action Plan and Assessment Strategy
- Step 8: Finalize Community Wildfire Protection Plan

2.4 THE GOALS OF THE JEFFERSON COUNTY CWPP

The goals of the Jefferson County CWPP are:

Goal 1 Protect against losses to life, property and natural resources from wildfire.

Goal 2 Strengthen partnerships to build and maintain active participation in mitigation and suppression of wildfire from each fire protection agency and unprotected area.

Goal 3 Instill a sense of personal responsibility for taking preventative actions regarding wildfire and increase the ability to prepare for, respond to, and recover from wildfires within the County.

Goal 4 Increase public understanding of living in a fire prone ecosystem.

Goal 5 Reintroduce fire in fire adapted ecosystems.

Goal 6 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. This plan is intended to be a living document, which will be reviewed, updated, amended and distributed as needed on an annual basis. The Steering Committee will convene every five years to re-evaluate the risks and overall analysis.

3.0 JEFFERSON COUNTY COMMUNITY PROFILE

3.1 POPULATION AND URBAN GROWTH

Central Oregon in has experienced rapid population increases over the last few decades. Jefferson County in particular has increased 19.5% from 2000 (pop. 19,009) to 2009 (pop. 22,715) with 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 (WUI), exposing more residents to the potential impact of wildland fire.



3.2 GEOGRAPHY & ENVIRONMENT

Jefferson County's topography is varied with its highest point being the top of Mt. Jefferson at 10,497 feet and the lowest elevation being 1300 feet where the Deschutes River crosses into Wasco County. The Northwest corner of the county belongs to the Confederated Tribes of the Warm Springs Reservation. The southwest corner is mainly public land managed by the Deschutes National Forest and the Bureau of Land Management. 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.

Vegetation in the county is varied. Higher elevations are mostly covered with coniferous forests and shifts to juniper/grass/sagebrush at the lower elevations. 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 areas of the county occur in areas dominated by juniper/sage/grass.

Precipitation amounts for Jefferson County are varied with the western (mountainous) portion receiving 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 per year. Figure 2-1 below, illustrates Jefferson County precipitation patterns, and the rain shadow effect from the Cascades.



Figure 2-1 Jefferson County Annual Average Precipitation Map (1961-1990)
 Oregon State University, Spatial Climate Analysis Service

3.3 COMMUNITIES & CRITICAL INFRASTRUCTURE

The Healthy Forests Restoration Act requires that CWPP’s place emphasis on fire-safety considerations of both communities and critical infrastructure. Traditionally, most concentrations of community development in Jefferson County were located in valley areas, near water and grazing opportunities for livestock. Over the last two decades however; 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 on infrastructure including transmission and gas lines, transformers, cell towers, telephone and power lines, water systems and communications systems used by emergency personnel. Road systems must be adequate to accommodate both ingress for emergency responders and egress by residential/recreational populations. Hazardous vegetation must be treated not only around homes, but along travel routes. Travel routes must provide effective two-way travel with a sufficient width to accommodate evacuation traffic and turn-around points for emergency vehicles.

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.

3.4 COMMUNITIES “AT RISK”

In 2005, the CWPP Steering Committee identified 16 communities as “at risk” to the effects of wildfire.

In 2010/11, the Steering Committee made the following changes:

- Added three (3) new communities:
 - Grizzly Saddle
 - Upper Metolius/Montgomery Shores
 - Young Life
- Changed the following community names:
 - County Line to Sid Walter
 - Forest Park, Rim Park and Air Park to Grandview Communities
 - See’s to Dizney
- Ash Butte
- Crooked River Ranch
- Dizney
- Gateway
- Grandview Communities
- Grizzly Saddle
- High Chaparral
- Juniper Butte
- Juniper Crest
- Madras Ranchos/Canyon View
- North Madras Heights
- Round Butte
- Seekseequa
- Shamrock Estates
- Sid Walter
- Three Rivers
- Upper Metolius/Montgomery Shores
- Warm Springs
- Young Life

The Confederated Tribes of Warm Springs Reservation (CTWSR), which partially lies within Jefferson County, has developed a separate CWPP; however, for the purpose of this CWPP, Warm Springs identifies three communities within Jefferson County for inclusion (Sid Walter, Seekseequa and Warm Springs). Boundaries for these communities are set by population, infrastructure and topography. The Warm Springs community is the historic community with heavy home densities and infrastructure and is protected by a structural fire department. Sid Walter and Seekseequa are rural range areas with sage, juniper and grass fuel models with dispersed housing. Seekseequa is protected by a structural fire department, but Sid Walter is not. The distribution of the communities is all within Trust and restricted title lands of the Confederated Tribes of Warm Springs.

3.5 CRITICAL INFRASTRUCTURE

Critical infrastructures identified in Jefferson County consists of but are not limited to communication sites, electrical transmission lines, gas lines, highways, state parks, campgrounds, bridges, and railroad lines. Specific areas of interest are access roads to and from communities to use for evacuation purposes and for fire protection agencies.

The following specific infrastructure sites in Jefferson County have been identified as critical resources to maintain emergency management services throughout the county:

- Bonneville Power Administration Transmission lines
- The Cove Palisades State Park
- Lake Billy Chinook Campground
- Cyrus Horse Camp
- Grizzly Electric Substation
- Haystack Reservoir
- Lake Simtustus RV Park
- Madras Natural Gas compressor station
- Montgomery Shores/Robinson Headwaters/Monty Campground area/Perry South Campground
- Opal Springs domestic water source
- Pelton Park
- Skull Hollow Camp
- Transmission lines from Pelton/Round Butte hydroelectric facilities
- Recreation associated with Deschutes River and Lake Billy Chinook
- Trout Creek Recreation Area, access road: Coleman Road
- Egress and ingress roads to communities
- Communication towers

Refer to page individual communities (Section 4.4) for crucial access issues for EMS.

3.6 FIRE PROTECTION

Portions of Jefferson County receive fire protection (Table 3-1) from one or more of the following:

Jefferson County Fire District #1 protects 200 square miles with 470 hydrants and has about 20,000 residents (9,000 of which reside within the cities of Madras, Culver and Metolius). These residents are served by two Fire Stations in Madras and Culver. The Fire Stations are equipped with one 55' aerial ladder truck, four type one engines, two type two tenders, three type four engines and three type six

engines. The fire firefighting force is made up of approximately 60 volunteers, five students and five paid staff, totaling 70 personnel. The District is comprised of a downtown area, neighborhoods, farms, schools, airport, business and an industrial park. Burlington Northern Rail Road and a major natural gas line run's north & south. Highways 26 and 97 traverse the district. Extreme weather conditions are common through the year. The District is rife with urban wildland interface settings. Jefferson Co Fire Dist #1 responds to nearly 700 calls annually, mostly fires and auto accidents. Jefferson County EMS is separate from Fire and takes most of the medical responses.

Crooked River Ranch Rural Fire Protection District is a government agency and is governed by a rural fire district board of Directors with law enforcement services provided by the Jefferson County Sheriff's Office. The fire district provides emergency medical coverage and fire coverage to private property, BLM land and national grassland through mutual aid agreements, which contains natural vegetation that consists of juniper trees, sagebrush, bunchgrass and cheatgrass.



Crooked River Ranch is a 12 square mile unincorporated community located between the Deschutes and Crooked Rivers in southern Jefferson County. The community has approximately 4,700 residents and 2,700 structures. These structures include residential and commercial buildings. The commercial section of the Ranch consists primarily of light industry. There is only one road into and out of the community.

Three Rivers Rural Fire Protection District is primarily a recreational and retirement area located in the high desert above Lake Billy Chinook. This District provides structural and wildland fire response, medical assistance, and water rescues from the Deschutes arm of Lake Billy Chinook to Green Ridge, which is an area of approximately 40 square miles. It is comprised of four subdivisions, surrounding ranch lots and project lands co-owned by Portland General Electric and the Confederated Tribes of Warm Springs. The district is adjacent to scattered USFS land, a large portion of Crooked River National Grassland and BLM parcels, many of which are water access only, including a proposed new boat-in BLM campground on the Metolius River arm just down slope of from many new homes within a subdivision. The BLM campground has been in place for years as a dispersed

camping area; however, through a settlement agreement with PGE the site will be upgraded and improved into a more formal camping area with designated tent sites.

The Confederated Tribes of Warm Springs Fire and Safety Department will provide structure protection to all communities on the reservation. Within Jefferson County there are 21,578 acres of lands protected by the Tribes. A Memorandum of Understanding relating to wildland fire exists between the Confederated Tribes of Warm Springs, Fire & Safety and the Bureau of Indian Affairs Fire Management sections. The MOU covers Warm Springs Fire & Safety's response to Wildland fires occurring on the reservation.

Bureau of Indian Affairs is responsible for protecting 255,800 acres of Confederated Tribes of Warm Springs Wildland within Jefferson County.

Warm Springs Fire & Safety will respond to wildland fire when requested through a Memorandum of Understanding between the Bureau of Indian Affairs and the Confederated tribes of Warm Springs.

Oregon Department of Forestry (ODF-Central Oregon District) & Rangeland Fire Protection Associations (RFPA). The Oregon Department of Forestry provides direct wildland fire protection from fires burning on or threatening non-federal public forest land and private forestlands paying Forest Patrol Assessment within the ODF-Central Oregon District. As part of a coordinated effort to further wildland fire protection to non classified forest and rangelands within the state of Oregon, Oregon Department of Forestry provides organizational assistance and support services to landowners of rangeland in the formation and participation of Oregon Board of Forestry sanctioned Rangeland Fire Protection Associations (RFPA). Rangeland Fire Protection Associations are legitimate fire service organizations that provide direct wildland fire protection services to landowners on participating rangelands located outside ODF protection district boundaries. At present, Ash Butte, Twickenham and Gateway Rangeland Fire Protection Associations are the only Oregon Board of Forestry sanctioned Rangeland Fire Protection Associations within Jefferson County.

Bureau of Land Management-Prineville District (see COFMS)

United States Forest Service-Crooked River National Grassland and Deschutes National Forest (see COFMS)

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

Service (COFMS). COFMS provides wildland fire response for fires burning on, or threatening, all U.S. Forest Service, Crooked River National Grasslands and Bureau of Land Management managed lands within the county (see Map 2 and 3).

Table 3-1 Jefferson County Fire Protection Statistics

Ownership	Total Acres	% of Jeff. Co.
<i>Jefferson County</i>	<i>1,139,840</i>	<i>100%</i>
Ash Butte Rangeland Fire Protection Area	138,326	12%
Bureau of Indian Affairs/ Warm Springs	257,280	28%
Central Oregon Fire Mgmt. Service	324,322	26%
Crooked River Ranch Fire & Rescue	10,240	1%
Gateway Rangeland Fire Protection Area	12,483	1%
Jefferson Rural Fire District #1	128,000	11%
Oregon Department of Forestry	120,320	11%
Three Rivers Rural Fire District	20,480	2%
Twickenham Rangeland Fire Protection Area	20,563	2%
Unprotected land	81,270	6%

Note: some areas in the County receive protection from multiple agencies.

3.7 UNPROTECTED LANDS

There are extensive areas of private land within the county that receive no wildland or structural fire protection. The unprotected lands issue has remained unresolved legislatively for more than a decade. In early 2004, as an outcome of an Oregon Department of Forestry (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 ODF. 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.

Rural 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 Firewise 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.



Some of the unprotected lands within Jefferson County have the potential to be developed with home sites through specific review processes. Such development is subject to the standards in the Jefferson County Zoning Ordinance including the Fire Safety Standards in section 426. Currently, these rules require use of non-flammable roofing, spark arrestors for chimneys and stovepipes,

fuel breaks, emergency vehicle access and other standards. Further the County is able to require increased standards on site for areas with high wildfire hazard. These standards include installation of automatic fire systems, increased fuel break standards, use of fire resistant construction materials, onsite firefighting equipment and storage of at least 4000 gallons of water for firefighting purposes on site.

From 2005 to 2010, the County had 13 applications for residences located on lands not within a structural fire district boundary. Twelve of these requests have been approved; additional houses will be proposed and approved in such unprotected lands.

4.0 THE RISK ASSESSMENT

The ODF Risk Assessment Model process was utilized by the CWPP Steering Committee in 2005. This process involved developing an inventory of existing natural resource data. The steps to develop this inventory involved multiple participating agencies and included: 1) reviewing and identifying appropriate data layers from land management agencies, and produce respective GIS county based maps; 2) identifying communities “at-risk” from the threat of wildfire; 3) developing wildland-urban interface (WUI) boundaries; 4) incorporating input from community meetings; 5) identifying mitigation priorities and recommendations for each community using the ODF Risk Assessment Model; and 6) establishing priority recommendations, an action plan and further assessment needs. In 2010, the same process was followed for the update.

4.1 WILDLAND URBAN INTERFACE (WUI)

The WUI designation was determined by using the general guidelines outlined in the Central Oregon Fire Management Service Fire Management Plan. This evaluation included identifying neighborhood groups and classifying them as “communities,” and determining 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, the Steering Committee also evaluated the potential for wildfire to damage lives, property and infrastructure in these community groups and in other parts of the county.

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.” For the purpose of this assessment, the WUI is designated as either High Density or Low Density WUI, including Critical Infrastructure, and is defined as follows:

In 2005, the **High Density WUI** boundary was a 1 ½ mile radius from the center of the identified communities. In 2011, the High Density WUI boundary for the western communities of Sid Walter, Warms Springs, Seekseequa, Three Rivers, Rim Park and Crooked River Ranch were extended to a 3-mile radius on the western portion of the concentric circle (see Map 5).

The **Low Density WUI** is defined based on the presence of key infrastructure: 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 either located adjacent to the communities or providing service to the communities and rural residents. While the Low Density WUI was not specifically analyzed according to the Statewide Risk Assessment model, it is incorporated into an overall WUI boundary and will have general treatment and protection recommendations.

4.2 LAND OWNERSHIP AND INFRASTRUCTURE

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 and ingress/egress roads through the CRNG. Specifically, many

sites in Jefferson County are served by the communication sites on Gray Butte, Grizzly Mountain, Juniper Butte and Highway 26 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 response to this concern, the 2010 CWPP Steering Committee designated Grizzly Saddle as a “community”.

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 H₂O, provides drinking water to the greater Madras area and the cities of Culver and Metolius).

The Confederated Tribe of Warm Springs Indian Reservation occupies the Northwest portion of Jefferson County. For the purposes of the Jefferson County CWPP, three communities have been identified based on population, topography, past history, values at risk, Wildland urban interface, highly dense areas of housing, high volumes of traffic and industrial complexes.

4.3 RECREATION, HISTORICAL AND CULTURAL VALUES

Recreation is a main attraction for people currently living in and moving to Central Oregon. This CWPP recognizes the need to plan for and address the wildfire hazard around key recreation areas (Lake Billy Chinook and the Middle Deschutes) and key camping areas (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.

Many people chose to live in central Oregon for the cultural interest and historical values, therefore, there is a strong need to protect key homesteads and Native American and historical sites such as the Grassland Headquarters, McCoin Orchards, Cyrus Orchards, Eddelman’s Plots and the Gray Butte Cemetery.

4.4 THE RISK ASSESSMENT METHODOLOGY

One of the most critical portions of the CWPP process is the Risk Assessment. For the purpose of this report, the 2004 Oregon Department of Forestry model entitled *Identifying and Assessment of Communities at Risk in Oregon* was used to determine risk. The use of this Risk Assessment is compatible with *The Oregon Forestland-Urban Interface Fire Protection Act* of 1997. This assessment provides a tiered collaborative process from county to community including all lands and ownership, and collaboratively considers the complexity of ownership patterns, resources management issues and stakeholder interests.

After reviewing the WUI designation, land ownership, infrastructure, recreation and aesthetic values, the CWPP Steering Committee completed a risk assessment for each communities identified as “at risk”. During this assessment, each community was asked to quantify the following (for specific questions and ratings see Appendix A):

- Risk: what is the likelihood of fire occurring?
 - Based on historic fire occurrence and ignition risk.
- Hazard: what is the resistance to control once a wildfire starts?
 - Based on weather, topography, and natural vegetation.
- Protection capability: What are the risks associated with wildfire protection capabilities, including capacity and resources to undertake fire prevention measures?
 - Based on fire response and community preparedness.
- Values at risk: What are the human and economic values associated with communities or landscapes?
 - Based on life and property.
- Structural vulnerability: What is the likelihood that structures will be destroyed by wildfire?
 - Based on structures, defensible space and fire access.

Table 4.1 summarizes the information for each community; Appendix B Summary of Community Scores provides values for every question included in the Risk Assessment (Appendix A). 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 in 2005 and updated them in 2010; a fourth adjective rating was added.

2005 Assessment

< 130	Low
130-169	Moderate
169 +	High

2010 Assessment

< 130	Low
130-169	Moderate
170-195	High
195 +	Extreme

Table 4.1 Jefferson County CWPP Risk Assessment Summary Sheet

	Risk	Hazard	Protection	Values	Structural	Total	Adjective Rating
Ashwood	10	70	51	22	43	196	Extreme
Crooked River Ranch	30	68	13	35	41	187	High
Dizney	15	59	43	12	40	169	Moderate
Gateway	35	62	51	35	57	240	Extreme
Grandview Communities	30	67	41	25	58	221	Extreme
Grizzly Saddle	25	69	13	35	39	181	High
High Chaparral	30	68	24	50	26	198	Extreme
Juniper Butte	35	62	14	40	41	192	High
Juniper Crest	30	67	4	30	12	143	Moderate
Madras Ranchos/Canyon View	35	69	9	25	57	195	High
N. Madras Heights	35	70	15	25	99	244	Extreme
Round Butte	35	70	17	30	31	183	High
Seekseequa	30	69	27	35	39	200	Extreme
Shamrock Estates	10	65	17	12	30	134	Low
Sid Walter	35	62	22	35	47	201	Extreme
Three Rivers	25	69	13	25	55	187	High
Upper Metolius/Montgomery Shores	30	64	80	30	63	267	Extreme
Warm Springs	40	53	22	50	51	216	Extreme
Young Life	35	64	5	35	23	162	Moderate

Hazard Rating:

>66 = Extreme (refer to Section 5.0 for an explanation)

Adjective Rating:

<130 = Low, 130-169 = Moderate, 170-195 = High, >195 = Extreme

4.4 OVERALL RISK ASSESSMENT VALUES FOR COMMUNITIES

4.4.1 ASHWOOD

Assessment Values

Risk	10
Hazard	70
Protection Capabilities	51
Values Protected	22
Structural Ignitability	43

TOTAL: 196

Adjective Rating: Extreme

Ashwood is a rural community in northeastern Jefferson County. The community is supported largely by ranching activities. There is a grade school, post office, Grange hall, Church and numerous residences in Ashwood. In the surrounding area there are scattered ranches. There is no state highway that accesses Ashwood. There is one single lane paved road that accesses the area from the west and three other access routes; one is graded gravel and the other two are native surfaced, and at times, are not accessible because of muddy conditions.

Wildfires have been documented from both human and natural causes. During the fall hunting season Ashwood is an access point to hunting activities on public land, which can lead to wildfires ignited from abandoned warming fires. Summer lightning is one of the major causes of fire in this community. Large fires in excess of 1000 acres are frequent in this area. The largest was the Ashwood Donnybrook fire in 1996 that reached 112,000 acres.

In 2009 the Board of Forestry approved the formation of the Ash Butte Rangeland Fire Protection Association (RFPA) to protect the rangeland in the vicinity of Ashwood. Currently the RFPA has four fire trucks and numerous slip-on fire tanks.

Priorities for Ashwood:

- Provide survivable space around community and private improvements.
- Provide hazardous fuels reduction in and around the community
- Develop additional water sources for fighting fire.

- Support additional equipment & fire training for the Ash Butte Rangeland Fire Protection Association
- Provide Fire Safety presentations to the Ashwood Elementary School
- Provide ranch fire safety information to area residents

4.4.2 CROOKED RIVER RANCH

Assessment Values

Risk	30
Hazard	68
Protection Capabilities	13
Values Protected	35
Structural Ignitability	41

TOTAL: 187

Adjective Rating: High

Crooked River Ranch is a 12 square mile subdivision located between the Deschutes and Crooked Rivers in southern Jefferson County. The population is approximately 4500 people. The natural vegetation for the entire ranch is juniper trees, sagebrush, and bunchgrass. Crooked River Ranch is an unincorporated community with some light industry. The Fire Department is a government agency that is governed by a rural fire district. The Jefferson County Sheriff's Office provides law enforcement. There is only one road in and out of the ranch. This is a major problem during fire evacuations, both with evacuating the residents and allowing emergency fire equipment from surrounding cities, federal and state agencies to the ranch. This is the reason our priority has changed to providing an alternate emergency evacuation route. There is a plan to extend a road that runs through the center of the ranch to a paved county road. This would involve building approximately one mile of all weather road.

Priorities for Crooked River Ranch:

- A south emergency exit. Crooked River Ranch has only one way in and out. There is the potential to work with the BLM to develop a primitive road that runs south from the ranch to a paved Deschutes county road. This would be the final piece of a plan to provide an evacuation route from the center of the ranch. The first phase of the plan was to change the name of the road. It had two names and a number. The second was to realign a confusing intersection. These 3 phases were finished in 2008. The next phase would be to develop the (approximately) 1 mile to a minimum of an all weather surface, ideally paved.

- Establish “Safe Zones” with the 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.
- Defensible space. Homeowners need to continue to work on widening the space between structures and combustible fuels.
- Fuels reduction. CRR is at risk from fuels on adjacent lands managed by Crooked River National Grassland 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.

Large Fire History

August 7, 1983: 174 acres burned in the Sandridge/Canary area. This fire was started by dumped coals from a backyard barbecue. Mutual aid was provided by all three county fire departments.

July 18, 1984: a 400-acre wildfire started along the Deschutes River (Shad Road area) and came up the canyon. An engine from Redmond was destroyed by the fire. Oregon Conflagration Act invoked to allow state wide fire department mobilization.

July 22, 1985: 200+ acres in Horny Hollow. Oregon Conflagration Act invoked to allow state wide fire department mobilization.

May 31, 2007: 350 acres along Rainbow Road. Started by open burn left unattended. Mutual aid requested from the tri-county fire departments.

4.4.3 DIZNEY

Assessment Values

Risk	15
Hazard	59
Protection Capabilities	43
Values Protected	12
Structural Ignitability	40

Total: 169

Adjective Rating: Moderate

Dizney is 280 acres and is located on the Deschutes River 11 miles north of the Jefferson County Fire District #1's Madras Fire Station, five miles from Warm Springs Fire & Safety. Many of the dwellings are considered high value homes. The Riffle Ranch property has a 2,500 gal above ground tank soon to have a 2 ½" fire department connection installed.

The area has a history of frequent fires. A large amount of human activity makes the community of Dizney vulnerable. In general, strong winds flow up river every day around 2:00pm. This weather pattern has caused fires to jump the river during the windy time of day. Poor radio communication in the deep canyon could be cause for long response times if Warm Springs Fire & Safety is on a simultaneous emergency. Tender and drafting operations from the river can create slow water supply operations. Access and escape routes need to be addressed and monitored.

Priorities for Dizney:

1. Continue to work with home owners to improve access and egress, to provide a second way in and out. A lock combination has been supplied to the Fire District by the community of Dizney. The See's Addition property owners have agreed to leave the gate locked, only once a year in January.
2. Work to improve and identify drafting sights.
3. Fuel mitigation around developments that would be at-risk from fire emanating off State Lands.

4.4.4 GATEWAY

Assessment Values

Risk	35
Hazard	62
Protection Capabilities	51
Values Protected	35
Structural Ignitability	57

Total: 240

Adjective Rating: Extreme

Gateway is located in a valley 11 miles north of Madras with less than one hundred residents. Most of the homes are centrally located in town on $\frac{3}{4}$ -acre lots and are surrounded by farmland, open rangeland, and BLM land. In 2010, the community created a Rangeland Fire Protection Association with the help of Oregon Department of Forestry. The RFPA currently has two fire trucks and are working on acquiring a "Step Van" to use as a mobile command center. They currently have no building in which to store their trucks and equipment. The railroad runs through the middle of town and was the cause of one fire in 2010. In that same year, there were two fires consisting of 40 acres or more. Recreational boaters travel through Gateway to get to Trout Creek Campgrounds. The road to Trout Creek is a very narrow and rutty, making it difficult to evacuate in the event of a wildfire.

Gateway Priorities:

- Acquire more tools, safety equipment, and maintenance parts for their existing trucks and build a structure to house trucks and equipment.
- Continue work by homeowners on widening the space between themselves and combustible fuels and clearing roadside fuels.
- Public Education. Homeowners and the recreating public need to understand that they are living and playing in a fire-prone environment. The public needs clear direction on where to go and what to do when a fire occurs in their vicinity. Homeowners need to be knowledgeable about what building materials should be used and what kind of access is necessary for firefighters to safely protect their homes. They need to check roofing materials in their area. Since the RFPA has existed, the homeowners have been working on these items and will continue. The RFPA has had at least two major fires in the last season and have been discussing the best ways to communicate via call lists and radios. They have also discussed a check in system so that someone

is in charge of knowing who is on a fire and where they are at all times. They are in the process of acquiring a “bread truck” to be at the command center that will be stocked with food, water, & first aid. This is where firefighters will check in and out during a fire.

- Hazard Fuel Reduction on the landscape surrounding the community.

4.4.5 GRANDVIEW COMMUNITIES

Assessment Values

Risk	30
Hazard	67
Protection Capabilities	41
Values Protected	25
Structural Ignitability	58

Total: 221

Adjective Rating: Extreme

The Grandview Community, which is made up of Forest Park, Rim Park and Air Park subdivisions, are remote communities that have been impacted by wildfire in the last decade. These communities are located on the palisade above the Deschutes arm of Lake Billy Chinook. The fuels are grasses, sagebrush and juniper. The community's only paved access is a Jordan Rd. This narrow two lane road, which winds 20 miles through the deep canyons around the lake and across a one lane bridge, makes simultaneous evacuation and incoming resources nearly impossible. Since the community is within a high fire occurrence area, residents should expect additional wildfire events in the future and prepare accordingly. Fuels work has been done to buffer LBC Airport, a designated Evacuation Safety Area for the area.

The priorities for Grandview Communities include:

- **Continue Fuels Reduction:** Private, BLM and Crooked River National Grassland land managers need to continue take action to reduce fuels on their lands when they are adjacent to WUI areas. The fuels need to be reduced so that firefighters can safely fight the fires on the ground. Fuel loads need to be altered and maintained so that no more than a four-foot flame length is produced on the average worst day in fire season.
- **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.
- **Defensible Space.** Homeowners need to continue to work on widening the space between structures and combustible fuels.
- **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. The safety areas need to be identified and public education need to be done to inform residents and tourists of their locations and to market *Plan, Prep & Go*.

4.4.6 GRIZZLY SADDLE

Assessment Values

Risk	25
Hazard	69
Protection Capabilities	13
Values Protected	35
Structural Ignitability	39

Total: 181

Adjective Rating: High

Grizzly Saddle is in the southeast corner of the Crooked River National Grassland where state highway 26 crosses the shoulder of Grizzly Mountain. A fire starting on the west side of the saddle could quickly move uphill thru heavy brush and a closed juniper stand, pushed by the prevailing northwest wind. Features at risk are local and interstate powerlines, homesites, private and public timber, and millions of dollars of electronic communication equipment. Action should be taken to open the juniper stand and reduce the brush with mechanical thinning, mowing, hand piling and burning.

Priorities for Grizzly Saddle include:

- Reduce the spread of Medusahead grass, a noxious weed that is increasing the flammability of the area.
- Defensible Space: Establish and maintain defensible space around structures in compliance with SB 360 standards. (Highest Focus)
- Hazardous Fuels Reduction: Hazardous fuels reduction is needed to modify fuels arrangement and continuity beyond defensible space on private and adjoining federal lands. Projects associated with ladder fuels reduction, stand density thinning and vegetation modification practices are encouraged. (Highest Focus)
- Access & Egress: Hazardous fuels reduction to critical evacuation (access & egress) routes servicing the community is necessary to ensure safe evacuation of the public during wildfire events. Improved access and egress of roads to the community to support fire suppression apparatus is highly encouraged.
- Public Education: Promote firewise/ SB360 public education awareness to community residence through education outreach activities.

4.4.7 HIGH CHAPARRAL

Assessment Values

Risk	30
Hazard	68
Protection Capabilities	24
Values Protected	50
Structural Ignitability	26

Total: 198

Adjective Rating: Extreme

The High Chaparral is located 3.5 miles N.W. of JCFD #1's Culver Fire Station. It is located near the canyon rim and is the gateway to Cove Palisades State Park. The area has one hydrant at the entrance. Farm land and fields are to the east, while the area to the west is mostly comprised of thick 6' to 8' tall sage brush with scattered juniper trees right up to the residence property lines. Houses are on varying sized lots with garages, out buildings and many types and sizes of unprotected boats, water craft, decks and wooden stairways. The area is highly vulnerable to a wind-driven fire coming out of the canyon. If one structure or boat becomes involved, it is likely that multiple structures would be lost. The area has adequate escape routes if they are used early. Evacuation could become problematic when compounded by smoke and fire apparatus attempting to get in at the same time civilians are attempting escape. Under circumstances described above life safety could become a major factor with wind and the close proximity of wildland fuels to this development and the fuels within. Multiple public areas and activities such as campground, parks, boat launches and viewing areas are located a short distance directly below this development. A human activity, caused fire is likely.

Priorities for High Chaparral:

- Provide a defensible space by reducing the fuels on public lands, from the top of the canyon rim to the development.
- Educate residents about early 911 notifications and evacuation of the infirmed and non-ambulatory persons for the first signs of smoke coming from the canyon below them.
- Ingres/Egress issues with SW Peck Road/SW Frazier Drive, and SW Jordan Road/ SW Peck Road/SW Mountain View Drive

4.4.8 JUNIPER BUTTE

Assessment Values

Risk	35
Hazard	62
Protection Capabilities	14
Values Protected	40
Structural Ignitability	41

Total: 192

Adjective Rating: High

Juniper Butte is located about three miles south of Jefferson County Fire District #1's Culver Fire Station. It has an elevation of 3,925' and has about 65 homes on the northwest side of the Butte intermixed with juniper trees. There are five hydrants in a relative small geographical area. An irrigation canal runs around the base of the north and west sides of the Butte with few access points for drafting or crossing access for fire attack. Numerous long steep driveways serving individual homes would place an unusual demand on fire resources. In 2010-11 a massive CWPP fuel treatment project vastly improved escape routes for civilians and access for fire departments. The home survivability for the area has increased many times over because of the fuel treatment. Collaborative effort through the CWPP brought together funds, home owners, private business, contractors, and State, Federal and local fire agencies to dramatically improve the life and property survivability for a fire related event. We hope to repeat this same success in other problematic areas of our County. This project stands as an effective example of a CWPP success.

Priorities for Juniper Butte:

- Maintain the integrity of all treated areas and add other treated areas.
- Evacuation education; different routes to take depending on fire location, entry of fire resource's, water supply operations and unlock gates, etc.
- Access and egress issues with SW Feather Drive/SW Smith Lane (Private)/SW Culver Highway
- Adjacent federal lands need to be treated for fuels reduction

4.4.9 JUNIPER CREST

Assessment Values

Risk	30
Hazard	67
Protection Capabilities	4
Values Protected	30
Structural Ignitability	12

Total: 143

Adjective Rating: Moderate

Juniper Crest is in an urban wildland setting. It is located one mile from JCFD #1's Madras Fire Station. Houses are in a woodland grove type setting. Four hydrants are spaced throughout the development. Access and egress in some areas could cause bottle necking with evacuees and fire apparatus. City, County and State Police could assist with traffic control and evacuation.

Priorities for Juniper Crest:

- Fuel treatment around homes, driveways, and access and egress routes.
- Fire safety and education message for residences.

4.4.10 MADRAS RANCHOS/CANYON VIEW

Assessment Values

Risk	35
Hazard	69
Protection Capabilities	9
Values Protected	25
Structural Ignitability	57

Total: 195

Adjective Rating: High

Madras Ranchos / Canyon View are about two miles south of the JCFD #1's Madras Fire Station. Most of the newer expensive homes are located on the top or near the higher portions of hills. Flash fuels nearly surround this development at lower levels. The homes are in a flash fuel setting intermixed with many juniper trees, narrow roads and long driveways, with 16 hydrants throughout. With typical summer conditions fire could quickly run up the hills and move through this area endangering multiple homes simultaneously, in a very short period of time. Residences would have very short notice of an approaching fire. Evacuation and fire suppression in the Madras Ranchos area would be problematic due to bottle necking. With 911 calls notifying the location of infirmed civilians within the threatened area, it would be critical for police assistance with evacuation. Under dry, windy conditions an advanced house fire could extend within the area or a rapidly approaching wildland fire could have the potential to overwhelm JCFD #1 forces, before outside assistance could arrive.

Priorities for Madras Ranchos / Canyon View:

- Fuel treatment of untreated properties and maintenance of property already treated from past local efforts.
- Educate property owners on the difference a treated property with a defensible space can make, and how to make those changes.
- Treat access and egress routes.
- Establish a local pre-fire plan using structure engines on hydrants with master streams to pre-treat and stop the forward progress of the fire, after JCFD #1 has exhausted its supply of wildland Engines.

4.4.11 NORTH MADRAS HEIGHTS

Assessment Values

Risk	35
Hazard	70
Protection Capabilities	15
Values Protected	25
Structural Ignitability	99

Total: 244

Adjective Rating: Extreme

North Madras Heights is located about three miles north of JCFD #1's Madras Fire station. The homes are located on the side slopes and tops of the hills. Many of the homes are in flashy fuels and juniper trees with sporadic fuel treatments. Long driveways and dead end roads are prevalent. Four, widely spaced hydrants provide water supply for the area. Typical summer conditions could prove to be problematic due to a fire moving uphill from a structure fire on the lower slope, or from a wildland fire pushing upslope through the trees on a windy day. Access and egress could be cumbersome with evacuees and fire forces operating in the area at the same time. The distance from the Culver Fire Station causes longer response time for additional fire forces. This could prove to be a negative factor for early fire control.

Priorities for North Madras Heights:

- Educate property owners about the difference a treated property with a defensible space can make, and how to make those changes.
- Fuel treatment of untreated properties and maintenance of property already treated from past efforts.
- Treat access and egress routes.
- Educate first responders to call for mutual assistance early, based on smoke conditions.

4.4.12 ROUND BUTTE

Assessment Values

Risk	35
Hazard	70
Protection Capabilities	17
Values Protected	30
Structural Ignitability	31

Total: 183

Adjective Rating: High

Round Butte is located about eight miles from JCFD #1's Culver and Madras Fire Stations. The development rests on the south slope of the 3,272' peak. The water is supplied by a 20,000 gal tank serving four well-spaced hydrants. The development is surrounded by National Grassland. A massive fuel treatment project has been completed on the west side of the development. Below the development, to the east, is a large, thick juniper forest with a history of lightning strikes and popular 4x4 country. Most of the homes are well-spaced and fuel mitigation steps have been taken. In other areas some homes are more vulnerable. Most escape routes and access is good. Bottlenecking should not be a major problem.

When an east wind and typical summer conditions exist, a canopy fire traveling up from the east could not be extinguished by ground crews until the fire travels to lighter fuels. The flying brands and embers raining down as well as the heavy smoke accompanied by low visibility, difficult breathing conditions would keep the entire JCFD, in structure protection mode until the fire passes the development. Other agencies would be assigned to flank the fire. Mutual aid companies would be covering JCFD stations. Civilians would tend to evacuate or shelter in place.

Priorities for Round Butte:

- Continue maintenance of fuel treated areas.
- Increase the buffer zone with fuel treatment to the east.
- Encourage the few homeowners to improve their defensible space.
- Conduct a multi-agency drill on the Round Butte Pre-fire plan.
- Access and egress issues with SW Round Butte Drive/SW Mountain View Drive

4.4.13 SEEKSEEQUA

Assessment Values

Risk	30
Hazard	69
Protection Capabilities	27
Values Protected	35
Structural Ignitability	39

Total: 200

Adjective Rating: Extreme

Seekseequa is on the southeast portion of the reservation as has an area of 3,755 acres with a landscape of sage and Juniper. It is rangeland with steep slopes and draws running towards the Deschutes River and historically fast moving fires. The lightning potential is high. The community is widely dispersed but does have a rural structure fire station. Dispatch time for BIA wildland personnel is 40 minutes.

Priorities for Seekseequa:

- Prevention tactics would be public education
- High visibility patrols during high fire danger
- Signing
- Home evaluations
- Fuel treatments, prescribed burning and mechanical thinning
- Treatments in the grasslands that need to be repeated every three to seven years to maintain effective for fuel reduction benefits

4.4.14 SHAMROCK ESTATES

Assessment Values

Risk	10
Hazard	65
Protection Capabilities	17
Values Protected	12
Structural Ignitability	30

Total: 134

Adjective Rating: Low

Shamrock Estates is located about five miles from the JCFD #1's Culver Fire Station. Water tenders would have to travel less than a mile for water supply. The Estates are surrounded by mostly farm land. Fire coming out of the canyon could create a problem; however, JCFD forces should have the ability to mitigate and protect a fire moving towards Shamrock Estates. Early detection and notifying 911 in this remote area could be a factor. Access could be a negative factor in this area.

Priorities for Shamrock Estates:

- Create better defensible space around homes
- Work with County to properly mark street names due to road closures, correct maps.
- Educate home owners to the needs and peculiarities in the area they reside.
- Access and Egress issues with SW Kent Lane/SW King Lane

4.4.15 SID WALTER

Assessment Values

Risk	35
Hazard	62
Protection Capabilities	22
Values Protected	35
Structural Ignitability	47

Total: 201

Adjective Rating: Extreme

Sid Walter community is a combination of the 2005 Sid Walter and County line units, 2,759 acres of the Sid Walter community is in Jefferson County. This part of the community is strictly range and rural. The area is a growing community as the population moves more toward the urban interface. The homes are widely dispersed and the fuel is juniper, sagebrush and grass with some of the homes in the pine-fringe areas, which are at a greater risk of a high-intensity wildfire. This type of fuel has a history and potential of fast spreading wildfires. The community is crossed by Oregon highway 26 with very high volumes of traffic year around. A structure fire station is in the planning for the area.

Priorities for Sid Walter:

- Public education
- High visibility patrols during high fire danger
- Signing
- Home evaluations
- Fuel treatments, prescribed burning and mechanical thinning. Treatments in the grasslands need to be repeated every three to seven years to maintain effective for fuel reduction benefits.

4.4.16 THREE RIVERS

Assessment Values

Risk	25
Hazard	69
Protection Capabilities	13
Values Protected	25
Structural Ignitability	55

Total: 187

Adjective Rating: High

Three Rivers is a remote community located on the rims and canyons above Lake Billy Chinook. The subdivision has a population of approximately 250 year round residents. Homes range from mobile trailers to multi-million dollar, 6000 sq. ft. homes. A popular year-round destination for hunting, fishing, camping and water sports, this area swells to over 5000 visitors on any given weekend in the summer during fire season. The homes are situated atop canyons with steep slopes with very little setbacks. The fuels are grasses, sagebrush and juniper, and has been impacted by wildfire several times in recent years. The community's only paved access is a Jordan Rd. This narrow 2 lane road, which winds 20 miles through the deep canyons around the lake and across a one lane bridge, makes evacuation with incoming resources nearly impossible. Additional hazardous fuels work is needed throughout the community.

Priorities for Three Rivers:

- 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 USFS, PGE, Crooked River National Grassland, 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. Some fuels reduction work has been done in the Big Canyon area along Lake View Dr., which is the only access route in and out of the subdivision. Failure to implement fuels reduction in these areas could result in loss of life or property. Primary area of fuels reduction include:
 - BLM land below Dynamite Lane
 - USFS land to the southwest of the subdivision.

- USFS, Crooked River National Grasslands and BLM lands along and adjacent to Graham and Jordan Roads. The only main county road leading to the subdivisions.
 - Big Canyon and Little Canyon areas within the subdivision.
- Access. Evacuation and fire apparatus response are hindered by a lack of access routes and driveways that are too narrow to maneuver larger pieces of fire equipment. There are currently no evacuation routes within Three Rivers subdivision. Evacuation routes are needed from the Airfield Lane - Black Butte Lane area, Lake View dr. along Old County Rd 577 and a route leading east out of Big Canyon.
- Defensible Space. Residents need to continue to widen and maintain the space between wildland fuels and adjacent homes & structures. The HOA needs to widen all road right-away areas to buffer the very narrow roads. Additional defensible space need to be done in the day use area.
- Evacuation Safety Areas. The fire district has identified two Evacuation Safety Areas within the subdivision and one outside the subdivision. Fuel reduction needs to take place to provide a buffer zone around these safety areas. The safety areas need to be identified and public education need to be done to inform residents and tourists of their locations and to market *Plan, Prep & Go*.

4.4.17 UPPER METOLIUS/MONTGOMERY SHORES

Assessment Values

Risk	30
Hazard	64
Protection Capabilities	80
Values Protected	30
Structural Ignitability	63

Total: 267

Adjective Rating: Extreme

Upper Metolious / Montgomery Shores is a remote community that has been impacted by wildfire in the last decade. These summer homes and cabins are nestled along the Metolious River on the upper northwest end of Lake Billy Chinook. There is one road in and out. Since the community is within a high fire occurrence area, residents should expect additional wildfire events in the future and prepare accordingly. Most of the homes are 100% surrounded by federal lands.

Priorities for Upper Metolious/Montgomery Shores:

- **Fuels Reduction:** Private, USFS and BIA land managers need to take action to reduce fuels on their lands adjacent to Upper Metolious / Montgomery Shores 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 four foot flame length is produced on the average worst day in fire season.
- **Access and Egress:** Roads need to be improved and/or added to provide 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. Additionally, driveways need to be improved so as to permit the passage of structural protection vehicles.
- **Defensible Space.** Residents need to continue to widen and maintain the space between wildland fuels and adjacent homes & structures.
- **Public Education;** Home owners need to be educated on the Home Ignition zone and the steps to take to reduce hazards within the home ignition zone. i.e.; Removing ground and ladder fuels, remove pine needles from roofs and gutters etc.

4.4.18 WARM SPRINGS

Assessment Values

Risk	40
Hazard	53
Protection Capabilities	22
Values Protected	50
Structural Ignitability	51

Total: 216

Adjective Rating: Extreme

Warm Springs community is located within Range and Rural zone. The Warm Springs community is the largest of all the communities with 14,921 acres. Warm Springs is the most populated area on the reservation with the most housing and commercial infrastructure. It has the highest number of human fire starts and highest risk of potential catastrophic financial loss. This community is protected by a structure fire department. Dispatch time is approximately 10 minutes.

Priorities for Warm Springs:

- Better education for fireworks
- High visibility patrols
- Community meetings with residents
- Defensible space projects around housing and businesses

4.4.19 YOUNG LIFE

Assessment Values

Risk	35
Hazard	64
Protection Capabilities	5
Values Protected	35
Structural Ignitability	23

Total: 162

Adjective Rating: Moderate

The Young Life Ranch sits on 64,000 acres and is intermixed with BLM (35,000 acres) totaling about 100,000 acres combined. Fire on BLM land poses an imminent threat to Young Life's property due to its close proximity. The 1,500 acres of developed land consists of more than 300 structures, one and two stories in height; the largest being 87,000 sq. ft. After the 2009, lightning strike caused 16,600 acre wildfire, a massive fuel treatment project was completed in and around the inhabited portion of the ranch.

Priorities for Young Life:

- Access and Egress issues with Muddy Road (12 miles) to Cold Camp Road; Maze Road (12 miles) to Gosner Road; and County Road (20 miles) – severe terrain, 4x4, heavy fuels to Gosner Road.
- Continue fuel treatment on the access and egress routes; 12 miles of Muddy Rd and 12 miles of Maze Rd.
- Maintain and improve fuel treatment around the 1500 acres of the developed area of the ranch.
- Evacuation plan; is not to evacuate the ranch but instead move civilians to large sprinklered open areas outdoors or large sprinklered noncombustible buildings as the need may arise.
- Young Life Fire Department; continue annual home fire safety inspections.
- Young Life Maintenance Department; continue to assure the proper working order of all sprinklered and monitored buildings.
- Maintain the 17 miles of fire breaks in the wildland setting.
- Continue weekly fire drills and fire equipment checks to maintain a high state of readiness.
- Work with Bureau of Land Management to assure all lightning strikes are responded to, within Y.L. boundaries or those areas that pose an immediate threat to Y.L. and the immediate surrounding areas.

5.0 COUNTY HAZARD REDUCTION PRIORITIES

Every CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure. Each of the aforementioned communities has listed specific measures to reduce the affects of wildland fire, thereby reducing their risk assessment scores. The priorities listed for each community should be pursued to make that community more resilient to wildfires. These priorities are set for a five-year period.

The process for selecting priorities was determined through the following process:

- 1) Overall risks were identified through the ODF Risk Assessment. This assessment considers risk, hazard, protection capabilities, values protected and structural ignitability (Section 4.4). Although the Risk Assessment is comprehensive, the Steering Committee gave special consideration to those communities that ranked over 66 total points in the hazard section (Table 4-1). These communities were considered to be at greater risk from a wildfire from federal lands. The total point value was considered when determining the priority ranking (Table 5-1).
- 2) Adjective ratings were determined based on the Risk Assessment values (Table 4-1).
- 3) Subjective ratings were determined based the aforementioned ratings and by using the personal knowledge of agency members that work with communities and in the field (Table 5-1).

In 2010, the Steering Committee agreed on a subjective list of priorities for the region based on the quantitative data compiled in the overall risk assessment and the adjective ratings. In Appendix A - Risk Assessment Format, Section 2 Hazard was considered one of the main components in determining the subjective overall rating. This is because it takes to consideration the geographic factors of weather, topography, aspect, elevation as well as the natural vegetative fuel hazard. The vegetative fuel hazard is important in Jefferson County because it determines, onto a large degree, the potential threat of wildfire coming from federal lands to an identified community. This does not decrease the importance of the other risk factors.

Table 5-1 lists three categories, priorities #1, #2, and #3 based on all of the collected and analyzed data. Specific actions and identified agency leads will be discussed in Section 7.0 Action Plan.

The overall Jefferson County Priorities are improvement of privately owned defensible space (SB 360), homeowner education, and fire prevention education.

Table 5-1 Jefferson County Hazard Reduction Priorities

#1 Priorities

Community	Objectives
<i>Ashwood</i>	Fuels treatment and development of drafting site and water supplies
<i>Crooked River Ranch**</i>	South emergency exit end of ranch to county paved road
<i>Grandview Communities</i>	Improve access/egress routes, signage, fuels treatment and defensible space
<i>Grizzly Saddle**</i>	Improve defensible space and fuels treatment
<i>High Chaparral**</i>	Improve fuels treatment on the west side and defensible space
<i>North Madras Heights</i>	Improve access/egress routes
<i>Madras Ranchos/ Canyon View</i>	Improve access/egress routes, fuels treatment, and defensible space
<i>Three Rivers**</i>	Fuels reduction within the subdivision on private road right-of-ways and adjacent public lands, and defensible space
<i>Upper Metolius/ Montgomery Shores**</i>	Improve fuels treatments on adjoining private and federal lands, homeowner education, escape routes, and defensible space

#2 Priorities

Community	Objectives
<i>Gateway</i>	EMS equipment and facilities, and defensible space
<i>Juniper Butte**</i>	Improve fuels treatment from adjoining federal lands and defensible space
<i>Round Butte**</i>	Continued maintenance and fuels break to the east-side
<i>Sid Walter**</i>	Fuels treatment on timber lands

#3 Priorities

Community	Objectives
<i>Juniper Crest</i>	Defensible space improvements and public education
<i>Dizney</i>	Improve access/egress routes and fuels treatment
<i>Seeseekqua</i>	Improved defensible space
<i>Shamrock</i>	Improved defensible space
<i>Warm Springs</i>	Education and improved defensible space

**Fire Prevention Education applies to all communities*

***Communities greatly affected by threat from a federal land wildfire based on a "hazard" rating greater than 66 (Table 4-1)*

6.0 RECOMMENDATIONS TO REDUCE STRUCTURAL IGNITABILITY

Every CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the area addressed by the plan. Warm Springs will follow the prevention recommendation measures outlined in the prevention plan approved by the Confederated Tribes and the Bureau of Indian affairs. The CWPP mirrors many of the same objectives.

The Steering Committee agreed that this can be accomplished through the following practices:

1. Installing and maintaining a fire resistant roof, siding and decking;
2. Establishing and maintaining defensible space around structures;
3. Limbing trees to reduce ladder fuels;
4. Using only fire resistant vegetation next to buildings;
5. Practicing aggressive debris management, particularly on roofs, eaves and gutters, under decks, and around structures;
6. Planning for, installing, and maintaining egress/ingress to property for structure protection vehicles;
7. Developing accessory water supply system (when feasible) to support fire suppression; and
8. Working with Jefferson County Community Development Department and local rural fire protection district when planning construction projects.

The Committee agrees that the County should:

1. Develop aggressive fire safety and fire prevention public education programs;

2. Provide pamphlets and other educational materials to property owners applying for building permits; and
3. Adopt regulations that require the landowner to make new structures fire resistant.

7.0 ACTION PLAN

The CWPP action plan is based on a 5-year timeline and was derived from the identified priorities and the risk assessment. Each action (defined below) is stated in the Action Plan Matrix Table 7-1. This table provides information about each community identified in the CWPP, the associated adjective risk rating, the given priority and also defines the lead agency(ies) involved in following through with the action.

Hazardous Fuels Reduction: reduction in hazardous fuels through vegetation manipulation and disposal including biomass utilization.

Community Infrastructure: development of water supply, access/egress improvements, evacuation routes, communication sites and storage facility, and EMS facilities.

Defensible Space: proper management of vegetation surrounding homes or structures to reduce the threat from wildfire.

Fire Readiness: EMS training, apparatus acquisition, communications and fire suppression equipment.

Prevention Education: educating the public on the threat of wildfire and promoting fire safety mitigation practices.

Table 7-1 Action Plan Matrix

<i>Action</i>	<i>Identified Community At-Risk</i>	<i>Adjective Risk Rating</i>	<i>County Priority</i>	<i>Lead Agency(ies)</i>
<i>Hazardous Fuels Reduction</i>	Ashwood	Extreme	1	Ash Butte RFPA
	Grandview	Extreme	1	TRRFD
	Grizzly Saddle	High	1	CRNG, ODF
	High Chaparral	Extreme	1	JCFD, CRNG, State Parks
	Madras Ranchos/Canyon View	High	1	JCFD
	Three Rivers	High	1	TRRFD, BIA, BLM, ODF
	Upper Metolius /Montgomery Shores	Extreme	1	ODF, USFS
	Gateway	Extreme	2	Gateway RFPA
	Juniper Butte	High	2	JCFD, CRNG, ODF
	Sid Walter	Extreme	2	BIA
Dizney	Moderate	3	JCFD, CTWS, DSL	
<i>Community Infrastructure Development</i>	Ashwood	Extreme	1	Ash Butte RFPA
	Crooked River Ranch	High	1	CRRFD
	Grandview Communities	Extreme	1	TRRFD
	North Madras Heights	Extreme	1	JCFD
	Three Rivers	High	1	TRRFD, PGE, USFS
	Upper Metolius /Montgomery Shores	Extreme	1	ODF, USFS, BIA
	Gateway	Extreme	2	Gateway RFPA
	Dizney	Moderate	3	JCFD, CTWS, DSL
	Young Life	Extreme	3	Young Life, BLM
<i>Defensible Space</i>	Grandview Communities	Extreme	1	TRRFD, CRNG, ODF
	Madras Ranchos /Canyon View	High	1	JCFD
	Grizzly Saddle	High	1	ODF
	Three Rivers	High	1	TRRFD, USFS, BLM, ODF, PGE, TRLOA
	Upper Metolius /Montgomery Shores	Extreme	1	BIA, USFS, ODF
	Gateway	Extreme	2	Gateway RFPA

	Juniper Butte	High	2	JCFD, CRNG
	Round Butte	High	2	JCFD, CRNG, PGE
	Seeseekqua	Extreme	3	CTWS, BIA
	Shamrock	Low	3	JCFD, State Parks, CRNG
	Juniper Crest	Moderate	3	JCFD
	Warm Springs	Extreme	3	BIA
Fire Readiness	Ashwood	Extreme	1	Ash Butte RFPA
	Three Rivers	High	1	TRRFD, ODF
	Grandview Communities	Extreme	1	TRRFD, ODF
	Upper Metolius /Montgomery Shores	Extreme	1	USFS, ODF, BIA
	Gateway	Extreme	2	Gateway RFPA
	Dizney	Moderate	3	JCFD, CTWS, DSL
Prevention Education	All Communities	Varies	See Table 5-1	

BIA – Bureau of Indian Affairs

BLM – Bureau of Land Management

CRNG – Crooked River National Grassland

CRRFD – Crooked River Rural Fire Protection District

CTWS – Confederated Tribes of Warm Springs

DSL – Department of State Lands

JCFD – Jefferson County Fire District #1

ODF – Oregon Department of Forestry

PGE – Portland General Electric

TRLOA – Three Rivers Landowner Association

TRRFD – Three Rivers Rural Fire District

USFS – United State Forest Service

In addition to Table 7-1, The CWPP committee encourages the county to look more closely at evacuation routes in areas where the roads are steep and narrow and provide limited access making the road impassable for those evacuating or emergency vehicles getting to the site; or egress routes that are limited to only one or two roads in densely populated areas. Similarly, the Cove Palisades State Park is at higher risk during the summer season due to increased number of people recreating in the area.

8.0 PERFORMANCE MEASURES

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.

Annual Review

An annual review will occur in the fall of every year and will record the progress on the items listed below and provide the information for Table 8-1 Performance Measure Evaluation Matrix. This review will be included in Appendix D or as an Addendum. Each year the Steering Committee will refer to the action plan in this report to verify that steps are being taken to decrease the risk associated with each priority.

Five-Year Review

Every five years the Steering Committee will re-convene to assess this document and determine and set new priorities for the next five-year period.

Recommended performance measures for the Steering Committee are listed below. Each of these measures should be reviewed and reported on annually. The organization responsible for the information or data source is noted below.

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

- Communities and at-risk infrastructure identified and mapped (County).
- Updates completed, documented and incorporated into the CWPP (County).
- Wildland-urban-interface (WUI) identified, evaluated, and mapped (County).
- Fire Atlas compiled (All Jurisdictions) and updated annually (Steering Committee).

Reduce hazardous fuels.

- Lowered risk assessment scores for communities within the county (Fire Departments).
- Reduction in potential flame lengths. In areas where the potential flame lengths exceed four feet, reducing the fuels so that the potential flame lengths are four 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 (Respective Jurisdiction).

- Total number of acres treated through fuel reduction measures. Accomplishment to be reported at the annual CWPP review meeting (Respective Jurisdiction).

Reduce structural ignitability.

- Number of acres/local community areas where defensible space is established around individual homes or clusters of homes (Fire Departments).
- Number of structures lost to wildland fire (Wildland Protection Agencies).
- Firewise education

Coordinate WUI treatment activities on adjoining public and private lands.

- Number or percentage of WUI areas adjacent to federal lands where complementary treatments occurred (Wildland Protection Agencies).
- Number or percentage of WUI treatment areas where public and private mitigation measures were conducted simultaneously or under a unified plan (Wildland Protection Agencies).

Provide for safety of public during wildfire incidents.

- County-wide and local community evacuation processes developed (Jefferson County Sheriff’s Office and Warm Springs Prevention Office).
- Number of fire response or evacuation drill exercises performed (Jefferson County Sheriff’s Office and Warm Springs Prevention Office).
- Number of “safe zones” that have been established within a community (Local Homeowners Groups in coordination with Fire Departments).

Promote community involvement and awareness

- Number of outreach or education events held (Fire Department/Homeowner Group, Warm Springs Prevention Office, and Central Oregon Prevention Co-op).
- Assessment of overall participation in neighborhood fuels treatment initiatives (Fire Departments and/or Homeowners Group).

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.

Table 8-1 Performance Measures Evaluation Matrix

Performance Measure	Responsible Party	Response
Scope of wildfire problem and potential		
1 Have the communities and at-risk infrastructure been identified?	COIC	
2 Have updates completed, documented and incorporated?	COIC	
3 Have WUI's been identified?	Committee	
4 Have WUI's been mapped?	COIC	
5 Was a Fire Atlas compiled and updated annually?	Committee	
Reduce hazardous fuels		
1 Were the risk assessment scores for communities reduced?	Fire Department	
2 Was the flame length potential reduced (measured in acres)?	Jurisdictions	
3 How many acres were treated in total?	Jurisdictions	
Reduce structural ignitability		
1 How many acres of defensible space around home(s) were established?	Fire Department	
2 How many structures were lost to wildland fire(s)?	WPA	
WUI coordination on adjoining public/private lands		
1 How many treatment (or acreage) occurred on adjacent federal lands?	WPA	
2 How many treatment mitigations occurred on federal and private lands under a unified plan?	WPA	
Provide for safety of public during wildfire incidents		
1 Have county-wide and local community evacuation processed been developed?	JCSO & WSPO	
2 What were the numbers of fire responses or evacuation drill exercises performed?	JCSO & WSPO	
3 How many "safe zones" that have been established within a community?	Homeowners and Fire Department	
Promote community involvement and awareness		
1 How many outreach and educational activities were held?	Fire Dept., Homeowners, WSPO, COPC	
2 What is the assessment of the overall participation in neighborhood fuels treatment initiatives?	Homeowners and Fire Department	

WPA-Wildland Protection Agency, JCSO-Jeff. County Sheriff's Office, WSPO-Warm Springs Prevention Office, COPC-Central Oregon Prevention Co-op

APPENDIX A: RISK ASSESSMENT FORMAT

Section 1. RISK: What is the likelihood of fire occurring (naturally occurring or human caused)?

1.A *Historic Fire Occurrence: Fire occurrence - per 1000 acres per 10 years*

	VALUE	POINTS	2005	2010
Low	0.0-0.1	5		
Moderate	0.1-1.1	10		
High	1.1 +	20		

1.B *Ignition Risk: Home density - number homes per 10 acres*

	VALUE	POINTS	2005	2010
Rural	0.0-0.9	0		
Suburban	1.0-5.0	5		
Urban	5.1 +	10		

1.C *Other risk factors that could start fires*

This could include: power lines, above ground distribution lines, power substations, active logging, camping, off-road vehicles use, fireworks, mowing dry grass, woodcutting, equipment usage, target shooting, arson, railroad, highway, county road, public access roads. Schools, businesses, ranch/farm, lightening, or dump.

	VALUE	POINTS	2005	2010
Number of Activities	0 to 11	0		
Number of Activities	12 to 22	5		
Number of Activities	23>	10		

Section 1. RISK: TOTAL POINTS	2005	2010
Total Points: Max = 40, Min = 5	0	0

Section 2. HAZARD: What is the resistance to control once a wildfire starts, including weather, topography and fuels?

2.A *Weather: The entire East side of the Cascade Range get 40 points*

	VALUE	POINTS	2005	2010
High		40	40	40

2.B *Topography: Slope*

	VALUE	POINTS	2005	2010
Slope	0-25%	0		
Slope	26-40%	2		
Slope	>40%	3		

2.C *Aspect: (the direction a slope faces)*

	VALUE	POINTS	2005	2010
Aspect	N, NW, NE	0		
Aspect	W, E	3		
Aspect	S, SW, SE	5		

2.D *Elevation: (in feet)*

		POINTS	2005	2010
Elevation	5001' +	0		
Elevation	3501'-5000'	1		
Elevation	0-3500'	2		

2.E *Natural Vegetative Fuel Hazard (fuel model): Based on vegetation, what is the anticipated fire behavior specifically, what is the anticipated flame length?*

Fuels producing flame lengths of:		POINTS	2005	2010
< 5 feet		5		
5-8 feet		15		
> 8 feet		20		

Section 2. HAZARD: TOTAL POINTS	2005	2010
Total Points: Max = 70, Min = 45	40	40

Section 3. PROTECTION CAPABILITIES: What are the risks associated with wildfire protection capabilities, including capacity and resources to undertake fire prevention measures?

3.A *Structural and/or Wildland fire response*

QUESTION	POINTS	2005	2010
Both structure/wildland response	5		
Wildland response only	15		
No fire response	40		

3.B *Fire Response Times*

QUESTION	POINTS	2005	2010
Organized structural response in < 10 minutes	0		
Structural response in > 10 minutes	8		
Wildland response only in < 20 minutes	15		
No response or a wildland response of > 20 minutes	36		

3.C *Community Preparedness: How well prepared is the community for a large fire?*

QUESTION	POINTS	2005	2010
Organized group, community fire plan, phone tree, etc.	0		
Primarily agency efforts (mailings, fire-free, etc.)	2		
No efforts	4		

Section 3. PROTECTION CAPABILITIES: TOTAL POINTS	2005	2010
Total Points: Max = 80, Min = 5	0	0

Section 4. VALUES PROTECTED: Human and economic values associated with communities or landscapes

4.A *Home density (number of homes per 10 acres)*

	POINTS	2005	2010
0.1 - 0.9	2		
1.0 - 5.0	15		
5.1+	30		

4.B *Community Infrastructure (presence of an identified community infrastructure)*

This includes: power substations & corridors, communication sites and facilities, transportation

major manufacturing, utilities, municipal watersheds, water storage and distribution, fuel storage, schools, churches, community center and stores.

	POINTS	2005	2010
None	0		
One	10		
> One	20		

Section 4. VALUES PROTECTED: TOTAL POINTS	2005	2010
Total Points: Max = 50, Min = 2	0	0

Section 5. STRUCTURAL VULNERABILITY: What is the likelihood that structures will be destroyed by wildfire

5.A *How combustible if the roofing?*
See end of assessment for classification information

	POINTS	2005	2010
Class A	0		
Class B	5		
Class C	5		
Non-rated roof	20		

5.B *How combustible is the siding and decks?*

	POINTS	2005	2010
Fire resistant siding, eaves, and deck	0		
Fire resistant siding but eaves and deck are combustible	5		
Combustible siding and deck	10		

5.C *How far back from a slope is the building set back?*

	POINTS	2005	2010
0 to 30 feet	1		
> 30 feet	5		

5.D *Does the home have adequate defensible space? (space between home and wildland fuels)*

	POINTS	2005	2010
> 100 feet	1		
71 - 100 feet	3		
30 - 70 feet	10		
< 30 feet	25		

5.E *What is the distance between structures?*

	POINTS	2005	2010
> 100 feet	0		
60-100 feet	3		
< 30 feet	5		

5.F *Is there adequate ingress/egress*

	POINTS	2005	2010
TWO or more roads in/out	0		
ONE road in/out	7		

5.G *Is road width adequate to permit fire equipment to get to the home*

	POINTS	2005	2010
> 24 feet wide	0		
20-24 feet wide	2		
< 20 feet wide	4		

5.H *What is the condition of the road?*

	POINTS	2005	2010
Surfaced road with a grade < 5%	0		
Surfaced road with a grade > 5%	1		
Non-surfaced road with a grade of > 5%	1		
Non-surfaced road with a grade > 5%	3		
Other than all -season	4		

5.I *What is the fire service access?*

	POINTS	2005	2010
< 300 feet with turnaround	0		
> 300 feet with turnaround	2		
< 300 feet without turnaround	4		
> 300 feet without turnaround	5		

5.J *Are street signs present?*

	POINTS	2005	2010
Present – 4” and reflective	0		
Absent	5		

Section 5. STRUCTURAL VULNERABILITY: TOTAL POINTS	2005	2010
Total Points: Max = 80, Min = 2		

Summary Chart

Section 1. RISK
Section 2. HAZARD
Section 3. PROTECTION
Section 4. VALUES
Section 5. STRUCTURAL
TOTAL (max. 320, min. 59)

2005	2010
0	0
40	40
0	0
0	0
0	0
40	40

APPENDIX B: SUMMARY OF COMMUNITY SCORES

		Ash	CRR	Diz	Gate	Grand	Griz	HC	J B	J C	MR	NMH	RB	Seeks	Sham	SidW	TR	UM-MS	Warm	Young	
Risk	1A	5	20	5	20	20	10	10	20	20	20	20	20	20	5	20	20	20	20	20	
	1B	0	5	5	5	5	5	10	5	10	10	5	5	5	0	5	5	10	10	5	
	1C	5	5	5	10	5	10	10	10	0	5	10	10	5	5	10	0	0	10	10	
	Total	10	30	15	35	30	25	30	35	30	35	35	35	30	10	35	25	30	40	35	
Hazard	2A	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
	2B	3	3	2	2	0	2	3	2	0	2	3	3	2	3	0	2	2	2	3	
	2C	5	3	0	3	5	5	3	3	5	5	5	5	5	5	5	5	0	5	5	
	2D	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1
	2E	20	20	15	15	20	20	20	15	20	20	20	20	20	15	15	20	20	20	5	15
	Total	70	68	59	62	67	69	68	62	67	69	70	70	69	65	62	69	64	53	64	
Protect	3A	15	5	5	15	5	5	5	8	0	5	5	5	5	5	5	5	40	5	5	
	3B	36	8	36	36	36	8	15	2	0	0	8	8	20	8	15	8	36	15	0	
	3C	0	0	2	0	0	0	4	4	4	4	2	4	2	4	2	0	4	2	0	
	Total	51	13	43	51	41	13	24	14	4	9	15	17	27	17	22	13	80	22	5	
Value	4A	2	15	2	15	15	15	30	30	30	15	15	10	15	2	15	15	30	30	15	
	4B	20	20	12	20	10	20	20	10	0	10	10	20	20	10	20	10	0	20	20	
	Total	22	35	14	35	25	35	50	40	30	25	25	30	35	12	35	25	30	50	35	

	Ash	CRR	Diz	Gate	Grand	Griz	HC	JB	JC	MR	NMH	RB	Seeks	Sham	SidW	TR	UM-MS	Warm	Young	
Structural	5A	0	0	0	5	0	0	5	0	5	5	5	5	5	5	5	5	5	5	0
	5B	10	10	5	10	10	10	7	3	10	10	10	10	10	10	5	5	10	10	
	5C	5	5	1	5	5	5	1	5	0	5	5	3	1	1	5	5	1	1	0
	5D	10	10	10	25	10	10	3	10	3	25	10	3	10	3	10	13	25	25	3
	5E	3	3	3	5	3	0	3	0	3	0	3	2	0	0	3	5	3	5	3
	5F	0	7	7	0	7	7	0	3	0	2	3	0	0	1	0	7	7	0	0
	5G	4	2	4	0	4	2	0	2	0	4	2	0	2	2	2	4	4	2	2
	5H	4	0	1	3	4	3	0	1	1	1	1	1	1	1	5	1	3	1	1
	5I	2	4	4	4	5	2	4	4	2	5	4	2	5	2	2	5	5	2	4
	5J	5	0	5	5	5	0	5	4	0	0	56	5	5	5	5	5	5	0	0
	Total	43	41	40	57	58	39	26	41	12	57	99	31	39	30	47	55	63	51	23

Total	196	187	169	240	221	181	198	192	143	195	244	183	200	134	201	187	267	216	162
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APPENDIX C: GLOSSARY OF TERMS AND ACRONYMS

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

BLM – Bureau of Land Management

Community at Risk – A community that has significant amount of wildland fuels; if left 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, which is comprised of Prineville BLM, Ochoco National Forest, Deschutes National Forest, Crooked River National Grassland.

CRNG – Crooked River National Grassland

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 that contribute to the potential for a wildfire to spread. Also considered is the flame length that a fuel or forested area will produce during the driest portion of the fire season.

ODF – Oregon Department of Forestry

OHV – Off highway vehicle

RFPA – Rangeland Fire Protection Association

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 D: DOCUMENTATION OF ANNUAL REVIEW

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

1. Meeting Notes – Attendance Records;
2. Task Assignments;
3. Due Dates/Timelines; and
4. Reports & Recommendations.

APPENDIX E: 2011 PUBLIC MEETING

JEFFERSON COUNTY COMMUNITY MEETING NOTES

Seven public participants

- I. Introduction and purpose (Katrina Van Dis, COIC)
- II. Introduction to Committee (Jay Olsen, JCFD)
 - a. Mutual Aid: purpose is for agencies to assist with fires and to lessen the impact of fire on life and property; to assist people with egress from potential fires.
 - b. COIC will help assist agencies to receive grants to help communities most at risk
- III. Introduction to CWPP (Ken Lydy, BIA Warm Springs)
 - a. CWPP - Community Wildfire Protection Plan is a collaboration between communities and agencies
 - i. How does the CWPP affect the public?
 1. Agencies work together to protect public and private land from the threat of wildfire.
 - ii. What is a Wildland Urban Interface (WUI)?
 1. If you see the country-side then you live in a WUI area. The people that live, recreate, travel, or anyone that is in the area that could be affected.
 - iii. What do you get if you are in a WUI?
 1. Fuels reduction and increased defensible space. Doesn't stop a landowner from doing more for their space.
- IV. Fire occurrence and threat from federal lands (Bryan Scholz, COFMS)
 - a. How are resources allocated for fire?
 - i. What is going on in the rest of the county has everything to do with what shows up in your area. Resources in our area go through the Central Oregon Interagency Dispatch Center in Prineville. Whichever agency is closest to the fire will go first (BLM, USFS, ODF, etc.). Heavy helicopters work out of Prineville, but they are controlled by a office in Portland. When several large wildfires are burning throughout the country and resources are scarce, national offices in Boise will prioritize where resources are placed. There are a limited number of tankers, fire trucks, and helicopters. (\$10,000/day to have a helicopter to sit in Sisters, \$3000/hour to run). Populated areas will take precedence over

federal land fires not threatening communities. Projects have been identified and worked on because they were identified in the CWPP. This makes it easier to determine how to use our limited funds to the best of our abilities. It is a useful tool.

- b. The Central Oregon Fire Management Service (COFMS) was formed to help collaborate. It also provides firefighters an opportunity to be on more significant fires, which provide experience.
- V. Risk Assessment/SB 360/Firewise (Kevin Benton, ODF)
- a. The application of the risk assessment can be variable in scale to address different areas (urban versus rural).” Should read as “The application of the ODF risk assessment is adaptable to various scales of analysis such as a State, regional or more local county wide scale risk assessment analysis”
 - b. Initial statewide assessment was identified based on density, adjacent landscape and the vegetation. This was then subdivided by the jurisdiction protecting the area.
 - c. Local Level: communities at risk are determined by the CWPP Steering Committee
 - d. Five Risk Components: Risk, Hazard, Protection Capabilities, Values protected and structural vulnerability (definitions – see CWPP)
 - e. Each component is assessed and quantified into a point score. An adjective class rating is assigned to a community to be used as a comparison with other communities (see CWPP for point system).
 - f. How do we use this information? We use this to illustrate specific vulnerabilities to reduce the community’s threat from wildfire. This way we can educate the community. We can discuss how homeowners are at risk from fire. Also, to help develop an action plan to help mitigate fire (fuels reduction projects etc.).
 - g. Firewise: Landowners and homeowners can reduce fuels on their property by increasing defensible space and minimizing the impact on the house (fire proofing).

PUBLIC COMMENTS AND QUESTIONS

1. Is the lake a safe place for the community of Three Rivers? Answer: It is a water source so the sheriff might close it so that helicopters can use it as a dipping source. You would most likely be moved to a safe space.
2. If there is a fire, what initiates a response? Who decides and what are the steps? Answer: It depends on whose protection zone the fire is in. For example, the

community of Three Rivers extends to Fly Creek and down to Sisters. If a fire starts in Three River, the Rural Fire District would be on the initial attack. We would call on COFMS when it overlaps with adjacent lands or if we need additional resources. We call in structural agencies for home protection.

3. What do you get if you are in a WUI? Answer: you can get roads widened; brush taken down; and/or defensible space increased to reduce the wildland threat that comes at your home. Examples are Round Butte, Camp Sherman, and the West side of Sisters

4. Response time on the Eyerly fire was not that fast, why? How do you deal with the fact that the dispatcher didn't report my call in? Answer: I don't know why that happened; that was a very tough situation. The hardest issue for fire protection agencies is to prioritize fires and resources. In Warm Springs we had over 10 fires going at once. There were no air resources because of prioritization. When structures are involved priorities shift to those areas.

5. If a fire leaves my community then what? Answer: Agreements are in place so we can use anyone's resources. Fires will be notified through any agency, including COFMS. ODF has issues getting to places fast because they are generally out of the area.

6. Comment: It makes it hard that there are so many regulations that keep people from fighting fires. For example, retardant dumping cannot be near the rivers (within 300 feet).

7. How do we get funding for these projects? Answer: This money is handed down through the federal government to communities. We use the CWPP to identify what is at most risk in our community and then develop an action plan and respective projects. We then apply for monies for those projects. It is a competitive process.

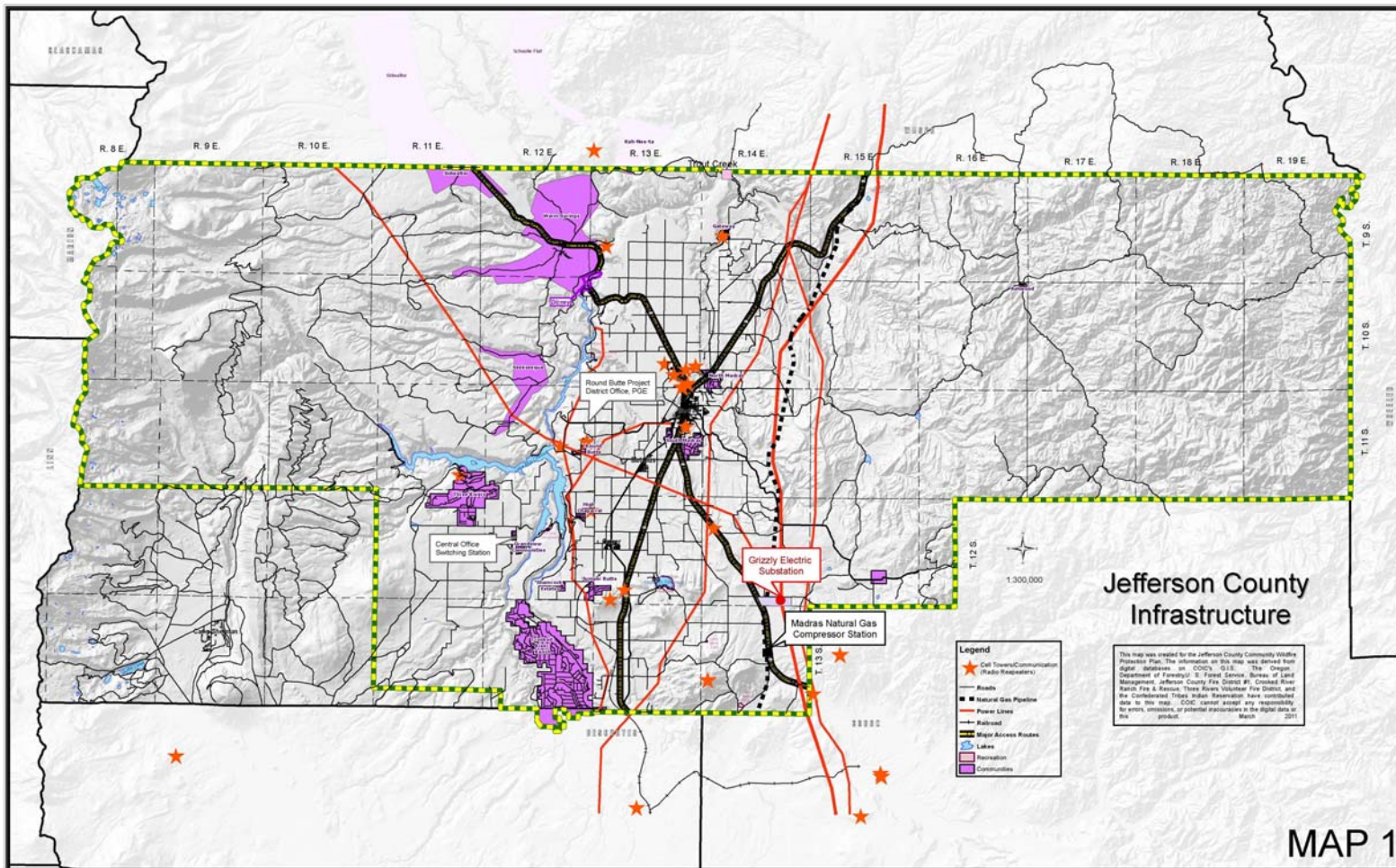
8. What does the grant get you? Answer: The grant will give you money to increase defensible space and get infrastructure needs built.

9. Are there any active or identified projects in Montgomery Shores? Answer: Part of the mitigation at the airport was for that community. When federal monies come, we will then put money into identified projects from the CWPP action plan. Your community has to be in a WUI to be eligible for monies.

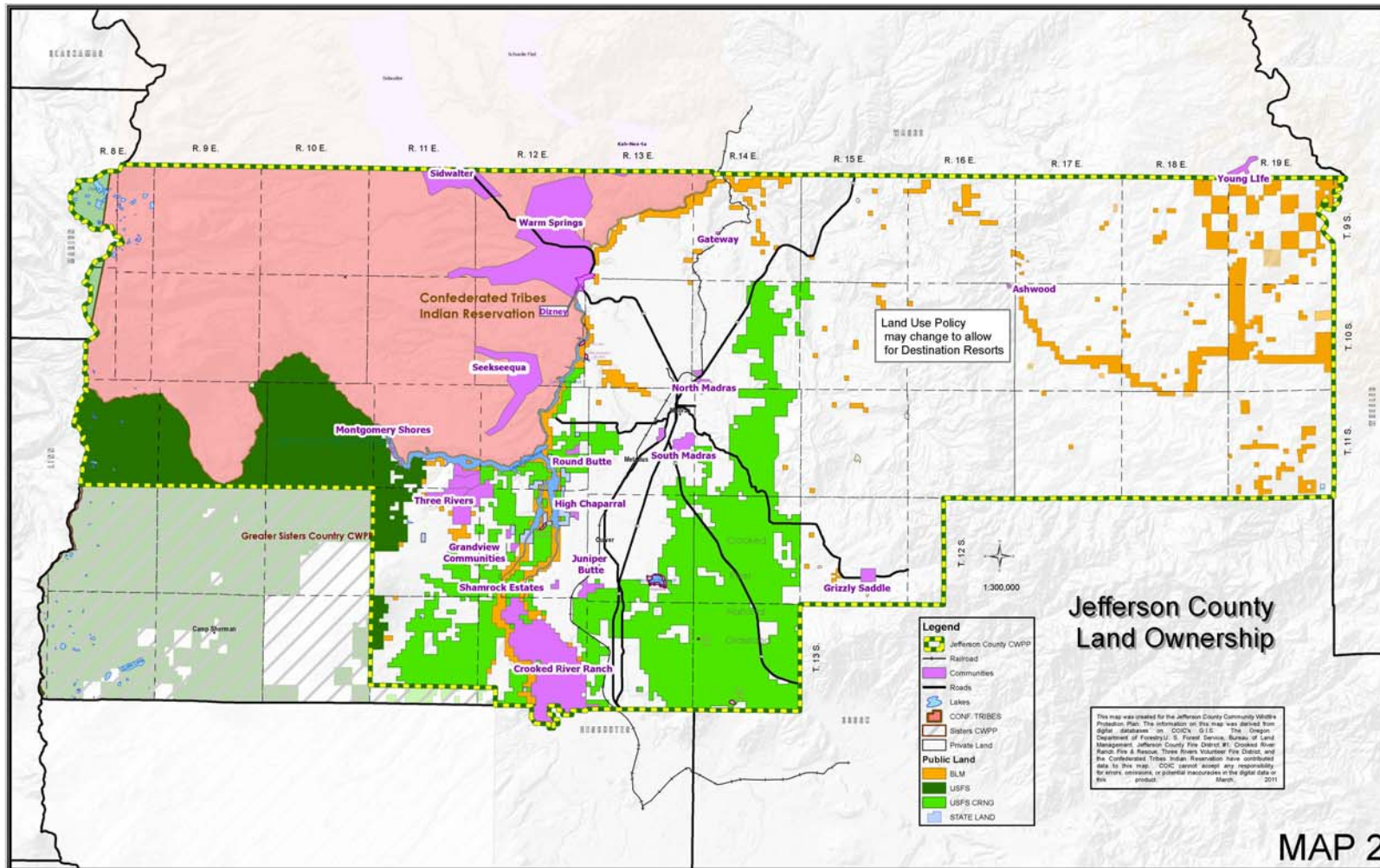
10. Is the money retroactive to things I have already implemented? Answer: No, it has to be things that are going to be implemented.

11. Who can I contact? Answer: ODF is a good place to start.

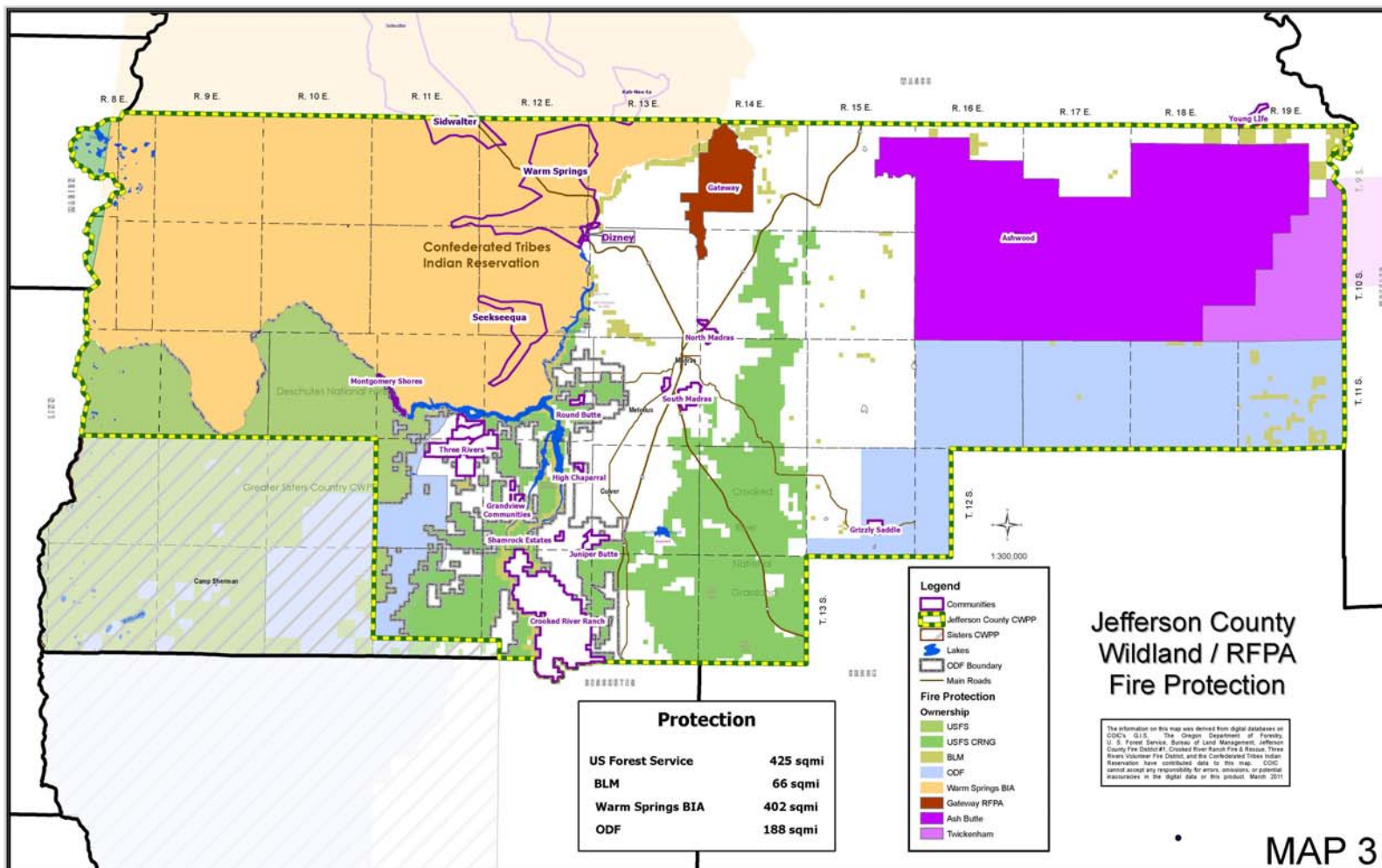
MAP 1: INFRASTRUCTURE



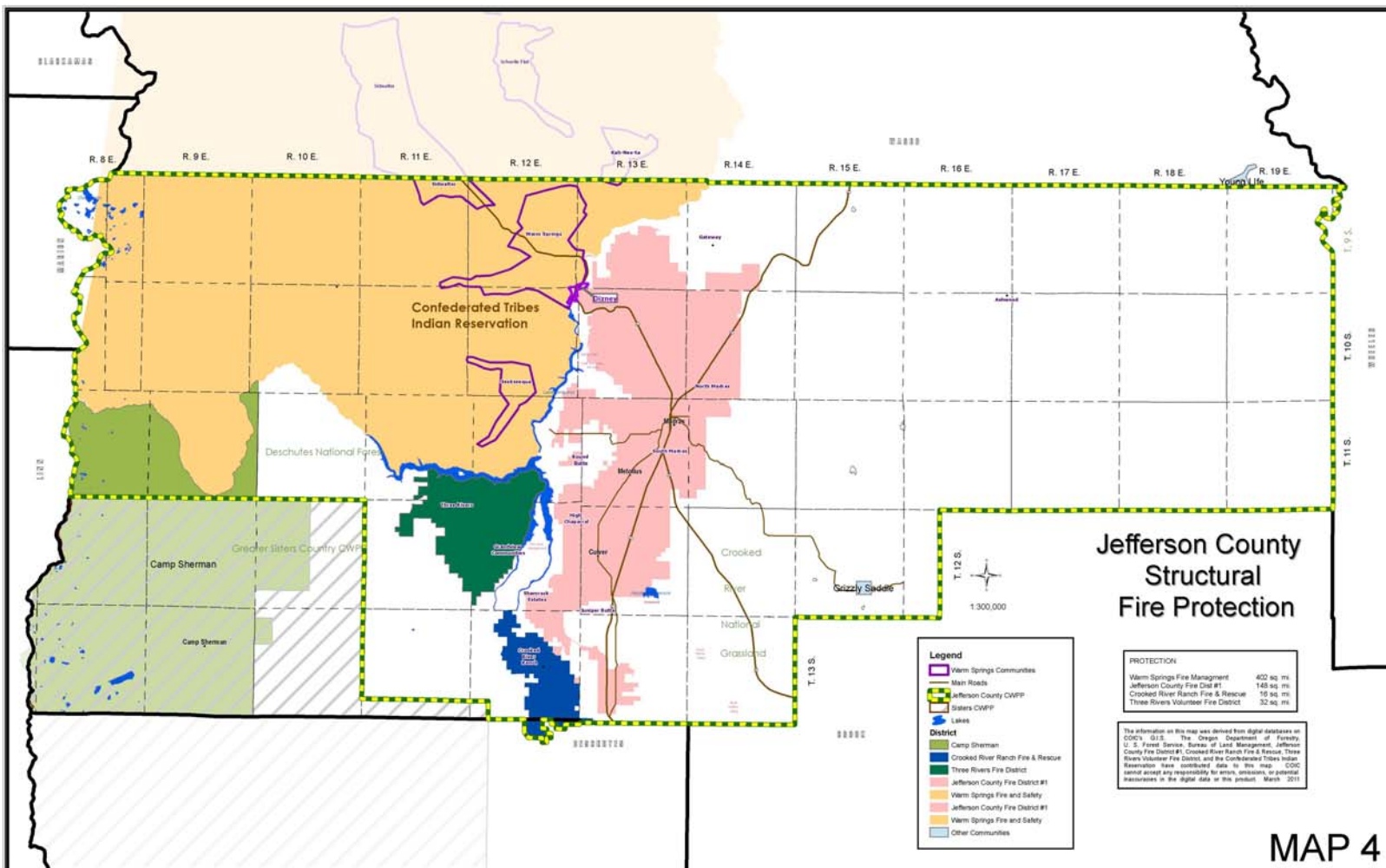
MAP 2: LAND OWNERSHIP



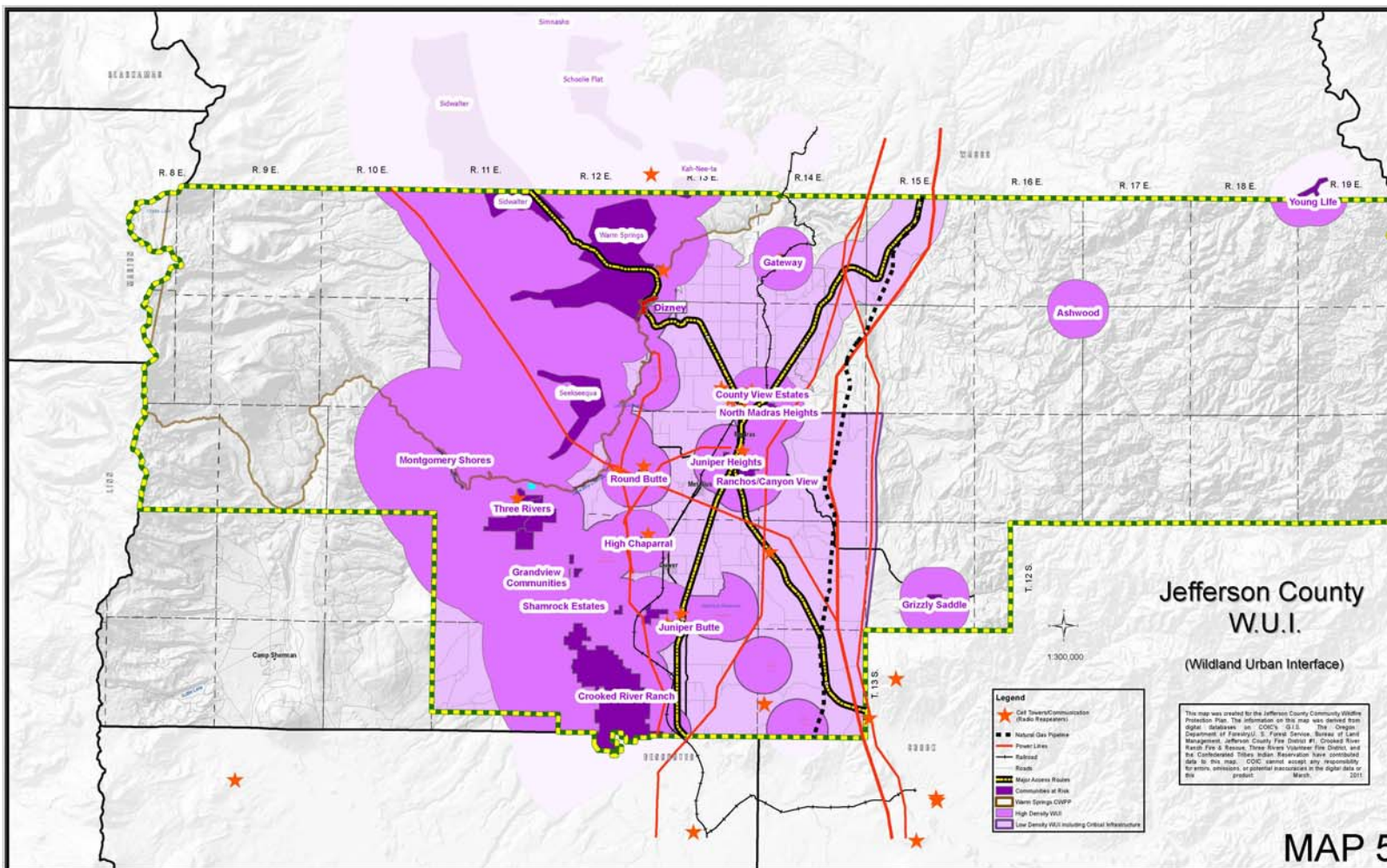
MAP 3: WILDLAND/RFPA FIRE PROTECTION



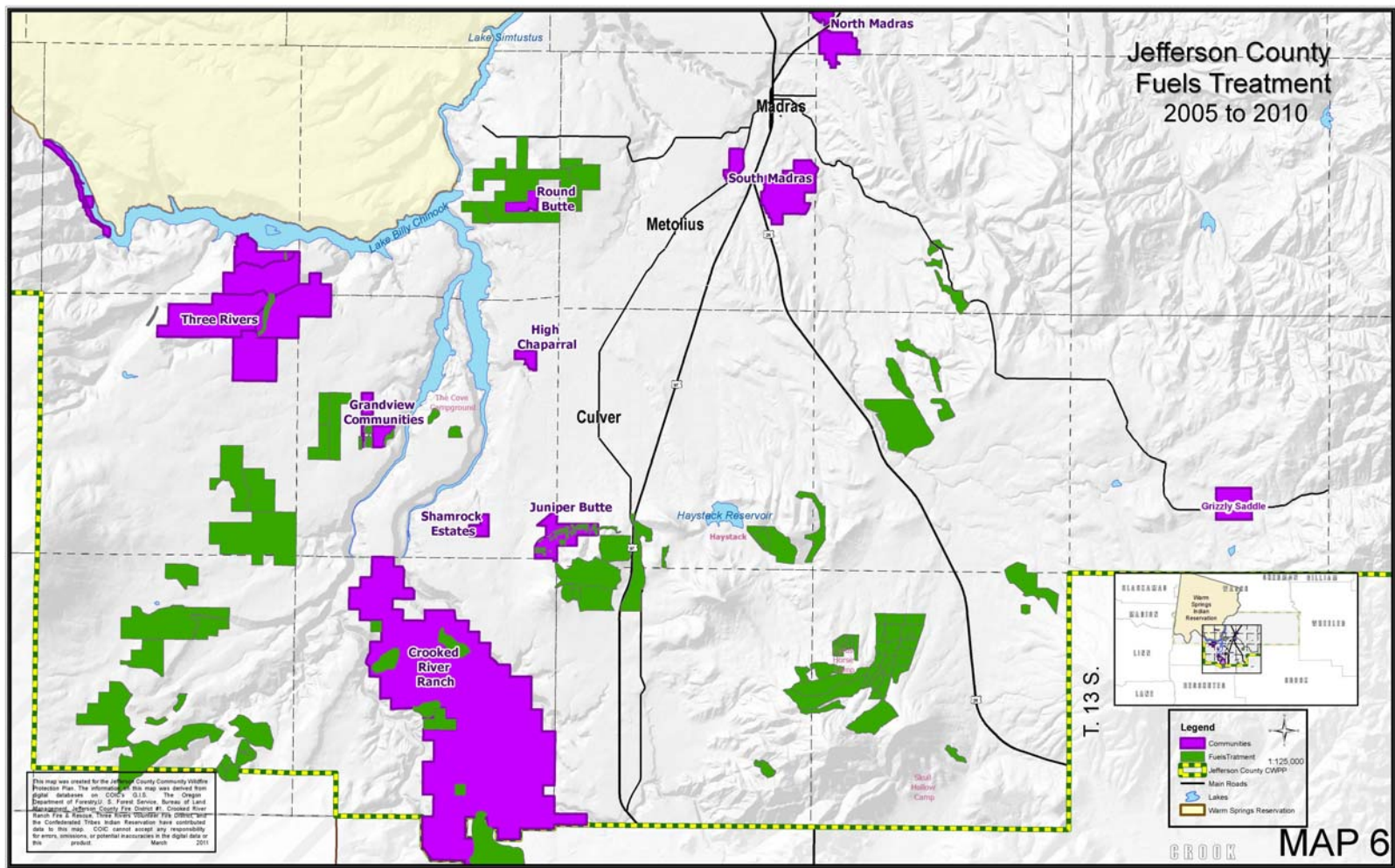
MAP 4: STRUCTURAL FIRE PROTECTION



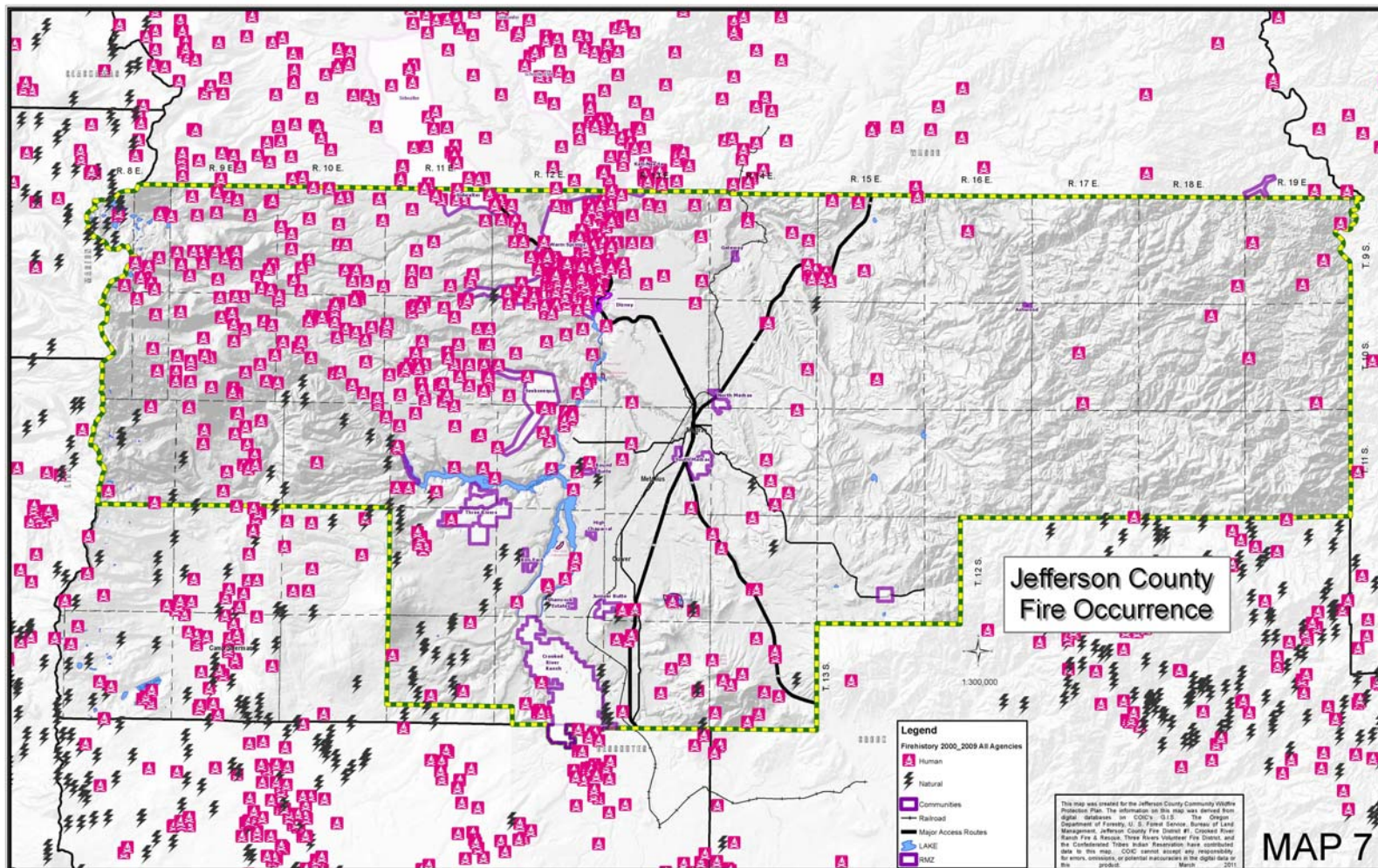
MAP 5: WILDLAND URBAN INTERFACE



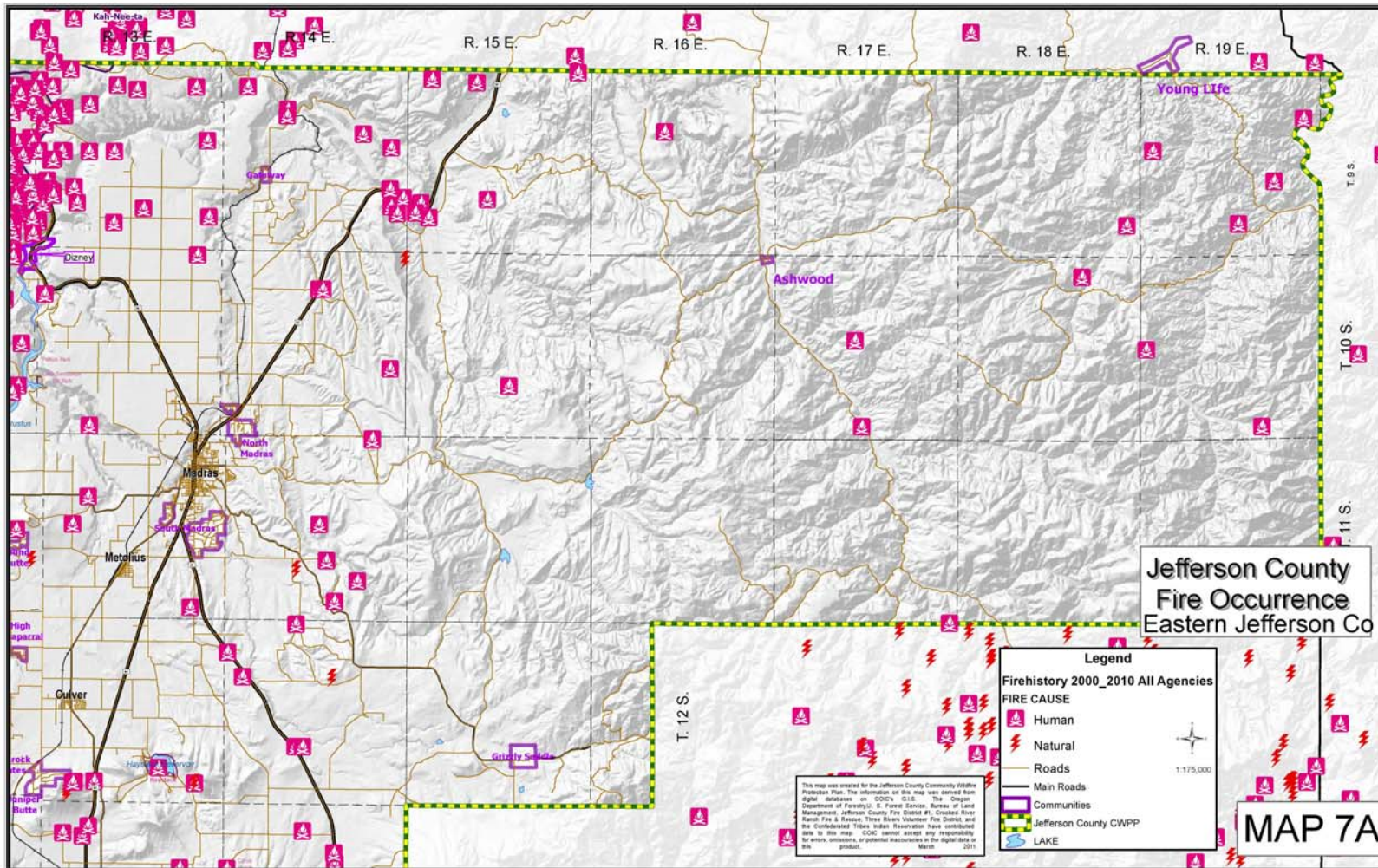
MAP 6: FUELS TREATMENT



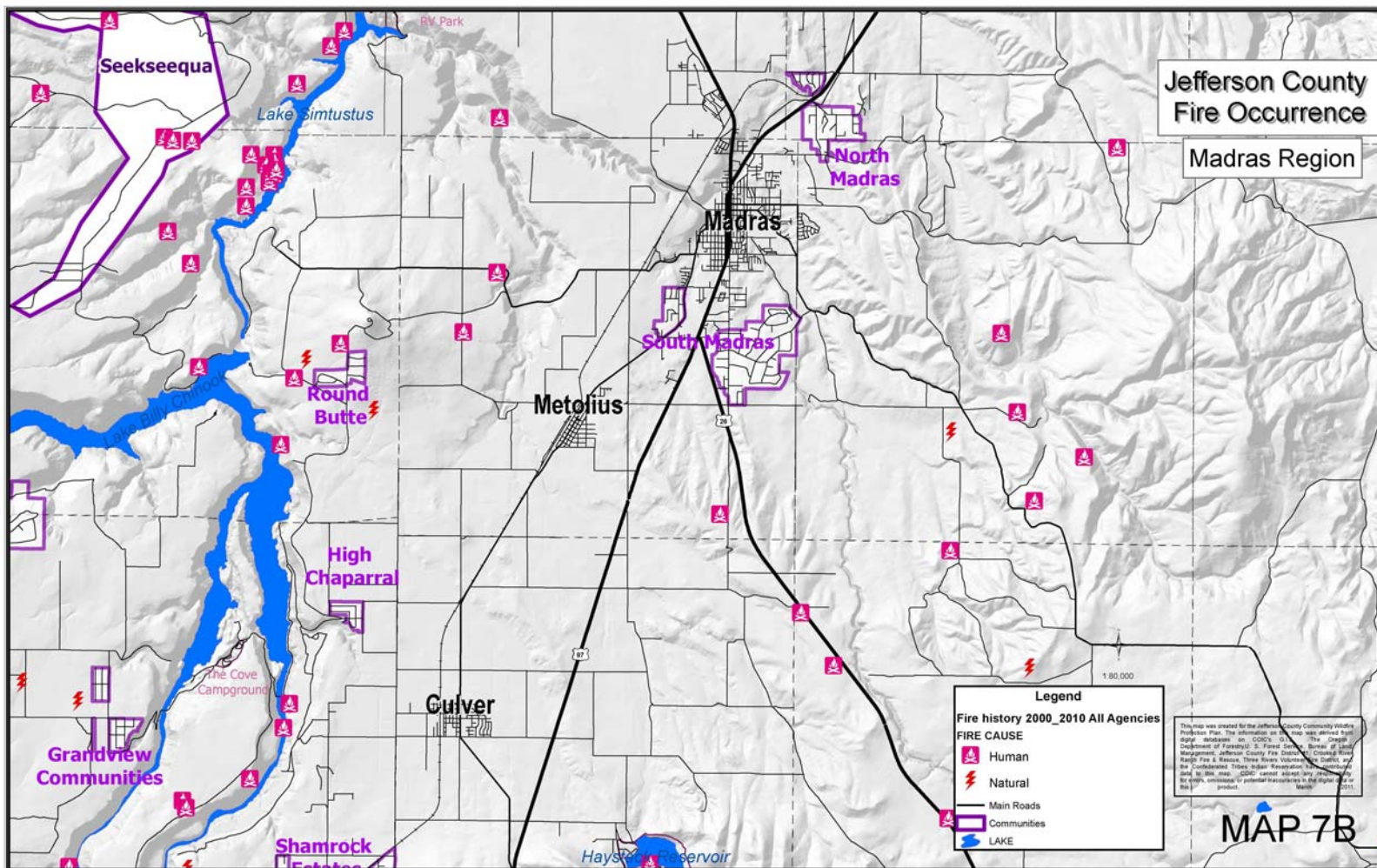
MAP 7: JEFFERSON COUNTY FIRE OCCURRENCE



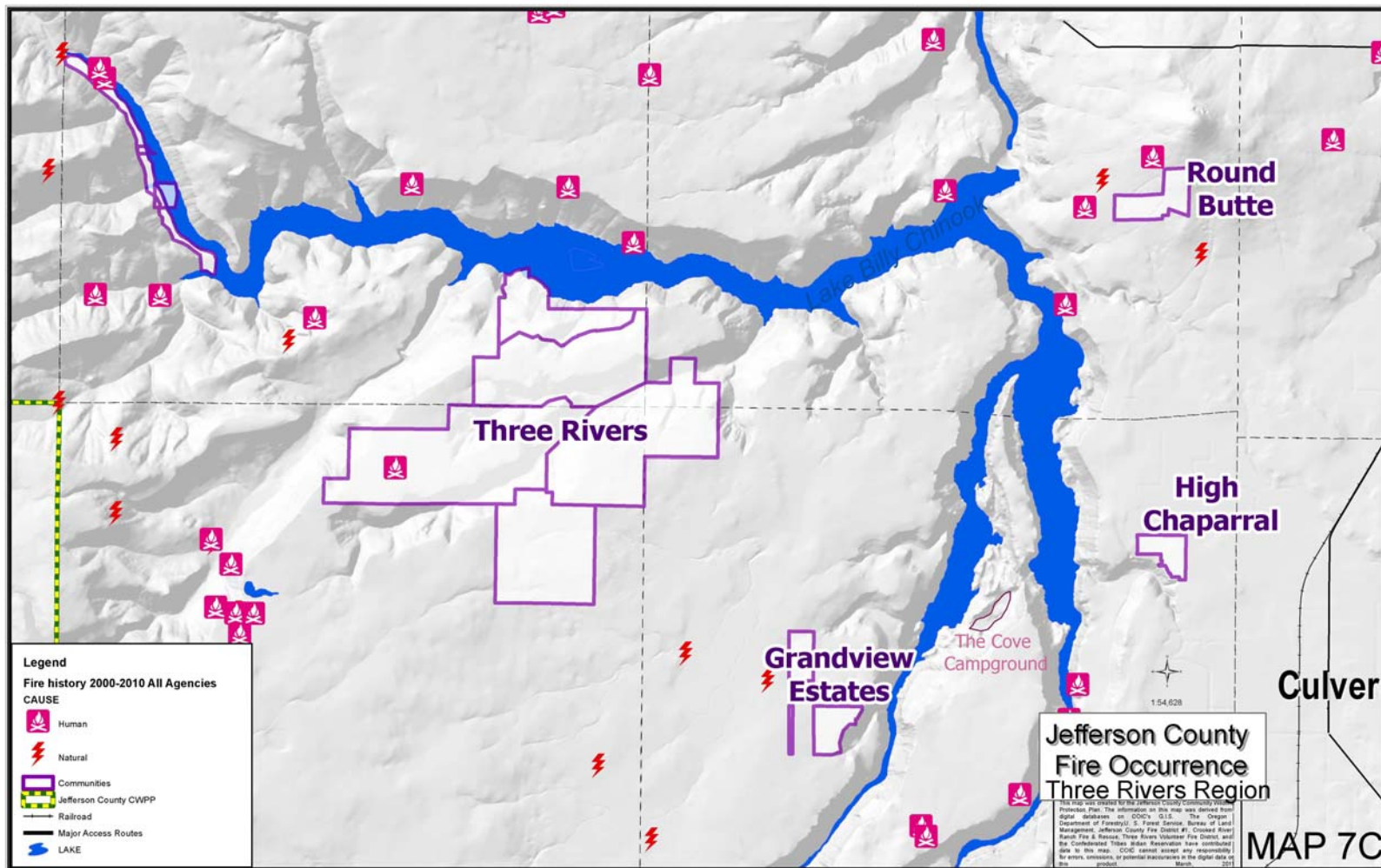
MAP 7A: EASTERN JEFFERSON COUNTY FIRE OCCURRENCE



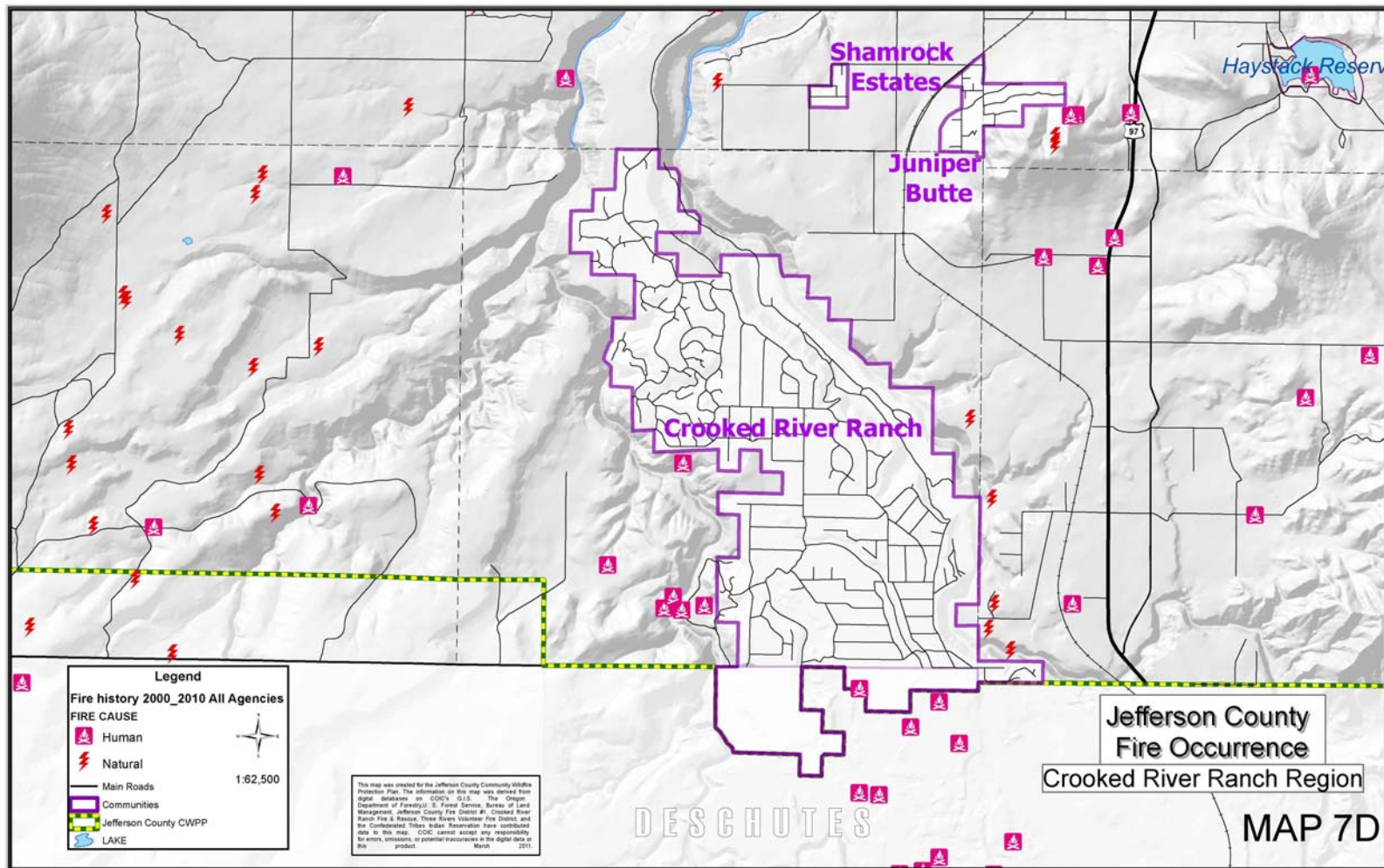
MAP 7B: MADRAS REGION FIRE OCCURRENCE



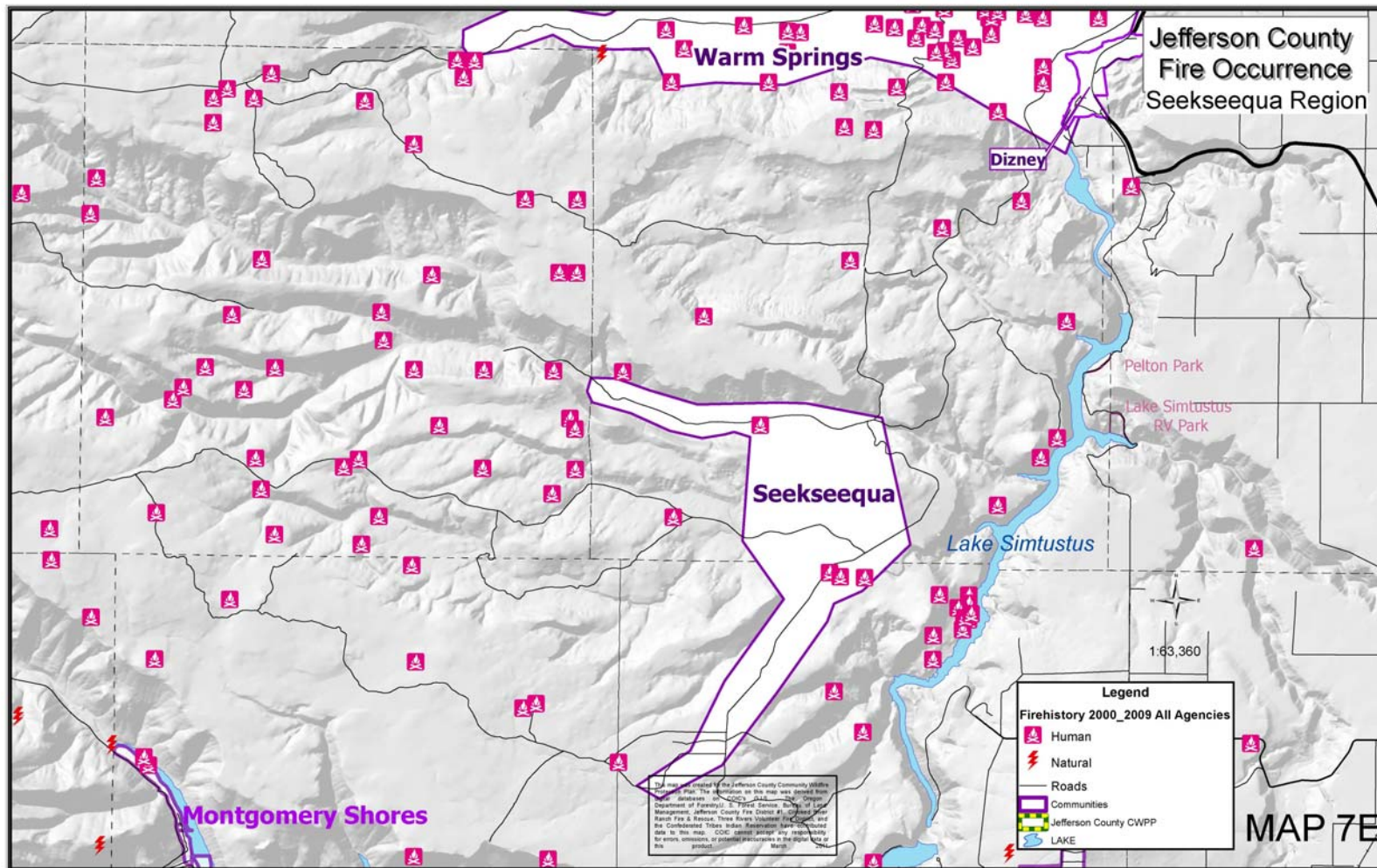
MAP 7C: THREE RIVERS REGION FIRE OCCURRENCE



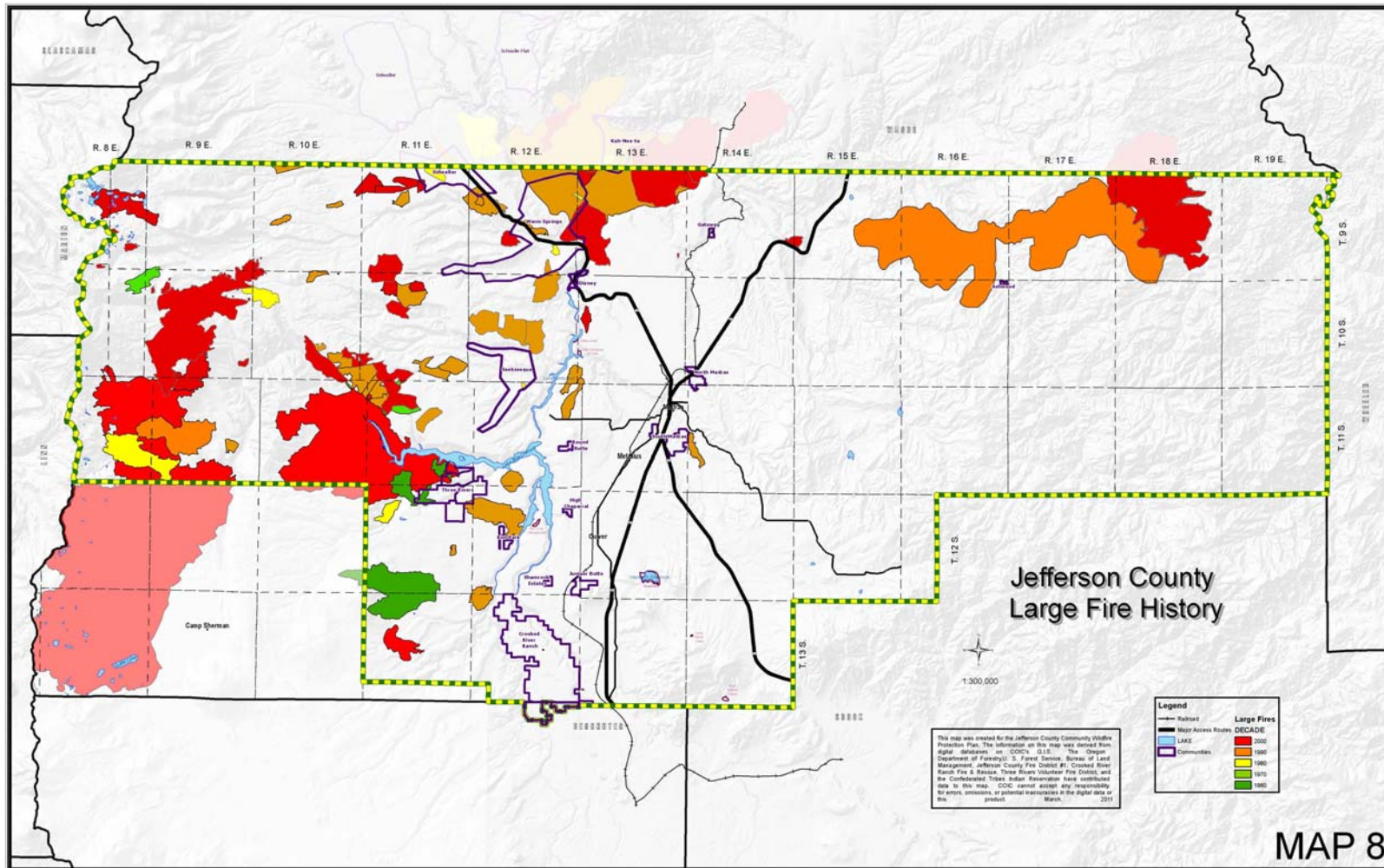
MAP 7D: CROOKED RIVER REGION FIRE OCCURRENCE



MAP 7E: SEEKSEEQUA REGION FIRE OCCURRENCE

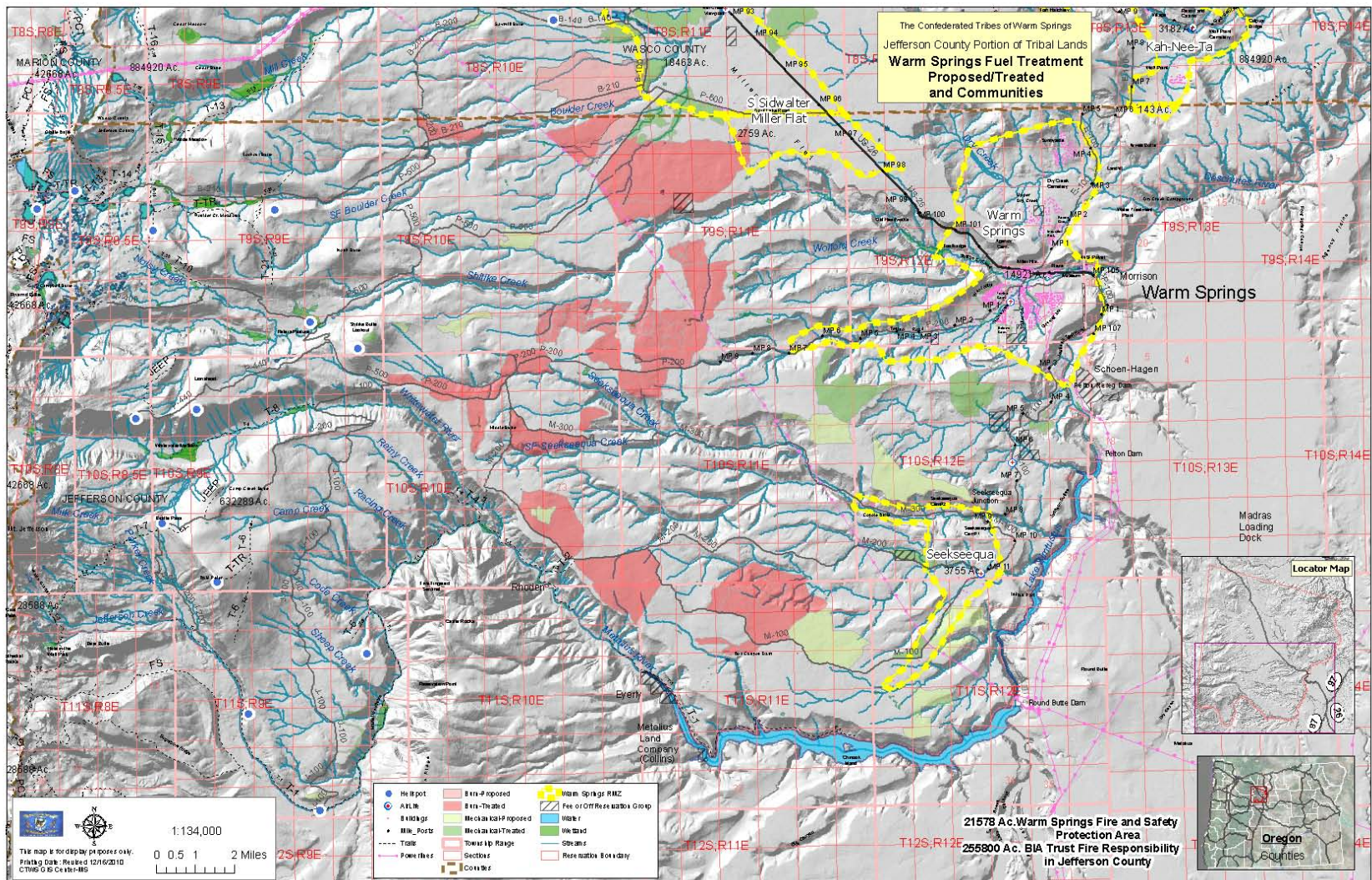


MAP 8: LARGE FIRE HISTORY



MAP 8

MAP 9: WARM SPRINGS FUELS TREATMENT



MAP 10: WARM SPRINGS LARGE FIRE HISTORY

