



Baker County Community Wildfire Protection Plan

A working document that will serve as a resource for providing information that will enhance community safety through hazard and risk reduction in the wildland-urban interface areas of Baker County

**February 15, 2006
(Revised)**

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Promulgation Statement

Pursuant to the Oregon Revised Statutes, Emergency Management is a responsibility of Baker County and its incorporated cities.

The Baker County Board of Commissioners is responsible for the preparation of emergency operations and management plans to cope with major natural disasters, technological and terrorist events, and to exercise control over emergency functions in the event that the disaster transcends routine emergencies.

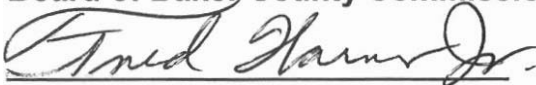
The Baker County Board of Commissioners has adopted an "Emergency Operations Plan" that addresses mitigation, preparedness, response and recovery. The Commissioners have also directed all county offices and departments to utilize the National Incident Management System (NIMS) when conducting emergency operations.

The Board of Commissioners recognizes that Comprehensive Emergency Management is an ongoing process and directs the Baker County Office of Emergency Management and Homeland Security to review, evaluate, modify, and develop amendments to the plan and it's related annexes for approval by the Board of Commissioners.

The Board of Commissioners hereby adopts the Baker County Community Wildfire Protection Plan as a related annex to the "Baker County Emergency Operations Plan".

Dated this 15th day of February 2006

Board of Baker County Commissioners

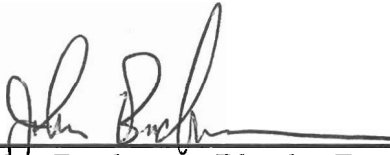


Fred Warner Jr., Chair


Tim L. Kerns, Commissioner
Carl E. Stiff M.D., Commissioner

Signature Page

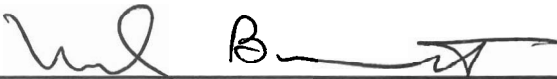
The contents of this plan have been agreed upon by the Baker County Board of Commissioners (see promulgation statement - p. i), along with Oregon Department of Forestry, and the structural firefighting community of Baker County as noted by the signatures below. This plan is a working document that will be revised and updated annually by the originators of the plan. The contents, vision, mission, goals, and objectives of this plan will become a part of any operation plan of the agencies represented below:



**John Buckman, District Forester,
Northeast Oregon District,
Representative for Oregon Department of Forestry**

2/15/06

Date



**Mark Bennett, Director of Baker County Homeland
Security and Emergency Management,
Structural Fire Representative**

2/15/06

Date

I. Introduction

Wildland-Urban Interface Loss in Oregon¹

Wildland fires are a common and widespread natural hazard in Oregon; the state has a long and extensive history of wildfire. Significant portions of Oregon's wildlands and areas adjacent to rural communities are dominated by ecosystems dependent upon fire for their health and survival.

Oregon has more than 41 million acres (more than 64,000 square miles) of forest and rangeland that are susceptible to wildfire. In addition, significant agricultural areas of the Willamette Valley, north central, and northeastern Oregon grow crops, such as wheat, and raise livestock on rangelands that are prone to wildfire damage. Communities are also at risk. According to a listing in the 2001 *Federal Register*, 367 Oregon communities are at risk of damage from wildfire. In Baker County, 224,628 acres of wildland urban interface (WUI) exists across the county. Within those areas, 42 communities would be directly threatened or affected by a large wildfire event.

The majority of wildfires occur between June and October. However, wildfires can occur at other times of the year, when weather and fuel conditions combine to allow ignition and spread. In 2003, fire statistics statewide showed seventy percent of Oregon's wildland fires resulted from human activity. The remaining thirty percent resulted from lightning, occurring most frequently in eastern and southern Oregon. In Baker County, averages for fire cause on private land vary slightly from that of state averages: lightning accounts for 55% of the fire starts and the remaining 45% of the fire starts can be attributed to human influence on the landscape.²

The financial, social, and economic costs of wildfires demonstrate the need to reduce their impact on lives and property, as well as the short and long-term economic and environmental consequences of large-scale fires. Cost savings can be realized through preparedness and risk reduction including a coordinated effort of planning for fire protection and implementing preparedness activities among local, state, and federal agencies, the private sector, and community organizations. Individual property owners have a major role to play in this coordinated effort, especially in WUI areas.

The *wildland-urban interface (WUI)* is the area or zone where structures and other human development meet or intermingle with wildland or vegetative fuels. As more people have moved into wildland urban interface areas, whether for

¹ State of Oregon, *Emergency Management Plan, Natural Hazards Mitigation Plan, Fire Chapter*, December 2003.

² See Appendix A for a spreadsheet of fire data reported by Oregon Department of Forestry in Baker City.

lifestyle or economic reasons, the number of large wildfires affecting homes has escalated dramatically. Many in the population migrating to rural Oregon from urban areas took with them an expectation of structural fire protection similar to high-density areas they were leaving. Rural fire departments combined with local mutual aid agreements, and finally the *Conflagration Act*, attempt to fulfill these expectations, but many homes are still located within areas with little or no structural or wildland fire protection (unprotected lands). Fires that occur within unprotected lands become the responsibility of the Baker County Commissioners; coordination is handled through the Emergency Management office and the Oregon State Fire Marshall's County Fire Chief to determine the appropriate response. To improve fire response in unprotected areas in southern Baker County, two associations exist (Ironsides Fire Protection Association and the Burnt). As a long-term strategy, the CWPP committee encourages efforts that would provide some level of wildland fire protection coverage for all unprotected lands. Specific strategies are listed in the Mitigation Action Plan - Section VI.

Recent fire seasons bring the WUI problem to the forefront and the problem of overabundant dense forest fuels is a focus of public discussion. The forest fuels issue is a major, continuing problem that has received presidential level attention. Work is underway to reduce fuels in WUI areas by way of community involvement and funding from *National Fire Plan (NFP)*³. NFP goals are listed below and the essence of NFP is captured in this document:

- Ensure sufficient firefighting resources for the future;
- Rehabilitate and restore fire-damaged and fire-adaptive ecosystems;
- Reduce fuels (combustible forest materials) in forests and rangelands at risk, especially near communities; and
- Work with local residents to reduce fire risk and improve fire protection.

Community Assistance grants and other grant opportunities are available through NFP to aid in achieving these goals. The goals aim high and represent a huge amount of work, with their ultimate success depending on concerned individuals, agencies, and organizations joining forces. No agency or group working alone can achieve all of the goals laid out by NFP goals.

³ <http://www.fireplan.gov>

Preparing a Community Wildfire Protection Plan⁴

Both the NFP and the "Ten-Year Comprehensive Strategy for Reducing Wildland Fire Risks to Communities and the Environment" place a priority on working collaboratively within communities in the WUI to reduce their risk from large-scale wildfire. The incentive for communities to engage in comprehensive forest planning and prioritization was given new momentum with the enactment of the *Healthy Forests Restoration Act* (HFRA)⁵ in 2003. The language in HFRA provides maximum flexibility for communities to determine the substance and detail of their plans and the procedures they use to develop them. HFRA emphasizes the need for federal

agencies to work collaboratively with communities in developing hazardous fuel reduction projects, and it places priority on treatment areas identified by communities themselves in a community wildfire protection plan. Combine this with the direction by NFP and the Ten-Year Strategy, which also states that collaboration and prioritization of projects by a community is essential, one can see how important preparing a plan like this is. Other constraints on local government, such as FEMA direction to prepare county hazard mitigation plans and possible implementation of the "Oregon Forestland-Urban Interface Act of 1997 (a.k.a., SB 360)⁶, has made it very important that local government also participate in the development and implementation of a community wildfire protection plan.

Local plans can be simple or as complex as the community desires. However, there are a few *minimum requirements* for a CWPP as described in the HFRA.

- 1) **Collaboration:** A CWPP must be collaboratively developed by local and state government representatives, in consultation with federal agencies and other interested parties.
- 2) **Prioritized Fuel Reduction:** A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure.

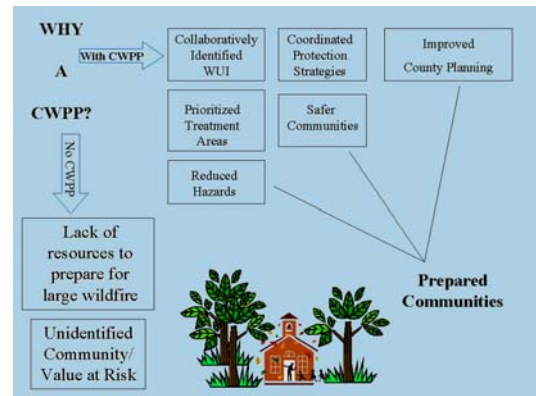


Figure 1: Courtesy of Angie Johnson, Oregon Department of Forestry

⁴ <http://www.communitiescommittee.org/pdfs/cwpphandbook.pdf>

⁵ <http://www.whitehouse.gov/infocus/healthyforests/toc.html>

⁶ <http://www.oregon.gov/ODF/FIRE/SB360/sb360.shtml>

3) Treatment of Structural Ignitability: A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the area addressed by the plan.

HFRA requires that three entities must mutually agree to the final contents of the CWPP:

- The applicable local government (i.e., counties or cities)
- The local fire department(s)
- The state entity responsible for forest management

Overview of this Plan and its Development, and Compliance

The Baker County Community Wildfire Protection Plan is the result of analyses, professional cooperation and collaboration, assessments of wildfire risks and other factors considered with the intent to reduce the potential for wildfires that threaten people, structures, infrastructure, and values in Baker County.

The core planning committee responsible for executing this project included:

Angie Johnson, Oregon Department of Forestry	<i>Facilitator</i>
Mark Bennett, Baker County Homeland Security/Emergency Mngr.	<i>Core Member</i>
Doni Clair, Baker County Soil & Water Conservation District	<i>Core Member</i>
Terri Drever-Gee, Baker County Planning Commission Chair	<i>Core Member</i>
Tim Frost, Baker City Fire Chief	<i>Core Member</i>
Jerry Hampton, Haines Fire District Chief	<i>Core Member</i>
Mike Hartwell, Bureau of Land Management	<i>Core Member</i>
George Keister, Oregon Department of Fish and Wildlife	<i>Core Member</i>
Noel Livingston, United States Forest Service	<i>Core Member</i>
Lane Perry, Consulting Forester/Private Citizen	<i>Core Member</i>
Keith Shollenberger, Oregon Department of Forestry	<i>Core Member</i>
Gary Timm, Baker County Fire Preparedness Coordinator	<i>Core Member</i>

Resource members that served as an advisory group for the core planning committee were:

Jay Carr, Baker County OSU Extension Agent, Retired
Daryl Cockram, Oregon Department of Forestry
Bruce Countryman, United States Forest Service
Brett Brownscombe, Hells Canyon Preservation Council
Dale Ekman, Bureau of Land Management
Mark Jacques, Oregon Department of Forestry
Tom Morcom, Bureau of Land Management

Bob Parker, Baker County OSU Forestry Extension Agent
Dave Quinn, Northeast Oregon Interagency Fire Center
Ken Rockwell, United States Forest Service
Judy Wing, United States Forest Service

This community wildfire protection plan has been prepared in compliance with the National Fire Plan, the 10-year Comprehensive Strategy, the Tri-County Hazard Mitigation Plan (Baker, Union, and Wallowa Counties), Oregon Senate Bill 360 (The Oregon Forestland-Urban Interface Act of 1997), and Healthy Forest Restoration Act (HFRA).

This plan is endorsed by the Baker County Commissioners, Oregon Department of Forestry, and the Baker County structural fire community. These representatives mutually agree to the final contents of the plan. This plan will not be legally binding in any way; its role is to be viewed as a working document that serves as a planning tool for the fire and land managers of Baker County (see the Promulgation Statement on p. i and the Signature Page on p. ii of this plan).

II. Baker County Profile and Fire History

Profile¹

Baker County was established from part of Wasco County and named after Col. Edward D. Baker, an U.S. Senator from Oregon. A Union officer and close friend of President Lincoln, Colonel Baker was the only member of Congress to die in the Civil War. Baker City, which was incorporated in 1874 and which is the seventeenth oldest city in Oregon, became county seat in 1868.

Before 1861, the majority of immigrants only paused in Baker County on their way west, unaware of its vast agricultural and mineral resources. Then the great

gold rush began and Baker County became one of the Northwest's largest gold producers. Farming, ranching, logging, and recreation have become the chief economic basis for an area that displays spectacular scenery, including the world's deepest gorge, Hells Canyon; an outstanding museum with the famous Cavin-



Photo 1: Courtesy of Baker County Website

Walfel rock collection; and, numerous historic buildings with interesting architectural features. The Eagle Cap Wilderness Area, Hells Canyon Recreation Area, Anthony Lakes Ski Resort, along with fishing and hunting, also draw visitors to the area.

The scenic and recreational values that attract visitors to Baker County are the same values that residents of Baker County hope to protect from the risk of wildfire. In addition, Baker County residents are concerned that economic values, such as timber, grazing, agriculture, and mining, also are at risk. The implementation of this plan will help prevent a wildfire from becoming a large-scale event, taking with it the values of Baker County.

¹ *Oregon Blue Book*, 1999-2000.

Fire History on Private Land

The table shown in Appendix A, located at the end of this document, displays fire history on private lands protected by Oregon Department of Forestry (ODF). Private landowners are assessed a fire patrol fee for protection of private lands within parts of Baker County. ODF will respond to and report fires that are on lands they protect, however ODF may respond and report fires that are started on unprotected lands threatening protected lands or that are started within dual-protected lands (land that ODF provides mutual aid with structural fire departments). Rural and volunteer fire department data was not available in a form that could readily be used for statistical or spatial analysis. An attempt will be made to capture rural and volunteer fire department data at a later date.

To summarize the table in Appendix A, fire starts are categorized by human or lightning. Because Baker County experiences lightning storms passing through the county during the summer and fall months, prevention of those fires is difficult. In the last five years, human activity was attributed to over half of all fire starts. The majority of the human-caused fires are a result of recreation activities, debris burning, and equipment use: all of which are preventable.

Fire History on Federal Land

Large fires are prominent in Baker County. Large fires of major significance on federal land during the last forty-two years are listed on the next page. The summary shows fire name, year, and size. Large fires are generally categorized as larger than 10 acres. Costs associated with extinguishing large fires from 1983 to 2003 were estimated to be more than \$1.3 million. A layout showing the location of large fires across the county follows the summary.

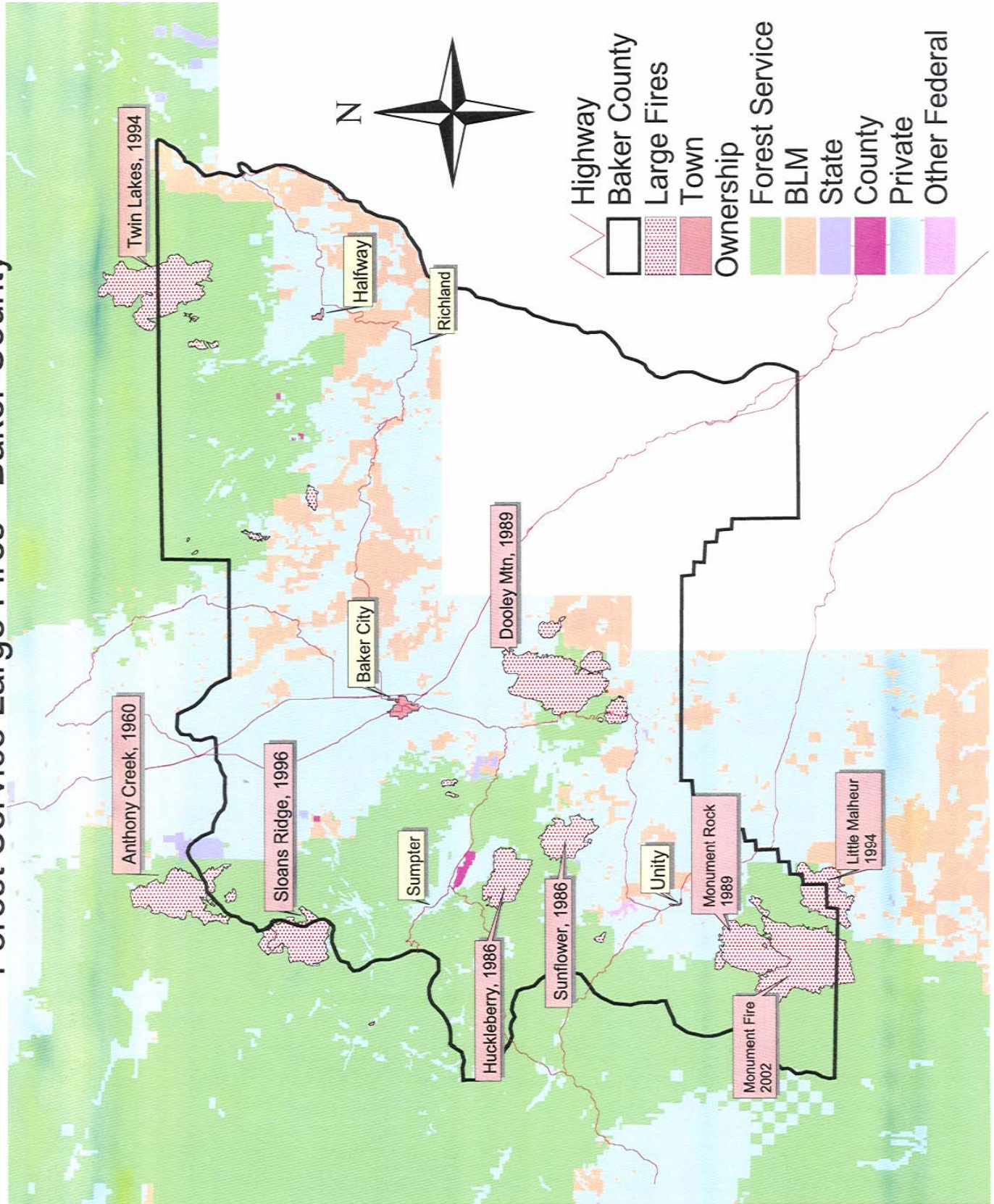
Forest Fire History
 Large Fire Summary²,
 1960 - 2002
 Forest Service, Baker County
 September 2003

"Firename",	"Year",	"Fire-no",	"Acreage"
Anthony creek,	60,	330,	15015
Crawfish,	95,	021,	2712
Balm creek,	91,	051,	907
Elkhorn Ridge,	96,	022,	350
Dark Canyon,	86,	271,	2061
Stevens creek,	79,	182,	1010
Blue Canyon,	86,	279,	176
Twin Lakes,	94,	174,	21957
Twin Lakes,	91,	177,	73
Fairview,	86,	123,	30
Big Creek #2,	63,	202,	59
Pine,	89,	376,	797
Bear,	90,	006,	453
Gilkison,	63,	201,	507
Huckleberry,	86,	274,	8582
Dooley Mtn,	89,	378,	20123
Sunflower,	86,	273,	8015
Eagle,	86,	277,	2211
Cornet,	86,	272,	12603
Monument Rock,	89,	377,	672
Lost Cow,	86,	275,	10318
Little Malheur,	94,	242,	10508
Sloans Ridge,	96,	185,	171
East Pine,	92,	175,	1440
Ebell,	78,	131,	24300
Monument	02		

² Taken from Baker County Emergency Management Resource Directory CD, January 2004.

Figure 1: Courtesy of Baker County Emergency Management Resource Directory CD, January 2004

Forest Service Large Fires - Baker County



III. Mission, Goals, and Objectives

Mission Statement

Baker County is committed to reducing the risk of large fires in wildland-urban interface areas with collaborative planning, restoration of fire-adapted ecosystems, and prevention education that involves citizens, landowners, structural fire agencies, and local, state, and federal agencies of Baker County. This working document will serve as a resource for providing information that will enhance community safety through hazard and risk reduction in the wildland-urban interface.

Goals and Objectives

1. Identify areas at risk and hazards:
 - a. Identify factors that determine wildfire risk.
 - b. Evaluate areas to determine relative risk.

2. Reduce wildfire risk to identified areas:
 - a. Utilize widespread and consistent partnerships with citizens, stakeholders, and agencies.
 - b. Improve emergency response through training and acquisition of equipment.
 - c. Identify and treat hazardous fuels by priority.
 - d. Promote fire prevention and education.
 - e. Encourage communities to participate in development of strategies that will reduce wildfire risk.
 - f. Establish a process for the annual selection of ecosystem restoration projects within their respective jurisdictions.

3. Restore fire-adapted ecosystems:
 - a. Provide training and guidance to enable rapid assessments of burned lands and the implementation of stabilization techniques.
 - b. Communities will encourage land management agencies to promote the control of invasive species and consider establishment of native seed and plant material.

4. Establish a Monitoring and Evaluation process:
 - a. Evaluate annually the community fire plan progress and effectiveness and recommend changes as needed.
 - b. Conduct monitoring of selected collaboratively developed projects and activities to assess progress and effectiveness.

IV. Community Participation and Education

Outreach

Education and community outreach are two areas of primary focus when putting together a community plan. The community can be the best source of information and every attempt was made to gain the involvement of the community. It is important that the community view the plan as valuable to public safety and as a resource to mitigating hazards from the risk of wildfire.

During the development of this plan, ten community meetings were offered across Baker County. This allowed the committee an opportunity to receive input and discuss with citizens the timeline for completion of the plan, risk assessment involved in determining high hazard areas around the county, values that citizens believed to be threatened by the risk of wildfire, and any concerns citizens had related to emergency services and fire agency response. (See Appendix B for summary of the public meetings.) After the hazard assessment was completed and a draft of the plan was ready for review, the committee held several public workshops in March and April (2005). Citizens were encouraged to participate and discuss with the committee any additions or changes to the plan they wanted to see, and review WUI boundaries established with input received from communities during the first round of public meetings. WUI boundaries near the City of Sumpter and the City of Halfway, and the communities of Sparta and Surprise Springs were expanded. All other boundaries met the needs of the communities affected.

In addition to informing the public about this project through newspaper articles and public meetings, the committee decided a website would also be an effective way to communicate with citizens throughout the evolution of the plan. The website will continue to progress along with the development of the plan, offering citizens the opportunity to comment at any time regarding the contents of the plan or the site itself. The site is available at (underscore after "bakerco"):
www.odf.state.or.us/areas/eastern/northeast/bakerco_cwpp.htm.

Fire Prevention and Education

In order to address the subject of wildfire in the wildland-urban interface (WUI) areas of Baker County, homeowners and landowners need to be aware of the hazards that are around their homes and on their property that contribute to the spread of wildfire in those areas. As mentioned in the introduction of this plan, a WUI is an area or zone where structures and other human development meet or intermingle with wildland or vegetative fuels. As more people move into WUI

areas, whether for lifestyle or economic reasons, the risk of large wildfires affecting homes increases. Many of the population migrating to rural Oregon from urban areas bring with them an expectation of structural fire protection similar to high-density areas they are coming from.

Across Baker County, fire protection is provided at three levels: no protection (without any protection for the wildland or structures); single protection by either rural, city, or wildland agencies (structures are protected, but not the land; or visa versa); and dual-protection (both structural and wildland agencies available). Finding an area with dual protection is limited in the rural areas of Baker County. Also, the vastness of the county allows for increased response time which limits the capabilities of fire services.

Structural Vulnerability - a term that relates factors contributing to how and why a home is vulnerable to wildfire. Examples of factors that would make homes vulnerable in a wildfire event are access to the home, ladder fuels and vegetation within the landscape of a home, and whether or not fire protection is available.

Citizens of Baker County can find for themselves, through the various prevention programs mentioned below, information on how to protect themselves and their property from the risk of wildfire. These programs guide citizens through creating survivable (otherwise known as defensible) space around homes by eliminating ladder fuels, planting fire-resistant vegetation, and removing other hazardous material around the homesite. By practicing the techniques offered by the many prevention programs below, citizens can increase the survivability of their home in the event of a wildfire. The best protection is prevention, especially when the trend is to build homes farther from urban services.

Baker County Interagency Fire Prevention Team



Baker County has formed an interagency fire prevention and education team consisting of Baker County Rural Fire Protection Districts and Departments, and federal and state firefighting agencies. The mission of this group is to increase fire education and reduce human-caused fires. Campaigns used include "*I'm Concerned....*" and "*Home Fire Safety - It's up to You.*" The group is involved with the Smokey Bear Team Teaching event that takes place in nine schools in the county during the month of May, along with Wildfire Awareness Month that has been declared in Baker County during the same month. In October of each year, the team participates in National Fire Prevention Month. Examples of community events and parades the team is involved with includes Miner's Jubilee, Student Resource/Registration Fair, St. Elizabeth Health Services, Baker County Fair, Sumpter Flea Markets during Memorial Day, 4th of July, and Labor Day, Leo Adler Day, and other community events across the county.

Living with Fire

This educational brochure is available on-line. The brochure displays step-by-step instructions on how to create a survivable space around your home, depending on the topography and vegetation that surrounds it. Visit www.keepgreen.org/assets/Living.pdf for more information.

The pre-fire activities implemented by this homeowner (in photo to right) included a green and well-maintained landscape, reduction of wildland vegetation around the perimeter of the property, a fire resistant roof, and a good access road with a turnaround area. The charred surroundings of the home show that these pre-fire activities effectively protected it when wildfire hit.



Photo courtesy of California Department of Forestry and Fire Protection

I'm Concerned....

Northeast Oregon District of ODF is currently using the “I’m Concerned...” campaign for its fire prevention program. “I’m Concerned...” offers quick tips for burning debris safely, seasonal clean up tips for your property, building and extinguishing a campfire safely, burn barrel safety, and home fire safety. ODF publishes “I’m Concerned...” ads in the local newspapers and on the website as time of year dictates. You can visit www.odf.state.or.us/areas/eastern/northeast/default.asp anytime to get a copy of burn barrel safety and home fire safety tips.



Firewise

Firewise promotes fire-wise practices by, 1) educating the public of the dangers of a wildfire in the area; 2) encouraging residents to take responsibility for reducing the risk of a wildfire and to create survivable space around their residence; and, 3) increasing awareness of the natural role of low-intensity fires and the benefits of prescribed burning or occasionally managing natural wildland fires to achieve ecological benefits, known as wildland fire use (WFU) while maintaining firefighter and public safety (visit www.firewise.org for more information).

A term that is emphasized in this prevention program is structural ignitability, which has to do with the flammability of building materials of the home, deck, and outbuildings attached to the home. See definition in the block to the right.

Structural Ignitability - a term that relates cause of a home igniting during a wildfire with building materials. Cause could be attributed to the building materials used for the home or the amount of combustible materials around the home.

Fire-Resistant Plants for Oregon Home Landscapes

When landscaping around a home, most homeowners are concerned with aesthetics. When homeowners are advised to remove flammable vegetation, they are worried that the aesthetics of their landscape will be compromised. Flammable plant material in the landscape of a home will increase the fire risk, especially if irrigation is not done on a regular basis. Homeowners can find information about fire-resistant plant materials that aid in improving chances of a home surviving a wildfire. The plantings listed provide aesthetically pleasing color, texture, flowers, and foliage to the landscape. Visit www.extension.oregonstate.edu/emergency/FireResPlants.pdf.

Cost-Share Grant Programs through National Fire Plan

ODF provides homeowners within the WUI areas of Baker County a free homesite inspection. After the inspection, technical advice is shared with the homeowner as to what can be done to lessen the structural ignitability rating for the home. The removal of vegetation and amount to be removed varies depending on what amount of survivable space should be created to protect the home. There is an investment into this type of project for the homeowner, mainly time and effort; however, as stated before, the best protection is prevention.

In addition, there is a separate program for the larger landowner that has land within a WUI area of Baker County, and even more ideally, adjacent to Federal land. This program offers cost-share incentives for pre-commercial thinning, slash removal, brush removal, and/or ladder fuel removal. Contact ODF in Baker City at (541) 523-5831 to find out more about these programs.

V. Wildfire Hazard Assessment¹

To identify and prioritize wildland-urban interface areas-at-risk in Baker County, an assessment of factors was conducted; these factors contribute to large wildfire events that can leave communities vulnerable. This section will outline the process used and highlight unfamiliar definitions. Two key guidance documents were referenced in the assessment of communities-at-risk and the wildland-urban interface areas, as instructed by the State of Oregon:

1. *Field Guidance: Identifying and Prioritizing Communities at Risk*. National Association of State Foresters. June 27, 2003. (Available at: <http://www.stateforesters.org/reports>)
2. *Concept for Identifying and Assessment of Communities at Risk in Oregon*. Draft prepared by Jim Wolf, Fire Behavior Analyst, Oregon Department of Forestry. July 19, 2004.

In Baker County, a **community-at-risk (CAR)** is defined as a group of homes or other structures with basic infrastructure (such as shared transportation routes) and services within or near federal land. A **wildland-urban interface (WUI)** area surrounds a community-at-risk, including that community's infrastructure or water source, and may extend 1 ½ miles or more beyond that community. This boundary depends on topography and geographic features that could influence wildfire, the location of an effective firebreak, or Condition Class 3 lands.

It is important to understand the meaning of risk and hazard in relation to wildfire. **Risk** is the chance or probability of occurrence of fire. **Hazard** is the exposure to risk; in a wildfire situation, those hazards can be related to either the natural or the man-made environment. Natural hazards include fuel type and amount of fuels, topography, and weather. Man-made hazards include the limited availability of water, limited access to structures, limited green space around structures, and the ignitability of structures. The capability of firefighting resources will be compromised by the severity of both natural and man-made hazards.

Fire Occurrence/Risk of Ignition

The rate of fire occurrence is an important component of the assessment. Historical fire records were used for the last ten years (1994-2003). Fire history data was compiled from the Wallowa-Whitman National Forest, Oregon

¹ Section authored by Angie Johnson, ODF, and edited by Trish Wallace, Fire Planner, Wallowa-Whitman NF Supervisor's Office.

Department of Forestry (Baker City Sub-Unit), and the Bureau of Land Management.²

The fire occurrence rate (FOR) per 1,000 acres was used to yield a statistical analysis of the project area. The number of fires for the past ten years for Baker County was determined in order to calculate fire occurrence per 1,000 acres. This resulted in an overall county fire occurrence rate. Using this factor, a fire occurrence rate for each identified WUI was calculated. The majority of the WUI areas had a fire occurrence rate higher than the overall fire occurrence rate for the county.

Fuels / Vegetation

Data used to create a fuels inventory in GIS was derived from Landsat imagery provided by Oregon Department of Forestry for private lands and the Wallowa-Whitman National Forest GIS library (GIS and Oracle tables derived from stand exams and photo interpretation). For Baker County, the increased risk of a large wildfire event is caused by the buildup of forest fuels and changes in vegetation composition over time. Unnaturally dense stands competing for limited water and nutrients and are at increased risk of wildfire, and from insect and disease epidemics. Discussion regarding fuels as a hazard can be found in Appendix C - Natural Hazards.

Topographic Hazard

Slope and aspect affect both the intensity and rate of spread of a wildfire. The topography factor was derived from the Digital Elevation Model for Baker County. For further discussion regarding the scores assigned to slope and aspect, refer to Appendix C - Natural Hazards.

Total Wildfire Hazard

The total topographic hazard rating and the total fuels hazard rating were combined using *Spatial Analyst* (an ESRI product) to determine overall natural hazard of Baker County. Several layouts (maps) were created to display the total wildfire hazard in relation to the WUI boundaries across the county. The county was divided into four quadrants: NE Baker County, NW Baker County, SE Baker County, and SW Baker County. The maps are located in Appendix G of this plan and were used to verify the prioritization set by the steering committee.

² Data from city, rural and volunteer fire departments was not available in GIS format at the time of this plan.

Weather Hazard

In Baker County, weather patterns can produce summer lightning storms that start many fires. These multiple starts can put a strain on the wildland firefighting resources spread across the county. With the drying of fuels over time and the low relative humidity factored in, the probability for large fires can significantly increase during these lightning events. The number of days per season that forest fuels are capable of producing a significant fire event is also important to consider. Oregon Department of Forestry has already determined that eastern Oregon is at the highest hazard rating for weather. This value was assigned through an analysis of daily wildfire danger rating indices in each regulated use area of the state. This assigned value is constant across Baker County. However, since weather patterns vary due to the mountainous landscape of the county, the high hazard value was offset with annual rainfall levels as part of the scoring process. This helped to prioritize the WUI areas as well as reflect a more realistic assessment of weather hazard. To review the scores assigned to weather hazard, refer to Appendix C - Natural Hazards.

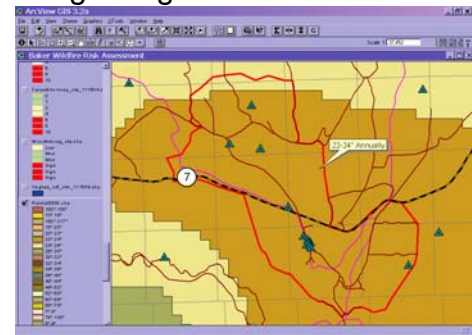


Figure 1: Whitney WUI - 22-24" Annual Rainfall

Overall Fire Protection Capability Hazards (Structural Vulnerability)

For Baker County, it was decided that the local fire departments would determine for themselves what they thought their overall capability was for responding to a fire in their district. Each district was provided with a written questionnaire and asked to submit information about roads that prohibit access to structures, water shortages, unprotected locations, structure density, building materials, defensible space around structures, and any other issue(s) that might pose a hazard to their fire district. That information is being digitized using GIS and will be available in the next update of the plan. The written results of the questionnaire are provided in "Section VIII - Emergency Management" of this plan. From the results of the questionnaire, consideration was given to the level of training/equipment/preparedness of firefighting resources, type of access to homes, density of structures across the county, availability of water sources,

structural vulnerability and ignitability, and response time to outermost region of the fire district responding to the questionnaire. The scores were assigned as listed below:

<u>Capability Rating</u>	<u>Value</u>
Low Hazard	1
Moderate Hazard	3
High Hazard	5

Values at-Risk



Photo 1: Multi-Resource Forests, Angie Johnson, ODF.

This category was based on public input collected during community meetings and comments received from informational questionnaires (see Appendix B). Steering committee members provided input based on their local experience and knowledge of the areas as well.

Values at-risk are an important, but highly subjective component of the assessment. Values lost because of a devastating wildfire would affect residents in different ways. Baker County's economy could be impacted if a large wildfire eliminated valuable timber or rangeland for grazing, which might affect local businesses and industry. A fire could destroy recreational areas that draw tourists to the area: tourism has become a large component of the county's economy. Social values-at-risk include home and property, animals, and cultural and historical sites. Reduced visibility can be an environmental concern and can reduce the scenic views, considered one of the great assets of rural Oregon. Comments from property owners identified the loss of scenic beauty and natural landscape as being of a high value. Numerous families maintain their primary residential property within the identified WUI areas across the county. Loss of human life and loss of homes could be overwhelming for families, destroying the fabric of the close-knit, small-town atmosphere residents of Baker County cherish about their communities.

Ecologically, general wildlife habitat and diversity, as well as threatened and endangered species of fish, wildlife, and plant life could be wiped out or severely harmed in the long-term depending on the intensity of the wildfire. Water quality could be impacted if a moderate to high intensity wildfire burned through watersheds, affecting the health of fish and wildlife as well as domestic water supplies for residents. Baker County has good air quality compared with larger urban areas west of the Cascades; the smaller population and fewer large industrial emission sources generally mean fewer pollutants entering the air. However, pollutants from large scale or numerous smaller wildfires can affect residents already suffering from health concerns. The Forest Service works with Oregon DEQ to ensure particulate matter from smoke from prescribed forest burns is at healthy levels through weather monitoring. Ideally, the Forest Service strives to keep smoke from entering into populated areas at all.

Using the Hazard Assessment to Score WUI Areas

The Steering Committee identified communities-at-risk across the forested landscape using several factors. As previously defined, this could mean a group of homes or structures with basic infrastructure and services within or near federal land. The next step was to designate WUI boundaries that would incorporate those communities-at-risk as appropriate by using assessment information (previously described more fully). The hazard assessment information was used to develop a scoring matrix that would provide results that could be used for prioritizing the WUI areas within Baker County (see Table 2). The weighting of each element of the matrix was based on input received from the community, members of the steering committee, and information derived from the statewide assessment and scoring, and was not scientifically proven in any way. A statistician was not involved in the process, as this was meant to be community-driven, with input captured in its raw form by the community and the committee involved with its development. The list of priorities helped the committee build an inventory of projects and action items that could be implemented to protect the WUI areas from large wildfire. A more complete explanation of each category is found in Appendix E. An aggregate score of 22 points was established as the overall high score.

Table 1. Scoring Matrix Factors Used for Ranking Baker County Communities At-Risk

Rating Factors for Communities-at-Risk	Point Breakdown
Likelihood of Fire Occurring (historical fire starts data from ODF and USFS; based on occurrence rate per 1,000 acres)	1 pt – low occurrence 2 pts – moderate occurrence 3 pts – high occurrence
Topographic Hazard (slope only)	1 pt – 0% - 25% 3 pts – 25% - 40% 5 pts – more than 40%
Total Fuel Hazard (surface and crown fuels combined)	1 pt – low hazard 3 pts – moderate hazard 5 pts – high hazard
Overall Fire Protection Capability (equipment, training, preparedness, access to homes, structure density, etc.)	1 pt – low capability 3 pts – moderate capability 5 pts – high capability
Weather Factor (high lightning hazard potential and low precipitation)	1 pt – low (~0-12" annually) 2 pts – moderate (~13-24" annually) 3 pts – high (~ 25+" annually)
Values at Risk (taken from surveys and public input; major infrastructure, municipal water source, utility lines/pipelines, etc.)	1 pt – present 0 pts – not present
Total Points Possible = 22	

While the risk of fire occurrence and topographic hazard would be hard to change in order to manipulate the scoring of a community, the total fuel hazard could be affected through fuels treatment projects and fire prevention campaigns.

The overall fire protection capacity takes into account the capability of firefighting resources to respond and suppress a wildfire in the wildland-urban interface. It combines the type of fire protection training and equipment with structural vulnerability factors such as access to structures, ingress/egress, amount of defensible space, building materials used in structures, and available water sources. Local knowledge of firefighting agencies, structural and wildland, was utilized.

As a means to reflect the unique weather patterns found in Baker County, the steering committee used annual rainfall to offset the high hazard rating assigned during the statewide assessment by Oregon Department of Forestry in Salem. This category has a high point value of three. (Note: The layer used to determine annual rainfall came from the Oregon Department of Forestry GIS library).

Even though values at-risk is a subjective category, input provided by the public and members of the planning committee was considered during the assessment process and when scoring the WUI for values protected. Citizens of Baker County identified several common themes that were of high value to them, including their homes, the rural environment and scenic beauty in which they live, wildlife, timber, grazing, and various recreational opportunities. Municipal watersheds and major utility transmission lines and corridors were added since those values are part of the legislation that was put forth under the Healthy Forest Restoration Act (HFRA). The score assigned was a value of one if values at-risk were noted in a particular WUI or zero for "no values at-risk present".

VI. Mitigation Action Plan

Prioritization of WUI Areas in Baker County

The WUI boundaries were drawn to capture the overall limitations of each fire protection district, fuel hazard, CAR's, and values-at-risk. Logical anchor points on the landscape were used to designate WUI boundaries, including natural fuel breaks, ridgelines, roads, and 6th field watershed boundaries (identified using the GIS layer available in the Oregon Department of Forestry GIS library), and local knowledge received from fire managers and fire chiefs. Other sections discuss additional public involvement in this planning process.

Twenty-one WUI's were identified for Baker County as areas of concern. Based on the total points scored, each WUI was ranked as High or Moderate Priority for the potential for projects and reducing the risk of wildfire hazards. In Appendix F of this plan, a comprehensive list of Communities At-Risk is provided and each community is ranked as High, Moderate, or Low Priority. Projects and action items for each WUI were developed based on the score a WUI received in a particular category of the overall scoring matrix.

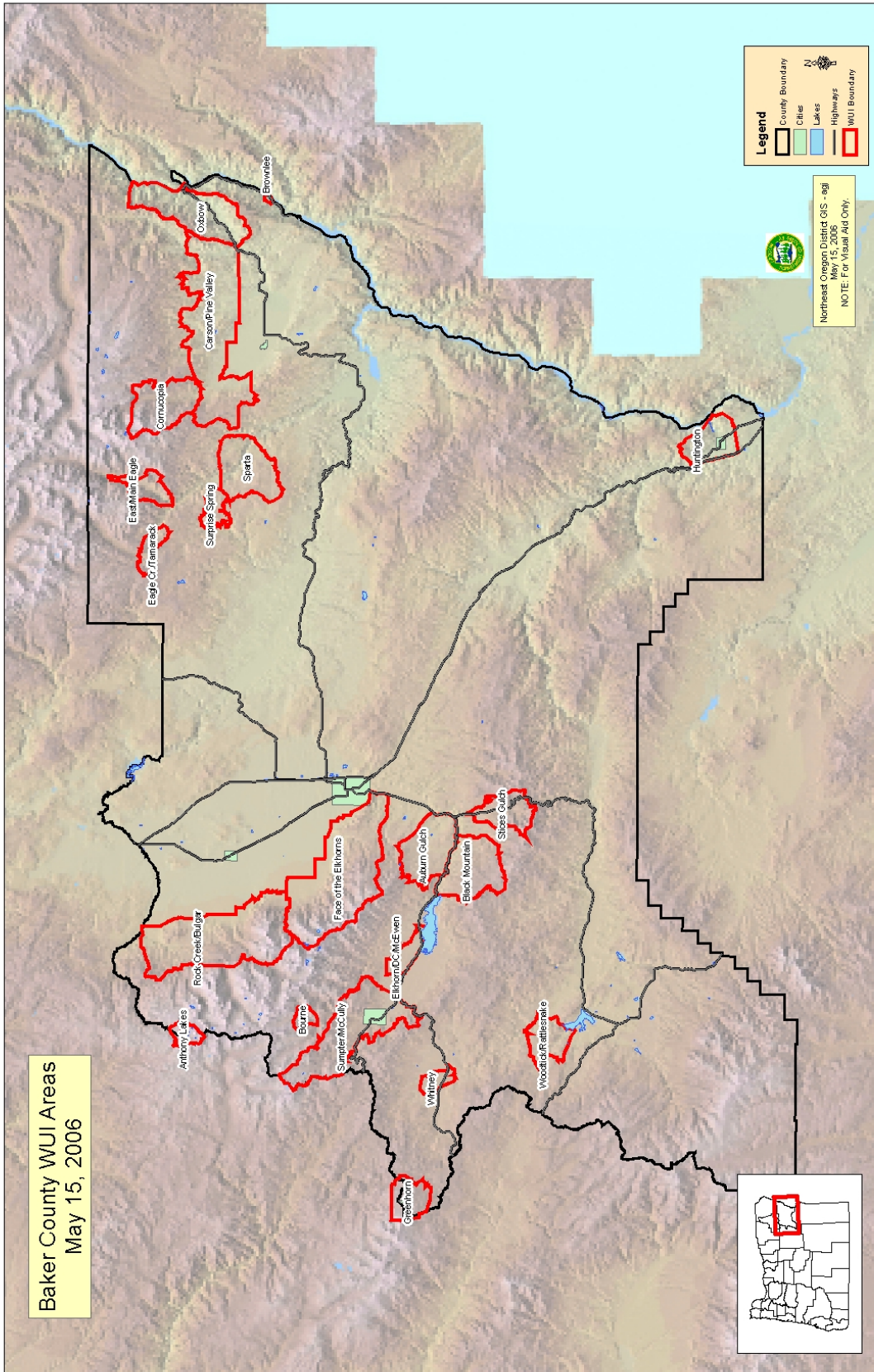
In Table 1 on page 2 of this section, the WUI areas are listed based on overall score. The WUI areas with the same score were listed in an order that represented the likelihood of any action items being accomplished strategically and collaboratively with other agencies or landowners. This listing is subjective and will change over time.

Table 1. Baker County Wildland-Urban Interface Areas – Listed by Total Average CAR Score

Priority Level	WUI Name	Total Score
HIGH Priority (15-22 points) 22 points being the highest score possible.	Woodtick Village/Rattlesnake Est.	21
	Stices Gulch	20
	Bourne	18
	Surprise Spring	17
	Greenhorn	16
	Auburn Gulch	
	Huntington	
	Oxbow	15.7
	Rock Creek/Bulger Flats	15.5
	Face of the Elkhorns/Baker City WS Sumpter/McCully Forks Watershed Sparta Elkhorn Estates/Deer Cr./McEwen Cornucopia East Eagle/Main Eagle Eagle Creek Black Mountain Anthony Lakes	15
MODERATE Priority (10-14 points)		
	Whitney	14
	Brownlee	14
	Carson/Pine Valley	12.75
LOW Priority (<10 points)	NOTE: Low priority areas not listed.	

Strategies for WUI Areas in Baker County

The map on page 3 of this section may be referenced while trying to locate each WUI discussed in this section. Timeframe for strategies are categorized as short-term (1-2 years) and long term (3-5 years). Many projects identified in this plan apply to all wildland-urban interface areas because they are broader in scope or represent general outreach messages or educational opportunities. Those listed in the mitigation action plans here are specific to individual interface areas in Baker County. Also, fuels treatment strategies listed for public land are subject to analysis and approval that meet federal requirements, such as forest priorities, funding, environmental protection, and cultural protection. Fuels treatment projects will be developed to maximize effectiveness across the landscape.



Woodtick Village/Rattlesnake Estates Mitigation Action Plan

WUI Name: Woodtick/Rattlesnake

Priority Category: HIGH

Description: Woodtick Village and Rattlesnake Estates are recreational and retirement communities located on the west side of Unity Reservoir, at the mouth of Middle Fork and North Fork of the Burnt River. There are over 90 structures in the WUI identified for Woodtick/Rattlesnake.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
2	3	5	5	5	1	21

Communities at Risk: Woodtick Village and Rattlesnake Estates.

Structural Fire Protection Agency: Unprotected.

Wildland Fire Protection Agency: ODF, USFS, and BLM.

Specific Hazard Issues: Access, high homesite density, lack of defensible space, and heavy fuel loading on adjacent forested lands.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Provide Homesite assessments for all of the homes; Collect data for FIRS	By December 2007	ODF/Homeowners in WUI, Unity/Burnt River Rural Fire Department, Baker County Emergency Management
Distribute Fire Prevention materials to include <i>Living with Fire</i> and <i>Fire Resistant Plants for Oregon Home Landscapes</i> ; Encourage defensible space around homes in WUI	By December 2007	ODF/Baker County OSU Extension Service, Unity/Burnt River Rural Fire Department, Baker County Interagency Fire Prevention Team
Present Firewise to local community; encourage Firewise USA designation	By December 2007	ODF/USFS, BLM, Local Fire Department, City of Unity, Baker County Interagency Fire Prevention Team
Develop Evacuation Plan/Phone Tree with community	By August 2006	Baker County Emergency Management/Baker County Sheriff, Unity/Burnt River Rural Fire Department, USFS, BLM, ODF, and landowners in WUI
(see next page)		

Explore the expansion of structural fire protection into the area	Current	Baker County Emergency Management/Unity-Burnt River FD
Implement SB 360 in forested area of WUI (insert more information here)	By December 2008	ODF/Baker County Planning, Baker County Emergency Management
Conduct strategic fuels treatment on 4,000 acres of federal land by removing dead and down material, thin standing trees and shrubs, underburning, chip/burn piles, and utilize biomass where cost effective	On-going through 2009	USFS, BLM/ODF and private landowners adjacent to identified federal projects.
Conduct strategic fuels treatment on 400 acres of private land by removing dead and down material, thin standing trees and shrubs, prune residual stands, chip/burn piles, and utilize biomass where cost effective	By December 2008	ODF/USFS, BLM, Unity-Burnt River Rural FD, Powder River Correctional Facility, Landowners in WUI
Implement strategy for maintenance of fuels treatments conducted, including defensible space	By August 2008	ODF/USFS, BLM, Landowners in WUI

Stices Gulch Mitigation Action Plan

WUI Name: Stices Gulch

Priority Category: HIGH

Description: Stices Gulch is a community of homes located along Highway 245 in a steep, narrow canyon adjacent to Dooley Mountain. The private land is surrounded by federal land, located in a dryer site with limited water.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
3	5	5	5	2	0	20

Communities at Risk: Stices Gulch.

Structural Fire Protection Agency: Greater Bowen Valley Rural Fire Protection District.

Wildland Fire Protection Agency: ODF, USFS, and BLM.

Specific Hazard Issues: Extended response time for structural fire protection, single road access, high homesite density, lack of defensible space, slope, and heavy fuel loading on forested lands.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Provide information to homeowners regarding the installation and benefits of a dry hydrant system	By December 2007	Greater Bowen Valley RFPD/Baker County Emergency Management
Continue fire prevention campaigns and educational opportunities to improve structural vulnerability (defensible space, clear access)	On-going	Greater Bowen Valley RFPD/Baker County Interagency Fire Prevention Team
Continue enhancement of facilities and response capabilities of structural fire protection	On-going	Baker County Emergency Management/ODF, USFS, BLM, Greater Bowen Valley Rural FPD
Develop an Interagency pre-suppression plan	By June 2008	Baker County Interagency Advisory Team (wildfire and structural agencies represented)
Explore alternative access options and develop evacuation plan/phone tree with community	By December 2010	Baker County Emergency Management/USFS, BLM, ODOT, and private landowners of WUI
Implement SB 360 in forested area of WUI (insert more information here)	By December 2008	ODF/Baker County Planning, Baker County Emergency Management
(see next page)		

<p>Continue strategic fuels treatment on 1160 acres of federal land by removing dead and down material, thin standing trees and shrubs, underburning, chip/burn piles, and utilize biomass where cost effective; concentrate treatments in a manner that would create a community fuel break</p>	<p>By June 2007</p>	<p>USFS, BLM/ ODF, and private landowners adjacent to identified federal projects</p>
<p>Continue strategic fuels treatment on 400 acres of private land by removing dead and down material, thin standing trees and shrubs, prune residual stands, chip/burn piles, and utilize biomass where cost effective; concentrate treatments in a manner that would create a community fuel break</p>	<p>On-going</p>	<p>ODF/USFS, BLM, Powder River Correctional Facility, and private landowners</p>
<p>Implement strategy for maintenance of fuels treatments conducted, including defensible space</p>	<p>By August 2008</p>	<p>ODF/USFS, BLM, Unity/Burnt River Rural FD, Powder River Correctional Facility, Landowners in WUI</p>

Bourne Mitigation Action Plan

WUI Name: Bourne

Priority Category: HIGH

Description: Bourne is an historical mining community near the McCully Forks Watershed (municipal water source for the City of Sumpter), surrounded by public land managed by the USFS. Bourne is in a steep, narrow canyon with single road access. The community is comprised of a high percentage of vacant and/or seasonally occupied dwellings.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
3	3	5	5	1	1	18

Communities at Risk: Bourne.

Structural Fire Protection Agency: Unprotected.

Wildland Fire Protection Agency: ODF, USFS.

Specific Hazard Issues: Lack of defensible space, lack of structural fire protection, single road access, limited communication, steep slope, and heavy fuel loading on forested lands with high natural potential for crown fire.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Conduct analysis to determine fuels treatment needed on federal land; create community fuel break	By October 2007	USFS
Conduct strategic fuels treatment on 400 acres of private land by removing dead and down material, thin standing trees and shrubs, prune residual stands, chip/burn piles, and utilize biomass where cost effective; concentrate treatments in a manner that would create a community fuel break	By December 2010	ODF/USFS, Powder River Correctional Facility, and private landowners of Bourne
(see next page)		

Continue treatment around homes to create defensible space; encourage maintenance of defensible space	On-going	ODF/Powder River Correctional Facility, private landowners of Bourne
Explore communication options; develop evacuation plan/phone tree	By December 2007	Baker County Department of Communications/Baker County Emergency Management, and community of Bourne
Complete Interagency pre-suppression plan	By June 2007	Baker County Interagency Advisory Team (wildfire and structural agencies represented)
Continue fire prevention campaigns, education and outreach	On-going	Baker County Interagency Fire Prevention Team

Surprise Spring Mitigation Action Plan

WUI Name: Surprise Spring

Priority Category: HIGH

Description: Surprise Spring is remote residential community located off of National Forest Road 70. The community is comprised of a high percentage of seasonal residents and a few permanent residents. Private land is surrounded by public land managed by the USFS.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
2	3	5	5	1	1	17

Communities at Risk: Surprise Spring.

Structural Fire Protection Agency: Surprise Spring Rural Fire Department.

Wildland Fire Protection Agency: ODF and USFS.

Specific Hazard Issues: Access, lack of water source for fire equipment, lack of communication, lack of defensible space, and high fuel loading on forested lands.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Continue enhancement of facilities and response capabilities of structural fire protection	On-going	Baker County Emergency Management/ODF, USFS, BLM, Surprise Spring Rural FD
Create community fuel break on 2,000 acres of federal land by removing dead and down material, thin standing trees and shrubs, underburning, chip/burn piles, and utilize biomass where cost effective	On-going	USFS/ODF and private landowners adjacent to identified federal projects
Conduct fire prevention campaigns and educational opportunities to improve structural vulnerability (defensible space, clear access)	By September 2006	Surprise Spring Rural FD/Baker County Interagency Fire Prevention Team
Provide information to homeowners regarding the installation and benefits of a dry hydrant system	By December 2007	Surprise Spring Rural FD/Baker County Emergency Management
Complete Interagency pre-suppression plan	By June 2007	Baker County Interagency Advisory Team- wildland/structural fire group
Explore communication options; develop evacuation plan/phone tree	By December 2007	Baker County Department of Communications/Baker County Emergency Management, Surprise Spring Rural FD, and citizens

City of Greenhorn Mitigation Action Plan

WUI Name: City of Greenhorn

Priority Category: HIGH

Description: The City of Greenhorn is an historical incorporated city of 53 acres surrounded by federal land. The city is located at an elevation of 6200 feet, located eleven miles from Highway 7. Year-round access is limited. The city indicated their support of the Baker County Community Wildfire Protection Plan and were influential in the development of the mitigation strategies listed below.¹

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
2	1	5	5	2	1	16

Communities at Risk: City of Greenhorn.

Structural Fire Protection Agency: Unprotected.

Wildland Fire Protection Agency: ODF and USFS.

Specific Hazard Issues: Extended response time for wildland fire agencies, lack of structural fire protection, absentee landowners, and limited water source for fire equipment.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Create community fuel break on 200 acres of private land by removing dead and down material, thin standing trees and shrubs, prune residual stands, chip/burn piles, and utilize biomass where cost effective; implement strategy for maintenance of fuels treatment conducted	On-going	ODF/USFS, Powder River Correctional Facility, and private landowners of Greenhorn
Conduct analysis to determine fuels treatment needed on federal land	By October 2009	Umatilla National Forest and Wallowa-Whitman National Forest
Continue fire prevention campaigns and educational opportunities to improve structural vulnerability (defensible space, clear access)	By September 2006	Baker County Interagency Fire Prevention Team
Provide Homesite assessments for all homes; Collect data for FIRS	On-going	ODF/Homeowners in WUI
(see next page)		

¹ The city has shared a letter with the committee dated December 1, 2004, expressing their interest in protecting their community from wildfire. The letter and city plat map are archived at the ODF – Northeast Oregon District office in La Grande.

Present Firewise to local community; encourage Firewise USA designation	By September 2006	ODF/USFS, BLM, Baker County Emergency Management, Baker County Interagency Fire Prevention Team, City of Greenhorn
Create “mini-CWPP” for City (include evacuation plan and phone tree)	By November 2006	ODF/USFS, City of Greenhorn, Baker County, and Grant County
Implement SB 360 in WUI	By December 2008	ODF/Baker County Planning, Baker County Emergency Management
Implement strategy for maintenance of fuels treatments conducted, including defensible space	By August 2008	ODF/USFS, BLM, Powder River Rural FD, Powder River Correctional Facility, Landowners in WUI
Complete Interagency pre-suppression plan	By June 2007	Baker County Advisory Team (wildland and structural agencies)
Explore city water supply that would support fire response	By September 2007	City of Greenhorn
Explore structural fire protection organization within community	By December 2006	Baker County Emergency Management/City of Greenhorn

Auburn Gulch Mitigation Action Plan

WUI Name: Auburn Gulch

Priority Category: HIGH

Description: Auburn Gulch is a dispersed community in the foothills of the Elkhorns, southwest of Baker City. The area includes the Elkhorn Wildlife Management Area and a historical cemetery. Tracts of federal land managed by BLM and USFS are intermixed with private land.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
2	1	5	5	2	1	16

Communities at Risk: Auburn Gulch.

Structural Fire Protection Agency: Greater Bowen Valley Rural Fire Protection District.

Wildland Fire Protection Agency: ODF, USFS, BLM, Great Bowen Valley Rural Fire Protection District.

Specific Hazard Issues: Lack of water source for fire equipment, extended response time for - structural fire district, and light, flashy fuels.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Conduct strategic fuels treatment on 1,000 acres of federal land by removing dead and down material, thin standing trees and shrubs, underburning, chip/burn piles, and utilize biomass where cost effective	On-going	USFS/ODF and private landowners adjacent to identified federal projects
Conduct analysis to determine fuels treatment needed on 2,000 acres of federal land needed for community fuel break	By October 2010	USFS/ODF, ODFW, and private landowners adjacent to analysis area
Conduct analysis to determine fuels treatment needed to benefit wildlife management and protect WUI (strategically locate 1200 acres)	By October 2010	ODFW/ODF, BLM, USFS
Continue strategic fuels treatment on 400 acres of private land by removing dead and down material, thin standing trees and shrubs, prune residual stands, chip/burn piles, and utilize biomass where cost effective	On-going	ODF/BLM, USFS, Powder River Correctional Facility, and private landowners of WUI (see next page)

Conduct fire prevention campaigns and educational opportunities to improve structural vulnerability (defensible space, clear access)	By September 2006	Greater Bowen Valley RFD/Baker County Interagency Fire Prevention Team
Enhance structural fire protection and response capability, include finding location for fire station	On-going	Baker County Emergency Management/Greater Bowen Valley RFPD, ODF, BLM, USFS, and private landowners of WUI
Develop Evacuation Plan/Phone Tree with community	By June 2007	Baker County Emergency Management/Baker County Sheriff, Greater Bowen Valley RFD, USFS, BLM, ODF, and landowners in WUI
Implement strategy for maintenance of fuels treatments conducted, including defensible space	By August 2008	ODF/USFS, BLM, landowners in WUI

Oxbow Mitigation Action Plan

WUI Name: Oxbow

Priority Category: HIGH

Description: Oxbow takes in the junction of Pine Creek and the Snake River, and follows Highway 86.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
2	4	2	5	2	1	16

Communities at Risk: Oxbow, Copperfield, Pine Creek, Homestead.

Structural Fire Protection Agency: Unprotected.

Wildland Fire Protection Agency: BLM.

Specific Hazard Issues: High homesite density along Pine Creek, light/flashy fuels, and pre-season fire risk (prior to wildland agencies staffing for fire season).

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Complete strategic fuels treatment on 240 acres of federal land by removing dead and down material, thin standing trees and shrubs, underburning, chip/burn piles, and utilize biomass where cost effective	By December 2007	BLM/ODF and private landowners adjacent to identified federal project
Develop Evacuation Plan/Phone Tree with community	By June 2007	Baker County Emergency Management/Baker County Sheriff
Use the “I’m Concerned” fire prevention campaign for hunting seasons, camping safety, off-road vehicle safety, other key recreation activities, especially in the warm spring months (before agency staffing for fire season)	On-going	Baker County Interagency Fire Prevention Team/BLM
Encourage defensible space in the Pine Creek area; provide information on how to create and maintain defensible space	By September 2007	Baker County Interagency Fire Prevention Team/BLM

Rock Creek/Bulger Flats Mitigation Action Plan

WUI Name: Rock Creek/Bulger Flats

Priority Category: HIGH

Description: This community is located north of Hunt Mountain and south of the Anthony Lakes highway, containing dispersed homes with a significant amount of those homes being seasonal residences. The area also contains several elk and deer feeding stations managed by Oregon Department of Fish and Wildlife.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
2	3	4	3	2	1	15

Communities at Risk: Rock Creek and Bulger Flats.

Structural Fire Protection Agency: Haines Rural Fire Protection District and North Powder Rural Fire Protection District (offering subscription service).

Wildland Fire Protection Agency: ODF, USFS and BLM.

Specific Hazard Issues: Access, steep terrain, Bull Trout critical habitat, agricultural watershed, lack of water source for fire equipment, lack of defensible space, and high fuel loading in forested lands.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Provide information to homeowners regarding the installation and benefits of a dry hydrant system	On-going	Haines Rural Fire Protection District/USDA-NRCS, ODF, Baker County Emergency Management, and private landowners
Enhance structural fire protection capabilities and facilities currently being built (Muddy Creek Station and Oregon Trail Station)	On-going	Baker County Emergency Management/Haines Rural FPD, North Powder Rural FPD, ODF, USFS, BLM
Develop Evacuation Plan/Phone Tree with community	By June 2007	Baker County Emergency Management/Baker County Sheriff, Haines RFPD, USFS, BLM, ODF, and landowners in WUI
Complete Interagency pre-suppression plan	By June 2007	Baker County Advisory Team (wildland and structural agencies)
Implement SB 360 in WUI	By December 2008	ODF/Baker County Planning, Baker County Emergency Management
(see next page)		

Continue fire prevention campaigns and educational opportunities to improve structural vulnerability (defensible space, clear access)	On-going	Haines RFPD/Baker County Interagency Fire Prevention Team
Implement strategy for maintenance of fuels treatments conducted, including defensible space	By June 2007	ODF/USFS, BLM, landowners in WUI
Conduct analysis to determine fuels treatment needed to benefit wildlife management and protect WUI	By October 2009	ODFW/BLM, ODF
Continue strategic fuels treatment on 80 acres of federal land by removing dead and down material, thin standing trees and shrubs, prune residual stands, underburning, chip/burn piles, and utilize biomass where cost effective	By December 2006	BLM/ODF, ODFW, and private landowners in WUI
Continue strategic fuels treatment on 2500 or more acres of private land by removing dead and down material, thin standing trees and shrubs, prune residual stands, chip/burn piles, and utilize biomass where cost effective	On-going	ODF/BLM, ODFW, Powder River Correctional Facility, and private landowners in WUI

Face of the Elkhorns Mitigation Action Plan

WUI Name: Face of the Elkhorns

Priority Category: HIGH

Description: This area is one of the largest WUI areas in the county and includes the Baker City Watershed (municipal water source for Baker City). The area is nearly divided in half between federal land and private land. The homes are located in an area protected by four different fire agencies (Baker Rural Fire Protection District and Haines Rural Fire Protection district for structures - ODF and USFS for wildland fire protection).

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
2	3	3	4	2	1	15

Communities at Risk: Baker City, Washington Gulch, Pine Creek, Marble Creek, Salmon Creek, and Western Heights.

Structural Fire Protection Agency: Baker Rural Fire Protection District and City of Baker Fire Department.

Wildland Fire Protection Agency: ODF and USFS.

Specific Hazard Issues: High homesite density, lack of defensible space, municipal watershed, agricultural watershed, high use recreation, steep terrain, and heavy fuel load on forested lands.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Implement maintenance schedule previous fuels treatment projects – Federal and private	On-going	ODF/USFS, private landowners
Continue to enhance structural fire capabilities and facilities	On-going	ODF/USFS, Baker RFPD, City of Baker Fire Department, Baker County Emergency Management
Implement SB 360 in WUI	By December 2008	ODF/Baker County Planning, Baker County Emergency Management
Continue strategic fuels treatment on 3,000 acres of private land to protect homes, watersheds, viewshed, and adjacent federal land	On-going	ODF/USFS, Baker RFPD, City of Baker Fire Department, Powder River Correctional Facility, and private landowners of WUI
(see next page)		

Continue strategic fuels treatment on 3240 acres of federal land by removing dead and down material, thin standing trees and shrubs, underburning, chip/burn piles, and utilize biomass where cost effective	On-going	USFS-BLM/ODF and private landowners adjacent to identified federal projects
Implement strategy for maintenance of fuels treatments conducted, including defensible space	By August 2008	ODF/USFS, BLM, Baker Rural Fire Protection District, City of Baker Fire Department, Powder River Correctional Facility, Landowners/Homeowners in WUI

Sumpter/McCully Forks Watershed Mitigation Action Plan²

WUI Name: Sumpter/McCully Forks Watershed

Priority Category: HIGH

Description: This area incorporates the City of Sumpter, adjacent subdivisions, and the McCully Forks Watershed. The WUI is primarily private lands in a valley setting surrounded by federal land. The Sumpter Dredge State Park and historical mining tailings and scattered mines are considered high historical value.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
2	3	3	5	1	1	15

Communities at Risk: City of Sumpter, Bear Gulch, Rhody Road, Huckleberry Loop, Spaulding Ridge, and Cracker Creek.

Structural Fire Protection Agency: Powder River Rural offers protection to Bear Gulch, Rhody Road, and Huckleberry Loop. City of Sumpter offers protection within the city limits. Spaulding Ridge and Cracker Creek do not have structural fire protection available to them.

Wildland Fire Protection Agency: ODF, USFS and BLM.

Specific Hazard Issues: Access, lack of defensible space, municipal watershed, absentee landowners, high recreation use, and high fuel loading on forested lands.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Implement strategy for maintenance of fuels treatments conducted, including defensible space	By November 2007	ODF/USFS, BLM, Powder River Rural Fire Department, City of Sumpter Fire Department, City of Sumpter, and Landowners/Homeowners in WUI
Continue strategic fuels treatment on 1000 acres of private land to protect homes, watersheds, viewshed, and adjacent federal land	On-going	ODF/USFS, BLM, Powder River Correctional Facility, and Landowners in WUI
(see next page)		

² From standpoint of City of Sumpter, McCully Forks watershed area is an area of great concern. A fire in the watershed would impact the city water source, as McCully Forks provides primary water to the citizens of Sumpter. An actual MOU needs to be developed that spells out each side's responsibility and needs. (E-mail received on 10/26/05)

Continue strategic fuels treatment on 1580 acres of federal land by removing dead and down material, thin standing trees and shrubs, underburning, chip/burn piles, and utilize biomass where cost effective	On-going	USFS-BLM/ ODF and private landowners adjacent to identified federal projects
Explore communication options; develop evacuation plan/phone tree	By December 2008	Baker County Department of Communications/Baker County Emergency Management, City of Sumpter Fire Department, Powder River Rural Fire Department, and citizens in WUI
Present Firewise to City of Sumpter; encourage Firewise Communities USA designation	By September 2006	ODF/USFS, BLM, Baker County Emergency Management, Baker County Interagency Fire Prevention Team, City of Sumpter
Emphasize Fire Prevention campaigns related to camping and hunting	On-going	Baker County Interagency Fire Prevention Team
Implement SB 360 in WUI	By December 2008	ODF/Baker County Planning, Baker County Emergency Management
Continue to enhance structural firefighting capabilities of fire departments	On-going	Baker County Emergency Management/ODF, USFS, BLM, City of Sumpter FD, Powder River Rural FPD
Develop "mini-CWPP" for WUI	By April 2007	ODF/USFS, BLM, City of Sumpter, City of Sumpter Fire Department, Powder River Fire Department, Baker County, citizens of WUI

Sparta Mitigation Action Plan

WUI Name: Sparta

Priority Category: HIGH

Description: Sparta is an historic mining area located west of Richland. Homes are being built in this rustic area because of the seclusion and beauty the area has to offer. There are approximately 30 homes without structural fire protection.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
3	1	5	5	1	0	15

Communities at Risk: Sparta.

Structural Fire Protection Agency: Unprotected.

Wildland Fire Protection Agency: ODF, USFS, and BLM.

Specific Hazard Issues: access, topography, ingress/egress, structural ignitability, lack of structural fire protection, fuel type, potential risk of fire starts from highway, extended response time, and lack of adequate water source.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Complete community fuel break on 1580 acres of private and federal land by removing dead and down material, thin standing trees and shrubs, underburning, chip/burn piles, and utilize biomass where cost effective	On-going	ODF/USFS, BLM, United Community Partners, Powder River Correctional Facility, and private landowners of WUI
Identify and explore development of additional water sources	By June 2007	ODF/USFS, BLM, and private landowners of WUI
Explore communication options; develop evacuation plan/phone tree	By November 2008	Baker County Department of Communications/Baker County Emergency Management and citizens of Sparta
Implement strategy for maintenance of fuels treatments conducted, including defensible space	By August 2008	ODF/USFS, BLM, and United Community Partners
Implement SB 360 in WUI	By December 2008	ODF/Baker County Planning and Baker County Emergency Management
Continue fire prevention campaigns, education, and outreach	On-going	Baker County Interagency Fire Prevention Team

Elkhorn/Deer Creek/McEwen Mitigation Action Plan

WUI Name: Elkhorn Estates/Deer Creek/McEwen **Priority Category:** HIGH

Description: This area contains subdivisions of homes off of Highway 7, approximately ten miles southeast of Sumpter. Phillips Lake and the recreational opportunities the lake offers impacts this WUI. The historic Sumpter Valley Railroad conducts daily tours through the area from Memorial Day to Labor Day.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
2	1	5	5	2	0	15

Communities at Risk: Elkhorn Estates, Deer Creek, McEwen.

Structural Fire Protection Agency: Powder River Rural Fire Protection District.

Wildland Fire Protection Agency: ODF, USFS and Powder River Rural Fire Protection District.

Specific Hazard Issues: Access, ingress/egress to homes, structural ignitability, fuel type and heavy fuel loading, and high recreational use.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Continue fire prevention campaigns related to railroad, recreation, and defensible space	On-going	Baker County Interagency Fire Prevention Team
Implement SB 360	By December 2008	ODF/Baker County Planning, Baker County Emergency Management
Explore communication options; develop evacuation plan/phone tree	By December 2007	Baker County Department of Communications/Baker County Emergency Management and communities surrounding McEwen
Enhance structural fire and response capabilities	On-going	Baker County Emergency Management/ODF, USFS, BLM, Powder River Rural FPD
Continue strategic fuels treatment on 1000 acres of federal land by removing dead and down material, thin standing trees and shrubs, underburning, chip/burn piles, and utilize biomass where cost effective	By October 2007	USFS/ODF and private landowners adjacent to identified federal projects
(see next page)		

Continue strategic fuels treatment on 600 acres of private land by removing dead and down material, thin standing trees and shrubs, chip/burn piles, and utilize biomass where cost effective	On-going	ODF/USFS, BLM, and private landowners in WUI
Implement strategy for maintenance of fuels treatments conducted, including defensible space	By August 2008	ODF/USFS, BLM, Powder River Rural FPD, Powder River Correctional Facility, and landowners and homeowners in WUI

Cornucopia Mitigation Action Plan

WUI Name: Cornucopia

Priority Category: HIGH

Description: Cornucopia is an historic mining community located between Carson and the Eagle Cap Wilderness. Cornucopia Pack Station offers recreational opportunities in the Eagle Cap Wilderness. The area has several recreational cabins and private residences.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
2	3	3	5	1	1	15

Communities at Risk: Cornucopia.

Structural Fire Protection Agency: Unprotected.

Wildland Fire Protection Agency: USFS and ODF.

Specific Hazard Issues: High recreational use, unregulated industrial use (mining), access, communication, lack of evacuation routes, ingress/egress to homes, extended response time, topography, and proximity to Eagle Cap Wilderness.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Continue fire prevention campaigns targeting defensible space, recreation, and firefighter safety	On-going	Baker County Interagency Fire Prevention Team
Explore communication options; develop evacuation plan and phone tree	By June 2007	Baker County Department of Communications/Baker County Emergency Management, community of Cornucopia, ODF, USFS
Conduct analysis to determine best placement of community fuel break	By October 2008	USFS and ODF
Conduct fuels treatment within corridor – clear vegetation, pruning trees off of road to improve access	By December 2007	Baker County Road Department/ODF, USFS
Complete Interagency pre-suppression plan	By June 2007	Baker County Interagency Advisory Team (wildland and structural fire representatives)

East Eagle/Main Eagle Mitigation Action Plan

WUI Name: East Eagle/Main Eagle

Priority Category: HIGH

Description: This area is comprised of mostly recreational second homes and is located south of Eagle Cap Wilderness, along the Eagle Creek Wild and Scenic Waterway.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
2	3	5	3	1	1	15

Communities at Risk: East Eagle and Main Eagle.

Structural Fire Protection Agency: Unprotected.

Wildland Fire Protection Agency: USFS and ODF.

Specific Hazard Issues: High recreational use, access, communication, lack of evacuation routes, ingress/egress to homes, extended response time, topography, heavy fuel loading around cabins/homes, and proximity to Eagle Cap Wilderness.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Continue fire prevention campaigns targeting defensible space, recreation, and firefighter safety	On-going	Baker County Interagency Fire Prevention Team
Explore communication options; develop evacuation plan and phone tree	By June 2007	Baker County Department of Communications/Baker County Emergency Management, ODF, USFS
Conduct strategic fuels treatment on 250 acres of federal land by removing dead and down material, thin standing trees and shrubs, underburning, chip/burn piles, and utilize biomass where cost effective	By October 2008	USFS/ODF and private landowners adjacent to identified federal projects
Conduct fuels treatment within corridor – clear vegetation, pruning trees off of road to improve access	By December 2007	Baker County Road Department/ODF, USFS
Complete Interagency pre-suppression plan	By June 2007	Baker County Interagency Advisory Team (wildland and structural fire representatives)

Eagle Creek/Tamarack Mitigation Action Plan

WUI Name: Eagle Creek/Tamarack CG

Priority Category: HIGH

Description: This area is comprised of cabins and seasonal homes and is located southwest of the Eagle Cap Wilderness, along National Forest 77 Road and Eagle Creek.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
2	1	5	5	1	1	15

Communities at Risk: Eagle Creek and Tamarack Campground.

Structural Fire Protection Agency: Unprotected.

Wildland Fire Protection Agency: USFS and ODF.

Specific Hazard Issues: High recreational use, access, communication, lack of evacuation routes, ingress/egress to homes, extended response time, topography, heavy fuel loading around cabins/homes, and proximity to Eagle Cap Wilderness.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Continue fire prevention campaigns targeting defensible space, recreation, and firefighter safety	On-going	Baker County Interagency Fire Prevention Team
Explore communication options; develop evacuation plan and phone tree	By June 2007	Baker County Department of Communications/Baker County Emergency Management, ODF, USFS
Conduct fuels treatment within corridor – clear vegetation, pruning trees off of road to improve access	By December 2007	USFS
Complete Interagency pre-suppression plan	By June 2007	Baker County Interagency Advisory Team (wildland and structural fire representatives)

Black Mountain Mitigation Action Plan

WUI Name: Black Mountain

Priority Category: HIGH

Description: This area is located off of Highway 7, southeast of Phillips Reservoir.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
2	3	5	3	1	1	15

Communities at Risk: Black Mountain and Skyline Subdivisions, Phillips Reservoir, and Highway 7 Corridor.

Structural Fire Protection Agency: Unprotected.

Wildland Fire Protection Agency: USFS, BLM, and ODF.

Specific Hazard Issues: Lack of adequate water supply, topography, absentee landowners, lack of defensible space, heavy fuel loading, access, extended response time, lack of structural fire protection, ingress/egress to homes, and limited evacuation routes.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Complete Interagency pre-suppression plan	By June 2008	Baker County Interagency Advisory Team (wildland and structural fire representation)
Explore communication options; develop evacuation plan/phone tree	By December 2008	Baker County Department of Communications/Baker County Emergency Management, ODF, USFS, and citizens of Black Mountain
Continue fire prevention campaigns related to maintaining defensible space, burning safety, and burning requirements	On-going	Baker County Interagency Fire Prevention Team
Provide homesite assessments for all of the homes in WUI; collect data for FIRS	By January 2007	ODF/Homeowners in WUI
Implement SB 360	By December 2008	ODF/Baker County Planning and Baker County Emergency Management
(see next page)		

Conduct strategic fuels treatment on 400 acres of private land to protect homes, watershed, viewshed, and recreation in area	By December 2009	ODF/USFS and private landowners in WUI
Conduct analysis for strategic fuels treatment on 1000 acres of federal land; concentrate treatment in a manner that would create community fuel break	By October 2009	USFS/ODF
Conduct analysis for strategic fuels treatment (community fire break) – private and federal	By October 2009	USFS/ODF

Anthony Lake Mitigation Action Plan

WUI Name: Anthony Lake

Priority Category: HIGH

Description: This area includes permittee cabins on federal land, the Anthony Lake Ski Resort, and Anthony Lake Campground. The cabins and resort are not protected by a structural fire agency; however, the federal land surrounding the cabins and resort is protected by the USFS. The fuel type (Sub-alpine Fir) in the area is difficult to treat and maintain, so emphasis should be given to treatment around the cabins, ski lodge and outbuildings, and campground facilities.

Hazard Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Combined Score
2	3	3	5	1	1	15

Communities at Risk: Anthony Lake Ski Resort, Anthony Lake Cabins.

Structural Fire Protection Agency: Unprotected.

Wildland Fire Protection Agency: USFS.

Specific Hazard Issues: High elevation fuel type with heavy fuel load, topography, access to cabins, extended response time, and high recreational use.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Coordinate fuels treatment around cabins, ski resort buildings, and campground facilities with an emphasis on defensible space (approximately 30 acres)	By October 2006	USFS/Anthony Lake Homeowners Association, and other permittees.
Explore structural fire protection in WUI	By June 2009	USFS/Baker County Emergency Management and Union County Emergency Management
Evaluate and determine fuels maintenance schedule for powerline corridors	By June 2007	USFS and OTEC
Continue fire prevention campaigns related to recreation, campfire safety, burning safety/requirements, and maintaining defensible space	On-going	Baker County Interagency Fire Prevention Team
Explore access options	By October 2007	USFS/Baker County and Union County
Develop evacuation plan	By July 2008	USFS/Anthony Lake Homeowners Association/Anthony Lakes Ski

Mitigation Action Plan for Moderate/Low Priority WUI Areas

Moderate Priority Community Names: Whitney, Brownlee, Carson/Pine Valley, Durkee, Hereford, Wirth Junction, and Oregon Trail Interpretive Center.

Low Priority Community Names: Keating, Richland, Miles Bridge, and Radium Hot Springs.

WUI – Specific Projects	Timeframe	Lead Agency/Cooperators
Continue facilitation and support of any strategic fuels treatment projects proposed that would protect entire communities and their values from the risk of a large wildfire event; promote community fire breaks	On-going	ODF/USFS, BLM, landowners and community groups in low or moderate priority WUI areas
Encourage communication and evacuation plans with all communities; facilitate process with interested communities	By June 2010	Baker County Emergency Management/Baker County Department of Communications, landowners and community groups in low or moderate priority WUI areas
Continue fire prevention campaigns related to human activity fire causes and creating/maintaining defensible space	On-going	Baker County Interagency Fire Prevention Team
Implement SB 360 in forested areas of communities mentioned above	By December 2008	ODF/Baker County Planning and Baker County Emergency Management
Implement strategy for maintenance of fuels treatments conducted, including defensible space	On-going	ODF/USFS, BLM, Structural fire agencies in communities mentioned above, Powder River Correctional Facility, United Community Partners, landowners and homeowners in communities mentioned above
Continue enhancement of facilities and response capabilities of structural fire departments in communities mentioned above	On-going	Baker County Emergency Management/ODF, USFS, BLM
Explore development of pre-season agreements for water sources (county-wide)	By June 2006	ODF/USFS, BLM, Baker County Emergency Management
Explore expansion of structural fire protection in areas without it	On-going	Baker County Emergency Management

VII. Fuels Treatment, Maintenance, Biomass

Fuels Treatment and Forest Health¹

Thinning for fuels reduction can have the added benefit, if stocking levels are lowered enough, of increasing tree diameter growth and enhancing tree vigor. From the stand perspective, this will reduce the time to the next thinning and maintain healthier trees by increasing resistance to pests, such as bark beetles. To meet both fire risk and forest health objectives, stands need to be thinned wide enough to take advantage of the sites resources: water, nutrients, and sunlight. Spacing depends on factors such as site quality, species, and tree size (diameter): on poorer sites, trees will be spaced a bit wider; species such as Ponderosa and Lodgepole pine are spaced wider than other species; and larger trees need more space than smaller trees.

Remember, forests are dynamic and continually growing in diameter, height, and crown width. Fuels reduction activities that include thinning are beneficial, but thinning without consideration for forest health doesn't provide the benefits of pest resistance or good individual tree growth. Also, without future maintenance, the fire risk reduction benefits decline over time.

For more information about proper tree spacing for your stand, contact the Forestry Extension Agent for Baker and Grant Counties, at (541) 523-6418 or Oregon Department of Forestry in Baker City at (541) 523-5831.

Maintenance around the Home

After creating defensible space around the home (other terms that mean the same thing are *survivable space* and *green space*), daily/weekly and annual maintenance should be conducted. Daily/weekly maintenance includes watering the lawn and plants, raking any debris from fall foliage or needle cast, raking any debris that accumulates over the winter, and mowing.

Annual maintenance includes pruning branches and bushes, removing any vegetation that is crowded in the landscape, or removing vegetation that shouldn't be growing



Photo 1: Green Space, Jamie Knight, ODF

¹ Oester, Paul. *Blue Mountains Renewable Resource Newsletter*. Vol. 20, No. 3, Fall 2004.

within the green space. The less accumulated plant debris, and the less crowded vegetation is (creating a ladder fuel effect), the slower fire will spread or carry into the crowns of trees.

Annual maintenance should also take place around the home. Building materials should be inspected and the roof and gutters should be free of debris. Also, the access to your home should be maintained, allowing for the quick ingress/egress of emergency vehicles if a wildfire were to approach the home. As mentioned earlier, structural vulnerability will affect the response to a home and may even hinder the chances of a home being saved in the event of a wildfire. Below are other considerations for making your home survivable (these were taken from the *Living with Fire* newspaper):

- ✓ **Roof** - Your roof is the most vulnerable part of your house in a wildfire. Once a roof is fully engulfed, there is nothing more a structural agency can do to save the home. If at all possible, make sure the construction is Class C or better. Remove all branches, needle cast, and leaves from roof and gutters. Remove any branches within 15 feet of your chimney. Cover the chimney outlet and stovepipe with a nonflammable screen of one-half inch or smaller mesh.
- ✓ **Construction of Home** - Box your eaves, and if at all possible, use fire resistant building materials. Enclose the underside of balconies and above-ground decks with fire resistant materials. Remove vegetation from around windows.
- ✓ **Yard** - Stack woodpiles at least 30 feet from all structures and clear away flammable vegetation within 10 feet of woodpiles. Move LPG tanks (butane and propane) at least 30 feet from any structure and surround them with 10 feet of clearance.
- ✓ **Emergency Water Supply** - Consider installing an emergency water source in the neighborhood that meets fire department standards. Clearly mark all emergency water sources and notify your local fire department of their existence. Create easy firefighter access to your closest emergency water source. If your water comes from a well, consider an emergency generator to operate the pump during a power failure.
- ✓ **Access** - Identify at least two exit routes from your neighborhood. Construct and maintain roads that allow two-way traffic. Design roads and access into home with turnarounds and curves that allow for large structural fire engines and large equipment to reach your house. Make sure dead-end roads, long driveways, and road signs in neighborhood are clearly marked and visible. Clear flammable vegetation at least 10 feet from roads and five feet from driveways. Cut back overhanging tree branches above roads. Make sure your house number is marked and clearly visible and duplicated elsewhere in the county. Post your address at the beginning of your driveway and on your house.

- ✓ **Outside** - Make sure you also consider the flammability of the building materials of your fences, decks, porches, and outbuildings, especially if they are connected to the house. Use fire-resistant building materials and clear any vegetation away from outside structures.

Concepts to Consider in Developing a Fuels Maintenance Program²

Developing a fuels reduction maintenance program will entail knowing the plant association and defining acceptable fire behavior parameters. It's argued that a flame length of 4 feet or less, particularly in or near WUI areas, is most appropriate. Using these two pieces of information, projections can be made to determine when a particular site will move beyond acceptable fire behavior criteria and require some level of re-treatment.

Once treated, stands undergo the process of ecological succession in which understory and overstory vegetation changes over time, resulting in incremental changes (often increases) in herbs, grasses, shrubs, and regeneration of trees because more growing space has been created by the removal of trees and other vegetation. Overstory structure changes too as residual trees expand their crowns and increase in diameter, continually adding more biomass (fuel) to the site (needles, branches, downed logs). Subsequent disturbances caused by insects and disease can kill trees and add more biomass to the forest floor. Although some of this biomass decays over time, in the dry forests of southwest, central and eastern Oregon, dead biomass tends to accumulate on the forest floor faster than it decays, adding more fuel to the landscape.

How long it will take before treated areas will require re-treatment at some point in the future is dependent on several factors that are inter-related, including:

- Past treatment level (e.g., how much biomass (fuel) was removed initially in the understory and overstory);
- Plant association groups;
- Site productivity;
- Rate of fuel accumulation;
- Fuel structure (i.e., condition class)

² Fitzgerald, Stephen and Martin, Charlie. *A Conceptual Approach for a Maintenance Strategy for Fuel Treatments in Oregon: Maintaining the Investment*. Oregon State FFHM Committee Report, July 5, 2004.

- Historic fire regime;
- Desired fire behavior (for effective control)
- Climatic regime

Although condition class and fire regime are the two primary factors in prioritizing areas initially for treatment (along with strategic location), this method may have less of a bearing in deciding which areas should be prioritized for *re-treatment* in the future. For example, it's probably unlikely that managers would allow sites that were condition class 2 or 3 before treatment and treated to condition class 1, to revert back to condition class 2 or 3 before conducting the re-treatment, particularly in WUI. It seems more likely they would allow a site that was originally in a condition class 2 or 3 and treated to condition class 1 to re-accumulate fuels only to a point or phase that resemble a condition class 1 *transitioning* into a condition class 2 condition.³ Allowing fuels to accumulate any further would entail more expensive re-treatment and increase the risk of losing the initial investment made in fuel reduction.

Biomass Utilization

Federal and state agencies, local government and private forest landowners are using thinning and prescribed burning in strategic locations to reduce forest fuels and wildfire risks. Most of the material generated from fuels reduction activities is not suitable for commercial wood products manufacturing. In many cases, biomass from these activities is left on-site or piled and burned at an additional cost. One alternative outlet for utilizing biomass now is the Warm Hearts/Warm Homes firewood program. The program distributes firewood to limited capacity citizens across Baker, Union, and Wallowa Counties. Unfortunately the program utilizes a small percentage of the biomass generated and usually utilizes smaller thinning projects. An additional alternative outlet for small diameter wood could help reduce the costs of thinning and help mitigate environmental impacts associated with prescribed burning and wildfires.

Forest biomass is generated by forest fuels reduction, commercial timber harvest; non-commercial thinning and timber stand improvement (TSI) activities. Non-commercial thinning includes pruning and tree removal designed to help shape and guide development of forest stands to meet a variety of goals. It generally does not result in removal of trees that can be used to manufacture products, but it could be used in renewable energy production (heat, steam, electricity, and fuel). Timber stand improvement can accomplish similar goals, but often results in removal of some commercially valuable trees. Wood manufacturing residues including bark, sawdust, chips, and veneer cores are

³ See definition table for Fire Regime and Condition Class in Appendix D.

additional sources of raw material for renewable energy production. A biomass plant is currently operating in Grant County, but high transportation cost makes the export of small diameter wood material to the plant cost prohibitive.

Baker County has established a Baker County Power Generation Task Force which is exploring other biomass options that include "Fuels for Schools" and a pelletizing plant. Wood pellets could be made at the plant and utilized at a power generation system used in the "Fuels for Schools" program. Studies are currently being completed on the cost-savings that might be generated from installing wood-energy systems within the local school buildings. Wood heat is about 50% of the cost of oil heat and 12% of the cost of electrical heat. These small institutional energy systems could be installed in many public buildings across the county, and lay the foundation for larger conversion to renewable energy.⁴ For more information, contact Baker County at (541) 523-8200.



Photo 2: Chip Storage, Fuels for Schools website

⁴ <http://www.fuelsforschools.org>

VIII. Emergency Management

Infrastructure Protection Capabilities

The Baker County Emergency Management Resource Directory contains an annex of Fire Infrastructure Capabilities. The Baker County Interagency Fire Preparedness and Hazard Mitigation Coordinator is responsible for the maintenance of the annex on an annual basis.

Questionnaires were sent to all rural and municipal structural firefighting agencies asking for an inventory of resources so that needs of each district could be assessed in the future. Also, the resource list will aid wildland fire agencies in determining where fire resources are staged across the county that can be utilized in a wildfire event. The list can be referenced in Appendix H - Structural Fire Resources.

Mitigation Action Plan for Emergency Services

Baker County utilizes a multi-faceted approach to Wildfire Mitigation. Mitigation efforts begin with the Baker County General Plan, land use planning tools which implement Oregon State Law, and administrative rules, fire siting standards, and the Baker County Planning and Subdivision Ordinance.

Recognizing that emergencies and disasters will occur even with land use planning guidance in place, the county has adopted the *Baker County Emergency Operations Plan*. This document contains The Basic Plan, ICS/NIMS implementation, various annexes (including the Wildfire Annex), the County-wide Mutual Aid Agreement, the Tri-County Hazard Mitigation Plan, and the Baker County Emergency Response Map Book.

All resources mentioned above are available for review by interested parties at the Baker County Courthouse.

IX. Monitoring and Evaluation of the Plan

Schedule

The maintenance for this plan will be directed by the Baker County Board of Commissioners, and coordinated with the core committee members of the represented agencies and groups. Proposed CWPP plan maintenance will be set annually to review the plan, re-evaluate priorities for action items and progress, with a total revision set for every five years.

Annual review of the strategy recommendations will be necessary as various projects or tasks are accomplished and areas at-risk decline in hazard rating. Annual review will also be needed as County infrastructure needs change or are met and should include representation of stakeholders who participated in the development of the plan being reviewed.

A total revision of the plan every five years is recommended as Baker County infrastructure needs change, specifically: population increases, land use changes, fuels reduction projects are completed, emergency services in outlying areas improves, updates are received for computer software and data, and areas of extreme wildfire hazard decline or increase.

Monitoring

The continued involvement of the public is needed to accomplish many of the recommendations for the Baker County Wildfire Protection Plan. It is important that the committee members make every attempt to network with the citizens of Baker County, allowing for continued collaboration with them on how best to meet their needs, while at the same time achieving the mission of this plan. In addition, multi-party monitoring among the agencies will take place, documenting accomplishments and redesigning strategies as needed.

Copies of the plan will be available at the Baker County Courthouse, Baker County public libraries, and on the web at (underscore after "bakerco"):

www.odf.state.or.us/areas/eastern/northeast/bakerco_cwpp.htm.

The website provides citizens an opportunity to send comments or questions to the facilitator of the committee at any time.

Evaluation

Annual assessment of the identified projects is very important to determine whether or not progress is being made. Units of measure to be considered when updating the plan in the future for the purpose of reporting accomplishments are listed below:

1. Number of projects accomplished which improve fire agency/emergency service response time.
2. Number of transportation problems resolved that improve road systems for access, ingress/egress.
3. Number of water sources added to improve firefighting response.
4. Number of pieces/types of equipment obtained and number of training courses provided.
5. Number of acres treated for fuels reduction and type(s) of treatment used.
6. Number of events with prevention message delivery, number of prevention courses attended/conducted, number of news releases or prevention campaigns conducted, and number of prevention team meetings held.
7. Number of partners/agencies/groups involved.
8. Number of people contacted (meetings, courses, etc) and number of educational items distributed (brochures, etc).

On an annual basis, the core committee members will assess each identified project using the units of measure listed above to determine progress. This plan does not serve as a means of bypassing the individual processes and regulations of the participating agencies. Each project must adhere to any pertinent local, state or federal rules or guidelines in determining the point of project implementation. The plan is a coordinating document for projects related to education and outreach, information development, fire protection and fuels treatment.

Appendix A. Fire Statistics¹

TOTALS BY PERIOD:

	Lightning 1	RR 2	Equip Use 3	Recreation 4	Smoking 5	Debris Burn 6	Arson 7	Juv 8	Misc 9	Total # fires
Last 45 yrs	655	78	64	115	108	100	4	21	44	1189
Last 30 Yrs	364	13	48	84	38	72	3	8	26	656
Last 20 yrs	276	8	37	60	19	48	2	5	15	470
Last 10 yrs	128	3	14	37	8	24	2	0	7	223
Last 5 yrs	64	1	11	23	4	18	1	0	40	162

Average # Fires by Period:

	Lightning 1	RR 2	Equip Use 3	Recreation 4	Smoking 5	Debris Burn 6	Arson 7	Juv 8	Misc 9	# fires
45 yr Average	14.6	1.7	1.4	2.6	2.4	2.2	0.1	0.5	1.0	26.4
30 yr "	12.1	0.4	1.6	2.8	1.3	2.4	0.1	0.3	0.9	21.9
20 yr "	13.8	0.4	1.9	3.0	1.0	2.4	0.1	0.3	0.8	23.5
10 yr "	12.8	0.3	1.4	3.7	0.8	2.4	0.2	0	0.7	22.3
5 yr "	12.8	0.2	2.2	4.6	0.8	3.6	0.2	0.0	8.0	32.4

Percentage of fires by General cause:

	Lightning 1	RR 2	Equip Use 3	Recreation 4	Smoking 5	D Burn 6	Arson 7	Juv 8	Misc 9	# fires
45 yr Average	55%	7%	5%	10%	9%	8%	0%	2%	4%	100%
30 yr "	55%	2%	7%	13%	6%	11%	0%	1%	4%	100%
20 yr "	59%	2%	8%	13%	4%	10%	0%	1%	3%	100%
10 yr "	57%	1%	6%	17%	4%	11%	1%	0%	3%	100%
5 yr "	40%	1%	7%	14%	2%	11%	1%	0%	25%	100%

For Example: The 5 yr average shows that 40% of all fires in this period were lightning while 60% were human caused.

¹ ODF-Baker City Sub-Unit Fire Statistics

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Appendix B. Public Outreach

Baker County Community Wildfire Protection Plan

Public Meeting Brief

Submitted by,
Angie Johnson
Oregon Department of Forestry

1st Round of Public Meetings: Meeting Format

These community meetings were held:

Monday, November 15, 2004, at the Baker County Library in Baker City

Tuesday, November 16, 2004, at the city hall in Sumpter

Wednesday, November 17, 2004, at the city hall in Halfway

Thursday, November 18, 2004, at the city hall in Haines

Tuesday, December 7, 2004, at the Unity Community Hall in Unity

The purpose of the meetings was to inform citizens of Baker County about the progress of the committee tasked with developing a Community Wildfire Protection Plan for Baker County, discuss the risk assessment involved in determining high hazard areas around the county, and involve the citizens in discussing values that they believe to be threatened by the risk of wildfire, and any other concerns they had related to emergency services and fire agency response. These meetings were well attended and a tremendous amount of valuable input was received by all of the communities. Agencies involved in land management and emergency response will use this information as a means to improve services to Baker County citizens.

Baker County Library Baker City, OR

Public participation was low at the meeting. Other agency officials and fire agency representatives were present which allowed for discussion related to concerns regarding emergency and fire agency response. Below is a list of issues brought up at the meeting:

1. Baker Rural discussed a need for a water source in the South Rock Creek area. Some of the local citizens have indicated a willingness to assist with developing a source in the area and maybe other water sources as well. (It was mentioned that water availability for structural fire agencies was a shortfall across the county.)

2. Is there an opportunity for pre-season agreements for water? This could allow for more efficient fire response at the time of an incident (if an agreement is already in place between key private citizens and wildland fire agencies).
3. Concern was raised regarding the closing of forest roads which may impact response time to an incident. Is someone taking that into consideration? The ideal time to do that would be during the revision of the Forest Plan.
4. A representative from Oregon Department of Fish and Wildlife should be added to the committee. Fish and Wildlife own several tracks of land within urban interface areas that are considered high value. George Kiester will be contacted.
5. Stices Gulch and Rhody Road (near Sumpter) are good examples of limited access, fuel hazard, and home site congestion. Is there a way to develop an emergency access road in the Stices Gulch area? Are there negotiations in place regarding a loop road for the Rhody Road citizens?
6. BLM roads are not numbered or labeled. This makes it difficult for emergency services or fire responders to locate where they are and how best to respond to an incident.
7. Concern was raised regarding communications. Homeland Security grants are being spent on radios and narrowband frequency conversion in order to address some of the communication shortfalls across the county.

Other notes that came up during the meeting were mainly for informational purposes and are mentioned below:

1. When assessing fuel hazard on USFS managed land, the USFS stand data will be utilized. Vegetation data for private land also exists and will be utilized for private land only.
2. Rural and Volunteer fire departments have not recorded fire data in GIS prior to this point. The county will be working on developing a standard for recording fire data for those types of fire agencies so that the information can be used for analysis.

Values at risk that were mentioned included the feeding ground that Oregon Department of Fish and Wildlife manages for large game and agricultural watersheds. These values will be considered when creating wildland urban interface (WUI) boundaries. Because values change over time, the WUI boundaries will be considered fluid, changing over time with values.

City of Sumpter City Hall

This meeting was well attended by community members from all over the valley. One citizen from Greenhorn was also in attendance as well as structural fire representatives from both the municipal fire station and the Powder River fire districts. Below are a list of values and a list of concerns brought up by the attendees at the meeting.

Values at Risk included:

1. Mining claims.
2. McCully Forks Watershed.
3. Life and homes - "lots of niches outside of Sumpter where clusters of homes exist."
4. Flea Market is an economic value. Losing the City of Sumpter to a wildfire would affect the business the market brings in.
5. Recreational opportunities the area offers.
6. Sumpter Valley Dredge and State Park - the park resides on 1200 acres of dredge tailings at risk to fire.
7. City of Sumpter and surrounding area have participated in fuels treatment projects and collaborated with federal agencies to create landscape treatment across ownership boundaries that will protect the city. This creates an open buffer that will slow fire progression and protect the city's values.
8. Elk and deer - "they don't seem to mind the open area [left over from past fuel reduction projects]."
9. For the City of Greenhorn, the water from the Twin Springs area is a value. However, it exists on USFS land that hasn't been managed.

Concerns raised by citizens:

1. Tank traps on Sheep Creek Ridge impede access on any incident.
2. "What good is clearing areas when access is limited by roads that have been closed or are blocked? Fire can jump and embers fly ahead of the fire into areas that are still heavy with vegetation on land [that hasn't been managed]."
3. Some of the treated areas still have slash left on the ground creating a different fire hazard. These piles need cleaned up in a timely manner.
4. The representative from Greenhorn mentioned the desire of the town citizens to see a buffer created around Greenhorn (similar to the projects taken place around Sumpter). During the summer of 2004, two fires started near Greenhorn and it was over two hours before an agency showed up. (That issue was already dealt with.) If a fuel reduction project was conducted on federal land, fire spread could be slowed in order to wait for response by a wildland fire agency.
5. Access to mining claims in the Bar-C-Bar area have been ripped, seeded, and barred. This also poses a concern in the event of needing to respond to a fire in that area. "The short cut road is closed."
6. Access for structural fire engines is very limited in the Rhody Road, Bear Gulch, Golden Chariot, and Elkhorn Estates area. These roads aren't very wide and do not have any egress.
7. Usually, where roads have been closed, good water sources where fire equipment could fill up exists.
8. "By developing water sources, you not only help wildland fire agencies, but wildlife too."
9. Deer Creek and Elkhorn Estates do not have water sources; a strategy needs developed for putting in a pump station.

10. "[WUI] boundaries should be developed with potential growth in mind. This year alone, eight new homes have been built [in the Sumpter area]."
11. "The county needs to make sure that any development includes roads that are appropriate for fire and other emergency services, like being wider, groomed year-round, and have turn-arounds. Road width aids in snow removal as well."
12. The flea market creates a traffic and evacuation hazard.
13. Citizens of Greenhorn would like to see a water system created with storage and a pump chance for fire suppression.

Concerns raised by the structural fire agencies:

1. Powder River (in the survey the filled out for the CWPP) listed training and equipment needs that would improve their response.
2. Powder River would like to see more people receiving pressure to treat fuels on their own.
3. Powder River would like to see better access created, roads marked and address numbers in view, and better water supply.
4. Powder River will continue to boost membership and would love to have more volunteers. They are always looking for input from citizens in their district.
5. The City of Sumpter fire department would like to see water and hydrants, navigational equipment in every vehicle, and another repeater in the Sumpter Area or relocate the one in existence (maybe co-locate at Ireland).
6. In the Sumpter area, communication is still sketchy. Tone-outs are not being received by all of the volunteers. An option for a repeater could be on Grays Peak, which covers Sumpter area, Granite, etc.
7. For both fire departments, absentee landowners create two problems: one, they are not around to deal with fuel build-up on their property, and two, they leave a hole in the resource pool that the fire departments rely on for volunteers.

Other items discussed include:

1. The city fire department partners with Powder River and will assist in incidents outside the city limits.
2. The city fire department received a grant for a new fire station.
3. Growth is definitely taking place [putting a strain on the fire department].
4. The city fire department would like to continue their involvement in treating fuels and preparing homes for an impending wildfire.
5. During a wildfire evacuation, the Incident Commander of the fire decides what needs evacuated and the sheriff, assisted by state policemen and/or law enforcement from the USFS, orchestrates the evacuation.
6. The City feels there are numerous issues in the McCully Forks Watershed area regarding fuel reduction, hazard trees, etc. that could greatly impact the ability of the City to supply water to its citizens if a fire were to start in this area. McCully Forks Watershed is their primary water source. They feel that an MOU needs to be developed that spells out each side's (City and USFS) responsibility and needs.

***City of Halfway
City Hall***

This meeting was attended by city officials, fire department volunteers, citizens, and Bruce Honeyman of United Community Partners (a non-profit group working with homeowners and landowners on fuels reduction projects). The list of values at-risk, concerns regarding wildfire, and other pieces of information are listed below:

Values at-risk mentioned by the meeting attendees:

1. Carson is a major water source.
2. The Pine Valley aquifer.
3. The viewshed of Pine Valley.
4. Power lines/Transmission lines.
5. Recreation: both summer and winter. The water in the area is the biggest draw (Snake River, lakes, and streams).
6. Ranching and agriculture.

Concerns:

1. In Pine Valley, new construction is adding to the workload [of United Community Partners]. Also, access on the north and west sides of the valley are limited.
2. Private bridge load limitations are a concern for fire apparatus.
3. Vale BLM does not have a station in Halfway anymore. They have to come from Huntington or Baker City to respond to an incident. This slows response. Aircraft is sometimes stationed in Halfway or Baker City and comes from Vale most of the time.
4. "The USFS should seriously consider wildfire response and access before completing road deconstruction."
5. Biomass needs utilized more often during a fuel treatment project.
6. The Twin Lakes fires were discussed.
7. A lot of development is taking place in Cornucopia. Structural fire protection does not exist in that area and it takes a little less than thirty minutes for wildland fire agencies to respond. Building standards are being complied with, and a hydrant system with a 5,000 gallon tank is being installed.
8. There are approximately 300 homes scattered along the base of the mountains.
9. In the Pine Creek corridor, the Boulder Creek sale needed to go through to bring it back to a historical [forest ecosystem]. Slash has been left by the helicopter logging job, creating a fire hazard.
10. "We need sheep back in the area. They decrease the parasite load when they are rotated on grazing land with cattle. Sheep are great for reducing brush and [other fine fuel]."
11. Helicopter logging leaves branches and limbs in streams and causes diversions.
12. Ninety percent of the homes along the base and in the Pine Creek and Eagle Creek drainages are accessible. The other 10% of the homes are inaccessible with one-way access and brush closing the access in. Also, 85% of the homes are

- considered "non-defendable" in the event of a wildfire due to fuel hazards around the homes.
13. Absentee landowners present the same problem for this area as they do for the Sumpter area. They aren't around to deal with fuel and hazards around their homes and on their property and they aren't available as volunteer resources for the fire departments.
 14. People commute to Baker City for jobs. This could present a problem when trying to conduct an evacuation during an emergency.
 15. "The demographics are getting older and are limited in their ability to keep up their homes and properties and aren't able to serve as volunteers for the fire departments."
 16. A power outage could be long term if a wildfire destroys a power line or transmission line.
 17. Grassland in the Eagle Valley area is "flashy, fast moving."

Other information presented at the meeting:

1. Sixteen property owners have signed up with United Community Partners (UCP), and ten of those sixteen projects have been completed. Contact UCP at ucp@pinetel.com if anyone is interested in participating in a fuels reduction project.
2. Halfway gets their municipal water from two wells.
3. Pine District - USFS - is the initial attack resource for any incidents in the area. Wildland incidents are responded in a "closest force" method.
4. There is a county-wide mutual aid agreement in place between all fire agencies.

City of Haines City Hall

This meeting was attended by city officials, fire department volunteers, and citizens from Haines and the surrounding neighborhoods.

Values at-risk included:

1. Rock Creek power house.
2. Water sources for agricultural use.
3. Fish species.
4. High Lakes area for outdoor enthusiasts.
5. Tourism brought in by recreation.
6. Anthony Lakes Ski Resort.
7. Trees and beauty. The county relies on that economically.
8. Impact of fire on local financial well-being (value is financial well-being and concern is the impact of fire on that).
9. Elk feeding stations.
10. North Powder River watershed.

Concerns:

1. North Powder River drainage needs some sort of fuel treatment. The fuel is heavy.
2. Bridge weight limits. Private bridges need identified in the county map books and weight limits posted/listed.
3. A wildfire could possibly cause water loss to the agricultural community. The North Powder River watershed is especially at-risk.
4. Other concerns for citizens in the North Powder River watershed include bridge load limits, washouts that could block roads and impede fire response, lack of personnel if fires are happening in August, which could hinder aircraft availability and fire response, and affect of wildfire on fisheries.
5. The practice of saving ground for fall grazing could affect range availability. If rangeland burns in a wildfire, it is three years before the land is available again. This is a loss of forage. Prescribed burning on rangeland also elicits the same concern for permit fees.
6. Private timber land that borders unmanaged federal land presents a fire risk to the private timber owner.
7. If feed stations burn up in a fire, the surrounding farm ground is at risk to large game grazing on their crops. "Treating fuels around feeding stations may keep elk up higher longer."
8. Haines Rural Fire District raised concerns regarding equipment needs to help improve wildland fire response, water sources need in the Rock Creek/Bulgar Flat area, and improving recruiting and retention of volunteers.

***Unity
Unity Community Hall***

Citizens from Unity and surrounding urban interface areas of Woodtick Village and Rattlesnake Estates were in attendance, as well as fire district volunteers.

Values include:

1. Monument Rock Wilderness.
2. South Fork Watershed that feeds Unity Reservoir.
3. Other watersheds that feed the Unity Reservoir.
4. Tourism and Recreation.
5. Agriculture.
6. Privately owned timber.
7. "Recreational" homes for upper-middle class. The area at lake (reservoir) has become a destination resort where these homes are located.

Concerns:

1. The Burnt River Watershed contains fuels that present a fire hazard.
2. Access is an issue for Rattlesnake Estates.
3. Availability of water for both Woodtick and Rattlesnake.
4. Fuel load in WUI areas.
5. Limited personnel and lack of wildland firefighting equipment for city fire department (they offer a subscription service to outlying areas). There are more homes that they are supposed to respond to outside of the city limits than there are homes within the city limits.
6. Recruitment/Retaining of volunteer firefighters. "The commitment is really only one night per month. We need firefighters."
7. There are over 90 homes in the Woodtick/Rattlesnake area, lots which are mobile homes and cabins that are vulnerable to wildfire. The homes have mostly composite roofing and few metal roofs.
8. A wind-driven wildfire event is a concern for citizens familiar with the "West Fork" draw.
9. "How do we treat fuels on property with absentee landowners? Their property is creating a hazard for the properties that are cleaned up."
10. There was an issue with taking water out of a private lake used for irrigation during the Monument Fire. "They caught hell. We need to set up pre-season agreements for water before a fire happens. Then there won't be a problem." Maybe one agreement can be created for use by all wildfire and structural firefighting agencies. This could streamline the process.
11. Radio communication doesn't seem to be an issue; however cell phone coverage is nonexistent.
12. Depending on time of year, water can be an issue.
13. The wildlife area needs treated. "The fuel load is heavy right down to the homes."
14. "The Wallowa-Whitman needs to change policy on cutting of Ponderosa pine. It should be more like Malheur. Cut 150 feet from road. Clean up and leave natural fuel breaks from road. At the Malheur, you can get a permit signed to cut Ponderosa pine in some areas. The Wallowa-Whitman should designate areas to cut firewood for free. This would be a great clean-up measure of downed fuel and wouldn't cost the forest anything."

Other information shared:

1. The BLM conducted a study done by Dynamac. That may have some information that could help with the CWPP.
2. The USFS is in the process of analyzing the South Fork of the Burnt River for prescribed burning. The proposal is for 2400 acres.
3. The BLM has a treatment project around Rattlesnake Estates planned.

2nd Round of Public Meetings: Meeting Format

These community meetings were held:

Tuesday, March 29, 2005, at the Baker County Courthouse in Baker City

Thursday, March 31, 2005, at the city hall in Haines

Tuesday, April 12, 2005, at the city hall in Halfway

Thursday, April 14, 2005, at the city hall in Sumpter

Wednesday, April 20, 2005, at the Unity Community Center in Unity

The meetings consisted of discussing high hazard wildland-urban interface (WUI) areas and communities-at-risk, review the list of priority WUI areas of the county, and discuss ideas for projects within the WUI areas based on outcomes of the hazard assessment conducted. Also, a draft copy of the plan was available for review and comment.

Representatives from the County and Oregon Department of Forestry provide information and lead the discussions. Other agencies and fire departments that were participants in the planning effort were also available for questions. The concerns brought up at the meetings are listed below and will be explored before the annual review and update of the Baker County Community Wildfire Protection Plan.

Baker County Courthouse Baker City, OR

Agency personnel and citizens attended this meeting. There weren't any concerns regarding the WUI boundaries established.

City of Haines
City Hall

Agency personnel and Haines Rural Fire District personnel attended this meeting. The Rock Creek/Bulgar Flats WUI boundary was expanded at this meeting.

Concerns/Issues:

1. A concern was raised regarding the gap between the Rock Creek/Bulgar Flats WUI and the Face of the Elkhorns WUI. It was discussed that the break in vegetation and homesite density were determining factors in not having the boundaries come together. If more homes are placed in that area, there would be a need to expand the boundary. Data will be gathered before the annual review to aid in the decision of changing the WUI boundaries mentioned.
2. Anthony Lakes WUI was discussed. Even though Anthony Lakes is surrounded by recreational cabins, those cabins do not have structural fire protection. The permittees of those cabins would need to work with the USFS on a fuels reduction project if desired, or determine if there is a need and support for a pumper truck to be stationed at the Lake and manned by residents of the cabins. Water is also an issue for structural engines. Should a water supply be established at the Guard Station?
3. The ISO rating for fire departments has been adjusted to reflect a higher number if a fire station is farther than 5 miles from a home. To remedy the higher rating for homes in the Muddy Creek area, another station is being built. Response time for the west side of the district will improve.
4. The dump should be included within any WUI boundary assigned to the City of Haines. (Currently, the only boundaries established are those assigned to the high hazard to high-moderate hazard communities in the county.)
5. The City of Haines would like to receive a copy of the plan.
6. Haines Rural is working on developing a water source (that may come off of the pipe line to Kerns) in the Rock Creek/Bulgar Flats area.
7. A repeater is being put up in the Western Heights area. This will aid Haines in covering the communication "holes" near the dump and in the Lone Pine area.
8. Haines is training their volunteers for wildland fire suppression.

City of Halfway
City Hall

This meeting was attended by agency personnel, city officials, and United Community Partners.

Concerns/Issues:

1. The Eagle Creek WUI boundary was appropriate. Fuels treatment is taking place in the drainage (where the homes are). It was felt that there was more of a threat for fire to move from the drainage up to the ridge.
2. The East Eagle/Main Eagle WUI boundary was expanded to include the new trail head. To note, the Baker County Soil and Water Conservation District has concerns regarding a wildfire in the Eagle drainages. Citizens in the area fear fuels treatment on federal ground will never happen due to the location of the area (near wilderness). Currently, the USFS has a CE (categorical exclusion) for fuels now because the area is a WUI.
3. The Cornucopia WUI boundary was expanded to include private land in 6S 45E 35Sec. The Pine Valley WUI was also expanded to include anything 1/2 mile from USFS boundary.
4. There is development taking place at the Copperfield mine (end of the road). When this is completed, the Oxbow WUI boundary may be affected. This will be discussed at the annual review meeting of the CWPP.

City of Sumpter
City Hall

Agency personnel were in attendance along with two structural fire representatives.

Concerns/Issues:

1. The Rhody Road WUI boundary was expanded to include a group of cabins and an RV park located southeast of the area.
2. To be determined before the annual review - should the Elkhorn Estates/Deer Creek/McEwen boundary be incorporated with the Sumpter WUI boundary? It was felt there was enough of a break in homesite density at this time that the expansion wasn't necessary.

*Unity
Unity Community Center*

This meeting was well attended by community residents of Unity, Woodtick Village, and Rattlesnake Estates. Also, agency personnel and structural firefighters were also present.

Concerns/Issues:

1. A prescribed burn conducted by the USFS in the Sherman Creek area is scheduled for Spring 2005. An orange flag will be on the flag pole at the Unity Ranger District when the USFS is scheduled to burn. This should serve as a better form of communication to all residents that there will be smoke in the area.
2. The only way to improve fire response for residents is to develop another fire station or improve the fire department in existence.
3. Communication between residents could be improved when trying to pass out prevention information. Keith Shollenberger, Assistant Unit Forester, would like to set up a time with Everett Baumeister to discuss how best to triage homes in the Woodtick Village/Rattlesnake Estates WUI area. Homesite data will be collected and captured in GIS.
4. How will county road maintenance improve with respect to fuels and trees hanging over the road? The committee will brainstorm ideas on this issue, coming up with mitigation strategies and implementation of those strategies during the annual review meeting.
5. A copy of the plan will be available at the Unity Ranger Station.

Questionnaire Results

The purpose of the questionnaire was to glean from citizens of Baker County how aware they are of the concepts that have been circulating as a result of the National Fire Plan. Since the passing of the Healthy Forest Restoration Act and the printing of local newspaper articles regarding the Baker County Community Wildfire Protection Plan, it was also important to ask a few questions about the type and level of participation a citizen would be interested in contributing to the CWPP process. The questionnaire was offered on the website available for the Baker County Community Wildfire Protection Plan and was handed out at the first round of public meetings. Citizens participated in filling out the questionnaire on a voluntary basis. It is not scientific in any way, and will be used to improve fire prevention and education. A summary with responses is listed below.



Photo 1: Fuels Treatment on Spaulding Ridge, Angie Johnson, ODF.

1. When asked if they were concerned about a large wildfire event happening in "their" community, 61% answered **very concerned**.
2. When asked how aware they were about the concept of "defensible/survivable" space, 11% answered **not aware**, 5% answered **somewhat aware**, 44% answered **moderately aware**, and 40% answered **very aware**.
3. The national program of *Firewise* has been promoted in Northeast Oregon since 2001. Oregon Department of Forestry, through the local unit and the district offices, has hosted four workshops and has a moderator on staff. When the citizens were asked if *Firewise* had been presented to their community, 22% **didn't know**, 22% said **yes**, and 56% said **no**.
4. The distribution of values of these citizens varied. Responses to "what do you value most about your community" were close-knit neighbors, no traffic, the view, volunteerism, water, wildlife, homes, historic areas, parks, people, recreation, lifestyle, beauty, forests, watersheds, environment, quiet and peaceful atmosphere, fish, small towns, remoteness, hunting, timber, farming and ranching, open spaces, and little crime.
5. When asked would those values be threatened by the risk of wildfire, 13 of the 15 that responded answered **yes**. When asked how those values would be threatened by wildfire, the responses were: injury or loss to life; financial loss; North Powder drainage would be destroyed due to heavy dead and down fuel; loss of trees in watershed would destroy fish population - erosion of steep slopes would fill creeks; scenery would be destroyed; watershed and recreation would be affected; everything could be lost at once if a fire is devastating enough; homes would burn; and "no water retention, no timber sales, and no tourism."

6. When asked if they have heard of community wildfire protection planning, 53% answered **yes**, and 47% answered **no**.
7. When asked if they would be willing to review and comment on the final draft of the Baker County Community Wildfire Protection Plan, 13 citizens answered **yes** (and left their contact information so that we could send them a hard copy or an electronic copy) and 5 citizens answered **no**.

Appendix C. Natural Hazards

Natural Hazards explored during the wildfire hazard assessment included an analysis of fuels, topography, and weather. Below is a more detailed discussion of the analysis.

Fuels / Vegetation

Data used to create a fuels inventory in GIS was derived from Landsat imagery provided by Oregon Department of Forestry for private lands and the Willowa-Whitman National Forest GIS library (GIS and Oracle tables derived from stand exams and photo interpretation). For Baker County, the increased risk of a large wildfire event is caused by the buildup of forest fuels and changes in vegetation composition over time. Unnaturally dense stands competing for limited water and nutrients and are at increased risk of wildfire, and from insect and disease epidemics.

Condition Class for the county is minimal at level 1, while condition class 2 and 3 dominate. In addition, fire regimes are altered from their historic ranges, setting the county up for wildfires that will be larger in size, more intense and severe, causing landscape patterns to change significantly. A natural fire regime is a general classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence of aboriginal burning (Agee 1993, Brown 1995). Coarse-scale definitions for natural (historical) fire regimes have been developed by Hardy et al. (2001) and Schmidt et al. (2002) and interpreted for fire and fuels management by Hann and Bunnell (2001). There are five natural (historical) fire regime groups adapted for all lands managed by the federal agencies. They are based on average number of years between fires (fire frequency) combined with the severity (amount of replacement) of the fire on the dominant overstory vegetation. One or more of the following activities may have caused this departure: fire suppression/exclusion, timber harvesting, livestock grazing, introduction and establishment of exotic plant species, introduced insects and disease, or other pest management activities.

Characteristic vegetation and fuel conditions are considered to be those that occurred within the natural (historical) fire regime. Uncharacteristic conditions are those that did not occur within the natural (historical) fire regime. These include invasive species (e.g. weeds, insects, and diseases), "high graded" forest composition and structure (e.g. large trees removed in a frequent surface fire regime), or repeated annual grazing that maintains grassy fuels across relatively large areas at levels that will not carry a surface fire. Determination of amount of departure is based on comparison of a composite measure of fire regime attributes (vegetation characteristics; fuel composition; fire frequency, severity and pattern) to the central tendency of the natural (historical) fire regime. The

amount of departure is then classified to determine the fire regime condition class. To understand the definitions of fire regime and condition class, a definition table is located in Appendix D of this plan.

Surface fuel hazard was determined by using fire behavior fuel models and/or potential flame length (for ground and ladder components). Fuel Models are descriptions of the fuel types that are used in surface fire behavior modeling and the Fire Behavior Prediction System (FBPS). Values were assigned for each fuel group and Table 1 below displays the grouping of fuel models to determine hazard:

<u>Surface Fuels</u>	<u>Value</u>
Group 1	1
Group 2	3
Group 3	5

Table 1. Fuel Models Used to Determine Hazards¹

Fuel Hazard Factor	Fuel Types	Fire Characteristics
1	Grass, Low/less Flammable brush, and short-needle timber litter (FM 1, 5, 8)	Typically produces a flame length of up to 5 feet; a wildfire that exhibits very little spotting, torching, or crowning, and which results in a burned area that can normally be entered within 15 minutes. Low severity.
2	Grass/Timber, Moderate brush, conifer reproduction, open sage and juniper (FM 2, 6, 9)	Typically produces a flame length of 5-8 feet; a wildfire that exhibits sporadic spotting, torching, or crowning, and which results in a burned area that can normally be entered within one hour. Mixed severity.
3	Tall, flammable grasses, Heavy/flammable brush, timber/slash (FM 3, 4, 10-13)	Typically produces a flame length of over 8 feet; a wildfire that exhibits frequent spotting, torching, or crowning, and which results in a burned area that normally cannot be entered into for over one hour. Stand replacement severity.

¹ Wolf, Jim. *Concepts for Identifying and Assessment of Communities at Risk in Oregon*, July 19, 2004.

Crown fuel hazard was derived from the vegetation conditions of the landscape, canopy closure and structure being considered. The values below were assigned:

<u>Crown Fuel Group</u>	<u>Value</u>
Low	1
Moderate	3
High	5

Total vegetation hazard was determined by combining the points assigned to crown fuel hazard and the points assigned to surface fuels hazard. The total possible value for the vegetation hazard is ten and an adjective rating was assigned to the point breaks (Historical notes have been kept for the GIS processes used and archived at the Oregon Department of Forestry, Northeast Oregon District office in La Grande, Oregon):

<u>Adjective</u>	<u>Value</u>
Low	1 to 4
Moderate	5 to 7
High	8 to 10

Topographic Hazard

Slope and aspect affect both the intensity and rate of spread of a wildfire. The topography factor was derived from the Digital Elevation Model for Umatilla County. The following values were assigned to the combination of slope and aspect working together on the landscape:

<u>Slope</u>	<u>Value</u>
0 – 25%	1
25 – 50%	2
> 50%	3

<u>Aspect</u>	<u>Value</u>
N, NE	1
NW, E	2
W, SE	3
S, SW, Flat	4

Total topographic hazard was determined by combining the points assigned to both slope and aspect hazards, with a maximum of seven points possible.

Total Wildfire Hazard

The total topographic hazard rating and the total fuels hazard rating were combined using Spatial Analyst (an ESRI product) to determine overall natural hazard of Baker County. The maximum points assigned for total topographic hazard was seven and the maximum points assigned for total vegetation hazard was 10. The breakpoint used to determine high hazard or low/moderate hazard was 10; anything that scored 10 points or more was considered high hazard, and anything below 10 was considered moderate or low hazard (there was no delineation between low and moderate). Several layouts (maps) were created to display the total wildfire hazard in relation to the WUI boundaries across the county. The county was divided into four quadrants: NE Baker County, NW Baker County, SE Baker County, and SW Baker County. The maps are located in Appendix C of this plan and were used to verify the prioritization set by the steering committee.

Weather Hazard

In Baker County, weather patterns can produce summer lightning storms that start many fires. These multiple starts can put a strain on the wildland firefighting resources spread across the county. With the drying of fuels over time and the low relative humidity factored in, the probability for large fires can significantly increase during these lightning events. The number of days per season that forest fuels are capable of producing a significant fire event is also important to consider. Oregon Department of Forestry has already determined that eastern Oregon is at the highest hazard rating for weather. This value was assigned through an analysis of daily wildfire danger rating indices in each regulated use area of the state. This assigned value is constant across Baker County. However, since weather patterns vary due to the mountainous landscape of the county, the high hazard value was offset with annual rainfall levels as part of the scoring process. This helped to prioritize the WUI areas as well as reflect a more realistic assessment of weather hazard.

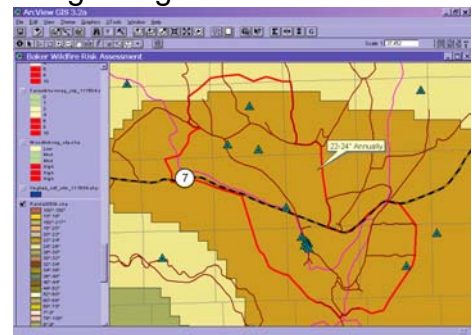


Figure 1: Whitney WUI - 22-24" Annual Rainfall

<u>Annual Rainfall</u>	<u>Value</u>
< 12 inches	1
13 – 24 inches	2
> 25 inches	3

Appendix D. Fire Regime/Condition Class

Expanded Fire Condition Class^a Definition Table.

Condition Class	Fire Regime ¹	Example Management Options ¹	Examples of Key Ecosystem Component Susceptibility to Changing Fire Condition Classes				Examples of published photo series
			<i>Species composition and structure</i>	Invasion by non-native species	Smoke production, Hydrology, and Soils	Insects and disease	
Condition Class 1	Fire regimes are within an historical range, and the risk of losing key ecosystem components is low. Vegetation attributes (species composition and structure) are intact and functioning within an historical range.	Where appropriate, these areas can be maintained within the historical fire regime by treatments such as fire use.	Species composition and structure are functioning within their historical range, especially at a landscape level.	Non-native species are currently not present or present in limited extent. Through time or following disturbance sites are potential vulnerable to invasion by non-native species.	Are functioning within their historical range.	Insect and disease populations are functioning within their historical range.	
Condition Class 2	Fire regimes have been moderately altered from their historical range. The risk of losing key ecosystem components is moderate. Fire frequencies have departed from historical frequencies by one or more return intervals (either increased or decreased). This results in moderate changes to one or more of the following: fire	Where appropriate, these areas may need moderate levels of restoration treatments, such as fire use and hand or mechanical treatments, to be restored to the historical fire regime.	Species composition and structure have been moderately altered from their historical range, especially at a landscape level. For example: Grasslands – Moderate encroachment of shrubs and/or invasive exotic species. Shrublands – Moderate encroachment of trees, late seral shrubs and/or invasive exotic species. Forestland – Moderate encroachment of shade tolerant tree species and/or moderate lose of shade intolerant tree species caused by logging, or exotic insects or disease.	Populations of non-native invasive species have increased, thereby increasing the potential risk for these populations to expand following disturbances, such as wildfires.	Have been moderately altered from their historical range.	Insect and disease population have been moderately altered from their historical range.	

	size, intensity and severity, and landscape patterns. Vegetation attributes have been moderately altered from their historical range.						
Condition Class 3	Fire regimes have been significantly altered from their historical range. The risk of losing key ecosystem components is high. Fire frequencies have departed from historical frequencies by multiple return intervals. This results in dramatic changes to one or more of the following: fire size, intensity, severity, and landscape patterns. Vegetation attributes have been significantly altered from their historical range.	Where appropriate, these areas may need high levels of restoration treatments, such as hand or mechanical treatments, before fire can be used to restore the historical fire regime.	Species composition and structure have been significantly altered from their historical range, especially at a landscape level. For example: Grasslands – High encroachment and establishment of shrubs and/or invasive exotic species. Shrublands – High encroachment and establishment of trees, late seral shrubs and/or invasive exotic species. Forestland – High and encroachment establishment of shade tolerant tree species and/or high loss of shade intolerant tree species caused by logging, or exotic insects or disease.	Populations of non-native invasive species are quite high and in some cases the dominant species on the landscape. Any disturbance will likely increase both the dominance and geographic extent of these invasive species.	Have been significantly altered from their historical range.	Insect and disease population have been significantly altered from their historical range.	
<p>^a Fire Regime Current Condition Classes are a qualitative measure describing the degree of departure from historical fire regimes, possibly resulting in alterations of key ecosystem components such as species composition, structural stage, stand age, canopy closure, and fuel loadings. One or more of the following activities may have caused this departure: fire suppression, timber harvesting, livestock grazing, introduction and establishment of exotic plant species, introduced insects or disease, or other past management activities¹.</p>							

Sources:

- 1 (in gray):** Schmidt, Kirsten M.; Menakis, James P.; Hardy, Colin C.; Hann, Wendall J.; Bunnell, David L. 2002. **Development of coarse-scale spatial data for wildland fire and fuel management.** Gen. Tech. Rep. RMRS-GTR-87. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 41 p. + CD.

- 2:** Hardy, Colin C., Schmidt, Kirsten M., Menakis, James P., and Sampson R.N., 2001. **Spatial data for national fire planning and fuel management.** International Journal of Wildland Fire. 10: 353-372

Appendix E. Scoring Criteria

This page was prepared by Angie Johnson, Oregon Department of Forestry, to provide additional detail on the various categories used to rank the various WUI areas by the Steering Committee.

Category 1:

Likelihood of Fire Occurring

Based on Fire Occurrence Rate (FOR) per 1,000 acres.
Used fire history data from ODF, USFS, and BLM for last ten years (1994 - 2003).

Category 2:

Topographic Hazard

Slope and Aspect working together on landscape. For example, 0-25% slope on north aspect would be considered low hazard whereas, 50% slope on south/southwest aspect would be considered high hazard. GIS was used to calculate the raster files and reclassify the combination of slope hazard and aspect hazard to come up with topographic hazard.

Category 3:

Total Fuel Hazard Rating

Surface and Ladder Fuels working together on the landscape. For example, Fuel Group 3 with Crown Fuel 3 would be considered high hazard, whereas Fuel Group 1 with Crown Fuel 1 would be considered low hazard. GIS was used to calculate the raster files and reclassify the combination of surface fuel hazard and ladder fuel hazard and arrive at total fuel hazard.

Category 4:

Overall Fire Protection Capability Rating

<u>Homesite Density</u> (homes per 10 acres)	Check Appropriate Box Under <u>Category</u>
---	--

Low	0 - .9	<input type="checkbox"/>
Moderate	1 - 5.0	<input type="checkbox"/>
High	5.1+	<input type="checkbox"/>

Other Risk Factors Present

Low	< 1/3 present	<input type="checkbox"/>
Moderate	1/3 - 2/3 present	<input type="checkbox"/>
High	> 2/3 present	<input type="checkbox"/>

Other risk factors: Transmission power lines, above ground distribution lines, power substations, active logging, construction, debris burning, slash burning, mining, dispersed camping, developed camping, off-road vehicle use, railroad, federal/state highway, county road, public access roads, camps/resorts/cabins/stables, schools, business, ranch/farm, lightning prone, dump, mowing dry grass, woodcutting, equipment use, flammables present....

Organized Response

Low	Both Structural and Wildland	<input type="checkbox"/>
Moderate	Wildland response only	<input type="checkbox"/>
High	No organized response	<input type="checkbox"/>

Fire Response

Using outermost group of structures to determine response time. Response time also includes time it takes to bring in volunteers.

Low	< 10 minutes	<input type="checkbox"/>
Moderate	> 10 minutes	<input type="checkbox"/>
High	< 20 minutes	<input type="checkbox"/>
Extreme	> 20 minutes	<input type="checkbox"/>

Community Preparedness

Low	Organized group, CWPP, phone tree, mitigation efforts	<input type="checkbox"/>
Moderate	Primarily agency efforts (mailings, campaigns, etc.)	<input type="checkbox"/>
High	No effort	<input type="checkbox"/>

Structural Vulnerability

Ingress/Egress, All-Season Road Condition, Fire Service access, adequate water supply for structural firefighters, comfort level of structural fire district regarding defendability of structures in wildfire event.

Low	< 1/2 inadequate	<input type="checkbox"/>
High	> 1/2 inadequate	

**Category 5:
Weather Hazard**

Weather Factor of High has been applied by the State of Oregon for all of eastern, southern, and southwestern Oregon. The high hazard rating was offset by using annual precipitation. The layer used to determine annual rainfall came from the Oregon Dept. of Forestry GIS library.

**Category 6:
Values at-risk**

Values Protected

Community values like wildlife, recreation, viewshed, hunting/fishing, municipal watersheds, power substations and corridors, communication sites and facilities, transportation corridors, homes, life, etc.

High	Yes	<input type="checkbox"/>
Low	No	<input type="checkbox"/>

Appendix F. Communities At-Risk

NOTE: Communities adjacent to each other resulted in combined/averaged scores.

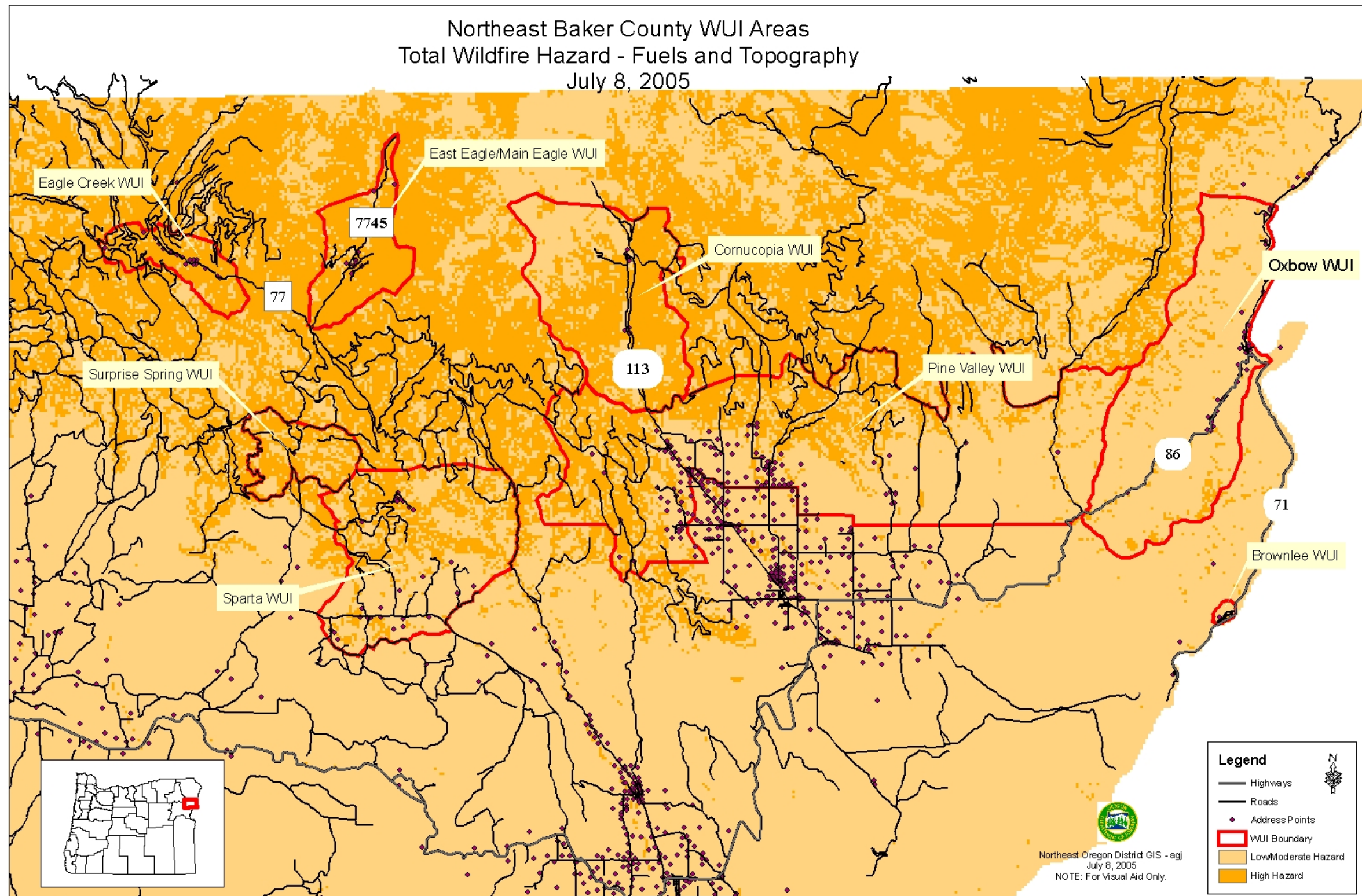
Baker County CAR Totals

<u>High</u>	<u>Score</u>	<u>Moderate</u>	<u>Score</u>	<u>Low</u>	<u>Score</u>
Wood Tick/Rattlesnake	21	Salmon Creek	14	Keating	10
Stices Gulch	20	Rhody Rd	14	Richland	10
Bourne	18	Marble Creek	14	Elkhorn WMA #2	9
Surprise Spring	17	Elkhorn WMA #1	14	Miles Bridge	9
Rock Creek	16	New Bridge	14	Radium Hot Springs	6
Washington Gulch	16	Brownlee	14		
Auburn Gulch/Elk. WMA	16	School/Substation	14		
Greenhorn	16	Carson/Pine Valley	14		
Weston Heights	16	Black Mountain #2	14		
Black Mountain #1	16	Rye Valley	14		
Huntington	16	Pleasant Valley	13		
Torchlight Spring	16	Elkhorn WMA #3	13		
Homestead	16	Harry Hewitt Park/Brownlee	13		
Pine Creek	16	Jimtown (Langrell)	13		
Bear Gulch	15	Farewell Bend State Park	13		
Pine Creek	15	Durkee	12		
BC Watershed/Face	15	Hereford	12		
Elkhorns	15	Halfway	12		
Elkhorn WMA #4	15	Pine	12		
City of Sumpter/McCully Forks	15	City of Haines	11		
Elkhorn Est./Deer Cr./McEwen	15	Wirth Jct.	11		
East Eagle	15	Elkhorn WMA #5	11		
Sparta	15	Unity	11		
Main Eagle	15	Oregon Trail Interpretive Center	11		
Cornucopia	15				
Copperfield/Oxbow	15				
Bulger Hill Road/Bulger Flat	15				
Anthony Lakes	15				
Whitney	15				
Eagle Creek/Tamarack CG	15				

Adjective Rating	Range
Low	4 to 10
Medium	10 to 14
High	15 to 22

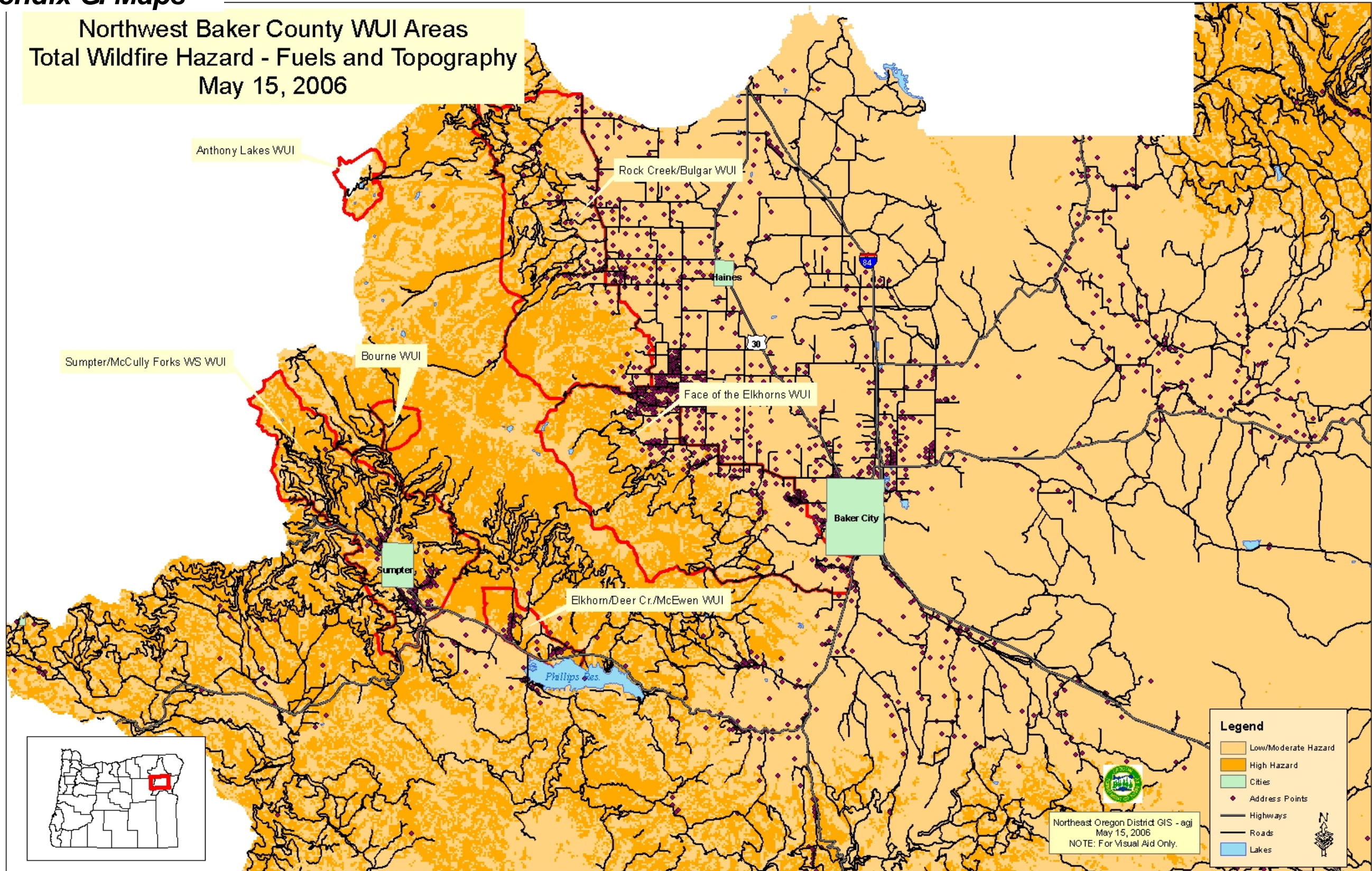
(Being surrounded by Ag. land will move a community from a medium to a low if the score is 10.)

Appendix G. Maps

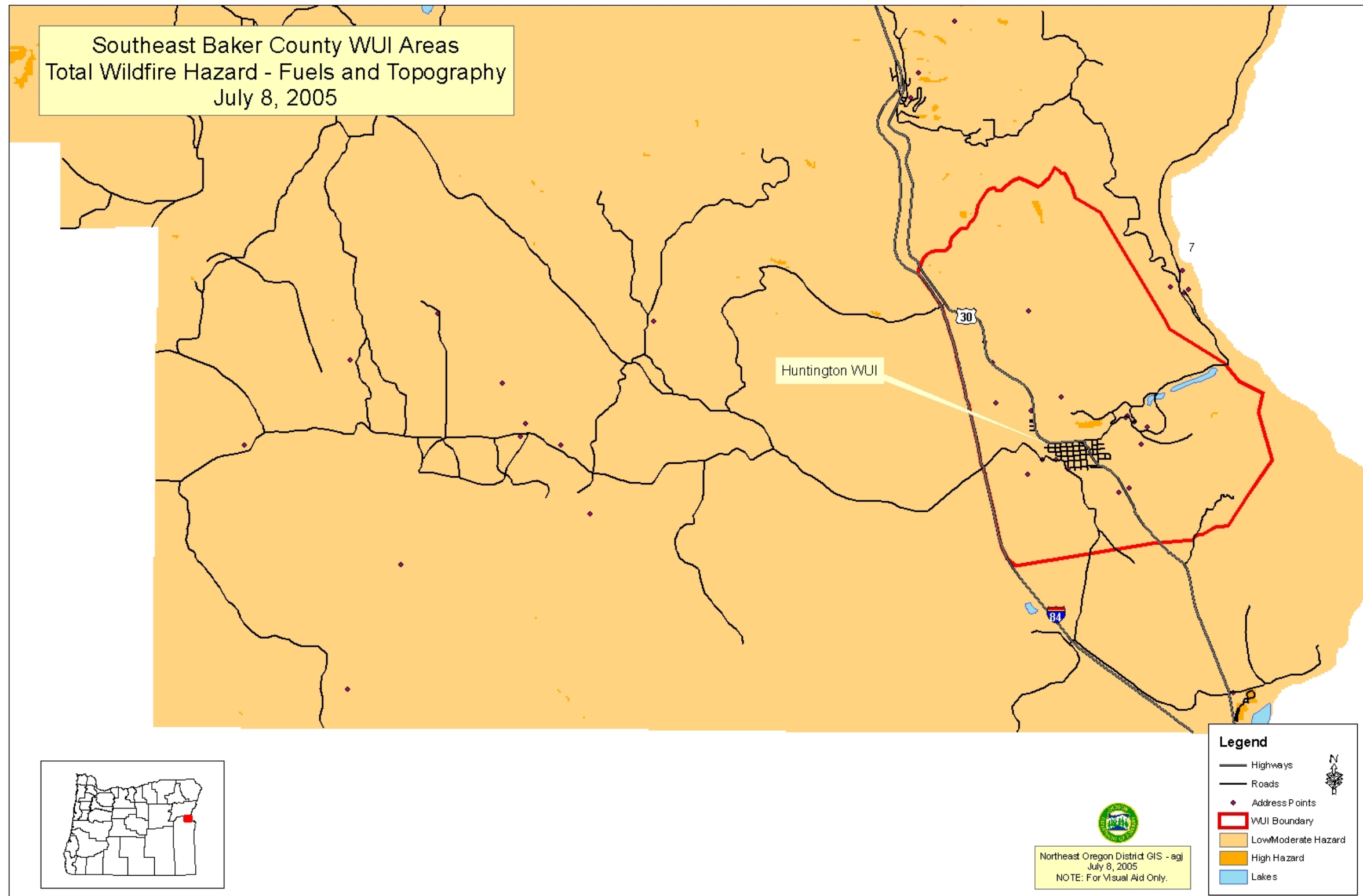


Appendix G. Maps

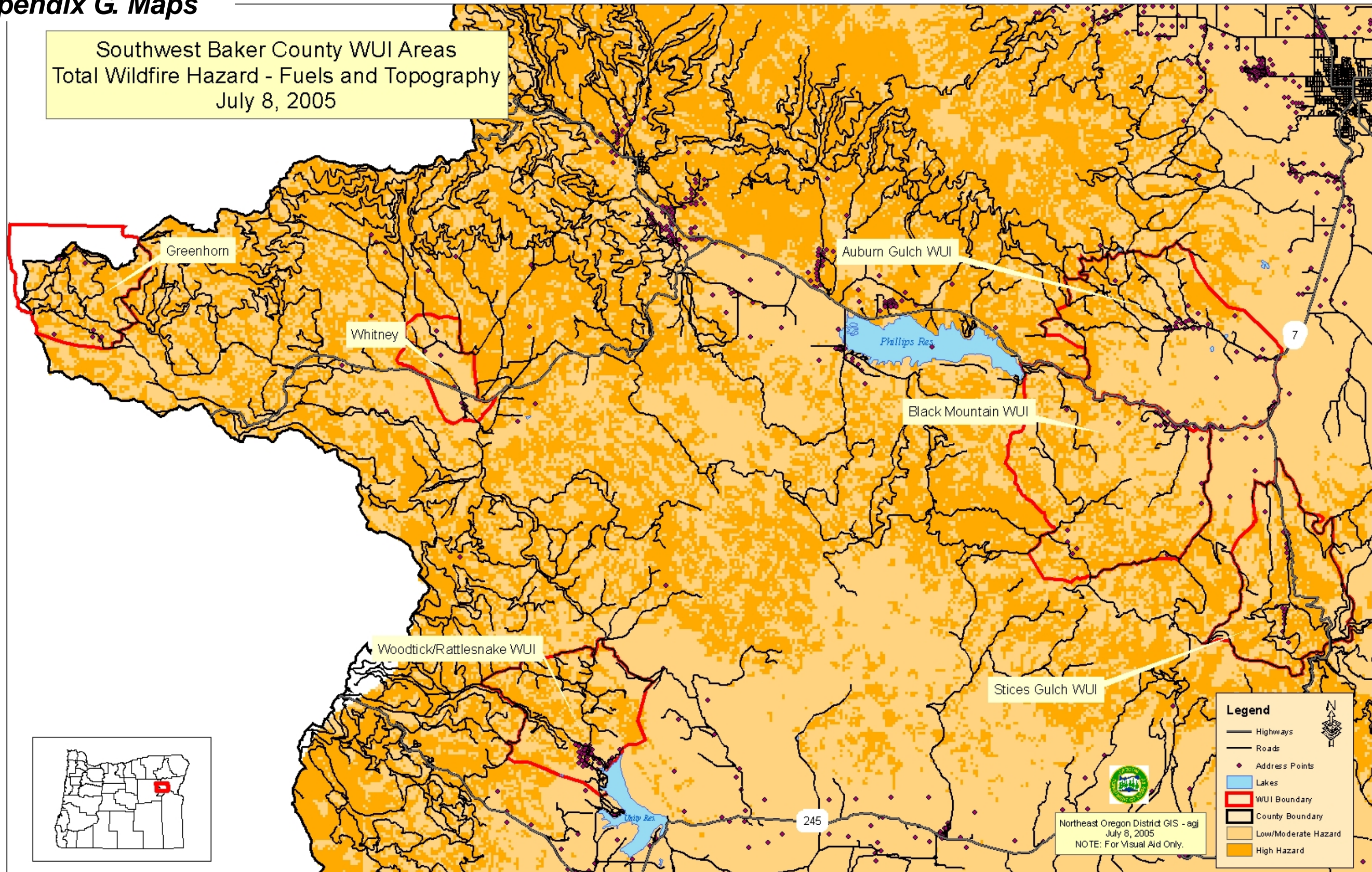
Northwest Baker County WUI Areas
Total Wildfire Hazard - Fuels and Topography
May 15, 2006



Appendix G. Maps



Appendix G. Maps



Appendix H. Structural Fire Resources Summary

Baker County Fire Organizations Organizations, Personnel, and Equipment – August 2005

Baker City Fire Department Station No. 24

Baker City Fire Department is a municipal fire organization located in Baker City, Oregon. The department is a combination department with a full-time staff of 13, and 14 volunteers – most personnel are cross-trained in fire, medical, ropes, and auto rescue. The department provides wildfire and structural fire protection for approximately 7 square miles, and responds ALS medical within a 1600 square mile ASA throughout Baker County.

Staff	Chief		1 (Monday – Friday)		
	Assistant Chiefs		3 (One assigned to each shift/one training officer (7am-7am)		
	Office Administrative		1 (Monday – Friday)		
	Lieutenants		3 one each shift		Volunteer Lt. 4 each assigned to a shift
	Firefighters		6 (2 each shift, one assigned to fire prevention)		Volunteer FF 13 each on duty company
Fire Apparatus	2431	2001 Central States	Pumper	1000 GAL	1250 GPM w/Foam
	2432	1991 KME	Pumper	750 GAL	1250 GPM
	2433	1965 La France	Pumper	500 GAL	1250 GPM
	2451	1972 Crown/Pierce Snorkel		200 GAL	1250 GPM
Medical Units	2420	2003 Wheel Coach	4x4		
	2421	1997 Medtec	4x4		
	2422	1991 Frontline			
Support	2471	2005 Ford Crew Cab	4x4	150 GAL	11 HP Honda

Baker Rural Fire Protection District Station No. 25, 26, 27

Baker Rural Fire Protection District is a rural fire district bordering Baker City to the Northwest. The district, one of Baker County's oldest, is a full volunteer department with 1 Chief, 10 firefighters, and approximately 17 support members. Baker Rural has three stations located throughout the district, and serves a growing population of homes in the wildland-urban interface, as well as farm and ranch operations. Highlighted protection responsibilities include Hwy 30, I-84, a Railway, the Baker City Watershed and the Baker City Airport.

Staff	Chief		1		
	Captains		3 (two assigned as training officers)		
	Board Secretary		1 (part-time)		
	Firefighters		10 (one assigned to Baker County Interagency Fire Prevention Team)		
	Support Crew		17		
Fire Apparatus	Station No. 25 (Pocahontas Road)				
	2534	1975 Seagraves	Pumper	500 GAL	w/Pro Pack Foam
	2547	1974 (Trailer)	Tender	5,000 GAL	
	2585	1987 Dodge	Brush	250 GAL	4x4 w/ CAFS
	Station No. 26 (Pine Creek)				
	2632	1987 Grumman	Tender	650 GAL	4x4 w/Pro Pack Foam
	2640	1989	Tender	4200 GAL	
	2681	1966 Ford	Brush	250 GAL	4x4
	2683	1986 Chevy	Brush	500 GAL	w/Pro Pack Foam
	Station No. 27 (Lindley Lane)				
	2738	1970 Dodge V-Pelt	Pumper	1500 GAL	w/Pro Pack Foam
	2786	1971 Dodge V-Pelt	Brush	250 GAL	4x4x w/Pro Pack Foam

**Unity Fire & EMS Department
Station No. 37**

Unity Fire & EMS Department is an isolated department located in Unity, Oregon. The department is a full volunteer department with one station located in the City of Unity. The department has 1 Chief, 1 Assistant Chief, 1 Captain, 1 Lieutenant, and 6 firefighters. The department also has a support crew. Unity Fire & EMS provides wildfire and structural fire protection, and also houses an EMS staff of 6 (some personnel are also firefighters) that range from First Responder to EMT – Intermediate. Highlighted protection responsibilities include homes/cabins located throughout the wildland-urban interface.

Staff	Chief	1			
	Captain	1	(assigned to training)		
	Lieutenant	1			
	Firefighters	6	(one assigned to Baker County Interagency Fire Prevention Team, several also EMS)		
	EMS	5	(some Firefighters)		
Apparatus	3730	1957 La France	Pumper	400 GAL	750 GPM
	3740	1975 General	Tender	2000 GAL	
	3780	1980 International	Brush	250 GAL (FEPP)	
	3781	1975 Dodge	Brush	200 GAL	

**Eagle Valley Fire Protection District
Station No. 31**

Eagle Valley Fire Protection District is located in and around the city limits of Richland, Oregon. The department is a full volunteer department with 1 Chief, 1 Assistant Chief, 1 Captain, and 5 firefighters. Eagle Valley has one station located in Richland, and serves a stable population of homes in town and in the wildland-urban interface, as well as farms and ranch operations. Highlighted protection responsibilities include a popular Baker County park located on the Snake River, and several private holiday homes/cabins located throughout the area's timbered drainages.

Staff	Chief	1 Chief			
		1 Assistant Chief			
	Captain	1	(assigned as Training Officer, one assigned to Baker County Interagency Fire Prevention Team)		
	Firefighters	5			
Fire Apparatus	3132	1967 La France	Pumper	500 GAL	
	3133	1975 International	Pumper	750 GAL	
	3144	1969 Freightliner	Tender	4000 GAL	
	3185	Jeep	Brush	325 GAL	4x4
	3186	International	Tender	1,100 GAL	

**Greater Bowen Valley Fire Protection District
Station No. 28**

Greater Bowen Valley Fire Protection District is a newer district located just South of Baker City on Hwy 7. The department is a full volunteer department with 1 Chief, 1 Training Officer, and 5 Firefighters. Greater Bowen-Valley is a fire district in the process of building its first permanent fire station to be centrally located within the district in the area of Hwy 7 and the Hwy 245 interchange. This district serves a stable population of farm/ranch homes, and has seen some home growth within their wildland-urban interface zones. Highlighted protection responsibilities include several homes located within the box canyon of Stices Gulch, and WUI homes located of several local drainages.

Staff	Chief	1 Chief			
	Firefighters	6	(with one assigned as Training/Safety Officer)		
Fire Apparatus	2835	1970 La France	Pumper	500 GAL	
	2841	1991 Peterbilt	Tender	4,000 GAL	
	2881	1995 Ford	Brush	400 GAL	4x4
	2882	1965 International	Brush	600 GAL	4x4
	2883	1974 Chevy	Brush	600 GAL	4x4

**Haines Fire Protection District
Station No. 38**

Haines Fire Protection District is located in Haines just north of Baker City on Hwy 30. The department is a full volunteer department providing both wildfire and structural fire protection. The department has 1 Chief, 1 Assistant Chief, 2 Captains, 12 Firefighters, and 5 support members. Haines is a fire district in the process of building 2 additional stations. The district serves a mixed population of large farm/ranch operations, smaller acreage homes, and homes located in the wildland-urban interface. Highlighted protection responsibilities include a highway, railway, larger farm/ranch storage facilities, a small community, agriculture watersheds, and home in wildland-urban interface areas.

Staff	Chief	1 Chief			
		1 Assistant Chief			
	Captains	2			
	Firefighters	9	(one assigned to Baker County Interagency Fire Prevention Team)		
	Support Crew	5			

Fire Apparatus	3831	1970 La France	Pumper	1,000 GAL	
	3832	1966 Ford	Pumper	1,000 GAL	
	3833	1967 Ford	Pumper	1,000 GAL	
	3836	1957 La France	Pumper	500 GAL	
	3844	1970 Military 6x6	Tender	2,200 GAL	4x4
	3845	1979 Kenworth	Tender	4,000 GAL	
	3880	1996 Dodge	Brush	300 GAL	4x4 w/ foam
	3881	1970 IH	Brush	500 GAL	

**Huntington Fire Department
Station No. 30**

Huntington Fire Department is located in Huntington, Oregon, a city south of Baker City on Hwy 30. The municipal department is a full volunteer department providing wildfire and structural fire protection, and EMS services to a smaller population. The department has 1 Chief, 1 Training Officer, and 7 firefighters. Huntington is an isolated department with one station located in the heart of the city. The district serves the community of Huntington, and a variety of homes located in grass and sage. Highlighted protection responsibilities include the city, Interstate I-84, Railway, and recreation areas located along the Snake River.

Staff	Chief	1 Chief
Prevention Team)	Firefighters	7 (one assigned as training officer, and one assigned to the Baker County Interagency Fire Support Crew
	Support Crew	1 (assigned as Ambulance Driver)

Fire Apparatus	3031	1990 International	Tactical Tender	800 GAL	4x4 w/CAFS
	3032	1974 La France	Pumper	500 GAL	w/foam
	3081	1966 Ford	Brush	800 GAL	4x4 w/foam

**Keating Fire Protection District
Station No. 22**

Keating Fire Protection District is located in the Keating Valley Northeast of Baker City off Hwy 86. The district is a full volunteer department providing wildfire and structural fire protection, and EMS services to the area. The department has 1 Chief, 2 Training Officers, and 10 Firefighters. Keating has one station located on the old Keating Grange site, and serves a community of primarily farm/ranch operations. Fire fuels consist of mixed grasses, sage and timber. Highlighted protection responsibilities include Hwy 86, cattle and stock facilities, scattered homes located in the wildland-urban interface, and cabins placed in steep drainages.

Staff	Chief	1 Chief			
	Firefighters	1 Assistant Chief (assigned as Training Officer) 12 (one assigned as Training Officer, and one assigned to the Baker County Fire Prevention Team)			
Fire Apparatus	2230	1982 Ford	Pumper	350 GAL	w/foam
	2240	1990 International	Tender	5,000 GAL	
	2280	1977 AMC	Tender	1,000 GAL	4x4 w/foam
	2282	1991 Ford	Brush	250 GAL	4x4 w/foam
	2283	1965 JEEP	Brush	250 GAL	4x4
	2284	1982 AMC	Tender	1,000 GAL	4x4 w/foam
	2220	1976 Dodge	Medic		4x4
	2222	1986 Ford	Medic		

**Medical Springs Fire Protection District
Station No. 23**

Medical Springs Fire Protection District is located in the Medical Springs Valley northeast of Baker City. The district is a full volunteer department providing wildfire and structural fire protection, and EMS services to the area. The department has 1 Chief, 1 Training Officer, and 13 Firefighters. Medical Springs has recently completed their fire station which serves a community of primarily farm/ranch operations. Fire fuels consist of mixed grasses, sage, and timber. Highlighted protection responsibilities include a highway, cattle and stock facilities, homes in the wildland-urban interface, and cabins placed in steep drainages.

Staff	Chief	1 Chief
Team)	Firefighters	13 (one assigned as Training Officer, and one assigned to Baker County Interagency Fire Prevention

Fire Apparatus	2331		Pumper	1,000 GAL	
	2341		Tender	1,200 GAL	
	2342		Tactical Tender	4,500 GAL	
	2381		Brush	300 GAL	4x4
	2382		Brush 6x6	1,000 GAL	4x4

**North Powder Fire Protection District
Station No. 6**

North Powder Fire Protection District is located in North Powder North of Baker City off Interstate 84. The district is a full volunteer department providing wildfire and structural fire protection. The department has 1 Chief and 8 firefighters, and 2 support members. North Powder has a station in the heart of the community, and provides protection for primarily farm/ranch operations and scattered homes located within the wildland-urban interface. Highlighted protection responsibilities include Interstate 84, cattle and stock facilities, Railway, Lumber Mill, and homes within the WUI.

Staff	Chief	1 Chief (assigned as training officer)			
	Firefighters	8			
Fire Apparatus	61	1953 GMC	Tender	1,500 GAL	4x4
	62	1971 Military 6x6	Tactical Tender	2,500 GAL	4x4
	63	1983 Chevy	Brush	250 GAL	4x4 w/foam

**Pine Valley Fire Protection District
Station No. 34**

Pine Valley Fire Protection District is located in Halfway, Oregon, east of Baker City off of Hwy 86. The district is a full volunteer department providing primarily structural fire protection, but also does wildfire suppression. The department has 1 Chief, 1 Assistant Chief, 1 Training Officer, and 5 Firefighters. Pine Valley has one station in the heart of Halfway, and serves an isolated smaller community and farm/ranch operations. Highlighted areas of protection responsibility include the City of Halfway, Highway 86, cattle and stock facilities, and many homes/cabins in the WUI. Additional concerns are the timbered recreation areas surrounding the community, and the agricultural watersheds.

Staff	Chief	1 Chief			
	Secretary	1 Assistant Chief (assigned as Training Officer)			
	Firefighters	1 (part-time)			
		5 (one assigned to the Baker County Interagency Fire Prevention Team)			
Fire Apparatus	3431		Pumper		
	3433		Pumper		
	3441		Tender		
	3464		Utility Truck		

**Powder River Fire Protection District
Station No. 32**

Powder River Fire Protection District is near Sumpter, Oregon, twenty-five minutes south of Baker City on Highway 7. The district is a full volunteer department providing wildfire and structural protection, as well as emergency medical response. The department has 1 Chief, 1 Assistant Chief, 1 Training/Safety Officer, 1 EMS Coordinator, 5 Firefighters, and 10 support crew members. Powder River has one station in the heart of the district, and serves a mix of farm/ranch operations and homes/cabins in the wildland-urban interface. Highlighted areas of protection responsibility include many homes located throughout the WUI and up steep drainages, Highway 7, and several agricultural and municipal watersheds.

Staff	Chief	1 Chief			
	EMS	1 Assistant Chief			
	Firefighters	4 (one assigned EMS coordinator)			
		5 (one Training/Safety Officer, and one on the Baker County Interagency Fire Prevention Team)			
Fire Apparatus	3231	1984 Ford F600	Pumper	500 GAL	w/foam
	3237	1977 Mack	Tender	1,000 GAL	w/foam
	3246	1984 GM	Tender	1,000 GAL	4x4 w/foam
	3248	1988 Freightliner	Tender	5,000 GAL	w/foam
Medic	3220	1979 Ford QRU	Medical		
	3221	1986 Chevy QRU	Medical		

**Sumpter Fire Department
Station No. 33**

Sumpter Fire Department is located in Sumpter, Oregon, twenty-five minutes south of Baker City on Highway 7. The district is a full volunteer department providing wildfire and structural protection, and emergency medical response. The department has 1 Chief, 1 Assistant Chief, 4 Firefighters, and 4 EMS personnel. Sumpter Fire Department has one station located in the heart the City of Sumpter, and provides services to a mix of farm/ranch

operations and homes/cabins located in the wildland-urban interface. Highlighted areas of protection responsibilities include many homes in the WUI, and several agricultural and municipal watersheds.

Staff	Chief	1 Chief	
		1 Assistant Chief	
	EMS	4	
	Firefighters	4 (one assigned Training Officer, and one to Baker County Interagency Fire Prevention Team)	
Fire Apparatus	3331		Pumper
	3341		Tender
	3371		Utility
	3381		Brush

**Surprise Springs Fire Protection District
Station No. 35**

Surprise Springs Fire Protection District is located near the Sparta area about 30 minutes East of Baker City off of Hwy 86. The district is a full volunteer department providing wildfire and structural protection. The department has 1 Chief, 1 Assistant Chief, 1 Captain, and 7 Firefighters. Surprise Springs is scheduled to begin construction on its first station. The department provides services to primarily farm/ranch operations, and homes located within the WUI. Highlighted protection responsibilities include homes in the WUI, and timber stands located around the district.

Staff	Chief	1 Chief	
		1 Assistant Chief	
	Captain	1	
	Firefighters	7	
Fire Apparatus	3531		Pumper (out of service at this time)
	3581	Military 6x6	Brush 1,000 GAL 4x4
Medic	3521	1977 Chevy QRU	Medical (out of service at this time)

Appendix I. Web Sources

http://www.odf.state.or.us/areas/eastern/northeast/bakerco_cwpp.htm

<http://www.fireplan.gov/reports/351-358-en.pdf>

<http://www.nwfireplan.gov>

<http://www.fireplan.gov/content/home>

<http://www.fireplan.gov/reports/7-19-en.pdf>

<http://www.whitehouse.gov/infocus/healthyforests/toc.html>

<http://www.fema.gov/fima/planning10.shtm>

http://www.odf.state.or.us/DIVISIONS/protection/fire_protection/prev/sb360/docs/overview.pdf

<http://www.fuelsforschools.org>

<http://keepgreen.org/assets/Living.pdf>

<http://extension.oregonstate.edu/emergency/FireResPlants.pdf>

Appendix J. Glossary/Acronyms

Glossary

Access: ingress/egress to structures, neighborhoods, or wildland areas. Access can be impeded by poor surface or seasonal road conditions, brush, trees, gates, fencing, water bars, etc.

Biomass: quantity of biological matter of one or more species present on a unit area.

Condition Class: qualitative measure of degree of departure from historical ecosystem components such as species composition, structural stage, stand age, canopy closure, and fuel loadings.

Conflagration Act: state legal authority established as a civil defense measure to mobilize structural fire suppression resources for massive urban fires. It was first used in 1951 to coordinate aid to an explosion and fire in downtown Roseburg. The Act was not invoked again until 1972, when a wildland fire in Yamhill County threatened homes in what is now known as the wildland-urban interface. It must be authorized by the Governor. The Act includes authorization for OSFM to assign firefighting forces and equipment beyond mutual aid agreements. It also designates reimbursement for aid to those departments participating.

Consequence: values at-risk from a fire occurring in a specific geographic location.

Community at-risk: (in Wallowa County) a group of homes or other structures with basic infrastructure (such as shared transportation routes) and services within or near federal land.

Defensible Space: the zone, typically a width of 30 feet or more, between an improved property and a potential wildfire where the combustibles have been removed or modified. It is recommended, depending on slope and fuels surrounding the home, that radius of defensible space could be closer to 100 feet.

Fire regime: qualitative measure describing the degree of departure from historical fire regimes, where fire frequency has deviated from normal intervals.

Flame length: the distance measured from the tip of the flame to the middle of the flaming zone at base of the fire. It is measured on a slant when the flames are tilted due to effects of wind and slope.

Flashy Fuel: light fuel, like grasses and forbs, that burn readily and quickly. Slope and wind are factors in how quickly cured grasses will burn.

Fuel: non-decomposed material, living or dead, derived from herbaceous plants.

Fuel Break: an area, strategically located for fighting anticipated fires, where the native vegetation has been permanently modified or replaced so that fires burning into it can be more easily controlled. Fuel breaks divide fire-prone areas into smaller areas for easier fire control and to provide access for fire fighting.

Fuel Hazard: a fuel complex defined by kind, arrangement, volume, condition, and location that forms a special threat of ignition or of suppression difficulty.

Fuel Loading: the volume of fuel in a given area generally expressed in tons per acre.

Fuel Model: a simulated fuel complex for which all fuel descriptors required by the mathematical fire spread model have been supplied.

Fuel Reduction: the planned manipulation of living or dead forest fuels for forest management and other land-use objectives.

Green Space: see Defensible Space.

Hazard (as it relates to wildfire): hazardous conditions like fuel, topography, weather, etc. that contributes to fire spread.

Initial Attack: the actions taken by the first resources to arrive at a wildfire to protect lives and property, and prevent further extension of the fire.

Ladder fuel: fuels that provide vertical continuity allowing fire to carry from surface fuels into the crowns of trees or shrubs with relative ease.

Mutual Aid Agreement: agreement in place between wildland and structural fire protection agencies that allows for either fire protection agency to help the other in a wildfire event.

Prescribed Fire: the controlled application of fire to wildland fuels in either their natural or modified state, under such conditions of weather, fuel moisture, soil moisture, etc. as allow the fire to be confined to a predetermined area and at the same time to produce the intensity of heat and rate of spread required to further certain planned objectives of silviculture, wildlife management, grazing, hazard reduction, etc. The intention is to employ fire scientifically so as to realize maximum net benefits with minimum damage and at acceptable cost.

Rate of Spread: the relative activity of a fire in extending its horizontal dimensions. It is expressed as rate of increase of the total perimeter of the fire; or as rate of forward-spread of the fire front; or as rate of increase in area, depending on the intended use of the information. Usually its (forward) rate of spread is expressed in chains or acres per hour.

Risk (as it relates to wildfire): the likelihood of a fire occurring.

Roof Class: can be either A, B, C, or non-rated. Roof class is a determination of flame resistance. Class A is rated for more flame resistant building materials than Class C.

Seral: of, like, or pertaining to the development of like ecological communities.

Silviculture: manipulation of forest vegetation to accomplish a specified set of objectives; controlling forest establishment, composition, and growth.

Structural Fire Protection: The protection of a structure from interior and exterior fire ignition sources. This fire protection service is normally provided by municipal fire departments, with trained and equipped personnel. In northeastern Oregon, rural and volunteer fire departments are relied upon heavily to also provide this type of protection. After life safety, the agency's priority is to keep the fire from leaving the structure of origin and to protect the structure from an advancing wildland fire. (The equipment and training required to conduct structural fire protection is not normally provided to the wildland firefighter.) Various taxing authorities fund this service.

Structural Ignitability: a term that relates cause of a home igniting during a wildfire to building materials. Cause could be attributed to the building materials used for the home or the amount of combustible materials around the home.

Structural Vulnerability: a term that relates factors contributing to how and why a home is vulnerable to wildfire. Examples of factors that contribute to vulnerability are type of access to the home, ladder fuels and vegetation with the landscape of a home, and whether or not fire protection is available.

Survivable Space: see Defensible Space.

Triage (as it relates to structures in a wildfire event): the sorting and prioritizing of structures requiring protection from wildfire based upon an educated assessment designed to maximize the number of structures saved.

Wildland Fire Protection: the protection of natural resources and watersheds from damage by wildland fires. State and Federal forestry or land management agencies normally provide wildland fire protection with trained and equipped personnel. The structural firefighter may also be trained and equipped to aid the

wildland agency in a wildland fire event. Various taxing authorities and fees fund this service.

Wildland Fire Use: is the management of naturally ignited wildland fires to achieve forest health and resource management objectives.

Wildland-Urban Interface: (in Wallowa County) an area that surrounds a community or values of a community, including that community's infrastructure or water source, and may extend 1 1/2 miles or more beyond that community. The boundary of a wildland-urban interface area depends on topographic and geographic features that could influence wildfire, the location of an effective fuel break, or Condition Class 3 lands.

Acronym List

CAR	Community-at-Risk
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CWPP	Community Wildfire Protection Plan
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FD	Fire Department
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FEMA	Federal Emergency Management Agency
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FFHM	Forest Fuels and Hazard Mitigation (Standing Committee for State of Oregon - Oregon Department of Forestry)
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FPA	Fire Protection Association
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GIS	Geographic Information System
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HFRA	Healthy Forest Restoration Act
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ICS	Incident Command System
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NFP	National Fire Plan
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NRAC	Natural Resource Advisory Committee
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ODF	Oregon Department of Forestry
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PPE	Personal Protective Equipment
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RFPD	Rural Fire Protection District
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TSI	Timber Stand Improvement
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USFS	United States Forest Service
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WFU	Wildland Fire Use
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WUI	Wildland Urban Interface
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Appendix K. Contact List/Plan Locations

Baker City Fire Department
(contact for County Fire Response and Prevention Coordination)
1616 2nd Street
Baker City, OR 97814
(541) 523-3711

Baker County Board of Commissioners
1995 Third
Baker City, OR 97814
(541) 523-8200

Baker County Library
2400 Resort
Baker City, OR 97814
(541) 523-6419

Baker County Planning and Emergency Management
1995 Third
Baker City, OR 97814
(541) 523-8219

City of Haines
819 Front
Haines, OR 97833
(541) 856-3366

City of Halfway
155-B E
Halfway, OR 97834
(541) 742-4741

City of Sumpter
General Delivery
Sumpter, OR 97877
(541) 894-2314

City of Unity
311 Main
Unity, OR 97884
(541) 446-3544

Oregon Department of Forestry
Baker City Sub-Unit
2995 Hughes
Baker City, OR 97814
(541) 523-5831

United States Forest Service - Baker Ranger District
3165 Tenth
Baker City, OR
(541) 523-4476

United States Forest Service - Pine Ranger District
General Delivery
Halfway, OR 97834
(541) 742-7511

United States Forest Service - Unity Ranger District
PO Box 38
Unity, OR 97884
(541) 446-3351
