Bridge Creek Fire, August 2001 - near Hwy 395

Umatilla County

Community Wildfire Protection Plan

(Blue Mountains and Foothills Region)

This is a working document that will serve as a resource for enhancing community safety through hazard and risk reduction in the wildland-urban interface areas of Umatilla County.

06/16/05

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1. Signature Page

The contents of this document have been agreed upon and endorsed by the Umatilla County Commissioners, the District Forester of the Northeast Oregon District for Oregon Department of Forestry, and the County's structural fire representative. This plan is not legally binding in that it does not create or place mandates or requirements on individual jurisdictions. It is intended to serve as a planning tool for the fire and land managers of Umatilla County, and to provide a framework for those local agencies associated with wildfire suppression and protection services to assess the risks and hazards associated with wildland-urban interface areas and to identify strategies for reducing those risks. This is a working document to be reviewed at least annually by members of the Steering Committee and updated as necessary, as outlined in the Monitoring and Evaluation section. The contents, vision, mission, goals, and objectives of this plan will become a part of any operation plan of the agencies represented below:

William S. Hansell — 6/16/05
Bill Hansell, Umatilla County Commissioner — Date

Emile M. Holeman — 6-16-05
Emile Holeman, Umatilla County Commissioner — Date

Dennis L. Doherty — 6-16-05
Dennis Doherty, Umatilla County Commissioner — Date

John Buckman — 6-16-05
John Buckman, Northeast Oregon District Forester — Date
Oregon Department of Forestry

James H. Stearns — 6-16-05
Jim Stearns, Umatilla/Morrow/Gilliam County Fire Defense Chief — Date

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2. Executive Summary

In response to state and federal legislation, the private sector and community organizations across Oregon have worked collaboratively with local, state, and federal wildland fire protection agencies to reduce the impact of wildfire on lives, property, and the landscape. Local communities now have a unique opportunity to influence where and how federal agencies implement fuel reduction projects on federal lands, and how federal funds may be distributed on non-federal lands. The Umatilla County Commissioners tasked a committee of local, state, and federal wildfire agencies, land managers, and private citizens with creating a Community Wildfire Protection Plan (CWPP) for the wildland-urban interface (WUI) areas in Umatilla County. The urban-interface area is the zone where structures and other human development meet and interact with undeveloped wildland or other vegetative fuels.

The committee chose to focus resources on the forested areas of the county since that landscape more nearly meets the criteria for wildland-urban interface. The project area for the CWPP encompasses the eastern and southern portions of Umatilla County (the Blue Mountains and foothills region). The remainder of Umatilla County will need to be covered under another planning document.

Goals of the CWPP include:

- ✓ promote wildfire awareness and target fire prevention and safety information across at-risk communities
- ✓ promote cooperative emergency fire response, identify available resources and needs, and review interagency communication and suppression strategies
- ✓ identify, assess, and reduce hazardous fuels, coordinate risk reduction strategies, and prioritize fuel reduction areas and projects
- ✓ complete annual monitoring and evaluation to assess progress and effectiveness and recommend changes as appropriate

Those communities and WUI areas most at-risk from a wildfire event were identified and prioritized based on public input, local area knowledge of the committee, and an assessment of hazard factors using federal and non-federal data. Information from this hazard assessment was used to develop a scoring matrix. The committee designated and prioritized thirteen WUI areas within Umatilla County:

<u>High Priority</u>
I-84 Corridor
Battle Mountain
Lehman / Hidaway
Weston Mountain / Umatilla River
Mill Creek / Government Mountain

Moderate Priority	Low Priority
Upper 204 / Tollgate	Walla Walla River
Pine Grove	
Camas	
Ukiah	
Birch	
Pearson Guard Station	
McKay	

Specific action items for education, treatment, and emergency response activities were developed for each WUI. Common themes often presented themselves. These repeated themes include presenting FireWise workshops to at-risk communities, general forest health and management activities (such as mechanical thinning and prescribed burning), and treatment strategies along roadways to control noxious weeds and thick, flashy brush. With the continually increasing influx of year-round and seasonal residences, creating and maintaining defensible space around structures remains a top priority for agencies. Wildland fire protection agencies continue to provide updated information to both landowners and tourists on Public Use Restrictions including safe debris burning and campfire restrictions.

The Umatilla County CWPP is a working document that will serve as an informational resource for landowners, agencies, and other stakeholders. It will become a part of the Umatilla County Natural Hazard Mitigation Plan as the wildland fire section of that plan. While some strategies and activities could be individually accomplished by landowners, the CWPP is not intended to mandate treatment activities. It is provided only as a resource and guidance document.

3. Introduction

Background of Wildfire Planning Efforts[1]

Wildland fires are a common and widespread natural hazard in Oregon; the state has a long and extensive history of wildfire. Oregon has over 41 million acres (more than 64,000 square miles) of forest and rangeland that are susceptible to wildfire. Significant portions of Oregon's wildlands and areas adjacent to rural communities, especially in central and eastern Oregon, are dominated by ecosystems that are fire dependent. Agricultural areas in northeastern Oregon grow crops such as wheat that are especially prone to wildfire damage. Many landowners are also converting large acreages over to the Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP), administered by the Farm Service Agency. These lands, especially once in these programs for several years, seem to have a high vulnerability to wildfire events. Communities are also at risk. In the *2001 Federal Register*, there were 367 communities in Oregon identified as being at risk of damage from wildfire.

Over the last few decades, wildland fires in Oregon and across the western United States have increased public awareness to the potential losses of life, property, and natural and cultural resources. The 1995 Oregon Legislature directed the Oregon Department of Forestry (ODF) to "specifically examine the wildland/urban interface situation." To meet this directive, ODF formed the Wildland/Urban Interface Technical Working Group, and in 1997, the Legislature passed the Oregon Forestland Urban-Interface Fire Protection Act, which recognized that the scope of the wildland/urban interface fire problem was beyond what the suppression forces could handle. The key problem was too much fuel around homes in the form of vegetation, as well as the homes themselves. Research showed that the homes were burning because they supplied fuel for the wildfires, but if that fuel load was reduced on and around the home, then the chances of survival increased dramatically. Lawmakers felt that fuel modification on residential property could only be done by the homeowners, and ODF was tasked with implementing the Act.

> ***Wildland-Urban Interface (WUI)***
> This is the area or zone where structures and other human development meet or intermingle with wildland or vegetative fuels.

Wildfires exact enormous financial and social costs, from the escalating costs of fighting larger and more complex wildfires, to the loss of homes and lives. There are both short and long-term economic and environmental consequences of large-scale fires. Reducing the impact on lives, property, and the landscape can be realized through preparedness and risk reduction efforts, including a coordinated planning effort for fire protection and implementing 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 the wildland-urban interface areas.

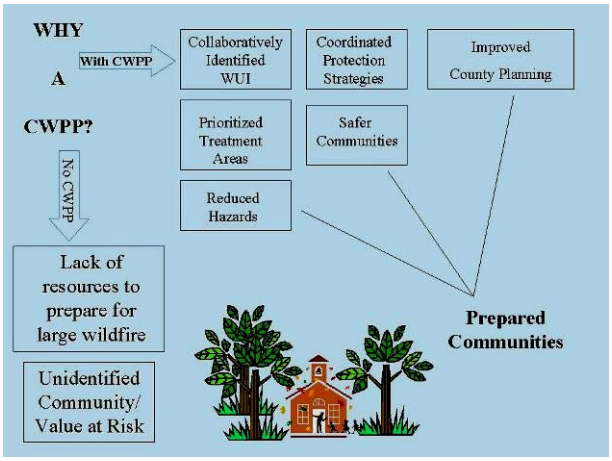
Over the last three years, ODF has obtained grant dollars to assist Umatilla County private landowners in fuels reduction projects. Grant sources have included National Fire Plan (NFP), the Department of Interior, the Department of Agriculture, Oregon Watershed Enhancement Board, Title III Secure Rural Schools, and Bureau of Indian Affairs. These grant monies have been combined with ODF and participating landowner matching/cost-share dollars to finance these treatment projects. Statewide, ODF units have taken the lead in the development of strategic community wildfire protection plans for implementation of the NFP and Healthy Forests Restoration Act (HFRA) on lands adjacent to or near federal ownership. With funding obtained from a Umatilla County grant, ODF initiated the formation of a steering committee in May 2004, to develop the Umatilla County Community Wildfire Protection Plan (CWPP). The planning process will help identify, prioritize and implement fuels reduction projects, fire prevention education, and other fire-related programs, and support ongoing coordination among fire agencies. By working together to create a local CWPP, Umatilla County, through its association with state and federal forest managers, will continue to stay competitive for federal funding programs such as HFRA, NFP, and Federal Emergency Management Agency (FEMA) Pre-Disaster Mitigation Program.

Preparing a Community Wildfire Protection Plan[2]

Both the *National Fire Plan* (NFP) and the *Ten-Year Comprehensive Strategy for Reducing Wildland Fire Risks to Communities* have placed a priority on a collaborative and local involvement in the effort to reduce the risk from large-scale wildfire events. The incentive for communities to engage in comprehensive forest planning and prioritization was given new momentum with the enactment of the Healthy Forest Restoration Act (HFRA) in 2003. The language in HFRA allows 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 fuels reduction projects and places a priority on those treatment areas identified in the local fire plan document.

The participation of local government in the development and implementation of a community wildfire protection plan is also supported by FEMA direction to prepare county hazard mitigation plans and the implementation of Oregon SB 360.



Slide by Angie Johnson, ODF

Fire Policies and Local Planning[3]

Extensive efforts have been undertaken at local, state, and federal levels related to land use planning, community fire planning, and fire protection. This section describes these various efforts as well as related county, state, and federal programs and policies.

Healthy Forests Restoration Act (HFRA)

The Healthy Forest Initiative (HFI), announced in 2002, was designed to identify and remove barriers for implementing restoration projects across national forests. HFI gave federal land managers the authority to treat land as Categorical Exclusions (CE) allowing agencies to move through the NEPA process more quickly, when conditions were appropriate (without an Environmental Assessment (EA) or Environmental Impact Statement (EIS) being required for actions taken on public lands). Review processes were streamlined and new regulations were created under the Endangered Species Act for National Fire Plan projects, to streamline consultation with federal regulatory agencies. HFI set the stage for discussion between Congress and the administration, resulting in new legislation addressing forest health issues.

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

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

National Fire Plan (NFP)

Following the explosive fire season of 2000, the National Fire Plan was established to respond to severe wildland fires and their impacts to communities. It is an umbrella term that covers a variety of government programs and ideas addressing wildland fire issues. The NFP is a long-term investment that will help protect human lives, communities, and natural resources, while fostering cooperation and communication among federal, state, and local governments, tribes, and interested publics. Federal

fire agencies worked closely with these partners, and the Western Governor's Association completed a 10-Year Comprehensive Strategy in August 2001. An Implementation Plan was developed in May 2002 to provide consistent and standard direction for implementing the NFP and the Strategy.

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

Federal Emergency Management Agency (FEMA)

Federal Emergency Management Agency (FEMA) has requirements under Title 44 CFR Part 201 of the Disaster Mitigation Act of 2000. This legislation specifies criteria for state and local hazard mitigation planning which require local and tribal governments applying for Pre-Disaster Mitigation (PDM) funds to have an approved local mitigation plan. These may include countywide or multi-jurisdictional plans as long as all jurisdictions adopt the plan. Activities eligible for funding include management costs, information dissemination, planning, technical assistance and mitigation projects.

Oregon Senate Bill 360 (SB 360)

Senate Bill 360, known as the Oregon Forestland-Urban Fire Protection Act of 1997, is currently being implemented across Oregon on a priority basis. Currently, only Jackson and Deschutes Counties have been enacted. ODF recently hired one staff person to work on implementing SB360 in the Northeast Oregon (NEO) District, which covers 1.6 million acres in four counties: Umatilla, Union, Baker, and Wallowa.

The Oregon Legislature passed the law in response to several escalating problems such as:

- Wildland fires burning homes
- Firefighters risking their lives in conflagrations
- Rising suppression costs
- Reduced fire protection for wildland areas

Lawmakers concluded that dealing with the escalating issue of wildland interface fires must involve not only the fire protection agencies, but also the community leaders and individual property owners. It recognized that the Oregon landscapes vary considerably from the west of the Cascades to the central and eastern Oregon counties, and that one solution would not apply to all.

For the first time in Oregon, SB360 established a comprehensive and statewide policy regarding fire protection and mitigation in wildland-urban interface areas. It provides a process to define, identify, and classify the WUI. The Act has established standards for property owners to more effectively manage the hazards and minimize the risks that could ignite or spread fire on their property. It has also provided the means for establishing adequate, integrated fire protection systems in WUI areas, including education and prevention efforts.

Once SB360 is initiated in a county, a committee of local representatives will work with county officials to formally identify and classify their specific interface areas. Landowners will then be notified of the standards required to make their property less prone to damage or loss from wildfires. Property owners will have up to two years to evaluate their homes and lands, make minimum-standard modifications if necessary, and certify that their lands comply with The Act. Failure to obtain certification will subject landowners to a liability of up to $100,000 for the cost of suppressing any wildfire that ignited on their property and spread to other property, due to their failure to comply.

Oregon Statewide Land Use Planning Goals

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

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

Umatilla County Emergency Operations Plan

The purpose of Umatilla County's Emergency Operations Plan is to ensure a coordinated, integrated response by the Umatilla County government, with maximum use of all resources, to mitigate the effects of any natural or man-caused disaster affecting the county. This plan specifies, to the extent possible, the core actions to be taken by Umatilla County, its municipalities, and cooperating private institutions to respond to a disaster situation. The plan is designed around the four phases of Emergency Management: Planning (Preparedness), Mitigation, Response, and Recovery. This plan was written to identify means to prevent disasters, if possible

(Planning); to reduce the vulnerability to disasters and to establish capabilities for protecting the public from the effects of disasters (Mitigation); to respond effectively to actual disasters (Response); and to provide for recovery in the aftermath of any emergency involving extensive damage to or debilitating influence on the normal pattern of life in Umatilla County (Recovery).

Umatilla County Natural Hazard Mitigation Plan (NHMP)

Umatilla County's Natural Hazard Mitigation Plan, currently being developed, is designed to provide direction to all jurisdictions in the county; eleven cities have participated in the planning process. County staff has met with each city council to discuss the county's project to develop a NHMP and to elicit their support for the project. A natural hazard mapping workshop (for small cities) was held to gather data from the city staff related to where their hazards are, what they are, and how to mitigate the effects of each potential disaster. The workshop was well attended and follow-up meetings were scheduled to make sure that all cities had an opportunity to map their hazards. Once the Umatilla County CWPP has been approved and adopted, it will become a chapter in the County's NHMP.

Umatilla County has received assistance from Oregon Emergency Management, FEMA, US Army Corps of Engineers, and the University of Oregon's Community Planning Workshop and Natural Hazards Working Group. The NHMP is a collaborative effort involving many citizens, agencies, non-profits entities, and local, regional, and state organizations. Along with staff from Umatilla County Emergency Operations and Planning Departments, the NHMP steering committee is comprised of representatives including Oregon Department of Forestry, NOAA, US Army Corps of Engineers, Hermiston Fire & Emergency Services District, OR Dept of Agriculture, and members of the public.

Local Fire Agreements

Wildland fire agencies work closely to provide statewide, comprehensive fire suppression services through agreements such as the 1998 Master Cooperative Fire Agreement and the Local Operating Plan approved in 2004. Partner agencies involved in this agreement include the Bureau of Land Management, Bureau of Indian Affairs, US Fish and Wildlife Service, USDA Forest Service, National Park Service, the State of Washington Department of Natural Resources, and Oregon Department of Forestry.

Locally, wildland fire agencies are actively involved in mutual aid agreements to share fire fighting equipment and fire fighters. Supplemental Agreements are also developed regarding the financial and procedural aspects of shared staffing and equipment, including the operations of the Pendleton Interagency Communications Center, referred to as PICC. There are eighteen partners in the Umatilla/Morrow Counties Fire and Emergency Services Mutual Aid Agreement. This is an agreement among recognized tribal, rural protection districts, and city fire departments, along with the Umatilla National Forest and the ODF Pendleton Unit, that allows for a

mutual assistance response in the bi-county area. Other mutual aid agreements exist with other volunteer fire agencies.

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[1] State of Oregon Emergency Management Plan, *Natural Hazards Mitigation Plan, Fire Chapter*, November 2003.
[2] http://www.communitiescommittee.org/pdfs/cwpphandbook.pdf
[3] Josephine County Integrated Fire Plan, August 2004.

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4. Planning Process

Umatilla County provided PL106-393 “Secure Rural Schools and Community Self-Determination Act of 2000” Title III funding to ODF to complete a community wildfire protection plan. Once funding was secured, ODF sent letters to various fire cooperators and interested citizens, inviting them to participate in the planning process. The process was patterned on a March 2004 document from the Society of American Foresters titled, *Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities.* This handbook is a guide for local communities, but not a legal document, although the recommendations conform to both the spirit and the letter of the HFRA. The handbook outlines step-by-step recommendations to help communities develop a plan that addresses the core elements of community protection.

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.
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

Step One: Convene Decision Makers

The development of the Umatilla County CWPP relied upon the collaboration of multiple agencies and organizations working together to define common goals and objectives. Once project funding was secured, ODF distributed letters to the primary wildland fire services cooperators in the county, inviting them to participate in the planning process as members of the Steering Committee or as resource advisors to the committee. Members of the Umatilla County CWPP Steering Committee were:

- Ray Denny – homeowner in the wildland-urban interface area
- Dale Jenner – forestry consultant

- Rob Burnside – Confederated Tribes of the Umatilla Indian Reservation
- Don Jackson – East Umatilla County Rural Fire District
- John Buckman – Oregon Dept. of Forestry (ODF), Committee Chair
- Tom Groat – Umatilla County Emergency Management
- Nancy Lee Wilson – Umatilla National Forest (UNF)
- Angie Johnson – ODF, GIS Support/Project Resource
- Marty King – Project Coordinator

Other resource advisors that participated in the project included:

- Jim Beekman – UNF
- Nancy Rencken – UNF
- David King – ODF
- JR Cook – County
- Amber Mahoney – UNF
- Dan Eddy – UNF
- Joani Bosworth – UNF
- Hal Thomas – City of Walla Walla
- Jim Stearns – Area 9 Fire Defense / Hermiston Fire & Emergency Services

The Steering Committee prepared this plan in compliance with the National Fire Plan, the 10-Year Comprehensive Strategy, Oregon Senate Bill 360, and Healthy Restoration Act. The plan is mutually agreed to and endorsed on the Signature Page by the three signing entities: the Umatilla County Commissioners, the NEO District Forester on behalf of ODF, and the County Structural Fire Representative, who mutually agree to the contents of the plan (see page 3). This plan is not legally binding and should be viewed as a working document and planning tool for fire and land managers of Umatilla County.

Fire Protection Managers in Umatilla County

There are several wildland fire protection managers working in Umatilla County. The following is a breakdown of those departments and agencies.

Oregon Department of Forestry - Pendleton Unit

The ODF Northeast Oregon (NEO) District is comprised of three Units: Wallowa, La Grande, and Pendleton. The protection boundary for the Pendleton Unit covers almost 535,000 acres in Umatilla, Grant, and Morrow Counties. ODF Pendleton Unit is the primary protection agency for 518,220 acres of non-federally owned forest and rangelands in Umatilla County. These lands lie primarily south and east of the foothills of the Blue Mountains and are all within the CWPP project area.

USFS - Umatilla National Forest

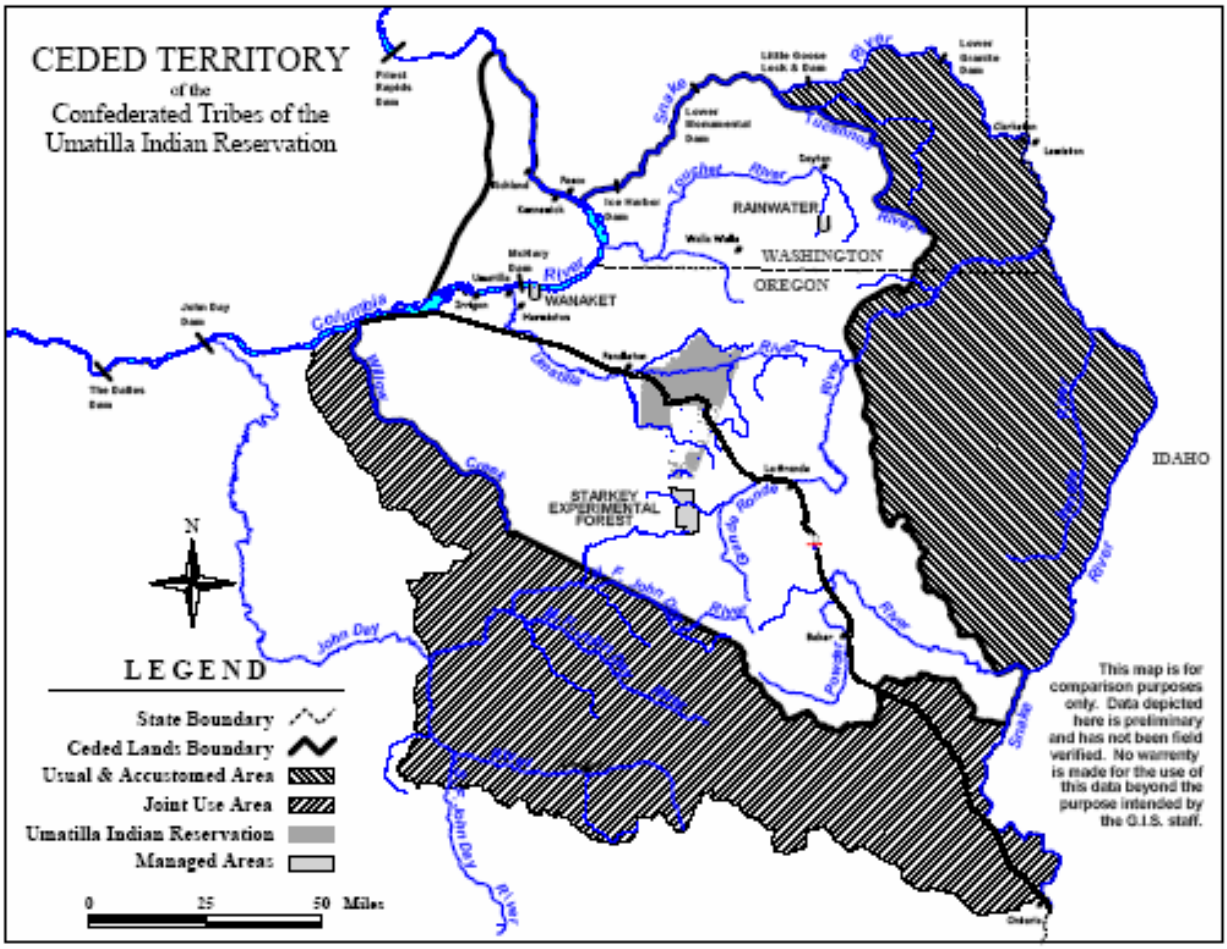
The Umatilla National Forest extends over 1.4 million acres in Oregon and Washington, and falls across eleven counties. Twenty-seven percent (375,669 acres) lies within Umatilla County and the CWPP project area. Two of the Forest's four Ranger Districts (the Walla Walla RD and the North Fork John Day RD) all have some portion inside the CWPP boundary. There are parts of two federal wilderness

areas that lie within the project area (North Fork John Day Wilderness and North Fork Umatilla). A third wilderness, the Wenaha-Tucannon Wilderness, is located in the northern Blue Mountains and straddles the Oregon-Washington border. This wilderness area is within 1-2 miles east of the county boundary and is the eastern boundary of Mill Creek watershed. It covers the northeastern corner of Umatilla County and the CWPP project area.

Confederated Tribes of the Umatilla Indian Reservation[4]

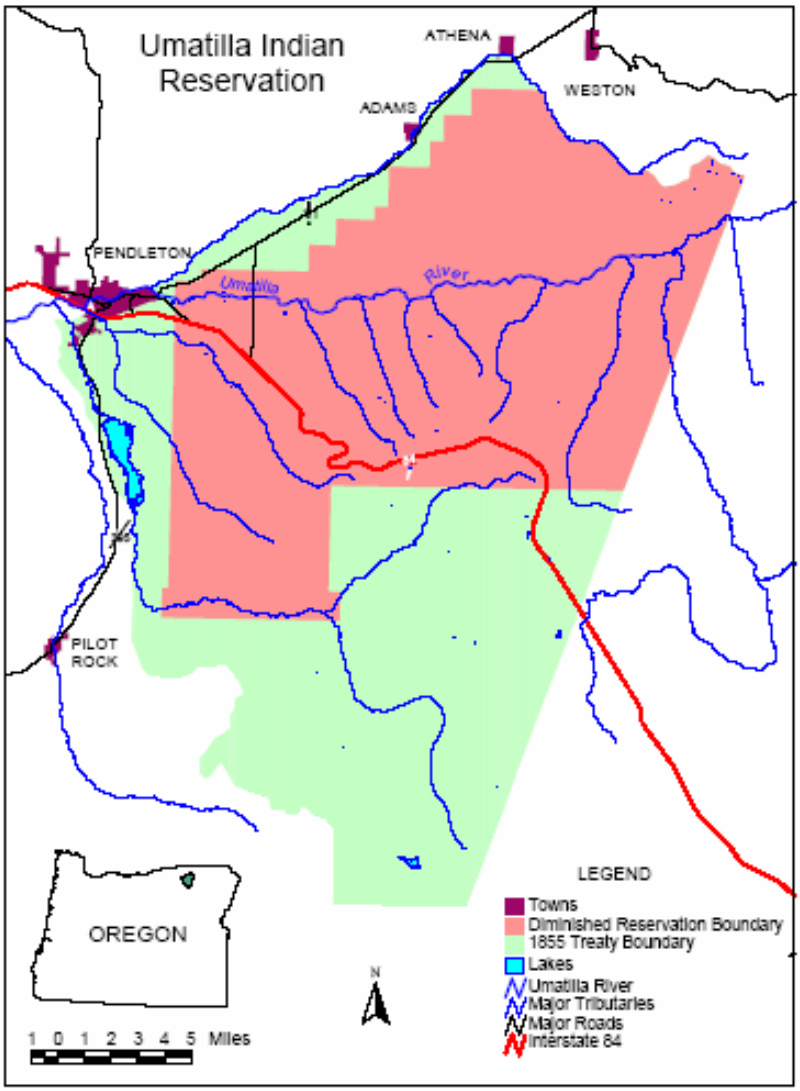
The people of the Cayuse, Umatilla, and Walla Walla Tribes make up the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). They were the first inhabitants on the Columbia River Plateau; they once had a homeland of 6.4 million acres in what is now northeastern Oregon and southeastern Washington. In 1855, the Tribes and the US Government negotiated a Treaty in which the Tribes "ceded" or surrendered possession of much of the 6.4 million acres in exchange for a reservation homeland of 500,000 acres (Figure 1).

Figure 1. Map of the Ceded Territory of CTUIR (taken from CTUIR website)



As a result of surveying and other federal legislation in the late 1800's that reduced its size, the Umatilla Indian Reservation today consists of 172,000 acres east of Pendleton and southeast of Pilot Rock (Figure 2).

Figure 2. Map of the Umatilla Indian Reservation (taken from CTUIR website)



The Bureau of Indian Affairs (BIA) has wildfire management responsibilities on tribal Trust and Indian-owned lands within the Umatilla Indian Reservation. Approximately half of those lands (over 54,000 acres) fall within the ODF protection district while CTUIR has roughly 13,500 acres of tribal owned lands within the ODF district. CTUIR is actively pursuing self-determination for management of Trust lands. This would shift the wildland fire protection responsibility for those affected lands over to the CTUIR Fire Department.

Rural Fire Protection Districts

Fire protection coverage in Umatilla County can be broken into two categories: structural and wildland. Most fire protection agencies provide one or the other, but some do handle both. The vast majority of the CWPP project area has fire protection coverage by at least one agency, with a few areas falling under multiple jurisdictions.

Rural fire protection exists in several incorporated municipalities within the CWPP project area including Ukiah, Pilot Rock, and Weston. The unincorporated community of Meacham and nearby residents has a volunteer fire organization that provides a level of wildland and structural protection. CTUIR Fire Department, along with the Bureau of Indian Affairs (BIA) provides wildland and structural fire protection within the reservation boundaries.

- East Umatilla County RFD has both volunteers and paid staff, and has three stations in its protection area. They provide both wildland and structural fire protection over 260 square miles northeast of Pendleton. Service is provided to a population of about 2,000 (1,000 in towns and 1,000 in rural setting), from the town of Weston up along Highway 204 into the Tollgate recreational area. (Service is also provided to the towns of Athena and Adams but both communities are located just outside the CWPP project area.) This WUI area has a high density of year-round dwellings and seasonal cabins, and is a major recreational destination in the Blue Mountains area. This is a tax-based supported district.

- Pilot Rock RFD, another tax-based fire district, is a volunteer department that provides fire suppression (both wildland and structural) for the City of Pilot Rock (population 1,540) and the surrounding 342 square miles. Difficult terrain with limited road access, as well as limited labor resources during daytime hours, provides unique challenges. Boundaries are adjacent to ODF protected lands as well as the Umatilla Indian Reservation.

- Walla Walla County Fire District #4 provides wildland and structural fire protection to some Oregon residents in the Mill Creek area through individual contracts. They provide service about two miles into Oregon (on County Road 582), but will go further up if requested under mutual aid agreement.

- The cities of Ukiah, Milton-Freewater, and Pendleton all have city-operated fire departments that provide wildland and structural protection inside their respective city limits. The Pendleton Fire Department also has contracted with three rural fire districts outside city limits to provide structural protection services; McKay Dam RFD, Lower McKay RFD, and Riverside RFD are all tax-based fire districts within five miles of Pendleton.

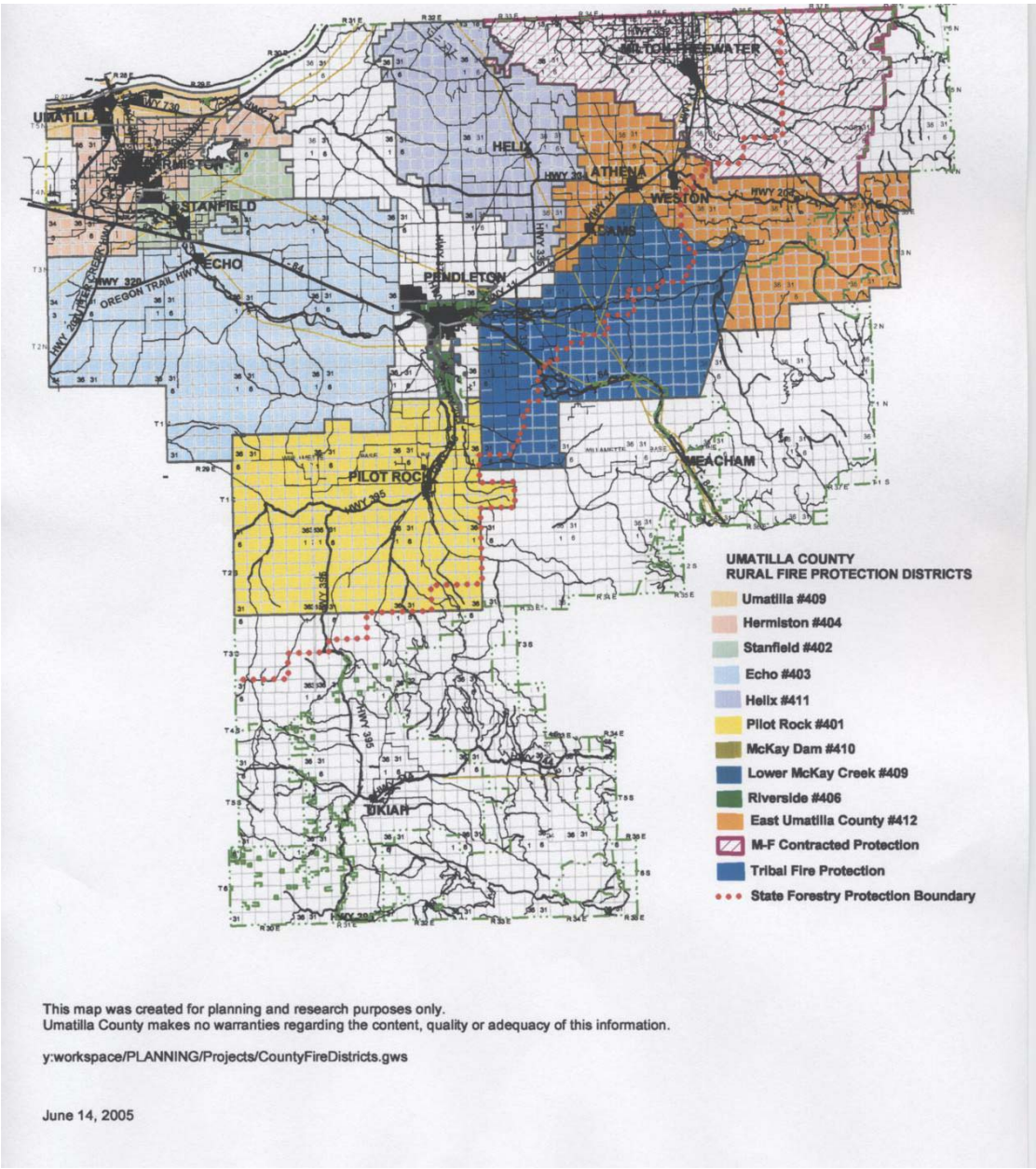
- Subscription service is offered in the northern end of the County through Milton-Freewater Rural Fire Department. They provide both structural and wildland fire suppression services to residents around the Milton-Freewater area on a

contractual paying basis. A mutual aid agreement has been in place between MFRFD and ODF for several years.

- The unincorporated community of Meacham, Oregon and its neighboring residents are provided with a level of wildland and structural fire protection through a volunteer fire department.

Figure 3 shows the locations of Umatilla County Rural Fire Protection Districts, in relation to ODF protection boundary and the tribal fire protection boundary.

Figure 3. Umatilla County Fire Protection Districts (Umatilla Co. Planning Dept. Feb. 2005)



Unprotected Lands

Umatilla County has land that is **unprotected,** both inside and outside the CWPP project boundary. These areas generally fall just outside of any agency's primary protection coverage. Examples include:

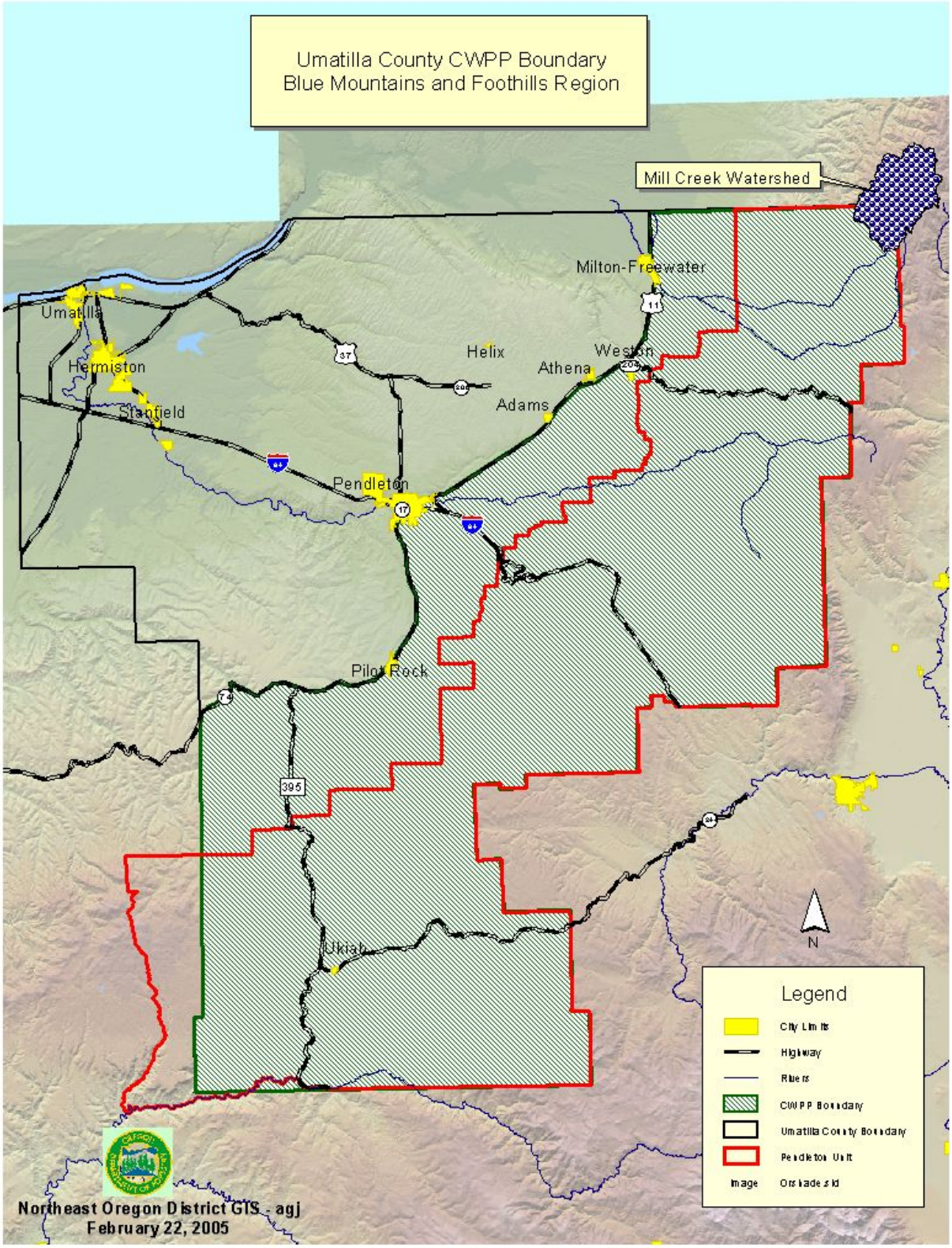
- Remote areas of Coombs Canyon, Birch Creek, and Reith (south and west of Pendleton)
- Several tracts of land between Highway 395 and the CTUIR reservation (east of Pendleton)
- The area between the southern border of Pilot Rock RFD and the ODF protection boundary (west of Gurdane and Cape Horn areas to county line)
- Areas on the north end of the county that fall outside of East Umatilla County RFD protection area and are not covered by contract through Milton-Freewater RFD

Fires that occur within unprotected lands become the responsibility of the Umatilla County Commissioners; coordination will be handled through the Emergency Management office and the Oregon State Fire Marshall's County Fire Chief to determine the appropriate response. In an attempt to deal with unprotected lands, the State Fire Marshall's Office, along with support from the Governor's Office, released a strategy for all counties to consider. (This proposal is discussed in detail in VII. Mitigation Action Plan.) As a long-term strategy, the CWPP committee encourages efforts that would provide some level of wildland fire protection coverage for all unprotected lands. This might include working with local government and rural fire districts to: 1) incorporate unprotected areas into already existing rural districts; 2) to help fund an additional substation in an existing rural district; or 3) attempt to form an entirely new fire district (tax-based). ODF's Eastern Oregon Area office (which includes Northeast Oregon units) has submitted a NFP proposal to address unprotected lands. At this time, no information has been received on grant awards.

Step Two: Establish Planning Area Boundaries

Umatilla County has a large and diverse landscape. The western side of the county (including Hermiston, Umatilla, Stanfield, and Echo) is predominantly low elevation desert and agricultural ground. The Blue Mountains range lies along the eastern border of the county, moving from rolling foothills to open pine grasslands, and then into steeper canyons with heavy mixed conifer stands. Because the urban interface areas are found along the eastern and southern borders of the county, the decision was made to use the established highway system as a project boundary line and focus planning resources on this eastern region. (State Highway 11 runs northeast from Pendleton to Milton-Freewater and the Oregon/Washington border. Highway 395 runs south out of Pendleton to the southern boundary of the county. Highway 74 breaks off from Highway 395 at Nye Junction, running west into Morrow County.) The CWPP project area is referred to as the Blue Mountains and Foothills Region of Umatilla County as shown in Figure 4. The remainder of the county will need to be covered under another CWPP.

Figure 4. Umatilla County CWPP Project Area



Mill Creek Watershed

The northern edge of Umatilla County borders the Oregon-Washington border (refer to Figure 4). Mill Creek Watershed is partially located in the northeastern corner of Umatilla County, about 15 miles east of Milton-Freewater. This watershed covers two states and four counties, including Umatilla County. Mill Creek Watershed falls within the Walla Walla Ranger District of the Umatilla National Forest and, as mentioned previously, is adjacent to the Wenaha-Tucannon Wilderness area.

Mill Creek Watershed is the primary municipal water source for Walla Walla, Washington. In 1918, the U.S. Secretary of Agriculture signed a cooperative agreement with the City of Walla Walla to conserve and protect the city's water supply. This agreement set aside the Mill Creek Watershed as a restricted management area, limiting the use of the area to activities that benefit water quality. The Forest Service retained resource management responsibility; a full suppression policy for all fires was implemented and a fire lookout was placed at Table Rock by 1930. Entry into the watershed became limited to persons holding permits for conducting management activities for the benefit of the watershed. This policy is still currently enforced by the Umatilla National Forest.

County Road 582 runs east-southeast from Walla Walla and is the main roadway into this canyon bottom area. It crosses back into Oregon and Umatilla County about 14.3 miles from the Walla Walla Post Office and dead ends at the City's intake facility's locked gate almost four miles further up the road. A network of Forest Service roads run along the watershed boundary, but the watershed itself is roadless. Both year-round residential homes and recreational cabins and trailers are found in the area leading up to the locked gate.

Because of the complexities associated with the Mill Creek watershed being the municipal water source for a major urban area, the Umatilla County CWPP will not address the closed watershed specifically. The City of Walla Walla is developing its own CWPP, which will include risk assessment and strategies more specifically addressing the Mill Creek watershed and the surrounding areas in both Oregon and Washington. Members of the Umatilla County CWPP Steering Committee have been and will continue to participate in the development of the City's plan, to ensure coordinated planning and implementation efforts as appropriate on the Oregon lands that are common to both CWPP documents.

The City of Walla Walla's CWPP Steering Committee has agreed to work collaboratively with appropriate agencies in the development of their plan. Upon completion of the City's CWPP, approval by the participating agencies, and being signed off by those representatives identified through the planning process, the City of Walla Walla's CWPP will be included in this document as Appendix A. At the next review of the Umatilla County CWPP, the document will be amended as deemed appropriate by the Steering Committee members.

Step Three: Establish Planning Goals

Mission Statement

Create a Community Wildfire Protection Plan for the Blue Mountains and foothill regions of Umatilla County.

Goals and objectives

- Promote wildfire awareness and target fire prevention and safety information across at-risk communities:
    - Coordinate community meetings to discuss fire related concerns with landowners
    - Distribute information on FireSafe home site standards

- Promote cooperative emergency fire response for the protection of life, property, and natural resources:
    - Identify resource equipment inventory, training needs and level of protection of participating fire agencies
    - Review interagency communications and suppression strategies for emergency fire response situations

- Identify and reduce hazardous fuels and coordinate risk reduction strategies across the landscape:
    - Develop and utilize a common set of base information for risk assessment
    - Promote landowner assistance programs
    - Gather local and community knowledge of fire related concerns through public outreach
    - Prioritize fuel reduction areas and projects

- Monitoring and Evaluation
    - Evaluate the progress of the plan annually and recommend changes as needed
    - Conduct monitoring of selected projects and activities to assess progress and effectiveness

Step Four: Community Outreach and Education Resources

CWPP Public Meetings

The CWPP relies on input from citizens and communities about what they perceive to be most at risk from a wildfire event and what they value most about their surroundings. A series of five public meetings were held across Umatilla County during November 2004. The purpose was two-fold: first, to inform interested citizens of the planning effort covering the WUI areas of the County, and second, to gather information from the local knowledge base about the risks of wildfire events specific to their communities. These meetings were helpful in identifying the values and

resources that the communities and residents wanted most strongly to protect from wildfire.

Information about the CWPP project and upcoming meetings was distributed across the region. An informational brochure was created providing background and local project information; a public meeting flyer was designed listing dates and locations. Over 150 brochures and meeting notices were distributed to local agencies, businesses, and community gathering places such as grocery stores, hardware stores, city halls, and post offices. Information was also posted on ODF and Umatilla County websites. Packets of information were also mailed to over 200 property owners in the forested areas, including NFP cost-share project participants and homeowner associations. In addition to the brochure and meeting flyer, these packets also included introductory letters and a postage-paid questionnaire asking them about what they've already done on their property to decrease hazards from wildfire and what they valued most about living in the wildland-interface areas of the County.

Each public meeting included a PowerPoint presentation followed by discussion and a question and answer session. Various members of the Steering Committee attended each meeting, and overall, 35 private citizens participated in the meetings.

Meadowood Speech Camp on November 18, 2004.

Meetings took place in strategic areas across the county:

- Meacham Fire Station in the community of Meacham
- Meadowood Speech Camp off Hwy 244 in the Weston Mtn/Tollgate area
- Ukiah Senior Center in the City of Ukiah
- Pilot Rock Community Center in the City of Pilot Rock
- CTUIR Fire Station in Mission, on the Umatilla Indian Reservation

CTUIR Fire Dept. on November 30, 2004.

Out of 205 total informational packets mailed, 70 were sent to property owners living in Oregon towns outside the immediate area, Washington State, and California. There was a questionnaire return rate of 20%.

Results from the returned forms of this informational questionnaire include:

- 61% reported an awareness of programs such as Firewise or Living with Fire
- 58% had participated in some type of cost-share NFP fuel reduction project
- 76% have taken steps to protect their home/property and to reduce the risk from wildfire
- 73% have property located in Weston Mountain/Tollgate or Meacham areas

Another public meeting occurred on April 14, 2005. It was conducted jointly by the Umatilla County CWPP and the City of Walla Walla Mill Creek Watershed Committee. The meeting was held at the Walla Walla County Fire District #4 station and was targeted to the residents of the Mill Creek area. Around forty people attended and heard general fire season information presented by Oregon Department of Forestry and Washington Department of Natural Resources (WA-DNR) representatives. A Firewise slide presentation was used to help illustrate different ways for residents to protect their homes and property from a possible wildfire event in the area.

Other Fire Prevention Education Resources

As more of the population migrates from high-density urban areas into rural and forested regions of Oregon, whether for lifestyle or economic reasons, the number of large wildfires affecting homes has escalated dramatically. Many people take with them an expectation of structural fire protection similar to the urban area they left behind. The property owner in the wildland-urban interface area is the first-line of defense against the wildfire event. Homeowners and forest landowners need to be aware of and understand the types of hazards found in this environment, and become active participants in defending their property.

Cost-Share & Rebate Grant Programs through National Fire Plan

Over the last three years, ODF has secured over $800,000 in grant dollars to assist private landowners in Umatilla County with fuels reduction projects, distributed to landowners in cost-share and rebate programs. Rebate dollars have been used for the homesite assessment project, with ODF completing assessments on all structures within the WUI areas. A maximum of $580 per property for vegetation removal and other activities to create survivable space around structures was offered to landowners. Interested property owners were provided technical advice as to what could be done to decrease the structural ignitability rating for their property. All structures within the WUI areas have been geo-referenced for future planning needs by ODF and the county. To date, over 70 contracts have been written for work around homesite structures.

Cost-share dollars were targeted to the landowner with larger acreages within the WUI, and even more ideally, adjacent or near federal land. This program offered cost-share funds of 33-75% (depending on the funding source) for pre-commercial thinning, slash removal, brush removal, and/or ladder fuel removal. From October 2002 through April 2005, 1680 acres of fuels reduction has occurred in the ODF Pendleton Unit. Another 1200 acres are currently signed up and scheduled for completion by the end of 2005.

Living with Fire

This national prevention program guides homeowners step-by-step through the process of eliminating hazards around their home. This newspaper publication shows how to create survivable space around your home, taking into account the topography and vegetation that surrounds it. It has previously been provided to homeowners in Umatilla County. The newspaper is available locally through ODF or on-line at www.or.blm.gov/nwfire/docs/Livingwithfire.pdf.

Firewise

This is a program developed by the National Fire Protection Association (NFPA) and features templates to help communities reduce risk and protect property from the dangers of wildland fires. Along with an interactive and resource-filled website full of free materials, the program offers training throughout the nation. A Firewise workshop was held in 2001 at CTUIR's Tamastslikt Cultural Institute for local agencies. For information concerning the Firewise program, visit online at http://www.firewise.org.

FireFree

Developed in Oregon, this model predates the more recent and nationally known Firewise. In 1997, four local agencies in the Bend area joined with SAFECO to create "FireFree! Get in the Zone", a public education campaign designed to increase resident participation in wildfire safety and mitigate losses from wildfire. The campaign aims to educate the public about wildfire safety and promote behaviors and attitudes that translate into creating defensible space around homes and businesses. The partnership includes the Bend Fire Department, Deschutes County fire agencies, City of Bend Development Service, the Deschutes National Forest, Oregon Department of Forestry, the Office of the State Fire Marshall, Keep Oregon Green, and other local, regional, and federal partners, including private businesses. For more information, check out the website at http://www.firefree.org/.

Fire-Resistant Plants for Oregon Home Landscapes

The OSU Extension Service in Redmond has developed a pamphlet suggesting specific types of vegetation that may reduce wildfire risk around the home. Most people landscape their property with aesthetics in mind, not thinking about whether a plant or shrub material is flammable and could actually increase the risk around their home. This brochure describes the different plant materials that homeowners can use for landscaping that will complement their home while improving the chances of their home surviving a wildfire. Brochures have been distributed at public meetings and are available at the ODF office or through the OSU Extension Service office in Redmond. Visit their online site at http://www.extension.oregonstate.edu/emergency/FireResPlants.pdf.

> ***Fire-resistant*** plants are plants that don't readily ignite from a flame or other ignition sources. Although fire-resistant plants can be damaged or even killed by fire, their foliage and stems don't contribute significantly to the fuel and, therefore, the fire's intensity.

Step Five: Establish a Project Base Map & Develop a Community Risk Assessment

A base map of the project area was developed using Oregon Department of Forestry and Umatilla National Forest data and created within the Forest Service projection NAD27 UTM11North. Geographical Information System (GIS) based maps were provided to the Steering Committee who made assessments and recommendations regarding protection and risk-reduction priorities based on this information.

A community risk assessment was developed to help the committee prioritize areas for treatment and identify the highest priority uses for available financial and human resources. Factors considered in the assessment included (vegetative) fuel hazards; the risk of wildfire occurrence; homes, businesses, and essential infrastructure at risk; other community values at risk; and local preparedness and firefighting capability. A rating of high, medium, and low was used to represent the level of risk to

the community posed by each factor. This information was incorporated into the base map as appropriate.

Step Six: Establish Community Priorities and Recommendations

Results of the risk assessment were discussed from both a project basis and individual at-risk communities and WUI areas across the county. The Steering Committee discussed a range of alternatives addressing wildfire concerns on both federal and non-federal lands within the WUIs. Recommendations were developed and prioritized for projects on both federal and nonfederal lands in the WUI areas, along with the preferred treatment methods for those projects. Recommendations were noted as to whether they were related to the protection of communities and essential infrastructure or to reducing wildfire risks to other community values. Specific recommendations by WUI areas are captured in the Mitigation Action Plan in Section VII. Types of projects considered include:

- Hazardous fuels (mechanical) reduction treatment
- Prescribed fire
- Reducing structural ignitability
- Improving fire response capability of fire protection agencies
- Improving emergency preparedness
- Target educational efforts at homeowners in the WUI areas

Step Seven: Develop an Action Plan and Assessment Strategy

Before finalizing the CWPP, the committee will develop an action plan that identifies roles and responsibilities, funding needs, and timetables for carrying out the highest priority projects. An assessment strategy will be agreed upon to ensure that the document maintains its relevance and effectiveness over the long term; this may be accomplished by reconvening the Steering Committee on an annual basis.

Step Eight: Finalize CWPP

The final step in developing the CWPP involves the Steering Committee to reconvene and mutually agree on the fuels treatment priorities, preferred methods for fuels treatment projects, the location of the wildland-urban interface areas, structural ignitability recommendations, and other information and actions to be contained in the final document. If an associated action plan has not been developed, the committee should identify a strategy for conveying the results of the planning process to community members and key land management partners in a timely manner. (A combination of newsletters, public meetings, mailings, and handout material designed to reach the maximum number of property owners in the planning area was identified.)

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[4] http://www.umatilla.nsn.us/geninfo.html

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5. Umatilla County Profile

Historical

The creation of Umatilla County in 1862 can be traced back to the regional gold rushes, which spawned the riverport of Umatilla City and brought stock raisers to the lush grasslands. Pendleton was selected as the county seat in the 1868 election, succeeding Marshall Station and Umatilla City. Although Lewis & Clark and the Oregon Trail pioneers passed through the area, Umatilla County did not flourish until the railroad arrived in 1881 and following the development of dryland wheat farming. The first census in 1870 counted 2,916 inhabitants. Population eventually shifted to the north and eastern parts of the county after the Pendleton area opened up due to the increased wheat production.

Environment

Umatilla County has an area of 3,231 square miles. From an elevation of 296 feet at Umatilla, the county rises to an elevation greater than 5,800 feet in the Blue Mountains on its eastern boundary. Umatilla County is bordered by the Columbia River and Walla Walla County, Washington, to the north, Morrow County to the west, Grant County to the south, and Union and Wallowa Counties to the east. The Umatilla River originates in the Blue Mountains along the eastern boundary and flows generally westward across the Columbia Plateau approximately 100 miles, discharging into the Columbia River at the town of Umatilla.

The basin has a continental climate with a winter precipitation pattern. Precipitation levels vary from 8-10 inches along the Columbia River, to as high 60 inches in the higher elevations of the Blue Mountains[5]. Peak flows in the Umatilla River normally occur in the spring with high elevation snowmelt and diminish throughout the summer to the lows in August or September.

Weather Emergencies

According to a Hazard Vulnerability Analysis, part of the county's Emergency Operations Plan adopted in December 2003, weather emergencies pose the greatest risk to the residents of Umatilla County. A dust storm swept across the I-84 corridor in September 1999, setting up a chain reaction accident killing seven people. In December 2003, an intense winter storm dropped snow, ice, and freezing rain on a significant portion of the county, closing I-84 for several days; 27 Oregon counties, including Umatilla County, were included in a Presidential Disaster Declaration.

Wildfire continues to be a significant threat in the county. Approximately 12% of Umatilla County consists of forestland used by the timber industry and small-woodland owners, and for recreation activities by the public. The forestry sector employment has declined dramatically in recent years primarily because of harvest reductions on national forest lands. Insect and disease damage, along with wind and ice storm damage add to the increasing fuel load on timber ground. Additionally, around 10-15% of the area's cropland has been retired from crop production, enrolled in the Conservation Reserve Program, and seeded to grass, shrubs, and trees. The threat of fires from large areas of rangeland and dry land crops adjacent with the higher fuel-load areas of timber and structures in residential interface areas continues to increase.

Demographics

Umatilla County has twelve incorporated areas and two-thirds of the total population resides in these incorporated areas. Only two incorporated communities are completely within the CWPP project area (Weston and Ukiah) while three more have portions partially inside the boundary (Pilot Rock, Pendleton, and Milton-Freewater). According to the US Census Bureau's estimate for 2000, Umatilla County's population totaled 70,548 residents, ranking 12th among Oregon counties. The majority of these people (51.2%) live in rural areas and towns of less than 2,000 people. In 2000, approximately 49% of the county's population lived in the three largest towns, all found along the mainstem Umatilla River: Pendleton (population 16,354), Hermiston (population 13,154), and Umatilla (population of 4,978). The overall population of Umatilla County is somewhat racially diverse, with 16% Hispanic or Latino origin, and 3.4% Native American.

Residents of Umatilla County primarily live in single-family homes that were built in the 1970's. Most homes are valued below $100,000 (median home value at $98,100), and in 2000 there was a home ownership rate of 64.9%. There were 325 housing units authorized by building permits in 2002.

CTUIR currently has 2,446 enrolled members, down from an estimated population of 8,000 prior to European contact. About 1,500 American Indians and approximately 1,500 non-Indians live on the Umatilla Indian Reservation. Of the current Reservation acreage, approximately 52% is under Indian ownership, and 48% is non-Indian owned. About 51% of the Native American population resides primarily on the Reservation.

Economy

Water, in the form of irrigation, has been a key to the economic diversification and growth of Umatilla County, which includes agriculture, forest products, tourism, manufacturing, recreation, aggregate production and power generation. According to Oregon State statistics, there were over 36,000 jobs in Umatilla County as of May 2003. Private sector employment leads the list followed by manufacturing, trade, transportation and utilities, local government, education and health services. Food manufacturing accounts for a significant number of jobs.

The county is regarded as one of the state's major agricultural centers and ranked fourth in the state in agricultural commodity sales in 2002. The agriculture sector is divided into two segments, production (growing) and processing, with the production side accounting for $50 billion a year. Wheat is the major commodity, followed by cattle and potatoes. Hay and vegetables are also large contributors, with vineyards, canola, and other alternative crops emerging as new commodities. There are essentially two irrigated regions in the county: the west end near Hermiston, known for its watermelons, potatoes, and other vegetables, and the north near Milton-Freewater, known for its fruit orchards. The central part of the county is mainly dryland farming, with wheat as the primary crop, and other grains, canola, and peas as secondary crops. Limited timber harvesting still takes place in the south and eastern parts. Livestock, mainly cattle and some sheep, are found throughout the county.

Recreation opportunities in the Blue Mountains and tourism events, including the annual Pendleton Round-Up rodeo, the Pendleton Woolen Mills, McNary Dam, and Recreation Area are becoming increasingly important to the local economy. CTUIR is now the second largest employer in the county with roughly 1,000 employees (CTUIR website). Wildhorse Casino & Resort, with its hotel, RV Park, and golf course is considered a destination attraction for many people. Tamastslikt Cultural Institute, opened in July 1998, is considered its centerpiece attraction.

Land Use and Ownership

Umatilla County has an area of 3,231 square miles (approximately 2.07 million acres). The Umatilla County CWPP is focused only on the south and eastern parts of the county, referred to in the plan as the Blue Mountains and Foothills region; this project area is approximately 56% of the entire county and encompasses all of the

forestland, interface areas. The Umatilla National Forest manages 375,669 acres of federal forest in Umatilla County, while ODF protects 520,000 acres of private and non-federally owned forest and grazing lands.

According to a 1980 Umatilla County Planning Land Uses Report, the breakdown by land use classification was as follows:

Land Use	Acres	%
Range	760,000	36.9%
Cropland	700,000	34%
Forested	520,000	25.2%
Urban and Built-up	40,000	1.9%
Pasture	36,000	1.7%
Lakes, Rivers, and Streams	4,000	0.2%

Transportation

Umatilla County is a major transportation hub in northeastern Oregon, linked to areas in the Northwest by freeway, railway, and river. Umatilla County is bisected by Interstate 84, running west to east up over the Blue Mountains. U.S. Highway 395 runs north to south down into Grant County, while Highway 11 is the major artery running northeast out from Pendleton through Milton-Freewater, Oregon and into Washington State. In addition to the road system, there are also significant water transportation facilities along the Columbia River, including the Port of Umatilla. The Union Pacific Railroad travels east and west the length of the county.

[5] http://www.wrh.noaa.gov/mfr/climo/AvgAnnPcpnOR.gif

6. History of Wildfire in Umatilla County

In one of the oldest accounts dated 1904, W.H.B. Kent, in describing the proposed Wenaha Forest Reserve (now fully incorporated into the Umatilla National Forest) wrote:

> "Practically every portion of the reserve has suffered more or less from fire. The largest and most important of these was one which came from the present Umatilla Indian Reservation about fifty years ago, burned up the river Umatilla, into the Reserve, then turned north along the west slope, across the heads of the Walla Wallas, and reached as far as the head of the Wenaha. This burn has generally restocked finely, principally to tamarack and lodgepole pine."

The fire area Kent describes is over 60,000 acres with much of it in what is now Umatilla County.

Types of Wildfires[6]

Wildfires burn primarily in vegetative fuels outside the urban areas. Wildland fires require some type of suppression response because they are burning out of control or are threatening to spread out of control. Wildland fires can generally be categorized as agricultural, forest, range, or wildland-urban interface fires.

- An *agricultural fire* burns in areas where the primary fuels are flammable cultivated crops such as wheat. This type of fire tends to spread very quickly, but is relatively easy to suppress if adequate resources are available.

- The classic example of a wildfire is the *forest setting*. Timber fuels this type of fire, along with associated fuels such as brush, grasses, logging residue and thick stands of reproduction. The forest type of wildfire can be extremely dangerous and difficult to suppress due to fuel and topography factors. These fires are often very costly to suppress.

- *Range fires* burn across ground typically used for grazing or wildlife management purposes, and are typically open landscapes that lack heavy stands of timber or large accumulations of fuel. Juniper, bitterbrush, and sage are common fuels involved in a range fire.

- *Wildland-urban interface fires* occur in portions of the state where urbanization and natural vegetation fuels allow a fire to spread rapidly from natural fuels to structures and vice versa. Structural suppression resources can be quickly overwhelmed, especially in the early stage of such fires, increasing the number of structures destroyed. Nationally, these wildland interface fires commonly produce widespread losses since large numbers of structures are

simultaneously exposed to fire. So far, the level of property losses for Oregon is not as high as neighboring states.

Probability

Wildfires in Oregon are inevitable. The majority of wildfires burn during the July to October period. Extended dry periods during the winter months can combine with winds and dead fuels, often resulting in fires that burn with a greater intensity and rate of spread. Other factors influencing the occurrence and severity of wildfires include poor forest health, abnormally high amounts of vegetation arising from a century of aggressive fire exclusion, and long-term changes in weather patterns.

On an average year, there are approximately 2,500 wildland fires ignited on forest and range lands in Oregon. Approximately two-thirds of these fires are caused by human activity; the other third is due to lightning. While data show a downward trend in the number of wildland fires per 1,000 population over the past ten years, the number of acres being burned in these fires, and the frequency of structural losses, has been growing.

Wildland Fire Risk

Wildfire risk refers to the chance of a wildfire starting. Fire starts are recorded as either statistical (stat) or non-statistical fire starts (non-stat). Fire starts are also categorized as either lightning or human caused. Human-caused fires are further broken down into eight categories: railroad activity, small or heavy equipment use, recreational activities, smoking, debris burning, arson, juveniles, or miscellaneous (a catchall group that also includes fires started by automobile accidents).

Statistical Fire (Stat):
A fire that originates on land protected by the reporting, jurisdictional agency and that requires some level of fire suppression action.

For example, a fire that started on federal forest ground would be reported as a Stat Fire by the reporting USFS office, but reported as a Non-Stat fire by ODF if they also responded to the fire and provided suppression activity.

Fire starts pertaining to lands protected by state and federal agencies go back a couple decades. However, comprehensive computer-based summaries for tribal and RFPDs are not yet readily available. State and federal fire data can be used to interpolate fire risk within the CWPP boundary. Fire starts in these districts are often captured as non-stat fires by either ODF or UNF.

Fires on Federal Lands

A detailed fire history for the Umatilla National Forest dating to 1970 is available in achieved fire reports. Less specific information on fires prior to 1970 can be found in various Forest reports.

In 1996, four major fires burned 72,000 acres on the Forest: Wheeler Point (8,236 acres), Bull Complex (8,332), Summit (37,835), and Tower (50,633). Some of these fires burned across protection boundaries and consumed an additional 33,000 acres. Suppression costs for the four fires exceeded $29,000,000.

Tower Complex began on August 13, 1996 burning a total of 50,633 acres of which 46,000 were in Umatilla County. This was a lightning caused fire. More than 28,000 acres of this burn were in roadless and wilderness areas. Total suppression costs approached $25 million dollars.

Human caused fires often start on lower slopes and can burn rapidly uphill. The Meacham Canyon railroad right-of-way has been the source of many large fires, including the Milepost 244 Fire. This fire began on August 15, 2000 and burned a total of 4,800 acres of private and federal lands. The fire was started by a passing freight train in the Meacham Canyon. Suppression costs exceeded $3,000,000.

1970-2004 Statistics
From 1970 to 2004 there were 4,592 fires reported on the Umatilla National Forest. Sixteen of these burned more than 1,000 acres. Lightning started 3,089 fires (66%) and burned a total of 149,034 acres. Human starts for the same period total 1,503 (33%) and burned a total of 45,843 acres. The average annual area burned for the 35 fire seasons (1970-2004) is 5,568 acres.

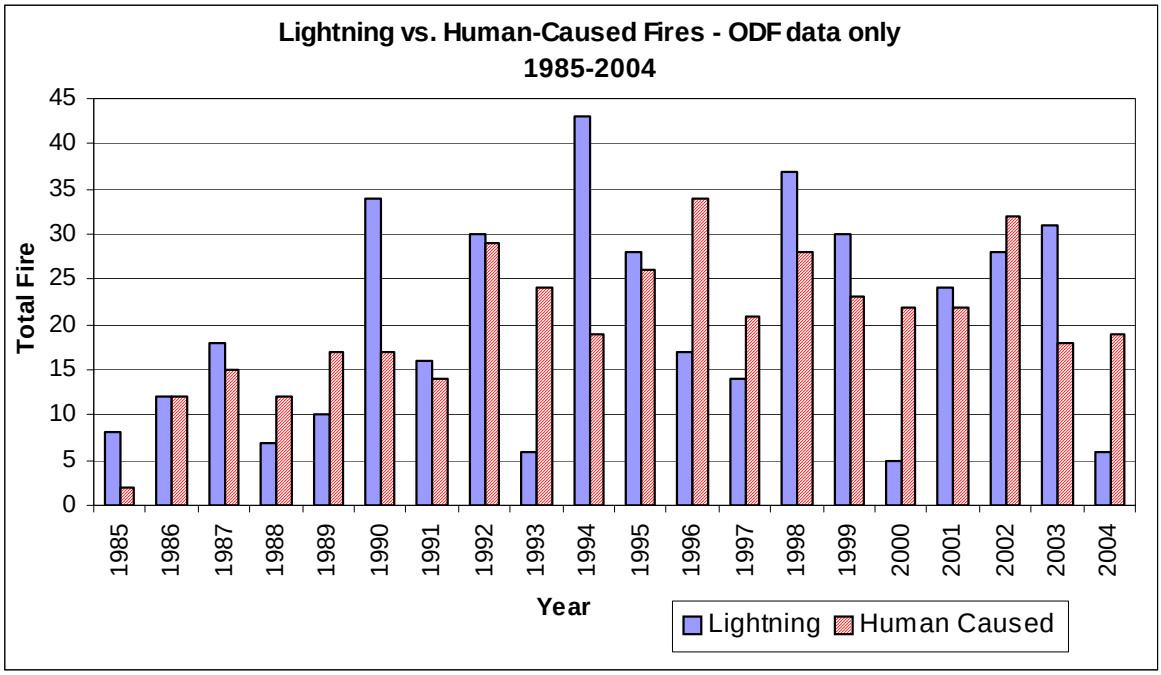
1970-2004 Fire Seasons	Lightning Caused	Human Caused
Number of Fires by Cause	3,089	1,503
Acres Burned by Cause	149,034	45,843
Acres Burned Per Fire	48	30

Lightning fires are more prevalent on federal lands. Lightning storms tend to build up over mountainous terrain. Much of the high mountainous terrain is in federal ownership. That fact coupled with fewer forest residents on federal land contribute to the fact that lightning fires are the source of 66% of fires on federal lands. Fires in rural fire protection districts and state protected lands are closer to a fifty percent split between lightning and human caused.

Fires on State Protected Lands

The total number of ODF Pendleton Unit fires (Stat and Non-Stat) from 1985-2004 is shown below as lightning versus human caused (Figure 5). For twelve out of the last twenty years the number of lightning caused fires was equal or greater than the number of human caused fires.

Figure 5. Total Number of ODF Fires: Lightning vs. Human Caused Fires (1985-2004)



Historical data for ODF statistical fires going back to 1960 is shown in Table 1 as the percentage of fires by general cause, either lightning or human related. Categories are broken into five periods: the last 5 years, 10 years, 20 years, 30 years, and 45 years respectively. For example, the 5-year average shows that 47% of all fires in this period were caused by lightning while 53% were human related (debris burning the leading cause). Slightly more than half of all fire starts during the last 45 years are attributed to lightning. Table 2 shows the number of fires averaged by the same period.

Table 1. ODF Pendleton Unit – Percentages & Trend Data of Statistical Fires by General Cause

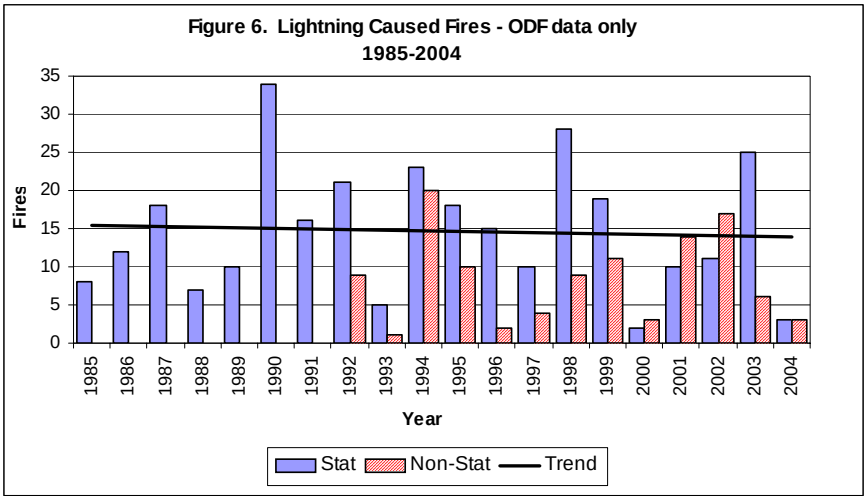
	Lightning	Railroad	Equip Use	Recreation	Smoking	Debris Burn	Arson	Juvenile	Misc	Total Fires
45 Yr Avg.	52%	6%	12%	8%	5%	9%	2%	1%	5%	100%
30 Yr Avg.	50%	4%	13%	9%	4%	11%	2%	1%	5%	100%
20 Yr Avg.	51%	5%	14%	8%	3%	12%	2%	1%	6%	100%
10 Yr Avg.	49%	6%	14%	8%	3%	10%	3%	1%	5%	100%
5 Yr Avg.	47%	7%	10%	7%	3%	14%	5%	1%	5%	100%

Table 2. ODF Pendleton Unit – Average Number of Statistical Fires by General Causes

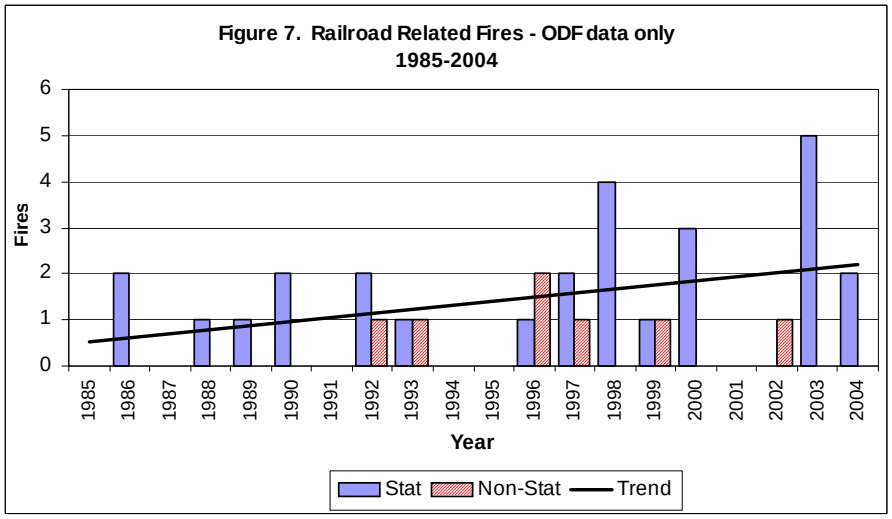
	Lightning	Railroad	Equip Use	Recreation	Smoking	Debris Burn	Arson	Juvenile	Misc	Total Fires
45 Yr Avg.	12.3	1.3	2.8	1.9	1.2	2.0	0.4	0.3	1.2	23.5
30 Yr Avg.	13.2	1.2	3.5	2.4	1.1	2.8	0.5	0.2	1.4	26.2
20 Yr Avg.	14.8	1.4	4.1	2.4	0.8	3.4	0.6	0.3	1.7	29.2
10 Yr Avg.	14.1	1.8	3.9	2.4	0.8	2.9	0.9	0.2	1.5	28.5
5 Yr Avg.	14.0	2.2	3.0	2.2	0.8	4.2	1.4	0.4	1.4	29.6

Trend Information for Fires on State Protected Lands

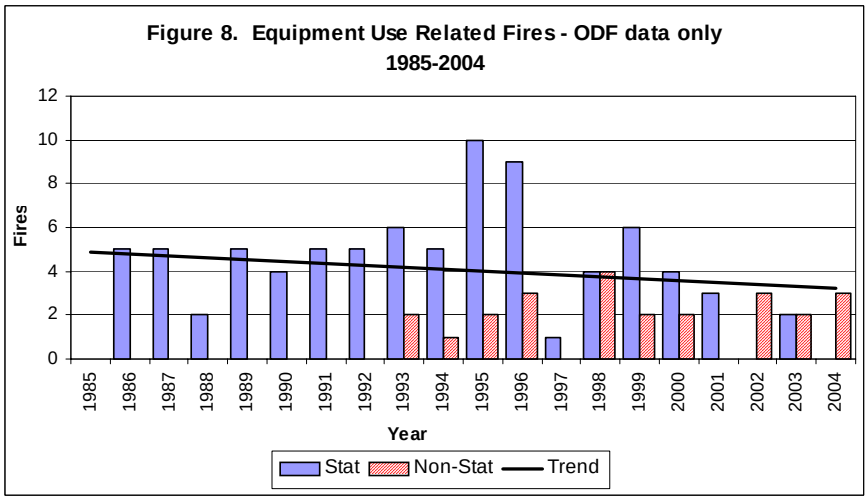
The following graphs shown below (Figures 6-14) reflect data collected from those lands protected by the ODF Pendleton Unit and are used to provide an illustration of trends on those non-federal lands. The trend lines may not be statistically valid.



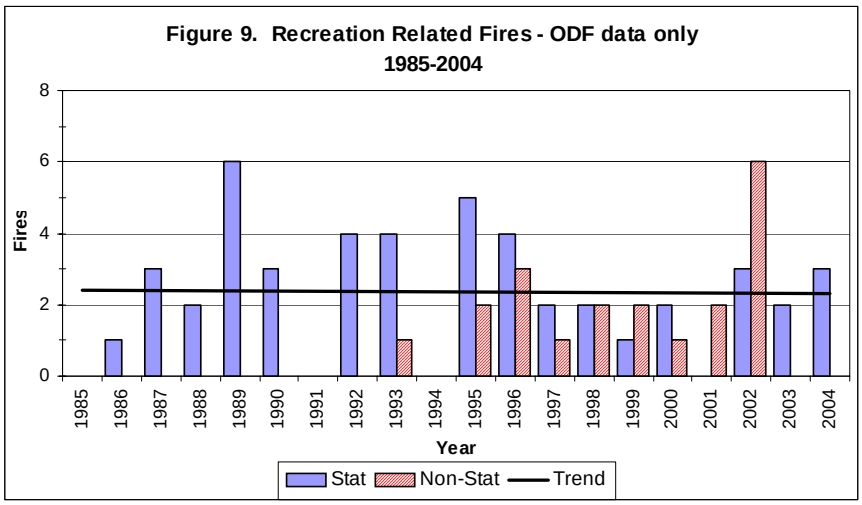
The frequency of **lightning** and related fire starts in northeast Oregon is higher than on the west side. Some of the largest fires in the county have been started by lightning during dry years. While lightning fires cannot be prevented, they can be kept small by quick-acting suppression resources. These fires tend to be clustered around storm events.



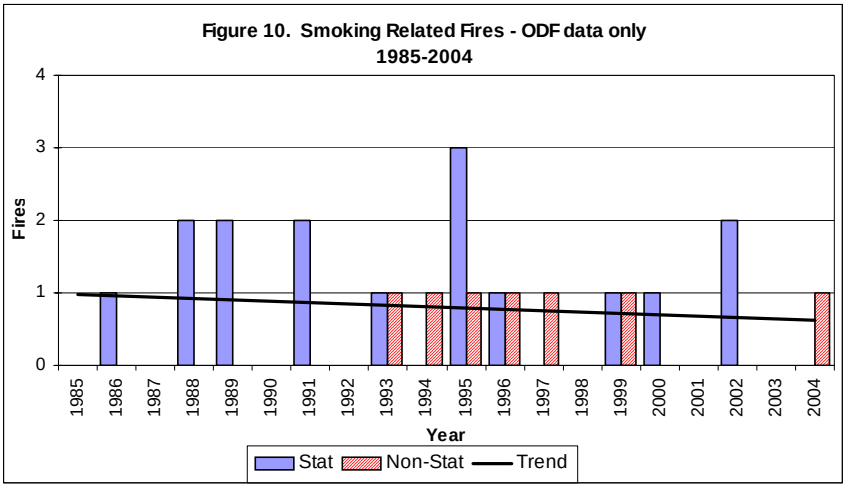
Wildfires caused by **railroad activity** are on an upward trend in Umatilla County.



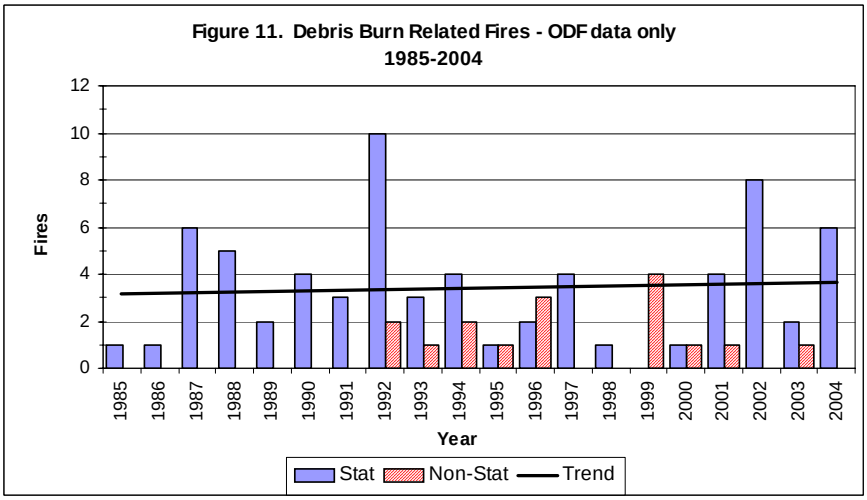
Equipment (small yard tools to large logging equipment) can readily ignite a wildfire if used improperly. Due to landowner and operator concern, the frequency of these types of starts has decreased over the last twenty years.



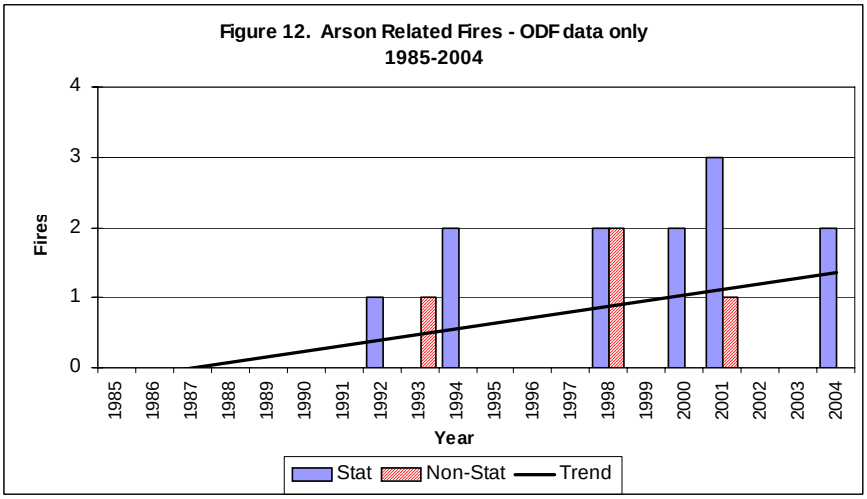
The overall trend for fires caused by **recreational** activities seems steady, although total incidents have risen over the last few years. This may reflect the growing population and a greater interest in outdoor recreational opportunities.



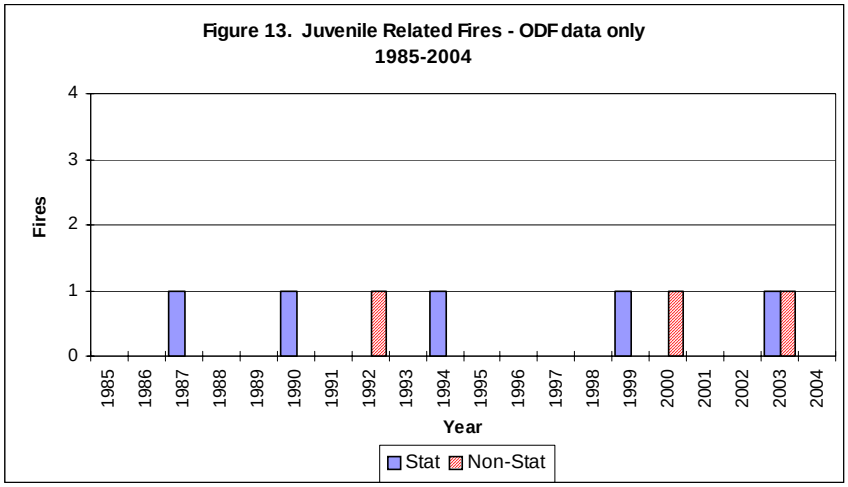
The trend in wildland fires caused by **smoking** and improperly discarded cigarettes is moving downward. It is unclear if this is due to fewer people smoking, better investigation of fire cause, or a combination of the two.



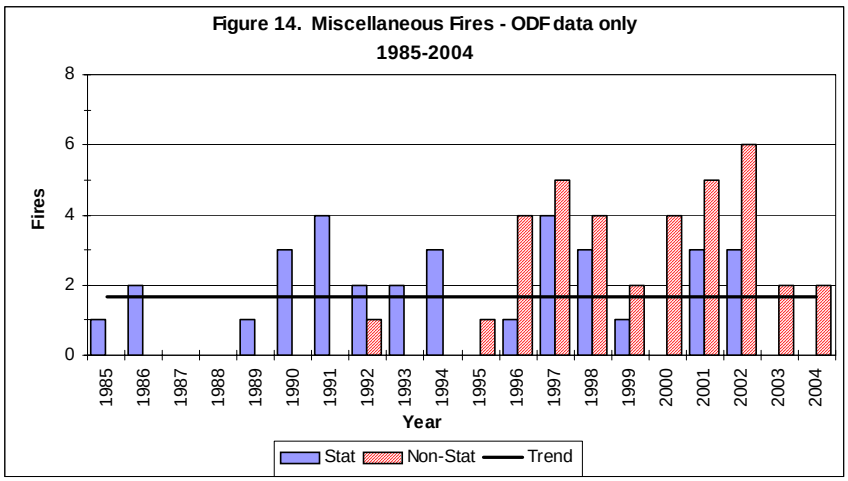
Historically, fires resulting from **debris burning** activities have resulted in at least 10% or more of the total number of statistical fire starts in the county over the last few decades. Unfortunately, even though these fires are preventable, there has been an increase in the last 5-year period even with the increased local burning bans during the fire season.



While the overall number across Oregon is decreasing, **arson** related fires seem to be trending upwards over the last few years in Umatilla County.



Juveniles starting wildfires has been sporadic. There have only been three fire starts in the last 5-year period. The education and prevention efforts in school classrooms (such as Smokey Bear) appear to be having an effect.



Miscellaneous fire cause is a catchall classification for fires resulting from a wide array of causes. Automobile accidents, burning homes, and electric fence use are but a few of the causes. The overall trend of such fires has stayed constant

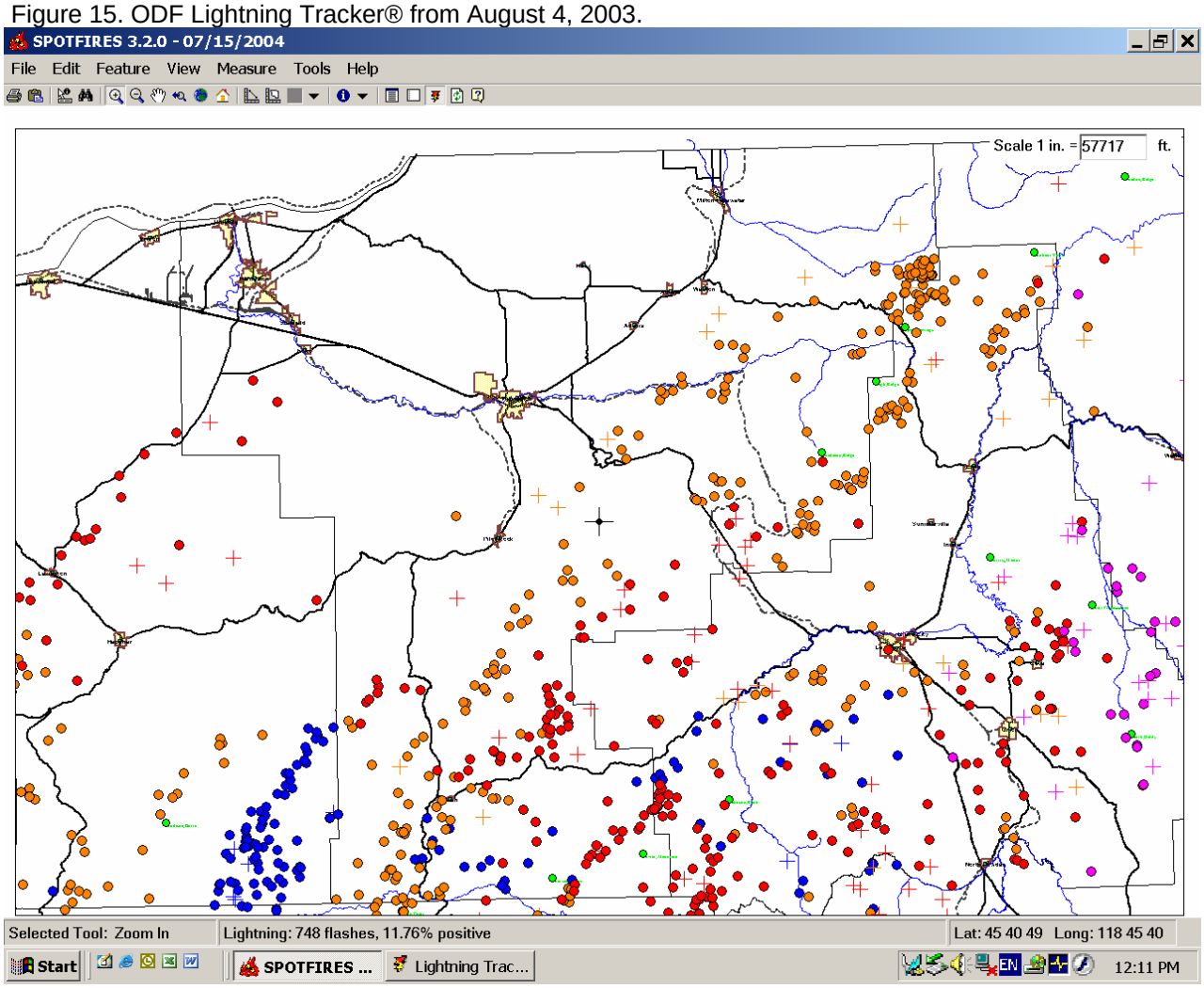
Fire Prevention & Detection

All wildfire protection agencies utilize similar tools to reduce the risk of a large wildfire event. These include prevention, detection, and the prompt suppression of known fire starts. All the agencies in the county work collaboratively as much as possible in all areas of fire protection.

While lightning fires can be potentially kept to a small size, they can't be prevented from actually starting. **Prevention** is a key component in reducing the number of human caused fires. All fire protection agencies rely on a prevention program that emphasizes education. Human caused fires often occur near populated areas or areas easily accessed by road. They are also seasonal and may occur during periods of high visitor use such as holidays or hunting seasons.

Fire **detection** for the Umatilla National Forest and associated private lands is primarily done through seven lookouts that are staffed throughout the fire season. During periods of high fire risk, an aerial fire detection aircraft may fly for wildland fire protection agencies. The aerial observation aircraft is also used in locating fire starts more efficiently, especially following heavy lightning activity. Pendleton Interagency Coordination Center (PICC) utilizes BLM's lightning detection program as well as ODF's GIS based software called Lightning Tracker®. These programs record in real-time, all down-strikes associated with a lightning storm. This information can then be mapped along with topographic and ortho maps and can be provided to firefighters to help locate potential fire starts. An example of the ODF software is shown in Figure 15 below.

Figure 15. ODF Lightning Tracker® from August 4, 2003.



Fire **suppression** resources are often rapid and utilize fire fighters, engines, and aircraft from the local area and neighboring agencies and Forests. Agencies also utilize private landowners and their available equipment such as dozers and water

tenders when additional resources are required. Agreements or contracts are made with both state and federal agencies, but can be used through the mutual aid and supplemental agreements already in place. USFS and ODF suppression forces are dispatched through PICC, while the Bureau of Indian Affairs (BIA) and CTUIR resources utilize CTUIR Police Department dispatch for suppression response notification.

The efforts of the combined fire suppression resources in Umatilla County have been very effective in suppressing wildfire in the CWPP area. On average, 96% of the fires are suppressed at 10 acres or less. Unfortunately, the remaining 4% of the fires tend to be damaging and very difficult to suppress.

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[6] State of Oregon Emergency Management Plan, *Natural Hazards Mitigation Plan, Fire Chapter*, November 2003.

7. Wildfire Risk Assessment[7]

To identify and prioritize wildland-urban interface areas-at-risk in Umatilla 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. (Available at: jwolf@odf.state.or.us)

In Umatilla 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 the when creating 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 availability of water, access to structures, having limited greenspace 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 Umatilla National Forest, Oregon Department of Forestry Pendleton Unit, and the BLM. Data from tribal and BIA agencies, and city, rural and volunteer fire departments was not available in GIS format at the time of this plan.

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 Umatilla 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 Umatilla National Forest GIS Library (UM Veg01 from the USFS vegetation inventory data, a combination of aerial photo interpretation and a stand exam stocking survey from 2001). For Umatilla County, the increased risk of a large wildfire event is caused by the buildup of forest fuels and changes in vegetation composition over time. Dense timber stands compete for limited water and nutrients and are at increased risk of wildfire, and from insect and disease epidemics.

Fire Regime Condition Class Definition[8, 9, 10]

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. These five regimes include:

> I – 0-35 year frequency and low (surface fires most common) to mixed severity (less than 75% of the dominant overstory vegetation replaced); located primarily in low-elevation forests of pine, oak, and pinyon-juniper.
>
> II – 0-35 year frequency and high (stand replacement) severity (greater than 75% of the dominant overstory vegetation replaced); located primarily in low- to mid-elevation rangeland, grassland, or shrubland (a lot of the rolling foothills land).
>
> III – 35-100+ year frequency and mixed severity (less than 75% of the dominant overstory vegetation replaced); located primarily in forests of mixed conifer, dry Douglas fir, or wet ponderosa pine.
>
> IV – 35-100+ year frequency and high (stand replacement) severity (greater than 75% of the dominant overstory vegetation replaced).
>
> V – 200+ year frequency and high (stand replacement) severity.

A combination of activities may have contributed to this departure from the historic condition class of a fire regime: federal fire exclusion policy, timber harvesting, livestock grazing, introduction and establishment of non-native (exotic) plant species, introduced or native insects and disease, or other past management activities.

A **fire regime condition class** (FRCC) is a classification of the amount of departure from the natural regime (Hann and Bunnell 2001). Coarse-scale FRCC classes have been defined and mapped by Hardy et al. (2001) and Schmidt et al. (2001) (FRCC). They include three condition classes for each fire regime. The classification is based on a relative measure describing the degree of departure from the historical natural fire regime. This departure results in changes to one (or more) of the following ecological components: vegetation characteristics (species composition, structural stages, stand age, canopy closure, and mosaic pattern); fuel composition; fire frequency, severity, and pattern; and other associated disturbances (e.g. insect and diseased mortality, grazing, and drought). There are no wildland vegetation, fuel conditions, or wildland fire situations that do not fit within one of the three classes.

The three classes are based on low (FRCC 1), moderate (FRCC 2), and high (FRCC 3) departure from the central tendency of the natural (historical) regime (Hann and Bunnell 2001, Hardy et al. 2001, Schmidt et al. 2002). The central tendency is a composite estimate of vegetation characteristics (species composition, structural stages, stand age, canopy closure, and mosaic pattern); fuel composition; fire frequency, severity, and pattern; and other associated natural disturbances. Low departure is considered to be within the natural (historical) range of variability, while moderate and high departures are outside.

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. A simplified description of the fire regime condition classes and associated potential risks follow in Table 3.

Across Umatilla County, condition class 2 and 3 are more dominant. Fire regimes altered from their historic range, set up the eastern and southern parts of the county (Blue Mountains region) for wildfires to be larger in scale, more intense in severity, and significantly changed landscape patterns. 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 and disease, or other pest management activities.

Table 3. FRCC Description and Associated Potential Risks

Fire Regime Condition Class	Description	Potential Risks
Condition Class 1	Within the natural (historical) range of variability of vegetation characteristics; fuel composition, fire frequency, severity and pattern; and other associated disturbances	Fire behavior, effects, and other associated disturbances are similar to those that occurred prior to fire exclusion (suppression) and other types of management that do not mimic the natural fire regime and associated vegetation and fuels characteristics. Composition and structure of vegetation and fuels are similar to the natural (historical) regime. Risk of loss of key ecosystem components (e.g. native species, large trees, and soil) is low.
Condition Class 2	Moderate departure from the natural (historical) regime of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances	Fire behavior, effects, and other associated disturbances are moderately departed (more or less severe). Composition and structure of vegetation and fuel are moderately altered. Risk of loss of key ecosystem components is moderate.
Condition Class 3	High departure from the natural (historical) regime of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances	Fire behavior, effects, and other associated disturbances are highly departed (more or less severe). Composition and structure of vegetation and fuel are highly altered. Uncharacteristic conditions range from moderate to high. Risk of loss of key ecosystem components is high.

A **total vegetation hazard** was created by considering both the crown and the surface fuels hazards. Surface fuels 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 4 below displays the grouping of fuel models to determine hazard:

Surface Fuels	*Value*
Group 1	1
Group 2	3
Group 3	5

Table 4. Fuel Models Used to Determine Hazards

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.

Crown fuels hazard was derived from the vegetation conditions of the landscape considered the canopy closure and structure [ODF's crown of closure; USFS' crown density; species and size].

Crown Fuel Group	*Value*
Low	1
Moderate	3
High	5

Total vegetation hazard was determined by combining the points assigned to the crown fuels hazard and the points assigned to the 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):

Adjective	*Value*
Low	1 to 4
Moderate	5 to 7
High	8 to 10

A layout displaying the total vegetation hazard for Umatilla County can be found in Appendix B. (For more detailed description of each fuel model, a copy of USDA Forest Service publication "Aids to Determining Fuel Models for Eliminating Fire Behavior" (Anderson, 1982) is available through the Umatilla National Forest.)

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:

Slope	*Value*
0 – 25%	1
25 – 50%	2
> 50%	3

Aspect	*Value*
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. A layout displaying the total topographic hazard for Umatilla County can be found in Appendix B.

Overall Natural 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 the Blue Mountains region of Umatilla 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). (Refer to Appendix B)

Weather Hazard

In Umatilla 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 Umatilla County. However, since weather patterns vary due to the mountainous landscape of the project area, 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 reflecting a more realistic assessment of weather hazard.

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

Overall Fire Protection Capability Hazards (Structural Vulnerability)

For Umatilla 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.

Homesite Assessment

A separate project being conducted by ODF involves the assessment of all homesites within the ODF protection boundary (both year-round residential and recreational cabins). This work has been funded to date using NFP dollars; a proposal for Umatilla County Title III dollars to finish the work is pending. To date, there have been over 900 homes assessed and inventoried by ODF staff within the Pendleton Unit. There is an estimated 300-500 left to review, mostly in the Tollgate and Weston Mountain area.

ODF has attempted to locate all known homesite structures in the interface areas by utilizing county assessment information. When possible, ODF has explained to property owners the purpose of the assessment and has provided information to those interested, on how to create and improve defensible space around a structure. A geospatial positioning unit (GPS) was used to obtain location information (latitude/longitude). Some of the other information collected includes:

- Addressing & Roadway Access
    - Visible and readable address
    - Accessible to fire equipment
    - Adequate turnouts
    - Alternate escape route
- Firebreak or Greenbelt
    - Flammable vegetation removed
    - Ladder fuels removed
    - Roof free of limbs and debris
    - Degree of adjacent fuels
- Building Characteristics
    - Non-combustible roof and siding materials
    - Decks enclosed or screened
- Miscellaneous

- Vegetation around power lines cleared
- Location of gas/diesel/propane tanks
- Vegetation cleared around fuel tanks
- Additional water sources available

Using the assessment checklist, a classification was attributed to each homesite and entered into the database as “Livable Structure Value”. Structure Value is defined by roof type and siding type and is used as a general estimate of the survivability of the property since the survivability cannot be guaranteed.

Green: Non-Combustible Roof/Non-Combustible Siding (with help from firefighters, the structure is **likely to survive** a wildfire).

Yellow: Non-Combustible Roof/Combustible Siding or Combustible Roof/Non-Combustible Siding (with help from firefighters, the structure **may survive** a wildfire).

Red: Combustible Roof/Combustible Siding (even with help from firefighters, the structure **may not survive** a wildfire).

A general breakdown of the 970 properties reviewed to date and put into the ODF database includes:

- 9% are classified as Green, 7% are classified as Red, and 84% are Yellow
- Of the properties reviewed, 42% had Good access to the structure (ingress/egress) while the rest where either Fair or Poor
- 72% have some level of Defensible Space
- 24% have Light Adjacent Fuels – considered grasses and forbs
- 36% have Medium Adjacent Fuels - include short, light brush and small trees
- 39% have Heavy Adjacent Fuels – include tall, dense brush, timber, and hardwoods
- Less than 1% have Slash Fuels adjacent to the structure – logs, chunks, bark, branches, stumps, and broken understory trees and brush
- 35% of the properties have some type of containerized fuel tank (gas/diesel/propane)
- 22% of the properties have no apparent domestic water source available

Home Construction Materials

A wildland fire incident could generate radiant heat, sparks, and embers over a prolonged period, subjecting the outside of a home to fire ignition prior to any type of safe fire suppression activity at the home. Studies completed by the Missoula Fire Lab have shown that most structures lost due to wildfire are the result of radiant heat, sparks, and embers igniting flammable materials in direct contact with the building. After the fire front has passed, creeping and residual fires are typically all that are present, and these types of fires rarely burn down structures.

The two most common places for sparks or embers to ignite a home are the roof and exposed decks. New fire resistant building materials and treatments are available to homeowners and contractors. Manufacturers have designed these materials to replicate traditional building materials, but they reduce the ability of sparks and embers to ignite the building.

The following was taken from the Umatilla County Development Code GF Grazing/Farm Zone §152-080: This zone is designed to protect grazing lands, forest uses, and inclusions of agricultural land that are found within the county's mixed use farm/forest areas.

§152-084(B) (3) (g) The dwelling must meet the following fire siting and fire safety design standards:

1. Shall have a fire retardant roof;

2. Will not be sited on a slope greater than 40%;

3. If the dwelling has a chimney or chimneys, each chimney shall have a spark arrester;

4. Dwelling is located upon a parcel within a fire protection district or is provided with residential fire protection by contract;

5. If the dwelling is not within a fire protection district, the applicant provides evidence that the applicant has asked to be included in the nearest such district;

6. If the county determines that meeting the requirement of division (B) (3) (g) 4. above is impractical, the county may provide an alternative means for protecting the dwelling from fire hazards. Such means selected may include a fire sprinkling system, on-site equipment and water storage or other methods that are reasonable, given the conditions. If a water supply is required under this division, it shall be a swimming pool, pond, lake or similar body of water that at all times contains at least 4,000 gallons or a stream that has a minimum flow of at least one cubic foot per second.

7. Owner(s) provide and maintain a primary fuel-free break area surrounding all structures and clear and maintain a secondary fuel-free break area in accordance with the provisions in "Recommended Fire Siting Standards for Dwellings and Structures" dated March 1, 1991 published by the Oregon Department of Forestry.

8. Road access shall be provided to within 15 feet of the water's edge for fire-fighting equipment and pumping units.

9. Road access shall accommodate the turnaround of firefighting equipment during the fire season.

10. Permanent signs shall be posted along the access route to indicate the location of the emergency water source.

11. Road design standards shall meet the appropriate rural fire protection district and forest protection district standards for private roads and bridges, except for private roads and bridges accessing only commercial forest uses. If no such standards exist, the county shall, on a site by site basis, consult with the appropriate fire or forest protection district to determine mutually agreed upon road and access standards considering maximum grade, road width, turning radius, road surface, bridge design, culverts, and road access taking into consideration seasonal weather conditions.

Insurance Services Office Fire Hazard Rating

The Insurance Services Office (ISO) is an independent, advisory organization that serves insurance companies, fire departments, and others by providing information about risk, including public fire protection. They help establish appropriate fire insurance premiums for residential and commercial properties by providing the insurance industry with up-to-date information about a community's fire protection capabilities.

ISO uses the Fire Suppression Rating Schedule (FSRS) to review and evaluate the fire fighting capabilities of communities across the country. The rating schedule measures the major elements of a fire suppression system and develops a numerical grade called the Public Protection Classification (PPC™). A number from 1 to 10 is assigned - Class 1 represents exemplary public protection and Class 10 indicates that the area's fire suppression program does not meet minimum criteria.

The PPC depends on:

- Receiving and Handling Fire Alarms (10%) – reviews the fire alarm and communications systems including telephone systems, telephone lines, staffing levels, and dispatch systems.

- Fire Department (50%) – reviews the fire protection company including the staffing, training, equipment, and the geographic distribution of the fire companies.

- Water Supply (40%) – reviews the water supply system that is available for fire suppression in the community including condition and maintenance of hydrants, and an evaluation of the amount of available water compared with the amount needed to suppress fires. (Per Don, as part of the fire protection classification, these are always combined for structural protection.)

Communities are evaluated based on nationally recognized standards developed by the National Fire Protection Association and the American Water Works Association. The PPC rating can provide a benchmark for fire departments and local officials in measuring the effectiveness of their fire protection services and is an additional tool for planning and budgeting efforts. Virtually all U.S. insurers of homes and business property use ISO's PPC in calculating premiums. In general, communities with superior fire protection services and good Public Protection Classifications have lower fire losses, and typically lower fire insurance premiums than communities whose fire services are not as comprehensive.

Values at-Risk

This category was based on public input collected during community meetings and from informational questionnaires. Steering committee members provided input based on their local experience and knowledge of the areas.

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. Umatilla County's economy could be impacted if a large wildfire eliminated valuable timber, which might affect local businesses and industry. A fire could destroy recreational areas that draw tourists to the area. Tourism is becoming 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 the loss of beloved domestic animals could be overwhelming for families. There are also hundreds of recreational cabins found in the forested lands, some of which have been used by multiple generations.

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. Umatilla 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 City of Pendleton is working with residents to reduce woodstove smoke. Umatilla County works with farmers and area fire districts/agencies to manage agricultural field burning smoke. The Forest Service

works with Oregon DEQ to ensure smoke from prescribed forest burns does not enter into populated areas. EPA works with several entities to monitor and reduce smoke impacts throughout the Pacific Northwest.

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[7] This section is based upon *Methodology for Hazard Assessment (2005authored by Angie Johnson, Oregon Department of Forestry Northeast Oregon District, and edited by Trish Wallace, USDA Wallowa-Whitman National Forest.*

[8] Protecting People and Sustaining Resources in Fire-Adapted Ecosystems – A Cohesive Strategy, October 13, 2000.

[9] Fire Regime Condition Class Definition. 06/20/2003. Obtained from Umatilla National Forest Fire Planning.

[10] Expanded Fire Condition Class Definition Table. Available at http://www.frcc.gov.

8. Mitigation Action Plan

Current Projects and Policies (i.e. ordinances, policies)

1. Unprotected Lands

In February 2005, the Oregon State Fire Marshall's Office, along with support from the Governor's Office, released a strategy for all counties to consider. The Umatilla County CWPP Steering Committee will recommend that the Umatilla County Commissioners officially adopt the following proposal:

Conflagration Response to Unprotected Areas

GOAL: Reduce interface fire incidents and related structural threat and loss.

PROPOSAL: The Governor will continue to consider Conflagration response to unprotected areas where the county has done the following:

2005 fire season

a) Demonstrated that the county is completing a fire protection plan (elements for NFP/Healthy Forests, FEMA mitigation, and where appropriate SB 360) Note: Counties can use Title III funds for this purpose.
b) Adopted DLCD Goal 4 to require minimum fire defense standards for new construction.
c) Changed property tax statement language for ODF assessment from "fire protection" to "ODF non-structural fire suppression" so homeowners and insurers are not led to believe they have structural fire protection.

2006 fire season

a) All of above
b) Demonstrated that the county is actively implementing a fire protection plan to strategically remove fuels.

By adopting this proposal and making it an official county ordinance/policy, the county retains the ability to request additional help in a large-scale wildfire event and enact the Conflagration Act.

The committee also recommends developing a long-term strategy to encourage and support efforts to bring all unprotected lands within Umatilla County under some type of formalized wildland fire protection coverage. This would involve ideas such as working with local government and rural fire districts to incorporate those unprotected areas into pre-existing fire protection boundaries or to enhance coverage through additional resources such as creating another substation in an existing district.

2. Grants – Current and Pending

In February 2005, ODF applied for PL 106-393 Title III funds ("Secure Rural Schools and Community Self-Determination Act of 2000") for two projects. Both projects were

recommended for funding by the local advisory group. The County Commissioners have passed the recommendations on to the regional level and are pending.

a. One proposal was for the 'Partners in Protection' program. This program will use components obtained through the state and federal excess property programs (ODF already has all the parts) to construct four slip-on pumper units. The portable pumpers are designed to slip onto a flatbed pickup. They would be available to interested landowners located in strategic points across the county. The program is intended to supplement the wildland suppression resources already available and provide additional equipment in high priority areas of the county. ODF staff will provide training to the landowners, as well as maintenance and off-season storage of the units. If funding allows, ODF intends on implementing this program during summer 2005.

b. The second was for funds to complete the Homesite Assessment project. This would finish the work previously funded using NFP dollars. ODF has worked on completing assessments of all homesites located within the wildland-urban interface areas within the ODF protection district of the Pendleton Unit. There are approximately 300-500 structures left to review, mostly in the Tollgate Mountain area. This information will then be added to the ODF database and into the project notebooks. Information collected includes structural vulnerability, ingress/egress, and presence of various risk factors. ODF anticipates completing this project by the end of 2005.

3. Senate Bill 360

In 2005, ODF hired an individual to work on the SB 360 program across the NEO District. Within the next 1-3 years, an assessment will be conducted on the wildland-interface areas of Umatilla County to determine if SB 360 should be implemented in that location. ODF will coordinate with County staff on its findings. Landowners will be notified about implementation efforts.

4. Education and Community Outreach

Education is an ongoing process. Multiple Firewise presentations have been made in the county within the last five years. The Living with Fire newspaper has been mailed and provided in various meetings to landowners. Smokey Bear continues to be an advocate for fire prevention measures and general forest health. ODF has used grants to place weekly and monthly notices from June-October over the last two years promoting wildfire safety awareness in local newspapers, including the Confederated Umatilla Journal (CUJ), the East Oregonian, and the Walla Walla Union-Bulletin. ODF also routinely runs Public Service Announcements (PSA's) and news releases throughout the year regarding wildfire awareness efforts.

Oregon Wildfire Awareness Week 2005 was held May 9-15th. This public awareness and fire prevention campaign typically precedes the normal fire season and is coordinated through the Oregon State Fire Marshall with many agencies participating. Governor Kulongoski signed a proclamation that made May 9th to May

15th “Wildfire Awareness Week” in Oregon. Many of the other western states have designated similar weeks during May. The Oregon proclamation was jointly requested by ODF, the Office of State Fire Marshall, Keep Oregon Green and the National Weather Service.

The Governor’s proclamation read as follows:

WHEREAS: Wildfires increasingly threaten homes and communities; and

WHEREAS: The number, size and intensity of wildfires continues to challenge efforts to protect citizens, property and our natural resources; and

WHEREAS: Two-thirds of wildfires in Oregon are human caused, are therefore preventable, and a need exists to reduce the number of such fires through information and education; and

WHEREAS: Each year, more people move into Oregon and into wildland-urban areas and they need information, at the community and at the individual homeowner level, on how they can more effectively prevent fires and protect their property from wildfires; and

WHEREAS: Weather affects the potential for wildfire ignitions and subsequent fire behavior, making weather forecasting and observations critical to wildfire prevention success and to public and agency cooperation; and

WHEREAS: Local, state and federal firefighting agencies and the National Weather Service work together to prevent wildfires; and

WHEREAS: All Oregonians share in the responsibility for preventing wildfires and fire safe behavior must be practices by all who work and enjoy Oregon’s forested areas.

NOW THEREFORE, I, Theodore R. Kulongoski, Governor of the State of Oregon, hereby proclaim May 9-5th, 2005 to be

WILDFIRE AWARENESS WEEK

In Oregon and encourage all Oregonians to join me in this observance.

In response to the Proclamation:

- The Fire Marshal’s Office has developed a media toolkit, for use by agency personnel and others, to promote Wildfire Awareness Week;

- Wildfire Awareness Week will be highlighted on the front pages of the ODF and Keep Oregon Green websites and will be a part of the Governor’s Drought and Fire Information website; and

- ODF and Keep Oregon Green will issue a different topical fire safety news release to media, each day during the week.

Most agencies now maintain websites that provide up-to-date information on fire conditions, public use restrictions, and regulated fire closures.

- Education opportunities at landowner group meetings and schools (includes Firewise, Living With Fire newspaper, Smokey Bear campaigns)
- Public use restrictions
- Regulated fire closure
- Burn permit program
- Railroad prevention program
- Evacuation plans needed to be reviewed
- As part of the Emergency Alert system
  - Consider a public outreach campaign to educate the wildland interface residents to tune into the weather station for emergency wildfire information
  - Put signs up along the major roadway informing people to "Tune to AM 1620 for Wildfire Information"
  - In case of an evacuation, the message could be sent out over the weather channel since these radios will now pick up the station with the addition of the tower. Look at grant money for making a bulk purchase of weather radios targeted at WUI residents

Visit the following websites for more information on different programs and look for links to other sites.

- **Umatilla National Forest**, Supervisor's Office
  (541) 278-3716
  http://www.fs.fed.us/r6/uma/

- **Oregon Department Of Forestry**
  (541) 276-3491
  http://www.odf.state.or.us/areas/eastern/northeast/

- **Umatilla County Emergency Management**
  (541) 966-3700
  www.co.umatilla.or.us/emergency_management.htm

- **CTUIR Fire Station**
  (541) 276-2126 daytime and (541) 278-0550 after hours

- **Area 9 Fire Defense Board**
  (Rural fire protection districts in Umatilla County)
  (541)567-8822

- **Office of State Fire Marshall**
  (503)373.1540
  www.sfm.state.or.us

5. Training Resources and Needs

Rural fire protection districts have a need for additional wildland fire equipment such as hoses, nozzles, portable pumps, and vehicles. The need for storage buildings for vehicles and equipment as well as additional substations on Weston Mountain continue to be discussed. Training for both paid staff and volunteers needs to be conducted on an annual basis. Acquiring additional funds for the rural fire districts, both the volunteer and tax-based departments, will be an ongoing item for assistance.

6. Mutual Aid Agreements

ODF has several mutual aid agreements currently in place. These agreements are reviewed annually by the participating agencies to maintain appropriate levels of protection across jurisdictions. Additional agreements will be written as needed to provide the most up-to-date collaboration among fire managers. ODF is currently working on creating and strengthening agreements with Washington Department of Natural Resources (WA-DNR) and the Walla Walla County Fire District #4 for protection services in the Mill Creek/Government Mountain WUI area.

7. Other Projects (to be identified)

Strategy for Risk & Fuels Reduction

Using the Hazard Assessment to Score and Prioritize 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 wildland-urban interface boundaries that would incorporate those communities-at-risk as appropriate by using assessment information (described more fully in the previous section). 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 Umatilla County (see Table 5). 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 a comprehensive 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 D. An aggregate score of 21 points was established as the overall high score.

Table 5. Scoring Matrix Factors Used for Ranking Umatilla County Wildland-Urban Interface Areas

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 and aspect combined)	1 pt – 0% - 25% 3 pts – 25% - 40% 5 pts – more than 40%
Total Fuel Hazard (surface and ladder 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 = 21

While the risk of fire occurrence and topographic hazard would be hard to change in order to manipulate the scoring of a WUI, 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 the Blue Mountains region of Umatilla County, the steering committee used annual rainfall to offset the high hazard rating assigned across northeast Oregon area (for weather hazard. 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 Umatilla 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".

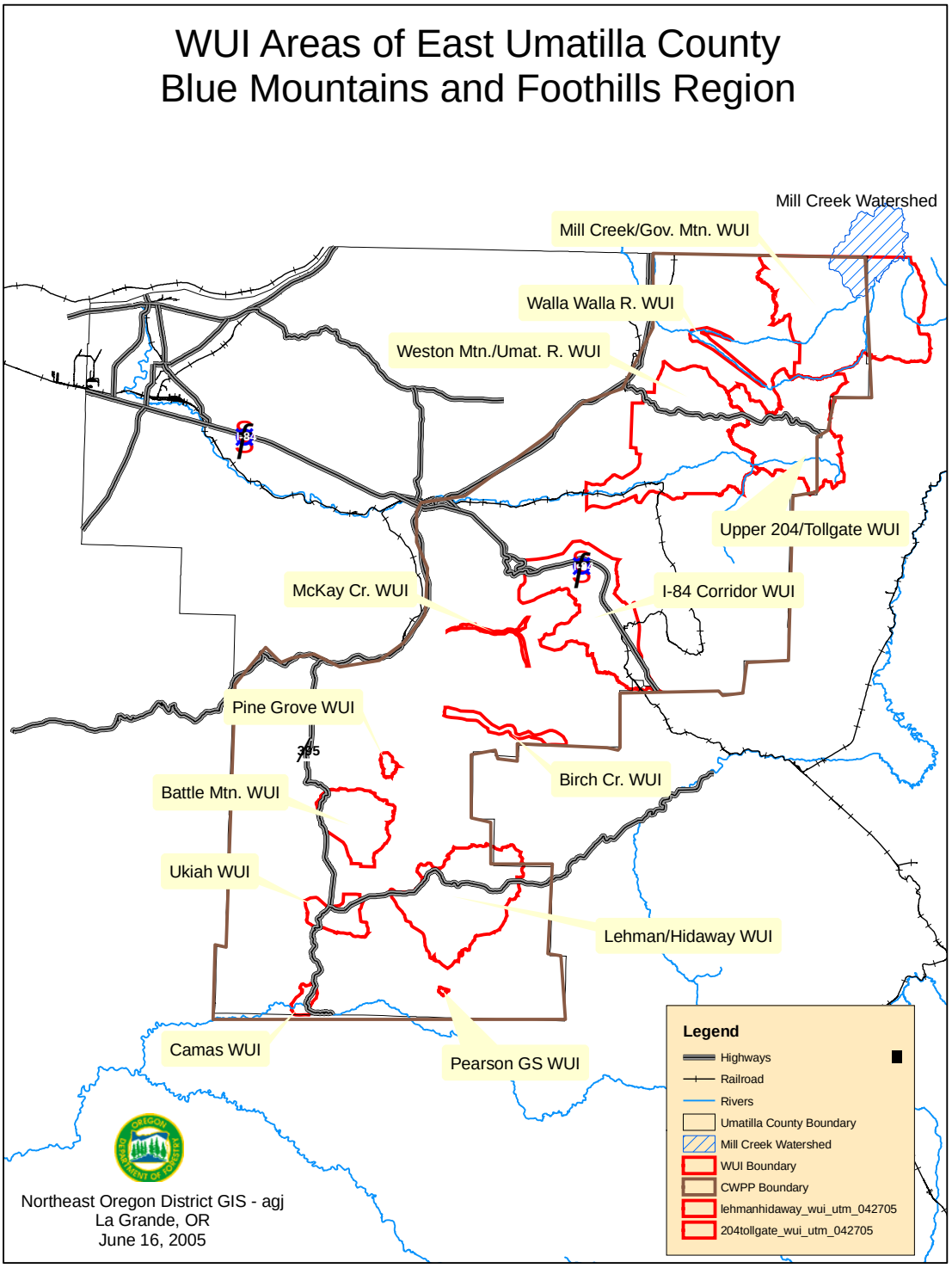
Prioritization

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 HUC boundaries (identified using the GIS layer available in the Oregon Department of Forestry GIS library). Other sections discuss additional public involvement in this planning process.

Thirteen WUI's were identified for the Blue Mountains region of the county. Based on the total points scored, each WUI was ranked as an area of High, Moderate, or Low Priority for the potential for projects and reducing the risk of wildfire hazards. Projects and Action Items for each WUI were developed based on the reasons that a WUI received a particular score in a particular category of the overall scoring matrix.

Table 6. Umatilla County Wildland-Urban Interface Areas – Listed by Total Score

Priority Level	WUI Name	Total Score
HIGH Priority (16-22 points)	I-84 Corridor	18
	Battle Mountain	17.5
	Lehman / Hidaway	17
	Weston Mountain / Umatilla River	16
	Mill Creek / Government Mountain	16
MODERATE Priority (10-15 points)	Upper 204 / Tollgate	15
	Pine Grove	15
	Camas	15
	Ukiah	13
	Birch	12
	Pearson Guard Station	12
	McKay	11
LOW Priority (<10 points)	Walla Walla River	9


WUI Areas of East Umatilla County
Blue Mountains and Foothills Region
Mill Creek Watershed
Mill Creek/Gov. Mtn. WUI
Walla Walla R. WUI
Weston Mtn./Umat. R. WUI
Upper 204/Tollgate WUI
McKay Cr. WUI
I-84 Corridor WUI
Pine Grove WUI
Birch Cr. WUI
Battle Mtn. WUI
Ukiah WUI
Lehman/Hidaway WUI
Camas WUI
Pearson GS WUI
I-84
395
Legend
Highways
Railroad
Rivers
Umatilla County Boundary
Mill Creek Watershed
WUI Boundary
CWPP Boundary
lehmanhidaway_wui_utm_042705
204tollgate_wui_utm_042705
Northeast Oregon District GIS - agj
La Grande, OR
June 16, 2005

The following sets of tables (#7-19) and WUI maps (Fig. 16-28) were designed to provide specific strategies for risk and fuels reduction projects for each designated WUI area in Umatilla County. The tables have been broken into three categories (education, treatment, and emergency response) and include timeframes and agencies involved in completing the tasks. These lists will be reviewed and updated as new projects and ideas are available.

Each map outlines a designated wildland-urban interface area (WUI) as identified by the Steering Committee. The wildland fire points (indicated by * on each map) are based on the combined ODF and USFS historical fire occurrence data for the period 1994-2003. (Note: The historical fire starts shown on the following maps represent ***wildland fires*** and not structural fires. They are a combination of both lightning-caused and human-caused fires.) As additional years of data become available, this hazard layer will be updated. Structure density is taken from data collected through ODF's Homesite Assessment project and inputted into the Spotfires database. (Note: some homesite points may be located in an incorrect location because of latitude/longitude errors. The database is being reviewed for errors, but at the time of this publication, that work was not yet completed. Additionally, the number of structures represented on the two WUIs covering Weston Mountain and the Tollgate area are incomplete. There are approximately 300-500 structures left to review, mostly in these two WUIs. ODF will be completing this project by the end of 2005.)

There are common themes repeated on the WUI planning sheets, including educational opportunities such as the FireWise workshops, general forest health and management activities, and treatment strategies along roadways to maintain noxious weeds and thick, flashy brush. Creating defensible space around structures and providing updated information Public Use Restrictions (including burn permit programs and the regulated closures for campfire, hunting, and use of power equipment) to both landowners and tourists are also ongoing activities for agencies. ODF's Partners in Protection (the pumper program designed to increase citizen response capability in strategically located areas across the county) will operate the same but be located only in certain areas. While the timing might vary from the north to the south ends of the county, information presented to the public will be consistent.

However, each WUI area should have identified education, treatment and emergency response items more specific to that area. Some items listed in the tables should be considered as 'possible' projects or strategies that may not be readily executed in the immediate future without additional funding or help from an involved community member.

Table 7. I-84 WUI Planning Sheet

WUI Name: I-84 Corridor **Priority Category:** HIGH

Description: Relatively flat corridor with radiating deep timbered canyons; major east-west interstate travel corridor; three major clusters of homesites as well as scattered homes along the freeway; major petroleum, natural gas, and BPA transmission lines; reverted CRP lands covered with heavy ponderosa pine reprod growth;

Risk Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Aggregate Score
2.5	2.5	5	4	3	1	18

Education Projects	Timeframe	Lead Agency/Cooperators
• Implement Public Use Restrictions to address human-caused ignition(Meacham)	• Summer-fall	• ODF & CTUIR
• Promote ATV and motorcycle use awareness and information	• Ongoing	• ODF & CTUIR
• Review, monitor & enforce UPRR prevention plan	• Completed	• UPRR, ODF & USFS
• Develop cost-share options to create firebreaks on CRP acres (Poverty Flats)	• Ongoing	• ODF & NRCS
• Evaluate area for SB360 program & implement as appropriate	• 1-3 years	• ODF & County
• Participate in FireWise presentation or day-long community workshop	• By 2006	• ODF & County
•	•	•
Limitations: Funding for personnel in summer months;		

Treatment Projects	Timeframe	Lead Agency/Cooperators
• Review & evaluate fuels treatment projects along WUI boundaries for possible joint operations with USFS, BIA, and CTUIR	• Ongoing	• USFS, ODF & landowners
• Maintain travel corridor right-of-ways (noxious weeds and other fuels)	• Summer-fall ongoing	• ODOT, UPRR & County
• Encourage & support Oregon Parks fire prevention activities	• Ongoing	• Oregon State Parks
• Plan & complete fuels treatment including: roadways, commercial and non-commercial thinning	• Ongoing	• USFS, ODF & CTUIR
• Create defensible space around structures	• Ongoing	• ODF & CTUIR
• Maintain areas near utility transmission lines (weeds and brush)	• Ongoing	• Utility providers
Limitations: Funding for fuels treatment programs; inability to use National Fire Plan dollars on CRP ground;		

Emergency Response Projects	Timeframe	Lead Agency/Cooperators
• Implement Partners in Protection program (Meacham/Poverty Flats area)	• Summer-fall ongoing	• ODF & landowners
• Work to enhance Meacham Volunteer Fire Department program capacity	• Ongoing	• Meacham FD, ODF, County & CTUIR
Limitations: Finding an interested landowner in a strategic location for pumper program;		

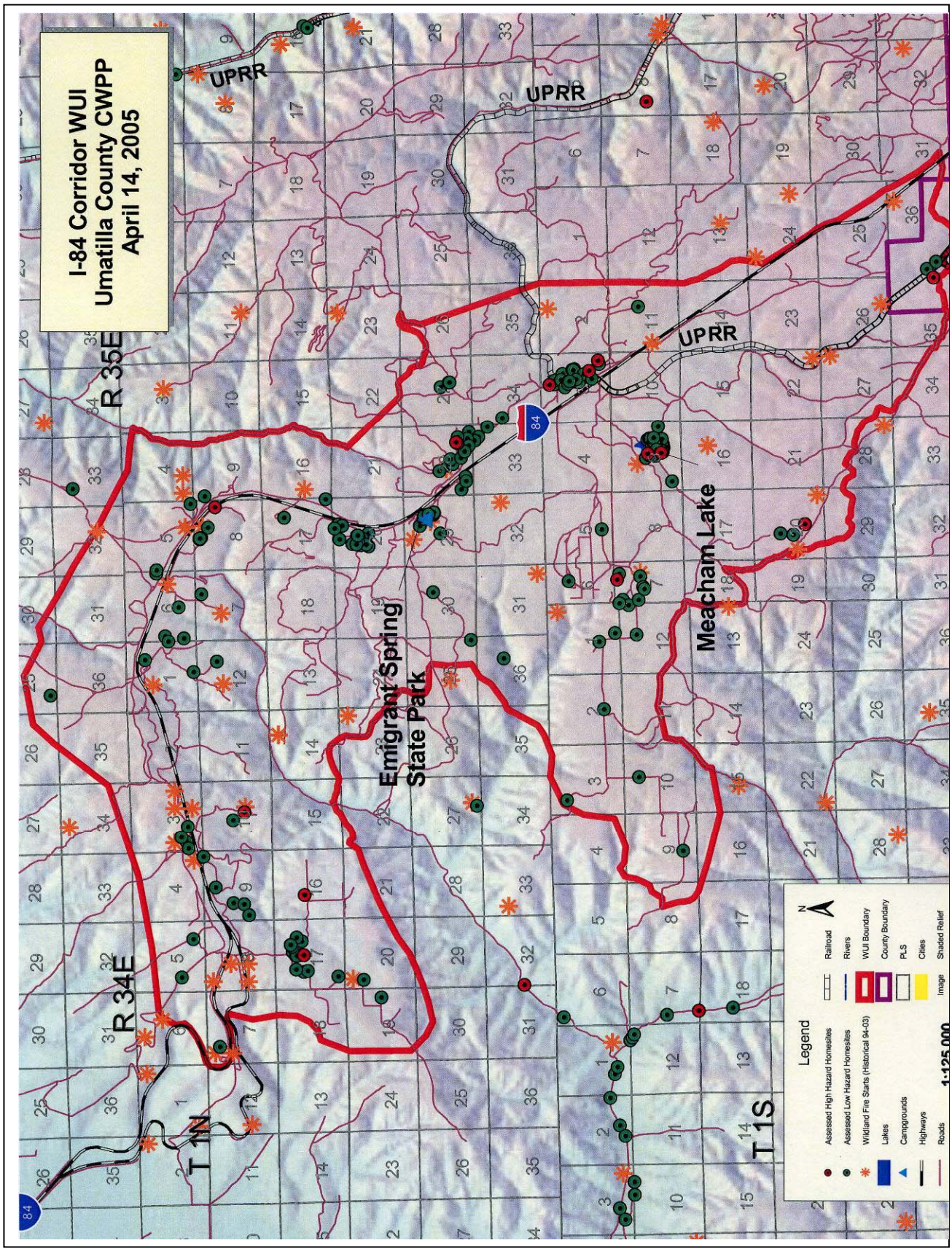


Figure 16. I-84 WUI Boundary with Density and Historical Wildland Fire Starts

Table 8. Battle Mountain WUI Planning Sheet

WUI Name: Battle Mountain **Priority Category:** HIGH

Description: Dry, ponderosa pine site with main state north-south highway passing through; two major clusters of homesites with additional scattered acreages throughout the area;

Risk Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Aggregate Score
2.5	3	4	4	3	1	17.5

Education Projects	Timeframe	Lead Agency/Cooperators
• Complete house-to-house visits and promote defensible space to homeowners	• Ongoing	• ODF
• Evaluate area for SB 360 program & implement as appropriate	• 1-3 years	• ODF & County
• Implement Public Use Restrictions to address human-caused ignitions (signs)	• Summer mos.	• USFS & ODF
•	•	•
Limitations: Funding for personnel in summer months;		

Treatment Projects	Timeframe	Lead Agency/Cooperators
• Review & evaluate fuels treatment projects to strategically locate near road systems, structures, & across WUI boundary lines with USFS & private landowners	• Ongoing	• USFS, ODF & landowners
• Monitor & complete USFS fuels treatment (Owens project)	• In process	• USFS
• Maintain travel corridor right-of-ways (weeds and brush)	• Ongoing	• ODOT & County
• Create defensible space around structures	• Ongoing	• ODF
• Maintain areas near utility transmission lines (weeds and brush)	• Ongoing	• Utility providers
• Encourage State Parks ladder fuels reduction treatment & other fuels reduction projects	• In process; west portion completed 2002	• Oregon State Parks
•	•	•
Limitations: Funding shortages for fuels treatment programs; biomass transportation costs;		

Emergency Response Projects	Timeframe	Lead Agency/Cooperators
• Implement Partners in Protection program	• Ongoing	• ODF & landowners
• Encourage development of phone trees	• Ongoing	• Landowners, ODF, USFS & County
• Work to enhance the Ukiah Volunteer Fire Department capacity and response	• By 2007	• Ukiah Fire Dept., ODF, County & USFS
•	•	•
Limitations: Finding an interested landowner in strategic location for pumper program;		

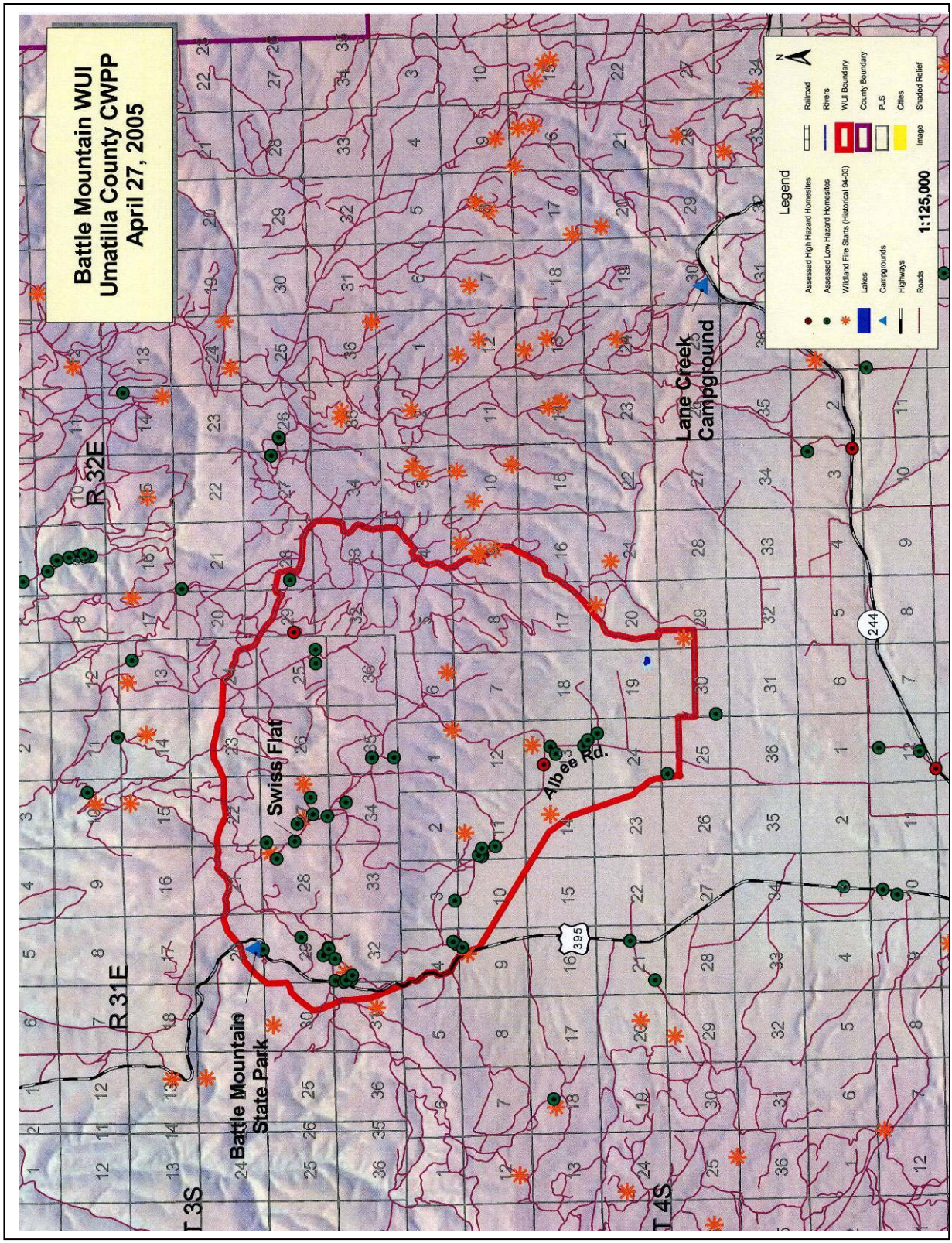


Figure 17. Battle Mountain WUI Boundary with Density and Historical Wildland Fire Starts

Table 9. Lehman / Hidaway WUI Planning Sheet

WUI Name: Lehman / Hidaway **Priority Category:** HIGH

Description: Destination resort area with three groupings of homesite concentrations; mixed conifer surrounded by federal forest service land;

Risk Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Aggregate Score
2	3	4	4	3	1	17

Education Projects	Timeframe	Lead Agency/Cooperators
• Target & provide prevention patrols around areas of high fire concern	• Summer mos.	• USFS & ODF
• Coordinate with resort operator regarding public use restrictions & fire prevention	• Ongoing	• USFS & ODF
• Promote ATV and motorcycle education & awareness with club members & the public	• Summer & fall	• ODF, USFS & local motorcycle clubs
• Implement Public Use Restrictions to address human-caused ignitions (signs)	• Summer - fall	• USFS & ODF
• Educate landowners on defensible space	• Ongoing	• ODF
Limitations: Funding for personnel in summer months; lots of non-residents traveling through area that aren't aware of local use restrictions;		

Treatment Projects	Timeframe	Lead Agency/Cooperators
• Review & evaluate strategic fuels treatment projects along WUI boundaries in conjunction with USFS projects	• Ongoing	• USFS, ODF & landowners
• Maintain travel corridor right-of-ways (weeds and brush)	• Ongoing	• ODOT & USFS
• Monitor & complete mechanical fuels reduction projects including Weasel and Owens	• 1-3 years; Owens started as 2002 Demo	• USFS
• Complete underburning projects including Elk and Camas	• Started 2002	• USFS
• Create defensible space around structures	• Ongoing	• ODF
• Work with BLM on fuels treatment projects in Cable Creek area	• In progress	• BLM, USFS & ODF
Limitations: Funding issues for fuels treatment work including Owens and Weasel projects – ready for implementation, but no funds available for those two projects;		

Emergency Response Projects	Timeframe	Lead Agency/Cooperators
• Work to enhance structural protection by annexing (or make agreement with) Ukiah Volunteer Fire Dept	• By 2007	• Ukiah Fire Dept., ODF & landowners
• Work on development of a community emergency plan	• 1-4 years	• Landowners
• Implement Partners in Protection program (Lehman)	• Ongoing	• ODF & landowners
Limitations: Increases in levels of public use; increasing number of human-caused fire starts;		

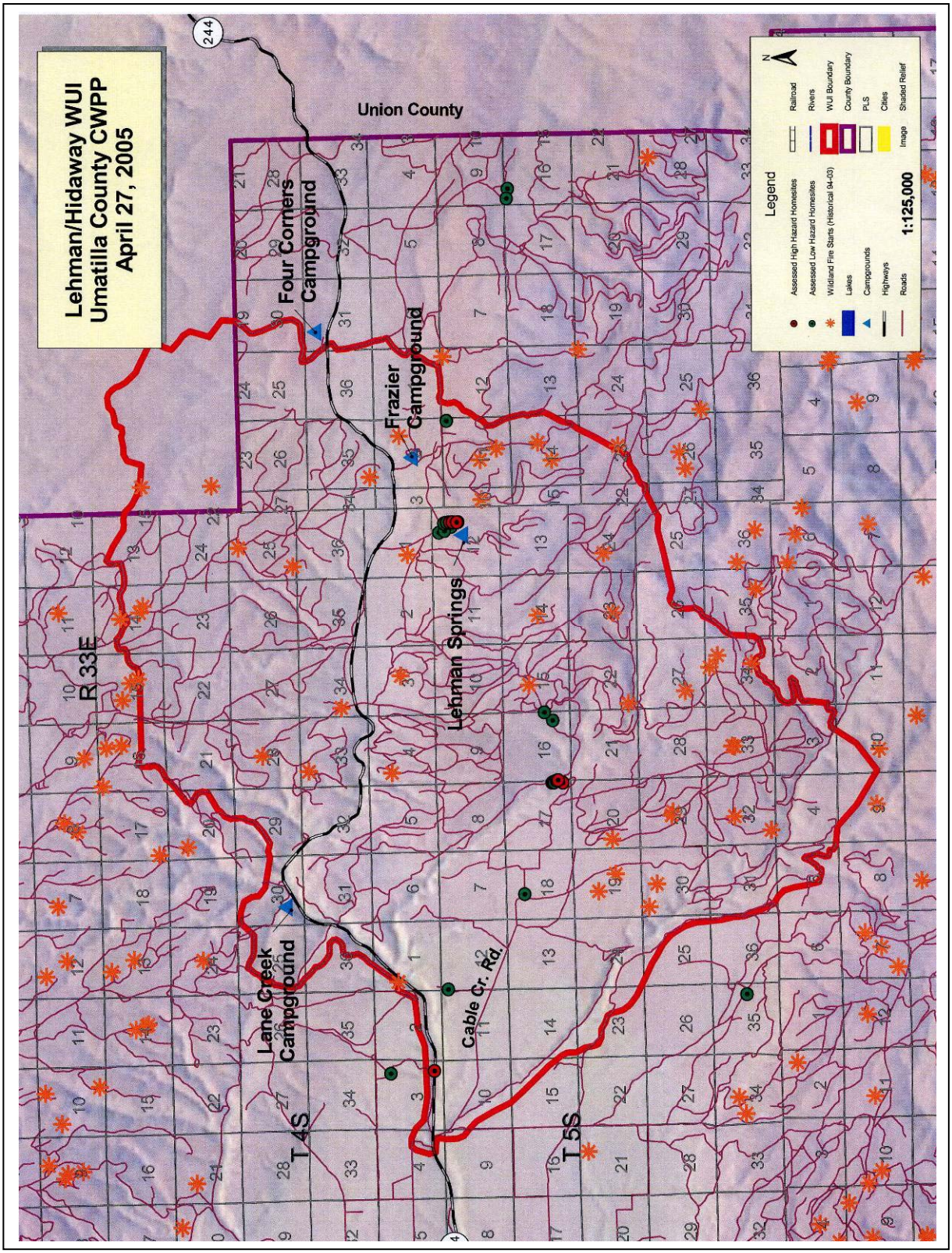


Figure 18. Lehman/Hidaway WUI Boundary with Density and Historical Wildland Fire Starts

Table 10. Weston Mountain / Umatilla River WUI Planning Sheet

WUI Name: Weston Mountain / Umatilla River **Priority Category:** HIGH

Description: Heavily rural homesite areas with numerous home and cabin sites scattered across area; fuel types include steep, grassy slopes and heavy timbered canyons with large areas of reverted CRP lands covered with heavy pine reprod; heavy recreation area with limited ingress/egress;

Risk Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Aggregate Score
2	3	4	4	2	1	16

Education Projects	Timeframe	Lead Agency/Cooperators
• Implement Public Use Restrictions to address human-caused ignitions	• Summer – fall	• USFS, ODF, EUCRFD & CTUIR
• Develop cost-share options to create firebreaks on CRP acres (Weston Mtn)	• Ongoing	• NRCS, ODF & landowners
• Promote safe debris burning activities	• Ongoing & year-round	• ODF, USFS, EUCRFD & CTUIR
• Target & provide prevention patrols in areas of high fire concern	• Summer mos.	• USFS, ODF & EUCRFD
• Evaluate area for SB 360 program & implement as appropriate	• 1-3 years	• ODF & County
• Install & maintain information kiosk and more signing across area	• 1-2 years	• ODF, USFS & EUCRFD
• Participate in Fire Wise presentation or day-long community workshop	• By 2007	• ODF, EUCRFD & County
Limitations: Funding for personnel in summer months;		

Treatment Projects	Timeframe	Lead Agency/Cooperators
• Review & evaluate possible fuels treatment projects in conjunction with USFS, CTUIR, BIA & private landowners	• Ongoing	• ODF, USFS, EUCRFD & landowners
• Complete pre-commercial thinning	• Ongoing	• ODF & USFS
• Create defensible space around structures	• Ongoing	• ODF & EUCRFD
• Complete & monitor fuels reduction projects – Plenty Bob	• NEPA done; 3 yrs implement	• USFS
Limitations: issues with slope and access; ESA issues including Lynx analysis unit and bull trout in lower part; landowner interest in fuels treatment; funding for fuels reduction projects;		

Emergency Response Projects	Timeframe	Lead Agency/Cooperators
• Work to improve fire fighting capacity (roads/access issues, more water sources, more equipment & fire fighters, etc)	• Ongoing	• ODF, EURFD & CTUIR
• Develop & strengthen communication & response plan among protection agencies	• Ongoing	• All
• Implement Partners in Protection program	• Ongoing	• ODF & landowners
• Look for & obtain funds to reopen High Ridge Lookout Tower in future (used as needed this year after 2-3 yrs of staffing)	• Ongoing	• USFS, ODF & CTUIR
Limitations: issues with slope and access to areas; funding to maintain full staff levels in strategically placed lookout towers that benefit all; funding for enhancing rural fire department capacities;		

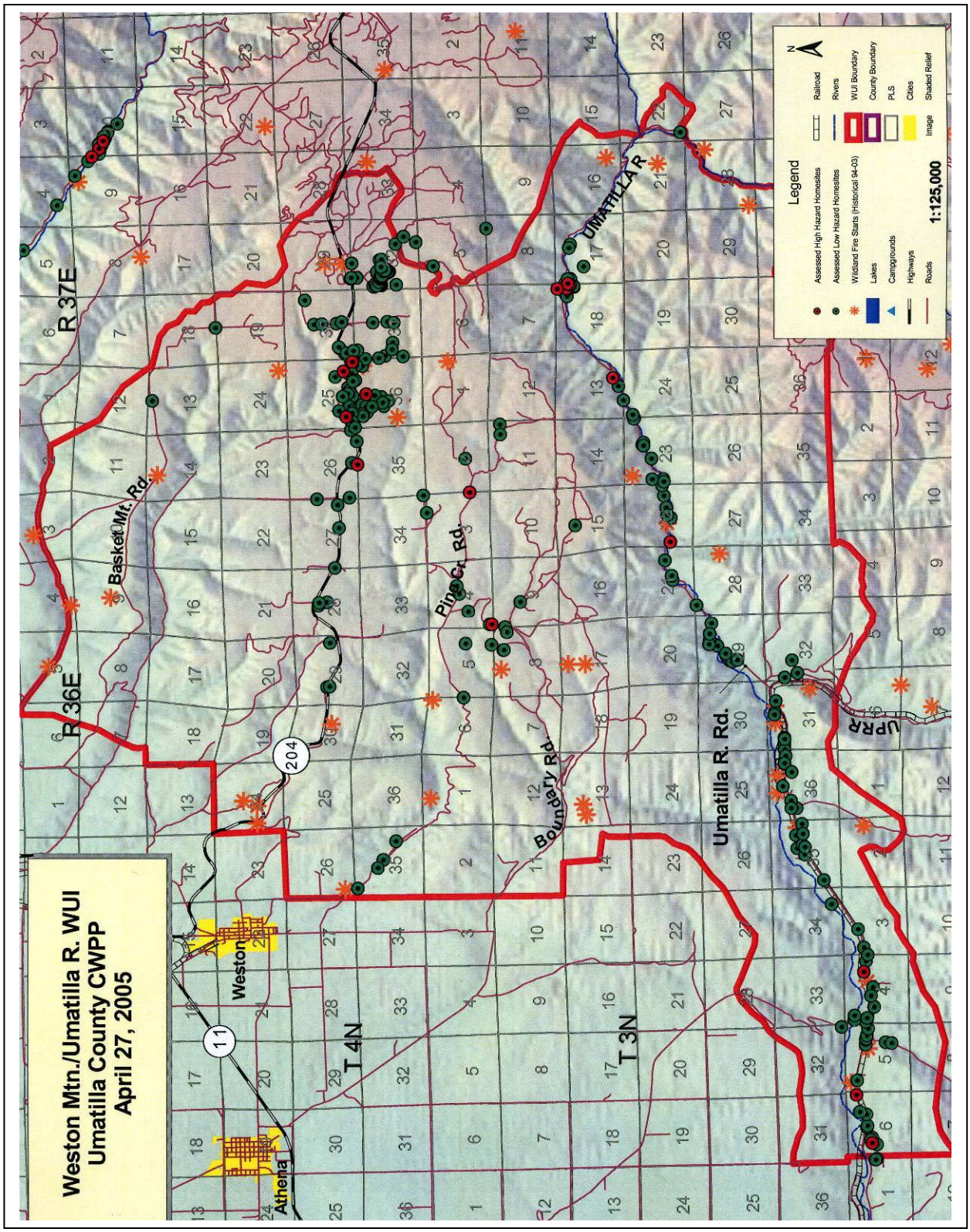


Figure 19. Weston Mtn/Umatilla River WUI Boundary with Density and Historical Wildland Fire Starts

Table 11. Mill Creek / Government Mountain WUI Planning Sheet

WUI Name: Mill Creek / Government Mountain **Priority Category:** HIGH

Description: North portion of WUI has north slopes heavily timbered with fir and spruce and south slopes with timbered stringers and open grass and brush ridges; steep slopes and dense, brushy vegetation; numerous year round and weekend homesites in canyon bottom; contains the municipal watershed for City of Walla Walla

Risk Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Aggregate Score
2	3.5	3	4.5	2	1	16

Education Projects	Timeframe	Lead Agency/Cooperators
• Participate in Firewise presentation or day-long community workshop	• April 14, 2005	• WA-DNR, ODF, USFS & Walla Walla County Fire District #4
• Complete house-to-house prevention visits and promote defensible space	• Summer 2004 90% complete	• ODF
• Implement Public Use Restrictions to address human-caused ignitions (more signs)	•	•
• Promote safe debris burning activities	•	•
• Evaluate area for SB 360 program & implement as appropriate	• 1-3 years	• ODF & County
• Install & maintain information kiosk	• Summer – fall annually	• WA-DNR, ODF, USFS & WWCFD #4
Limitations: Funding for personnel in summer months;		

Treatment Projects	Timeframe	Lead Agency/Cooperators
• Review & evaluate fuels reduction projects in conjunction with USFS & WA-DNR	• Coordinate w/ key landowners	• ODF, USFS & landowners
• Evaluate & maintain shaded fuel break: Tiger Saddle to Skyline	• 2004 completed	• USFS
• Complete fuels reduction (shaded fuel break) on WA-OR state line	• Coordinate w/ WA-DNR	• ODF
• Maintain travel corridors and cutbanks to minimize available fuels (weeds and brush)	• Coordinate w/ WA-DNR	• WA-DNR & Umatilla County
•	•	•
Limitations: Wilderness adjacent to closed, municipal watershed; extreme topography; ESA including Bull Trout & Lynx; outcome of USFS Wilderness Boundary Survey; landowner interest in fuels treatment; part-time residents; available funding for fuels treatment projects and staffing levels		

Emergency Response Projects	Timeframe	Lead Agency/Cooperators
• Maintain Skyline Rd for fire access	• Ongoing	• USFS
• Evaluate & maintain ingress/egress access on Yellow Jacket Ridge and Skyline Road	• Ongoing	• USFS
• Create and strengthen written agreements with Walla Walla Fire District #4 and WA-DNR	• Ongoing	• ODF
• Maintain funds for Table Rock Lookout staff	• Ongoing	• USFS & City of Walla Walla
• Maintain funds for patrol rider in Mill Ck WS	• Ongoing	• USFS & City of Walla Walla
• Develop other water sources for helicopter dip sites, portable heli-wells, other equipment	• Ongoing	• ODF & USFS
• Develop agreements with landowners to use available ponds as water sources	• Ongoing	• ODF & USFS
Limitations: Increases in levels of public use near wilderness areas; increasing human-caused fire starts; secure funding for alternative water sources;		

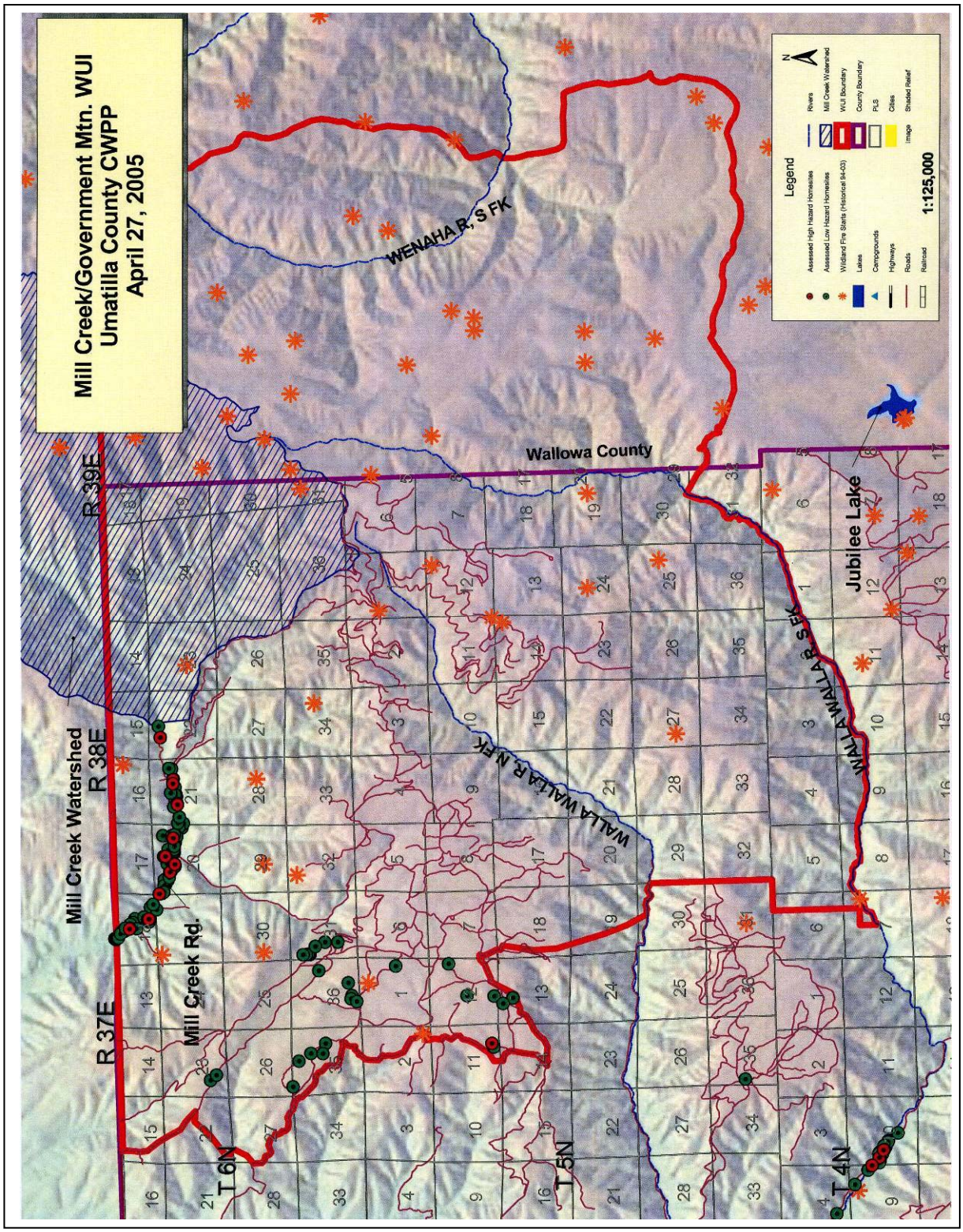


Figure 20. Mill Creek/Government Mtn WUI Boundary with Density and Historical Wildland Fire Starts

Table 12. Pine Grove WUI Planning Sheet

WUI Name: Pine Grove **Priority Category:** MODERATE

Description: Small year-round community of homes with residents along the canyon bottom; steep, grassy slopes with timbered stringers; one main road in and out of area;

Risk Assessment Factors

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

Education Projects	Timeframe	Lead Agency/Cooperators
• Implement Public Use Restrictions to address human-caused ignitions	• Summer – fall	• ODF, Pilot Rock RFD
• Target & provide prevention patrols in areas of high fire concern	• Summer - fall	• USFS & ODF
• Evaluate area for SB 360 program & implement as appropriate	• 1-3 years	• ODF & County
•	•	•
•	•	•
Limitations: Funding for personnel in summer months;		

Treatment Projects	Timeframe	Lead Agency/Cooperators
• Evaluate & complete mechanical fuels treatment	• Ongoing	• USFS & ODF
• Evaluate & coordinate for joint project areas that could extend across boundaries such as “Gulch”	• Ongoing	• USFS, ODF & landowners
• Maintain road right-of-ways (weeds/brush)	• Ongoing	• County
• Create defensible space around structures	• Ongoing	• ODF & Pilot Rock RFD
•	•	•
Limitations: Funding for fuels reduction projects;		

Emergency Response Projects	Timeframe	Lead Agency/Cooperators
• Implement Partners in Protection program	• Ongoing	• ODF & landowners
• Review ingress/egress issues & address changes as appropriate	• Ongoing	• ODF, landowners & County
• Work to enhance rural fire protection capacity	• Ongoing	• ODF & Pilot Rock RFD
•	•	•
Limitations: finding an interested landowner located in strategic location for pumper program;		

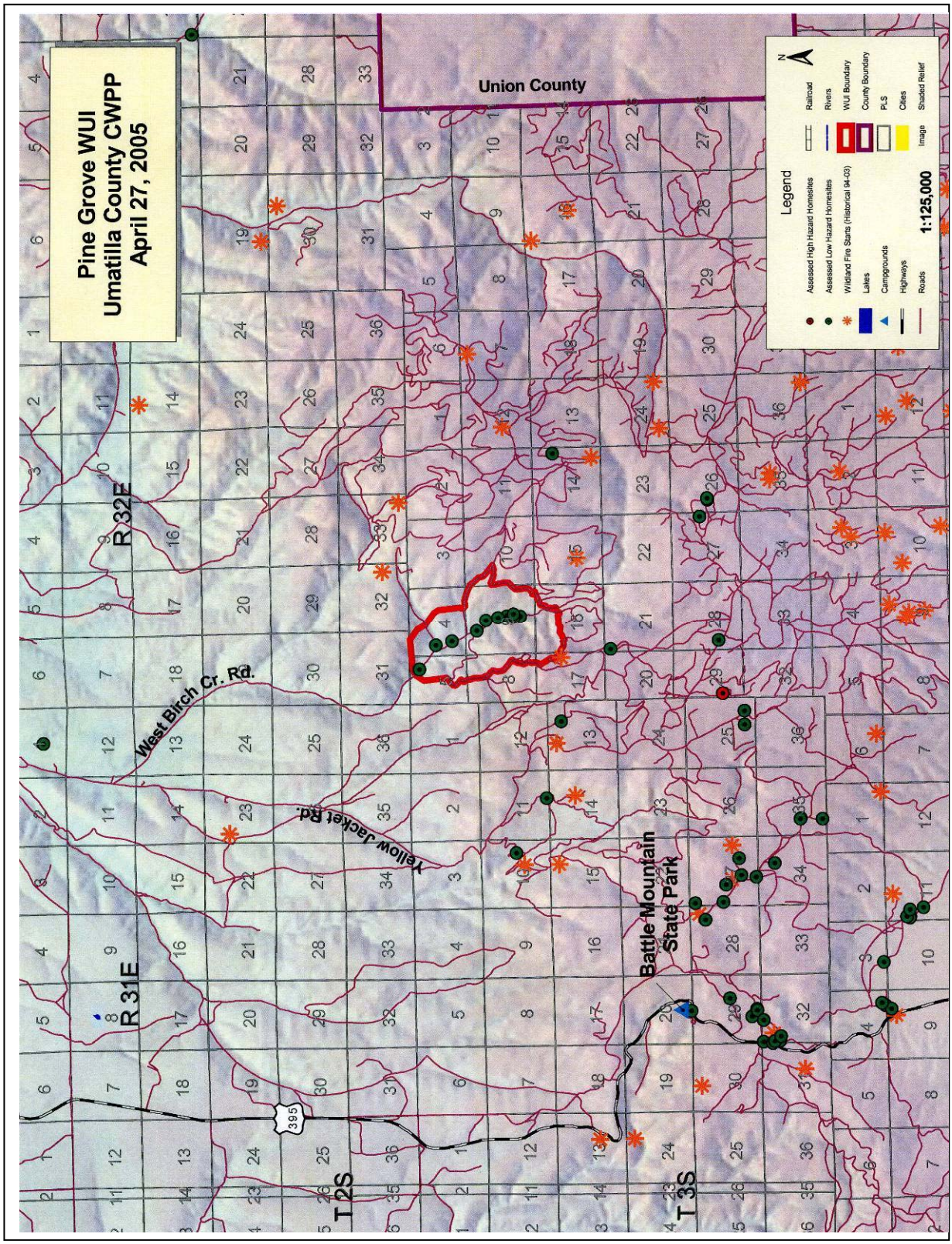


Figure 21. Pine Grove WUI Boundary with Density and Historical Wildland Fire Starts

Table 13. Camas WUI Planning Sheet

WUI Name: Camas **Priority Category:** MODERATE

Description: Small group of homes at junction of NFJD River and Camas Ck surrounded by dry, pine site; major north-south state highway corridor along canyon bottom; minimally-managed wildlife area nearby with no access poses heavy fuel threat to area;

Risk Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Aggregate Score
2	5	3	4	3	1	15

Education Projects	Timeframe	Lead Agency/Cooperators
• Complete house-to-house prevention visits and promote defensible space	• Summer 2004 90% complete	• ODF
•	•	•
•	•	•
•	•	•
•	•	•
Limitations: Funding for personnel in summer months;		

Treatment Projects	Timeframe	Lead Agency/Cooperators
• Create defensible space around structures	• Ongoing	• ODF & landowners
• Maintain travel corridor right-of-ways (weeds and brush)	• Ongoing	• ODOT
• Complete the Fall Meadowbrook HFR (timber sale/fuels treatment project) - Environmental Analysis to be completed by FY06;	• In progress; 1-4 years	• USFS
•	•	•
•	•	•
Limitations: Funding for fuels reduction treatment to implement Falls Meadowbrook and other future potential projects for Camas area;		

Emergency Response Projects	Timeframe	Lead Agency/Cooperators
• Work to enhance Ukiah Volunteer Fire Department capacity and response area	• Ongoing	• Ukiah Fire Dept. & ODF
•	•	•
•	•	•
•	•	•
Limitations:		

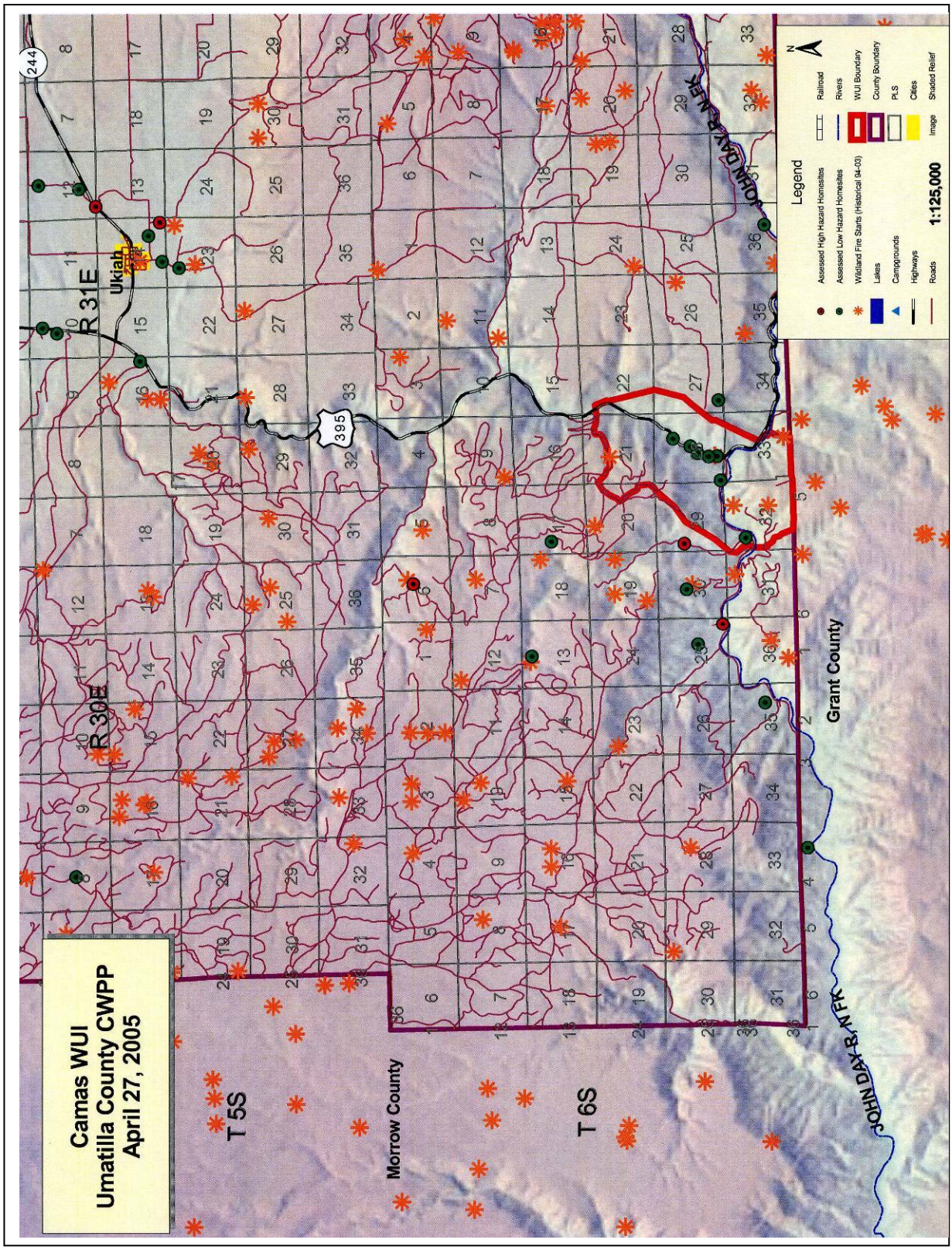


Figure 22. Camas WUI Boundary with Density and Historical Wildland Fire Starts

Table 14. Upper 204 / Tollgate WUI Planning Sheet

WUI Name: Upper 204 / Tollgate **Priority Category:** MODERATE

Description: Starting about milepost 10.5 at Weston Pond; upper elevation; heavy subalpine fuel types, moist, long-term fire interval; stand decay becoming evident; concentration of year-round and weekend residential area with many out-of-state property owners;

Risk Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Aggregate Score
1	3	4	5	1	1	15

Education Projects	Timeframe	Lead Agency/Cooperators
• Implement Public Use Restrictions to address human-caused ignitions	• Summer mos.	• USFS, ODF & EUCRFD
• Develop cost-share options to create firebreaks on CRP acres	• Ongoing	• NRCS & ODF
• Target & provide prevention patrols in areas of high fire concern	• Summer mos.	• USFS, ODF & EUCRFD
• Evaluate area for SB 360 program & implement as appropriate	• 1-3 years	• ODF
• Promote safe debris burning activities	• Year-round	• ODF & EUCRFD
• Complete homesite assessment and promote defensible space	• Ongoing	• ODF & EUCRFD
Limitations: Funding for personnel in summer months;		

Treatment Projects	Timeframe	Lead Agency/Cooperators
• Review & evaluate fuels projects in conjunction with USFS	• Ongoing	• USFS & ODF
• Maintain travel corridor right-of-ways (weeds and brush)	• Ongoing	• ODOT
• Complete prescribed burning – NF Umatilla wilderness and Walla Walla WS	• NEPA (approx. two years)	• USFS
• Create defensible space around structures	• Ongoing & year-round	• ODF, EUCRFD & landowners
• Review ingress/egress issues & complete improvements as appropriate	• Ongoing & year-round	• ODF, EUCRFD & landowners
Limitations: landowner interest in fuels treatment; funding for fuels treatment projects; out-of-state landowners; topography of area; restrictions associated with wilderness areas; ESA including Lynx;		

Emergency Response Projects	Timeframe	Lead Agency/Cooperators
• Implement Partners in Protection program	• Summer mos.	• ODF and landowners
• Work to enhance rural fire protection capacity through grants	• Ongoing	• EURFD & ODF
• Locate and GPS water source sites and put into Spotfires database	• Ongoing	• ODF, USFS & EUCRFD
• Explore locating substation in Langdon Lake area (structural protection) to help with homeowners' fire insurance coverage	• Ongoing	• EUCRFD
Limitations: finding interested landowners in strategic areas of county for pumper program to help improve citizen response and initial attack; look into feasibility of additional substation to help with ISO rates for unprotected structures;		

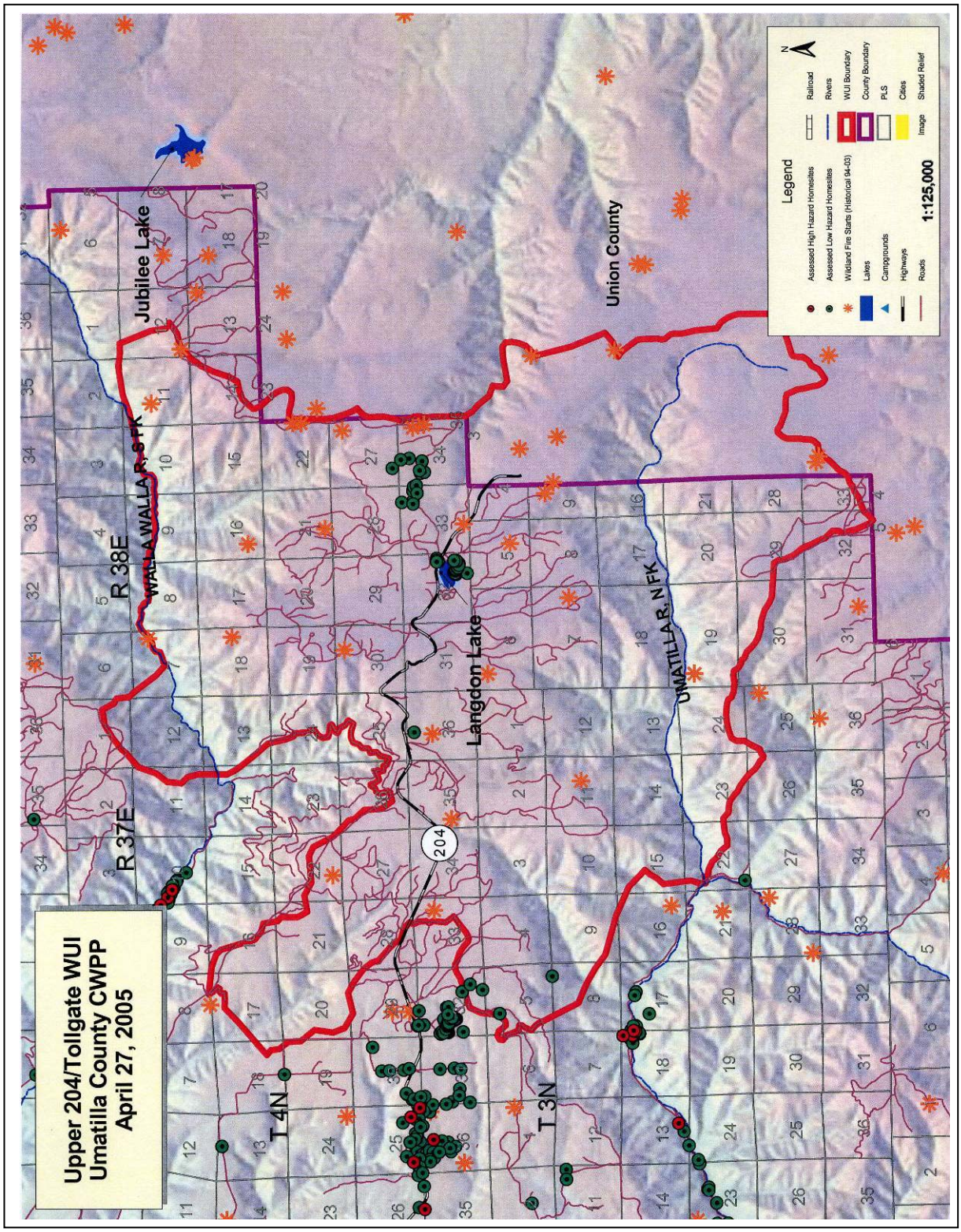


Figure 23. Upper 204/Tollgate WUI Boundary with Density and Historical Wildland Fire Starts

Table 15. Ukiah WUI Planning Sheet

WUI Name: Ukiah **Priority Category:** MODERATE

Description: Largest community in south portion of county at junction of major travel corridors; surrounded by predominately-mixed pine and grass fuel types;

Risk Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Aggregate Score
2	1	3	3	3	1	13

Education Projects	Timeframe	Lead Agency/Cooperators
• Evaluate area for SB 360 program & implement as appropriate	• 1-3 years	• ODF
• Implement Public Use Restrictions to address human-caused ignitions (tourists/hunters/etc.)	• Summer – fall	• USFS& ODF
• Target & provide prevention patrols in areas of high fire concern	• Summer – fall	• USFS & ODF
•	•	•
•	•	•
Limitations: Funding for personnel in summer months;		

Treatment Projects	Timeframe	Lead Agency/Cooperators
• Create defensible space around structures	• Ongoing	• ODF & Ukiah Fire Dept.
• Complete Western Route fuels treatment project area near WUI	• Close to signature; implementation 2-4 yrs	• USFS
• Evaluate and promote private land fuels reduction projects as warranted	• Ongoing	• ODF & landowners
•	•	•
•	•	•
Limitations: Past timber treatment and grazing activities have helped reduce fuels loading around town – however, both activities are done less and less each year; no USFS projects currently proposed within five air miles of Ukiah due to property ownership;		

Emergency Response Projects	Timeframe	Lead Agency/Cooperators
• Work to enhance capacity of City of Ukiah Fire Department	• Ongoing	• City of Ukiah & ODF
•	•	•
•	•	•
•	•	•
Limitations:		

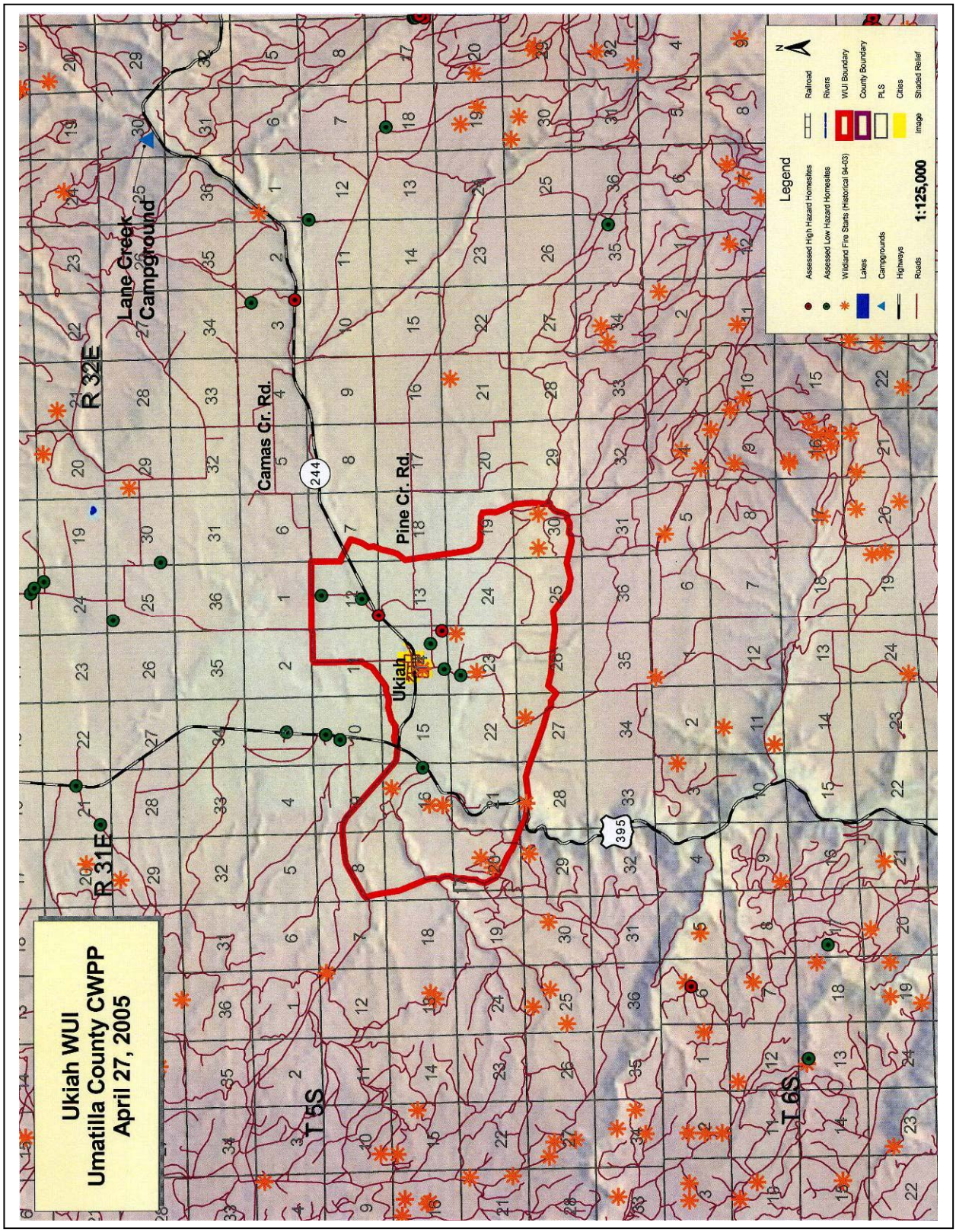


Figure 24. Ukiah WUI Boundary with Density and Historical Wildland Fire Starts

Table 16. Birch WUI Planning Sheet

WUI Name: Birch **Priority Category:** MODERATE

Description: Populated stream corridor with primarily riparian brush and deciduous tree species leading to steep, grassy slopes; numerous year-round homesites scattered through area;

Risk Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Aggregate Score
2	1	3	3	2	1	12

Education Projects	Timeframe	Lead Agency/Cooperators
• Target & provide prevention patrols in areas of high fire concern	• Summer – fall	• ODF
• Implement Public Use Restrictions to address human-caused ignitions	• Summer – fall	• ODF & CTUIR
• Evaluate prevention efforts around Hum-Te-Pin Lake & implement as appropriate	• Summer – fall	• ODF & CTUIR
•	•	•
•	•	•
Limitations: Funding for personnel in summer months;		

Treatment Projects	Timeframe	Lead Agency/Cooperators
• Create defensible space around structures	• Ongoing	• ODF, Pilot Rock RFD & CTUIR
• Complete debris clean up of ice storm damage around Hum-Te-Pin Lake	• 1-2 years	• CTUIR
•	•	•
•	•	•
•	•	•
Limitations:		

Emergency Response Projects	Timeframe	Lead Agency/Cooperators
• Implement Partners in Protection program	• Ongoing	• ODF & landowners
• Work to enhance rural fire protection capability through grants	• Ongoing	• Pilot Rock RFD
•	•	•
•	•	•
Limitations:		

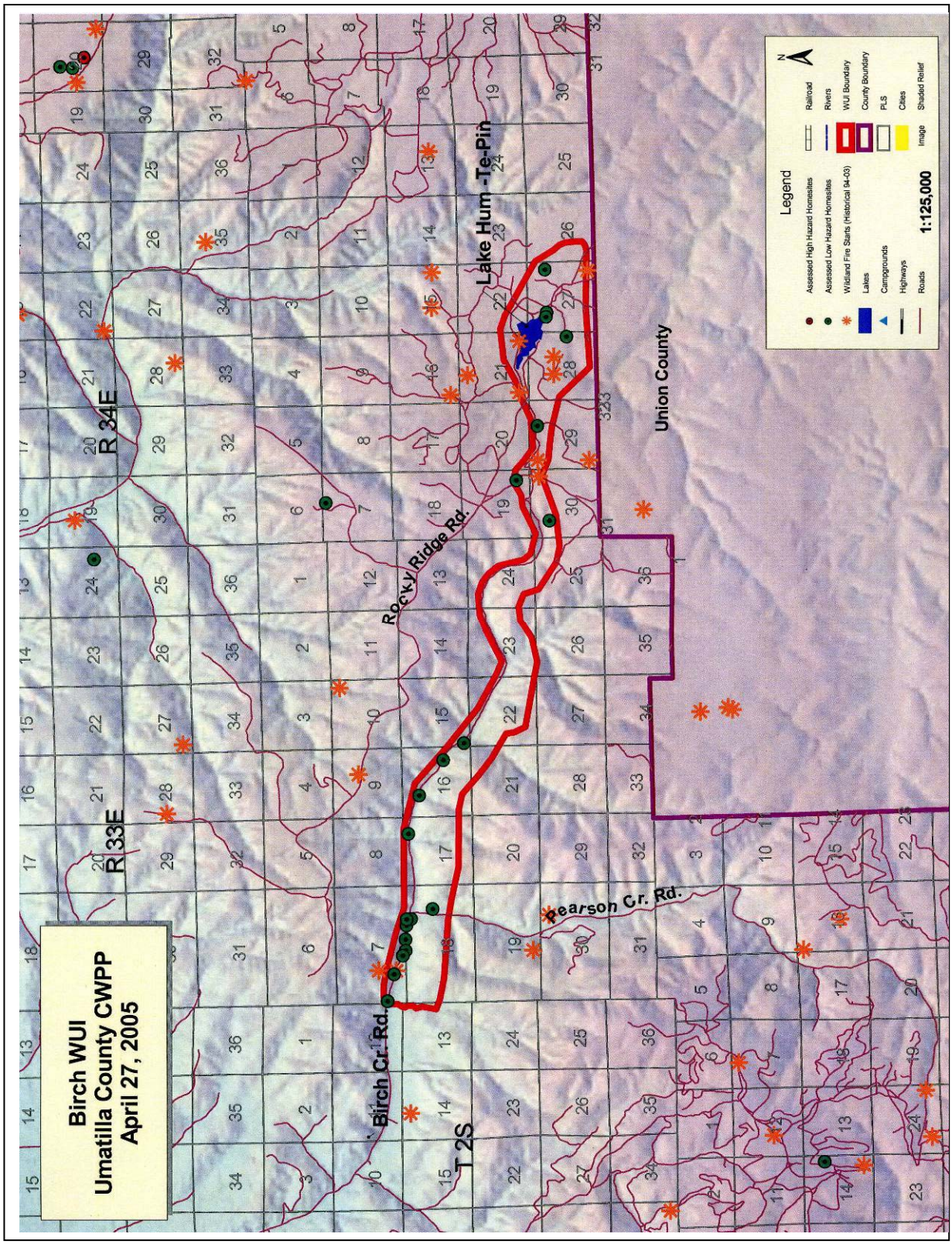


Figure 25. Birch WUI Boundary with Density and Historical Wildland Fire Starts

Table 17. Pearson Guard Station WUI Planning Sheet

WUI Name: Pearson Guard Station **Priority Category:** MODERATE

Description: Very small cluster of leased forest service cabin sites all within the federal forest lands; USFS has obligation to the permitees to manage the vegetation and fire fuels; USFS buildings are on the historical list;

Risk Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Aggregate Score
3	1	1	4	2	0	11

Education Projects	Timeframe	Lead Agency/Cooperators
• Target & provide prevention patrols in areas of high fire concern	• Summer – fall	• USFS
•	•	•
•	•	•
•	•	•
•	•	•
Limitations:		

Treatment Projects	Timeframe	Lead Agency/Cooperators
• Create defensible space around structures	• Ongoing	• USFS & permitees
• Review & evaluate the need of an Environmental Analysis for future treatment work around buildings and complete the EA as appropriate	• By 2010	• USFS
• Maintain vegetation and fire fuels levels near the WUI	• Ongoing	• USFS
•	•	•
•	•	•
Limitations: Funding for fuels reduction treatment;		

Emergency Response Projects	Timeframe	Lead Agency/Cooperators
•	•	•
•	•	•
•	•	•
•	•	•
Limitations:		

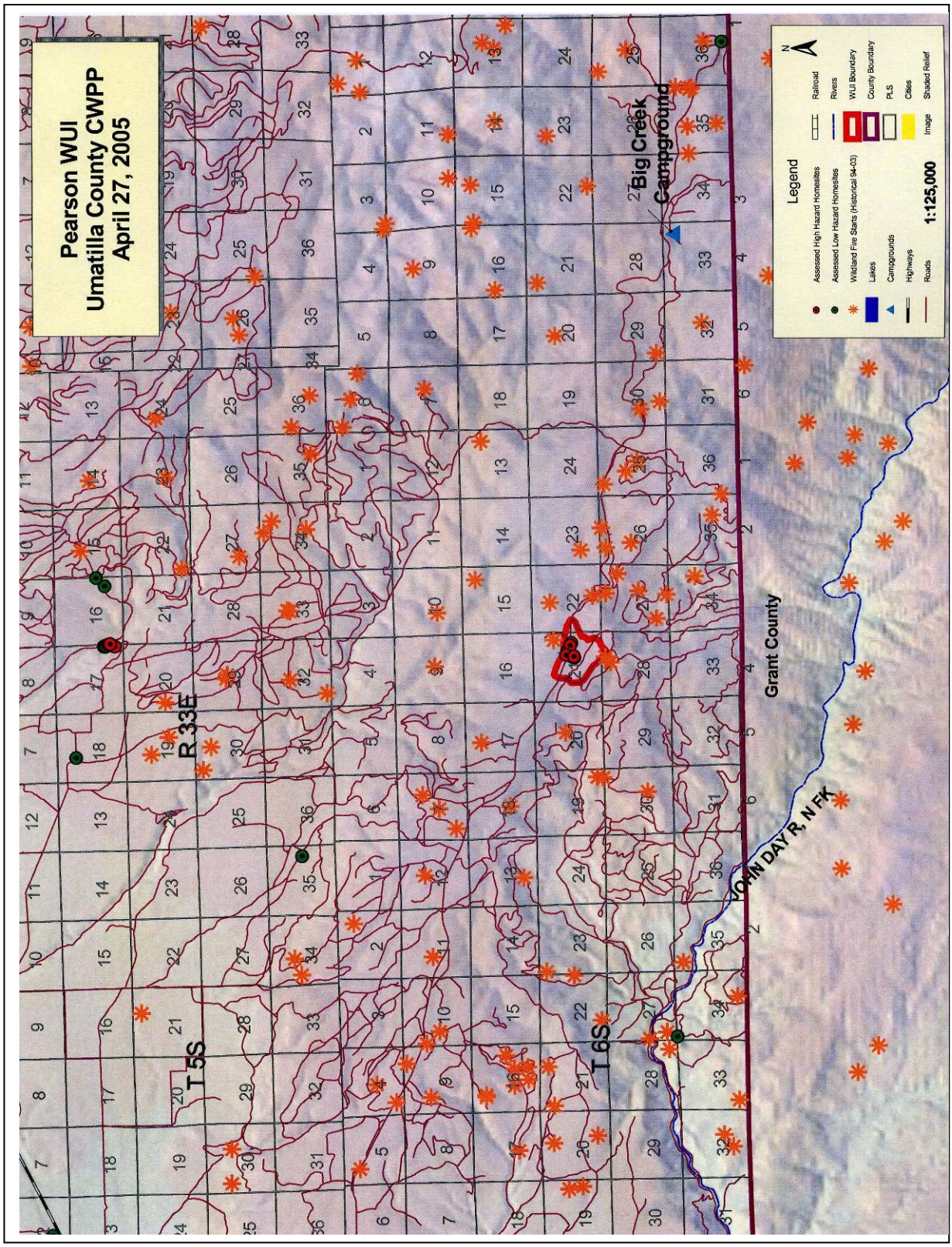


Figure 26. Pearson Guard Station WUI Boundary with Density and Historical Wildland Fire Starts

Table 18. McKay WUI Planning Sheet

WUI Name: McKay **Priority Category:** MODERATE

Description: Populated stream corridor with primarily riparian brush and deciduous trees that lead to steep, grassy slopes; numerous year-round homesites scattered through area;

Risk Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Aggregate Score
2	1	2	3	2	1	11

Education Projects	Timeframe	Lead Agency/Cooperators
• Target & provide prevention patrols in areas of high fire concern	• Summer – fall	• ODF & CTUIR
• Implement Public Use Restrictions to address human-caused ignitions	• Summer – fall	• ODF & CTUIR
• Promote fire prevention awareness	• Summer – fall	• ODF & CTUIR
•	•	•
•	•	•
Limitations: Funding for personnel in summer months;		

Treatment Projects	Timeframe	Lead Agency/Cooperators
• Create defensible space around structures	• Ongoing	• CTUIR, ODF, Pilot Rock RFD & landowners
•	•	•
•	•	•
•	•	•
•	•	•
Limitations:		

Emergency Response Projects	Timeframe	Lead Agency/Cooperators
• Implement Partners in Protection program	• Ongoing	• ODF & landowners
•	•	•
•	•	•
•	•	•
Limitations:		

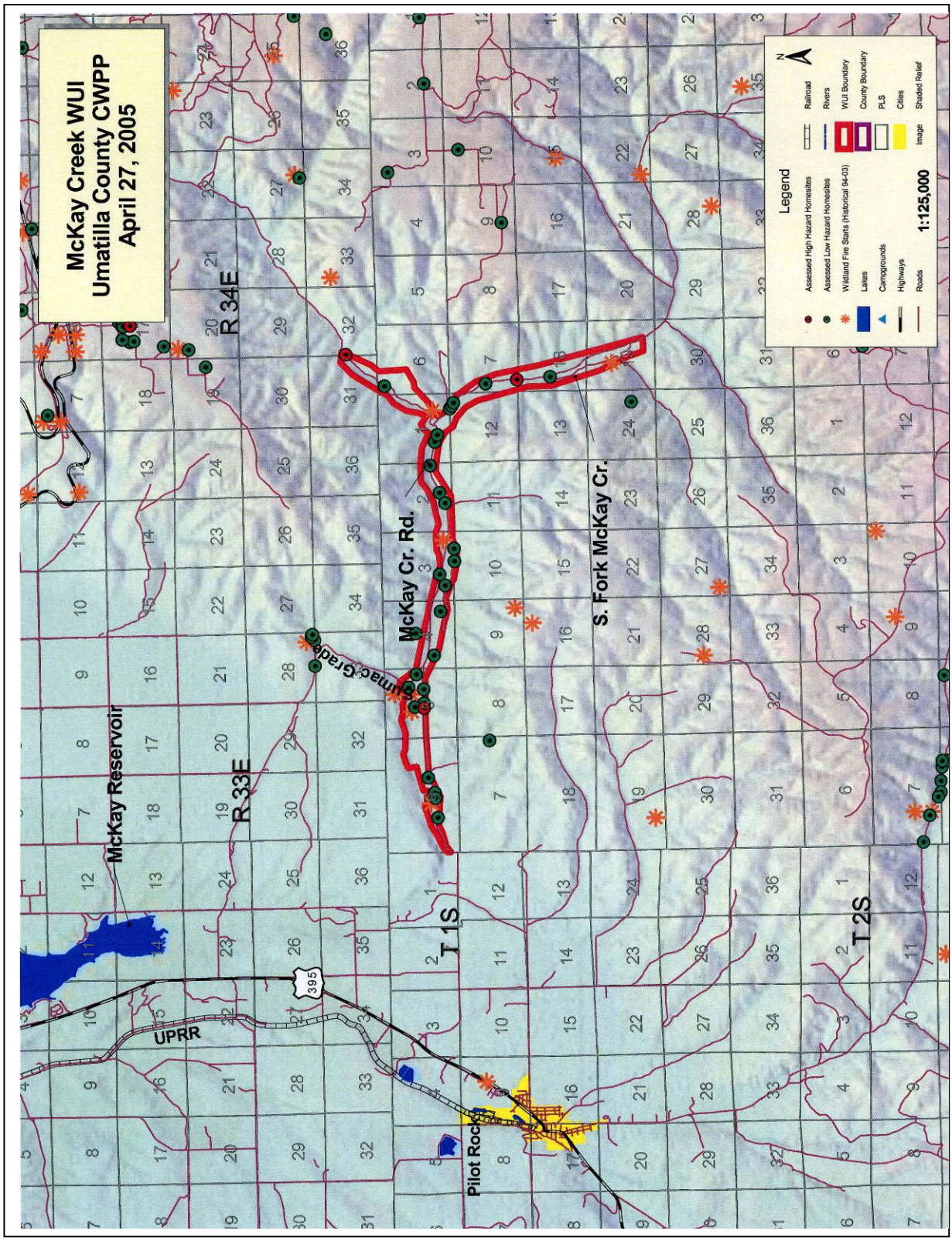


Figure 27. McKay WUI Boundary with Density and Historical Wildland Fire Starts

Table 19. Walla Walla River WUI Planning Sheet

WUI Name: Walla Walla River **Priority Category:** LOW

Description: River corridor with heavy deciduous fruit crops and steep, heavily-brush covered slopes with timbered stringers; numerous small acreages and homesites as well as a county park;

Risk Assessment Factors

Fire Occurrence	Topography	Total Fuels	Structural Vulnerability	Weather	Values At-Risk	Aggregate Score
1	1	1	3	2	1	9

Education Projects	Timeframe	Lead Agency/Cooperators
• Target & provide prevention patrols in areas of high fire concern	• Summer – fall	• ODF
• Implement Public Use Restrictions to address human-caused ignition	• Summer – fall	• ODF
• Evaluate area for SB 360 program & implement as appropriate	• 1-3 years	• ODF
•	•	•
•	•	•
Limitations: Funding for personnel in summer months;		

Treatment Projects	Timeframe	Lead Agency/Cooperators
• Create defensible space around structures	• Ongoing	• ODF & landowners
•	•	•
•	•	•
•	•	•
•	•	•
Limitations:		

Emergency Response Projects	Timeframe	Lead Agency/Cooperators
• Work with Milton-Freewater RFPD for coordinated mutual aid response	• Ongoing	• ODF & Milton-Freewater RFPD
• Maintain relationship with Harris Park caretaker re: ATV/motorcycle use and other public use restrictions education	• Ongoing	• ODF
•	•	•
•	•	•
Limitations:		

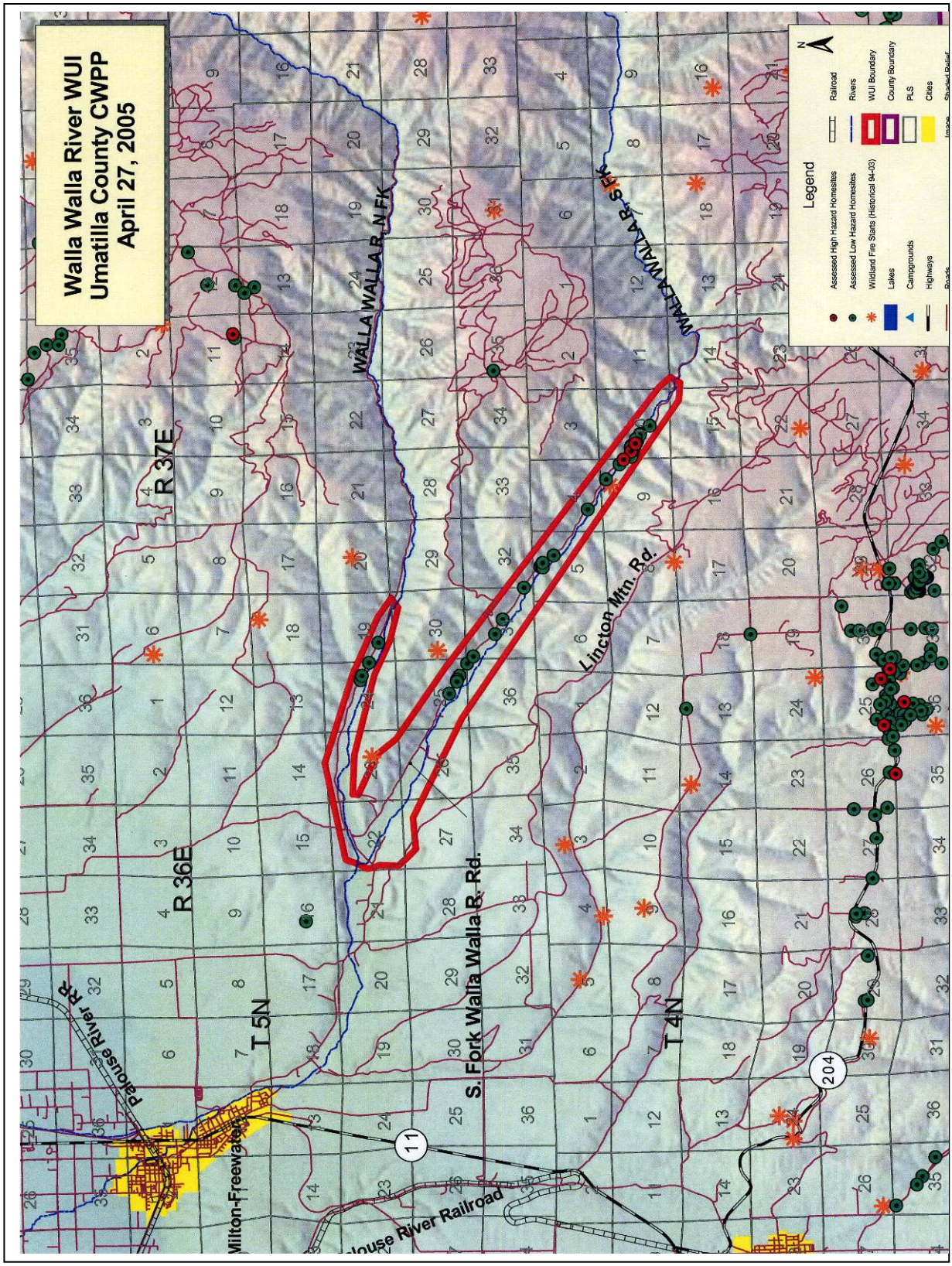


Figure 28. Walla Walla River WUI Boundary with Density and Historical Wildland Fire Starts

Development of a Fuels Maintenance Program[11]

Developing a fuels maintenance program requires knowing the plant association and defining acceptable fire behavior parameters. Projections can then 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 to the site in the form of needles, branches, or 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.

The amount of time before treated areas will require re-treatment is dependent on several factors 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)
- Historic fire regime
- Desired fire behavior (for effective control)
- Climatic regime

While condition class and fire regime are the two primary factors in prioritizing areas initially for treatment, 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 unlikely that managers would allow sites that began as condition class 2 or 3 prior to treatment and treated to condition class 1, to revert to condition class 2 or 3 before conducting the re-treatment, particularly in WUI areas. 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 resembles a condition class 1 *transitioning* into class 2 conditions. Allowing fuels to accumulate any further would entail more expensive re-treatment and increase the risk of loosing the initial investment made in fuel reduction.

Biomass Utilization and Economic Development[12]

> ***Biomass*** is the renewable organic matter such as agricultural crops and residue, wood and wood waste, animal waste, aquatic plants, and organic components of municipal and industrial wastes.

Living plant material is the source of all biomass fuel. Some biomass fuel resources are waste products left over after plant materials have been used for other purposes or consumed by animals. Other biomass resources are plant materials directly harvested for their energy value. Biomass fuels are readily available throughout the world. Oregon's biomass resources include wood, agricultural crop residue and organic waste.

Firewood harvested from Oregon's forests has long been a bioenergy resource for home heating. Private individuals and commercial companies cut firewood from public and private forestlands in the state. Scrap and salvaged wood are other sources of wood fuel for home heating use. Twenty-two percent of Oregon households use wood heating as either their main method of space heating or as a back-up heating resource. The Oregon Department of Energy estimates that about 480,000 cords of firewood were consumed in 2003.

Forest biomass is generated from commercial timber harvest, non-commercial thinning, and timber stand improvement activities. Non-commercial thinning (pruning and tree removal) is 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 improvements (TSI) can accomplish similar goals but often results in the removal of some commercially valuable trees. Wood manufacturing residues (bark, sawdust, chips, and veneer cores) are additional sources of raw material for renewable energy production. Thinning and prescribed burning in strategic locations is often used to reduce forest fuels and wildfire risks, but most of the material generated from these types of fuels reduction activities is not suitable for wood products manufacturing. In many cases, biomass material from these activities is left on-site or piled and burned at an additional cost.

Local Biomass Utilization Opportunities

Biomass has the opportunity to become a market-driven solution for overstocked forest stands in Umatilla County. Partnerships are being developed among the Oregon Department of Energy, ODF, and other interested agencies across the NEO District to assess a variety of local biomass utilization opportunities. Energy credits and some type of subsidy incentive are critical to making this a viable enterprise.
In Umatilla County, the outlook for utilizing biomass (in particular wood products) is still under assessment. There are several wind power generation facilities currently in operation and additional "wind farms" planned for other sites in the county. While there are a few facilities that use wood products in neighboring counties, the cost of

transporting biomass material from forest operations in Umatilla County to those facilities are not economically feasible at this time.

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[11] *A Conceptual Approach for a Maintenance Strategy for Fuel Treatments in Oregon: Maintaining the Investment*, Fitzgerald, Stephen and Martin, Charlie, Oregon State FFHM Committee Report, July 5, 2004.
[12] http://egov.oregon.gov/ENERGY/RENEW/Biomass/use.shtml

9. Emergency Management

Protection Capabilities & Infrastructure Protection

Inventory of fire protection resources

An inventory of various local fire resources can be found in Appendix C.

There are several agencies involved in wildland fire suppression that work together to provide protection across the interface areas of Umatilla County. Resources range from a strictly volunteer department with little training, to a department with some paid staff along with several trained volunteers, to federal and state agencies that hire paid, full-time seasonal firefighters. Fire vehicles range from 200-gallon engines to 5,000-gallon tenders.

Most of the local resources have at least some radios that are programmable to wildland fire frequencies. All of the emergency fire agencies (with the exception of WA-DNR and Walla Walla Fire District #4) participate and coordinate as members of the Umatilla/Morrow County Fire Defense Board, to work together for mutual aid activities. These agencies have the ability to utilize a common radio communication frequency as needed: the Oregon State Fire Marshall frequency for command and tactical operations. Agencies have also agreed through mutual aid agreements in place, to allow other fire agencies to use their frequency as appropriate.

Each district or department faces unique challenges in dealing with wildland fires. Having to rely on volunteers for firefighting needs is a common struggle for several rural fire districts. Quick initial response can be impacted by limited resources, especially when firefighters have to be pulled off their “regular” jobs. Wildland fires can occur in terrain that is rural, remote, and difficult to reach quickly. Roads may be in poor condition, private gates locked, and private bridges may be unable to accommodate heavier, firefighting vehicles. Ingress and egress issues are a constant problem in certain areas of the county. Appropriate wildland training is an ongoing challenge for districts that rely on volunteer forces; it demands a high level of commitment from those citizens to maintain current training standards. Having water sources available is also a concern. Pilot Rock RFD has added water tanks at strategic locations across their protection district to improve available water supply. Others are working on improving access to water sources.

Home Site Access

The first consideration for suppression forces fighting a wildfire in any situation is safety. They must be able to quickly and effectively attack the fire but only in as safe a manner as possible. Firefighters use a variety of structural fire fighting equipment such as engines, brush rigs, or tenders to protect homes from wildfire. These specialized vehicles require more space to turn around in and higher clearances than the typical cars and pickups.

Suppression forces will first consider if accessing a home will put them at risk while attacking the fire. Criteria they might consider include:

- Does the access road have proper clearance overhead;
- Is there turn around space once inside?
- Is there more than one way out?
- Are there multiple structures down this road?
- Have suppression forces reviewed the area prior to the emergency?

Clearly marked rural address numbers at the start of your access road greatly aids fire suppression efforts. Firefighters may be working during darkness to protect your home. Having to search for the address takes time away from protection efforts. Having an adequate and safe area for firefighters to work around your home is a key factor of access. Defensible space not only provides a safety area for the home, but for firefighting resources as well. Issues such as the road gradient, surface material, length, available turnouts, or turn-a-rounds are essential considerations during the initial assessment of the incident. Overgrown roadside vegetation could become a flame front, trapping firefighters. Aboveground utility lines running along your access may also become a hazard for vehicles with higher clearance requirements. Umatilla County Road Standards require a 60-foot right of way, with a 22-foot driving surface and a 50-foot radius turning circle with a 40-foot radius turning circle driving surface. This is a “C” cul-de-sac.

Telephone trees, emergency contacts, community information database

According to residents who attended the public meetings, telephone trees are not in place in any of the communities that hosted meetings. The idea of some type of formalized phone tree was suggested by a few community members, but without the lead of a community member or local agency, this is unlikely to occur.

Emergency Alerting

The county will utilize NOAA Weather radio system when activating the Emergency Alert System to notify residents of an emergency evacuation. Residents of fire prone areas are encouraged to utilize the NOAA weather radio system. NOAA receivers are available for a nominal fee wherever radios are sold. The radio will activate when it receives an alert signal and then provide the emergency information. NOAA radio signals are heard throughout the Umatilla County’s Blue Mountains/Foothills region.

Another useful tool for wildfire notification to the public could be the Tone Alert Radio (TAR) system currently being used by the Chemical Stockpile Emergency Preparedness Program (CSEPP) as part of the notification program for the weapons destruction activities at the Umatilla Army Depot in the far western edge of the county. The primary CSEPP office is located at the Umatilla County Emergency Services complex in Pendleton, right off I-84. While radios have been provided to residents in the western portion of the county, more directly affected by the Depot’s program, a transmitter was installed at the Pendleton NWS office in January 2005; the purpose of this system is to alert first responders in the Pendleton, Athena, Pilot Rock areas, and the Tribes. Radios have now been provided to the ODF and PICC

offices in Pendleton. The county's Emergency Management program has the ability to send out EAS messages (emergency alert system). Along with the Weather Bureau, they can break in on area radio stations and television stations and provide emergency information to county residents (in the event of a wildfire).

Notification

Umatilla County would utilize the following methods to notify residents in a fire area of an impending wildfire hazard or other emergency:

- Emergency Alert System
- Radio news broadcasts or announcements
- Door-to-door
- Emergency Vehicle sirens/public address announcements
- Local Phone Trees
- Person notification

Umatilla County would implement a Joint Information System to provide the latest information to the public and media. Resources of the County Public Information Officer and Joint Information Center, and other appropriate agencies (US Forest Service, Oregon Department of Forestry, tribal and other agencies) would be combined to respond to the public's need to know. All releases would be coordinated with the Incident Commander or appropriate authority.

During a wildfire incident, agencies need to provide accurate and timely information about the incident, especially to affected communities in wildland-urban interface areas. While the primary purpose of *notification* is to alert people to a wildfire hazard, the purpose of providing *updated information* is to share ongoing suppression actions, evacuation trigger points, evacuation area status, and projected future size/impacts from the wildfire.

Two factors that might affect the timely delivery of information beyond the initial emergency notifications are: 1) the overwhelming nature of a fast moving event, and 2) limited personnel resources immediately available.

Web sites, information hot lines, public meetings within communities, and press releases have been successfully used in the past to help provide updated information to local communities.

Evacuation

Evacuation may become necessary to protect the lives of residents of a community during a hazardous and unpredictable event like a wildfire. By removing the threat to life from an area, firefighters can avoid the split focus of

Critical Home Documents

- ✓ *Insurance Papers*
- ✓ *Financial Account #s*
- ✓ *Will / Estate planning*

worrying about people in the hazard area as they work to suppress the fire and protect property.

The Incident Commander may order evacuation when evacuation is determined to be the best method of protecting the public from the fire. Evacuation will be directed by the Umatilla County Sheriff or his Deputy. Public shelters may be opened during evacuations, and evacuees will be advised of shelter locations. Shelters may provide food, housing, and information to those displaced by a wildfire. The American Red Cross (ARC) is the lead agency in establishing public shelters, and is integrated into Umatilla County's emergency plan. It is the responsibility of all residents and visitors to fire prone areas to have a 72-hour kit and be able to maintain their selves and families with needed medications, clothing, snack foods, and other necessities if they are advised to evacuate. The American Red Cross will attempt to support evacuees in obtaining emergency prescription medications and serve as a conduit for health or welfare messages between evacuees and their friends and family.

The County Sheriff or other law enforcement agency will be the lead agency in protecting property within evacuated areas and in establishing traffic control points related to wildfire. Traffic control is one of the key elements of any evacuation plan. Evacuations seek to remove the threat to life by moving people out of the hazard area. Traffic control points around the perimeter of an incident are necessary to prevent people from getting back into the hazard area until it is determined safe to do so.

Where to Report a Wildland Fire Emergency

There are two primary ways to report a wildfire in Umatilla County. The easiest and most commonly used phone number is to dial 9-1-1. However, in those cases where the person reporting the wildfire knows that it is located on forestlands protected by either the Umatilla National Forest or Oregon Department of Forestry, contact the PICC dispatch center and report the fire directly to them. Keep these numbers by your telephone for reference:

For areas within the Northeast Oregon forestlands (ODF and USFS)

Dial: 541-278-3732 (PICC dispatch)

(After hours calls will be transferred to answering service and dispatch duty officer)

For all other wildland fire emergencies:

Dial 9-1-1

10. Monitoring and Evaluation

Schedule

The maintenance for this plan will be directed by the Umatilla County Commissioners but coordinated and completed through the CWPP Steering Committee. The committee will reconvene annually to review and reevaluate:

- The plan, goals, and objectives
- Designated WUI boundaries and Communities-at-risk
- Strategy recommendations as various tasks/projects are accomplished and areas at-risk decline in hazard level
- Priorities for action items and progress
- Infrastructure changes in County including:
    - population changes in WUI areas
    - land use changes, in particular as related to implementation of SB360
    - emergency services capacity levels
    - computer software and data updates, such as tax lot project

A complete revision of the CWPP will be completed every five years by the Steering Committee and submitted to the County Commissioners for their approval. If during annual reviews or following some unforeseen condition that warrants a modification in this schedule, the committee may use their discretion to complete the review and revision as warranted.

Continued Public Involvement

The participation of the public in future reviews of the Umatilla County CWPP will be necessary to accomplish many of the recommendations. Public meetings will be scheduled and advertised to generate participation of interface residents.

Color copies of the plan will be available for review at the Umatilla County Courthouse, local public libraries, and on the web at:

http://www.odf.state.or.us/AREAS/eastern/northeast/umatco_cwpp.htm

The website will provide citizens with an ongoing opportunity to provide comments or send questions to the Steering Committee in the future.

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11. Appendices

Appendix A: City of Walla Walla CWPP (includes Mill Creek Watershed)

Note: The City of Walla Walla CWPP Steering Committee is currently working on this planning document. When completed and approved by committee members, the document will be included in the Umatilla County CWPP.

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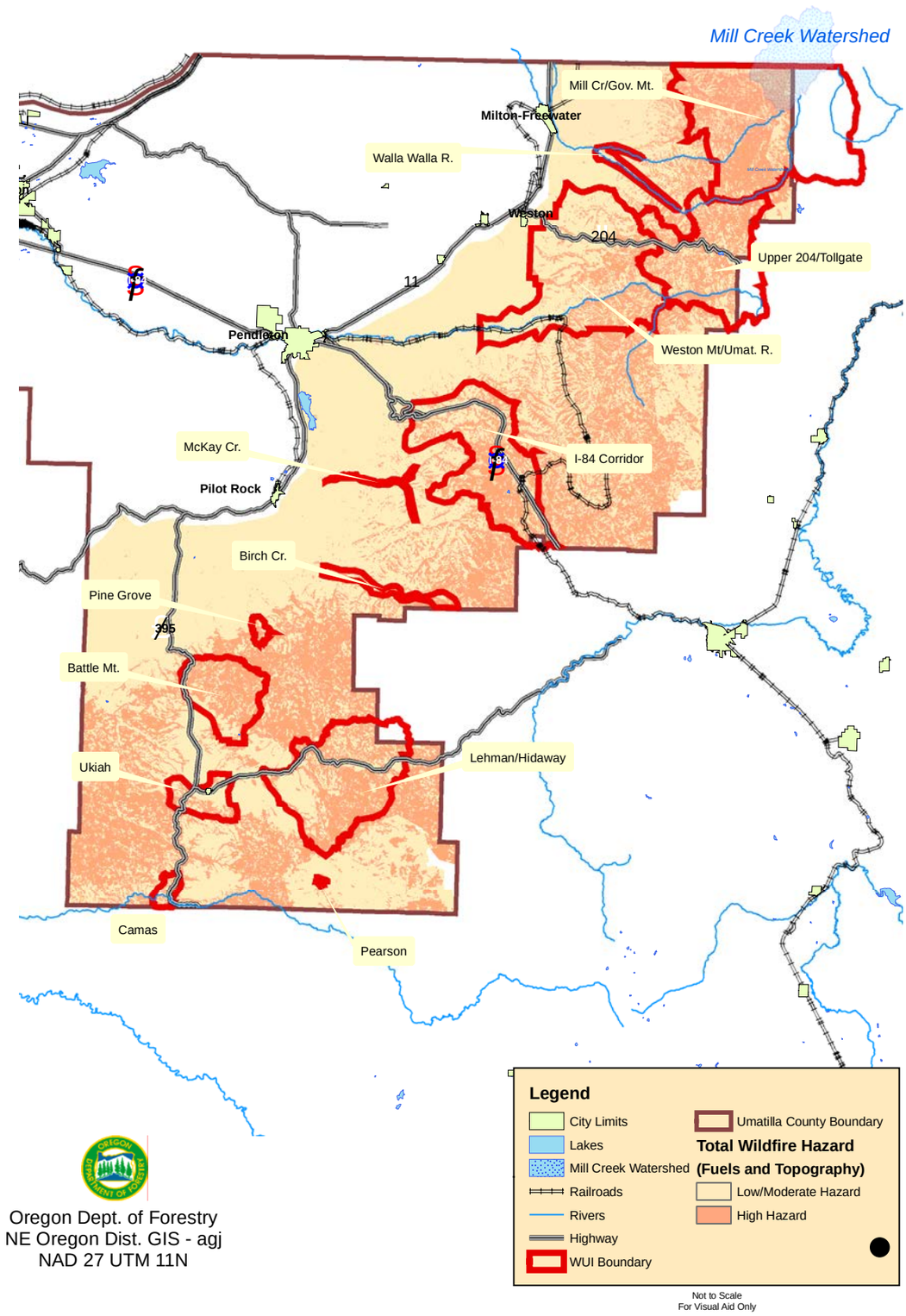
Appendix B: Total Wildfire Hazards for Umatilla County CWPP

Total Wildfire Hazard Map
Fuels and Topography
Umatilla County CWPP
June 16, 2005



Oregon Dept. of Forestry
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Appendix C: Inventory of Local Suppression Resources

Agency	Protection Area	Suppression Services	Employees	Engines Available	Programmable Radios
BIA	Trust Lands	Wildland	4 BIA and 2 CTUIR (in BIA office)	2 - Type 6 engines (250 gal) 1 - Type 4 engine (750 gal)	Yes
City of MF		Both			
City of Pendleton		Both			
City of Ukiah	city of Ukiah	Structural			
CTUIR		Structural			
East Umatilla RFPD	Highway 204 corridor & Umatilla Rv Rd	Both	? Volunteers & 1.5 paid staff	3 - Type 1 engines 4 - brush Type 6 engines 3 - Types 1, 2, and 3 tenders 1 - brush Type 4 engine	Yes - with ODF
Meacham RFD		Both	volunteer only		
Milton-Freewater RFD (subscription service)	foothills of Blue Mtns on east and southeast side	Both	20 volunteers & paid staff	4 - heavy brush Type 4 engines (1,000 gal water & $\geq$ 90 GPM) 3 - light brush Type 6 engines (200 gal & $\geq$ 80GPM) 2 - Tenders (2,250 gal & 300 GPM; 5,000 gal & 750 GPM)	Yes - 80% of radios
Oregon Dept. of Forestry - Pendleton	Pendleton Unit - NEO Forest Protection	Wildland	4 permanent 12 seasonal	5 – Type 6X engines (300-400 gal) 1 – Type 4X Tactical Tender (1600 gal)	Yes

Agency	Protection Area	Suppression Services	Employees	Engines Available	Programmable Radios
Pilot Rock RFD	City of PR and surrounding 342 sq. miles	Both	20 volunteers	1 - Type 1 engine/tender (3,000 gal) Class A Foam 1 - Type 1 engine (1,000 gal) CAFS 1 - Type 2 engine (900 gal) CAFS 1 - Type 3 engine (350 gal) Class A Foam 1 - 3,000 gal Tender 1 - Type 4 engine (200 gal)	Yes - Red Net; White Net; Fire Net
USFS Walla Walla RD	federal forest	Wildland	summer ~ 50 winter ~ 15	1 - Type 4 engine 3 - Type 6 engines 1 - Type 7 engines (patrols)	Yes - radios are ready to be 'cloned'
USFS North Fork John Day RD	federal forest	Wildland			
Walla Walla Fire District #4	residents in Mill Ck area thru individual contract up to 2 miles into Oregon	Structural	none	6 - Type 6 engines 3 - 2,000 gal tenders	Command vehicles can talk with WA-DNR & USFS, but not ODF

Appendix D: Umatilla County CWPP WUI Scoring Explanation Sheet

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

Homesite Density (homes per 10 acres)		Check Appropriate Box Under Category
Low	0 - .9	☐
Moderate	1 - 5.0	☐
High	5.1+	☐

Other Risk Factors Present		
Low	< 1/3 present	☐
Moderate	1/3 - 2/3 present	☐
High	> 2/3 present	☐

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	
Moderate	Wildland response only	
High	No organized response	

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	
Moderate	> 10 minutes	
High	< 20 minutes	
Extreme	> 20 minutes	

Community Preparedness

Low	Organized group, CWPP, phone tree, mitigation efforts	
Moderate	Primarily agency efforts (mailings, campaigns, etc.	
High	No effort	

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 adequate	
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	
Low	No	

Appendix E: References

http://www.fireplan.gov/eports/351-358-en.pdf

http://www.nwfireplan.gov

http://www.fireplan.gov

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

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

[2] http://www.communitiescommittee.org/pdfs/cwpphandbook.pdf

[3] Josephine County Integrated Fire Plan, August 2004.

[4] http://www.umatilla.nsn.us/geninfo.html

[5] http://www.wrh.noaa.gov/mfr/climo/AvgAnnPcpnOR.gif

[6] State of Oregon Emergency Management Plan, *Natural Hazards Mitigation Plan, Fire Chapter*, November 2003.

[7] This section is based upon *Methodology for Hazard Assessment (2005authored by Angie Johnson, Oregon Department of Forestry Northeast Oregon District, and edited by Trish Wallace, USDA Wallowa-Whitman National Forest.*

[8] Protecting People and Sustaining Resources in Fire-Adapted Ecosystems – A Cohesive Strategy, October 13, 2000.

[9] Fire Regime Condition Class Definition. 06/20/2003. Obtained from Umatilla National Forest Fire Planning.

[10] Expanded Fire Condition Class Definition Table. Available at http://www.frcc.gov.

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

[12] http://egov.oregon.gov/ENERGY/RENEW/Biomass/use.shtml

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Appendix F: Acronyms and Glossary of Terms

BLM – Bureau of Land Management
CAR – communities at risk
CE – Category Exclusion
CSEPP – Chemical Stockpile Emergency Preparedness Program
CTUIR – Confederated Tribes of the Umatilla Indian Reservation
CWPP – Community Wildfire Protection Plan
EA – Environmental Assessment
EIS – Environmental Impact Statement
FEMA – Federal Emergency Management Agency
HFRA – Healthy Forests Restoration Act
NEPA – National Environment Protection Act
NEO – Northeast Oregon district (of Oregon Dept. of Forestry)
NFP – National Fire Plan
ODF – Oregon Department of Forestry
ORS – Oregon Revised Statute
OSFM – Office of State Fire Marshall
RFPD – Rural Fire Protection District
SB – Senate Bill (Oregon Legislature)
SFM – State Fire Marshall (more commonly Office of State Fire Marshall)
UNF – Umatilla National Forest
USFS – US Forest Service
WUI – Wildland-Urban Interface
WHZ – Wildfire Hazard Zone

Conflagration – in the context of this document, this means Governor-declared fires with an imminent threat to life or structures that have exhausted local and mutual aid resources.

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.

Driveway - the primary, privately owned vehicle access road that serves a dwelling, which is controlled by the owner of the dwelling, and which is longer than 150 feet.

Dwelling – a structure, or a part of the structure, that is used as a home, as a residence, or as a sleeping place by one or more people who maintain household in the structure.

Fire-resistant roofing – roofing material that has been installed and is maintained to the specifications of the manufacturer, and which is rated by Underwriter's Laboratory as Class A, Class B, Class C, or is equivalent thereto; or is metal.

Forestland – any woodland, brushland, timberland, grazing land or clearing that, during any time of the year, contains enough forest growth, slashing or vegetation to constitute, in judgment of the state forester, a fire hazard, regardless of how the land is zoned or taxed.

Fuel break – a natural or human-made area immediately adjacent to a structure or to a driveway, where material capacity of allowing a wildfire to spread does not exist or has been cleared, modified, or treated to significantly reduce the rate of spread and the intensity of an advancing wildfire; to create an area in which fire suppression operations may more safely occur.

Homeowner's association – a legal nonprofit corporation that manages a community of homes or residential properties.

Included rural lands – lands that meet the definition "rural" but which have been classified as "suburban".

Ladder fuel – branches, leaves, needles, and other combustible vegetation that may allow a wildfire to spread from lower growing vegetation to higher growing vegetation.

National Fire Plan – a federal program that helps manage the impact of wildfire on communities. It has five main components: firefighting, rehabilitation and restoration, hazardous fuel reduction, community assistance, and accountability. The state foresters have agreed upon a process for completing an assessment in 2003-04 for evaluating communities at risk to better prioritize funding of National Fire Plan projects.

NEO District – ODF district in Northeast Oregon comprised of four units: Union, Wallowa, Baker, and Pendleton. NEO District headquarters are located in La Grande.

Non-fire-resistant roofing – roofing material that is not resistant including, but not limited to, cedar shakes.

Non-statistical Fires – ODF fires, commonly referred to as 'non-stat' fires that ignited on non-State protected land but threatened ODF protected property.

Oregon Senate Bill 360 – this 1997 legislation established the policy and framework for meeting the fire protection needs of the wildland-urban interface. One of the goals of the bill is to define the Interface in Oregon and establish a process and system for the classification of the Interface. Formal classification committees in each county will accomplish the classification. Work has begun in Jackson and Deschutes counties, with the remainder of the state planned for classification over the next ten years. The

Northeast Oregon district of ODF has hired an employee to manage the SB360 work in the district.

Road – a road over which the public has a right of use.
Rural – a geographic area that has not been classified by a committee as suburban or urban and shall include:

- Lands zoned primarily for farm or forestry uses;
- Lands which have an average tax lot size of 10 acres or larger;
- Lands not zoned to allow a concentration of structures;
- Lands that do not contain a concentration of structures.

Safety zone – an area that is substantially free of flammable materials, and which can be used as a refuge to protect people from an advancing wildfire.

Standards – the actions, efforts, or measures which owners of suburban and urban lands shall take on their property, pr… to a wildfire occurrence which originates on the property.

Statistical Fires – ODF fires typically referred to as 'stat' fires. They are fires that ignited on State protected land.

Structure – a permanently sited building, a manufactured home, or a mobile home that is either a dwelling or an access building, which occupies at least 500 square feet of ground space, and which has at least one side that is fully covered.

Structural fire protection – the protection of structures by established municipal fire departments and rural fire protection districts with specific equipment and training.

Structural Ignitability – a term that relates to the cause of a home igniting during a wildfire. Examples are ratings given to the building materials used for the home and 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, including but not limited to, access to the home, ladder fuels and vegetation within the landscape of a home, and whether or not fire protection is available.

Suburban – a geographic area which includes one or more of the following:

- Lands where a concentration of structures exists;
- Lands on which current zoning allows a concentration of structures; or
- Included rural lands.

Urban – a geographic area that includes one or more of the following:

- Lands within a city limit; or
- Lands within an urban growth boundary.

Wildfire – an uncontrolled fire that is burning on forest and which is damaging, or is threatening to damage, forest resources or structures.

Wildfire Hazard Zone – the portion of a local government jurisdiction that has been determined to be at risk of a catastrophic wildfire. The purpose of such a designation is to define those areas where buildings need to be made more survivable from fires spreading from adjacent wildlands. The WHZ process was established by the 1993 Oregon Legislature. Participation by local governments is voluntary.

Wildland-Urban Interface (a.k.a. Wildland Interface, Forestland-Urban Interface, Interface) – an area where structures are adjacent to or are intermingled with natural vegetative fuels which is prone to the occurrence of wildland fires.