Lane County Community Wildfire Protection Plan

Draft Report for:

Lane County, OR

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Prepared by:

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Special Thanks & Acknowledgements

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Lane County Wildfire Risk Assessment:

Lane County Department of Public Works Land Management Division and GIS developed the wildfire risk assessment found in Section 2 of this plan, as well as all of the maps included in the plan. The contributions from the Public Works Department were essential to illustrate the extent of potential losses associated with wildfire within the Lane County wildland-urban interface. Special thanks to the following individuals for their contributions:

Keir Miller, Lane County Land Management Division

Brian Mladenich, Lane County Public Works GIS

Adam Vellutini, Lane County Public Works GIS

The information on the maps in this plan was derived from Lane County's GIS using existing county, regional and state geographical databases. Care was taken in the creation of these maps, but are provided "as is" using the "best available" data. Lane County cannot accept any responsibility for any errors, omissions, or positional accuracy, and therefore, there are no warranties that accompany these products (the maps). Although information from Land Surveys may have been used in the creation of these products, in no way does this product represent or constitute a Land Survey. Users are cautioned to field verify information on this product before making any decisions.

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Don Nickell – Lane County Public Works/Land Management

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Chief John Buchanan – Siuslaw Valley Fire and Rescue

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Karl Morgenstern – Eugene Water and Electric Board

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John Milandin – Hazeldell Rural Fire District

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Pat Harmon – Oakridge Real Estate

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Other Acknowledgements

Bev Reed – United States Forest Service

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Angie Johnson, Oregon Department of Forestry

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Tom Berglund – Oregon Department of Forestry

Mark Slaton – Oregon Department of Forestry

Dean Vendrasco – United States Forest Service

Cody Zook – Josephine County

Cover Page Images

The large cover image is of the Triangle Lake School, which was the site of a pilot fuels reduction project completed in association with the development of this plan (Photo courtesy of Oregon Natural Hazard Workgroup). The top inset image is of Firewise Workshop participants (Photo courtesy of: Oregon Department of Forestry). The center inset image is a map of the five Lane County Assessment Areas (Map courtesy of Lane County Public Works). The bottom inset image is of the Firewise workshop held in conjunction with the development of this plan (Photo courtesy of: Oregon Department of Forestry).

Lane County

Community Wildfire Protection Plan

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Executive Summary

What is a Community Wildfire Protection Plan?

The Lane County Community Wildfire Protection Plan (CWPP) identifies strategies and priorities for the protection of life, property, and infrastructure in the wildland-urban interface. The CWPP is a shared plan held jointly by the Lane County Board of Commissioners, the Oregon Department of Forestry, and the Lane County Fire Defense Board, and the final contents were mutually agreed upon by all three entities.

The CWPP is a plan for action and will depend upon people and partnerships to carry it forward. The purpose of the CWPP is to provide the following:

1. A foundation for coordination and collaboration among agencies and the public in Lane County to reduce risk to wildfire.
2. An assessment and map of the wildland-urban interface in Lane County.
3. The identification and prioritization of areas for hazardous fuel reduction projects.
4. Recommendations for actions homeowners and local communities can take to reduce the ignitability of structures.
5. Assistance in meeting federal and state planning requirements and qualifying for assistance programs.
6. A framework to support the development of local community fire plans within the county.

Why Develop a Community Wildfire Protection Plan?

Lane County recognizes that reducing the potential impacts of wildland-urban interface fire requires a proactive approach that reaches across jurisdictional boundaries, public and private lands, and the diverse geographic regions of the county. The development of a community wildfire protection plan creates an opportunity to encourage communication between agencies and stakeholders, identify and prioritize community values, assess wildfire risk areas, and increase education and awareness of communities and homeowners.

How is the Plan Organized?

The Lane County CWPP is organized into the following sections:

Section 1: Introduction

The introduction explains the purpose of the CWPP and the process used to develop the plan. This section also briefly describes wildfire history, forest characteristics, wildland-urban interface fire risk, current fire protection frameworks, and existing plans and policies addressing wildfire in Lane County.

Section 2: Risk Assessment

This section, developed by Lane County Land Management, presents the findings from the Lane County Wildfire Risk Assessment including the methods used to develop the assessment, the limitations, ideas for long-term assessment updates and maintenance and key findings.

Section 3: Community Outreach and Collaboration

This section presents the findings from the three outreach efforts, which include the landowner survey, stakeholder interviews, and the Firewise Workshop. The section concludes with a summary of the key issues identified through these community outreach strategies.

Section 4: Action Plan

This section describes the framework and methods used to develop the goals, objectives, and action items that make up the Action Plan.

Section 5: Plan Implementation and Maintenance

This section presents the methods for implementing the Action Plan, the process for prioritizing projects, and a schedule for updating and maintaining the plan.

Appendices:

Appendix A: Action Item Worksheets – Describes in a worksheet the key issues addressed, ideas for implementation, coordination and partner organizations, timeline, and plan goals addressed.

Appendix B: Implementation and Maintenance Documentation – Documents the agendas, meeting minutes, and other outcomes of the CWPP Advisory Committee meetings, as well as the processes of, successes, and lessons learned from the pilot project.

Appendix C: Risk Assessment Methods – Documents the process used to develop the Risk Assessment maps and conclusions.

Appendix D: Fuel Treatment Types for Lane County – Describes and analyzes potential fuel treatment types available for use in Lane County.

Appendix E: Landowner Survey Summary – Describes the purpose, methods and findings of a landowner perception survey.

Appendix F: Stakeholder Interview Summary – Describes the purpose, methods and findings of stakeholder interviews.

Appendix G: Firewise Workshop Summary – Describes the purpose, methods and findings of the Firewise workshop.

Appendix H: Wildfire Resources – Documents existing wildfire resources.

Appendix I: Glossary of Terms – Provides definitions of terms used throughout the Lane County CWPP.

Who Participated in Developing the Plan?

Lane County Emergency Management convened a steering committee to oversee and guide the development of the Lane County CWPP. The steering committee was a collaborative group responsible for making decisions and agreeing upon the final contents of the plan. The members of the steering committee included representatives of the following agencies:

- Lane County Sheriff's Office
- Lane County Fire Defense Board
- Lane County Land Management Division
- Lane County Public Works Department
- Lane County Fire Prevention Cooperative
- Oregon Department of Forestry
- Oregon State Fire Marshal
- United States Forest Service
- Bureau of Land Management

What are the Plan Goals?

The plan goals help to guide the direction of future activities aimed at reducing risk and preventing losses from wildfire. The goals listed here serve as the guiding principles for agencies and organizations as they begin implementing action items.

GOAL 1: Provide countywide leadership through partnerships to implement wildland-urban interface fire mitigation strategies in Lane County.

GOAL 2: Improve community strategies for reducing the impacts of wildland-urban interface fires.

GOAL 3: Promote wildfire risk reduction activities for private and public lands in Lane County.

How are the Action Items Organized?

The plan identifies action items developed through various plan inputs and data collection and research. CWPP activities may be considered for funding through state and federal grant programs, including the National Fire Plan or Title II/Title III funding.

To facilitate implementation, each action item includes information on key issues addressed, ideas for implementation, coordinating and partner organizations, timeline, and plan goals addressed.

Key Issues Addressed:

Each action item includes a list of the key issues that the activity will address. Action items should be fact based and tied directly to issues or needs identified throughout the planning process. Action items can be developed from a number of sources including participants of the planning process, noted deficiencies in local capability, or issues identified through the risk assessment.

Ideas for Implementation:

Each action item includes ideas for implementation and potential resources. This information offers a transition from theory to practice. The ideas for implementation serve as a starting point for this plan. This component of the action items is dynamic as some ideas may be not feasible and new ideas can be added during the plan maintenance process. (For more information on how this plan will be implemented and evaluated, refer to Section 5 of the CWPP).

The action items are suggestions for ways to implement the plan goals. Ideas for implementation include things such as collaboration with relevant organizations, grant programs, tax incentives, human resources, education and outreach, research, and physical manipulation of buildings and infrastructure. A list of potential resources outlines what organization or agency will be most qualified and capable to perform the implementation strategy. Potential resources often include utility companies, non-profits, schools, and other community organizations.

Coordinating Organization:

The coordinating organization is the organization that is willing and able to organize resources, find appropriate funding, and oversee activity implementation, monitoring, and evaluation.

Internal Partners:

Internal partners are within the CWPP advisory committee and may be able to assist in the implementation of action items by providing relevant resources to the coordinating organization.

External Partners:

External partner organizations can assist the coordinating organization in implementing the action items in various functions and may include local, regional, state, or federal agencies, as well as local and regional public and private sector organizations. The internal and external partner organizations listed in the CWPP are potential partners recommended by the project steering committee, but not necessarily contacted during the development of the plan. The coordinating organization should contact the identified partner organizations to see if they are capable of and interested in participation. This initial contact is also to gain a commitment of time and or resources towards completion of the action items.

Timeline:

Action items include both short and long-term activities. Each action item includes an estimate of the timeline for implementation. Short-term action items are activities that may be implemented with existing resources and authorities within one to two years. Long-term action items may require new or additional resources and/or authorities, and may take between one and five years to implement.

How Will the Plan be Implemented?

The Healthy Forest Restoration Act (HFRA) requires that three entities must mutually agree to the final contents of a CWPP:

- Lane County Board of Commissioners;
- Lane County Fire Defense Board; and
- Oregon Department of Forestry

The Lane County CWPP is a shared plan and was developed and implemented based upon a collaborative process. The plan will be adopted by resolution by the Lane County Board of Commissioners and acknowledged by the Lane County Fire Defense Board and Oregon Department of Forestry in order to meet HFRA and Federal Emergency Management Agency (FEMA) Pre-Disaster Mitigation requirements. The effectiveness of the Lane County non-regulatory CWPP will be contingent upon the implementation of the plan and action items

identified therein. The action items provide a framework for building and sustaining partnerships to support wildfire risk reduction projects.

Advisory Committee

In accordance with action item 1.1.1, the plan development steering committee will become the advisory committee (the committee), and will: oversee implementation, identify and coordinate funding opportunities and sustain the CWPP. The committee will act as the coordinating body and serve as a centralized resource for wildfire risk reduction and wildland-urban interface issues in Lane County. Additional roles and responsibilities of the committee include:

- Serving as the local evaluation committee for wildfire funding programs such as National Fire Plan grants, Senate Bill 360, and the Pre-Disaster Mitigation program;
- Developing and coordinating ad hoc and/or standing subcommittees as needed;
- Prioritizing and recommending funding wildfire risk reduction projects;
- Documenting successes and lessons learned; and
- Evaluating and updating the CWPP in accordance with the prescribed maintenance schedule.

Co-Conveners

Lane County Emergency Management and Lane County Land Management Division will serve as co-conveners to oversee the plan's implementation and maintenance. They will co-chair the CWPP advisory committee and fulfill the chair responsibilities. These two entities will be responsible for calling meetings to order at scheduled times or when issues arise, (e.g., when funding becomes available or following a major wildfire event).

Emergency Management roles:

- Coordinate committee meeting dates, times, locations, agendas, and member notification;
- Document outcomes of committee meetings in CWPP Appendix;
- Serve as a communication conduit between the committee and key plan stakeholders, (e.g., monthly meetings of the Fire Defense Board); and
- Identify emergency management related funding sources for wildfire mitigation projects.

Land Management roles:

- Serve as gatekeeper to the project prioritization process;
- Incorporate, maintain, and update Lane County's Wildland-Urban Interface Risk Assessment GIS data elements (Action 2.2.3); and
- Utilize the Lane County Wildland-Urban Interface Risk Assessment as a tool for prioritizing proposed fuel reduction projects (Action 2.3.1).

Section 1
Introduction

Plan Purpose

The Lane County Community Wildfire Protection Plan (CWPP) identifies strategies and priorities for the protection of life, property, and infrastructure in the wildland-urban interface. The CWPP is a shared plan administered jointly by the Lane County Board of Commissioners, the Oregon Department of Forestry, and the Lane County Fire Defense Board; the contents of this plan were mutually agreed upon by all three entities.

The CWPP is an action plan and depends upon people and partnerships to carry it forward. The purpose of the CWPP is to provide the following:

- A foundation for coordination and collaboration among agencies and the public in Lane County to reduce risk to wildfire.
- An assessment and map of the wildland-urban interface in Lane County.
- Identification and prioritization of areas for hazardous fuel reduction projects.
- A set of recommendations for actions homeowners and local communities can take to reduce the ignitability of structures.
- Assistance in meeting federal and state planning requirements and qualifying for assistance programs.
- A framework to support the development of local community fire plans within the county.

Why Develop a Community Wildfire Protection Plan?

The development of structures in and near forestlands exposes greater numbers of people and property to the wildfire hazard. In 2002, one of the worst fire seasons in recent history, wildfires burned nearly seven million acres and 2,000 buildings across the United States. In 2003, wildfires destroyed 4,090 homes, primarily in California.[1]

According to the Oregon State Natural Hazards Mitigation Plan, "over 41 million acres of forest and rangeland in Oregon are susceptible to wildfire."[2] The wildland-urban interface—the area where human development mixes with forestland—is growing in many Oregon communities. According to the State Natural Hazards Risk Assessment, Lane County has a high probability of and vulnerability to wildland-urban interface.[3]

The destruction caused by recent fire seasons illustrates that fire response and emergency management efforts alone are not enough to prevent losses.

Reducing a community's risk to wildfire is a shared responsibility that requires the participation of federal, state, and local government agencies, the private sector, and citizens. Risk reduction strategies are most effective when organized at the local level. Through community-based fire planning it is possible to address the specific values and needs of a local community and to build citizen awareness of living in a fire prone area.

The dramatic losses of the 2002 and 2003 fire seasons increased public awareness of wildfire risk and contributed to the Federal government's adoption of the National Fire Plan and the Healthy Forests Restoration Act of 2003 (HFRA). This legislation encourages improved intergovernmental collaboration and increased partnerships between public and private entities to implement vegetative fuel reduction projects and improve risk reduction activities in at-risk communities. HFRA also encourages local communities to create their own strategies for wildfire mitigation through development of a community wildfire protection plan.

Lane County recognizes that reducing the potential impacts of wildland-urban interface fire requires a proactive approach that reaches across jurisdictional boundaries, public and private lands, and the diverse geographic regions of the County. The development of a community wildfire protection plan creates an opportunity to encourage communication between agencies and stakeholders, identify and prioritize community values, assess wildfire risk areas, and increase education and awareness of communities and homeowners.

In December of 2004, the Lane County Board of Commissioners directed County Staff to work collaboratively with fire protection districts and federal and state agencies to develop a community wildfire protection plan, using funding from Title III of the Secure Rural Schools and Community Self-Determination Act. The planning process was designed to meet the funding eligibility requirements of the National Fire Plan, the HFRA of 2003, and the Pre-Disaster Mitigation Program of the Federal Emergency Management Agency.

The Lane County CWPP focuses on achieving the three minimum requirements for community wildfire protection plans described by 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.

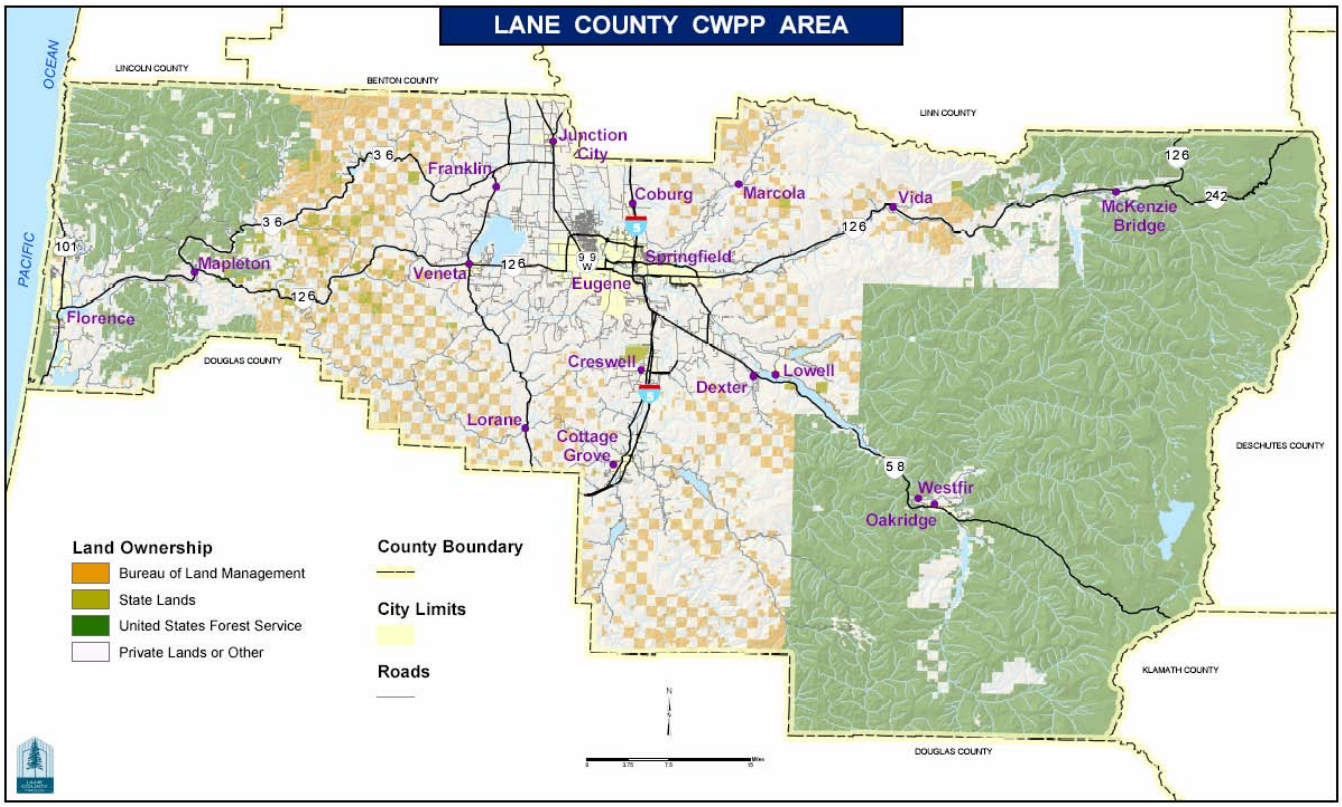
(2) Prioritized Fuel Reduction: A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure.

(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.

What area will the CWPP affect?

Lane County covers 2.9 million acres, stretching from the Pacific Ocean to the Crest of the Cascade Mountains. Nearly 90% of the County is forestlands. In a county this size, identifying high-risk areas and carrying out public outreach efforts at a meaningful scale is difficult. The Lane County CWPP addresses issues of scale and the County's diverse geography, population, and land management authorities by dividing the County into five assessment areas based roughly on watershed boundaries. The plan identifies general areas with high wildfire risk and provides a framework of technical support and guidance to assist local communities in developing and refining their own community wildfire protection plans and risk assessments. The CWPP does not have authority over incorporated communities within the County, but seeks to develop strategies for sharing information and resources between the county and local communities.

Figure 1.1: Lane County CWPP Area Map



Source: Lane County Public Works GIS, 2005

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Planning Process and Methods

Oregon Natural Hazards Workgroup and Lane County Emergency Management designed the Lane County CWPP planning process based upon the requirements of the HFRA, the Pre-Disaster Mitigation program, and the guidelines in the *Preparing a Community Wildfire Protection Plan*[4] handbook.

The planning process for the Lane County CWPP reflects the collaborative emphasis of the Healthy Forests Restoration Act requirements. Collaboration is the process of bringing different stakeholders together to address a problem by identifying common goals and finding consensus on potential solutions. A collaborative plan recognizes that the implementation process and its outcomes are more successful when support comes from multiple sources throughout the community. Collaboration ensures that the final document reflects the community's highest priorities.

Why Collaboration?

Here are a few of the benefits of a collaborative planning process:

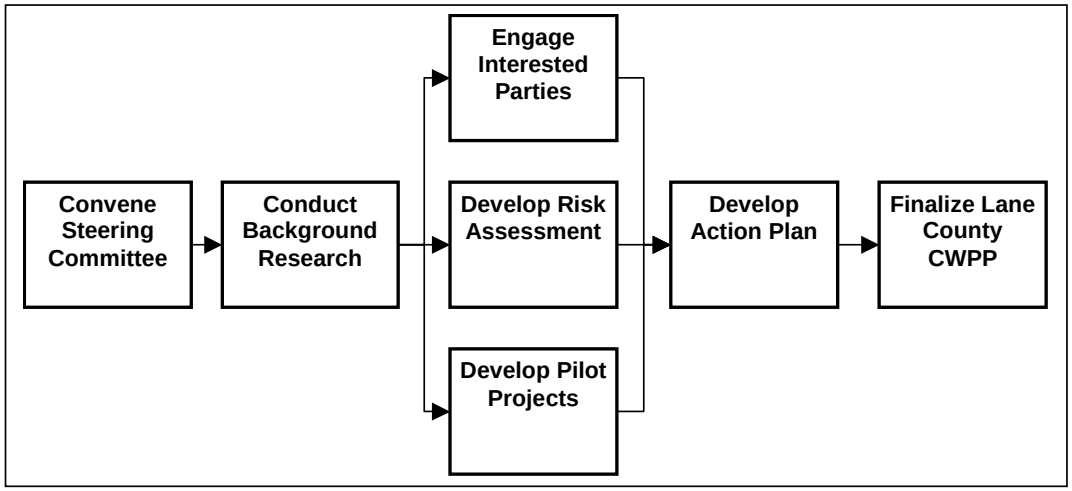
- Defines common values and goals
- Builds understanding of different perspectives
- Reduces conflicts
- Increases ownership in and support of decisions
- Increases legitimacy of final product

Source: Wondolleck and Yaffee. 2000. *Making Collaboration Work: Lessons form Innovation in Natural Resource Management.*

Steps to Developing Lane County's CWPP:

The following section summarizes the steps of the Lane County CWPP planning process. The steps are portrayed graphically in *Figure 1.2*.

Figure 1.2: The Lane County CWPP Planning Process



Source: ONHW/CPW, 2005

Step I. Convene Steering Committee and Engage Federal Partners

Lane County Emergency Management convened a steering committee to oversee and guide the development of the Lane County CWPP. The steering committee is a collaborative group responsible for making decisions and agreeing upon the final contents of the plan. The members of the steering committee included representatives of the following agencies:

- Lane County Sheriff's Office
- Lane County Fire Defense Board
- Lane County Land Management Division
- Lane County Public Works Department
- Lane County Fire Prevention Cooperative
- Oregon Department of Forestry
- Oregon State Fire Marshal
- U.S. Forest Service
- Bureau of Land Management

Step II. Research Existing Wildfire Resources, Plans, and Policies

Background research was conducted prior to beginning the planning process for the Lane County CWPP. ONHW reviewed existing federal, state, and local policies and plans related to wildfire planning, protection, or mitigation, as well as recent community wildfire plans from across the nation. Other background information included recent research by the U.S. Forest Service and other literature on wildland-urban interface fire.

Step III. Engage Interested Parties and Stakeholders

The steering committee used a three-tiered process to engage stakeholders in the development of the Lane County CWPP:

1. Landowner Survey - A survey was mailed to 1,500 randomly selected landowners from areas in Lane County. The survey questions were designed to gain information about landowners' perceptions of wildfire risk and assess their attitudes towards potential actions that communities and homeowners can take to reduce their risk of wildfire.

2. Stakeholder Interviews - ONHW conducted phone interviews with key stakeholders to gain information about key issues, concerns, and current activities related to the Lane County CWPP objectives of collaboration, prioritization of fuel reduction projects, and treatment of structural ignitability.

3. Firewise Workshop - Oregon Department of Forestry and ONHW invited stakeholders such as agency staff, planners, developers, realtors, insurers, utility providers, and non-profit organizations to attend a Firewise Communities workshop. The workshop sought stakeholder participation in identifying obstacles and opportunities to reducing wildfire risk in Lane County.

Step IV. Develop a Community Base Map and Wildfire Risk Assessment:

Using GIS technology and information from the Oregon Department of Forestry and the Bureau of Land Management, Lane County Department of Public Works created a base map of the community and adjacent land important to the CWPP. The map identifies inhabited areas containing critical human infrastructure that are at risk from wildfire and preliminarily designates Lane County's wildland-urban interface zone.

The County adapted a statewide risk assessment methodology from the Oregon Department of Forestry to evaluate wildfire risk. The County also conducted a survey of rural fire protection districts to gather data related to the known wildland urban-interface fire threats and protection capabilities at the fire district level. The following risk factors were assessed to determine the risk rating:

Risk: Assesses the potential and frequency that wildfire ignitions may occur by analyzing historical ignitions over the past 10 years.

Hazard: The natural conditions including vegetative fuels, weather, topographic features that may contribute to and affect the behavior of wildfire.

Values: The people, property, and essential infrastructure that may suffer losses in a wildfire event.

Protection Capability: The ability to both plan and prepare for, as well as respond to and suppress, structural and wildland fires.

The risk assessment also provides a process for the prioritization of areas for hazardous fuel reduction treatments to protect at-risk communities and essential infrastructure as required by the HFRA.

Step V. Develop Pilot Projects

The steering committee identified two sites for pilot projects to demonstrate fuels reduction projects and document lessons learned. The Oregon Department of Forestry worked with Northwest Youth Corps and local community members to reduce fuels at the Triangle Lake School in Blachly, Oregon. The outcome of this pilot project is documented in *Appendix B: Implementation and Maintenance Documentation.* The second pilot project, a fuels reduction project at the Eugene Water and Electric Board's substation facility in Leaburg, was still under development at the time that the plan was finalized.

Step VI. Develop an Action Plan and Project Prioritization Method

The findings from the wildfire risk assessment and the input from interested parties and stakeholders were used to create an action plan for the Lane County CWPP. The action plan identifies the goals, objectives, and action items for carrying out wildfire risk reduction strategies in the county. The action plan also establishes roles and responsibilities, funding, and timetables for implementing action items.

The steering committee developed a process for prioritizing community hazard reduction projects that utilizes the countywide risk assessment. The prioritization process is part of the implementation and maintenance component of the plan and helps to ensure that mitigation funding is used efficiently and effectively.

Step VII. Finalize Community Wildfire Protection Plan

ONHW presented a draft CWPP to the steering committee on May 24, 2005 for review and comment. The steering committee-approved document was presented to the Lane County Board of County Commissioners on July 13, 2005. The plan was adopted by resolution on xx.

The following entities approved the final document, pursuant to the HFRA:

1. The Lane County Board of Commissioners
2. The Lane County Fire Defense Board
3. The Oregon Department of Forestry

Lane County Background

Wildfire History

Wildfire plays a critical ecological role in many ecosystems across the country, including those in Lane County. Native Americans annually burned large areas of the Willamette Valley and coastal valleys to help maintain grasslands and savannahs.[5] Forest fires were relatively infrequent, although their size and severity often were large. Between 1846 and 1853, a series of large fires burned over 800,000 acres in the central Oregon Coast Range.[6]

The disruption of natural fire cycles over the last century has created dangerous vegetative fuel loads and forests vulnerable to catastrophic wildfires. Logging came to the region in the early twentieth century, combining with fire to change the landscape of the Coast Range and western Cascades.[7] During and after World War II, an emphasis on better wildland fire suppression and fire prevention dramatically reduced damage caused by wildfires. More people moved into suburban areas during this same period, increasing the wildland-urban interface.[8] Oregon Department of Forestry statistics indicate that the trend in the number of wildfires is decreasing, but the number of acres and structures burned by those remaining fires is growing.[9]

There are many examples of disastrous fires, both in Lane County and in surrounding counties that share similar landscape characteristics. In 1910, the Nelson Mountain Fire burned many areas that are now state forestlands in Lane County. Large fires burned again in western Lane County in 1917, 1922, and 1929.[10] The 1966 Oxbow Fire, started by a faulty spark arrester, burned 44,000 acres in the County.[11] An example of a catastrophic wildfire in an ecoregion similar to Lane County is the 1933 Tillamook County Fire, which burned 240,000 acres. For more information on the history, demographics, and other characteristics of Lane County, refer to the *Lane County Community Profile in the County's Natural Hazard Mitigation Plan.*

Lane County Communities At-Risk to Wildfire

To help states and counties identify the at-risk communities within their borders, various state and federal agencies across the country worked together collaboratively to update a national list of "Communities in the

Vicinity of Federal Lands at Risk from Wildfire."[12] To identify at-risk communities, state agencies used a process created by an interagency group at the national level which describes the risk factors associated with at-risk communities.[13] The updated list of at-risk communities across the country was published in the *Federal Register* on August 17, 2001. The at-risk communities within Lane County as identified by the *Federal Register* include the following: Black Butte, Cloverdate, Coburg, Dexter, Dorena, Dunes City, Florence, Lorane, Mapleton, Marcola, Springfield, Swisshome, Triangle Lake, and Walton.

Forest Characteristics

Historic wildfire regimes played a predominant role in the development of the forests of Lane County. Natural cycles of fire disturbance influence all facets of ecosystem dynamics from structure and composition to wildlife habitat and nutrient cycling. Fire suppression, timber harvesting, the introduction of exotic species, and other human factors have disturbed natural fire cycles. West of the Cascade Mountains, fire frequency and severity depend upon environmental variables, such as temperature, moisture, ignitions, and broad, fire-driving winds.[14]

Lane County is made up of three distinct ecoregions with differing vegetative, geographic, and fire regime characteristics.[15]. These ecoregions are described below:

Willamette Valley : The Valley landforms include floodplains and terraces that are interlaced with surrounding rolling hills. The natural vegetation includes Cottonwood, Alder, Oregon Ash, and Big Leaf Maple. Douglas Fir and Western Red Cedar occur in moister areas. The Valley has lower precipitation, warmer temperatures, and fire regimes of higher frequency and lower severity than adjacent Cascades or Coast Range.

Coast Range: This ecoregion is characterized by steep, highly dissected slopes with narrow ridges. The natural vegetation includes forests of Douglas Fir, Western Hemlock, Western Red Cedar, and Sitka Spruce.

Western Cascades: This ecoregion is characterized by ridge crests at similar elevations, separated by steep valleys. The natural vegetation consists of forests of Douglas Fir and Western Hemlock at lower elevations and Silver Fir and Mountain Hemlock at higher elevations.

Throughout Lane County, Douglas Fir and Western Hemlock are the most predominant forest types.[16] Fire regimes in moist Douglas-fir habitat types are mixed, ranging from low to moderate severity surface fires at relatively frequent intervals (7 to 20 years) to severe crown fires at long intervals (50 to 400 years).[17] Significant annual precipitation and low occurrence of lightning throughout much of Lane County contribute to a low probability of natural fire ignitions in many areas. However, the high vegetative fuel loads are vulnerable to catastrophic fire once ignited. Catastrophic fires are those that "burn more intensely than the natural or historical range of variability,

thereby fundamentally changing the ecosystem, destroying communities and/or rare or threatened species/habitat, or causing unacceptable erosion."[18]

Current Wildfire Protection Framework

Several agencies share responsibility for fire protection in Lane County; these roles are described in the Lane County Emergency Operations Plan.

> "The City of Eugene and City of Springfield Fire Departments provide emergency fire services to the most densely populated and developed areas of Lane County. Much of the remainder of the County's fire protection lies within the jurisdictions of the agencies that make up the Lane County Fire Defense Board and the Western Lane/Douglas County's Fire Defense Board. The Oregon Department of Forestry is responsible for fire protection on all state-owned forestland, privately owned lands, and Bureau of Land Management lands. The U.S. Forest Service are responsible for national forest lands."[19]

In addition to response capabilities, many fire agencies in Lane County play a role in education and outreach. The Oregon State Fire Marshal provides technical assistance to rural fire protection districts and unprotected areas in the wildland-urban interface. The Oregon Department of Forestry has received funding through National Fire Plan grants for fuel reduction projects and community-level fire protection plans. The Lane County Fire Prevention Co-op facilitates interagency cooperation for the local delivery of fire prevention education messages. *Table 1.2* on the next page portrays the current wildfire protection framework in Lane County, including the roles and responsibilities of federal, state, and local fire protection agencies.

Table 1.2: Current Wildfire Protection Framework

Federal	State	Municipal	County
US Forest Service (USFS) and Bureau of Land Management (BLM) ♦ Manages the majority of Lane County's 2.5 million acres of F1 zoned forestlands. ♦ USFS participates in first response and co-op agreements with Oregon Department of Forestry. ♦ BLM contracts with Oregon Department of Forestry for wildland protection on lands within ODF district boundaries.	**Oregon Department of Forestry** ♦ Provides wildland protection on 1.4 million acres in Lane County on state owned and state protected lands within district boundaries. ♦ Contracts with private lands to provide wildland fire protection outside of district boundaries. ♦ Participates in first-response agreements with all adjoining counties and with co-op agreements with USFS. ♦ Provides protection to BLM lands within district boundaries by contract. ♦ Promotes education, outreach, and prevention activities. **Oregon State Fire Marshal** ♦ Provides technical assistance to local fire departments and unprotected areas. ♦ Promotes education and outreach in the wildland-urban interface. ♦ Adopted the Oregon Fire Service Mobilization Plan.	**City Fire Departments** ♦ Provide structural fire protection within city limits. ♦ Cities without fire departments contract with rural fire districts for emergency protection. ♦ The cities of Cottage Grove, Eugene, Florence, Junction City, Springfield, Oakridge and Westfir provide fire services inside their own city limits.	**Rural Fire Districts** ♦ 24 Rural Fire Districts within Lane County. ♦ Provide structural fire protection within district boundaries throughout the county. **Lane County Fire Defense Board** ♦ Has mutual aid agreements among the 24 rural fire protection agencies in the county and Oregon Department of Forestry. ♦ Focuses on the operational side of fire response. **Lane County Fire Prevention Co-op** ♦ Facilitates interagency cooperation in the local delivery of wildfire fire prevention messages and materials ♦ Includes some of the members of the Lane County Fire Defense Board, as well as USFS and BLM

Source: ONHW/CPW, 2005

Existing Plans and Policies

The CWPP is non-regulatory in nature, meaning that it does not set forth any new policy. The plan does provide (1) a foundation for coordination and collaboration among agencies and the public in Lane County, (2) identification and prioritization of areas for hazardous fuel reduction projects and other mitigation activities, and (3) assistance meeting federal and state planning requirements and qualifying for assistance programs. The CWPP works in conjunction with other County plans and programs, including, but not limited to the Natural Hazards Mitigation Plan, Rural Comprehensive Plan, Emergency Operations Plan, and Parks and Open Space Plan. These plans are briefly described below:

Lane County Natural Hazards Mitigation Plan - This plan is currently in development and is intended to assist Lane County in reducing its risk from natural hazards by identifying resources, information, partnerships, and strategies for risk reduction. The plan will meet the requirements for mitigation planning in the Disaster Mitigation Act of 2000. The CWPP will serve as the wildfire annex for the County's Natural Hazards Mitigation Plan.

Lane County Rural Comprehensive Plan - The Rural Comprehensive Plan addresses Oregon State Planning Goals and guides future growth and development in unincorporated areas of Lane County. The comprehensive plan contains a natural hazards inventory to meet the requirements of Planning Goal 7: Areas Subject to Natural Hazards. The wildfire risk assessment in the CWPP could serve as an update for the wildfire hazard inventory for Goal 7. The comprehensive plan also implements state requirements for buildings sited in forest zones.

Lane County Emergency Operations Plan – The Sheriff's Office is updating the Emergency Operations Plan until 2007. The plan currently provides a complete communication model for emergency response. The CWPP builds upon this communication model to facilitate effective coordination and response in wildfire emergencies.

Lane County Parks and Open Space Plan - Lane County manages 71 parks throughout the County. The Department of Parks and Open Space is currently revising the parks plan. The wildfire risk assessment in the CWPP will help identify the wildfire risk in or near parks and prioritize fuels reduction projects countywide.

The Lane County CWPP addresses the requirements for a community wildfire protection plan provided in Title III of the HFRA, as well as meets the guidelines and requirements of other state and federal programs. *Table 1.3* on the next page briefly describes relevant polices and how they are addressed by the CWPP.

Table 1.3: Policy Framework for Wildland-Urban Interface Fire in Oregon

Policy	Requirements	How the CWPP Addresses Policy
Healthy Forests Restoration Act (HFRA): Congress adopted HFRA in 2003 to assist community, state, and federal land managers in the prevention of catastrophic wildfire on public lands through fuels reduction activities. The Act requires 50% of appropriated fuel treatment funding through HFRA is to be used in the wildland-urban interface protection zone and give priority funding to communities with a community wildfire protection plan in place.	(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. (4) Three entities must mutually agree to the final contents of a CWPP: the applicable local government; the local fire departments; and the state entity responsible for forest management	(1) The CWPP was collaboratively developed by a steering committee representing local, state, and federal agencies. The plan conducted outreach activities to gain input from public and private stakeholders. (2) The CWPP includes an assessment of wildfire risk in Lane County and a process for prioritizing fuel reduction projects. The plan also includes a table identifying appropriate fuel treatment methods for Lane County. (3) The CWPP recommends actions for promoting risk reduction activities on private and public lands in Lane County. (4) The Lane County Board of Commissioners, the Lane County Fire Defense Board, and the Oregon Department of Forestry approved the Lane County CWPP.
National Fire Plan 10-Year Comprehensive Strategy: The National Fire Plan was developed in 2000, following a landmark wildfire season, to actively respond to severe wildfires and their impacts to communities while ensuring sufficient firefighting capacity for the future.	The National Fire Plan addresses five key points: – Firefighting, – Rehabilitation, – Hazardous Fuels Reduction, – Community Assistance, and – Accountability.	The CWPP will aid in effectively implementing National Fire Plan goals by providing a collaborative framework reducing wildfire risk to communities in Lane County. The advisory committee responsible for coordinating the CWPP will also serve as the local coordinating body for National Fire Plan projects.
Disaster Mitigation Act of 2000: The Act emphasizes mitigation planning and establishes a pre-disaster hazard mitigation program.	Requires state and local governments to have an approved natural hazard mitigation plan in place to qualify for post-disaster Hazard Mitigation Grant Program funds.	The CWPP will serve as the Wildfire Annex for the Lane County Natural Hazard Mitigation Plan currently in development.

Policy	Requirements	How the CWPP Addresses Policy
Oregon Statewide Land Use Goal 7 Areas Subject to Natural Hazards: Goal 7 requires local governments to adopt measures in their comprehensive plan to reduce risk to people and property from natural hazards.	The Goal Requires local governments complete an Federal and state land managers coordinate natural hazard inventories, and local land managers alter land use designations to minimize risk to people and property from natural hazards.	The CWPP includes a wildfire risk assessment for Lane County, which may be used as new wildfire hazard inventory information in the Lane County Rural Comprehensive Plan.
Oregon Forestland Dwelling Units Statute, ORS 215.730: The statute provides criteria for approving dwellings located on lands zoned for forest and mixed agriculture/forest use.	The Statute directs county governments to require, as a condition of approval, that single family dwellings on lands zoned as forestland meets requirements for construction materials, fuel breaks, water supply, and location in fire protection districts.	The Lane County Code and Rural Comprehensive Plan currently meet requirements of the state statute for dwellings on lands zoned forestlands.
Oregon Forestland-Urban Interface Fire Protection Act of 1997 (Senate Bill 360): Promotes the creation of a comprehensive wildland-urban interface fire protection system in Oregon.	The Act contains provisions for county governing bodies to: – Establish a forestland-urban interface classification committee – Establish a forestland-urban interface criteria and classification program – Encourage landowner forestland-urban interface fire mitigation actions	The advisory committee convened to coordinate the CWPP may also serve as the forestland-urban interface classification committee. The CWPP includes a risk assessment and designates a wildland-urban interface in Lane County that may be used in the criteria and classification program required by Senate Bill 360. The CWPP identifies actions to promote landowner education and outreach strategies for the treatment of structural ignitability.

Source: ONHW/CPW, 2005

Summary

As human development continues to spread into forestlands, the risk of wildland-urban interface fire escalates. Lane County's diverse geography, population, and land ownership patterns create further challenges to reducing the county's risk of wildfire. Many entities and programs aimed at wildfire risk response, reduction, and education exist, but efforts to share resources and information are limited. The risk assessment and action plan of the Lane County CWPP create opportunities to improve collaboration, enhance wildfire mitigation efforts, and reduce the county's overall risk to wildfire.

Section Endnotes

[1] National Interagency Fire Center. 2005. <http://www.nifc.gov>.

[2] Community Service Center. 2003. *Wildfire Chapter: State of Oregon Natural Hazard Mitigation Plan*. State Natural Hazard Mitigation Plan. < http://www.deq.state.or.us/aq/docs/neap/appendixD.pdf>

[3] Community Service Center. 2003. *Region 3: Mid/Southern Willamette Valley Hazards Assessment*. State Natural Hazard Mitigation Plan. <http://csc.uoregon.edu/PDR_website/projects/state/snhra/snha_pdf/>.

[4] National Association of Foresters, Western Governors Association, National Association of Counties, and Society of American Foresters. 2004.*Preparing a Community Wildfire Protection Plan.* <http://www.stateforesters.org/pubs/cwpphandbook.pdf>.

[5] Oregon Department of Forestry. 2001. *Northwest Oregon State Forests Management Plan: Final Plan.*

[6] Oregon Department of Forestry. 2001. *Northwest Oregon State Forests Management Plan: Final Plan.*

[7] Ibid.

[8] Ibid.

[9] State of Oregon. 2003. *Emergency Management Plan*, *Natural Hazards Mitigation Plan.*

[10] Oregon Department of Forestry. 2001. *Northwest Oregon State Forests Management Plan: Final Plan.*

[11] Ballou, Brian. 2003. "A Short History of Oregon Wildfires." *Wildfire Chapter: State of Oregon Natural Hazard Mitigation Plan.* State Natural Hazard Mitigation Plan.

[12] Department of Agriculture, and the Department of the Interior. 2001. *Federal Registe,* Vol. 66, Number 160.

[13] Ibid

[14] Pacific Northwest Research Station, and the USDA Forest Service. 2002. When the Forest Burns: Making Sense of Fire History West of the Cascades. *Science Findings* (46).

[15] Loy, William el al. 2001. *Atlas of Oregon*.

[16] Ibid

[17] USDA Forest Service. 2004. *Healthy Forests Pacific Northwest – Fire & Ecosystems in the Pacific Northwest.* <www.fs.fed.us/r6/colville/hfi/ecosystems/index.shtml>.

18 National Fire Plan. 2001. *A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: A 10-Year Strategy.*

[19] Lane County Emergency Management. 2003. *Lane County Emergency Operations Plan, Annex B.*

LANE COUNTY CWPP AREA

OCEAN

PACIFIC

LINCOLN COUNTY

BENTON COUNTY

LINN COUNTY

DOUGLAS COUNTY

DESCHUTES COUNTY

KLAMATH COUNTY

Junction City

Franklin

Coburg

Marcola

Vida

McKenzie Bridge

Springfield

Eugene

Veneta

Mapleton

Florence

Creswell

Lowell

Dexter

Lorane

Cottage Grove

Westfir

Oakridge

126

101

5

105

58

Land Ownership

- Bureau of Land Management
- State Lands
- United States Forest Service
- Private Lands or Other

County Boundary

City Limits

Roads

3

0 3.75 7.5 15 Miles

LANE COUNTY OREGON

Section 2
Risk Assessment

Purpose and Methods

A primary component of the Lane County CWPP is the Wildfire Risk Assessment, which assesses the potential loss of lives, property and essential infrastructure in the event of a wildland-urban interface fire. This assessment broadly identifies communities and areas within Lane County that are at risk. Information gathered through this assessment is intended to help emergency managers and fire-fighting professionals prioritize areas of concern for further analysis and mitigation activities.

The specific goals of the assessment are the following:

1. Determine the potential risk from interface fires for Lane County communities through a collaborative effort that incorporates local, on-the-ground knowledge, with the best available data and geographic analysis.

2. Establish a community base map and identify and create digital layers for the following data sets:
   - The wildland-urban interface
   - Communities at-risk
   - Risk of wildfire occurrence
   - Hazards posed by fuels, weather and topography
   - Fire protection response
   - Values (life, property and essential infrastructure) requiring protection
   - Overall interface fire risk (expressed as high, medium and low)

3. Identify areas for refined analysis, potentially through community or neighborhood level assessments.

4. Provide insight for the prioritization of hazardous fuel treatment projects.

Risk Assessment Team

Staff from Lane County Department of Public Works and Land Management Division consulted with local, state and federal land managers, fire protection personnel, and Oregon Natural Hazards Workgroup at the University of Oregon to develop the assessment.

Table 2.1: Risk Assessment Team Members

Core Assessment Team	
Brian Mladenich	Lane County Public Works GIS
Adam Vellutini	Lane County Public Works GIS
Keir Miller	Lane County Land Management
Advisory Team	
Jim Wolf	Oregon Department of Forestry
Greg Wagenblast	ODF South Cascade District
Ken Ockfen	ODF Western Lane District
Randy Wood	Lane County Fire Defense Board
Nancy Ashlock	Bureau of Land Management
Dean Vendrasco	Willamette National Forest
Cody Zook	Josephine County GIS
Andre LeDuc	Oregon Natural Hazards Workgroup

Source: Lane County Land Management Division, 2005

Assessment Structure

The assessment is organized into three sections. The first section provides an overview of the goals and objectives of the analysis and describes briefly the methods used to evaluate wildfire risks in Lane County. Detailed methodology notes are included in *Appendix C: Risk Assessment Methods*. The second section presents the findings of the risk analysis. Findings are broken into five assessment areas and displayed in a series of map panels. Communities at-risk and areas of concern within each assessment area are identified. The third section discusses data limitations and needs identified by the risk assessment team and outlines an assessment improvement and maintenance schedule.

Assessment Approach

Several communities across the nation have completed, or are currently engaged in, wildfire planning efforts. These communities developed numerous models in an attempt to understand the risks posed by wildland-urban interface fires. The assessment techniques used in these models differ widely in both content and detail of analysis. For the Lane County Wildfire Risk Assessment, the steering committee elected to follow the assessment process outlined in the guidance document, *Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities*[1].

The handbook, developed through a partnership of national and regional agencies, contains recommendations and guidelines that conform closely to requirements of the Healthy Forest Restoration Act of 2003. The handbook broadly outlines an assessment framework and identifies key risk factors communities should evaluate within their plans. Under the framework, individual communities have considerable

autonomy to choose assessment methods that are appropriate to the scale of the community.

To evaluate the wildland-urban interface fire risks within Lane County, the risk assessment team adopted methods based on a model developed by the Oregon Department of Forestry entitled *Identifying and Assessment of Communities at Risk in Oregon.*[2] The methodology originally assessed wildfire hazards at the statewide level for use in the Oregon Natural Hazards Mitigation Plan. However, the process and data sets used in the methodology enable a tiered approach that is appropriate at several scales including county, city or neighborhood-level assessments.

How the Lane County Assessment Evaluates Risk

This assessment evaluates wildland-urban interface fire risk by analyzing four key "layers" of wildfire information. These layers are:

- **Risk**: Assesses the potential and frequency that wildfire ignitions may occur by analyzing historical ignitions over the past 10 years.
- **Hazard**: The natural conditions including vegetative fuels, weather, topographic features that may contribute to and affect the behavior of wildfire.
- **Values**: The people, property, and essential infrastructure that may suffer losses in a wildfire event.
- **Protection Capability**: The ability to plan and prepare for, as well as respond to and suppress, structural and wildland fires.

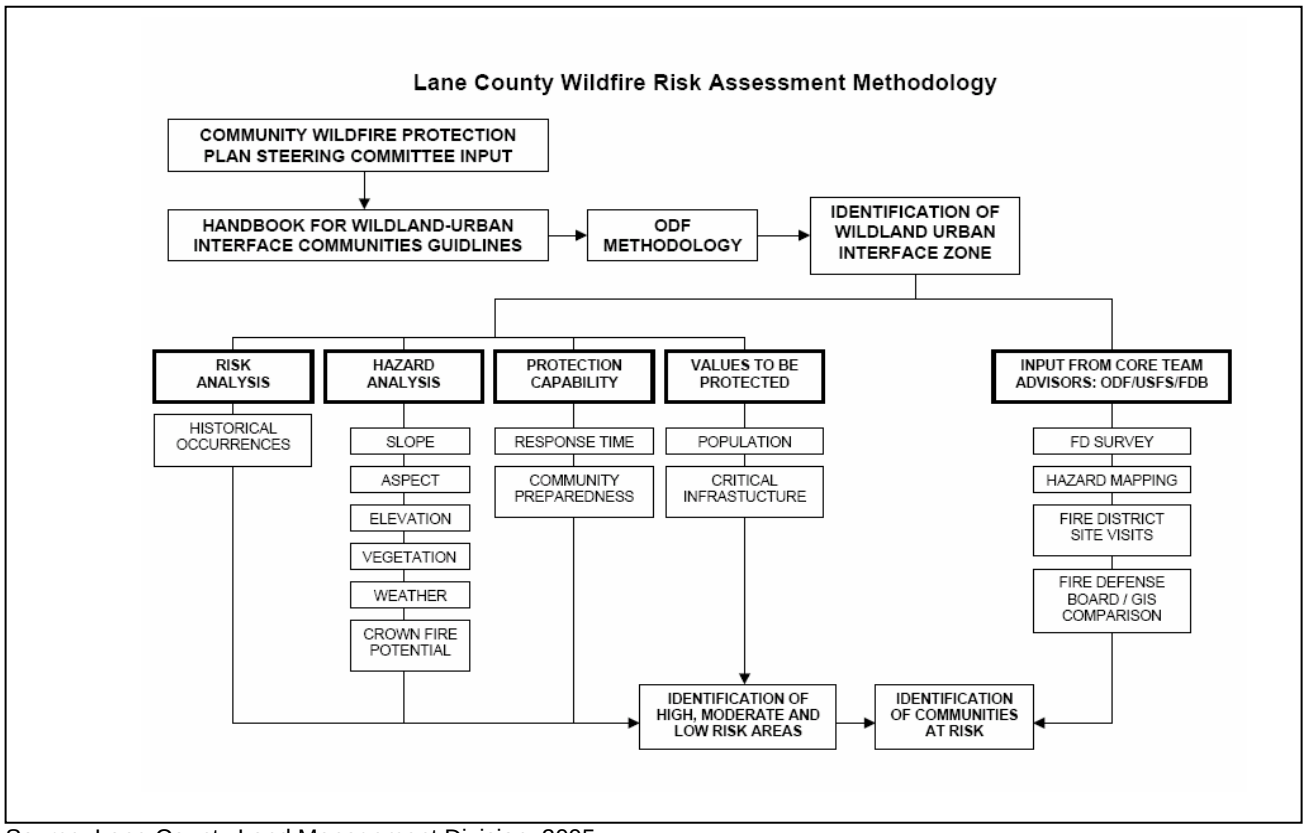
Each of these layers is developed by compiling and analyzing one or more related factors that can lead-to, aggravate, or mitigate a wildland urban-interface fire. These data layers are analyzed and displayed using a type of computer mapping software known as a Geographic Information System, or GIS.

GIS is an extremely helpful tool for evaluating wildfire risk. This assessment uses GIS to perform a number of spatial analyses and to manage, store and display wildfire information. The output of this analysis is a series of map layers, each layer displaying a separate yet interconnected piece of wildfire risk information. Through comparison and analysis of these layers this assessment indicates areas that are at a **high**, **moderate** and **low** potential to be impacted by a wildland urban interface fire.

In addition to GIS analysis, this assessment relies heavily on input provided by federal, state and local fire protection professionals. Local fire fighters are familiar with the threats within their protection areas. Mapping and documenting the areas at risk identified by these professionals, and comparing this information with data gathered through GIS analysis, creates a more accurate understanding of wildfire risk and provides a rough method of truth-checking GIS outputs.

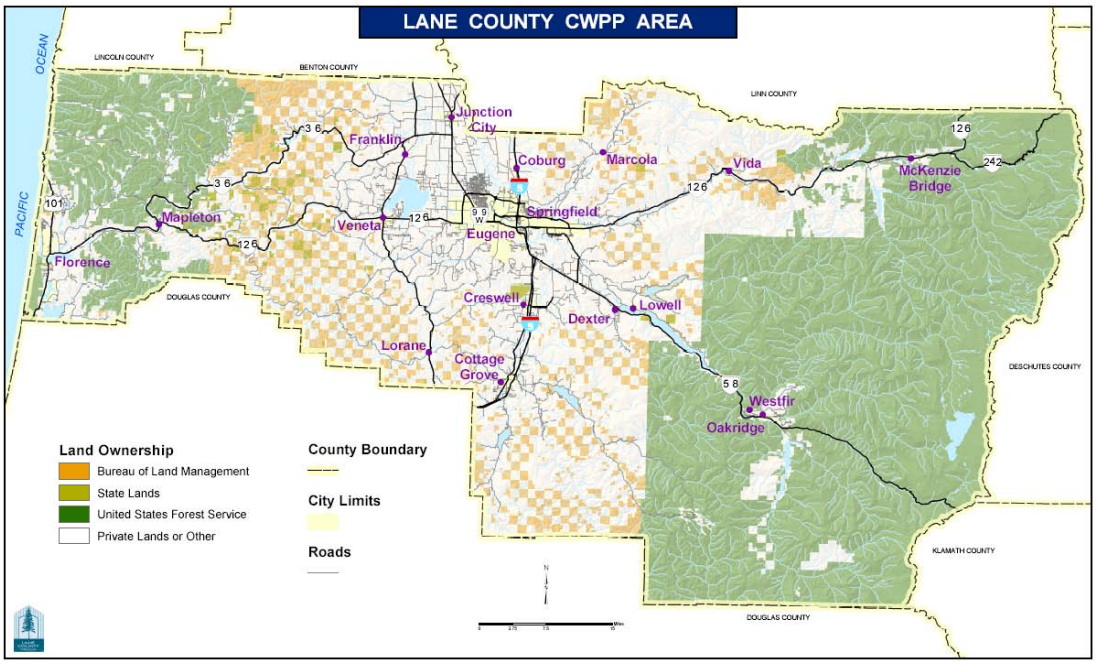
The assessment team met regularly with representatives from the Lane County Fire Defense Board, the Oregon Department of Forestry, the Bureau of Land Management, and the US Forest Service. Input and assistance from these agencies helped direct and shape the assessment process. Figure 2.1, below diagrams the process. Detailed methods and data used within the assessment can be found in Appendix C.

Figure 2.1: Lane County Wildfire Risk Assessment Methodology



Source: Lane County Land Management Division, 2005

Figure 2.2: Lane County Community Base Map



Source: Lane County Land Management Division, 2005

Assessment Findings

Wildland-Urban Interface Zone

The Lane County wildland-urban interface is large, approximately 2,269,000 acres or 3,543 square miles. It extends east to west across the county – from the Western Cascades, well up the McKenzie and Middle Fork Willamette watersheds, down through the Willamette Valley foothills and floor, across the coastal lowlands and mountains to the Pacific Ocean.

The size of Lane County's wildland-urban interface is the result of a dispersed population in close proximity to abundant vegetative fuels. Nearly 90% of Lane County is forestland and nearly 2.5 million of the county's 2.9 million acres are zoned F1, non-impacted forestland. The U.S. Forest Service and the Bureau of Land Management own and manage the majority of the F1 zoned property. These forestlands contain extensive fuels comprised of flammable grasses, brush, slash and timber. Excluding the population of Eugene/Springfield metro area, nearly 100,000 Lane County residents live throughout or adjacent to these forestlands. The majority of these residents live in rural population centers along the I-5 corridor and other major transportation routes, including Highways 126, 101, 58, and 36. In addition, substantial pockets of residential development exist in the Mohawk Valley, Wolf Creek, Deadwood Creek, Row River Rd, Mosby Creek Rd, Lost Creek Rd, High Prairie Rd, and the North Fork Siuslaw Rd areas.

Communities at Risk

A key output of the assessment is an understanding of the hazards that wildfires pose to Lane County communities. For the purpose of this plan, communities have been identified by their fire protection district service boundaries. Defining communities in this manner is consistent with the statewide methodology and is appropriate for an assessment of this size. However, it is important to recognize that several other communities at risk may exist within these areas. Subdivisions, neighborhoods, towns and cities may all be considered communities. The assessment helps highlight these smaller communities at risk where more refined assessments and mitigation activities should occur.

The assessment identified thirty fire protection "communities" within Lane County. Twenty-five of these communities receive structural fire protection from rural or municipal fire districts. The remaining five communities receive only wildland fire suppression from the Oregon Department of Forestry, the US Forest Service[3], or in limited cases, private fire protection services on commercial forestlands. In some cases, ODF provides wildland fire protection to areas outside of existing protection boundaries through contract agreements. The risk assessment team identified these five communities as "unprotected" and assigned them place names based off of surrounding watersheds or natural features. The at-risk communities in Lane County are:

At-Risk Communities as defined by fire protection district:

- Blue River
- Coburg
- City of Eugene
- Dexter
- Eugene #1
- Goshen
- Hazeldell
- Junction City
- Lake Creek
- Lane County #1
- Lane Rural
- Lorane
- Lowell
- Mapleton
- Mohawk Valley
- McKenzie
- Pleasant Hill
- Santa Clara
- Siuslaw
- Springfield
- South Lane County
- Swisshome-Deadwood
- Upper McKenzie
- Willakenzie/Eugene
- Willakenzie/Springfield

Communities receiving wildland protection only.

- Unprotected Coast Fork Willamette
- Unprotected Long Tom / Upper Willamette
- Unprotected McKenzie
- Unprotected Middle Fork Willamette
- Unprotected Siuslaw / Coast

Risk Assessment Areas

In order to present mapped findings at a meaningful scale, the risk assessment team divided the wildland-urban interface into five assessment areas. Assessment area boundaries, though artificial, reconcile issues of scale and help reflect natural eco-regions within Lane County. These areas roughly follow watersheds, but in certain cases, expanding or altering natural watershed boundaries was necessary. The risk assessment team adjusted the boundaries to ensure that communities at risk would fall into only one assessment area. See figure 2.4, below.

The assessment areas include the following:

Area 1: Western Lane County / Coastal region

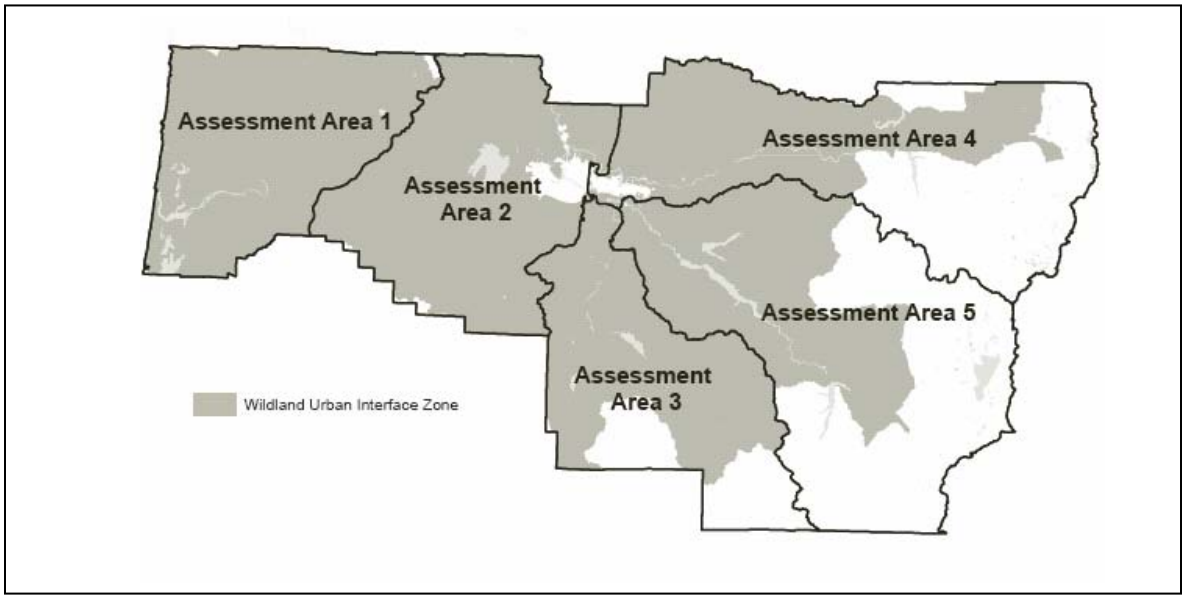
Area 2: Willamette Valley / Upper Siuslaw watershed area

Area 3: Coast Fork Willamette / Umpqua area

Area 4: McKenzie River watershed

Area 5: Middle Fork Willamette watershed

Figure 2.3: Lane County Assessment Areas Map



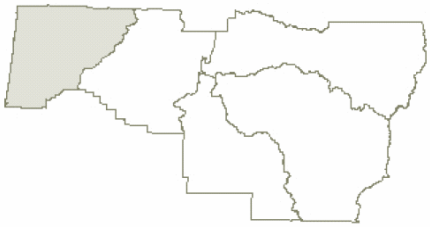
Source: Lane County Land Management Division, 2005

Assessment Panels

The following pages outline wildfire risk in each assessment area. A description of the assessment area is included along with tables that contain relevant community risk data. Finally, areas of concern identified though GIS analysis and fire protection district input are listed. Additionally, maps showing specific areas within the county that are at high, moderate or low risk are provided.

Assessment Area 1

Western Lane County / Coastal Region



Total Area: **445,226 acres**
Area Inside WUI: **437,592 acres** (98.3%)
Population: **15,610** (2000 census)
Population Inside WUI:
Number of Communities at Risk: **5**
Incorporated Cities: **Dunes City, Florence**

Overview:

Assessment area 1 is located in western Lane County. It s comprised of portions of the Alsea, Siltcoos and Siuslaw Watersheds. Major population centers within the area include Florence, Glenada, Dunes City and Mapleton near the coast, and several smaller rural communities further inland along Highways 126 and 36. Overall WUI risks within the area are moderate to low. As the table below indicates, less than 1% of the entire area is within the high-risk category. The primary reason for this is a cool and damp coastal climate. The majority of residents within Area 1 live west of the summit of the Coast Range. Within this region the number of days per season that forest fuels are capable of producing a major fire event are significantly fewer than in other parts of the county.

Table 2. 2: Communities at Risk within Assessment Area 1

Assessment Area 1: Communities at Risk	Total Acreage	Percentage of community at risk		
		High	Moderate	Low
LCF: Lake Creek	5,005	0.48	46.09	53.43
MPF: Mapleton	13,198	1.34	45.16	53.5
SIF: Siuslaw	56,017	0.2	22.7	77.1
SDF: Swisshome-Deadwood	27,312	0.12	38.63	61.25
Unprotected Siuslaw / Coast	340,537	0.83	69.78	29.39
City of Florence	3,157	0.6	20.75	78.65

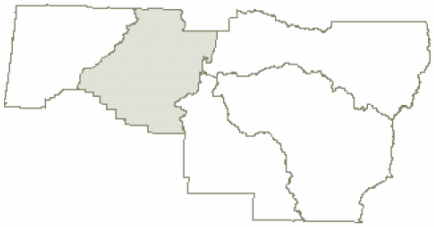
Source: Lane County Land Management Division, 2005

The following areas of concern have been identified within assessment area 1:

- **Deadwood Creek Area:** Deadwood Creek Rd, West Fork Rd, Steinhaur Rd
- **Triangle Lake**
- **Mapleton**
- **South of Horton:** area between High Pass Rd and Hwy 36
- **Blachly**

Assessment Area 2

Willamette Valley / Upper Siuslaw Watershed Area



Total Area: **512,966 acres**
Area Inside WUI: **486,203 acres** (94.8%)
Population: **194,019** (2000 census)
Population Inside WUI:
Number of Communities at Risk: **10**
Incorporated Cities: **Coburg, Eugene, Junction City, and Veneta**

Overview:

Assessment Area 2 is the most highly developed and populated region within Lane County. The majority of the area falls within the Willamette Valley and includes portions of the Long Tom, Main Stem Willamette and Upper Siuslaw Watersheds. The majority of residents within the area live in the Cities of Eugene, Veneta, Junction City, or Coburg. Smaller communities include Lorane, Crow, Franklin, Cheshire, Noti, Elmira, Lancaster and Alvadore. Interface fire risks within Area 2 vary greatly. Risks are low on the valley floor and moderate with interspersed high-risk zones in the remainder of the area. Higher ignition occurrences and housing densities are the primary reasons for this.

Table 2.3: Communities at Risk within Assessment Area 2

Assessment Area 2: Communities at Risk	Total Acreage	Percentage of community at risk		
		High	Moderate	Low
CBF: Coburg	23,252	0.01	10.36	89.63
EU1: Eugene #1	6,235	6.15	46.615	47.24
EUG: City of Eugene**	37,747	2.1	17.7	80.2
JCF: Junction City	42, 689	0.01	14.35	85.64
LDF: Lane County #1	115,763	3.95	58	38.05
LRF: Lane Rural	38,957	0.17	25.31	74.52
LOF: Lorane	7,142	4.42	43.73	51.85
SCF: Santa Clara	3,590	0	0.39	99.61
WLE: Willakenzie / Eugene	829	0	30.78	69.22
Unprotected Long Tom / Upper Willamette	236,762	5.69	67.71	26.6

**** Includes Bailey-Spencer, River Road and Zumwalt**

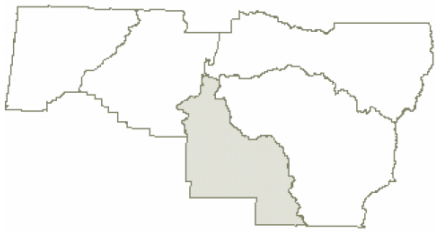
Source: Lane County Land Management Division, 2005

The following areas of concern have been identified within assessment area 2

- **Coburg Hills:** Homes along McKenzie View Drive, Van Duyn Road and the 30 home gated community of Country View Estates
- **Cheshire:** Park Street & Turnbow Court
- **South Hills of Eugene**
- **Southwest Eugene / Spencer Creek area:** Appletree Dr, McBeth Rd, Fox Hollow Rd, Gimpl Hill Rd and South Willamette St
- **Northwest of Fern Ridge Reservoir:** Butler Rd and Lawrence Rd
- **Communities of Crow, Vaughn, Elmira, Lorane and Noti**

Assessment Area 3

Coast Fork Willamette / Umpqua Area



Total Area: **464,117 acres**
Area Inside WUI: **347,225 acres (74.8%)**
Population: **28,310** (2000 census)
Population Inside WUI:
Number of Communities at Risk: **3**
Incorporated Cities: **Creswell, Cottage Grove**

Overview:

Located in Southern Lane County, Assessment Area is comprised of portions of the Coast Fork Willamette and Umpqua Watersheds. Cottage Grove and Creswell are the major population centers in the area. Smaller Communities include Dorena, Goshen, Saginaw, London and Culp Creek. Interface risks in Area 3 are moderate to low with exceptions in the Dorena / Culp Creek and London Areas. The majority of high-risk zones within the area fall outside the boundaries of a fire protection district.

Table 2.4: Communities at Risk within Assessment Area 3

Assessment Area 3: Communities at Risk	Total Acreage	Percentage of community at risk		
		High	Moderate	Low
GOF: Goshen	8,172	3.17	38.96	57.87
SOL: South Lane County	83,490	0.38	33.81	65.81
Unprotected Coast Fork Willamette	372,455	6.5	59.72	33.78

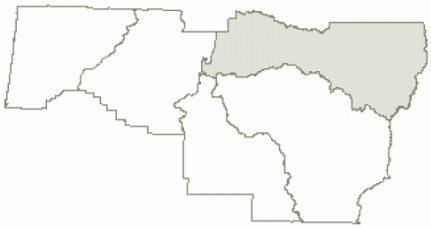
Source: Lane County Land Management Division, 2005

The following areas of concern have been identified within assessment area 3:

- **Dillard Rd:** Beymer Rd and Skyhawk Way
- **Row River Rd. area**
- **Deerwood Dr off of Mathews Rd.**
- **SW area of Cottage Grove:** Sweet Lane, Talemena Dr
- **Turkey Hill:** Area near Rainbow Graphics just south of Creswell
- **Lynx Hollow area:** Beach Rd and Turkey Run Rd
- **Molitor Ranch Rd area:** Tree Top Drive, and residences up Molitor Hill Rd
- **Culp Creek**
- **Brice Creek Rd**
- **London**

Assessment Area 4

McKenzie River Watershed



Total Area: **678,760 acres**
Area Inside WUI: **368,445 acres** (54.3%)
Population: **72,110** (2000 census)
Population Inside WUI:
Number of Communities at Risk: **7**
Incorporated Cities: **Springfield**

Overview:

Assessment Area 4 roughly follows the boundaries of the McKenzie Watershed. Springfield is the major urban center in the area. Several smaller communities and residential pockets are situated along Highway 126 to the east and Marcola Rd to the north. Interface fire risks are moderate to high in this area. Extensive fuels, steep slopes and the presence of significant infrastructure all contribute to the increased risk.

Table 2.5: Communities at Risk within Assessment Area 5

Assessment Area 4: Communities at Risk	Total Acreage	Percentage of community at risk		
		High	Moderate	Low
BRF: Blue River	768	9.6	36.94	53.46
MKF: McKenzie Fire	19,797	13.28	52.54	34.18
MVF: Mohawk Valley	16,844	5.75	47.83	46.42
SPR: Springfield**	9,445	3.97	15.8	80.23
UMF: Upper McKenzie	2,573	12.35	34.18	53.47
WLS: Willakenzie/Springfield	1,475	5.09	21.22	73.69
Unprotected McKenzie	627,858	8.97	64.41	26.62

****Includes Glennwood**

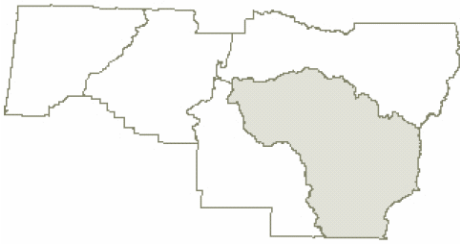
Source: Lane County Land Management Division, 2005

The following areas of concern have been identified within assessment area 4:

- **Blue River Area:** Elk Creek Rd near Blue River School and homes located on the hillside plateau on the Blue River / USFS boundary.
- **Camp Creek Ridge:** South-facing hill with approximately 30 homes
- **Cedar Flat and East Cedar Flat Roads**
- **North Gate Creek Rd**
- **Angel Flight Rd**
- **79th Street**
- **McKenzie Acres**
- **McKenzie View Dr**
- **Upper Mohawk Valley**
- **Thurston Hills**
- **Harbor Dr/ South 2nd Area**

Assessment Area 5

Middle Fork Willamette Watershed



Total Area: **812,412 acres**
Area Inside WUI: **386,919 acres (47.6%)**
Population: **12,910** (2000 census)
Population Inside WUI:
Number of Communities at Risk: **5**
Incorporated Cities: **Lowell, Oakridge, and Westfir**

Overview

Containing nearly the entire Middle Fork Willamette Watershed, Area 5 is the largest assessment unit within Lane County. Despite its size, less than half of the total land area within the region falls inside of the wildland urban interface zone. This is because much of the area is undeveloped land within the Willamette National Forest. Developed areas include Lowell, Dexter, Westfir, Oakridge, Pleasant Hill, Fall Creek, Jasper and Trent. Wildfire risks are moderate to high with slope and vegetation hazard characteristics similar to those in Assessment Area 4. Additionally, lightening caused ignitions elevates overall risk in the southeastern portion of Area 5.

Table 2.6: Communities at Risk within Assessment Area 5

Assessment Area 5: Communities at Risk	Total Acreage	Percentage of community at risk		
		High	Moderate	Low
DEF: Dexter	10,878	3.14	45.072	51.79
HDF: Hazeldell	6,095	3.66	40.07	56.27
LWF: Lowell	12,561	4.76	41.44	53.8
PHF: Pleasant Hill	16,144	0.49	34	65.51
Unprotected Middle Fork Willamette	766,734	14.49	65.11	20.4

Source: Lane County Land Management Division, 2005

The following areas of concern have been identified within assessment area 5:

- **Dexter Area:** Carter and Minnow Creek Roads, Lost Creek Canyon, Hanna Rd
- **Oakridge / Westfir Area:** High Praire Rd / Camp six area, Bar-B L Ranch Area, Hemlock Area, North Shore Rd to Winfrey Rd and summer homes along Salt Creek.
- **Kitson Hot Springs**
- **Winberry Creek Rd**
- **Big Fall Creek and Little Fall Creek Areas**
- **Disappointment Butte (near Lowell)**
- **Papenfus Rd**
- **Hills Creek / Wallace Creek Rd Area**

Risk Assessment Issues and Limitations

Wildland fires are complex events: their behavior and the potential damage they may cause is affected by several variables. The risk assessment team made every attempt to ensure the accuracy and completeness of the assessment. However, limitations in data and staff resources made it impossible to comprehensively assess every factor affecting wildland fires countywide. The following limitations reflect the challenges inherent in an assessment of this scale. Ideally, periodic updates and data enhancements resulting from local community assessments will address these challenges. Local community assessments can add value to the countywide wildfire plan by performing more in-depth neighborhood or parcel-level risk evaluations for areas identified as high risk by the risk assessment. These local community assessments will help further refine and update the countywide assessment.

The issues and limitations encountered include the following:

- **Difficulty identifying and analyzing specific ignition sources:** An evaluation of historic fire ignitions provided some indication of where and how frequently fires occur. However, evaluating specific sources of potential ignitions in combination with historic occurrences is likely to yield more accurate results. Due to the size of Lane County and the number of potential igniters, it is not feasible to identify and evaluate all of these sources countywide.

- **Assessing structures and their immediate surroundings:** In addition to analyzing risks, hazards, values, and protection capabilities, the risk assessment framework can also evaluate the vulnerability of individual structures. Site-specific structural vulnerability assessments that take into account building material, roof type, access, and defensible space can dramatically refine the understanding of wildfire risk. In Lane County, reliable data sets do not exist for defensible space, driveway access, or proper addressing signage. These characteristics are best identified and evaluated at the local level. The county assessor's office can provide some basic information on building material and roof type, though this information is often limited. Assessment and taxation records do not provide detailed information regarding decks, eaves, or fire-resistant roofing materials or treatments.

- **Calculation of response times:** The risk assessment team struggled with determining how quickly fire fighters can respond to structural or wildland fires. Several factors can influence response time: the condition of roads, locked gates, the availability and speed to which volunteer fire fighters can assemble and prepare to dispatch. The use of GIS analysis, average road speeds, and the location of firehouses and guard stations made it possible to come

up with a rough idea of average response times. These times are estimates and several factors limit their reliability. First, many wildland responders do not dispatch from a central location. Instead, they are assigned to patrol blocks. As the name implies, patrol blocks are large areas fire fighters tour during peak fire season. Because an exact origin of response is unknown within these areas, some averages needed to be determined. Second, there are limitations to existing data on Forest Service and private roads. GIS coverage for these roads was incomplete and does not readily match up with county road data. In addition, many of these roads are gated, have fallen into disrepair, or are not constructed to accommodate large fire fighting equipment.

- **Identification of all critical infrastructure:** To the extent possible, the risk assessment team identified and mapped important community infrastructure. Infrastructure includes: power and water facilities, schools, healthcare facilities, community centers, churches, and major manufacturing and industrial facilities. Private ownership of many of these facilities limited access to data. Security concerns made private utilities, in particular, occasionally reluctant to share data about the locations of their facilities.

- **Parcel level resolution:** The data used in the assessment has generated outputs that are course in scale and intended to provide meaningful results on the landscape level. The information provided in the layers has limited accuracy when viewed at a magnified scale, and should be used to broadly identify areas and communities at risk. The outputs of this assessment should not be used to determine risk at the parcel or tax lot level.

Assessment Updates

To address data limitations and to ensure that the risk assessment remains current, an interdepartmental approach to updates and maintenance is required. Lane County Emergency Management, Land Management, and Public Works GIS will share intermixed roles and responsibilities for this task. Future assessment items include short-term data enhancement actions and long-term assessment updating and revision. Additionally, mitigation project prioritization and review should include substantial core assessment team input. More information on the Risk Assessment update can be found in action items and *Section 5: Plan Maintenance and Project Prioritization.*

Summary of Key Findings

The following section presents overall findings based on the risk assessment. The overall findings are broken into four categories as is depicted in Figure 2.4.

Figure 2.4: Lane County CWPP Key Findings

Source: ONHW/CPW, 2005

Maintenance

The Lane County CWPP and its components, especially the risk assessment, require long term maintenance to continue to effectively support Lane County. Institutionalizing this long term process and assigning maintenance responsibilities to oversee long term maintenance will help ensure that the plan continues to be a functional document.

Risk Assessment

Overall, Lane County has a moderate risk to wildland-urban interface fire, but high risk areas do exist throughout the county. The risk assessment can be shared with local communities and used as a decision making tool to help prioritize fuels reduction projects. However, to ensure long term viability, the risk assessment must be updated and enhanced with more precise data from the local community level.

Community Planning

Because of Lane County's scale, the countywide risk assessment could not assess the structural ignitability of every structure located in the wildland-urban interface. Local planning efforts in small communities and neighborhoods will be able to collect more refined, site specific data required to address the structural ignitability component of the risk assessment. Local community planning efforts will be vital because as site specific data is gathered at the micro level, it can be fed back into

the countywide risk assessment. The incorporation of this refined local data into the countywide assessment will help to better provide a better picture of overall risk countywide.

Collaboration

The risk assessment draws upon a wide variety of data sources. As a result, it will be important to maintain collaborative approaches to identifying, acquiring, and utilizing data layers among data users and providers. Because of the importance that local refined data play in community planning efforts, collaboration among the county and local communities will also be important.

Risk Assessment Maps

The section below describes the risk assessment maps found on the following pages.

Map #1 – Lane County Wildland Urban Interface Zone - This map displays the boundaries of the wildland-urban interface zone within Lane County.

Map #2 – Lane County Wildfire Occurrence Risk - This map displays the level of wildfire risk across Lane County based on the historic fire occurrence: the potential and frequency that wildfire ignitions may occur by analyzing historical ignitions over the past 10 years.

Map #3 – Lane County Wildfire Hazards - This map displays the level of wildfire risk across Lane County based on natural conditions including vegetative fuels, weather, topographic features that may contribute to and affect the behavior of wildfire.

Map #4 – Lane County Community Values at Risk - This map displays the level of wildfire risk across Lane County based on housing densities and the location of critical infrastructure.

Map #5 – Lane County Protection Capability - This map displays the level of wildfire risk across Lane County based on analyzing the response times of fire response personnel and community preparedness.

Map #6 – Lane County Communities at Risk - The map displays the locations of the at-risk communities in Lane County identified by the Risk Assessment.

Map #7 - Overall Fire Risk - This map displays the level of wildfire risk across Lane County based on the combined levels of risk from the overall protection capability, wildfire risk occurrence, community values at risk, and natural wildfire hazard factors maps.

Map # 7 - Overall Fire Risk (within WUI) - This map displays the level of wildfire risk with Lane County's wildland-urban interface based on the combined levels of risk from the overall protection capability,

wildfire risk occurrence, community values at risk, and natural wildfire hazard factors maps.

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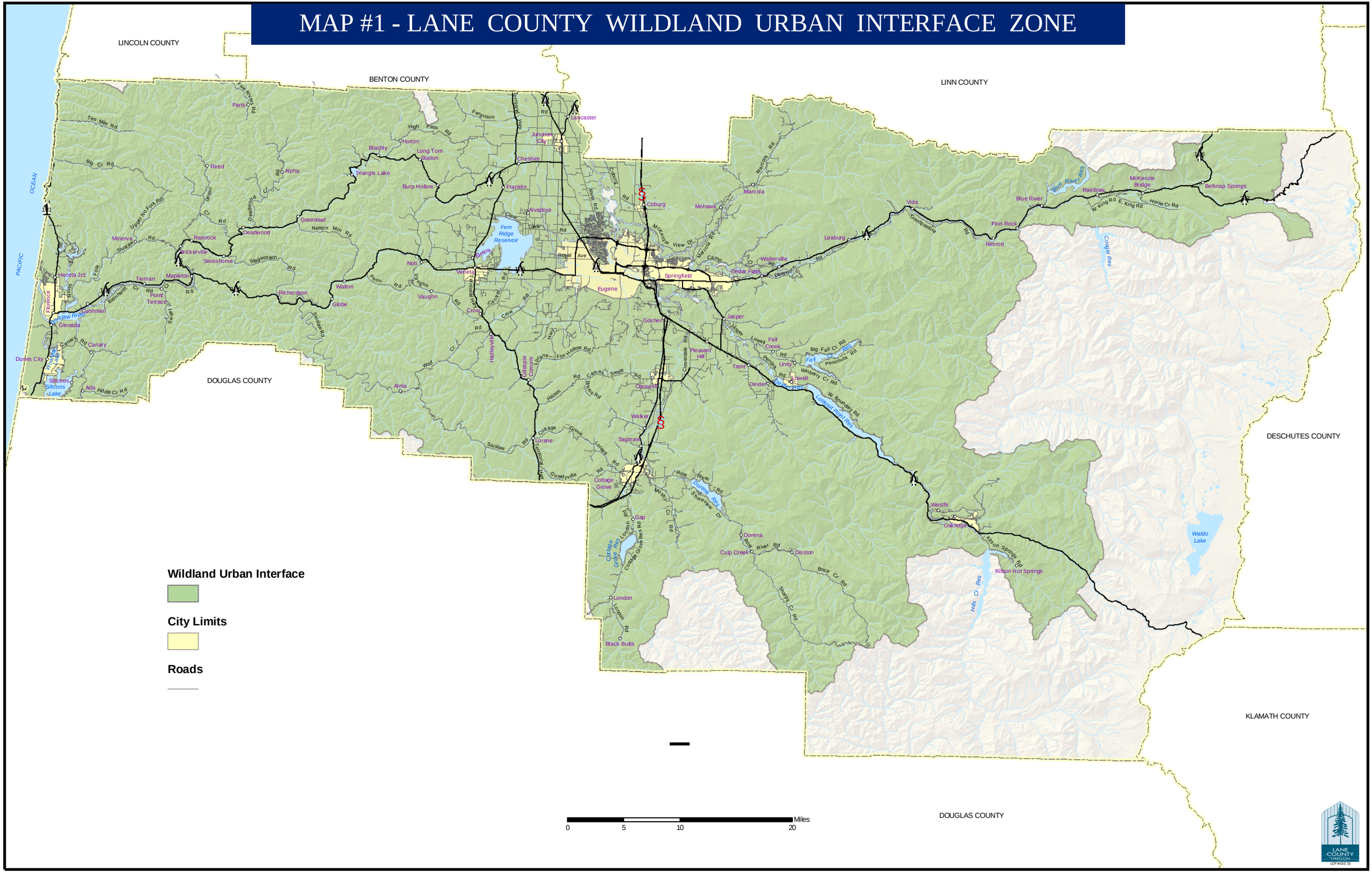
[1] National Association of Foresters, Western Governors Association, National Association of Counties, and Society of American Foresters. 2004.*Preparing a Community Wildfire Protection Plan.* <http://www.stateforesters.org/pubs/cwpphandbook.pdf>

[2] Oregon Department of Forestry. 2004. *Identifying and Assessment of Communities at Risk in Oregon*. <http://egov.oregon.gov/ODF/FIRE/docs/WildfireRiskAssessment.pdf>.

[3] The United States Forest Service only provides wildland fire suppression in national forests unless Mutual Aid has been requested.

MAP #1 - LANE COUNTY WILDLAND URBAN INTERFACE ZONE



MAP #2 - LANE COUNTY WILDFIRE OCCURRENCE RISK

LINCOLN COUNTY

BENTON COUNTY

LINN COUNTY

DESCHUTES COUNTY

DOUGLAS COUNTY

KLAMATH COUNTY

OCEAN

PACIFIC

Wildfire Risk (based on historic fire occurrence)

- Low
- Medium
- High

County Boundary

City Limits

Roads

0 5 10 20 Miles

LANE COUNTY OREGON

MAP #3 - LANE COUNTY WILDFIRE HAZARDS

LINCOLN COUNTY

BENTON COUNTY

LINN COUNTY

DESCHUTES COUNTY

DOUGLAS COUNTY

KLAMATH COUNTY

OCEAN

PACIFIC

Aspect

Elevation

Weather

Slope

Crownfire

Vegetation

Natural Widlfire Hazards

- Low
- Medium
- High

County Boundary

City Limits

Roads

Miles

0 5 10 20

LANE COUNTY OREGON

LCPWGS 28

MAP #4 - LANE COUNTY COMMUNITY VALUES AT RISK

LINCOLN COUNTY

BENTON COUNTY

LINN COUNTY

DOUGLAS COUNTY

DESCHUTES COUNTY

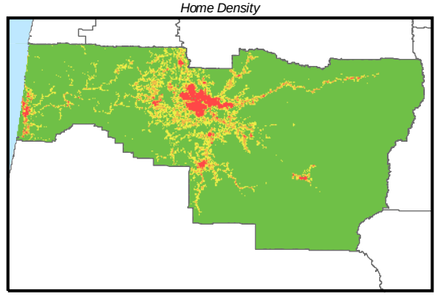
KLAMATH COUNTY

DOUGLAS COUNTY

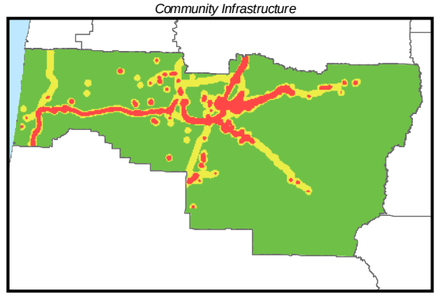
OCEAN

PACIFIC

Home Density



Community Infrastructure



Values at Risk

- Low
- Medium
- High

County Boundary

City Limits

Roads

0 5 10 20 Miles

LANE COUNTY OREGON
LCP WGS 32

MAP #5 - LANE COUNTY PROTECTION CAPABILITY

LINCOLN COUNTY

BENTON COUNTY

LINN COUNTY

DOUGLAS COUNTY

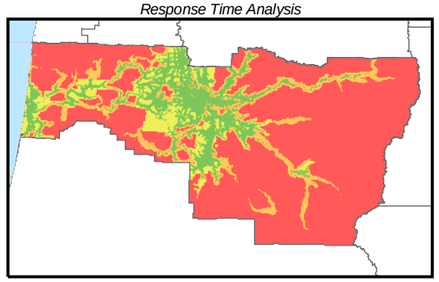
DESCHUTES COUNTY

KLAMATH COUNTY

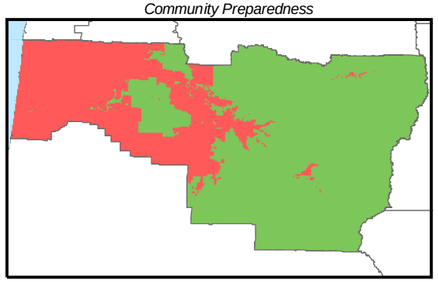
OCEAN

PACIFIC

Response Time Analysis



Community Preparedness



Protection Capability

- Low Risk
- Moderate Risk
- High Risk

County Boundary

City Limits

Roads

0 5 10 20 Miles

MAP #6 - LANE COUNTY COMMUNITIES AT RISK

LINCOLN COUNTY
BENTON COUNTY
LINN COUNTY
DOUGLAS COUNTY
DESCHUTES COUNTY
KLAMATH COUNTY
OCEAN
PACIFIC

Communities at Risk

- Blue River WD
- Coburg RFPD
- Dexter RFPD
- Eugene #1 RFPD
- Goshen RFPD
- Hazeldell Rural Fire District
- Junction City RFPD
- Lake Creek RFPD
- Lane County FD #1
- Lane Rural Fire/Rescue
- Lorane RFPD
- Lowell RFPD
- Mapleton FD
- McKenzie Fire & Rescue
- Mohawk Valley FD
- Pleasant Hill RFPD
- Santa Clara RFPD
- Siuslaw RFPD #1
- South Lane Cnty Fire & Rescue
- Swisshome-Deadwood RFPD
- Upper McKenzie RFPD
- Willakenzie/Eugene RFPD
- Willakenzie/Spingfield RFPD
- Eugene*
- Springfield*

Unprotected Communities

- McKenzie
- Siuslaw / Coast
- Coast Fork Willamette
- Middle Fork Willamette
- Long Tom / Upper Willamette

City Limits

Roads

*Eugene includes Bailey-Spencer, River Rd., and Zumwalt
*Springfield includes Glenwood

0 5 10 20 Miles

LANE COUNTY OREGON
LCP-WGS 27

MAP #7 - LANE COUNTY OVERALL FIRE RISK

LINCOLN COUNTY

BENTON COUNTY

LINN COUNTY

DOUGLAS COUNTY

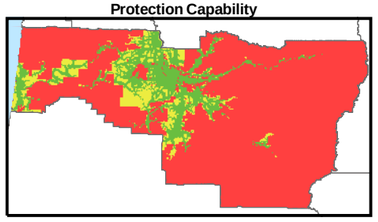
DESCHUTES COUNTY

KLAMATH COUNTY

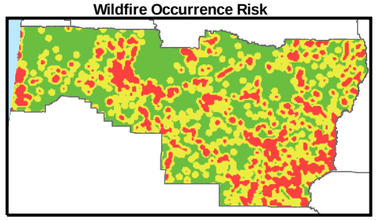
OCEAN

PACIFIC

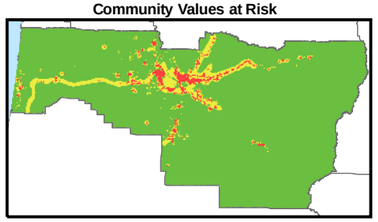
Protection Capability



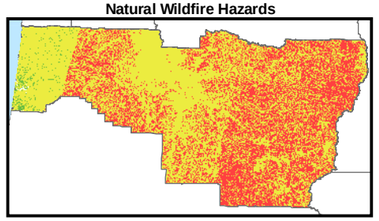
Wildfire Occurrence Risk



Community Values at Risk



Natural Wildfire Hazards



Risk Factors

- Low
- Medium
- High

City Limits

Roads

0 5 10 20 Miles

Lane County Overall Fire Risk is the combination of four risk factors identified in the risk assessment process. These include Protection Capability, Wildfire Occurence Risk, Community Values at Risk, and Natural Wildfire Hazard Factors.

MAP #7 - LANE COUNTY OVERALL FIRE RISK

LINCOLN COUNTY

BENTON COUNTY

LINN COUNTY

DESCHUTES COUNTY

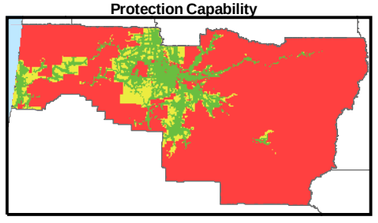
DOUGLAS COUNTY

KLAMATH COUNTY

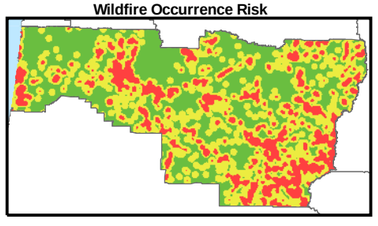
OCEAN

PACIFIC

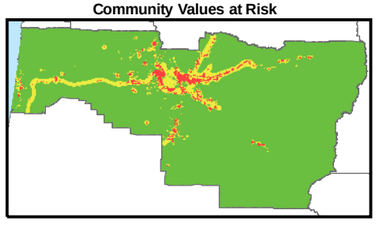
Protection Capability



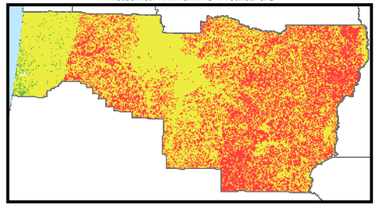
Wildfire Occurrence Risk



Community Values at Risk



Natural Wildfire Hazards



Fire Risk

- Low
- Medium
- High

Wildland Urban Interface

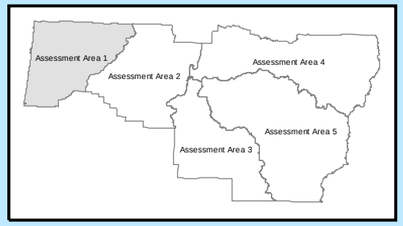
City Limits

Roads

0 5 10 20 Miles

Lane County Overall Fire Risk is the combination of four risk factors identified in the risk assessment process.
These include Protection Capability, Wildfire Occurence Risk, Community Values at Risk, and Natural Wildfire Hazard Factors.

LANE COUNTY WILDFIRE ASSESSMENT AREA 1



LINCOLN COUNTY

BENTON COUNTY

DOUGLAS COUNTY

PACIFIC OCEAN

Unprotected Siuslaw/Coast Range *

Five Rivers Rd
Paris
Ten Mile Rd
Big Cr Rd
Reed
Alpha
Rd
Upper No Fork Rd
Cr
Deadwood
Greenleaf
Rd
Deadwood
Nelson Mtn Rd
High Pass Rd
Horton
Blachly
Triangle Lake
Minerva Rd
Rainrock
Brickerville
Swisshome
Stagecoach
Rd
Siuslaw
Fork
Mapleton
Heceta Jct
Tieman
Rd
Cr
Rd
Point Terrace
Bernard
North
Florence
Cushman
Siuslaw River
Glenada
Sweet
Canary
Rd
Canary
Dunes City
Woahink Lake
Siltcoos
Siltcoos Lake
Ada
Fiddle Cr Rd

Lane County Fire Risk
- Low
- Medium
- High

Wildland Urban Interface Zone

Rural Fire Protection Districts

City Limits

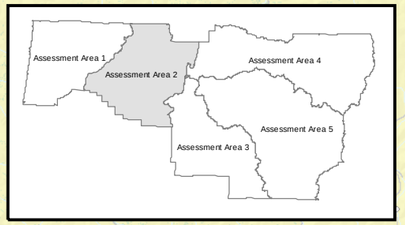
County Boundary

** Unprotected areas do not receive structural fire protection. Wildland fire suppression is available in these areas.*

0 25 50 100 Miles

LANE COUNTY OREGON
LCPWGIS 89

LANE COUNTY WILDFIRE ASSESSMENT AREA 2



BENTON COUNTY

LINN COUNTY

DOUGLAS COUNTY

Long Tom Station
Burp Hollow
Cheshire
Franklin
Lancaster Rd
Junction City
Coburg
Coburg Rd
River Rd
Alvadore
Clear Lake Rd
Fern Ridge Reservoir
Elmira
Noti
Veneta
Territorial Hwy
Crow Rd
Central Rd
Crow
Walton
Richardson
Globe
Vaughn
Siuslaw Rd
Eugene
Royal Ave
Marcola Meadows Dr
Hadleyville
Lorane Hwy
Fox Hollow Rd
Gillespie Corners
Alma
Lorane
Siuslaw Rd
Territorial Hwy
Crowfoot Rd
Crowfoot Hwy

Long Tom/Main Stem Willamette Unprotected *

Lane County Fire Risk
- Low
- Medium
- High

Wildland Urban Interface Zone

Rural Fire Protection Districts

City Limits

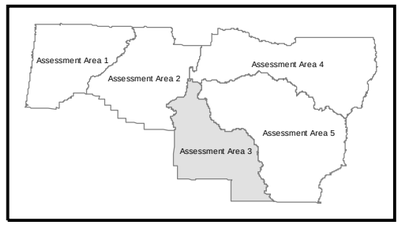
County Boundary

** Unprotected areas do not receive structural fire protection. Wildland fire suppression is available in these areas.*

LANE COUNTY OREGON
LCP WGS 70

0 2.5 5 10 Miles

LANE COUNTY WILDFIRE ASSESSMENT AREA 3



Goshen
Creswell
Walker
Saginaw
Cottage Grove
Gap
Dorena
Disston
Culp Creek
London
Black Butte
Coast Fork Willamette/Umpqua Unprotected *
DOUGLAS COUNTY

Lane County Fire Risk
- Low
- Medium
- High
- Wildland Urban Interface Zone

Rural Fire Protection Districts

City Limits

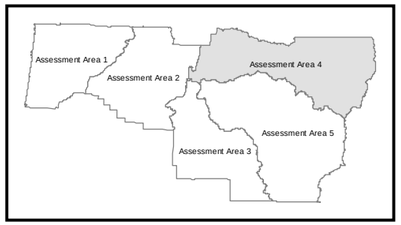
County Boundary

0 2.5 5 10 Miles

LANE COUNTY OREGON
LCP WGS 71

** Unprotected areas do not receive structural fire protection. Wildland fire suppression is available in these areas.*

LANE COUNTY WILDFIRE ASSESSMENT AREA 4



LINN COUNTY

McKenzie Unprotected *

Marcola

Marcola Rd

Mohawk

Vida

Goodpasture Rd

Leaburg

Mercer Rd

Camp Cr

Cedar Flats

Deerhorn Rd

Springfield

Blue River Res

Rainbow

Blue River

Finn Rock

Nimrod

McKenzie Bridge

E. King Rd

Horse Cr Rd

Belknap Springs

126

Cougar Res

McKenzie Unprotected *

DESCHUTES COUNTY

Lane County Fire Risk

- Low
- Medium
- High

Wildland Urban Interface Zone

Rural Fire Protection Districts

City Limits

County Boundary

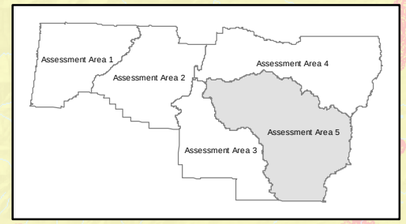
** Unprotected areas do not receive structural fire protection. Wildland fire suppression is available in these areas.*

0 2.5 5 10 Miles

LANE COUNTY OREGON

LCP WGS 72

LANE COUNTY WILDFIRE ASSESSMENT AREA 5



Middle Fork Willamette Unprotected *

Middle Fork Willamette Unprotected *

Jasper
Lowell
Fall Creek
Fall Cr Res
Big Fall Cr Rd
Peninsula Rd
Unity
Pengra
Coverdale Rd
Pleasant Hill
Trent
Dexter
Winberry Cr Rd
Lowell
Dexter Res
W Boundary Rd
Lookout Point Res
Westfir
Oakridge
Kitson Springs Rd
Hills Cr Res
Kitson Hot Springs
Waldo Lake

DESCHUTES COUNTY

KLAMATH COUNTY

DOUGLAS COUNTY

Lane County Fire Risk
- Low
- Medium
- High

Wildland Urban Interface Zone

Rural Fire Protection Districts

City Limits

County Boundary

** Unprotected areas do not receive structural fire protection. Wildland fire suppression is available in these areas.*

0 2.5 5 10 Miles

LANE COUNTY OREGON
LCPWGIS 73

Section 3
Community Outreach and Collaboration

A key element in community fire planning is the meaningful discussion it promotes among community members. The success of the Lane County CWPP is dependent on the involvement and input of a wide range of federal, state, and local stakeholders. A plan that accurately reflects the community's interests and priorities will have greater legitimacy and success in implementing the recommended actions.

The outreach strategy for the CWPP used the following three-tiered approach to engage interested parties:

- **Lane County Landowner Survey**
- **Stakeholder Interviews**
- **Firewise Workshop**

This section describes the purpose, methods, and findings for each of the three components of the outreach strategy. For a complete summary of the methods and results of each component, please see Appendices E, F, and G. The section concludes with a summary of the key findings synthesized from the Community Outreach and Collaboration strategy.

Lane County Landowner Survey

Purpose

The purpose of the landowner survey was to gain information about how rural Lane County landowners in wildland-urban interface areas perceive the potential risk of wildfire and their attitudes towards risk reduction and preparedness strategies. The survey results may be used to focus public outreach activities aimed at wildfire risk reduction and loss prevention. Additional benefits of the survey include educating and informing the public, incorporating public values into decision-making, improving the quality of decisions, and building trust in this planning process. For more information about the Landowner Survey see *Appendix E: Landowner Survey Summary*.

Methods

The survey was sent to a random sample of 1,500 rural landowners in Lane County in March 2005. The Lane Council of Governments Regional Lane Information Database served as the survey sample frame. Oregon Natural Hazards Workgroup (ONHW) at the University of Oregon received 466 valid survey responses yielding a 32% response rate.

The survey questions included five main themes:

- **Characteristics of respondents**
- **Wildland fire risk awareness and communication;**
- **Fire protection and preparedness;**
- **Reducing wildland fire risk on property; and**
- **Reducing community risk to wildfire.**

Findings

Characteristics of Respondents

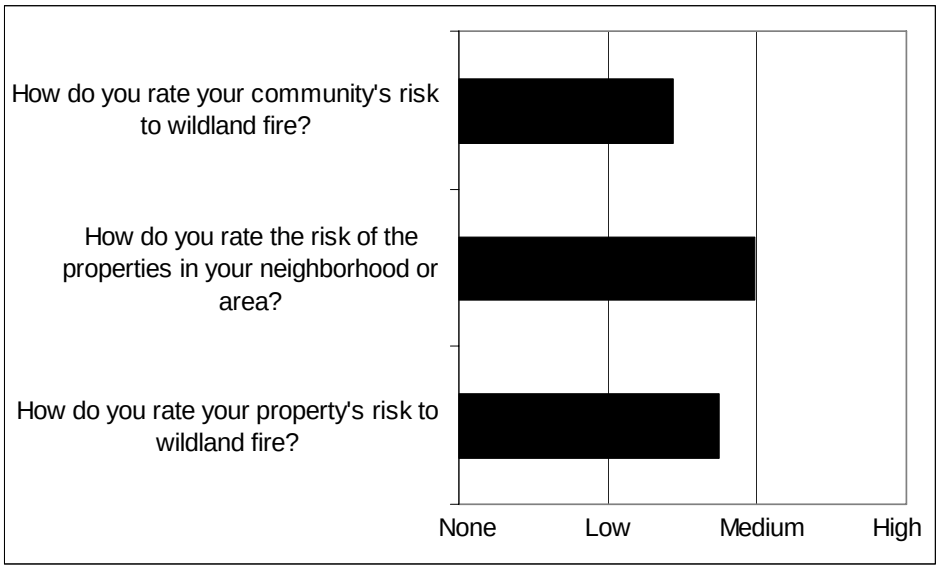
The majority of respondents owned their home (98%) and were year-round residents of Lane County (93%). Eight percent of the landowners primarily used their property for business purposes; of these respondents, 68% indicated that they used the property for agricultural and forest industries

Wildland Fire Risk Awareness and Communication

To better understand perceptions of risk, the survey included several questions about wildland fire risk on respondents' property, in their neighborhoods and around their communities. The survey also asked respondents about wildland fire communication.

Figure 3.1 shows respondents' perceptions of wildfire risk. Over half (80%) of respondents perceived their property as a medium to low risk for wildland fires. Respondents perceived their neighbors' properties to have a higher risk than their own.

Figure 3.1: Perceptions of Wildland Fire Risk (Q-1)



Source: ONHW/CPW, 2005

Personal Experience with Wildland Fire

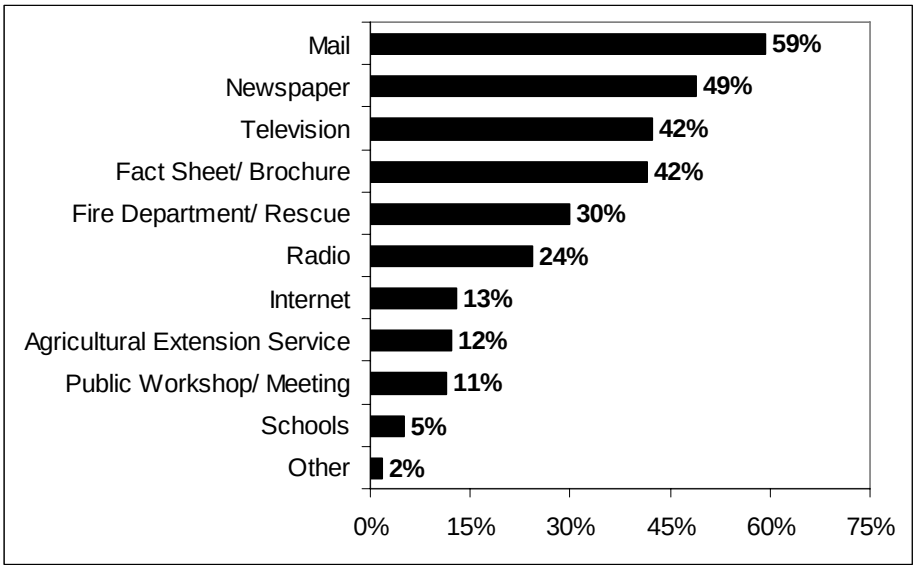
The survey asked property owners about their personal experiences with wildland fire. Forty-five percent reported that they had no previous experience with wildland fire. Just above half (57%), reported that they had witnessed a wildfire, smoke and other effects of wildfire, but few (8%) had actually evacuated their home or sustained property damage.

Sources of Information About Protecting Property

An important component of the landowner survey was gathering data on effective means of wildland fire information dispersal. The survey asked respondents how they received information about property protection in the past, as well as preferences for receiving information in the future.

Survey respondents reported that they received information from news media and local fire departments/rural fire departments. However, 27% of respondents reported that they had not received information about property protection. The survey gathered information about effective means of future correspondence relating to wildland fire property protection (Figure 3.2). Respondents identified mail, newspapers, television, and fact sheets/brochures as the top four preferred methods for receiving information. Effective means of reaching landowners in the wildland-urban interface could be a combination of these preferred methods.

Figure 3.2: Preferred Sources of Receiving Information About Protecting Property from Wildland Fire (Q-4)



Source: ONHW/CPW, 2005

Fire Protection and Preparedness

The survey gathered information about landowners' knowledge of their fire protection service providers. The survey also asked landowners about emergency preparedness, including evacuation procedures and insurance coverage. Table 3.1 shows that 70% of respondents receive fire protection services from a rural fire district. Six percent of respondents reported that they did not know if their property was protected by a fire protection service.

Table 3.1: Fire Protection Services (Q-5)

Fire Protection Service Provider	% Respondents
Rural Fire Protection District	70%
Fire Department	20%
Don't Know	6%
Not Serviced by a Fire Department or District	4%

Source: ONHW/CPW, 2005

Table 3.2 illustrates respondents' answers to questions about wildland fire preparedness. The majority (95%) of the respondents did not know or had not received information about community evacuation procedures. Sixty-six percent of respondents indicated that they did not have personal household evacuation procedures in the case of a wildland fire emergency.

One half (50%) of survey respondents reported that their insurance policies covered losses or structural damage incurred from wildland fire.

However, 43% did not know if their insurance policies would protect their properties from damages or losses from wildland fire.

Table 3.2: Wildland Fire Evacuation Procedures and Insurance Coverage (Q-6)

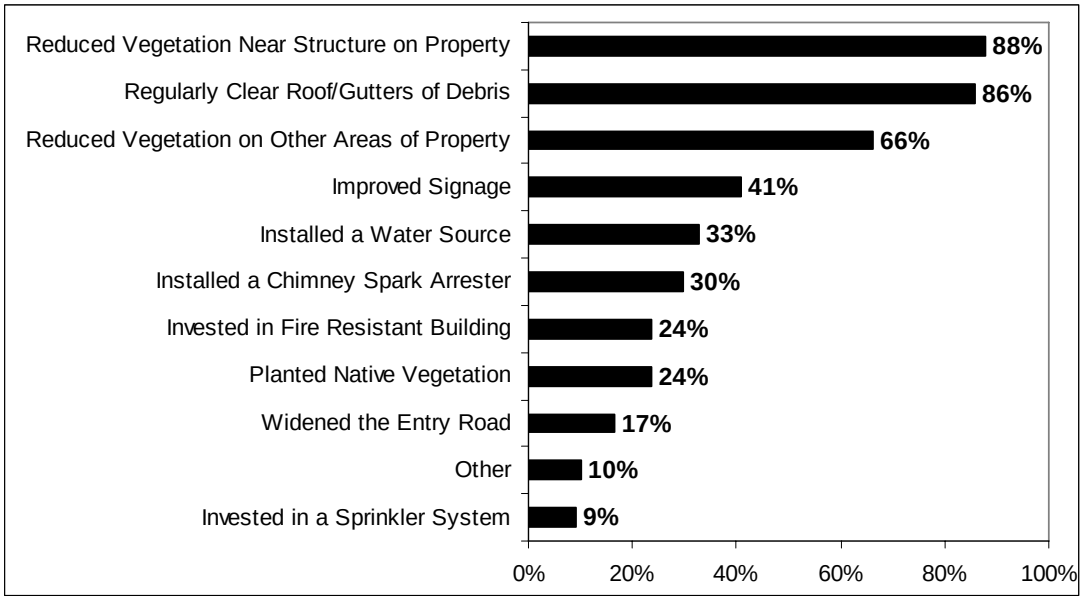
Question	Yes	No	Don't Know
Has your community informed you of their wildland fire evacuation procedures?	4.4%	90.8%	4.6%
Does your household have a wildland fire evacuation plan?	30.0%	66.0%	3.8%
Does your homeowners or business insurance policy include coverage in the event of structural damage or loss due to wildland fire?	49.9%	7.1%	42.8%

Source: ONHW/CPW, 2005

Reducing Property Risk to Wildland Fire

The survey gathered information from landowners about specific measures they have already taken to reduce the risk of wildland fire on their property. The majority (90%) of respondents indicated that they have taken measures to reduce losses associated with wildland fire. Figure 3.3 shows the types of risk reduction measures taken by respondents. The most frequently reported measures were reducing vegetation near structures and clearing roof/gutters of debris. Fewer property owners reported implementing the measures that required higher financial investment.

Figure 3.3: Actions Taken to Reduce Potential Losses from Wildland Fire (Q-7)



Source: ONHW/CPW, 2005

Preferred Risk Reduction Actions and Incentives

The survey asked landowners about their willingness to take different actions to reduce the potential impacts of wildland fire on their property. Table 3.3 shows the likelihood of respondents to take different risk reduction actions. The majority of respondents indicated that they are likely to reduce vegetation and debris (79%) and create defensible zones around structures (65%). Respondents were less likely to improve emergency access or use fire-resistant building materials.

Table 3.3: Risk Reductions Actions Most Likely to Take (Q-8)

Risk Reduction Action	Very Likely	Somewhat Likely	Not Likely
Reduce debris and vegetation on property	78.5%	15.2%	6.2%
Clear a defensible zone around the property	64.9%	25.2%	9.9%
Improve emergency access to property	35.1%	20.1%	44.8%
Use fire resistant building materials	32.8%	33.9%	33.3%

Source: ONHW/CPW, 2005

The survey asked landowners which incentives, if any, would motivate them to take additional steps to protect their properties from wildland fire (Table 3.4). The highest percentage of respondents indicated that insurance discounts (70%)or tax breaks/incentives (67%)would motivate them to implement risk reduction steps. About one-third of respondents indicated that grant programs would encourage better protection measures.

Table 3.4: Preferred Incentives to Better Protect Property (Q-9)

Type of Incentive	Percent of Respondents
Insurance Discounts	69.7%
Tax Break or Incentive	68.6%
Grant Program	29.2%
None of the Above	12.2%
Other	5.6%

Source: ONHW/CPW, 2005

Reducing Community Risk to Wildland Fire

The survey asked respondents their opinions and preferences for different strategies to reduce community risk to wildfire. Communities may take a variety of approaches to wildland fire mitigation. The questions in this section help to inform policy decisions by providing better understanding of the level of landowner support for different approaches.

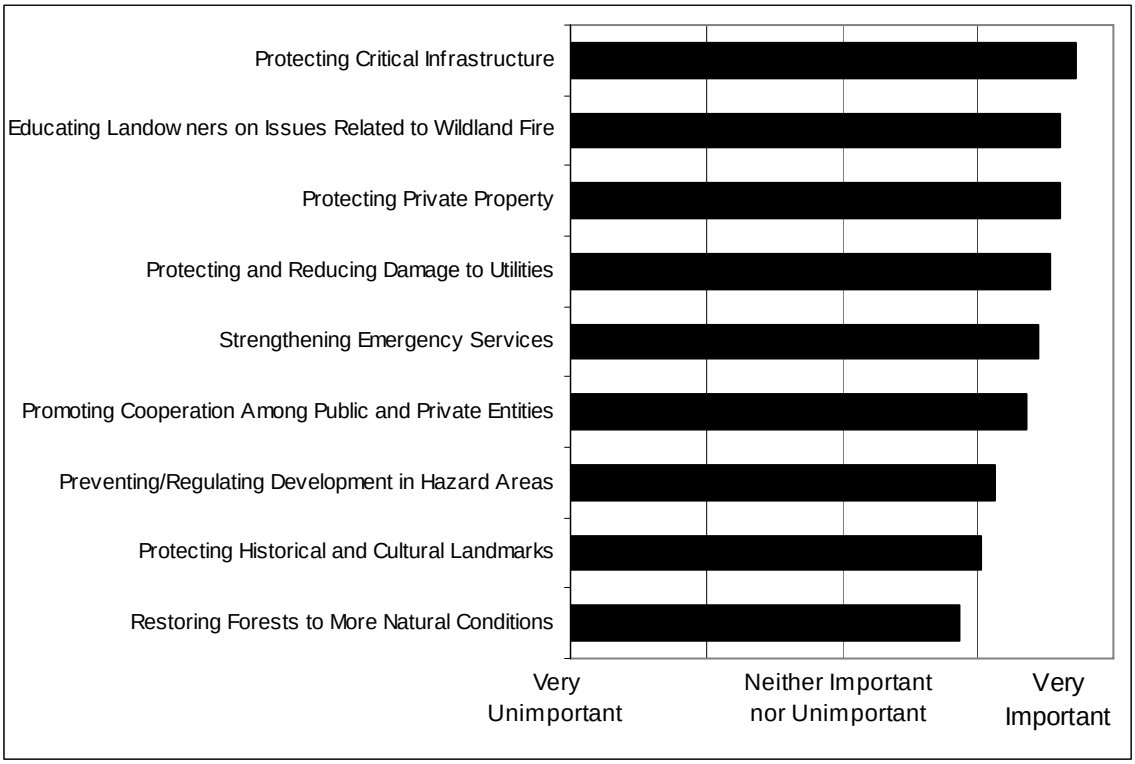
Hazardous Fuels Treatment

Respondents indicated their levels of support for four methods of hazardous fuels treatments in their communities. The treatments included: no action, mechanical thinning, prescribed burning, and chemical treatments. Of the four, the two preferred methods of hazardous fuels reduction were mechanical thinning (92%) and prescribed burning (74%). Respondents support for chemical treatments were split; 48% supported and 43% unsupported. Sixty-nine percent of respondents were unsupportive of no action being taken to reduce hazardous fuels.

Landowner Priorities for Future Wildland Fire Planning

The survey asked landowners about their opinions on the importance of different planning priorities for wildland fire. Table 3.5 shows the level of importance placed on different planning priorities by respondents. The majority of respondents indicated that each of the planning priorities listed were very or somewhat important. Protecting critical infrastructure, educating landowners, and protecting private property were the priorities ranked with highest importance. Of the priorities listed, respondents indicated that restoring forests to natural conditions was the least important.

Table 3.5. Priorities for Wildland Fire Planning (Q-11)

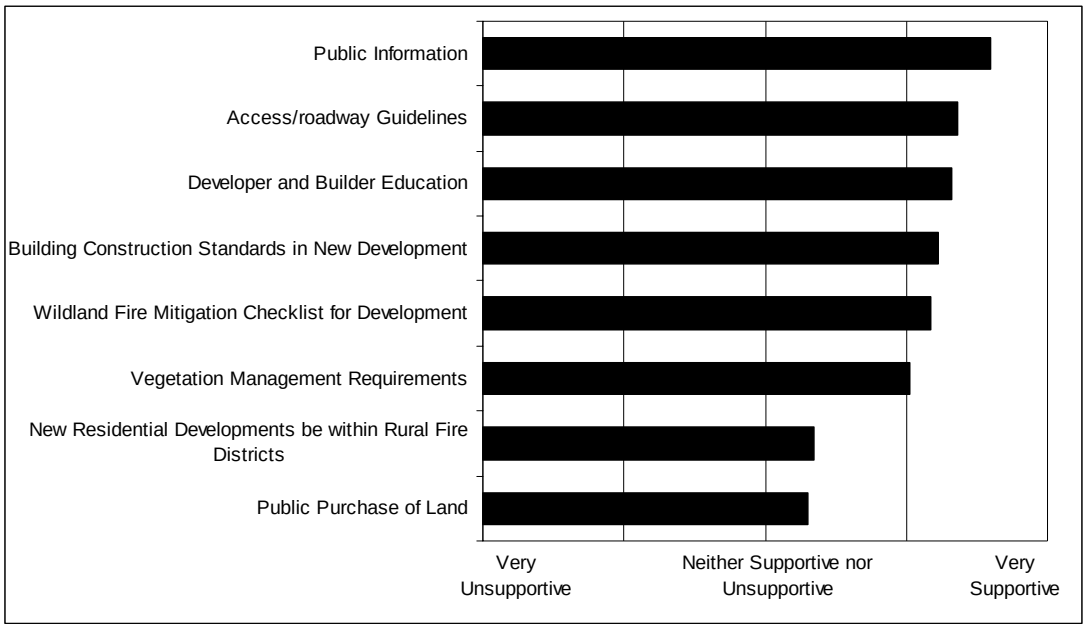


Source: ONHW/CPW, 2005

The survey asked respondents' opinions on responsibility for protecting property against wildland fire. The majority (94%) of respondents agreed or strongly agreed that the responsibility for protecting property is shared between private landowners, local, state and federal agencies. Eighty-four percent of respondents agreed or strongly agreed that property owners are responsible for wildland fire protection. Fewer respondents agreed that the Oregon Department of Forestry or the community fire department is solely responsible.

There are a number of regulatory and non-regulatory activities that communities can implement to reduce wildland fire risk. Figure 3.5 shows respondents' levels of support for different risk reduction strategies. Respondents indicated the highest level of support for a public information strategy; 95% were very or somewhat supportive. Seventy-eight percent or greater of respondents were very or somewhat supportive of four out of five of the regulatory strategies listed. The most popular were access/roadway guidelines (88%) and building construction standards for new development in high hazard areas (83%). Of the risk reduction strategies listed in the survey, respondents indicated the least support for requiring that new rural residential developments be within rural fire protection district boundaries (50%) and for public acquisition of land in high hazard areas for open space (46%).

Figure 3.5: Regulatory and Non-Regulatory Strategies Wildland Fire Risk Reduction



Source: ONHW/CPW, 2005

Conclusions drawn from the landowner survey have been synthesized with the other outreach activities and are included in the closing section of this section.

Stakeholder Interviews

Purpose

ONHW conducted telephone interviews with 18 stakeholders identified by the steering committee for the Lane County CWPP. The purpose of the stakeholder interviews was to document key issues, concerns, and current activities related to the CWPP requirements of collaboration, hazardous fuel reduction, and the treatment of structural ignitability. For more information and a list of the stakeholders interviewed, see *Appendix F: Stakeholder Interview Summary*.

Methods

Stakeholders came from a pool that included both public and private interests. All stakeholders have expertise in either fire issues or the authority to help with implementation of the plan. Each interview lasted approximately 30 minutes. ONHW completed the interviews in February and March 2005. Interviews were transcribed by hand during the interview, and then typed into a computer template afterward. Following completion of the interviews, all of the answers were documented then analyzed for common themes.

Interview questions corresponded to four main areas:

- **Risk Perception and Current Activities**
- **Key Issues Related to Hazardous Fuel Reduction**
- **Key Issues Related to Structural Ignition**
- **Collaboration and Participation**

Findings

Stakeholders mentioned several themes repeatedly through all categories of questions: 1) funding obstacles; 2) follow-up and maintenance of policies and programs; and 3) education of landowners. The remainder of this section summarizes other themes of the interviews within the four areas of interview questions.

Risk Perception and Current Activities

The following is a brief summary of the stakeholders' perception of wildland-urban interface fire risk, current policies and programs, and funding for programs related to wildland-urban interface fire.

Perception of Wildland Fire Risk

- There is a perceived threat from fire in the wildland-urban interface area by all of the stakeholders.
- The wildland-urban interface conditions exist and the threat is increasing. Increasing protection capabilities is difficult without strategic planning.

- The main fire threat is from the build-up of hazardous fuels when debris accumulates on the forest floor after thinning or other treatments.
- There is a need for outreach in areas that are unprotected by a Rural Fire Protection District.

Current Policies and Programs

- Lane County zoning codes, including Chapter 15 and Chapter 16 sections 10 and 11, were mentioned as mitigation elements.
- Fire Defense Board and Fire Prevention Co-op activities were identified as existing programs.
- Stakeholders identified a current emphasis is on response plans.
- Oregon Department of Forestry's current plans and programs focus on prevention and response.
- Oregon Forest Land Urban Interface Protection Act of 1997 (better known as Senate Bill 360) was also mentioned.

Funding

- Nearly 50% of the stakeholders have received some form of grant funding for various activities related to WUI fire issues.
- Government agencies and Rural Fire Protection Districts currently apply for grants and matching funds for mitigation projects, fire planning, outreach, equipment needs, and GIS mapping.
- Private sector stakeholders raised questions on their eligibility.

Key Issues Related to Hazardous Fuels Reduction

Stakeholders provided their issues and concerns related to identifying and prioritizing fuel reduction treatments. They were also asked about their concerns regarding fuel treatments and about resources to help the plan move forward with fuel reduction projects.

Identifying and Prioritizing Fuel Reduction Treatments

- The risk assessment can and should be used to identify and prioritize hazardous fuels projects.
- Urban and under-protected areas should be a priority.
- Fuels need to be treated on a landscape scale vs. a site-specific scale (e.g. defensible space projects and landscape scale projects should be done in conjunction with one another).
- Public and private projects need to be more coordinated and can facilitate the sharing of labor, tools, and knowledge.

Types and Methods for Fuel Reduction Treatments

- Most methods have been proven to work well, but the effectiveness of a particular method is dependent upon the nature of the hazard and the topography of the area.
- Prescribed burning presents unique challenges in Lane County, specifically around smoke management, diminished air quality, and complaints from residents. Another concern is that safety fuels can hold heat and flare up long after the fire crews have left. However, some stakeholders believe prescribed burning is good for forest health on a larger landscape scale.
- Opinions over the use of chemical treatments are split. Some stakeholders see chemical treatments as an affordable means of fuel reduction, while others had concerns about their environmental impacts.
- Brush cutting is effective, but is costly and requires dedicated maintenance.
- Debris removal is an important component of fuel reduction but is costly.

Key Issues Related to Structural Ignition

Stakeholders provided insight on regulatory and non-regulatory policies and programs that might be effective in motivating property owners to reduce their risk to wildfire. A follow-up question was then asked regarding the obstacles that may hinder implementation of these policies and programs.

Non-Regulatory Policies and Programs

- Homeowner and landowner awareness plays an important role in reducing structural ignitability, but current levels of education and awareness are lacking.
- Free or easy debris removal programs are lacking but would be a great resource to enable the public to reduce their risk by removing hazardous fuels from their properties.
- Firewise Workshops and Firewise Communities USA programs at the local level (fire district, town, or neighborhood levels) could help educate homeowners and landowners.

Regulatory Policies and Programs

- Defensible space incentives or fire protection requirements from the insurance industry should be explored.
- County building ordinances that regulate building and roofing materials are needed, and need to be followed up on and maintained over the long-term.

Obstacles

- Funding for both non-regulatory and regulatory policies and programs is lacking.
- Human resources for long-term follow-up and maintenance of policies and programs could be a problem.
- Lack of education of landowners and the public of their responsibilities in following regulations.

Collaboration and Participation

Stakeholders answered questions related to their current level of participation in reducing the wildland-urban interface fire risk to Lane County. Other questions asked about current and future collaboration opportunities among stakeholders or other agencies. All stakeholders interviewed stated that their organizations are willing to collaborate on more site-specific local community fire plans that follow the countywide plan.

- There is currently limited collaboration among several agencies regarding wildland-urban interface or disaster protection issues. Examples of such agencies include the following:
    - US Forest Service and BLM Interagency office collaborates with the Oregon Department of Forestry on wildfire response
    - Lane County Fire Defense Board
    - Lane County Fire Prevention Co-op
    - Lane County Interagency Emergency Response Team
    - EWEB collaborated with 27 agencies to develop a Hazardous Materials GIS Tool
- Opportunities for collaboration will be increased through the process of this plan.
- The plan will need to designate a leader to drive the process and keep up the interest in the issues in order to ensure long-term collaboration and participation.
- Careful consideration must be given on how to establish effective collaborative process to accomplish risk reduction.

Conclusions drawn from the stakeholder interviews have been synthesized with the other outreach activities and are included in the closing section of this section.

Firewise Communities Workshop

Purpose

ONHW and Oregon Department of Forestry conducted a Firewise Communities Workshop on April 5, 2005 at the University of Oregon for CWPP stakeholders. Participants in the workshop included representatives of federal and state fire and forestry agencies, rural fire protection districts, local planning and emergency management departments, utility providers, the private forestry industry, the real estate industry, watershed councils, and elected officials, among others. For more information about the Firewise Workshop see *Appendix G: Firewise Workshop Summary*.

Methods

The National Wildland-Urban Interface Fire Protection Program developed Firewise Communities Workshops in 2000 to address the wildland-urban interface fire problem at a community level. The workshops have three main goals:

1. To improve safety in the wildland-urban interface by learning to share responsibility.
2. To create and nurture local partnerships for improved decisions in communities.
3. To encourage the integration of Firewise concepts into community and disaster mitigation planning.

These goals are consistent with the emphasis that CWPP planning puts on collaboration. Workshop participants worked in small groups to complete interactive scenarios designed to assess and reduce the wildfire risk of a fictional community.

During the workshop facilitators asked participants to consider how Firewise concepts apply to issues in Lane County. A worksheet was created for the workshop participants to identify opportunities and obstacles in Lane County for each of the three requirements of the CWPP: 1) reducing structural ignitability, 2) prioritizing fuel reduction projects, and 3) collaboration. Participants discussed their ideas in small groups and shared these results with the whole group at the end of the workshop. ONHW analyzed the worksheets to compile the opportunities and obstacles most commonly identified by participants. In each section below, the ideas identified most frequently occur at the top of the list.

Findings

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. Workshop participants

were asked to list opportunities and obstacles to implementing structural ignition reduction projects in Lane County.

Opportunities

- Education and outreach through various sources including media, town hall meetings, and publications.
- Incentive programs, especially the use of insurance related incentives, to encourage participation in projects to reduce risk.
- Collaboration with community groups, developers, neighbors, fire agencies, and others to better educate residents and implement projects.
- Available grant money from the National Fire Plan and other sources for implementing projects to reduce structural ignitability.
- Updating or revising Lane County codes and ordinances to reduce structural ignitability.

Obstacles

- Lack of homeowner education and awareness regarding the true risk of wildfire in Lane County and how defensible space can reduce risk.
- Lack of funding to implement projects, along with the cost of fire resistant building materials for homeowners.
- Lack of collaboration and involvement among homeowners, agencies, and developers to implement projects.
- Lack of regulations to enforce the use of fire resistant building materials and practices within the county.

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. Participants were asked to list opportunities and obstacles to implementing prioritized fuel reduction projects in Lane County.

Opportunities

- Education using community outreach, public forums, media and other sources emphasizing examples of fuel reduction projects and homes saved by defensible space.
- Incentive programs such as rebates or other support to help landowners with debris removal, as well as insurance or property tax incentives to encourage fuel reduction.

- Collaboration and participation to share costs, tools, and manpower to implement fuel reduction projects on a larger scale.
- Finding uses for the biomass generated from fuel reduction projects, such as selling the chips or using it as an energy source.
- Available grant money from the National Fire Plan and other sources to aid in implementation of fuel reduction projects.

Obstacles

- Debate surrounding the best method to conduct fuel reduction treatments on private and public lands based on differing topography, environmental issues, public perception, and cost.
- Long term maintenance of fuel reduction treatments.
- The size and scope of the county and the sheer volume of work that is needed to begin and maintain fuel reduction projects as the wildland-urban interface continues to increase.
- Public perception of low wildfire risk and of fuel reduction projects as aesthetically unpleasant.
- The cost of implementing fuel reduction treatments on properties and removing debris.
- Special needs populations who require extra assistance with fuel reduction projects.

Collaboration

A CWPP must be collaboratively developed by local and state government representatives, in consultation with federal agencies and other interested parties. Participants were asked to list opportunities and obstacles to collaboration.

Opportunities

- Brings people with diverse expertise together for better solutions to problems.
- Exhibiting collaboration increases success with grant applications.
- Work with real estate agencies and other groups and businesses to raise awareness of wildland-urban interface wildfire issues.
- Use the media to capture public attention of current collaboration efforts and encourage future efforts.

Obstacles

- Differing priorities, values, and interests among partners.
- Lack of time and communication needed to foster working relationships among partners.

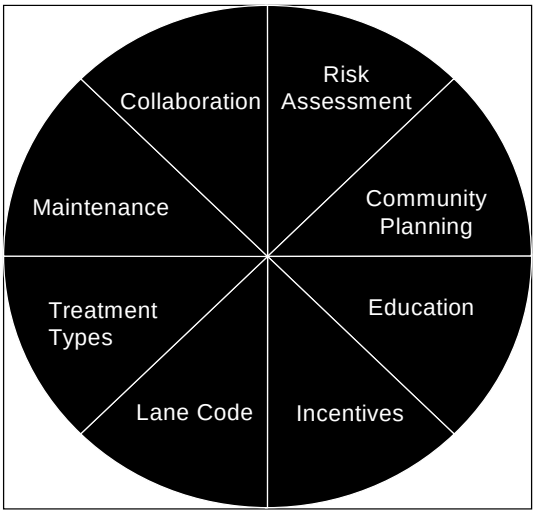
- "Turf battles" and conflicts over jurisdictional authority.
- Resistance or lack of interest in collaborating with others.

Conclusions drawn from the Firewise Workshop have been synthesized with the other outreach activities and are included in the closing section of this section.

Summary of Key Findings

Several common themes emerged from the landowner survey, the stakeholder interviews, and the Firewise Workshop. The section below summarizes these common themes into eight key findings, which are depicted in Figure 3.6.

Figure 3.6. Lane County CWPP Key Findings



Source: ONHW/CPW, 2005

Risk Assessment

Overall, Lane County has a moderate risk to wildland-urban interface fire, but high-risk areas exist throughout the county. The wildfire risk assessment should be used as a decision-making tool to help prioritize fuels reduction projects. Information in the risk assessment should be shared with local communities and updated and enhanced over time with local data.

Community Planning

Information sharing with local communities is especially important due to the large scale of Lane County. The ability of the CWPP to address structural ignitability issues is limited at the countywide level due to

the lack of site-specific data. The Lane County CWPP should encourage the development of more refined community fire plans in local communities and neighborhoods through the development of partnerships and resource sharing.

Education

Although fire prevention education programs exist, one-quarter of landowners surveyed indicated that they are not receiving any information. Community outreach results identified a need for improved coordination and dissemination of educational activities regarding wildland-urban interface fire risk. Educational messages should come from trusted sources, such as fire protection districts and Oregon Department of Forestry. Information should be distributed through the preferred methods identified in the landowner survey, including mail, newspaper, and television.

Incentives

Many stakeholders interviewed expressed support for incentive programs, such as tax breaks and insurance benefits, as effective non-regulatory approaches to increasing participation in wildfire mitigation activities. Two-thirds of landowner survey respondents indicated that tax and/or insurance incentives would motivate them to take additional steps towards reducing risk to their property.

Lane Code

Multiple sources in the stakeholder interviews and Firewise Workshop identified the need to update the Lane Code to require wildfire safety measures in rural residential zones similar to those required in areas zoned as forestlands. Most new development occurs in rural residential areas. The landowner survey results indicate that the majority of property owners are supportive of requiring standards for building materials, emergency access, and vegetation management for new development in wildfire hazard areas.

Treatment Types

Community outreach results indicate high levels of support for reducing hazardous vegetative fuels in Lane County. Debate exists over which treatment methods are most appropriate due to environmental and health concerns and to the range of forest types and topography found in the County.

Maintenance

The Lane County CWPP and its components require long-term maintenance to continue to effectively support efforts to protect people and property from wildfire. Stakeholders identified the need to institutionalize a process and establish a coordinator position to facilitate ongoing planning and coordination of wildfire mitigation activities in Lane County. This will help to ensure that the CWPP remains a functional document.

Collaboration

Stakeholders and community members within the county recognize that reducing risk to wildfire is a shared responsibility and requires collaboration between citizens, non-profit organizations, agencies, and the business community. Collaboration creates opportunities to develop better solutions, share resources, and more efficiently utilize limited funding. The Lane County CWPP can help to initiate improved coordination and establish a process for ongoing collaboration.

Section 4
Action Plan

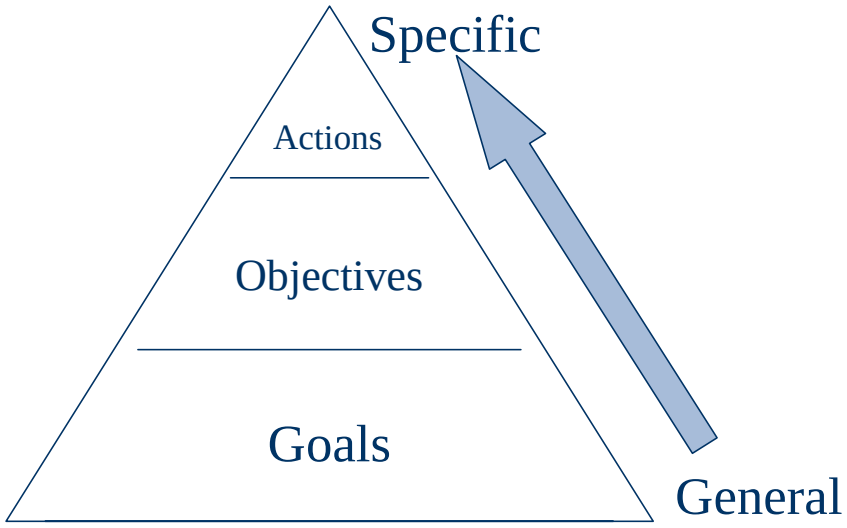
Action Plan Framework

This section provides information on the process used to develop the goals, objectives, and action items in the Lane County CWPP. It also presents the Action Plan matrix, which is the overall framework for wildfire mitigation strategies. The framework consists of three parts—Goals, Objectives, and Action Items:

- Goals— Goals are intended to represent the general ends toward which the Lane County CWPP is directed. Goals identify how the area intends to work toward mitigating risk from wildland-urban interface fire. They do not specify how Lane County is to achieve the level of performance. The goals are guiding principles for the specific recommendations outlined in the action items.
- Objectives— Objectives link goals and action items. Objectives are the direction, methods, processes or steps used to accomplish or achieve the goals.
- Action Items— The action items are detailed recommendations for activities that local departments, citizens and others could engage in to reduce wildland-urban interface fire risk.

Figure 4-1 illustrates the framework of the action plan and depicts the level of specificity for each of the action plan components.

Figure 4.1: Framework for Goals, Objectives and Action Items



Source: ONHW/CPW, 2005

Action Plan Methods

The Action Plan was developed through an analysis of the issues identified in the risk assessment, the landowner survey, stakeholder interviews, and the Firewise Workshop, as well as through background research on the wildland-urban interface and a review of other community wildfire protection plans.

The Steering Committee reviewed and approved goals, objectives, and action items on April 20, 2005. Committee members were assigned responsibility for the implementation of individual action items. The Steering Committee assigned each action item with a priority ranking and identified potential funding opportunities at a meeting on May 24, 2005.

Lane County CWPP Goals

The plan goals help to guide the direction of future activities aimed at reducing risk and preventing losses from wildfire. The goals listed here serve as the guiding principles for agencies and organizations as they begin implementing action items.

GOAL 1: Provide countywide leadership through partnerships to implement wildland-urban interface fire mitigation strategies in Lane County.

GOAL 2: Improve community strategies for reducing the impacts of wildland-urban interface fires.

GOAL 3: Promote wildfire risk reduction activities for private and public lands in Lane County.

Lane County CWPP Objectives

The objectives connect the goals and action items and help organize the action plan for efficient implementation and evaluation. The Lane County CWPP identifies six objectives for achieving goals and providing guidance for action items.

Lane County CWPP Action Items

The plan identifies action items developed through various plan inputs and data collection and research. CWPP activities may be considered for funding through state and federal grant programs, including the National Fire Plan or Title II/Title III funding.

To facilitate implementation, each action item is described in a worksheet, which includes information on key issues addressed, ideas for implementation, coordinating and partner organizations, timeline, and plan goals addressed.

Key Issues Addressed:

Each action item includes a list of the key issues that the activity will address. Action items should be fact based and tied directly to issues or needs identified throughout the planning process. Action items can be developed from a number of sources including participants of the planning process, noted deficiencies in local capability, or issues identified through the risk assessment.

Ideas for Implementation:

Each action item includes ideas for implementation and potential resources. This information offers a transition from theory to practice. The ideas for implementation serve as a starting point for this plan. This component of the action items is dynamic as some ideas may be not feasible and new ideas can be added during the plan maintenance process. (For more information on how this plan will be implemented and evaluated, refer to Section 5 of the CWPP).

The action items are suggestions for ways to implement the plan goals. Ideas for implementation include things such as collaboration with relevant organizations, grant programs, tax incentives, human resources, education and outreach, research, and physical manipulation of buildings and infrastructure. A list of potential resources outlines what organization or agency will be most qualified and capable to perform the implementation strategy. Potential resources often include utility companies, non-profits, schools, and other community organizations.

Coordinating Organization:

The coordinating organization is the organization that is willing and able to organize resources, find appropriate funding, and oversee activity implementation, monitoring, and evaluation.

Internal Partners:

Internal partners are within the CWPP advisory committee and may be able to assist in the implementation of action items by providing relevant resources to the coordinating organization.

External Partners:

External partner organizations can assist the coordinating organization in implementing the action items in various functions and may include local, regional, state, or federal agencies, as well as local and regional public and private sector organizations. The internal and external partner organizations listed in the CWPP are potential partners recommended by the project steering committee, but not necessarily contacted during the development of the plan. The coordinating organization should contact the identified partner organizations to see if they are capable of and interested in participation. This initial contact is also to gain a commitment of time and or resources towards completion of the action items.

Timeline:

Action items include both short and long-term activities. Each action item includes an estimate of the timeline for implementation. *Short-term action items* are activities that may be implemented with existing resources and authorities within one to two years. *Long-term action items* may require new or additional resources and/or authorities, and may take between one and five years to implement.

Action Plan Matrix

The Action Plan matrix portrays the overall framework and linkages between the goals, objectives and action items of the Lane County CWPP. The matrix is modeled after one developed by the *National Committee on Wildland Urban Interface Fire.* The matrix links the action items to the three HFRA requirements that they address: collaboration, prioritized fuel reduction, and treatment of structural ignitability. Each action item has a corresponding action item worksheet describing the project, identifying the rationale for the project, identifying potential ideas for implementation and assigning coordinating and supporting organizations. These action item forms are located in *Appendix A – Action Item Worksheets*.

Lane County: *Community Wildfire Protection Plan Matrix*

Goals & Objectives	Action Item:	Coordinating Organization	Funding Sources				Priority (H,M,L)
			Title II	Title III	National Fire Plan	Others	
GOAL 1: Provide countywide leadership through partnerships to implement wildland-urban interface fire mitigation strategies in Lane County							
Objective 1.1. Establish and maintain a structure and methods for coordinating the implementation of the Lane County Community Wildfire Protection Plan.							
Short-Term	**Action 1.1.1.** Create and formalize a Lane County CWPP Advisory Committee to oversee implementation, identify and coordinate funding opportunities, and sustain the Lane County Community Wildfire Protection Plan.	**Lane County Emergency Management**		✓	✓		**H**
Short-Term	**Action 1.1.2.** Establish a sub-committee to coordinate and sustain effective countywide public education and outreach activities through the support of the Lane County Fire Prevention Co-op and other programs.	**Lane County Fire Co-Op**		✓	✓		**M**
Short-Term	**Action 1.1.3.** Establish and support a sub-committee to address fuel reduction methods and resource management practices.	**Oregon Department of Forestry**		✓	✓		**M**
Objective 1.2. Strengthen communication and coordination among Local Districts, County, State, and Federal agencies to effectively deliver wildland-urban interface risk reduction programs and messages.							
Short-Term	**Action 1.2.1.** Develop formal agreements with municipalities and special districts.	**Lane County Land Management**		✓			**H**
Ongoing	**Action 1.2.2.** Establish a consistent communication strategy among intergovernmental partners using appropriate conduits and delivery mechanisms (Lane County Fire Defense Board, ODF, USFS, etc).	**Oregon Department of Forestry**		✓			**H**

Goals & Objectives	Action Item:	Coordinating Organization	Funding Sources				Priority (H,M,L)
			Title II	Title III	National Fire Plan	Others	
GOAL 2: Improve community strategies for reducing the impacts of wildland-urban interface fires							
Objective 2.1. Review existing policies and regulations to reduce the impact of wildland-urban interface fires.							
Short-Term	**Action 2.1.1.** Review and develop recommendations to the Lane County Board of Commissioners for revisions to land use regulations, such as: Implementation of fire safety standards within rural residential zoning districts; Distribution of educational materials at the outset of the building permit review process; and Outreach services with neighborhood organizations and special interest groups.	**Lane County Land Management**		✓			**H**
Short-Term	**Action 2.1.2** Review and enhance the Lane County building permit process within the wildland-urban interface.	**Lane County Land Management**		✓			**H**
Objective 2.2. Enhance the Lane County Wildland-Urban Interface Risk Assessment.							
Short-Term	**Action 2.2.1.** Incorporate refined BLM/USFS road and response time data into the Lane County Wildland-Urban interface Risk Assessment.	**Lane County Public Works GIS**		✓			
Short-Term	**Action 2.2.2.** Digitize and correct fire district boundary data	**Lane County Land Management/Public Works GIS**					
Short-Term	**Action 2.2.3.** Incorporate, maintain, and update Lane County's Wildland-Urban Interface Risk Assessment GIS data elements.	**Lane County Public Works GIS**		✓			
Ongoing	**Action 2.2.4.** Incorporate structural vulnerability assessments developed at the community level into the Lane County Wildland-Urban Interface Risk Assessment.	**Lane County Land Management**		✓			
Short-Term	**Action 2.2.5.** Complete rural addressing data collection project for county.	**Lane County Land Management**					
Short-Term	**Action 2.2.6.** Obtain LiDAR data for high risk areas to enhance Lane County's Wildland-Urban Interface Risk Assessment.	**Lane County Public Works GIS**					
Objective 2.3. Support and prioritize fuels reduction projects by watershed.							

Goals & Objectives	Action Item:	Coordinating Organization	Funding Sources				Priority (H,M,L)
			Title II	Title III	National Fire Plan	Others	
Ongoing	**Action 2.3.1.** Utilize the Lane County Wildland-Urban Interface Risk Assessment as a tool for prioritizing proposed fuel reduction projects.	**Lane County Land Management**		✓			**H**
Short-Term	**Action 2.3.2.** Develop appropriate fuels treatment method matrix for Lane County fuel reduction projects.	**Lane County Emergency Management**		✓			**H**
Short-Term	**Action 2.3.3.** Complete (5) watershed-based pilot projects that focus on infrastructure protection and exemplify the County's leadership in project implementation.	**Oregon Department of Forestry**	✓		✓		**H**
GOAL 3: Promote wildfire risk reduction activities for private and public lands in Lane County							
Objective 3.1. Increase individual awareness and promote risk reduction activities through education and outreach.							
Ongoing	**Action 3.1.1** Develop and coordinate a seasonal outreach campaign that promotes effective risk reduction practices in the wildland/urban interface.	**Lane County Fire Prevention Co-Op**		✓	✓		**H**
Short-Term	**Action 3.1.2** Establish a communication strategy that uses existing channels to disseminate risk reduction messages.	**Oregon Department of Forestry**		✓	✓		**H**
Short-Term	**Action 3.1.3.** Create and maintain a website to promote Lane County's Community Wildfire Protection Plan.	**Lane County Land Management**		✓			**H**
Objective 3.2. Promote the use of non-regulatory incentives to reduce structural ignitability.							
Short-Term	**Action 3.2.1.** Implement cost-share programs or tax incentives to assist landowners with hazardous fuels removal and disposal.	**Oregon Department of Forestry**	✓		✓		**M**
Long-Term	**Action 3.2.2.** Collaborate with homeowner insurance companies to promote incentives that reward structural ignition risk reduction and fuels reduction activities in the wildland-urban interface.	**Office of State Fire Marshall**	✓		✓		**M**

Appendix A
Action Item Worksheets

This appendix includes the completed worksheets for each of the action items identified during the CWPP planning process.

The plan identifies action items developed through various plan inputs and data collection and research. CWPP activities may be considered for funding through state and federal grant programs, including the National Fire Plan or Title II/Title III funding.

To facilitate implementation, each action item is described in a worksheet, which includes information on key issues addressed, ideas for implementation, coordinating and partner organizations, timeline, and plan goals addressed.

Key Issues Addressed:

Each action item includes a list of the key issues that the activity will address. Action items should be fact based and tied directly to issues or needs identified throughout the planning process. Action items can be developed from a number of sources including participants of the planning process, noted deficiencies in local capability, or issues identified through the risk assessment.

Ideas for Implementation:

Each action item includes ideas for implementation and potential resources. This information offers a transition from theory to practice. The ideas for implementation serve as a starting point for this plan. This component of the action items is dynamic as some ideas may be not feasible and new ideas can be added during the plan maintenance process. (For more information on how this plan will be implemented and evaluated, refer to Section 5 of the CWPP).

The action items are suggestions for ways to implement the plan goals. Ideas for implementation include things such as collaboration with relevant organizations, grant programs, tax incentives, human resources, education and outreach, research, and physical manipulation of buildings and infrastructure. A list of potential resources outlines what organization or agency will be most qualified and capable to perform the implementation strategy. Potential resources often include utility companies, non-profits, schools, and other community organizations.

Coordinating Organization:

The coordinating organization is the organization that is willing and able to organize resources, find appropriate funding, and oversee activity implementation, monitoring, and evaluation.

Internal Partners:

Internal partners are within the advisory committee and may be able to assist in the implementation of action items by providing relevant resources to the coordinating organization.

External Partners:

External partner organizations can assist the coordinating organization in implementing the action items in various functions and may include local, regional, state, or federal agencies, as well as local and regional public and private sector organizations. The internal and external partner organizations listed in the CWPP are potential partners recommended by the project steering committee, but not necessarily contacted during the development of the plan. The coordinating organization should contact the identified partner organizations to see if they are capable of and interested in participation. This initial contact is also to gain a commitment of time and or resources towards completion of the action items.

Timeline:

Action items include both short and long-term activities. Each action item includes an estimate of the timeline for implementation. *Short-term action items* are activities that may be implemented with existing resources and authorities within one to two years. *Long-term action items* may require new or additional resources and/or authorities, and may take between one and five years to implement.

Lane County CWPP Action Item

Proposed Action Item Identification:

ST: 1.1.1 Would be a Short Term Action proposed under Goal 1 Objective 1.1

Proposed Action Title/Description:

Create and formalize the Lane County wildland-urban interface committee to oversee implementation, identify and coordinate funding opportunities, and sustain the Lane County Community Wildfire Protection Plan.

Rationale for Proposed Action Item:

- **HFRA**- Collaboration
- **Oregon Senate Bill 360-** Wildland-Urban Interface Classification Committee
- **National Fire Plan 10-year implementation strategy**- Collaboration
- **Stakeholder interviews, Firewise Workshop**-Identified an opportunity for a central committee to provide leadership by prioritizing and setting guidelines for fuels reduction projects and cut across jurisdictional boundaries
- **Example Programs**
  - Mariposa County, CA- Fire Safe Council (part of larger California Fire Safe Council network): "Plays an important role of coordination of activities for fuel reduction within the County. Council has organized chipping projects for area residents, developed a risk assessment study, and maintained an information table at County Fairs."
    - Plumas County, CA- Fire Safe Council: Procuring funding for homeowner demonstration projects and chipping programs.
    - Grant County, NM National Fire Plan Implementation Team

Ideas for Implementation:

- Expand current Lane County CWPP steering committee to include a variety of stakeholders that would satisfy the committee requirements of Oregon Senate Bill 360, as well as those of the National Fire Plan 10-year implementation strategy
- Create rules and guidelines for implementing collaborative fuel reduction projects throughout Lane County, including sharing of resources and manpower to complete the projects
- Convene the steering committee and sign a MOU for each calendar year depicting agency commitments and reimbursement for staff time.
- Hold quarterly meetings to review the plan and identify highest priority projects most feasible for implementation.
- Coordinate timelines to take advantage of funding opportunities available through Resource Advisory Committees that award Title II project funds.
- The Committee has the ability to add sub-committees as needed.

Coordinating Organization:	Lane County Emergency Management

Internal Partners:	**External Partners:**
LCLMD, LCPW GIS, ODF	Oregon State Fire Marshal. Lane County Fire Chiefs

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	**$3,000 ($2,800 for staff reimbursement and $300 for refreshments)**
6-7 Months		

Lane County CWPP Action Item

Proposed Action Item Identification:

ST 1.1.2 Would be a Short Term Action Item proposed under Goal 1 Objective 1.1

Proposed Action Title:

Establish a sub-committee to coordinate and sustain effective countywide public education and outreach activities through the support of the Lane County Fire Prevention Co-op and other programs.

Rationale for Proposed Action Item:

- **Stakeholder Phone Interviews, Firewise Workshop -** Identified an opportunity to increase education and wildland-urban interface fire awareness of residents of Lane County to increase public involvement in wildfire risk reduction activities.

Ideas for Implementation: (Optional)

- Coordinate the Lane County Fire Prevention Co-op with the *CWPP Advisory Committee* to steer the implementation of the Lane County CWPP outreach strategy.
- The Lane County Fire Prevention Co-op can oversee implementation of *Action 3.1.2* as the Education and Outreach committee
- Encourage the support of rural fire districts for outreach and education activities, as 27% of landowner survey respondents indicated that they have never received information about protecting their property from wildland fire.
- Create and deliver an annual standardized direct mailing to landowners, as 59% of the landowner survey respondents identified mail as the method they would most prefer used to disseminate information in the future.
- Coordinate countywide funding opportunities for education and outreach activities.

Coordinating Organization:	Lane County Fire Prevention Co-op

Internal Partners:	**External Partners:**
ODF	USFS, BLM, Keep Oregon Green, Lane County RFD's Eugene/Springfield/Cottage Grove FD's

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	***Depends on future activities***
3-6 months		

Lane County CWPP Action Item Form

Proposed Action Item Identification

ST 1.1.3 Would be a Short Term Action proposed under Goal 1 Objective 1.1

Proposed Action Title:

Establish and support a sub-committee to address fuel reduction methods and resources management practices.

Rationale for Proposed Action Item:

- **Stakeholder Phone Interviews, Firewise Workshop** – A committee is needed to prioritize and set guidelines for the implementation of prioritized fuel reduction projects. A committee is also needed to collaboratively decide the best method of treatment to be used during fuel reduction projects.

Ideas for Implementation: (Optional)

- Recruit members for sub-committee from partners listed below
- Hold monthly meetings until the rules, goals, methods, and practices of the sub-committee are established
- After sub-committee is established, hold monitoring meetings as needed for upkeep

Coordinating Organization:	Oregon Department of Forestry

Internal Partners:	**External Partners:**
LC Fire Defense Board	USFS, BLM, LC Planning Department, Oregon State Fire Marshal. (Oregon State Department of Agriculture, Oregon State Extension Service can provide technical expertise)

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	No estimated associated cost
0-6 months		

Lane County CWPP Action Item Form

Proposed Action Item Identification:

ST: 1.2.1 Would be a Short Term Action proposed under Goal 1 Objective 1.2

Proposed Action Title/Description:

Develop formal agreements with municipalities and special districts.

Rationale for Proposed Action Item:

- **Stakeholder Phone Interviews**, **Firewise Workshop Feedback**- Identified a need for the development of partnerships and county leadership and direction. Identified a need for structured, formalized collaboration and a need to overcome the potential obstacles of bringing diverse agencies and stakeholders together

Ideas for Implementation: (Optional)

This action would develop formal agreements with incorporated communities and service providers for mutual benefits and collaboration in Lane County's Community Wildfire Protection Plan. Formal agreements will help create an internal organizational structure of the plan's public and quasi-public partners and ensure the long term viability of Lane County's Community Wildfire Protection Plan.

- Complete intergovernmental agreements with the twelve municipalities;
- Complete coordination agreements with twenty-four rural fire protection districts;
- Complete coordination agreements with ten water districts; and
- Complete coordination agreements with five electric utility districts.
- Open discussions amongst municipalities, Lane County and RFPDs on a more effective means of annexing lands into RFPD service boundaries as necessary to ensure structural coverage within service district boundaries of the WUI.

Coordinating Organization:	Lane County Land Management Division

Municipal Partners:	**Special District Partners:**
Florence, Dunes City, Veneta, Junction City, Coburg, Eugene, Springfield, Creswell, Cottage Grove, Lowell, Westfir, Oakridge.	**Rural Fire Protection Districts**: Bailey-Spencer, Coburg, Creswell, Dexter, Goshen, Hazeldell, Lake Creek, Lane County No. 1, Lane Rural Fire/Rescue, Lorane, Lowell, McKenzie, Pleasant Hill, Santa Clara, Siuslaw, South Lane County Fire & Rescue, Swisshome-Deadwood, Upper McKenzie, Willakenzie, Zumwalt. **Rural Fire Departments**: Junction City, Mapleton, Mohawk Valley, Oakridge **Water Districts**: Blue River, Coburg, Eugene Water & Electric Board (EWEB), Glenwood, Heceta, Junction City, Mapleton, Rainbow, Springfield Utility Board (SUB), Willamette **Electric Districts**: Blachly-Lane Electric Cooperative, Central Lincoln Peoples Utility District, Eugene Water & Electric Board (EWEB), Emerald Peoples Utility District (EPUD), and Lane Electric Cooperative

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	$ 15,535.00
FY 05/06		

Lane County CWPP Action Item Form

Proposed Action Item Identification:

ST 1.2.2 Would be a Short Term Action proposed under Goal 1 Objective 1.2

Proposed Action Title:

Establish a consistent communication strategy among intergovernmental partners using appropriate conduits and delivery mechanisms (Lane County Fire Defense Board, ODF, USFS, etc).

Rationale for Proposed Action Item:

- **Stakeholder Phone Interviews, Firewise Workshop Feedback -** Identified a lack of communication of information and a need to compile and consolidate information regarding wildland-urban interface issues.

Ideas for Implementation: (Optional)

- Provide feedback and information in conjunction with Action Item 3.1.3 to help Lane County create a centralized website for information sharing
- Establish email distribution lists to forward information to appropriate partners
- Coordinate with the Lane County Fire Defense Board and use their monthly meetings as a forum to share information with appropriate partners
- Contact the US Forest Service and BLM to invite them to attend Lane County Fire Defense Board meetings that will be used for the purpose of sharing information about the Lane County CWPP

Coordinating Organization:	Oregon Department of Forestry

Internal Partners:	**External Partners:**
ODF, LC Fire Defense Board	US Forest Service, BLM, LC Fire Prevention Co-op, Lane County Land Management

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	Cost of establishing and maintaining a centralized website
0-18 months		

Lane County CWPP Action Item Form

Proposed Action Item Identification:

ST: 2.1.1 Would be a Short Term Action proposed under Goal 2 Objective 2.1

Proposed Action Title:

Review and develop recommendations to the Lane County Board of Commissioners for revisions to land use regulations, such as:

- Implementation of fire safety standards within rural residential zoning districts;
- Distribution of educational materials at the outset of the building permit review process; and
- Outreach services with neighborhood organizations and special interest groups.

Rationale for Proposed Action Item:

- **Stakeholder Phone Interviews, Firewise Workshop Feedback-** Identified the use of regulatory policies to reduce WUI wildfire risk
- **Example Programs:**
  - Ashland, Oregon Fire Plan- Has building codes that require development standards regarding the reduction of structural ignitability and vegetation management
  - Florida Wildfire Mitigation Handbook- Discusses the use of land development regulations to reduce WUI wildfire risk

Ideas for Implementation:

This action would review and could result in voluntary actions by landowners or amendments to Lane County land use regulations to promote actions such as fuel breaks and road standards that reduce wildfire risk to lives and property in the wildland-urban interface.

- Review and potentially update the Lane County building and land use ordinances to promote the use of fire resistant building materials for new structures within the WUI.
- Review and potentially update the Lane County building and land use ordinances to promote or require fuel break and safety zone standards for new structures and minimum access road standards within the Rural Residential Zone of the WUI.

Coordinating Organization:	Lane County Land Management Division

Internal Partners:	**External Partners:**
ODF	Rural Fire Protection Districts

Timeline		**If available, estimated cost**:
Short Term (0-2 years)	Long Term(2-4 or more years)	$4,500.00
FY 05/06		

Lane County CWPP Action Item Form

Proposed Action Item Identification:

ST: 2.1.2 Would be a Short Term Action proposed under Goal 2 Objective 2.1

Proposed Action Title:

Review and enhance the Lane County building permit process within the wildland-urban interface.

Rationale for Proposed Action Item:

- **Firewise Workshop Feedback-** Identified a need to streamline the permit process to remove inefficiencies

Ideas for Implementation:

This action will review the building permit process by identifying current steps, and the roles and responsibilities of the participants involved in the process. The review will identify areas and methods within the permit process to be improved for increased efficiency.

- Involve Fire Chiefs' review of new plans earlier in the permit process.
- Prepare information brochure for distribution to prospective land owners and contractors supporting the voluntary implementation of fuel breaks for new structures in the rural areas.
- Create and display wildfire safety information (diagrams in the Land Management Lobby, on the LMD and Building Program website and in the building permit review meeting room.
- Propose implementation by the Board of County Commissioners of *Oregon Residential Specialty Code Section R324 – Wildlife Hazard Mitigation* regulations for all dwellings and accessory structures in the rural areas of the County and within the WUI.

Coordinating Organization:	Lane County Land Management Division (Building and Planning)

Internal Partners:	**External Partners:**
Lane County Land Management Building Program	Rural Fire Protection Districts, ODF

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	$3,375.00
FY 05/06		

Lane County CWPP Action Item Form

Proposed Action Item Identification:		
ST: 2.2.1 Would be a Short Term Action proposed under Goal 2 Objective 2.2		
Proposed Action Title:		
Incorporate refined BLM/USFS road and response time data into the Lane County Wildland-Urban interface Risk Assessment.		
Rationale for Proposed Action Item:		
▪ **Risk assessment team request**. BLM/USFS is currently updating road data and it will need to be incorporated into Risk Assessment to replace existing poor data.		
Ideas for Implementation:		
▪ Compile and sort existing GIS data for BLM/USFS roads. ▪ Correct overlapping road lines. ▪ Align intersection and control data. ▪ Coordinate with appropriate agency staff.		
Coordinating Organization:	Lane County Public Works GIS	
Internal Partners:		**External Partners:**
ODF, LC Land Management Division		USFS/BLM, LCOG
Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	**$ 2,520.00**
FY 05/06		

Lane County CWPP Action Item Form

Proposed Action Item Identification:		
ST: 2.2.2 Would be a Short Term Action proposed under Goal 2 Objective 2.2		
Proposed Action Title:		
Digitize and correct fire district boundary data.		
Rationale for Proposed Action Item:		
▪ **Risk assessment team request**- The CWPP has value primarily as a shared information record utilized by all of the implementing partners on a weekly, monthly and annual basis as the need arises. Risk assessment information provided by fire districts is an essential part of that record. By digitizing district input the data is in a format that can be made widely available to all those who need it. Currently, there are discrepancies between fire district boundaries recorded by LCOG and the information provided by the fire protection districts surveys.		
Ideas for Implementation:		
▪ Coordinate annual review of base map data compiled during initial risk assessment (2004-2005). ▪ Update RFPD GIS data to reflect wildfire and structural fire occurrences in CWPP data base. ▪ Incorporate Oregon Department of Forestry records and tracking of occurrences into CWPP data base. ▪ Download local fuel reduction efforts implemented through RAC funding in CWPP data base. ▪ Continue to pursue the involvement of local fire chiefs in wildfire risk assessment. ▪ Follow up with districts that have been unable to complete wildfire risk mapping ▪ Work with LCOG and Fire Defense Board to refine district boundaries. ▪ Address issues between NAD 27 and NAD 83		
Coordinating Organization:	Lane County Land Management/ Lane County Public Works GIS	
Internal Partners:		**External Partners:**
Lane County Public Works: GIS Project, LMD Planning.		Rural Fire Protection Districts (rural fire districts), Municipalities (City – Fire Districts) LCOG
Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	$ 2,520.00
FY 05/06	Annual allocation	

Lane County CWPP Action Item Form

Proposed Action Item Identification:

ST + LT: 2.2.3 Would be a Short Term and Long Term Action proposed under Goal 2 Objective 2.2

Proposed Action Title:

Incorporate, maintain, and update Lane County's Wildland-Urban Interface Risk Assessment GIS data elements.

Rationale for Proposed Action Item:

- **Stakeholder Phone Interviews-** Identified the use of GIS and local communities' risk assessments to update the county's risk assessment
- **Example Programs:**
  - California State Fire Plan- Uses community information regarding GIS overlays of different wildfire factors to prioritize pre-fire management projects
  - Idaho State Fire Plan- Identified the use of GIS to develop "National Fire Plan related projects"
  - Josephine County Integrated Fire Plan- Uses GIS to develop and maintain Josephine County's risk assessment

Ideas for Implementation:

This action would use new risk assessment data provided by local communities, agencies, utilities and municipalities to continually update and improve the accuracy of the county's wildland-urban interface risk assessment.

- Create a working group that can update Lane County's GIS data elements with the information provided to the county by local communities. This group would include a representative from the Oregon Department of Forestry, Lane County Land Management and PW GIS.
- Encourage local communities to provide the county with their completed risk assessment data in a standardized format.
- Maintain a state-of-the art website for access by local interests, municipalities, state and federal agencies for development of local CWPP planning and implementation.
- Support local drafting of RAC applications for implementation of fuel reduction and structural protection efforts.
- Work with local utilities and municipalities to maintain an up-to-date inventory of critical infrastructure.

Coordinating Organization:	Lane County Public Works

Internal Partners:		**External Partners:**
Lane County Public Works: GIS Project, LMD Planning,		ODF, Rural Fire Protection Districts, Municipalities, Utilities
Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	$3,500.00
FY 05/06	Annual allocation	

Lane County CWPP Action Item Form

Proposed Action Item Identification:

ST: 2.2.4 Would be a Short Term Action proposed under Goal 2 Objective 2.2

Proposed Action Title:

Incorporate structural vulnerability assessments developed at the community level into the Lane County Wildland-Urban Interface Risk Assessment.

Rationale for Proposed Action Item:

- **Risk assessment team request** No comprehensive dataset of structural vulnerability exists for Lane County. Fuel breaks, landscaping, roof and building materials are all factors that should be considered when evaluating risk. As data is gathered at the local level it should be incorporated into the countywide assessment

Ideas for Implementation:

- Continue coordination of review with Rural Fire Protection Districts and municipality fire districts of prioritization of risks within district boundaries.
- Create factual base data relating to fuel loads and lack of reductions of vegetation posing threats to existing residential structures in rural areas.
- Create factual base data relating to private access driveway and road conditions in districts that are inadequate for fire protection vehicles in response to an emergency. Factors to consider would include but are not limited to: excessive grade; inadequate width and depth of base and surface gravels; encroachment of roadside and overhang vegetation; limited or lack of turnouts; adequate load capacity of bridges or culverts to allow passage of emergency vehicle; onsite or subarea storage of water supplies; turnarounds at terminus including cul-de-sac or hammerhead.
- Create factual base data relating to excessive response times due to proximity of residences to RFPD facilities.
- Create factual base data to identify areas and number of existing residences in the rural areas that are inside RFPD boundaries and outside without protection.
- Coordinate with Oregon Department of Forestry project collecting on-the-ground structural characteristics data (NFPA digital format).
- Explore connections between County Public Works road video project
- Prepare annual report to Lane County Board of Commissioners with the above data.

Coordinating Organization:	Lane County Land Management Division

Internal Partners:	**External Partners:**
Lane County Public Works – GIS Project	ODF, Rural Fire Protection Districts

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	$5,035.00
FY 05/06	Annual allocation	

Lane County CWPP Action Item Proposal Form

Proposed Action Item Identification: *(Example* ST: 1.1.1. *Would be a Short Term Action proposed under Goal 1 Objective 1.1* — *or* — LT: 3.3.1 *Would be a Long Term Action proposed under Goal 3 Objective 3.1)*

S.T. 2.2.5 Would be a Short-Term action item proposed under Goal 2 Objective 2.2

Proposed Action Title/Description:

Complete Rural Addressing data collection project for county.

Rationale for Proposed Action Item:
(What critical issues will the action address?)

Lane County Public Works currently is developing the Rural Addressing Project.

- The project would refine current information to a point layer for structural locations.
- The project will improve emergency response times, providing benefits to multiple objectives
- The information will improve the accuracy of the wildland-urban interface boundary by refining the density layer.
- Public Works indicates that this project is only about 18% complete and that there are 44,000 addresses to map
-

Ideas for Implementation: (Optional)

- The point database will provide a structure to input structural vulnerability data currently being collected by ODF. If possible, this action should be completed before Action 2.2.4
- Information should be coordinated with 911 Services, who currently use a range, instead of points, for addressing information.

Coordinating Organization:	**Lane County Public Works GIS**

Internal Partners:	**External Partners:**
Lane County Land Management	911 Services ODF

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	**$6,500**

Lane County CWPP Action Item Proposal Form

Proposed Action Item Identification: *(Example* ST: 1.1.1. *Would be a Short Term Action proposed under Goal 1 Objective 1.1* **—** *or* — LT: 3.3.1 *Would be a Long Term Action proposed under Goal 3 Objective 3.1)*

ST 2.2.6 Would be a Short Term Action proposed under Goal 2 Objective 2.2

Proposed Action Title/Description:

Obtain LiDAR data for high risk areas to enhance the Lane County Wildland-Urban Interface Risk Assessment.

Rationale for Proposed Action Item:
(What critical issues will the action address?)

- This data will enhance the on-the ground structural vulnerability assessments currently being completed by ODF and the accuracy of the Lane County Wildland-Urban Interface Risk Assessment.
- The data provides better information for a multitude of planning projects including the Lane County Natural Hazards Mitigation Plan Risk Assessment.

Ideas for Implementation: (Optional)

- Align with current ODF structural vulnerability assessments project.

Coordinating Organization:	**Lane County Public Works GIS**

Internal Partners:	**External Partners:**
Lane County Land Management	ODF

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	

Lane County CWPP Action Item Form

Proposed Action Item Identification:

ST + LT: 2.3.1 Would be a Short Term and Long Term Action proposed under Goal 2 Objective 2.3

Proposed Action Title:

Utilize the Lane County Wildland-Urban Interface Risk Assessment to as a tool for prioritizing proposed fuel reduction projects.

Rationale for Proposed Action Item:

- **Stakeholder Phone Interviews, Firewise Workshop Feedback-** Identified a need for the prioritization of fuels reduction
- **Example Programs:**
  - California State Fire Plan- Uses GIS overlays of different wildfire factors to prioritize pre-fire management projects

Ideas for Implementation:

- Use Lane County's Risk Assessment to identify areas of high wildfire risk within the county.
- Develop a method for prioritization of proposed fuel reduction projects.
- Steering committee can use the risk assessment as a guideline for determining which projects to bring forward for requested funding. The risk assessment will be referred to at every quarterly meeting.

Coordinating Organization:	**Lane County Emergency Management**

Internal Partners:	**External Partners:**
CWPP steering committee	Lane County Fire Chiefs, LCPW, Sheriff's Office Personnel, Board of Commissioners, Legislative Committees, Northwest Youth Corps, Owners of sites identified for potential projects

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	**Same as Action Item 1.1.1: $3,000**
Methodology Creation: 9 months	Ongoing	

Lane County CWPP Action Item Form

Proposed Action Item Identification:

ST + LT: 2.3.2 Would be a Short Term and Long Term Action proposed under Goal 2 Objective 2.3

Proposed Action Title:

Evaluate and recommend appropriate fuels treatment methods for Lane County

Rationale for Proposed Action Item:

- **Stakeholder Phone Interviews, Firewise Workshop Feedback**- Identified differing values, attitudes, and opinions regarding various fuels treatment options

Ideas for Implementation:

- Develop a method for determining community values and concerns about various fuel treatment options.
- Develop a method that can translate the community values, concerns, and input regarding various fuel treatment options into recommended options appropriate for the community.
- Engage local fire chiefs, ODF, and the US Forest Service personnel to do site visits to "hot spots" and make recommendations to landowners regarding fuel treatment options.

Coordinating Organization:	**Lane County Emergency Management**

Internal Partners:	**External Partners:**
ODF, CWPP steering committee	Lane County Fire Chiefs, USFS

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	**$500 personnel compensation per visit**
Methodology Creation: 9 months	Ongoing	

Lane County CWPP Action Item Form

Proposed Action Item Identification:		
ST & LT 2.3.3 would be both a Short Term and Long Term Action proposed under Goal 2 Objective 2.3		
Proposed Action Title		
Complete (5) watershed-based pilot projects that focus on infrastructure protection and exemplify the County's leadership in project implementation.		
Rationale for Proposed Action Item:		
▪ **Stakeholder Phone Interviews, Firewise Workshop Feedback**- Identified a need to demonstrate aesthetic fuels reduction and defensible space creation to homeowners and landowners		
Ideas for Implementation:		
▪ The selected projects include Triangle Lake School, Leaburg Utility, *etc* ▪ Use GIS to screen locations and identify areas at risk ▪ Complete field assessments of potential sites for pilot projects ▪ Compare, evaluate, and recommend the best sites for pilot projects based on the field assessments and GIS evaluations ▪ Pass the recommendations on to the *steering committee* for adoption		
Coordinating Organization:	Oregon Department of Forestry	
Internal Partners:		**External Partners:**
ODF		Rural Fire Districts, Lane County GIS
Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	Cost will vary depending on the sites selected
Evaluation process (0-9 months)	Completion timeline is dependent upon funding.	

Lane County CWPP Action Item Form

Proposed Action Item Identification:

ST & LT 3.1.1 Would be a Short and Long Term Action proposed under Goal 3 Objective 3.1

Proposed Action Title:

Develop and coordinate a seasonal outreach campaign that promotes effective risk reduction practices in the wildland/urban interface.

Rationale for Proposed Action Item:

- **HFRA Goals-** collaboration, reduction of hazardous fuels, and reduction of structural ignitability.
- **Stakeholder interviews, Firewise workshop**- Identified an opportunity to develop a "model" home or property recognition program to encourage greater participation by homeowners in risk reduction projects. Identified an opportunity to educate the public and dispel negative perceptions about the aesthetics of fuel reduction and defensible space. Seasonal community events such as "free chipping or dump days" encourages public participation in fuels reduction projects as well as provides a venue for disseminating information about wildfire risk reduction.

Ideas for Implementation:

- Continue to staff an information booth at community events to publicize and encourage participation in these and other wildfire mitigation programs
- At an early spring LC Fire Prevention Co-op meeting, each RFD could submit nominees by district for the following:
  - An award for a "model" home or property site that has reduced structural ignitability or hazardous fuels. Offer an incentive prize, such as a gift certificate to a home improvement store (possibly donated). Use winners as demonstration homes to the rest of the public to show that "Firewise landscaping can be attractive as well as safe" (Firesafe Spokane)
  - Completed prioritized fuels reduction pilot projects including before and after photos of the site
- The LC Co-op could then select award winners, and compile the results for distribution to rural landowners, potentially through applicable media outlets.

Coordinating Organization:	Lane County Fire Prevention Co-op

Internal Partners:	**External Partners:**
ODF	USFS, BLM, RFD's, OSFM, Local Media outlets (rural newspapers, newsletters, radio, TV)

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	***Check with ONHW for materials production costs***
	Program operational in two years	

Lane County CWPP Action Item Form

Proposed Action Item Identification:

ST 3.1.2 Would be a Short Term Action proposed under Goal 3 Objective 3.1

Proposed Action Title:

Establish a communication strategy that uses existing channels to disseminate risk reduction messages.

Rationale for Proposed Action Item:

- **Landowner survey** – 27% of respondents had not received any information about protecting property against wildfire, highlighting a need for increased communication. When asked how they would prefer to receive information in the future about protecting property from wildfire, respondents identified the following as their top three methods: 59% stated they would prefer information by mail; 49% stated from newspapers; and 42% stated from fact sheets or brochures.
- **Stakeholder interviews, Firewise workshop** – Education and awareness of Lane County residents could be done through media sources, pamphlets, the use of real estate agents, door-to-door, home shows, and fairs
- **Example Programs**
  - Many counties staff information booths at County Fairs and local events and use media outreach
  - Douglas Forest Protective Association, OR – "Public education is provided predominantly through the newspaper and local radio and television stations. They also reach out to the public at the County Fair, the Sportsmen and Outdoor Show, Home Show, and other community festivals. DFPA teaches fire safety to children and adults during National Fire Prevention Week."
  - Humboldt and Del Norte Counties, CA – "Educational efforts include the distribution of publications such as the CDF's Homeowner's Checklist, news releases, radio, television and newspaper coverage about fire safety and defensible space. Also use door-to-door contact and bulk mailings."

Ideas for Implementation:

- Collaborate with Lane County Land Management in conjunction with Action Item 3.1.3 to create and maintain a centralized website.
- Collaborate with the Lane County Fire Prevention Co-op on their prevention strategies and outreach campaigns.
- Coordinate with the Lane County Fire Defense Board to disseminate information throughout rural fire protection districts.
- Utilize agency public information officers.

Coordinating Organization:	Oregon Department of Forestry

Internal Partners:	**External Partners:**
LC Fire Defense Board, LC Land Management	LC Fire Prevention Co-op, Oregon State Fire Marshal, Media sources (newspaper, radio, TV, etc.)

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	Cost of establishing and maintaining a centralized website
0-18 months		

Lane County CWPP Action Item Form

Proposed Action Item Identification:

ST 3.1.3 Would be a Short Term Action Item proposed under Goal 3 Objective 3.1

Proposed Action Title/Description:

Create and maintain a website to promote Lane County's Community Wildfire Protection Plan.

Rationale for Proposed Action Item:

- **Stakeholder interviews, Firewise workshop-** Identified a need to make information more accessible to the public. A website would be a good central place to promote educational efforts and provide tips on how to reduce wildfire risk.
- **Example Programs-**
  - Douglas Forest Protective Association, OR- Has a website with information on their fire prevention programs
  - Spokane County, WA - "FireSafe Spokane" website contains information on how to create defensible space around a home and remove other hazards. The website gives an email address and a phone number where homeowners can sign-up for free inspections.

Ideas for Implementation:

Create a website that includes:

- The Lane County Community Wildfire Protection Plan
- Tips to reduce structural ignitability and hazardous fuels
- Photos of defensible space or "model" homes or properties and fire safe landscaping
- Informational or educational tools that RFPDs can implement within their districts for public outreach
- Maps and information about identified at risk areas
- How-to information for community organizers that want to pursue fuel reduction projects
- Links to the ODF website, Firewise, and other fire prevention websites.

Coordinating Organization:	Lane County Land Management Division

Internal Partners:	**External Partners:**
Lane County Sheriff Office- Emergency Management Services, ODF	US Forest Service, Rural Fire Protection Districts

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	$1,572.00
0-6 months FY 05/06	Annual allocation	

Lane County CWPP Action Item Form

Proposed Action Item Identification:

ST 3.2.1 Would be a Short Term Action proposed under Goal 3 Objective 3.2

Proposed Action Title/Description:

Implement cost-share or tax incentive programs to assist landowners with hazardous fuels removal and disposal

Rationale for Proposed Action Item:

- **HFRA Goals-** Prioritized Fuels Reduction and the Reduction of Structural Ignitability
- **Stakeholder Phone Interviews, Firewise Workshop Feedback** - Debris is costly for homeowners and landowners to remove and dispose of and can be labor intensive at a larger scale. In addition, many elderly or special needs populations cannot complete fuel reduction projects and remove hazardous fuels by themselves without additional help.
- **Landowner survey results** - 79% of respondents indicated that they would be likely to partake in vegetation management to reduce the risk of wildland fire on their properties. Developing collaborative programs between governmental agencies and landowners around vegetation management would likely receive the most landowner support and participation.
- **Example Programs:**
  - Grant County, NM – "Grant County WILDLAND-URBAN INTERFACE Landowner Assistance Program": Provides cost-sharing between the State (70%) and the landowner (30%) for fuels treatments
  - Summit County, CO – 2002 Economic Action Program NFP Grant funds cost-share thinning and recycling of wastes
  - Humboldt and Del Norte Counties, CA – Free chipping for residents through the Community Chipping Program
  - Helena, MT – Project Impact Homeowner Assistance Program: A cost-share program to clear defensible space

Ideas for Implementation:

- Provide home assessments of defensible space to landowners
- Explore cost-sharing programs with local landscaping businesses for chipping programs
- Collaborate with Lane County Waste Management to sponsor free dump days
- Coordinate with LRAPA to suspend burning fees on large debris piles for selected days/weeks
- Develop an informational list of existing incentive programs for landowners
- Explore tax incentive options
- Explore a participatory agreement with other agencies (i.e. LCLMD, ODOT, EWEB, etc.) for use of chippers and/or other fuel reduction/removal equipment
- Explore establishing a list of participating contractors who will do fuels removal at reduced rates
- Establish a workgroup to assist special needs populations with fuels removal

Coordinating Organization:	Oregon Department of Forestry

Internal Partners:	**External Partners:**
Lane County Land Management	Lane County Waste Management, , LRAPA, ODOT, EWEB, local contractors, local landscaping businesses

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	
0-2 years		

Lane County CWPP Action Item Form

Proposed Action Item Identification:

LT 3.2.2 Would be both a Short and Long Term Action proposed under Goal 3 Objective 3.2

Proposed Action Title/Description:

Collaborate with homeowner insurance companies to promote incentives that reward structural ignition risk reduction and fuels reduction activities in the wildland-urban interface.

Rationale for Proposed Action Item:

- **HFRA goals**- Collaboration, hazardous fuels reduction, and reduction of structural ignitability
- **Stakeholder Phone Interviews & Firewise Workshop Feedback-** Identified an opportunity to use insurance incentives to motivate more people to be involved in reducing the wildfire risk on private property
- **Landowner survey results-** 70% of respondents supported insurance incentives as an appropriate way to promote property protection against wildland fire
- **Western Governors Association- "**New insurance efforts will probably need to be developed in harmony with a national standardized hazard/risk assessment process and the implementation of building standards/codes that are enforced by local/state government." (westgov.org)
- **Insurance Services Office-** The Public Protection Classification system generally offers lower premiums in places with lower wildfire risk scores, which produce desirable PPC scores

Ideas for Implementation:

- Collaborate with insurance companies to set standards for defensible space surrounding homes and also for fire resistant building materials to be used on homes. These standards could then be used to influence a homeowner's risk rating and provide incentives for lower insurance rates.
- Explore methods and an efficient timeframe for site visits to validate maintenance activities.

Coordinating Organization:	Oregon State Fire Marshal: Lane County Office

Internal Partners:	**External Partners:**
	OSFM, HBA, homeowners insurance companies

Timeline:		**If available, estimated cost:**
Short Term (0-2 years)	Long Term(2-4 or more years)	
Outreach (6 mos-1 year)	Ongoing	

Project Evaluation Worksheet

Coordinating Organization:

Phone:

Address:

Project Title:

Project Description and Location:

Completed by Lane County Land Management Division:

Risk Assessment Evaluation: ☐ **High** ☐ **Medium** ☐ **Low**

Risk Assessment Evaluation Rationale: Proposed fuel reduction sites should be located on the appropriate assessment area map. A simple review of the overall fire risk will be the most telling factor. Projects in areas of high risk should be considered likely candidates. Projects in moderate and even low risk areas may also be considered. The merits of each project should be weighed on a case-by-case basis. The use of the assessment as a "decision-making tool" requires a careful approach that considers the overall context of each site.

Completed by Advisory Committee: **Qualitative Evaluation Checklist**		
Does the proposed project align with one or more goals of the Lane County CWPP?	**YES**	**NO**
Is the proposed project politically and economically feasible?	**YES**	**NO**
Is the proposed project's timeline within the grant's performance period?	**YES**	**NO**
Are there partners for the proposed project?	**YES**	**NO**
Are there matching funds available for the proposed project?	**YES**	**NO**
Is there a benefit-cost ratio available for the project?	**YES**	**NO**
Does the project address critical infrastructure?	**YES**	**NO**

Appendix B
Implementation and Maintenance Documentation

This appendix serves as documentation for the implementation and maintenance of the Lane County Community Wildfire Protection Plan. This appendix includes documentation of the Steering Committee's efforts to implement and maintain the plan. Documentation may include meeting agendas, meeting minutes and success stories.

Success Story: Triangle Lake Pilot Project

Fuels Reduction Project

Triangle Lake School Pilot Project

Collaboration between Lane County agencies and Northwest Youth Corps allowed for successful fuels reduction at Triangle Lake School.

TRIANGLE LAKE, OREGON – Collaborating with LCEM, LCLMD, and ODF, Northwest Youth Corps spent the week of April 18th, 2005 clearing hazardous fuels by hand from within 40 feet of the Triangle Lake School building, propane tank, storage sheds, fueling station, and the rental home owned by Triangle Lake School. When possible, ignitable building materials were replaced with fire resistant materials. The site was identified by the Lane County CWPP Risk Assessment as critical infrastructure in need of protection from wildland fire. Clearing 40 feet of defensible space around the structures and reducing their ignitability reduces the risk of fire reaching the structures and damaging property in the event of a wildland fire. The project additionally demonstrates to the public what vegetation management looks like, and how easily it can be done. An important observation resulting from the project is the need to set up a continual low-cost maintenance of the school grounds for future vegetation management.

Problem: Wildfire can travel quickly up ladder fuels, spreading to and igniting larger trees. Heavy concentrations of ladder fuels and other vegetative fuels around structures increase the vulnerability of the structures to wildland fire. Removing vegetative fuel buildups is crucial to protecting structures and reducing their risk to wildland fire.

Solution: A 40 foot zone of cleared vegetation around the structures at the Triangle Lake School grounds creates a buffer of defensible space. In the event of a wildland fire, the only vegetative fuel for the fire is far enough a way to significantly reduce the risk of the buildings igniting.

Towards Lane County CWPP Goal 2: Improve community strategies for reducing the impacts of wildland-urban interface fires.

Short-Term Action 2.3.3 Met in Part: Complete (5) watershed-based pilot projects that focus on infrastructure protection and exemplify the County's leadership in project implementation.

Lead Agencies: LCEM, LCLMD, LCPW, and ODF.

Support Agencies: Northwest Youth Corps.

Project Cost: $6,900

Project Benefits: The low-cost project reduced the vulnerability of critical infrastructure by minimizing the potential for loss of property, lives, and essential services in the event of a wildland fire. The project additionally demonstrated the concepts of vegetation management to the public, and helped meet one of the five pilot projects of Action 2.3.3 by completing a pilot project in Assessment Area 1.

Appendix C
Risk Assessment Methods

The following section outlines the specific methods, data, and values used to evaluate wildfire risk in Lane County.

Identifying the Wildland Urban Interface

The wildland urban Interface (WUI) is the area where development meets and intermingles with undeveloped wildland vegetation. Identifying the WUI is an important first step in a wildfire risk assessment. The WUI broadly outlines all areas potentially threatened by wildfire where impacts on humans are likely.

The Lane County WUI was developed by analyzing structural density and 6th field watersheds. A ¼ mile was buffer was established around each address point represented in a countywide address file. These address points, each indicating a dwelling or other structure, created a density surface layer. This density surface is combined with the boundaries of all 6th field watersheds intersecting with it, resulting in the WUI boundary. The 6th field watershed refers to a classification method used to identify and rank drainage basins. Extending the WUI boundary to the 6th field watershed generally pushes the WUI boundary to the nearest ridgelines or points of 6th field watershed stream origin. Wildfire behavior analysts have determined that 6th field watershed-based WUIs are significant because ridgelines often form natural firebreaks and can be used to generally identify impacted areas.

Within the broadly defined wildland urban interface zone there are areas where wildland fires are not possible due to the lack vegetative fuels. These areas include bodies of water and highly developed urban centers. By excluding surface water polygons and areas identified as urban within the crown fire and vegetation data sets these areas have been masked.

Risk

To determine the relative risk of a wildland fire starting the risk layer was modeled using the density of historic fire ignitions. The data is derived from ODF and federal fire ignition databases. Ignition data from the State Fire Marshal's office was also available but was not calculated into this assessment. The majority of Fire Marshall data represents fire ignitions within Eugene/Springfield metro area. These ignitions are typically lawn or field fire events and not true wildland fires. Fire ignition points were given a 1.5 mile buffer and then converted to a density layer. Calculations were run to generate fires per 1000 acres per 10 years and the results were broken into 3 classes:

0-.1 (low) has a point value of 5, .1-1.1 (moderate) has a point value of 20, 1.1+ (high) is given a point value of 40. See Table C.1 below.

Table C.1: Risk Layer Scores

Historic Fire Occurrences: (per 1000 acres)	Points:	Risk Ranking:	From:	To:
0 to .1	5	Low	5	13
.1 to 1.1	20	Moderate	13	27
1.1+	40	High	27	40

Source: Lane County Land Management Division, 2005

Hazards

Hazards evaluated within this assessment are broken down into four categories: weather, topography, vegetation and crown fire potential. See Table C.2 below.

Weather accounts for the largest point value in the hazard layer. The weather hazard factor is derived from data provided by ODF, which was developed following an analysis of daily wildfire danger rating indices in each regulated use area of the state. The weather is classed from 1(lowest) to 3 (highest). The majority of Lane County has a classification of 2 (medium-moderate). There is, however, a significant break along the coast range, in which the area of the county west of the coast range is classified as 1 (low). The area classed as 1 is given a point value of 0, while the area classed as 2 has a point value of 20.

Weather: 0-40 (0-20 for Lane County – no risk-high weather areas are present)

The topographic layers: slope, aspect, and elevation were generated from 10-meter DEMs (Digital Elevation Models). Slopes are classed by percent slope ranges: 0-25%, 26-40% and 41%+. These ranges carry values ranging from 0 (least slope) to 3 (most slope). Aspect is broken into three classes: 0 (N, NW, NE), 3 (W, E), 5 (S, SW, SE). A higher value corresponds to the amount of exposure to sunlight or excessive heat an area receives based on its aspect. Slope and aspect affect both the intensity and rate of spread of a wildfire. Elevation ranges are broken at 3,000 and 5,000 ft. Elevation affects the type of vegetation and length of fire season. Lower elevations are considered more hazardous. This layer ranges in value from 0 (high elevation) to 2 (low elevation).

Topography: 0-10

The vegetation layer comes from BLM data displaying vegetation types. Vegetation is broken into three different fuel model types based on the fire behavior and common fire characteristics of the vegetation within each fuel model type. Each fuel model type is given a fuel hazard factor (value) from 1(low) to 3 (high).

Vegetation: 0-20

Crown fire potential is produced by first isolating areas with coniferous trees with trunk sizes over 5 inches in diameter at breast height. These areas are then split into three classes; conifer cover less than 30 percent has low crown fire potential (0), conifer cover between 30 and 70 percent has moderate potential (5), and conifer cover over 70 percent has the highest crown fire potential (10). Crown fire data is derived from Bureau of Land Management's Interagency Vegetation Mapping Project (IVMP).

Crown Fire Potential: 0-10

Table C.2: Hazard Layer Scores

Hazard Factor	Risk and Point Breakdown		
	Low	Moderate	High
Weather	0	20	N/A
Slope	0	2	3
Aspect	0	3	5
Elevation	0	1	2
Fuel	5	15	20
Crown Fire Potential	0	5	10

Source: Lane County Land Management, 2005

Community Values at Risk

Interface fires can be devastating events especially when their path crosses with highly populated or developed areas or those areas where important community infrastructure is located. In order to determine what values are for areas at risk to wildfire two main categories were analyzed.

First, the values for residences were modeled using the Lane County regional address dataset. Each address point (structure) was first given a ¼ mile buffer. A surface was then created displaying home density per 10 acres. The results were broken into 3 classes and given associated point values. .1-.9 (rural) has a value of 2, 1-5 (suburban) has a value of 15 and 5.1+ (urban) is given a value of 30.

Second, the presence of community infrastructure was analyzed in conjunction with housing density. Lane County recently concluded an exhaustive inventory of all industrial, commercial and public facility zoned lands as part of its periodic review work program. This inventory was used to identify and map a range of critical facilities and community establishments including: schools, churches, community

centers, health care facilities, major manufacturing, utility and fuel storage facilities. To the extent possible, the location of public utilities - municipal watersheds, water storage sites and power substations and generation sites were identified and mapped.

The presence, or lack of, community infrastructure was determined and assigned the following point values: 0 (none present), 10 (one present), and 20 (more than one present). These values have been combined with those generated from the home density analysis to make up the total Values Protected layer. See Table C.3, below.

Table C.3: Community Values at Risk Layer Scores

Housing Density Units: (homes per 10 acres)		Points	Presence of Community Infrastructure:	Points	Values Protected Rating:	From:	To:
Rural	.1-.9	2	None present	0	Low	2	15
Suburban	1-5.0	15	One present	10	Moderate	16	30
Urban	5.1+	30	More than one present	20	High	31	50

Source: Lane County Land Management Division, 2005

Protection Capability

The capacity of communities to prepare for and respond to the threat of wildfire is a critical component of a wildfire risk assessment. This capacity is determined by analyzing three features:

1. **Structural fire protection:** In Lane County, areas that fall within one of the twenty-five fire protection districts receive structural fire protection. All other (unprotected) areas receive only wildland fire protection from the Oregon Department of Forestry or the US Forest Service.

2. **Response time:** Areas inside of fire protection districts are broken into two groups – those areas that receive an assistance response in less than ten minutes and those areas where a response takes longer than ten minutes. In unprotected areas, the wildland protection is divided into areas where a response takes under or over twenty minutes.

3. **Community preparedness:** The level of mitigation efforts undertaken by the community to enhance wildfire awareness or to augment the effectiveness of fire response can be a very telling feature when calculating the overall protection capability of a community. Areas with involvement led by community stakeholder groups such as phone trees or other citizen backed mitigation efforts are considered more effective than areas were such efforts are conducted solely by fire protection districts or other government agencies.

In order to model response times inside and outside of a fire district it was necessary to use a road centerline layer that contained speed limits for each road segment. A countywide road centerline layer existed that contained values for "posted" speed zones. Posted speed zones ranged from 5mph to 65mph. Posted speed zones represented only a small portion of roads in Lane County, the remaining roads are officially considered "basic rule" which has a maximum speed of 55mph. It was decided to use the posted speed limits for the analysis but to use a different method for speed limits for the roads under "basic rule" since they didn't adequately represent true driving speed. For the roads with no posted speed zones a speed limit was assigned to roads based on the functional classification of the road:

Major Arterial – 55mph

Major Collector – 45mph

Minor Arterial – 45mph

Minor Collector – 40mph

Local Access Road – 25mph

Private Road – 25mph

Once all roads contained a speed value it was converted to a 30-meter grid. Any cell outside of a road was assigned 3mph. Values were calculated for each cell that represented the amount of time in minutes it would take to travel across each 30-meter cell. This travel time grid along with a point based fire station location layer were then used to perform a "cost grid" analysis that created a response time grid with values in minutes. Areas within a fire district with a response time of less than 10 minutes were assigned a point value of 0 and those areas within a fire district and a response time of greater than 10 minutes were assigned 8 points. Outside of the fire district boundary those areas with response times less than 20 minutes were assigned 15 and the areas outside a fire district and having response times greater than 20 minutes were assigned 36 points.

The level of community preparedness was determined through fire district surveys and interviews with Oregon Department of Forestry personnel. Areas where known community led mitigation and preparedness activities occur received a better, (0 points) ranking. Areas where mitigation activities are conducted by agency personnel only received 2 points. Areas with no known mitigation of preparedness efforts received 4 points. See Table C.4 below.

Table C.4: Protection Capability Layer Scores

Structural Fire Protection	Response Time	Points
Structural protection response:	< 10 minutes	0
Structural protection response	> 10 minutes	8
No structural protection, wildland response:	< 20 minutes	15
No structural protection, wildland response:	> 20 minutes	36
Community Preparedness		**Points**
Organized community efforts		0
Primarily agency effort		2
No effort		4
Protection Capability Rating:	**From:**	**To:**
Low	**0**	**9**
Moderate	**10**	**16**
High	**17**	**40**

Source: Lane County Land Management Division, 2005

Weighting of Factors

Table C.5: Weighting of Factors Used in the Risk Assessment

Risk Assessment Layer	Points Possible
Risk	5-40
Hazard	0-40
Values at Risk	15-50
Protection Capabilities	10-50
Total Possible	39-190

Source: Lane County Land Management Division, 2005

Overall Risk

Table C.6: Overall Risk Rating Used in the Risk Assessment

Risk Rating	Point Ranges
Low	39-89
Medium	89.1-139
High	139.1-190

Source: Lane County Land Management Division, 2005

Incorporating Local Input

Local fire fighters are a key resource in the identification of at risk areas and substantive input from every Lane County fire district was actively sought during this assessment.

Fire districts were engaged through the Lane County Fire Defense Board (FDB). From November 2004 to February 2005 risk assessment team members met regularly with municipal and rural district chiefs and representatives. The FDB was briefed on the methods used in the assessment and had the opportunity to provide comments and direction. The primary tool used to gather input from fire districts was a fire protection risk assessment and protection capability questionnaire. A draft questionnaire was developed and circulated to the FDB for review. After comments were submitted a final questionnaire and service area base map was provided to each of the twenty-five Lane County fire districts.

The intent of the questionnaire was to gather data related to the known WUI threats and protection capabilities. Districts were asked to provide specifics on a number of topics including: the extent of community preparedness to wildfire, the location of at risk areas due to fuels, poor access, and limited water supply, ISO public protection capability ratings, and others. A copy of the questionnaire is included at the end of this Appendix.

In addition to the questionnaire, enlarged aerial photo service area base maps were provided to each fire district. Fire chiefs were given colored pens and instructions and asked to indicate areas of special concern that fell into the following categories: developed areas at risk to wildfire due to the presence of vegetative fuels and topography, access and egress limited areas, areas with prevalent landscaping dangers including lack of defensible space and limited water supply for fire suppression, and areas affected by wind-throw, ice storms, or insect and disease epidemics.

Finally, information regarding wildfire threats was gathered through site visits conducted for use in the Lane County Natural Hazard Mitigation Plan. Between November and December 2003, Emergency Management Staff toured the majority of rural fire districts within the county. Windshield surveys and interviews with chiefs produced data about several hazards, including wildland urban interface fires.

Information provided by fire districts was used in two ways. First, protection capability data gathered through the questionnaire was incorporated into the GIS analysis. Information regarding fire assistance agreements and fire response time was used in the development of the response time layer and data about organized community stakeholder mitigation activities was used in the protection capability rating. Second, areas of special concern indicated through the

survey, mapping exercise and t site visits were compared to areas identified as high risk through the GIS analysis.

All areas of special concern identified by the fire districts are outlined in the in the assessment area panels located findings section of the risk assessment. Eventually, the fire district survey maps will be digitized and converted into an electronic format that is viewable online.

Appendix D
Fuel Treatment Types for Lane County

One of the minimum requirements for a Community Wildfire Protection Plan (CWPP) as described by the Healthy Forests Restoration Act is the identification of prioritized fuel reduction projects. A CWPP must identify and prioritize areas for hazardous fuel reduction treatments, as well as recommend appropriate treatment methods. Due to the diverse topography and eco-regions present in Lane County, the appropriate treatment methods vary considerably by vegetation type, annual precipitation, slope, aspect, and elevation.

The purpose of this appendix is to compare the common fuel treatment methods for each of the three eco-regions found in Lane County: the Coast Range, Willamette Valley, and Cascade Mountains. The following table provides information on the advantages, concerns, seasonality, application in the wildland-urban interface, and maintenance and scheduling for prescribed fire, mechanized thinning, and manual treatments across Lane County. The table only provides a general framework, and individual projects will need to be tailored to the conditions present in the local area. Local fuels specialists should be consulted in order to determine the most feasible array of fuels treatment options for a given geographical area.

Lane County Eco-Region Contacts

Coast Range

- Siuslaw National Forest, Mapleton Ranger District (Florence, OR) 541 902-8526
- Western Lane Fire Protection District (Veneta, OR) 541-997-8713

Willamette Valley

- Western Lane Fire Protection District (Veneta, OR) 541-997-8713
- Eastern Lane Fire Protection District (Springfield, OR) 541-726-3588

Cascade Mountains

- Willamette National Forest (Eugene, OR) 541-225-6300
- Umpqua National Forest, Cottage Grove Ranger District (Cottage Grove, OR), 541-767-5000

The structure of the table was adapted from the Florida Department of Community Affairs guide, Wildfire Mitigation in Florida: Land Use Planning Strategies and Best Development Practices1. Bev Reed, fuels specialist at the Cottage Grove Ranger District of the U.S. Forest Service modified the table with information appropriate to Oregon.

Table D.1: Comparison of Fuel Treatment Types

Coast Range					
Treatment Methods	**Advantages**	**Concerns**	**Seasonality**	**Application in WUI**	**Maintenance & Scheduling**
Prescribed Fire (incl. broadcast, understory or pile burning)	- Encourages herbaceous growth and supports native species and ecosystems - Cost effective fuels treatment method in most cases	- Broadcast & understory burning requires skilled application - Multiple entries may be required to achieve objectives - Re-burn potential in areas of heavy fuels or duff	- Broadcast & understory burning constrained by weather, fuels characteristics, and smoke management constraints - Pile burning may be conducted under a broader range of conditions (i.e. less constraints)	- Burning may be effective within or adjacent to WUI, either as a stand-alone treatment or in conjunction with mechanized or manual vegetation treatment methods	- Timing for subsequent treatments dependent upon condition class goals and degree of change made via initial treatment
Mechanized (i.e large equipment) Treatments (incl. thinning, pruning, lop and scatter, mowing, crushing, chipping, etc)	- Large local labor and contract pool - Cost effective over larger areas - Most methods reduce fire risk by getting fuels on ground (accelerating decomposition rates) or by removal - Can be followed by prescribed fire where needed	- Large equipment limited to gentler slopes - Potential "product" may be market-dependent - May be less economically feasible on small sites due to move-in/move-out costs - May create short-term increase in fire risk	- May require shut-down periods on some sites due to soils conditions or seasonal wildlife concerns - May be constrained by fire season requirements in summer	- Can be very effective within or adjacent to WUI, either as a stand-alone treatment or in conjunction with follow-up prescribed fire treatment methods	- Timing for subsequent treatments dependent upon condition class goals and degree of change made via initial treatment - Re-entry into thinning areas may be scheduled using standard silvicultural practices
Manual (i.e. hand) Treatment (incl. thinning, pruning, hand piling, raking, etc)	- Large local labor and contract pool - Can treat areas that cannot be treated by prescribed fire or mechanical means	- More labor intensive; may not be cost effective in areas of heavy fuels - May require more than one entry to achieve initial objectives for site	- Work can usually be conducted year-round - Chainsaw use may be constrained by fire season requirements in summer	- Can be very effective within or adjacent to WUI, either as a stand-alone treatment or in conjunction with follow-up fuels treatment methods (i.e. removal or burning)	- Timing for subsequent treatments dependent upon condition class goals and degree of change made via initial treatment - Re-entry into thinning areas may be scheduled using standard silvicultural practices

Willamette Valley					
Treatment Methods	**Advantages**	**Concerns**	**Seasonality**	**Application in WUI**	**Maintenance & Scheduling**
Prescribed Fire (incl. broadcast, understory or pile burning)	- Encourages herbaceous growth and supports native species and ecosystems - Cost effective fuels treatment method in most cases	- Broadcast & understory burning requires skilled application - Must invest time in informing and educating the public - Complete mop-up, if required for air quality reasons, may increase costs	- Burning constrained by weather, fuels characteristics, and smoke management constraints - Low elevation seasonal inversions and valley fog may affect burning opportunities	- Burning may be effective within or adjacent to WUI, either as a stand-alone treatment or in conjunction with mechanized or manual vegetation treatment methods - Most burning opportunities will exist along outer perimeters of urban areas/boundaries	- Timing for subsequent treatments dependent upon kinds of sites being treated, condition class goals and degree of change made via initial treatment - Recreation and other high use areas may be evaluated annually as part of a fire prevention and fuels maintenance program planning
Mechanized Treatments (incl. thinning, pruning, lop and scatter, mowing, crushing, chipping, etc)	- Large local labor and contract pool - Cost effective over larger areas - Most methods reduce fire risk by getting fuels on ground (accelerating decomposition rates) or by removal - Can be followed by prescribed fire where needed - Opportunities may exist for public to readily utilize material (i.e. chips, firewood, etc.)	- Potential "product" may be market-dependent - May be less economically feasible in isolated sites due to move-in/move-out costs - May create short-term increase in fire risk, especially in high-use recreation areas - In high use areas, if site precludes prescribed fire as a follow-up treatment, fuels removal or increased fire prevention patrols may be warranted	- May require shut-down periods on some sites due to soils conditions or seasonal wildlife concerns - May be constrained by fire season requirements in summer	- Can be very effective within or adjacent to WUI, either as a stand-alone treatment or in conjunction with follow-up prescribed fire treatment methods - Proximity to private residences may limit mechanical use due to noise concerns	- Timing for subsequent treatments dependent upon condition class goals and degree of change made via initial treatment - Re-entry into thinning areas may be scheduled using standard silvicultural practices - Recreation and other high use areas may be scheduled for annual mechanized treatments (i.e. mowing) - Private landowners and homeowners may be advised as to recommended maintenance by fire protection experts -
Manual Treatment (incl. thinning, pruning, hand piling, raking, etc)	- Large local labor and contract pool - Opportunities for volunteers, partnerships, stewardships or homeowner involvement - Can access areas that cannot be treated by prescribed fire or mechanical means	- More labor intensive; may not be cost effective in some areas - May require more than one entry to achieve initial objectives for site	- Work can usually be conducted year-round - Chainsaw use may be constrained by fire season requirements in summer	- Can be very effective within or adjacent to WUI, either as a stand-alone treatment or in conjunction with follow-up fuels treatment methods (i.e. removal or burning)	- Timing for subsequent treatments dependent upon condition class goals and degree of change made via initial treatment - Private landowners and homeowners may be advised as to recommended maintenance by fire protection experts

Cascade Mountains					
Treatment Methods	**Advantages**	**Concerns**	**Seasonality**	**Application in WUI**	**Maintenance & Scheduling**
Prescribed Fire (incl. broadcast, understory or pile burning)	- Encourages herbaceous growth and supports native species and ecosystems - Cost effective fuels treatment method in most cases	- Broadcast & understory burning requires skilled application - Multiple entries may be required to achieve objectives - May require additional costs if mop-up or post-burn monitoring of site is required	- Broadcast & understory burning constrained by weather, fuels characteristics, and smoke management constraints - Pile burning may be conducted under a broader range of conditions (i.e. less constraints)	- Burning may be effective within or adjacent to WUI, either as a stand-alone treatment or in conjunction with mechanized or manual vegetation treatment methods	- Timing for subsequent treatments dependent upon condition class goals and degree of change made via initial treatment
Mechanized Treatments (incl. thinning, pruning, lop and scatter, mowing, crushing, chipping, etc)	- Large local labor and contract pool - Cost effective over larger areas - Most methods reduce fire risk by getting fuels on ground (accelerating decomposition rates) or by removal - Can be followed by prescribed fire where needed	- Large equipment limited to gentler slopes - Potential "product" may be market-dependent - May be less economically feasible on small sites due to move-in/move-out costs - May create short-term increase in fire risk, especially in high-use recreational areas	- May require shut-down periods on some sites due to soils conditions or seasonal wildlife concerns - May be constrained by fire season requirements in summer	- Can be very effective within or adjacent to WUI, either as a stand-alone treatment or in conjunction with follow-up prescribed fire treatment methods	- Timing for subsequent treatments dependent upon condition class goals and degree of change made via initial treatment - Re-entry into thinning areas may be scheduled using standard silvicultural practices - Recreation and other high use areas may be scheduled for annual treatments designed to minimize risk of human-caused fire
Manual Treatment (incl. thinning, pruning, hand piling, raking, etc)	- Large local labor and contract pool - Can treat areas that cannot be treated by prescribed fire or mechanical means	- More labor intensive; may not be cost effective in areas of heavy fuels - May require more than one entry to achieve initial objectives for site	- Except at highest elevations, work can usually be conducted year-round - Chainsaw use may be constrained by fire season requirements in summer	- Can be very effective within or adjacent to WUI, either as a stand-alone treatment or in conjunction with follow-up fuels treatment methods (i.e. removal or burning)	- Timing for subsequent treatments dependent upon condition class goals and degree of change made via initial treatment - Re-entry into thinning areas may be scheduled using standard silvicultural practices

[1] State of Florida. 2004. *Wildfire Mitigation in Florida: Land Use Planning Strategies and Best Development Practices*. Florida Department of Community Affairs and Florida Department of Agriculture and Consumer Services.

Appendix E
Landowner Survey Summary

To gather input on attitudes and opinions regarding wildfire, the Oregon Natural Hazards Workgroup (ONHW) developed and administered a mail survey to 1,500 randomly selected landowners in the wildland-urban interface. The steering committee for the Lane County Community Wildfire Protection Plan (CWPP) reviewed and approved the survey instrument. The purpose of the landowner survey was to gain information about how landowners in wildland-urban interface areas of Lane County perceive the potential risk of wildfire and their attitudes towards risk reduction and preparedness strategies. The survey results may be used to focus public outreach activities aimed at wildfire risk reduction and loss prevention. Additional benefits of the survey include educating and informing the public, incorporating public values into decision-making, improving the quality of decisions, and building trust in this planning process.

Methodology

The landowner survey focused on wildfire risk awareness and communication, wildfire protection and preparedness, measures to reduce property risk to wildfire, and measures to reduce community risk to wildfire. Survey questions were based on two primary sources: 1) social science research studies supported by the National Fire Plan;[1] and 2) an all hazard risk perception household survey administered by ONHW in 2002.

The survey was mailed to a random sample of landowners selected from Lane Council of Governments Regional Lane Information Database. The sample frame (e.g., the list that the sample was drawn from) included landowners in the Impacted Forestlands (F2) and Rural Residential (RR) zoning designations under the Lane County Code. The sample frame also included lands, regardless of zone designation, in land survey sections determined to be in wildland-urban interface areas using aerial photographs.

ONHW administered the survey to 1,500 randomly selected landowners during February and March 2005. The process included a pre-postcard, the survey packet and a follow-up postcard. The pre-postcard informed the landowner that they would receive a survey about wildfire risk in the near future. The survey packet included 1) a cover letter explaining the purpose of the survey, 2) the survey instrument, and 3) a postage paid return envelope. ONHW mailed the follow-up postcard approximately one week after the survey to remind landowners to complete the survey by the deadline and to thank them for participating.

ONHW received 466 valid survey responses yielding a 32% response rate.

Limitations of Sampling Methodology

A key limitation of any random sample survey is non-response bias. If one were to assume that the sample was perfectly random and that there was no response bias, then the survey would have a margin of error of ±5% at the 95% confidence level based on the sample size relative to the sample population. This means that if the survey were conducted 100 times, the results would end up within ±5% of those presented in this report.

Non-response bias is an issue in all surveys, but is particularly important in mailed surveys due to response rates. The landowner survey received a 32% response rate. The survey results should not be considered representative of all Lane County residents, nor was it intended to be. The survey was intended to identify attitudes and opinions of *landowners in the wildland-urban interface*.[2] Thus, the scope of the survey was intentionally limited. The unique nature of the sample makes it difficult to determine areas of potential response bias. Despite the potential for response bias, our assessment is that the results provide an accurate representation of the attitudes and opinions of property owners in wildland-urban interface areas of Lane County in 2005. It is also important to note that the following responses were given by wildland-urban interface residents and it should not be assumed that the landowners are fire professionals.

Organization of Report

The survey results are organized into the following sections:

Characteristics of Survey Respondents: This section reports information about respondent characteristics including: educational attainment, home ownership, age, and household income.

Wildland Fire Risk Awareness and Communication: This section presents information about respondents' understanding of personal property, neighborhood, and community risk awareness. The survey also asked questions about how respondents receive information pertaining to wildland fire.

Fire Protection and Preparedness: This section presents the results of questions about fire protection services and level of preparedness for a wildland fire emergency.

Reducing Property Risk to Wildland Fire: This section identifies actions property owners would be willing to take in the future to protect their property from wildland fire.

Reducing Community Risk to Wildland Fire: This section presents landowners' opinions about protecting the greater community from wildland fire.

Tables and figures are used to display the data when possible. Tables and figures are titled and linked to the corresponding question number from the survey.

Survey Instrument: This section includes the survey instruments completed by landowners. The response percentages are documented in the instrument.

Open Ended Comments: This section documents all written comments provided by respondents of the survey.

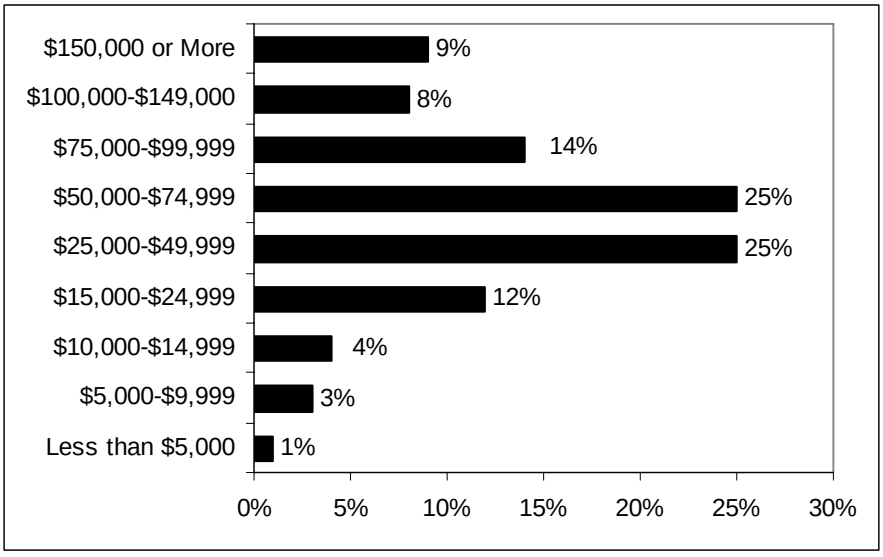
Characteristics of Survey Respondents

The survey instrument asked landowners to answer key demographic questions in order to help define the characteristics of the respondents. Specifically, the questions asked about age, educational attainment, household income, and information about the respondents' property and household. Because this survey targeted a unique population, landowners in the wildland-urban interface, it was not possible to obtain comparative census data.

The average age of respondents was 59 years old; respondents ranged from 18 to 90 years of age.

Figure E.1 shows total household income in 2004 as reported by respondents. Fifty percent of the respondents had an average household income between $25,000 and $75,000 in 2004.

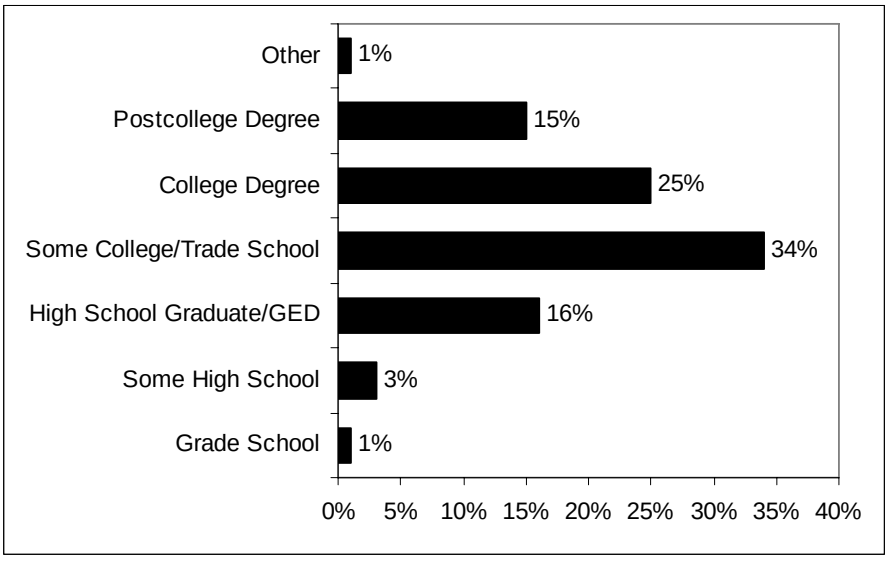
Figure E.1: Household Income in 2004 (Q-20)



Source: ONHW/CPW, 2005

Figure E.2 illustrates the educational attainment of respondents. Sixty-four percent have attained some college education, a college degree or a post-college degree. Persons with a high school degree or less are underrepresented among survey respondents.

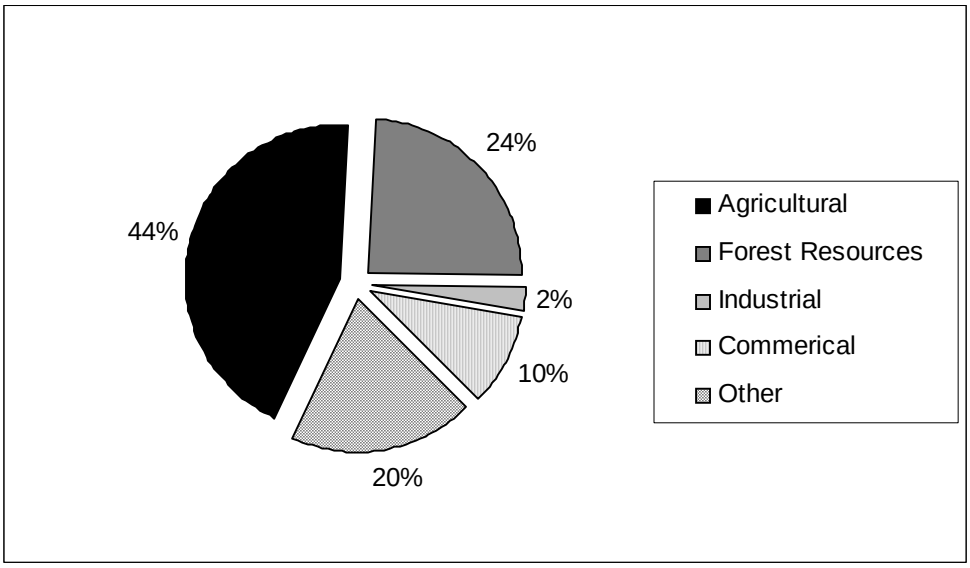
Figure E.2: Level of Educational Attainment (Q-21)



Source: ONHW/CPW, 2005

The survey asked general questions about respondents' properties, including ownership and use of property. The majority of respondents owned their home (98%) and were year-round residents of Lane County (93%). The average length of property ownership was 19 years; length of ownership ranged from one year to 100 years. Eight percent of the respondents primarily used their property for business purposes; of these respondents, 68% indicated that they used the property for agricultural and forest industries. Figure E.3 shows the types of businesses located on the property if the property was used primarily as a business.

Figure E.3: Types of Business Use of Property (Q-16)

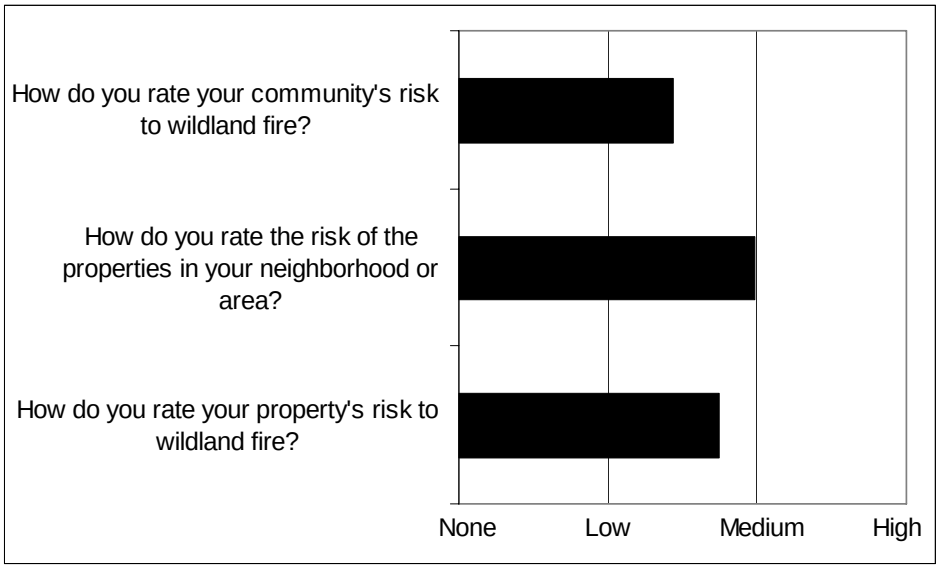


Source: ONHW/CPW, 2005

Wildland Fire Risk Awareness and Communication

To better understand perceptions of risk, the survey included several questions about wildland fire risk on respondents' property, in their neighborhoods and around their communities. Figure E.4 shows respondents' perceptions of wildfire risk. Over half (80%) of respondents perceived their property as a medium to low risk for wildland fires. Respondents perceived their neighbors' properties to have a higher risk than their own.

Figure E.4: Perceptions of Wildland Fire Risk (Q-1)



Source: ONHW/CPW, 2005

Personal Experience with Wildland Fire

The survey asked property owners about their personal experiences with wildland fire. Table E.1 shows the types of experience respondents have had with wildland fire. Forty-five percent reported that they had no previous experience with wildland fire. Just above half (57%), reported that they had witnessed a wildfire, smoke and other effects of wildfire, but few (8%) had actually evacuated their home or sustained property damage.

Table E.1: Personal Experience with Wildland Fire (Q-2)

Type of Experience	Percentage of Respondents with Wildfire Experience
Witnesses wildfire or observed smoke or other effects	57%
No experience with wildfire fire	47%
Suffered property damage from a wildland fire	4%
Evacuated home due to a wildfire	4%

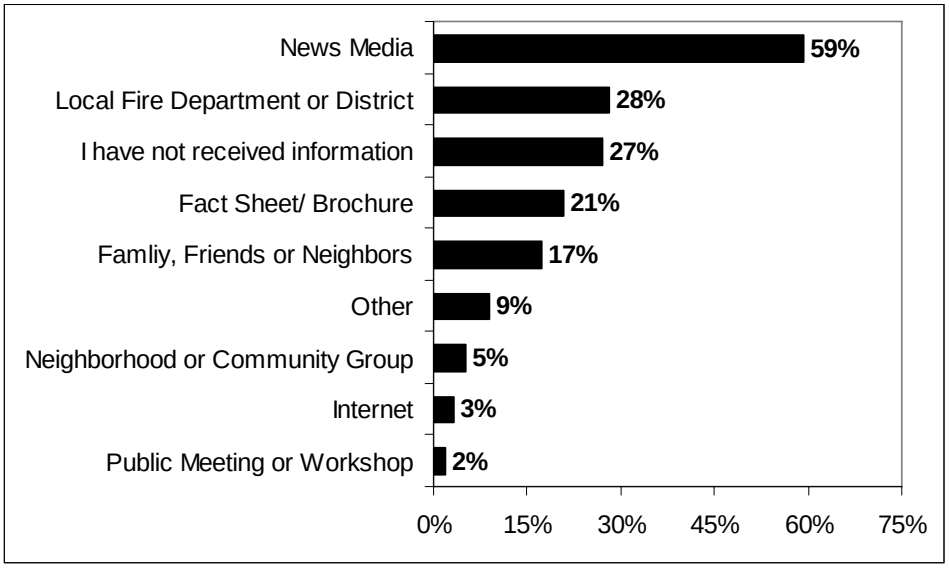
Source: ONHW/CPW, 2005

Sources of Information About Protecting Property

An important component of the landowner survey was gathering data on effective means of wildland fire information dispersal. The survey asked respondents how they received information about property protection in the past, as well as preferences for receiving information in the future.

Figure E.5 shows how respondents received information in the past about protecting their property against losses from wildland fire. Sixty percent of survey respondents had received information from news media and local fire departments or districts. Survey respondents reported that they did not widely use public meetings/workshops or the Internet to gather information about protecting property from wildland fire.

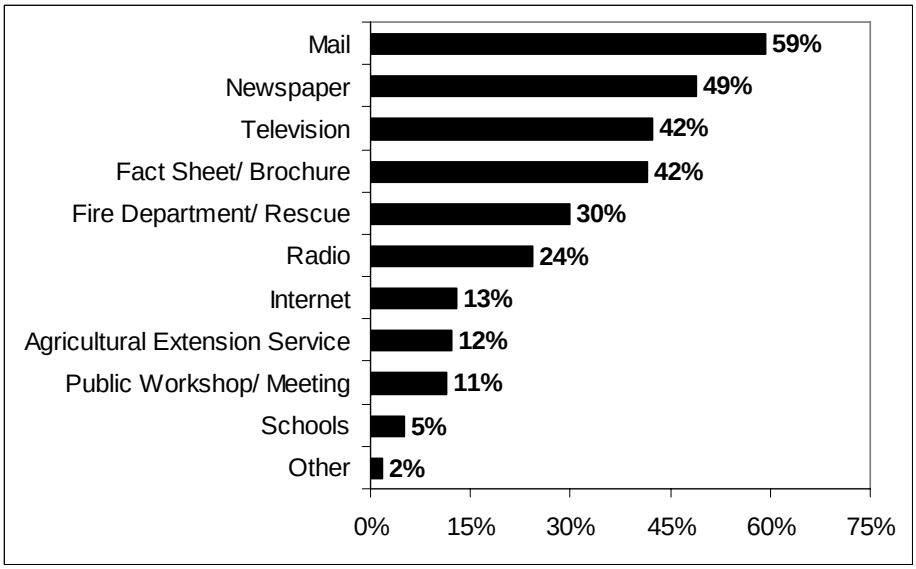
Figure E.5: Past Sources of Information About Protecting Property from Wildland Fire (Q-3)



Source: ONHW/CPW, 2005

The survey gathered information about effective means of future correspondence relating to wildland fire property protection (Figure E.6). Respondents' identified mail (59%), newspapers (49%), television (42%) and fact sheets/brochures (42%) as the top four preferred methods to receive information.

Figure E.6: Preferred Sources of Receiving Information About Protecting Property from Wildland Fire (Q-4)



Source: ONHW/CPW, 2005

Fire Protection Services and Wildland Fire Preparation

The survey gathered information about landowners' knowledge of their fire protection service providers. The survey also asked landowners about emergency preparedness, including evacuation procedures and insurance coverage.

Table E.2 shows that 70% of respondents receive fire protection services from a rural fire district. Six percent of respondents reported that they did not know if their property was protected by a fire protection service.

Table E.2: Fire Protection Services (Q-5)

Fire Protection Service Provider	% Respondents
Rural Fire Protection District	70%
Fire Department	20%
Don't Know	6%
Not Serviced by a Fire Department or District	4%

Source: ONHW/CPW, 2005

Table E.3 illustrates respondents' answers to questions about wildland fire preparedness. The majority (95%) of the respondents did not know or had not received information about community evacuation procedures. Sixty-six percent of respondents indicated that they did not have personal household evacuation procedures in the case of a wildland fire emergency.

One half (50%) of survey respondents reported that their insurance policies covered losses or structural damage incurred from wildland fire. However, 43% did not know if their insurance policies would protect their properties from damages or losses from wildland fire.

Table E.3: Wildland Fire Evacuation Procedures and Insurance Coverage (Q-6)

Question	Yes	No	Don't Know
Has your community informed you of their wildland fire evacuation procedures?	4.4%	90.8%	4.6%
Does your household have a wildland fire evacuation plan?	30.0%	66.0%	3.8%
Does your homeowners or business insurance policy include coverage in the event of structural damage or loss due to wildland fire?	49.9%	7.1%	42.8%

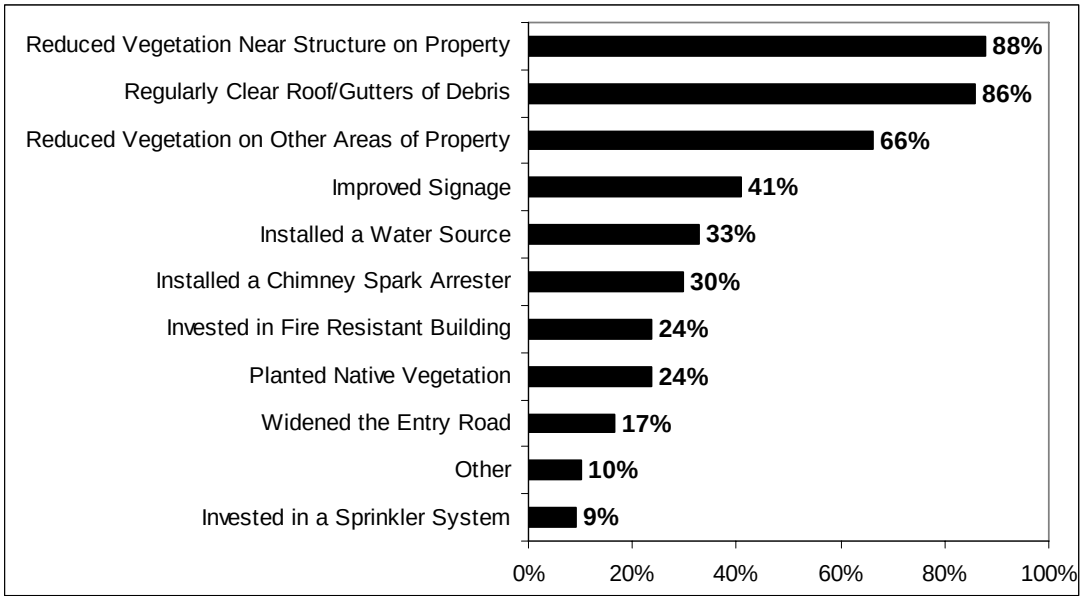
Source: ONHW/CPW, 2005

Reducing Property Risk to Wildland Fire

The survey gathered information from landowners about measures they have implemented to reduce the risk of wildland fire on their property. This section asked about specific risk reduction strategies.

The majority (90%) of respondents indicated that they have taken measures to reduce losses associated with wildland fire. Figure E.7 shows the types of risk reduction measures taken by respondents. The most frequently reported measures were reducing vegetation near structures and clearing roof/gutters of debris. Fewer property owners reported implementing the measures that required higher financial investment.

Figure E.7: Actions Taken to Reduce the Potential Losses from Wildland Fire (Q-7)



Source: ONHW/CPW, 2005

Preferred Risk Reduction Actions and Incentives

The survey asked landowners about their willingness to take specific actions to reduce the potential impacts of wildland fire on their property. Table E.5 shows the likelihood of respondents to take different risk reduction actions. The majority of respondents indicated that they are likely to reduce vegetation and debris (79%) and create defensible zones around structures (65%). Respondents were less likely to improve emergency access or use fire-resistant building materials.

Table E.5: Risk Reduction Actions Most Likely to Take (Q-8)

Risk Reduction Action	Very Likely	Somewhat Likely	Not Likely
Reduce debris and vegetation on property	78.5%	15.2%	6.2%
Clear a defensible zone around the property	64.9%	25.2%	9.9%
Improve emergency access to property	35.1%	20.1%	44.8%
Use fire resistant building materials	32.8%	33.9%	33.3%

Source: ONHW/CPW, 2005

The survey asked landowners which incentives, if any, would motivate them to take additional steps to protect their properties from wildland fire (Table E.6). The highest percentage of respondents indicated that insurance discounts (70%)or tax breaks/incentives (67%)would motivate them to implement risk reduction steps. About one-third of respondents indicated that grant programs would encourage better protection measures.

Table E.6: Preferred Incentives to Better Protect Property (Q-9)

Type of Incentive	Percent of Respondents
Insurance Discounts	69.7%
Tax Break or Incentive	68.6%
Grant Program	29.2%
None of the Above	12.2%
Other	5.6%

Source: ONHW/CPW, 2005

Reducing Community Risk to Wildland Fire

The survey asked respondents their opinions and preferences for different strategies to reduce community risk to wildfire. Communities may take a variety of approaches to wildland fire mitigation. The questions in this section help to inform policy decisions by providing better understanding of the level of landowner support for different approaches.

Hazardous Fuels Treatment

Respondents indicated their levels of support for four methods of hazardous fuels treatments in their communities (Table E.7). The treatments included: no action, mechanical thinning, prescribed burning, and chemical treatments. Of the four, the two preferred methods were mechanical thinning (92%) and prescribed burning (74%). Respondents were divided over chemical treatment with 48% supportive and 43% unsupportive of the treatment method. Sixty-nine percent of respondents were unsupportive of no action being taken to reduce hazardous fuels.

Table E.7: Support for Hazardous Fuels Treatments (Q-10)

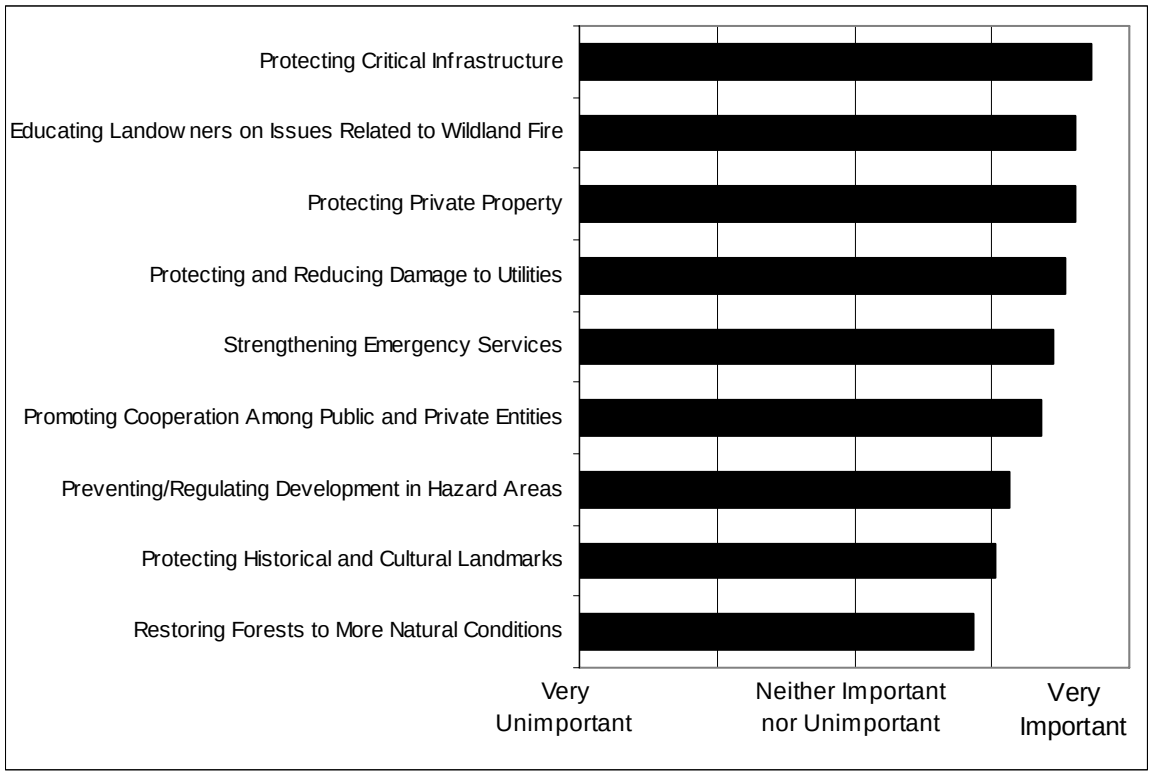
	Supportive	Neither Supportive nor Unsupportive	Unsupportive
No Action	11%	21%	69%
Chemical Treatment	48%	10%	43%
Prescribed Burning	74%	12%	14%
Mechanical Thinning	92%	4%	4%

Source: ONHW/CPW, 2005

Landowner Priorities for Future Wildland Fire Planning

The survey asked landowners about their opinions on the importance of different planning priorities for wildland fire. Figure E.8 shows the level of importance placed on different planning priorities by respondents. The majority of respondents indicated that each of the planning priorities listed were very or somewhat important. Protecting critical infrastructure, educating landowners, and protecting private property were the priorities ranked with highest importance. Of the priorities listed, respondents indicated that restoring forests to natural conditions was the least important.

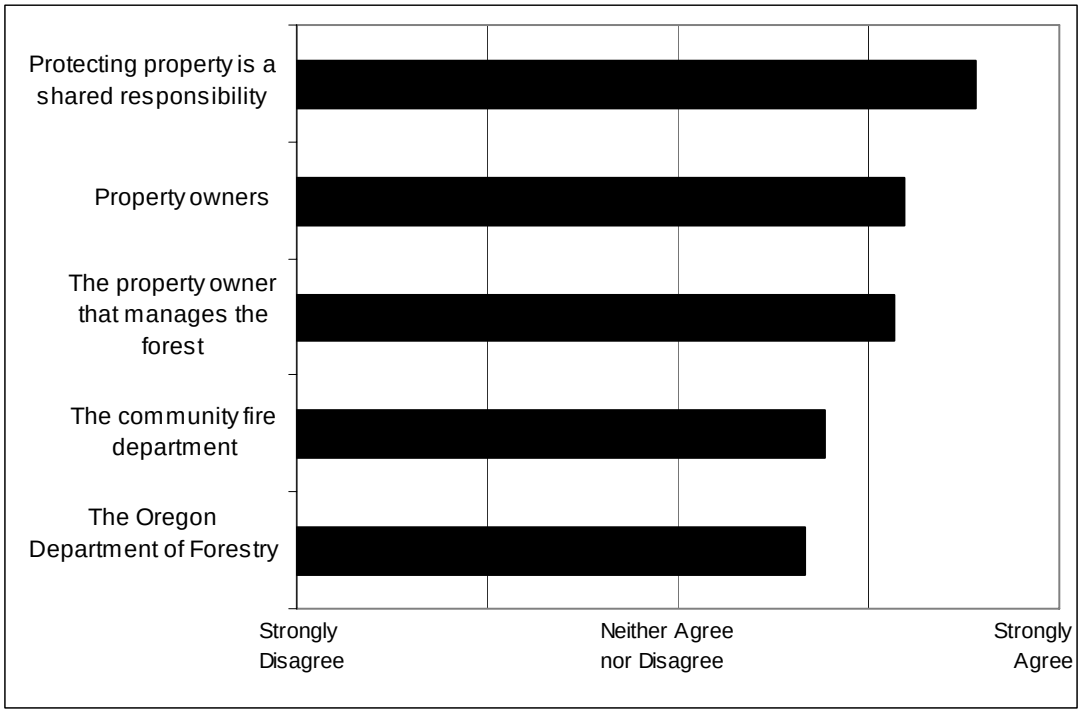
Figure E.8: Priorities for Wildland Fire Planning (Q-11)



Source: ONHW/CPW, 2005

Figure E.9 shows respondents' opinions on responsibility for protecting property against wildland fire. The majority (94%) of respondents agreed or strongly agreed that the responsibility for protecting property is shared between private landowners, local, state and federal agencies. Eighty-four percent of respondents agreed or strongly agreed that property owners are responsible for wildland fire protection. Fewer respondents agreed that the Oregon Department of Forestry or the community fire department is solely responsible.

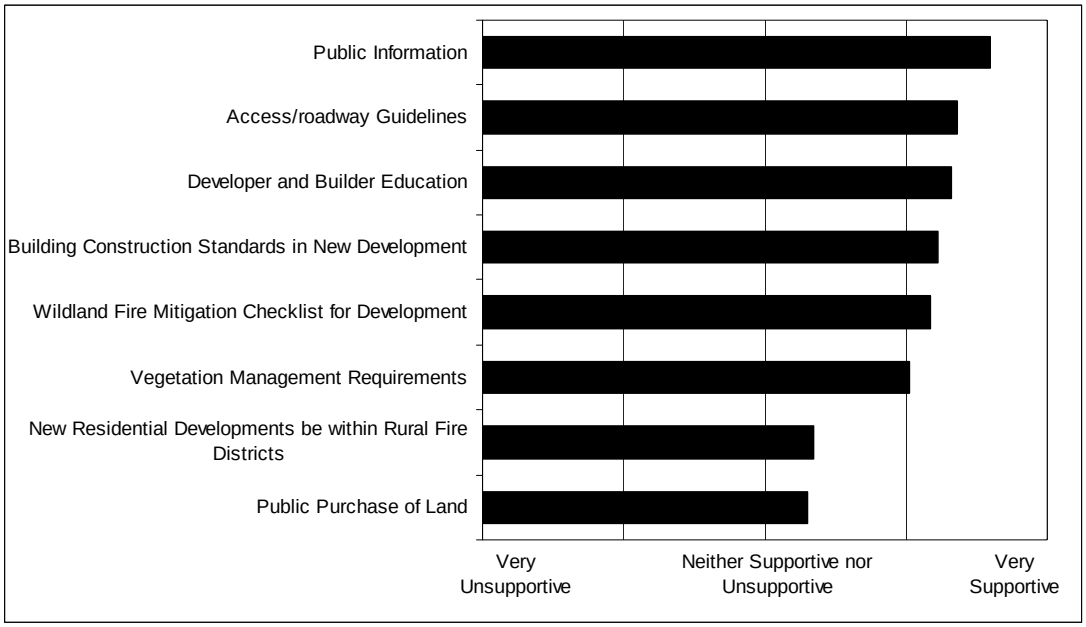
Figure E.9: Responsibility for Protecting Private Property from Wildland Fire (Q-12)



Source: ONHW/CPW, 2005

There are a number of regulatory and non-regulatory activities that communities can implement to reduce wildland fire risk. Figure E.10 shows respondents' levels of support for different risk reduction strategies. Respondents indicated the highest level of support for a public information strategy; 95% were very or somewhat supportive. Seventy-eight percent or greater of respondents were very or somewhat supportive of four out of five of the regulatory strategies listed. The most popular were access/roadway guidelines (88%) and building construction standards for new development in high hazard areas (83%). Of the risk reduction strategies listed in the survey, respondents indicated the least support for requiring new rural residential developments be within rural fire protection district boundaries (50%) and for public acquisition of land in high hazard areas for open space (46%).

Figure E.10: Regulatory and Non-Regulatory Strategies for Wildland Fire Risk Reduction (Q-13)



Source: ONHW/CPW, 2005

[1] United States Department of Agriculture. 2003. "Homeowners, Communities, and Wildfire: Science Findings from the National Fire Plan".

[2] It is notable that the survey included absentee landlords. It also includes respondents that occupy a residence on their property, as well as a few businesses.

LANE COUNTY LANDOWNER SURVEY

Instructions: This survey focuses on wildland fire risk awareness, preparedness, and the risk reduction activities of property owners. The estimated time for completing the survey is fifteen to twenty minutes. It should be completed by an adult, preferably the head of the household. **Please return the survey in the enclosed postage paid envelope by March 21, 2005**. All responses are kept confidential.

Your participation is voluntary. If you have any questions regarding the survey, please contact Julie Baxter at the University of Oregon (541-346-3651). If you have questions regarding your rights as a research participant, please contact the Office of Human Subjects Compliance call (541) 346-2510. Please mail completed surveys to CPW, 1209 University of Oregon, Eugene, OR 97403.

WILDLAND FIRE RISK AWARENESS AND COMMUNICATION

The term *property* is used throughout this survey; please interpret this as including both land and structures such as homes.

1. Please check the box that represents your opinion on the level of risk at each of the three areas listed below:

Question	High	Medium	Low	None
How do you rate your property's risk to wildland fire?	16.7 %	44.1 %	36.3 %	2.9 %
How do you rate the risk of the properties in your neighborhood or area?	24.4 %	50.7 %	23.3 %	1.6 %
How do you rate your community's (e.g. roads, schools, hospitals, shopping centers, historic landmarks) risk to wildland fire?	6.4 %	37.0 %	50.9 %	5.7 %

2. Have you or someone in your household personally experienced a wildland fire? (Please check all that apply.)

45.6 % No experience with wildland fire
57.0 % Witnessed wildland fire or observed smoke or other effects of wildland fire
3.5 % Evacuated home due to a wildland fire
3.5 % Suffered property damage from a wildland fire

3. How have you received information in the past about protecting your property from wildland fire? (Please check all that apply.)

27.1 % I have not received information
59.3 % News media (radio, newspaper, TV)
20.9 % Fact sheet/brochure
3.3 % Internet
(specify):_____
5.1 % Neighborhood or community group,
(specify):_____
2.0 % Public meeting or workshop
17.2 % Family, friends, or neighbors
28.2 % Local fire department or district
9.0 % Other

4. What is your preferred method for receiving information about protecting your property from wildland fire? (Please check all that apply.)

48.8 % Newspaper
24.3 % Radio
42.2 % Television
59.4 % Mail
13.0 % Internet
1.8 % Other (specify):_____
30.0 % Fire department/rescue
5.1 % Schools
41.5 % Fact sheet/brochure
11.3 % Public workshop/meetings
12.1 % Agricultural extension service

FIRE PROTECTION AND PREPAREDNESS

5. Do you know if your property is serviced by a fire department or rural fire protection district? (Please check only one.)

19.9 %	Fire department	3.8 %	Not serviced by a fire department or district
70.4 %	Rural fire protection district	5.9 %	Don't know

6. Please answer the following fire protection and preparedness questions.

Question	Yes	No	Don't Know
A. Have you received information about wildland fire evacuation procedures for your community?	4.4 %	90.8 %	4.6 %
B. Does your household have a wildland fire evacuation plan?	30.0 %	66.0 %	3.8 %
C. Does your homeowner or business insurance policy include coverage in the event of structural damage or loss due to wildland fire?	49.9 %	7.1 %	42.8 %

REDUCING PROPERTY RISK TO WILDLAND FIRE

Property owners can take a number of actions to reduce the potential for property damage due to wildland fire. For instance, an owner can significantly reduce the chances of structures igniting during a wildland fire by creating and maintaining a defensible space around structures on their property. Defensible space is a fire-safe zone created by reducing flammable vegetation around a structure.

7. Please indicate if you have taken any actions to reduce the potential for fire losses on your property?

89.9 % Yes
10.1 % No (IF NO, Skip to Question 8)

7.1 If YES, which of the following actions have you taken on your property? (Please check all that apply.)

85.9 % Regularly clear roof/gutters of debris
87.9 % Reduced vegetation near structures (buildings) on property
66.3 % Reduced vegetation on other areas of property
23.5 % Planted native vegetation (plants)
23.8 % Invested in fire resistant building materials
29.6 % Installed a chimney spark arrester
32.8 % Installed a water source
9.0 % Invested in a sprinkler system
40.9 % Improved address signage for better visibility
16.7 % Widened the road leading to the property
10.0 % Other (specify):_____

8. Please indicate how likely you are to take the following actions to reduce the potential impacts of wildland fire to your property.

Risk Reduction Action	Very Likely	Somewhat Likely	Not Likely
A. Reduce debris and vegetation on property	78.5 %	15.2 %	6.2 %
B. Create defensible zones around structures	64.9 %	25.2 %	9.9 %
C. Improve emergency access to property	35.1 %	20.1 %	44.8 %
D. Use fire resistant building materials	32.8 %	33.9 %	33.3 %

9. Which of the following incentives, if any, would motivate you to take additional steps to better protect your property from wildland fire?

69.7 %	Insurance discount	29.2 %	Grant program
68.6 %	Tax break or incentive	12.2 %	None of the above
5.6 %	Other (specify):_____		

REDUCING COMMUNITY RISK TO WILDLAND FIRE

10. Developed public and private lands can create a wildland fire risk when trees and underbrush grow densely near structures. Several methods can be used to maintain trees and underbrush to reduce the potential for wildland fire impacts. Mechanical thinning involves the use of chainsaws, brush mowers, or other specialized machines to reduce the number of shrubs and small trees, thus reducing the potential for nearby structures to ignite. Prescribed burning involves controlling naturally caused fires or intentionally setting fires to burn under close and careful watch. Chemical treatment involves the application of chemical agents to prevent or restrict the growth of existing vegetation. Please indicate how supportive you are of each of the following methods.

Treatment Method	Very Supportive	Somewhat Supportive	Neither Supportive nor Unsupportive	Somewhat Unsupportive	Very Unsupportive
A. No Action	6.2 %	4.5 %	20.5 %	15.4 %	53.4 %
B. Mechanical Thinning	68.6 %	24.5 %	3.7 %	1.6 %	1.6 %
C. Prescribed Burning	39.0 %	34.7 %	12.1 %	7.4 %	6.9 %
D. Chemical Treatment	24.7 %	22.6 %	10.0 %	13.5 %	29.2 %

11. Wildland fire can have a significant impact on a community, but planning for its occurrence can help lessen the impacts. The following statements will help determine landowner priorities for planning for wildland fire. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neither Important nor Unimportant	Somewhat Unimportant	Very Unimportant
A. Protecting critical infrastructure (e.g. roads, hospitals, schools)	80.2 %	14.9 %	3.1 %	1.3 %	0.4 %
B. Protecting private property	66.3 %	28.3 %	4.5 %	0.9 %	0.0 %
C. Preventing or regulating development in hazard areas	46.1 %	34.1 %	11.4 %	3.9 %	4.5 %
D. Restoring forests to natural conditions	38.4 %	30.8 %	16.2 %	8.7 %	5.9 %
E. Protecting historical and cultural landmarks	34.3 %	42.6 %	16.6 %	3.8 %	2.7 %
F. Promoting cooperation among public agencies, citizens, non-profit groups, and businesses	52.1 %	36.2 %	8.5 %	1.3 %	1.8 %
G. Reducing damage to utilities	62.0 %	31.1 %	6.3 %	0.4 %	0.2 %
H. Strengthening emergency services (e.g. police, fire)	56.0 %	35.5 %	6.5 %	1.6 %	0.4 %
I. Educating landowners on wildland fire	65.2 %	31.3 %	2.6 %	0.4 %	0.4 %

12. Please indicate your opinion on each of the following statements about responsibility for protecting property from wildland fire.

Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
A. Private property owners are responsible for protecting their property from wildland fire.	42.5 %	41.6 %	9.6 %	5.4 %	0.9 %
B. The community fire department is responsible for protecting property from wildland fire.	16.6 %	55.7 %	17.7 %	8.2 %	1.8 %
C. The property owner (including federal, state, local, and private) that manages the forest is responsible for protecting property from wildland fire.	32.7 %	51.2 %	14.1 %	1.6 %	0.5 %
D. The Oregon Department of Forestry is responsible for protecting property from wildland fire.	17.4 %	45.8 %	25.6 %	8.5 %	2.7 %
E. Protecting property from wildland fires is a shared responsibility between private landowners, local, state, and federal government agencies.	65.1 %	28.6 %	4.6 %	0.4 %	1.3 %

13. A number of activities can reduce your community's risk to wildland fire. These activities can be both regulatory and non-regulatory. An example of a regulatory activity would be a policy that requires the review of development plans to meet certain criteria in known wildland fire hazard areas. An example of a non-regulatory activity would be to develop a public education program to demonstrate steps citizens can take to make their property safer from wildland fire. Please check the box that best represents your support of the following strategies to reduce the risks posed by wildland fire.

Risk Reduction Strategy	Very Supportive	Somewhat Supportive	Neither Supportive nor Unsupportive	Somewhat Unsupportive	Very Unsupportive
A. Public information to increase citizen action in reducing risk	97.3 %	28.4 %	3.3 %	0.4 %	0.4 %
B. Requirements for vegetation management around structures located in high hazard areas	38.7 %	40.0 %	10.4 %	6.2 %	4.7 %
C. Building construction standards for new development in high hazard areas	49.6 %	33.6 %	9.3 %	5.6 %	2.0 %
D. Access/roadway guidelines for new development in high hazards areas	52.9 %	35.1 %	8.7 %	1.8 %	1.6 %
E. Developer and builder educational programs	48.5 %	38.0 %	11.4 %	0.7 %	1.3 %
F. Wildland fire mitigation checklist for development review process in high hazard areas	41.9 %	39.7 %	13.5 %	3.6 %	1.3 %
G. Public purchase of land in high hazard areas for open space	19.7 %	26.5 %	30.9 %	10.3 %	12.6 %
H. Require new rural residential developments be within rural fire protection district boundaries	24.3 %	25.9 %	22.8 %	13.2 %	13.8 %

GENERAL LANDOWNER INFORMATION

14. How long have you owned the property to which this survey is addressed? Average 19.3 Years

15. What is your zip code?

16. Is this property primarily used as a business?

8.2 %	Yes
91.6 %	No (IF NO, Skip to Question 17)

16.1. What type of business is it?

43.9 %	Agricultural
24.4 %	Forest Resources
2.4 %	Industrial
9.8 %	Commercial
19.5 %	Other (specify):_____

17. Do you rent or own the home in which you live?

0.4 %	Rent
97.6 %	Own (or am buying)
1.8 %	Occupy without payment or rent

18. Do you live in the home where you received this survey year round or seasonally?

93.0 %	Year round
6.1 %	Seasonal

19. What is your age? Average 59 Years

20. Please estimate your total household income in 2004 before taxes.

0.8% Less than $5,000 11.9 % $15,000-$24,999 13.7 % $75,000-$99,999
2.6 % $5,000-$9,999 24.9 % $25,000-$49,999 8.0 % $100,000-149,999 4.4 %$10,000-14,999 25.1 % $50,000-$74,999 8.5 % $150,000 or more

21. Please indicate your level of education.

1.1 %	Grade school/no schooling	24.9 %	College degree
2.7 %	Some high school	15.2%	Postcollege degree
16.6 %	High school graduate/GED	1.1 %	Other (please specify):_____
35.8 %	Some college/trade school		

Please feel free to provide any additional comments in the space provided below.

THANK YOU VERY MUCH FOR PROVIDING THIS INFORMATION

The Oregon Natural Hazards Workgroup at the University of Oregon's Community Service Center prepared this survey. For more information, please contact Oregon Natural Hazards Workgroup at 1209 University of Oregon, Eugene, OR 97403-1209, call (541) 346-3653, or visit http://www.OregonShowcase.org

Responses to Open-Ended Questions

The Lane County Landowner Survey included a number of open-ended (e.g., fill in the blank) questions. The following represents the transcribed comments provided by survey respondents.

Q-3. How have you received information in the past about protecting your property from wildland fire?

Neighborhood or community group

- Neighborhood Watch Disaster Preparedness Program
- Can't remember which
- SBNA
- Spencer Butte Neighborhood Association
- SBNA
- Fire prevention info from schools
- Ag. extension service
- Forest Service fire crew
- Visit/property inspection by local fire dept/forest service
- Work, ex-USFS fire prevention specialist – ex-rural fire dept. firefighter/officer
- Firemen from local fire dept
- Neighborhood Watch
- Homeowners Association
- Volunteer group
- Church – CERT. Evacuation – specifically in event or tsunami, not fire
- McKenzie View Neighborhood Watch
- Spencer Butte Neighborhood Assn. fire tree list
- SBNA
- McKenzie View Neighborhood Watch

Other

- Forest Service
- Work
- Has house and property evaluated by ---somebody ---USFS?
- Property in LaPine Oregon
- Home and fire magazine
- Personal study
- Lane county
- Common Sense
- Work
- Member of national fire team
- Common sense
- Permit requirements
- County
- Newspaper
- West Lane Forestry

- Land use requirements
- Forestry graduate
- California Dept. of Forestry
- Used to be employed at E.P.D.
- Government warning sign posted in area.
- Experience with slash burning. Worked in the woods and saw it get out of control. We had to fight to regain control. Scary stuff!!
- Training sessions in wildland fire fighting
- Common sense!
- County – when applied for a permit
- Fire expert at Neighborhood Watch meeting who worked for our environmental consulting business in California as a consultant
- Lane Co. land use permits
- When it was close they called with a message (recorded)
- From Lane County building permits
- County land use development
- Building permit process
- City of Eugene
- Retired Eugene Fire Dept.
- Deschutes County
- Lane County
- Extension class
- Insurance co.
- Grandson who is a wildfire fighter
- Forest stewardship plan

Q-4. What is your preferred method for receiving information about protecting your property from wildland fire?

- Experience
- Local news
- Ongoing educ. (students)
- Email
- Forestry Dept.
- Onsite consultation

Q-7.1. Which of the following actions have you taken on your property?

- Reduced forest fuels
- Fire hoses and fire hose connections to my water system
- Drip system
- Reduced vegetation throughout thinned trees
- Moved firewood pile
- Replaced Shake roof with Metal
- Mow approximately 1 acre around house
- Regular mowing along fence lines and roads

- Buffer Zone
- Identified places for pump truck to get water
- Fuel burn inspection during remodel of house
- Moved firewood away from house
- Pond/pump/fire hoses
- Fire tank trailer/pump
- Blacktop around the home
- Kept pastures mowed
- Barrel of rainwater
- Adequate
- Firewood away from home, no cedar roof
- Have rock & river as property lines
- 350 gal. water tank on wheels & hose
- Fire breaks, back up water supply
- Upgraded pellet stove vents
- Fire extinguisher in house & garage
- Extra hose cart for fighting fires 5/8"x200' hose (until help arrives)
- Disc around property line
- Large fire ext.
- Maintain about 2 miles of interior roads
- Regular mowing
- Turnaround for fire truck near house
- Cut trees
- 2,000 gallons of water stored for pumping
- Clear bush out
- Clean up winter forest debris
- Super sensitive smoke alarms
- Removed shakes & used composition roof
- Added driveway that is more direct to road
- Put in a fire-safe zone around home/buildings
- Installed steel roof

Q-9. Which of the following incentives, if any, would motivate you to take additional steps to better protect your property from wildland fire?

- Fire dept assessment of property
- A survey of my property to show me where & how I could improve my risk of wildfire damage.
- Not very good options
- Low cost tractor/mower deck rental from the county or fire department
- We asked our insurance company and there is no significant difference in risk if we build out of wood or brick, so we are building out of wood
- Logical practicality [will it really help]
- Need Parks Dept. to clean up their mess
- Public assistance

- Because it's my home
- Someone to do the job
- Safety measures
- I take fire seriously – it is my own responsibility; it is my job.
- The incentive is to reduce fire potential.
- Help in the cost of doing it.
- Rebate
- Nothing – I protect my property now
- The work I do is to prevent my house from burning & my neighbors'
- We are motivated by safety & responsible property ownership. However, we would not turn down any of the motivations listed!
- Low cost assistance clearing large trees.
- Safety
- Services of professional consultant about what specific steps to take for my property
- Clear need demonstration – I feel current situation is OK
- Common sense
- Safety unproved
- Onsite consultations

Q-16.1. What type of business is it?

- Horse ranching
- Church/school
- Rental
- Mobile Home Park
- Campground/mobile home park
- Art sales – mail order
- Boarding kennel
- Horse ranch, 8 acres, ½ trees, ½ pasture
- Golf course
- Rental house
- Photography studio
- Design & retail
- Trailer court

Q-21. Please indicate your level of education

- Broker's license, real estate
- Administrative counseling
- Ph.D.
- State Ed program in law enforcement
- Navy schooling
- Post-doctorate
- USAF

Please feel free to provide any additional comments in the space provided below.

- We moved from Bend/Redmond where we lived amongst old growth Junipers. We were very aware of green space around buildings and activities outdoors with potential fire danger. We are not lulled into thinking fire can't happen over here. We live in the Mohawk Valley on the river & are less likely to have a wildfire. How about fire dept. issuing & selling fire & emergency address signs.
- We live on a busy road and worry a lot when the vegetation along the road is tinder dry. We have had fireworks tossed out of cars and cigarettes. We do water as often as we can to try and keep the fire danger down.
- My greatest concern is development that brings families into the are who have little boys, since boys like to sneak off and smoke and/or play with matches, lighters, and other fire. I consider them to be the gravest danger, at least to my woodlot and, therefore, my home.
- This is a great community service in developing community wildfire protection plan. We are in a rural area and have a high potential [because of] hazardous place next to us. The owners have large areas of "junked" equipment & fallen trash & wood piles. County regulations must allow this . . . or at least have no inspection policy to deter such hazards!! How do we report this?
- Church structure with metal roofing located on large lot that is mowed to meet fire safety standards.
- I am always surprised to see that fireworks are sold in Lane Co. They are a definite fire hazard. This survey is important, as will be the follow-up.
- Most of this survey deals with housing developments. I live & manage timber property where we worry about a "forest fire" – not a fire that goes thru the Eugene South Hills.
- Survey requires over-simplification and solutions, as well as specific circumstances, so results should be viewed with caution.
- I live in a subdivision of 28 homes. We spray for gorse control of common areas every year. A lot of land around us has a lot of gorse which is a fire hazard. They should be made to control it.
- There has to be a <u>strong</u> enforcement (with teeth) or a total ban on entry into BLM lands or other public/gov't-owned timberlands. Without this we are all open to vandalism & nuisance/careless fires!
- Conceding that there are always extenuating circumstances, as a matter of principle, the general public should not be made responsible for fire protection in areas of residential developments which were irresponsibly located in high wildland fire hazard areas.
- Our rural neighbors need to be educated concerning fuel for wildfires. One of them brought clippings from town and dumped them on our right-of-way at the bottom of our hill – fire travels uphill!?!
- Questions unclear at times. Should have "not applicable" choice.
- Strongly prefer incentives over regulations. It has been very difficult to make our older home/property less vulnerable. Education would be most effective at the time of development.
- Thank you for drawing my attention to some of these questions – I've lived here 4 years and realize I need to find out some answers.

- I believe that private property owners should continue to be allowed to prohibit government agencies from using chemical plant growth controls on roadways bordering private property.
- It's very important that people help themselves. An awareness program to help people focus on the potential danger can be very important.
- On question concerning improving emergency access to my property, my driveway has a sharp uphill turn that makes it difficult for heavy equipment and access.
- My feeling is that people who live in forested areas are more aware of fire danger than those who live elsewhere. I think in general we are more careful and observant than those who just visit the forest. We take care of our forest.
- Neighbors allowing their lands to become a fire hazard as a result of uncontrolled grasses/trees/weeds monitoring needed and enforced.
- The Army Corps of Eng & Lane County Parks (Dexter Lake) now have a firebreak area between their park and our private prop.
- Common sense must prevail.
- I am pleased to see this survey. I hope more can be done to help with wildland fires.
- This survey was educational – provided info.
- I would need to hire someone to clear brush – at what cost?
- I worry when a neighbor's bonfire is closer to my fence/forest, than to the neighbor's building. That neighbor may consider that his bonfire presents no risk (to his building) or that containment has never (yet) failed. Perhaps I simply worry too much.
- I feel access to land for fire fighting equipment very important – more important than preserving wilderness from this access. Strict enforcement of fire season – equipment use, fire protection equipment, burning (not allowed).
- The area I responded to is near Loraine Hwy & Fox Hollow Road.
- There is a fine line between wanting to do the right thing to protect property and over-regulation. Incentives to conform to a safer environment need to benefit not only the owner but also renters who maintain the property anyway. Thank you for this much need survey. <u>Because</u> of your survey I will make sure I have wildland fire coverage.
- Just a thought: If you could somehow convince (without coercion) property owners with on-site dead wood (standing or fallen) to allow trespassing (by neighbors) to remove deadwood only (for use as firewood). Restrictions could apply where requested such as – no roads, no motor vehicles, only what could be moved by wheelbarrow; by hand, no chainsaws, only non-motorized saws & axes. Woodcutters should show ID & sign in, naturally no trash to be left behind. Only on specified days and/or times. Removal of even a percentage of dry deadwood should reduce risk of wildfire speed and intensity. For example: in Sec 26, T185, R4W, I don't suppose that you could initiate contacting the out-of-state owner of tax lot 404 <u>to ask</u> if the tenant-resident of tax lot 200 (across the road) could harvest dead wood (only) for firewood? Would they all have to sign a waiver for risk or injury?
- #1 Suggestion: Please make fireworks illegal!!! Especially in hazardous areas!!!
- 50% of surrounding properties are F2 in immediate area
- We need to get into our forests and get rid of all old and rotten trees. Keep our forests healthy. Also we need a lot of roads through our forests. We need to be able to get to a fire. That's the way it <u>used</u> to be.

- We do not need more laws and restrictions. We need education.
- I live in the Mohawk Valley which is largely commercial timberland and ripe to burn. To my knowledge, there is no plan for evacuation!
- We moved to this residence because it is in a beautiful location, away from large numbers of people, and are willing to accept the risk of fire. We voted against a rural fire protection district.
- Re question 11 C & D (preventing or regulating development in hazard areas): Sounds too restrictive, as if written by the ON.R.C. Re question 13 G (Public purchase of land in high hazard areas for open space): Do not like buying & locking up land by government.
- Less government & no more taxes
- Monocultural management increases wildland fire danger.
- Plan to hold religious activities on this property. Also Boy Scout campout. Will stress fire safety at <u>all times</u>!!
- Visit by local fire personnel would be very useful. We may think we are doing all we can but they are experts and would see things we are not aware of or have useful & valuable suggestions. Also, in rural areas are local fire personnel familiar with the area & roads and addresses?
- #12 is written in such a way that I had trouble deciding what to check. I feel private prop. Is the responsibility of owners w/the help if they need it from appropriate agencies.
- Illegal burning is a serious issue, both out of season and type of burn. I have been told that LRAPA has enforcement jurisdiction for penalties, but Lane rural will respons . . . not good. Lane Rural needs the ability to levy fines <u>and keep</u> the money for future enforcement!! Stopping illegal burning will significantly reduce the risk of wildland fire. Having been a hotshot, I know that "John Q Public" has no idea of the factors influencing fire . . .
    - Low humidity
    - East winds
    - Wind at all
    - How deep the heat goes into the soil, leaves, and how long it stays hot

  I would not be opposed to eliminating all residential burning . . . although it does seem that the public pyros get a little carried away on controlled burns and start a few too many "big ones" themselves. Thanks.
- Thank you for letting us participate in your survey. :)
- I think we should look into stopping all slash burning. The material should be chipped & broadcast back into logged or thinned areas. Also, this could be trucked out for mulch, but not left in large piles. I think piles could build heat & ignite.
- I received much of my info. when I applied to build a house. I had to do some clearing and am planning on keeping it up, and I have to, anyway (T2 property). It only makes sense. Education is the best way. I've lived here 18 yrs.; country people don't like to be <u>told</u> what to do.
- We live in a high risk fire district. Our local fire chief is an active and competent person, fully capable of organizing and facilitating wildfire protection for the Dexter community. Myself and my friends in Dexter active support the implementation of his guidelines, as we feel he knows both our fears and our needs. But Dexter needs funds for firefighting and for community outreach.

- The insurance companies seem to have more influence on rural area owners. They can levy things quicker than our government. If people don't meet the minimum standards on an inspection (could be done by the local fire department) the insurance gives so much time to comply or they become uninsured and assigned risk (higher rate for so much time after complying), etc. Require local fire inspection report before (and rated off) insurance. Quit making everyone else foot the bill through a blanket amount!
- 10 years fighting wildland fires has given me a new perspective on stewardship of my land, but I am against any governmental agency regulating my stewardship of my own property. Fire season and fire season regulations excepted.
- Thank you
- My property borders federal land (USFS) on 2 sides. Brush hangs over to my property. Extensive brushing would be required to clear a safe distance. I have neither the time or money to do it myself or hire someone. I think USFS should take some responsibility in doing the brushing.
- We continually cleaned, cleared, & burned stumps, brush, and logging slash. Now we are not to burn after it is dry enough to burn clean and only after the wind is up, which blows live material to start more fire. Who thinks up the rules? All oldtimers felt ditches, roadside were now too much of a threat to burn. Also – you don't get a large log on a slash pile ot stump burned out in 6 to 7 hrs – you feed it until it's gone – not throw water on it in damp weather! (A safe time to burn.)
- Given a choice, how many environmentalists would show p for a fire prevention project, or protest or strike a timber sale?
- Now follow through – thanks
- IOC – every year forest service has so-called burns under their supervision and almost every year a fire gets away.
- Stop building in high risk zones. Stop all cutting of big trees. Return forests to natural states. Prescribed burns, native vegetation, etc.
- Although rural residential property owners stress private rights, wildland fire risk is definitely a shared responsibility that directly affects safety of neighbors and warrants reasonable government intrusion.
- Vacant land – no structures. Growing trees.
- Incentives for insurance companies to provide educational literature to homeowners?
- I believe education is better than regulation of wildfire management.
- Thank you for pursuing this important project. Drought conditions re getting worse each year, & we all need to be proactive and work diligently on prevention & preparation. Community education is vital. Thank you!
- Open range for goats to cut back in wildland fires.
- We live in the Brice Creek rural area, not far from the national forest. We have one road serving us. One direction goes into Cottage Grove, the other direction leads us into the national forest. So you could say that we would have only one way out in the event of a forest fire. We have no fire protection and NO police protection. We are on our own up here. We all have our own wells, and in the event of a fire, if our power lines burn we are without any water source to fight it. We have cleared all the close brush around our house (except one tree), and we irrigate the whole yard all summer to keep things green. Due to the predicted water shortage this summer, we are considering not watering as normal, in

order to preserve our well water. We have read several articles about the coming fire danger and the shortage of water. The river that borders us is as low now as it gets in August. We are worried. And we aver VERY upset about the practice used by the federal (and state) government(s) of "prescribed burning" and letting the forests grow in a "natural state, with no logging or thinning or road building. This insane practice has put all rural folks in a dangerous position. I would think that the Biscuit Fire would have served as a good lesson against these practices. The lack of roads into the Biscuit area prevented equipment from getting into areas to prevent the fire from spreading. The roads themselves help serve as a fire break. And "prescribed burning" is the epitome of ignorance! Wasn't it Arizona that had a "prescribed burn" get out of control? Have you sent this same questionnaire to our federal and state governments to question their lack of responsibility in getting us in this predicament? I would hope so. You would better serve the people of Lane County if you put your pressure on the governments to put some sanity back into managing our forests by logging, clearing, and USING our forests again. Why should all the responsibility of preventing forest fires be put on the shoulders of the little private property owner when it hasn't been our practices that got us in this mess? We would be glad to do anything we can to help in the coming crisis, but I think it's like closing the barn door after the horse has left.

- Would very much like more info on how to protect my property in an event of a wildfire and also prevention information.
- I live in London; we have no fire protection, vol. or otherwise. If we have a structure fire out here, we lose everything we own, because Cottage Grove Rural will not respond out here on Shoestring Road. Get us help PLEASE!!!
- Re question 13F (Wildland fire mitigation checklist for development review process in high hazard areas): very supportive if for speculative development, but not for single dwelling owner occupied. Re question 13H (Require new rural residential developments be within rural fire protection district boundaries): very supportive if for speculative development but not for single dwelling owner occupied.
- The community fire dept. is particularly impt. During our current drought cycle. This summer may be critical & prevention should be stressed in the media.
- Re question 13D (Access/roadway guidelines for new development in high hazards areas): Who will make the criteria and determine what high hazard areas are?
- Don't assume because you live off of the taxpayers that you are more wise. Oregon has been overrun with Calif people; they don't speak for normal people.
- My comments are swayed because I live next to the city but am serviced by the rural district. There is little or no chance of wildfire problems for my property. I water throughout the summer and so do others in my area.
- You miss two big factors affecting wildfire hazard in the South Hills of Eugene. 1) The city needs to be more proactive in closing Spencer Butte Park during periods of high fire hazard. It needs to educate the general public that uses the park with signs and media regarding fire hazards and public responsibility. 2) EWEB needs to provide enough water pressure so fire hydrants can serve the South Hills where there is residential development. The city fire department can serve this area better, too, with medium sized pumper trucks.
- We need to restore fire to our forested ecosystems without the occasional episode of too much smoke in the airshed.

- Most of the wildfires in the area of my residence are grass seed fields. Only on rare occasions are trees & shrubbery involved.
- The majority of private landowners are concerned and aware and capable of figuring out a few things on their own. We do not need to have another government program to tell us how fire starts. I'm sure, though, that the results of this survey will show overwhelming support for that. How about providing tools if you want to help. Shovels, axes, hoes, portable pumps at low cost to rural owners – way more effective than a bureaucracy.
- Our rural fire chief has made our area safer. Immediately after being hired he updated maps to show homes built. Many homes were not even shown on existing maps. With lack of funding to fire services everyone needs to help.
- No smoking on hazardous days in or out of vehicles. Lit material out of cars has started most of the fires around here since 1969.
- I feel in this high risk residential area a business that requires 6 to 8 employees working in a 20x24 building with high windows, 1 door, electric office machinery is dangerous to the employees & our neighborhood. There is also a high volume of delivery boxes and packing debris left thrown about and overflowing the containers. Vegetation & yard debris that is stored on property is creating a potential risk for fire, with many of the employees smoking without a smoking area except outside with the debris. Could this kind of problem be addressed by a fire inspection? This also adds on most days 6 to 8 cars, delivery trucks 5 to 6 times a day on a single lane road causing traffic problems with emergency equipment. Thank you.
- This survey has great potential to be misused in that the questions asked are complex, and would be answered in different ways depending on assumptions made. In particular, questions 12 & 13 were difficult to answer. That said, this is an important survey – thank you.
- NOT crazy about the education that comes out of the U of O on Oregon logging industry – there were less fires in the wild that are started by lightening & idiots when harvest was being done by good people – it provided money for fire, police, education, roads – "a renewal resource."
- We feel educational programs are very important. We think it would be good to have various approaches to education so as to interest and engage more people. These days there is so much innovation and creativity using differing media. We feel this could be put to good use in a situation like this. It is very prevalent in our country for people to have great aversion to being told what to do. They want to go it alone, do it their own way. These people need to be drawn in. It would be good to have ways of visually impressing upon them the impact and power of fire. Let them see how it can destroy homes and lands, **their** homes and lands. We suggest as part of education and also getting people involved that town hall meeting would be good. Perhaps representatives of a neighborhood could come and then disseminate the information to their neighborhood. Encourage people to see that wildfire is a community issue. Help tem to see that we are all connected, that fire doesn't know property lines. Hopefully, encouraging people to work together. Posters and flyers at local stores, banks, post offices during fire season could be a good means for alerting locals of conditions and fire danger. This is good for those who might be disinclined to read their mail or listen to the news. Individual onsite consultations are a very good idea. This would also be a helpful educational tool with practical and concrete guidelines as to what needs to be done at each site. It can be very

overwhelming for some to have to do this work. Don't just give a to-do list but offer ways to help facilitate the actual implementation of the guidelines. For those who are not able to do the work themselves it would be good to have funds available to help them. Also a list of resources including labor possibilities would be helpful. Possible groups who might be able to help with the actual work: Boy Scouts? AmeriCorps? Sheriff's Work Crew? Landlords of rental properties need to be part of this picture, too. Renters can often be disinclined to make improvements to their homes as they are not owned by them. What about a neighborhood watch-type program that watches for fire danger and fire. It would also be good for the local fire district and sheriff to know of and have located gathering spots for smoking, drinking, whoopee-making, etc. These are very potential danger spots for fires being started. They should be patrolled regularly during the dry season. We suggest more local control of the burning season; more local than even the county level; perhaps by fire district. We also suggest more flexibility to turn on or off the burning season. Here in March, before this wonderful rain, we had August conditions. Burning season was still happening. It is better to be able to adjust the burning to current and very local conditions. We suggest that it is best to have to not only call LRAPA to see if it is a burn day but to also call the local fire district as well to see if it is allowed based on humidity conditions. For when people do burn we also suggest educating them how to safely burn, how to put out the fire **completely** once the pile is burned. Teach the dynamics of fire and fire safety. We definitely feel that wildfire is a problem and the responsibility for all parties affected by it. The different agencies need to work together. The landowners need to participate. There should not be isolation as all are affected. We all need to work t5ogether to come up with working solutions for the good of all.

- I am concerned about limiting property owners' choice to build within "high hazard" areas. If they build it & it burns, their loss. Although they do have a responsibility to neighbors & community.
- Inform the people of problems, they will do the right thing to the best of their ability.

Appendix F
Stakeholder Interview Summary

Background

Lane County initiated a Community Wildfire Protection Planning (CWPP) process in fall 2004. The County hired Oregon Natural Hazards Workgroup to assist in the development of a plan aimed to address the complex issues surrounding Wildland/Urban Interface Fire. Lane County understands that the success of a CWPP is tied to the ability to effectively involve a broad range of local, state and federal stakeholders in the planning process. The inputs from a diverse group insure that the final plan reflects the highest priorities of the community, while highlighting the fact the implementation will need to be accomplished through a collaborative partnership.

In early January, ONHW conducted telephone interviews with 18 stakeholders identified by the steering committee for the Lane County CWPP. The purpose of the stakeholder interviews was to document key issues, concerns, and current activities related to the CWPP requirements of:

1. Collaboration: A CWPP must be collaboratively developed by local and state government representatives, in consultation with federal agencies and other interested parties.
2. Prioritization Fuel Reduction: A CWPP must identify and prioritize areas for hazardous fuels 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.

Stakeholder interviews accomplish this by gather various perspectives from the local, state and federal partners by:

- Identifying critical issues and concerns,
- Documenting of current activities, and
- Exploring opportunities for collaboration.

Appendix F includes a summary of key issues identified by stakeholders and a transcript of the telephone interviews. Lane County will use the information from the interviews to assess the risk factors of local preparedness and capabilities and to analyze common themes

surrounding fuel reduction and structural ignitability within the wildland/urban interface.

Methodology

Stakeholders came from a pool that included both public and private interests, and all have either expertise in fire issues or the authority to help with implementation of the plan.

ONHW sent each stakeholder a preliminary email explaining the plan and its purpose. The email also contained a copy of the interview questions for the stakeholder to look over prior to the actual interview, a brief statement explaining why they had been selected as a stakeholder in the process, and a list of available times to be interviewed. Interview questions were grouped into four main areas:

- Current Activities
- Key Issues Related to Hazardous Fuel Reduction
- Key Issues Related to Structural Ignition
- Collaboration and Participation

Some questions were modified slightly or not asked at all depending on their relevance to the stakeholder. Each interview lasted approximately 30 minutes. Interviews were transcribed by hand during the interview, and then typed into a computer template afterward. Following completion of the interviews, all of the answers were documented then analyzed for common themes.

ONHW completed the interviews in February and March 2005.

Participants

ONHW interviewed the following stakeholders:

- Nancy Ashlock – Assistant Fire Management Office, BLM Eugene
- Carl West – Fire Management Officer, USFS - Siuslaw National Forest
- Rick Rogers – District Forester, ODF Western Lane County
- Lena Tucker – District Forester, ODF Eastern Lane County
- Donna Disch – Oregon State Fire Marshal
- Mark Reese – Lane County Sheriff's Office
- Dale Wendt – Lane County Public Works/Land Management
- Don Nickell – Lane County Public Works/Land Management
- Chief Dale Ledyard – McKenzie Fire and Rescue
- Chief John Buchanan – Siuslaw Valley Fire and Rescue
- Chief Marty Nelson – Lane County District #1 (Veneta)

- Kevin Urban – Community Services Director, City of Oakridge
- Karl Morgenstern – Coordinator, Drinking Water Source Protection, EWEB
- Mike McDowell – Team Leader, Weyerhauser
- Steve Akehurst – Chief Forester, Rosboro Lumber Co.
- John Buss – Chief Forester, Davidson Industries
- John Day – Union Pacific Railroad, Oakridge Office
- Roxie Cuellar – Director of Government Affairs, Homebuilders Association of Lane County

Summary of Themes

Stakeholders mentioned several themes repeatedly through all categories of questions: 1) funding obstacles; 2) follow-up and maintenance of policies and programs; and 3) education of landowners. The remainder of this section summarizes other themes of the interviews within the four areas of interview questions.

Risk Perception and Current Activities

The following is a brief summary of the stakeholder's perception of wildland/urban interface (WUI) fire risk, current policies and programs, and funding for programs related to WUI fire.

Perception of fire risk

- There is a perceived threat from fire in the wildland-urban interface area by all of the stakeholders
- The WUI conditions exist and in fact the threat is increasing and protection capabilities are difficult without strategic planning
- The main fire threat is from the build-up of hazardous fuels when debris accumulates on the forest floor after thinning or other treatments
- There is a need for outreach in areas that are unprotected by a Rural Fire Protection District

Current policies and programs

- Lane County zoning codes (e.g. Chapter 15 and Chapter 16 sections 10 &11) were mentioned as mitigation element
- Fire Defense Board and Fire Prevention Co-ops activities
- Current emphasis is on response plans
- Oregon Department of Forestry's plans and programs focused on prevention and response
- Oregon Forest Land Urban Interface Protection Act of 1997 (better known as Senate Bill 360) was also mentioned

Funding

- Nearly 50% of the stakeholders have received some form of grant funding for various activities related to WUI fire issues
- Government agencies and Rural Fire Protection Districts currently apply for grants and matching funds for mitigation projects, fire planning, outreach, equipment needs, and GIS mapping
- Private sector stakeholders raised questions on eligibility

Key Issues Related to Hazardous Fuels Reduction

Stakeholders provided their issues and concerns related to identifying and prioritizing fuel reduction treatments. They were also asked about concerns they had regarding the types of methods used for fuel reduction treatments and about resources to help the County move forward with fuel reduction projects.

Identifying and prioritizing fuel reduction treatments

- Risk assessment can and should be used to identify and prioritize hazardous fuels projects
- Urban and under-protected areas should be a priority
- Fuels need to be treated on a landscape scale vs. a site-specific scale (e.g. defensible space projects and landscape scale projects should be done in conjunction with one another)
- Public and private projects need to be more coordinated and can facilitate sharing of labor, tools, and knowledge

Types and methods for fuel reduction treatments

- Most methods have been proven to work well, but the effectiveness of a particular method is dependent upon the nature of the hazard and the topography of the area
- Prescribed burning presents unique challenges in Lane County specifically around smoke management (e.g. diminished air quality and complaints from residents) and safety fuels can hold heat and flare up long after the fire crews have left. However, some stakeholder believe prescribed burning is good for forest health on a larger landscape scale
- Stakeholders were split on their concerns over the use of chemical treatments. Some see chemical treatments as affordable means of fuel reduction, while others had concerns about their environmental impacts.
- Brush cutting is effective, but is costly and requires dedicated maintenance
- Stakeholders indicated that debris removal is an important component of fuel reduction but that it is costly

Key Issues Related to Structural Ignition

Stakeholders provided insight regarding which regulatory and non-regulatory policies and programs might be effective in motivating property owners to reduce their risk to wildfire. A follow-up question was then asked regarding the obstacles that may hinder implementation of these policies and programs.

Non-regulatory policies and programs

- Homeowner and landowner awareness plays an important role in reducing structural ignitability, but current levels of education and awareness are lacking
- Free or easy debris removal programs are lacking and would be a great resource to enable the public to reduce their risk by removing hazardous fuels from their properties
- Firewise Workshops and Firewise Communities USA programs at the local level (e.g. fire district, town, or neighborhood levels)

Regulatory policies and programs

- Defensible space incentives or fire protection requirements from the insurance industry should be explored
- County building ordinances that regulate building and roofing materials are needed, and need to be followed up on and maintained over the long-term

Obstacles

- Funding for both non-regulatory and regulatory policies and programs is lacking
- Human resources for long-term follow-up and maintenance of policies and programs could be a problem
- Education of landowners and the public of their responsibilities in following regulations

Collaboration and Participation

Stakeholders answered questions related to their current level of participation in reducing the wildland/urban interface fire risk to Lane County. Other questions asked about current and future collaboration opportunities among stakeholders or other agencies. All stakeholders interviewed stated that their organizations are willing to collaborate on more site-specific local community fire plans that follow the countywide plan.

- There is currently limited collaboration among several agencies regarding wildland-urban interface or disaster protection issues
    - US Forest Service and BLM Interagency office collaborates with the Oregon Department of Forestry on wildfire response
    - Lane County Fire Defense Board

    - Lane County Fire Prevention Co-op
    - Lane County Interagency Emergency Response Team
    - EWEB Hazardous Materials GIS Tool (collaborated with 27 agencies)
- Opportunities for collaboration will be increased through the process of this plan
- There will need to be a designated leader to drive the process and keep up the interest in the issues in order to ensure long-term collaboration and participation
- Careful consideration must be given on how to establish effective collaborative process to accomplish risk reduction.

Results by Question

1. Do stakeholders perceive a threat from wildland-urban interface fire in Lane County?

They perceive a threat and through the Lane Co. Code have tried to mitigate it
Chapter 16 sections 10 &11
Impacted and Non-impacted Forestland zoning restrictions
Firebreaks
Road maintenance

Yes, builders definitely are aware of dangers of forested areas whenever they build a house there, but it is not a big issue for us.

Yes
Surrounded by Willamette National Forest
Depending on conditions the a fire could pose a great risk to the city and its residents
Homes located the WUI
Depending on where the fire is there could be 10-15% of homes located in this area

To some level – most Siuslaw fires are human caused rather than lightning caused. Siuslaw has a fairly low risk of wildfire.

Yes. WUI conditions exist and are increasing. Protection of values will be difficult without a strategic plan in place. Natural occurrence of fires has caused a buildup of fuels that are dangerous.

Yes, Concern for Lane County
Potential for wildfire due to the six years of drought

Roads and keeping roads open
Parks
Waste Management not as much as other departments under public works
FLEET if back up equipment is needed- specifically in a response situation
The Parks Department had some experience in wildfires- the 126 fire in 2000 or 2001- some parks were used by fire fighters.
Public Works role is confined to Lane County Land Management (LCLMD)

Yes,
Drinking water source protection
Electric sources
Substations
Hydroelectric
4 stations on the McKenzie
There is also McKenzie Crew housing

Yes

Yes, big concern. Our land ownership is mixed with15 miles around Mapleton, as well as areas with homes intermingled and private in-holdings. So, high fire risk is always a big concern

Yes.
Volatile fuel buildups: The threat comes from volatile fuel buildups in the valley, brush, dense pockets to of trees near homes. They all can ignite quickly given the right weather conditions.
Under protected areas: Rural areas and under protected areas that don't have local fire departments are at risk because it's hard for home owners to understand what needs to be done to protect their homes.

Yes, Weyerhaeuser does perceive a threat.
The threat comes from a combination of backyard burning that goes out of control,
car fires on Weyerhaeuser roads,
trespassers with fireworks of firearms on Weyerhaeuser property, and
arson fires on Weyerhaeuser land by people who are trying to burn down equipment and property.
Other sources of threats are illegal dumps and meth labs that are located within a short distance from Weyerhaeuser land.
In 2001 and 2002 person/s driving up Weyerhaeuser roads and property attempted to start fires by throwing matches and fireworks. Most of the individuals who try to start fires on Weyerhaeuser land are caught.

Yes- SGT supervises deputies that patrol public land (interface?) and look for hazardous fuel loading. Work with Eugene/Springfield local fire departments and ODF to ID and mitigate fuels hazards. EX- Westridge fire between Westfir and Oakridge couple of years ago, 2 fires in one season.

Yes, has perception of asbestos forest, but with fuels and development has potential
subdivision covenant -> required shake roof, decreasing now (~50%), new are metal and are replacing shakes

Yes, no counties in Oregon are at low risk; with the population of Lane County the overall risk is probably low to high, but not as threatening as other areas.

Yes, Rosboro's ownership is intermingled with residential property and other developed property, and when that land isn't being taken care of, it threatens Rosboro's property.

Yes, due to conditions in Dist. Heavily forested area, inadequate infrastructure (ingress/egress), limited ability to work on private lands Dist. Encompasses Fox Hollow, Lorane Hwy, Gimple Hill, Noti, Veneta

2. Has stakeholder received grants or are they thinking of applying for grants related to wildfire in the WUI?

Yes in 2003 received Chapter 9 Federal funding to support fire safety breaks and fire safety on private lands.
For inspections, and,
Long range implementation

Not at the present moment.

Have not applied for any grants. We do fuels reduction projects through funding from Title II money from the Secure Rural Schools Act. In the last few years, have done around 500 acres of treatments with around $100,000.

Have not applied for any grants specifically. We receive money from National Fire Plan for treatments (normal channels of funding). Working with ODF and their grants to help implement projects.

They receive Title 3 Funding- goes to LCLMD into the GIS mapping and risk assessment
Working on a Homeland Security Grant working with emergency management overlays for GIS
Terrorism
Critical Infrastructure
Hazardous Materials
Hospitals
Evacuation Routes
Care facilities (Day Cares and Elderly Centers)

Yes
Working with ODF
Working on GIS base assessment tool for wildfires
This tool is being developed for fire departments, ODF and other agencies that deal with fire mitigation, reduction and response
The GIS Tool
Yearly basis
Assessment of Conditions
Fuel Loads
Priority Areas
Resources inventories of equipment
Access routes to prioritized areas
Critical Resources to be protected if there is a fire
ESA Habitat
Bases on all of the above the GIS tool will predict the fire's behavior.

Received one grant for $18,000 that was education based. Have not been successful with grants for fuels reduction – seem to be a higher priority in the southern and eastern parts of the state.

Yes,
National Fire Plan: ODF has received a grant from the National Fire Plan to help with projects creating defensible space around homes in the Coburg Hills and Marcola areas.

CWPP: ODF has received for two others Oakridge Westfir areas, a CWPP grant to assist them in writing a CWPP

ODF will be applying for two more grants for the Upper Mackenzie area and Bohemia Mining Community (down by the Umpqua communities). These communities are wanting to put together a CWPP and the grant money will help them with that process.

Weyerhaeuser has never applied for any grants, not sure if there are any.

Easter Lane Forest Protective Association funded by ODF. It's an association of landowners east of I-5 and the association is 100 years old. ODF gets funding form USFS to fund people who work on reducing risk of wildfire. Association members pay a membership fee based on some aspect of their land
Associations like this one are found all over the state.

No, no future plans.
7 total staff (including Sgt) are supported by stable funding from title 2 and 3 funds; LC reallocated Title 3 to LCSO for Forest Patrol Program.

Yes, ODF grants (NAME?) on response equip (slide in tank for truck) 90% match, and personal protective gear 50% match
East Lane ODF NFP/WUI public education

Currently in pursuit of one from the Nat'l Fire Plan (NFP) about ways to address structural ignitibility.
Other sources might be Insurance foundations.
NFP grant based on the CWPP risk analysis protocol from Jim Wolf.

Not aware of any grants available to private businesses; most go to other governmental departments/agencies

Not in relation to WUI
FEMA Fire grants for equipment
Homeland Security- CERT basic 1st aid response training.

3. Does stakeholder have any current plans, policies, or programs related to wildland-urban interface fire?

Referred me to Kent Howe- his supervisor

No. I'm not aware of any publications/research at the national HBA, but I don't see everything they produce, either.

Emergency Response Plan
Inter-government agreements with the City of West Fir, the USFS and other small communities (he did not go into detail about this.)

Forest Fire Management Plan. Provide response capabilities. Work with ODF on cooperative agreement to fight fire (both sides go out together). Siuslaw is not receiving NFP funds – money going mostly to eastern Oregon. Planning vegetation management projects for thinning in the WUI for timber harvesting on federal lands.

Federal Wildland Fire Policy – agency driven; protection based.
Integrated Fuels Management Strategy – identified high risk areas in the WUI.

Don't know the details- referred me to Bill Sage and Keir Miller

Yes, on hydroelectric generation stations located in USFS land there are Disaster readiness, response, risk reduction plans in place.
Required by the USFS
Also have fire response tool cache
Storage of tools
Fire equipment
Fire truck
EWEB also has a fire response plan, (i.e. when to hand off to other agencies)

The entire ODF plan is related – focused on prevention and reaction/response.

Fire seasons are usually short out here around the Coast, though this year may be more of a problem. During these times when the burning index is low, we do more patrolling, signing, gating, and a higher level of watch around areas near residential homes.
General wildfire programs – Readiness – we have people and equipment available and keep good access routes, and increase awareness level when risk is high.
Mitigation/ risk reduction - Silviculture and fuel reduction go hand in hand. Reduce slash after logging. Areas next to interface – we do more burning when smoke isn't an issue.

Senate Bill 360: Overall, Senate Bill 360 is the overarching guidance (Oregon Forest Land Urban Interface Protection Act of 1997). Senate Bill 360 allows for communities or counties to map their risk in the WUI and establish risk classification. This is legislative police but there is no funding to enforce it; agencies rely on grants through national fire plan to enforce the legislation. One problem is that not everyone is doing it. But the bill sets a standard for creating defensible space. Homeowners could be liable for extra costs if a wild fire happens and they've not complied.
- Everything else (all other programs/policies) is local
- ODF provides information at community events
- GIS: they have GIS to help with mapping. They're refining their GIS to be able to look more specifically at individual homes and identify risk.
- Fire Defense Board: ODF participates with Fire Defense Board, which consists of all the fire chiefs in the county

- Fire Prevention Co-op: Also a part of the Fire Prevention Co-op, which includes other partners such as the US Forest Service and the BLM
- Participates in Keep Oregon Green

Lena thinks that lately there has been more of a push to focus on WUI areas and fires in the WUI

Most timber companies put together a fire plan, includes fire safety information that is used for training employees and contractors. Weyerhaeuser's fire plan lists resources, key operator contact information, and an inventory of all of their company's equipment. Weyerhaeuser's document is roughly 100 pages long, and they provide a copy of the fire plan to neighboring landowners. Weyerhaeuser gets fire plans from the other landowners in return. Fire plans are updated yearly.

Weyerhaeuser operates a Hunter Hotline that lets hunters know whether Weyerhaeuser's timber lands are open for hunting due to fire danger.

Weyerhaeuser has tight restrictions on public access to their timber lands: they don't let public into timberlands during the work week, and they close the gates on weekends if there is fire danger. Most of the fires they've had have been started by trespassers so access restriction is one of their key policies.

Weyerhaeuser also buys adds in the newspaper when fire risk is high to let public know why tree farms are closed and to prevent trespassers from breaking onto the tree farms.

Weyerhaeuser responds to any fires on active operations. Any fires that happen on inactive operations are responded to by the Eastern Lane Forest Protective Association.

Weyerhaeuser tries, when possible, to improve water sources that could assist firefighters.

They also update road conditions, when possible, to make access easier for firefighters.

No. If called on an illegal burn-by FD and LRAPA, LCSO can respond and use as outreach opportunity.
USFS, BLM, ODF, LC Fire Defense Board
Umpqua, Siuslaw, Willamette, ODNRA, all BLM lands in County (partnerships)

Disaster readiness – ex. education programs
E Lane with Homeowner Assoc, and ODF, focused on mitigation
Response – ex. improved emergency access
SOP's in place for fire
Risk reduction – ex. defensible space, education programs

E Lane ODF efforts at identifying defensible space, water access, especially on Camp Creek Ridge
Partnerships related to reducing wildfire risk in the WUI).
EL ODF main contact, 2 neighbor RFD's communicate

Disaster readiness – ex. education programs
Technical advice, Identify existing statewide programs, promote Fire Def Boards to generate a county level ID of unprotected areas, focus on building capacity to defend existing areas, then outreach to unprotected to get to join.

Response – ex. improved emergency access
Key is unprotected areas, unsure of solution about how to address

Risk reduction – ex. defensible space, education programs
NFP grant on the survivability of structures
Work with LCDC on streamlining the process from land design to county code to fire code with common goal.

Partnerships related to reducing wildfire risk in the WUI).
Work with Federal Mgrs, County Emergency Mgrs,
Biggest partner is ODF,
Try to pool applicants so not applying against one another @ county level.

Rosboro has an annual Fire Plan that details their internal fire actions and responsibilities. Their plan is shared with most forest department districts and state agencies.

Rosboro has a relationship with the Oregon Department of Forestry, and through ODF Rosboro is connected with rural fire departments.

Fire Associations: collection of landowners in each district that provide input and contractual relationships with ODF for fire protection (Contract with ODF for fire protection on the private land); 14 associations across the state

Disaster readiness – ex. education programs
CERT
Response – ex. improved emergency access
Crew trained in Wildland Fire Fighting and gear at certain times of year
Risk reduction – ex. defensible space, education programs
Education with Homeowners association, Granges
Partnerships related to reducing wildfire risk in the WUI).
W Lane ODF
Fuels Reduction Display- Station 185 @ Macbeth and Fox Hollow (1-1.5 ac)

4. What issues or concerns should county consider in identifying and prioritizing fuel reduction projects on public lands?

Yes
He talked about how staff go to workshops to learn more about mitigation techniques and how to properly address risk with hazards (not just fire, but all hazards- including natural and man made)
He mentioned that State Code has been updated so that firebreaks are now required around all structures not just dwelling units. Including Propane tanks

Especially look into urban areas and how fuel reduction will affect these areas.
Again he did not go into much detail, even after probing questions.

There should be a higher level of treatments on private lands. Clear cutting equals higher slash loads which increase dangerous fuels.

Fuels need to be treated on a landscape scale vs. a site-specific scale. Defensible space projects and landscape scale treatments need to be done in conjunction with one another; also need to be done collaboratively. Currently, we have agencies all working on projects independently of one another. Also consider fire behavior – fuels reduction projects usually affected during extreme conditions.

Large Timber Land Owners, they need to be in this process
Rural Communities- especially those who are no incorporated. Their input is critical because there tends to be 30-50 homes in the WUI area.
USFS and BLM blow down data needs to be considered in the GIS data. Where there could be large amounts of hazardous fuels on the ground because of a wind storm

Four main ideas/ concerns
Know where the fire risk is.
Is it an isolated site or larger pattern on the landscape?
How will this risk be treated EWEB would like to be informed of the treatment, because this is the sole water source.
Large treatment, small treatment
What type of treatment
To make sure that the treatments in high risk areas are done correctly
How long are the response times to the high risk areas?
Is there access to these areas?
Where is the equipment to treat a fire in these areas?
Post fire hazards (EWEB has talked to USFS about this issue)

Generally there is post fire treatments that must take place i.e. reclamation
Concern in some high priority areas where there is no vegetation this could cause mudslides, landslides, and other natural hazards that could impact people, homes, drinking water and other important infrastructure)
This is an area that should be addressed in the risk assessment and the base map.

Number of houses at risk. Types of fuels and history of fire in the area. Risk assessment factors and classifications.

In our area gorse is a fire concern – burns hot and burns when fire index is higher. Gorse follows right-of-way, roads to homes, coastal area in the first mile in from the ocean. Bandon burned down due to large amounts of gorse. Scotch broom is also a problem. These are both noxious weeds and covered in the noxious weed program but this program may not be too effective.

Davidson actively reduces gorse on our land. But can't do anything on neighbors' lands. Thinning not a good treatment for gorse because spreads seeds, chemical treatment better. Education on this issue is important – may be able to pair fire danger and noxious weeds issues.

We should prioritize projects by risk and by potential benefits. There are areas where fuel loading high but may not be much economic benefit to treatments.

Priority areas are right of ways, highways, more risk as people move towards our lands. Dunes City and Florence are growing towards us. Having neighbors creates more risk.

Arsonists are big worry, hard to protect against. So, not high on priority list.

High fire danger – how to educate and increase awareness.

Keep action items simple and manageable: In choosing risk assessment guidelines that Lane County's CWPP will be working with, keep it simple. Right now it's based on GIS, methods from a Salem Forester. Keep the level that we're working on manageable, not too small. This way we can document changes over time and see what's been recommended and what's actually been done to reduce a community's risk of wildfire.

- Under-protected areas should be a focus.

- Tell people maintenance will be needed: It's important to allow for reminders to people that things need to be updated, that they'll have to continually work on maintaining defensible space around their homes.

- GIS: GIS is good, it allows for fire departments to easily see residents and access points within the communities.

The county already does some control, but could do more to control road side vegetation, including more mowing and use of herbicides.

The county should be more vigorous in holding landowners adjacent to public roads more responsible when they don't control their vegetation.

More law enforcement resources could be used to patrol areas where there are back roads and vulnerable areas with high amounts of vegetation fuels.

A lot of money can be put into fuel reduction, but if you can't control the people intentionally or unintentionally setting fires, then it doesn't matter

Educating landowners about what the damages of wildfires are, and how they can be held responsible if they are negligent about a fire, should be increased. Letting people know that they can be held responsible for a fire if they are found to be negligent, and then following through on prosecution should be increased.

No, support ODF, USFS, BLM in how they interpret the plan.

Resistance to regulations
County permit process now mandates 30-40' primary and secondary fuel breaks
Access to areas
How to act without clear and present danger impetus
Assess Risk, if risk started on fire what would be consequence, S face S slopes, grasses

Use of Risk analysis is Key.
ONC (OR and CA Counties) using Title III monies, in accordance with Public Law 106, reauthorized 106.
One Contiguous plan, not hop and skipping around ownership
ID existing resources (SOLV, Boy scouts)

The bigger problems lie on smaller private lands that aren't responsible to the Oregon Forest Practices Act. Largest forest project management is usually managed under that regulatory umbrella (under the Forests Practices Act), but non-forest operations have no regulatory oversight, some of the biggest issues that Rosboro sees are related to those unregulated smaller properties.

Is a never ending project, funding to sustain it.
How to get people to do it themselves on routine basis?
If they don't need to know that they are accepting the risk and that the FD might not be able to help them in a fire.
ID-> How assess risk to ID projects? Nature of plants, and proximity to house? How to prioritize, and prioritizing for the resident is a problem.
Prioritization-> How to communicate to folks, and not trespass on values.

4.1 What about recommending and implementing projects on private lands?

Referred me to the Parks department

Talking to landowners, providing a choice. This will help them realize the risk on their property.
Public lands- they are doing a lot as is. (He was talking about the USFS and their effects for fuels reduction)

The majority of the valley lands in the Siuslaw district are private – higher up lands are public. Should have more treatments on private land within the WUI. The Forest Practices Act (OR ??) governs private lands.

Homeowners disinterested in defensible space projects because of their love for the rural area/forest space (probably reason for living there). Education of homeowners would help – demonstrate that they can get the same look with lower risk (different materials, plants, etc.)

**He addressed lands in the parks and lands surrounding parks
Problem with parks is that they are under funded- therefore fuel treatments are not in the budget.
Some remote sites have used thinning, however this is not for wildfire reduction this is for economic reasons. Timber is harvested off these site every five years or so.
Referred me to parks- he did not feel qualified to give me answers or specifics on this topic.

1. Issues are clear and defined
2. OPTIONS! Don't lock a landowner into an either/or situation
3. Education on why they should do this and why they should have treatments on their land
4. Funding assistance and/or grants

Homeowners are unmotivated because fires are few and far between.

Timber land owners seem to be concerned with fire so will be more willing to implement projects.

Implementing – smoke issue on burning is important in the public eye. The State smoke management program is good. The private forester needs to be able to burn to reduce fuels, the public needs to understand these issues.
We work closely with ODF and with the RFPDs.

Give homeowners tools, motivation, and education: Once we have determined highest risk sites we should start with those, but we have to engage homeowners and give them tools, motivation, and education about why/how they should create defensible space around their homes. Help them help themselves. We don't want it to look like it's the government coming in and telling them what to do.
Tips for maintenance: Give them tips to keep their homes updated and maintained to keep fuels down.
Help homeowners work together: We should work on creating more of a strategic plan that isn't isolating specific homes, but linking several landowners to help people protect themselves together.
Highest risk, not highest monetary loss: It's important to look at who is most at risk, not just most expensive areas at risk.
Weyerhaeuser has done some pruning to reduce the ladder affect along roads they felt were more vulnerable to traffic and human interference. They have also done pre-commercial thinning and vegetation control on vulnerable roads.
Once you get 50 yards away from public roads, the risk from roadside fires disappears, so fuel reduction projects should be limited to 50 yards along side roads.

Private Timber is in tune with fuels reduction through the limitation of access, good at shutting down land when at risk.
Checkerboard ownership pattern in County creates problem

Need to educate folks on limits of Dept's response
Focus on self help (owners)

If feds or public land managers don't join in when abutting land owners house, can cause land owner to drag feet and not participate.

Need to not shy away from chemical weed control, he said he knows there's a stigma attached to using chemicals. But from their perspective, chemical weed control is the most cost effective way to reduce the fire threat. Keeping the stuff from growing in the first place is important to reducing the threat of wildfire.

Mechanical clearing is an option, and so is prescribed fires (though burning is not always an option around cities). But chemical should be encouraged as an option, not for heavy fuels, but noxious weeds.

Property rights and economic issues
No right to go on property and do stuff w/out permission
Design of Homes is a problem
Culture change- don't stack wood under deck, people don't like the look, and it won't happen here
Need to find balance between the reason they moved there and being safe
Logistics and Econ
Rid of debris?
Open burn season (mid-Oct - mid-June, assess with FD Chief), or truck it out

4.2 What are your concerns related to the types of methods used to reduce vegetation fuels?

The County only has the power to offer suggestions to landowners. The county cannot restrict how vegetative reduction is carried out.
The Coastal Overlay Zone (Sand Dunes) there are already restriction with removing vegetation, so if this area is zoned F1 or F2 there is a fine that that must be maintained. However, the county can only offer suggestions on how to maintain vegetation in this area.
The county only does chemical treatments along right-of-ways.

He does not have any concerns, he said that all actions to reduce fire risk is a good action

The majority of methods have been proven to work well. One problem may be that prescribed burning produces a lot of smoke and the public may not have a lot of patience with that (because of diminished air quality). Especially in Siuslaw, where a lot of prescribed burning is meant to blow west towards the ocean; smoke affects Florence, which is a huge retirement community with a large elderly population. A way to help may be to find a way to utilize the fuels (biomass uses) – to use it instead of burning. However, this is economically difficult.

Smoke management is a big issue (unclean airshed). Debris cleanup another issue – where can people put their debris? It would help to do mechanical treatment prior to prescribed burning – without it, would be very hard to keep fire under control during prescribed burning.

Did not have specifics
However, for our information there is a moratorium on the use of herbicides on right-of-ways. Generally the board has issues with

chemical treatments or chemical control; they might be in favor of thinning or other forms of treatments that don't use chemicals for vegetation controls.
Concerns include balancing the needs of the community (i.e. tree huggers, and other portions of the community)
Concerns- Political Issues

1. Look at the watershed (holistic) approach, not from a single isolated site.
2. Look at impacts that can affect the entire watershed
    a. large removal of trees will affect drinking water
    b. Roads cause problems for drinking water and EWEB, high traffic larger impacts, more possible runoff, etc.
    c. Chemical treatments are not a favorite of EWEB, again high impacts to the drinking water.

It is hard to cut brush back every year (and redundant because it grows so fast and comes back every year). Easier to change the land usage – keep trees growing to reduce brush (have to keep in mind that landscape is far different than that of central and southern Oregon, which is less brushy so requires different treatments). Burning to reduce fuels doesn't work in this area – especially under-burning around houses because the fuels can hold heat in the ground for months and flare up again.

Pile burning and grapple pile burning - big tool for us for reducing hazardous fuels.
Chemical treatment– we use for some tree release. (?)
Thinning – not too much because our trees are more mature stands.

Use all methods for vegetative fuels reduction. All tools can be used to help accomplish the project. Depending on what the project is it is could be simple methods.
Prescribed burning is good for forest health on a larger landscape.
Managing debris from fuel reduction projects: One thing to consider is the debris that will be left after certain methods, like burning. We'd have to figure out how to manage the left over debris because then they become hazards if they remain on the ground and are not dealt with. Incentive programs to deal with debris could be created, like biomass utilization, free land fill day at the dump. These programs could help convert the debris into mulch, like "chipping" debris and using it for mulch.

Chemical thinning is Weyerhaeuser's method of choice; it's the most affordable and the safest.
Mechanical brushing or hand brushing is more costly and more dangerous to the people doing it.

Prescribed burning can be very dangerous because it can become an uncontrolled burn. It's the thinning option you have the least control over.

None. Private timber very concerned with weeds as a fuel source, so use chemicals to knock down, can be very volatile. BLM/USFS more subject to public scrutiny, results in checkerboard ownership conflict. Private Timber Consortium meetings-> monthly, Village Inn, wed am. Contact Jeanie Hunt @ weyerhauser SPGFLD for times.

Mechanical thinning
    Lots of appropriate tools, cut chip brush,
    EX- 5 ac piece near building
Prescribed burning
Good tool
Chemicals
use as pretreat, not by self, part of whole, others work better

Mechanical thinning or
    Safety, practice. Instructional film on clearing and fuels reduction
Prescribed burning
Coordinate with Air quality and NRes folk
Riparian area behavior
Sustainable
Goats
Chemicals
Usually used in suppression, consequence of suppression is dead vegetation
DEQ responsible for public info and local contact over what is sprayed, crucial

Concern was not about including anything, but that we shouldn't exclude things because of stigmas that might be attached to them, we should have all options open for consideration.

Mechanical->
can take down to handsaw level, labor intensive

Burn->
Successful method, risky in populated areas, low pop density is positive
Need resources to accommodate risk of pres fire expansion.

5. Are you aware of any current resources or opportunities that may be available to help the County move forward with fuel reduction projects?

no

Forest Management Grant through the USFS. He said that they have received grants from them, but it was not on wildfire mitigation.

Use of Lane County Correction work crews. An opportunity may be better coordination between agencies or private landowners to complete treatments together or at the same time. (Use of tools, labor, etc.)

Just current National Fire Plan grants.

Not aware of any
Most funding that they receive goes to roads, which are restricted for road maintenance and development by state statues.
Most of the funding that is received is regulated by the state
Waste Management has used some money for site specific clean ups, this only includes old cars, refrigerators, items of this nature. Not specific to vegetation reduction or maintenance and is only on a site specific basis.

Yes
ODF grants for the McKenzie
USFS will have resources to reduce fuel loads once the CWPP is in place
Source Protection Program through EWEB
Assistance to improve drinking water on the McKenzie
For landowners upstream to help them reduce impacts on the McKenzie i.e. if a chemical treatment is proposed, EWEB can help find/fund other treatments that will not have a larger effect on drinking water.
Funding the GIS tool that can help in wildfire preparation and mitigation

Grant money – spent wisely (i.e. not cutting blackberries back)

Two different grants:
National Fire Plan has grants for community assistance funding through all federal agencies. Any organization, county government, local government can get help with planning, prevention education, or actual fuels reduction projects. This grant application process happens yearly.

ODF has access to Western State Fire Managers Grant Fund for fuels reduction or prevention education projects.
Title Two and Three Money: Other options are Title Two and Title Three money that counties get directly which can then be used for those types of projects (prevention education and fuels reduction).
If bio-mass ever gets underway in the state, projects could get developed through that.

The Fire Plan that they do, and that other companies do, could be a good resource.

No
____--→ Public contact in WUI, reactive not proactive.

NFire Plan
ODF fuels reduction grants

SOLV, Boy Scouts
ODF with CWPP
Use pilot projects and follow up from them

EX- Keno Fire District, contact is John, work with USFW

There are regulations on the books that deal with noxious weed control that aren't regularly enforced, the plants that are listed under Department of Agriculture's noxious weed list (ragweed, etc.). There's more enforcement opportunity there that isn't being utilized.

No.
Important to get County to understand this is Not a One Time Event.
ID method of self action, how can they do it themselves
Grant $ for fuels red on paper looks good, have to do it over and over.
Standalone structures for firewood? Larchitect (landscape architect??) example house in each dist to address aesthetics?

6.1 What types of non-regulatory programs might be effective in motivating property owners to take action to reduce their risk to wildfire?

Awareness: they provide handouts at the Lane County Fair, in the Southern Hills area of Eugene and at the County Court House.
Actions must include awareness and giving them information that will empower them to protect themselves.

We can make builders aware of need to use fire retardant materials and sprinklers and they can make buyers aware. So providing information would be helpful.

Education and outreach- said the USFS does a good job of this, the road signs that tell the fire risk.
Media- more information on promoting fire risk
Incentives for people who are watchful for keeping an eye out for people who are starting fires or if there are areas of high risk. A Community Wildfire Watch Program

Help landowners financially – cash payments to help with the cost of treatments.
Public recognition might be a good thing – showcase a family/home/private land treatment as being great and maybe have a newspaper article or on the news.
Insurance breaks on homeowners insurance for having defensible space around the home.

Education – the Firewise workshop is a great example. Sample areas (pilot projects) to demonstrate actions and effects. Dollar incentives per acre of cleared land. Free locations for debris removal for the public.

OUTREACH- promotional materials, education, funding for private cost share
Another Advantage is the GIS system that is being developed
includes all tax lot information
mailing addressed
This will allow for easy up-to-date information for direct mailings for landowners in the risk areas or to a target audience

Education – home shows, door to door talking to homeowners

- FireFree Programs: Most successful programs that Lena has seen include the "FireFree Program", which originated in bend. It's a very simple program, mainly a media blitz this time of year (late winter), which publicizes (through radio, TV, newspapers, etc.) ten simple steps that people can take to clean up around their homes and make their homes more defensible. Bend has gone further and created ways to deal with the debris that are created: The landfill opens up free dump days for people to be able to dispose of their debris. This has been successful because it's something that people can do it in a weekend, so really easy for people participate in.

- "Living With Fire" is another program through ODF that gives simple steps people can take to make their homes defensible. This program is used mostly for more established homes. ODF has a whole newspaper type brochure that they put in newspapers. It's also affective because it's simple.

- "Firewise Communities" is another program that's great for new development. It targets insurance companies, builders, planners, etc.

- Creating action items for the west side: Most of the existing programs seem to have been developed more for "east side" of the state conditions, so starting to work toward further defining fuels that can be found on the west side would be another place to focus efforts.

- OSU has a fire resistant plant guide, for people who want to plan plants that are more resistant to fire than others.

Not really thinking of any, Westridge Fire multiple evacuations

~3-4 yrs ago Lane County "No Fire in My Backyard" magnets (i.e. Firewise Community label)
NY City program (Don't let Fire be Your Fault)
Emphasis on prevention, bring individual into the decision

Insurance ratings
Educate about combust/non-combust materials
EX- Deschutes FIRE FREE, not official driven, focus is on citizens

AESTHETICS-> work time is a lot and the result is perceived as being UGLY
Debris-> make disposal methods easy, now have to do it, truck it, and pay somebody to make $$ off of it. Centralize (Rexius) v. Decentralize (site) mulching? Need to address profit motive, and interrupt cycle

6.1.1 What are the obstacles in implementing these types of programs?

No enough manpower to reach all of the people that need it

People are busy and have other priorities. But there is the interest, just need to nag and make it a priority. Just need someone to make it happen.

FUNDING—there is never enough to achieve the programs.

Getting insurance companies on board.
Get the County involved – recognition (monitoring?)
Make it standardized across all counties in Oregon. (Less confusing for landowners who own property in multiple counties or for those that move. Also would make it easier for insurance companies to come on board)

Funding. Also, different agencies have different resource values.
**Both areas would be helped by more collaboration – partnerships among agencies are a big asset in getting more grants.

If the programs are not voluntary or voluntary and/or not on the person's land it might be hard to implement.

Reaching homeowners – the ones that come to you and want to help aren't the problem – it's the non-participatory homeowners that are difficult to reach.

- Getting the information into people's hands.
- Keeping it simple for people to understand.
- Recommended actions have to be doable, things that people can do it in a weekend, so that they can just get it done.
- Assisting the elderly and disabled: For elderly, disabled, people that can't do it themselves, the county needs to find ways to help these people take care of fuels reduction and defensible space projects. This could be done through county programs, inmate crews, contracting with private companies, etc., but these people can't be ignored or overlooked.
- Long-term engagement of homeowner participation: The Plan needs to capture people's attention, get them engaged and motivated, get them to follow through with action steps.

Reluctance to participate
Perception of RFD as resource to respond and protect

Retro fit challenges ($$$), Source of incentives
Lack of knowledge and education
Maybe try multimedia and outreach, need basic tool kit for areas to use
UNPROTECTED AREAS

$$$, Time, aesthetic perceptions

6.2 What types of regulatory policies might be most effective in reducing potential losses from wildfire?

Lane County Code- Chapter 16

New policy (new 2004 revision to Chapter 15 in Lane County Coed) that gives power to the fire departments to ensure fire safety along public (not county maintained) roads. This allows the fire departments tell the landowner how to make the roads safer incase of a fire emergency.
Widening the roads
Removing tree branches
Making sure that access is available if it is needed.
Collaboration between title companies, the fire department, and the county on telling new landowners and educating them on the restrictions and policies that pertain to the fire break.

In areas where fire danger exists you can regulate the use of fire–retardant building materials, particularly roofing materials. This regulation is not a concern for us, or builders, or roofers. Builders often Ok with using fire-resistant roofing but homeowners want a specific roof type and there is nothing the builder can do. A regulation would help the builder to do the right thing.

Most are in place - More participation with the private landowners and the County on reducing wildfire risk.

County building ordinances to govern roofing materials, etc. County ordinances for new construction could also mandate water sources access and road access/width. (also make new ordinances mandatory for homeowners before they sell)

Housing code ordinances – roofing materials, etc. (suggested we look at the Deschutes County Plan). Insurance policies related to fire risk reduction.

Buffer Zones for new construction sites
Perimeter for all new construction to have an area free of undergrowth

Insurance companies could write in fire protection requirements for homeowners insurance. Building permits or codes to reduce risk. ODF public use regulations.

Senate bill 360.
Fire insurance incentives for homeowners: Insurance companies could start doing homeowner's insurance ratings based on fire safe dwellings, if your home isn't defensible, you might not get fire insurance. Other states already have programs with insurance companies to do this.

New Construction might be easy to change code. Change to building code for existing structures might be hard,

Require occupied structures in the district to join, make part of Lane Code?
Encourage others who aren't in the district to join within a certain time period if code change made
LC done good work reducing fuels below houses and creating def space

Insurance, ISO Ratings
Goal 4 and Goal 7 OR, streamline land use regulations, building codes, and fire codes

F-2 zoning is issued and checked at time of development permit, not a continuous compliance situation.

6.2.1 What are the obstacles in implementing these types of programs?

The fire districts-
Some have and will implement some will not.
Political aspects of asking landowners to maintain the roads
Funding
Collaboration between title companies, fire departments and the county
Getting it to happen- bringing all these parties together to ensure that it happens
There is perception that homebuilders don't like more regulation but this is not the case with fire retardant building materials.

Cost can be an issue, but not the case with Class A fire retardant building materials. Often can be cheaper.

Sprinklers can be a cost issue. But it is more of an issue of homeowner being afraid of sprinklers...that they might go off as a result of a burning steak and ruin carpets, art, sofa, etc. According to fire marshal, sprinklers are more sophisticated today and don't go off accidentally very often because sensitive to heat not smoke. Sprinklers also more affordable today. So, if fire marshal educates builders, then builders can educate home buyers.

I asked who is resistant to regulating use of fire retardant roofing materials in the WUI, the public? I don't think anybody cares. We should just regulate it. I don't think the Commissioners have gotten around to it, but I don't think they are resistant either. I wrote Nancy Matheson (Nathanson?) about the issue once, but never heard back. I'll have to talk to some people, but I would guess you could get our endorsement on this issue.

If a mandate is put in place that makes people do something, there need to be funding there to help them. The funding can come in different

forms- manpower to help them with treatments, or money to fund these projects.

Educating landowners on their responsibilities.
Implementing county ordinances, especially for already built homes/structures.

Funding. Someone to follow up and make sure policies are being met and followed. Resistance from homeowners.

Political Problems
Does not know if codes could be changed
The process of getting codes changed- the entire process of public meetings, hearings, etc.
This would only apply to cities outside incorporated areas
all incorporated cities have their own codes and process for adopting new codes
Possible concern- South Eugene, however this area is inside the UGB and this would have to be taken up with the city of Eugene
Developer, Constituents who have power to stop or request exemptions from the regulations
Gave the example of the house that fell into the McKenzie River, after the owners got an exemption.

Getting insurance companies on board. Building codes need to be rechecked and maintained over time. Public perception of rules (public use regulations) – clear definitions to the public of what "off-road", etc. means.

Funding for implement senate bill 360 is a continuous problem.
Getting everyone on board and understanding what the law requires.
Convincing insurance companies to get on board could be an obstacle.
States already partnering with insurance companies (usually the larger ones like State Farm) are Colorado, Arizona, and maybe New Mexico.

Who will be enforcement to ensure compliance? Where will the money come from to support them?

Political fear of added costs
    i.e. sprinkler system in WUI houses
Feb 2005 pg 7 Fire Fighter Magazine,
Disconnect between on ground folk and policy

People are ready to take action, often don't want to plan

Thus is important to collaborate to use resources well
Maximize resources
Remove duplication which leads to turf battles.

Time of regulation coverage, continuous compliance and persuasion technique

7. What do you see as your organization's primary role in this community plan and in reducing the wildfire risk to communities in Lane County?

They don't want the lead role- they want to help because of constraints on funding and personnel

After the plan is implemented when more funding is available to promote more awareness Lane Co. feels this is where they could fit in.
Promotion on TV, radio and other media
More promotion at the Lane County Fair (He made it sound like people were really receptive to the literature that was given out at the fair)
When funding is available they could start taking proactive measures for fire mitigation, because of funding this is not possible at the present time.

We have a role if it fits into what we're doing and you nag at me to be part of the agenda and convince me to participate. Our role could be endorsing a regulation for roofing materials in the WUI. Another role is educating home builders.

Identification of risk and hazard areas.
Improving the brush cutting and chipping program. Oakridge has a year round program that is free to residents and chips their brush and other year debris. This has been a successful program that is getting more and more popular.
Benefits to this program
People know that they can get rid of their waste
At the same time because people no longer have to burn their yard waste they are reducing the chances of fire.
Long-term the City is applying for grants to get a leaf vacuum, this way they can start to make mulch to provide back to the city's residents.

To be a partner. Already have cooperative agreement with ODF. Since feds don't have jurisdiction on private lands, be supportive of private land efforts and try to combine them with public land treatments/programs at the same time.

Forest conditions info (NEPA). Map skills; resources knowledge/specialists; federal publications; resources for treatments.

Compliance Programs Nuisance
Referred me to Jane Burgess- Compliance Officer Nuisance 682.3724
Assistance with debris clean up- (Waste Management- again the site specific assistance)
Keep roads open- for response and recovery
Parks- evacuating camp areas
LCLMD
Referred me to Bill Sage and Keir Miller
Kent Howe- Planning Program Manager- 682.3734
Most Community Development Planning, Outreach and Ordinances are dealt with through them.

They want to help develop the plan, they want to be involved
Their focus is on the McKenzie, because this is where their resources are. (Drinking water, hydroelectric plants, substations)
Want to ensure that this is done right and all avenues are considered in developing and implementing this plan
They have already collaborated with 27 other agencies on the Hazardous Materials GIS tool (a GIS tool that helps in chemical spills) thought that these agencies, with the bridges that have already been built would be a great source of collaboration and to keep the collaboration going.

Keep on with ODF's existing plan. Work on education and prevention.

For commercial timber owner it's about getting your crop to rotation, but fuel reduction should really be encouraged. And the industry really isn't going that way. Lot of fuels are being left on ground because of the cost of burning and the restriction to when you can burn. You can treat chemically, but fuels still left on ground creating a risk, which is also risk to your neighbors and community. Many companies just concerned about crop rotation, but if leave risk, then affects more people down the road.

ODF is best suited to facilitate development of the plan, because they have the ability to bring in federal partners to help work on plan, they have wildland fire expertise, and have an understanding of fire behavior in wildland setting. ODF can also offer help on the technical side. However, they'd be best as facilitators because they already work with all the other fire agencies.

ODF also has access to grant funding through other programs, and they can get money for fuels reduction projects once the plans for fuels reduction projects are developed.

Weyerhaeuser's primary role is to continue to exercise tight control over their operators in fire prevention. They monitor their products from harvesting to delivery and they take responsibility for the fires that they are responsible fore.

The better they can control access and keep people out of their lands, the more effectively Weyerhaeuser can prevent fires.

Partners and supportive of mitigation efforts
Represent the response arm LCSO
Help with rural landowners

All RFD's responsible for education about risk and mitigation; public education
Coordinate with County group, LC Fire Prevention Co-op

Technical assistance
Iterative Feedback can help us evaluate and wants to hear how we are doing. Important to hear successes to highlight
She can inform from the state level.

Rosboro's largest role is to maintain their own property, they can start there. If they have conditions on their land that present risks to the community, then they need to be internally aware of that and their role. Rosboro can also work through associations for increasing the education component to educate rural landowners about wildfires.
East, South Cascade district, all districts have wildfire education programs that Rosboro supports.

Willing to be a strong partner in County project, part of solution
Provide information, site visits, be proactive
Make them not want to see us ☺, educational outreach about risk

8. How this plan strengthen your involvement in wildfire risk reduction and support it in the long-term?

Media
Providing awareness materials for people and to educate them on how to protect themselves.
Handouts
Providing information from insurance companies about reductions in fire insurance if measures are taken to protect their house.

Nag us. Be a squeaky wheel.

He wants to see an outline or the plan before saying how Oakridge will fit into the plan

Once the plan has prioritized fuel reduction projects/zones, USFS will know what needs to be done and go in that direction. They can get ahead of the game by knowing what needs to be done.

Once plan is in place and risk prioritization is established, it will be easier to plan projects and get funding for projects. Will be clear which areas need to be focused on.

They want to have a voice at the table
The already distribute 5 million in road funds to cities in Lane County; however this is mainly for roads projects.
They are already involved with inter-agency collaborative efforts
-Inter-Agency emergency response team, they determine where and what the risk are in Lane County. This is for all disasters and Haz Mat emergencies
These efforts are already in place, easier to bring people into the process

CWPP provides GIS information to EWEB. This information can help develop the GIS on a year-to-year basis if all the agencies and stakeholders are actively involved. Knowledge of where the risk areas are to address them annually
GIS will be long-term support

It will put more emphasis on ODF's existing programs.

It depends on what types of programs and where projects start.
Important issues to us are fuel reduction projects around right of ways and roads – fires tend to start near roads – keep right of ways brushed up – power lines and railroad right-of-ways often have high fuel loads.

ODF is interested in creating partnerships with neighboring agencies in different levels of government.
Through the partnerships, communities can partner with them and understand what the problems and risks are.
Giving people understanding and education will reduce the risk of wildfire and reduce the size of fire because fuels on the landscape will have actually been changed. From this, we will reduce the potential for large-scale, hazardous wildfires.

No one is more committed to fire prevention than Weyerhaeuser; Didn't seem to think that any improvements needed to/could be made to Weyerhaeuser's fire prevention policies and programs (not what he said, but my inference from his comments).

Build in a year by year evaluation to ensure that Forest Patrol team exists with funding,

County wide plan in place so don't have to re-invent the wheel
Coordinate and support interaction
like Eugene FD in south hills re "Not in my backyard"

Review plans and provide input
Clear communication of expectations: do we want her input or not?
Can assist with oversight at the local level

Best thing would be that any plan that comes out would have an array of incentives for landowners to keep up their property and protect it from wildfires. Any plan needs to work with the strategies already in place and enhance those.

Mentioned that often you'll see big mega-programs/plans that come out, and all this work and money has been spent on them and then no results are seen. So any plan that we produce should work toward getting the information out and getting the plan actually implemented on the ground level.

Mentioned incentives, and when I asked further he suggested property tax incentives. Canada has a tax structure that if a person's property was in better condition you received a tax break for it.

LC- a better/more responsive partner, consistent rural housing zoning F-2 and Rural Residential is two different things and can be totally contiguous in landscape.

9. What opportunities and obstacles do you see for increased collaboration with other agencies and stakeholders?

Opportunities
Once the collaborative process is setup this will allow for more public to be reached and informed.

Constraints
Funding for developing the plans and getting it off the shelf

Developers are part of the HBA. However, not a lot of developments in rural areas because of land use laws, particularly not in forested areas. Only individual's homes being built in rural areas, we can work with individual homebuilder and buyers. I perceive the fire marshal as being more concerned with access.

Homeowners- opportunities this will help them protect themselves. This is where collaboration and education will really help landowners. Fire insurance reductions- collaboration between insurance agencies and homeowners could say both parties money.
Obstacles- if homeowners did not participate and FUNDING

One obstacle is that usually the more people that are involved, the harder it is to get stuff done (too much time spent talking, figuring things out). **If the CWPP can develop standards (remove the preliminaries) it may make it easier for effective collaboration among agencies and landowners.

It also may make it easier to collaborate if there is some review board made up of people from all aspects (steering committee?) to prioritize projects in a collaborative way because different agencies have different priorities (would make it non-competitive).

This process (writing the plan) is an opportunity for collaboration among agencies and stakeholders. It brings everyone together and shows opportunities for future collaboration.

Obstacles
Funding is an obstacle for all agencies
Opportunities
Already have collaborative effort set up
Rural CERT program- (Community Emergency Response Training Program) - for more details contact Linda Cook

Opportunities
If this plan is done right- collaboration, careful risk assessment, and all action items are attainable and landowners are given options.
Once collaboration occurs and everyone is on the same page, then communication is already set up and networks are already there.
Obstacles
Not giving landowners a choice, could kill the plan
Make sure that collaboration occurs not once but over time.

If through this process people get interested, it might bring in other groups not thought of before to collaborate with. Also, bring in other rural fire protection districts that are not very involved – interior valley RFPDs are quite involved and have training, while exterior valley

RFPDs are less involved and don't have staffed fire stations and very little training…basically just have a fire truck and volunteers (there is an existing Lane County Fire Prevention Co-op).

Opportunities with the noxious weed program.
Also, opportunity with RFPDs defensible space programs.
Awareness and education in interface areas of WUI issues.
Building codes have helped with flammable materials.

ODF sees a places a great importance of creating partnerships with traditional and nontraditional partners. This could include bringing in organizations like water shed councils and homeowners associations.

Having these partnerships in place will helps ODF fight fires, because they will then already have connections to people and resources: the connections will already have been made.

Different agencies have different rules and regulations, different priorities, which could cause obstacles. For example, ODF can do projects pretty quickly on private lands because their system allows for it, but federal agencies don't have such an easy process, and can't act as quickly as ODF. Working around everyone's bureaucracy could be an obstacle.

Whatever they can do to collaborate with law enforcement, BLM, and landowners with reducing the occurrence of roadside fires is important to Weyerhaeuser. Vigorously prosecuting the people who do seal from them and set fires puts the word out that people shouldn't mess with Weyerhaeuser because they will follow through and prosecute trespassers and violators.

Weyerhaeuser has a pretty good relationship with the BLM in reducing public access to Weyerhaeuser lands during high fire season.
Weyerhaeuser doesn't have as much contact with the USFS.

Weyerhaeuser is more interested in collaborating with their neighbors, and doesn't see obstacles to collaboration. Potential obstacles could come from trying to collaborate with other agencies/stakeholders where goals aren't aligned.

Other obstacles come from people who are well meaning but uneducated on wildfire prevention issues: they can throw up road blocks because they don't understand the real goals to reducing wildfire.

Funding source as opportunity and obstacle

County wide plan will encourage involvement
Coordinator is key, need leader to keep it up. Some folks are not willing to participate for whatever reason

Obstacles:

- Compressed timelines
- How to keep process sustainable and manageable
- How to maintain funding stream for efforts
- How to keep issue on radar if no challenge, how to keep up interest

Providing better wildland fire training for rural fire departments
Rural homeowner education
Providing people with more education
Governmental regulations control the ability to reduce fuels: prescribed burning is getting harder to do, stricter governmental regulations—so looking at ways to make the regulations not as tight.

Opportunity-> who will take ownership at the County is unclear, needs upper echelon (County Commissioners) commitment to last.
Obstacle-> $$$$

10. Do you know of effective efforts, programs, or public/private partnerships in other communities related to wildfire mitigation that could be applied in Lane County?

no

no

no

Look at Josephine County plan and the Deschutes County plan.

Deschutes County education programs – seem to be successful and have gotten several grants funded.

Does not know specifics
Referred us to New Mexico, Communities in Colorado, and Bonanza County, CA (Lake Tahoe area)

Heard of some, but no details

SB 360, Firewise, Fire First. There are codes and regulations already in place.

ODF has the defensible space program. Also, Lane County code - if build next to F1 and F2 lands, then you acknowledge your building next to lands where forest management/industry. This is good, because landowner can't later object to commercial forest activities. There is an opportunity here the defensible space issues when new homes are built. People could install sprinkler systems, but I don't support telling people they have to install a sprinkler system or anything like that.

Josephine County's CWPP
Bend is starting a CWPP and so is Klamath Falls. All four counties in Northeastern Oregon will be starting soon too.

Washington – a college mentioned a program near King County run by the Washington Department of Natural Resources. She didn't mention specifics (had none to tell me), but said that what we're doing sounds like something that the DNR was doing.
ODF has something funded by the forest service to do public outreach Tim Mehan as an ODF contact.

No, refer to fire folks.

San Diego CA County community wide plans

Kathy Lynn
HFRA- provides clear direction
Her outreach grant in the works
Collaborative examples
Josephine County
NFPA 299 codes and regs

No, he couldn't think of any.

Not really, Deschutes County cooperation

11. Would your organization be willing to collaborate on more site-specific local community fire plans that follow the countywide plan?

Referred me to Kent Howe

Yes. We work best at very local level; our scope is mostly very local. We are involved at single home and individual level.

Yes, don't know how much time could be given. He said that the office was strapped. Maybe the Fire Department and other fire districts could help in this area.
Hazel Dell Rural Fire District would be a place to start.

Yes – already work closely with ODF and would follow their lead on private projects.

Yes – and have already agreed to help on the Oakridge/Lowell/Dexter community fire plan.

Kent Howe question (see contact information above)

Yes
EWEB will work with ODF in communities on the McKenzie that will follow the CWPP

Sure

We'll definitely be up for listening and being part of the process.

Absolutely, as long as funding can be found to implement local plans.

If this plan is aligned with their business plan then they would be wiling to collaborate.
It's more likely that Weyerhaeuser would work any collaboration efforts through the Easter Lane Forest Protection Association. The association meets briefly to get consensus about what partnerships they want to make and what positions the group as a whole is taking on collaborative efforts.

Yes if applicable to area of response, which is public lands and unincorporated areas of Lane County, areas outside municipal areas.

Definitely, key to working project

Would encourage FDB chief to provide technical oversight and encourage participation

Yes, often times local community groups can get together to work on these issues, and he sees that ability here.

Sure.

11.1 Who else might be interested in working on more local plans?

Sheriff's Department

See above

Incorporated governments, Rural and City fire departments, watershed councils, soil and water conservation districts

Depends on the area – maybe private timber companies, EWEB, RFPDs, independent communities, watershed councils.

Howard Schussler
Assistant Public Works Director
Will be taking Dale's place after May

Rural fire districts- all that EWEB is involved with are part of this project.

Rural Fire Districts, Homeowners Associations

Rural fire departments are always interested, especially when it comes to mapping and identifying their local high-risk areas and available access routes and obstacles to access routes.

Federal agencies are always interested in local plans because working with local governments helps them cooperate with projects on federal lands adjacent to local government lands.
Watershed councils
Tribal Governments
Fish and Wildlife

The Eastern Lane Forest Protection Association will be discussing the CWPP because of the Association's connection with ODF.
Steve Cafferata, a retired forester, is, in his opinion, the most knowledgeable person in Oregon about funding and collaboration for wildfire prevention. Might be a good resource, he's very active in the Eastern Lane Association and is currently working on a funding project for Weyerhaeuser.

USFS, BLM, ODF, LC Fire Defense Board
Umpqua, Siuslaw, Willamette, ODNRA, all BLM lands in County

Homeowner Assoc
Co Commerce McKenzie Valley
Local newspaper
ODF
Large Timber companies

EManagers	Citizen Groups	Media Outlets
Homeowners Assoc	Kathy Lynn PWCH	ODF Ann Walker

LCF Co-op (big Player) wide range of organizations

Certainly rural fire departments
Watershed councils

ODF #1 partner
LC Public Works – hauling debris, turned over roads to local access status
Couple homeowners assoc, desire is there action so far is not.

12. Introduction to Firewise Community Workshop in early April. Invite stakeholder to attend and bring local stakeholders that would be interested in creating site-specific community wildfire protection plans.

He wants to come and he said that he would bring people

Yes, I'll attend or one of our builders will.

He is interested in attending and wanted to make sure that we are inviting the RFPDs.

Send information to Brian Maldenich, GIS Coordinator 682.6950

Yes.

Is looking forward to bringing together non-traditional players (such as planners, developers, insurance company agents) with traditional players. Planners, developers, insurance companies, who don't necessarily look at the fire safety aspect of homes when building homes, are targeted through the Firewise Workshops. Hopefully we can increase education and awareness and look at the whole aspect of wildfire risk reduction.

Is on the Board of Directors for the Eastern Lane Forest Protective Association and thought he and the Association's president would want to come.

Interested, How to apply to rural communities?

Oregon Small Woodlands Associations are collections of small woodland owners, and Lane County has a chapter. The Lane County Chapter may be interested in coming to the workshop.

Yes, keep posted, busy schedule

13. Is there anything else that I haven't asked you about that you think I should note?

Long term and big- OR legislative develop an overall agency or committee to work with FD, counties and others to discuss hazard plans.

No

No

No, covered everything.

No

Other organizations to consider

LCOG- Talk to Linda to get a contact name

They want to be part of the process and informed of treatments that will occur on the McKenzie River.

No

No

No

Can't think of anything.

This is programs third year, funding source is BLM O+C timber rev, LCSO is only O+C county fully funded by title 3 and have the largest crew, other counties cost share the position in their existing department.

Forest Work Camp
Fire crews in summer, do fuels reduction projects for USFS and BLM as well. Contact Clint Riley David Thomas

Glad doing it, community and county-wide plans carry legitimacy.

Interested in tracking CWPP efforts, and communicate to larger whole
Ann Walker ODF NFP Coordinator
Bonnie Wood USFS NF Plan Coordinator
PNW Wildfire Coordination Group=> Prevention team (she is member) focus on Communication between teams, coordination across teams, maximize assets ID and solve gaps.
Challenge is pooling data at the state level
Fire Defense Boards per county to take to local level
RFD's generally focused on suppression, key is to bring in, listen to demands they have
Funding source for local RA
- Inventory in community
- ready for dispatch

Sending unprotected areas perspectives and SB 2154 to respond before resource depletion.
Construct mutual aid programs to include un-included areas, ISO orgs
Point of County CWPP to eliminate comp in county
- ID strong grant writers in County
- portion out work and apply skills
- ID overlap of interests
- Mutual mentor of mitigation (statewide levels)

Gated Y newsletter issue 1/05 and 12/04 CWPP

Often times we see these fire hazards that accumulate on private property where the landowners should have an obligation to deal with it, but isn't. Those types of situations should be a concern to the county. Issues that can arise through no one's fault or that are no one's responsibility, fuel build-ups that no one is taking care of. The county should look for ways to identify those areas and deal with them, maybe use contingency funding.

Graphic example of disaster potential is missing in the county, all from elsewhere.
Long term solution is needed to perception problem, which will result in commitment or lack there of.
FD as centers in rural areas, County wide yearly celebrations, debris pick up points, info centers, celebrate who they are and not using them ☺
Demo fire proof homes.
Debris removal partners, standalone fire sheds?
Central v Decentralized mulch conversion cost-benefit analysis.

Appendix G
Firewise Workshop Summary

In conjunction with the development of the Lane County Community Wildfire Protection Plan (CWPP), Oregon Natural Hazards Workgroup (ONHW) and Oregon Department of Forestry (ODF) conducted a Firewise Communities Workshop on April 5, 2005 at the University of Oregon for an invited group of diverse stakeholders. Participants in the workshop included representatives of federal and state fire and land management agencies, rural fire protection districts, local planning and emergency management departments, utility providers, the private forestry industry, the real estate industry, watershed councils, and elected officials, among others.

Firewise Communities Workshop

The National Wildland-Urban Interface Fire Protection Program developed Firewise Communities Workshops in 2000 to address the wildland-urban interface fire problem at a community level. The workshops have three main goals:

1. To improve safety in the wildland/urban interface by learning to share responsibility.
2. To create and nurture local partnerships for improved decisions in communities.
3. To encourage the integration of Firewise concepts into community and disaster mitigation planning.

The Firewise goals are consistent with the County Plan's goals and emphasis on collaboration. Participants worked in small groups to learn Firewise concepts, completed interactive scenarios designed to assess and reduce the wildfire risk of a hypothetical community, and were asked to apply the lessons learned from the sessions to Lane County.

ONHW and ODF worked to prepare an agenda for the workshop that would engage and encourage communication between participants while providing them with information on current wildland-urban interface fire risk issues and mitigation efforts. In addition to the small group scenarios and a video, several key speakers addressed the wildland-urban interface issue from both the state and local perspectives. Speakers included Marvin Brown, Oregon State Forester; Faye Stewart, Lane County Commissioner and Linda Cook, Lane County Emergency Manager. A list of workshop participants and a copy of the workshop's agenda can be found at the end of this appendix.

Opportunities and Obstacles in Lane County

Throughout the day facilitators asked participants to think about how Firewise concepts apply to issues in Lane County. ONHW created a worksheet for participants to identify opportunities and obstacles in

Lane County for each of the three requirements of the CWPP - 1) reducing structural ignitability, 2) prioritizing fuel reduction projects, and 3) collaboration. Participants discussed their ideas in small groups and shared these results with the whole group at the end of the workshop.

ONHW analyzed the completed worksheets to compile the opportunities and obstacles frequently identified by participants.

Treatment of Structural Ignitability

A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures. Workshop participants were asked to list opportunities and obstacles to implementing structural ignition reduction projects in Lane County. Participant's responses are summarized below.

Opportunities

- Education and outreach through various sources including media, town hall meetings, and publications such as the Oregon State University Extension Service newsletter
- Incentive programs, especially the use of insurance incentives, to encourage participation in projects to reduce risk
- Collaboration with community groups, developers, neighbors, fire agencies, and others to better educate residents and implement projects
- Available grant money from the National Fire Plan and other sources for implementing projects to reduce structural ignitability
- Updating or revising Lane County codes and ordinances to reduce structural ignitability

Obstacles

- Lack of homeowner education and awareness regarding the true risk of wildfire in Lane County and how defensible space can reduce risk
- Lack of funding to implement projects, along with the cost of fire resistant building materials for homeowners
- Lack of collaboration and involvement among homeowners, agencies, and developers to implement projects
- Lack of regulations to enforce the use of fire resistant building materials and practices within the county

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. Participants were asked to list opportunities and

obstacles to implementing prioritized fuel reduction projects in Lane County. Participant's responses are summarized below.

Opportunities

- Education using community outreach, public forums, media and other sources emphasizing examples of fuel reduction projects and homes saved by defensible space
- Incentive programs such as rebates or other support to help landowners with debris removal, as well as insurance or property tax incentives to encourage fuel reduction
- Collaboration and participation to share costs, tools, and manpower to implement fuel reduction projects on a larger scale
- Finding uses for the biomass generated from fuel reduction projects, such as selling the chips or using it as an energy source
- Available grant money from the National Fire Plan and other sources to aid in implementation of fuel reduction projects

Obstacles

- Debate surrounding the best method to conduct fuel reduction treatments on private and public lands based on differing topography, environmental issues, public perception, and cost
- Long term maintenance of fuel reduction treatments
- The size and scope of the county and the sheer volume of work that is needed to begin and maintain fuel reduction projects as the wildland-urban interface continues to increase
- Public perception of low wildfire risk and that fuel reduction treatments are aesthetically unpleasant
- The cost of implementing fuel reduction treatments on properties and removing debris
- Special needs populations who require extra assistance with fuel reduction projects

Collaboration

A CWPP must be collaboratively developed by local and state government representatives, in consultation with federal agencies and other interested parties. Participants were asked to list opportunities and obstacles to collaborating on projects to reduce hazardous fuels and structural ignitability in Lane County. Participant's responses are summarized below.

Opportunities

- Brings people with diverse expertise together for better solutions to problems
- Showing collaboration increases success with grant applications

- Work with real estate agencies and other groups and businesses to raise awareness of wildland-urban interface wildfire issues
- Use the media to capture public attention of current collaboration efforts and encourage future efforts

Obstacles

- Differing priorities, values, and interests among partners
- Lack of time and communication needed to foster working relationships among partners
- "Turf battles" and conflicts over jurisdictional authority
- Resistance or lack of interest in collaborating with others

Conclusion

The Firewise Communities Workshop brought together a diverse group of stakeholders to identify strategies for community planning and partnership building in order to reduce fire risk in the wildland-urban interface. The opportunities and obstacles identified by participants were used to develop the action items identified in the CWPP. A second forum will be held in late summer to present the final Community Wildfire Protection Plan to interested participants.

Firewise Workshop Participants, April 5, 2005

Name	Organization
Bev Reed	U.S. Forest Service
Susan Freeman	U.S. Forest Service
Mei Lin Lantz	U.S. Forest Service
Emily Rice	Bureau of Land Management
Erik Petersen	Army Corps of Engineers
Rick Hayes	Army Corps of Engineers
Kevin Kinney	Oregon Department of Transportation
Dan Scholtz	Oregon Department of Forestry
Marvin Brown	Oregon Department of Forestry
Tim Meehan	Oregon Department of Forestry
Charlie Redheffer	Oregon Department of Forestry
Lee Vaughn	Oregon Department of Forestry
Ken Ockfen	Oregon Department of Forestry
Kees Ruurs	Oregon State Parks
Duane Toman	Lane County Sheriff's Office
Bret Freeman	Lane County Sheriff's Office
Linda Cook	Lane County Sheriff's Office
Mark McKay	Lane County Sheriff's Office
Don Nickell	Division
Bill Sage	Division
Keir Miller	Division
Eric Wold	City of Eugene Parks & Open Space
Trevor Taylor	City of Eugene Parks & Open Space
Kristi Hayden	City of Eugene Parks & Open Space
Margaret Boutell	City of Veneta
Warren Weathers	City of Lowell
Dale Ledyard	McKenzie
Doug Perry	City of Eugene Fire & EMS
Heather Hill	Lane County Fire Dististrict #1
Keith Hoehn	Lowell Rural Fire Protection District
Mark Sundin	Oakridge Fire Department
Dennis Shew	Mohawk Valley Rural Fire District
Myron Smith	Westfir Fire District
Gerald Shorey	Hazeldell Rural Fire District
Chad Minter	Coburg Rural Fire Protection District
Megan Finnessey	McKenzie Watershed Council
Karl Morgenstern	EWEB
Faye Stewart	Lane County Board of Commissioners
Jenifer Stevens	Wilderness Society
Don Harkins	Assoc.
Mark Giustina	Giustina Land & Timber
Paul Wagner	Giustina Resources
Jack Spinder	Weyerhaeuser South Valley
Michael S. McDowell	Weyerhaeuser Springfield
Steve Akehurst	Rosboro Lumber
Roy Palmer	Douglas Forest Protective Association
John Kennedy	Douglas Forest Protective Association
John Milandin	Hazeldell RFD
Kathy Silva	Century 21
Pat Harmon	Oakridge Real Estate
Sally Harmon	Oakridge Real Estate

Name	Organization
Workshop Facilitators	
Neil Benson	Oregon Department of Forestry
Angie Johnson	Oregon Department of Forestry
Tom Berglund	Oregon Department of Forestry
Rick Rogers	Oregon Department of Forestry
Ann Walker	Oregon Department of Forestry
Mark Slaton	Oregon Department of Forestry
Lena Tucker	Oregon Department of Forestry
Greg Wagenblast	Oregon Department of Forestry
Andre LeDuc	Oregon Natural Hazards Workgroup
Krista Mitchell	Oregon Natural Hazards Workgroup
Workshop Computer Operators	
Kate Lenzser	Oregon Natural Hazards Workgroup
Jessica Nunley	Oregon Natural Hazards Workgroup
Sam Fox	Oregon Natural Hazards Workgroup
Morgan Ellis	Oregon Natural Hazards Workgroup
Julie Baxter	Oregon Natural Hazards Workgroup

FIREWISE COMMUNITIES

Workshop
Eugene, Oregon
April 5, 2005

8:00 – 8:30	Registration
8:30 – 9:10	Welcome – Lena Tucker, Oregon Department of Forestry Statewide Perspective - Marvin Brown, Oregon State Forester Workshop Agenda and Logistics – Neil Benson, Moderator Lane County Community Wildfire Protection Plan – Linda Cook, Lane County Emergency Management – Andre LeDuc, Oregon Natural Hazards Workgroup
9:10 – 9:40	Introduction to Firewise Communities - Neil Benson
9:40 – 10:10	Introduction of Falls County Simulation
10:10 – 10:30	**Break**
10:30 – 12:00	Workgroup Exercises Task 1 – "Determine the Wildfire Severity Rating for Bear Heights" Task 2 – "Develop Solutions for Reducing Fire Hazard in Bear Heights"
12:00 - 12:30	Group Presentations for Task 1 and Task 2
12:30 -1:30	**Lunch** "Wildfire – Preventing Home Ignitions" Video Faye Stewart, Lane County Commissioner
1:30 – 3:30	Workgroup Exercise 3A (Includes Break) Opportunities and Obstacles in Lane County
3:30 – 4:30	Group Presentations for Exercise 3A and Opportunities and Obstacles in Lane County

Appendix H
Wildfire Resources

The following are wildfire resources to help communities, landowners, and other interested parties help reduce wildland urban interface fire risk. There are four main categories: agencies, policies, wildfire mitigation/education, and fire prevention and interagency cooperation.

Agencies

A variety of agencies do work that affects forest and fire management and other factors associated with reducing wildfire risk to forests and communities. The following resources provide information on federal, state, and local agencies that are related to forests, fire, and resource management and planning:

United States Forest Service, Fire and Aviation Management

Contact: USFS Fire and Aviation Management
Address: 3833 South Development Avenue, Boise, ID 83705
Phone: (208) 387-5100
Website: http://www.fs.fed.us/fire/

United States Forest Service, Siuslaw National Forest

Contact: Siuslaw National Forest
Address: 4077 S.W. Research Way, Corvallis, OR 97339
Phone: (541) 750-7000
Website: http://www.fs.fed.us/r6/siuslaw/

United States Forest Service, Willamette National Forest

Contact: Willamette National Forest
Address: PO Box 10607, Eugene, OR 97440
Phone: (541) 225-6300
Website: http://www.fs.fed.us/r6/willamette/

United States Forest Service, Umpqua National Forest

Contact: Umpqua National Forest
Address: 2900 Stewart Parkway, Roseburg, OR 97470
Phone: (541) 672-6601
Website: http://www.fs.fed.us/r6/umpqua/

Bureau of Land Management

Contact: Bureau of Land Management
Address: 1849 C Street, Room 406-LS, Washington DC 20240
Phone: (202) 452-5125 (voice) or (202) 452-5124 (fax)
Website: http://www.blm.gov/nhp/index.htm

Oregon Department of Forestry

Contact: Oregon Department of Forestry
Address: 2600 State Street, Salem, OR 97310
Phone: (541) 945-7200 (voice) or (503) 945-7212 (fax)
Website: http://oregon.gov/ODF/index.shtml

Oregon State Fire Marshall

Contact: Oregon State Fire Marshall
Address: 3225 State Street, Salem, OR 97301
Phone: (503) 378-3056
Website: http://www.blm.gov/nhp/index.htm

Washington Department of Natural Resources

Contact: Fire Prevention Program Coordinator
Address: PO Box 47037, Olympia, WA 98504-7037
Phone: (360) 902-1754 (voice) or (306) 902-1757 (fax)
Website: http://www.dnr.wa.gov/contact/

Lane County Fire Prevention Cooperative

Contact: Chariperson
Address: 3620 Gateway Street, Springfield, Oregon 97477
Phone: (541) 935-2226
Website: Lanefireprevention.com

Oregon Natural Hazards Workgroup

Contact: Program Director
Address: 1209 University of Oregon, Eugene, OR 97403-1209
Website: http://darkwing.uoregon.edu/~onhw/

National Interagency Fire Center (NIFC)

Contact: NIFC
Address: 3833 South Development Avenue, Boise, ID 83705-5354
Phone: (208) 387-5512
Website: http://www.nifc.gov/

Policies

Policies are often created at the federal and state level that affect how agencies, businesses, and residents can work individually and collaboratively to reduce communities' risk to wildfire. The following resources provide information on existing federal and state policies regarding wildfire risk reduction.

Healthy Forest Restoration Act

Website: http://www.healthyforests.gov/

National Fire Plan 10 Year Comprehensive Strategy

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

Disaster Mitigation Act of 2000

Website: http://www.dem.dcc.state.nc.us/PA/Assets/Forms/dma2000.pdf

Oregon Statewide Land Use Planning Goal 7: Areas Subject to Natural Hazards

Website: http://www.lcd.state.or.us/LCD/docs/goals/goal7.pdf

Oregon Forestland Dwelling Units Statute, ORS 215.730

Website: http://landru.leg.state.or.us/ors/215.html

Oregon Forestland-Urban Interface Fire Protection Act of 1997 (Senate Bill 360)

Website:
http://www.odf.state.or.us/divisions/protection/fire_protection/prev/sb360/docs/legal/PROTACT%20ORS%20090704.pdf

Wildfire Mitigation/Education

Many programs currently exist to help mitigate communities' risk to wildfire and to educate agencies, businesses, and residents on issues related to wildland-urban interface fire. The following resources provide links to educational information and programs regarding wildfire mitigation and community outreach:

Firewise Communities

Contact: Firewise Communities
Address: N/A
Phone: N/A
Website: http://www.firewise.org/

Missoula FireLab

Contact: Missoula FireLab
Address: PO Box 8089, 5775 West Highway, Missoula, MT 59807
Phone: N/A
Website: http://www.firelab.org/

Fire Safe Councils

Contact: Fire Safe Council
Address: N/A
Phone: N/A
Website: http://www.firesafecouncil.org/

Federal Alliance for Safe Homes

Contact: Federal Alliance for Safe Homes
Address: 1427 East Piedmont Drive, Suite 2, Tallahassee, FL 32308
Phone: (877) 221-7233
Website: http://www.flash.org/welcome.cfm

What Trees Can Provide

Contact: Center for Urban Forest Research
Address: PSW Research Station, USDA Forest Service c/o Department of Environmental Horticulture, Suite 1103, One Shields Avenue, Davis, CA 95616
Phone: (530) 752-7636 (voice) or (503) 752-6634 (fax)
Website: http://cufr.ucdavis.edu/

Home and Fire Magazine

Contact: Home and Fire Magazine
Address: PO Box 458, Lebanon, OR 97355
Phone: (541) 451-4670 (voice) or (541) 451-1015
Website: http://www.homeandfire.com/

A Model for Improving Community Preparedness for Wildfire

Contact: Pacific Northwest Research Station
Address: Pacific Northwest Research Station
Phone: (206) 732-7832
Website:
http://www.ncrs.fs.fed.us/4803/highlights/Intro%20to%20website.pdf

The Ad Council Firewise Campaign PSA's

Address: The Advertising Council, INC., 261 Madison Avenue, 11th Floor, New York, NY 10016
Phone: (212) 922-1500 (voice) or (212) 922-1676 (fax)
Website: http://www.adcouncil.org/campaigns/firewise/

Where's the Fire Wise Choices Make Safe Communities

Contact: Center for Urban Forest Research
Address: PSW Research Station, USDA Forest Service c/o Department of Environmental Horticulture, Suite 1103, One Shields Avenue, Davis, CA 95616
Phone: (530) 752-7636 (voice) or (503) 752-6634 (fax)
Website: http://cufr.ucdavis.edu/products/8/curf_150.pdf

National Wildfire Coordinating Group

Contact: National Wildfire Coordinating Group
Address: National Office of Fire and Aviation, Bureau of Land Management, National Interagency Fire Center
Phone: (208) 387-5144
Website: http://www.nwcg.gov/teams/wfewt/biblio/index.htm

National Fire Protection Association

Contact: National Fire Protection Association
Address: 1 Batterymarch Park, Quincy, MA 02169-7471
Phone: (617) 770-3000
Website: http://www.firepreventionweek.org/

National Interagency Fire Center: Fire Prevention and Education

Contact: NIFC: Fire Prevention and Education
Address: 3833 South Development Avenue, Boise, ID 83705
Phone: (208) 387-5512
Website: http://www.nifc.gov/preved/index.html

Federal Emergency Management Association for Kids: Teaching Kids About Prescribed Fire

Contact: FEMA
Address: 500 C Street, Southwest Washington D.C. 20472
Phone: (202) 566-1600
Website: http://www.fema.gov/kids/wldfire.htm

Protecting and Landscaping Homes in the Wildland/Urban Interface

Contact: University of Idaho Extension
Address: Forest, Wildlife and Range Experiment Station, College of Natural Resources, University of Idaho, Moscow, ID 83844-1130

Wildfire Mitigation in Florida: Land use planning strategies and best development practices

Contact: State of Florida Department of Community Affairs, Division of Community Planning, Publications
Address: 2555 Shumard Oak Blvd, Tallahassee, FL 32399-2100
Phone: (850) 487-4545
Website:
http://www.dca.state.fl.us/fdcp/dcp/publications/Wildfire_Mitigation_in_FL.pdf

Grant Opportunities

Federal and state grants already exist to assist counties and local communities in funding various wildfire risk reduction projects. To assist the county and local communities in accessing existing funding sources, the following resources have been adapted from the *National Fire Plan - Pacific Northwest Interagency: Grant Opportunity Summaries*[1] and explain and provide contact information for some federal and state grants:

FS/BLM/NFWS/NPS/BIA Community Assistance and Economic Action Programs

This grant is to be used for community based planning and projects for fuels reduction and community wildland-urban interface education and prevention. Agency partnerships and fund sharing is encouraged. Federally recognized tribes, universities, colleges, state chartered non-profit organizations, counties, cities, federal, state, and local government agencies are eligible to apply for this grant.

Applications due: March
Website: www.nwfireplan.gov

FEMA Assistance to Firefighters Grant Programs

This grant funds programs by fire departments that help protect the public and firefighting personnel against fire related hazards. This grant additionally focuses on programs aimed at children and firefighting personnel training, protective equipment, and vehicles. Recognized local fire departments are eligible to apply for this grant.

Applications: March
Website: http://www.usfa.fema.gov/grants/afgp/

Volunteer and Rural Fire Department Assistance

This grant provides financial assistance to volunteer and rural fire departments for improving fire protection through improved organization, training, equipment, prevention, and planning.

Applications: February
Contact: Oregon Department of Forestry
Phone: (503) 945-7341

State Fire Assistance Wildland Urban Interface Hazard Mitigation Grants

This grant provides funding for education and outreach programs, fuels reduction and ecosystem restoration programs, and community assistance in seventeen western states and Pacific Island territories. State Forestry agencies are eligible to apply and can sponsor other participants.

Applications: Fall
Website: www.fs.fed.us/r4/sfa_grants/sfa_grants.html

Energy Trust Grants

This grant provides financial assistance to renewable energy programs that do not already have incentive programs developed through the Energy Trust of Oregon. Projects in the areas of small wind, solar photovoltaics, biomass, biogas, small hydro, and geothermal electric will generally receive grants. Schools, local and state governments, and commercial, industrial, residential, agricultural, and non-profit businesses are eligible to apply for this grant

Contact: The Energy Trust of Oregon
Address: 733 S.W. Oak Street, Suite 200, Portland, OR, 97205
Phone: (503) 493-8888 (voice) or (503) 546-6862 (fax)
Website: http://www.energytrust.org

Fire Prevention and Interagency Cooperation[2]

Reducing communities' wildfire risk is a shared responsibility not only between residents and agencies, but also between agencies at the federal, state, and local levels. Federal, state, and local agencies frequently work closely with one another and form partnerships in coordinating wildfire prevention programs. Examples of existing partnerships and current coordinating efforts and programs include the following:

Prevention Working Team of the Pacific Northwest Wildfire Coordinating Group (PNWCG)

This group is composed of representatives of ODF, the Oregon State Fire Marshal (OSFM), the Washington State Fire Marshal, the five federal wildfire agencies, and the Keep Oregon Green (KOG) Association. Meetings are held monthly. Recent work has included:

- Ongoing oversight of the Industrial Fire Precaution Level System
- Coordination of the deployment of National Fire Prevention and Education Teams into the region.
- General coordination of wildfire prevention programs and campaigns across the region.
- Development of a regional wildfire prevention web site.
- Creation and implementation of Wildfire Awareness Week
- Review and scoring of National Fire Plan grant applications related to fire prevention.
- Design and conduct of a prescribed awareness and ecosystem health media campaign.
- Development and distribution of a "Fire in the Northwest Ecosystem" curriculum, to teachers of grades 7-12.

Bureau of Land Management (BLM)

BLM and ODF worked closely on a number of fronts:

- ODF protects approximately 2.5 million acres of BLM forestland from fire. This protection includes all aspects of wildfire prevention: education, engineering and enforcement.
- - The two agencies work together, frequently, on groups such as the Prevention Working Team of the PNWCG.

Forest Service (USFS)

In addition to working together on many statewide and regional fire prevention related groups, the two agencies:

- Routinely combine efforts to conduct wildfire prevention related training.
- Coordinate the implementation of closures and restrictions.

- Coordinate assistance to communities in the preparation of community wildfire protection plans.
- Facilitate and coordinate various projects conducted as a part of the National Fire Plan.
- Implementation of various national prevention programs and campaigns, such as Firewise and Smokey Bear.

Forest Industry

Working primarily through the Oregon Forest Industries Council and the Associated Oregon Loggers (AOL), ODF works closely with the forest industry. Recent examples include:

- Refinement of fire prevention standards required for logging operations.
- Annual "operator dinners", where members of the logging community are brought up to date on new fire prevention regulations and emerging trends in logging related fire causes.

Pacific Northwest Fire Prevention Workshop Committee

This body plans and hosts an annual, week long, gathering of several hundred fire prevention personnel from across the region and, increasingly, from across the nation. The success of this committee is evidenced by their receipt of a national Silver Smokey Bear Award in 2000. The committee is made up of personnel from ODF, the state of Washington, the five federal wildfire agencies, the structural fire services of Oregon and Washington, KOG, and the Oregon Fire Marshal Association.

Prevention Working Group, Fire Program Review

Over the past year, this group reviewed Oregon's wildfire prevention efforts and made recommendations for improvements. Represented on the group were small woodland owners, large industrial owners, Oregon Forest Resources Institute, AOL, city fire departments, Oregon State University, Insurance Information Service of Oregon & Idaho, OSFM, rural fire departments, USFS and others. The group was co-chaired by representatives from KOG and ODF.

Local fire prevention cooperatives

In many areas of the state, fire prevention cooperatives have been formed to facilitate interagency cooperation in the local delivery of wildfire fire prevention messages and materials. Cooperative membership normally includes structural fire departments, ODF and the USFS. Some cooperatives also have the American Red Cross, local 911 dispatch centers and other emergency oriented organizations as members. Projects commonly undertaken by cooperatives include:

- Presentation of Smokey Bear wildfire prevention programs in area grade schools.
- Presentation of home fire safety, "stop, drop and roll" and "exist drills in the home" (EDITH) programs in local schools.

- Establishment of hunter education booths, on the opening weekend of hunting season, to make hunter aware of fire prevention practices.
- Joint staffing of county fair fire prevention displays and booths.
- Joint sponsorship of local special events, such as Smokey Bear day at professional baseball games.
- Fire prevention related training for member agency employees.
- Implementation and delivery of various fire prevention and wildland-urban interface programs and campaigns.

Oregon State Fire Marshal (OSFM)

ODF often and frequently works with OSFM on a variety of initiatives. Perhaps the largest ongoing such initiative is the implementation of the Oregon Forestland-Urban Interface Fire Prevention Act (aka Senate Bill 360), of which OSFM was a co-sponsor. In addition to working together on many statewide and regional fire prevention related groups, the two agencies have recently:

- Jointly sponsored, with KOG, a Wildfire Awareness Week proclamation from the Governor.
- Worked together to assist local communities in the completion of community wildfire protection plans.

Oregon Interagency Hazard Mitigation Team

This organization, established by the Oregon Department of Homeland Security, meets monthly to share information about all types of natural hazard, including wildfire. Membership includes a wide diversity of state agencies. The team recently completed development of the state's Natural Hazards Mitigation Plan, which included a chapter on Wildland-Urban Interface Wildfire. Other chapters, such as those dealing with volcanic hazards and windstorms, also related to fire prevention issues.

Oregon Natural Hazards Workgroup (ONHW)

ONHW is associated with the University of Oregon, works to leverage the resources of a wide variety of private and government entities so that duplication of efforts is minimized and maximization of effort is consolidated. ODF has recently worked with the workgroup on a number of fire prevention related topics:

- Implementation of the Fire Wise Communities USA recognition program in Oregon.
- Hosting and conduct of Fire Wise workshops around the state.
- Development of the wildland-urban interface wildfire chapter of the Oregon Natural Hazards Mitigation Plan.

Oregon Department of Parks and Recreation (ODPR)

In addition to assisting ODPR with campground fire safety, during the summer months, ODF has recently been working with ODRP to enhance wildfire prevention on the ocean shore. Also involved in this recent efflort has been OSFM, several rural fire protection districts and KOG.

Oregon Department of Justice (DOJ)

ODF works extensively with DOJ on efforts related to changing people's unacceptable fire prevention behavior, when such behavior has resulted in an escaped wildfire. DOJ assists ODF in collecting the costs of suppressing these fires, from the negligent parties. DOJ has also assisted with specific projects, such as the 2003 ground breaking effort to prevent the Union Pacific Railroad from engaging in a continuing pattern of fire starting activities.

Oregon State Police (OSP)

OSP and ODF frequently join forces to carry out wildfire prevention efforts. Such efforts include:

- The annual, full time assignment of two OSP troopers to conduct wildfire arson prevention programs across the state, during fire season.
- Joint fire investigation training.
- Assisting ODF to outfit and operate a fire investigation vehicle.
- Cooperative investigation of fires. The investigation of fires related to arson is headed by OSP while the investigation of fires related to other causes is normally headed by ODF.

Oregon Department of Transportation (ODOT)

In recent years, ODOT and ODF have increasingly worked together to deliver the wildfire prevention messages to motorists, primarily thought the use ODOT's fixed and mobile variable message reader boards.

Keep Oregon Green Association (KOG)

KOG and ODF have history of joint collaboration, which spans the last 65 years. KOG is currently collocated with ODF in Salem and receives extensive direct support from the agency. In addition to working together on many statewide and regional fire prevention related groups, the two organizations routinely and regularly conduct fire prevention programs, campaigns and media offerings.

City and Rural Fire Departments

Especially at the local level, ODF often works with local fire departments to carry out wildfire prevention activities. One ongoing example is the Fire Free campaign in central Oregon. Headed by the Bend Fire Department, ODF has assisted with the conduct and expansion of this award winning and highly successful wildfire

mitigation and prevention program. Often, the agencies work together on activities under the auspicious of the local fire prevention cooperative.

County and City Governments

Increasingly, ODF has been working with local governments on wildfire prevention. On a statewide basis, three of the major such efforts have been:

- Implementation of Oregon's Forestland-Urban Interface Fire Protection Act (Senate Bill 360)
- Preparation of community wildfire protection plans
- Creation of wildfire hazard zones

National level involvement

ODF is represented on several committees working at the national level, through the National Wildfire Coordinating Group. Each of these committees has members from the federal wildfire agencies, the National Association of State Foresters, and others:

- Wildland Fire Education Working Team, which is responsible for the development wildfire prevention related materials and programs.
- Fire Investigation Working Team – which is responsible for the development of training programs and standards related to wildfire investigation.

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[1] Oregon Department of Forestry. 2005. *National Fire Plan - Pacific Northwest Interagency: Grant Opportunity Summaries*. <http://oregon.gov/ODF/FIRE/docs/NatnlFirePlanGrantSummary.pdf>.

[2] Fire Prevention and Interagency Cooperation information developed by Rick Rogers of the Oregon Department of Forestry.

Appendix I
Glossary of Terms

Glossary terms were identified through two sources: 1) Firewise.org Glossary and 2) Florida Department of Community Affair's *Wildfire Mitigation in Florida: Land use planning strategies and best development practices.* Definitions pulled from the Firewise resource are noted in *italics.*

Canopy – *The stratum containing the crowns of the tallest vegetation present (living or dead), usually above 20 feet.*

Combustible – *Any material that, in the form in which it is used and under the conditions anticipated, will ignite and burn.*

Crown Fire – *A fire that advances from top to top of trees or shrubs more or less independent of a surface fire.*

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

Defensible Space – *An area, typically a width of 30 feet or more, between an improved property and a potential wildfire where the combustibles have been removed or modified.*

Duff – *The layer of decomposing organic materials lying below the litter layer of freshly fallen twigs, needles and leaves and immediately above the mineral soil.*

Escape Route – *Route away from dangerous areas on a fire; should be preplanned.*

Evacuation – *The temporary movement of people and their possessions from locations threatened by wildfire.*

Exposure – *(1) Property that may be endangered by a fire burning in another structure or by a wildfire. (2) Direction in which a slope faces, usually with respect to cardinal directions. (3) The general surroundings of s site with special reference to its openness to winds.*

Fire Behavior – *The manner in which a fire reacts to the influences of fuel, weather, and topography.*

Fire Department – *Any regularly organized fire department, fire protection district or fire company regularly charged with the responsibility of providing fire protection to the jurisdiction.*

Fire Hazard *– A fuel complex, defined by volume, type condition, arrangement, and location, that determines the degree of ease of ignition and of resistance to control.*

Fire History – The chronological record of the occurrence of fire in an ecosystem or at a specific site. The fire history of an area may inform planners and residents about the level of wildfire hazard in that area.

Fire Prevention *– Activities, including education, engineering, enforcement and administration, that are directed at reducing the number of wildfires, the costs of suppression, and fire-caused damage to resources and property.*

Fire-Proofing *– Removing or treating fuel with fire retardant to reduce the danger of fires igniting or spreading (e.g., fire-proofing roadsides, campsites, structural timber). Protection is relative, not absolute.*

Fire Protection *– The actions taken to limit the adverse environmental, social, political and economical effects of fire.*

Fire Resistant Roofing *– The classification of roofing assemblies A, B, or C as defined in the Standard for Safety 790, Tests for Fire Resistance of Roof Covering Materials 1997 edition.*

Fire Resistant Tree *– A species with compact, resin-free, thick corky bark and less flammable foliage that has a relatively lower probability of being killed or scarred by a fire than a fire sensitive tree.*

Fire Retardant *– Any substance except plain water that by chemical or physical action reduces flammability of fuels or slows their rate of combustion.*

Fire Triangle *– Instructional aid in which the sides of a triangle are used to represent the three factors (oxygen, heat, and fuel) necessary for combustion and flame production; removal of any of the three factors causes flame production to cease.*

Firebrands *– Any source of heat, natural or human made, capable of igniting wildland fuels. Flaming or glowing fuel particles that can be carried naturally by wind, convection currents, or by gravity into unburned fuels. Examples include leaves, pine cones, glowing charcoal, and sparks.*

Firefighter *– A person who is trained and proficient in the components of structural or wildland fire.*

Firewise Construction *– The use of materials and systems in the design and construction of a building or structure to safeguard against the spread of fire within a building or structure and the spread of fire to or from buildings or structures to the wildland-urban interface area.*

Firewise Landscaping *– Vegetative management that removes flammable fuels from around a structure to reduce exposure to radiant*

heat. The flammable fuels may be replaced with green lawn, gardens, certain individually spaced green, ornamental shrubs, individually spaced and pruned trees, decorative stone or other non-flammable or flame-resistant materials.

Flammability *– The relative ease with which fuels ignite and burn regardless of the quantity of the fuels.*

Fuel(s) *– All combustible material within the wildland-urban interface or intermix, including vegetation and structures.*

Fuel Condition *– Relative flammability of fuel as determined by fuel type and environmental conditions.*

Fuel Loading *– The volume of fuel in a given area generally expressed in tons per acre.*

Fuel Management/Fuel Reduction – Manipulation or removal of fuels to reduce the likelihood of ignition and to reduce potential damage in case of a wildfire. Fuel reduction methods include prescribed fire, mechanical treatments (mowing, chopping), herbicides, biomass removal (thinning or harvesting or trees, harvesting of pine straw), and grazing. Fuel management techniques may sometimes be combined for greater effect.

Fuel Modification *– Any manipulation or removal of fuels to reduce the likelihood of ignition or the resistance to fire control.*

Ground Fuels *– All combustible materials such as grass, duff, loose surface litter, tree or shrub roots, rotting wood, leaves, peat or sawdust that typically support combustion.*

Hazard *– The degree of flammability of the fuels once a fire starts. This includes the fuel (type, arrangement, volume, and condition), topography and weather.*

Hazardous Areas *– Those wildland areas where the combination of vegetation, topography, weather, and the threat of fire to life and property create difficult and dangerous problems.*

Hazard Reduction *– Any treatment of living and dead fuels that reduces the threat of ignition and spread of fire.*

Herbicide – Any chemical substance used to kill or slow the growth of unwanted plants.

Human-caused Fire *– Any fire caused directly or indirectly by person(s).*

Human-caused Risk *– The probability of a fire ignition as a result of human activities.*

Ignition Probability *– Chance that a firebrand will cause an ignition when it lands on receptive fuels.*

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

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

Mechanical Treatment(s) – Ways to reduce hazardous fuels for the purpose of wildfire prevention.

Mitigation – *Action that moderates the severity of a fire hazard or risk.*

Noncombustible – *A material that, in the form in which it is used and under the conditions anticipated, will not aid combustion or add appreciable heat to an ambient fire.*

Overstory – *That portion of the trees in a forest which forms the upper or uppermost layer.*

Peak Fire Season **–** *That period of the fire season during which fires are expected to ignite most readily, to burn with greater than average intensity, and to create damages at an unacceptable level.*

Preparedness *– (1) Condition or degree of being ready to cope with a potential fire situation. (2) Mental readiness to recognize changes in fire danger and act promptly when action is appropriate.*

Prescribed Burning *– Controlled application of fire to wildland fuels in either their natural or modified state, under specified environmental conditions, which allows the fire to be confined to a predetermined area, and to produce the fire behavior and fire characteristics required to attain planned fire treatment and resource management objectives.*

Prescribed Fire – *A fire burning within prescription. This fire may result from either planned or unplanned ignitions.*

Property Protection *– To protect structures from damage by fire, whether the fire is inside the structure, or is threatening the structure from an exterior source. The municipal firefighter is trained and equipped for this mission and not usually trained and equipped to suppress wildland fires. Wildland fire protection agencies are not normally trained or charged with the responsibility to provide structural fire protection nut will act within their training and capabilities to safely prevent a wildland fire from igniting structures.*

Protection Area *– That area for which a particular fire protection organization has the primary responsibility for attacking an uncontrolled fire and for directing the suppression action. Such responsibility may develop through law, contract, or personal interest of the fire protection agent. Several agencies or entities may have some basic responsibilities without being known as the fire organization having direct protection responsibility.*

Response *– Movement of an individual fire fighting resource from its assigned standby location to another location or to an incident in reaction to dispatch orders or to a reported alarm.*

Retardant *– A substance or chemical agent which reduces the flammability of combustibles.*

Risk *– The chance of a fire starting from any cause.*

Rural Fire District (RFD) *– An organization established to provide fire protection to a designated geographic area outside or areas under municipal fire protection. Usually has some taxing authority and officials may be appointed or elected.*

Rural Fire Protection *– Fire protection and firefighting problems that are outside of areas under municipal fire prevention and building regulations and that are usually remote from public water supplies.*

Slash – Debris left after logging, pruning, thinning, or brush cutting. Slash includes logs, chips, bark, branches, stumps, and broken trees or brush that may be fuel for a wildfire.

Slope *– The variation of terrain from the horizontal; the number of feet rise or fall per 100 feet measured horizontally, expressed as a percentage.*

Smoke *– (1) The visible products of combustion rising above a fire. (2) Term used when reporting a fire or probable fire in its initial stages.*

Structure Fire *– Fire originating in and burning any part or all of any building, shelter, or other structure.*

Structural Fire Protection *– The protection of a structure from interior and exterior fire ignition sources. This fire protection service is normally provided by municipal fire departments, with trained and equipped personnel. After life safety, the agency's priority is to keep the fire from leaving the structure of origin and to protect the structure from an advancing wildland fire. (The equipment and training required to conduct structural fire protection is not normally provided to the wildland firefighter.) Various taxing authorities fund this service.*

Suppression *– The most aggressive fire protection strategy, it leads to the total extinguishment of a fire.*

Surface Fire – A fire that burns leaf litter, fallen branches and other surface fuels on the forest floor, as opposed to ground fire and crown fire.

Surface Fuel *– Fuels lying on or near the surface of the ground, consisting of leaf and needle litter, dead branch material, downed logs, bark, tree cones, and low stature living plants.*

Tree Crown *– The primary and secondary branches growing out from the main stem, together with twigs and foliage.*

Uncontrolled Fire *– Any fire which threatens to destroy life, property, or natural resources, and (a) is not burning within the confines of firebreaks, or (b) is burning with such intensity that it could not be readily extinguished with ordinary, commonly available tools.*

Understory *– Low-growing vegetation (herbaceous, brush or reproduction) growing under a stand of trees. Also, that portion of trees in a forest stand below the overstory.*

Urban Interface *– Any area where wildland fuels threaten to ignite combustible homes and structures.*

Volunteer Fire Department *– A fire department of which some or all members are unpaid.*

Water Supply *– A source of water for firefighting activities.*

Wildfire – *An unplanned and uncontrolled fire spreading through vegetative fuels, at times involving structures.*

Wildland – *An area in which development is essentially non-existent, except for roads, railroads, power lines, and similar transportation facilities. Structures, if any, are widely scattered.*

Wildland Fire Protection – *The protection of natural resources and watersheds from damage by wildland fires. State and Federal forestry or land management agencies normally provide wildland fire protection with trained and equipped personnel. (The equipment and training required to conduct wildland fire protection is not normally provided to the structural fire protection firefighter.) Various taxing authorities and fees fund this service.*

Wildland-Urban Interface – The zone where structures and other human development meets or intermingles with undeveloped wildland fuels and other natural features.

Wildland-Urban Interface – *Any area where wildland fuels threaten to ignite combustible homes and structures.*