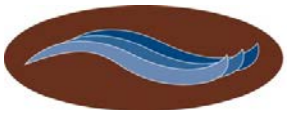
2011

Multnomah County
Community Wildfire Protection Plan

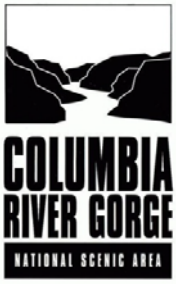
Are You Prepared?

Prepared in coordination with
Oregon Department of Forestry
July 2011

Multnomah County



WEST MULTNOMAH
SOIL & WATER CONSERVATION DISTRICT



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Multnomah County greatly appreciates the time, commitment and energy these people have invested in the Multnomah County Community Wildfire Protection Plan.

Joe Partridge
Multnomah County Office of Emergency Management

EXECUTIVE SUMMARY

Recent fires in Oregon and across the western United States have increased public awareness of the potential losses to life, property, and natural and cultural resources. In August, 2010 the Oregon Department of Forestry (ODF) began working with Multnomah County Emergency Management, the City of Portland's Wildfire Technical Committee, local fire agencies, and community organizations throughout the County to develop an integrated Multnomah County Wildfire Protection Plan (MCWPP). The goal of this plan is to reduce wildfire risk to citizens, the environment, and infrastructure throughout Multnomah County.

The MCWPP is non-regulatory in nature, meaning that it does not set forth any new County policies. It does, however, provide a starting point or foundation for coordination and collaboration among agencies and the public in the County to identify and prioritize future wildfire projects and assists in meeting federal planning requirements and qualifying for assistance programs. The MCWPP works in conjunction with other County plans and programs, including the Multnomah County Natural Hazards Mitigation Plan, Comprehensive Plan, and Emergency Operations Plan.

MCWPP Mission & Goals

The mission of the Multnomah County Community Wildfire Protection Plan is to integrate wildfire awareness into public outreach and education, emergency operations and vegetation management programs to promote actions that create safe communities and a more wildfire resilient landscape.

Goals:

I. Promote public awareness, understanding, and actions to reduce risk.

II. Reduce risk to people, property and environment.

III. Maintain a comprehensive, countywide risk assessment.

IV. Support a disaster resilient economy.

V. Develop and maintain collaborative partnerships and funding strategies for implementing the CWPP.

MCWPP Objectives

The MCWPP Steering Committee identified the following key objectives and assembled technical subcommittees to develop prioritized mitigation action plans (please see Table 1.1 MCWPP Action Plans) to address them.

- Assess the Wildfire Risk
- Develop Hazardous Fuels Reduction and Biomass Utilization Projects
- Enhance Emergency Response Operations
- Involve the Community in Wildfire Prevention
- Reduce Structural Ignitability through Regulatory Alignment

Fire District Coordination

The local fire agencies that provide structural and wildland urban interface protection are the cornerstone of community resiliency in Multnomah County. These organizations know their communities and are committed to protecting them from wildfires and other hazards. They are also aware of the larger-scale countywide wildfire related issues that require collaboration and coordination from the partners engaged in this planning process. The most critical needs identified include: wildland training & equipment, communications, funding and community education.

Each fire agency developed local action plans and identified communities at risk to wildfire. Resource A: Local Fire Agency Action Plans articulates the specific needs for each local fire agency and will guide wildfire preparedness and prevention efforts.

Communities at Risk

The CWPP process is designed to identify and prioritize areas for wildfire prevention and response efforts. These "areas" are referred to as Communities at Risk (CAR). Each fire agency in Multnomah County is considered a Community at Risk. However, since wildfire hazards vary within fire district boundaries, fire agency personnel identified 57 additional Local Communities at Risk that are particularly vulnerable to wildfire. The Local Communities at Risk have unique wildfire hazards and potential impediments to emergency response. The following issues are common to the majority of high-risk communities.

- Structural Ignitability
- Access Limitations
- Protection Capability
- Water Supply
- Recreation/Transients
- Debris Burning
- Fuels Loading
- Community Preparedness

Community Involvement

Community involvement is a key component to the MCWPP. Multnomah County Emergency Management and Oregon Department of Forestry worked with local fire agencies to host a series of five public outreach events between March and May 2011 to promote the principles included in the Multnomah County Wildfire Protection Plan. The community wildfire meetings provided fire prevention education materials to over 125 concerned residents. The MCWPP includes a variety of strategies for involving the public in wildfire prevention, preparedness and response.

Sustaining Fire Plan Efforts

To ensure recognition by the public and commitment from partner agencies, the Board of County Commissioners accepted the MCWPP in July, 2011. Oregon Department of Forestry and the Multnomah County Fire Defense Board also accepted the plan in recognition of the collaborative development process. In addition, the Portland City Council recognized the City's Wildfire Technical Committees role in the preparation of Multnomah County Community Wildfire Protection Plan in Fall, 2011.

Multnomah County Emergency Management will house the MCWPP and will work with the City of Portland's Wildfire Technical Committee to implement the Plan. Multnomah County will provide annual progress reports on plan implementation and the MCWPP will undergo a five-year review to ensure that the document maintains its relevance and effectiveness over the long term.

CHAPTER 1
INTRODUCTION

COMMUNITY NEWS

our EAST METRO neighbors

The Oregonian
SATURDAY, APRIL 2, 2011
E

County maps wildfire dangers

The state teams up with local agencies to draft comprehensive wildfire plan

By STEPHEN BEAVEN
THE OREGONIAN

The Oregon Department of Forestry has begun working with fire departments and other local agencies from throughout Multnomah County on a comprehensive plan to limit the danger of wildfires.

The department has created a map of Multnomah County neighborhoods that are particularly susceptible to wildfires, showing danger zones that stretch from Forest Park on the west side of the county to Powell Butte on the east side.

The effort, which started in August, is believed to be the first comprehensive wildfire plan for the entire county and will include community outreach efforts as well as tips for mitigating the threat of a fast-moving blaze.

The project is especially helpful for local fire departments that don't have enough staffing for a fire-prevention program of this size.

"Everybody has a plan to manage the fire problems in their area," said Jim Klum, deputy chief of emergency operations at the Gresham Fire Department. "But we just don't have the staff to do a comprehensive plan for any area other than ours."

Still, the fire departments in Portland, Gresham and elsewhere provided key information to help identify areas that are most at risk.

Multnomah County wildfire risk areas

Source: Oregon Department of Forestry

DAVID BADDERS/THE OREGONIAN

Cindy Kolomechuk, a community wildfire planner with the Forestry Department, developed the map with the help of fire departments throughout the county.

"Most of our fire districts, they've been thinking about this for awhile," she said. "It isn't very difficult to sit around and have them draw circles around particularly vulnerable areas and articulate why they're vulnerable."

High-risk areas have been identified based on a number of factors. Dry vegetation is the most obvious fuel — and the biggest risk — for wildfires.

But the plan for Multnomah County also took into consideration the nearby water supply in certain areas, private bridges that haven't been upgraded and the accessibility of local roads. Finding homes in rural areas can also present firefighters with difficulty.

The is not the first community wildfire protection plan the Department of Forestry has undertaken in Oregon. The department has been creating such plans for counties throughout the state for several years, Kolomechuk said.

In addition to fire departments, the Forestry Department has worked with other local agencies, including Metro, Portland Parks and Recreation, the U.S. Forest Service and Multnomah County

Please see WILDFIRE, E2

CHAPTER 1: INTRODUCTION

Fires are a natural part of the forest ecosystem in Multnomah County, Oregon. In fact, they have shaped the forests valued by Multnomah County residents and visitors. However, decades of forest management, fire suppression and climate change have significantly altered forest composition and structure. The result is an increase in the wildfire hazard as forest vegetation has accumulated to create a more closed, tighter forest environment that tends to burn more intensely than in the past. Rising temperatures and changes to precipitation patters result in drought conditions, making forests more susceptible to ignitions.

The exposure to wildfire hazards is also increasing, as recent population growth has spurred more residential development close to the forests in what is referred to as the wildland urban interface (WUI). As development encroaches upon forests with altered fire regimes that are more conducive to larger, more intense fires, the risk to life, property, and natural resources continues to escalate. The Multnomah County Community Wildfire Protection Plan (MCWPP) provides direction and helps facilitate a wildfire-based approach to managing our forestlands and the human development in the interface.

In August, 2010, the Wildfire Planning Steering Committee was established to provide oversight and guidance for the development of the MCWPP. Membership included representation from the county's Fire Defense Board and the public agencies responsible for natural resource management and fire protection. The Steering Committee actually began as the "Wildfire Technical Committee, " established by Portland City Council in 2009 to implement the Action Plan of the City's *Wildfire Readiness Assessment*: *Gap Analysis Report* (2009)[1] and manage future wildfire mitigation and fuels reduction projects associated with the Portland Natural Hazards Mitigation Plan.

The MCWPP addresses the requirements of the FEMA Pre-Disaster Mitigation program, and is aligned with multi-jurisdictional Natural Hazard Mitigation Planning efforts throughout the County. The MCWPP is intended and designed to update (and replace) the Wildfire Annex of the Multnomah County Natural Hazards Mitigation Plan (NHMP). Cities in Multnomah County are encouraged to use the MCWPP process to guide and update the Wildfire sections in their NHMP's.

This plan also meets criteria set forth in the National Fire Plan, and the Healthy Forest Restoration Act (HFRA), and will begin laying the foundation for implementation of Senate Bill 360: the Oregon Forestland-Urban Fire Protection Act of 1997. This MCWPP is designed to promote two broad concepts: intergovernmental cooperation and personal responsibility. Addressing state and federal legislation will enable the County to leverage grant funds to implement the action plan.

Plan Mission, Goals and Objectives

The Multnomah County CWPP Steering Committee has developed a mission statement, goals and objectives to guide the planning process. The MCWPP improves upon historical fire planning efforts by providing a county-wide approach for determining wildfire hazards, implementing best practices for wildfire prevention, and strengthening emergency response capabilities in the event of a wildfire.

[1] See www.portlandonline.com/wildfire

Mission:

The mission of the Multnomah CWPP is to integrate wildfire awareness into public outreach and education, emergency operations and vegetation management programs to promote actions that create safe communities and a more wildfire resilient landscape.

Goals:

The activities identified in the CWPP are in accordance with the multi-hazard mitigation planning goals outlined in the County's Natural Hazard Mitigation Plan. As such, the Steering Committee agreed to adopt these goals with a few modifications.

Promote public awareness, understanding, and actions to reduce risk.

- Capitalize on existing programs to implement a public involvement strategy that focuses on actions to reduce risk to structures and wildland areas as well as actions to take in the event of a wildfire such as emergency evacuation and communication procedures.
- Cultivate leadership within communities to implement wildfire mitigation activities and organize community response efforts.
- Encourage communities to take responsibility for reducing wildfire hazards.
- Provide information on tools, partnership opportunities, and funding resources to assist in implementing mitigation activities.

Reduce risk to people, property and environment.

- Review emergency operations procedures and identify opportunities to improve capacity and coordination among all agencies including natural resources and parks staff involved in wildfire response, especially in rural areas.
- Identify opportunities to inform, coordinate, and complement natural resource plans, policies and initiatives to implement best practices for wildfire protection in balance with sustainable ecological management and economic activities throughout Multnomah County.
- Recommend actions to restore fire adapted ecosystems and create fire resilient landscapes in the wildland urban interface and in natural areas.
- Integrate fuels reduction activities into public and private forest and inter-face management to contribute to resilient ecosystems.

Maintain a comprehensive, countywide risk assessment.

- Develop and utilize a wildfire hazard assessment to inform and guide wildfire prevention activities including public outreach, fuels reduction and development standards.
- Identify critical facilities, infrastructure, watersheds and other community assets in high hazard areas that have significant economic, social or cultural value and prioritize these areas for mitigation.

Support a disaster resilient economy.

- Identify biomass utilization opportunities to offset expense of fuels reduction activities.
- Implement activities that assist in protecting lives and reducing economic losses by making homes, businesses, infrastructure, critical facilities, and other property to minimize the risk of damages caused by wildfires.

Develop and maintain collaborative partnerships and funding strategies for implementing the CWPP.

- Strengthen communication and coordinate participation among and within public agencies, citizens, non-profit organizations, business, and industry to gain a vested interest in implementation.
- Provide a consolidated reference documenting wildfire hazards, prevention and response efforts, and resource sharing information for all participating agencies.
- Encourage agency personnel and resources to commit to plan implementation by integrating actions listed in the CWPP into budgets and workplans.
- Develop a CWPP that addresses National Fire Plan, Healthy Forest Restoration Act criteria and meets the intent of Senate Bill 360 to increase eligibility for future state and federal grant opportunities.
- Engage elected officials, fire districts and departments, and community leaders early in the process to garner political, social and economic support for the CWPP.

MCWPP Objectives & Action Plans

The MCWPP Steering Committee identified the following key objectives and assembled technical subcommittees to develop prioritized mitigation action plans to address them. For a complete listing, please see Table 1-1. MCWPP Action Plan.

The CWPP is a non-regulatory document with no funding associated with it. Therefore, the action items are to be completed as time and resources allow. The proposed actions are arranged by priority and include a listing of potential partners. The actions are given a target timeline for completion: Short-Term~1-2years; Long-Term ~3-5 years or longer, and implementation is largely dependent on securing funding for staff and resources.

- *Chapter 5: Wildfire Risk Assessment* analyzes the potential losses to life, property, and natural resources. Objectives of the risk assessment are to identify Communities-at-Risk and the Wildland-Urban Interface, and conduct a wildfire risk assessment that can be used in project prioritization.
- *Chapter 6: Hazardous Fuels Reduction and Biomass Utilization* identifies priority projects for reducing hazardous fuels and researches opportunities to add value to extracted vegetation and maintain a sustainable fuels reduction program. The fuels reduction projects focus on protecting life and property and infrastructure while moving toward a more fire-adapted ecosystem.
- *Chapter 7: Emergency Response Operations* evaluates and coordinates response capabilities among local governments and structural and wildland fire agencies to ensure effective response to a wildfire event.
- *Chapter 8: Wildfire Prevention and Community Involvement* includes objectives to develop ongoing strategies for increasing citizen awareness and action for fire prevention.
- *Chapter 9: Structural Ignitability and Regulatory Alignment* relates to reducing structural vulnerability by reviewing all local and state regulatory and non-regulatory standards relating to development and vegetation management and making recommendations to enhance wildfire safety.

Table 1-1. Multnomah County CWPP Action Plan

Action Item	Priority	Timeframe	Lead
Risk Assessment			
Improve consistency and relevancy of "wildland" fires ignition data.	High	Short Term	Local Fire Agencies, Oregon Dept. of Forestry
Develop a series of recommendations for tracking structural vulnerability data throughout the County and revise the Wildfire Hazard Analysis and the Wildland Urban Interface to reflect the new information.	High	Ongoing	Local Fire Agencies, Oregon Dept. of Forestry
Integrate large historical fires into the wildfire hazard analysis.	High	Ongoing	Oregon Dept. of Forestry, United States Forest Service
Work with local fire agencies to develop more detailed risk assessments using local and community-derived data.	High	Ongoing	Local Fire Agencies/Oregon Dept. of Forestry
Fuels Reduction & Biomass Utlization			
Develop and maintain an inventory of potential fuels reduction projects in high-risk areas, fuel reduction prescriptions, and a list of prioritized future projects.	High	Ongoing	Wildfire Techincal Committee
Work directly with communities targeted for fuels reduction treatments to gain support for the project prior to implementation.	High	Ongoing	Local Fire Agencies
Integrate defensible space practices into Naturescaping programming and other vegetation management programs targeted at homeowners to ensure consistent and complimentary messaging in high-risk areas of the Wildland Urban Interface.	High	Short Term	Wildfire Techincal Committee
Align fuels reduction efforts with invasive weed management programs.	High	Short Term	Wildfire Techincal Committee, 4 County Coordinated Weed Management Agecny
Develop a "Prescription Team" to develop a landscape Desired Future Condition (DFC) and recommendations for achieving the DFC for high priority fuels reduction projects that meet multiple objectives (wildfire, maintaining shrub layer for habitat, etc.).	High	Ongoing	Wildfire Techincal Committee, 4 County Coordinated Weed Management Agecny
Develop and monitor experimental projects that utilize innovative strategies to achieve ecologically healthy, visually appealing landscapes that are resilient to wildfires.	High	TBD	Wildfire Techincal Committee
Obtain funding to implement fuels reduction projects.	High	Ongoing	Wildfire Techincal Committee
Develop cost sharing opportunities designed to decrease the financial burden on the property owner.	High	Ongoing	Oregon Dept. of Forestry, Multnomah County
Develop an emergency communications plan for Metro Parks, Portland and other Cities' Parks, and Portland Water Bureau staff to ensure that employees can communicate during a wildfire event.	High	Short Term	Multnomah County Emergency Management, Portland Fire & Rescue
Inventory and map evacuation routes in Metro Parks, Portland and other Cities' Parks, and Natural Areas and communicate this information to adjacent communities and emergency response professionals.	High	Short Term	Multnomah County Emergency Management
Develop a wildfire fuels assessment and initial response training and safety program for Parks staff.	High	Ongoing	Portland Fire & Rescue
Develop a supply/demand information sheet that aligns potential biomass utilization opportunities for specific types of extracted vegetation.	High	Ongoing	Oregon Dept. of Forestry
Utilize strategies that add value to extracted vegetation, and enhance economic development (consider timing and timber market prices).	High	Ongoing	Wildfire Techincal Committee

Table 1-1. Multnomah County CWPP Action Plan

Action Item	Priority	Timeframe	Lead
Emergency Operations			
Work with partners to train all incident personnel for basic wildland firefighting and the Incident Command System (e.g. firefighters, park technicians, etc.).	High	Ongoing	Local Fire Agencies
Identify and address any shortages in wildland training and qualifications in line leadership positions such as Operations Section Chief, DIVS and TFLD.	High	Short Term	Local Fire Agencies, ODF
Examine mutual aid agreements (and/or amend as needed via MOU) for protocol regarding resource sharing and potential cost reimbursement for Extended Attack (after first 12 hours). Consider developing and integrating a process for rapid equipment sharing.	High	Ongoing	Multnomah County Fire Defense Board
Provide clear direction for Incident Commanders regarding when and how to ask for additional resources and/or mutual aid from other jurisdictions.	High	Short Term	Multnomah County Fire Defense Board
Conduct a preseason meeting with neighboring jurisdictions to discuss upcoming wildfire season, staffing levels, communications plan, resources, and other important information including finances, roles and responsibilities.	High	Ongoing	Oregon Dept. of Forestry, Multnomah County Fire Defense Board
Conduct annual tri-county (Washington, Clackamas and Multnomah) CWPP meetings.	High	Ongoing	Multnomah County Emergency Management
Inventory wildfire fighting equipment (dozers, tenders, radios) in Multnomah County (and mutual aid agencies) and document the procurement process. Once developed, coordinate resource sharing with Clackamas, Washington, Columbia and Hood River counties.	High	Ongoing	Multnomah County Fire Defense Board
Utilize MCEM's cache of field programmable VHF radios and ensure that they have current Mt. Hood NF, CRGNSA and ODF frequencies.	High	Ongoing	Multnomah County Emergency Management
Develop a wildfire communications plan that considers interoperability and outlines protocol for radio communication during an event. Test Communications Plans at different levels to clarify command structure and ensure firefighter safety.	High	Short Term	Multnomah County Emergency Management
Establish an agreed upon fire danger rating system and develop agency protocols. Consider adopting the "National Fire Danger Rating System"(NFDRS) and install signs at key points in the County. Communicate the daily fire danger rating to all field staff throughout the fire season.	High	Short Term	Local Fire Chiefs
Inventory potential staging areas, Incident Command Posts and Incident Bases (fire camp) locations throughout the County and document process and contacts for access. Consider developing an annual mobilization plan with updated contact information.	High	Ongoing	Multnomah County Emergency Management
Work with Metro to develop a wildland training and accreditation program for technical staff. Utilize Metro as a partner in equipment sharing programs.	Medium	Short Term	Metro
Obtain funding to secure a cache of electronic mapping devices (I-phones, etc) integrated with GPS.	Medium	Ongoing	Multnomah County Emergency Management
Explore possibility of retrofitting those existing Mobile Command Units that lack the ability to handle large-scale wildfire and ensure agreements are in place to share these resources.	Medium	Short Term	Multnomah County Fire Defense Board
Consider pre-positioning Type 3 logistical incident support trailers throughout the county during fire season.	Low	Ongoing	Multnomah County Fire Defense Board

Table 1-1. Multnomah County CWPP Action Plan

Action Item	Priority	Timeframe	Lead
Wildfire Prevention and Community Involvement			
Develop consistent standards for defensible space and fire-resistant building materials in Multnomah County.	High	Short Term	Multnomah County Fire Defense Board
Communicate standards for defensible space and fire-resistant building materials to primary decision makers and stakeholders in Multnomah County.	High	Short Term	Local Fire Agencies
Encourage the Multnomah County Fire Defense Board to form a Fire Prevention Cooperative or partner with regional Fire Prevention Co-ops to implement the actions outlined in the CWPP.	High	Ongoing	Multnomah County Fire Defense Board
Identify funding opportunities through grant programs and philanthropic organizations.	High	Ongoing	Wildfire Techincal Committee
Implement a model Firewise and ecologically sound landscaping project at Portland Fire & Rescue Station 27 in Forest Park.	High	Short Term	Portland Fire & Rescue, Wildfire Techincal Committee
Provide presentations to organizations that meet regularly and have high visibility in the community: Neighborhood Associations, Granges, Rotaries, Sierra Club, BARK, etc.	High	Short Term	Oregon Dept. of Forestry
Develop and distribute Wildland Urban Interface information to Communities at Risk.	High	Ongoing	Local Fire Agencies
Utilize active community organizations' social media network to engage residents including electronic newsletters and links on websites.	High	Ongoing	Local Fire Agencies
Promote the use of the 2-11 telephone information system to inform residents about what actions to take during wildfires and other emergencies.	High	Ongoing	Local Fire Agencies
Encourage and empower local fire districts to conduct community meetings by developing "plug and play" community meeting kits.	Medium	Short Term	Oregon Dept. of Forestry
Partner with local businesses to build capacity.	Medium	Ongoing	Local Fire Agencies
Target a broader audience by engaging nontraditional partners such as organizations that hold "living sustainably" programs as well as the insurance and real estate industry.	Medium	Ongoing	Local Fire Agencies
Empower community leaders to remain engaged and continue to motivate the community.	Medium	Ongoing	Local Fire Agencies
Encourage Communities at Risk to become certified Firewise Communities.	Medium	Ongoing	Oregon Dept. of Forestry
Consider implementing a Firewise incentive contest to promote wildfire prevention messaging through television, newspaper and radio.	Low	Long Term	Local Fire Agencies, ODF
Develop an effective outreach campaign to inform and educate homeowners about Oregon's Forestland-Urban-Interface Act (SB 360) when it takes effect in Multnomah County.	Low	Long Term	Local Fire Agencies, ODF
Work with landowners in highly visible wildfire risk areas to provide temporary and permanent signage.	Low	Ongoing	Local Fire Agencies, ODF

Table 1-1. Multnomah County CWPP Action Plan

Action Item	Priority	Timeframe	Lead
Structural Ignitability			
Modify the current Multnomah County Land use Planning access and water supply forms to reflect both County standards as well as minimum state fire code requirements to offer clarity to the applicant.	High	Short Term	Multnomah County Land Use and Transportation
Work with Multnomah County to include the local fire agency to the list of stakeholders that must sign off and approve prior to both land use and building permit final acceptance.	High	Short Term	Multnomah County Land Use and Transportation
Work with Multnomah County to allow alternative building construction and materials in areas unable to meet access and fire flow requirements.	High	Ongoing	Multnomah County Land Use and Transportation
Encourage Multnomah County Land Use Planning to meet individually with local fire agencies to establish relationships, articulate expectations, and reduce wildfire hazards to future development.	High	Ongoing	Multnomah County Land Use and Transportation
Obtain structural ignitability data by conducting structural triage assessment (access, water, defensible space, building materials) with GPS units for homes in Communities at Risk.	High	Short Term	Oregon Dept. of Forestry
Work with CWPP partners to engage the Columbia Gorge Commission in discussions about the risk of wildfire, and the benefits of fire-resistant building materials and defensible space.	High	Short Term	Oregon Dept. of Forestry
Implement road addressing and signage for emergency response and include the length of the driveway on the signs.	High	Ongoing	Local Fire Agencies
Develop a program to offer no-cost wildland/urban interface evaluations for both new development and existing homeowners.	High	Long Term	Local Fire Agencies
Become more familiar with the Wildland Urban Interface Code and determine whether or not adoption would be beneficial and appropriate in Multnomah County (particularly RR5).	High	Long Term	Local Fire Chiefs
Map all roads, bridges and driveways in the local Communities at Risk and prioritize homes that have dead-ends, and cannot support emergency service vehicles (grade, length, vegetation, turn-arounds) for defensible space and fuels reduction projects.	Medium	Long Term	Local Fire Agencies, Multnomah County Land Use and Transportation
Inventory bridges, determine whether or not they have had an engineer certification and develop a system to track required 5-year engineer inspections.	Medium	Long Term	Local Fire Agencies, Multnomah County Land Use and Transportation
Explore an Access Enforcement Program for the local fire agencies that would address heavy fuels or lack of maintenance render access roads unusable, the RFPD can require improvement.	Medium	Long Term	Local Fire Agencies, Multnomah County Land Use and Transportation

Planning Area Boundaries

The MCWPP addresses the wildfire hazard across the entire county, and includes action plans for each of the structural fire protection agencies. Multnomah County is served by 3 Incorporated Fire Districts and 6 Rural Protection Fire Districts, Oregon Dept. of Forestry (ODF), the Bureau of Land Management (BLM), the US Forest Service (USFS) Mt Hood National Forest and the Columbia River Gorge National Scenic Area (see Map #1: Multnomah County Fire Agencies).

Multnomah County is one of the few counties in the state that encompasses BLM, USFS, and ODF-managed land. These agencies have participated (to varying degrees) in the development of the MCWPP and will undoubtedly provide support for plan implementation. The MCWP also covers areas that are outside of structural fire protection boundaries. These are considered "unprotected areas" are at particularly high risk due to their geographic location and lack of protection capability. A more detailed description of the fire agencies in Multnomah Cousnty is provided in Resource A. Local Fire Agency Action Plans.

County Profile

Multnomah County is the smallest county in Oregon (465 square miles). It is bound by Columbia County and the Columbia River on the North, Washington County on the West, Clackamas County on the south and Hood River County on the east. Multnomah County is a mix of highly dense urban settings within the city limits of Portland in the west and open, rural land outside the urban growth boundary. It contains the Columbia Gorge National Scenic Area and a portion of the Mt. Hood National Forest. Several additional large volcanoes surround the County, including Mount St. Helens and Mount Adams. The County lies about 70 miles east of the Pacific Coast.

Although development is concentrated in the urban areas, population density in the more rural areas continues to grow. In addition, the Mt Hood National Forest draws thousands of recreationalists into the more remote forest lands of the county. The exposure of people to wildfire hazards underscores the importance of effective wildfire prevention programs.

Fire Policies and Programs

Various local, state, and federal policies and programs have provided frameworks and criteria to be used in the development of community fire plans. Most notably, the National Fire Plan (2001) and the Healthy Forest Initiative (2003) mandate rural communities to assess risk and develop action plans. Below is a listing of program criteria and MCWPP compliance.

Healthy Forest Restoration Act (2003) - federal bill signed by President Bush to promote fuels reduction projects on federal land, the development of community plans, and biomass energy production. HFRA contains a variety of provisions to expedite hazardous fuel reduction and forest restoration projects on specific types of federal land that are at risk of wildland fire or insect and disease epidemics. The act helps rural communities, states, tribes, and landowners restore healthy forest and rangeland conditions on tribal, state, and private lands. It also:

- Encourages biomass removal from public and private lands;
- Provides technical, educational, and financial assistance to improve water quality and address watershed issues on non-federal lands;
- Authorizes large-scale silvicultural research;

- Authorizes acquisition of Healthy Forest Reserves on private land to promote recovery of threatened and endangered species and improve biodiversity and carbon sequestration;
- Directs the establishment of monitoring and early warning systems for insect or disease outbreaks; and
- Provides guidance for the development of Community Wildfire Protection Plans (CWPPs). HFRA directs communities to engage in a collaborative process to develop CWPPs that identify and prioritize hazardous fuels reduction projects and address structural ignitability (see Table 1-2. below.).

National Fire Plan and 10-Year Comprehensive Strategy (2001) –interagency plan that focuses on firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability. The National Fire Plan (NFP) was established after a landmark fire season in 2000, with the intent of actively responding to severe wildland fires and their impacts to communities while assuring sufficient firefighting capacity for the future.

The NFP is a long-term commitment intended to help protect human lives, communities, and natural resources, while fostering cooperation and communication among federal agencies, states, local governments, tribes, and interested public citizens. The Western Governors Association completed a 10-Year Comprehensive Strategy in August 2001 (NFP 2001) and an Implementation Plan in May 2002 (NFP 2002). The NFP focuses on 1) firefighting, 2) rehabilitation, 3) hazardous fuels reduction, 4) community assistance, and 5) accountability.

Table 1-2. HFRA and NFP Requirements and MCWPP Compliance

Federal Program	Requirements	Plan Elements
HFRA	Collaborative process	Chapter 2: Planning Process
	Identify and prioritize areas for hazardous fuels reduction	Chapter 6: Hazardous Fuels Reduction
	Identify strategies to reduce structural ignitability	Chapter 9: Structural Ignitability: Policies and Programs
NFP	Identify Communities-at-Risk	Chapter 5: Wildfire Risk Assessment
	Identify Wildland Urban Interface	

Oregon Forestland-Urban Fire Protection Act of 1997 (Senate Bill 360)—state bill intended to facilitate development of an effective WUI protection system in Oregon by 1) establishing policies regarding WUI protection, 2) defining the WUI in Oregon and establishing a process and system for classifying the interface, 3) establishing standards for WUI property owners so they can manage or minimize fire hazards and risks, and 4) providing the means for establishing adequate, integrated fire protections systems in WUI areas, including education and prevention efforts.

Due to limited resources and the complex nature of SB 360 implementation, ODF has been unable to implement Senate Bill 360 in all counties statewide at this time. Although Multnomah County has not yet been selected for SB 360 implementation, the MCWPP process is laying the groundwork for implementation by coordinating agencies that have a vested interest in reducing wildfire hazards, implementing a wildfire prevention public outreach campaign, improving understanding of fire safe construction and practices in regulatory agencies, and promoting a more wildfire-based approach to managing the forests in Multnomah County.

Oregon Statewide Land Use Planning Goals—provide the foundation of Oregon's strong statewide program for land use planning. The goals express the state's policies on land use and related topics, such as citizen involvement, housing, and natural resources, and must be incorporated into local Comprehensive Land Use Plans. Multnomah County has adopted all 19 Land Use Planning Goals, including Goals 4 and 7, which address development as it relates to natural hazards and forest preservation.

Goal 4: Forest Lands

The purpose of Goal 4 is to conserve forest lands by maintaining the forest land base, to provide for recreational opportunities and agriculture, and to protect the state's forest economy by enabling economically efficient forest practices. These forest practices should assure that the continuous growing and harvesting of forest tree species (the leading use on forest land) is consistent with sound management of soil, air, water, and fish and wildlife resources (http://www.lcd.state.or.us/LCD/docs/goals/goal4.pdf).

Goal 7: Areas Subject to Natural Hazards

Goal 7 directs local governments to adopt comprehensive plans (inventories, policies, and implementing measures) to reduce risk to people and property from natural hazards. Goal 7 also indicates that new hazard inventory information provided by federal and state agencies shall be reviewed by the Oregon Department of Land Conservation and Development (DLCD) in consultation with affected state and local government representatives. (http://www.lcd.state.or.us/goalpdfs/goal07.pdf.)

Multnomah County Land Use Planning

The Multnomah County's zoning ordinances (Chapters 33, 34, 35, 36 & 38) were enacted to implement the goals and policies of its Comprehensive Plan and related rural area plans for the West Hills, Sauvie Island/Multnomah Channel, East of Sandy River, West of Sandy River and Columbia River Gorge National Scenic Area. In addition, the County's Chapter 29 provides development requirements for fire apparatus access and fire flow as specified in the Oregon Fire Code (OFC). For more information, please see Chapter 9: Structural Ignitability.

Federal Emergency Management Agency Disaster Mitigation Act (2000)—specifies criteria for state and local hazard mitigation planning. Federal Emergency Management Agency (FEMA) requirements under Title 44 CFR Part 201 of the Disaster Mitigation Act of 2000 specify criteria for state and local hazard mitigation planning which require local and Indian tribal governments applying for Pre-Disaster Mitigation (PDM) funds to have an approved local mitigation plan. Activities eligible for funding include management costs, information dissemination, planning, technical assistance, and mitigation projects. The Multnomah County Natural Hazard Mitigation Plan is currently undergoing its first 5 year review and update.

Unprotected Areas Policy

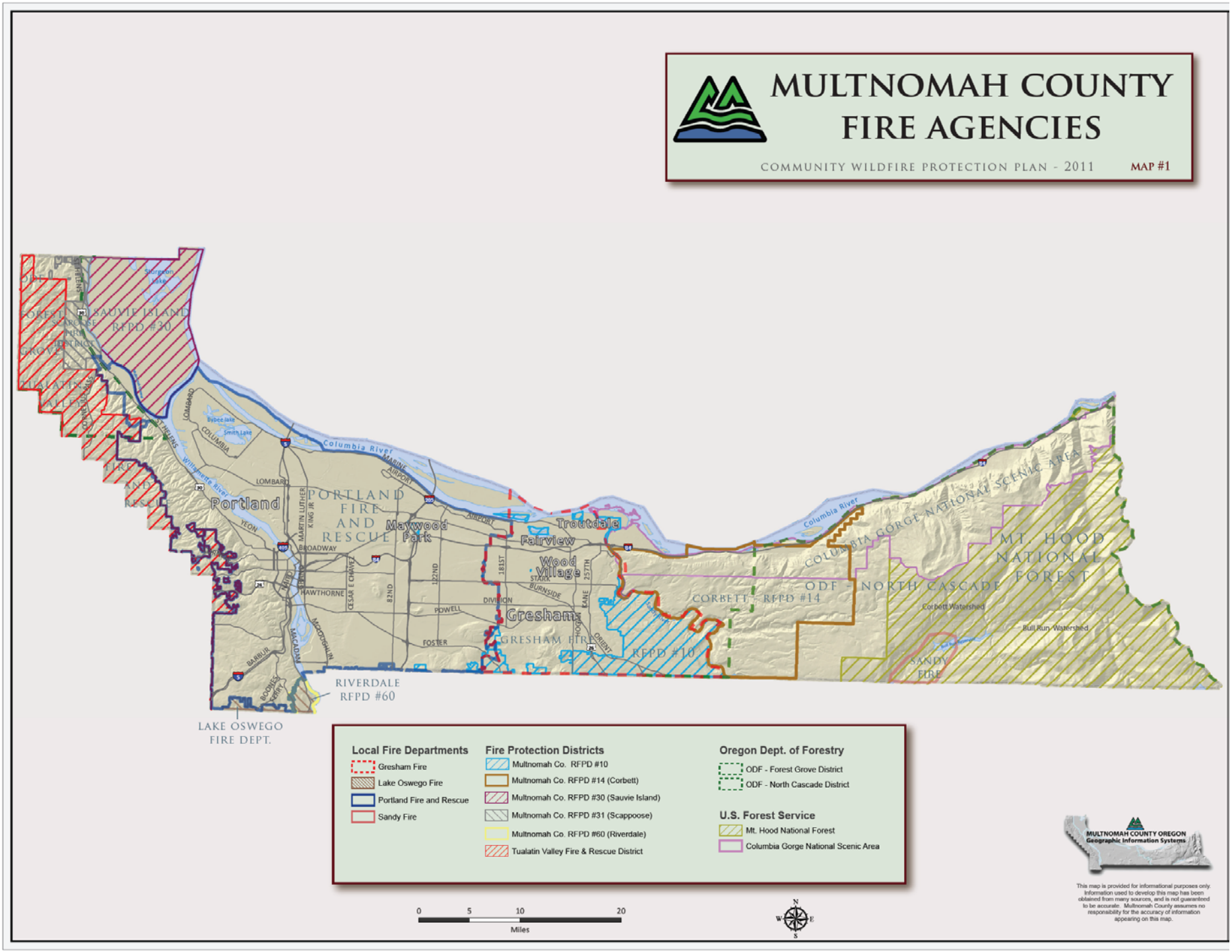
In 2004, the Governor's Fire Service Policy Council convened a task force to discuss the issue of areas that are vulnerable to wildfire but are without publicly-funded protection. State firefighting actions on these lands are made possible only after the Governor invokes the Conflagration Act. The task force agreed that protection should be provided only if the county is 1) completing a community wildfire protection plan; 2) has adopted the Department of Land Conservation and Development's Goal 4 requiring fire defense standards for new construction in forest zones; and 3) is changing property tax statement language for ODF assessment from "fire protection" to ODF

"non-structural fire suppression" so homeowners and insurers are not lead to believe they have structural fire protection.

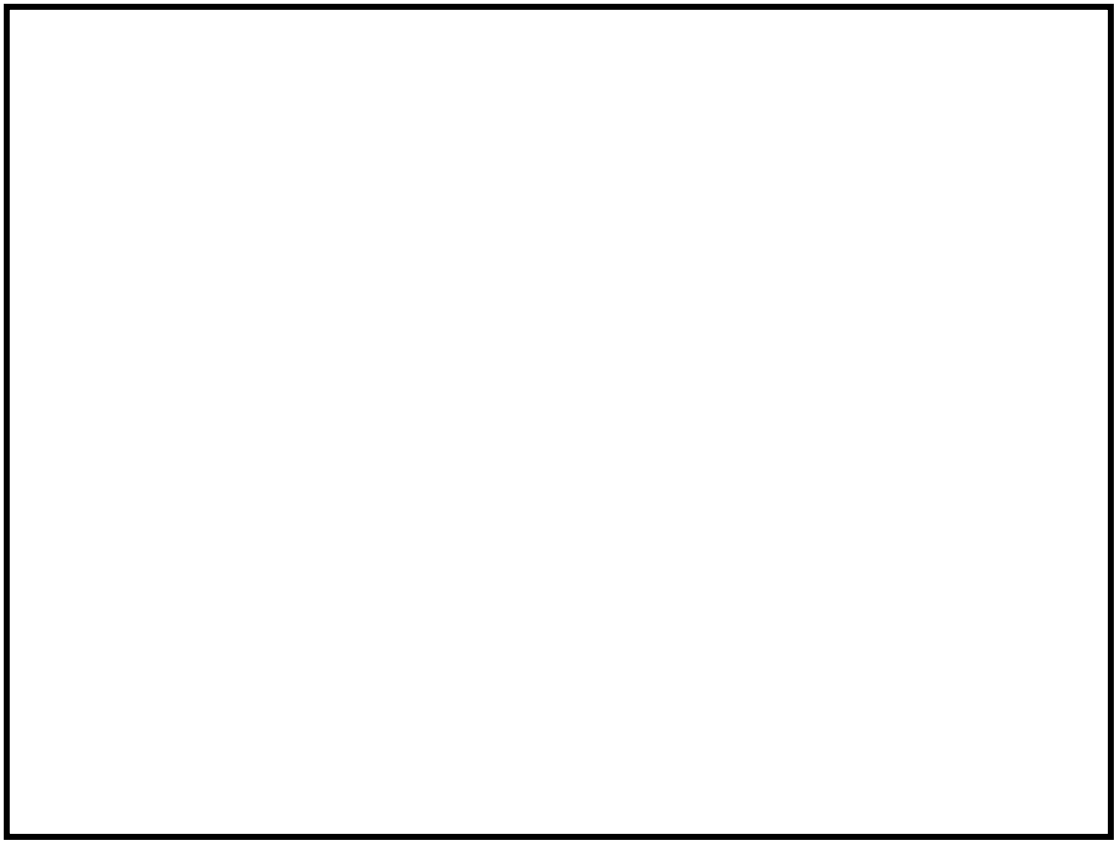
There are approximately 92,864 acres of structurally unprotected lands in Multnomah County, with the majority (88,379 acres) is located in the eastern part of the county and includes the USFS Columbia River Gorge national Scenic Area and the Mount Hood National Forest. The most vulnerable unprotected residential community in Multnomah County is Warrendale & Dodson. This community includes about 200 structures and is located along Interstate 84, which is the only East/ West Interstate Freeway in Oregon. Warrendale & Dodson has some of the most extreme wildfire hazards due to the heavy fuels on adjacent USFS lands, steep slopes, east winds, and potential ignition sources from I-84 and the railroad. For more information on unprotected areas, please see Resource A-7. Community at Risk: Unprotected Areas.

Existing Efforts, Studies, and Planning Documents

There are numerous land use and emergency management plans that relate to the Multnomah County Community Wildfire Protection Plan. These include the Multnomah County Emergency Operations Plan (EOP), ODF Forest Grove District &ODF North Cascade District Fire Operations Plans, BLM Salem District Resource Management Plan, Columbia Gorge National Scenic Area Fire Management Plan and wildfire planning annexes of Fire District Emergency Operations Plans, all of which are referenced in greater detail in Chapter 7: Emergency Operations.


MULTNOMAH COUNTY
FIRE AGENCIES
COMMUNITY WILDFIRE PROTECTION PLAN - 2011
MAP #1
Portland
PORTLAND FIRE AND RESCUE
Maywood Park
Troutdale
Fairview
Wood Village
Gresham
GRESHAM FIRE
RFPD #10
CORBETT - RFPD #14
ODF - NORTH CASCADE
MT. HOOD NATIONAL FOREST
COLUMBIA GORGE NATIONAL SCENIC AREA
SANDY FIRE
SAUVIE ISLAND RFPD #30
RIVERDALE RFPD #60
LAKE OSWEGO FIRE DEPT.
Columbia River
Willamette River
Corbett Watershed
Bull Run Watershed
Local Fire Departments
Gresham Fire
Lake Oswego Fire
Portland Fire and Rescue
Sandy Fire
Fire Protection Districts
Multnomah Co. RFPD #10
Multnomah Co. RFPD #14 (Corbett)
Multnomah Co. RFPD #30 (Sauvie Island)
Multnomah Co. RFPD #31 (Scappoose)
Multnomah Co. RFPD #60 (Riverdale)
Tualatin Valley Fire & Rescue District
Oregon Dept. of Forestry
ODF - Forest Grove District
ODF - North Cascade District
U.S. Forest Service
Mt. Hood National Forest
Columbia Gorge National Scenic Area
0 5 10 20
Miles
N
W E
S
MULTNOMAH COUNTY OREGON
Geographic Information Systems
This map is provided for informational purposes only. Information used to develop this map has been obtained from many sources, and is not guaranteed to be accurate. Multnomah County assumes no responsibility for the accuracy of information appearing on this map.

CHAPTER 2
PLANNING PROCESS



The Multnomah County Steering Committee convened monthly to guide the development of the MCWPP

CHAPTER 2: PLANNING PROCESS

Multnomah County Community Wildfire Protection Plan Framework

A variety of community wildfire planning models have been developed to address the federal legislation promoting community wildfire protection planning. The Wildfire Planning Steering Committee used the steps outlined in "Preparing a Community Wildfire Protection Plan: A Handbook for Wildland Urban Interface Communities" to develop a comprehensive and effective CWPP.[2] Table 2-1 provides a summary of the planning process.

Table 2-1 Community Wildfire Protection Plan Steps

Community Wildfire Protection Planning Steps
Step 1: Convene Decision makers
Step 2: Involve Federal Agencies
Step 3: Engage Interested Parties
Step 4: Establish a Community Base Map
Step 5: Develop a Community Risk Assessment
Step 6: Establish Community Priorities and Recommendations
Step 7: Develop an Action Plan and Assessment Strategy
Step 8: Finalize Community Wildfire Protection Plan

Collaborative Process

The development of the Multnomah County Community Wildfire Protection Plan (MCWPP) required coordination of multiple agencies and organizations to define common goals and work together to achieve a successful and useful plan. A Steering Committee provided oversight and guidance to the planning and implementation of the fire plan with representation from the county's fire protection districts and the public agencies responsible for fire protection. The Wildfire Planning Steering Committee identified five areas of focus for the MCWPP and developed technical subcommittees to address them: risk assessment, structural ignitability policies and programs, emergency operations, fuels reduction and biomass utilization, and wildfire prevention and community involvement.

Wildfire Planning Steering Committee / Wildfire Technical Committee

The Wildfire Planning Steering Committee, with representation from the county's Fire Defense Board and the public agencies responsible for fire protection, met monthly to provide oversight and guidance for the development of the MCWPP. The Steering Committee actually began as the "Wildfire Technical Committee, " established by Portland City Council in 2009 to implement the

[2] "Preparing a Community Wildfire Protection Plan: A Handbook for Wildland–Urban Interface Communities" was sponsored by the Communities Committee, National Association of Counties, National Association of State Foresters, Society of American Foresters, and the Western Governors' Association and is available at *http://www.safnet.org/policyandpress/cwpphandbook.pdf*.

Action Plan of the City's *Wildfire Readiness Assessment*: *Gap Analysis Report* (2009)[3] and manage future wildfire mitigation and fuels reduction projects associated with the Portland Natural Hazards Mitigation Plan. The WTC helped to implement a $1.3 million FEMA grant designed to reduce fuels in Forest Park, Powell Butte and along the Willamette Escarpment. After successfully implementing this project, the WTC began broadening their focus to take a more inclusive, county-wide approach to wildfire.

In August, 2010 the WTC transitioned into Wildfire Planning Steering Committee to guide the development of the Multnomah County Community Wildfire Protection Plan. Oregon Department of Forestry provided overall planning facilitation. The Wildfire Planning Steering Committee invited new partners to the table including Metro, the Columbia Gorge National Scenic Area, the Mount Hood National Forest and the Bureau of Land Management. In addition, some members of the WTC were assigned to technical subcommittees, including the City Nature Division of Portland Parks & Recreation (PP&R), Portland Bureau of Environmental Services (BES), and Portland Bureau of Planning and Sustainability (BPS).

Technical Subcommittees

The Steering Committee appointed technical subcommittees to address the five areas of focus. The progress of the technical subcommittee activities relies on strong coordination among diverse partners and stakeholders. Representatives from fire agencies, industries, businesses, natural resource agencies, and citizens participated in the subcommittees. Each subcommittee developed a series of objectives and action items or strategies to meet their objectives. The objectives developed by these subcommittees are presented as chapters in the MCWPP.

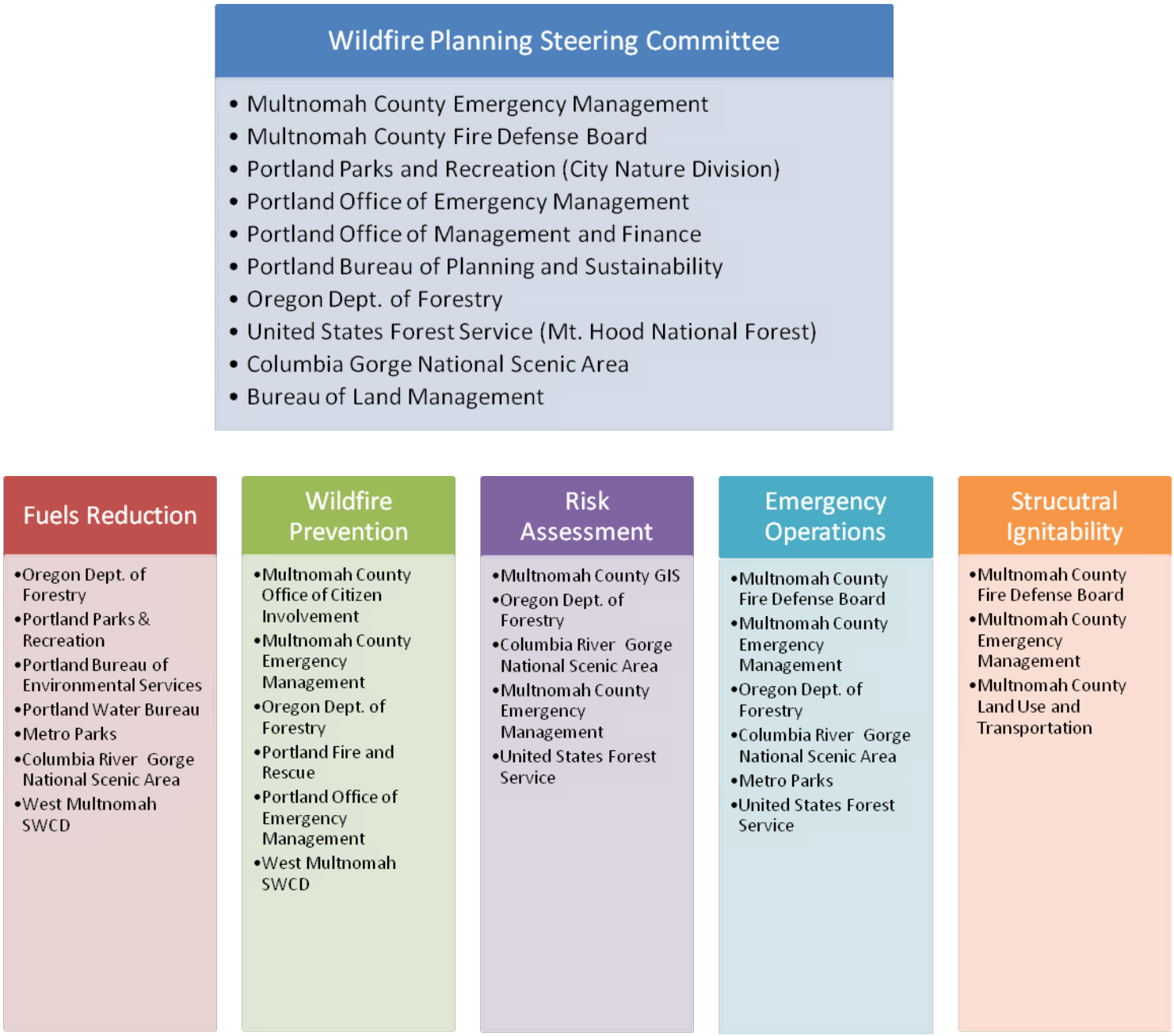
- *Chapter 5: Wildfire Risk Assessment* analyzes the potential losses to life, property, and natural resources. Objectives of the risk assessment are to identify Communities-at-Risk and the Wildland-Urban Interface, and conduct a wildfire risk assessment that can be used in project prioritization.
- *Chapter 6: Hazardous Fuels Reduction and Biomass Utilization* identifies priority projects for reducing hazardous fuels and researches opportunities to add value to extracted vegetation and maintain a sustainable fuels reduction program. The fuels reduction projects focus on protecting life and property and infrastructure while moving toward a more fire-adapted ecosystem.
- *Chapter 7: Emergency Response Operations* evaluates and coordinates response capabilities among local governments and structural and wildland fire agencies to ensure effective response to a wildfire event.
- *Chapter 8: Wildfire Prevention and Community Involvement* includes objectives to develop ongoing strategies for increasing citizen awareness and action for fire prevention.
- *Chapter 9: Structural Ignitability and Regulatory Alignment* relates to reducing structural vulnerability by reviewing all local and state regulatory and non-regulatory standards relating to development and vegetation management and making recommendations to enhance wildfire safety.

[3] See www.portlandonline.com/wildfire

Organizational Structure

Throughout the planning and coordination of the MCWPP, the committees and fire districts identified a structure that would help them sustain these efforts in the long-term. This structure is illustrated in Figure 2-1 below.

Figure 2-1 MCWPP Planning Organizational Structure



Local Fire Agency Coordination

The local fire agencies that provide structural and wildland urban interface protection are the cornerstone of community resiliency. These organizations know their communities very well and are committed to protecting them from wildfires and other hazards. In addition, they are aware of larger-scale countywide issues that require collaboration and coordination from the partners engaged in this planning process. In an effort to make the Multnomah County Community Wildfire Protection Plan relevant and useful for the local fire agencies, while addressing the countywide needs, the following process was used.

Countywide Fire Defense Board Coordination

A Multnomah County Wildfire Planning Workshop was held in January, 2011 to present the action items developed by technical subcommittees as well as the risk assessment maps and solicit feedback. Over forty attendees participated in this workshop. Oregon Department of Forestry set the stage by giving a report on the planning process thus far. The participants were then divided into groups of ten, and visited a series of stations to review action plans generated by the Technical Subcommittees. Each station was facilitated by a Steering Committee member to ensure that the action plans accurately represent the needs and issues of the local fire agencies.

MCWPP Communities at Risk Action Plans (Resource A)

Each fire agency was interviewed to discuss needs at the Fire Department/District scale. Primary issues shared by most agencies include: funding for wildland training, communications equipment, and the need for a more coordinated and comprehensive wildfire prevention program in Multnomah County. Each fire agency has its own section in Resource A: Local Fire Agency Action Plans to help guide wildfire preparedness and prevention efforts. Contact information is also provided here.

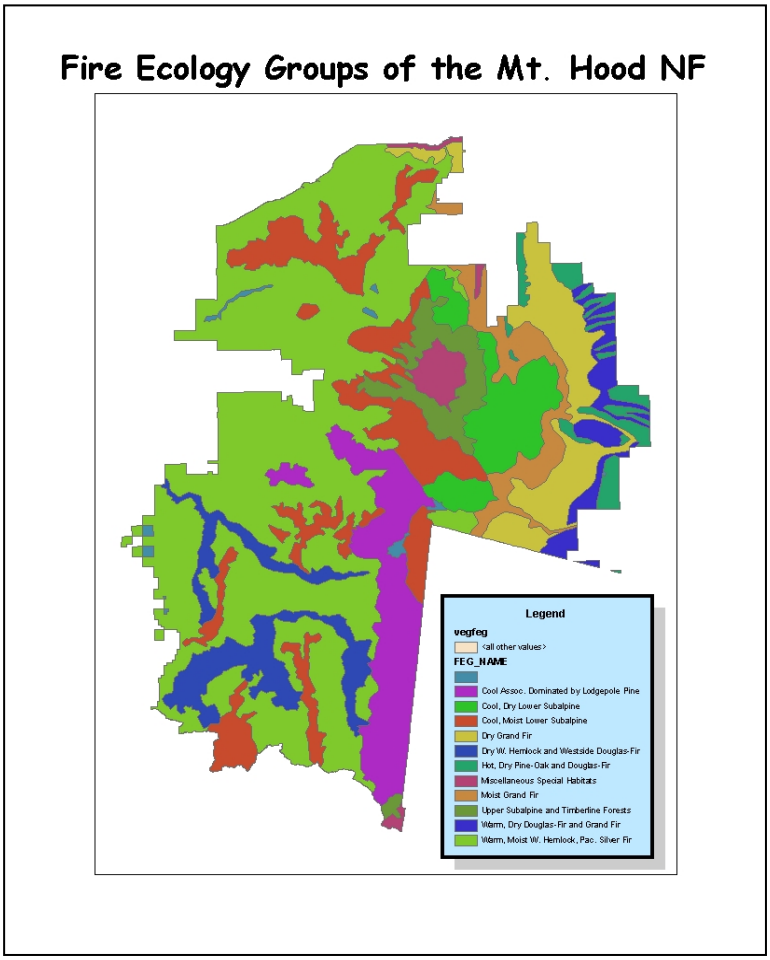
Fire agencies also recognize that there are Local Communities and Risk (CARs) within their areas of protection that have specific issues to be addressed. Oregon Department of Forestry worked with the fire agencies to develop action plans specific to each of the CARs. For more information, please see Chapter 4: Communities at Risk in Multnomah County.

Public Outreach Process

Community involvement is a key component to the MCWPP. Multnomah County Emergency Management and Oregon Department of Forestry worked with local fire agencies to host a series of five public outreach events between March and May 2011 to promote the principles included in the Multnomah County Wildfire Protection Plan. The community wildfire meetings provided fire prevention education materials to over 125 concerned residents. The local fire agencies identified the highest priority Communities at Risk (CARs) to target for these public outreach events.

The community meetings provided an opportunity to gather input from community members about their perceptions of wildfire risk, community priorities, and resources residents want to protect from wildfire. Outcomes of the meeting included the identification of opportunities to reduce wildfire risk, increased education for residents about living with wildfire and creating defensible space, and increased support for and awareness of the CWPP and fire department protection services.

CHAPTER 3
FOREST CONDITIONS AND WILDFIRE



CHAPTER 3: WILDFIRE HISTORY AND FOREST CONDITIONS

History of Wildfire in Multnomah County

Oregon Department of Forestry documents from the 1940's show average annual acres lost to fires across Oregon to be over 2,000 acres. Multnomah County has escaped the recent large fire occurrences of other western Oregon counties. However, weather, fuels buildup, and climatic changes have provided conditions conducive for a large fire event. Residential development in Multnomah County is heavily interwoven with forest land, so a relatively small fire of only a few hundred acres would pose a significant risk to many residents and their homes.

By conservative estimates, there are a quarter million homes in the wildland-urban interface (WUI) of Oregon. In Multnomah County, there are approximately ?? structures in the WUI.. This demographic shift has underscored the problem of unprotected and under-protected areas. The longstanding mission of Fire Service Programs to put out fires quickly at the lowest cost has been complicated by the presence of homes and people in the forest.

Local, Regional and State Fire History

City of Portland Area

1889, Balch Creek Canyon Fire started with what is now known as the NW Industrial area burned westerly over Portland's West hills towards the Cascade Mountains in a roughly 2 mile by 7 mile swath, or approximately 9000 acres. Source: Portland Fire & Rescue

August 7th, 1939 began in the Dutch Creek Canyon area near Scappoose, just west of Forest Park on August 7th, 1939. The flames spread to Pisgah Mountain Home, an Asylum with about 60 elderly inmates. Despite the efforts of over 200 firefighters, 20 mph winds fanned the fire to jump the canyon into a large timber stand. As the fire spread into Washington County, near North Plains, the Northwest Oregon Forest Protective Association deployed over 1500 men to fight the blaze. Although many farmers and timber operators lost homes and equipment, the most serious loss was to forested timberlands. Over 14,000 acres were lost. Investigators attributed the destruction to a carelessly tossed cigarette. Source: The Chronicle Area news Archives

1940, Bonny Slope Fire kindled in the southern portion of what's now known as Forest Park and burned westerly along the ridges then turned somewhat north as it crested the west hills towards the housing development now known as Forest Heights. It burned approximately an area approximately 1,000 acres. Source: Portland Fire & Rescue

August 19, 1951 Burma Road Fire was a quick-moving urban wildfire started in Forest Park near Leif Erikson Road. The fire raced up and over view point ridge flames 50ft. high were recorded as the fire consumed over 100 acres in the span of one evening. Over 500 City of Portland staff battled the blaze. Firefighters made a fire lane on Thompson Road on Skyline Ridge to carry equipment and personnel to the fire. The fire burned to the southwest broke over to Forest Heights. When the fire was finally extinguished 3,000 acres in the heart of forest park were burned. Source: Portland Fire & Rescue

August 8th, 2001 & 2002 Mocks Crest Fire caused Residents living on the Willamette blvd bluff near university of Portland nearly lost their homes and a large part of their community. In a dramatic team effort firefighters and citizens stopped the 5 Alarm wildland urban interface fire just before it overwhelmed the structures in its path. It burned approximately 38 acres. This area ignited again the following year, burning 10 acres. Source: Portland Fire & Rescue

August 2002, and September 2003 Powell Butte had three relatively small wildland urban interface fires that totaled 54.75 acres. Source: Portland Fire & Rescue

Columbia River Gorge

September 19th, 1971 Sky Hook: 1,831 acres (no further information could be found)

October 10th, 1991 Falls Fire quickly grew to between 800 and 1,000 acres in the Columbia River Gorge Thursday October 10th and threatened the historic Multnomah Falls Lodge. The fire stretched over about two miles of steep terrain, from Multnomah Falls west to Bridal Veil Falls at about midslope on the mountainside. It was burning hot and close to the ground. The fire broke out Wednesday night and was moving west, driven by 20 mph winds. In its path lay the community of Bridal Veil, east of Portland, where residents were notified early Thursday of the impending danger, the Multnomah County sheriff's office said. Crews sprayed fire retardant foam on the roof of the log and stone lodge. Interstate 84, the main highway route between Portland and Salt Lake City, remained open, but U.S. 30, the Columbia Gorge Scenic Highway, was closed between Larch Mountain and Multnomah Falls. Over 975 acres were burned. Source: Desert News

September, 2003 Cascade Locks Fire started in the east end of the City of Cascade Locks when a tree fell on a power line. The blaze was driven by strong easterly winds and traveled more than a mile, burning over 300 acres on both sides of I-84 and threatened the downtown area. Two residential buildings were burned, and many more were threatened. No one was killed or injured, but residents had to be evacuated. Source: Cascade Locks Wildfire Protection Plan

Herman Creek Fire, 2003 burned over 500, took 3 homes and jumped I-84 five times.

September 24th, 2005 Vista House Fire was ignited .5 miles east of the Vista House , just off the Historical Columbia River Highway about 1 mile south of I-84. The exact cause of fire ignition is unknown, but since it started down a non-designated trail the most probable source is a recreationist. The fire grew to be about 10 acres in size, with Corbett RFPD providing initial attack.

Broughton Mills Fire, 2007 started on the next to an abandoned mill below the town of Underwood Washington. The fire destroyed five homes, and cost millions to extinguish.

August 27, 2009 Microwave Fire ignited in the area between Mosier and Hood River on August 26th, 2009. This area is characterized by steep, inaccessible terrain which made firefighting efforts extremely challenging.

Crews were able to chase the fire to the cliff edges on both flanks during the night. By first light, hand crews had hiked into position to finish the line, these crews had about 95% of the line tied in when the team transition began. The lines held until a strong West wind hit the fire on the cliff at about 11:30 AM. This caused the fire to spot 1/8 mile over the heads of the fire crews. The crews were instantly behind the main head of the fire trying to catch up as the fire went through fifteen homes. There was a voluntary evacuation and no homes were lost. The blaze was

contained on September 3rd after burning over 2,100 acres. The cost of suppression efforts was $2.75 million.

Oregon Wildand Urban Interface Fires

The most recent Wildland Urban Interface Fire in Oregon was the Oak Knoll fire, which occurred in August 24th, 2010 in Ashland, Oregon. The fire started in grass and quickly destroyed 11 homes and damaged several others in Ashland's Oak Knoll subdivision before it was controlled by firefighters that night. A homeless man was arrested and charged with crimes in connection with the damage.

Wildland Urban Interface (WUI) Fires such as the Oak Knoll Fire can cause catastrophic losses because they threaten homes and properties. Oregon has a history of large wildfires (Table 3-1), but these fires did not become disasters until homes and infrastructure was placed in their paths. In addition, adding development to forested areas introduces potential ignition sources for wildland fires. The following narrative provides descriptions for some of the most destructive WUI fires in recent history, while Table 3-3 provides a more historical account of the most destructive WUI fires in Oregon.

Table 3-1. Large historic fires in Oregon (1848-1966)

Year	Fire	# of Acres Burned
1848	Nestucca	290,000
1849	Siletz	800,000
1853	Yaquina	482,000
1865	Silverton	988,000
1868	Coos Bay	296,000
1933	Tillamook	240,000
1936	Bandon	143,000
1939	Saddle Mountain	190,000
1945	Wilson River/Salmonberry	180,000
1951	North Fork/Elkhorn	33,000
1966	Oxbow	44,000

Source: "Atlas of Oregon," William G. Loy, et al, University of Oregon Books, 1976. Oregon Department of Forestry, "Tillamook Burn to Tillamook State Forest," revised 1993.

1987 Bland Mountain Fire This fire broke out near Canyonville in southwest Oregon. It e burned 10,300 acres, destroyed 14 homes and caused two deaths.

August 4th, 1990: Awbrey Hall Fire was one of Oregon's most destructive fires in recent history as it destroyed 21 homes, caused approximately $9 million in damage and cost over $2 million to suppress. In 1996, Bend's Skeleton Fire burned over 17,000 acres and damaged or destroyed 30 homes and structures. In that same year, 218,000 acres were burned, 600 homes were threatened,

and 44 homes were lost statewide.[4] Table 3-2 lists the major wildfires that occurred in Oregon between 1848 and 1966.

1992 Sage Flat Fire led off Oregon's destructive 1992 fire season by burning five homes and 991 acres northeast of Sisters in early June.

1996 Skeleton Fire burned nearly 18,000 acres on the eastern flank of Bend, and 30 structures were damaged or destroyed. An Oregon Department of Forestry summary of wildfires noted, "This wind-driven fire accomplished most of its damage in just a few hours, but for a time kindled fears that its destructive toll would be far worse than Awbrey Hall's. Awbrey Hall had burned from north to south and skirted the western edge of the city, whereas Skeleton started on the eastern edge and burned west, heading for the heavily populated southern half of the city."

Oregon Fires, 2000

During the 2000 fire season, more than 7.5 million acres of public and private lands burned in the US, resulting in loss of property, damage to resources, and disruption of community services. Taxpayers spent more than $1.6 billion to combat 90,000 fires nationwide.[5] Many of these fires burned in wildland/urban interface areas and exceeded the fire suppression capabilities of those areas. The magnitude of the 2000 fires was the result of two primary factors: (1) severe drought, accompanied by a series of storms that produced thousands of lightning strikes and windy conditions; and (2) the effects of wildfire suppression over the past century that has led to buildup of brush and small diameter trees in the nation's forests and rangelands.[6] Table 3-3 illustrates fire suppression costs for state, private, and federal lands protected by the Oregon Department of Forestry (ODF) between 1985 and 2000.

Oregon Fires 2002

The summer of 2002 marked the most destructive wildfire season in recorded history,736 fires (totaling 84,752 acres) on ODF-protected lands. Some 258 fires (totaling 81,395 acres) were lightning-caused and 478 fires (totaling 3,357 acres) were human-caused. In 2001, there were 924 statistical fires (totaling 50,404 acres). Some 376 fires (totaling 46,772 acres) were lightning-caused and 548 fires (totaling 3,632 acres) were human-caused. Prior to 2002, the worst fire season in recent history occurred in 1987 with at least 1,087 fires totaling 19,427 acres.[7] Table 3-2 reports the fire statistics for the largest fires in Oregon as of August 2002.

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[4] *Planning for Natural Hazards: The Oregon Technical Resource Guide,* (July 2000), Department of Land Conservation and Development, Ch. 7.

[5] Wilkinson, Todd. "Prometheus Unbound," (May/June 2001), Nature Conservancy.

[6] National Interagency Fire Center, *National Register of Urban Wildland Interface Communities Within the Vicinity of Federal Lands that are at High Risk from Wildfire.* (May 2001) http://www.nifc.gov.

[7] Oregon Department of Forestry. (August, 2002) http://www.odf.state.or.us/

Table 3-2 USFS reported fire statistics for 2002

Incident Name	State	*Lead Agency	Size (acres)	Personnel	Structures Lost
Biscuit	OR	FS	500,068	3,221	13
Tiller Complex	OR	FS	66,355	1,785	0
Apple	OR	FS	10,200	1,129	0
Quartz Mt. Complex	WA	FS	1,074	28	0

Source: USDA Forest Service

- **Apple** (Umpqua National Forest): This fire, 21 miles east of Glide, encompassed 9,800 acres. Twenty residences were threatened.
- **Tiller Complex** (Umpqua National Forest): This 65,824 acre fire, consisted of eight large and numerous small fires and was located on the Tiller Ranger District and in the Rogue-Umpqua Divide Wilderness Area, 25 miles east of Canyonville. Sixty-seven residences were threatened.
- **Biscuit Fire** (Siskiyou National Forest): This fire was the biggest blaze in Oregon history. The huge blaze cost more than $100 million to fight, and was located in southern Oregon and northern California. The fire began on July 13, 2002 and reached 500,023 acres by August 2002. Estimated to be one of Oregon's largest in recorded history, the Biscuit Fire encompassed most of the Kalmiopsis Wilderness. The boundary of the Biscuit Fire stretched from 10 miles east of the coastal community of Brookings, Oregon; south into northern California; east to the Illinois Valley; and north to within a few miles of the Rogue River. There were 274 structures threatened by this fire. Four residences and nine outbuildings were lost.[8]

[8] http://www.fs.fed.us/r6/rogue-siskiyou/biscuit-fire/index.shtml/

Table 3-3. Oregon's most destructive wildand urban interface fires

Oregon's Most Destructive Wildland Urban Interface Fires					
Year	**Location**	**Acres Burned**	**County**	**Structures Burned**	**Cost**
1936	Bandon	Unknown	Coos	484	Unknown
1987	Bland Mountain	10,300	Douglas	14	Unknown
1990	Awbrey Hall	3,400	Deschutes	22	$2.2 million
1992	Sage Flat	991	Deschutes	5	$1.2 million
1992	East Evans Creek	10,135	Jackson	4	$8.2 million
1992	Lone Pine	30,727	Klamath	3	$500,00
1994	Hull Mountain	8,000	Jackson	44	$10 million
1996	Skeleton	17,700	Deschutes	17	$2 million
2002	Eyerly	23,573	Jefferson	37	$10.7 million
2002	Cache Mountain	4,200	Deschutes	2	$4.3 million
2002	Sheldon Ridge	12,761	Wasco	8	$3.3 million
2002	Squire Peak	2,804	Jackson	6	$2 million
2002	Biscuit	499,965	Josephine/Curry	14	$150 million

Source: Forest Log, National Interagency Coordination Center situation reports

Multnomah County Fire Ignitions

Lightning-Caused Fires

Lightning-caused fires in Multnomah County occur less frequently then compared to southern and eastern Oregon. Recent ten year averages from ODF show lighting as the cause of one to two fires yearly on private land. However, in some years, lightning has ignited a few fires from one storm event in Multnomah County. These multiple fire events sometimes cause a shortage of resources and contingency move-ups from other parts of the state become necessary.

Human-Caused Fires

Human caused fires are responsible for the majority of fires in Multnomah County. The North Cascade District of ODF lists fires caused by discarded cigarettes as the number one cause of fires on forest lands in Multnomah County. The second leading cause of fires in the North Cascade District is debris burning in residential areas. Equipment use is identified as the third leading cause of fires, and refers to sparks generated from lawnmowers, chainsaws, and other equipment.

Table 3-4 Wildfire Ignitions on ODF protected lands from 1960-2011

Cause	Percentage
Debris Burning - Logging	5%
Lightning	5%
Juveniles	7%
Railroad	7%
Recreation	7%
Arson	11%
Equipment Use - Non-Logging	14%
Debris Burning - Non Logging	18%
Human-Caused Miscellaneous	26%

* *Fire data is only for ODF protected lands in Multnomah County. During the CWFP process it became evident that one of the action items for the plan was to address the inconsistencies in reporting.*

Fire Regime and Condition Class

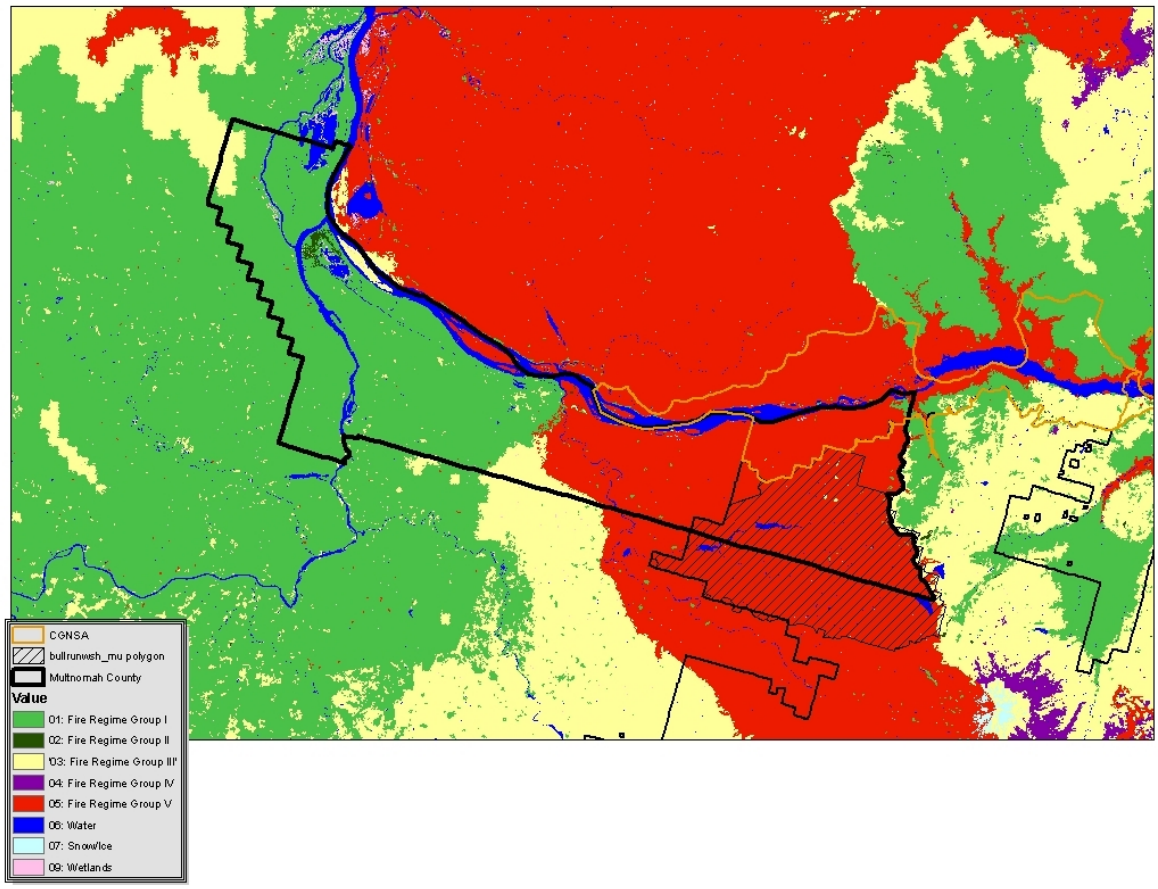
A fire regime refers to an integration of disturbance attributes including type, frequency, duration, extent and severity (Pickett and White 1985). Natural fire regimes have been altered by management activities including fire exclusion, livestock grazing, and timber harvesting. Historic climate variability and potential global climate change have and may further impact fire regimes.

Five fire regime classes, have been identified to aid fire management analysis efforts, as discussed in "Mapping Historic Fire Regimes for the Western United States: Integrating Remote Sensing and Biophysical Data" (Hardy et al 1998). They reflect fire return intervals and severity.

The five fire regimes developed by Hardy, et al were modified and further stratified by a group of fire managers and ecologists on October 10, 2000 to reflect Pacific Northwest (Oregon and Washington) conditions. *Note that there may be variation among the species listed under each Fire Regime:*

- Fire Regime I: <35 years non-lethal, low-severity (mostly forested areas). (Ponderosa pine, Oregon white oak, pine-oak woodlands, Douglas-fir and dry site white fir plant associations)
- Fire Regime II: <35 years stand replacing (grassland and shrublands). (shrub-steppe community)
- Fire Regime III: 35-100+ years, mixed severity. (moist/high elevation white fir, tanoak, western hemlock series)
    - Fire Regime IIIa: < 50 years, mixed severity. (dry site tanoak series)
    - Fire Regime IIIb: 50-100+ years, mixed severity. (low elevation, wet site white fir, wet site tanoak, and low elevation western hemlock series)
    - Fire Regime IIIc: 100-200 years, mixed severity. (high elevation, white fir series)
- Fire Regime IV: 35-100+ years stand replacing. (Shasta red fir and Port-Orford cedar associations)
- Fire Regime V: 200+ years stand replacement (Western hemlock, silver fir and mountain hemlock series)

Figure 3-1. Fire Regimes in Multnomah County



The CRGNSA Fire Regime Map (above) is a general classification for the role that natural fire in a pre-European setting played, including aboriginal burning. It categorizes what fire effects would be expected and the frequency in certain areas without the intervention of modern civilization. Fire Regime is often used as a reference point to determine the level of departure due to fire exclusion or other mechanical changes.

The western half of Multnomah County was characterized by frequent low severity fires before European settlement. Indigenous burning contributed to these sustainable fires that cleaned up much of the underbrush and vegetation. In recent history much of this area has departed greatly from that condition. Because of the low frequency of fires and build up of vegetation, much of the area is in a condition that could exhibit high intensity stand replacement fire.

The eastern half of the County is dominated by a high severity fire regime. This type of fire regime has infrequent severe crown fires or surface fires that cause high tree mortality; or stand replacement fires that typically result in total stand mortality and moderate-to-high loss of the duff-litter layer. Unlike "moderate" fire severity regimes, the landscape following "high" severity fire regimes are usually dominated by a lack of residual (remnant survivor) trees. Stand structure is void of an overstory and this results in an even-aged stand. These fires are generally associated with drought years, east wind weather events (which lower humidity), and an ignition source such as lightning. Fires are often of short duration, but of high intensity and severity (Krusemark, et al. 1996).

Condition Class

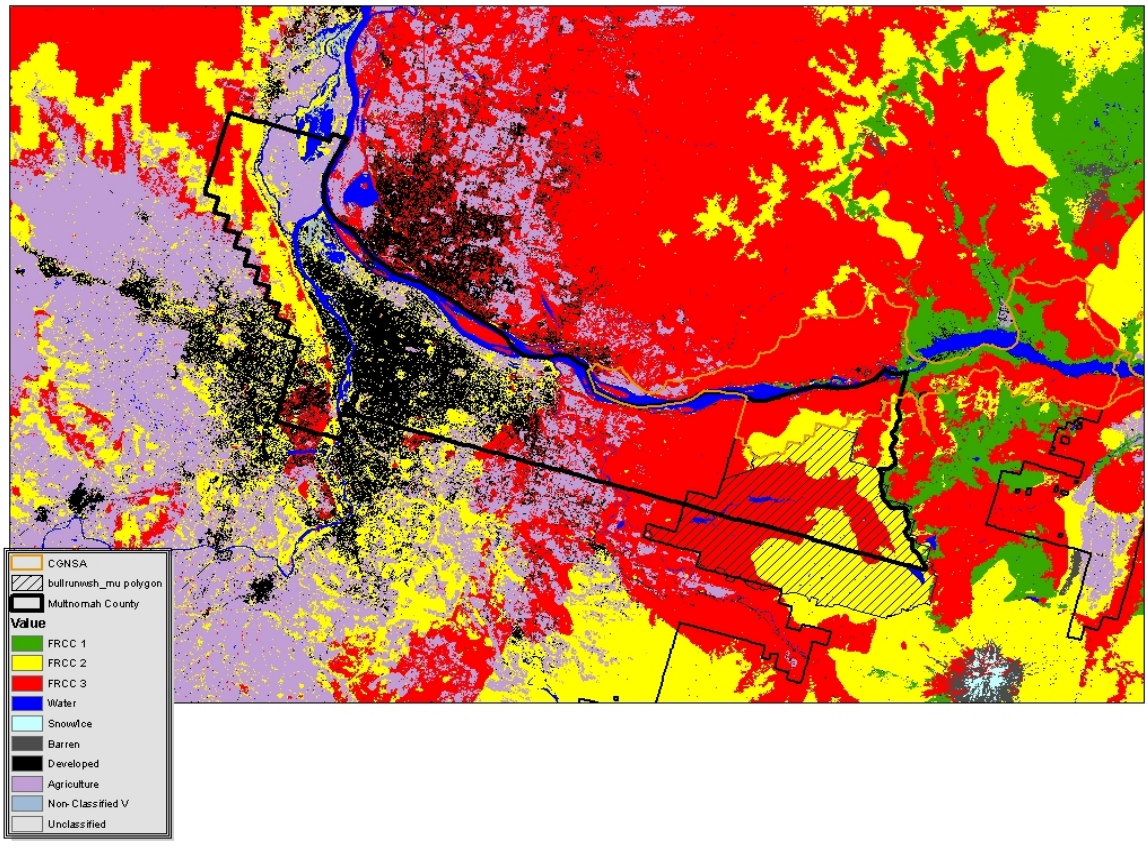
Condition Class is a relative description of the degree of departure from historical fire regimes and generally describes how 'missed' fires have affected key ecosystem vegetative components.

- *Condition Class 1* = Fire frequencies are within or near the historical range, and have departed from historical frequencies by no more than one return interval; vegetation attributes are intact and functioning within the historic range**.** The risk of losing key ecosystem components is low.
- *Condition Class 2* **=** Fire frequencies and vegetation attributes have been moderately altered from the historical range and fire frequencies have departed from historical frequencies by more than one return interval. The risk of losing key ecosystem components is moderate.
- *Condition Class 3* = Fire frequencies and vegetation attributes have been significantly altered from the historical range and fire frequencies have departed from historical frequencies by multiple return intervals. The risk of losing key ecosystem components is high.

The condition class scale was developed to exhibit the departure in severity, intensity, and frequency of fires burning in the ecosystem in its current condition as compared to fire's historic or reference condition.

Figure 3-2 defines the condition class for forests in Multnomah County. Despite the fact that the western and eastern forests in Multnomah County are at opposite ends of the Fire Regime spectrum, they are both considered to be in a highly altered state, displaying characteristics of either Conditions Class 2 or 3.

Figure 3-2. Condition Class in Multnomah County



CHAPTER 4
COMMUNITIES AT RISK IN MULTNOMAH COUNTY

Concentrations of homes vulnerable to wildfires are considered Communities at Risk.

CHAPTER 4. COMMUNITIES AT RISK IN MULTNOMAH COUNTY

Communities at Risk

The CWPP process is designed to identify and prioritize areas for wildfire prevention and response efforts. These "areas" are referred to as Communities at Risk (CAR). Title 1 of the Healthy Forest Restoration Act, states that communities may identify themselves as being "at risk" based on an analysis following the National Association of State Foresters Field Guidance on Identifying and Prioritizing Communities-at-Risk (June 27, 2003) or during development of their Community Wildfire Protection Plans.

A statewide task force was formed in February 2004 as part of the Oregon Department of Forestry's Fire Program Review to develop a statewide assessment of *Communities at Risk*. The task force brought together a number of stakeholder organizations. The statewide *Communities at Risk* assessment also provides guidance for communities in the process of developing or updating local risk assessments to align with the state methodology.

Oregon Dept. of Forestry Communities-at-Risk in Multnomah County (2001)

- Fairview
- Gresham
- Lake Oswego
- Maywood Park
- Multnomah RFPD#10
- Multnomah County
- Multnomah RFPD#14
- Portland
- Riverdale RFPD
- Sauvie Island RFPD
- Scappoose RFPD
- Troutdale
- Tualatin Valley Fire and Rescue
- Wood Village

The Multnomah County MCWPP further refines the ODF Communities-At-Risk by considering common service boundaries for fire protection. This improves upon the ODF listing of CARS because it reduces redundancy and organizes communities into more functional units.

Multnomah County has 3 Incorporated Fire Districts and 6 Rural Protection Fire Districts that cover unincorporated Multnomah County. These fire districts collect taxes and either hire staff (usually very much supplemented by volunteers) or contract for services through the larger adjacent Fire Districts.

MCWPP Communities-at-Risk in Multnomah County Map #2

- Portland Fire & Rescue
- Gresham Fire
- Scappoose RFPD
- Corbett RFPD #14
- Tualatin Valley Fire & Rescue
- Sauvie Island RFPD # 30
- RFPD #10 (Gresham Fire)
- RFPD # 1 (Portland Fire &Rescue)
- RFPD # 60 (Lake Oswego Fire)
- Unprotected Areas

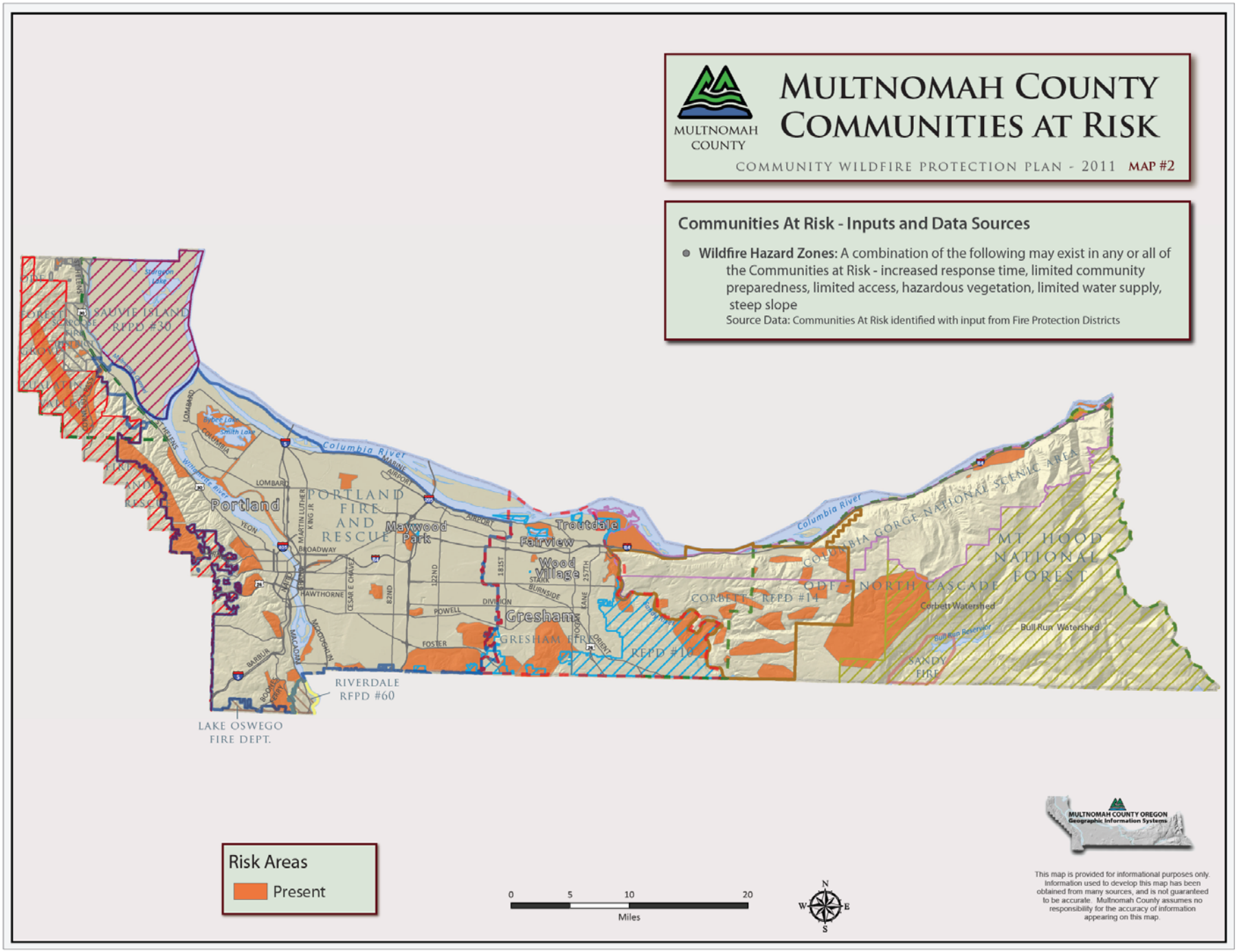
Local Communities at Risk

Although each fire agency in Multnomah County is considered a Community at Risk, wildfire hazards vary within fire district boundaries, as most districts/depts. encompass a variety of communities that have very different development patterns, vegetation types, and protection capability. Local fire agency personnel identified 57 areas that were at particular high risk to wildfire and are considered *Local Communities at Risk*. It is recommended that fire agencies target these areas for site-specific wildfire planning and project implementation. Although each Local Community at Risk has unique wildfire hazards and potential impediments to emergency response, the following issues are common to the majority of high-risk strategic planning areas.

- Structural Ignitability
- Access Limitations
- Protection Capability
- Water Supply
- Recreation/Transients
- Debris Burning
- Fuels Loading
- Community Preparedness

Table 4-1 Local Communities at Risk in Multnomah County

Portland Fire & Rescue Bureau	• Skyline Ridge • Mount Tabor • Kelly Butte • Powell Butte • Johnson Creek Watershed • Oaks Bottom • Springwater & Flavel • Sullivan's Gulch • Willamette Bluffs Escarpment • Forest Heights	• Smith/Bybee Lake • Forest Park • Linnton • NW Portland (Peddock mansion area) • Tryon Creek • Terwilliger Curves • Zoo & Hoyt Arboretum • Riverdale • Bull Run Watershed
Port of Portland Fire	• Elrod Road	• Government Island (Unprotected)
Gresham Fire Dept.	• Walters Hill/Gresham Butte • Ritchie Road • Oxbow Park • Lower Sandy River Bend	• 1000 Acres • Blue Lake • Wisteria Lane • Wistful Vista
Scappoose Fire District	• Holbrook Road • Logie Trail Road	• Gilkenson Road
Rural Fire Protection District # 14 (Corbett Fire)	• Trout Creek Road • Tout Creek Camp • Aims Road • Mannthay Road • Deverell Road • Gordon Creek • North Oxbow • Camp Angeles • Corbett Watershed • Brower/Palmer Mill	• Ricker/O Regan Roads • Howard Road • Alder Meadows • Maffet Road • Red Elder • Haines/Thompson Mill • Columbia Historic Hwy • Latourell/Alex Barr • Bridal Veil Lakes
Tualatin Valley Fire & Rescue	• Skyline Ridge • Cornelius Pass	
Unprotected Areas	• Warrendale-Dodson • Bonneville • Small portion of Forest Park	• Ainsworth • Eagle Creek • Government Island
Sauvie Island	• Entire Island	


MULTNOMAH COUNTY
MULTNOMAH COUNTY COMMUNITIES AT RISK
COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #2
Communities At Risk - Inputs and Data Sources
Wildfire Hazard Zones: A combination of the following may exist in any or all of the Communities at Risk - increased response time, limited community preparedness, limited access, hazardous vegetation, limited water supply, steep slope
Source Data: Communities At Risk identified with input from Fire Protection Districts
SAUVIE ISLAND RFPD #30
Columbia River
Portland
PORTLAND FIRE AND RESCUE
Maywood Park
Troutdale
Fairview
Wood Village
Gresham
GRESHAM FIRE
RFPD #10
RIVERDALE RFPD #60
LAKE OSWEGO FIRE DEPT.
COLUMBIA GORGE NATIONAL SCENIC AREA
MT. HOOD NATIONAL FOREST
ODF - NORTH CASCADE
CORBETT RFPD #14
Corbett Watershed
Bull Run Watershed
SANDY FIRE
Risk Areas
Present
0 5 10 20
Miles
N
W E
S
MULTNOMAH COUNTY OREGON
Geographic Information Systems
This map is provided for informational purposes only. Information used to develop this map has been obtained from many sources, and is not guaranteed to be accurate. Multnomah County assumes no responsibility for the accuracy of information appearing on this map.

CHAPTER 5
WILDFIRE RISK ASSESSMENT

"Related to wildfire assessment, it is clear that one-size-does-not-fit-all. However, nearly all assessment models consider **risk, hazard, protection capabilities** and **values protected**. In addition, an assessment of the **vulnerability of values at risk** is needed for community down to parcel level assessments."

-Oregon Dept. of Forestry

CHAPTER 5: WILDFIRE RISK ASSESSMENT

Forest fires and structural fires in the Wildland Urban Interface are inextricably tied. Fires originating on forest land can endanger and burn homes. House fires can spread from residential areas to the forest. Although the threat of wildfire is not as great in Multnomah County as in other parts of the state, wildfire officials are cognizant of the growing potential. One of the core elements of the Multnomah Community Wildfire Protection Plan is to develop an understanding of the risk and potential losses to life, property, and natural resources during a wildfire in order to identify and implement the most effective strategies for preventing losses from fire, while allowing natural fires to take their course in shaping a more healthy and sustainable forest.

The Healthy Forests Restoration Act, the National Fire Plan, FEMA's Disaster Mitigation Act of 2000, the National Association of State Foresters, and Oregon Department of Forestry provide guidance on conducting a hazard and risk assessment for wildfire. The methodology used in the CWPP to conduct a wildfire risk assessment follows Oregon Department of Forestry's guidance for determining wildfire risk. An interagency team, including representatives from Multnomah County, Oregon Department of Forestry, and the US Forest Service, and the Columbia River Gorge National Scenic Area participated in the assessment.

Multnomah County used Geographic Information Systems (GIS) in creating the risk assessment. GIS is a computer-based system that can be used to analyze and integrate spatial layers of information, such as fire hazard, risk, location of values, protection capabilities, and the location of vulnerable structures with physical factors such as slope, aspect, and vegetation to assess the relative level of wildfire risk within the County and produce visually informative maps.

Members of the Risk Assessment Subcommittee include:

Multnomah County Emergency Management (MCEM)

Multnomah County Department of Geographic Information Systems (MCGIS)

Oregon Dept. of Forestry (ODF)

United States Forest Service Mt. Hood National Forest (Mt. Hood NF) and the Columbia River Gorge National Scenic Area (CRGNSA)

Risk Assessment Objectives

- Identify critical facilities, infrastructure and economic centers in high hazard areas.
- Identify the cause and location of historic and potential wildland fires in the county.
- Develop a hazard assessment that improves upon the statewide assessment for the purposes of prioritizing projects for implementation.
- Streamline assessment process by using best available data for developing a hazards assessment in a timely manner.
- Identify opportunities to improve hazard layers as data and resources are available.
- Capitalize on expertise of all the partners to share the workload of data gathering and analysis.
- Distribute the hazard assessment to partner agencies and organizations that can integrate the wildfire hazard assessment into plans and procedures.

Risk Assessment Action Items

1. **Improve consistency and relevancy of "wildland" fires ignition data.**
    a. Develop a standard for reporting "wildland" and "natural cover" fires within current reporting systems and communicate this standard to all fire districts,
    b. Work with the SFMO to require size of fire and duration of fire in fire reports.

Timeline:	2 Years
Lead:	Local Fire Agencies, ODF
Partners:	State Fire Marshall's Office (SFMO)
Priority:	High
Progress:	

2. **Develop a series of recommendations for tracking structural vulnerability data throughout the County and revise the Wildfire Hazard Analysis and the Wildland Urban Interface to reflect the new information.**
    a. Work with fire districts to use GPS units for obtaining home locations and structural vulnerability data such as building materials, access constraints, water supply and defensible space.

Timeline:	Ongoing
Lead:	Local Fire Agencies, ODF
Partners:	MCGIS
Priority:	High
Progress:	

3. **Integrate large historical fires into the wildfire hazard analysis.**

Timeline:	Ongoing
Lead:	ODF, USFS, CRGNSA
Partners:	MCGIS
Priority:	Medium
Progress:	

4. **Work with local fire agencies to develop more detailed risk assessments using local and community-derived data.**

Timeline:	Ongoing
Lead:	Local Fire Agencies, ODF
Partners:	MCGIS
Priority:	Medium
Progress:	

Wildland Urban Interface

WUI as Defined by HFRA and the Federal Register

The Federal Register states, "the urban-wildland interface community exists where humans and their development meet or intermix with wildland fuel." In an effort to further refine the federal register definition HFRA has identified two levels of the WUI designation: *Interface* and *Intermix* communities. In both interface and intermix communities, housing must meet or exceed a minimum density of one structure per 40 acres.

- The *Interface Community* exists where structures directly abut wildland fuels. There is a clear line of demarcation between residential, business, and public structures, and wildland fuels. Wildland fuels do not generally continue into the developed area, and development is usually denser than in *intermix* communities. Fire protection is generally provided by a local government fire department with the responsibility to protect the structure from both an interior fire and an advancing wildland fire.
- The *Intermix Community* exists where structures are scattered throughout a wildland area. There is no clear line of demarcation; wildland fuels are continuous outside of and within the developed area. Fire protection districts funded by various taxing authorities normally provide life and property fire protection, and may also have wildland fire protection responsibilities.

WUI as defined by the MCWPP

The purpose of the Multnomah County Wildland Urban Interface is to guide wildfire prevention efforts around homes (education and defensible space), and to identify adjacent forest lands that could benefit from larger scale fuels reduction treatments. The Multnomah County WUI is not intended for site-specific planning, and areas identified as inside the WUI should be ground-truthed before designing any wildfire prevention or fuels reduction programs.

The Risk Assessment Subcommittee used the federal register and HFRA's guidance for determining the WUI, by considering home density within 500 feet of hazardous vegetation (Fuel Type III), topography and from the Fire Districts regarding specific communities to target for wildfire prevention programs (please see *strategic planning areas* in Chapter ??). It is important to note that some Strategic Planning Areas included tracts of land that support infrastructure, critical watersheds, or parks that require wildfire protection, and as such are included in the Wildland Urban Interface.

Because wildfire prevention and fuels treatments will be managed differently in urban communities than in communities adjacent to heavily forested landscapes, the risk assessment subcommittee used developed a WUI relevant to the geographic context.

In more urban areas, the WUI extended approximately 2 blocks from the 500 foot vegetation buffer, as these homes have the most direct impact on either spreading fire to forests, or being damaged from an encroaching wildfire.

In areas with communities and/or infrastructure adjacent to heavily forested landscapes, Effective fuels modification strategies in more heavily forested Timber/Agricultural areas can extend up to and beyond 1.5 miles, depending on topography. For this reason, the WUI was extended to 1.5 miles beyond structures or to all the way ridge tops, when appropriate.

Using best available data (Metro RLIS building footprint database), 47,603 buildings in Multnomah County are within the WUI. This concentration of exposure underscores the necessity for wildfire prevention programs.

Risk Assessment Methodology and Results

The Multnomah County Wildfire Hazard and Risk Assessment (Assessment) is a tool to illustrate the relative level of risk to life, property, and natural resources in any area of the county. It is intended to identify locations for focused resources allocation to most effectively reduce wildfire risk. It would take nearly unlimited resources to reduce all of the hazards and risks in the county, therefore the Assessment provides decision makers with valuable information about where to focus limited resources to most effectively reduce the risks to communities and citizens.

As projects are implemented through the CWPP, the maps and priorities developed through the risk assessment will change, but they will always point to those areas identified as having the highest relative ranking for risk and hazard. The project is intended as a tool to rank, not define, the absolute hazard or risk for any area in the county.

It can be tempting to rely on technology to provide all of the answers, but it is important to recognize the limits of the data and modeling, and to educate users about such limitations. This has been critical in gaining acceptance by the professionals dealing with fire.

Multnomah County used "Identifying and Assessment of Communities-at-Risk in Oregon, Draft Version 4.0" dated October 18, 2004, and developed by ODF, with cooperators through a statewide steering committee, as a template to conduct the Assessment. This methodology was designed to conduct a statewide risk assessment for wildfire as well as provide guidance for county and local plans. It uses a five-tiered methodology to integrate physical hazards such as vegetation and topography as well as human risk factors such as potential ignition sources (Table 5-1). The results obtained are intended to provide a broad view of the county and its relative risks. More detailed local assessments, conducted as part of each fire department/district's community plans, can be used to improve this analysis.

A county-wide map was produced at each step of the risk assessment process. These maps were reviewed and the methodology was often revised based on expert opinion within our risk assessment subcommittee. As stated earlier, the state document was used as a template or a guide for our county Assessment and was not intended to provide all of the answers. It has been recognized that each county will have some unique factors that will require different applications of the data. As with any assessment using multiple data sources, there were questions about the data and in some cases the methods. The county assessment used the best available data and the best available methods at the time it was developed. The subcommittee has documented data limitations lessons learned, and recommendations for improvement to inform future revisions to the Assessment. The maps presented in this chapter are final maps from each stage of the county risk assessment as well as the combined final assessment map for overall risk of wildfire in Multnomah County. It is this map that will assist in prioritizing fuels reduction projects and other work in the future.

Table 5-1. Risk Assessment Elements

The Assessment considers four categories in determining the relative severity of fire risk. Structural Vulnerability is a fifth category that will be examined in local plans but is not considered at the state or county level due to limited available data.

Assessment Categories	Elements	Score
Wildfire Hazard	Fuels (developed from vegetation information), Slope, Aspect, Elevation, Weather	0-80
Wildfire Risk	Historic Fire Occurrence (derived from state and federal fire agency databases) and an estimation of ignition risk based on expert opinion and home density	0-40
Community Values	Life/Property as determined by home density (homes per 10 acres) and community infrastructure	0-50
Protection Capability	Fire Response Time (determined from fire district boundaries and district-reported response times) and Community Preparedness	0-40
Structural Vulnerability	The Wildland Urban Interface was determined as the area having the highest degree of structural ignitability.	0-90

Layer 1. Wildfire Hazard Methodology *(0-80 points)*

Fuels (0-30 points)

The primary fuels (vegetation) data that was used was derived from the United States Forest Service Landfire program, 2005. The data included thirty different classifications for vegetation types created at a 30-meter grid spatial resolution raster data set. In order to use this dataset with the ODF methodology, which only allows for three fuels types, the subcommittee was charged with grouping the vegetation types into the three fuel classes taken from the Oregon Administrative Rules (OAR) 629-044 "Criteria for Determination of Wildfire Hazard Zones" and are consistent with the National Forest Fire Laboratory (NFFL) fuel models used by many agencies

Non-forested areas receive 0 points for fuels. Fuel models 1 (grass), 5 (low/less flammable brush), and 8 (short-needle timber litter) received a *Fuel Hazard Factor* of 1 and therefore 5 points. Fuel models 2 (grass/timber), and 6 (moderate brush, conifer reproduction, open sage, and juniper) receive a *Fuels Hazard Factor* of 2 and 15 points. There is very little *Fuels Hazard Factor* 2 found in Multnomah County. Fuel models 3 (tall/flammable grasses), 4 (heavy/flammable brush), and 10 (mature timber with slash) receive a *Fuels Hazard Factor* of 3 and 30 points. Vegetation comprising *Fuels Hazard Factor* 3 typically produce a flame length of over 8 feet, a wildfire that exhibits frequent spotting, torching, or crowning, and which results in a burned area that normally cannot be entered for over one hour. It is these fuel types that are found in our highest risk areas. The ODF Methodology provides some guidance on assessing crown fire potential, but the subcommittee found that this process was cumbersome and did not pertain to the geographic conditions in Multnomah County. As such, no points were associated directly with crown fire potential, with the potential for crown fires being weighted more heavily as *Fuels Hazard Factor* 3.

Topographic Characteristics (0-10 points)

Topographic characteristics include slope, aspect, and elevation. Slopes are broken into three classes with break points at 25 and 40 percent slope values. . The slope layer has values ranging from 0 (least slope) to 3 (most slope). Aspect is also divided into three classes where 0 was assigned to the north-facing slopes, 3 to west and east-facing slopes, and 5 to the southern slopes. Finally, elevation point values are assigned from highest to lowest elevation with areas over 5000 feet receiving 0 points, 3501-5000 feet receiving 1 point, and the lowest elevations receiving 2 points. These three characteristics are combined for a possible 10 points.

Weather (0-40 points)

The number of days per season that forest fuels are capable of producing a significant fire event is important to consider. The reference for establishing the wildfire weather hazard factor is provided by the Oregon Department of Forestry, which was developed following an analysis of daily wildfire danger rating indices in each regulated use area of the state. A weather value was assigned by county: 1 on the coast, 2 in the Willamette Valley, and 3 for eastern and much of southern Oregon. These values translate to 0, 20 and 40 points respectively, with Multnomah County receiving 20 points.

The statewide methodology gave Multnomah County a general score of 20 without regard to local knowledge and closer examination of the topographic influences present. The subcommittee determined that the topographic influences present from the Columbia River Gorge were significant and warranted an alternative method for determining the Weather Hazard Factor Value. Wind was chosen as the most significant climatic factor to evaluate due to its impact on firefighting operations in the wildland environment. Specifically, the Columbia River Gorge routinely has significant east wind events at all times of year that have the potential to influence wildfire behavior in the Multnomah County area.

The Committee reviewed the average daily wind speeds collected from weather stations throughout the County and found that the east wind began to dissipate westward across the County and as the landscape moved to a more gentle grade. Three wind factor zones were created to represent the east wind effect.

- East Zone – I-205 east with a score of 40
- Central Zone – Between I-205 and I-5 with a score of 30
- West Zone – I-5 West with a score of 20

Table 4-4. Wind Data Locations and Findings

Wind speeds were recorded from the following available weather stations to determine the effect of the east wind throughout Multnomah County as it relates to fire danger.

Location	Elevation	Description
Cascade Locks	128 ft.	Highest average wind speed; station located in a low elevation; wind pattern increases in October through November as the east winds increase.
Larch Mountain	1150 ft.	Located on the Washington side of the Columbia River; protected on the east by the western cascade foothills; wind speeds do not vary much at this station although data is missing from mid October through November for unknown reasons.
Troutdale Airport	30 ft.	Wind speed is typically lower here than others but starts to spike quickly from mid-October through November similar to Cascade Locks.
Portland International Airport	20 ft.	Consistent wind all year with a little spike that corresponds with Troutdale.
Hillsboro Airport	200 ft.	Appears to have less exposure from east wind due to distance from Columbia Gorge effect. Location is somewhat protected from east winds by the Tualatin Mountains
Miller	1031 ft.	Located in Columbia County, NW of Multnomah County; exposure to east wind during large scale east winds events but significantly less than those within Columbia Gorge and outflow areas.
South Fork	2257 ft.	Located in the Tillamook State Forest, West of Multnomah County in Tillamook County but high enough elevation to capture any prevailing East winds.

Conclusions:

- The Gorge obviously has an influence on wind speeds and that wind speed decreases with elevation
- Topographic influences near a station will alter the measured winds at a given location
- There is better data for the East and of the County that the West
- Wind speeds form the East generally increase in October and November when NW Oregon is historically at its peak for Fire Danger

Hazard Results: Map #4

The composite hazard map represents those physical characteristics that can affect fire behavior. In Multnomah County, vegetation and weather conditions are the primary physical characteristics that drive hazard ratings. The most dominate variable in the composite hazard map is the weather hazard factor, which was developed to account for the east wind generated from the Columbia River Gorge. As noted in the documentation above, the zones demarked by the weather hazard factor are distinguished in the overall hazard composite as nearly straight vertical lines demarking the east zone, central zone and west zone. Although weather likely does not follow straight lines as illustrated in the map, the subcommittee used the best available data

to display these geographic zones. Because the east zone scores 40 points, eastern Multnomah County has a higher hazard score, relative to the central and west county.

The other significant contributing factor to the composite hazard map is the vegetation or fuel type. Multnomah County is very fortunate to have obtained fairly accurate fuels data that could be used in this Assessment. The vegetation is the primary driver for the high hazard scores in central and west county, as the weather hazard factor score decreases west of Interstate 205. It is interesting to note that Forest Park (west county) received a high hazard score despite the fact that it received few points from the weather hazard factor, an indication that Forest Park has a high concentration of flammable vegetation.

Layer 2. Wildfire Risk Methodology *(0-40 points)*

Historic Fire Occurrence (0-20 points)

Risk is the likelihood of a fire occurring, was determined from historic wildfire occurrence and ignition risk.

The statewide assessment guidance uses a density grid of fire occurrence per 1000 acres per 10 years. However, this analysis did not provide adequate resolution for identifying areas that are at relatively higher risk in Multnomah County. The subcommittee used 100 acres per 10 years instead of 1,000 acres per ten years, as the scale more accurately represents the data because it brings out the highest concentration and lowest concentration of fires.

The historic data was acquired from the Oregon Department of Forestry, the US Forest Service, and the State Fire Marshall's Office (SFMO). The ODF and USFS agencies reported "statistical fires" (a wildland fire for which the agency has primary responsibility and required fire suppression action) and the data used from the SFMO were only natural cover fires. The data is not consistent in representing the size of fires, so size was not be incorporated into the assessment; only points of historic fire occurrence were be considered.

Based on discussions of data availability the subcommittee chose to use 13 years of data: 1996-2009. Although ODF and USFS have documentation for a period much longer than 13 years, the SFMO data only goes back to 1996, which was a limiting factor in considering historic fire occurrence. Although the subcommittee agrees that larger historic fires are relevant for future fire potential, the data are collected in polygons rather than point data sets which present a challenge in integrating the data into the current methodology. This data limitation is included in the Action Plan as a consideration for improving this layer in future hazard assessments.

The fire departments and districts throughout Multnomah County have varied capacity for reporting fire occurrence. In addition, fire professionals have different perceptions of what a "wildland" or "natural cover" fire means due to the natural cover categories being very broad.. For the data that was available, a large number of reported wildfires occurred in urban areas. The subcommittee was concerned with the number of fires reported in the highly urban area, inaccurately representing a higher risk in highly urban areas. In an effort to distinguish potential fire risk in urban areas that are actually in close proximity to potentially flammable vegetation, 200 foot buffers were created around parks, natural areas and vacant lots to identify these homes with a higher risk than those in closed city blocks. Firewise principles advise creation of defensible space from 100-300 feet around homes, so a 200 foot buffer was chosen as a good average defensible space. The fire history data in high urban density areas that did not fall within 200 feet of a park or vacant land were removed. The

analysis provided a more realistic picture of potential fire risk, and was further refined to remove any other fire history data urban areas that were at no risk to wildfire.

Ignition Sources *(0-20 points)*

In addition to historic fire occurrence, ignition risk was used to help determine overall risk of fire occurrence. Historic fire occurrence is not necessarily a good indicator of future fires, depending on the cause of the fire.

Urban Density *(0-10 points)*

ODF methodology uses Urban Density as an indicator of potential fire ignition (under the assumption that people start fires as a high percentage of wildland fires in Oregon are human caused) with the higher density areas receiving the most points. As discussed above, the highly urbanized areas do not constitute wildfire ignition risk unless there are fuels available to ignite. For this reason, we decided to give density scores only to those homes within 200 feet of a park, natural area or vacant lot. Again the data was then refined to remove any highly urban areas that were not in close proximity to hazardous vegetation. We also decided to modify the scoring; 0 highly urban, 3 rural, 5 suburban, 7 urban so that rural areas are not given a zero, because lack of urban density does not mean there is zero risk for fire ignition. With debris burning still being allowed in rural areas there is a higher risk.

Other Ignition Sources *(0-10 points)*

Other potential ignition sources that were identified include major highways and railroads with a buffer of 500 feet as well as parks and open spaces open to the public with a buffer of 500 feet. The following were used as "other ignition sources."

- Hwy 84 from NE 122nd St east to Hood River County.
- Hwy 30 from Interstate 405 north to Columbia County
- Cornelius Pass Road from Highway 30 south to Washington County
- Union Pacific Railroad east from NE 122nd St to Hood River County and Interstate 405 north to Columbia County
- Public Accessible Parks and Open Spaces

Scoring was calculated as follows:

- ✓ 1 of the above present: 3 points
- ✓ 2 of the above present: 6 points
- ✓ 3 of the above present: 10 points

Risk Results: *Map #5*

The risk composite map uses historic fire occurrence and potential ignition sources as indicators of future fire occurrence. There are many limitations to the data including the inability to include larger historic fires, inconsistency in data reporting, and lack of available fuels in highly urban areas that are generally scored higher based on urban density. The subcommittee attempted to reduce the weighting of the last factor (urban density) by removing the highly urban areas that are not close to hazardous vegetation and therefore have no potential for wildfires, but some urban areas still scored higher in the risk composite map because Multnomah County is known for having many parks (and vegetation) in close proximity to urban areas, and urban fire departments have a higher capacity for reporting fires. Also, the perception of a "wildland fire" in urban areas is likely very different than in rural fire districts.

The Corbett area unrealistically shows a very low risk because there is very low urban density and this rural fire district is all volunteer and has a very low capacity for reporting fires. Also, the areas west of Corbett are primarily USFS and BLM land, which are publicly accessible and therefore received a higher score due to ignition potential.

The subcommittee attempted to eliminate the inconsistencies in the map and actual fire risk, but using the methodology and available data, glaring inconsistencies in this illustration of potential fire risk remain. However, because this layer is given low weighting relative to the other layers considered in the assessment, these errors are overshadowed with more accurate information in the Overall Wildfire Hazards Map.

Layer 3. Community Values Methodology *(0-50 points)*

The ***values*** considered for this Assessment are a combination of life/property and community infrastructure.

An address point layer has been developed for the county that shows known structure locations. It is this data that was used to create the home density layer (homes per 10 acres). Similar to the previous data layers, the highly urbanized areas that constitute no wildfire potential were removed from this analysis. There are many possible county-wide values. Community infrastructure was chosen to include with home density. For purposes of this Assessment, the county's community infrastructure that is critical in emergency response included hospitals, fire stations, cell tower sites, police stations, 9-11 centers, power substations, and emergency transportation routes (state highways and freeways). The Bull Run watershed and the Corbett Watershed were also included as important assets to be protected.

Values Results: *Map #6*

Beyond general life and property, "values protected" is very subjective. The risk assessment subcommittee chose critical buildings and infrastructure that would support emergency response efforts. Many of these buildings, like fire stations and police stations, exist near each other in populated areas. This layer scores areas based on the number of "assets" in a given location, so urban areas that have home density in combination with infrastructure and emergency response facilities received a higher score. Again the Corbett area and the Forest Park areas received low ratings; not because there are no values to protect here, but rather because there is little home density in combination with infrastructure. The Corbett and Bull Run watersheds are considered "infrastructure" and therefore received a higher score.

Layer 4. Protection Capability Methodology *(0-40 points)*

The ***protection capability*** layer is dominated by the boundaries of the rural fire protection districts. The ODF methodology suggests using 2 categories, fire response and community preparedness. However since there has been very little coordinated wildfire prevention in Multnomah County to this point, the community preparedness factor was not included in this analysis. The ODF methodology also includes an additional category, for areas that can be covered by wildland agencies within 20 minutes; however, all wildland agencies responding to an event in Multnomah County would likely be great than 20 minutes. So 40 points were allocated to areas beyond structural fire department boundaries.

Fire Response (0-40 possible):

- Areas inside a fire district with structural response under 10 minutes receive 0 points
- Areas inside a fire district with structural response over 10 minutes receive 10 points

- Areas outside of a fire district with a wildland agency only response receive 40 points

Protection Capabilities Results: *Map #7*

This layer was created with careful input from each of the fire departments and districts, Oregon Department of Forestry and the United States Forest Service regarding their response time capabilities. Fire agency participants engaged in this exercise indicated that it seemed that fire district boundaries carried much more weight in the Assessment than whether or not a district is able to provide adequate protection in a reasonable amount of time because it is difficult to foresee the availability of staff and resources on any given day. Also, response times are expected to be long outside of the fire districts, especially if a fire occurs in the off-season.

Layer 5. Structural Vulnerability Methodology *(0-90 points)*

An assessment of structural vulnerability, or the likelihood that structures will be destroyed by wildfire, is best determined by on-site visits. This was not practical at the county level. The subcommittee decided to use the Wildland Urban Interface as the area that would be at highest risk to structural vulnerability because it includes homes are adjacent to potential hazardous vegetation, and many communities built close to forested and natural areas are rural and have limited access and water supply. The Wildland Urban Interface was given 90 points to account for the structural vulnerability implicit in this designation. A more detailed discussion regarding the Wildland Urban Interface is provided previously in this chapter and is shown in Map #3: Multnomah County Wildland Urban Interface.

Overall Risk of Wildfire in Multnomah County: Map #8

The goal of the county Assessment is to determine relative risk within the county. In this map, the weight that protection capability has is very clear, as is the designation of the WUI or the structural vulnerability layer. The areas of higher natural hazard are also evident, but the values and risk layers (which had the most questionable results) are not as evident in the final composite map. This map represents the county's perception of low, moderate, high, and extreme hazard areas. Point totals from the five categories in the Assessment would fall into the following categories at the state level: Low (0-80), Moderate (81-140), High (141-170) and Extremely High (171-257). Table 4-5 shows the number of acres in Multnomah County within each hazard classification category.

Table 4-5 Hazard Level Acreage

Hazard Level	Acres
Low	18,285
Moderate	59,169
High	84,344
Extreme	115,177

All numbers rounded to nearest acre. Grand total here: 276,975. 0 acres Versus a 435.23 sq mile (from US Census) to acre conversion = 278,547.2 acres ; the difference is due to rivers taken out of our map.

Risk Assessment Limitations

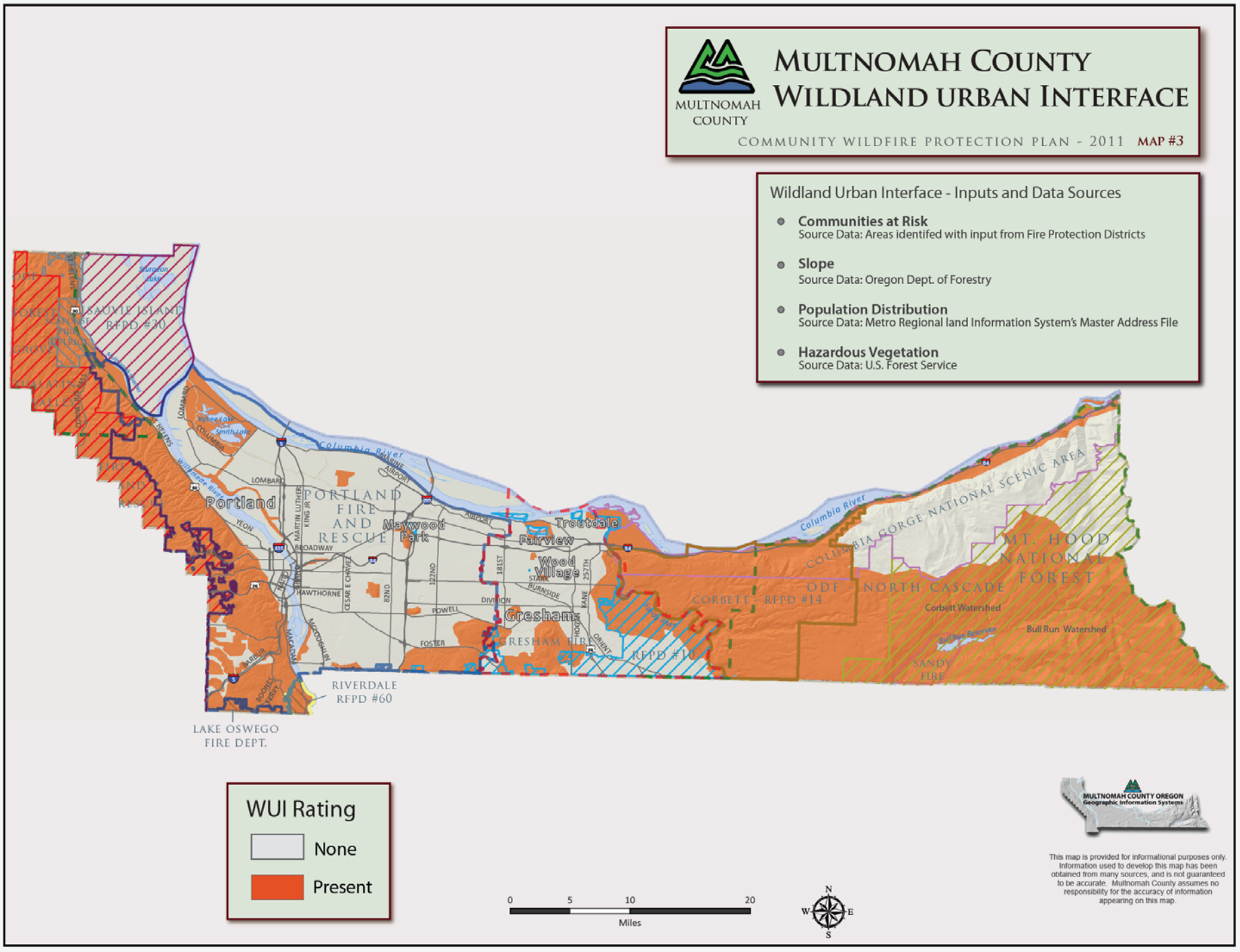
Best Available Data

All participating agencies and departments provided data for the Assessment. It was a challenge to integrate this data since all of the agencies do not collect and report data in the same formats. For example, those conducting the statewide assessment compiled the fire history data that was used at

the county level. They discovered that some sources had 30 to 40 years of usable data while others only had 10 years. Also, what is considered a statistical or countable incident differs greatly between urban fire departments and forest management agencies. As mentioned in the analysis, the larger historical fires were not incorporated into the assessment and could provide some useful information regarding the potential of large scale wildfires in Multnomah County. The weather hazard factor was determined using the best available wind data throughout the county. However some weather stations are not consistent in data reporting and there are not enough stations located throughout the county to give an incredibly accurate account of wind and other weather factors that may affect wildfire hazards. Also, structural vulnerability was estimated using the WUI designation, but would be greatly improved upon with specific data regarding building type, roofing material, access and defensible space.

Landscape Level vs. Site-Specific Assessment

Fire was viewed as a landscape level event, taking into account site-specific factors. Of five categories, three categories (hazard, risk, and values) are landscape level layers, while two of the categories (protection capability and structural vulnerability) take into account site-specific conditions. The site-specific layers were generalized for small scale mapping and identifying potential sites for prioritizing work. However, the large scale mapping of individual neighborhoods can incorporate the site-specific information. This allows experts to develop customized plans for reducing the hazard and risk of a neighborhood or an individual tax lot.


MULTNOMAH COUNTY
MULTNOMAH COUNTY
WILDLAND URBAN INTERFACE
COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #3
Wildland Urban Interface - Inputs and Data Sources
Communities at Risk
Source Data: Areas identifed with input from Fire Protection Districts
Slope
Source Data: Oregon Dept. of Forestry
Population Distribution
Source Data: Metro Regional land Information System's Master Address File
Hazardous Vegetation
Source Data: U.S. Forest Service
SAUVIE ISLAND RFPD #30
Columbia River
Willamette River
Portland
PORTLAND FIRE AND RESCUE
Maywood Park
Troutdale
Fairview
Wood Village
Gresham
GRESHAM FIRE RFPD #10
CORBETT - RFPD #14
COLUMBIA GORGE NATIONAL SCENIC AREA
MT. HOOD NATIONAL FOREST
ODF - NORTH CASCADE
Corbett Watershed
Bull Run Watershed
SANDY FIRE
RIVERDALE RFPD #60
LAKE OSWEGO FIRE DEPT.
WUI Rating
None
Present
0 5 10 20
Miles
N
W
E
S
MULTNOMAH COUNTY OREGON
Geographic Information Systems
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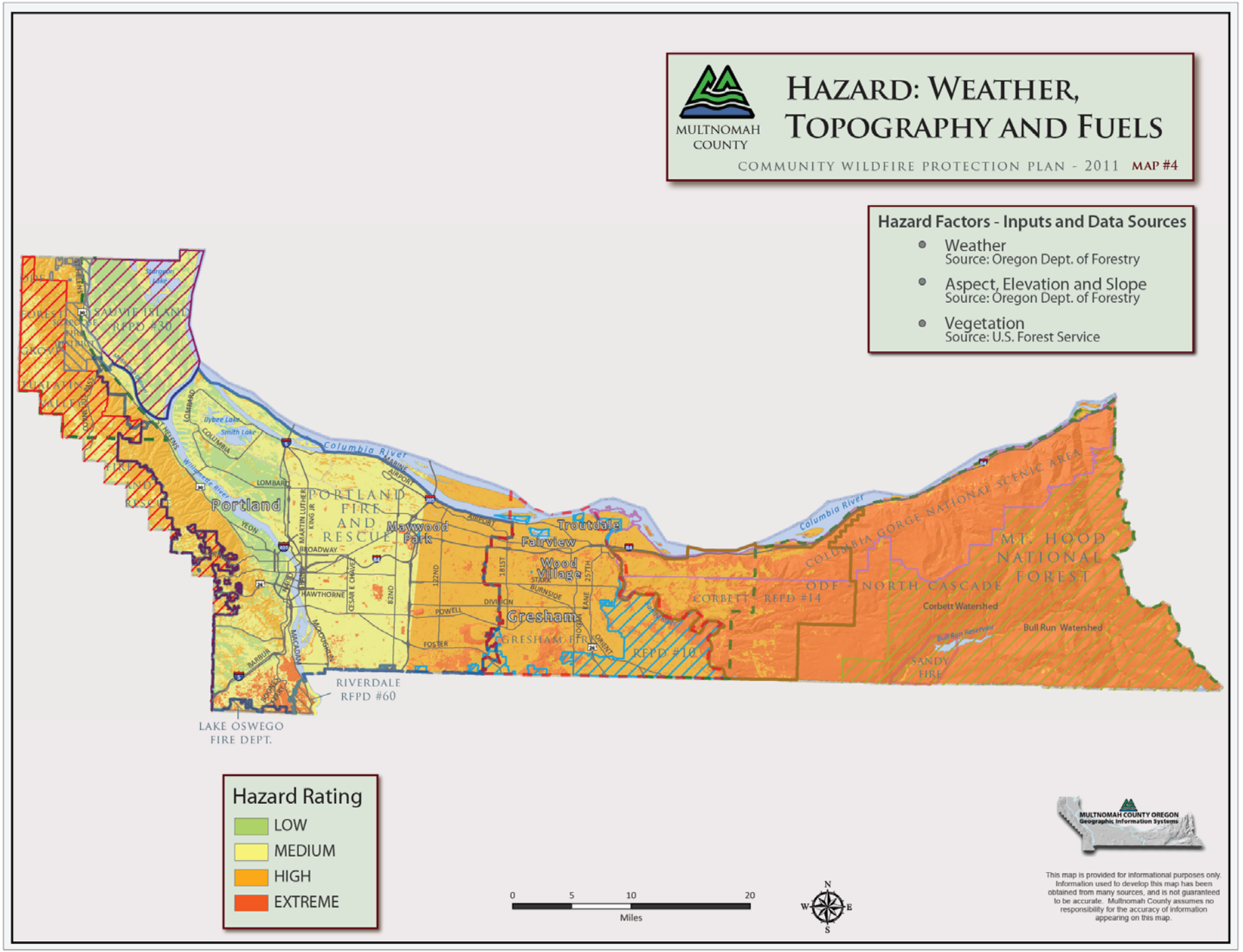
MULTNOMAH COUNTY
HAZARD: WEATHER, TOPOGRAPHY AND FUELS
COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #4
Hazard Factors - Inputs and Data Sources
Weather
Source: Oregon Dept. of Forestry
Aspect, Elevation and Slope
Source: Oregon Dept. of Forestry
Vegetation
Source: U.S. Forest Service
Columbia River
Portland
PORTLAND FIRE AND RESCUE
Maywood Park
Troutdale
Fairview
Wood Village
Gresham
GRESHAM FIRE
RFPD #10
SANDY FIRE
COLUMBIA GORGE NATIONAL SCENIC AREA
MT. HOOD NATIONAL FOREST
ODF - NORTH CASCADE
CORBETT - RFPD #14
Corbett Watershed
Bull Run Watershed
Bull Run Reservoir
SAUVIE ISLAND RFPD #30
RIVERDALE RFPD #60
LAKE OSWEGO FIRE DEPT.
Hazard Rating
LOW
MEDIUM
HIGH
EXTREME
0 5 10 20
Miles
N
W
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MULTNOMAH COUNTY OREGON
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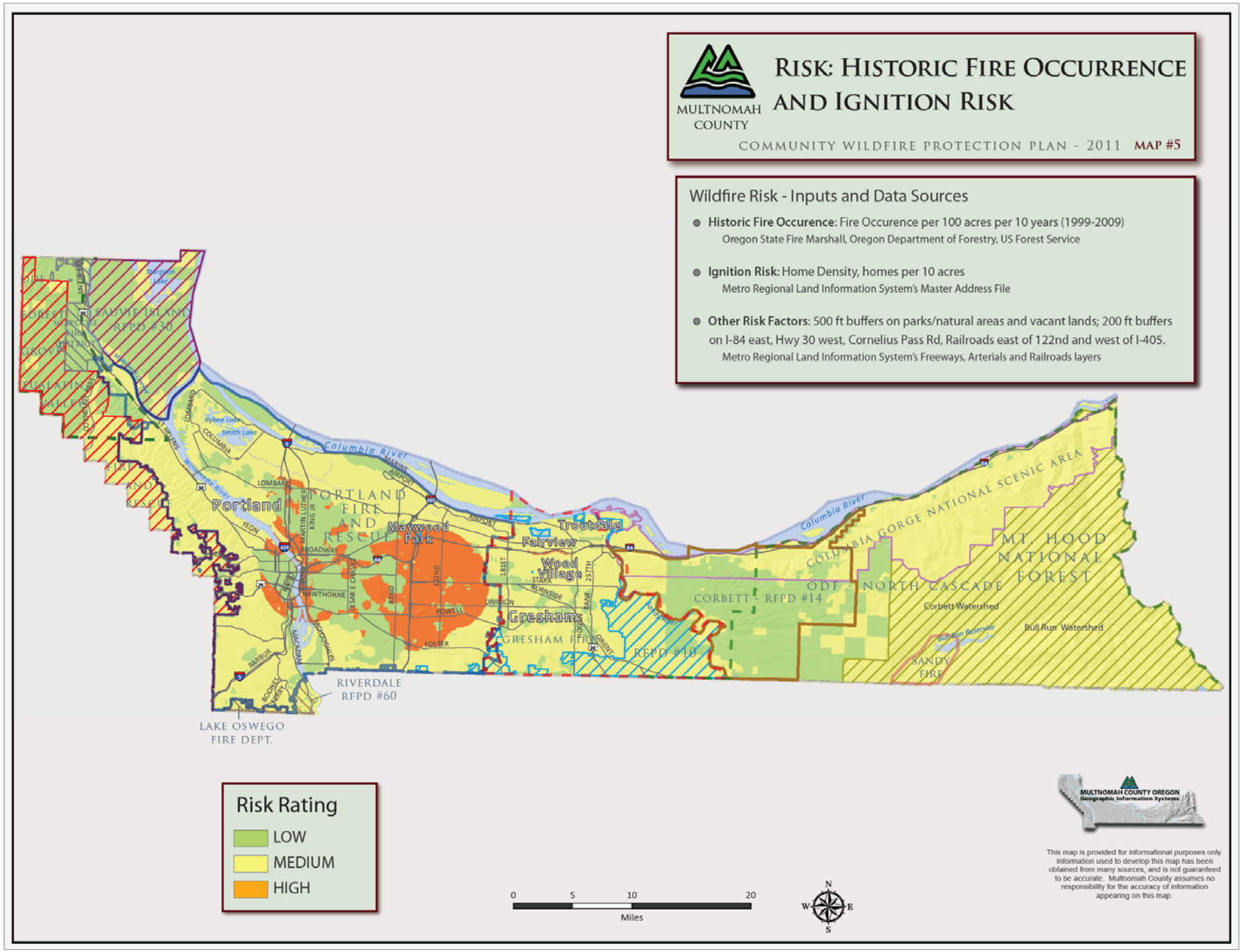
MULTNOMAH COUNTY
RISK: HISTORIC FIRE OCCURRENCE AND IGNITION RISK
COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #5
Wildfire Risk - Inputs and Data Sources
Historic Fire Occurence: Fire Occurence per 100 acres per 10 years (1999-2009)
Oregon State Fire Marshall, Oregon Department of Forestry, US Forest Service
Ignition Risk: Home Density, homes per 10 acres
Metro Regional Land Information System's Master Address File
Other Risk Factors: 500 ft buffers on parks/natural areas and vacant lands; 200 ft buffers on I-84 east, Hwy 30 west, Cornelius Pass Rd, Railroads east of 122nd and west of I-405.
Metro Regional Land Information System's Freeways, Arterials and Railroads layers
Columbia River
Willamette River
Portland
PORTLAND FIRE AND RESCUE
Maywood Park
Troutdale
Fairview
Wood Village
Gresham
GRESHAM FIRE
RFPD #10
CORBETT - RFPD #14
ODF - NORTH CASCADE
COLUMBIA GORGE NATIONAL SCENIC AREA
MT. HOOD NATIONAL FOREST
Corbett Watershed
Bull Run Watershed
SANDY FIRE
SAUVIE ISLAND RFPD #30
RIVERDALE RFPD #60
LAKE OSWEGO FIRE DEPT.
Risk Rating
LOW
MEDIUM
HIGH
0 5 10 20
Miles
N
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MULTNOMAH COUNTY OREGON
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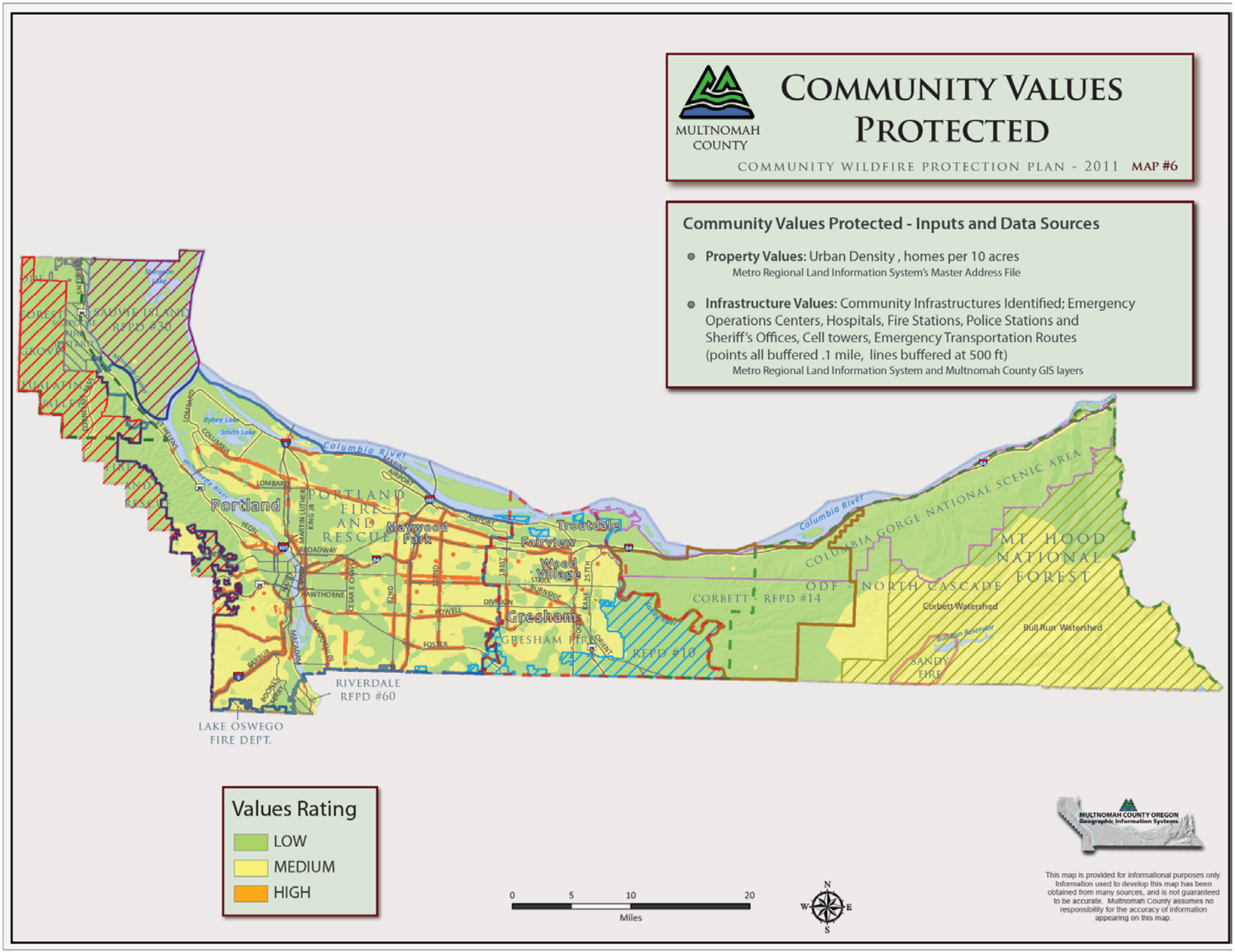
MULTNOMAH COUNTY
COMMUNITY VALUES PROTECTED
COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #6
Community Values Protected - Inputs and Data Sources
Property Values: Urban Density , homes per 10 acres
Metro Regional Land Information System's Master Address File
Infrastructure Values: Community Infrastructures Identified; Emergency Operations Centers, Hospitals, Fire Stations, Police Stations and Sheriff's Offices, Cell towers, Emergency Transportation Routes (points all buffered .1 mile, lines buffered at 500 ft)
Metro Regional Land Information System and Multnomah County GIS layers
Columbia River
Columbia Gorge National Scenic Area
Mt. Hood National Forest
Portland
Portland Fire and Rescue
Maywood Park
Troutdale
Fairview
Wood Village
Gresham
Gresham Fire
Corbett - RFPD #14
ODF - North Cascade
RFPD #10
Sandy Fire
Corbett Watershed
Bull Run Watershed
Bull Run Reservoir
Riverdale RFPD #60
Lake Oswego Fire Dept.
Sauvie Island RFPD #30
Values Rating
LOW
MEDIUM
HIGH
0 5 10 20
Miles
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MULTNOMAH COUNTY OREGON
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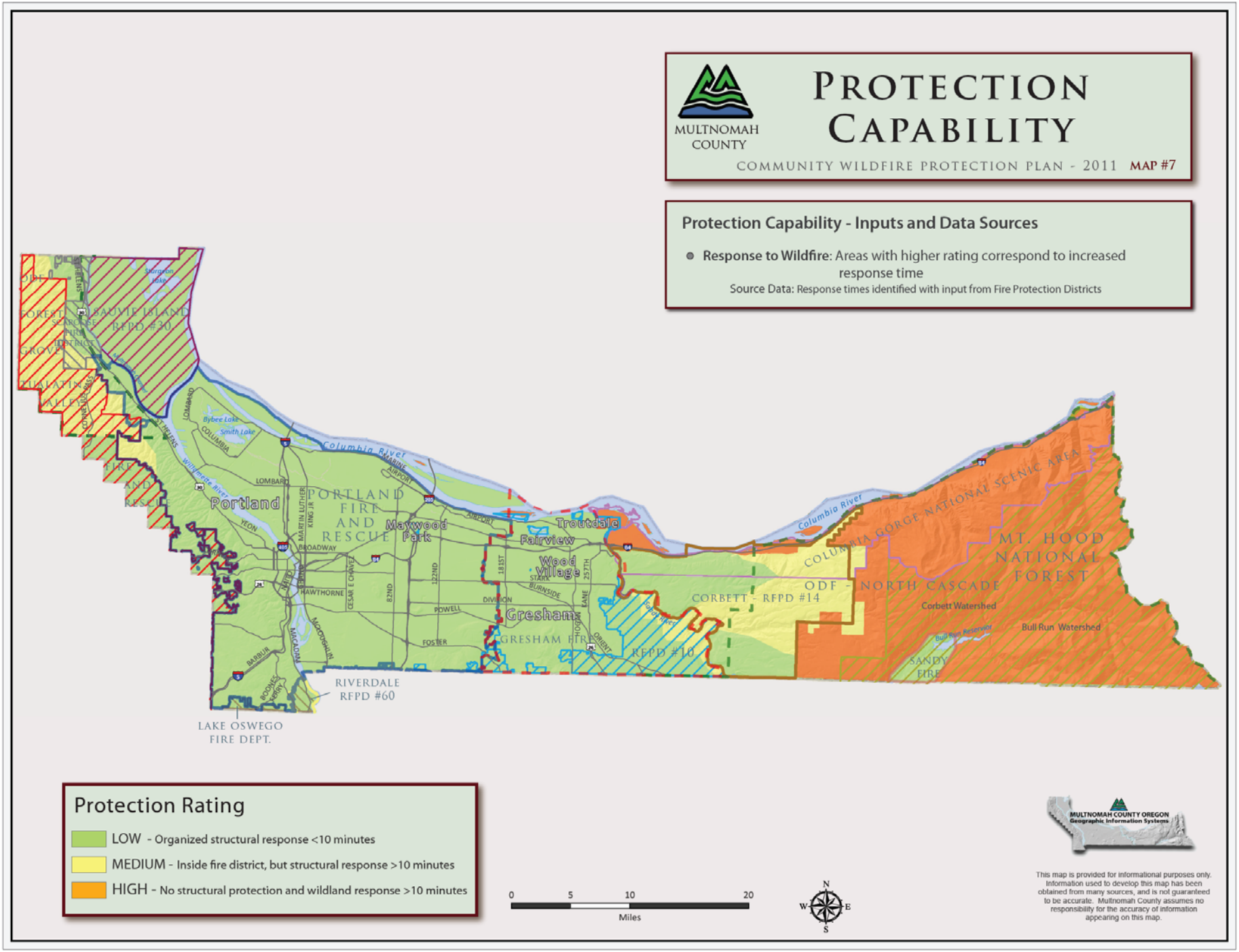
MULTNOMAH COUNTY
PROTECTION CAPABILITY
COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #7
Protection Capability - Inputs and Data Sources
Response to Wildfire: Areas with higher rating correspond to increased response time
Source Data: Response times identified with input from Fire Protection Districts
Columbia River
Willamette River
Portland
PORTLAND FIRE AND RESCUE
Maywood Park
Troutdale
Fairview
Wood Village
Gresham
GRESHAM FIRE
RFPD #10
CORBETT - RFPD #14
ODF - NORTH CASCADE
COLUMBIA GORGE NATIONAL SCENIC AREA
MT. HOOD NATIONAL FOREST
Corbett Watershed
Bull Run Watershed
Bull Run Reservoir
SANDY FIRE
BAUVIE ISLAND RFPD #30
RIVERDALE RFPD #60
LAKE OSWEGO FIRE DEPT.
Protection Rating
LOW - Organized structural response <10 minutes
MEDIUM - Inside fire district, but structural response >10 minutes
HIGH - No structural protection and wildland response >10 minutes
0 5 10 20
Miles
N
W
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S
MULTNOMAH COUNTY OREGON
Geographic Information Systems
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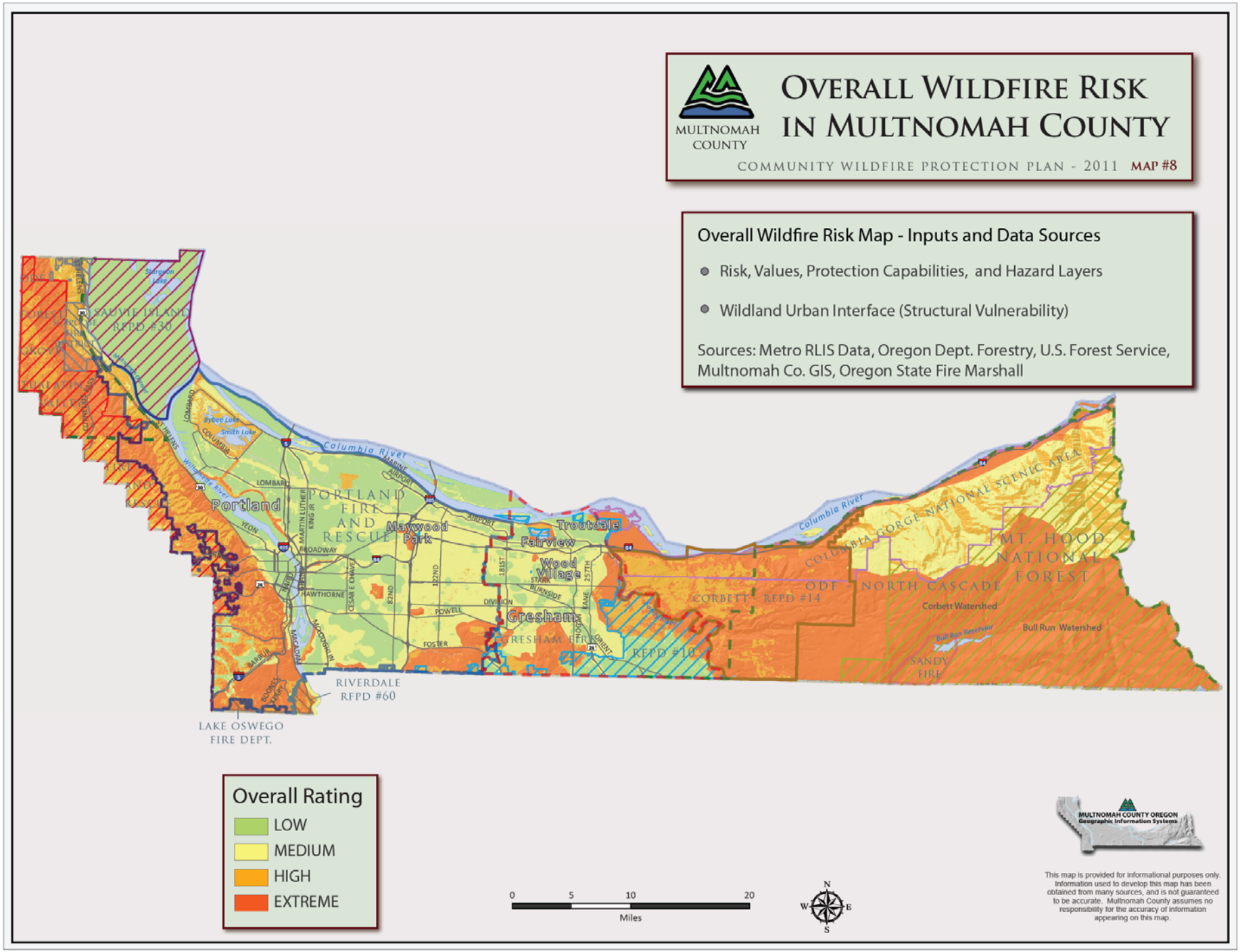
MULTNOMAH COUNTY
OVERALL WILDFIRE RISK IN MULTNOMAH COUNTY
COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #8
Overall Wildfire Risk Map - Inputs and Data Sources
Risk, Values, Protection Capabilities, and Hazard Layers
Wildland Urban Interface (Structural Vulnerability)
Sources: Metro RLIS Data, Oregon Dept. Forestry, U.S. Forest Service, Multnomah Co. GIS, Oregon State Fire Marshall
Columbia River
Portland
PORTLAND FIRE AND RESCUE
Maywood Park
Troutdale
Fairview
Wood Village
Gresham
GRESHAM FIRE
SAUVIE ISLAND RFPD #30
RIVERDALE RFPD #60
LAKE OSWEGO FIRE DEPT.
CORBETT RFPD #14
ODF
COLUMBIA GORGE NATIONAL SCENIC AREA
MT. HOOD NATIONAL FOREST
NORTH CASCADE
Corbett Watershed
Bull Run Watershed
Bull Run Reservoir
SANDY FIRE
RFPD #10
Overall Rating
LOW
MEDIUM
HIGH
EXTREME
0 5 10 20
Miles
N
W
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S
MULTNOMAH COUNTY OREGON
Geographic Information Systems
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CHAPTER 6
HAZARDOUS FUELS REDUCTION& BIOMASS UTILIZATION

CHAPTER 6: HAZARDOUS FUELS REDUCTION & BIOMASS UTILIZATION

Fuels Reduction and Biomass Utilization in Multnomah County

A core focus of the Multnomah County Community Wildfire Protection Plan (MCWPP) reducing hazardous fuels around homes, along transportation corridors and in surrounding forested lands can significantly minimize losses to life, property, and natural resources from wildfire.

Research using modeling, experiments, and wildland urban interface case studies indicates that home ignitability during wildland fires depends on the characteristics of the home and its immediate surroundings. These findings have implications for hazard assessment and risk mapping, effective mitigations, and identification of appropriate responsibility for reducing the potential for home loss caused by wildland-urban interface fires.[9] Wildland-urban ignition research indicates that a home's characteristics and the area immediately surrounding a home within 100 to 300 feet principally determine a home's ignition potential during a severe wildland fire. Reducing the wildland threat to Homes, a US Forest Service report refers to this area that includes a home and its immediate surroundings as the *home ignition zone*.

The MCWPP Fuels Reduction Committee began meeting in October, 2010 to discuss how to approach fuels reduction throughout the county and on both public and private lands. Committee members committed to facilitating cooperation between public and private organizations to ensure that fuels reduction work occurs strategically and benefits both adjacent public and private lands. The City Nature Division of Portland Parks led this technical committee and will be responsible for facilitating the implementation of this action plan with the City of Portland's Wildfire Technical Committee (WTC).

Map # 9. Fuels Reduction Projects in Multnomah County illustrates the proposed fuels reduction projects while Map # 10 shows these fuels reduction projects overlaid with identified Communities at Risk to ensure that landscape-level treatments are paired with projects to create defensible space around vulnerable communities.

Members of the Fuels Reduction Subcommittee include:

Metro Parks

West Multnomah County Soil and Water Conservation District (WMSWCD)

Portland Bureau of Environmental Services (BES)

Oregon Dept. of Forestry (ODF)

United States Forest Service Mt. Hood National Forest (Mt. Hood NF) and the Columbia River Gorge National Scenic Area (CRGNSA)

Portland Parks & Recreation City Nature Division (PPR)

Portland Water Bureau (PWB)

Objectives

- Recommend actions to restore fire adapted ecosystems and create fire resilient landscapes in the wildland-urban interface as well as natural areas.
- Integrate fuels reduction activities into public and private forest and interface management to contribute to resilient ecosystems.
- Identify biomass utilization opportunities to offset expense of fuels reduction activities.
- Implement activities that assist in protecting lives and reducing losses by making homes, businesses, infrastructure, critical facilities, and other property more resistant to wildfires.

[9] Cohen, J., Preventing Disaster: Home Ignitability in the Wildland-Urban Interface Journal of Forestryhttp://www.firelab.org/fbp/fbppubs/fbppdf/cohen/Preventing.pdf

- Improve coordination between emergency responders and parks and natural resources staff to assess training needs, enhance evacuation efforts and communication within the event of a wildfire.

Fuels Reduction Actions

The Fuels Reduction Subcommittee has developed the following series of action items to build capacity and enhance coordination in completing on-the-ground vegetation management projects. The subcommittee designated each of these as high priority, as implementation will significantly improve fuels reduction efforts.

Fuels Reduction Strategies

1. **Develop and maintain an inventory of potential fuels reduction projects in high-risk areas, fuel reduction prescriptions, and a list of prioritized future projects.**
    a. Utilize risk assessment to identify the highest risk areas.
    b. Gather fire district priorities for fuels reduction.
    c. Target transient camps and other areas that have high potential for ignition.
    d. Utilize public outreach meetings to identify willing landowners, high hazard areas, and community priorities in order to develop a prescription.

Timeline:	Ongoing
Lead:	Wildfire Technical Committee (WTC)
Partners:	Metro Parks, CRGNSA, East & West Multnomah SWCD's, BES, ODF, PWB, Local Fire Agencies, Multnomah County GIS
Priority:	High
Progress:	An initial listing of potential fuels reduction projects has been developed with input from agencies and fire districts. Please refer to Table 6-1 for a listing of the prioritized fuels reduction projects.

2. **Work directly with communities targeted for fuels reduction treatments to gain support for the project prior to implementation.**
    a. Identify a liaison or champion to help organize the community.
    b. Hold community meetings designed to educate, garner feedback, and address concerns relating to the fuels reduction project.
    c. Use GIS, USFS Forest Vegetation Simulator (FVS) and other visual tools to assist in communicating and justifying strategies for fuels reduction.

Timeline:	Ongoing
Lead:	Local Fire Agencies
Partners:	ODF, Community Outreach Groups
Priority:	High
Progress:	The City of Portland conducted community meetings in Oaks Park, Forest Park, Powell Butte and the Willamette Escarpment to gain support for fuels reduction projects.

3. **Integrate defensible space practices into Naturescaping programming and other vegetation management programs targeted at homeowners to ensure consistent and complimentary messaging in high-risk areas of the Wildland Urban Interface.**
    a. Consider using native, fire-resistant plants that have additional habitat benefits.
    b. Identify opportunities to balance ecosystem enhancement strategies with public safety.
    c. Integrate information about fire resistant building materials when advising homeowners about vegetation management in the WUI.
    d. Provide a cross-agency educational forum to share perspectives on invasive weeds & fuels loading using projects as examples.

Timeline:	1 Year
Lead:	West & East Multnomah SWCD
Partners:	WTC, ODF, Metro , Audubon, Columbia Land Trust, City Terrestrial Ecology Enhancement Strategy
Priority:	High
Progress:	Portland has identified woody fire accelerant trees and shrubs & are working to complete a list of herbaceous fire accelerant plants

4. **Align fuels reduction efforts with invasive weed management programs.**
    a. Identify areas where invasive weeds have created heavy fuel loads and opportunities to leverage funds for treatment of these areas. Integrate the removal of ladder fuels into projects that eradicate weeds. Consider planting or seeding areas that have been disturbed and cleared for fuels treatment with native fire-resistant plants to reduce colonization and spread of weeds.
    b. Work with utility providers to develop regular vegetation maintenance plans to reduce invasive weeds and hazardous fuels in Right of Ways (ROWs) and work with organizations that promote more vegetation in ROWs to bring these opposing perspectives into balance.
    c. Layer priority invasive maps with wildfire hazard maps & proposed fuels reduction project maps to identify opportunities to create multi-objective projects.
    d. Consider prioritizing the Portland Plant List, Nuisance List based on wildfire accelerant potential.

Timeline:	2 Years
Lead:	WTC, 4 County CWMA
Partners:	East & West Multnomah SWCD, BES, The Nature Conservancy, Metro Parks, City Terrestrial Ecology Enhancement Strategy Group
Priority:	High
Progress:	

5. **Develop a "Prescription Team" to develop a landscape Desired Future Condition (DFC) and recommendations for achieving the DFC for high priority fuels reduction projects that meet multiple objectives (wildfire, maintaining shrub layer for habitat, etc.).**

a. The team will provide fuels reduction prescriptions for each project that identifies hazardous vegetation to be removed, opportunities for biomass utilization, and potential impacts on the community.
b. Include controlled burning as a cost effective and ecologically effective strategy in fire adapted ecosystems, as well as a training opportunity for firefighting personnel.
c. Consider using computer modeling programs such as the (FVS) to assist in developing successful treatments.
d. Include maintenance strategies in all fuels reduction projects.

Timeline:	Ongoing
Lead:	WTC
Partners:	City Terrestrial Ecology Enhancement Strategy Group, BES Revegetation Team, ODF, Metro, CGNSA, SWCD's, PWB, MCFDB
Priority:	High
Progress:	

6. Develop and monitor experimental projects that utilize innovative strategies to achieve ecologically healthy, visually appealing landscapes that are resilient to wildfires.

a. Partner with Universities to cultivate service learning opportunities and capitalize on cutting edge technologies.
b. Partner with technical experts such as the Pacific Northwest Research Station to help design projects that will contribute to the scientific community.

Timeline:	TBD
Lead:	Wildfire Technical Committee
Partners:	USFS (PNRS), ODF, OSU, PSU, PF&R,TEES, Portland Bureau of Planning and Sustainability, SWCD's
Priority:	High
Progress:	

7. Obtain funding to implement fuels reduction projects.

a. Utilize the CWPP for applying for National Fire Plan, Pre Disaster Mitigation, Western State's Fire Managers and other grant programs.
b. Meet with funders and describe multi-objective nature of these projects to garner support for model projects (Kelly Butte)
c. Work with the Natural Resource Conservation Service (NRCS) & local Soil and Water Conservation Districts to recruit private forest owners to participate in USDA Farm Bill Programs such as the Environmental Quality Incentives Program (EQIP) or other local grant programs for private ownerships
d. Integrate fuels reduction projects identified in the CWPP into annual agency budgets (Metro, Portland Parks, ODF, CRGNSA).

Timeline:	Ongoing

Lead:	Wildfire Technical Committee
Partners:	ODF, MCEM, POEM, BES, PWB, PP&R,CGNSA,NRCS,SWCD's, OWEB
Priority:	High
Progress:	ODF applied for a Western State Fire Manager's grant to implement community outreach and fuels reduction projects in Spring 2011; City of Portland received a $1.3 million from FEMA to implement fuels reduction projects in Forest Park, Powell Butte and Kelly Butte

8. **Develop cost sharing opportunities designed to decrease the financial burden on the property owner.**
    a. Identify opportunities to assist special needs populations in creating defensible space around homes and communities.
    b. Include maintenance agreements that describe how often and what types of vegetation treatment need to take place to retain wildfire resiliency.

Timeline:	Ongoing
Lead:	ODF, Multnomah County
Partners:	WTC , SWCD's, NRCS, Metro Nature in Neighborhoods, ODFW
Priority:	High
Progress:	Search state and federal grant funding opportunities under NFP and Western State Fire Managers

Emergency Operations

9. **Develop an emergency communications plan for Metro Parks, Portland and other Cities' Parks, and Portland Water Bureau staff to ensure that employees can communicate during a wildfire event.**
    a. Identify and map areas that have no cell phone coverage.
    b. Determine best form of communication (cell, VHF, 800Mhz) and obtain equipment to support interoperability.
    c. Develop directory of Metro, Portland and other Cities' Parks Staff and share among all city/county agencies that manage natural areas.

Timeline:	1 Year
Lead:	MCEM, PF&R
Partners:	Metro, PP&R,POEM, Multnomah County Fire Defense Board (MCFDB), Gresham Parks, Troutdale Parks
Priority:	High
Progress:	

10. **Inventory and map evacuation routes in Metro Parks, Portland and other Cities' Parks, and Natural Areas and communicate this information to adjacent communities and emergency response professionals.**
    a. Create signs that identify evacuation routes for forest and park users

Timeline:	2 Years
Lead:	MCEM
Partners:	Metro, PP&R, POEM, CGNSA, USFS, MCFDB, Gresham Parks, Troutdale Parks, ODOT, Sheriff's Office
Priority:	High
Progress:	

11. Develop a wildfire fuels assessment and initial response training and safety program for Parks staff.

Timeline:	Ongoing
Lead:	PF&R
Partners:	ODF, Metro, PP&R, POEM, MCFDB, MCEM, Gresham Parks, Troutdale Parks
Priority:	High
Progress:	

Biomass Utilization/ Economic Development Strategies

12. Develop a supply/demand information sheet that aligns potential biomass utilization opportunities for specific types of extracted vegetation.

a. Consider local farms that may need green material for their manure composting operations;
b. Consider nurseries and other agribusinesses that can utilize biomass.
c. Develop a working relationship with nearby Power Cogeneration facilities to identify potential partnership opportunities.

Timeline:	1 Year
Lead:	ODF
Partners:	Oregon Association of Nurseries (OAN), ODF, Metro, Oregon Forest Industries Council (OFRI), Farm Forestry Associations
Priority:	High
Progress:	

13. Utilize strategies that add value to extracted vegetation, and enhance economic development (consider timing and timber market prices).

a. Coordinate timing of fuels reduction projects to take advantage of potential utilization opportunities.
b. Identify large-scale fuels reduction projects, and consider grouping individual projects to achieve economies of scale and have the potential to warrant partnerships with co-gen facilities.

Timeline:	Ongoing
Lead:	WTC
Partners:	OAN, ODF, Metro, OFRI, Farm Forestry Associations
Priority:	High
Progress:	

Identification and Prioritization of Fuels Reduction Projects

The Healthy Forests Restoration Act provision for Community Wildfire Protection Plans (CWPP) requires that communities identify and prioritize hazardous fuels treatments as part of the CWPP. Through the MCWPP planning process, Multnomah County has developed an initial listing of areas that would benefit from fuels reduction projects (Table 6-1). Each project submission has an associated information worksheet articulating the size and type of vegetation to be treated, potential biomass utilization opportunities, homes and infrastructure to be protected, etc. These worksheets are available in Resource C: Organizational Worksheets. The projects were identified using the following three components:

1. Agency and partner input through a Fuels Reduction Subcommittee
2. Community input on values and priority project areas (garnered at local community meetings)
3. Fire district input

Project Prioritization Strategy

In order to aid in selecting priority areas to receive funding and attention for fuel reduction efforts, the Fuels Reduction Subcommittee considered the criteria listed below. Each agency submitting a project provided their input on project prioritization. The initial priorities for project implementation are listed in Table 6-1. These priorities may change based on social, economic or political will, and the Fuels Reduction Subcommittee will be opportunistic in selecting projects for implementation. Each potential project site will be evaluated by a prescription team, and information gleaned from site surveys will be incorporated into implementation.

1. Technical Feasibility
2. Funding Sources
3. Community Support
4. Fire District Priority
5. Level of Risk (from the hazard assessment)
6. Homes/infrastructure protected
7. Access

Table 6-1. Multnomah County CWPP Fuels Reduction Projects

Project Name	Priority	Project Manager	Project Status	Land Owner	Land Manager	Vegetation Management Goals				Data Collected	Land Cover	Funding	Acres
						Fuels Reduction	Invasive Species	Oak Restoration	Defensible Space				
Powell Butte	High	Portland	In Process	Portland	Portland	Yes	Yes	No	Yes	Yes	Water Infrastructure/ Public Park	Funding Needed	1,362
West Willamette Corridor	High	Portland	Proposed	Portland	Portland	Yes	Yes	Yes	Yes	Yes	Public Park	Funding Needed	3,918
Rocky ButtePark Natural Area	High	Portland	Proposed	Portland	Portland	Yes	Yes	Yes	Yes	Yes	Public Park	Funding Needed	254
Forest Park	High	Portland	Proposed	Portland	Portland	Yes	Yes	Yes	Yes	Yes	Public Park	Funding Needed	8,904
Willamette Escarpment	High	Portland	In Process	Portland	Portland	Yes	Yes	Yes	Yes	Yes	Public Park	Funding Needed	138
WMSWCD Focus Area	High	WMSWCD	Proposed	Private	Private	Yes	Yes	Yes	Yes	Yes	Managed Small Woodland	Funding Needed	8,904
Upper Rock Creek	High	WMSWCD	Proposed	Private	Private	Yes	Yes	Yes	Yes	Yes	Managed Small Woodland	Funding Needed	2,807
McCarthy Creek Cornelius	High	WMSWCD	Proposed	Private	Private	Yes	Yes	Yes	Yes	Yes	Managed Small Woodland	Funding Needed	3,326
Forest Park	High	Metro	Proposed	Metro	Metro	Yes	Yes	No	Yes	No	Park/Open Space	Funding Needed	641
Mt. Scott	Medium	Portland	Proposed	Portland	Portland	Yes	Yes	Yes	Yes	Yes	Public Park	Funding Needed	2,751
Kelly Butte Area	Medium	Portland	Proposed	Portland	Portland	Yes	Yes	Yes	Yes	Yes	Water Infrastructure/ Public Park	Funding Needed	122
Mount Tabor	Medium	Portland	Proposed	Portland	Portland	Yes	Yes	Yes	Yes	Yes	Water Infrastructure/ Public Park	Funding Needed	192
Oaks Bottom	Medium	Portland	Maint/Mon	Portland	Portland	Yes	Yes	Yes	No	No	Open Space	Funding Needed	54
Miller Creek Restoration	Medium	WMSWCD	Maint/Mon	Private	Private	Yes	Yes	Yes	Yes	Yes	Managed Small Woodland	Funding Needed	73
WMSWCD Project	Medium	WMSWCD	Maint/Mon	Private	Private	Yes	Yes	No	Yes	No	Other	Funding Needed	171
Larch Mountain Road	Medium	Metro	Proposed	Metro	Metro	Yes	Yes	No	No	No	Open Space	Funding Needed	186
Lower Sandy/Oxbow	Medium	Metro	Proposed	Metro	Metro	Yes	Yes	No	Yes	No	Park/Open Space	Funding Needed	1,811
Johnson Creek	Medium	Metro	Proposed	Metro	Metro	Yes	Yes	No	No	No	Open Space	Funding Needed	157
East Buttes	Medium	Metro	Proposed	Metro	Metro	Yes	Yes	No	Yes	No	Open Space	Funding Needed	805
Willamette Cove	Medium	Metro	Proposed	Metro	Metro	Yes	Yes	Yes	No	No	Open Space	Funding Needed	27
Rock Creek	Medium	Metro	Proposed	Metro	Metro	Yes	Yes	No	No	No	Open Space	Funding Needed	80
Sandy River Delta	Medium	CRGNSA	Planned	CRGNSA	CRGNSA	Yes	Yes	Yes	No	Yes	Open Space	Funding Needed	1,368
Johnson Creek	Low	Portland	Proposed	Portland	Portland	Yes	Yes	Yes	Yes	Yes	Open Space	Funding Needed	789
East Columbia Slough	Low	Portland	Proposed	Portland	Portland	Yes	Yes	Yes	Yes	Yes	Public Park	Funding Needed	1,090
West Columbia Slough	Low	Portland	Proposed	Portland	Portland	Yes	Yes	No	Yes	Yes	Open Space	Funding Needed	3,064

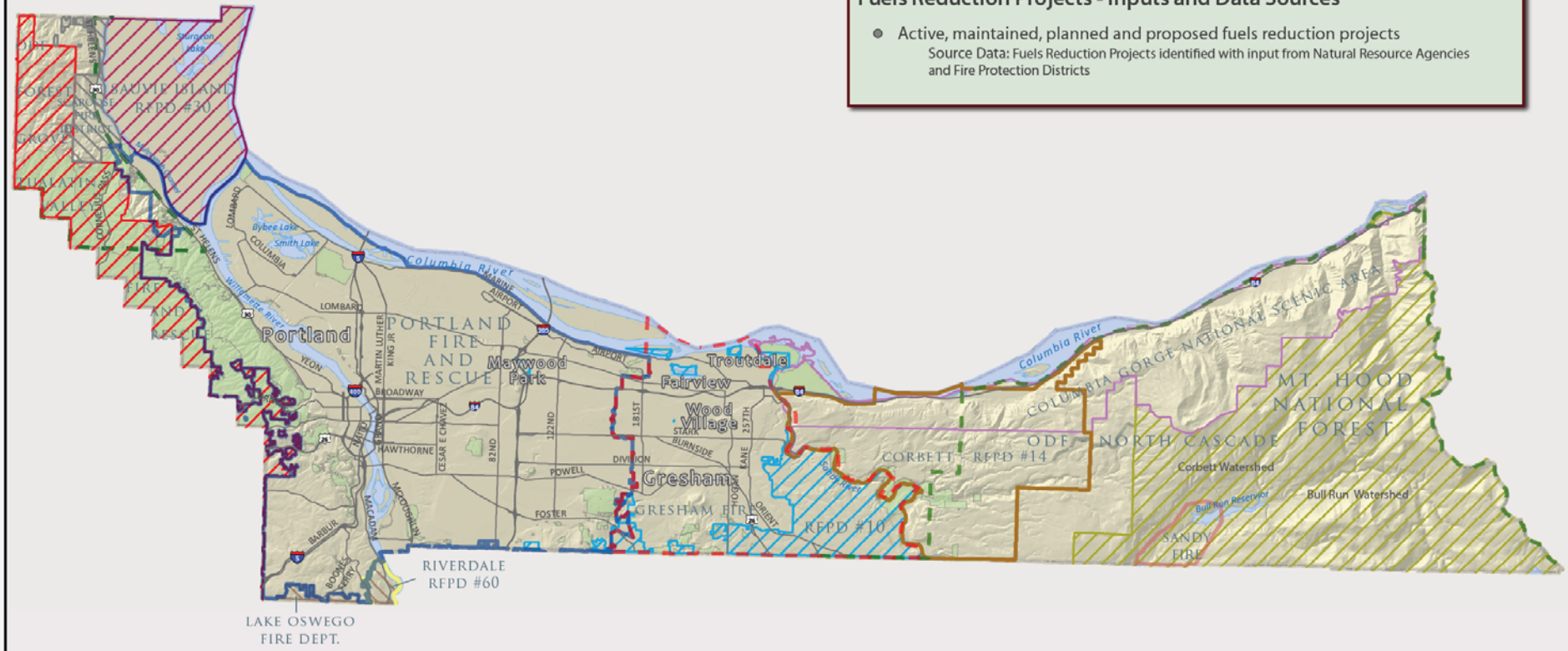
Fuels Reduction Projects

MULTNOMAH COUNTY

COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #9

Fuels Reduction Projects - Inputs and Data Sources

- Active, maintained, planned and proposed fuels reduction projects
  Source Data: Fuels Reduction Projects identified with input from Natural Resource Agencies and Fire Protection Districts



Project Areas
Present

0 5 10 20
Miles

N W E S

MULTNOMAH COUNTY OREGON
Geographic Information Systems

This map is provided for informational purposes only. Information used to develop this map has been obtained from many sources, and is not guaranteed to be accurate. Multnomah County assumes no responsibility for the accuracy of information appearing on this map.

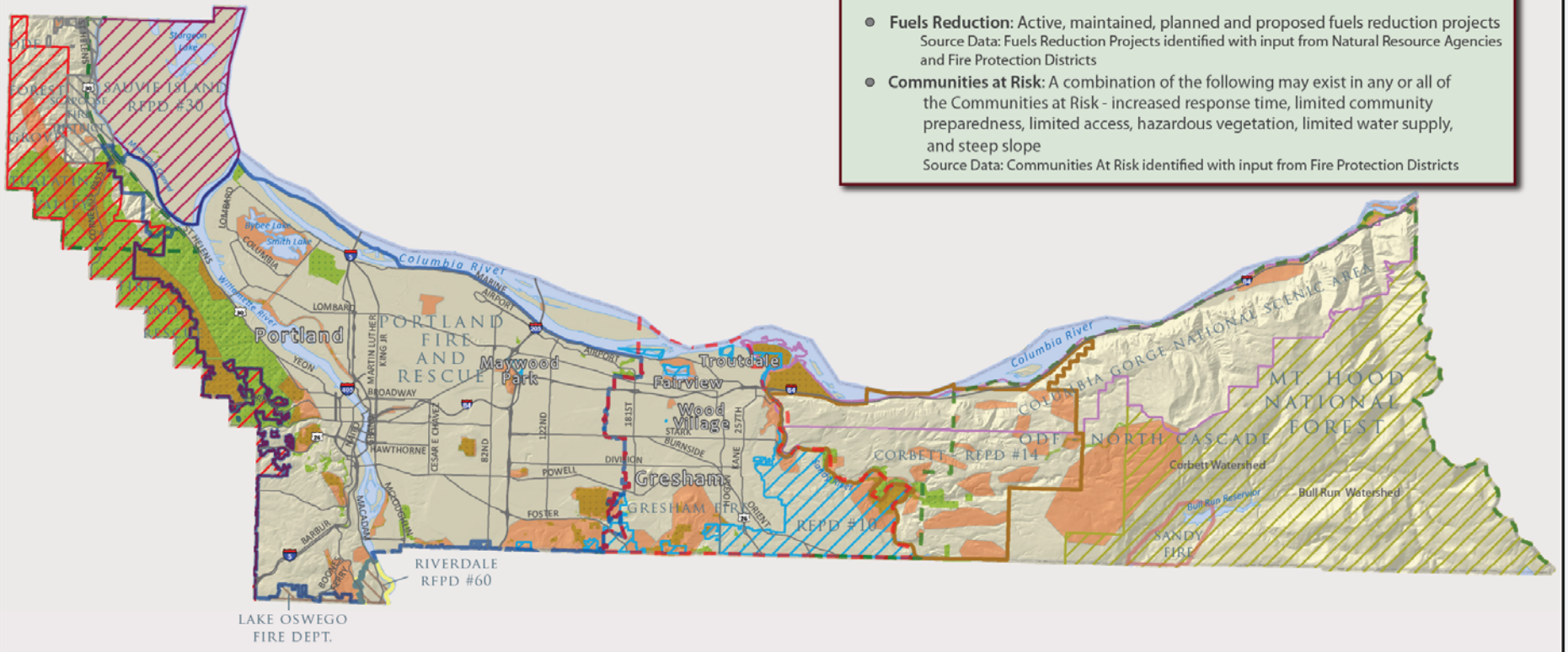
Fuels Reduction Projects and Local Communities at Risk

MULTNOMAH COUNTY

COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #10

Fuels Reduction Projects and Local Communities at Risk - Inputs and Data Sources

- **Fuels Reduction**: Active, maintained, planned and proposed fuels reduction projects
  Source Data: Fuels Reduction Projects identified with input from Natural Resource Agencies and Fire Protection Districts
- **Communities at Risk**: A combination of the following may exist in any or all of the Communities at Risk - increased response time, limited community preparedness, limited access, hazardous vegetation, limited water supply, and steep slope
  Source Data: Communities At Risk identified with input from Fire Protection Districts



MULTNOMAH COUNTY OREGON
Geographic Information Systems

This map is provided for informational purposes only. Information used to develop this map has been obtained from many sources, and is not guaranteed to be accurate. Multnomah County assumes no responsibility for the accuracy of information appearing on this map.

CHAPTER 7
EMERGENCY OPERATIONS

Firefighters ignite a controlled burn on Powell Butte to reduce hazardous vegetation in August, 2009.

CHAPTER 7: EMERGENCY RESPONSE OPERATIONS

Wildfire Emergency Operations in Multnomah County

The Multnomah County Fire Defense Board includes representatives from all Fire Departments and Districts in Multnomah County and is responsible for coordinating fire operations issues throughout Multnomah County. The Multnomah County Fire Defense Board worked with wildland fire agencies as well as natural resource managers to assess and address potential opportunities for enhancing wildland fire mitigation activities and response operations.

Participating Agencies:

Multnomah County Emergency Management (MCEM)
Multnomah County Fire Defense Board (MCFDB)
Oregon Dept. of Forestry (ODF)
Metro Parks
United States Forest Service Mt. Hood National Forest (Mt. Hood NF) and the Columbia River Gorge National Scenic Area (CRGNSA)
Portland Office of Emergency Management (POEM)
Portland Parks and Recreation (PP&R)

Objectives

I. Review emergency operations procedures and identify opportunities to improve capacity and coordination among all agencies including natural resources and parks staff involved in wildfire response, especially in rural areas.
II. Enhance interoperability of fire departments and districts, USDA United States Forest Service Mt. Hood National Forest and the Columbia River Gorge National Scenic Area (CRGNSA, Mt. Hood NF), Oregon Department of Forestry (ODF), and neighboring jurisdictions.
III. Improve upon current system for utilizing fire resources within the county and neighboring jurisdictions.

Emergency Operations Actions

1. Identify the standard to which basic wildland firefighters will be trained. Work with partners to train all incident personnel for basic wildland firefighting and the Incident Command System (e.g. firefighters, park technicians, etc.).

Timeline:	Ongoing
Lead:	Portland Fire and Rescue Training Division
Partners:	ODF, Mt. Hood NF, CRGNSA, PP&R, POEM, MCEM, Metro, City Parks
Priority:	High
Progress:	

2. Identify and address any shortages in wildland training and qualifications in line leadership positions such as Operations Section Chief, DIVS and TFLD.

Timeline:	1 Year-Ongoing
Lead:	MCFDB
Partners:	MCEM, Multnomah County Fire Agencies
Priority:	High
Progress:	

3. Examine mutual aid agreements (and/or amend as needed via MOU) for protocol regarding resource sharing and potential cost reimbursement for Extended Attack (after first 12 hours). Consider cooperative fire protection agreements between the Forest Service and local fire departments that don't already exist. Develop and integrate a process for rapid equipment sharing.

Timeline:	Ongoing
Lead:	MCFDB
Partners:	ODF, Mt. Hood NF, CRGNSA, MCEM
Priority:	High
Progress:	Multnomah County Fire Defense Board examined and updated Mutual Aid Agreements in 2010.

4. Provide clear direction for Incident Commanders regarding when and how to ask for additional resources and/or mutual aid from other jurisdictions.

Timeline:	1 Year
Lead:	MCFDB
Partners:	Mt. Hood NF, CRGNSA, ODF, MCEM, POEM
Priority:	High
Progress:	

5. Conduct a preseason meeting with neighboring jurisdictions to discuss upcoming wildfire season, staffing levels, communications plan, resources, and other important information including finances, roles and responsibilities.

Timeline:	Ongoing
Lead:	ODF, MCFDB
Partners:	ODF, Mt. Hood NF, CRGNSA, MCEM, POEM
Priority:	High
Progress:	

6. Conduct annual tri-county (Washington, Clackamas and Multnomah) CWPP meetings.

Timeline:	Ongoing
Lead:	MCEM, POEM, ODF
Partners:	MCFDB, ODF, Mt. Hood NF, CRGNSA
Priority:	High
Progress:	

7. Inventory wildfire fighting equipment (dozers, tenders, radios) in Multnomah County (and mutual aid agencies) and document the procurement process. Once developed, coordinate resource sharing with Clackamas, Washington, Columbia and Hood River counties.

Timeline:	Ongoing
Lead:	MCEM
Partners:	MCFDB, Metro
Priority:	High
Progress:	

8. Utilize MCEM's cache of field programmable VHF radios and ensure that they have current Mt. Hood NF, CRGNSA and ODF frequencies.

Timeline:	Ongoing
Lead:	MCEM
Partners:	MCFDB, ODF, Mt. Hood NF, CRGNSA
Priority:	High
Progress:	

9. Develop a wildfire communications plan that considers interoperability and outlines protocol for radio communication during an event. Make sure frequency use agreements that don't already exist are in place. Test Communications Plans at different levels to clarify command structure and ensure firefighter safety.

Timeline:	2 Years
Lead:	MCEM
Partners:	MCFDB, ODF, Mt. Hood NF, CRGNSA
Priority:	High
Progress:	

10. Establish an agreed upon fire danger rating system and develop agency protocols. Consider adopting the "National Fire Danger Rating System"(NFDRS) and install signs at key points in the County. Communicate the daily fire danger rating to all field staff throughout the fire season.

Timeline:	1 Year
Lead:	MCFDB
Partners:	ODF, Mt. Hood NF, CRGNSA,
Priority:	High
Progress:	

11. Inventory potential staging areas, Incident Command Posts and Incident Bases (fire camp) locations throughout the County and document process and contacts for access. Consider developing an annual mobilization plan with updated contact information.

Timeline:	Ongoing
Lead:	MCEM
Partners:	MCFDB, ODF, Mt. Hood NF, CRGNSA
Priority:	High
Progress:	

12. Work with Metro to develop a wildland training and accreditation program for technical staff. Utilize Metro as a partner in equipment sharing programs.

Timeline:	2 Years
Lead:	Metro
Partners:	MCFDB
Priority:	Medium
Progress:	

13. Obtain funding to secure a cache of electronic mapping devices (I-phones, etc) integrated with GPS.

Timeline:	Ongoing
Lead:	MCEM
Partners:	MCFDB, ODF, Mt. Hood NF, CRGNSA
Priority:	Medium
Progress:	

14. Explore possibility of retrofitting those existing Mobile Command Units that lack the ability to handle large-scale wildfire and ensure agreements are in place to share these resources.

Timeline:	2 Years
Lead:	MCFDB
Partners:	MCEM, ODF, Mt. Hood NF, CRGNSA

Priority:	Medium
Progress:	

15. Consider pre-positioning Type 3 logistical incident support trailers throughout the county during fire season.

Timeline:	Ongoing
Lead:	MCFDB
Partners:	MCEM, ODF, Mt. Hood NF, CRGNSA
Priority:	Low
Progress:	

Open Burning

Burning is regulated by different agencies, depending on geographic location, and type of materials being burned. The Department of Environmental Quality (DEQ) regulates outdoor burning for pollution concerns primarily in urban areas, the Oregon Department of Forestry (ODF) regulates burning when forests or timber is affected, and the Fire Department regulates burning for fire and life safety concerns.

DEQ prohibits burning of any materials at commercial, industrial, multi-family dwellings (5 or more units), and construction sites. Burning of construction and demolition debris by the contractor or subcontractors is a commercial operation and is prohibited. The DEQ open burning season is March 1 – June 15 and October 1 – December 15.

Local fire agencies regulate burning based on fire severity and DEQ recommendations. Permits are required by the ODF North Cascade District for burning of slash from forest management operations. Land clearing in locations where the land is not going to be reforested or is cleared for agricultural or construction of structures requires a Special Burn Permit from the local fire department.

Campfires, cooking fires, and bonfires are permitted throughout the year unless during a severe fire season, at which time all fires may be prohibited. All open burning including campfires, cooking fires and debris burning during declared fire season requires a permit from ODF on ODF protected lands. These types of fires may be prohibited or restricted by an ODF Regulated Use Closure during fire season. Propane powered cooking appliances that meet the manufacturers listing are not regulated. Burning of trash or yard debris is not permitted in recreational fires. Recreational fires shall not be conducted within 25 feet of a structure or combustible material unless contained in an approved barbecue pit, which shall have 10 feet of clearance from structures and combustibles. Allowed/permitted fires must be constantly attended with a water supply available for extinguishment in case of emergency.

Associated Plans and Programs

The Tactical Interoperable Communications (TIC) *Plan* for the Portland Urban Area, which includes Oregon's Multnomah, Washington, Clackamas, and Columbia Counties, and Washington's Clark County. The TIC Plan is intended to document what interoperable communications resources

are available within the urban area, control of each resource, and what rules of use or operational procedures exist for the activation and deactivation of each resource.

The Portland UASI (Urban Area Security Initiative) Region TICP addresses interoperable communications equipment and planning for the region. Though each agency, discipline, and jurisdiction participating in this plan is unique regarding their own interoperable communication needs and capabilities, proximity to one another, population, and shared incident/event responsibilities allow them to develop a single, consolidated regional TIC Plan rather than several individual, potentially incompatible plans.

The TIC Plan, therefore, consolidates information across agencies, disciplines, and jurisdictions by documenting regional communications capabilities in order to provide a usable and accurate regional tactical incident response tool.

BLM Salem District Resource Management Plan provides multiple-use management for the Salem District of the BLM to enhance and maintain the ecological health of the environment and the social well-being of the human population. Pages 65-67 pertain specifically to fire/fuels management.

Multnomah County Emergency Operations Plan (EOP) is a document which provides the basic framework to guide departments, agencies, and organizations with emergency capabilities in their efforts to mitigate, prepare for, respond to, and recover from any major emergency or disaster which may affect all or parts of Multnomah County.

Evacuation is often used by law enforcement and fire agencies to encourage residents to voluntarily distance themselves from potential hazards. Mandatory evacuation can only be enforced when expressly authorized by the Board of County Commissioners in an Emergency Declaration or in a Governor's Declaration of Emergency.

Law enforcement agencies have primary responsibility for providing warning and instructions to residents on how and where to evacuate. Timely and effective evacuation requires close communication, coordination and cooperation between fire and law enforcement agencies.

Fire Department/District Wildfire Plans are included as annexes to the Emergency Operations Plans. They describe the current and historical wildland urban interface issues in each district, provide goals for reducing losses in these areas, and outline the districts' capabilities and strategies for preventing and responding to wildfire events.

ODF Forest Grove District &ODF North Cascade District Fire Operations Plans serve as a guide for the prevention of human-caused fires, early detection of fires, fire suppression, continual readiness of firefighting resources, mobilization of additional fire resources, and operational concepts and specific duties and actions for unit personnel

The Columbia Gorge National Scenic Area Fire Management Plan provides specific details of the fire program that meet fire management direction for the planning period, including; organization, facilities, equipment, activities, timing, locations, training, and related costs. This document is intended to be a working reference for fire program information.

This document further defines the Appropriate Management Response (AMR) to wildland fire on lands protected by the Columbia River Gorge National Scenic Area (CGF/Unit/Scenic Area) within its boundaries and provides the vehicle for cooperating agencies to address the same. This plan provides detailed descriptions of management objectives, fire protection, constraints and the procedures by which the appropriate management response will be implemented.

CHAPTER 8
WILDFIRE PREVENTION & COMMUNITY INVOLVEMENT

Multnomah County held five community wildfire planning workshops to provide local fire districts with the information to develop local action plans (spring of 2011).

CHAPTER 8: WILDFIRE PREVENTION AND COMMUNITY INVOLVEMENT

Multnomah County Wildfire Prevention and Community Involvement

Multnomah County is fortunate to have an active citizenry that is organized by a variety of community involvement organizations. The Wildfire Prevention and Community Involvement Subcommittee of the CWPP was formed to bring these key organizations together to capitalize on existing frameworks, to more effectively engage residents in the CWPP process, educate them about the potential wildfire hazards in their communities, and promote wildfire prevention activities.

Wildfire Prevention and Community Involvement Subcommittee Members include:

West Multnomah Soil and Water Conservation District (WMSWCD)

Multnomah County Office of Citizen Involvement (MCOCI)

Portland Fire and Rescue (PF&R)

Multnomah County Emergency Management (MCEM)

Oregon Dept. of Forestry (ODF)

Other potential members/ stakeholders include:

Keep Oregon Green (KOG)

East Multnomah Soil and Water Conservation District (EMSWCD)

City Parks Depts.

Metro

Master Gardeners

Portland Office of Emergency Management (POEM)

SOLV

Forest Park Conservancy (FPC)

Audubon Society

Watershed Councils

City of Portland Neighborhood Coalitions

Unincorporated Neighborhood Associations

Oregon Small Woodland Association (OSWA)

Wildfire Prevention & Community Involvement Objectives

- Capitalize on existing programs to implement a public involvement strategy that focuses on actions to reduce risk to structures and wildland areas as well as actions to take in the event of a wildfire such as emergency evacuation and communication procedures.
- Cultivate leadership within communities to implement wildfire mitigation activities and organize community response efforts.
- Encourage communities to take responsibility for reducing wildfire hazards.
- Provide information on tools, partnership opportunities, and funding resources to assist in implementing mitigation activities.

Public Outreach Process

Community involvement is a key component to the MCWPP. Multnomah County Emergency Management and Oregon Department of Forestry worked with local fire agencies to host a series of five public outreach events between March and May 2011 to promote the principles included in the Multnomah County Wildfire Protection Plan. The community wildfire meetings provided fire prevention education materials to over 125 concerned residents. The local fire agencies identified the highest priority Communities at Risk (CARs) to target for these public outreach events. Below is a brief synopsis of the Community Wildfire Planning Workshops. For a more complete discussion of the workshop elements, please see the Fire Department/District Addendum.

Purpose of Community Outreach Events

The community meetings provided an opportunity to gather input from community members about their perceptions of wildfire risk, community priorities, and resources residents want to protect from wildfire. Outcomes of the meeting included the identification of opportunities to reduce wildfire risk, increased education for residents about living with wildfire and creating defensible space, and increased support for and awareness of the CWPP and fire department protection services.

Table 8-1 Spring 2011 Community Meeting Series and Attendance

Date	Time	Local Fire Agency	Local CAR	Location	Attendance
4/11/11	7:00 pm - 9:00 pm	Gresham Fire & Rescue	Gresham Butte/ Walters Hill	Gresham City Hall	25
4/21/11	6:30 pm - 8:30 pm	Multnomah Co. RFPD #14	Corbett: Aims/Trout Creek	Aims Community Church	50
5/4/11	7:00 am - 9:00 pm	Portland Fire & Rescue	Linnton	Linnton Community Center	17
5/14/11	6:00 pm- 8:30 pm	Scappoose Fire District # 31	Holbrook	Holbrook Fire Station	26
5/19/11	7:00 pm- 9:00pm	Tualatin Valley Fire & Rescue	Skyline Ridge	Skyline Grange	7
Total Attendance:					125

**Although the CWPP planning partners intended to provide a community meeting in all of the fire dept.s/ districts throughout the County, timing and logistics prevented us from having meetings at Sauvie Island (Multnomah County Fire District #30) and Unincorporated East Multnomah County (Dodson and Warrendale). These CAR's will be targeted for the next phase of wildfire prevention outreach efforts.*

Event Content:

The public events provided staff of the fire departments, County Emergency Management, ODF, and USFS an opportunity to present information about living with wildfire, wildfire risk, protection capability, creating defensible space and an overview of the Multnomah County Wildfire Protection Plan. Each event also emphasized the opportunity for the public to provide their feedback about wildfire concerns relevant to the fire plan.

All of the meetings included formal presentations by staff about living with wildfire, wildfire risk, protection capability, creating defensible space and an overview of the Multnomah County Wildfire Protection Plan. Multnomah County Emergency Management provided landscaping tools that were given as door prizes to empower homeowners to take action in creating defensible space.

At the open house in Holbrook and Skyline Ridge, ODF set up a "wheel of wisdom " (WOW) along with a three dimensional diagram that illustrated good and bad examples of defensible space and fire safe homes which served as the focal points for starting discussions with visitors about wildfire issues. Visitors to the community meetings also had an opportunity to mark their residence on maps and talk with fire district or agency representatives to identify values, resources or threats they perceive to be at risk to wildfire.

Issues Identified at Community Events and Next Steps:

Primary objectives of the events included engaging residents and providing them with an opportunity to demonstrate their awareness of wildfire risk and express their concerns about wildfire topics related to the Multnomah County Wildfire Protection Plan.

The issues most frequently mentioned during the public events are listed in the following table. Each issue is followed by a brief description of the types of comments expressed by participants. A list of proposed actions, including potential implementation partners for each of these CARS can be found in Resource A: Local Fire Agency Action Plans

Table 8-2 Topics and issues raised at Community Outreach Events

Topic	Gresham Butte/ Walters Hill	Corbett	Linnton	Holbrook	Skyline
1. Evacuation, Emergency Preparedness	Medium	Medium	High	High	High
2. Protection Capabilities	Low	High	Low	High	High
3. Backyard/ Agricultural Burning	Medium	High	Medium	Medium	Medium
4. Access Limitations	High	High	High	High	High
5. Transients/ Recreation	High	Medium	High	Low	High
6. Concerns about Adjacent Public Lands	High	Low	Medium	Medium	High
7. Water Availability	Low	High	Medium	High	Medium
8. Concerns about Neighboring Private Property	Low	Low	Low	Low	Medium

Wildfire Prevention & Community Involvement Action Items

The Wildfire Prevention and Community Involvement Subcommittee developed a complete listing of activities that could be implemented when time and resources are available. The actions have been split into two categories: Community Outreach (describing those actions that deal with direct community interaction) and Programmatic (articulating ideas for capacity building at the agency level). All action items were prioritized based on the number of CWPP Goals addressed, technical feasibility, necessity to complete other actions, current opportunities, and funding requirements.

Programmatic Action Items

1. **Develop consistent standards for defensible space and fire-resistant building materials in Multnomah County.**
    a. Use Firewise USA standards as the platform for discussion.

Timeline:	1 year
Lead:	Multnomah County Fire Defense Board (MCFDB)
Partners:	Local Fire Agencies, ODF, USFS, Fire Prevention Co-ops, PF&R Prevention Division, Multnomah County EM and POEM
Priority:	High
Progress:	

2. **Communicate standards for defensible space and fire-resistant building materials to primary decision makers and stakeholders in Multnomah County.**
    a. Develop educational materials designed to clearly communicate the standards.
    b. Work with Multnomah County Land Use and Building Departments to integrate defensible space and fire-resistant building materials into the regulatory process, where appropriate.
    c. Provide education to organizations that affect development decisions in communities at risk including Gorge Commission, Home Owners Associations, and developers to promote the use of fire resistant building materials and fire-resistant landscaping materials.

Timeline:	2 years
Lead:	Local Fire Agencies
Partners:	ODF, USFS, Fire Prevention Co-ops, Multnomah County Land Use and Building Departments, Gorge Commission, Home Owners Associations, and Developers, PF&R Prevention Division, Multnomah County EM and POEM
Priority:	High
Progress:	

3. **Encourage the Multnomah County Fire Defense Board to form a Fire prevention Cooperative or partner with regional Fire Prevention Co-ops to implement the actions outlined in the CWPP.**

Timeline:	Ongoing
Lead:	MCFDB
Partners:	ODF, USFS
Priority:	High
Progress:	

4. Identify funding opportunities through grant programs and philanthropic organizations.

a. Work with business and organizations that have supported CWPPs in the past and have funding to contribute: State Farm , Wal-Mart (must donate a certain amount of money every month per store), Rotary, etc.

b. Work with grant funders to gain support for projects such as the National Fire Plan and Western States Fire Manager's grants.

Timeline:	Ongoing
Lead:	Wildfire Technical Committee
Partners:	Local Chambers of Commerce Members, Businesses, etc.
Priority:	High
Progress:	

5. Implement a model Firewise and ecologically sound landscaping project at Portland Fire & Rescue Station 27 in Forest Park.

a. Work with project partners to develop landscape design.

b. Develop a self-guided tour with wildfire prevention messages using visual examples of how to balance ecological benefits while reducing wildfire risks.

c. Create virtual tours and utilize other social media tools that can be accessed on the internet.

d. Conduct an opening ceremony and promote the project through television, local newsletters, and neighborhood associations.

Timeline:	1 Year
Lead:	Portland Fire & Rescue, Wildfire Technical Committee
Partners:	Forest Park Conservancy, OSU Extension, ODF, Community Involvement Organizations
Priority:	High
Progress:	

6. **Encourage Communities at Risk to become certified Firewise Communities.**

Timeline:	Ongoing
Lead:	Local Fire Agencies
Partners:	ODF
Priority:	Medium
Progress:	

7. **Work with landowners in highly visible wildfire risk areas to provide temporary and permanent signage: State Parks, Metro, City Parks Depts., landowners.**

    a. Consider the "Wildfire Can Happen Here" signage TVF&R uses in Forest Park.

    b. Provide signage before, during and after defensible space projects have been completed.

Timeline:	Ongoing
Lead:	WTC
Partners:	TVF&R, ODF, Local Fire Agencies
Priority:	Low
Progress:	

Community Outreach Actions

8. **Develop a listing of outreach events that organizations and active citizen groups in Communities at Risk may be planning to identify opportunities to partner for outreach efforts.**

    a. Work with Fire Districts to determine what the citizen groups are and when they meet (i.e. Grange Halls, Farmers Markets, Churches, Fire District Open Houses, Neighborhood Associations)

Timeline:	1 year, Ongoing
Lead:	ODF
Partners:	Local Fire Agencies, Grange Halls, Farmers Markets, Churches, Fire District Open Houses, Neighborhood Associations, Lowes, Home Depot, Nurseries, Sauvie island Wildlife Preserve, Audubon Society, Forest Park Conservancy, Portland Parks and Recreation, World Forestry Center
Priority:	High
Progress:	

9. **Provide presentations to organizations that meet regularly and have high visibility in the community: Neighborhood Associations, Granges, Rotaries, Sierra Club, BARK, etc.**

a. Develop a kit that is easy to use and set up at partner events that can either be staffed or unstaffed: background display board, outreach materials, Smokey Bear paraphernalia)

b. Create a listing for a kit and where to buy it that is easy to use and set up at partner events that can either be staffed or unstaffed: background display board, outreach materials, Smokey Bear paraphernalia)

c. Identify a share point site where a listing of outreach materials (presentations, props, etc) are available as well as contact information for accessing the materials.

Timeline:	Ongoing
Lead:	Local Fire Agencies
Partners:	ODF
Priority:	High
Progress:	

10. Develop and distribute Wildland Urban Interface information to Communities at Risk.

a. Work with Firewise USA to obtain family-friendly wildfire prevention reading materials.

b. Develop and include a wildfire prevention DVD such as the one created by PF&R in 2008.

c. Partner with Fire Districts to identify and determine the best medium for communicating risk to the public.

d. Target distributions of materials to receptive audiences such as knock and talks with individual homeowners.

e. Offer free home assessments.

Timeline:	2 Years
Lead:	Local Fire Agencies
Partners:	Home Owners Associations, NEMCCA, ODF
Priority:	High
Progress:	

11. Utilize active community organizations' social media network to engage residents including electronic newsletters and links on websites.

Timeline:	Ongoing
Lead:	Local Fire Agencies
Partners:	ODF
Priority:	High
Progress:	

12. Promote the use of the 2-11 telephone information system to inform residents about what actions to take during wildfires and other emergencies.

Timeline:	Ongoing
Lead:	Local Fire Agencies
Partners:	ODF, MCEM
Priority:	High
Progress:	

13. Encourage and empower local fire districts to conduct community meetings by developing "plug and play" community meeting kits.

a. Include a power point presentation about localized major issues including access, water supply, fuels, and backyard burning.

b. Develop and include a WUI brochure detailing the Multnomah Community Wildfire Protection Plan, defensible space guidelines, and fire apparatus ingress and egress requirements.

c. Include the WUI Packets listed above.

d. Identify, purchase and include the best video for motivating people to become Firewise.

e. Provide a list of contact information for potential speakers as well as an inventory of available props and the process to access them.

Timeline:	1 Year
Lead:	ODF
Partners:	USFS, Fire Prevention Co-ops
Priority:	Medium
Progress:	

14. Partner with local businesses to build capacity.

a. Develop working relationships with businesses such as Ace Hardware, Lowes, Home Depot, Equipment Rental Companies to get their support for door prizes, equipment rental, etc.

b. Work with nurseries and garden centers to promote fire-resistant plants by setting up displays that include firewise information.

Timeline:	Ongoing
Lead:	Local Fire Agencies
Partners:	Local Chambers of Commerce, Lowes, Home Depot, Parr Lumber, Fred Meyer, Walmart, ODF, KOG, Oregon Association of Nurseries (OAN)
Priority:	Medium
Progress:	

15. Target a broader audience by engaging nontraditional partners such as organizations that hold "living sustainably" programs as well as the insurance and real estate industry.

Timeline:	Ongoing
Lead:	Local Fire Agencies
Partners:	Green Business Council, Metro, Portland Building Association, OAN, Portland Office of Sustainability
Priority:	Medium
Progress:	

16. Empower community leaders to remain engaged and continue to motivate the community.

a. Empower leaders through continued Firewise training.

b. Provide neighborhood packets containing wildfire prevention materials that can be distributed door to door.

c. Formally recognize community leaders (City Council or County Commissioner Meetings)

Timeline:	Ongoing
Lead:	Local Fire Agencies
Partners:	Home Owners Associations, Elected Officials
Priority:	Medium
Progress:	

17. Consider implementing a Firewise incentive contest to promote wildfire prevention messaging through television, newspaper and radio.

a. Partner with lifestyle, home improvement, and gardening TV shows and other Television affiliates to advertise the program.

b. Groom contest winners to lead community efforts to be Firewise.

Timeline:	Long-term
Lead:	Local Fire Agencies, ODF
Partners:	Lowes, Home Depot, Parr Lumber, Local television and radio stations.
Priority:	Low
Progress:	

18. Develop an effective outreach campaign to inform and educate homeowners about Oregon's Forestland-Urban-Interface Act (SB 360) when it takes effect in Multnomah County.

Timeline:	TBD
Lead:	ODF, Local Fire Agencies
Partners:	Community Involvement Groups
Priority:	Low
Progress:	

CHAPTER 9
STRUCTURAL IGNITABILITY & REGULATORY ALIGNMENT

A wildfire in Cascade Locks came close to burning many structures, including homes, in 2003.

CHAPTER 9: STRUCTURAL IGNITABILITY & REGULATORY ALIGNMENT

Structural Ignitability

Structural Ignitability deals with the home itself and its immediate surroundings; also known as the "Home Ignition Zone." The Home Ignition Zone includes the home and an area surrounding the home within 100-200 feet. Important factors for that either deter or promote Structural Ignitability include:

- **The Structure Itself:** roofing, roofing assembly, building materials and building setbacks on slopes
- **Defensible Space**: Distances 30-100 feet or more of fire resistant vegetation around homes
- **Fire Access:** Road, driveway and bridge width and condition

These factors are (or can be) addressed in the land use development or building process. The purpose of this action plan is to provide recommendations to enhance fire safety in local regulatory standards.

Structural Ignitability Objectives

I. Review rules/laws/guidance pertaining to wildfire planning, prevention, protection, and develop recommendations for improvements.

II. Coordinate and facilitate communication between County Land Use Planning, Building Departments and the local fire agencies.

III. Identify incentives for property owners to participate in fire prevention activities, including maintenance of defensible space, use of fire-resistant building materials, etc.

IV. Inform public about codes and ordinances related to wildfire prevention and solicit feedback from the public regarding recommended improvements.

Structural Ignitability Action Items

1. **Modify the current Multnomah County Land use Planning & RFPD brochure to reflect the minimum state fire code requirements to offer clarity to the applicant.**

Timeline:	1 Year
Lead:	Multnomah County Land Use Planning
Partners:	Fire Defense Board
Priority:	High
Progress:	

2. **Work with Multnomah County's Building Departments to include the local fire agencies to the list of stakeholders that must sign off before issuance of any building permits and approve prior to building permit final acceptance.**

Timeline:	1 Year
Lead:	Multnomah County Land Use Planning
Partners:	Fire Defense Board
Priority:	High
Progress:	

3. **Continue working with Multnomah County to allow alternative building construction and materials in areas unable to meet access and fire flow requirements.**

Timeline:	Ongoing
Lead:	Multnomah County Land Use Planning
Partners:	Fire Defense Board
Priority:	High
Progress:	

4. **Explore an Access Enforcement Program for the local fire agencies that would address heavy fuels or lack of maintenance render access roads unusable, the RFPD can require improvement.**

Timeline:	Ongoing
Lead:	Fire Defense Board
Partners:	Multnomah County Land Use Planning
Priority:	High
Progress:	

5. **Encourage Multnomah County Land Use Planning to meet individually with local fire agencies to establish relationships and articulate expectations.**

Timeline:	2 Years
Lead:	Multnomah County Land Use and Transportation
Partners:	Fire Defense Board, Gresham & Portland Building Depts.
Priority:	High
Progress:	

6. **Obtain structural ignitability data by conducting structural triage assessment (access, water, defensible space, building materials) with BPS units for homes in strategic planning areas.**

Timeline:	2 Years
Lead:	Oregon Dept.of Forestry
Partners:	Fire Defense Board
Priority:	High
Progress:	

7. **Work with CWPP partners to engage the Columbia Gorge Commission in discussions about the risk of wildfire, and the benefits of fire-resistant building materials and defensible space.**

Timeline:	2 Year
Lead:	Fire Defense Board
Partners:	Cascade Locks Fire, RFPD#14, USFS, SFMO, ODF, Multnomah County Land Use Planning
Priority:	High
Progress:	

8. **Implement road addressing and signage for emergency response and include the length of the driveway on the signs.**

Timeline:	Ongoing
Lead:	Fire Defense Board
Partners:	Fire Defense Board, ODF, Multnomah County Land Use Planning
Priority:	High
Progress:	

9. **Develop a program to offer no-cost wildland/urban interface evaluations for both new development and existing homeowners.**

Timeline:	5 Years
Lead:	Fire Defense Board
Partners:	Multnomah County Land Use and Transportation, ODF
Priority:	High
Progress:	

10. **Explore adoption of the Wildland Interface Code in the WUI to require primary and secondary fuels reduction and fire resistive building materials.**

Timeline:	Long Term
Lead:	Fire Defense Board
Partners:	Multnomah County Land Use and Transportation
Priority:	Medium
Progress:	

11. **Map all roads, bridges and driveways in the Local Communities at Risk and prioritize homes that have dead-ends, and cannot support emergency service vehicles (grade, length, vegetation, turn-arounds) for defensible space and fuels reduction projects.**

Timeline:	5 Years
Lead:	Multnomah County Emergency Management & Fire Defense Board.
Partners:	Multnomah County Land Use and Transportation, City/County Road Depts.
Priority:	Medium
Progress:	

12. **Inventory private bridges, determine whether or not they have had an engineer certification and develop a system to track required 5-year engineer inspections.**

Timeline:	5 Years
Lead:	Local Fire Agencies
Partners:	Multnomah County Land Use and Transportation, City/County Road Depts.
Priority:	Medium
Progress:	

Structural Ignitability Current Policies and Programs

Many of the State of Oregon codes, rules, and laws pertain to wildfire prevention, protection, and suppression during the course of their discussions. Following are brief summaries of some of the primary ones that were reviewed by the SIPP Committee while developing their recommendations and actions.

Oregon Administrative Rule 837, Division 40 adopts the Oregon Fire Code. The 2010 Oregon Fire Code is a statewide minimum fire code. Local fire agencies may adopt and amend the state code as long as modifications are more stringent to meet their equipment needs. It establishes minimum requirements consistent with nationally recognized practices for providing a reasonable level of life safety and property protection as well as providing for the safety of firefighters and emergency responders during emergency operations.

Oregon Revised Statute 476 "State Fire Marshal; Protection from Fire Generally" establishes the office of State Fire Marshal and authorizes rulemaking for protection from fire. It address issues including investigation and reporting of fires, fighting fires, and recovery of firefighting costs in unprotected areas, establishes the Conflagration Act, establishes the Governor's Fire Service Policy Council, and establishes a fire protection equipment loan fund, along with other miscellaneous provisions.

Oregon Revised Statute 477 "Fire Protection of Forests and Vegetation" covers the responsibilities of the state for wildland fire prevention and protection operations, primarily through the Oregon Department of Forestry. It establishes forest protection districts for lands where ODF provides wildfire protection and explains what that protection entails, including declaration and enforcement of fire season, restrictions and requirements for use of machinery, disposal of slash, smoke management, and other issues. It also implements the Oregon Forestland-Urban Interface Fire Protection Act of 1997 (Senate Bill 360), ratifies the Northwest Fire Protection Agreement for mutual aid and interagency cooperation, outlines procedures for establishing cooperative contracts or agreements with private entities for providing fire protection, and establishes the Oregon Forest Land Protection Fund to pay for wildfire suppression.

Oregon Revised Statute 478 "Rural Fire Protection Districts" covers all aspects of rural fire protection districts, from their formation, powers and duties, benefits for employees and volunteers, revenues and finances, fire prevention code and permits, district identification, and penalties for violation.

Oregon Statewide Land Use Planning Goals

Please refer to Chapter 1 of this document for a discussion of Goal 4: Forest Lands and Goal 7: Areas Subject to Natural Hazards. The County's Commercial Forest Use zones (CFU-1, CFU-2, CFU-3, CFU-4, CFU-5, CFU) implement Statewide Goal #4 Forest Lands. In addition, properties subject to natural hazards are protected by the County's Hillside Development and Flood Development ordinances.

Senate Bill 360: The Oregon Forestland-Urban Fire Protection Act of 1997

Please refer to Chapter 1 of this document for a discussion of Senate Bill 360. The Wildfire Planning Steering Committee acknowledged that while SB 360 is not currently being implemented in Multnomah County, efforts should be made to incorporate SB 360 requirements where possible into wildfire prevention educational materials and guidelines in anticipation of future implementation.

The Conflagration Act

The Conflagration Act (ORS 476.510) was developed in 1940 as a civil defense measure and can be invoked only by the Governor. The act allows the State Fire Marshal to mobilize firefighters and equipment from around the state and provides for the funding of resources through state funds. The Conflagration Act is only used for fires that involve or threaten life and structures. It has been invoked more frequently in other areas of the state due to the increase of wildfires in urban and rural interface areas. More information about the Conflagration Act can be found at http://egov.oregon.gov/OOHS/SFM/Emergency_mobilization.shtml.

Unprotected Areas Policy

In 2004, the Governor's Fire Service Policy Council convened a task force to discuss the issue of areas that are vulnerable to wildfire but are without publicly-funded protection. State firefighting actions on these lands are made possible only after the Governor invokes the Conflagration Act.

The task force agreed that protection should be provided only if the county is 1) completing a community wildfire protection plan; 2) has adopted the Department of Land Conservation and Development's Goal 4 requiring fire defense standards for new construction in forest zones; and 3) is changing property tax statement language for ODF assessment from "fire protection" to ODF "non-structural fire suppression" so homeowners and insurers are not lead to believe they have structural fire protection.

There are approximately 92,864 acres of structurally unprotected lands in Multnomah County, with the majority (88,379 acres) is located in the eastern part of the county and includes the USFS Columbia River Gorge national Scenic Area and the Mount Hood National Forest. The most vulnerable unprotected residential community in Multnomah County is Warrendale & Dodson. This community includes about 200 structures and is located along Interstate 84, which is the only East/ West Interstate Freeway in Oregon. Warrendale & Dodson has some of the most extreme wildfire hazards due to the heavy fuels on adjacent USFS lands, steep slopes, east winds, and potential ignition sources from I-84 and the railroad. For more information on unprotected areas, please see Resource A-7. Community at Risk: Structurally Unprotected Areas.

The Oregon Department of Forestry (ODF) and United States Forest Service provide wildland fire protection but their scope is limited to forest protection, not rescue or structure fire protection. In addition, it would take these wildland fire agencies over twenty minutes to respond to a wildland fire in this area. As a result, all homeowners and travelers are at risk of a long delay if fire were to occur. For more information on the unprotected areas in Multnomah County, please see Resource A-7. Community at Risk: Unprotected Multnomah County.

Multnomah County Land Use Planning

The Multnomah County's zoning ordinances (Chapters 33, 34, 35, 36 & 38) were enacted to implement the goals and policies of its Comprehensive Plan and related rural area plans for the West Hills, Sauvie Island/Multnomah Channel, East of Sandy River, West of Sandy River and Columbia River Gorge National Scenic Area. In addition, the County's Chapter 29 provides development requirements for fire apparatus access and fire flow as specified in the Oregon Fire Code (OFC).

Existing development

- All proposed development must be reviewed by the Rural Fire Protection District (RFPD) for compliance with the Oregon Fire Code. It is up to the RFPD to determine what is required for the development and give comments regarding these improvements. Planning uses this information to ensure that property owners propose construction that will meet the OFC and zoning requirements. Enforcement is via RFPD and Building Officials.
- In the Commercial Forest Use zones, a primary fire safety zone may be required depending on the size of the addition (over 400 sq. ft.). Primary fire safety zones are required for all new accessory structures within 100 ft of the dwelling. Accessory structures to be established further than 100 ft away from the dwelling must provide primary and secondary fire safety zones.

Development of an existing lot

- All new development in unincorporated Multnomah County is required to be reviewed by the appropriate RFPD for the property and must meet the OFC as determined by the fire official. For unprotected properties, the building official will determine compliance with the Oregon Fire Code for fire flow and access.

- In the Commercial Forest Use zones, if a property owner is replacing a dwelling, and the proposed location is further than 100 ft from the existing homesite, the primary and secondary fire safety zones are required. Reduction to the secondary fire safety zone is only authorized if the dwelling meets either Class I or II Ignition-Resistant Construction standards listed in the International Fire Code Institute Urban-Wildland Interface Code depending on the variance requested.
    - For a property owner requesting to reduce the required secondary fire safety zone for a new structure or dwelling, an Exception to the Secondary Fire Safety zone must be applied for. If the proposed secondary fire safety zone for a new dwelling or accessory structure is between 50 and 100 feet, the Class II Ignition-Resistant Construction standards must be met and the building must have a central station monitored alarm system. To reduce the secondary fire safety zone between 50 and 0 feet for a dwelling, a central station monitored 13D sprinkler system is required.
    - Many new buildings in the Commercial Forest Use zones are required to have a fire retardant roof and a spark arrester on each chimney.
- In the National Scenic Area, to construct a building on a property zoned Gorge General Forestry (GGF) or Gorge Special Forestry (GSF), the following standards must be met:

MCC 38.7305 FIRE PROTECTION IN FOREST ZONES

(A) All buildings shall be surrounded by a maintained fuel break of 50 feet. Hazardous fuels shall be removed within the fuel break area. Irrigated or fire resistant vegetation may be planted within the fuel break. This could include green lawns and low shrubs (less than 24 inches in height). Trees should be spaced greater than 15 feet between the crowns and pruned to re-move dead and low (less than 8 feet) branches. Accumulated leaves, needles, and other dead vegetation shall be removed from beneath trees.

(B) Buildings with plumbed water systems shall install at least one standpipe a minimum of 50 feet from the structure.

(C) For properties located outside of a fire district, a pond, stream, tank or sump with storage of not less than 1,000 gallons, or a well or water system capable of delivering 20 gallons per minute shall be provided. If a well pump is located on-site, the electrical service shall be separate from the dwelling.

(D) Access drives shall be constructed to a minimum of 12 feet in width and not exceed a grade of 12 percent. Turnouts shall be provided at a minimum of every 500 feet. Access drives shall be maintained to a level that is passable to fire equipment. Variances to road standards may be made only after consultation with the local rural fire district and the Oregon Department of Forestry.

(E) Within one year of the occupancy of a dwelling, the Planning Director shall conduct a review of the development to assure compliance with these standards.

(F) Telephone and power supply systems shall be underground whenever possible.

(G) Roofs of structures should be constructed of fire-resistant materials such as metal, fiberglass shingle or tile. Roof materials such as cedar shake and shingle should not be used.

(H) Any chimney or stovepipe on any structure for use with a woodstove or fireplace should be screened with no coarser than 1¼ inch mesh metal screen that is noncombustible and corrosion resistant and should be equipped with a spark arrestor.

(I) All structural projections such as balconies, decks and roof gables should be built with fire resistant materials equivalent to that specified in the Uniform Building Code.

(J) Attic openings, soffit vents, foundation louvers or other ventilation openings on dwellings and accessory structures should be screened with no coarser than 1¼ inch mesh metal screen that is noncombustible and corrosion resistant.

- In the National Scenic Area, the Gorge General Forestry (GGF) or Gorge Special Forestry (GSF) zones require that a new dwelling be located to minimize the risks associated with fire. Dwellings should be located on gentle slopes and in any case not on slopes which exceed 40 percent. Narrow canyons and draws should be avoided. Dwellings should be located to minimize the difficulty in gaining access to the structure in the case of fire. Dwellings should be located to make the access roads as short and flat as possible.

CHAPTER 10
SUSTAINING EFFORTS, MONITORING AND EVALUATION

"Additional consideration should be given to establishing an assessment strategy for the CWPP to ensure that the document maintains its relevance and effectiveness over the long term."

-Preparing a Community Wildfire Protection Plan, HFRA

CHAPTER 10: SUSTAINING EFFORTS, MONITORING AND EVALUATION

Sustaining Fire Plan Efforts

The development of the Multnomah County Community Wildfire Protection Plan (MCWPP) has been a strategic planning effort involving over thirty different agencies. Although the planning effort was complex, implementing and sustaining these efforts will be even more challenging. Building a collaborative and cooperative environment between community-based organizations, fire districts, local government, and the public land management agencies has been the first step in identifying and prioritizing measures to reduce the risk of wildland fire. Maintaining this cooperation with the public is a long-term effort that requires commitment of all partners involved.

The purpose of this MCWPP monitoring plan is to track implementation of activities and evaluate how well the goals of the MCWPP are being met over time. Monitoring measures progress over time in order to determine how well objectives are being met. The data collected will provide information on the status and trends of the MCWPP. The monitoring strategy provides a way for the County to be accountable to the public for the outcomes of the MCWPP.

MCWPP Oversight: Wildfire Technical Committee

After a series of wildfires in North Portland in 2001 and 2002, the City updated the Portland Natural Hazards Mitigation Plan and successfully obtained a $1.3 million FEMA funded Natural Hazard Mitigation Grant in 2006. During the next four years, a core group of City of Portland Bureaus (Emergency Management, Fire & Rescue, Parks & Recreation, and Environmental Services) prepared/delivered wildfire education information and reduced hazardous fuels in selected natural area parks (Forest Park, Powell Butte and along the Willamette Escarpment).

In 2009 the Portland City Council directed the City staff to form a City Wildfire Technical Committee (WTC) to implement the Action Plan of the City's *Wildfire Readiness Assessment*: *Gap Analysis Report (*2009)[10] and manage future wildfire mitigation and fuels reduction projects associated with the Portland Natural Hazards Mitigation Plan. After the FEMA Wildfire Mitigation Grant ended in 2010 the WTC began broadening their focus to take a more inclusive, county-wide approach to wildfire mitigation by assisting to develop the Multnomah County Community Wildfire Protection Plan (MCWPP). Oregon Department of Forestry provided overall planning facilitation, and the WTC transitioned into a Wildfire Planning Steering Committee.

The Wildfire Planning Steering Committee engaged some new partners including Metro, the Columbia Gorge National Scenic Area, the Mount Hood National Forest and the Bureau of Land Management. In addition, some members of the WTC were assigned to technical subcommittees, including Portland Bureau of Environmental Services, Portland Bureau of Planning and Sustainability.

Multnomah County Office of Emergency Management will oversee MCWPP implementation with the assistance of the Wildfire Technical Committee. The core members of the Wildfire Technical Committee (WTC) will provide guidance for planning, implementation, and monitoring. In addition, members of the MCWPP Subcommittees will be called upon as technical advisors for

[10] See www.portlandonline.com/wildfire

project planning and implementation. The Wildfire Technical Committee will convene on an as-needed basis (at least quarterly). Below, please find a listing of the WTC members and potential technical advisors.

Wildfire Technical Committee (WTC)

Portland Fire and Rescue (PF&R)
Portland Parks and Recreation City Nature (PP&R)
Portland Office of Emergency Management (POEM)
Portland Water Bureau (PWB)
Portland Environmental Services (BES)
Portland Planning and Sustainability (BPS)
Multnomah County Emergency Management
Oregon Dept. of Forestry
Metro

Technical Advisors

East Multnomah Soil and Water Conservation District
West Multnomah Soil and Water Conservation District
Multnomah County Office of Citizen Involvement
City Parks and Natural Resources Depts.
Portland Office of Finance & Management
Portland Police Bureau
Portland Office of Neighborhood Involvement
Columbia Gorge National Scenic Area
Mount Hood National Forest

Specific Duties:

- **Facilitation & Administration:** *Multnomah County Office of Emergency Management and the Wildfire Technical Committee*
  - ✓ Responsibilities: convene the committee, develop agendas, coordinate subcommittee participation, act as a liaison for fire districts, facilitate the annual review
  - ✓ Responsibilities: schedule meeting times and locations, take minutes and provide updates, assist in updating the MCWPP.
- **Fire Defense Board Coordination:** *City of Portland Fire and Rescue*
  - ✓ Responsibilities: act as liaison with the Fire Defense Board members, attend Fire Defense Board meetings and report on WTC activities
- **MCWPP Annual and 5-Year Updates:** *Multnomah County Office of Emergency Management*
  - ✓ Responsibilities: develop progress report questionnaire and send it to all participating agencies annually, incorporate all feedback and map revisions into the MCWPP within 3 months, coordinate 5-year update with the natural Hazards Mitigation Plan update process.
- **Meeting Schedule:** The WTC will meet on an as-needed basis, with meetings occurring at least quarterly.

MCWPP Updates &Natural Hazards Mitigation Plan Coordination

Multnomah County Emergency Management will house, update and maintain the MCWPP, including the maps associated with the Risk Assessment and Fuels Reduction projects. In an effort to ensure that the MCWPP remains a relative and dynamic document, MCEM will request an annual progress report from members of the Wildfire Technical Committee and the Fire Defense Board, and will update action plans, maps and the narrative as needed.

Natural Hazard Mitigation Plans (NHMP) and Community Wildfire Protection Plans require an update at least every 5 years. Portland completed a NHMP update in 2010, and Multnomah County is completing theirs in 2011. The CWPP update will occur with the next round of NHMP updates.

The 5-year CWPP review will include documentation of completed projects, lessons learned from project implementation, revisions of each section submitted by subcommittees, and any other changes that are deemed necessary. Throughout plan implementation, the MCWPP may be amended to reflect new information that can assist in project prioritization and more effective implementation strategies. Annual progress reports and the 5-year review will be instrumental in creating a functional and effective MCWPP and will include the project monitoring and adaptive management principles described below.

MCWPP Monitoring

Monitoring is the regular collection and analysis of information to assist with decision-making, ensure accountability, and provide the basis for evaluation and learning. It is a continual process that uses the methodical collection of data to provide project managers and stakeholders with early indications of a program or project's progress and the achievement of objectives. The WFPEC will engage in the following types of monitoring to ensure that the MCWPP is being implemented effectively:

- Implementation Monitoring: Evaluates whether we have been successful in implementing our program. Questions we might ask are: Was the fuels reduction program carried out according to specifications?
- Effectiveness Monitoring: Evaluates whether our actions are helping us to meet our objectives. This monitoring is specifically designed to answer the questions: Did the fuels reduction treatment provide the planned protection? Have the objectives of MCWPP been met and if not, why? Is the MCWPP effective in achieving its goals?
- Verification Monitoring: Evaluates whether our objectives helped to meet broad MCWPP goals. Did our actions lead to the outcomes we expected?

Adaptive Management

Adaptive management is a process of learning from our management actions. As applied to the MCWPP, it involves implementing an approach to current projects, monitoring and analyzing the effects of that approach, and then incorporating these findings into the next round of projects. At the end of each project (or monitoring period), the following questions will be asked:

- Were the mitigation measures implemented as planned?
- What went right and what went wrong?
- Are there opportunities for improvement?
- Were objectives met?
- Were the mitigation measures effective at protecting the resources?
- If the mitigation measures successfully protected the resources, were they overprotective and did they place unnecessary constraints on the ability to accomplish project objectives?

MCWPP Adoption

In accordance with the Healthy Forest Restoration Act, the MCWPP must be approved by the local fire agencies (the Fire Defense Board), governing body (the Board of Multnomah County Commissioners), and agencies responsible for forest management (USFS, BLM, ODF). In July, 2011 the Multnomah County Community Wildfire Protection Plan was accepted by the Board of Multnomah County Commissioners, the Multnomah Fire Defense Board Chief, the United States Forest Service, and the Oregon Department of Forestry.

In addition, the Wildfire Technical Committee will present the MCWPP, and specifically, the Portland Fire & Rescue CWPP Action Plan as the guiding document for the Council-appointed Wildfire Technical Committee in the Fall of 2011.

Continued Fire District and Community Involvement

The Wildfire Technical Committee is committed to supporting fire departments/districts in local plan action plan implementation by participating in and publicizing community meetings, partnering on fuels reduction and emergency operations action items, and providing technical assistance as needed. Community outreach efforts will be focused in the areas that are at highest risk from wildfire.

Plan Distribution

Hard copies of the MCWPP will be provided for each fire dept/district, the Multnomah County Board of Commissioners, and selected members of the Wildfire Technical Committee. Plan recipients will receive notifications of updates that can be downloaded from the websites listed above.

The MCWPP will be available for download from:

- Multnomah County: (http://web.multco.us/),
- ODF: http://www.oregon.gov/ODF/FIELD/MOLALLA/aboutus.shtml),
- Mount Hood National Forest: www.fs.fed.us/r6/mthood/.

RESOURCE A: COMMUNITY AT RISK ACTION PLANS

The Multnomah County MCWPP further refines the ODF Communities-At-Risk by considering common service boundaries for fire protection. This improves upon the ODF listing of CARS because it reduces redundancy and organizes communities into more functional units.

Multnomah County has 3 Incorporated Fire Districts and 6 Rural Protection Fire Districts that cover unincorporated Multnomah County. These fire districts collect taxes and either hire staff (usually very much supplemented by volunteers) or contract for services through the larger adjacent Fire Districts.

MCWPP Communities-at-Risk in Multnomah County (Map #2)

A-1. Gresham Fire
A-2. Corbett RFPD #14
A-3. Portland Fire & Rescue
A-4. Sauvie Island RFPD # 30
A-5. Scappoose RFPD
A-6. Tualatin Valley Fire & Rescue
A-7. Unprotected Areas
RFPD #10 (covered in A-1.Gresham Fire)
RFPD # 1 (covered in A-3. Portland Fire &Rescue)
RFPD # 60 (covered in A-3. Portland Fire &Rescue and the Clackamas CWPP)

Although each fire agency in Multnomah County is considered a Community at Risk, wildfire hazards vary within fire district boundaries, as most districts/depts. encompass a variety of communities that have very different development patterns, vegetation types, and protection capability. Local fire agency personnel identified 57 areas that were at particular high risk to wildfire and are considered *Local Communities at Risk.*

Resource A: Communities at Risk Action Plans includes the following:

- Overall Wildfire Hazard Map
- Local Communities at Risk Map
- Listing of Communities at Risk
- Action Plans to address the needs of the Fire Agency and the smaller-scale Communities at Risk

CAR Action Plans

The CWPP is a non-regulatory document with no funding associated with it. Therefore, the action items are to be completed as time and resources allow. The proposed actions are arranged by priority, which was determined with input from the fire agency staff and local community members. Each action includes a listing of potential partners. The actions are given a target timeline for completion: Short-Term~1-2years; Long-Term ~3-5 years or longer, and implementation is largely dependent on securing funding for staff and resources.

A-1. Community at Risk: City of Gresham Fire & Emergency Services

Gresham Fire and Emergency Services (GFES) has been identified as a Community at Risk (CAR) by Oregon Department of Forestry. Gresham Fire & Emergency Services provides structural fire protection and emergency medical services for areas within Gresham, Wood Village, Fairview, and Troutdale, as well as the unincorporated area of Multnomah County Fire Protection District #10. GFES has participated in the Multnomah County Wildfire Protection Plan (CWPP) planning process to evaluate capabilities to prevent, prepare for and respond to potential wildfire events in the areas for which they provide fire services.

Gresham Wildfire Hazards

The Multnomah CWPP wildfire hazard assessment assisted the GFES in identifying areas that may be at higher risk to potential wildfires. Map # 11 illustrates the overall wildfire hazard risk in the Gresham area and will be used to help target areas for wildfire prevention activities.

Local Communities at Risk

Gresham Fire & Emergency Services also recognizes that there are smaller-scale Communities at Risk that have unique wildfire hazards to be addressed at a more local scale. Communities that have been identified as being particularly vulnerable to wildfires are illustrated in Map #11 and listed in Table A-1.1. Gresham Fire Staff considered the following factors to determine the local CARs including:

- Need for defensible space
- Access limitations (narrow driveways, lack of address signage, one way in/one way out)
- Steep slopes that can hinder access and accelerate the spread of wildfire
- Lack of water available for wildland fire fighting
- Heavy fuels on adjacent public lands
- Potential ignition sources from recreationists and transients
- Agricultural and backyard burning
- Lack of community outreach programs to promote wildfire awareness
- Communications difficulties

Gresham Fire& Emergency Services Action Plan

Gresham Fire Emergency Services has developed a list of actions to build capacity at the Department level and has identified actions that can help to make the local CARS more resilient to potential wildfires. The action plan for GFES and the local CARs therein is provided in Table A-1.2.

Gresham Fire& Emergency Services CWPP Community Involvement

Multnomah County initiated community involvement and public outreach events for the highest priority Communities at Risk in each Fire Department/District in Multnomah County. The community meeting in Gresham was held for the Gresham Butte/Walters Hill Community and had two primary objectives: to gather information from the public about their wildfire concerns and to share information about the fire plan and living with wildfire.

Gresham Butte/Walters Hill Community Wildfire Meeting

Date: April 11th, 2011 from 7:00pm-9:00pm

Location: Gresham City Hall

Attendance: 25residents

Facilitators:

- **Gresham Fire & Emergency Services Department:** Chief Scott Lewis, Senior Deputy Fire Marshal Kim Coxen
- **ODF:** Chris Paul, Cindy Kolomechuk
- **City of Gresham Emergency Management:** Kelle Landavazo

Meeting Description

This event was conducted in the form of an evening meeting and hosted by the Gresham Butte Neighborhood Association, during their monthly meeting time. Chief Scott Lewis opened the meeting and provided introductions. Cindy Kolomechuk provided an overview of the Multnomah County Fire Planning process. Sr. Deputy Fire Marshal Kim Coxen discussed wildfire hazards in the Gresham Butte/Walters Hill Neighborhood and introduced the measures that landowners have to be more prepared for wildfires. Chris Paul then gave a more in depth description regarding the types of fire-resistive building materials to use, how to effectively create defensible space, and how to provide adequate access. Kelle Landavazo then discussed tips for being prepared for wildfires as well as other potential hazards in this area.

Information Gleaned from Community

Community members were asked to provide input regarding their perceptions of wildfire risk and rank the highest priority issues in their neighborhood (Table A.3 Wildfire Concerns in the Gresham

Butte/Walters Hill CAR). GFES has developed a series of action items (Table A.2 Gresham Action Plan) to address these and other potential wildfire hazards in the Communities at Risk in their service area.

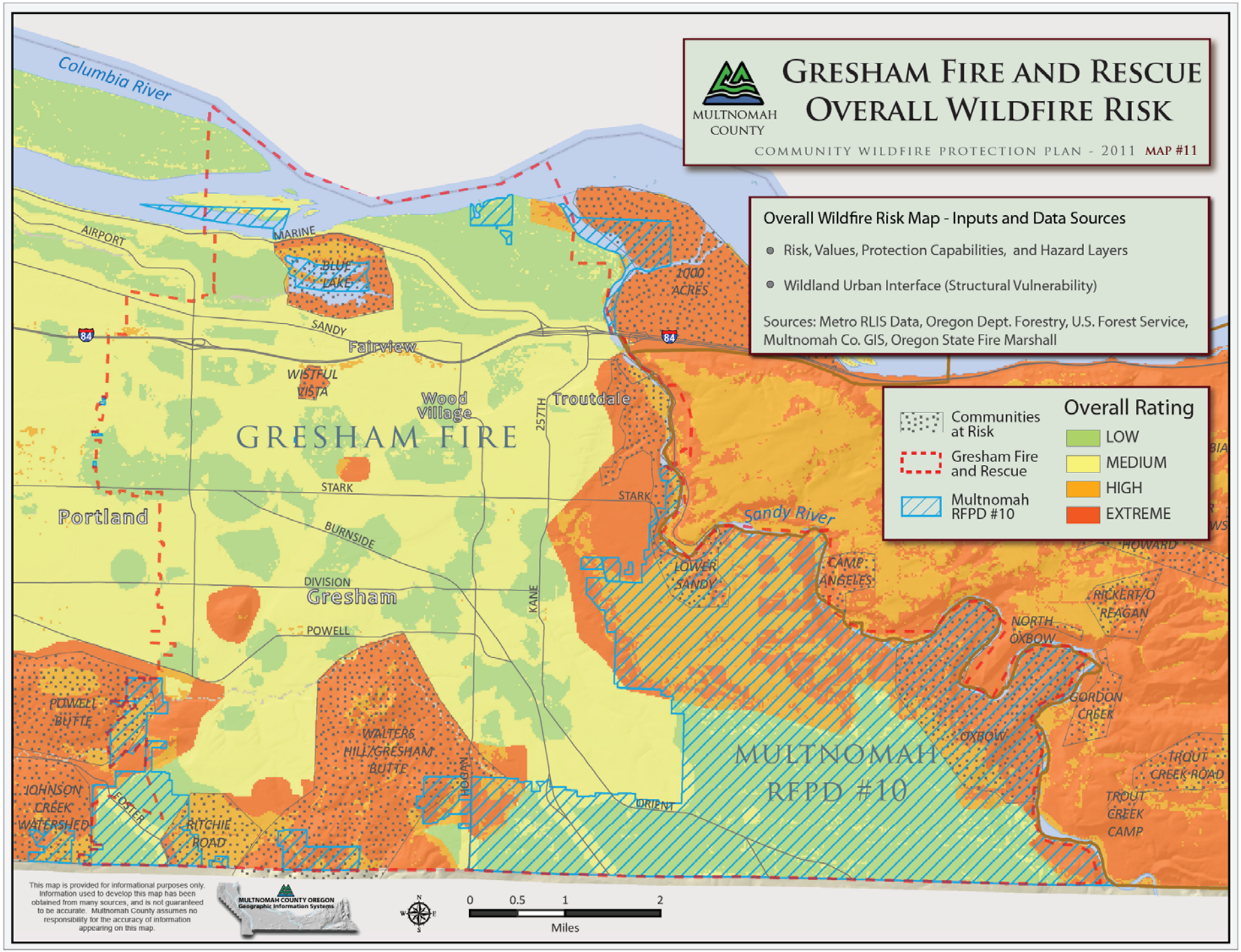
The highest priority issue was concern about the transient population along Johnson Creek. This presents a potential ignition source for wildfires, as the transients frequently have camp fires, smoke cigarettes, and light fireworks. The community believes the transient population presents an additional public safety issue, as many children use the pathway along transient camps to get to school.

Residents are also concerned about the steep, narrow driveways that characterize their neighborhood. Kim Coxen mentioned how difficult evacuation can be on these roads if people are trying to leave while emergency vehicle are trying to respond.

The other major issue identified was a concern about fuels loading on adjacent public lands. The majority of public land in this area is owned and managed either by the City of Gresham Parks Department or Metro. Both agencies participated in this CWPP planning process and have identified fuels reduction projects that will be accomplished when time and resources are available.

Table A-1.3 Wildfire Concerns in the Gresham Butte / Walters Hill CAR

Topic	Gresham Butte/ Walters Hill
1. Local Ingress and Egress	High
2. Transients/ Recreation	High
3. Concerns about Adjacent Public Lands	High
4. Evacuation, Emergency Preparedness	Medium
5. Backyard Burning	Medium
6. Protection Capabilities	Low
7. Water Availability	Low
8. Concerns about Neighboring Private Property	Low


MULTNOMAH COUNTY
GRESHAM FIRE AND RESCUE
OVERALL WILDFIRE RISK
COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #11
Overall Wildfire Risk Map - Inputs and Data Sources
Risk, Values, Protection Capabilities, and Hazard Layers
Wildland Urban Interface (Structural Vulnerability)
Sources: Metro RLIS Data, Oregon Dept. Forestry, U.S. Forest Service, Multnomah Co. GIS, Oregon State Fire Marshall
Communities at Risk
Gresham Fire and Rescue
Multnomah RFPD #10
Overall Rating
LOW
MEDIUM
HIGH
EXTREME
Columbia River
AIRPORT
MARINE
BLUE LAKE
1000 ACRES
SANDY
Fairview
WISTFUL VISTA
Wood Village
GRESHAM FIRE
257TH
Troutdale
STARK
Portland
BURNSIDE
DIVISION
Gresham
KANE
POWELL
Sandy River
LOWER SANDY
CAMP ANGELES
HOWARD
RICKERT/O REAGAN
NORTH OXBOW
GORDON CREEK
OXBOW
TROUT CREEK ROAD
TROUT CREEK CAMP
MULTNOMAH RFPD #10
POWELL BUTTE
WALTERS HILL/GRESHAM BUTTE
JOHNSON CREEK WATERSHED
FOSTER
RITCHIE ROAD
HOGAN
ORIENT
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MULTNOMAH COUNTY OREGON Geographic Information Systems
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Table A-1.1 Gresham Fire and Emergency Services Communities at Risk

Community At Risk	CAR Priority	Defensible Space	Access	Water	Public Lands	Recreators/ Transients	Agricultural/ Backyard Burning	Community Outreach	Communications	Steep Slopes	Description
City of Gresham Fire & Emergency Services											
Walters Hill/ Gresham Butte	High	X	X	X	X	X		X		X	The Walters Hill area extends from Telford Road southwest, crossing the Multnomah /Clackamas County border. This is a high priority area for wildfire prevention activities because it is characterized by heavy fuels and steep slopes that restrict access. Some roads are one way in-one way out. High-end development is intermixed throughout the area and there is limited water supply for fighting a potential wildfire. Ambleside Road is particularly at risk because there is a bridge here that cannot support emergency service vehicles, water supply is very limited, and it is adjacent to Metro's green space. The residents are likely not aware of the high wildfire risk in their community. This level of hazard coupled with exposure makes this CAR an excellent place to target for community outreach and other prevention efforts.
Oxbow Parkway	High	X	X	X	X	X		X	X	X	This area is a high priority area for prevention efforts because it is difficult to access, there are heavy fuels and steep slopes, and the homes are in a canyon that presents communications issues. In addition, it is a high use recreation area that increases potential wildfire ignition sources. In 2001, Gresham Fire completed a Structural Protection Plan that articulates water supply needs, response tactics and resources needed for each of the following neighborhoods: Homan Road, Oxbow Parkway, Hosner Terrace, Francis Street, Camp Collins and Oxbow Park. Structural triage was also completed for this area in 2001. The community has neighborhood associations that meet regularly and are well-organized.
Lower Sandy River Bend	High	X	X	X	X	X	X	X		X	This Community is a heavily vegetated residential area adjacent to the Sandy River. It is characterized by steep slopes, heavy fuels, poor access and limited water supply. The area includes Jackson Park Road, Sandy Dell and Wilson Road, which all provide only one way in and one way out for residents. Sandy Dell is a gravel road, presenting additional difficulties for emergency service vehicles and Wilson road is extremely steep. There is no organized community structure and likely, not much awareness of potential wildfire hazards.
Wistful Vista	Medium	X	X					X			This community is characterized by heavy fuels and restricted access. Wistful Vista Road is the only way in and out. Although the surrounding areas are highly urbanized, this area has a great deal of vegetation surrounding the community. Due to the adjacent urban areas, the homeowners probably have a false sense of security regarding wildfire hazards.
Ritchie Road	Low						X				This is a unique community at risk, as it is characterized by agricultural lands with residential properties intermixed. The nurseries in the area have special provisions to burn large quantities of woody debris, and many homeowners are concerned about the potential of embers reach their homes, escaped fires, and smoke abatement.
Blue Lake	Low	X	X		X		X	X			Blue Lake is a recreational areas that is managed by Metro. The residential area around Blue Lake is concentrated along Interlachen Road which provides only one way in and one way out. Many of the homes along Interlachen Road are high-end and have cedar shake roves. The residential area is adjacent to grassland that dries out significantly in summer months and provides ample fuel to start a wildfire. The dry grasslands coupled with exposure and potential ignition sources from residential development and the recreationists that use Blue Lake make it a Community at Risk.

Table A-1.2 Gresham Fire and Rescue Communities At Risk Action Plan

Action Item	Timeframe	Partners	CAR
City of Gresham Fire & Emergency Services Overall Action Plan			
Work with Oregon Department of Forestry to acquire funding to enroll structural firefighters in wildland training to support initial attack activities.	Short Term	ODF	City of Gresham Fire & Emergency Services
Work with the City of Troutdale to adopt Gresham Fire & Emergency Services standards for backyard burning.	Short Term	City of Troutdale, DEQ	City of Gresham Fire & Emergency Services
Address communications and interoperability issues that could reduce efficiency and effectiveness of wildfire response efforts.	Ongoing	Gresham Emergency Management, Portland Bureau of Emergency Communications	City of Gresham Fire & Emergency Services
Maintain and/or restore staffing levels for fire suppression and training.	Ongoing	City of Gresham Administration and City Council	City of Gresham Fire & Emergency Services
Gresham Local Communities At Risk Action Plan			
Conduct a Community Meeting to educate community on defensible space, and measures that can be taken to reduce structural ignitability. Solicit feedback on wildfire prevention projects the community would support.	Spring 2011/ Spring 2012	ODF, CWPP Outreach Subcommittee	Walters Hill/Gresham Butte Oxbow Parkway
Develop a local wildfire prevention campaign to promote defensible space and reduce structural ignitability within the Home Ignition Zone	Annually	ODF, CWPP Outreach Subcommittee	All
Obtain structural ignitability data by conducting structural triage assessment data collection (including GPS points) for homes in strategic planning areas.	Short Term	ODF, Wildfire Technical Committee	All
Develop a community-driven pre-disaster plan including evacuation routes, telephone call down trees, and other strategies for strengthening community response.	Short Term	Gresham Emergency Management	All
Map all roads, bridges and driveways and prioritize homes that have dead-ends, and cannot support emergency service vehicles (grade, length, vegetation, turn-arounds) for defensible space and fuels reduction projects.	Long Term	City of Gresham	All
Implement road addressing (including length of driveways) and other signage for emergency response.	Short Term	Gresham Police, Gresham Emergency Management	All
Partner with managers of forested areas to reduce hazardous fuels in natural areas surrounding strategic planning areas.	Ongoing	Metro, City of Gresham Department of Environmental Services	All
Seek grant funding to support fuels reduction and creation of defensible space around homes. Consider developing a cost-share program to support these activities.	Ongoing	ODF, Wildfire Technical Committee	All
Identify opportunities for community debris disposal collection sites that recycle or compost vegetative material vs. burning.	Ongoing	ODF, Wildfire Technical Committee	All
Work with Sheriff's Office to patrol the area to reduce transient camps.	Ongoing	Gresham Police, Gresham Emergency Management	All
Update the 2001 Oxbow Parkway Structural Protection Plan.	Short Term	ODF, Gresham Emergency Management	Oxbow Parkway

A-2. Community at Risk: Multnomah Co. RFPD #14 (Corbett)

Multnomah County Rural Fire Protection District #14 (MCRFPD #14) has been identified as a Community at Risk (CAR) by Oregon Department of Forestry. The District has participated in the Multnomah County CWPP planning process to evaluate capabilities to prevent, prepare for and respond to potential wildfire events.

Multnomah Co. RFPD #14 Description

Corbett is a small, rural community bordered by the Sandy River to the West and Highway 84 to the North. This area has steep slopes and homes surrounded by heavy fuels adjacent to industrial timber management operations, Bureau of Land Management holdings, and some USFS land. Many of the neighborhoods have only one way in and one way out and have narrow, steep driveways with poor address signage. Tourism and recreation are huge influences here, with over 2,500 acres of state parks including the Columbia Gorge National Scenic Area. MCRFPD #14 is the first responder to fires occurring on USFS and Scenic area lands.

The District is staffed only by volunteers, which can increase response times and protection capability. The community is susceptible to the Gorge east wind effect, which includes prolonged high wind speeds that dry vegetation and quickly increase the spread of wildfires. According to the Corbett Fire professionals, the biggest threat to these communities is a wildfire starting on USFS land spreads to Corbett from and East wind.

The District communicates well with other agencies that use 800 MHz, and recently received VHF radios through the Urban Area Security Initiative. MCRFPD #14 has 2 Urban Interface Units, Type 3 one with a rated 750 gallon pump and one with a rated 500 gallon pump. This is a self-reliant community that supports active Neighborhood Emergency Response Teams as well as Northeast Multnomah County Community Association (NEMCCA) with a safety action team that meets the first Wednesday of the month. The Fire District connects with the community through an annual open house in October, and a biannual newsletter that goes out in the Spring and Fall.

Multnomah Co. RFPD #14 Wildfire Hazards

The Multnomah County CWPP wildfire hazard assessment assisted MCRFPD #14 in identifying areas that may be at higher risk to potential wildfires. Map 12 illustrates the overall wildfire hazard risk in the Corbett area and will be used to help target areas for wildfire prevention activities.

Local Communities at Risk

The MCRFPD #14 also recognizes that there are smaller-scale Communities at Risk that have unique wildfire hazards to be addressed at the more local scale. Communities that have been identified as being particularly vulnerable to wildfires are illustrated in Map 12 and listed in Table A-2.1. MCRFPD #14 volunteers considered the following factors to determine the local CARs including:

- Need for defensible space
- Access limitations (narrow driveways, lack of address signage, one way in/one way out)
- Steep slopes that can hinder access and accelerate the spread of wildfire
- Lack of water available for wildland fire fighting
- Heavy fuels on adjacent public lands
- Potential ignition sources from recreationists and transients

- Agricultural and backyard burning
- Lack of community outreach programs to promote wildfire awareness
- Communications difficulties

Multnomah Co. RFPD #14 Action Plan

The MCRFPD #14 has developed a list of actions to build capacity at the Department scale and has identified actions that can help to make the local CARS more resilient to potential wildfires. The action plan for MCRFPD #14 and the local CARs therein is provided in Table A-2.2.

Multnomah Co. RFPD #14 CWPP Community Involvement

Multnomah County initiated community involvement and public outreach events for the highest priority Communities at Risk in each Fire Department/District in Multnomah County. The community meeting in Corbett was held for the Trout Creek/Aims Community and had two primary objectives: to gather information from the public about their wildfire concerns and to share information about the fire plan and living with wildfire.

Trout Creek/Aims Community Wildfire Meeting

Date: April 21st, 2011 from 6:30pm-8:30pm

Location: Aims Community Church

Attendance: 50 residents

Facilitators:

- **Multnomah County RFPD #14:** Brent Younker, Assistant Chief
- **ODF:** Chris Paul, Cindy Kolomechuk
- **Multnomah County Emergency Management:** Joe Partridge
- **Columbia River Gorge National Scenic Area:** Roland Rose

Meeting Description

This event was conducted in the form of an evening meeting and hosted by the MCRFPD #14. Assistant Chief Brent Younker opened the meeting and provided introductions and discussed wildfire hazards in the Trout Creek/Aims neighborhood and introduced the measures that landowners have to be more prepared for wildfires. Cindy Kolomechuk provided an overview of the Multnomah County Fire Planning process. Chris Paul then gave a more in depth description regarding the types of fire-resistive building materials to use, how to effectively create defensible

space, and how to provide adequate access. Roland Rose presented some lessons learned from prior wildfires in the Gorge, specifically relating to community preparedness and evacuation. Joe Partridge then discussed tips for being prepared for wildfires as well as other potential hazards in this area.

Information Gleaned from Community

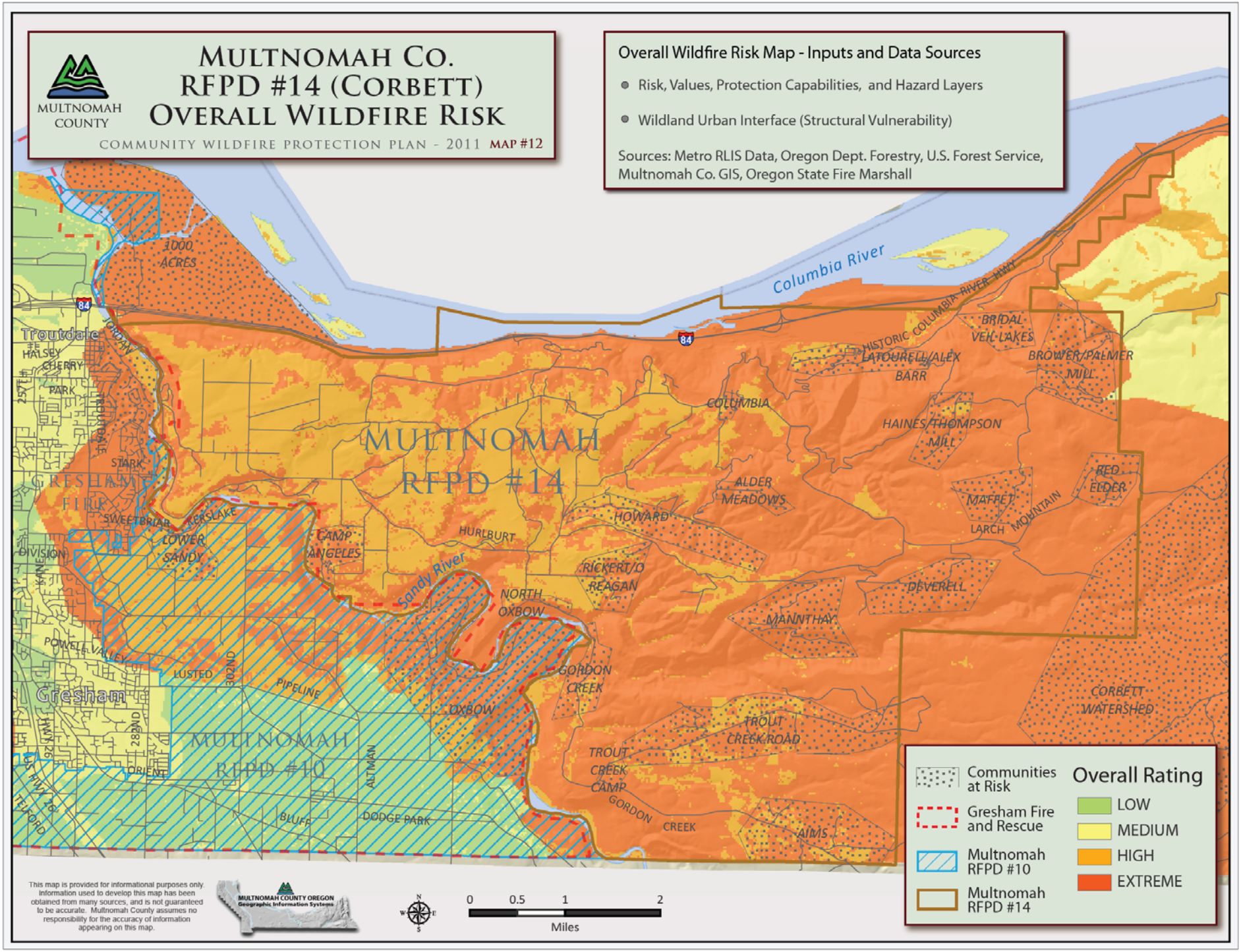
Community members were asked to provide input regarding their perceptions of wildfire risk and rank the highest priority issues in their neighborhood (Table A-2.3 Wildfire Concerns in the Trout Creek/Aims CAR). The MRFPD #14 developed a series of action items (Table A-2.2 MCRFPD #14 Action Plan) to address these and other potential wildfire hazards in the Communities at Risk in their service area.

The highest priority issue is the increased response time (or lack of protection capability) resulting from an all volunteer fire district. This reality can motivate the residents in this community to become better prepared and take a great responsibility in preventing wildfires. Residents are also concerned about the steep, narrow driveways that characterize their neighborhood, which can also increase response times.

Backyard, agricultural and slash burning is also a concern of the residents in the Trout Creek and Aims community. This presents a potential ignition source for structural and wildfires. The other major issue identified was a concern about water availability here. Homes are on well systems, and although there are a few streams and ponds, water would need to be transported into these difficult to access areas to fight wildfires.

Table A-2.3 Wildfire Concerns in the Trout Creek/Aims Community

Topic	Trout Creek/Aims Community
1. Protection Capabilities	High
2. Backyard Burning	High
3. Local Ingress and Egress	High
4. Water Availability	High
5. Evacuation, Emergency Preparedness	Medium
6. Transients/ Recreation	Medium
7. Concerns about Adjacent Public Lands	Low
8. Concerns about Neighboring Private Property	Low


MULTNOMAH CO.
RFPD #14 (CORBETT)
OVERALL WILDFIRE RISK
COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #12
MULTNOMAH COUNTY
Overall Wildfire Risk Map - Inputs and Data Sources
Risk, Values, Protection Capabilities, and Hazard Layers
Wildland Urban Interface (Structural Vulnerability)
Sources: Metro RLIS Data, Oregon Dept. Forestry, U.S. Forest Service, Multnomah Co. GIS, Oregon State Fire Marshall
Columbia River
MULTNOMAH RFPD #14
MULTNOMAH RFPD #10
Troutdale
Gresham
Gresham Fire
1000 ACRES
HALSEY
CHERRY PARK
STARK
SWEETBRIAR
KERSLAKE
LOWER SANDY
CAMP ANGELES
HURLBURT
HOWARD
RICKERT/O REAGAN
NORTH OXBOW
Sandy River
OXBOW
PIPELINE
LUSTED
POWELL VALLEY
ORIENT
BLUFF
DODGE PARK
ALTMAN
GORDON CREEK
TROUT CREEK
TROUT CREEK ROAD
CAMP GORDON CREEK
AIMS
COLUMBIA
ALDER MEADOWS
HAINES THOMPSON MILL
LATOURELL/ALEX BARR
BRIDAL VEIL LAKES
BROWER/PALMER MILL
HISTORIC COLUMBIA RIVER HWY
MAFFET
LARCH MOUNTAIN
RED ELDER
DEVERELL
MANNTHAY
CORBETT WATERSHED
Communities at Risk
Gresham Fire and Rescue
Multnomah RFPD #10
Multnomah RFPD #14
Overall Rating
LOW
MEDIUM
HIGH
EXTREME
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MULTNOMAH COUNTY OREGON Geographic Information Systems
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Miles

Table A-2.1 RFPD #14 (Corbett) Communities at Risk

Community At Risk	CAR Priority	Defensible Space	Access	Water	Public Lands	Private Lands	Recreators/ Transients	Protection Capabilities	Burning	Preparedness	Comunications	Steep Slopes	Description
Multnomah County Rural Fire Protection District #14 (Corbett)													
Trout Creek/Aims Road	High	X	X	X		X		X		X		X	Trout Creek is home to over 50 residences. The community lies at the eastern edge of the Corbett RFPD with extended response times from the main station. The area has heavy fuels loading and intensive forest management activities occur around and within this community. The Aims Community is located along the southern Multnomah County/Clackamas County border. Any response here would likely be coordinated with Sandy Fire. It is surrounded by managed forestlands. Johannesen Road is one way in and out, and there is a pond there for water Groce Road is one way in and out, does not have sufficient water, and has very heavy fuels. Hogg Mill Road has a gate on it, but the access adequate and there is some defensible space.
Toll, Brower& Palmer Mill Roads	High	X	X	X		X		X		X		X	This is a community of about 20 homes. Although there is a draft site on Toll Road, water would need to be transported to Brower and Palmer Mill during a wildfire event. This area has very poor access, with one-way egress on steep, narrow gravel roads. The area is also adjacent to heavy timber harvest.
Howard Road	High	X	X	X		X		X		X		X	This is a larger community of about 20 homes, which sits in a steep canyon. Access is extremely limited with one way in and out. There are steep, long driveways with no signage. Water would need to be transported here to fight fire. The homes are in need of defensible space and it would be beneficial to continue fuels reduction efforts onto adjacent forest lands.
Rickert to O'Regan Roads	High	X	X	X		X		X		X		X	This is a community of about 15 homes that are in need of defensible space. Heavy timber surrounding the community should also be treated to reduce the spread of fire. Access is very poor with steep, gravel one way roads and poor address signage. Water would need to be transported here.
Latourell/Alex Barr Roads	High	X	X	X		X		X		X		X	There about 20 homes in this community. Alex Barr has a steep gravel road and both Latourell and Alex Barr are one way in and out. Water would need to be transported here to support firefighting efforts. Defensible space is needed around homes and continued fuels reduction is needed on the south side of Latourell
Columbia Ave.	High	X	X			X		X		X		X	This is a community of about 6 homes that are in dire need of defensible space as well as continued fuels reduction on adjacent lands. There is a hydrant, so water supply is sufficient. Access is limited to one way in and out.
Thousand Acres	High		X	X	X		X	X	X				Thousand Acres is part of the USFS, who contracts with MCRFPD #14 for fire suppression. The current contract negotiations include adding Emergency Medical Services thru Multnomah County EMS. This area has high fuels comprised of invasive species including Himalayan Blackberry and Scotch Broom. There are many potential ignition sources as it is adjacent to Interstate 84 and the Rail Road, has an off leash dog park that has heavy recreational use, and is a well-known transient camp area. The Columbia Gorge national Scenic Area recently embarked on restoration of native vegetation and eradication of the Himalayan Blackberry, and has used controlled burns to accomplish restoration goals.
Red Elder, Fern Road, Hemlock Roads	Medium	X	X	X		X		X		X		X	This community has about 12 residences, and it is anticipated that only half of those would be receptive to addressing wildfire hazards. Access is limited to steep one-way in and out roads. There is a pond near Red Elder, but it is not accessible by emergency vehicles, so water would need to be transported. This community is most susceptible to potential fire starts from heavy forest management operations surrounding the entire community.

Table A-2.1 RFPD #14 (Corbett) Communities at Risk

Community At Risk	CAR Priority	Defensible Space	Access	Water	Public Lands	Private Lands	Recreators/ Transients	Protection Capabilities	Burning	Outreach	Comunications	Steep Slopes	Description
Multnomah County Rural Fire Protection District #14 (Corbett)													
Donahue Road	Medium	X	X	X	X	X		X		X		X	This area represents less than 5 homes, but is rich in community values, as it is the primary watershed providing drinking water to Corbett area residents. As such, important infrastructure is located here including a water reservoir and operation head works. There are heavy fuels in this area as well as commercial forest management activities (Longview Fiber and Frank Timber).
Moffet Road	Medium	X	X	X		X		X		X			This is a small community of about 5 homes. The access in this area is 1-way, but it isn't steep and can be access fairly easily. There are heavy fuels in the area and no water available for wildfire fighting.
Deverell Road	Medium	X	X	X		X		X		X		X	Deverell is a small community that has s number of long, steep, one-way driveways with no signage. Heavy fuels and forest management activities surround this community. There a few homes with no defensible space and there is no water here.
Mannthey Road	Medium		X	X	X	X		X		X		X	Mannthey Road is a community of about 10 homes that have fairly good defensible space. Fuels reduction is needed around the community to really protect the structures from a fire spreading from forest lands. There is no water here, and access is poor with only one way in and one way out.
Haines/Thompson Mill Roads	Medium	X	X			X		X		X	X		This area has only about 6 homes, but also includes the Antec commercial laboratory, which may use hazardous materials. There is adequate water to fight fire here, but access is limited to one way in and out. The community would benefit from defensible space as well as fuels treatment in the surrounding forest lands. Communication with the laboratory would assist in preparing for a potential hazardous material event.
Bridal Veil	Medium		X	X	X	X	X	X		X		X	This is a small community that has a large number of recreationists visiting throughout the year, so there is an opportunity for community outreach. There is no water available. There is good defensible space around the structures, but heavy timber surrounding the community. Access is limited to one way in and out.
Alder Meadows Road	Medium	X	X	X	X	X		X		X			This is a community of about 6 homes that are in need of defensible space as well as continued fuels reduction on adjacent lands. Water would need to be transported here. Access is limited to one way in and out.
Trout Creek Camp	Low	X						X		X			Trout Creek Camp is a recreation area that houses students during the summer months. The area has adequate water and good access, but would benefit from defensible space and community outreach. There is a great opportunity to partner with the Camp to reduce fuels and educate campers.
North Oxbow	Low	X	X		X	X	X	X		X		X	This small community of about 5 homes is located at the bottom of a slope. The access is steep, gravel and is only one way in and out. Homes would benefit from defensible space and the surrounding forest needs fuels management.
Camp Angeles	Low	X			X		X	X		X			This recreational camp houses many visitors during the summer months, creating an opportunity for outreach and education. The access is only one way in and out, but it is not too bad for emergency vehicle to access. There is a dry hydrant at the pond. Defensible space is needed and fuels treatments should be completed on adjacent Metro-owned land.
Gordon Creek/Buck Creek	Low	X	X	X	X	X		X		X		X	This is a small community of only two homes. These homes are surrounded by dense vegetation and would benefit from defensible space treatments. Surrounding forest lands would benefit from fuels management as well. Access is very poor here, with only one steep road going in and out.

Table A-2.2 RFPD #14 (Corbett) Action Plan

Action Item	Timeframe	Partners	CAR
Multnomah County RFPD #14 (Corbett) Overall Action Plan			
Work with CWPP partners to engage the Columbia Gorge Commission in discussions about the risk of wildfire, and the benefits of fire-resistant building materials and defensible space.	Short Term	Cascade Locks Fire, ODF	Mult. Co. RFPD #14
Inventory existing water resources and identify alternative water sources to support potential wildfire fighting efforts. GPS all draft sites.	Short Term	ODF	Mult. Co. RFPD #15
Work with ODF to provide wildland fire training to all volunteer fire fighters.	Ongoing	ODF	Mult. Co. RFPD #16
Work with Multnomah County to produce a check list for inspection that must be completed by MCRFPD #14 before an occupancy permit is issued.	Short Term	Multnomah County Building Dept.	Mult. Co. RFPD #17
Track Mutual Aid agreements and/or contracted services contracts with other jurisdictions including wildland agencies to ensure agreements are up to date.	Ongoing	Fire Defense Board, ODF, USFS	Mult. Co. RFPD #18
Multnomah County RFPD #14 (Corbett) Local Communities At Risk Action Plan			
Conduct a Community Meeting to educate community on defensible space, and measures that can be taken to reduce structural ignitability. Solicit feedback on wildfire prevention projects the community would support.	Spring 2011/ Ongoing	ODF, CWPP Outreach Subcommittee	Trout Creek, Toll, Brower& Palmer Mill Roads, Columbia Ave, Latourell/Alex Barr
Develop a local wildfire prevention campaign to promote defensible space and reduce structural ignitability within the Home Ignition Zone	Spring 2011/Ongoing	ODF, CWPP Outreach Subcommittee	Roads
Obtain structural ignitability intelligence by conducting structural triage assessment data collection (including GPS points) for homes in strategic planning areas.	Short Term	ODF, Wildfire Technical Committee	All
Develop a community-driven pre-disaster plan including evacuation routes, telephone call down trees, and other strategies for strengthening community response.	Short Term	MCEM	All
Map all roads, bridges and driveways and prioritize homes that have dead-ends, and cannot support emergency service vehicles (grade, length, vegetation, turn-arounds) for defensible space and fuels reduction projects.	Long Term	Multnomah County	All
Implement road addressing (including length of driveways) and other signage for emergency response.	Short Term	ODF	All
Partner with managers of forested areas to reduce hazardous fuels in natural areas surrounding communities at risk.	Ongoing	Metro, Longview, USFS, Private forest landowners	All
Seek grant funding to support fuels reduction and creation of defensible space around homes. Consider developing a cost-share program to support these activities.	Ongoing	ODF, Wildfire Technical Committee	All
Identify opportunities for community debris disposal collection sites that recycle or compost vegetative material vs. burning.	Ongoing	ODF, Wildfire Technical Committee	All
Meet with Antec to determine chemical usage to assess potential for a hazardous material spill/ignition.	Short Term	MCRFPD #14, Antec	All
Use controlled burns as a training tool for potential wildland response.	Ongoing	USFS, ODF	Haines/Thompson Mill Roads
Continue to support the Columbia River Gorge National Scenic Area in restoration efforts by accessing additional grant funds made available through the CWPP.	Short Term	Columbia River Gorge National Scenic Area	Thousand Acres
Work with Sheriff's Office to patrol the area to reduce transient camps.	Ongoing	Multnomah County Sheriff's Office	Thousand Acres
Increase public awareness of wildfire hazards by posting information on existing placards in recreational areas.	Short Term	USFS, ODF	Thousand Acres

A-3. Community at Risk: Portland Fire & Rescue

The City of Portland and the area covered by the Portland have been identified as a Community at Risk (CAR) by the Oregon Department of Forestry. Portland Fire & Rescue (PF&R) provides structural fire protection and emergency medical services for areas within the City limits. By contractual agreement, PF&R extends those services to the area served by the Burlington Water District located along Highway 30 northwest of the Portland City limits and the Alder Creek Lumber Company located on Sauvie's Island. PF&R also covers Rural Fire Protection District #1 and a small portion of Rural Fire Protection District #10 through regional mutual aid agreements.

This section also covers the areas managed by the Port of Portland Airport Fire Department, which is mandated by the Federal Aviation Administration to provide fire protection for the Portland International Airport air traffic control tower, power center, Port Headquarters, and all areas inside a secured fenced perimeter. The Port's Fire Department is a mutual aid partners with PF&R, and will respond to areas beyond their designated perimeter.

Previous Wildfire Mitigation Efforts

The City of Portland recognizes the need to minimize the wildfire-related risks and has been developing wildfire mitigation and response strategies over the past several years. Previous efforts include the *Wildfire Readiness Assessment*: *Gap Analysis Report* (2009)[11], *The Forested and Wildland Interface Areas Fire Protection Annex* (2005) and the *City of Portland Natural Hazard Mitigation Plan, Section 11: Wildfire (2005; updated 2010)*. This portion of the MCWPP (Resource A-3: Portland Fire & Rescue) refines the actions identified in the *Portland Natural Hazards Mitigation Plan* and the *Wildfire Readiness Assessment*: *Gap Analysis Report* by consolidating the actions into one document.

In 2003, the City of Portland adopted a Wildfire Hazard Zone Map (Map #13.A) which established the primary wildfire hazard areas in the City using topography, weather and vegetation (http://www.portlandonline.com/fire/index.cfm?c=55225). The blue area is the Wildfire Hazard Zone and the brown areas represent open spaces and parks in the Wildfire Hazard Zone. The Oregon State Legislature allows communities that have developed Wildland Urban Interface (WUI) maps (ORS 93.270(4)) to require fire resistive roofing material (class C or higher for residential) for new development and re-roofing of existing homes. The City adopted a Wildfire Hazard Zone Map in 2003. Although the Multnomah County CWPP process generated more recent wildfire hazard maps, the Portland Wildfire Hazard Zone Map provides greater detail than does the County mapping effort.

These previous planning and mapping efforts provided the foundation to leverage grant funds for project implementation. In 2006, the City of Portland secured $1.3 million from FEMA to implement a Wildfire Fuel Reduction Project, a priority project identified in the Natural Hazards Mitigation Plan. This effort focused on reducing wildfire risk through proactive management of vegetation in Forest Park, Powell Butte and the Willamette Escarpment (Mocks Crest and Oaks Bottom Bluffs).

During the course of identifying vegetation management strategies to reduce wildfire risk, it became apparent that there were additional issues to consider on a municipal level including: emergency response training, equipment, inter-agency coordination, emergency evacuation and access. The purpose of the *Wildfire Readiness Assessment*: *Gap Analysis Report was* to identify "gaps" in these areas and develop action items to address those gaps.

[11] See www.portlandonline.com/wildfire

In 2009, the Portland City Council directed City staff to create an interagency Wildfire Technical Committee (WTC) to implement the Action Plan of the City's *Wildfire Readiness Assessment*: *Gap Analysis Report,* and manage future wildfire mitigation and fuels reduction projects. Members of the WTC realized that they could build capacity to mitigate wildfire risk within and beyond city boundaries by engaging partners on a larger scale. The Oregon Dept. of Forestry has been promoting this approach by assisting counties in developing Community Wildfire Protection Plans, and committed staff to facilitate the development of a Multnomah County Wildfire Protection Plan.

The following City of Portland Bureaus are key stakeholders in enhancing the City of Portland's capabilities to prevent, prepare for and respond to potential wildfire events.

Portland Fire and Rescue (PF&R)

Portland Parks and Recreation (PP&R)

Portland Office of Emergency Management (POEM)

Portland Bureau of Development Services (BDS)

Portland Bureau of Planning and Sustainability (BPS)

Portland Water Bureau (PWB)

Portland Bureau of Environmental Services (BES)

Portland Bureau of Transportation (PBOT)

Portland Police Bureau (PPB)

Portland Fire & Rescue Communities at Risk

The CWPP planning process identified Communities at Risk (CARs) that are particularly vulnerable to wildfires (Map #13B. Portland Fire & Rescue Overall Wildfire Risk) a description of the PF&R CARs is provided in Table A-3.1: Portland Fire & Rescue Communities at Risk and the Port of Portland Cars are shown in Table A-3.2.

- ✓ Defensible Space
- ✓ Access limitations
- ✓ Steep slopes
- ✓ Water pressure/availability
- ✓ Communications
- ✓ Vegetation/Fuels
- ✓ Recreation and Transients (ignition sources)
- ✓ Debris burning
- ✓ Lack of Community Awareness
- ✓ Protection Capability

Portland Fire & Rescue Wildfire Action Plans

The City of Portland Bureaus worked in collaboration with CWPP partners to develop action plans designed to enhance the resiliency of local Communities at Risk (Table A-3-3: PF&R CARs Action Plan) and build capacity to improve coordination, communication, vegetation management, regulatory alignment, training and response and community education throughout the entire City (Table A-3.4 Portland Wildfire Action Plan).

Below, please find a summary of the Portland Wildfire Action Plan. These actions were prioritized by considering technical feasibility, timing of implementation, and ability to meet Goals and Objectives. For more detail regarding timeline for implementation and potential partners, please see Table A-3.4: Portland Wildfire Action Plan.

Figure A.3-1. City of Portland Proposed Wildfire Actions

Priority 1 Priority 2 Priority 3

1. Continue to convene a standing Wildfire Technical Committee (WTC).	17. Incorporate a broadening of pruning allowances to apply to all trees w/in 30 feet of a structure in next Tree Project refinement or city-specific building code project
2. Secure funding for continued long-term vegetation management of natural areas that maintain safe fuel levels in key locations.	18. Determine the effectiveness of maintenance agreements for new land divisions designed to manage vegetation in open space tracts.
3. Develop a more detailed definition of WUI standards and an associated WUI map to inform future actions relating to development, defensible space, emergency response and wildfire prevention.	19. Develop a comprehensive vegetation treatment program that includes both mechanical methods and prescribed fire.
4. Conduct systematic reviews of Portland's large, publicly owned, wildland tracts regarding fire safety and ecological health.	20. Establish an information network in Forest Park and Powell Butte.
5. Improve enforcement of park rules in Portland Parks and Recreation managed natural areas and open space tracts on approved land divisions.	21. Create incentives for and address barriers to encourage fuel reduction and defensible space.
6. Improve emergency radio communications between City first responders and PP&R City Nature staff.	22. Design and install one or more demonstration areas to showcase wildfire resistant plantings.
7. Assess and make recommendations for wildland firefighter training for Portland Fire & Rescue and City Natural Resources Staff.	23. Educate landowners in the Wildland Urban Interface about reducing wildfire hazards.
8. Provide hazardous fuels assessment and initial wildfire response training to City Natural Resources staff.	23. Consolidate unassigned and/or unmanaged vegetated areas owned by the City under a single land management umbrella.
9. Continue to conduct annual wildland firefighter training for Portland Fire & Rescue personnel.	24. Amend the Portland Plant List and other related City plant lists to include fire resistant native plants and planting strategies.
10. Establish an agreed upon fire danger rating system and develop agency protocols.	26. Re-Invigorate Neighborhood Emergency Teams (NETs) with concrete projects such as a neighborhood wildland interface disaster planning program.
11. Analyze and prioritize emergency vehicle access routes.	27. Review and potentially refine City contract specifications for machinery operations during "Red Flag" weather conditions.
12. Conduct a periodic tri-county wildfire coordination meeting.	28. Index City wildfire mitigation plans and activities.
13. Revisit mutual aid agreements to ensure they are current and applicable.	39. Assess and communicate the capacity of the water infrastructure (e.g., pipes, hydrants, etc.)
14. Flag new development proposals that occur in the Wildland Urban Interface in the city's TRACS/Accela mapping system to ensure that the Roof Type C is required at plan review.	30. Develop a cross-bureau plan for evacuation of citizens in high fire risk areas in the event of a severe wildfire.
15. Explore the use of existing mechanisms to allow PF&R to require fire resistant building materials and landscaping in the WUI.	31. Review and update the Forested and Wildland Interface Areas Fire Protection Plan on an on-going basis.
16. Seek funding to produce a local WUI ordinance to augment the Building Code including any additional WUI mapping needs	32. Explore avenues for funding wildfire interface home construction upgrades to low income homeowners.

Structural Ignitability & Regulatory Alignment

As mentioned above, the City of Portland has exercised ORS 93.270(4), providing authority to require fire-resistive roofing material for development occurring in designated WUI areas (Map #13). However, some improvements need to be made to the automated system that alerts land use planners to areas that would be subject to this requirement. The action plan encourages the City of Portland to "flag" new development proposals that occur in the Wildland Urban Interface in the city's TRACS/Accela mapping system to ensure that the Roof Type C is required at plan review.

Beyond requiring fire-resistive roofing materials in WUI areas, Portland Fire and Rescue (PF&R) can only provide input on residential development as it relates to access and fire flow (water supply). The City has identified water grid engineering requirements for firefighting in wildfire areas. Currently the design target for residential areas when considering new and upgraded water main systems in the WUI is a minimum flow of 1750 gpm at a single hydrant within the pressure zone. In cases that applicants cannot meet access and fire flow requirements, PF&R can recommend alternative means and methods that include sprinklers, fire resistant building materials and fire resistant landscaping.

The City of Portland recognizes that codes and ordinances are evolutionary, and has built flexibility into Zoning Code language to allow land use reviewers to use discretion in requiring additional conditions to meet code criteria, including protecting life safety. This discretionary language could potentially provide an avenue for PF&R to place additional conditions on development in the WUI that go beyond water and access to include fire resistant building materials and fire resistant landscaping.

As indicated in the action plan, the Portland Bureaus of Fire and Rescue, Development Services, and Planning & Sustainability will explore the use of existing mechanisms (discretionary authority, conditions of land use approval) to allow Fire to require fire resistant building materials and landscaping in the WUI.

The State of Oregon does allow local jurisdictions to adopt a local Wildland Urban Interface Ordinance, which grants local authorities the tools to require fire resistant building materials and design standards. The International Wildland Urban Interface Code provides options for reducing structural ignitability and is the foundation from which communities can build their WUI Ordinance.

If the discretionary language does not serve to provide adequate authority to require fire resistant b building materials and landscaping in the WUI, Portland Fire & Rescue will scope and seek funding to produce a local WUI ordinance to augment the Building Code. This would require funding and staff time to complete more detailed mapping and analysis of WUI areas. The proposed WUI ordinance would also require a public involvement and local and state adoption processes.

Hazardous Fuels Reduction

The City of Portland considers vegetation a key component of watershed health and maintaining livable, sustainable neighborhoods, and has adopted plans, policies and strategies to protect and enhance the urban forest and sensitive environmental resource areas. The Environmental Overlay Zone (Title 33.430) protects natural resource values and functions by limiting disturbance and removal of native vegetation and requirement mitigation when native trees and vegetation are removed. In order to integrate goals for wildfire risk reduction and ecological health, the City of Portland has incorporated limited tree pruning and removal exemptions and standards within and outside the Environmental Overlay Zone to allow property owners in the WUI to create defensible

space. Portland City Council broadened the 30 foot pruning exemption by eliminating the 6-foot limit and by establishing a simple permit to allow limited native tree pruning in environmental zones beyond 30 feet of a building under an arborist's oversight in July, 2011.

Although the City has established limited tree pruning and removal allowances to help reduce wildfire risks, the City has not yet explored potential allowances for management of low structure and shrub vegetation. Although the City has included information about fire resistant shrubs in the Portland Plant List, more information and examples illustrating ways to manage native vegetation to address wildfire hazard and ecological health is needed to inform the design educational materials and regulatory improvements to address this issue.

The action plan encourages the City to scope and seek funding for a project to explore and demonstrate planting and landscaping options for native groundcover, shrubs and mature trees to achieve goals for wildfire protection and watershed health. This would be a collaborative effort with community Naturescaping and backyard habitat certification programs.

The scope of the FEMA funded Wildfire Fuel reduction project was to plan and implement fuel reduction projects in three focus areas [Forest Park, Powell Butte Nature Park and the Willamette Escarpment (Mocks Crest and Oaks Bottom)]. In order to determine the location and size of high priority fuel reduction projects, a preliminary planning phase of the project involved conducting selected field surveys, and analyzing maps and data to gain an accurate understanding of existing conditions in high risk areas of the parks. Then a conceptual desired future conditions (DFC) map was prepared to guide restoration and hazardous fuel reduction work over the next 25 years. Finally an assessment was conducted to determine the "gap" between existing conditions and the desired future and fuel reduction projects were selected and prioritized. The Portland Bureau of Parks and Recreation has prioritized actions and prescriptions specific for these project areas. Although the City has made some progress towards achieving the DFC in these parks, a great deal of future work is required.

The City also worked with Multnomah County CWPP planning partners to identify and prioritize fuels reduction projects in additional natural areas adjacent to Communities at Risk. For more information, please see Chapter 6, Hazards Fuels Reduction & Biomass Utilization.

Bull Run Watershed

The Bull Run Watershed provides drinking water to over 840,000 residents in the Portland Metropolitan area. As with forests throughout the western Cascade mountain range, wildfires have played a significant role in shaping the age class, species composition, and structure of forests in the Bull Run watershed. The University of Washington completed a fire history study of the Bull Run in 1996.

The fire researchers concluded that Bull Run has an inherently low occurrence and therefore a low risk of catastrophic fire because of its high rainfall, typically short season of high fire-danger conditions, and low incidence of lightning. However, when large fires do occur, they tend to be devastating, "high-severity, stand replacement" fires that burn everything to the ground. Some parts of the watershed have burned as many as three times in the last 500 years. A large catastrophic fire burned about 99% of the watershed around the year 1493. The two small isolated stands that escaped the fire are over 750 years old. Four other moderate size fires, ranging from 2,100 to 7,700 acres, burned the combined equivalent of about one-third of the watershed between 1493 and the early 1900s. A total of 3,300 acres (6.5% of the watershed) burned during the 20th century. The most recent high impact wildfire in the Bull Run occurred in 1923.

The Bull Run watershed is a no trespass management unit with no unauthorized public access. The watershed is patrolled and trespassers are found, occasionally with illegal warming fires. Illegal fires are another source of potential forest fires. Funding for drop in wildland fire pump equipment was not funded this year through the Urban Area Security Initiative, but hope remains that funds may be available for upcoming years for this equipment to increase the seasonal patrols of the watershed.

Portland Fire & Rescue CWPP Community Involvement

Multnomah County initiated community involvement and public outreach events for the highest priority Communities at Risk for each Local Fire Agency in Multnomah County. The community meeting in Portland was held for the Linnton Community and had two primary objectives: to gather information from the public about their wildfire concerns and to share information about the fire plan and living with wildfire.

Linnton Community Wildfire Meeting

Date: May 4th, 2011 from 7:00pm-9:00pm

Location: Linnton Community Center

Attendance: 17residents

Facilitators:

- **Portland Fire & Rescue** Assistant Fire Marshall, Dick Haney;
- **ODF:** Cindy Kolomechuk
- **Portland Office of Emergency Management:** PF&R Lieutenant Matthew Silva

Meeting Description

This community was identified by PF&R as the highest priority for risk reduction because it is adjacent to Hwy 30 and the Burlington Northern Railroad, which transports large quantities of hazardous and flammable materials on a daily basis. The area is also within Forest Park, which contains ample vegetation to fuel a wildfire, and many recreational users, providing potential ignition sources.

This event was conducted in the form of an evening meeting and hosted by the Linnton Neighborhood Association, during their monthly meeting. However, a train car derailment along the railroad adjacent to Hwy 30 made for a more exciting evening than anticipated. A train carrying logs derailed into a line of parked railroad tank cars carrying denatured alcohol on tracks west of Cornelius Pass on Highway 30. A massive fire occurred, and pushed fire crews back a half of a mile. The area was evacuated and Hwy 30 was closed while fire fighters from multiple agencies worked to extinguish the blaze.

Despite some confusion regarding the status of the meeting, the facilitators and seventeen landowners made it to the Linnton Community Center. This event provided a great platform from which to discuss wildfire hazards in the Linnton area. Assistant Fire Marshal Dick Haney discussed

wildfire hazards in the Linnton neighborhood and introduced the measures that landowners can take to prevent and be more prepared for wildfires including regarding the types of fire-resistive building materials to use, how to effectively create defensible space, and how to provide adequate access. Cindy Kolomechuk provided an overview of the Multnomah County Fire Planning process. Lieutenant Matthew Silva closed the discussion by providing tips for being prepared for wildfires as well as other potential hazards in this area.

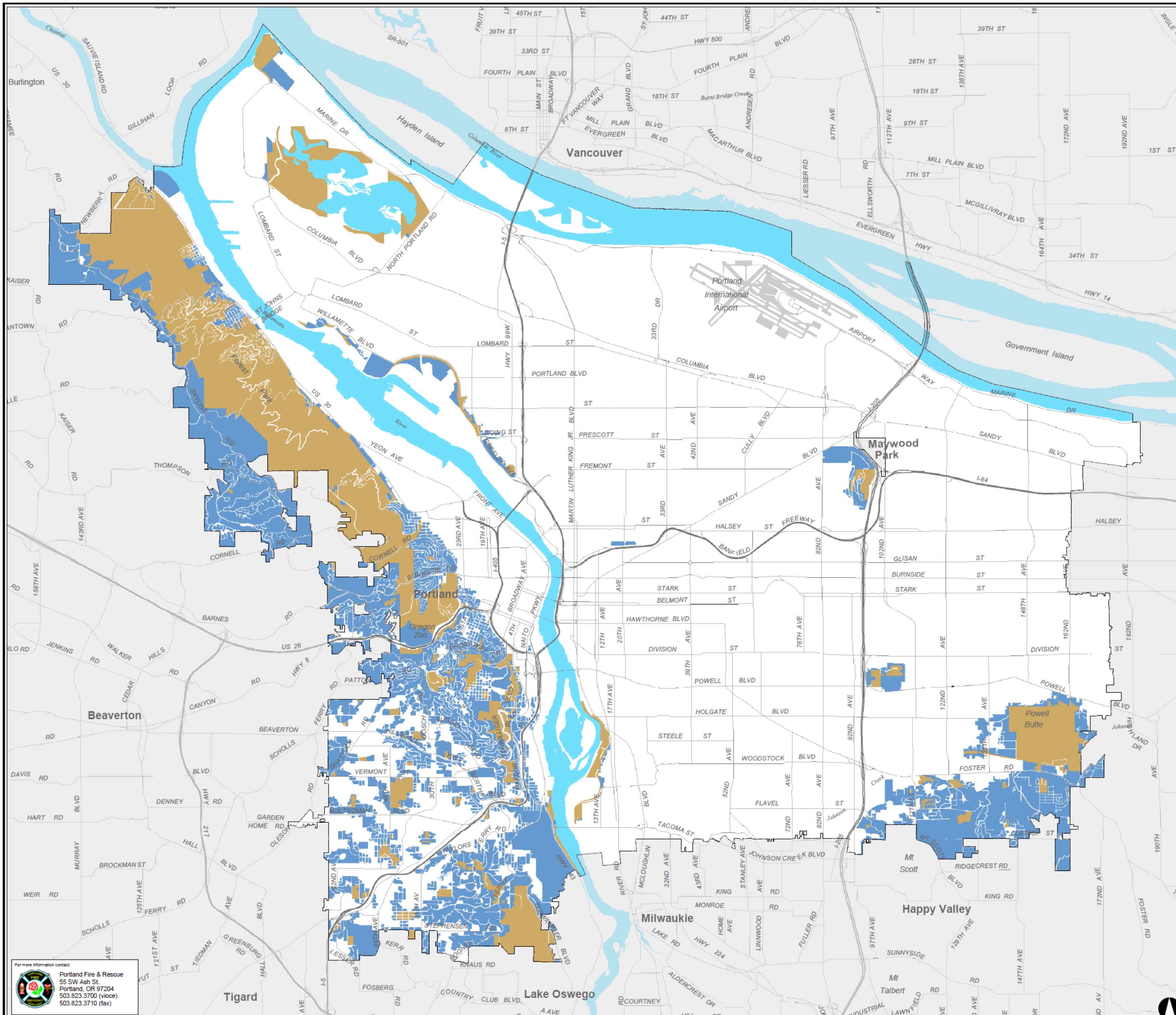
Information Gleaned from Community

Community members were asked to provide input regarding their perceptions of wildfire risk and rank the highest priority issues in their neighborhood (Table A.3-5 Wildfire Concerns in the Linnton CAR).

The highest priority issue was access. Residents are concerned about the steep, narrow driveways and streets that characterize their neighborhood. Dick Haney mentioned how difficult evacuation can be on these roads if people are trying to leave while emergency vehicles are trying to access the neighborhood. The residents recognized that these access and evacuation issues coupled with potentially longer response times make community preparedness critical for this area. Water availability was also a primary concern. Enhancing water availability and pressure is extremely expensive and in some cases not possible, so attendees were encouraged to take an active role in wildfire prevention including adequate measures to protect their homes through defensible space.

Table A-3.5 Wildfire Concerns in the Linnton CAR

Topic	Linnton Priority
1. Access Limitations	High
2. Evacuation, Emergency Preparedness	High
3. Protection Capabilities	High
4. Water Availability	High
5. Backyard/ Agricultural Burning	Medium
6. Concerns about Adjacent Public Lands	Medium
7. Transients/ Recreation	Low
8. Concerns about Neighboring Private Property	Low



For more information contact:

Portland Fire & Rescue
55 SW Ash St.
Portland, OR 97204
503.823.3700 (vioce)
503.823.3710 (fax)

R L I S
REGIONAL LAND INFORMATION SYSTEM

Wildfire Hazard Zone

MAP #13A

Wildfire Hazard Zone

Park or Open Space in Hazard Zone

ORS 93.270(4) enacted by the 1993 legislature and changes to Oregon's Building Code encourage local goverments to voluntarily designate those portions of their jurisdictions subject to catastrophic fire as Wildfire Hazard Zones. The purpose of these zones is to define those areas where buildings need to be made more survivable from fires spreading through adjacent wildlands.

This analysis and map are designed to address the statute and identify areas which are Wildfire Hazard Zones within the City or Portland.

METHODOLOGY:

FIRE WEATHER HAZARD
The Oregon Department of Forestry provided the fire weather hazard factor. It was developed following an analysis of daily fire danger rating indices in each regulated use area of the state. Hazard values were then assigned using OAR 629-44-0230, Table 1, Fire Weather Hazard Factor.

For this analysis, Fire Hazard values were established by county. The hazard values for Clackamas, Multnomah and Washington Counties were used. All three counties were assigned the hazard value of two.

TOPOGRAPHY HAZARD
United States Geological Survey 10 foot contour data were used to calculate the slope of the area. Hazard values were then assigned using OAR 629-44-0240, Table 2, Natural Topography Hazard Factor.

Using the USGS 10 foot contour data an elevation surface was created using ARC/INFO Grid software. This surface was then used to calculate slope. The Hazard value was assigned as follows: 0-3% slope, hazard value 0; 3-12% slope, hazard value 1; 13-20% slope, hazard value 2 and greater than 20% slope, hazard value 3.

VEGETATIVE FUEL HAZARD FACTOR and
VEGETATIVE FUEL DISTRIBUTION HAZARD FACTOR
The data were developed using satellite based LANDSAT Thematic Mapper Imagery dated July 1991. The image was placed in the projection of UTM, zone 10, meters, NAD27. During this procedure, the image resolution was resampled from 30 meters to 25 meters.

The imagery was processed using the industry standard technique of unsupervised classification using ERDAS 7.5 software. Color infrared aerial photos were used as reference information for ground cover during both the image classification and the accuracy assessment.

This data estimates the amount and type of vegetation for the City of Portland, Oregon. Vegetation is mapped as seen from above (such as from an aerial photo) and does has no direct information about vegetation beneath tree canopy. In situations were vegetation is closely mixed with structures or hard surface, only an estimate of vegetation will be given. If the mix is 40% vegetation, 30% rooftop and 30% pavement, the map will only display 40% vegetation.

The cell (pixel) size of this imagery is 30 meters on the ground. Therefore, vegetation and other urban features (i.e., rooftops, etc.) may be mixed together, leaving only a vegetation estimate. Trees are not shown as individual stems, only as a percent cover of an area. Also, small trees may be mixed with in with the Grass category, or larger trees may be hidden by buildings and represented only as Sparse Vegetation category.

No map is without error. Overall accuracy assessment of these two maps show that the vegetation type map is correct 73% of the time and the vegetation cover map is correct 80% of the time. (Accuracy assessment was point / pixel based). These accuracy levels are consistent with those found in professional remote sensing / image processing literature. (When in error, the class is usually in a neighboring category.) Accuracy can be improved when classes are generalized (such as combining Deciduous and Conifer into a tree catagory).

This map for vegetation amount estimates the amount of ground cover by vegetation as seen from above. For this map, vegetation cover does not distinguish between grass, trees or a mixture. The attribute list for Vegetation Amount is as follows:

Code	Meaning
0	No Vegetation (hazard 0)
1	1 - 25% Vegetation Cover (hazard 0)
2	26% - 50% Vegetation Cover (hazard 1)
3	51% - 75% Vegetation Cover (hazard 2)
4	> 75% Vegetation Cover (hazard 3)

The map for Vegetation Type estimates the dominant type of vegetation as seen from above. Generally, this means grass, conifer, deciduous or mixtures. Dominant means that classes such as Conifer or Deciduous should not be considered pure. There may be scattered conifer trees in the Deciduous class, or vice versa. However, there were not enough to be considered a mix (which would be 50/50).

The Mixed Vegetation class (1) is identical to the 1 - 25% class found in Vegetation Amount. It is termed mixed because there was not enough vegetation at that location to get a solid reading on the type. The attribute list for Vegetation Type is as follows:

Code	Meaning
0	No Vegetation (hazard 0)
1	Mixed Vegetation (hazard 1)
2	Grass (hazard 1)
3	Deciduous / Grass Mix (hazard 1)
4	Conifer / Grass Mix (hazard 1)
5	Deciduous (hazard 2)
6	Deciduous / Conifer Mix (hazard 2)
7	Conifer (hazard 2)

The following was used to refine the analysis.

DEVELOPED LAND
In areas of residential development which had either extensive areas of lawn or a fairly high density of large tree canopy, Wildfire Hazards were incorrectly identified. In these areas Metro's Developed Lands coverage was used to modify the Vegetative Fuel Hazard to no hazard.

EXCLUSIONS

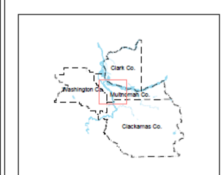
Golf Courses
Golf Courses are not considered wildfire hazards and therefore were excluded from Wildfire Hazard Zones.

Industrial Zoned Land
Because the purpose of the map is to identify those areas of Wildfire Hazard that my be subject to future/current residential development, areas zoned industrial were excluded from Wildfire Hazard Zones.

MODIFICATIONS
Taxlots with at least 50% of the lot within the original Wildfire Hazard Area and immediately adjacent taxlots are included within the boundaries of the Wildfire Hazard Zone. The Zone was further refined by visual inspection of Portland Fire & Rescue.

This map created by request for:
Portland Fire & Rescue

0 0.5 1 2 Miles



Location Map

METRO

METRO DATA RESOURCE CENTER
600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232-2736
TEL (503) 797-1742 | FAX (503) 797-1909
drc@metro.dst.or.us | www.metro-region.org

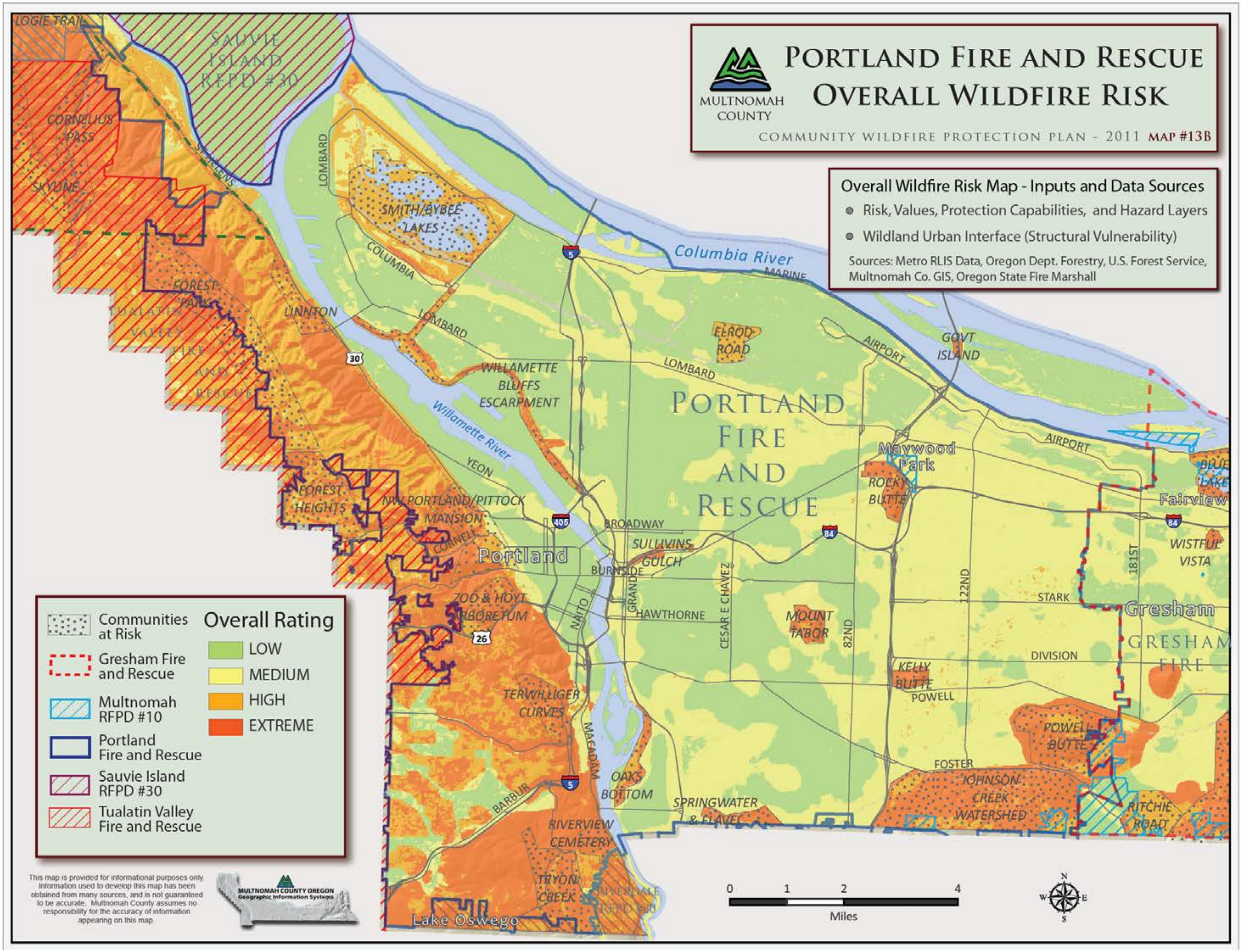

PORTLAND FIRE AND RESCUE
OVERALL WILDFIRE RISK
MULTNOMAH COUNTY
COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #13B
Overall Wildfire Risk Map - Inputs and Data Sources
Risk, Values, Protection Capabilities, and Hazard Layers
Wildland Urban Interface (Structural Vulnerability)
Sources: Metro RLIS Data, Oregon Dept. Forestry, U.S. Forest Service, Multnomah Co. GIS, Oregon State Fire Marshall
Communities at Risk
Gresham Fire and Rescue
Multnomah RFPD #10
Portland Fire and Rescue
Sauvie Island RFPD #30
Tualatin Valley Fire and Rescue
Overall Rating
LOW
MEDIUM
HIGH
EXTREME
This map is provided for informational purposes only. Information used to develop this map has been obtained from many sources, and is not guaranteed to be accurate. Multnomah County assumes no responsibility for the accuracy of information appearing on this map.
MULTNOMAH COUNTY OREGON Geographic Information Systems
0 1 2 4
Miles
PORTLAND FIRE AND RESCUE
SAUVIE ISLAND RFPD #30
TUALATIN VALLEY FIRE AND RESCUE
GRESHAM FIRE
Columbia River
Willamette River
LOGIE TRAIL
CORNELIUS PASS
SKYLINE
FOREST PARK
LINNTON
SMITH/BYBEE LAKES
COLUMBIA
LOMBARD
ST. HELENS
WILLAMETTE BLUFFS ESCARPMENT
YEON
FOREST HEIGHTS
NW PORTLAND/PITTOCK MANSION
CORNELL
Portland
ZOO & HOYT ARBORETUM
TERWILLIGER CURVES
BARBUR
MACADAM
NAITO
RIVERVIEW CEMETERY
TRYON CREEK
Lake Oswego
OAKS BOTTOM
SPRINGWATER & FLAVEL
BROADWAY
SULLIVANS GULCH
BURNSIDE
GRAND
HAWTHORNE
CESAR E CHAVEZ
MOUNT TABOR
82ND
ELROD ROAD
AIRPORT
GOVT ISLAND
MARINE
Maywood Park
ROCKY BUTTE
122ND
KELLY BUTTE
POWELL
FOSTER
JOHNSON CREEK WATERSHED
POWELL BUTTE
STARK
DIVISION
181ST
Gresham
Fairview
BLUE LAKE
WISTFUL VISTA
RITCHIE ROAD
N
S
E
W

Table A-3.1 Portland Fire Rescue Communities At Risk

Community At Risk	CAR Priority	Defensible Space	Access	Water	Public Lands	Private Lands	Recreators/ Transients	Protection Capabilities	Burning	Preparedness	Communications	Steep Slopes	Description
Portland Fire & Rescue Communities at Risk													
Linnton	**High**	X	X	X	X	X	X	X		X	X	X	This community is at particularly high risk because it is adjacent to Hwy 30 and the Railroad, which transport hazardous and flammable materials. The area is within Forest Park, so there is ample vegetation to fuel a wildfire, and many recreators providing potential ignition sources. . Access is limited due to steep slopes and narrow driveways. Addressing is needed here. Water pressure is a limiting factor as elevation increases.
Forest Park/Skyline Road	**High**	X	X	X	X	X	X	X		X	X	X	Forest Park is the largest natural area in Portland, at over 5,000 acres. Large concentrations of native and non-native vegetation have the potential to burn and transfer fire to nearby homes and businesses. The park is heavily used by transient and recreators, and there are units of large industrial forest land managed for timber production. Addressing is needed here.
Forest Heights	**High**	X	X	X	X	X	X	X		X	X	X	Forest Heights is a community of about 50 homes. It is located on the western edge of Forest park and has a great deal of managed forest land surrounding it. There is a large common area that needs to be treated to reduce wildfire hazards as well. There are steep, narrow roads, and lack of sufficient water to fight a wildfire here. Also, many homes have cedar shake roofs.
Willamette Bluffs Escarpment	**High**	X	X	X		X				X	X	X	The Willamette Bluffs Escarpment is located adjacent to the university of Portland, has extremely steep slopes covered with blackberries. Multiple homes are exposed to a fire moving upslope in this area. Access is good, but fighting fire on this steep escarpment is extremely challenging. A 5-alarm wildfire almost engulfed these hones on August 8th, 2001.
Rocky Butte	**High**	X	X	X		X	X	X		X		X	There are about 50-60 homes on Rocky Butte. This community includes homes that are very steep slopes and some that are perched on stilts. Ignitions from the freeway and recreators is a potential hazard here. There is a tunnel at the base of the slop that limits access and ODOT owns primary access road, which is in need of more regular maintenance. There is very low water pressure at the top of the Butte. the Homeowners' Association is very active here and provides an opportunity for community outreach.
Kelly Butte	**High**	X	X	X		X	X		X	X		X	Kelly Butte has a high concentration of fuels and structures at the base of the hill. There is a natural area that is not very well-maintained. The water supply and pressure is poor here and access is limited. BOEC transmitters are located here, making it a high priority for protection. In addition, there is a large transient population that frequently light campfires.
Powell Butte	**High**	X	X	X		X	X		X	X		X	There are heavy fuels adjacent to homes on steep slopes on Powell Butte. Although there is a hydrant at the top, it is not sufficient for fighting wildland fire. It is heavily used by recreators, and there is a caretaker that lives on top. Access is poor due to steep, narrow roads. Prescription burns have been used here for Oak restoration. This area is the future site of a Portland Water Bureau Reservoir.
Johnson Creek Watershed	**High**	X	X	X		X	X		X	X		X	This area includes a number of homes that are in need of defensible space. Many roads are steep and narrow dead ends. It is heavily used by transients, which provides potential ignition sources.

Table A-3.1 Portland Fire Rescue Communities At Risk

Community At Risk	CAR Priority	Defensible Space	Access	Water	Public Lands	Private Lands	Recreators/ Transients	Protection Capabilities	Burning	Outreach	Communications	Steep Slopes	Description
Portland Fire & Rescue Communities at Risk													
Oaks Bottom	High		X	X	X	X		X		X		X	There are many homes located at the top of the steep Oaks Bottom canyon . Access is limited here and there is heavy vegetation. The area is used by many recreators and transients. PF&R and PP&R used prescribed fire here to reduce wildfire hazards. Community outreach was a part of this project.
Mount Tabor	Medium	X				X	X	X		X		X	Mount Tabor is in a very urban area, with homes surrounding the base. It is comprised of healthy, mature forest, but there is an area on the southern end that has an issue with blackberries. Portland Water Bureau has reservoirs here, making it a priority for protection.
Springwater &Flavel	Medium	X				X				X		X	There is a recreation corridor amidst this very urban area that presents some unique wildfire hazards. Blackberries can be found 10 feet thick near homes. It is a major bicycle throughoufare and is used by many transients.
Pedock Mansion Area	Medium	X	X		X	X		X		X		X	There are a lot of homes in this area intermixed with heavy vegetation. Paddock Mansion is a historical structure, and many recreators use this area. There are many natural areas that would benefit from fuels reduction work.
Tryon Creek	Medium	X	X			X				X		X	Tree is a residential area surrounding this state Park. The park has an older stand of mature trees, but defensible space around homes is needed. Access is good here, and it is visited by many recreators, which presents some outreach opportunities.
Terwilliger Curves	Medium	X	X	X	X	X	X	X		X		X	The Terwilliger Curves area has very poor access, with narrow, windy, steep one-way roads. Water is also limited here. The forest is mature, but defensible space around homes is needed.
Zoo and the Hoyt Arboretum	Medium	X	X	X	X	X		X		X		X	Although the zoo grounds are well-maintained, the areas adjacent to Hwy 26 and up the slope to the zoo are heavy will flammable brush. Frequent car fires occur here on the side of Hwy 26 that could easily ignite the hillside leading up to the zoo. Evacuation would be challenging with the windy roads, large numbers of recreators, and animals at the zoo. Wider paving is needed
SW Portland Cemetery	Low	X				X	X			X			The cemetary has a great deal of fuels that need better maintenance.
Sullivan's Gulch	Low		X		X		X	X					There is a railroad here that has had a number of ignitions. There needs to be more rigorous vegetation management in the right of way.
Smith/Bybee Lake	Low				X		X						This area is comprised of commercial and industrial land. There is good defensible space around these structures. The City Park here is used by many transients, so it is essential that the City continue to maintain these areas to reduce potential ignitions.

Table A-3.2 Port of Portland Communties at Risk

Community At Risk	CAR Priority	Defensible Space	Access	Water	Public Lands	Private Lands	Recreators/ Transients	Protection Capabilities	Burning	Preparedness	Communications	Steep Slopes	Description
Port of Portland Communities at Risk													
Elrod Road	**High**	X		X									This area is the location of the Port's infrastructure. There is some commercial development to the south. The site is fenced , so transients are not an issue, but there are electrical lines that could ignite the trees, brush and grass.
Government Island	**High**		X	X	X		X	X					Government Island is unique because it lies under the I-205/I-5 bridge and is controlled by State Parks. Despite the fact that it can only be accessed by boat, many recreators use this area, and frequently have campfires and light fireworks. A wildfire here could potentially close the I-205/!-5 bridge.

Table A-3.3 Portland Communities At Risk Action Plan

Action Item	Timeframe	Partners	CAR
Portland Local Communities At Risk Action Plan			
Conduct a Community Meeting to educate community on defensible space, and measures that can be taken to reduce structural ignitability. Solicit feedback on wildfire prevention projects the community would support.	Spring 2011/ Ongoing	ODF, Keep Oregon Green, Office of Neighborhood Involvement	Linnton, Forest Park, Forest Heights, Rocky Butte, Powell Butte, Oaks Bottom, Willamette Bluffs, Kelly Butte
Develop a local wildfire prevention campaign to promote defensible space and reduce structural ignitability within the Home Ignition Zone	Spring 2011/Ongoing	ODF, CWPP Outreach Subcommittee	All
Obtain structural ignitability intelligence by conducting structural triage assessment data collection (including GPS points) for homes in strategic planning areas.	2 Years	ODF, Wildfire Technical Committee	All
Develop a community-driven pre-disaster plan including evacuation routes, telephone call down trees, and other strategies for strengthening community response.	Ongoing	POEM	All
Map all roads, bridges and driveways and prioritize homes that have dead-ends, and cannot support emergency service vehicles (grade, length, vegetation, turn-around) for defensible space and fuels reduction projects.	Long Term	BDS, ODOT, Multnomah County, ODF	All
Implement road addressing (including length of driveways) and other signage for emergency response.	2 Years	ODF	Forest Park, Linnton
Partner with managers of forested areas to reduce hazardous fuels in natural areas surrounding communities at risk.	Ongoing	PP&R, Metro, Private Forest landowners	All
Seek grant funding to support fuels reduction and creation of defensible space around homes. Consider developing a cost-share program to support these activities.	Ongoing	ODF, Wildfire Technical Committee	All
Identify opportunities for community debris disposal collection sites that recycle or compost vegetative material vs. burning.	Ongoing	ODF, Wildfire Technical Committee	All
Use controlled burns as a training tool for potential wildland response.	Ongoing	USFS, ODF	Oaks Bottom, Powell Butte
Work with Portland Police and Multnomah County Sheriffs office to patrol the area to reduce transient camps.	Ongoing	Portland Police, Multnomah County Sheriff's Office	Oaks Bottom, Forest Park, Kelly Butte, Johnson Creek, Tryon Creek, Powell Butte
Increase public awareness of wildfire hazards by posting information on existing placards in recreational areas.	2 Years	USFS, ODF	Oaks Bottom, Forest Park, Johnson Creek, Tryon Creek, Powell Butte, Kelly Butte, Forest Heights

Table A-3.4 City of Portland Wildfire Action Plan

Action Item	Priority	Timeframe	Lead/Partners	Details/Progress
Portland Vegetation Management Action Items				
Procure funding for continued long-term vegetation management of natural areas that maintain safe fuel levels in key locations.	High	Ongoing	PP&R, ODF, FEMA, NRCS	Received $1.3 million from the FEMA pre Disaster Mitigaiton Program to reduce hazardous fuels from 2005-2010.
Develop a more accurate definition of WUI standards and an associated WUI map to inform improvement of City policies, regulations and codes to strengthen requirements for fire resistant building materials, and enable the establishment of defensible space around homes and business while continuing to protect the natural resources of park natural areas.	High	Long-Term	PP&R,PF&R,GIS	No progress initiated
Conduct systematic reviews of Portland's large, publicly owned, wildland tracts regarding fire safety and ecological health to ensure informed land management decisions.	High	Short-Term	PP&R,	No progress initiated
Improve enforcement of park rules in Portland Parks and Recreation managed natural areas and open space tracts on approved land divisions.	High	Short-Term, Ongoing	PP&R, BDS	There are full-time PP&R rangers enforcing camping & fires in PDX natural areas .
Improve emergency radio communications between City first responders and PP&R City Nature staff.	High	Short-Term	PF&R,PP&R,POEM	Partially completed: emergency radios are provided for Forest Park Staff.
Determine the effectiveness of maintenance agreements for new land divisions designed to manage vegetation in open space tracts.	Medium	Long-Term	BDS	No progress initiated
Develop a comprehensive vegetation treatment program that includes both mechanical methods and prescribed fire.	Medium	Long-Term	PP&R,PF&R	Partially completed task: fee for service program exists but lacks funding.
Establish an information network (e.g., identification, orientation, way-finding and	Medium	Short-Term	PP&R	Partially competed in Forest Park
Create incentives for and address barriers to encourage fuel reduction and defensible space.	Medium	Long-Term	PF&R, BES, PPR, BPS	No progress initiated
Scope and seek funding for a project to explore and demonstrate planting and landscaping options for native groundcover, shrubs and mature trees to achieve goals for wildfire protection and watershed health. Design and install one or more demonstration areas to showcase wildfire resistantplantings.	Medium	Short-Term	PF&R, PP&R, BES, PWB	Partial progress: 1 demonstration garden at Oaks Bottom Wildlife Refuge- another in planning for PF&R fire station 27 in Forest Park
Consolidate unassigned and/or unmanaged vegetated areas owned by the City under a single land management umbrella.	Low	Short-Term	BGS	No progress initiated
Amend the Portland Plant List and other related City plant lists to include fire resistant native plants and planting strategies that could be encouraged or required in local landscaping.	Low	Ongoing	PP&R, PF&R, BES and BPS & ODF	Task partialy completed for woody plants; herbaceous plants still needed.

Table A-3.4 City of Portland Wildfire Action Plan

Action Item	Priority	Timeframe	Lead/Partners	Details/Progress
Portland Structural Ignitability/ Regulatory AlignmentAction Items -				
Continue to convene a standing Wildfire Technical Committee (WTC).	High	Ongoing	PP&R, BDS, PF&R, MCEM	The WTC worked with partners to develop the Multnomah County CWPP and will continue to implement the Wildfire mitigation actions for the City of Portland.
"Flag" new development proposals that occur in the Wildland Urban Interface in the city's TRACS/Accela mapping system to ensure that the Roof Type C is required at plan review.	High	Short Term	BDS, PF&R	The Oregon State Legislature allows communities that have developed Wildland Urban Interface (WUI) maps (ORS 93.270(4)) to require fire resistive roofing material (class C or higher for residential) for new development and re-roofing of existing homes. The City adopted a WUI map in 2003.
Explore the use of existing mechanisms (discretionary authority, conditions of land use approval) to allow Fire to require fire resistant building materials and landscaping in the WUI.	High	Short-Term	PF&R, BDS,BPS	Currently, Portland Fire and Rescue (PF&R) can only provide input on residential development as it relates to access and fire flow (water supply).
Scope and seek funding to produce a local WUI ordinance to augment the Building Code, including any additional mapping needs, and deliver it through the public involvement and local and state adoption processes.	High	Short-Term	PF&R, BDS, SFMO, WTC	The State of Oregon allows local jurisdictions to adopt a local Wildland Urban Interface Ordinance, which grants local authorities the tools to require fire resistant building materials and design standards. The International Wildland Urban Interface Code provides a the foundation from which communities can build their WUI Ordinance.
Incorporate a broadening of pruning allowances to apply to all trees w/in 30 feet of a structure in next Tree Project refinement or city-specific building code project	High	Long Term	PF&R, PP&R,BDS,BPS, ODF	Portland City Council broadened the 30 foot pruning exemption in the Environmental Overlay Zone by eliminating the 6-foot pruning limit for conifers and by establishing a simple permit to allow limited native tree pruning in environmental zones beyond 30 feet of a building under an arborist's oversight in July, 2011. This action item is to include non-conifer tree species in the exemption.
Explore avenues for funding wildfire interface home construction upgrades to low income homeowners.	Low	Ongoing	WTC, ODF	No progress initiated

Table A-3.4 City of Portland Wildfire Action Plan

Action Item	Priority	Timeframe	Lead/Partners	Details/Progress
Portland Emergency Management Action Items				
Conduct a wildland firefighter training assessment of Portland Fire & Rescue and City Natural Resources Staff and other stakeholders. Make reccomednations enhancing wildfire training standards.	High	Short-Term	PF&R, ODF,	Stakeholders would include responders and project managers who might work in the field in areas of fire susceptibiltiy.
Provide hazardous fuels assessment and initial wildfire response training to management training to City Natural Resources staff.	High	Short-Term	PF&R,PP&R,BOM, POEM	No progress initiated
Continue to conduct annual wildland firefighter training for Portland Fire & Rescue personnel. Pursue training with regional and City Incident Management Teams.	High	Ongoing	PF&R, POEM	Each new firefighter at PF&R receives wildland training at the training academy. Incumbent employees get annual wildland refresher training.PF&R has integrated several employees into the State IMT's. A regional drill hosted by TVF&R was cancelled. PF&R will work with regional partners to schedule another drill.
Establish an agreed upon fire danger rating system and develop agency protocols. Consider adopting the national "Fire Danger Rating System" and install the signs at key points in the City.	High	Short-Term	PF&R,PP&R,Risk Management, ,POEM PBOT, ODOT	A program needs to be developed to support installation of signs that would answer questions and provide information, Outdoor fire hazard signs will be installed at Fire Stations 27 and 29.
Analyze and prioritize emergency vehicle access routes.	High	Ongoing	PF&R, PP&R, PBOT	Emergency Transportation Routes have been mapped and prioritized for the City of Portland
Conduct a periodic tri-county wildfire coordination meeting.	High	Short-Term	PF&R, MCEM	This will be done in coordination with the Multnomah County Wildfire Plan.
Revisit mutual aid agreements to ensure they are current and applicable.	High	Ongoing	PF&R, POEM	Completed on an annual basis by PF&R.
Educate landowners in the Wildland Urban Interface about reducing wildfire hazards.	Medium	Onoing	PF&R, POEM	Natural Hazard Risk Reduction Strategy (2010 Natural Hazard Mitigation Plan) conducted a public involvement process address community hazards.
Re-Invigorate Neighborhood Emergency Teams (NETs) with concrete projects such as a neighborhood wildland interface disaster planning program.	Low	Onoing	POEM, ONI	No progress initiated

Table A-3.4 City of Portland Wildfire Action Plan

Action Item	Priority	Timeframe	Lead/Partners	Details/Progress
Portland Emergency Management Action Items				
Review and potentially refine City contract specifications for machinery operations during "Red Flag" weather conditions.	Low	Short-Term	PF&R	PF&R will specify potential needs and areas of risk. PF&R will contact local contractors to determine who has available equipment. Water Bureau maintains a large dozer and equipment at Bull Run.
Index City wildfire mitigation plans and activities.	Low	Short-Term	POEM	POEM - Steering committee to be developed 1st qtr 2010
Assess and communicate the capacity of the water infrastructure (e.g., pipes, hydrants,etc.)	Low	Long-Term	PWB, PF&R, BDS,PWB	Water Bureau will need to conduct an assessment and provide the results to PF&R. PF&R will distribute the information to partner agencies.
Develop a cross-bureau plan for evacuation of citizens in high fire risk areas in the event of a severe wildfire.	Low	Ongoing	POEM,PBOT, PBOP,Multnomah County Sheriff's Office	POEM will be updating evacuation plan 2011. POEM and law enforcement will need to notify PF&R of the plan and expectations.
Review and update the Forested and Wildland Interface Areas Fire Protection Plan .	Low	Ongoing	PF&R	Reviewed on an annual basis, updated as necessary.

A-4. Community at Risk: Sauvie Island Fire District (Rural Fire Protection District # 30J)

The Sauvie Island Fire District has been identified as a Community -At-Risk by Oregon Department of Forestry. The District has participated in Multnomah County's CWPP planning processes to evaluate capabilities to prevent, prepare for and respond to potential wildfire events. In doing so, Scappoose Fire has developed a list of actions to build capacity, enhance public awareness, and reduce the likelihood of wildfires on Sauvie Island.

Sauvie Island Fire District Description

Sauvie Island is located 10 miles from Downtown Portland, Oregon. Upon crossing the bridge onto Sauvie Island (24,000 acres), the landscape is a mixed rural setting comprised of predominately farmland with clustered groups of homes. The resident population is approximately 1,200.

Sauvie Island Fire District has one Office Administrator (the Fire Chief) and approximately 35 volunteer fire fighters which comprise the Fire Department Team. The Department handles just over 100 calls annually and roughly 80% of these calls are medical related. The Fire Department also provides fire services to houseboats along the Multnomah Channel and the 12,000 acre Sauvie Island Wildlife Area.

Sauvie Island Fire District Wildfire Hazards

Fuel Loading

The Northern areas of the island (primarily ODFW property) have the heaviest fuel load. There are many areas thick with blackberries, brush, and reed canary grass. The southern portion of the island consists of large areas of farmed ground and a few residential areas. Areas of heavy fuel in this area are seasonally dependent.

The Multnomah County CWPP wildfire hazard assessment can further assist Sauvie Island Fire District in identifying areas that may be at higher risk to potential wildfires. Map #14 illustrates the overall wildfire hazard risk in the Multnomah County portion of the Sauvie Island Fire District and will be used to help target areas for wildfire prevention activities.

Access

There are two major access issues on Sauvie Island. First, there is one only bridge from Hwy 30 that provides access on and off the island. Many smaller bridges throughout the island are used for access but not considered primary or secondary road systems. Second, there are a fair amount of one way in and out roads into residential, ODFW, or farming lands. Addressing and signage are constantly being improved upon, but at this time the majority of residences etc, are adequately identified. The island has a consistent, gentle grade, so steep driveways are not an issue here.

Water Supply

The entire island is serviced by tender water supply operations or sustained farming irrigation systems. There are many natural waterways throughout the island that could be access if necessary. Sauvie Island Fire District needs float pumps to access these water resources.

Emergency Operations

The Sauvie Island Fire District is a participant in mutual and automatic aid agreements with neighboring Portland and Scappoose Fire Departments. There are some areas of spotty cell service on the island, but most of the island is 800 MHz accessible with only a few problem areas.

Community Preparedness

Sauvie Island Fire District is working with the local community association to develop Wildfire Prevention Programs. General Public Education handouts or resources are needed to build capacity for these programs. There are a few active citizen groups that can be used to promote wildfire awareness: the Sauvie Island Community Association, Sauvie Island Grange, and the Safety Action Team (which is semi active.) Although there was no community meeting held on Sauvie Island during the MCWPP planning process, this Community at Risk is a top priority for future outreach events.

Sauvie Island Fire District Action Plan

The Sauvie Island Fire District has developed a list of actions to build capacity at the District scale. The following issues are addressed in Table A-6.2 Sauvie Island Fire District Action Plan:

- Need for defensible space
- Access limitations (narrow driveways, lack of address signage, one way in/one way out)
- Steep slopes that can hinder access and accelerate the spread of wildfire
- Lack of water available for wildland fire fighting
- Heavy fuels on adjacent public lands
- Potential ignition sources from recreationists and transients
- Agricultural and backyard burning
- Lack of community outreach programs to promote wildfire awareness
- Communications difficulties

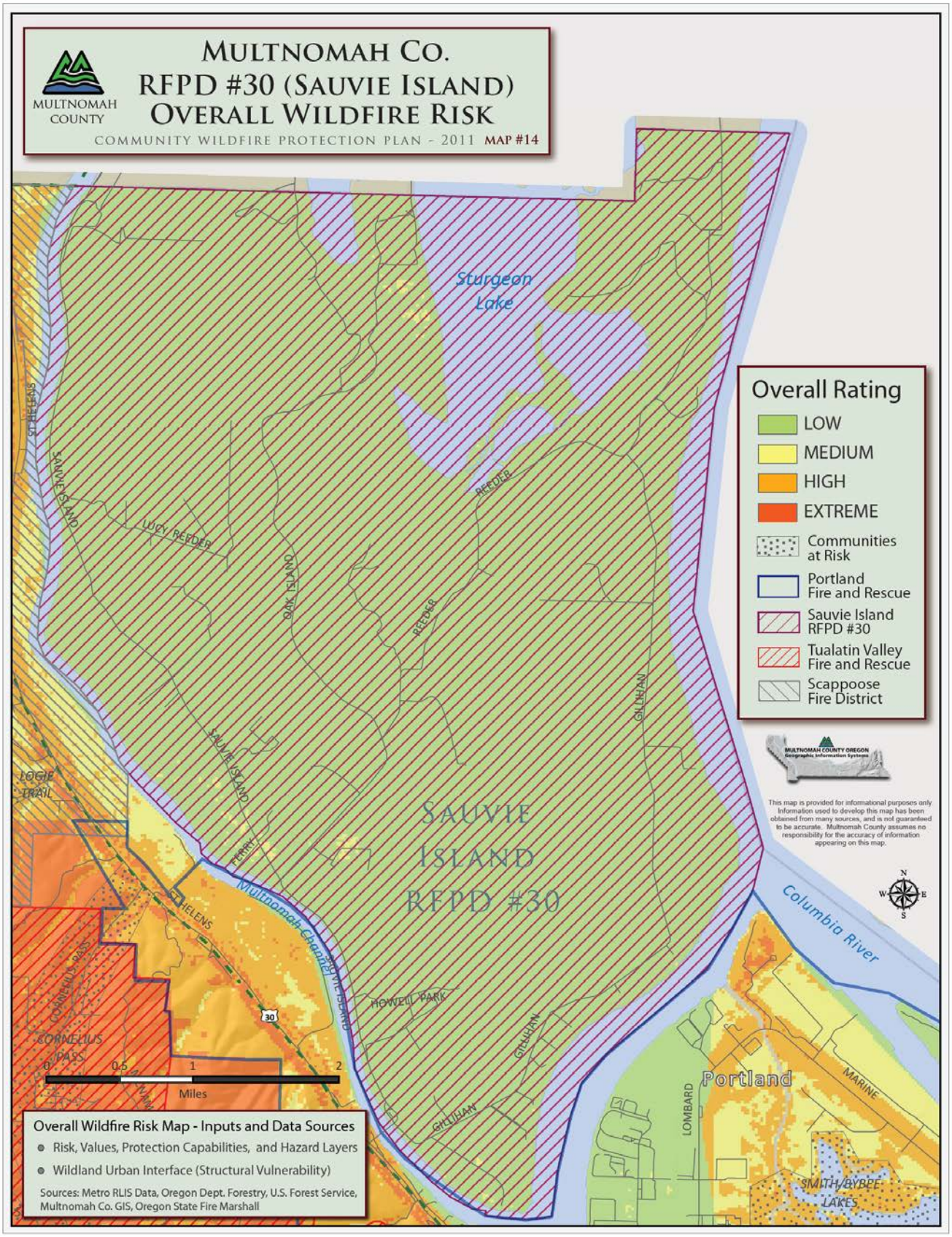

MULTNOMAH CO.
RFPD #30 (SAUVIE ISLAND)
OVERALL WILDFIRE RISK
COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #14
MULTNOMAH COUNTY
Sturgeon Lake
Overall Rating
LOW
MEDIUM
HIGH
EXTREME
Communities at Risk
Portland Fire and Rescue
Sauvie Island RFPD #30
Tualatin Valley Fire and Rescue
Scappoose Fire District
MULTNOMAH COUNTY OREGON
Geographic Information Systems
This map is provided for informational purposes only. Information used to develop this map has been obtained from many sources, and is not guaranteed to be accurate. Multnomah County assumes no responsibility for the accuracy of information appearing on this map.
SAUVIE ISLAND RFPD #30
Columbia River
Multnomah Channel
Portland
SAUVIE ISLAND
LUCY REEDER
OAK ISLAND
REEDER
GILLIHAN
ST HELENS
LOGIE TRAIL
FERRY
HOWELL PARK
CORNELIUS PASS
LOMBARD
MARINE
SMITH/BYBEE LAKES
30
0 0.5 1 2
Miles
Overall Wildfire Risk Map - Inputs and Data Sources
Risk, Values, Protection Capabilities, and Hazard Layers
Wildland Urban Interface (Structural Vulnerability)
Sources: Metro RLIS Data, Oregon Dept. Forestry, U.S. Forest Service, Multnomah Co. GIS, Oregon State Fire Marshall

Table A-4.1 Sauvire Island Fire District Action Plan

Action Item	Timeframe	Partners	CAR
Sauvie Island Local Communities at Risk Action Plan			
Conduct a Community Meeting to educate community on defensible space, and measures that can be taken to reduce structural ignitability. Solicit feedback on wildfire prevention projects the community would support.	Spring , 2012	ODF, CWPP Outreach Subcommittee	Sauvie Island
Develop a local wildfire prevention campaign to promote defensible space and reduce structural ignitability within the Home Ignition Zone.	Short Term	ODF, CWPP Outreach Subcommittee	Sauvie Island
Initiate structural triage assessment data collection for structural ignitability and defensible space.	Long-Term	ODF, Wildfire Technical Committee	Sauvie Island
Develop a community-driven pre-disaster plan including evacuation routes, telephone call down trees, and other strategies for strengthening community response.	Short Term	POEM	Sauvie Island
Map all roads, bridges and driveways and prioritize homes that have dead-ends, and cannot support emergency service vehicles (grade, length, vegetation, turn-arounds) for defensible space and fuels reduction projects.	Long-Term	City of Portland	Sauvie Island
Implement road addressing and signage for emergency response.	Short Term	ODF	Sauvie Island
Obtain funding to ourchase new float pumps.	Short Term	POEM	Sauvie Island
Seek grant funding to support fuels reduction and creation of defensible space around homes. Consider developing a cost-share program to support these activities.	Ongoing	ODF, Wildfire Technical Committee	Sauvie Island
Identify opportunities for community debris disposal collection sites that recycle or compost vegetative material vs. burning.	Ongoing	ODF, Wildfire Technical Committee	Sauvie Island

A-5. Community at Risk: Scappoose Fire District

The Scappoose Fire District has been identified as a Community -At-Risk by Oregon Department of Forestry. The District includes portions of Columbia County and Multnomah County, and has participated in both Counties' CWPP planning processes to evaluate capabilities to prevent, prepare for and respond to potential wildfire events. In doing so, Scappoose Fire has developed a list of actions to build capacity at the District scale. Scappoose Fire District also recognizes that there are smaller-scale Communities-At-Risk that have unique wildfire hazards to be addressed at the more local scale. As such, specific action plans have been developed to address the potential wildfire hazards in these areas as well.

Scappoose Fire District Description

The fire district consists of a 52 mi^2 fire protection area, and 100 square mile ambulance service area. The City of Scappoose and the unincorporated areas of Warren, Chapman and Holbrook as well as 12 miles along the Multnomah Channel, which has a large residential river front community, make up the service area served by the district. The Fire District services approximately 12,000 residents. The area is served by three stations staffed by 35 volunteers, 5 office/management staff and 9 career fire/medical personnel. The Fire District is a full service emergency provider (fire suppression, rescue, transport ambulance).

Scappoose Fire District Wildfire Hazards

The Multnomah County CWPP wildfire hazard assessment assisted Scappoose Fire in identifying areas that may be at higher risk to potential wildfires. Map #18 illustrates the overall wildfire hazard risk in the Multnomah County portion of the Scappoose Fire District and will be used to help target areas for wildfire prevention activities.

Local Communities at Risk

The Scappoose Fire District also recognizes that there are smaller-scale Communities at Risk that have unique wildfire hazards to be addressed at the more local scale. Communities that have been identified as being particularly vulnerable to wildfires are illustrated in Map#18 and listed in Table A-5.1. Scappoose Fire District staff considered the following factors to determine the local CARs including:

- Need for defensible space
- Access limitations (narrow driveways, lack of address signage, one way in/one way out)
- Steep slopes that can hinder access and accelerate the spread of wildfire
- Lack of water available for wildland fire fighting
- Heavy fuels on adjacent public lands
- Potential ignition sources from recreationists and transients
- Agricultural and backyard burning
- Lack of community outreach programs to promote wildfire awareness
- Communications difficulties

Scappoose Fire District Action Plan

The Scappoose Fire District has developed a list of actions to build capacity at the District scale and has identified actions that can help to make the local CARS more resilient to potential wildfires. The action plan for the Scappoose Fire District and the local CARs therein is provided in Table A-5.2.

Scappoose Fire District CWPP Community Involvement

Multnomah County initiated community involvement and public outreach events for the highest priority Communities at Risk in each Fire Department/District in Multnomah County. The community meeting in Scappoose was held for the Holbrook community and had three primary objectives: to gather information from the public about their wildfire concerns, to share information about the fire plan and living with wildfire and recruit volunteers to staff the newly remodeled fire station.

Holbrook Community CWPP Meeting

Date: May 12th, 2011 from 6:30pm-8:30pm

Location: Holbrook Fire Station

Attendance: 26 residents

Facilitators:

- **Scappoose Fire:** Chief Mike Greisen, Asst. Chief John Shull
- **ODF:** Malcolm Hiatt, Cindy Kolomechuk

Meeting Description

Holbrook is a community of about 50 residences. The community lies at the eastern edge of the Scappoose RFPD with extended response times from the main station. Access is severely limited, with One Way in-out NW Morgan Road from NW Clark traveling West and all roads off of it, as in, NW Rainier, NW Cleetwood NW Chestnut. A recently refurbished fire station is located here, but is not staffed. The Spring, 2011, Holbrook Community CWPP Meeting is a great opportunity to recruit volunteers to staff the newly remodeled fire station.

Malcolm Hiatt (ODF) uses the "Wheel of Wisdom" to teach wildfire prevention

The area has heavy fuels loading and intensive forest management activities occur around and within this community. The Holbrook Community CWPP Meeting was held in the evening and firefighters prepared a Barbeque meal for all attendees. Malcolm Hiatt (ODF) set up a "wheel of wisdom" along with a three dimensional diagram that illustrated good and bad examples of defensible space and fire safe homes which served as the focal points for starting discussions with visitors about wildfire issues. Visitors to the community meetings also had an opportunity to talk with fire district and ODF about their perceptions of wildfire risk, their priorities for prevention and response, and resources they have to potentially assist fire fighters.

Chief Mike Greisen opened the meeting, provided introductions and discussed wildfire hazards in the Holbrook neighborhood. Chief Greisen also discussed the delayed response time to this area and the need for volunteers to staff the Holbrook station in order to protect this community. Cindy Kolomechuk

provided an overview of the Multnomah County Fire Planning process. Malcolm Hiatt then gave a more in depth description regarding the types of fire-resistive building materials to use, how to effectively create defensible space, and how to provide adequate access.

Assistant Chief John Shull closed the meeting with an excellent presentation on the train derailment one week prior. On May 4th, 2011 a train car derailment along the railroad adjacent to Hwy 30 made for a more exciting evening than anticipated. A train carrying logs derailed into a line of parked railroad tank cars carrying denatured alcohol on tracks west of Cornelius Pass on Highway 30. A massive fire occurred, and pushed fire crews back a half of a mile. The area was evacuated and Hwy 30 was closed while fire fighters from multiple agencies worked to extinguish the blaze.

Information Gleaned from Community

Community members were asked to provide input regarding their perceptions of wildfire risk and rank the highest priority issues in their neighborhood (Table A-5.3 Wildfire Concerns in the Trout Creek/Aims CAR). Scappoose Fire developed a series of action items (Table A-5.2 Scappoose Fire Action Plan) to address these and other potential wildfire hazards in the Communities at Risk in their service area.

The residents recognized that access and evacuation issues coupled with potentially longer response times make community preparedness critical for this area. Residents are concerned that the steep, narrow driveways that characterize their neighborhood. Chief Greisen mentioned how difficult evacuation can be on these roads if people are trying to leave while emergency vehicle are trying to respond. Attendees were encouraged to take an active role in making their community more disaster resilient by volunteering to staff the Holbrook Fire Station and to take adequate measures to protect their homes through defensible space.

Table A-5.3 Wildfire Concerns in the Holbrook Community

Topic	Holbrook Community
1. Access Limitations	High
2. Protection Capabilities	High
3. Evacuation, Emergency Preparedness	High
4. Backyard/ Agricultural Burning	Medium
5. Concerns about Adjacent Public Lands	Medium
6. Water Availability	Medium
7. Transients/ Recreation	Low
8. Concerns about Neighboring Private Property	Low

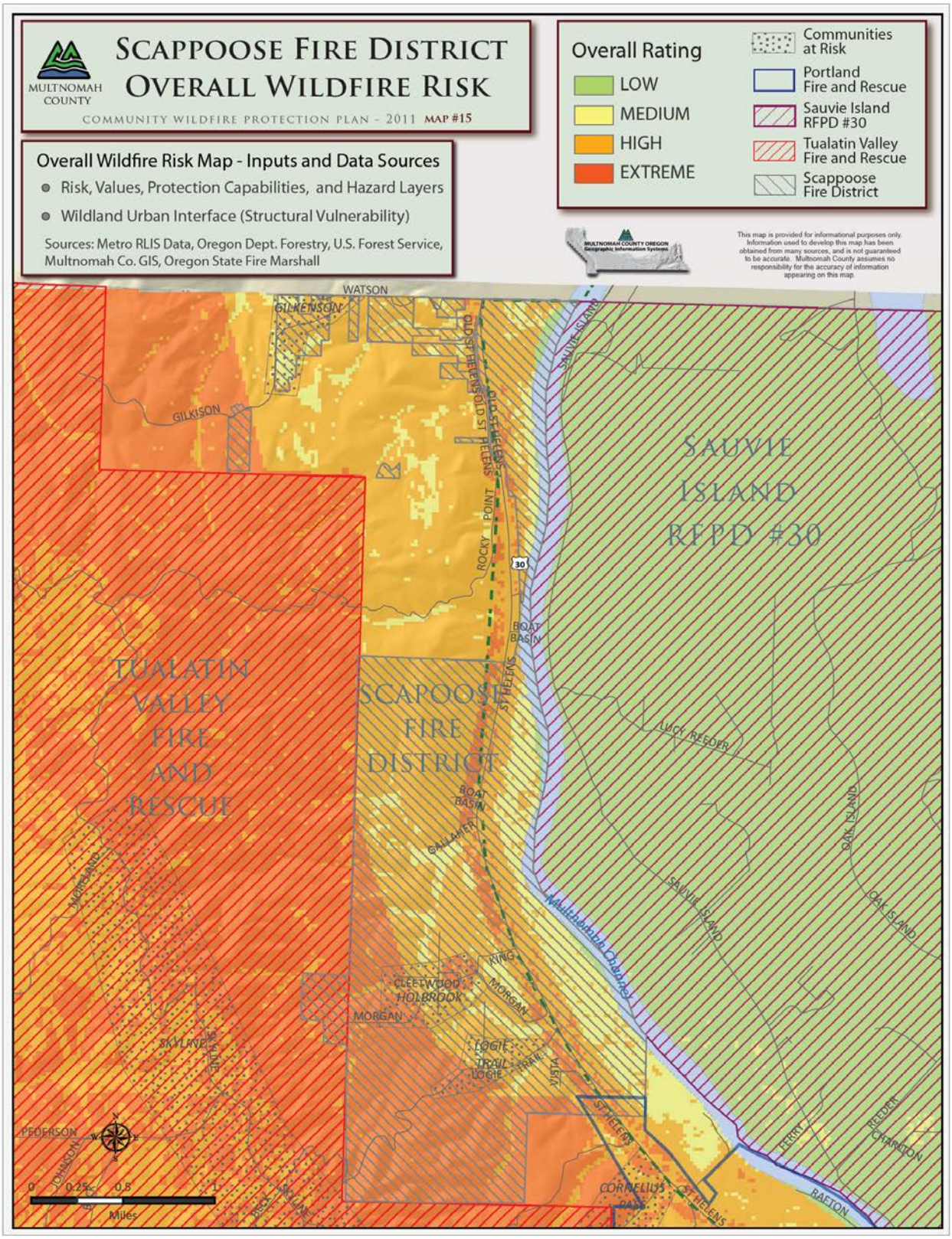

SCAPPOOSE FIRE DISTRICT
OVERALL WILDFIRE RISK
MULTNOMAH COUNTY
COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #15
Overall Wildfire Risk Map - Inputs and Data Sources
Risk, Values, Protection Capabilities, and Hazard Layers
Wildland Urban Interface (Structural Vulnerability)
Sources: Metro RLIS Data, Oregon Dept. Forestry, U.S. Forest Service, Multnomah Co. GIS, Oregon State Fire Marshall
Overall Rating
LOW
MEDIUM
HIGH
EXTREME
Communities at Risk
Portland Fire and Rescue
Sauvie Island RFPD #30
Tualatin Valley Fire and Rescue
Scappoose Fire District
MULTNOMAH COUNTY OREGON Geographic Information Systems
This map is provided for informational purposes only. Information used to develop this map has been obtained from many sources, and is not guaranteed to be accurate. Multnomah County assumes no responsibility for the accuracy of information appearing on this map.
WATSON
GILKENSON
GILKISON
OLD ST HELENS
ROCKY POINT
SAUVIE ISLAND
SAUVIE ISLAND RFPD #30
TUALATIN VALLEY FIRE AND RESCUE
SCAPPOOSE FIRE DISTRICT
BOAT BASIN
ST HELENS
LUCK REEDER
OAK ISLAND
MULTNOMAH CHANNEL
GALLAHER
MORTLAND
KING
MORGAN
CLEETWOOD
HOLBROOK
LOGIE TRAIL
SKYLANE
PEDERSON
JOHNSON
CORNELIUS PASS
JERRY
REEDER
CHARLTON
RAFTON
0 0.25 0.5 1 Miles

Table A-5.1 Scappoose Communities at Risk

Community At Risk	CAR Priority	Defensible Space	Access	Water	Public Lands	Private Lands	Recreators/ Transients	Protection Capabilities	Burning	Preparedness	Communications	Steep Slopes	Description
Scappoose Fire Communities at Risk													
Holbrook	**High**	X	X	X	X	X	X	X		X		X	Holbrook is a community of about 50 residences. The community lies at the eastern edge of the Scappoose RFPD with extended response times from the main station. Access is severely limited, with One Way in-out NW Morgan Road from NW Clark traveling West and all roads off of it, as in, NW Rainier, NW Cleetwood NW Chestnut. A recently refurbished fire station is located here, but is not staffed. A community meeting is planned for Spring, 2011, and this is a great opportunity to recruit volunteers to staff the newly remodeled fire station. The area has heavy fuels loading and intensive forest management activities occur around and within this community.
Logie Trail Road	**High**	X	X	X	X	X	X	X		X		X	This area is a high priority area for prevention efforts because it is difficult to access, there are heavy fuels and steep slopes, and the homes are in a canyon that presents communications issues. In addition, it is a high use recreation area that increases potential wildfire ignition sources. In 2001, Gresham Fire completed a Structural Protection Plan that articulates water supply needs, response tactics and resources needed for each of the following neighborhoods: Homan Road, Oxbow Parkway, Hosner Terrace, Francis Street, Camp Collins and Oxbow Park. Structural triage was also completed for this area in 2001. The community has neighborhood associations that meet regularly and are well-organized.
Gilkenson Road	**Medium**	X	X	X	X	X	X	X		X		X	Gilkenson Road is a community of about 28 residences. Access is limited, and there are isolated homes in the area. The community has heavy fuels loading on very steep slopes. Intensive forest management activities occur around and within this community.

Table A-5.2 Scappoose Fire and Scapoose Communities At Risk Action Plans

Action Item	Timeframe	Partners	CAR
Scappoose Fire Overall Action Plan			
Inventory bridges, determine whether or not they have had an engineer certification and develop a system to track required 5-year engineer inspections.	Long-Term	ODOT, Multnomah County, MCEM	Scapoose Fire
Acquire funding to purchase six portable and six mobile 700/800 mhz radios that are needed for wildland vehicles and fire engines to effectively communicate with mutual aid companies from Washington and Multnomah counties.	Short Term	MCEM, UASI	Scapoose Fire
Continue working with ODF to train all volunteer and paid staff to at least Firefighter Level 1.	Ongoing	ODF	Scapoose Fire
Work with Multnomah County Land Use Planning to address RR5 zoning issues where primary and secondary fuels reduction and fire resistive construction requirements are not required.	Short Term	Multnomah County Land Use Planning	Scapoose Fire
Work with Multnomah County Land Use Planning to develop and allow alternative building construction and materials for areas unable to meet defensible space requirements.	Short Term	Multnomah County Land Use Planning	Scapoose Fire
Encourage Multnomah County Planning to meet individually with Scappoose Fire to establish relationships, articulate expectations and promote fire resistant development.	Short Term	Multnomah County Land Use Planning	Scapoose Fire
Work with Multnomah County to produce a check list for inspection that must be completed by Scappoose Fire District before an occupancy permit is issued.	Short Term	Multnomah County Building Dept.	Scapoose Fire
Consider entering into the Multnomah County Fire Defense Board Mutual Aid Agreement.	Short Term	Multnomah County Fire Defense Board	Scapoose Fire
Scappoose Local Communities at Risk Action Plan			
Conduct a Community Meeting to educate community on defensible space, and measures that can be taken to reduce structural ignitability. Solicit feedback on wildfire prevention projects the community would support.	Spring 2011/ Ongoing	ODF, CWPP Outreach Subcommittee	Holbrook Logie Trail
Develop a local wildfire prevention campaign to promote defensible space and reduce structural ignitability within the Home Ignition Zone.	Spring 2011/Ongoing	ODF, CWPP Outreach Subcommittee	All
Initiate structural triage assessment data collection for structural ignitability and defensible space.	Short Term	ODF, Wildfire Technical Committee	All
Develop a community-driven pre-disaster plan including evacuation routes, telephone call down trees, and other strategies for strengthening community response.	Short Term	MCEM	All
Map all roads, bridges and driveways and prioritize homes that have dead-ends, and cannot support emergency service vehicles (grade, length, vegetation, turn-arounds) for defensible space and fuels reduction projects.	Long Term	Multnomah County	All
Implement road addressing and signage for emergency response.	Short Term	ODF	All
Inventory existing water resources and identify alternative water sources to support potential wildfire fighting efforts.	Short Term	ODF	All
Seek grant funding to support fuels reduction and creation of defensible space around homes. Consider developing a cost-share program to support these activities.	Ongoing	ODF, Wildfire Technical Committee	All
Seek grant funding to support fuels reduction and creation of defensible space around homes. Consider developing a cost-share program to support these activities.	Ongoing	ODF, Wildfire Technical Committee	All
Identify opportunities for community debris disposal collection sites that recycle or compost vegetative material vs. burning.	Ongoing	ODF, Wildfire Technical Committee	All

A-6. Community at Risk: Tualatin Valley Fire & Rescue Fire District

Tualatin Valley Fire & Rescue (TVF&R) has been identified as a Community -At-Risk by Oregon Department of Forestry. The District includes portions of Washington County and Multnomah County, and has participated in both Counties' CWPP planning processes to evaluate capabilities to prevent, prepare for and respond to potential wildfire events.

TVF&R Description

Tualatin Valley Fire & Rescue provides fire protection and emergency medical services to approximately 440,000 citizens in one of the fastest growing regions in Oregon. The District has a 210 square mile service area includes nine cities and unincorporated portions of Clackamas, Multnomah, and Washington County. TVF&R has 21 fire stations, a command and business operations center, a training facility, and three integrated operating centers.

TVF&R Wildfire Hazards

The Multnomah County CWPP wildfire hazard assessment assisted TVF&R in identifying areas that may be at higher risk to potential wildfires. Map #20 illustrates the overall wildfire hazard risk in the Multnomah County portion of the TVF&R District and will be used to help target areas for wildfire prevention activities.

Local Communities at Risk

TVF&R recognizes that there are smaller-scale Communities at Risk that have unique wildfire hazards to be addressed at the more local scale. Communities that have been identified as being particularly vulnerable to wildfires are illustrated in Map#21 and listed in Table A-6.1. TVF&R staff considered the following factors to determine the local CARs including:

- Need for defensible space
- Access limitations (narrow driveways, lack of address signage, one way in/one way out)
- Steep slopes that can hinder access and accelerate the spread of wildfire
- Lack of water available for wildland fire fighting
- Heavy fuels on adjacent public lands
- Potential ignition sources from recreationists and transients
- Agricultural and backyard burning
- Lack of community outreach programs to promote wildfire awareness
- Communications difficulties

TVF&R Action Plan

TVF&R has developed a list of actions to build capacity within Multnomah County and has identified actions that can help to make the local CARS more resilient to potential wildfires. The action plan for TVF&R and the local CARs therein is provided in Table A-6.2.

TVF&R CWPP Community Involvement

Multnomah County initiated community involvement and public outreach events for the highest priority Communities at Risk in each Fire Department/District in Multnomah County. The community meeting for TVF&R was held in the Skyline Ridge community to gather information from the public about their wildfire concerns, to share information about the fire plan.

Skyline Ridge Community CWPP Meeting

Date: May 19th, 2011 from 7:00pm-9:00pm

Location: Skyline Grange hall

Attendance: 7 residents

Facilitators:

- **TVF&R:** Chief Jeff Cooper, Government Affairs Officer, Cassandra Ulven
- **ODF:** Malcolm Hiatt, Cindy Kolomechuk

Meeting Description

Skyline is a particularly vulnerable community homes because it is located along a ridge top that has very steep slopes, poor access, and heavy fuels. This is a heavily travelled road that provides access to forested areas used for recreation. Intensive forest management activities occur around and within this community, which increases potential ignition sources and fuels. Due to its location, response times are greater than 10 minutes, and response efforts will prove difficult as the roads are steep, driveways are narrow and are not well marked, and there are no known alternative water sources for the ridgeline. The terrain also inhibits radio communication.

The Skyline Community CWPP Meeting was helped in the evening during the Homeowners Association regular meeting time. Malcolm Hiatt (ODF) set up a "wheel of wisdom" along with a three dimensional diagram that illustrated good and bad examples of defensible space and fire safe homes which served as the focal points for starting discussions with visitors about wildfire issues. Visitors to the community meetings also had an opportunity to talk with fire district and ODF about their perceptions of wildfire risk, their priorities for prevention and response, and resources they have to potentially assist fire fighters.

Cassandra Ulven opened the meeting, provided introductions and Chief Cooper discussed wildfire hazards in the Skyline Ridge Neighborhood. Chief Cooper also discussed the delayed response time to this area and the need for people to take a proactive approach in protecting their homes and communities from wildfire. Cindy Kolomechuk provided an overview of the Multnomah County Fire Planning process. Malcolm Hiatt then gave a more in depth description regarding the types of

fire-resistive building materials to use, how to effectively create defensible space, and how to provide adequate access.

The meeting closed with an excellent discussion of potential evacuation procedures, and projects that the community would support. Although the group was small, many attendees had wildfire and emergency management experience which made for a very meaningful and productive discussion.

Information Gleaned from the Skyline Ridge Community

Community members were asked to provide input regarding their perceptions of wildfire risk and rank the highest priority issues in their neighborhood (Table A-6.3 Wildfire Concerns in the Skyline Ridge CAR). TVF&R developed a series of action items (Table A-6.2 TVF&R Action Plan) to address these and other potential wildfire hazards in the Communities at Risk in this area.

The residents recognized that access and evacuation issues coupled with potentially longer response times make community preparedness critical for this area. Residents are concerned that the steep, narrow driveways that characterize their neighborhood. Attendees were encouraged to take an active role in making their community more disaster resilient by taking adequate measures to protect their homes through defensible space and encouraging their neighbors to do the same.

Table A-6.3 Wildfire Concerns in the Skyline Ridge Community at Risk

Topic	Skyline Ridge Community
1. Access Limitations	High
2. Evacuation, Emergency Preparedness	High
3. Protection Capabilities	High
4. Transients/ Recreation	High
5. Concerns about Adjacent Public Lands	High
6. Backyard/ Agricultural Burning	Medium
7. Water Availability	Medium
8. Concerns about Neighboring Private Property	Medium

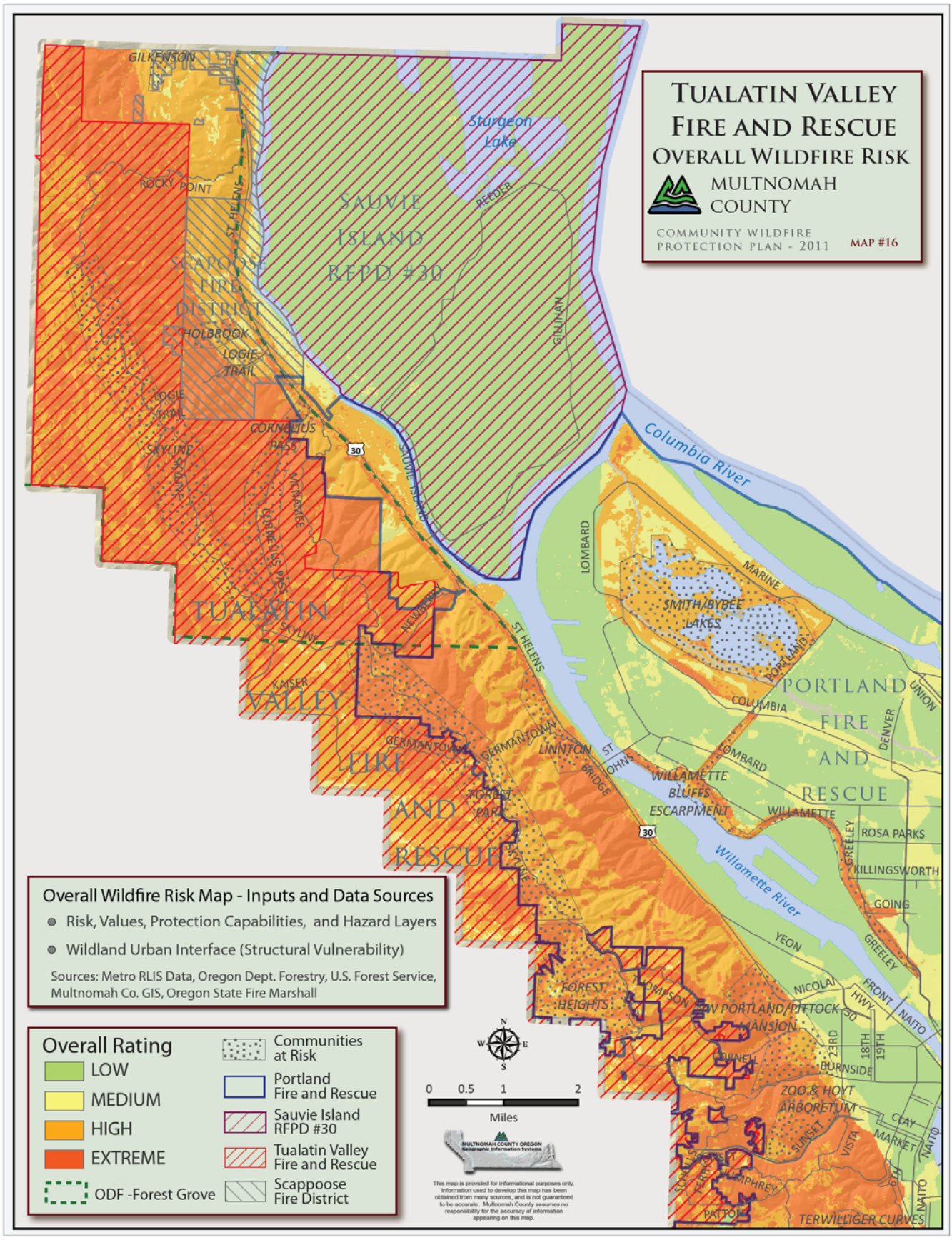

TUALATIN VALLEY FIRE AND RESCUE
OVERALL WILDFIRE RISK
MULTNOMAH COUNTY
COMMUNITY WILDFIRE PROTECTION PLAN - 2011
MAP #16
Overall Wildfire Risk Map - Inputs and Data Sources
Risk, Values, Protection Capabilities, and Hazard Layers
Wildland Urban Interface (Structural Vulnerability)
Sources: Metro RLIS Data, Oregon Dept. Forestry, U.S. Forest Service, Multnomah Co. GIS, Oregon State Fire Marshall
Overall Rating
LOW
MEDIUM
HIGH
EXTREME
ODF -Forest Grove
Communities at Risk
Portland Fire and Rescue
Sauvie Island RFPD #30
Tualatin Valley Fire and Rescue
Scappoose Fire District
0 0.5 1 2
Miles
Sturgeon Lake
Columbia River
Willamette River
SAUVIE ISLAND RFPD #30
SCAPPOOSE FIRE DISTRICT
TUALATIN VALLEY FIRE AND RESCUE
PORTLAND FIRE AND RESCUE
GILKENSON
ROCKY POINT
HOLBROOK
LOGIE TRAIL
CORNELIUS PASS
SKYLINE
MCNAMEE
NEWBERRY
KAISER
GERMANTOWN
FOREST PARK
LINNTON
ST JOHNS BRIDGE
WILLAMETTE BLUFFS ESCARPMENT
SMITH/BYBEE LAKES
MARINE
LOMBARD
COLUMBIA
PORTLAND
UNION
DENVER
WILLAMETTE
ROSA PARKS
GREELEY
KILLINGSWORTH
GOING
YEON
NICOLAI
FRONT
NAITO
HWY 30
FOREST HEIGHTS
THOMPSON
NW PORTLAND/PITTOCK MANSION
CORNELL
23RD
18TH
19TH
BURNSIDE
ZOO & HOYT ARBORETUM
SUNSET
VISTA
CLAY
MARKET
SCHOLLS FERRY
HUMPHREY
PATTON
TERWILLIGER CURVES
GILLIHAN
REEDER
ST HELENS
SAUVIE ISLAND
30

Table A-6.1 TVFR Communities at Risk

Community At Risk	CAR Priority	Defensible Space	Access	Water	Public Lands	Private Lands	Recreators/ Transients	Protection Capabilities	Burning	Preparedness	Communications	Steep Slopes	Description
Tualatin Valley Fire & Rescue Ommunities at Risk													
Skyline Ridge	**High**	X	X	X	X	X	X	X	X	X	X	X	Skyline is a particularly vulnerable community homes because it is located along a ridge top that has very steep slopes, poor access, and heavy fuels. This is a heavily travelled road that provides access to forested areas used for recreation. Intensive forest management activities occur around and within this community, which increases potential ignition sources and fuels. Due to its location, response times are greater than 10 minutes, and response efforts will prove difficult as the roads are steep, driveways are narrow and are not well marked, and there are no known alternative water sources for the ridgeline. The terrain also inhibits radio communication.
Cornelius Pass Road	**High**	X	X	X	X	X	X	X	X	X	X	X	Cornelius Pass is located just west of Skyline road, and has similar wildfire hazards and potential response issues. Cornelius Pass has poor addressing, steep driveways, and heavy fuels. Like Skyline, there is limited communication in this area, water supply is scarce, and it is located more than 10 minutes away from the nearest fire station. This road is used by recreationists as well as commuters, so it is characterized by relatively heavy traffic for this otherwise rural area.

Table A-5.2 Tualatin Valley Fire and Rescue Communities At Risk Action Plans

Action Item	Timeframe	Partners	CAR
Tualatin Valley Fire & Rescue's Overall Action Plan			
Develop relationships with active citizen groups along Skyline Ridge and Cornelius Pass Road to help promote, manage and sustain wildfire prevention projects.	Short Term	CWPP Community Outreach Committee	TVF&R
Identify partnership opportunities to obtain high quality aerial photos for rural, western Multnomah County.	Short Term	Multnomah County GIS, Portland GIS, Metro GIS	TVF&R
Inventory bridges in the communities at risk listed below. Share data with Multnomah County for possible development of a tracking system for required 5-year engineer inspections. Add information to computer-aided dispatch.	Short Term	ODOT, Multnomah County, MCEM	TVF&R
Consider partnering with non-traditional partners such as West Multnomah Soil and Water Conservation District and the Oregon Watershed Enhancement Board to leverage funds for fuels reduction, bridge enhancements, and other multi-objective projects.	Long Term	WMSWCD, OWEB	TVF&R
Work with Multnomah county FDB to have a consistent county-wide backyard burning protocols.	Ongoing	Multnomah County Fire Defense Board	TVF&R
Tualatin Valley Fire & Rescue Local Communities at Risk Action Plan			
Conduct a Skyline Ridge Community Meeting to educate community on defensible space, and measures that can be taken to reduce structural ignitability. Solicit feedback on wildfire prevention projects the community would support.	Spring 2011	ODF, CWPP Outreach Subcommittee	Skyline Ridge
Conduct a Cornelius Pass Community Meeting to educate community on defensible space, and measures that can be taken to reduce structural ignitability. Solicit feedback on wildfire prevention projects the community would support.	Spring 2012	ODF, CWPP Outreach Subcommittee	Cornelius Pass
Inventory existing water resources and identify alternative water sources to support potential wildfire fighting efforts. Provide signage for these sources and update computer-aided dispatch.	Short Term	ODF, PF&R	Cornelius Pass, Skyline Ridge
Develop a community-driven pre-disaster plan including evacuation routes, telephone call down trees, and other strategies for strengthening community response.	Long Term	MCEM, POEM	Cornelius Pass, Skyline Ridge
Develop clear and effective signage for emergency response that includes alternative routes. Advertise rural addressing cost share program.	Long Term	ODF, Multnomah County, ODOT, PF&R	Cornelius Pass, Skyline Ridge
Partner with ODF and Scappoose Fire to develop a local wildfire prevention campaign to promote defensible space and reduce structural ignitability within the Home Ignition Zone	Long Term	ODF, CWPP Outreach Subcommittee	Cornelius Pass, Skyline Ridge
Map all roads, bridges and driveways and prioritize homes that have dead-ends, and cannot support emergency service vehicles (grade, length, vegetation, turn-arounds) for defensible space and fuels reduction projects.	Long Term	ODF, Multnomah County, ODOT, City of Portland	Cornelius Pass, Skyline Ridge
Seek grant funding to support fuels reduction and creation of defensible space around homes. Consider developing a cost-share program to support these activities.	Ongoing	ODF, Wildfire Technical Committee	Cornelius Pass, Skyline Ridge

A-7. Community at Risk: Multnomah County Structurally Unprotected Areas

In 2004, the Governor's Fire Service Policy Council convened a task force to discuss the issue of areas that are vulnerable to wildfire but are without publicly-funded structural fire protection. This is a major issue throughout the state because the number of unprotected homes in the Wildland Urban Interface continues to grow. State firefighting actions on these lands are made possible only after the Governor invokes the Conflagration Act. The task force agreed that protection should be provided only if the county is 1) completing a community wildfire protection plan; 2) has adopted the Department of Land Conservation and Development's Goal 4 requiring fire defense standards for new construction in forest zones; and 3) is changing property tax statement language for ODF assessment from "fire protection" to ODF "non-structural fire suppression" so homeowners and insurers are not lead to believe they have structural fire protection. This section of the Multnomah County CWPP addresses the unprotected areas, thereby meeting the provisions set forth by the task force.

There are approximately 92,864 acres of structurally unprotected lands in Multnomah County, with the majority (88,379 acres) is located in the eastern part of the county and includes the USFS Columbia River Gorge national Scenic Area and the Mount Hood National Forest. Government Island, located in central Multnomah County account for approximately 1,939 acres, and the remaining 2,546 is located in the western part of the county in Forest Park.

The Oregon Department of Forestry (ODF) and United States Forest Service provide wildland fire protection but their scope is limited to forest protection, not rescue or structure fire protection. In addition, it would take these wildland fire agencies over twenty minutes to respond to a wildland fire in this area. As a result, all homeowners and travelers are at risk of a long delay if fire were to occur.

East County Unprotected Areas

The unprotected areas in eastern Multnomah County include residential communities, Mount Hood National Forest land, the Columbia River Gorge National Scenic Area (USFS) and private industrial forest land, or undeveloped land.

Warrendale & Dodson are east county communities comprised of about 200 homes that are not covered by a structural fire department. This area is located along Interstate 84, which is the only East/ West Interstate Freeway in Oregon. It has some of the most extreme wildfire hazards due to the heavy fuels on adjacent USFS lands, steep slopes, east winds, and potential ignition sources from I-84 and the railroad.

The majority of homeowners in Warrendale and Dodson are aware of the increased risk to structure fires and wildfires, but only about 10% contract with Cascade Locks Fire & EMS in for structural fire protection. Cascade Locks Fire and Rescue has limited capacity to respond to a fire in this location. Many residents have voiced their concerns regarding the increased risk to life, property infrastructure due to their "unprotected" status and have been working towards establishing a Rural Fire Protection District here.

Eastern Multnomah County also features several State Parks, including two of the top ten most visited tourist attractions in the entire state: Multnomah Falls and The Bonneville Dam. Ainsworth and Eagle Creek are also popular State Parks that receive many visitors, especially during wildfire season. Potential ignition from recreators and their vehicles is a major concern in the Columbia River Gorge. Multnomah Falls Lodge is also highly vulnerable because it houses commercial

vendors that provide services to visitors. The Lodge currently has no structural fire protection. It also may be a potential resource if a fire were threatening the surrounding areas.

Thousand Acres (or the Sandy River Delta) is located just east of Troutdale, OR. This is a very popular off-leash dog park and equestrian area. There are many potential ignition sources as it is adjacent to Interstate 84 and the Rail Road, and is a well-known transient camp area. This area has high fuels comprised of invasive species including Himalayan Blackberry and Scotch Broom. The Columbia Gorge national Scenic Area recently embarked on restoration of native vegetation and eradication of the Himalayan Blackberry, and has used controlled burns to accomplish restoration goals. Thousand Acres is part of the USFS, who contracts with MCRFPD #14 for fire suppression. The current contract negotiations include adding Emergency Medical Services thru Multnomah County EMS.

Central County Unprotected Areas

Government Island (approximately 1,939 acres) is an unprotected area in central Multnomah County. Government Island is unique because it lies under the I-205Bridge and is controlled by State Parks. Despite the fact that it can only be accessed by boat, many recreators use this area, and frequently have campfires and light fireworks. A wildfire here could potentially close the I-205/I-5 Bridge.

West County Unprotected Areas

In Western Multnomah County, Tualatin Valley Fire and Rescue (TVF&R) is working with homeowners and elected officials to annex the unprotected areas (702 acres). There are 28 properties adjacent to Tualatin Valley Fire and Rescue's border in Skyline that are unprotected. While the exact nature of the unprotected properties remains unclear, research was conducted with Multnomah and Washington Counties and it was confirmed that taxes have never been levied by TVF&R or any other fire department for structural fire protection and emergency medical services. TVF&R is currently working with Multnomah and Washington Counties to annex these properties.

Te remaining 1,844 acres in west county are adjacent to the Scappoose Fire District. Although Scappoose would respond to an emergency in these areas, their ability to do so may be comprised due to the lack of a fee structure to support these services.

Unprotected Area Wildfire Hazards

The Multnomah County CWPP wildfire hazard assessment identifies areas that may be at higher risk to potential wildfires. Map #17 illustrates the overall wildfire hazard risk in the Multnomah County unprotected areas and will be used to help target areas for wildfire prevention activities.

Unprotected Communities at Risk

Communities that have been identified as being particularly vulnerable to wildfires are illustrated in Map#17 and listed in Table A-7.1. Local Fire Agency staff considered the following factors to determine the local CARs including:

- Need for defensible space
- Access limitations (narrow driveways, lack of address signage, one way in/one way out)
- Steep slopes that can hinder access and accelerate the spread of wildfire
- Lack of water available for wildland fire fighting
- Heavy fuels on adjacent public lands
- Potential ignition sources from recreationists and transients

- Agricultural and backyard burning
- Lack of community outreach programs to promote wildfire awareness
- Communications difficulties

Unprotected Areas Action Plan

Local Fire Agencies providing structural fire protection adjacent to these unprotected areas developed a list of actions to build capacity and assist in making the CARS more resilient to potential wildfires. The action plan for the Unprotected Areas is provided in Table A-7.2.

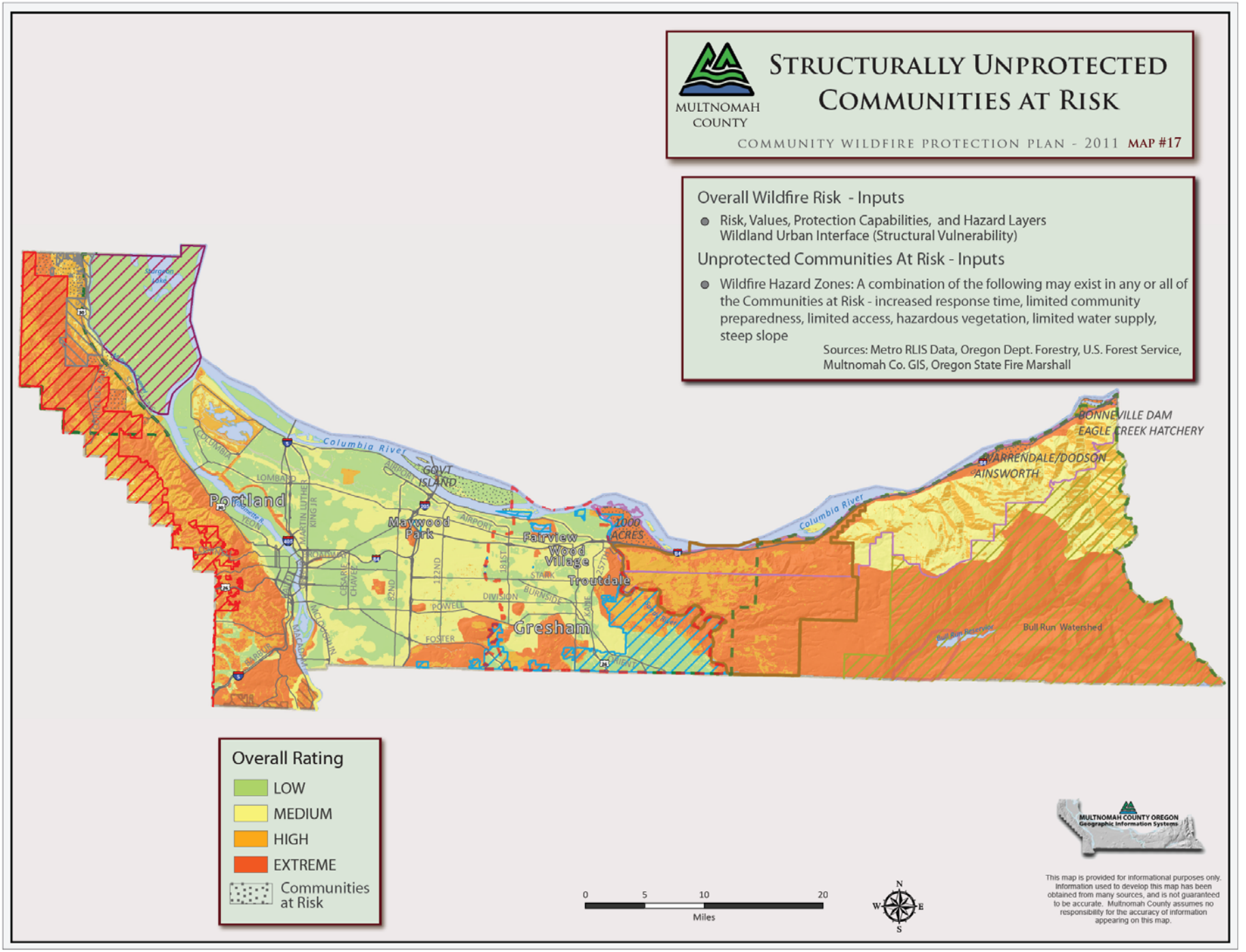

MULTNOMAH COUNTY
STRUCTURALLY UNPROTECTED COMMUNITIES AT RISK
COMMUNITY WILDFIRE PROTECTION PLAN - 2011 MAP #17
Overall Wildfire Risk - Inputs
Risk, Values, Protection Capabilities, and Hazard Layers
Wildland Urban Interface (Structural Vulnerability)
Unprotected Communities At Risk - Inputs
Wildfire Hazard Zones: A combination of the following may exist in any or all of the Communities at Risk - increased response time, limited community preparedness, limited access, hazardous vegetation, limited water supply, steep slope
Sources: Metro RLIS Data, Oregon Dept. Forestry, U.S. Forest Service, Multnomah Co. GIS, Oregon State Fire Marshall
Columbia River
Portland
GOVT ISLAND
Maywood Park
Fairview
Wood Village
Troutdale
Gresham
1000 ACRES
BONNEVILLE DAM
EAGLE CREEK HATCHERY
WARRENDALE/DODSON
AINSWORTH
Bull Run Watershed
Overall Rating
LOW
MEDIUM
HIGH
EXTREME
Communities at Risk
0 5 10 20
Miles
N
W
E
S
MULTNOMAH COUNTY OREGON
Geographic Information Systems
This map is provided for informational purposes only. Information used to develop this map has been obtained from many sources, and is not guaranteed to be accurate. Multnomah County assumes no responsibility for the accuracy of information appearing on this map.

Table A-7.1 Multnomah County Unprotected Area Communities at Risk

Community At Risk	CAR Priority	Defensible Space	Access	Water	Public Lands	Private Lands	Recreators/ Transients	Protection Capabilities	Burning	Preparedness	Communications	Steep Slopes	Description
Unprotected Areas Communities at Risk													
Warrendale & Dodoson	**High**	X	X	X	X	X	X	X	X	X	X	X	Warrendale & Dodson are east county communities comprised of about 200 homes that are not covered by a structural fire department. This area is located along Interstate 84, which is the only East/ West Interstate Freeway in Oregon. It has some of the most extreme wildfire hazards due to the heavy fuels on adjacent USFS lands, steep slopes, east winds, and potential ignition sources from I-84 and the railroad.
Ainsworth State Park	**High**		X	X	X		X	X	X	X	X	X	Ainsworht is located between Corbett and Warrendale/Dodson. It is a campgound for RV's and rustic campers. There is heavy vegetation here, lack of water supply, potetnial communications difficulties and difficult access. Recreators' campfires and vehicles provide a potential source of widlfire ignitions.
Bonneville Dam	**High**	X	X	X	X		X	X	X	X	X	X	Bonneville Dam is located 40 miles east of Portland, Oregon, near Cascade Locks, Or. Dam employees and visitors provide a potential source of ignition. There here are many structures here that would benefit from defensible space. .
Thousand Acres	**High**		X	X	X		X	X	X				This area has high fuels comprised of invasive species including Himalayan Blackberry and Scotch Broom. There are many potential ignition sources as it is adjacent to Interstate 84 and the Rail Road, has an off leash dog park that has heavy recreational use, and is a well-known transient camp area.
Government Island	**High**		X	X	X		X	X					Government Island is unique because it lies under the I-205 bridge and is controlled by State Parks. Despite the fact that it can only be accessed by boat, many recreators use this area, and frequently have campfires and light fireworks. A wildfire here could potentially close the I-205/I-5 bridge. This is actually an unprotected area, but the Port would provide coverage here if necessary.
Unprotected Forest Park	**High**	X	X	X	X	X	X	X	X	X	X	X	Tualatin Valley Fire and Rescue (TVF&R) is working with homeowners and elected officials to annex the unprotected areas. This area is characterized by steep slopes, heavy vegetation, windy, narrow roads, and poor water supply.

Table A-7.2 Multnomah County Unprotected Area Communities At Risk Action Plan

Action Item	Timeframe	Partners	CAR
Unprotected Areas Communities At Risk Action Plan			
Conduct a Community Meeting to educate community on defensible space, and measures that can be taken to reduce structural ignitability. Solicit feedback on wildfire prevention projects the community would support.	Spring 2012	ODF, Cascade Locks Fire & Rescue , TVF&R, ODF	Warrendale & Dodson, Unprotected Forest Park
Work with Warrendale & Dodson residents to champion a Rural Fire Protection District with appropriate boundaries to protect people and infrastructure from structural and wildland fires.	Spring 2013	Warrendale & Dodson Residents, Cascade Locks Fire, RFPD #14, Multnomah County Commissioners, ODF, USFS	Warrendale & Dodson
Develop a local wildfire prevention campaign to promote defensible space and reduce structural ignitability within the Home Ignition Zone	Spring 2012	Cascade Locks Fire & Rescue , TVF&R, ODF	Warrendale & Dodson, Unprotected Forest Park
Obtain structural ignitability intelligence by conducting structural triage assessment data collection (including GPS points) for homes.	Long Term	ODF, Cascade Locks Fire & EMS, TVF&R	Warrendale & Dodson, Unprotected Forest Park
Develop a community-driven pre-disaster plan including evacuation routes, telephone call down trees, and other strategies for strengthening community response.	Short Term	Cascade Locks Fire & Rescue	Warrendale & Dodson, Unprotected Forest Park
Map all roads, bridges and driveways and prioritize homes that have dead-ends, and cannot support emergency service vehicles (grade, length, vegetation, turn-around) for defensible space and fuels reduction projects.	Long Term	BDS, ODOT, Multnomah County, TVF&R, ODF	Warrendale & Dodson, Unprotected Forest Park
Implement road addressing (including length of driveways) and other signage for emergency response.	Short Term	Cascade Locks Fire & EMS, TVF&R, ODF	Warrendale & Dodson, Unprotected Forest Park
Seek grant funding to support fuels reduction and creation of defensible space around homes. Consider developing a cost-share program to support these activities.	Ongoing	ODF, Wildfire Technical Committee	All
Identify opportunities for community debris disposal collection sites that recycle or compost vegetative material vs. burning.	Ongoing	ODF, Wildfire Technical Committee	All
Partner with managers of forested areas to reduce hazardous fuels in natural areas surrounding communities at risk.	Ongoing	ODF, USFS,CRGNSA, State Parks, Bonneville Dam (USACE)	Ainsworth, Bonneville Dam, Multnomah Falls , 1,000 Acres
Work with Portland Police and Multnomah County Sheriffs office to patrol the area to reduce transient camps.	Ongoing	Multnomah County Sheriff's Office	Ainsworth, Bonneville Dam, Multnomah Falls, Govt. Island, 1,000 Acres
Increase public awareness of wildfire hazards by posting information on existing placards in recreational areas.	Long Term	ODF, USFS, CRGNSA, State Parks, Bonneville Dam (USACE)	Ainsworth, Bonneville Dam, Multnomah Falls, Govt. Island, 1,000 Acres
Work with USFS, RFPD #14 (Corbett Fire) and vendors in Multnomah Falls Lodge to obtain structural fire protection.	Short Term	USFS, CRGNSA, RFPD #14, Multnomah Falls Vendors	Multnomah Falls
Work with Multnomah Falls Lodge Vendors, USFS and Bonneville Dam to determine potential partnership opportunities for staging emergency response vehicles and other support role the Lodge and Dam could play in the event of a wildfire.	Short Term	Multnomah Falls Lodge Vendors, USFS, CRGNSA, Bonneville Dam (USACE), ODF, RFPD#14, Cascade Locks Fire & EMS	Multnomah Falls, Bonneville Dam, 1,000 Acres
Continue to support the Columbia River Gorge National Scenic Area in restoration efforts by accessing additional grant funds made available through the CWPP.	Ongoing	Columbia River Gorge National Scenic Area, RFPD #14	Ainsworth, Bonneville Dam, Multnomah Falls, Govt. Island, 1,000 Acres

Multnomah County CWPP Acronym List

ARC	American Red Cross
BCC	Board of County Commissioners
BLM	Bureau of Land Management
CRGNSA	Columbia River Gorge National Scenic Area
CWPP	Community Wildfire Protection Plan
DEQ	Department of Environmental Quality
DLCD	Department of Land Conservation & Development
EOC	Emergency Operations Center
FEMA	Federal Emergency Management Agency
FOC	Fire Operations Center
GIS	Geographic Information System
GFES	Gresham Fire and Emergency Services
HFRA	Healthy Forests Restoration Act
ICS	Incident Command System
ISO	Insurance Services Office (Fire Hazard Rating)
MCWPP	Multnomah Community Wildfire Protection Plan
MCEM	Multnomah County Office of Emergency Management
MCGIS	Multnomah County Geographic Information
MCLP	Multnomah County Land Use Planning
OCI	Multnomah County Office of Citizen Involvement
MFDB	Multnomah Fire Defense Board
NFP	National Fire Plan
NHMP	Natural Hazards Mitigation Plan
NERT	Neighborhood Emergency Response Team
OEM	Office of Emergency Management (State)
ODF	Oregon Department of Forestry
ODF	Oregon Dept. of Forestry
BDS	Portland Bureau of Development Services
BES	Portland Bureau of Environmental Services
BPS	Portland Bureau of Planning and Sustainability
BOT	Portland Bureau of Transportation
PF&R	Portland Fire and Rescue
POEM	Portland Office of Emergency Management
PP&R	Portland Parks and Recreation
PPB	Portland Police Bureau
PWB	Portland Water Bureau
PDM	Pre-Disaster Mitigation Program (FEMA)
RRFPD #14	Rura Fire Protection District #14: Corbett Fire
RRFPD #10	Rural Fire Protection District #10
SIF	Rural Fire Protection District #30J: Sauvie Isalnd Fire
SFD	Scapoose Fire District
SAR	Search and Rescue
TVF&R	Tualatin Valley Fire and Rescue
USFS	United States Forest Service
Mt Hood NF	USFS Mount Hood National Forest
WMSWCD	West Multnomah Soil and Water Conservation District

RESOURCE C: ORGANIZATIONAL WORKSHEETS

Organizational Worksheets

The following documents are designed to assist the Wildfire technical Committee in adding new program elements to the CWPP in a systematic manner. It is also anticipated that future editions of the MCWPP will include additional worksheets to guide plan review and updates.

The Fuels Reduction Project Identification Form is to be completed by any agency that would like to add a fuels reduction project to the MCWPP. In addition, a GIS shape file or specific project boundaries should accompany the worksheet. All of the attributes on this Fuels Reduction Project ID Form will be associated with the proposed project and entered into the larger database containing all of the Fuels Reduction Projects throughout the County (Map #9).

The Action Planning Worksheet guides the user in determining issues, identifying Communities at Risk and developing actions to address these vulnerabilities. Local Fire Agencies are encouraged to continue consider adding action items and CARs to keep the MCWPP a relevant and dynamic document.

C-1. Fuels Reduction Project ID Form

Project Name:
Project Number (if applicable):
Land Owner:
Land Manager:
Project Manager:

1. **Description of area:**
    a. Location **(**please provide any of the following: legal or GIS coordinate – township, range, section, taxlot, nearest street, road number, landmarks, etc.)._____
    b. Acreage of area? _____ Acres
    c. How accessible is the area?_____
    d. Estimated # homes at risk?_____
    e. Infrastructure at risk?_____

2. **Major resource issue (please "X" those that apply).**

    _____Fuels Reduction
    _____Invasive Species*
    _____Oak Restoration
    _____Defensible Space
    _____Data Collection
    Additional Comments: _____

    *Are there invasive weeds present (are they State High Priority-A or T list from http://www.oregon.gov/ODA/PLANT/WEEDS/statelist2.shtml)? _____

3. **Status**
    _____Proposed
    _____Planned
    _____In Process
    _____Complete/Maintenance

4. **Land Cover Type**
    _____Park/Open Space
    _____Utility Corridor
    _____Small Woodland Operator
    _____Residential Forest Land
    _____Transportation ROW
    _____Industrial Forest Land
    _____USFS/BLM Forest Land
    _____Other

5. **Priority**
    _____Low
    _____Medium
    _____High
    _____Complete

6. **Funding**
    _____Available
    _____Needed

C-2. MCWPP Action Planning Worksheet

Identify "Problem Areas"
Where are the Heavy Fuels?
Describe location, fuel type and scale of issue (individual home, neighborhood, landscape)

What/Where are the access issues in the Fire District (bridges, addressing, one way, steep driveways)?

What/where are the water supply issues?

Are there areas that lack of cell phone /radio coverage?

Wildfire Prevention & Community Involvement
What types of wildfire prevention outreach programs do you currently have?
(Defensible Space-Firewise, Debris burning, Fireworks)

What type of outreach do you think is needed?

Is there information you would like from Communities at Risk?

Are there active citizen groups? Describe….

Are there communities to target for Wildfire Meetings?

Opportunities to Build Capacity
Do you have communications equipment needs?

Does your Fire District have access to resources during an event?
(Relationships with State/Federal land managers Mutual Aid Agreements)

Does staff currently receive wildfire training? Describe….

Are there wildfire training needs?

Are there other wildfire equipment needs?

How can we better protect structures in the WUI?
Does your Fire District participate in land use reviews?

Are there tree ordinances or other initiatives that may not support defensible space?

How can regulatory agencies (land use planning, building codes, etc.) assist in reducing wildfire hazards to structures?

RESOURCE D: AGENCY CONTACT INFORMATION

MCWPP Contact Information				
Agency	**Acronym**	**Phone**	**Address**	**Website**
Bureau of Land Management	BLM	503-808-6001	BLM 333 S.W. 1st Avenue Portland, OR 97204	http://www.blm.gov/or/index.php
Columbia River Gorge National Scenic Area	CRGNSA	541-308-1700	CRGNSA 902 Wasco Street, Suite 200 Hood River, OR 97031	http://www.fs.fed.us/
East Multnomah Soil and Water Conservation District	EMSWCD	503-222- 7645	East Multnomah Soil and Water 5211 N. Williams Avenue Portland, Oregon 97217	http://www.emswcd.org/
Metro	Metro	503-797-1850	Metro Parks 600 Northeast Grand Avenue Portland, OR 97232-2736	http://www.metro-region.org/
Multnomah County Office of Emergency Management	MCEM	503-988-6700	Multnomah County GIS 501 SE Hawthorne Blvd., Suite 400 Portland, OR 97214	http://web.multco.us/em
Multnomah County Geographic Information Systems	MCGIS	503-988-3749	Multnomah County GIS 501 SE Hawthorne Blvd., Suite 400 Portland, OR 97214	http://web.multco.us/gis/
Multnomah County Land Use Planning	MCLP	503-988-5000	Multnomah County Land Use 1600 SE 190th Ave., Suite 224 Portland, OR 97233	http://web.multco.us/land-use-planning
Multnomah County Office of Citizen Involvement	OCI	503-988-3450	Multnomah County OCI 501 SE Hawthorne Blvd., Rm. 192 Portland, OR 97214	http://web.multco.us/oci
Oregon Dept. of Forestry-Columbia City	ODF	503-397-2636	Oregon Department of Forestry 405 E Street Columbia City, Oregon 97018	http://www.oregon.gov/ODF/FIELD/CC/aboutus.shtml
Oregon Dept. of Forestry-Forest Grove	ODF	503-357-2191	Oregon Department of Forestry 801 Gales Creek Road Forest Grove, Oregon 97116-1199	http://www.oregon.gov/ODF/FIELD/FG/aboutus.shtml
Oregon Dept. of Forestry-Molalla	ODF	503-829-2216	Oregon Department of Forestry 14995 S Hwy 211 Molalla, OR 97038-8441	http://www.oregon.gov/ODF/FIELD/MOLALLA/aboutus.shtml
Portland Office of Emergency Management	POEM	503-823-4375	Portland Office of Emergency Manag 1001 SW 5th Avenue, Suite 650 Portland, Oregon 97204	http://www.portlandonline.com/oem/
Portland Bureau of Development Services	BDS	503-823-7300	Portland BDS 1900 SW 4th Ave., Ste. 5000 Portland, OR 97201	http://www.portlandonline.com/bds/

Agency	Acronym	Phone	Address	Website
Portland Bureau of Environmental Services	BES	503-823-7740	Portland BES 1120 SW 5th Avenue, Room 1000 Portland, Oregon 97204-3713	http://www.portlandonline.com/bes/
Portland Bureau of Planning and Sustainability	BPS	503-823-7700	Portland BPS 1900 SW 4th Ave., Suite 7100 Portland, OR 97201-5380	http://www.sustainableportland.org/bps/
Portland Bureau of Transportation	BOT	503-823-5185	Bureau of Transportation 1120 SW Fifth Ave, Suite 800 Portland, OR 97204	http://www.portlandonline.com/transportation/
Portland Police Bureau	PPB	503-823-0000	Portland Police Bureau 1111 S.W. 2nd Avenue Portland, Oregon 97204	http://www.portlandonline.com/police/
Portland Water Bureau	PWB	503-823-7404	Portland Water Bureau 1120 SW Fifth Avenue, Rm. 600 Portland, OR 97204	http://www.portlandonline.com/water/
Portland Parks and Recreation	PP&R	503-823-7529	Portland PP&R 1120 SW Fifth Ave #1302 Portland, Oregon 97204	http://www.portlandonline.com/parks/
USFS Mount Hood National Forest	Mt Hood NF	503-668 1700	Mount Hood Nat'l Forest 16400 Champion Way Sandy, Oregon 97055	http://www.fs.fed.us/
West Multnomah Soil and Water Conservation District	WMSWCD	503-238-4775	WMSWCD 2701 NW Vaughn St., Suite 450 Portland, Oregon 97210	http://www.wmswcd.org/

Local Fire Agency Contact Information				
Agency	**Acronym**	**Phone**	**Address**	**Website**
Scappoose Fire District	SFD	503-543-5026	Scappoose Fire District 52751 Columbia River Highway Scappoose, Oregon 97056	http://www.srfd.us/
Rural Fire Protection District #14: Corbett Fire District	RRFPD #14	503-695-2272	Corbett Fire District 36930 E. Historic Columbia River Hv Corbett, Oregon 97019	http://www.corbettoregon.com/firedept/
Gresham Fire and Emergency Services	GFES	503-618-2355	Gresham Fire and Emergency 1333 NW Eastman Parkway Gresham, OR 97030 USA	http://greshamoregon.gov/city/city-departments/fire-and-ems/
Rural Fire Protection District #30J: Sauvie Island Fire District	SIF	503-621-1242	Sauvie Island Fire District 18342 NW Sauvie Island Road Portland, OR 97231	http://www.sifire.org/
Tualatin Valley Fire and Rescue	TVF&R	503-649-8577	Tualatin Valley Fire and Rescue 11945 SW 70th Avenue Tigard, OR 97223	http://www.tvfr.com/
Rural Fire Protection District #10	RRFPD #10	503-666-6704		
Portland Fire and Rescue	PF&R	503-823-3700	Portland Fire and Rescue 55 SW Ash Street Portland, Oregon 97204	http://www.portlandonline.com/fire/