

# **CHAPTER 6**

## **HAZARDOUS FUELS**

### **REDUCTION & BIOMASS UTILIZATION**



## CHAPTER 6: HAZARDOUS FUELS REDUCTION & BIOMASS UTILIZATION

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### 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.<sup>9</sup> 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	United States Forest Service Mt. Hood National Forest (Mt. Hood NF) and the Columbia River Gorge National Scenic Area (CRGNSA)
West Multnomah County Soil and Water Conservation District (WMSWCD)	Portland Parks & Recreation City Nature Division (PPR)
Portland Bureau of Environmental Services (BES)	Portland Water Bureau (PWB)
Oregon Dept. of Forestry (ODF)	

#### 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.

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<sup>9</sup> Cohen, J., Preventing Disaster: Home Ignitability in the Wildland-Urban Interface Journal of Forestry <http://www.firelab.org/fbp/fbpps/fbpps/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
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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 Butte Park 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

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



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.

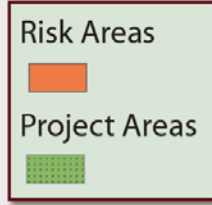
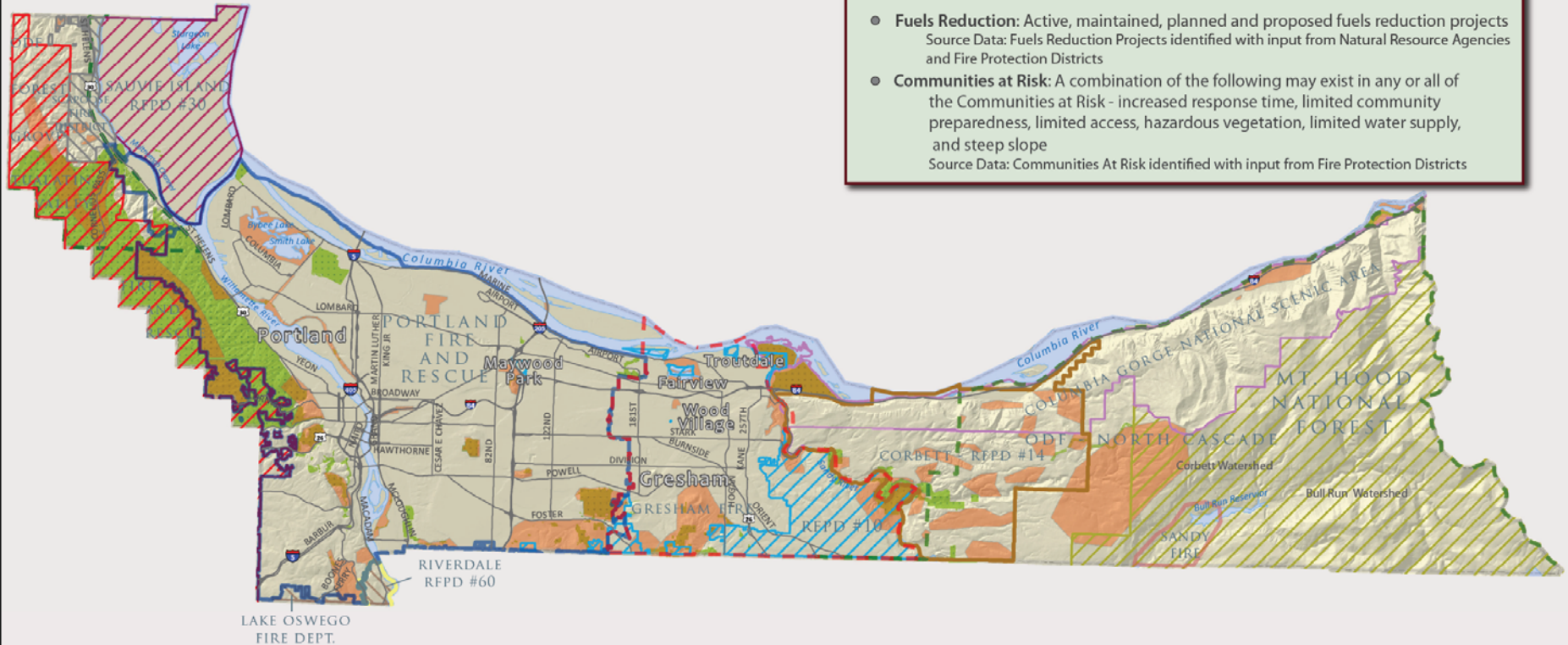


# FUELS REDUCTION PROJECTS AND LOCAL COMMUNITIES AT RISK

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



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# CHAPTER 7

## EMERGENCY OPERATIONS



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

## CHAPTER 7: EMERGENCY RESPONSE OPERATIONS

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### 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:	

- 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.

- 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:	

- 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:	

- 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).

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## CHAPTER 8: WILDFIRE PREVENTION AND COMMUNITY INVOLVEMENT

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### 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)	Portland Fire and Rescue (PF&R)
Multnomah County Office of Citizen Involvement (MCOCI)	Multnomah County Emergency Management (MCEM)
	Oregon Dept. of Forestry (ODF)

#### Other potential members/ stakeholders include:

Keep Oregon Green (KOG)	SOLV
East Multnomah Soil and Water Conservation District (EMSWCD)	Forest Park Conservancy (FPC)
City Parks Depts.	Audubon Society
Metro	Watershed Councils
Master Gardeners	City of Portland Neighborhood Coalitions
Portland Office of Emergency Management (POEM)	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**

<b>Topic</b>	<b>Gresham Butte/ Walters Hill</b>	<b>Corbett</b>	<b>Linnton</b>	<b>Holbrook</b>	<b>Skyline</b>
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

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### 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](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

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### 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)<sup>10</sup> 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

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<sup>10</sup> See [www.portlandonline.com/wildfire](http://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 Environmental Services (BES)
Portland Parks and Recreation City Nature (PP&R)	Portland Planning and Sustainability (BPS)
Portland Office of Emergency Management (POEM)	Multnomah County Emergency Management
Portland Water Bureau (PWB)	Oregon Dept. of Forestry
	Metro

### Technical Advisors

East Multnomah Soil and Water Conservation District	Portland Office of Finance & Management
West Multnomah Soil and Water Conservation District	Portland Police Bureau
Multnomah County Office of Citizen Involvement	Portland Office of Neighborhood Involvement
City Parks and Natural Resources Depts.	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/](http://www.fs.fed.us/r6/mthood/).