

Contents

| | |
|---|----|
| <i>Executive Summary</i> | 1 |
| Objectives of the Community Wildfire Protection Plan | 2 |
| <i>Chapter 1 - Introduction</i> | 3 |
| County History: | 4 |
| County Profile:..... | 4 |
| Environment and Natural Resources: | 5 |
| Fire Policies and Programs:..... | 5 |
| FEMA Disaster Mitigation Act of 2000: | 6 |
| Healthy Forest Restoration Act (HFRA) / Healthy Forest Initiative (HFI):..... | 6 |
| National Fire Plan and 10-Year Comprehensive Strategy: | 7 |
| Oregon Forestland-Urban Interface Fire Protection Act Senate Bill 360:..... | 7 |
| Oregon Statewide Land Use Planning Goal 4:..... | 8 |
| Oregon Statewide Land Use Planning Goal 7:..... | 8 |
| U.S. Forest Service:..... | 9 |
| Bureau of Land Management:..... | 9 |
| Oregon Department of Forestry Fire Protection Program:..... | 9 |
| Marion County Fire Protection Response Areas..... | 10 |
| <i>Chapter 2 - Coordination Process</i> | 11 |
| Steering Committee Roles and Objectives | 12 |
| MCCWPP Steering Committee: | 12 |
| Steering Committee Actions | 13 |
| Citizen Involvement: | 14 |
| Community Risk Assessment:..... | 14 |
| <i>Chapter 3 - Wildland Fire Risk Assessment</i> | 15 |
| Communities at Risk:..... | 15 |
| Communities at Risk in Marion County:..... | 16 |
| Wildland Urban Interface (WUI): | 16 |
| Priority Fuels Treatment Areas: | 17 |
| Fire Occurrence – History of Oregon’s Wildfires: | 17 |

This page is intentionally left blank

Contents

| | |
|---|-----------|
| Fire Regimes:..... | 18 |
| Fire Regime Condition Class | 18 |
| Condition Class: | 19 |
| Hazardous Fuels Reduction Objectives | 20 |
| <i>Chapter 4 - Emergency Operations</i> | <i>21</i> |
| Conflagration Act: | 22 |
| Evacuation Routes | 23 |
| <i>Chapter 5 - Monitoring and Evaluation.....</i> | <i>29</i> |
| Plan Oversight: | 29 |
| Monitoring: | 29 |
| Summary of Monitoring Tasks..... | 30 |
| Summary of Monitoring Tasks..... | 31 |
| <i>Chapter 6 - Action Plan.....</i> | <i>33</i> |
| Community Risk Factors | 34 |
| Risk Factor 1 – Fire Behavior Potential: | 35 |
| Risk Factor 2 – Values at Risk:..... | 35 |
| Risk Factor 3 – Infrastructure:..... | 35 |
| Critical Facilities: | 36 |
| <i>Appendix A.....</i> | <i>45</i> |
| Local Coordination Group Participants: | 45 |
| <i>Appendix B.....</i> | <i>47</i> |
| Map 1 – Ownership | 47 |
| Map 2 – Fire Districts | 47 |
| Map 3 – Overall Risk Assessment | 47 |
| Map 4 – Areas of Concern-Overall Map | 47 |
| Map 4a – Areas of Concern-Breitenbush..... | 47 |
| Map 4b – Areas of Concern-Detroit..... | 47 |
| Map 4c – Areas of Concern-Drakes Crossing..... | 47 |
| Map 4d – Areas of Concern-Idanha | 47 |

This page is intentionally left blank

Contents

| | |
|--|----|
| Map 4e – Areas of Concern-Jefferson..... | 47 |
| Map 4f – Areas of Concern-Mill City | 47 |
| Map 4g – Areas of Concern-Silverton | 47 |
| Map 4h – Areas of Concern-Stayton..... | 47 |
| Map 4i – Areas of Concern-Sublimity | 47 |
| Map 4j – Areas of Concern-Turner..... | 47 |
| Map 5 – Risk of Fire Occurrence | 47 |
| Map 6 – Evacuation Routes..... | 47 |
| Map 7 – Safety Corridors..... | 47 |
| <i>Appendix C</i> | 49 |
| Wildfire Risk Assessment: | 49 |
| Communities at Risk:..... | 49 |
| Wildland Urban Interface: | 52 |
| Is Your Home Protected from Wildland Disaster? – A Homeowners Guide to Wildfire Retrofit, Institute for Business and Home Safety. | 54 |
| Living with Fire: A Guide for the Homeowner: | 55 |
| Definitions: | 55 |
| <i>Appendix D</i> | 57 |
| Ten Steps to “Get in the Zone,” Fire Free Program and Measures to Reduce Structural Vulnerability:.... | 57 |
| Protecting your Home from Wildland Fire: | 58 |
| <i>Appendix E</i> | 61 |
| General Incentive Programs: | 61 |
| Major Incentive Programs Available to Family Forestland Owners in Oregon: | 61 |
| Community Fire Assistance:..... | 62 |
| Other Programs: | 63 |
| <i>Appendix F</i> | 65 |
| Oregon Department of Forestry Best Management Practices:..... | 65 |
| Fire Regulations | 65 |
| Public Use Restrictions | 65 |
| Industrial shutdown | 66 |

This page is intentionally left blank.

Signatures

The undersigned representatives of the Marion County Board of Commissioners, Marion County Emergency Management, Marion County Fire Defense Board and Oregon Department of Forestry acknowledge that they have reviewed and agree with the contents of this plan.

Marion County Board of Commissioners

County Commissioner Date

County Commissioner Date

County Commissioner Date

Marion County Emergency Manager

Emergency Manager Date

Marion County Fire Defense Board Chief

Fire Defense Board Chief Date

Oregon Department of Forestry

District Forester Date

This page is intentionally left blank.

Acronyms

| | |
|--------|--|
| BLM | Bureau of Land Management |
| BOC | Board of Commissioners |
| CFR | Code of Federal Regulations |
| CREP | Conservation Reservation Enhancement Program |
| CWPP | Community Wildfire Protection Plan |
| DEQ | Department of Environmental Quality |
| DLCD | Department of Land Conservation and Development |
| DOI | Department of Interior |
| EOP | Emergency Operations Plan |
| EPA | Environmental Protection Agency |
| FEMA | Federal Emergency Management Agency |
| FEPP | Federal Excess Personal Property |
| FS | Forest Service |
| FUI | Forestland-Urban Interface |
| GIS | Geographic Information Systems |
| HFI | Health Forest Initiative |
| HFRA | Healthy Forest Restoration Act |
| HUC | Hydrologic Unit Code |
| ISO | Insurance Service Organization |
| ICS | Incident Command System |
| LCG | Local Coordinating Group |
| MCCWPP | Marion County Community Wildfire Protection Plan |
| NASF | National Association of State Foresters |
| NEPA | National Environmental Policy Act |
| NFP | National Fire Plan |
| OAR | Oregon Administrative Rule |
| ODF | Oregon Department of Forestry |
| ORS | Oregon Revised Statutes |
| OSFM | Oregon State Fire Marshal |
| PDM | Pre-Disaster Mitigation |
| RAC | Resource Advisory Council |
| RAM | Risk Assessment Model |
| RFA | Rural Fire Assistance |
| RFD | Rural Fire District |
| RFPD | Rural Fire Protection District |
| USDA | United States Department of Agriculture |
| USFS | United State Forest Service |
| VFA | Volunteer Fire Assistance |
| WFSA | Wildland Fire Situation Analysis |
| WUI | Wildland-Urban Interface |

This page is intentionally left blank.

Executive Summary

Executive Summary

In This Section...

- *Overview*
- *Objectives*

Recent fires in Oregon and across the western United States have increased public awareness over the potential losses to life, property, and natural and cultural resources that fire can pose.

The Marion County Community Wildfire Protection Plan (CWPP) is the result of a countywide effort initiated to reduce wildland fire risk to communities and their citizens, the environment and quality of life within Marion County. Citizens, fire districts, county staff or elected officials, and agency representatives have worked together to create a plan that would be successful in implementing fuels reduction projects, fire prevention education campaigns, and other fire related programs.

Developed by the local coordinating group comprised of rural fire protection districts, local government, state and federal agencies, and community-based organizations, the plan mission is to enhance community safety and values through fuel hazard reduction, risk reduction, fire prevention and reduce the risk from wildland fire to life, property and natural resources in the County.

While the Marion County CWPP provides a foundation and resources for understanding wildland fire risk and opportunities to reduce potential losses from wildland fire, individual communities, fire districts and neighborhoods can take local action by developing community-specific fire plans or by participating in countywide activities for prevention and protection.

The Healthy Forests Restoration Act of 2003 recommends that communities develop a CWPP, as does the FEMA Disaster Mitigation Act of 2000. With formal adoption of this plan, Marion County is more competitive for funding that may assist with plan implementation. Furthermore, adoption of this plan highlights the partnerships between fire districts, local government, community-based organizations and public agencies. This plan brings direction to the federal agencies for which communities is a priority for fuel treatment on and adjacent to federally managed lands.

MCCWPP partners will also focus on refining long-term strategies to maintain fire protection activities in the County. Annual meetings of the local coordinating group will continue to take place.

To ensure recognition by the public, as well as partner agencies and organizations, the emergency management program coordinator presented this Marion County Community Wildfire Protection Plan (MCCWPP) to the Board of Commissioners for adoption in January 2008.

Executive Summary

Objectives of the Community Wildfire Protection Plan

| Category | Objectives |
|--------------------------|---|
| General | <ul style="list-style-type: none">▪ Provide oversight to all activities related to the MCCWPP.▪ Ensure representation and coordination between the sub-committees.▪ Develop and refine goals for fire protection in Marion County.▪ Develop a long-term structure for sustaining efforts of the MCCWPP. |
| Risk Assessment | <ul style="list-style-type: none">▪ Identify and update as needed Communities-at-Risk and the Wildland-Urban Interface.▪ Develop and conduct a wildland fire risk assessment.▪ Identify and prioritize hazardous fuels treatment projects. |
| Fuels Reduction | <ul style="list-style-type: none">▪ Identify strategies for coordinating fuels treatment projects at a landscape scale.▪ Coordinate administration of fuels program so that it is equitable across fire districts.▪ Provide low-income special need citizens with an opportunity to reduce their fuels and participate in local programs.▪ Identify opportunities for marketing and utilization of smaller diameter wood products. |
| Emergency Management | <ul style="list-style-type: none">▪ Strengthen emergency management, response and evacuation capabilities for wildfire.▪ Coordinate between State, County government and local fire districts.▪ Annually, convene the CWPP steering committee to review plan accomplishments and revise the plan. |
| Information and Outreach | <ul style="list-style-type: none">▪ Develop strategies for increasing citizen awareness and action for fire prevention.▪ Reach out to all citizens in the county. |
| Funding Opportunities | <ul style="list-style-type: none">▪ Assemble and communicate joint agencies' goals and objectives.▪ Jointly seek grant monies. |



Lucky Fire

Chapter 1: Introduction

Chapter 1 - Introduction

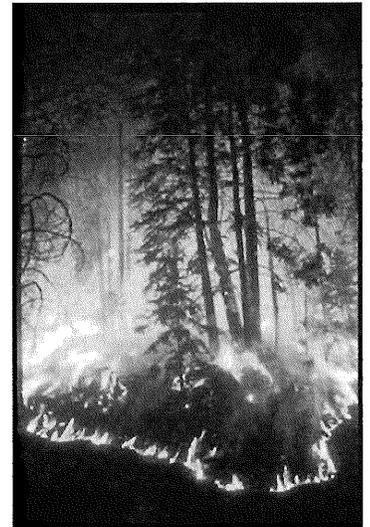
In this Section...

- ❑ *Sustaining Fire Plan Efforts*
- ❑ *County History*
- ❑ *County Profile*
- ❑ *Fire Protection Response Area*
- ❑ *Environment and Natural Resources*
- ❑ *Fire Policies and Programs*
- ❑ *Healthy Forest Restoration Act*
- ❑ *FEMA Disaster Mitigation Act of 2000*
- ❑ *National Fire Plan and 10-year Comprehensive Strategy*
- ❑ *Senate Bill 360*
- ❑ *Oregon Statewide Land Use Planning Goal 4*
- ❑ *Oregon Statewide Land Use Planning Goal 7*
- ❑ *Oregon Department of Forestry Fire Protection Program*
- ❑ *U.S. Forest Service*
- ❑ *Bureau of Land Management*

In the past, there has been limited awareness about the investment required to maintain fire protection. From prevention and education to evacuation, citizens must have the information and resources to be active participants in reducing their risk to wildland fire. For many years, there has been a reliance on insurance, local government, fire service, federal agencies and many other types of organizations to aid us when disaster strikes. The MCCWPP encourages citizens to take an active role in identifying needs, developing strategies and implementing solutions to address wildland fire risk by assisting with the development of local community wildfire protection plans and participating in countywide fire prevention activities. Citizen action may be cleaning up brush around homes, installing new smoke detectors, volunteering to be a part of auxiliary, attending community meetings, and/or passing along information on fire prevention to neighbors and friends. With the MCCWPP as a foundation, local action can guide successful implementation of fire hazard reduction and protection efforts in the County.

Development of the Marion County CWPP has been no small task. Building a partnership 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 wildfire risk. Maintaining this cooperation with the public will be a long-term effort that requires commitment of all partners involved.

Marion County is committed to supporting the rural fire districts and communities in their fire protection efforts, both short and long-term. The County will continue to provide support in maintaining countywide risk assessment information and emergency management coordination. The Local CWPP Coordination Group will work on implementing the wildfire plan by working with fire districts, community organizations and public agencies to coordinate fuels reduction projects through all available funding sources. The MCCWPP will focus on public meetings, education campaign; strengthen emergency management and evacuation procedures.



McLain Creek Fire, North Eastern Oregon, 2006

Introduction

County History: Marion County, originally named Champooick District (later Champoeg), was created on July 5, 1843, by the Provisional Legislature. Champoeg District stretched southward to the California border and eastward to the Rocky Mountains. The area, however, was soon reduced with the creation of Wasco, Linn, Polk, and other counties. Marion County's present geographical boundaries, established in 1856, are the Willamette River and Butte Creek on the north, the Cascade Range on the east, the Santiam River and North Fork of the Santiam on the south, and the Willamette River on the west. Marion County shares political borders with Clackamas, Yamhill, Polk, and Linn Counties. The county contains 1,194 square miles.

Marion County is located in the center of the Willamette Valley. Agriculture and food processing are important to the county's economy, as are lumber, manufacturing, and education. Government, however, is the county's main employer and economic base, which includes the State Capitol.

Marion County's forests enrich the lives of county residents by providing fresh water supplies, abundant wildlife habitat, scenic beauty, and recreation opportunities. The population, geography, and history of fire all contribute to the level of wildfire risk that people in Marion County face. Publicly managed lands comprise approximately one-third of Marion County and are often heavily forested.

Building and sustaining strong relationships between public land managers, fire districts, political jurisdictions, and the residents of Marion County is essential to reducing wildfire risk. Marion County has continued to experience a growing rate of poverty among its population. People living in poverty may be more challenged in preparing for, responding to and recovering from the impacts of catastrophic wildfire. Wildfire can also have longer-term economic impacts on the community as local government, businesses and residents deal with a loss of resources and post-fire recovery costs.

The demographic, physical, social and economic character of Marion County provides an understanding of the people, facilities, property, and environment at risk to wildfires now and in the future. The following profile illustrates the composition of the county and where resources may be most needed in the future. Information in this profile includes county and rural fire protection district population data, demographics, critical facilities, transportation systems, and environmental and natural resources. This profile also provides information on low-income, elderly, disabled, and other special need residents.

County Profile: Based on the July 2006 Census, there are 311,304 people residing in Marion County. Marion County's forests enrich the lives of county residents by providing fresh water supplies, abundant wildlife habitat, scenic beauty, and recreation opportunities. The population, geography, and history of fire all contribute to the level of wildfire risk that people in Marion County face. Publicly managed lands comprise approximately one-third of Marion County and are often heavily forested.

The total area of Marion County is approximately 764,029 acres, of which about 503,294 acres is privately owned and about 260,735 acres are publicly managed. Of the federal land, the U.S. Forest Service manages 204,168 acres and the Bureau of Land Management manages 20,950 acres. The State of Oregon owns approximately 31,771 acres. See Appendix B, Map 1 - Ownership

Introduction

Facilities critical to government response and recovery activities include 911 centers, emergency operations centers, police and fire stations, public works facilities, sewer and water facilities, hospitals, bridges and roads, and shelters. Other critical infrastructure in the county includes cellular towers and repeater towers. Critical and essential facilities are vital to the continued delivery of key government services that may significantly impact the public's ability to recover from an emergency.

Environment and Natural Resources:

Forestlands cover the eastern 43 percent of the total county area and a majority of the water resources originate in this area. Other than the high-altitude forest to the east (Cascade Range) and sporadic foothills, the county is relatively flat. The underlying rock in the western Cascades is volcanic. The elevations in the Cascades range from 800 feet on the floodplains to 6,000 feet on the higher peaks. Douglas fir and hemlock are the principal species of trees growing at the low to mid-elevations, silver fir and mountain hemlock at higher elevations.

The Willamette River is the dominant water feature in the region. There are two major tributaries of the Willamette in Marion County: the North Santiam and the Pudding Rivers, although numerous small streams also contribute to the stream flow. Several of these small streams dry up in the summer months. These river systems are important cultural and economic resources; and the North Santiam River draws thousands of visitors to the county each year for camping, fishing and other water sports. Marion County also has a limited number of lakes. Most are small, with the largest being Detroit Lake (man-made) to the North Santiam River.

Detroit (Reservoir) Lake is within Marion County and attracts thousands of visitors and summertime residents. The 3,500-acre and 400-foot-deep lake is located in the Cascade Mountains below Mt. Jefferson within the Willamette National Forest. The lake is over nine miles long with more than 32 miles of shoreline. The U.S. Army Corps of Engineers built the lake and dam in 1951-53. The lake stores water of the North Santiam River, controlling runoff and providing flood control, irrigation, downstream navigation improvement, recreation and power generation, while preserving the quality of the North Santiam Canyon environment

Fire Policies and Programs:

There are various local, state and federal programs and policies related to community fire planning and fire protection. In 2005, Marion County adopted a natural hazards mitigation plan, which discussed natural hazards, including wildfire, and provides mitigation action items. When it is approved, the MCCWPP will become part of the Marion County Natural Hazards Mitigation Plan which can be found at the following website:

<http://www.co.marion.or.us/PW/EmergencyManagement/mitigation.htm>

FEMA Marion County Natural Hazard Mitigation Plan: The plan provides a set of action items in unincorporated urban areas, and the rural unincorporated areas of the county to reduce risk from natural hazards through education and outreach programs, the development of partnerships, and implementation of preventative activities such as land use and watershed programs. The resources and information within the Mitigation Plan: (1) establish a foundation for the coordination and collaboration among agencies and the public in Marion County; (2) identify and prioritize future mitigation projects; and (3) assist in meeting the requirements of federal assistance programs.

Introduction

FEMA Disaster Mitigation Act of 2000: Federal Emergency Management Agency (FEMA) requirements under Title 44 CFR Part 201 of the Disaster Mitigation Act of 2000 specifies 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. These may include countywide or multi-jurisdictional plans as long as all jurisdictions adopt the plan. Activities eligible for funding include management costs, information dissemination, planning, technical assistance and mitigation projects.

Healthy Forest Restoration Act (HFRA) / Healthy Forest Initiative (HFI): In 2002, President Bush announced the Healthy Forest Initiative (HFI) designed to identify and remove barriers to the implementation of projects that were developed to restore the health of the nations forests. HFI focused on renewed efforts to be more effective and efficient in carrying out restoration projects. Under HFI, new categorical exclusions were developed to allow the federal agencies to move quickly through processes for NEPA and created new regulations under the Endangered Species Act for National Fire Plan projects to streamline consultation with federal regulatory agencies. It also set the stage for extensive discussion between the administration and Congress that resulted in new legislation addressing forest health.

Congress enacted the Healthy Forest Restoration Act (HFRA) in November 2003. It provides new tools and additional authorities to treat more federally managed acres quicker to expedite the nation's restoration goal. HFRA strengthens public participation and provides incentives for local communities to develop community protection plans. It limits the complexity of environmental analyses for hazard reduction projects, provides a more effective appeal process and instructs the courts that are being asked to halt projects to balance the short-term affects of implementing the projects against the harm from undue delay and long-term benefits of a restored forest.

Title I of the HFRA addresses vegetation treatments on certain types of National Forest and Bureau of Land Management (BLM) lands that are at risk of wildland fire or insect and disease epidemics. This title:

- Encourages streamlined environmental analysis of HFRA projects;
- Provides for administrative review of proposed HFRA projects on National Forest lands before decisions are issued;
- Contains requirements governing the maintenance and restoration of old-growth forest stands when the Forest Service and BLM conduct HFRA projects in such stands;
- Requires HFRA projects on Forest Service and BLM lands to maximize retention of larger trees in areas other than old-growth stands, consistent with the objective of restoring fire-resilient stands and protecting at-risk communities and Federal lands;
- Encourages collaboration between Federal agencies and local communities when community wildland fire protection plans are prepared;
- Requires using at least 50 percent of the dollars allocated to HFRA projects to protect communities at risk of wildland fire;
- Requires performance monitoring when agencies conduct hazardous-fuel reduction projects and encourages multiparty monitoring that includes communities and other stakeholders; and

Introduction

- Encourages courts that consider a request for an injunction on an HFRA-authorized project to balance environmental effects of undertaking the project against the effects of failing to do so.

Title III of the Act also encourages the development of Community Wildfire Protection Plans under which communities would designate their wildland-urban interface (WUI) where HFRA projects may take place. Half of all fuel reduction projects under the HFRA will occur in the community protection zone as defined by HFRA. HFRA also encourages biomass energy production through grants and assistance to local communities to create market incentives for removal of otherwise valueless forest material.

National Fire Plan and 10-Year Comprehensive Strategy:

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 publics.

The NFP focuses on:

1. Fire suppression and protection,
2. Restoration/rehabilitation,
3. Hazardous fuels reduction,
4. Community assistance, and
5. Accountability.

The Oregon and Washington NFP working team sees reduction of unnatural hazardous fuel levels that threaten communities and wildland ecosystems as the foundation principle for dealing with fire risks (NFP Strategy Team 2002). Most NFP funding in Oregon goes to wildfire preparedness and hazardous fuel treatments.

The National Fire Plan is a long-term investment that will help protect communities and natural resources, and most importantly, the lives of firefighters and the public. It is a long-term commitment based on cooperation and collaboration, communication among federal agencies, states, local governments, tribes and interested publics. The federal wildland fire management agencies worked closely with these partners to prepare a ten-year comprehensive strategy, completed in August 2001. An implementation plan was developed in May 2002 to provide consistent and standard direction to implement the common purposes articulated in the strategy and the National Fire Plan. The National Fire Plan calls for the development of community fire plans to aid in effectively implementing NFP goals.

Oregon Forestland-Urban Interface Fire Protection Act Senate Bill 360:

The Oregon Forestland-Urban Interface Fire Protection Act of 1997 (SB 360) is intended to encourage landowners to reduce fuel hazards on their property. It came from earlier efforts to establish a law to allow communities to ban wood roofing. SB 360 uses the term "forestland-urban interface" (FUI) rather than wildland-urban interface (WUI), which has a narrower definition than a WUI. Basically, areas that fall within the definition of a FUI are urban and suburban areas where lot sizes are generally ten (10) acres or less.

Introduction

The Oregon legislature did not want the law to be applied to scattered homes in the woods, which would normally be included in designation of WUI area. SB 360 intends to facilitate development of an effective protection system in Oregon by (1) establishing policies regarding Urban Interface (UI) protection, (2) defining the UI in Oregon and establishing a process and system for classifying the interface, (3) establishing standards for UI 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 UI areas, including education and prevention efforts.

SB 360 is a state law that puts responsibility on local landowners. SB 360 affects private lands. The legislation specifies establishment of standards for property owners to meet in order to minimize fire hazards. It is focused on vegetation and establishing defensible space. It is a voluntary program in which the landowners conduct a self-evaluation and self-certification. Property must be re-certified every five years, if it is sold, or if a new structure is built.

Oregon Department of Forestry (ODF) is the lead agency and SB 360 applies only to areas that lie within ODF district boundaries. The legislature allowed ODF to start implementing SB 360 in a few counties at a time and the first counties going through the process are Jackson and Deschutes. These two counties are close to finishing implementation. In the mean time, the National Fire Plan and HFRA came along requiring communities to conduct a similar risk assessment process in their community wildfire protection planning.

Oregon Statewide Land Use Planning Goal 4:

The intent of Oregon Statewide Land Use Planning Goal for forest lands is to conserve forest land by maintaining the forestland base and to protect the state forest economy by making economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land. Goal 4 directs local governments to adopt comprehensive plans that will assure that forest lands will be available for the growing and harvesting of trees. Zoning applied to forest land shall contain provisions which limit, to the extent permitted by ORS 527.722, uses which can have significant adverse effects on forest land, operations or land uses.

Oregon Administrative Rules (OAR) 660-006-035 (Fire Site Standards for Dwellings and Structures) and OAR 660-006-040 (Fire Safety Design standards for Roads), adopted 1990, require that new dwellings and structures and access roads to them, in forest or agriculture/forest zones meet the prescribed standards, the Oregon Department of Forestry (ODF), in March 1991, published Land Use Planning Note Number 1, Recommended Fire Site Standards for Dwellings and Structures and Fire safety Design Standards for Roads.

This technical bulletin contains guidance and recommended minimum standards to meet the requirements of the above OAR's. ODF Districts work with local governments to apply these recommendations consistently to meet the mandate of Planning Goal 4.

Oregon Statewide Land Use Planning Goal 7:

The intent of Oregon Statewide Land Use Planning Goal 7, Areas Subject to Natural Disasters and Hazards, is to protect people and property from 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.

Introduction

Goal 7 also indicates that the Oregon Department of Land Conservation and Development (DLCD), in consultation with affected state and local government representatives, will review new hazard inventory information provided by federal and state agencies. After such consultation, the DLCD shall notify local governments if the new hazard information requires a local response. Local governments shall respond to new inventory information on natural hazards within 36 months after being notified by the DLCD, unless extended by the Department. In relation to ODF, as new data is identified, and particularly high hazard areas identified through Senate Bill 360, local governments will need to address the provisions of Goal 7.

Jurisdiction Responsibility

Primary Responsible and Management Agencies

1. United States Forest Service
2. Bureau of Land Management
3. Oregon Department of Forestry
4. Twenty Local Marion County Fire Districts (see [Table 1.1](#) and Appendix B, Map 2 – Fire Districts)

U.S. Forest Service: The U.S. Forest Service provides wildland fire protection for forest resources in Marion County within the Willamette National Forest. The Detroit Ranger District is responsible for National Forest fire management objectives in Marion County. National Forest land is adjacent to several of the Communities-at-Risk identified in this plan.

The Forest Service manages and maintains several important recreation sites and areas that are important to the economy of Santiam Canyon communities. In addition, at least two evacuation routes, U.S. Highway 22 and Forest Service Road 46, are surrounded for long distances by National Forest land. The Forest Service jurisdiction in these areas is an important factor for the successful implementation of the MCCWPP.

Bureau of Land Management: The Bureau of Land Management (BLM) manages Public Domain and Oregon-California Railroad Land Grant (O&C) lands in Marion County. The BLM is responsible for managing the forest resources on these lands. The Oregon Department of Forestry provides fire prevention and suppression services for these lands. The BLM is responsible for developing forest resource objectives, including forest fuel management and modification for these lands. There are many BLM parcels that are adjacent to the Communities-at-Risk and the WUI areas that are identified in this plan. There are several recreation developments and evacuation routes on BLM land that are important to the communities in the Santiam Canyon.

Oregon Department of Forestry Fire Protection Program: The Oregon Department of Forestry is responsible to administer the provisions of Oregon Revised Statutes (ORS) Chapter 477, Fire Protection of Forests and Vegetation and Department of Forestry OAR Divisions 41 through 47. In Marion County, the Oregon Department of Forestry, North Cascade District, is responsible for carrying out the provisions of these regulations on private lands within District boundaries and by contract for BLM in the County. Actions to carryout this responsibility is coordinated with fire departments in the county, state and federal agencies within the North Cascade District. The District encompasses all land in Marion County that lay east of Highway 214, Cascade Highway. See Appendix F for best management practices.

Introduction

Table 1.1

Marion County Fire Protection Response Areas

| City/Area | Fire Protection (response area) | Population City/Dist. | ISO |
|-----------------------------|---|-----------------------|-------|
| Aumsville | RFPD; 2 stations | 6,000 | 04/8B |
| Aurora RFPD | RFPD (Includes Whiskey Hill, Donald, Butteville, Fargo); 2 stations | 5,000 | 05/8B |
| Breitenbush Fire Department | Breitenbush and Devils Creek | * | * |
| Drakes Crossing | RFPD; 1 station | 810 | 8B/10 |
| Gates | RFPD (Includes Niagara, Little Sweden, and part of Linn County); 1 station | 1,000 | 06/8B |
| Hubbard | RFPD; 1 station | 4,100 | ** |
| Idanha-Detroit | RFPD; 2 stations | 800 | 06/8B |
| Jefferson | RFPD (Includes Talbot, Millersburg, Buena Vista, Sydney); 3 stations | 10,000 | 05/09 |
| Keizer Fire District | Most of Keizer; 1 station | 34,000 | 02/8B |
| Marion Co. #1 | RFPD (Includes McLeay, Hazel Green, Labish, Pratum, Brooks, part of Keizer); 8 stations | 49,500 | 04/8B |
| Mill City | RFPD (Includes parts of Linn County); 1 station | | 04/8B |
| Monitor #58 | RFPD (Mostly in Clackamas County); 2 stations | 2,500 | 8B/10 |
| Mt. Angel Fire District | Includes Downs; 1 station | 3,200 | 06/8B |
| Salem FD | And Salem Suburban (includes Eola, Roberts, Rosedale); 10 stations | 141,000; 7,662 | ** |
| Silverton | RFPD (Includes Scotts Mills, Rockie Four Corners); 5 stations | 18,000 | 04/10 |
| St. Paul | RFPD; 2 stations | 1,700 | 06/8B |
| Stayton Fire District | Includes North Santiam, West Stayton, Stayton, Mehama, Marion, Elkhorn; 4 stations | 14,500 | 05/09 |
| Sublimity | RFPD; 2 stations | 3,000 | 05/8B |
| Turner Fire Dept. | Includes Sunnyside; 1 station | 6,500 | 04/8B |
| Woodburn Fire District | Includes Wheatland, Waconda, Conconly, St. Louis, Gervais, Fairfield; 4 stations | 35,000 | 04/8B |



Retardant Drop

Chapter 2: Coordination Process

Chapter 2 - Coordination Process

In this section...

- ❑ *MCCWPP Partners*
- ❑ *Gaining Community Representation*
- ❑ *Future Committees and their Roles*
- ❑ *MCCWPP Steering Committee*
- ❑ *Steering Committee Actions*
- ❑ *Steering Committee Actions Table*
- ❑ *Local Coordinating Group Responsibilities*
- ❑ *Citizen Involvement*
- ❑ *Community Risk Assessment*

The development of the Marion County Community Wildfire Protection Plan (MCCWPP) relies upon the coordination of multiple agencies and organizations defining common goals and working together to achieve success. A steering committee will provide oversight and guidance to the planning and implementation of the Wildfire Protection Plan with representation from the county's fire protection districts and the public agencies responsible for fire protection.

The heart of the Marion County Community Wildfire Protection Plan is the strength and capability of each of the fire districts within the county. Fire districts within Marion County, Oregon Department of Forestry, USFS, BLM, the Oregon State Fire Marshal's Office, the Marion County Public Works Department, and several cities' public works and fire departments are critical participants in the development of the wildfire protection plan and the efforts to increase public awareness about fire risk.

The progress of individual, committee and organizational activities relies on strong coordination and among the diverse partners and stakeholders.

The planning team began by conducting meetings with the line officers, district foresters and with all of the county's fire districts, the Oregon Department of Forestry, Forest Service and BLM. This process resulted in each of the agencies appointing at least one person to the MCCWPP Steering Committee. In many cases, agencies directed field officers, fuels management specialists, fire prevention staff and others to participate on the committee.

The MCCWPP planning team also began conducting outreach with community-based organizations throughout the county. The MCCWPP planning team invited all organizations, business or residents with an interest in working on fire-related issues to participate on committees as they are formed.



Field Burning

Coordination Process

Table 2.1

Steering Committee Roles and Objectives

| Committee | Objectives |
|--------------------------|--|
| General | <ul style="list-style-type: none"> ▪ Provide oversight to all activities related to the MCCWPP ▪ Ensure representation on and coordination between the sub-committees. ▪ Develop and refine goals for fire protection in Marion County. ▪ Develop a long-term structure for sustaining efforts of the MCCWPP. |
| Risk Assessment | <ul style="list-style-type: none"> ▪ Identify and update as needed Communities-at-Risk and the Wildland-Urban Interface. ▪ Develop and conduct a wildland fire risk assessment. ▪ Identify and prioritize hazardous fuels treatment projects. |
| Fuels Reduction | <ul style="list-style-type: none"> ▪ Identify strategies for coordinating fuels treatment projects at a landscape scale. ▪ Coordinate administration of fuels program so that it is equitable across fire districts. ▪ Provide low-income and special need citizens with an opportunity to reduce their fuels and participate in local programs. ▪ Identify opportunities for marketing and utilization of small diameter wood products. |
| Emergency Management | <ul style="list-style-type: none"> ▪ Strengthen emergency management, response and evacuation capabilities for wildfire. ▪ Coordinate between State, County government and local fire districts. ▪ Annually, convene the CWPP steering committee to review plan accomplishments and revise the plan. |
| Information and Outreach | <ul style="list-style-type: none"> ▪ Develop strategies for increasing citizen awareness and action for fire prevention. ▪ Reach out to all residents in the county. |
| Funding Opportunities | <ul style="list-style-type: none"> ▪ Assemble and communicate joint agencies' goals and objectives. ▪ Jointly seek grant monies. |

MCCWPP Steering Committee:

The Steering Committee is responsible for providing guidance to all elements of planning and implementation of the Marion County Community Wildfire Protection Plan. The committee helps coordinate and monitor activities among the various sub-committees and are representative of the fire districts, agencies, and organizations with responsibilities for fire protection within Marion County.

Members of the Steering Committee include:

- Barbara Raible, Bureau of Land Management Salem District – Cascade Resource Area
- Deputy Chief Jay Alley, Stayton RFPD
- Donna Disch, Oregon Office of the State Fire Marshal
- Paul Ness, Oregon Office of the State Fire Marshal
- Chief Gary Swanson, Gates RFPD
- Gates Community Emergency Response Team

Coordination Process

- Sara McDonald, Marion County Board of Commissioners
- Howard Strobel, Oregon Department of Forestry – North Cascade District
- Steve Kendall, Oregon Department of Forestry
- Jane Kertis, Northwest Oregon Ecology Group, Siuslaw, Willamette and Mt. Hood National Forests
- John Vanderzanden, Marion County Emergency Management
- Chief Larry Bartels, Drakes Crossing Rural Fire Protection District
- Chief Leland Ohrt, Mill City RFPD
- Les Sasaki, Community Development, Marion County Public Works
- MWVCOG Planner
- Chief Rob Ritchey, Detroit-Idanha Rural Fire Protection District
- Robert Bertolina, North Zone Fire Management Office, Detroit and Sweet Home Ranger Districts, Willamette National Forest
- Chief Vince Herman, Silverton RFPD

At the beginning of the planning process, each of the committees developed a set of actions associated with the development of the fire plan as well as long-term strategies for meeting the fire plan goals. The following tables illustrate the actions developed by each committee and the progress made to date. Note that actions are described in greater detail in related chapters.

Table 2.2

Steering Committee Actions

| Action | Timeline | Outcomes | Progress |
|---|-----------------|--|---|
| Gain representation and involvement from each RFPD | Short-term | Active participation by each RFPD | All RFPDs are actively engaged in the MCCWPP |
| Access and utilize federal dollars while they are available | Short-term | Continued federal funding for fuels reduction | NFP, BLM RAC and FS RAC grants submitted in xx/05 for fuels, education and risk |
| Set realistic expectations for reducing wildfire risk | On-going | Increased public awareness about wildfire | Campaign developed: TAKE A STEP TO PROTECT! |
| Coordinate priorities for funding | On-going | Achieve landscape treatment and equitable distribution | Risk committee identifying priorities; coordination w/ social services |
| Promote visible projects and program successes | On-going | Increased awareness about MCCWPP | |
| Find funding to support efforts (Marion County) | Long-term | Increased Funding | Next Step: Create marketing materials about the MCCWPP |
| Identify incentives for fire protection and community participation | Long-term | Increased citizen action | Next Step: Examine alternatives for incentives |
| Engage insurance companies | Long-term | Insurance industry investment in activities | Next Step: Identify local insurance industry representatives. |
| Promote local investment (property, infrastructure, business) | Long-term | Increased economic development | Next Step: Form partnerships with local businesses |

Coordination Process

Citizen Involvement: The heart of the Marion County Community Wildfire Protection Plan is the interest, education and long-term involvement of residents in reducing wildfire risk around their homes and in their community. Educating citizens and providing tools and resources that enable people to prepare for wildfire will have lasting effects to building resilience to wildfire and capacity for communities to work together toward common goals.

Providing tools, information and resources that enable people to understand, prepare for, and learn to live with wildfire can have long-lasting effects in building resilience to catastrophic wildfire. This can also increase the capacity for communities to work together toward common goals, and especially to develop their own localized versions of community fire plans. Local plans and actions are valuable and necessary to effectively implement the goals of the MCCWPP. Community members ultimately have the greatest knowledge of what can and needs to be done in their neighborhood. The MCCWPP process focuses on involving the public in community meetings/workshops, educating residents on wildfire prevention and preparedness, and helping connect residents to the people and resources that can help them accomplish their fire safety objectives, such as Firewise Communities USA. This section illustrates the different venues for involving the public and long-term actions to sustain resident interest and action in county fire preparedness activities.

Community Risk Assessment: Understanding the risk of wildfire to people, property and natural resources is an essential starting point for identifying priorities for treatment. The Marion County risk assessment includes a comprehensive analysis of risk, hazard, values, structural vulnerability and protection capabilities. Values are defined in many ways and by many different agencies and programs (e.g., the National Association of State Foresters, the Healthy Forest Restoration Act, the National Fire Plan, and the BLM Risk Assessment Model (RAMS), among others).

An integral part of the MCCWPP is the input gained from individuals and community organizations about what they perceive to be most at risk from wildfire and what they most value and want to see protected. In 2005, the MCCWPP held community meetings in Drakes Crossing and Gates and in the Silverton RFPD. These meetings served to identify the values and resources residents want to protect from wildfire and increased local support and participation for fire protection activities throughout the county. Various fire districts in coordination with community organizations, including the City of Gates, the North Santiam Watershed Council, and the North Santiam Canyon Economic Development Corporation, among others, sponsored the public meetings.

Generally, the most effective part of the meetings occur when participants discuss their past experiences with wildfire, their perceptions of what is at risk and the causes of wildfire, and to identify values at risk and available resources for wildfire protection. Each person has the opportunity to identify the places and things they most value and want to see protected from wildfire, and the resources available (or needed) to ensure community protection.

Meetings concluded with a focus on identifying projects that participants want to see implemented for community protection. These projects range from fuels reduction, education and outreach, to emergency management and evacuation procedures. In short, these community meetings will begin to provide a scope of what local community fire plans might include to meet the community needs.

Chapter 3: Wildland Fire Risk Assessment

Chapter 3 - Wildland Fire Risk Assessment

In this section...

□ *Risk Assessment Objectives*

One of the core elements of a community fire plan is developing an understanding of the risk of potential losses to life, property and natural resources during a wildfire. The Healthy Forests Restoration Act, the National Fire Plan, FEMA's Disaster Mitigation Act of 2000, Oregon Department of Forestry, and the National Association of State Foresters all provide guidance on conducting a hazard and risk assessment for wildfire. (See Appendix C: For the Glossary and more information on the definitions and policies referred to in this section.)

□ *Communities at Risk*

The MCCWPP's Steering Committee approaches the wildfire risk assessment with a comprehensive review of risk assessment methods and examples from communities throughout the western United States, but tries to adhere most closely to the risk assessment approach produced by Oregon Department of Forestry (ODF) under the National Association of State Foresters (NASF) guidance. The committee has reviewed existing data for risk, hazard, values, structural vulnerability and protection capability.

□ *Communities at Risk in Marion County*

□ *Wildland Urban Interface*

The three risk objectives are:

□ *Hazardous Fuels Reduction Objectives*

- Identify Communities-at-Risk and the Wildland-Urban Interface
- Develop and conduct a wildfire risk assessment of all land in Marion County

□ *Priority Fuels Treatment Areas*

- Identify and prioritize hazardous fuels treatment projects for all land in Marion County

□ *Fire Occurrence – History of Oregon's Wildfires*

What is a Wildfire Risk Assessment? (See Appendix B, Map 3 – Overall Risk Assessment)

□ *Fire Regimes*

The Marion County Community Wildfire Protection Plan wildfire risk assessment is the analysis of the potential losses to life, property and natural resources. The analysis takes into consideration a combination of factors defined below:

□ *Condition Classes*

Risk: the potential and frequency for wildfire ignitions (based on past occurrences)

Hazard: the conditions that may contribute to wildfire (fuels, slope, aspect, elevation and weather)

Values: the people, property, natural resources and other resources that could suffer losses in a wildfire event.

Protection Capability: the ability to mitigate losses, prepare for, respond to and suppress wildland and structural fires.

Structural Vulnerability: the elements that influence the level of exposure of the hazard to the structure (roof type and building materials, access to the structure, and whether or not there is defensible space or fuels reduction around the structure.)

Communities at Risk:

In order to determine Communities at Risk, Marion County first had to define "community." State and federal guidance included a range of alternatives, from "a group of people living in the same locality and under the same government" (National Association of State Foresters) to "a body of people living in one place or district and considered as a whole" or "a group of people living together and having interests, work, etc. in common" (Firewise Communities/USA).

Wildland Fire Risk Assessment

There are many ways to define community, particularly in Marion County. There are cities, rural communities, neighborhoods and groups of people drawn together by common threads – whether it is their post office, grocery store, community center, or fire station. Communities-at-Risk, for the purposes of this plan, are those areas within city or Rural Fire District boundaries of the fire department that provide fire protection services for the community. The Communities-at-Risk are surrounded by an additional area identified as the “Wildland Urban Interface” (WUI). The area where forest fuel can be modified to reduce fire behavior and spread so that wildland agencies can use the area to more effectively manage suppression fires from spreading to communities at risk and other important infrastructure.

Methods for identifying communities at risk require assessing:

1. Residential density: based on 1 structure per 40 acres with a minimum of 4 residences and ¼ mile buffer; and
2. Fire District. (In Marion County, there are 22 fire districts that provide structural fire protection.)

While several of Marion County’s communities are listed as “unprotected,” it is important to note that these communities are NOT without fire service. Several Rural Fire Protection Districts provide contract structural fire protection services throughout the unprotected areas of Marion County. It is important to note that these communities are not within a taxing fire district.

Communities at Risk in Marion County:

(See Appendix B, Map 4 & 4a-j – Areas of Concern)

- Breitenbush
- Detroit
- Drakes Crossing
- Elkhorn (Little North Fork; Santiam Canyon)
- Gates
- Idanha
- Jefferson
- Lyons
- Marion
- Mehama
- Mill City
- Salem, south and east
- Scotts Mills
- Silverton
- Stayton
- Sublimity Fire District, outside city limits
- Turner

Wildland Urban Interface (WUI):

The boundaries of the Wildland Urban Interface are based on the actual distribution of structures and communities adjacent to or intermixed with wildland fuels.

Fuel reduction treatments are designed to protect human communities from wildland fires as well as minimize the spread of fires that might originate in urban areas. The management objective in the wildland-urban interface zone is to enhance fire suppression capabilities by modifying fire behavior inside the zone and providing a safe and effective area for fire suppression activities.

See WUI Map in Appendix B

Wildland Fire Risk Assessment

Priority Fuels Treatment Areas:

The county, fire districts, community organizations and agency partners have worked collaboratively to identify priorities for fuels treatment. This process includes examining the risk assessment maps and strategic planning units and using local knowledge and information gathered during community meetings to identify the most appropriate places to prioritize for treatment. A primary consideration is also where the federal agencies have planned fuels reduction projects in order to achieve landscape scale treatment areas.

It is important to note that although a given area may show the highest hazard rating, if it is not in an area where there is significant population, an organization that is able to assist with the implementation of the project, or adjacent to a project planned on BLM or Forest Service land, it might not rise to the top of the priority list. Additionally, one of the objectives of the MCCWPP is to raise awareness through demonstration projects. Identifying projects in the center of a community that have a slightly lower hazard rating but may raise citizen's awareness and willingness to participate in future projects may result in a higher priority for that project.

Fire Occurrence – History of Oregon's Wildfires:

Wildfire in Oregon and Marion County has a long history. As the cost of fire suppression to agencies, communities, and individuals continues to increase annually throughout the nation, the need to address this threat in Marion County is imminent. Section 8 of the Marion County Natural Hazards Mitigation Plan includes a history of Oregon's wildfire.

Marion County's wildfire history mirrors the risk facing communities throughout Oregon. Table 3.1 illustrates the number of fires and acres burned from both human and lightning caused fires between 1994 and 2004 in the North Cascade Protection District, Santiam Unit.

Table 3-1

Statistical Fires within One-Quarter Mile of North Cascade Fire Protection District, from 1996 to 2006

| General Cause | Number of Fires | Percentage of Total Fires | Acres |
|----------------|-----------------|---------------------------|--------------|
| Lightning | 5 | 1.2 | 2.0 |
| Railroad | 1 | 0.2 | 0.1 |
| Equipment Use | 38 | 9.7 | 13.7 |
| Recreationist | 67 | 17.3 | 19.6 |
| Smoking | 16 | 4.3 | 4.8 |
| Debris Burning | 167 | 42.9 | 182.4 |
| Arson | 28 | 7.25 | 20.0 |
| Miscellaneous | 61 | 15.7 | 82.7 |
| Total | 389 | 100.0 | 327.5 |

Source: Oregon Department of Forestry, 2007.

Large costly fires disrupt communities, cost millions of dollars in suppression and recovery costs, and increase the risk to private property owners. As development increases within the wildland-urban interface in Marion County, the importance of this issue grows.

See Risk of Fire Occurrence Map in Appendix B, Map 5

Wildland Fire Risk Assessment

The following information is from the Willamette National Forest Fire Management Plan.

Naturally occurring disturbances in the forest include fire, insects, pathogens, wind throw, weather, landslides, and earthquakes. Introduced disturbances include livestock grazing, mining, timber harvesting, roads, insects, and pathogens.

Fire Regimes: A fire regime refers to an integration of disturbance attributes including type, frequency, duration, extent and severity. Natural fire regimes have been altered by management activities including but not limited to 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 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 in 2000 to reflect Pacific Northwest (Oregon & Washington) conditions.

Table 3.2

Fire Regime Condition Class

| Fire Regime Code | Description |
|-------------------------|--|
| I | Less than 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) |
| II | Less than 35-years stand replacing (grassland and shrub lands; Shrub-steppe community) |
| III | 35 – 100 years, mixed severity (moist/high elevation; white fir, tanoak, western hemlock series) |
| IIIa | Less than 50 years, mixed severity (dry sites; tanoak series) |
| IIIb | 50 – 100 years, mixed severity (low elevation; wet site white fir, wet site tanoak, and low elevation western hemlock series) |
| IIIc | 100 – 200 years, mixed severity (high elevation; white fir series) |
| IV | 35-100+ years stand replacing. (Shasta red fir and Port-Orford cedar associations) |
| IVa | 35-100+ years stand replacing |
| V | 200+ years stand replacement (Western hemlock, silver fir and mountain hemlock series) |

Wildland Fire Risk Assessment

Fire Regime III (mixed severity) and V (stand replacing) are those predominant in the Willamette National Forest.

A close approximation to the past frequency of fire occurrence, extent, and severity (Fire Regime) on particular sites is important in understanding the relative difference in vegetation and dead/down debris on these sites today. The change or departure on these sites in the amount of these materials has a direct relationship to the type of fire behavior and post fire effects these sites will currently support, compared to in the past. In an assessment of site-specific conditions, classifying the current condition of the site compared to a past reference will give some indication of the change to the type of fire severity or fire behavior characteristics. The ability to predict potential fire behavior characteristics is important for understanding the risk to people and key ecological resources.

Private forestland at lower elevations throughout Marion County in the Willamette Valley is primarily Fire Regime 1. In the eastern half of the county where the majority of commercial forestland is located, it is primarily Fire Regime I in the Cascade Foothills and Fire Regime III in the highest elevations at about 4,500 feet adjacent to the Willamette National Forest.

More locally specific information on fire regime and condition class can be found in the Willamette National Forest Fire Management Plan, available by contacting the BLM, Salem District and Willamette National Forest, Detroit or Sweet Home Ranger District.

Condition Class: **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.

See Fire Regime / Condition Class Maps in Appendix B (Due to lack of data for land exterior the National Forest Boundary, the determinations for non-USFS land within the WUI areas in these maps are based upon local knowledge and the definitions for these categories)

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. The departure being described in these assessments results in changes to one or more of the following key ecological components: vegetation characteristics (species composition, structural stages, stand ages, canopy closure and mosaic pattern); fuel composition; fire frequency; severity and pattern; other associated disturbances; and the introduction of invasive, grazing and insect and disease mortality.

Wildland Fire Risk Assessment

Reference conditions are very useful as indicators of ecosystem function and sustainability, but do not necessarily represent desired future conditions i.e., they may not reflect sustainable conditions under current climate, land use, or managerial constraints, and they may not be compatible with social expectations.

Hazardous Fuels Reduction Objectives

1. Identify/prioritize fuels treatment projects on county and private land using the risk data.

2. Use risk assessment in applications for National Fire Plan grants and other fuel dollars.

3. Review how grant dollars for fuels reduction projects are administered. Make changes to the program so that they are more directed towards landscape scale treatment and inclusive of the needs of low-income, elderly and disabled residents.

4. Develop long-term strategies for maintenance of fuels reduction projects.

5. Focus strategic planning for hazardous fuels treatment projects on evacuation routes/corridors.

6. Promote education and outreach through all fuels reduction programs to ensure strong community involvement in fuels reduction and wildfire prevention projects.

7. Increase grant dollars and target fuels reduction and fire protection to low-income, elderly, disabled and other residents with special needs.

8. Increase support for local contractors and workers to take advantage of employment opportunities related to fuels reduction projects.



Before fuels reduction



After fuels reduction

Chapter 4: Emergency Operations

Chapter 4 - Emergency Operations

In this section...

- *Wildland Fire
Suppression
Procedures and
Agreements*
- *Conflagration Act*

Although the majority of forestland is located in the eastern half of Marion County, there are forested areas and grasslands scattered throughout the county. Fires on this, “wildland” are suppressed by state and/or federal agencies and fire departments working singly or assisting each other depending on its location, size, complexity and the jurisdiction(s) involved. There are areas within Marion County that does not have wildland fire protection. See map number 1 in Appendix B.

Oregon Department of Forestry is responsible for wildland fire suppression on private and state-owned lands within the North Cascade Fire Protection District. There are seven Rural Fire Departments with jurisdictions within the North Cascade District. These fire departments provide fire suppression and protection for structures within their jurisdiction and respond to wildland fires within their districts. Wildland fire suppression action is coordinated and communicated with the appropriate jurisdictions.

The Oregon Department of Forestry and the North Cascade District does not train its wildland fire fighters to suppress structure fires. Department firefighters will not enter burning structures but will attempt to keep a fire in a structure from spreading to the surrounding wildland and attempt to keep a wildland fire from reaching a structure.

U.S. Forest Service is responsible for all fire suppression activities on National Forest and Corp of Engineers lands in Marion County.

Bureau of Land Management has contracted with the Oregon Department of Forestry to provide fire suppression services for BLM lands in Western Oregon. The North Cascade District suppresses wildfire on BLM land in Marion County within its Fire Protection District. There are a few parcels outside the ODF District. Most of these are included in the contract between the agencies.

Fire Departments: There are 19 Urban and Rural Fire Departments in Marion County, which provide both structural and wildland, fire suppression. Fifteen of these fire departments have all or part of their jurisdiction outside the North Cascade District. The fire departments are responsible for all wildland fire suppression on the portion of their jurisdiction that is outside of North Cascade District.

Fire Protection Agreements provide agencies and organizations with the ability to coordinate and assist other suppression organizations throughout the county to suppress wildfires.

- Master Cooperative Fire Protection Agreement: This Agreement provides federal and state wildland fire suppression agencies the ability to coordinate and effectively suppress fires that burn on or threaten their jurisdictions.
- Fire Protection Services Operating Plan: The purpose of this plan is to facilitate Oregon Department of Forestry, U. S. Forest Service, Willamette National Forest and BLM, Salem District fire management services and to provide for the efficient and cost saving utilization of resources. The parties agree to coordinate, cooperate and communicate with each other within the scope of this operating plan. The parties will, to the best of their ability, provide incident support as requested.

Emergency Operations

- **Marion County Mutual Aid Agreement:** The purpose of this agreement is to facilitate the ability for fire departments in Marion County to assist other departments during a local emergency. The agreement can be activated when a wildland incident requires more resources than the responsible jurisdiction has available to suppress the fire. The ODF North Cascade District is a party to this agreement, but the U.S. Forest Service and BLM are not participants.

Other Plans Associated with Wildland Fire Suppression

- **Marion County Emergency Operations Plan:** This plan identifies methods, which, in cooperation with other public and private agencies, will preserve life and minimize damage for the effects of a natural or human-caused emergency. The plans provide guidance for county government actions and operations during an emergency.

(See Appendix B, Map 6 – Evacuation Routes and Map 7 – Safety Corridors)

Conflagration Act: Oregon Fire Service Mobilization Plan: This plan, developed by the Office of the State Fire Marshal, is used in mobilizing structural firefighters and incident response personnel, during a declared conflagration or when an incident, including wildfire, threatens life or structures and exceeds the capacity of local and mutual aid emergency resources. The plan outlines the process and procedure for requesting and implementing the Emergency Conflagration Act during a wildfire incident.

During a wildfire incident the Governor can invoke the Conflagration Act to mobilize fire fighting resources from across the state to assist in protecting structures when fire poses an immediate threat to life, environment, or property that cannot be handled by the local fire services and the mutual aid resources normally and routinely available to the affected department through its mutual aid agreements with other agencies. The process for evaluating and requesting implementation of the Conflagration Act is outlined in the Oregon Fire Service Mobilization Plan, Operations Section.

See the following website for the Oregon Fire Service Mobilization Plan:

http://egov.oregon.gov/OSP/SFM/docs/Administration/MOB_Plan_Binder2007B.pdf



Simpson Fire, Klamath Falls, 2005

Evacuation Routes

Table 4.1

| Evacuation Routes | | | |
|---------------------|------------------------|---------------|--|
| Fire District | Road Name | Approx. Miles | Road Description Road Improvements |
| Drakes Crossing RFD | Powers Creek Loop Road | 5 | Paved county road beginning at State Highway 214 in T7S, R1E, Sec. 26 going northerly and easterly to State Highway 214 in T7S, R1E, Sec. 8 |
| Drakes Crossing RFD | Timber Trail Road | 3 | Gravel or paved road beginning at Powers Creek Loop Road in T7S, R1E, Sec 16 going northerly to South Abiqua Road ending in T6S, R1E, Sec. 34. |
| Gates RFD | Gates Hill Road | 5 | Paved County Road from Highway 22 to/from North Fork Road SE (North Fork Road SE) |
| Gates/Mill City RFD | Hudel Road | 6 | Gravel County Road from Gates, Highway 22, to Pioneer Road in T9S, R2E, Sec. 22, |
| Jefferson RFD | Ankeny Hill Road | 3 | Paved county road beginning at the junction Buena Vista, Liberty and Ankeny Hill Roads in T9S, R3W, Sec.9, SE/NW going southeasterly to Interstate 5, Exit 243 in T9S, R3W, Sec. 22, SE/NW; then continuing to Highway 99E in T9S, R3W, Sec.23 NE/NW |
| Jefferson RFD | Jefferson-Marion Road | 5 | Beginning at Jefferson in T10S, R3W, Sec. 1 SW/SW going easterly to junction of the Marion-Stayton Road in T9S, R2W, Sec 33 NE/NW or continuing northerly to junction with the Duckflats Road in T9S, R2W, Sec 28, SE/SW. |
| Jefferson RFD | Liberty Road | 6 | Paved county road beginning at the junction of Buena Vista Road and Ankeny Hill Road in T9S, R3W, Sec. 9 SE/NW going easterly and northerly into Salem to Kuebler Road in T8S, R3W, Sec. 16 NW/NE. |
| Jefferson RFD | Parrish Gap Road | 5 | Paved county road north to Delaney Road in T8S, R3W, Sec. 29, NW/SE, and south to Marion Road SE in T10S, R2W, Sec.6 NE/NW. |

Evacuation Routes

| Fire District | Road Name | Approx. Miles | Road Description | Road Improvements |
|---------------|------------------------|---------------|---|-------------------|
| Jefferson RFD | Valley View Road | 1 | Paved county road beginning at Parrish Gap Road in T9S, R2W, Sec. 29 NE/NW going easterly ending at the Duckflats Road in T9S, R2W, Sec 28 NE/NW | |
| Jefferson RFD | Wintercreek Road | 3 | Paved county road beginning at Parrish Gap road in T9S, R2W, Sec 29 NW/NW going westerly to junction with Skelton Road or continuing westerly to junction with Highway 99E in T9S, R3W, Sec.23 NE/NW. | |
| Silverton RFD | Abiqua Road NE | 4 | Paved county road beginning at State Highway 213, Cascade Highway, in T6S, R1E, Sec. 30 going easterly ending at the North Abiqua Road in T6S, R1E, Sec 34 | |
| Silverton RFD | Crooked Finger Road | 9 | Paved (about one mile gravel) county road beginning at the Mt. Angel-Scotts Mills Road in T6S, R1E, Sec 15 going southeasterly ending at the Silverton RFD boundary in T7S, R2E, Sec. 22. | |
| Silverton RFD | Evans Valley Loop Road | 2 | Paved county road. Begins within the Silverton City Limits in T 6S, R1W, Sec. 35 going easterly and "loops back to itself in T7S, R1W, Sect 36 NE/SE. | |
| Silverton RFD | Forest Ridge Road | 2 | Paved Count Road beginning at State Highway 214 (Silver Falls Highway) in T 7S, R1E, Sec. 6 SE/SW going generally northerly, ending at the Evans Valley Loop Road in T6S, R1W, Sec. 36 SE/SE. | |
| Silverton RFD | Madrona Heights Road | 0.5 | Paved county road beginning at the Forest Ridge Road in T6s, R1W, Sect 36 SE/SE to the Evans Valley Loop Road in T6S, R1W, Sec 36 NE/SE. | |
| Silverton RFD | North Abiqua Road | 7 | Paved county road beginning at State Highway 213 in T6S, R1E, Sec. 30 going southeasterly and ending at the Silverton RFD boundary in T7S, R1E, Sec. 13 SE/SE. | |

Evacuation Routes

| Fire District | Road Name | Approx. Miles | Road Description | Road Improvements |
|-------------------------------|---|---------------|--|---|
| Silverton RFD | Quall Road | 1 | Paved county road beginning at the Forest Ridge Road in T 7S, R1W, Sec 1 SE/NE going southwesterly to State Highway 214 (Silver Falls Highway) ending in T7S, R1W, Sec 1 SE/SW. | |
| Silverton RFD | Victor Point Road | 9 | Paved County Road beginning in T8S, R1W, Sec. 13 going northerly to Silverton ending at Highway 213, Cascade Highway in T6S, R1W, Sec. 34. | |
| Silverton/Drakes Crossing RFD | State Highway 214 (Silver Falls Highway) | 25 | Paved State Highway beginning at State Highway 213, Cascade Highway, in T8S, R1W, Sec. 22 going easterly, northerly and northwesterly to Silverton at Highway 213, Cascade Highway, in T6S, R1W, Sec. 35 | |
| State of Oregon | State Highway 22 | 75 | Paved State Highway from Salem to Linn-Marion County boundary. | |
| Stayton RFD | North Fork Road SE (Little North Fork Santiam River Canyon) | 20 | Paved County Road from Highway 22 to Salmon Falls. The road continues, as a gravel Forest Service Road number 2209, to the Jawbone Flats Trailhead on the Willamette National Forest | Landslide at Mile Post XX, road shoulder maintenance, brushing to improve sight distance on curves. |
| Stayton RFD | Old Mehama Road | 4 | Paved County Road beginning at State Highway 22 in T9S, R1E, Sec. 14 going westerly to State Highway 22 in T9S, R1W, Sec. 12. | |
| Stayton RFD | Pioneer Road | 2 | Gravel Road from Highway 22 T9S, R2E, Sec 22, to dead-end in T9S, R2E, Sec 16. | Widening, brushing, surface improvement. |
| Stayton/Sublimity RFD | Fern Ridge Road | 8 | Paved County Road beginning at Highway 22 T9S, R2E, Sec 18 going northerly and easterly to Highway 22 in T9S, R1W, Sec 11. | Brushing, improve sight distance on curves. |
| Sublimity RFD | Coon Hollow Road | 7 | Paved county road beginning at Fern Ridge Road in T9S, R1E, Sec. 4 going northerly and easterly to Sublimity and State Highway 213, Cascade Highway in T8S, R1W, Sec. 34. | |

Evacuation Routes

| Fire District | Road Name | Approx. Miles | Road Description | Road Improvements |
|---------------|-------------------|---------------|---|-------------------|
| Turner RFD | Battle Creek Road | 2 | Paved county road beginning at Delaney Road in T8s, R3W, Sec 25, SE/SE going northeasterly to Kuebler Blvd ending in T8S, R3W, Sec. 11, SE/SE | |
| Turner RFD | Cloverdale Drive | 3 | Paved county road beginning at Parrish Gap Road in T9S, R2W, Sec 6 NE/SE going westerly to Enchanted Way Road in T9S, R3W, Sec 2, NW/NE | |
| Turner RFD | Delaney Road | 3 | Paved county road beginning at 3 rd Street in Turner in T8S, R2W, Sec. 29 NW/SE going westerly to Battle Creek Road or I-5 Exit 248 in T8S, R3W, Sec. 25 NW/SE. | |
| Turner RFD | Gath Road | 3 | Paved County Road beginning at Turner Road in T8S, R2W, Sec 18 NE/SW going east to Witzel Road ending in T8S, R2W, Sec. 21 NW/NE | |
| Turner RFD | Parrish Gap Road | 5 | Paved county road beginning at Delaney Road in T8S, R3W, Sec. 29, NW/SE, going south to Hinnies Road east to Wipper Road then north to Turner. Also Parrish Gap Road to Cloverdale Drive for westerly travel to Enchanted Way Road. Also continuing southerly from Cloverdale Drive to Jefferson-Marion Road in T10S, R2W, Sec.6 NE/NW. | |
| Turner RFD | Ridgeway Drive | 3 | Paved county road beginning at Parrish Gap Road in T9S, R2W, Sec.6 NE/SE going westerly and northerly to Cloverdale Dr. in T9S, R3W, Sec. 2, SE/NE. | |
| Turner RFD | Summit Loop Road | 4 | Paved county road beginning at Parrish Gap Road in T9S, R2W, Sec. 7 SE/NE going westerly then southerly then easterly looping back to Parrish Gap Road in T9S, R2W, Sec. 20 SW/NE. | |

Evacuation Routes

| Fire District | Road Name | Approx. Miles | Road Description | Road Improvements |
|-------------------------|------------------------------------|---------------|--|-------------------|
| Turner RFD | Sunnyside Road | 5 | Paved county road beginning at Kuebler Blvd T8S, R3W, Sec. 15 NE/NW going south Delaney Road in T8S, R3W, Sec 26 NW/SW to I-5 Exit 248, or continuing south to Interstate 5, Exit 244 in T9S, R3W, Sec 2. NW/NE. | |
| Turner RFD | Turner Road | 3 | Paved county road beginning at Kuebler Blvd in T8S, R2W, Sec. 7 SE/SW going south to Marion road in City of Turner. | |
| Turner RFD | Witzel Road | 3 | Paved county road beginning at the Aumsville Highway in T8S, R2W, Sec 16 SE/NE going south to Mill Creek Road in T8S, R2W, Sec. 28 SE/SW in the City of Turner. | |
| Willamette Nat'l Forest | Willamette National Forest Road 46 | 40 | Paved National Forest Road from State Highway 22 to State Highway 224 in Clackamas County | |

This page is intentionally left blank.

Chapter 5: Monitoring and Evaluation

Chapter 5 - Monitoring and Evaluation

In this section...

- *Assessing Benefits and Costs of Mitigation*
- *Plan Oversight*
- *Monitoring*
- *Summary of Monitoring Tasks*

Plan Oversight:

Many federal grant programs require benefit/cost analysis of proposed actions. This ensures that the investment will yield greater benefits than the investment costs. The benefits of planning, mitigation and preparedness for wildfire, however, can be difficult to quantify. It can be difficult to put a monetary number to the value of human, environmental, cultural and other social resources. The MCCWPP emphasizes developing priorities for action for hazardous fuels treatment, education, emergency management and biomass utilization. The process to develop these priorities has included a technical risk assessment and collection of community input on values. The plan also takes into consideration the fact that low-income, elderly, disabled and other citizens with special needs may require extra assistance or resources to take fire protection actions. All of these values should be considered in developing priorities and assessing the costs and benefits of projects.

Appendix C of the Marion County Natural Hazards Mitigation Plan discusses benefit/cost analyses required under federal grant programs.

Marion County Emergency Management will provide oversight for implementation and maintenance of the MCCWPP. The Department will chair the CWPP Steering Committee and fulfill the chair's responsibilities. This entity will be responsible for calling meetings to order at scheduled times or when issues arise, (e.g. when funding becomes available, following a major wildfire event, when revisions of the CWPP may be in order).

The Emergency Management key oversight roles are:

- Schedule and Chair an annual meeting of the Steering Committee to review, update and revise the CWPP. This aligns with federal grant cycles. The agenda will include review and prioritization of grant proposals for succeeding federal fiscal year;
- Coordinate Steering Committee meeting time, date, location, agenda and member notification;
- Document outcomes of the Steering Committee;
- Serve as a communication conduit between the Steering Committee and key stakeholders, (e.g. Marion County Fire Defense Board);
- Identify Emergency Management related funding sources for wildfire mitigation projects;
- Serve as the coordinator for the project prioritization process.

Marion County Emergency Management will provide guidance for all elements of planning and implementation of the Marion County Community Wildfire Protection Plan. Marion County Emergency Management will provide oversight through coordination with the Marion Fire Defense Board.

Monitoring:

Monitoring is the collection and analysis of information to assist with decision making, to ensure accountability, and to provide the basis for evaluation and learning. It is a continuing function that uses methodical collection of data to provide management and the main stakeholders of an on-going project or program with early indications of progress and achievement of objectives.

Monitoring and Evaluation

The purpose of the MCCWPP monitoring strategy is to track implementation of activities and evaluate how well the goals of the MCCWPP are being met over time. Monitoring measures activities' progress over time to understand how well objectives are being met. The data gathered will provide information on status and trends of the MCCWPP. The monitoring strategy also provides a way for the county to be accountable to the public about the outcomes of the MCCWPP.

Each functional element of the East Marion County Wildfire Protection Plan (risk assessment, fuels reduction, emergency management, and education and outreach) provides monitoring tasks for recommended action items; see [Table 5.1](#). The following monitoring section also provides recommendations for multi-party monitoring of site-specific fuels reduction projects.

Table 5.1

Summary of Monitoring Tasks

| Objective | Monitoring Tasks | Timeline |
|---|---|-----------------------------------|
| Risk Assessment | <ul style="list-style-type: none"> ▪ Continue to use reliable and usable data that is compatible among the various partner agencies. | On-Going |
| | <ul style="list-style-type: none"> ▪ Monitor historic fire occurrence and urban development to reaffirm placement of WII. | Annually |
| | <ul style="list-style-type: none"> ▪ Update risk assessment with new data or changing conditions. | Bi-Annually |
| | <ul style="list-style-type: none"> ▪ Continue to reflect community input from meetings to determine values at risk. | Annually |
| | <ul style="list-style-type: none"> ▪ Inventory private, county, state and federal existing and planned fuels projects. | Annually |
| | <ul style="list-style-type: none"> ▪ Once this plan has been completed, monitor acres treated, location and relative risk rating annually. | Annually |
| | <ul style="list-style-type: none"> ▪ Identify and prioritize fuels treatment projects on an annual basis. | Annually |
| Fuels Reduction | <ul style="list-style-type: none"> ▪ Track grants and utilize risk assessment data in new applications. | On-Going |
| | <ul style="list-style-type: none"> ▪ Track fuels reduction grants and defensible space projects occurring on homes of citizens with special needs. | Annually |
| | <ul style="list-style-type: none"> ▪ Document number of residents that maintain treatment. | Every 3 Years |
| | <ul style="list-style-type: none"> ▪ Monitor number of evacuation corridors/roads treated for fire protection on county, private, state and federal roads. | Annually |
| | <ul style="list-style-type: none"> ▪ Track education programs and document how well they integrate fuels objectives. | As Projects are Approved/Accepted |
| <ul style="list-style-type: none"> ▪ Track grant dollars and projects directed to citizens with special needs. | As Projects are Approved/Accepted | |

Monitoring and Evaluation

Table 5.1 Continued

| <i>Summary of Monitoring Tasks</i> | | |
|------------------------------------|---|-----------------------------------|
| Objective | Monitoring Tasks | Timeline |
| Emergency Management | ▪ Review emergency management policies and procedures. | Annually |
| | ▪ Update map illustrating arterial routes and shelter sites. | Annually |
| | ▪ Review evacuation procedures with the County Fire Defense Board. | Annually |
| Information and Outreach | ▪ Evaluate techniques used to mobilize and educate citizens. | Annual Review |
| | ▪ Report on techniques and lessons learned. | Annual Review |
| | ▪ Review materials available in the clearinghouse. | Bi-Annual |
| | ▪ Random sample of “certified” homes to measure whether or not they continue to meet standards. | Annual Evaluation |
| | ▪ Evaluate responsiveness of citizens to campaign materials (use the annual BOC survey – are you familiar with the “Are you prepared” campaign?). | Every 3 Years |
| | ▪ Evaluate # and type of fire education programs delivered to youth. | Annual Review |
| | ▪ Monitor interest and actions by the insurance industry in local projects. | As Projects are Approved/Accepted |



Near Black Butte Ranch 2002

This page is intentionally left blank.

Chapter 6: Action Plan

Chapter 6 - Action Plan

In this section...

- ❑ *Communities At Risk*
- ❑ *Risk Factor 1 – Fire Behavior Potential*
- ❑ *Risk Factor 2 – Values at Risk*
- ❑ *Risk Factor 3 – Intrastructure*
- ❑ *Critical Facilities*
- ❑ *Evacuation Routes*
- ❑ *Action Plan and Priorities*

This chapter describes the Communities-at-Risk along with actions identified by the Local Coordinating group to implement the Marion County Community Wildfire Protection Plan. This list includes designated State Parks, and a National Wildlife Refuge that are considered to be areas of “special value.” These areas are forests, grasslands or wetlands that have particular cultural, heritage or habitat value. These are designated in Table 6.1.

There are several campgrounds; summer cabins and other recreation sites on National Forest and BLM land that are also considered to be areas of “special value.” These areas provide opportunities for citizens to experience solitude and the different surroundings of their day-to-day lives the forest environment provides. These developments on the Willamette National Forest include the following: Campgrounds; Shade Cove, Humbug, Cleator Bend, Breitenbush, Elk Lake, Santiam Flat and Whispering Falls; Summer cabin sites/tracts: Gold Butte Lookout Recreation Cabin Rental, Devils Creek Summer Home Tract and Breitenbush Summer Home Tract; Day use areas include: Three Pools and Upper Arm Day Use Area. On BLM land and Elkhorn Valley and Fisherman’s Bend campgrounds and Canyon Creek day use area are areas of “special value.”

It is worthy to mention that the watershed drained by the North Santiam River used by several communities for their municipal water supply. These include Detroit, Gates, Idanha, Lyons-Mehama, Mill City, Stayton and Salem. About 40% of the watershed area is located in Marion County.



Willamette National Forest

Action Plan

Table 6.1

Community Risk Factors

| Community | Listed on Federal Register | Interface Category | Risk Factor 1 Fire Behavior Potential | Risk Factor 2 Value at Risk | Risk Factor 3 Infrastructure | Composite Risk Priority |
|-------------------------------|-----------------------------------|---------------------------|--|------------------------------------|-------------------------------------|--------------------------------|
| Breitenbush | Yes | 1 | 1 | 2 | 1 | Extreme |
| Detroit | Yes | 1 | 1 | 1 | 1 | Extreme |
| Drakes Crossing | No | 2 | 1 | 2 | 1 | Extreme/High |
| Gates | Yes | 1 | 1 | 1 | 1 | Extreme/High |
| Idanha | Yes | 1 | 1 | 1 | 1 | Extreme |
| Jefferson | No | 2 | 2 | 2 | 1 | High/Moderate |
| Lyons | Yes | 1 | 1 | 1 | 2 | Extreme/High |
| Mill City | Yes | 1 | 1 | 1 | 1 | Extreme/High |
| Salem | No | 2 | 2 | 1 | 3 | Moderate/Low |
| Scotts Mills | Yes | 1 | 1 | 2 | 1 | Extreme/High |
| Silverton | No | 2 | 2 | 2 | 2 | High/Moderate |
| Stayton | No | 2 | 2 | 2 | 2 | Moderate |
| Turner | No | 2 | 1 | 2 | 1 | High/Moderate |
| Silver Falls State Park | No | NA | 2 | 2 | 1 | Moderate |
| Detroit State Park | No | NA | 2 | 2 | 2 | Moderate |
| Mangold State Park | No | NA | 2 | 2 | 2 | Moderate |
| North Santiam State Park | No | NA | 2 | 2 | 2 | Moderate |
| Willamette Mission State Park | No | NA | 2 | 2 | 2 | Moderate |
| Champoeg Heritage Area | No | NA | 2 | 2 | 2 | Moderate |
| Willamette Greenway | No | NA | 2 | 2 | 2 | Moderate |
| Ankeny Nat'l Wildlife Refuge | No | NA | 3 | 2 | 2 | Moderate |

Action Plan

**Risk Factor 1 –
Fire Behavior
Potential:** Situation 1: In these communities, continuous fuels are in close proximity to structures. The composition of surrounding fuels is conducive to crown fires or high intensity surface fires. There are steep slopes, predominantly south aspects, dense fuels, heavy duff, prevailing wind exposure and/or ladder fuels that reduce fire-fighting effectiveness. There is a history of large fires and/or high fire occurrence.

Situation 2: In these communities, there are moderate slopes, broken moderate fuels, and some ladder fuels. The composition of surrounding fuels is conducive to torching and spotting. These conditions may lead to moderate fire fighting effectiveness. There is a history of some large fires and/or moderate fire occurrence.

Situation 3: In these communities, grass and/or sparse fuels surround structures. There is infrequent wind exposure, flat terrain with little slope and/or predominantly a north aspect. There is no large fire history and/or low fire occurrence. Fire fighting generally is highly effective.

**Risk Factor 2 –
Values at Risk:** Situation 1: This situation most closely represents a community in an urban interface setting. The setting contains a high density of homes, businesses, and other facilities that continue across the interface. There is a lack of defensible space where personnel can safely work to provide protection. The community watershed for municipal water is at high risk of being burned compared to other watersheds within that geographic region. There is a high potential for economic loss to the community and likely loss of housing units and/or businesses. There are unique cultural, historical or natural heritage values at risk.

Situation 2: This situation represents an intermix or occluded setting, with scattered areas of high-density homes, summer homes, youth camps, or campgrounds that are less than a mile apart. This situation would cover the presence of lands at risk that are described under State designations such as impaired watersheds, or scenic byways. There is a risk of erosion or flooding in the community if vegetation burns.

**Risk Factor 3 –
Infrastructure:** Situation 1: In these communities, there are narrow dead end roads, steep grades, one way in and/or out routes, no or minimal fire fighting capacity, no fire hydrants, no surface water, no pressure water systems, no emergency operations group, and no evacuation plan in an area surrounded by a fire-conductive landscape.

Situation 2: In these communities, there are limited access routes, moderate grades, limited water supply, and limited fire fighting capability in an area surrounded by a scattered fire conducive landscape.

Situation 3: In these communities, there are multiple entrances and exits that are well equipped for fire trucks, wide loop roads, fire hydrants, open water sources (pools, creeks, and lakes), an active emergency operations group, and an evacuation plan in place in an area surrounded by a fireproof landscape. The federal land management agencies will work collaboratively with States, Tribes, local communities, and other interested parties to develop a ranking process to focus fuel reduction activities by identifying communities most at risk. Public input is welcome on the form a ranking system should take, as is input on measures that may be useful to assess the impacts of fuels treatment projects.

Action Plan

Critical Facilities: Facilities critical to government response and recovery activities include 911 centers, emergency operations centers, police and fire stations, public works facilities, sewer and water facilities, hospitals, bridges and roads, and shelters. Other critical infrastructure in the county includes cellular towers and repeater towers. Critical and essential facilities are vital to the continued delivery of key government services that may significantly impact the public's ability to recover from an emergency. Map 3 of the Marion County Natural Hazards Mitigation Plan shows the critical facilities within Marion County.



Winslow Fire

Action Plan

Marion County Community Wildfire Protection Plan Action Plan & Priorities

| Actions | Projects | Community | Hazard Rating | Priority | Responsible Agency | Year 2008 | Year 2009 | Year 2010 |
|------------------------------|--|--|---------------|----------|--------------------|-----------|-----------|-----------|
| Fuel Hazard Reduction | | | | | | | | |
| On Federal Lands | Forest Fuel Reduction | Brientenbush | Extreme | 1 | USFS | | | |
| | Elkhorn WUI | Lyons (Stayton RFD) | High | 1 | BLM/USFS | | | |
| | Idanha-Detroit WUI | Idanha and Detroit | Extreme | 1 | USFS | | | |
| | North Santiam River Acres | Idanha | High | 2 | ODF/USFS | | | |
| On Non-Federal Lands | Idanha -Detroit WUI | Detroit | Extreme | 1 | ODF/USFS | | | X |
| | Little North Fork WUI | All in Little North Fork Santiam Canyon- Stayton RFD | Extreme | 1 | ODF/USFS/ BLM | | | |
| | Crooked Finger WUI | Scotts Mill | High | 1 | ODF/Silverton RFD | | | |
| | Oregon Garden Area WUI | Silverton | High | 2 | ODF/Silverton RFD | | | |
| | Gates WUI | Gates | High | 3 | ODF | | | |
| | Drakes Crossing WUI | Drakes Crossing | High | 2 | ODF | | | |
| | Includes Powers Creek, North Fork, Spring Villa, Bridge Creek, Maulding Estates Developments | Drakes Crossing | High | 2 | ODF | | | |
| | Crooked Finger WUI | Scotts Mills | High | 2 | ODF | | | |

Action Plan

| Actions | Projects | Community | Hazard Rating | Priority | Responsible Agency | Year 2008 | Year 2009 | Year 2010 |
|---|-----------------------------|--------------------|---------------|----------|----------------------------|-----------|-----------|-----------|
| | Mill City WUI | Mill City | Extreme | 3 | ODF/BLM | | | |
| | Centerwood WUI | Jefferson | High | 1 | Jefferson RFD | | | |
| | Spring Lakes Estates WUI | Jefferson | High | 1 | Jefferson RFD | | | |
| | Marion Hill/Valley View WUI | Jefferson | High | 2 | Jefferson RFD | | | |
| | Delaney-Battle Creek | Turner | High | 1 | Turner RFD | | | |
| | Summit Loop | Turner | High | 1 | Turner RFD | | | |
| | Parrish Gap | Turner | High | 2 | Turner RFD | | | |
| | Sunnyside | Turner | Moderate | 2 | Turner RFD | | | |
| | Wetzel & Gath | Turner | Moderate | 3 | Turner RFD | | | |
| Development of Strategic Community Fuel Breaks | | | | | | | | |
| | Idanha-Detroit | Idanha and Detroit | Extreme | 1 | ODF/FS, Idanha-Detroit RFD | | | |
| | Breitenbush Private | Breitenbush | Extreme | 1 | ODF, FS, Private | | | |
| | Elkhorn Woods | Lyons | Extreme | 1 | ODF/Stayton RFD | | | |
| | Taylor Park | Lyons | High | 1 | ODF/Stayton RFD | | | |
| | Dogwood Subdivision | Lyons | High | 1 | ODF/Stayton RFD | | | |
| | Stout-Fern Ridge | Lyons | Moderate | 3 | ODF/Stayton | | | |

Action Plan

| Actions | Projects | Community | Hazard Rating | Priority | Responsible Agency | Year 2008 | Year 2009 | Year 2010 |
|-------------------------------|---|-----------------|---------------|----------|---|-----------|-----------|-----------|
| | Coon Hollow | Sublimity | Moderate | 3 | ODF/Sublimity | | | |
| | Scotts Mills | Scotts Mill | Moderate | 1 | ODF/Silverton RFD | | | |
| | Abiqua Creek | Silverton | High | 1 | ODF/Silverton RFD | | | |
| | Davis Creek (potential for development) | Silverton | Moderate | 3 | ODF/Silverton | | | |
| | Forest Ridge/Quall Road | Silverton | High | 2 | ODF/Silverton RFD | | | |
| | Oregon Garden Area | Silverton | High | 3 | ODF/Silverton RFD/Drakes Crossing | | | |
| | Drift Creek | Silverton | High | 3 | ODF/Silverton RFD/Drakes Crossing | | | |
| | Silver Creek Drive/ Highway 214 | Silverton | High | 3 | ODF/Silverton RFD | | | |
| | Victor Point | Silverton | High | 3 | ODF/Silverton RFD | | | |
| | Finlay Road | Silverton | Moderate | 3 | ODF/Silverton RFD | | | |
| | Powers Creek | Drakes Crossing | High | 2 | ODF/Drakes Crossing RFD | | | |
| | North Fork | Drakes Crossing | High | 2 | ODF/Drakes Crossing RFD | | | |
| Defensible Space Continued | Phelps Subdivision | Drakes Crossing | Moderate | 3 | ODF/Drakes Crossing RFD | | | |

Action Plan

| Actions | Projects | Community | Hazard Rating | Priority | Responsible Agency | Year 2008 | Year 2009 | Year 2010 |
|---------|---------------------------|-----------------|---------------|----------|-------------------------|-----------|-----------|-----------|
| | Maulding Estates | Drakes Crossing | Moderate | 3 | ODF/Drakes Crossing RFD | | | |
| | Bridge Creek | Drakes Crossing | High | 1 | ODF/Drakes Crossing RFD | | | |
| | Spring Villa | Drakes Crossing | Extreme | 1 | ODF/Drakes Crossing RFD | | | |
| | Centerwood | Jefferson | Extreme | 1 | Jefferson RFD | | | |
| | Spring Lakes Estates | Jefferson | Extreme | 1 | Jefferson RFD | | | |
| | Marion Hill/Valley View | Jefferson | High | 1 | Jefferson RFD | | | |
| | Gates | Gates | Moderate | 3 | ODF/Gates RFD | | | |
| | Bud Long | Mill City | High | 1 | ODF/Mill City RFD | | | |
| | Sitkom Road | Mill City | High | 1 | ODF/Mill City RFD | | | |
| | Highway 22 | Mill City | Moderate | 3 | ODF/Mill City RFD | | | |
| | Delaney-Battle Creek | Turner | High | 1 | Turner RFD | | | |
| | Summit Loop | Turner | High | 1 | Turner RFD | | | |
| | Parrish Gap | Turner | High | 2 | Turner RFD | | | |
| | Sunnyside | Turner | Moderate | 2 | Turner RFD | | | |
| | Wetzel & Gath | Turner | Moderate | 3 | Turner RFD | | | |
| | Idanha-Detroit City | Idanha-Detroit | Extreme | 1 | Idanha-Detroit RFD | | | |
| | North Santiam River Acres | Idanha -Detroit | High | 2 | ODF/Idanha-Detroit RFD | | | |

Action Plan

| Actions | Projects | Community | Hazard Rating | Priority | Responsible Agency | Year 2008 | Year 2009 | Year 2010 |
|---|--|---|---------------|----------|---|-----------|-----------|-----------|
| Accessibility | | | | | | | | |
| Dwelling Driveways & Turn-around | Homesite Assessment | All | All | 1 | All | | | |
| Subdivision egress and exit | Subdivision Assessment | All | All | 1 | All | | | |
| Safety Corridors | | | | | | | | |
| Forest Fuel Reduction, ongoing fuel reduction maintenance, (escape corridors to safely stop the spread) | State Highway 22 North Fork Road SE (Includes USFS Road 2209 to Jaw Bone Flats Trail Head) | Stayton, Lyons, Mill City, Gates, Idanha, Detroit | All | 1 | ODF/USFS/ BLM/Rural Fire Departments | | | |
| | Gates Hill Road | Lyons, Gates | All | 1 | ODF/BLM/US FS/Stayton RFD/County | | | |
| | USFS Road 46 | Breitenbush/ Detroit | All | 1 | ODF/USFS/BL M/Gates RFD/County | | | |
| | Silver Falls Highway | Drakes Crossing/Silverton | All | 1 | USFS ODF/County/D rakes Crossing RFD/Silverton RFD/ODPR | | | |
| Planning- Land Use | | | | | | | | |
| | Firewise Planning | All | All | 1 | County/ODF/P rivate/USFS/B LM/RFD/OSF | * | * | * |

Action Plan

| Actions | Projects | Community | Hazard Rating | Priority | Responsible Agency | Year 2008 | Year 2009 | Year 2010 |
|---|---|-----------|---------------|----------|-----------------------------------|-----------|-----------|-----------|
| | Implementation of SB 360 – Oregon Forestland-Urban Interface Protection Act | All | All | 1 | All | | * | * |
| Public Information | | | | | | | | |
| Fire Prevention Cooperative actions, coordination and initiatives. | Signing- Fire Prevention Signing, seasonally as appropriate | All | All | 1 | All- | # | # | # |
| | Media Contacts-Seasonal Burning Restrictions, forest fuel reduction methods and standards, construction materials and methods. Evacuation procedures. | All | All | 1 | All- | # | # | # |
| Fire Prevention | | | | | | | | |
| | Grade School presentation | All | All | 1 | Fire Prevention Cooperatives | # | # | # |
| | Outdoor School presentations | All | All | 1 | All- | # | # | # |
| | Civic Group presentations | All | All | 1 | All- | # | # | # |
| | Landowner Contacts- Burning restrictions, Slash, backyard, etc. Fire safety, extinguishing fires, fire behavior. | All | All | 1 | ODF, USFS, BLM. County, City, RFD | # | # | # |
| | Fair displays | All | All | 1 | Fire Prevention | # | # | # |

Action Plan

| Actions | Projects | Community | Hazard Rating | Priority | Responsible Agency | Year 2008 | Year 2009 | Year 2010 |
|----------------------------------|----------------------------------|-----------|---------------|----------|---|-----------|-----------|-----------|
| Coop | | | | | | | | |
| Fire Prevention Newspaper Insert | Fire Prevention Newspaper Insert | All | All | 1 | Fire Prevention Coop | # | # | # |
| Structure ignitability | | | | | | # | # | # |
| Firewise Community USA Program | All | All | All | 1 | County/ODF/R FD's/OSFM/U SFS/BLM | # | # | # |
| Building Permit Review | | All | All | 1 | Fire Department Chiefs/County/ ODF/OSFM | # | # | # |

This page is intentionally left blank.

Appendix A - Participants

Appendix A

*Local
Coordination
Group
Participants:*

Marion County

Burnie Pearson, GIS
Don Newell, Emergency Management
John Vanderzanden, Emergency Management
Krista Rowland, Emergency Management
Les Sasaki, Planning

Oregon Department of Forestry

Ann Walker, Fire Protection Program, Salem
Howard Strobel, North Cascade District
Steve Kendall, North Cascade District

Marion County Fire Districts

Gary Swanson, Chief, Gates Fire
Jay Alley, Assistant Chief, Stayton Rural Fire
Joe Parrott, Deputy Chief, Fire and Life Safety, Salem Fire
Jon Remy, Assistant Chief, Turner Fire
Jon Zeilman, Assistant Chief, Jefferson Fire
Kevin Hendricks, Chief, Marion County Fire Defense Board
Larry Bartels, Chief, Drakes Crossing Fire
Leland Ohrt, Chief, Mill City Fire
Rob Richie, Chief, Idanha-Detroit Fire
Ron Parvon, Fire Prevention Officer, Silverton Fire
Tim Frost, Chief, Sublimity Fire

Federal Agencies

Barbara Raible, Fuels Ecologist, Cascade Resource Area, Bureau of Land Management
Paul Hiebert, Fire Management Officer, North Zone, Willamette National Forest

This page is intentionally left blank.

Appendix C - Glossary

Appendix C

Definitions and Policies:

This section provides a summary of policies and definitions of Communities at Risk, wildland urban interface, and defensible space.

Wildfire Risk Assessment:

Fire Plan:

Risk: the potential and frequency for wildfire ignitions (based on past occurrences)

Hazard: the conditions that may contribute to wildfire (fuels, slope, aspect, elevation and weather)

Values: the people, property, natural resources and other resources that could suffer losses in a wildfire event.

Protection Capability: the ability to mitigate losses, prepare for, respond to and suppress wildland and structural fires.

Structural Vulnerability: the elements that affect the level of exposure of the hazard to the structure (roof type and building materials, access to the structure, and whether or not there is defensible space or fuels reduction around the structure.)

Communities at Risk:

Healthy Forests Restoration Act:

Title I – Hazardous Fuel Reduction on Federal Land, SEC. 101.

Definitions:

(1) AT-RISK COMMUNITY.—The term “at-risk community” means an area—

(A) that is comprised of— (i) an interface community as defined in the notice entitled “Wildland Urban Interface Communities Within the Vicinity of Federal Lands That Are at High Risk From Wildfire” issued by the Secretary of Agriculture and the Secretary of the Interior in accordance with title IV of the Department of the Interior and Related Agencies Appropriations Act, 2001 (114 Stat. 1009) (66 Fed. Reg. 753, January 4, 2001); or (ii) a group of homes and other structures with basic infrastructure and services within or adjacent to Federal land;

(B) in which conditions are conducive to a large-scale wildland fire disturbance event;

(C) for which a significant threat to human life or property exists as a result of a wildland fire disturbance event.

National Association of State Foresters Identifying and Prioritizing Communities at Risk:

In June 2003, the National Association of State Foresters developed criteria for identifying and prioritizing communities at risk. Their purpose was to provide national, uniform guidance for implementing the provisions of the “Collaborative Fuels Treatment Program.”

Appendix C

The intent was to establish broad, nationally compatible standards for identifying and prioritizing communities at risk, while allowing for maximum flexibility at the state and regional level. NASF defines 'Community at Risk' as "a group of people living in the same locality and under the same government" (The American Heritage Dictionary of the English Language, 1969). They also state that 'a community is considered at risk from wildland fire if it lies within the wildland/urban interface as defined in the federal register (FR Vol. 66, No. 3, Pages 751-154, January 4, 2001).'

NASF suggests identifying communities at risk on a state-by-state basis with the involvement of all organizations with wildland fire protection responsibilities (state, local, tribal, and federal) along with other interested cooperators, partners, and stakeholders. They suggest using the 2000 census data (or other suitable means) identify all communities in the state that are in the wildland urban interface and that are at risk from wildland fire, regardless of their proximity to federal lands.

Federal Register /Vol.66, No.160 /Friday, August 17, 2001 /Notices

In January 2001, then Agriculture Secretary Dan Glickman and Interior Secretary Bruce Babbitt released a proposed list of communities eligible for enhanced federal wildfire prevention assistance. The preliminary list of over 4000 communities included many that are near public lands managed by the federal government. The initial definition of urban wildland interface and the descriptive categories used in this notice are modified from "A Report to the Council of Western State Foresters—Fire in the West—The Wildland/Urban Interface Fire Problem" dated September 18, 2000. Under this definition, "the urban wildland interface community exists where humans and their development meet or intermix with wildland fuel." There are three categories of communities that meet this description. Generally, the Federal agencies will focus on communities that are described under categories 1 and 2. For purposes of applying these categories and the subsequent criteria for evaluating risk to individual communities, a structure is understood to be either a residence or a business facility, including Federal, State, and local government facilities. Structures do not include small improvements such as fences and wildlife watering devices.

Category 1. Interface Community:

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. The development density for an interface community is usually 3 or more structures per acre, with shared municipal services. 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. An alternative definition of the interface community emphasizes a population density of 250 or more people per square mile.

Category 2. Intermix Community:

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. The development density in the intermix ranges from structures very close together to one structure per 40 acres. Fire protection districts funded by various taxing authorities normally provide life and property fire protection and may also have wildland fire protection responsibilities. An alternative definition of intermix community

Appendix C

wildland fire protection emphasizes a population density of between 28–250 people per square mile

Category 3. Occluded Community:

The Occluded Community generally exists in a situation, often within a city, where structures abut an island of wildland fuels (e.g., park or open space). There is a clear line of demarcation between structures and wildland fuels. The development density for an occluded community is usually similar to those found in the interface community, but the occluded area is usually less than 1,000 acres in size. Fire protection is normally provided by local government fire depts.

A Definition of Community, James A. Kent/ Kevin Preister:

“A community is a geographic place that is characterized by natural systems such as watersheds, cultural attachment and human geographic boundaries. Physical, biological, social, cultural, and economic forces create natural boundaries that distinguish one community from another. The importance is in recognizing the unique beliefs, traditions, and stories that tie people to a specific place, to land and to social/kinship networks. It is a naturally defined human geographic area within which humans and nature rely on shared resources. People from outside this place can effectively contribute to its stewardship by providing relevant information and/or participating through relating their own values associated with geographic place. Community is defined by the informal systems and to the degree the formal systems are tied to the informal it becomes part of a community definition. Both have a distinct function. Informal systems are horizontal. They maintain culture, take care of people and are concerned with survival. They thrive on openness, honesty, and the idea that people want to do what is right for each other and the broader society. Formal systems are vertical and they serve centralized political, ideological, and economic functions. They contribute resources and legal structure to community change. Formal meetings alone do not constitute community communication or decision making functions.” <http://www.ntc.blm.gov/partner/community.html>

Firewise Definition of Community:

“According to Webster's dictionary, a community is ‘a body of people living in one place or district...and considered as a whole’ or ‘a group of people living together and having interests, work, etc. in common’. Homeowner associations and similar entities are the most appropriate venue for the Firewise Communities/USA recognition program. These smaller areas within the wildland/urban interface offer the best opportunities for active individual homeowner commitment and participation, which are vital to achieving and maintaining recognition status.” <http://www.firewise.org/usa/>

Executive Order NO. 04-04 Oregon Office of Rural Policy and Rural Policy Advisory Committee:

Office of Rural Policy and Rural Policy Advisory Committee Frontier Rural – A geographic area that is at least 75 miles by road from a community of less than 2000 individuals. It is characterized by an absence of densely populated areas, small communities, individuals working in their communities, an economy dominated by natural resources and agricultural activities, and a few paved streets or roads.

Appendix C

Isolated Rural – A geographic area that is at least 100 miles by road from a community of 3000 or more individuals. It is characterized by low population density (fewer than five people per square mile), an economy of natural resources and agricultural activity, large areas of land owned by the state or federal government and predominately unpaved streets.

-Rural – A geographic area that is at least 30 miles by road from an urban community (50,000 or more). It is characterized by some commercial business, two or fewer densely populated areas in a county, an economy changing from a natural resource base to more commercial interests and reasonable, but not immediate access to health care.

-Urban Rural – A geographic area that is at least 10 miles by road from an urban community. It is characterized by many individuals community to an urban area to work or shop, an economy with few natural resource and agricultural activities, easy and immediate access to health care services and numerous paved streets and roads.

<http://governor.oregon.gov/Gov/pdf/ExecutiveOrder04-04.pdf>

Wildland Urban Interface:

Federal Register/Vol.66, No.160 /Friday, August 17,2001 /Notices:

The Federal Register states, "The urban-wildland interface community exists where humans and their development meet or intermix with wildland fuel." This definition is found in the Federal Register Vol.66, Thursday, January 4, 2001, Notices; and in "Fire in the West, the Wildland/Urban Interface Fire Problem", A Report for the Western States Fire Managers, September 18, 2000.

10-Year Comprehensive Strategy:

A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy (August 2001) "The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels" (Glossary of Wildland Fire Terminology, 1996). <http://www.fireplan.gov/content/reports/?LanguageID=1>

Senate Bill 360:

Senate Bill 360: Forestland Urban Interface Protection Act of 1997. Forestland Urban Interface 477.015 Definitions. (1) As used in ORS 477.015 to 477.061, unless the context otherwise requires, "forestland-urban interface" means a geographic area of forestland inside a forest protection district where there exists a concentration of structures in an urban or suburban setting.

NFPA 1144:

NFPA 1144: Standard for Protection of Life and Property from Wildfire 2002 Edition Wildland/Urban Interface is an area where improved property and wildland fuels meet at a well-defined boundary. Wildland/urban intermix is an area where improved property and wildland fuels meet with no clearly defined boundary.

<http://www.nfpa.org/catalog/home/OnlineAccess/1144/1144.asp>

Appendix C

Home Ignition Zones –“Wildland-Urban Fire—A different approach”

Recent research focuses on indications that the potential for home ignitions during wildfires including those of high intensity principally depends on a home’s fuel characteristics and the heat sources within 100-200 feet adjacent to a home (Cohen 1995; Cohen 2000; Cohen and Butler 1998). This relatively limited area that determines home ignition potential can be called the home ignition zone. <http://firelab.org/fbp/fbresearch/wui/pubs.htm> (Jack D. Cohen)

NFPA 1144

NFPA Publication 1411 defines defensible space as “An area as defined by the AHJ (typically with a width of 9.14 m (30 ft) or more) between an improved property and a potential wildland fire where combustible materials and vegetation have been removed or modified to reduce the potential for fire on improved property spreading to wildland fuels or to provide a safe working area for fire fighters protecting life and improved property from wildland fire.

OAR 629-044-1085: Fuel Break Requirements

(1) The purpose of a fuel break is to: (a) Slow the rate of spread and the intensity of an advancing wildfire; and (b) Create an area in which fire suppression operations may more safely occur.

(2) A fuel break shall be a natural or a human-made area where material capable of allowing a wildfire to spread: (a) Does not exist; or (b) Has been cleared, modified, or treated in such a way that the rate of spread and the intensity of an advancing wildfire will be significantly reduced.

(3) A primary fuel break shall be comprised of one or more of the following: (a) An area of substantially non-flammable ground cover. Examples include asphalt, bare soil, clover, concrete, green grass, ivy, mulches, rock, succulent ground cover, or wildflowers. (b) An area of dry grass, which is maintained to an average height of less than four inches. (c) An area of cut grass, leaves, needles, twigs, and other similar flammable materials, provided such materials do not create a continuous fuel bed and are in compliance with the intent of subsections 1 and 2 of this rule. (d) An area of single specimens or isolated groupings of ornamental shrubbery, native trees, or other plants, provided they are: (A) Maintained in a green condition; (B) Maintained substantially free of dead plant material; (C) Maintained free of ladder fuel; (D) Arranged and maintained in such a way that minimizes the possibility a wildfire can spread to adjacent vegetation; and (E) In compliance with the intent of subsections (1) and (2) of this rule. (4) A secondary fuel break shall be comprised of single specimens or isolated groupings of ornamental shrubbery, native trees, or other plants, provided they are (a) Maintained in a green condition; (b) Maintained substantially free of dead plant material; (c) Maintained free of ladder fuel; (d) Arranged and maintained in such a way that minimizes the possibility a wildfire can spread to adjacent vegetation; and (e) In compliance with the intent of subsections 1 and 2 of this rule. http://arcweb.sos.state.or.us/rules/1102_Bulletin/1102_ch629_bulletin.html

Appendix C

Senate Bill 360: Forestland Urban Interface Protection Act of 1997 – Fuel Break Distance

| Classification | Fire Resistant Roofing | Non-Fire Resistant Roofing |
|----------------|------------------------|----------------------------|
| LOW | No Requirement | No Requirement |
| MODERATE | 30 Feet | 30 Feet |
| HIGH | 30 Feet | 50 Feet |
| EXTREME | 50 Feet | 100 Feet |

Is Your Home Protected from Wildland Disaster? – A Homeowners Guide to Wildfire Retrofit, Institute for Business and Home Safety.

A survivable space is an area of reduced fuels between your home and the untouched wildland. This provides enough distance between the home and a wildfire to ensure that the home can survive without extensive effort from either you or the fire department. One of the easiest ways to establish a survivable space is to use the zone concept.

Zone 1: Establish a well-irrigated area around your home. In a low hazard area, it should extend a minimum of 30 feet from your home on all sides. As your hazard risk increases, a clearance of between 50 and 100 feet or more may be necessary, especially on any downhill sides of the lot. Plantings should be limited to carefully spaced indigenous species.

Zone 2: Place low-growing plants, shrubs and carefully spaced trees in this area. Maintain a reduced amount of vegetation. Your irrigation system should also extend into this area. Trees should be at least 10 feet apart, and all dead or dying limbs should be trimmed. For trees taller than 18 feet, prune lower branches within six feet of the ground. No tree limb should come within 10 feet of your home.

Zone 3: This furthest zone from your home is a slightly modified natural area. Thin selected trees and remove highly flammable vegetation such as dead or dying trees and shrubs.

How far Zones 2 and 3 extend depends upon your risk and your property's boundaries. In a low hazard area, these two zones should extend another 20 feet or so beyond the 30 feet in Zone 1. This creates a modified landscape of over 50 feet total. In a moderate hazard area, these two zones should extend at least another 50 feet beyond the 50 feet in Zone 1. This would create a modified landscape of over 100 feet total. In a high hazard area, these two zones should extend at least another 100 feet beyond the 100 feet in Zone 1. This would create a modified landscape of over 200 feet total.

<http://www.ibhs.org/publications/view.asp?id=130>

Appendix C

Living with Fire: A Guide for the Homeowner: This guide, distributed in Oregon through the Pacific Northwest Wildfire Coordinating Group, provides information on creating effective defensible space and guidelines illustrated in the following table.

| | Defensible Space; Flat to Gently Sloping 0 to 20% | Recommended Distances; Moderately Steep 21% to 40% | Steepness of Slope; Very Steep 40+% |
|--|--|---|--|
| Grass: Wildland grasses (such as cheatgrass, weeds, and widely scattered shrubs with grass understory). | 30 Feet | 100 Feet | 100 Feet |
| Shurbs: Includes shrub dominant areas. | 100 Feet | 200 Feet | 200 Feet |
| Trees: Includes forested areas. If substantial grass or shrub understory is present use those values shown above. | 30 Feet | 100 Feet | 200 Feet |

Fire Free

A buffer zone -- a minimum 30-foot fire-resistive area around a house that reduces the risk of a wildfire from starting or spreading to the home. Although a 30-foot distance is standard, additional clearance as great as 100 feet may be necessary as the slope of your lot increases.
<http://www.firefree.org/ffreenew/subpages/gitz.htm>.

Definitions: Crown Fire: Fire sustained in the over story or a surface fire with high fire line intensity leading to significant, scorch related over story death.

Fire breaks---Man made, which include defensible space through fuel reduction, roads and natural breaks such as creek beds, rock faces, etc.

Fuel loading: How much fuel is available to feed the fire? Other loading factors are size, compactness and fuel moisture.

Fuels: Fuel is that combustible material available to feed a fire. Fuel is classified by volume and type. Volume is described in terms of "fuel loading" or the amount of vegetative fuel. The type of fuel, trees. Brush, grass, etc.

Season Ending Event: The data of the weather event after which fires cease to pose a significant problem, in terms of spread, to fire managers.

Surface Fire: Burning with low intensity in the forest under story with occasional individual tree torching or scorches related mortality.

Topography: This is the overall layout of the land: steepness of slope and aspect.

Appendix C

Vehicle access: Is access in and out possible for the type of initial attack or protection vehicle needed including space for more than one vehicle, turn-around space, and appropriate bridges and gates capable of accommodating firefighting vehicles.

Water sources: Many rural residential areas lack large water storage or pumping facilities, putting a higher demand on firefighting resources, which have large water tank capabilities.

Weather: Major concerns are: yearly moisture accumulations, humidity, wind, temperatures and lightning frequency/occurrence.

Appendix D

Appendix D

Ten Steps to “Get in the Zone,” Fire Free Program and Measures to Reduce Structural Vulnerability:

<http://www.firefree.org>

1. Define your defensible space.

Defensible space is a buffer zone, a minimum 30-foot fire-resistive area around your house that reduces the risk of a wildfire from starting or spreading to your home. Formed by following the critical steps outlined below, defensible space depends on clearing flammable material away from your home and replacing it with fire-resistive vegetation. Although a 30-foot distance is standard, additional clearance as great as 100 feet may be necessary as the slope of your lot increases. Defensible space not only helps protect your home in the critical minutes it takes a fire to pass, it also gives firefighters an area to work in. During a large-scale fire, when many homes are at risk, firefighters must focus on homes they can safely defend.

2. Reduce flammable vegetation, trees and brush around your home.

When needed, replace flammable landscaping with fire-resistive counterparts. Choose plants with loose branch habits, non-resinous woody material, high moisture content in leaves, and little seasonal accumulation of dead vegetation. Ask your local home and garden center about which varieties possess these and other fire-resistive traits.

3. Remove or prune trees.

If you live in a wooded area, reduce the density of surrounding forest by removing or thinning overcrowded or small-diameter trees. Check with local agencies for guidelines on tree removal before clearing or thinning your property. Be sure to prune low-hanging branches to keep a ground fire from climbing into upper branches. Limbing up these "ladder fuels" cuts the chances of a ground fire climbing into tree canopies.

4. Cut grass and weeds regularly.

Fire spreads rapidly in dry grass and weeds. Mow grasses and other low vegetation and keep them well watered, especially during periods of high fire danger.

5. Relocate woodpiles and leftover building materials.

Stack all wood, building debris and other burnable materials at least 30 feet from your home and other buildings. Then clear away flammable vegetation within 10 feet of wood/debris piles as an additional safeguard against the spread of wildfire.

Appendix D

6. Keep it clean. (Your roof and yard, we mean!)

Clear pine needles, leaves and debris from your roof, gutters and yard to eliminate an ignition source for tinder-dry vegetation. Remove dead limbs and branches within 10 feet of your chimney and deck. Tidying-up is especially important during the hot, arid months of fire season when a single spark can lead to an inferno.

7. Signs, addresses and access.

Easy-to-read road signs and address numbers that are visible from the road allow firefighters to find your home quickly during a wildfire or other emergency. Safe, easy access to your property includes two-way roads that can accommodate emergency vehicles and give them space to turn around. Bridges should support the weight of emergency vehicles. Driveways should also be trimmed of peripheral vegetation to allow emergency equipment to reach your house. Contact your local fire agency for recommendations on access and signage.

8. Rate your roof.

Your roof is the most vulnerable part of your house in a wildfire. If you have a wood shake roof, consider treatment or replacement to make it more fire-resistant. If you have a fireplace or woodstove, install an approved spark arrestor on your chimney to prevent sparks from reaching your roof or flammable vegetation.

9. Recycle yard debris and branches.

Check into alternative disposal methods like composting or recycling. Burning may be restricted or not allowed in your community, and should only be used as a last resort. Always contact your local fire agency for current burning regulations before striking a match!

10. What to do when a wildfire strikes.

Monitor your local radio and television stations for fire reports and evacuation procedures and centers. Keep an emergency checklist handy and prepare to evacuate if your neighborhood is threatened. Proper preparation includes closing all windows and doors, arranging garden hoses so they can reach any area of your house, and packing your car for quick departure.

Protecting your Home from Wildland Fire:

<http://www.nifc.gov/preved/protecthome.html>

Every year many families unnecessarily lose their homes and possessions to wildland fire. These losses can be minimized if homeowners take the time to become aware of safety measures to help protect their homes and complete some effective actions.

Use Fire Resistant Building Material - "The Best Thing That You Can Do"

Appendix D

The roof and exterior structure of your dwelling should be constructed of non-combustible or fire resistant materials such as fire resistant roofing materials, tile, slate, sheet iron, aluminum, brick, or stone. Wood siding, cedar shakes, exterior wood paneling, and other highly combustible materials should be treated with fire retardant chemicals.

Maintain a Survivable Space - "Things you can do today"

- Clean roof surfaces and gutters of pine needs, leaves, branches, etc., regularly to avoid accumulation of flammable materials.
- Remove portions of any tree extending within 10 feet of the flue opening of any stove or chimney.
- Maintain a screen constructed of non-flammable material over the flue opening of every chimney or stovepipe. Mesh openings of the screen should not exceed 1/2 inch.
- Landscape vegetation should be spaced so that fire cannot be carried to the structure or surrounding vegetation.
- Remove branches from trees to height of 15 feet.
- A fuel break should be maintained around all structures.
- Dispose of stove or fireplace ashes and charcoal briquettes only after soaking them in a metal pail of water.
- Store gasoline in an approved safety can away from occupied buildings.
- Propane tanks should be far enough away from buildings for valves to be shut off in case of fire. Keep area clear of flammable vegetation.
- All combustibles such as firewood, picnic tables, boats, etc. should be kept away from structures.
- Garden hose should be connected to outlet.
- Addressing should be indicated at all intersections and on structures.
- All roads and driveways should be at least 16 feet in width.
- Have fire tools handy such as: ladder long enough to reach the roof, shovel, rake and bucket for water.
- Each home should have at least two different entrance and exit routes.

This page is intentionally left blank.

Appendix E – Incentive Programs

Appendix E

General Incentive Programs:

The following information was summarized from "Incentive Programs for Resource Management and Conservation" (OSU Extension Publication #EC1119) and other sources. This lists the major incentive programs available to assist communities and landowners with the management of their communities. These programs are not limited to the issues of Communities at Risk and are able to provide similar types of cost share opportunities on private lands in all areas of Marion County.

Many other programs exist in addition to those listed. There are specialized / targeted incentive programs (National Fire Plan, Blue Mt. / Pacific Coast Demonstration Projects, etc) are not covered in this general summary.

Major Incentive Programs Available to Family Forestland Owners in Oregon:

Forest Stewardship Program (FSP) --- cost shares consultant written / ODF approved stewardship plans -- apply with your local ODF Stewardship Forester using FLEP application form.

Forest Resource Trust (FRT) --- loan / grant to cover costs (normally 100% of costs) to convert under producing forestland or marginal agricultural land into conifer forest. Applies only to DF "high" Site 4 or better sites. Apply by completing FRT application form at local ODF offices.

Forest Land Enhancement Program (FLEP) --- cost shares a variety of upland forestry practices (site prep, tree planting, non-commercial thinning, release, etc.) Apply with local ODF Stewardship Forester using FLEP application form.** Projects are funded from one "pot" of funds in Salem. Funds are allocated to applications that arrive in Salem on a first come, first served basis, by priority. Unused funds continually recycle back into the "pot" as projects are completed or cancelled. In addition, we anticipate that "new" funds will be made available to Oregon in late 2005.

Oregon 50% Underproducing Forest Land Conversion Tax Credit -- state tax credit on cost of converting under producing forestland (brush land and low value / low volume forest) to well stocked forest. Apply by completing tax credit form and submitting it to the local ODF Stewardship Forester. (The form is available on the ODF/Private & Community Forests web site or at the local ODF office.) The state tax credit is available to qualified landowners and projects on a continuous basis. Proposed projects should be pre-qualified by the local ODF Stewardship Forester.

Afforestation Incentive (OAR 629-611 Forest Practices Rules) - Provides landowners an incentive to convert parcels of idle land or land in other uses to commercial forest use. Provides assurance that no state forest practices regulation will prohibit harvesting most of the planted timber established and grown as the first crop rotation. Contact the local ODF Stewardship Forester for more information.

Appendix E – Incentive Programs

Federal (10%) reforestation tax credit --- federal tax credit on cost of most afforestation or reforestation projects is available for project work completed before October 22, 2004. For reforestation / afforestation work done after October 21, 2004, landowners can "deduct" a certain amount of project expenses. (Note: The 10% federal tax credit has been repealed but landowners will be able to deduct some reforestation / afforestation expenses going forward from now.) Landowners need to contact the IRS or their tax professional to get the required forms and properly utilize this incentive. Additional Information can be found at: www.timbertax.org

Environmental Quality Incentives Program (EQIP) -- can cost share a wide variety of agricultural and forestry practices. However, availability of funding for upland forestry practices depends on a number of woodland owners applying for EQIP funding and actively participating in local EQIP working group. Apply for EQIP funds at local NRCS (Natural Resource Conservation Service) office.

Watershed Improvement Grants (OWEB) --- cost shares riparian (usually near stream or in-stream) work - check with local watershed counsel and / or SWCD (Soil & Water Conservation District). Grant applications are available on-line at OWEB or at the local SWCD office.

Wildlife Habitat Incentives Program (WHIP) -- cost shares a variety of wildlife enhancement practices, which can include forest establishment and thinning for wildlife purposes. Apply with local NRCS office.

Conservation Reserve Program (CRP) -- cost shares a variety of conservation practices on agricultural land including forest establishment and thinning. Pays rental on acres enrolled for ten to fifteen years. Apply at local FSA (Farm Services Agency) office. Funding is available.

Conservation Reserve Enhancement Program (CREP) -- cost shares primarily riparian and wetland improvement projects on agricultural land. Practices include riparian forest buffer establishment. Pays rental on acres enrolled for ten to fifteen years. Apply at local FSA office.

Community Fire Assistance: Volunteer Fire Assistance (VFA): Assistance to Volunteer Fire Departments for equipment & supplies. Contact the local ODF office.

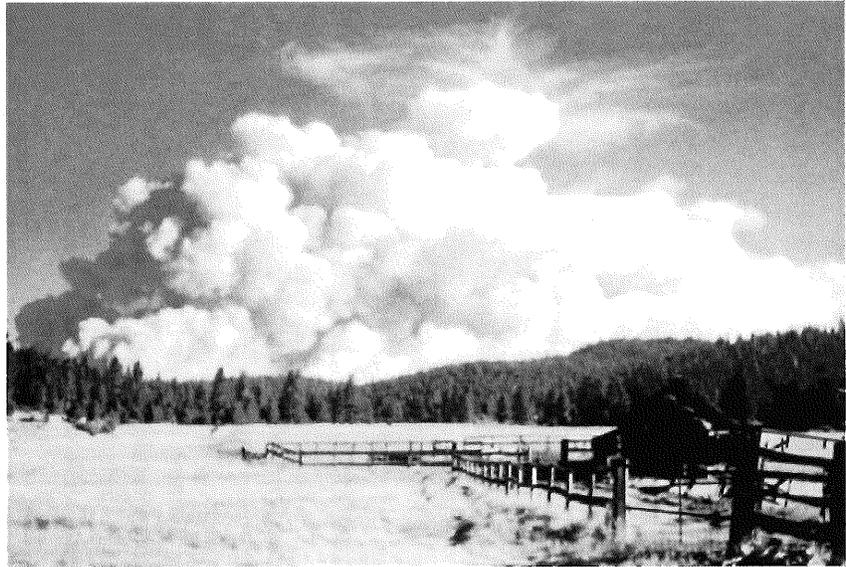
Rural Fire Assistance (RFA): Assistance to Rural Fire organizations for equipment and supplies. Contact the local ODF office.

Federal Excess Personal Property program (FEPP): Provides federal excess equipment and supplies to city & rural fire departments for firefighting purposes. Contact the local ODF office.

Appendix E – Incentive Programs

Other Programs: Special funding for Insect & Disease control. The cost share amounts vary depending on the acreage owned. It varies from 33% to 50%, with the larger landowners being eligible for only 33% of the costs. Contact the local ODF office.

Title III, funding is available from the county for projects to enhance forest objectives. Contact Hitesh Parekh, Board of Commissioners Office at 503.588.5212.



Appendix E

Additional Incentive Programs to assist Communities and Private Landowners

| Cost Share Program | Objective | Contact Agency |
|---|---|--|
| Forest Stewardship Program (FSP) | Develop Stewardship/Management Plans for Private landowners | Oregon Department of Forestry |
| Forest Resource Trust (FRT) | Convert underproducing forestland or marginal agricultural land into conifer forest, high site 4 or better sites | Oregon Department of Forestry |
| Forest Land Enhancement Program (FLEP) | Cost share site prep, tree planting, non-commercial thinning, and release. | Oregon Department of Forestry |
| Oregon 50% Underproducing Forest Land Conversion Tax Credit | Convert underproducing forestland to well stocked forest. | Oregon Department of Forestry |
| Afforestation Incentive | Converts parcels of idle to commercial forest use. | Oregon Department of Forestry |
| Federal (10%) reforestation tax credit | Federal tax credit on cost of reforestation projects | IRS or tax professional |
| Environmental Quality Incentives Program (EQIP) | Wide variety of forestry practices | Natural Resource Conservation Service (NRCS) |
| Watershed Improvement Grants (OWEB) | Riparian work and protection of water quality that can include upland forestry work. | Soil Water Conservation District (SWCD) |
| Wildlife Habitat Incentives Program (WHIP) | Wildlife enhancement practices that can include forest establishment and thinning for wildlife. | Natural Resource Conservation Service (NRCS) |
| Conservation Reserve Program (CRP) | Conservation practices on agricultural land including forest establishment and thinning. | Farm Service Agency (FSA) |
| Conservation Reserve Enhancement Program (CREP) | Riparian improvement projects including forest buffer establishment. | Farm Service Agency (FSA) |
| Volunteer Fire Assistance (VFA) | Grant assistance to volunteer fire departments for equipment and supplies. | Oregon Department of Forestry |
| Rural Fire Assistance (RFA) | Grant assistance to city and rural fire departments in communities of less than 10,000 population for equipment and supplies. | Oregon Department of Forestry |
| Federal Excess Personal Property Program (FEPP) | Federal excess equipment and supplies to city and rural fire departments for firefighting purposes. | Oregon Department of Forestry |
| Special Insect & Disease Control | Cost share assistance to landowners to control insect and disease infestations. | Oregon Department of Forestry |
| Title III – Secure Rural Schools | Funding for forest health projects | County Government |
| Community Assistants WUI Grants | Cost share grant assistance to reduce hazardous fuels | UDSA/USDI Forest Service, ODF |
| Western States Fire Managers Grants | Cost share grant assistance to reduce hazardous fuels | ODF |

Appendix F

Appendix F

Oregon Department of Forestry Best Management Practices:

Fire Danger levels may be established at “Moderate,” “High,” or “Extreme” levels and are implemented starting when fire season is declared by ODF.

FIRE REGULATIONS

Written Burn Permits are required for any open burning during closed fire season. Currently, no Burn Permits are written from June 15 through October 1 each year. Burn Permits are required all year around for logging slash generated from forest management activities. Additional fire regulations can be imposed on forestlands when conditions warrant. Public Use Restrictions, officially called Regulated Closure and industrial restrictions are normally put into effect on private lands within the District’s protection area every year.

PUBLIC USE RESTRICTIONS

Fire season restrictions are imposed at various levels as a result of high temperatures, low humidity, dryness of vegetation, and availability of wildland firefighting resources. The phase-in is accomplished through prohibitions based on time of day and nature of activity.

Examples of activities that are regulated through fire season restrictions are:

- Smoking is prohibited while traveling except in vehicles on improved roads.
- Open fires are prohibited, including campfires, charcoal fires, cooking fires and warming fires, except at designated locations. Portable cooking stoves using liquefied or bottled fuels are allowed.
- Chain saw use is prohibited in areas subject to Industrial Fire Precaution Level III and IV.
- Chain saw use is prohibited, between the hours of 1:00 p.m. and 8:00 p.m., in areas subject to Industrial Fire Precaution Level I and II. Chain saw use is permitted at all other hours, if the following fire fighting equipment is present with each operating saw: one axe, one shovel, and one operational 8 ounce or larger fire extinguisher. In addition, a fire watch is required at least 1 hour following the use of the saw.
- Use of motorized vehicles, including motorcycles and all terrain vehicles, is prohibited, except on improved roads or for the commercial culture and harvest of agricultural crops.
- All motor vehicles must be equipped with one gallon of water or one operational 2 ½ pound or larger fire extinguisher, one axe, and one shovel, except when traveling on state and country roads. All-terrain vehicles and motorcycles must be equipped with one operational 2 ½ pound or larger fire extinguisher, except when traveling on state and county roads.
- Use of fireworks is prohibited.

Appendix F

- Cutting, grinding and welding of metal is prohibited.
- Mowing of dried and cured grass with power driven equipment is prohibited, between the hours of 10:00 a.m. and 8:00 p.m., except for the commercial culture and harvest of agricultural crops.
- Blasting is prohibited, between the hours of 1:00 p.m. and 8:00 p.m.

INDUSTRIAL SHUTDOWN

During closed fire season industrial activity operations are restricted or shutdown on forestland when the risk of ignition of fire from the activity is determined to be a threat to forest resources. Activities can be prohibited during certain hours of the day or shutdown completely. Restrictions become more or less severe as fire danger increases and decreases throughout the season. A fire watch is required for all operations. Examples of activities that are restricted include:

- Use of power saws
- Cable yarding
- Use of dozers, skidders, feller-bunchers, loaders and other equipment
- Cutting of metal, welding, blasting
- Log Loading and hauling