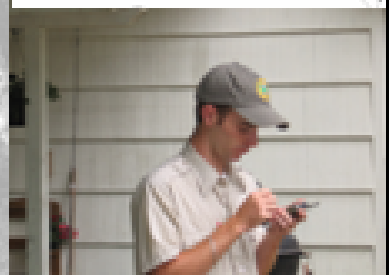
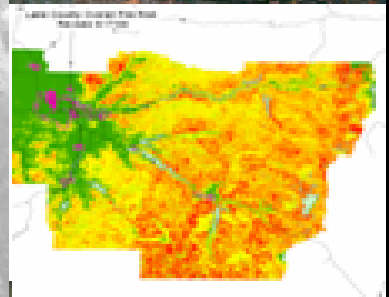


Community Wildfire Implementation Plan

For At-Risk Communities of the
Upper Willamette in
Lane County

Oakridge ~ Hazeldell ~ Lowell
Dexter ~ Fall Creek ~ Jasper

October 2008



Lowell RFD

City of Oakridge

Oregon Department
of Forestry

Dexter RFD

Oakridge fire Dept

Or State Fire
Marshals Office

Hazeldell RFD

Willamette NF –
Middle Fork
Ranger District

EXECUTIVE SUMMARY

This Implementation plan serves as an area-specific action plan for identifying and prioritizing fuels reduction activities within the Upper Willamette Watershed. This planning effort resulted from efforts of the Oregon Department of Forestry's Cascade District, Eastern Lane Unit to secure federal grant funds to assist at-risk wildland-urban interface communities in identifying and mitigating factors which lead to increased threatening of structures during a wildland fire. This plan falls under the umbrella of the Lane County Community Wildfire Protection Plan.

The outline of this Action Plan follows that of the University of Oregon's Resource Innovations, Institute for a Sustainable Environment publication "A Framework for Community Fire Plans." For the purposes of this Action Plan, the template has been modified to take into consideration the nexus between the projects proposed within and the larger Lane County Community Wildfire Protection Plan. The Upper Willamette Risk Assessment Steering Committee will forward their local top priorities to the Lane County CWPP Local Coordinating Group to be included as an appendix in the Lane County Community Wildfire Protection Plan. The Implementation Plan is expected to be a reference used by the local land offices to coordinate groups and agencies in the Upper Willamette area.

Additionally, the Framework template used also lends itself to the integration of Senate Bill 360 (The Oregon Forestland-Urban Interface Fire Protection Act of 1997) standards for fuels reduction and hazard identification. Senate Bill 360 is slated to be implemented in all 36 Oregon Counties by 2011.

The Oregon Department of Forestry was awarded funds through the National Fire Plan to conduct community risk assessment and mitigation planning efforts in communities identified as being at risk from wildland fire. To this end, the Department has partnered with the city of Oakridge, local rural fire departments, the U.S. Forest Service, as well as the Oregon State Fire Marshal's Office, to create the Upper Willamette Risk Assessment Steering Committee. The Committee was tasked with identifying wildland-urban interface areas within the Upper Willamette watershed that are at risk from wildfire, prioritize these areas relative to one another, identify mitigation projects to reduce the threat to public safety from wildland fire. Roles and responsibilities were identified by committee members and advisors for implementation of actions related to wildland fire. The term wildland-urban interface refers to areas in which developed lands are adjacent to or are intermixed with forested lands.

Partners in the Upper Willamette Risk Assessment Steering Committee (Steering Committee) include the following:

- Oregon Department of Forestry
- City of Oakridge
- Lowell Rural Fire District
- Dexter Rural Fire Department
- Hazeldell Rural Fire Department
- Oakridge Fire Department
- Oregon State Fire Marshal's Office.

Advisors to the Steering Committee include:

- United States Forest Service, Middle Fork District
- Bureau of Land Management, Springfield office
- Lane County Fire Defense Board
- Lane County Fire Prevention Coop

The Steering Committee met regularly to guide the planning efforts. The advisory groups provided information pertaining to planned fuels treatments on public lands adjacent to privately owned lands in the project area. All participants were encouraged to offer feedback to improve the process.

A series of goals for the Implementation Plan were identified by the Steering Committee that align with the greater Lane County CWPP. These goals include:

- Evaluate the hazards of wildland fire within the Upper Willamette Watershed and develop list of projects for mitigation of these hazards.
- Decrease the chance of wildfires spreading from private lands to federal lands and conversely from federal lands to private lands.
- Educate and empower wildland-urban interface landowners to reduce threat to structures and public safety from wildland fire.

Committee

Steering Committee meetings were held once a month from fall 2006 to summer 2007, and were facilitated by the Oregon Department of Forestry's National Fire Plan Forester. Initial meetings reviewed the grant application parameters in addition to familiarizing the Steering Committee members with the Wildfire Hazard and Risk Assessment efforts being undertaken by the Oregon Department of Forestry within the Upper Willamette Watershed.

The Steering Committee was tasked with identifying and prioritizing the top three project areas in which to address and mitigate the threat of wildland-urban interface fire. Using Geographic Information Systems, maps were generated to visually depict the overall risk and assessment information collected. Steering Committee members reviewed the maps and information displayed at meetings and corrected errors.

The Steering Committee determined the preferred mode of information dissemination would take the form of DVDs to be distributed amongst the emergency service agencies serving each respective jurisdiction. Each Fire Department would receive the structural risk assessment information in easy to use electronic form to utilize in responding to an emergency. The goal is to have the ability to quickly ascertain the level of difficulty protecting the structures in the area while providing for the highest level of safety to the public and emergency responders.

The Steering Committee identified key objectives to create a working plan:

- Collaborate across agencies to identify specific actions to reduce the risks to life and property.
- Develop a pilot program that incorporates maintenance of the assessments, including adding new houses and changes to the landscape.
- Develop action items that can be implemented in the area that will result in tangible results for other plans to model.

Methods

The Upper Willamette assessment area boundary was delineated collaboratively by ODF, USFS and the Upper Willamette Steering Committee.

A portion of the grant funds secured were utilized to obtain a Personal Data Assistant (PDA) with GPS capabilities and digital cameras. Monies from the Lane County Title 3 funds were utilized to conduct individual home site assessments to supplement the process. Assessments were conducted by a crew of two trained in both structural and wildland firefighting.

Assessments evaluated access, construction materials, surrounding vegetation, and topography. Dangerous power transmission lines and poorly located propane tanks were included. Water supply was also evaluated in regards to pumping capacity or water availability on site. These factors have been shown repeatedly to have direct influence on a structures survivability and defensibility.

"Home Wildfire Hazard Assessment" forms were created using a template designed to incorporate the questions in a triage checklist used in conflagrations, and *Firewise*

suggestions. The Lane County Fire Defense Board approved the form for use. The checklist used has 21 unique yes/no questions to clearly define the most common threats in the event of a wildfire. The questions are defined in the checklist as pertaining to defensibility, survivability, or both. The answers collected are evaluated using a scoring method of 1 point for being safe (a “yes” answer) and 0 point for not meeting indicated criteria (a “no” answer). The assessments produced a score ranging from 0 to 13, representing a score depicting high risk (0-6 points total), moderate risk (7-9 points) and low risk (10-13 points).

The assessment scores representing relative risk into the two categories, defensibility and survivability, should be explained further. The term “defensibility” refers to a 30-100 foot space around a structure in which the vegetation has been modified in order to alter the predicted fire behavior. This zone also creates an area in which firefighters can safely work. The term “survivability” refers to the ignitability of structure itself, and any flammable materials making direct contact with the structure out to 30 feet away. It is a representation of how likely a structure is to survive a wildfire without intervention. An important distinction is to be made between the two scores, and implications thereof.

Information was also amassed to better determine the structures location. GPS coordinates and Township, Range and Section were electronically generated using a handheld GPS device. Residents were asked if there were special needs occupants, and if they had any specific concerns to note. Digital photos of the structures assessed were taken to correspond with the electronic data.

The Steering Committee determined a methodology for prioritizing project areas within the assessment area. Natural drainages delineated project boundaries in order to integrate topographic features and their affect on fire behavior into the decision making process. Chiefs of each of the Fire Departments represented on the Steering Committee further divided their areas into smaller zones referred to herein as response blocks. Delineations were based on density of assessment data coupled with topographic and transportation route considerations. This will divide the overall project area into zones (or pre-attack blocks), and allow for a relative comparison of risk from wildland fire within each jurisdiction.

With assistance from Lane County Public Works GIS the assessment data is displayed graphically with two symbols. The defensibility score assigned to a structure is represented graphically by a circle colored with the corresponding score determined by the hazard assessment. Graphics colored red represent scores depicting a high risk to defend, yellow represents a moderate risk, and green a low risk to defend from wildland fire. The survivability score assigned is represented by a smaller pentagon color coded in the same fashion regarding risk of ignition to the structure.

In addition to analyzing the Wildfire Home Hazard Assessment data, the Overall Risk Layer (data) from the Lane County Community Wildfire Protection Plan was used to identify areas most at risk from wildfire. Similar to the color scheme of the individual home risk assessment points, the overall risk layer is broke out into three categories of risk, (Low, Moderate, and High) whereby each risk category is assigned a color; green, yellow and red, respectively. The overall risk data is applicable at a landscape scale and incorporates many factors that can jeopardize a communities safety with

respect to wildland fire. Such factors include historical fire ignitions data, emergency services response times, topographic features, and vegetation layers.

East winds are present on the landscape and have the potential to drive small fires into crown fires and carry wildfires long distances on the landscape. As the majority of landholdings to the east of Oakridge and High Prairie are federal lands, it is important to recognize the need for fuel reduction activities because of the potential for east wind-driven wildfires to be pushed onto private land and developments.

Public Notice

Education is a critical component of any successful wildfire mitigation effort. Information was delivered to the public in a variety of formats, each orchestrated to reach the target audience in the most effective way. These formats included; direct mailings, community meetings, door to door communications, websites and television. The Oregon Department of Forestry utilized several local media outlets to inform community members of the efforts being made to collect risk assessment information. The media was also used to provide information about how to obtain assistance in reducing risk of structural threat from wildfire. Lane County Fire Prevention Coop was also involved in making public outreach effective.

Information accumulated in the assessments is made available to the landowners of assessed properties in order to raise awareness of the hazards faced on individual parcels and provide recommendations for reducing the associated threat. Landowners can only request information regarding their own land, and the assessment results are not disseminated with private organizations. A public education campaign was initiated throughout home assessment process. Informational packets were distributed to every home assessed, and included a letter from the Department of Forestry explaining the intent and services of the grant program. The packet also included a *FireWise* publication explaining the basic tenets of increasing the defensibility and survivability of homes and other structures. Additional information is made available upon request.

Results

A visual interpretation of the overlaying risk data resulted in the identification of areas in which both the overall risk analysis rendered areas of high risk (colored in red) overlaid with home assessment data points which were also symbolized as high in the ranking scheme. Areas where each data layer produced a high risk ranking were then identified as potential focal points for projects to reduce the risk.

A list of potential projects that could be conducted under the grant program was generated by the Steering Committee. Each committee member then ranked each project idea with respect to perceived need/importance, indicated as high, medium or low priority. The following is the resultant list of projects identified as being of highest to lowest importance as deemed by the Steering Committee:

- Provide results of assessments back to landowners to help them reduce risks (High)
- Defensible Space/ Fuel reduction projects (High)
- Brush Control (High)
- Pruning (High)
- Piling/hauling of slash or woody debris (High)
- Pile Burning or Chipping (High)
- Addressing (High)
- Pre-Commercial Thinning (High/Medium)
- Education/Outreach (High/Medium)
- Addressing of Driveways (High/Medium)
- Thinning (Medium)
- Prevention Activities (Medium)
- Brush-out of county roads (for Emergency Evacuation, Access/Egress) (Medium)
- Brush disposal, free dump days (1, 2 x / yr) (Medium)
- Find someone willing to use their property to store/dump debris for a collection day/site (Medium)
- Utilize youth groups to do the work (Medium)
- Signs for evacuation, evacuation maps (like tsunami route maps) (Medium)
- Waterhole development (Medium/Low)
- Alternative Escape Route (signs at intersections) (Medium/Low)
- Culvert repair (Medium/Low)
- Road Resurfacing (to make accessible to emergency vehicles) (Medium/Low)
- Clean up of slash on industry lands adjacent to private (residential) property (Low)

Areas identified as high risk ranking are potential focal points for future grant-funded projects aimed at reducing the risk factors that pose a threat to structures and public safety due to wildfire.

Action Items

The following action items were identified by the Steering Committee to implement the potential projects listed above. The recommendations are in line with the ongoing efforts of the Lane County Community Wildfire Protection Plan:

- Mail assessment results with informational packet to landowners
- Information packets to include write-ups on grant program goals, assessments, grant services available, contacts for.
- Fuels reduction projects on private lands within defensible space zone.
- Facilitation of contract services to reduce hazardous fuels in the home ignition zone. Utilize professionals where appropriate.
- Public education campaign to include but not limited to the following items:
 - Demonstration sites with interpretive signs, public workshops displaying demonstration projects, public meetings to educate homeowners about fire behavior and the principles of increasing both the survivability and defensibility of structures, (and the distinction between the two).
 - Living with fire power point presentation, tailored to Lane County (local photos and reference to native and other prominent vegetation types, consideration of local ordinance.
 - *Firewise* Workshops.
 - Presentations on home assessment efforts.
 - Signs posted in front yards of grant recipients to encourage others to seek assistance.
 - Demonstration workshop with Lost Valley Educational Center.
 - Defensible space home makeover contest.
 - Interactive link on ODF webpage for homeowners to access and fill out a defensible/survivable space checklist to ascertain pertinent factors of risk and pertinent mitigation recommendations.
- Signage of evacuation routes - coordination with public agencies and industrial forestland owners
- Develop annual community brush collection day. Gather brush from fuel reduction efforts on private homeowner projects at one collection point and grind for mulch or biomass.
- Incorporation of hazardous fuels reduction projects on adjacent public lands to reduce community risk from encroaching wildland fire
- Develop a complete map of the assessment area, identifying the homes and structures and ratings of risk posed to structures from wildland fire that affect structural survivability;
- Develop a list of roadways (county, state, private, government owned/managed) that require roadside brushing/maintenance to provide evacuation routes and fire service access.
- Conduct a door-to-door fire prevention education program with all residents in the assessment area;
- Encourage residents to reduce fuels on their property;
- Provide contact information to landowners of local contractors to facilitate fuels reduction work on private lands;
- Work in partnership with the Willamette National Forests (USFS) to maximize community fuel breaks by reducing fuels on private lands adjacent to current or planned fuel projects on federal lands;

Action Plan

General action includes the application to Living With Fire and *Firewise* practices and recommendations listed above under “Action Items” within the assessment area. The promotion of educational materials along with professional assistance to landowners is crucial. The Landowner Survey (Lane County Community Wildfire Protection Plan appendix E) that was accomplished identifies preferred methods of communication and education. Actions on public lands should include commercial and non-commercial thinning around the communities in the assessment area. Canopy densities, ladder and ground fuels on federal land in the area are overly abundant and are at significant risk to carrying fire adjacent to private land and developments. Fuel reduction, including use of commercial and non-commercial treatments, are needed around the Dead Mountain Communication Site and associated powerlines.

Becoming "*Firewise*" is a process. Being *Firewise* is not difficult, but requires commitment. A *Firewise* person pays attention to those details in the environment that might start or encourage the spread of a wildfire.

Recommendations for *Firewise* practices are aligned with the recommendations set forth in the Oregon Forestland-Urban Interface Fire Protection Act of 1997, commonly referred to as Senate Bill 360.

Actions that have been identified as effective on public and private lands include:

- Mastication
- Piling and burning
- Slashing and burning
- Prescribed burning
- Slash removal / biomass removal and recycling
- Chemical application to reduce growth
- Thinning of mature and/or immature trees
- Planting fire resistant native vegetation

There is a need to maintain reduced ladder and ground fuel levels on private and federal lands in the WUI after the initial thinning/fuel reduction treatments. Maintenance of federal lands should include commercial thinning treatments and prescribed burning at regular intervals, concentrating on reducing the fuel buildup rather than reduce the fuel loading again and again.

Timeline

Lane County Community Wildfire Protection Plan adopted July 2005.

Started committee September 2006.

Started assessments June 2006.

Started community outreach January 2006.

Completed assessments April 2007.

Started Demo projects February 2008.

Efforts to obtain funding to assist landowners is continuous.

Vocabulary-

Agency:

Any federal, state, or county government organization with jurisdictional responsibilities.

Biomass:

Biomass is any organic matter that is available on a renewable or recurring basis, including trees, plants and associated residues; plant fiber; poultry litter and other animal wastes; industrial waste; and the paper component of municipal waste.

Brush:

A collective term that refers to stands of vegetation dominated by shrubby, woody plants or low-growing trees, usually of a [type](#) undesirable for livestock or timber management.

Buffer Zones:

An area of reduced vegetation that separates wildland areas from vulnerable residential or business developments. This barrier is similar to a greenbelt in that it is often used for another purpose such as agriculture or recreation, or parks or golf courses.

Defensible Space:

An area either natural or manmade where material capable of causing a fire to spread has been treated, cleared, reduced, or changed to act as a barrier between an advancing wildland fire and resources or lives at risk. In practice, defensible space is generally defined as an area of 30 feet or more around a structure that is cleared of flammable brush or vegetation or other fuels.

Fire Break:

A natural or constructed barrier used to stop or check fires, or to provide a [control line](#) from which to work.

Fuel:

Combustible material. Includes vegetation such as grass, leaves, ground [litter](#), plants, shrubs, and trees that feed a fire.

Fuels Reduction:

Manipulation, including combustion or removal of fuels to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control. Often includes thinning and/or prescribed burning.

Ground Fuels:

All combustible materials below the surface litter, including duff, tree or shrub roots, punky wood, peat, sawdust, and other materials that can support a glowing combustion without flame.

Hazard Reduction:

Any treatment of a hazard that reduces the threat of ignition and [fire intensity](#) or [rate of spread](#).

Heavy Fuels:

Fuels of large diameter such as [snags](#), logs, and large limb wood, that ignite and are consumed more slowly than [flashy fuels](#).

Ladder Fuels:

Fuels which provide vertical continuity between strata, thereby allowing fire to carry from [surface fuels](#) into the crowns of trees or shrubs with relative ease. They help start and continue [crowning](#) on a fire.

Light Fuels:

Fast-drying fuels, generally with a comparatively high surface area-to-volume ratio, which are less than 1/4-inch in diameter and have a [timelag](#) of one hour or less. These fuels ignite readily and are rapidly consumed by fire when dry.

Live Fuels:

Living plants, such as trees, grasses, and shrubs, in which the seasonal moisture content cycle is controlled largely by internal physiological mechanisms rather than by external weather influences.

Prescribed Fire:

Any fire ignited by management actions under certain pre-determined conditions to meet specific objectives related to hazardous fuels reduction or habitat improvement. Prescribed fires are ignited and managed within a "window" of very specific conditions including winds, temperatures, humidity, and other factors specified in the burn plan.

Slash:

Debris left after logging, pruning, thinning, or brush cutting; can include logs, chips, bark, branches, stumps and broken understory trees or brush.

Structure Fire:

Fire burning any part or all of any building or structure.

Underburn:

A fire that consumes [surface fuels](#) but not trees or shrubs.

Wildland Fire:

Any non-structure fire, other than prescribed fire, that occurs in a wildland area.

Wildland/Urban Interface:

The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. Often incorrectly referred to as the "interzone" or "urban/wildland interface."

Roles and Responsibilities

ODF served as facilitator and resource for securing funds to enable project development. Local fire chiefs, ODF staff, city managers, and OSFM staff served as local representatives of communities at risk and as channels for communication between the committee and the public. Advisors to the committee provided additional data and shared results of their respective agencies planning efforts to better align the action items listed here with their land to achieve the best results possible.

Upper Willamette Risk Assessment Steering Committee Members:

- Greg Wagenblast, Oregon Department of Forestry, Eastern Lane Unit, South Cascade District, Unit Forester
- Kristina Deschaine, Oregon State Fire Marshall
- Guy Harshbarger, Chief of Dexter Fire Department
- Keith Hoehn, Chief of Lowell Fire Department
- Myron Smith, West Fir Fire Department
- Tim Demers, Chief of Oakridge and Hazeldell Fire Departments

Advisory to the Steering Committee:

- Nancy Ashlock, Bureau of Land Management
- Chris Hays, US Forest Service
- Eric Ornberg, US Forest Service

Facilitators of the Steering Committee:

- Carrie Ann Capp, Oregon Department of Forestry, Eastern Lane Unit
- John Pine, Oregon Department of Forestry, Eastern Lane Unit

Background on Assessment information:

Home Wildfire Hazard Assessments were created using a template designed to incorporate the questions that resemble a triage checklist used in conflagrations. These items have been shown repeatedly to have direct influence on a structures survivability and defensibility. Information was also amassed to better determine the structures location. GPS coordinates and Township, Range and Section were electronically generated using a handheld GPS device. Residents were asked if there were special needs occupants, and if they had any specific concerns to note. Digital photos of the structures assessed were taken.


See the Wildfire Home Hazard Assessment Checklist (appendix a).

Declaration of Agreement

The undersigned do agree with and support the Implementation Plan. We recommend the plan be added to the Lane County Community Wildfire Protection Plan.


Oregon Department of Forestry

10/16/08
Date


State Fire Marshall

10/16/08
Date


Lowell Rural Fire District

10/16/08
Date


Dexter Rural Fire District

10-16-08
Date


Hazeldell Rural Fire District

10/16/08
Date


Oakridge Rural Fire District

10/16/08
Date