Josephine County Integrated Fire Plan

November 2004

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EXECUTIVE SUMMARY

Recent fires in Oregon and across the western United States have increased public awareness to the potential losses to life, property, and natural and cultural resources. In 2002, Josephine County became intimately aware of these risks as the Biscuit Fire burned over 470,000 acres in Josephine and Curry Counties. The County activated the Josephine County Emergency Operations Center when the fire threatened over 3,400 homes and put thousands of residents on evacuation notice. Costs from the fire have exceeded $150 million and have ultimately raised awareness among public agencies, community organizations and individuals about the extreme risk they face from wildfire.

In August 2003, the Josephine County Board of County Commissioners directed the County Departments to work with state and federal agencies, rural fire protection districts and community organizations throughout the County to develop an integrated fire plan. The County initiated this effort to reduce wildfire risk to citizens, the environment, and quality of life within Josephine County. The County contracted with the Program for Watershed and Community Health, an organization affiliated with the University of Oregon's Institute for a Sustainable Environment to facilitate the development of the plan.

Since last August, countless numbers of citizens, fire districts, county staff, and agency representatives have worked together to develop the Josephine County Integrated Fire Plan (JCIFP) and to help the County be successful in implementing fuels reduction projects, fire prevention education campaigns, and other fire-related programs. The planning approach directly involves the county's rural fire protection districts as a way to reach citizens in the county. The plan assists the county in being more competitive for federal funding programs such as the Healthy Forests Restoration Act, the National Fire Plan and FEMA's Pre-Disaster Mitigation Program.

Plan Adoption

To ensure recognition by the public, as well as partner agencies and organizations, Josephine County presented this Josephine County Integrated Fire Plan to the Board of County Commissioners for adoption by resolution on November 8, 2004. Oregon Department of Forestry and the Josephine County Fire Defense Board have also signed the plan in recognition of the collaborative development process.

While the JCIFP provides a foundation and resources for understanding wildfire risk and opportunities to reduce potential losses from wildfire, 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. Examples of local community action include the Applegate Fire Plan, developed in 2001 and the implementation of fuels reduction projects in neighborhoods throughout Josephine County. Other examples include Community Wildfire Protection Plan under development in the Illinois Valley and the recent formation of the Illinois Valley Fire Safe Council. Successful implementation of the JCIFP is dependent upon local community efforts.

The Healthy Forests Restoration Act authorities for Community Wildfire Protection Plans require adoption of this plan, as does the FEMA Disaster Mitigation Act of 2000. With formal adoption of this plan, Josephine County is more competitive for funding that may assist with plan implementation. Furthermore, adoption of this plan highlight the collaborative process between fire districts, local government, community-based organizations and public agencies.

Sustaining Fire Plan Efforts

Development of the JCIFP has been no small task. Implementation and sustaining these efforts will be much more complex. Building a collaborative and cooperative environment between community-based organizations, fire districts, local government and the public land management agencies has been the first step in identifying and prioritizing measures to reduce wildfire risk. Maintaining this cooperation with the public is a long-term effort that requires commitment of all partners involved.

In the past, there has been limited awareness about the investment required to maintain fire protection. From fuels reduction to fire district tax levies, education and prevention to evacuation, citizens must have the information and resources to be active participants in reducing their risk to wildfire. 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 JCIFP encourages citizens to take an active role in identifying needs, developing strategies and implementing solutions to address wildfire risk by assisting with the development of local community wildfire plans and participating in countywide fire prevention activities. Citizen action may be cleaning up brush around homes, installing new smoke detectors, voting to increase support to the local fire district through a bond measure or tax levy, volunteering to be a part of an auxiliary, attending community meetings, or passing along information on fire prevention to neighbors and friends. With the JCIFP as a foundation, community wildfire plans and local action can guide successful implementation of fire hazard and protection efforts in the County.

Josephine 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. In 2004 and 2005, Josephine County will work on implementing the fire plan by working with fire districts, community organizations and public agencies to coordinate fuels reduction projects with existing dollars. The JCIFP will focus on public meetings in the Rural/Metro region, coordinate a spring education campaign, strengthen emergency management and evacuation procedures, and explore opportunities for biomass marketing and utilization. JCIFP partners will also focus on refining long-term strategies to maintain fire protection activities in the County.

Related Policies: Community Wildfire Protection Plans

The most recent authorities for community fire planning come under the Healthy Forests Restoration Act (HFRA). Title III of HFRA provides guidance for developing Community Wildfire Protection Plans (CWPP). Communities with a CWPP may receive significant benefit in the future should funding be appropriated through HFRA for fuels reduction and fire prevention. HFRA provides clear guidance for what should be developed in a CWPP. This Executive Summary illustrates how the Josephine County Integrated Fire Plan addresses the CWPP requirements, along with guidelines and requirements in the FEMA Disaster Mitigation Act of 2000, the National Fire Plan, and other state and federal programs.

Planning Committee and Partners

Core partners on the planning committee include Josephine County, Oregon Department of Forestry and the Josephine County Fire Defense Board. Additionally, the plan has been developed

in close consultation with the BLM, Medford District, Rogue River - Siskiyou National Forest, and the Applegate Valley, Grants Pass, Illinois Valley, Williams, Rural/Metro, and Wolf Creek Fire Departments. Community-based organizations, including the Illinois Valley and Sunny Wolf Community Response Teams, Siskiyou Field Institute, Forestry Action Committee, Williams Educational Coalition, Applegate Partnership, and many others have also played a strong role in the plan development.

Background

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. For instance, the Biscuit Fire which burned nearly 500,000 acres in Josephine and neighboring counties, threatening 3,400 homes and cost taxpayers over $150 million. In response to such fires, the Josephine County Commissioners directed County agencies to work with other public agencies, fire districts and community organizations throughout the County to develop an integrated fire plan.

The JCIFP is the result of a countywide effort initiated to reduce wildfire risk to citizens, the environment, and quality of life within Josephine County. The County contracted with the Program for Watershed and Community Health, an organization affiliated with the University of Oregon's Institute for a Sustainable Environment to facilitate the development of the plan. Citizens, fire districts, county staff, 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.

Josephine County Fire Plan Mission, Goals, Objectives

Developed by an executive committee comprised of rural fire protection districts, local government, state and federal agencies, and community-based organizations, the plan mission is to reduce the risk from wildfire to life, property and natural resources in the County.

Goals

- Protect against potential losses to life, property and natural resources from wildfire
- Build and maintain active participation from each Fire Protection District;
- Set realistic expectations for reducing wildfire risk;
- Identify and prioritize actions for fire protection;
- Access and utilize federal and other grant dollars;
- Identify incentives for fire protection and community participation;
- Promote visible projects and program successes;
- Monitor the changing conditions of wildfire risk and citizen action over time; and
- Institutionalize fire-related programs and sustain community efforts for fire protection.

To address the complex range of issues within the JCIFP, it became clear early in the planning process that broader and diverse participation was needed for success. Through public meetings

and invitations to organizations and stakeholders in the county, sub-committees formed to develop objectives and implement actions to support the plan. Committee objectives are described below.

Committee	Objectives
Executive Committee	• Provide oversight to all activities related to the JCIFP. • Ensure representation on and coordination between the sub-committees • Develop and refine goals for fire protection in Josephine County • Develop a long-term structure for sustaining efforts of the JCIFP
Risk Assessment	• Identify Communities-at-Risk and the Wildland-Urban Interface • Develop and conduct a wildfire risk assessment • Identify and prioritize hazardous fuels treatment projects
Fuels Reduction	• Identify strategies for coordinating fuels treatment projects at a landscape scale • Administer grants for fuels reduction equitably across fire districts. • Provide special need citizens with an opportunity to participate in programs • Identify opportunities for biomass marketing and utilization
Emergency Management	• Strengthen emergency management, response and evacuation • Build relationships between County government and local fire districts
Education and Outreach	• Develop strategies for increasing citizen awareness and action for fire prevention • Reach out to all citizens in the county

Planning Area Boundaries

The Josephine County Integrated Fire Plan is multi-jurisdictional and addresses wildfire risk and mitigation actions for the two municipalities of Grants Pass and Cave Junction, the four rural fire protection districts (Applegate Valley, Illinois Valley, Williams, and Wolf Creek), as well as the unprotected areas of Josephine County, largely served by the Rural/Metro Fire Department.

Fire Policies and Programs

Various local, state, and federal policies and programs have set precedence for the development of community fire plans. Most notably the National Fire Plan (2001) and the Healthy Forest Initiative (2003) mandate rural communities to assess risk and develop action plans. Below is a list of programs that relate to JCIFP.

- **Healthy Forests Restoration Act (2003) -** Federal bill signed by President Bush to promote fuels reduction projects on federal land, community plans, and biomass energy production
- **National Fire Plan and 10-Year Comprehensive Strategy (2001) –**Interagency plan that focuses on firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability.
- **Oregon Forestland-Urban Fire Protection Act (1997, SB360) –** defines and identifies the wildland urban interface in Oregon and provides standard measures of mitigation for homeowners
- **Oregon Statewide Land Use Planning Goal 7 –** directs local government to adopt plans for minimizing risk from natural hazards statewide
  Federal Emergency Management Agency Disaster Mitigation Act (2000) - specifies criteria for state and local hazard mitigation planning
- **Josephine County Article 76**: Wildfire Safety Standards (currently under review) - establishes requirements for development in wildfire hazard areas.

County Profile

Based on the 2000 Census, there are 75,726 people, 31,000 households, and 21,359 families residing in Josephine County. Josephine County is located in the southwestern part of Oregon on the border with California. The total area of Josephine County is approximately 1,040,000 acres, of which about 290,095 acres is privately owned and about 705,732 acres is publicly owned. It is a mountainous region with vast forest resources with dominant rivers.

Landowner	Acres	Percent
National Forest	421,745	40.57%
Private	290,095	27.91%
BLM	282,674	27.19%
County	33,018	3.18%
State	8,930	0.86%
School District	1,012	0.10%
Other Federal	855	0.08%
City	741	0.07%
National Park Service	459	0.04%
TOTAL	1,039,530	100%

Josephine County Rural Fire Protection Districts

The rural districts are comprised primarily of volunteer fire fighters, although some do have full time chiefs and/or staff. In addition to the list below, Rural/Metro Fire Department Service Area serves a 330 square miles area outside the fire district taxing boundaries around Grants Pass.

City/Area	Fire Protection	Population
Applegate Valley	Applegate Valley Rural Fire Protection District #9	10000
Grants Pass	Dept. of Pub Safety	23,000/40,000
Illinois Valley	Illinois Valley RFPD (includes Cave Junction, Dryden, Holland, Kerby, O'Brien, Selma, Takilma, and Waldo)	17000
Williams	RFPD	3000
Rural/Metro	Includes Galice, Hugo, Leland, Merlin, Murphy, Wilderville, Placer, and Wolf Creek and Wonder)	35000
Wolf Creek	Wolf Creek RFPD (includes Speaker and Placer)	700

Source: Oregon Office of the State Fire Marshal (July 2003)

Wildfire Risk Assessment

The Josephine County Integrated Fire Plan wildfire risk assessment analyzes the potential losses to life, property and natural resources. Objectives of the risk assessment are to identify Communities-at-Risk and the Wildland-Urban Interface, develop and conduct a wildfire risk assessment, and identify and prioritize hazardous fuels treatment projects. The analysis takes into consideration a combination of factors that we define below:

- ***Risk***: Potential and frequency for wildfire ignitions (based on past occurrences)
- ***Hazard***: Conditions that may contribute to wildfire (fuels, slope, aspect, elevation, weather)
- ***Values***: People, property, natural and other resources that could suffer losses in a wildfire event.
- ***Protection Capability***: Ability to mitigate losses, prepare for, respond to and suppress wildland and structural fires.
- ***Structural Vulnerability***: Characteristics influencing the vulnerability of structures during a wildfire event (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

There are many ways to define community, particularly in Josephine County. There are cities, towns, neighborhoods and groups of people drawn together by common threads – whether it be their post office, grocery store or community center. This fire plan draws people together in another way – the ability to provide fire protection services and protect people, property and natural resources in the event of a structural or wildland fire. For the intent of this fire plan, we define communities at risk to fire by looking at the common service boundaries for fire protection and population centers. While a number of Josephine County's communities are listed as "unprotected," it is important to note that these communities are NOT without fire service. Rural/Metro Fire Department provides contract structural fire protection services in the unprotected areas of Josephine County.

Communities at risk in Josephine County

- Applegate Valley (Provolt, Murphy)
- Grants Pass
- Grants Pass Unprotected (Cheslock, etc.)
- Josephine County Unprotected (Galice, Hugo, Merlin, North Valley, Colonial Valley, Wilderville, Wonder, Sunny Wolf, etc.)
- Illinois Valley
- Williams
- Wolf Creek
- Oregon Caves

Wildland Urban Interface

The Southwest Oregon Fire Management Plan identifies the wildland urban interface on the basis of proximity between private and federal lands, topography, and 6th field watersheds. The Josephine County Integrated Fire Plan adopts this methodology and the Federal Fire Management definition and boundaries for the Wildland-Urban Interface. (See maps section for the maps of the WUI.)

Acres in the Wildland Urban Interface by Land Ownership

Ownership	Acres	Percent
Private	268,196	50.4%
BLM	156,333	29.4%
Forest Service	57,127	10.7%
County	26,167	4.9%
Federal (other)	16,203	3.0%
State	6,671	1.3%
School District	1,120	0.2%
City	739	0.1%
Total:	**532,555**	**100.0%**

Identification and Prioritization of Hazardous Fuels Treatment Projects

The JCIFP risk assessment committee formed a technical sub-committee to identify strategic planning units based on the Communities-at-Risk identified through this process and the 6th and 7th field watersheds. This process compares the units to the hazard and risk assessment and illustrates a

preliminary list of fuels treatment projects based on the strategic planning units. The first phase of this task is to identify the preliminary list of fuels treatment projects. The second phase is to present this information to each of the Fire Districts to gain their input and perspectives on projects and potential priorities. This provides an opportunity to review and integrate input gathered from the public at community meetings. The last phase in this process is to present Countywide information on the priorities for fuels treatment to the JCIFP Executive Committee and present the information within the Fire Plan.

Reducing Structural Vulnerability to Wildfire

The JCIFP provides recommendations for fuels reduction, emergency management and education and outreach. The following sections describe the objectives and actions for each of these elements.

Hazardous Fuels Reduction

Reducing hazardous fuels around homes, along transportation corridors and at a landscape-scale can significantly minimize losses to life, property and natural resources from wildfire. A core focus of the JCIFP is on reducing losses to life and property; helping protect communities by reducing hazardous fuels while moving toward a more fire-adapted ecosystem.

The JCIFP Fuels Reduction Committee began meeting in November 2003 to discuss how to approach fuels reduction throughout the county and on public and private lands. Cooperation between public and private organizations led to immediate successes in ensuring that fuels reduction occur strategically so that adjacent public and private lands would benefit from fire protection. JCIFP Fuels Reduction Committee began by reviewing administration of existing fuels reduction programs and recognized that in has resulted in a checkerboard fuels treatment pattern. The group agreed to work together to pursue funding and identify the most cost effective approaches to implementing defensible space and landscape fuels treatment throughout the County.

Hazardous Fuels Reduction Objectives

- Sustain a landscape approach to fuels reduction that focuses on high wildfire risk areas (Identify strategies for coordinating fuels treatment projects at a landscape scale)
- Administer the fuels program equitably across fire districts and 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

Action	Timeline	Committee
1. Identify and prioritize fuels treatment projects on county and private land using the risk data.	June 2004 – Sep. 2005	Risk
2. Utilize risk assessment information in applications for National Fire Plan grants and other fuels reduction dollars.	Ongoing	Fuels
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 citizens	Ongoing	Fuels
4. Develop long-term strategies for maintenance of fuels reduction	May 2005	Fuels
5. Focus Strategic planning for hazardous fuels treatment projects on evacuation routes/corridors	Sep. 2004 – May 2005	Fuels

Action	Timeline	Committee
6. Promote education and outreach through all fuels reduction programs to ensure strong community involvement in fuels reduction and wildfire prevention projects	Sep. 2004 – May 2005	Fuels
7. Increase grant dollars and target fuels reduction and fire protection to citizens with special needs.	Ongoing	Fuels/Special Needs
8. Explore and implement biomass marketing and utilization projects to help support long-term fuels reduction efforts.	Ongoing	RC&D, Fuels
9. Increase support for local contractors and workers.	Ongoing	Fuels

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 the landscape scale treatment.

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 fuels reduction committee 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.

The projects listed below are the result of a meeting with the fire districts, BLM, Forest Service, ODF, the Illinois Valley Community Response Team and the County to identify immediate priorities for fuels reduction. The table also lists projects that are ongoing in Josephine County using National Fire Plan funds from 2004. Projects on federal land are not included in this chart.

Project	Planned Treatment type / acres	Planned or Funded?	Administrator	Fire District
Thompson Creek	Landscape, roads and defensible space	Funded through National Fire Plan 2004	Illinois Valley Community Response Team (CRT)	Illinois Valley
Applegate Valley Watershed	30 acres of landscape treatment; 51 acres/7 miles of roads treatment	Funded through National Fire Plan 2004	Applegate Valley Fire District	Applegate and Williams Fire District
Slate Creek, Applegate Watershed Council	100 – 200 acres (treatment TBD)	Funded through National Fire Plan 2004	ARWC	Rural/Metro Fire Department
North Selma adjacent to HWY 199	Landscape, roads and defensible space	Tentative funding through National Fire Plan 2005	Illinois Valley CRT	Illinois Valley
Project	**Planned Treatment type / acres**	**Planned or Funded?**	**Administrator**	**Fire District**

	type / acres			District
London Peak	79 acres (approx.) Landscape, roads and defensible space	Tentative funding through National Fire Plan 2005	Illinois Valley CRT	Wolf Creek Rural Fire protection District
Cathedral Hills	Landscape, roads and defensible space	Tentative funding through National Fire Plan 2005	Illinois Valley CRT	Rural/Metro
Kenrose Lane	Landscape, roads and defensible space	Tentative funding through NFP 2005	Illinois Valley CRT	Illinois Valley

Emergency Operations

The Josephine County Sheriff, Department of Emergency Services is responsible for coordinating emergency management throughout the County. Rural Fire Protection Districts, however, are often the first responders not just to fire, but natural and human-caused disasters as well. In 2003, the County updated the Josephine County Emergency Operations Plan. This provided a strong baseline of information to make connections to fire professionals and strengthen emergency management procedures related to fire protection.

The most important finding through the meetings held, research conducted and needs identified is that there is a need for strong partnerships and coordination among the fire, emergency management, land management, and planning professions to prepare for and respond to a disaster. The formation of a committee to focus on Emergency Management for the JCIFP has resulted in adoption of this group as the Josephine County Emergency Management Board. Specifically, this committee serves as a standing support group to the Josephine County Emergency Manager, and as the Emergency Management Board. The group readily agreed to acting as a sounding board and providing guidance as a Board. This chapter focuses on existing emergency management procedures for wildfire protection and a series of actions to strengthen emergency management capabilities in Josephine County. Emergency Management objectives are to develop strategies to strengthen emergency management, response and evacuation capabilities for wildfire and build relationships between County government and local fire districts.

Action	Timeline	Committee
1. Clarify policies and procedures for the EOC; develop roles and responsibilities and Standard Operating Procedures	Ongoing	Emergency Management
2. Provide Incident Command System and Multi-Agency Coordination Group training in Josephine County	March 2004 – Ongoing	Emergency Management
3. Develop a protocol to use the 911 Call-down systems	June–Dec 04	911 TAC
4. Strengthen public education and agency coordination on evacuation procedures	June 2004 – Dec. 2004	Emergency Management

Education and Community Outreach

Education and Outreach has become one of the primary focuses of the Josephine County Integrated Fire Plan. The JCIFP Education and Outreach Committee focuses its efforts in the development of goals, objectives and actions. In 2004, several programs and activities have already taken place while strategic planning continues for 2005 and beyond. Education and Outreach objectives are to

develop ongoing strategies for increasing citizen awareness and action for fire prevention and to reach out to all citizens (including people of all ages, ethnicity and income level.)

Action	Timeline	Committee
1. Develop principles and strategies to mobilize the community.	4/04 – 6/05	Education and Outreach
2. Refine and Implement the JCIFP Spring Education and Outreach Campaign.	4/04 – 6/05	
3. Focus on efforts with children.	Ongoing	
4. Coordinate activities with Rogue Valley Fire Prevention Coop.	Ongoing	
5. Identify opportunities to coordinate and leverage resources with the insurance industry.	Ongoing	TBD

Biomass Marketing and Utilization

In order to sustain fire protection in Josephine County, there must be a way to pay for it. To date, grant funding through the National Fire Plan and County Title III funds have paid for most of the fuels reduction work that has occurred on private lands. With National Fire Plan funding declining annually, and County payments in jeopardy of not being reauthorized after 2006, the County must identify a strategy to pay for hazardous fuels treatment in the future.

Local investment and incentives may well be the best strategy there is. Whether it be local businesses or local citizens, paying to reduce fuels around personal property is a big step towards being accountable and responsible for personal safety. An incentive, however, can go a long ways towards motivating people and businesses to take action. If there are markets that will ensure payment for raw materials (and a way to transfer the raw materials), a local landowner may be much more inclined to reduce hazardous fuels.

Even Federal policies recognize the value of biomass marketing and utilization. Since its inception, the National Fire Plan has funded small diameter marketing and utilization through the Forest Service Economic Action Programs. In 2003, President Bush signed into law the Healthy Forests Restoration Act, which included provisions for biomass marketing and utilization. However, meaningful funding and technical assistance must be provided to ensure that communities have the opportunity to identify feasible and economically beneficial ways to use raw materials from fuels reduction projects.

Josephine County, through a number of grants and programs, is beginning to create a foundation for understanding potential markets and utilizing small diameter wood products. A 2003 report developed by Sustainable Northwest for the Sunny Wolf Community Response Team examined timber supply in Josephine County. The same National Fire Plan grant funded a product feasibility study in the region. The Southwestern Oregon Resource and Conservation Development (RC&D) Council is developing a small diameter marketing and utilization clearinghouse through a grant from the National Fire Plan. In addition, the Jefferson Sustainable Development Initiative is currently coordinating the Boaz Forest Health and Small Diameter Utilization Project.

Assessing Benefits and Costs of Mitigation

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 JCIFP 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.

Monitoring Strategy

The primary objective of the Executive Committee is to provide guidance for all elements of planning and implementation of the Josephine County Integrated Fire Plan. The Executive Committee will continue to provide oversight through quarterly meetings and coordination through the Josephine County Fire Defense Board.

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 ongoing project or program with early indications of progress and achievement of objectives.

The purpose of the JCIFP monitoring strategy is to track implementation of activities and evaluate how well the goals of the JCIFP are being met over time. Monitoring measures progress over time so that we can understand how well our objectives are being met. The data we gather will provide in status and trends of the JCIFP. The monitoring strategy also provides a way for the County to be accountable to the public about the outcomes of the JCIFP.

Each functional element of the Josephine County Fire Plan (risk assessment, fuels reduction, emergency management, and education and outreach) provides monitoring tasks for recommended action items. The monitoring section also provides recommendations for multi-party monitoring of site-specific fuels reduction projects.

Evaluation

Evaluation of ongoing JCIFP activities, increased public awareness and collaboration between partners will strengthen the value and impact that the fire plan has within Josephine County. The monitoring tasks within the JCIFP specifically address evaluation. The JCIFP planning committee will administer annual evaluations of the fire planning process and integrate questions about awareness and action into the annual Josephine County survey administered by the Josephine County Board of County Commissioners. Josephine County will share findings from these evaluations on the JCIFP web site. Furthermore, the County will formally revise the fire plan in August 2005 and make recommendations for further evaluation and updates to the plan at that time.

ACKNOWLEDGEMENTS

First and foremost, many thanks to Josephine County Commissioners Jim Riddle, Jim Brock and Harold Haugen for recognizing the value and importance of this effort. There are so many people who committed time, energy and passion into the Josephine County Fire Plan. Any outcomes in reducing the risk to wildfire come in no small part because of their efforts. Many thanks to all of the members of the JCIFP Committees and the agency and Fire District representatives who have dedicated so much to this effort:

- Roger Allemand, OR Dept. of Transportation
- Carmela Amato, Wolf Creek RFPD
- Virginia Ayers, Harbeck Village
- Don Belville, Rogue River-Siskiyou National Forest
- Marko Bey, Lomakatsi Restoration Project
- Don Billings, Illinois Valley Contractor
- Pam Bode, Rogue River-Siskiyou National Forest
- Lynda Boody, Bureau of Land Management
- Dick Boothe, Rogue River - Siskiyou National Forest
- Carmen Bojarski, Josephine County Community Action Agency
- Ralph Bowman, Bowman Productions
- Jonathan Brock, Josephine County 911
- Joy Carter, Sunny Wolf Community Response Team
- Oshana Catranides, Lomakatsi Restoration Project
- Susan Chapp, Forestry Action Committee
- Charlie Chase, Oregon State Fire Marshal
- Lou Chauvin, Josephine County Planning Commissioner
- Scott Conroy, Rogue River-Siskiyou National Forest
- Merle Converse, Wolf Creek RFPD
- Verna Dassen, Department of Human Services
- Donna Disch, OR State Fire Marshal
- Rick Dryer, Oregon Department of Forestry
- Rita Dyer, Rogue River - Siskiyou National Forest
- Brett Fillis, Applegate Valley Fire District
- Paul Galloway, Rogue River - Siskiyou National Forest
- Julia Genre, Rogue River - Siskiyou National Forest
- Rick Gibson, Oregon Department of Forestry
- Joanne Gillyatt, Siskiyou Community Health Center
- Gary Gnauck, Applegate Partnership
- Tim Gonzales, Bureau of Land Management, Medford District
- Ginnie Grilley, Rogue River-Siskiyou National Forest
- Rob Hambleton, Williams Education Coalition
- Vic Harris, Josephine County Forestry
- M.J. Harvie, Rogue River-Siskiyou National Forest
- Tony Hernandez, American Red Cross
- Marty Hertler, Contractor
- Kyle Holcombe, Oregon Department of Forestry
- Wayne Holcombe, Oregon Department of Forestry
- Joe Hyatt, Rural/Metro
- Lang Johnson, Rural/Metro
- Abbie Jossie, Bureau of Land Management, Medford District
- Tracy Katelman, ForEverGreen Forestry
- Chuck Kelly, Red Cross Volunteer
- Dave Kellenbeck, Josephine County
- Linda Langford, Josephine County
- Lloyd Lawless, Rural/Metro
- Paul Leighton, Wolf Creek RFPD
- Charley Martin, Bureau of Land Management, Medford District
- Marty Main, Owner, Small Woodland Services
- Roxanne McCoy, Wolf Creek RFPD
- Leanne Mruzik, BLM Medford District
- Sara McDonald, Commission for Children and Families
- George McKinley, Jefferson Sustainable Development Initiative
- Tom Murphy, Bureau of Land Management
- Sara Nicholson, Josephine County Emergency Management
- Nancy Orr, OR State Fire Marshal
- Sue Parrish, Siskiyou Field Institute
- Gail Perotti, Seven Basins Neighborhood Fire Planning Project
- Chuck Petty, American Red Cross
- Charlie Phenix, Rogue River - Siskiyou National Forest
- Ron Phillips, Illinois Valley Community Response Team
- Brian Pike, Grants Pass Public Safety

- Ed Reilly, Bureau of Land Management, Medford District
- Gail Renius, Josephine County Mental Health, Development & Disability Program
- Tim Reuwsaat, Bureau of Land Management, Medford District
- Harry Rich, Illinois Valley Fire Chief
- Jenny Rinell, Josephine County Emergency Management
- Charlie Rodgers, Josephine County Public Works
- Donald Rubenstein, Josephine County
- Teresa Santucci, Josephine Housing Authority
- Jerry Schaeffer, Illinois Valley Fire District
- Dan Schilberg, Wolf Creek RFPD/Sunny Wolf Community Response Team
- Jeff Schwanke, Oregon Department of Forestry
- Robert Sechler, OR Dept. of Transportation
- Sandy Shaffer, Applegate Fire Plan
- Jack Shipley, Applegate Partnership
- David Smith, Contractor
- Don Smith, Siskiyou Project
- Steve Smith, Senior and Disabled Services
- Michael Snider, Josephine County Planning
- Mark Sorenson, Josephine County Emergency Management
- De Spellman, Illinois Valley Fire District
- Jenna Stanke, Jackson County
- Shawn Stephens, OR Dept. of Transportation
- Jim Stubblefield, Wolf Creek Woodworks
- Sunny Sundquist, Josephine County Planning Commissioner
- Ryan Temple, Sustainable Northwest
- John Thornhill, Rogue River - Siskiyou National Forest
- Dennis Turco, Oregon Department of Forestry
- Phil Turnbull, Rural/Metro
- Martin Vavra, Bureau of Land Management
- John Vial, OR Dept. of Transportation
- Chris Vogel, Applegate River Watershed Council
- Teresa Vonne, Oregon Department of Forestry
- Ann Walker, Oregon Department of Forestry
- Mel Wann, Rogue River - Siskiyou National Forest
- Robert Webb, Contractor
- Jason Wegner, Josephine County GIS
- Scott Williams, Grants Pass Dept. of Public Safety
- Virgil Witcher, Josephine County Forestry
- Jim Wolf, Oregon Department of Forestry
- Ron Wright, Josephine County Planning Commissioner
- Laverla Young, Josephine County Health Department
- Cody Zook, Josephine County GIS

Thanks to the University of Oregon graduate students who worked tirelessly to contribute to the Josephine County Fire Plan, including University of Oregon Graduate Students David Jacob, Amanda Clegg, Adam Lake, Kitty Rasmussen, Sarah Schrock and Bill Almquist. Thanks also to Bob Doppelt, Peg Bloom, Jenny Hawkins and Shanda LeVan - Program for Watershed and Community Health staff.

I would like to express my personal gratitude to the people who spent many, many hours on the phone, in meetings and traveling around Josephine County with me. Jim, Cody, Charley, Tim, Lang, Phil, Sara, Mark, Ed, Dick, Don, Charlie, Sue, Ron, Susan, Dan, Jack, Paul, Brett, Jerry, Sandy, Jenna, Steve, and Rob -- in so many ways you all inspired this plan, exemplified what a strong, collaborative process means, and are helping to make this effort a long-term success. Thank you to Bruce and Neil for putting up with my penchant for organization, relentless e-mails, and all of the knowledge you pass along on a regular basis. And my appreciation to Dennis for inviting us to visit Southern Oregon in the first place.

While we can't possibly list them all by name, the greatest thanks go to the citizens who attended the community meetings, create defensible space around their property, test or replace their smoke alarms annually, move wood piles away from their homes, convince friends and neighbors that preparing for fire is a good idea, and for all of the other efforts they do on a regular basis to promote fire safety.

Kathy Lynn, Associate Director
Program for Watershed and Community Health

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CHAPTER 1: INTRODUCTION

Recent fires in Oregon and across the western United States have increased public awareness to the potential losses to life, property, and natural and cultural resources. In 2002, Josephine County became intimately aware of these risks as the Biscuit Fire burned over 470,000 acres in Josephine and Curry Counties. The County activated the Josephine County Emergency Operations Center when the fire threatened over 3,400 homes and put thousands of residents on evacuation notice. Costs from the fire have exceeded $150 million and have ultimately raised awareness among public agencies, community organizations and individuals about the extreme risk they face from wildfire.

In August 2003, the Josephine County Board of County Commissioners directed the County Departments to work with state and federal agencies, rural fire protection districts and community organizations throughout the County to develop an integrated fire plan. This countywide effort was initiated to reduce wildfire risk to citizens, the environment, and quality of life within Josephine County. The County contracted with the Program for Watershed and Community Health, an organization affiliated with the University of Oregon's Institute for a Sustainable Environment to facilitate the development of the plan.

Since August 2003, countless numbers of citizens, fire districts, county staff, and agency representatives have worked together to develop the Josephine County Integrated Fire Plan (JCIFP) and to help the County be successful in implementing fuels reduction projects, fire prevention education campaigns, and other fire-related programs. The planning approach directly involves the county's rural fire protection districts as a way to reach citizens in the county. The plan will also help the county become more competitive for federal funding programs such as the Healthy Forests Restoration Act, the National Fire Plan and FEMA's Pre-Disaster Mitigation Program.

JCIFP Mission

The mission of the Josephine County Integrated Fire Plan is to reduce the risk from wildfire to life, property, and natural resources in Josephine County. Guiding principles of the fire plan are to:

- Promote wildfire and public safety;
- Build citizen awareness of wildfire;
- Support the roles and functions of each the County's Fire Districts and Fire Service Providers;
- Instill a sense of responsibility for taking preventative actions;
- Communicate to residents, visitors and businesses what it means to live in a region with high wildfire risk;
- Focus on collaborative decision-making, citizen participation, and landscape-scale fuels treatment projects; and
- Improve survivability to people, homes, and the environment when wildfire occurs.

An Executive Committee comprised of each of the County's fire districts, County government, state and federal agencies, and community-based organizations created this vision for the JCIFP and worked collectively to develop goals, objectives and actions that are described within the Plan.

Plan Organization

The JCIFP is illustrates the risk of wildfire throughout the County. The plan also provides information on plan partners and the recommended actions that will help in reducing potential losses to life, property and natural resources. The organization of this plan is as follows:

Chapter 1: Introduction describes the overall mission and intent of the Josephine County Fire Plan. This section describes the plan organization, planning area boundaries, and the fire policies and programs that helped to guide development of the plan.

Chapter 2: Planning Process provides the plan partners, goals and objectives. In addition, this section provides information on JCIFP sub-committees, public involvement and existing plans and projects that have helped inform the JCIFP.

Chapter 3: County Profile illustrates the population, demographics, and environment of Josephine County. The profile also includes information on economic development, employment, housing, transportation and trends in growth and development that may affect the County's risk to wildfire.

Chapter 4: Forest Conditions and Fire History provides a backdrop to the history of the forests and fire within Josephine County's boundaries and in the State of Oregon. This is intended to provide cultural, environmental and historical perspective on how the County's risk to wildfire has increased over the past century.

Chapter 5: Risk Assessment illustrates the methodology used to conduct the risk assessment, Communities-at-Risk, the Wildland Urban Interface and priorities for fuels treatment.

Chapter 6: Fuels Reduction describes how information from the risk assessment is utilized in decision-making about fuels treatment areas, provides recommendations for administering fuels reduction grant dollars and discusses site-specific monitoring approaches for fuels reduction.

Chapter 7: Emergency Management provides information on evacuation, training and emergency management procedures for wildfire and other disaster situations.

Chapter 8: Education and Outreach focuses on a campaign strategy for increasing awareness, motivating citizen action, and changing the culture within Josephine County as it relates to wildfire preparedness. This section also illustrates communication strategies for risk, fuels reduction, emergency management and other issues related to wildfires.

Chapter 9: Biomass Marketing and Utilization provides information on existing programs, alternatives for utilizing and marketing small diameter wood products and discusses next steps.

Chapter 10: Monitoring and Evaluation describes approaches for monitoring and evaluation and summarizes recommendations for the JCIFP.

Chapter 11: Josephine County Fire Districts. This Chapter illustrates the ongoing fire-related activities happening in each of the fire districts in the County.

Chapter 12: Addressing Citizens with Special Needs in Josephine County. This Chapter describes the populations within Josephine County that may need additional assistance in preparing for, responding to and recovering from wildfire events and other disasters.

Resources. There are six resource documents that provide details on acronyms and definitions, bibliography and references, a list of local contractors, the County's Wildfire Safety Ordinance, funding sources and fire prevention materials and minutes from committee meetings.

Planning Area Boundaries

The Josephine County Integrated Fire Plan is multi-jurisdictional and addresses wildfire risk and mitigation actions for the two municipalities of Grants Pass and Cave Junction, the four rural fire protection districts (Applegate Valley, Illinois Valley, Williams, and Wolf Creek), as well as the 330 square miles of an untaxed district. While this area is classified as "unprotected" in the state of Oregon, residents within those boundaries can access contract fire service. Commercial fire service providers in Josephine County include Rural/Metro Fire Department, which has seven substations and Grants Pass Rural. *See the maps section for a base map of Josephine County with fire district boundaries.*

Fire Policies and Programs

There are various local, state and federal programs and policies related to community fire planning and fire protection. In 2002, the Applegate Valley Communities Collaborative Fire Protection Strategy (Applegate Fire Plan) was written, addressing fire and forest health issues in approximately 15% of Josephine County. This plan helped set the stage for the JCIFP and other community fire planning efforts since that time. Most recently, the Healthy Forests Restoration Act, signed into law by President Bush in 2003, calls for the development of Community Wildfire Protection Plans for all communities at risk from wildfire. This section describes these requirements, as well as related County, state and federal programs. More information on these programs can also be found in Resource B.

Healthy Forest Restoration Act / Healthy Forest Initiative[1]

In 2002 the President 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 was 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 NEPA under appropriate circumstances, streamlined administrative review 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 in November 2003. It provides new tools and additional authorities to treat more federally-managed acres more quickly to expedite our restoration goal. It 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 appeals 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 System and Bureau of Land Management lands that are at risk of wildland fire or insect and disease epidemics. This title:

[1] Southwest Oregon Federal Fire Management Plan (2004)

- Encourages streamlined environmental analysis of HFRA projects;
- Provides for administrative review of proposed HFRA projects on National Forest System 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 in the Forest Service and BLM 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% of the dollars allocated to HFRA projects to protect communities at risk of wildland fire;
- Requires performance to be monitored when agencies conduct hazardous-fuel reduction projects and encourages multiparty monitoring that includes communities and other stakeholders; and
- 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 will designate their WUIs, 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 Strategy 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 treatment (USDI and USDA 2003).

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 10-Year Comprehensive Strategy, completed in August 2001. An subsequent 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.[2] The National Fire Plan calls for the development of Community Fire Plans to aid in effectively implementing NFP goals.

Senate Bill 360: Oregon Forestland-Urban Fire Protection Act

The Oregon Forestland-Urban Fire Protection Act of 1997 (SB360) is intended to facilitate development of and effective WUI protection system in Oregon by 1) establishing policies regarding WUI protection, 2) defining the WUI in Oregon and establishing a process and system for classifying the interface, 3) establishing standards for WUI property owners so they can manage or minimize fire hazards and risks, and 4) providing the means for establishing adequate, integrated fire protections systems in WUI areas, including education and prevention efforts.

Oregon Statewide Land Use Planning Goal 7

The intent of Oregon Statewide Land Use Planning Goal 7 for Areas Subject to Natural 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. Goal 7 also indicates that new hazard inventory information provided by federal and state agencies shall be reviewed by the Oregon Department of Land Conservation and Development (DLCD) in consultation with affected state and local government representatives. 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. – (http://www.lcd.state.or.us/goalpdfs/goal07.pdf. *In relationship 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.)*

Federal Emergency Management Agency Disaster Mitigation Act of 2000

Federal Emergency Management Agency (FEMA) requirements under Title 44 CFR Part 201 of the Disaster Mitigation Act of 2000. This legislation 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 county-wide 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.

Josephine County Article 76: Wildfire Safety Standards

In order to be effective in implementing recommendations in the Josephine County Integrated Fire Plan, there must be tools and resources available to the public. Article 76 of the Josephine County Rural Land Development Code, Wildfire Safety Standards, is one of the most important tools that the County has in facilitating public engagement with fire protection. Article 76 is currently under review by the Josephine County Planning Commission. The ordinance establishes requirements for

[2] Southwest Oregon Federal Fire Management Plan (2004)

development in wildfire hazard areas. The planning commission held an initial public hearing on February 17, 2004 and took additional testimony on April 19, 2004 and on June 7, 2004. Along with these public hearings, the planning commission also conducted public workshops in April and May in Williams, Wolf Creek and the Illinois Valley. The Planning Commission is now reviewing revised standards and will consider the amendments for adoption on August 30, 2004. For more information on Article 76 and to review the ordinance, see Resource D.

Southwest Oregon Fire Management Plan

The Southwest Oregon Fire Management Plan (FMP) is under development and will provide Southwest Oregon with an integrated concept in coordinated wildland fire planning and protection between Federal, State, local government entities and citizen initiatives. The start of the FMP planning process, has coincided with the development of the JCIFP and has provided an opportunity for strong coordination between local, state and federal agencies.

The FMP introduces fire management concepts and addresses fire management activities in relation to resource objectives stated in the Land and Resource Plans of the federal agencies, the laws and statutes that guide the state agencies and private protective associations, and serve as a vehicle for local agencies and cooperators to more fully coordinate their participation in relation to those activities. This FMP will guide an area called a Fire Planning Unit (FPU). The FMP satisfies the requirements of the Federal Wildland Fire Policy of 1995 and its Revision of 2001 to describe fire management activities for every burnable acre of federal land, while recognizing the ecological importance of fire on these landscapes.

The Southwest Oregon FPU includes all of Josephine County and consists of five individual primary administrative jurisdictions that provide much of the wildland fire protection response, fuels management, and other wildland fire management activity for the planning area. These primary jurisdictions include the Rogue River-Siskiyou National Forest, Medford BLM District, ODF South West Oregon District and the National Park Service's Oregon Caves National Monument.

The Rogue River - Siskiyou National Forest Plans divide their land jurisdictions into Management Areas with prescriptions for activities, including fire management. The public lands of Medford and Coos Bay BLM have similar Land Use Allocations analyzed in their Resource Management Plans. Those delineations, along with their direction for fire management activities, will be used to develop the management objectives and boundaries of the FMU's. The ODF and CFPA are bound by direction in State Law and Statute, which serve as the parent documents for these administrative units. ORS 477.005 provides the original framework for policy within these agencies by mandating the "Protection of the forest and the conservation of the forest resources through the prevention and suppression of forest fires." This statute also acknowledges the need for a complete and coordinated forest protection system to accomplish this purpose. This purpose is second only to the protection of life.

CHAPTER 2: PLANNING PROCESS

JCIFP Partners

The development of the Josephine County Integrated Fire Plan (JCIFP) relies upon the coordination of multiple agencies and organizations defining common goals and working together to achieve success. An Executive Committee will provide oversight and guidance to the planning and implementation of the Fire Plan with representation from the county's fire protection districts and the public agencies responsible for fire protection.

The heart of the Josephine County Integrated Fire Plan is the strength and capability of each of the Fire Districts within the County. The Applegate Valley RFPD, Grants Pass Public Safety, Illinois Valley RFPD, Rural/Metro FD, Williams RFPD and the Wolf Creek RFPD are critical participants in the development of the fire plan and the efforts to increase public awareness about fire risk.

There are specific elements of fire protection that will be addressed through this process by sub-committees. Representation on each of these sub-committees includes participation from industry, business, natural resource, and citizen interests. Partner organizations include:

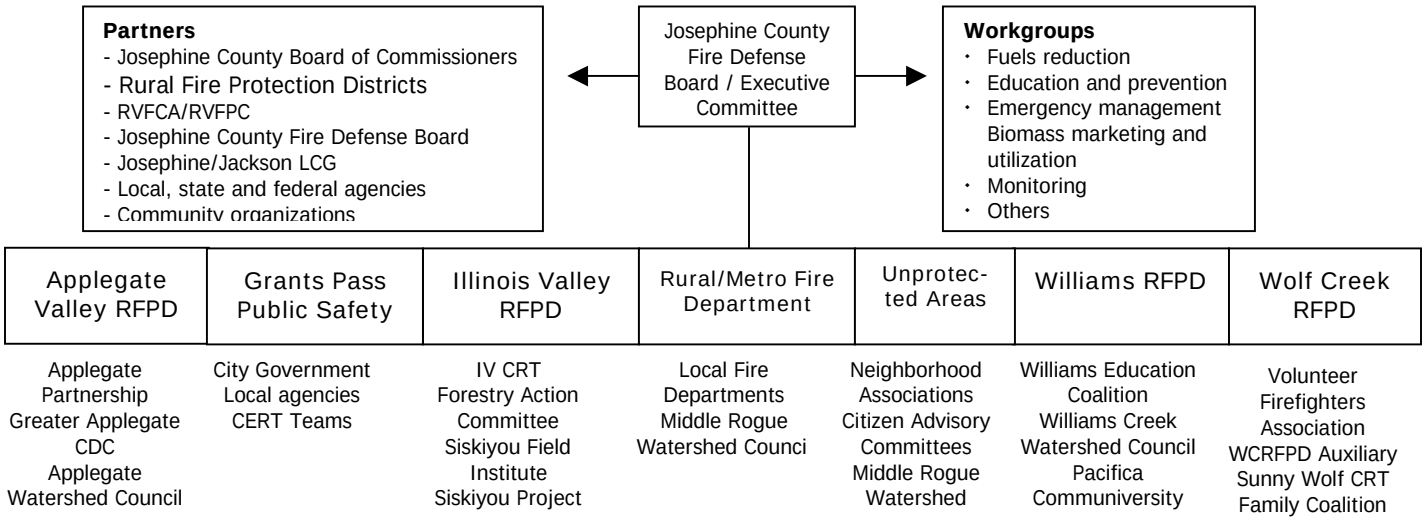
- Josephine County
  - Board of County Commissioners
  - Department of Community Development
  - Commission for Children and Families
  - Department of Forestry
  - Emergency Management
  - Planning Department
  - Graphical Information Systems Department
- Applegate Valley Rural Fire Protection District #9
- Grants Pass Fire and Rescue
- Illinois Valley Fire District
- Rural/Metro Fire Department
- Williams Fire District
- Wolf Creek Fire District
- Bureau of Land Management - Medford District
- Oregon Department of Forestry, Southwest Oregon District
- U.S. Forest Service Rogue River – Siskiyou National Forest
- Applegate Partnership
- Illinois Valley Community Response Team
- Illinois Valley Forestry Action Committee
- Jackson County
- Seven Basins Neighborhood Fire Council
- Sunny Wolf Community Response Team
- Siskiyou Field Institute
- Williams Educational Coalition

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

Organizational Structure

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

Figure 2.1 JCIFP Organizational Structure



Josephine County Fire Plan Mission and Goals

An executive committee comprised of rural fire protection districts, County government, state and federal agencies, and community-based organizations developed the mission and goals of the fire plan.

Mission: The JCIFP mission is to reduce the risk from wildfire to life, property, and natural resources in Josephine County.

Goals

- Protect potential losses to life, property and natural resources from wildfire
- Build and maintain active participation from each Fire Protection District;
- Set realistic expectations for reducing wildfire risk;
- Identify and prioritize actions for fire protection;
- Access and utilize federal and other grant dollars;
- Identify incentives for fire protection and community participation;
- Promote visible projects and program successes;
- Monitor the changing conditions of wildfire risk and citizen action over time; and
- Institutionalize fire-related programs and sustain community efforts for fire protection.

Guiding principles that aim to support the mission include: promoting fire and public safety, building citizen awareness of wildfire, instilling a sense of responsibility for taking preventative actions; communicating the implications of living in high wildfire risk area; focusing on collaborative decision-making, citizen participation, and landscape-scale treatment; and improving the likelihood of survivability to people, homes, and the environment when wildfire occurs.

JCIFP Committees and Objectives

At the beginning of the project, PWCH worked with the County to form a steering committee to provide oversight and guidance on the planning objectives. In identifying roles and responsibilities of steering committee members, it became clear that the complex range of issues to be covered by the JCIFP would require participation by a much larger group of people than just one steering committee. After forming an Executive Committee to provide oversight to the entire planning process, the planning committee began to form sub-committees to focus in on specific issues.

Gaining committee representation

The planning team began by conducting meetings with the line officer district foresters and with all of the 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 JCIFP Executive Committee. In many cases, agencies directed field officers, fuels management specialists, fire prevention staff and others to participate on the sub-committees.

The JCIFP planning team also began conducting outreach with community-based organizations throughout the County. The JCIFP planning team invited all organizations, business or residents with an interest in working on fire-related issues to participate on the sub-committees.

There are specific sections in this plan related to the various committees and which provide a list of committee participants. Resource F also includes meeting minutes from all meetings held in coordination with the JCIFP over the last year. The committees and their roles and responsibilities are illustrated in Table 2.1 below.

Table 2.1 Committee Objectives

Committee	Objectives
Executive Committee	• Provide oversight to all activities related to the JCIFP. • Ensure representation on and coordination between the sub-committees • Develop and refine goals for fire protection in Josephine County • Develop a long-term structure for sustaining efforts of the JCIFP
Risk Assessment	• Identify Communities-at-Risk and the Wildland-Urban Interface • Develop and conduct a wildfire risk assessment • Identify and prioritize hazardous fuels treatment projects
Fuels Reduction	• Identify strategies for coordinating fuels treatment projects at a landscape scale • Coordinate administration of fuels program so that is equitable across fire districts and provides 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	• Develop strategies to strengthen emergency management, response and evacuation capabilities for wildfire • Build relationships between County government and local fire districts
Education and Outreach	• Develop strategies for increasing citizen awareness and action for fire prevention

JCIFP Executive Committee

The Executive Committee is responsible for providing guidance to all elements of planning and implementation of the Josephine County Fire Plan. They help 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 Josephine County. Members of the Executive Committee include:

- Bruce Bartow, Josephine County
- Neil Benson, Josephine County Integrated Fire Plan
- Pam Bode, Rogue River - Siskiyou National Forest
- Charlie Chase, Oregon Office of the State Fire Marshal
- Rick Dryer, Oregon Department of Forestry
- Brett Fillis, Applegate Valley Rural Fire Protection District #9
- Lang Johnson, Rural/Metro Fire Department /Rogue Valley Fire Chief's Association
- Abbie Jossie, Bureau of Land Management Medford District
- Kathy Lynn, Program for Watershed and Community Health
- Tom Murphy, Bureau of Land Management Medford District
- Brian Pike, Grants Pass Fire and Rescue/Josephine County Fire Defense Board
- Ron Phillips, Illinois Valley Community Response Team
- Jack Pugsley, Wolf Creek Rural Fire Protection District
- Jerry Schaeffer, Illinois Valley Fire District
- Steve Scruggs, Williams Rural Fire Protection District
- Dennis Turco, Oregon Department of Forestry
- Phil Turnbull, Rural/Metro Fire Department

Executive Committee Actions

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 tables below illustrate the actions developed by each committee and the progress made to date. Note that actions are described in greater detail in related chapters.)

Executive Committee

Actions	Timeline	Outcomes	Progress?
Gain representation and involvement from each RFPD	Short-term	Active participation by each RFPD	All RFPDs are actively engaged in the JCIFP
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 4/04 for fuels, education and risk
Set realistic expectations for reducing wildfire risk	Ongoing	Increased public awareness about wildfire	Campaign developed "Are you prepared?"
Coordinate priorities for funding	Ongoing	Achieve landscape treatment and equitable distribution	Risk committee identifying priorities; coordination w/social services
Promote visible projects and program successes	Ongoing	Increased awareness about JCIFP/ model	Distribution of framework to over 10 states and 150 people
Find funding to support efforts (Jackson/Josephine Counties)	Long-term	Increased Funding	Next Step: Create marketing materials about the JCIFP

Actions	Timeline	Outcomes	Progress?
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

Citizen Involvement

The heart of the Josephine County Integrated Fire Plan is the interest, education and long-term involvement of residents in reducing wildfire risk around their homes and in their community. When large-scale wildfires occur, attention is focused on the causes of wildfire, prevention and the losses that can occur. Memories fade too quickly, however, and grant dollars and media attention sway to other issues. 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 effectively implement the goals of the JCIFP. Community members ultimately have the greatest knowledge of what can and needs to be done in their neighborhood. *A sample framework for Community Wildfire Protection Plans is included in Resource C.* The JCIFP process to date has focused on involving the public in neighborhood meetings, workshops and planning committee sessions, educating citizens on wildfire prevention and preparedness, and helping connect residents to the people and resources that can help them accomplish their fire safety objectives. This chapter illustrates the different venues for involving the public and long-term actions to sustain citizen interest and action in County fire preparedness activities.

Community Risk Assessment Meetings

Understanding the risk of wildfire to people, property and natural resources is an essential starting point for identifying priorities for treatment. The Josephine 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 (for example, the National Association of State Foresters, the Healthy Forests Restoration Act, the National Fire Plan, and the BLM Risk Assessment Model (RAMs), among others.)

An integral part of the JCIFP 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. The JCIFP held meetings in Williams and Wolf Creek in the spring and summer of 2004. The Illinois Valley RFPD held 8 community fire-planning meetings during the summer of 2004. 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 Illinois Valley and Sunny Wolf Community Response Teams, the Williams Educational Coalition, the Siskiyou Field Institute, and the Forestry Action Committee among others, sponsored the public meetings. .

Generally, the most effective part of the meetings occurred when participants broke out into smaller groups to 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 small group had 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.

The meetings concluded with a focus on identifying projects participants most wanted to see implemented for community protection. These projects ranged from fuels reduction, education and outreach, to emergency management and evacuation procedures. In short, these community meetings have begun to provide a scope of what local community fire plans might include to meet the community needs.

Existing Efforts, Studies and Planning Documents

Josephine County has a long history of partnerships, coordination and planning in relationship to wildfire. The Josephine County special needs committee formed in response to needs identified during the development of the Josephine County Emergency Management Plan. Existing Josephine County planning documents that are related to wildfire include the Comprehensive Plan, the Emergency Management Plan and the Natural Hazards Mitigation Plan. Additionally, two regional fire-planning documents provided a baseline of information and foundation for fire planning. These documents are highlighted in this section in their areas.

Josephine County Special Needs Committee

In October 2003, Josephine County Emergency Management established a Special Needs Committee. The committee meets to identify those who cannot help themselves in the event of an emergency. Initially, the group estimated that there would be a few hundred people requiring assistance in a disaster situation. That number has risen to between 7000 and 8000 residents (about 10% of the County's population). The Committee has grown from 5 to16 members representing public agencies, non-profits, and businesses. The Committee works to increase the use of the "disaster registry," a system developed by the Rogue Valley Council of Government that identifies people in need of help for emergency responders. The group is also discussing how to develop a communications system between all of these agencies and businesses, and how to evacuate large numbers of special needs people in the event of a major catastrophe. Faith-based organizations may also be another resource to reach out and provide assistance to special needs community board.

Josephine County Comprehensive Plan[3]

Originally developed in 1979, Josephine County updated their comprehensive plan in 2001. The goals and policies of the comprehensive plan range in scope from land use, affordable housing,

[3] Josephine County Comprehensive Plan, Goals and Policies. (April 2001) http://www.co.josephine.or.us/planning/Files/Code/GP2002.pdf

agriculture, forestry, service delivery and infrastructure, natural resource management, pollution and economic development, among other issues. In relationship to this fire plan, there are two goals that address forestry and wildfire. Goal 6 is to *prevent loss of life and property due to natural and man-made hazards.* Policies outlined in this goal include direction by the Josephine County Board of Commissioners to support and encourage the inclusion of properties into existing fire protection districts and the reduction of fuel concentrations and the construction of fire breaks, (i.e., the utilizing of fire resistant vegetation, construction of water sources, construction of roads suitable for use by emergency equipment, and design of loop road systems that allow for emergency evacuation of an area in rural developments.)

Additionally, Goal 2 is to *Conserve and develop the Forest Lands of Josephine County*. The wood products industry is the major base industry in Josephine County, upon which much of the County's economy depends. In addition, the forests enrich the lives of County residents by providing sources of water supplies, wildlife habitat, scenic beauty, and recreation opportunities. The majority of land in Josephine County is allocated for forest use. The capability of forest land, to yield comparable returns on investment for forest management depends upon location, ownership patterns, and site capabilities. Thus, a variety of solutions may be needed to ensure continued production on industrial and non-industrial lands. Policies include the following:

1. Because of the importance of forest lands and uses to Josephine County and the wide range of soil types, management and harvesting techniques, an evaluation system will be developed using soil data from the soil survey of Josephine County prepared by the Soil Conservation Service and management data from the U.S. Forest Service. A comparative rating and evaluation system will be utilized to identify prime forest lands and other forest lands so they may be placed in an appropriate zone to conserve the forest potential of forest lands in the County. This rating system will be used for all forest land use allocations and shall be known as the Composite Internal Rate of Return (CIRR) system.

2. Because of the economic importance of the timber economy to Josephine County, forest lands as described in Policy 7 shall be conserved through:

A. Providing zoning categories suitable for the classification of forest uses.

B. Supporting the use of the Oregon Forest Practices Act as it applies to forest lands within Josephine County.

C. Encouraging land transfers between private and governmental interests to facilitate more manageable forest units.

D. Managing County-owned forest lands for the purpose of providing a supply of commercial timber as well as the development of techniques for commercial and small woodlot management.

E. Continuing cooperation with Federal and State forest management agencies to encourage more intensive forest management practices, which will increase the timber supply over time.

Josephine County Emergency Operations Plan[4]

Completed in 2003, the Josephine County Emergency Operations Plan (EOP) provides detailed information on issues related to communications, evacuation, fire services, law enforcement, shelter and mass care, and a wide range of other issues. This plan has provided a foundation for the JCIFP Emergency Management Committee to build off of. Furthermore this effort can incorporate monitoring and evaluation of the Josephine County EOP within the context of the fire plan.

Josephine County All Hazard Mitigation Plan[5]

While fire is an important part of life in Josephine County, there are other natural hazards that must be addressed by the public and local government. Josephine County is in the process of developing a Natural Hazards Mitigation Plan that will enable the organizations and residents of the County to understand the risk posed by natural hazards, identify strategies to reduce that risk, and participate in natural hazard mitigation activities. Along with fire, the activities identified in this plan address flood, severe winter weather, earthquake, and landslide hazards. This is a five-year plan of action that is designed to assist the County in reducing losses associated with natural disasters. The mission of the Mitigation Plan is to prevent or reduce loss of life and property by identifying and analyzing potential hazards; educating and involving our residents; and increasing response capabilities.

This plan is a collaborative effort involving many citizens, agencies, non-profit entities, and local, regional, and state organizations. The steering committee is comprised of representatives of organizations including Josephine County Emergency Services, Planning, Public Works, Geographic Information Systems, and Risk Management, as well as the Rogue Valley Fire Chiefs Association, City of Grants Pass, City of Cave Junction, and the Josephine County Citizen Corps Council.

Applegate Fire Plan

As referenced earlier, one local community has already developed a fire plan on a watershed scale. The Applegate Fire Plan, developed in 2001-02, became a model for collaboration and community fire planning throughout the United States. With about 173,402 acres, or 35% of the Applegate Watershed (492,861 acres total)[6] within Josephine County's boundaries, the information and process delivered through the Applegate Fire Plan is significant. Information on risk mapping, strategic planning areas, fuels reduction and monitoring provided a strong foundation for the JCIFP, and its values and priorities are recognized herein. The relationships established between community organization, private landowners and residents, including private timber owners, local fire districts, county agencies, the state department of forestry, and the federal land management and resource agencies served as a role model for effective collaboration. *For more information on the Applegate Fire Plan, see Chapter 11: Fire Districts and Fire Plans.* Applegate Fire Plan goals include:

- To improve community awareness of our stewardship of the land and foster a respect for ecosystems and the processes that maintain them

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[4] Josephine County Emergency Operations Plan. (September 2003) Josephine County Emergency Services Department

[5] Josephine County All Natural Hazard Mitigation Plan – DRAFT. (July 2004), Josephine County Emergency Services

[6] BLM Medford District data: Current hydrological boundaries for the watershed; State of Oregon GIS 1:24,000 county coverage (August 2004).

- To develop a wide array of strategies for fuel reduction and fire suppression that Applegate Valley residents can accept as sensible precautions against catastrophic fire and that the agencies that manage lands in the Applegate Valley can incorporate into their cur- rent management practices
- To develop a system of emergency communications for Applegate Valley neighborhoods.
- To restore fire-adaptive species in the ecosystems, thereby encouraging more fire-resilient forests

Five County Wildfire Plan

In June 2003, the Board of County Commissioners of five counties directed the development of a Wildland Fire Resource and Inventory Study in Southwestern Oregon. The Fire Inventory Resource Study of Jackson, Josephine, Douglas, Coos and Curry Counties is an inventory of local, state, federal and private wild land fire resources. In addition to the inventory, the study identifies gaps in material resources, personnel, policies, rules and procedures. The plan focused on cooperation between fire agencies and the differences in agency policies and safety rules.

Jackson Josephine County Local Coordinating Group

In 2004, Jackson and Josephine County Commissioners signed resolutions creating the Jackson Josephine County Local Coordinating Group (JJLCG). The purpose of the JJLCG is to help coordinate and prioritize grant priorities in the region and identify strategies to leverage resources between the two counties to strengthen fire protection capabilities and to reduce the risk of wildfire in our area.

CHAPTER 3: JOSEPHINE COUNTY PROFILE

Introduction

Josephine County is located in southwestern Oregon and was created by the Territorial Legislature on January 22, 1856, from the western half of Jackson County. The county borders California to the South, Douglas County to the north by, Curry County at the Coast Range summit on the west., and Jackson County on the east. Josephine County is predominantly mountainous, but has two major valleys cut by the Rogue, Illinois, and Applegate Rivers.[7]

Josephine County is a region of vast forest resources. The forests enrich the lives of County residents by providing fresh water supplies, abundant wildlife habitat, scenic beauty, and recreation opportunities.[8] The population, geography, and history of fire all contribute to the level of wildfire risk that people in Josephine County face. Publicly managed lands comprise 70 percent of Josephine County and are often heavily forested.

Building and sustaining strong relationships between public land managers, fire districts, political jurisdictions, and the citizens of Josephine County is essential to reducing wildfire risk. Josephine County has continued to experience a high 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 citizens deal with a loss of resources and post-fire recovery costs.

The demographic, physical, social and economic character of Josephine 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. Our profile also provides information on low-income, elderly, disabled, and other special need citizens.

Public Awareness of Wildfire Hazard and Protection

The 2004 Josephine County survey, conducted by the Oregon Survey Research Laboratory on behalf of the Josephine County Board of County Commissioners provided insights on public awareness of wildfire risk and familiarity with fire protection programs. The random sample telephone survey resulted in the following statistics about fire:

- 67% of respondents reported that they believe their community is at risk to wildfire.
- 42% of respondents believe their home is at risk to wildfire.
- 54% of respondents are familiar with fire evacuation procedures in their area.
- 18% of survey respondents have participated in the Home Owner Fuel Reduction Program.
- Almost 95% of respondents indicated that they remove brush and other flammable material from their property each year.
- 46% of respondents live in homes built with fire resistant building materials.
- 70% think that government should require that new homes be built with fire resistant materials.

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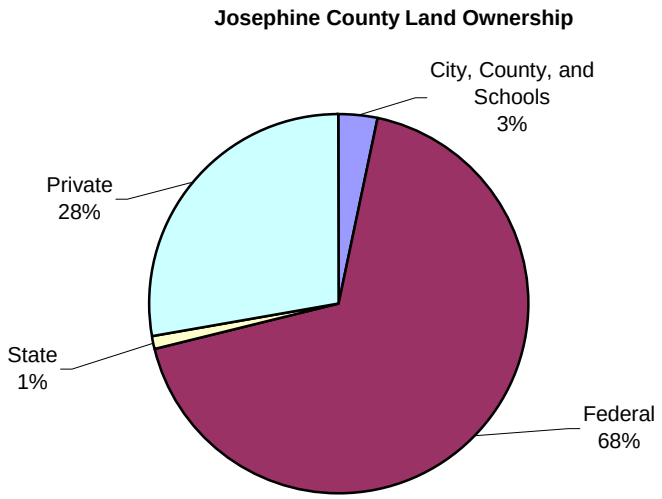
[7] Oregon Historical County Records Guide, http://arcweb.sos.state.or.us/county/cpjosephinehome.html

[8] Josephine County Comprehensive Plan Update, 2002.

Land Ownership

Josephine County is located in the southwestern part of Oregon on the border with California. The total area of Josephine County is approximately 1,040,000 acres, of which about 290,095 acres is privately owned and about 705,732 acres is publicly managed. Of the federal land, the U.S. Forest Service manages 421,745 acres and the Bureau of Land Management manages 282,674 acres. Approximately 8,929 acres is owned by the state of Oregon. Figure 3.1 below illustrates land ownership in Josephine County.

Figure 3.1. Percentage of Josephine County Private and Public Lands



Source: Josephine County PUMA data, 2003.

Table 3.1. Top ten landowners/managers in Josephine County

	Acres	% Ownership
Rogue River – Siskiyou National Forest	413,533.59	53.3%
BLM (O&C, PD & Other)	270,317.25	34.9%
Josephine County Forestry	24,922.00	3.2%
Indian Hill LLC	22,101.00	2.9%
Perpetua Forests Company	15,762.00	2.0%
Swanson Group Inc.	8,521.00	1.1%
Boise Cascade Corp	6,396.00	0.8%
Spalding and Son Inc.	5,315.69	0.7%
State of Oregon	4,877.89	0.6%
Spalding, Epsi L Trust	3,718.00	0.5%

Natural and Cultural Resources

Steep, rugged mountains and narrow river valleys characterize the county. The Coast Mountains to the west and the Siskiyou Mountains in the southeastern part of the county are its principal mountain ranges. The elevations of these mountains range from 750 feet on the flood plains to

more than 7,000 feet on the higher peaks. The mountains are made up of volcanic and sedimentary rock.[9] These layered rocks have been "steeply folded, faulted, and, in places, intruded by granitic rock and peridotite, much of which has been altered to serpentinite."

The Rogue River is the dominant water feature in the region. There are two major tributaries of the Rogue in Josephine County: the Applegate and the Illinois 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 resource, drawing thousands of visitors to the county each year for fishing and rafting. Josephine County also has a limited number of lakes. Most are small with the largest being Lake Selmac (man-made) east of Selma. The lakes in the area "cultivate an attitude of sensitivity towards preserving their natural uniqueness and water quality".[10]

Forestland

Josephine County is a heavily forested region. Large portions of the Rogue River - Siskiyou National Forest and Bureau of Land Management land fall within the county's borders. Although the county's economy has diversified over time, timber is still an important resource. There are twenty-eight different coniferous species found in the county, twenty of which are used commercially. Of the approximately four hundred sensitive plants in the region, about one hundred are found in the Siskiyous. Additionally, part of the Kalmiopsis Wilderness area lies within county boundaries. This 180,000-acre Wilderness Area covers over 40,000 acres in western Josephine County with the remaining area in Curry County. The area is known for rare and endangered plants.

Climate

The winters are wet and cool at higher elevations in southwestern Oregon. Grants Pass receives an average of 32 inches of precipitation annually, primarily from October well into the spring.[11] Summers are characterized by long drought periods, which are occasionally punctuated by electrical storms. Historically, the summer lightning, which occurs from May through October, has resulted in fires. These natural, along with traditionally ignited fires, have caused vegetation to evolve with frequent low-intensity fires on some areas of the Southwestern Oregon Fire planning area and they are considered fire adapted. Some landscapes are affected by autumn east winds that occur when stable air pushes across a mountain range and then descends on the leeward side. The air becomes warmer and drier as it descends and can lead to increased, sometimes extreme fire behavior in lower lee side locations.[12]

Traditional Use of Fire and Native American Tribes

The practice of burning the land by Native Americans to enhance production of subsistence resources has been well documented for tribes throughout North America. While use of fire varied greatly, tribes used wildfire as a tool for hunting, crop management, improving growth and yields,

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[9] Josephine County Comprehensive Plan, 1995

[10] Josephine County Comprehensive Plan, 1995

[11] Oregon Bluebook, 2004 http://bluebook.state.or.us/local/counties/counties17.htm

[12] Southwestern Oregon Fire Management Plan (DRAFT 7/2004)

insect collection, pest management, warfare & signaling, clearing areas for travel, felling trees, clearing riparian areas, and for fireproofing.[13]

Tribes residing within the boundaries of what is now known as Josephine County included the Takilma, Modoc and Shasta, among others. Each of these groups occupied territory along their respective river drainages but also exploited areas that extended into the uplands. When the Tribes were moved to reservations around 1856, many became part of the Confederated Tribes of Siletz and Confederated Tribes of Grand Ronde. While there are no federally recognized Tribal reservations with Josephine County, there are still traditionally significant cultural sites.

The Bureau of Land Management, Medford District consults with the following Federally Recognized Tribes:

- Cow Creek Band of Umpqua Indians
- Confederated Tribes of Grand Ronde
- Confederated Tribes of Siletz
- Klamath Tribe
- Quartz Valley Indian Reservation

Oregon Caves National Monument

A Presidential Proclamation in 1909 established the Oregon Caves National Monument. Administration of the Monument by the National Park Service began in 1934 to protect about 7 small caves and a three-mile cave, which have endemic rare bats, significant fossil sites, and invertebrates. Both the Monument's surface and subsurface have high geologic and biologic complexity. Transferred to the National Park Service in 1934, the Monument also contains 484 acres of mostly old growth trees, and is part of one of the most diverse conifer forest in the world.

Enabling Legislation:

The authority for the conservation and management of the National Park Service is clearly stated in the Organic Act (August 25, 1916), which states the agency's purpose:

"…to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

This authority was further clarified in the National Parks and Recreation Act of 1978:

> "Congress declares that…these areas, though distinct in character, are united…into one national park system… The authorization of activities shall be construed and the Protective, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress." The National Park Service contracts with the Illinois Valley CRT to manage the park throughout the year. Coordination with the National Park Service is an important component of County and Federal Fire Management planning.

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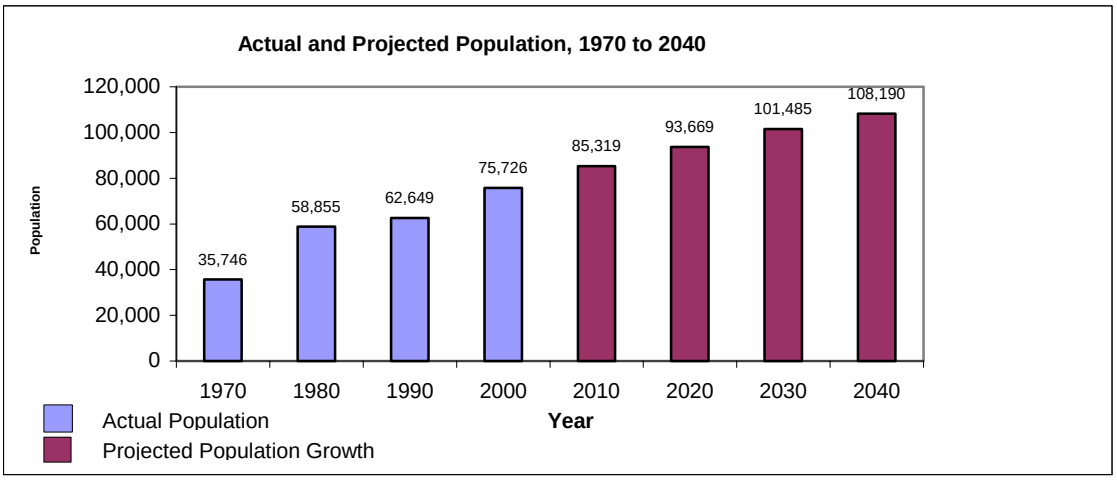
[13] Williams, Gerald W. Ph.D. References on the American Indian Use of Fire in Ecosystems. USDA Forest Service. Washington, D.C. May 18, 2001.

Population

As indicated by the 2000 Census, there are 75,726 people, 31,000 households, and 21,359 families residing in Josephine County. Population growth projections developed by the Office of Economic Analysis expect population to grow at a consistent rate through 2040 as illustrated in Figure 3.2.

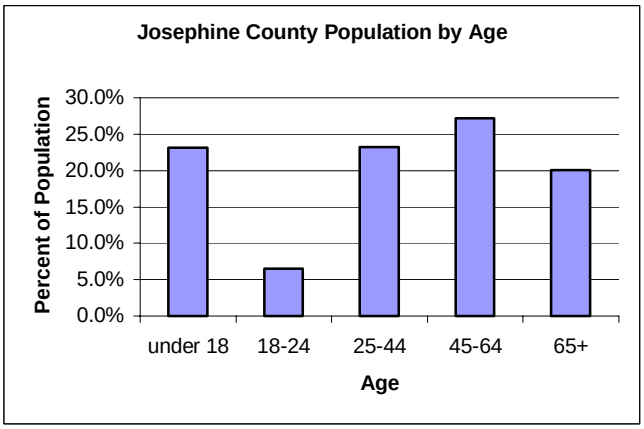
Figure 3.2. Josephine County Actual and Projected Population Growth, 1970-2040



Sources: US Census, County Population Census Counts 1900-2000, July 1995 and Oregon Office of Economic Analysis, Long-Term Population & Employment Forecasts For Oregon, January 1997.

There are 31,000 households in Josephine County; 26.9% have children under the age of 18, 54.4% are married couples living together, 10.4% have a female householder with no husband present, 25.4% are individuals and 12.1% have someone living alone who is 65 years of age or older. Figure 3.3 illustrates the County population by age.

Figure 3.3. Josephine County Population by Age



Source: US Census Bureau, Census 2000, http://www.census.gov.

The racial composition of the county is 93.9% White, 0.27% Black or African American, 1.25% Native American, 0.63% Asian, 0.11% Pacific Islander, 1.17% from other races, and 2.68% from two or more races. 4.26% of the population are Hispanic or Latino of any race.[14]

Income, Poverty and Special Needs

Josephine County's per capita income, adjusted for inflation was $21,905 in 2001, compared to the Oregon State average of $28,222. The median income for a household in the county is $31,229, and the median income for a family is $36,894. Males have a median income of $30,798 versus $22,734 for females. 15.0% of the population and 11.3% of families are at or below the Federal poverty line, and in 1999, Josephine County experienced the 6th highest incidence of poverty in the state. Out of the total people living in poverty, 21.1% are under the age of 18 and 6.80% are 65 or older.[15]

HUD Income Limits

Another indicator of poverty is provided by the Housing and Urban Development (HUD) income limits. HUD Median Family Income Limits are provided for family sizes of one to eight persons and a formula is provided to calculate income limits for larger family sizes. Figures are based on the U.S. Census Bureau median family income estimates with an adjustment using a combination of Bureau of Labor Statistics earnings and employment data and median family income (MFI) data. Fair Market Rents are also included within the adjustment. Josephine Housing Authority uses HUD Income Limits to determine eligibility for affordable housing programs in the County.

Table 3.2 illustrates that over 63% of renters in Josephine County experience high to moderate levels of poverty, according to the HUD income limits by household size. Renters may have a limited ability to take certain precautionary measures such as creating defensible space because they do not own their own homes. This table also shows that about 34% of homeowners in Josephine County also experience high to moderate rates of poverty. These homeowners may not have the extra resources to participate in cost-share programs for fuels reduction that require homeowners to pay part of the cost of creating defensible space.

Table 3.2. Household by Type and Income – Renters

Income Limits		1-2 Member households	Small Related (2-4)	Large Related (5+)	All Others	Total Renters
Renters	Very, Very Low Income - <=30%	3.9%	8.6%	1.2%	7.4%	21.1%
	Very Low Income - >30 - <=50%	6.6%	7.4%	1.8%	3.9%	19.7%
	Low Income - >50 - <=80% MFI	4.8%	9.9%	2.7%	4.9%	22.4%
	Total Renters <=80% MFI	15.30%	25.90%	5.70%	16.20%	63.20%
Owners	Very, Very Low Income - <=30%	3.5%	1.7%	0.5%	2.0%	7.7%
	Very Low Income - >30 - <=50%	6.5%	2.4%	0.4%	0.9%	10.2%
	Low Income - >50 - <=80% MFI	8.2%	4.9%	1.4%	2.0%	16.4%
	Total Owners <=80% MFI	18.2%	9%	2.3%	4.9%	34.3%

Source: Housing and Urban Development: State of the Cities Data Systems: Comprehensive Housing Affordability Strategy (CHAS) Data, 2000.

[14] US Census, 2000, http://www.census.gov and http://en.wikipedia.org/wiki/Josephine_County,_Oregon

[15] US Census 2000, http://www.census.gov and http://en.wikipedia.org/wiki/Josephine_County,_Oregon

Citizens with Special Needs

Josephine County has a Special Needs Committee comprised of 16 agency partners that provide support to a range of citizens with special needs, including elderly, disabled, youth, and residents of assisted living facilities. The Special Needs Committee estimates that 10% of Josephine County's population is classified as special need, the majority of whom are 65 years old or more.[16] The 2000 Census also collected data on special needs populations for the first time. The Census considers this population as those with the following conditions: (a) blindness, deafness, or a severe vision or hearing impairment (sensory disability) and (b) a condition that substantially limits one or more basic physical activities, such as walking, climbing stairs, reaching, lifting, or carrying (physical disability). Table 3.3 illustrates the Census defined special needs population by age. This table represents further indication that there are citizens in Josephine County who made extra resources and assistance in addressing risks from wildfire (and other natural hazards).

Table 3.3. Census Defined Special Needs Population by Age

Age Range	# of Residents	% of Population
5 to 20 years old	1,345	1.78%
21 to 64 years old	9,314	12.30%
65 years +	14,701	19.41%

Source: US Census Bureau, 2000.

As a part of the JCIFP, the Program for Watershed and Community Health spoke with Josephine County Social Service agencies to identify strategies for coordination of fire prevention information and delivery of fuels reduction services to the special needs population. These service providers can play an essential role in distributing information about wildfire prevention and with coordinating fuels reduction projects for special needs populations in high-risk areas. Table 3.4 lists the variety of social services provided by local agencies to citizens at need in throughout the county.

Table 3.4. Social Service Providers and Special Needs Populations

Agency	Service Provided/Clients Served
Josephine County Food Share Program	28 sites/26,000 food boxes distributed annually (1.5 million pounds of food)
Josephine County Meals on Wheels	500 clients served annually
Siskiyou Community Health Center	Primary medical care services to people of all ages and incomes. Of 9500 clients, 31% are uninsured, 60% are below the poverty level
Josephine Housing Authority	Serves approximately 800 families per year; approximately 700 households are on a waiting list
Josephine County Mental Health Dept. of Disability Services	DDS runs 35 licensed foster homes.
Josephine County Health Department	Provides services including the Women, Infant and Children nutritional supplement program.

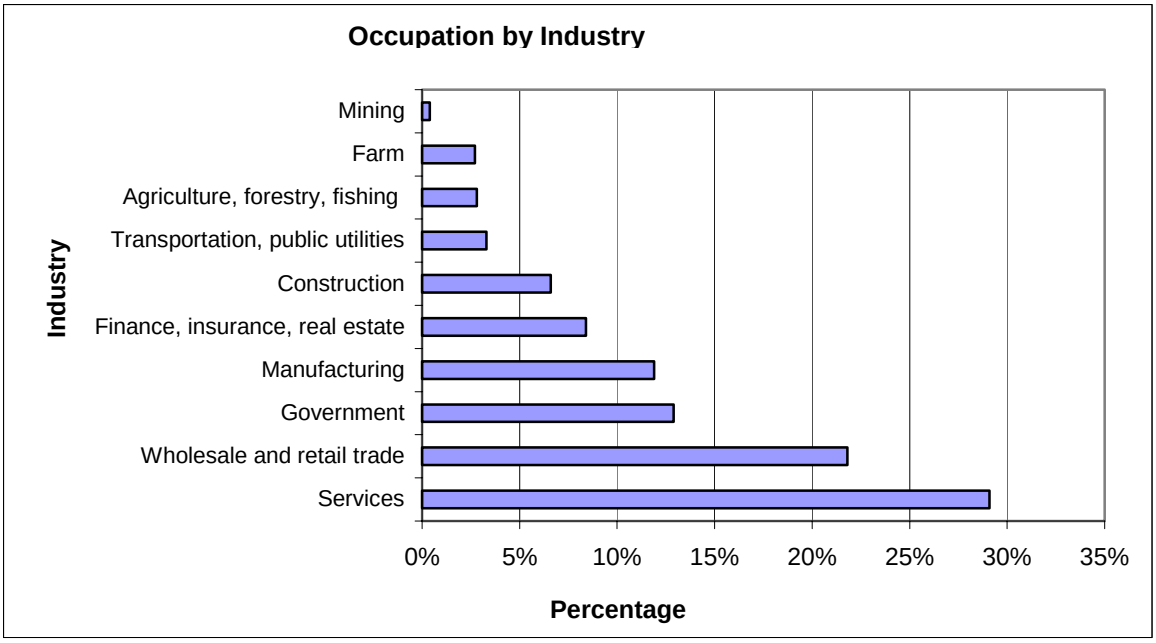
Source: PWCH Interviews with Josephine County Social Service Agencies (January 2004)

[16] Chapter 12 of this document provides the classifications of Special Needs Citizens and agencies participating on the Special Needs Committee.

Employment and Industry

The number of jobs in Josephine County has increased by almost 21% since 1990. Approximately 2,400 net new, non-farm payroll jobs were added to the County labor force between 1995 and 2002. However, following similar national and statewide trends, manufacturing employment declined by more than 800 jobs in the past decade in the County, and employment in the wood products industry declined by about 33% in this time period. However, employment in secondary wood products manufacturing continues to see positive or stable growth. Non-manufacturing has experienced modest growth. The service sector is projected to see the fastest job growth in the region at 30.7%; followed by construction at 24.6%; and trade at 22.8%.[17]

Figure 3.4. Josephine County Occupation by Industry, 2000



Source: US Census - General Demographic Characteristics: 2000, Geographic Area: Josephine County, OR.

Unemployment

The County's unemployment hit record lows in 1999 and 2000, but heading into 2001, the unemployment trend began to reverse slightly.[18] Josephine County's unemployment rate in 2001 ranged from a low of 7.1% in April to a high of 9.2% in December. Another view of the County's economic condition is seen through the personal income figures derived by the U.S. Department of Commerce's Bureau of Economic Analysis. Personal income offers a more complete measure of income than wage and salary payments because it includes income received from all sources--

[17] Grants Pass/Josephine County Economic Profile Summary, 2002, City of Grants Pass Economic Development http://www.visitgrantspass.com/econdev/Acrobat/econ-summ-2002.PDF

[18] Grants Pass/Josephine County Economic Profile Summary, 2002, City of Grants Pass Economic Development http://www.visitgrantspass.com/econdev/Acrobat/econ-summ-2002.PDF

earnings, transfer payments, and dividends, interest and rents. Approximately one third of Josephine County's personal income is represented by transfer payments (defined as income for which services are not rendered). The contribution of transfer payments to personal income was almost twice that of the manufacturing sector as a whole. The lumber and wood products industry contributed 3.25% of all personal income in 2000.[19]

Housing and Development Trends

In Josephine County the number of housing units increased by 42.5% from 1980 to 2000, compared to an increase of 34.1% in Oregon. In 2000, homeowners occupied 65.3% of all housing units, renters occupied 27.9%, and 6.7% were vacant.[20] Table 3.5 below illustrates that the number of building permits issued per year in Josephine County has remained at a relatively consistent level over the past ten years.

Table 3.5. Josephine County Building Permits Per Year

Housing Unit Building Permits for Josephine County, Oregon											
Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total Units	585	640	629	421	346	335	388	440	424	411	520

Source: Housing and Urban Development, SOCDS Building Permits Database. (January 2004)

Continued population growth will drive the housing market in Josephine County with new residents creating demand for housing. The County is planning for as many as 4,700 additional housing units between 1995 and 2015, equaling an annual average of 266 new units. This growth highlights the need for continuing education on fire protection and prevention activities. These estimates are based on Portland State University (PSU) projections.

Vacant Lands

Identifying vacant lands assists in understanding the potential for future growth, as well as to identify vacant lots that may be at risk to wildfire or other hazards. There are approximately 2,000 existing unimproved lots in the areas outside of the Urban Growth Boundaries in Josephine County, and 548 additional lots within Grants Pass, after correcting for existing developed lots.

Table 3.6. Josephine County Vacant Lands Report

Zone	Total Acres	Total Existing Private Lots	Existing Unimproved Private Lots
RR1	2,313	1,312	393
RR2.5	7,258	2,232	778
RR5	53,741	11,071	3,925

Source: Josephine County Comprehensive Plan, 1995

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[19] Bureau of Economic Analysis. Regional Economic Accounts. CA05 Personal income by major source and earnings by industry -- Josephine, OR, 2000.

[20] U.S. Bureau of the Census, Census of Population and Housing, USA Counties 1998, (http://tier2.census.gov/usac/index.html) 1990 and 2000: U.S. Bureau of the Census, Census of Population & Housing,

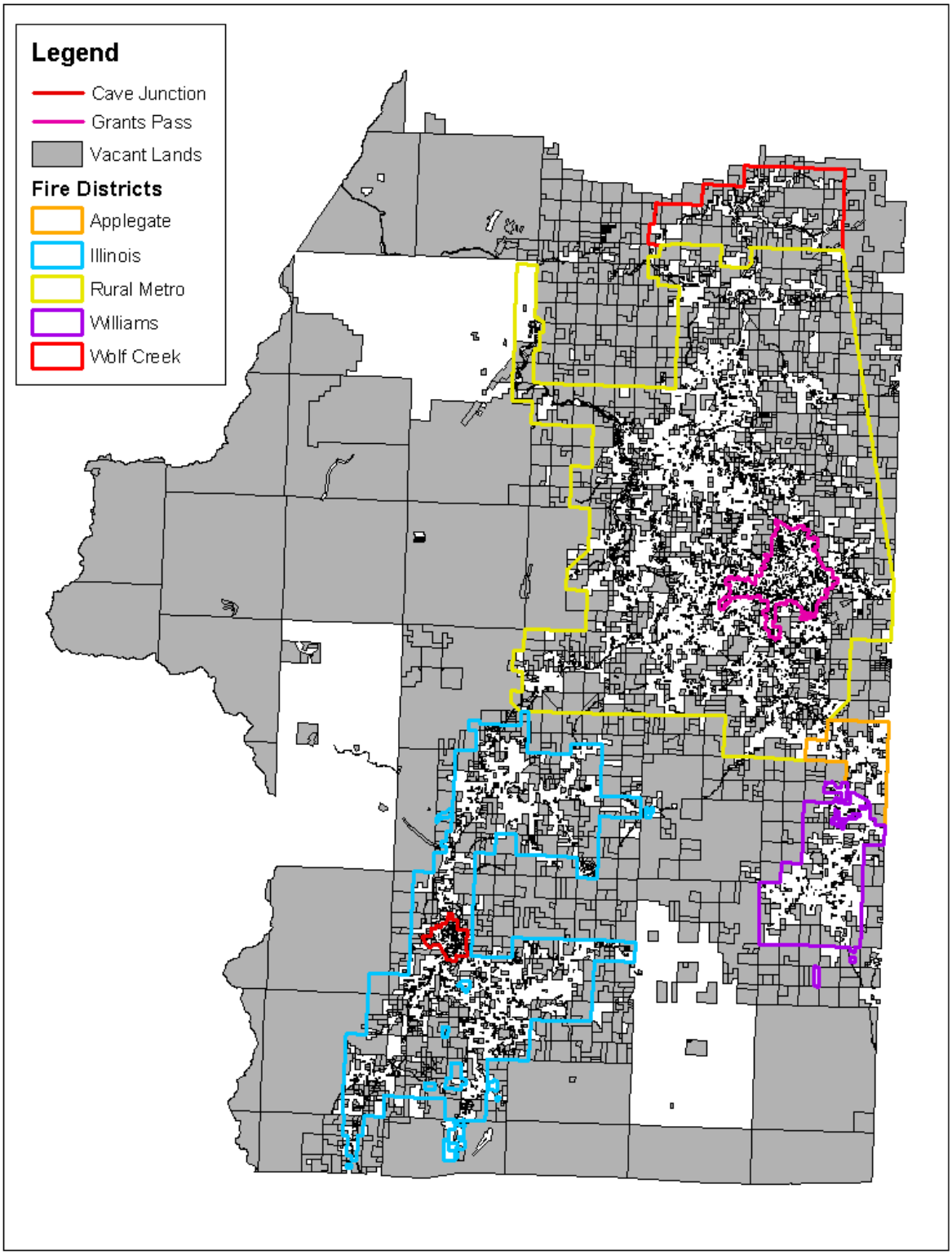
Not all of these existing unimproved lots can be developed. Due to the varied topography of Josephine County, many of these lots have physical constraints that may limit their development. The following residential parcels have been extracted from the Josephine County Vacant Lands Report in Table 3.6 and categorized according to developmental constraints illustrated in Table 3.7. *Map 1 provides information on vacant lands within Josephine County fire districts and unprotected areas.*

Table 3.7. Vacant Lands by Hazard

Hazard	Zone	Improved tax lots	Acres	Unimproved Tax Lots	Acres
Wildfire	RR1	165	325	105	186
	RR2.5	186	831	119	440
	RR5	1,526	8,635	831	5,166
Flood	RR1	923	1,607	387	695
	RR2.5	1,459	4,784	773	2,474
	RR5	7,179	31,999	3,886	21,725
Steep Slope	RR1	333	577	119	207
	RR2.5	544	1,650	241	831
	RR5	3,168	12,520	1,374	8,179

Source: Josephine County Comprehensive Plan, 1995

Map 1. Josephine County Vacant Lands



Transportation

Transportation systems are of critical importance in wildfire planning. Road systems provide access for fire suppression units and a means of escaping wildfire. Roads and railroads also increase potential for wildfire starts because of increased access to forests. Railroads can also contribute to the incidence of fire starts due to malfunctioning brakes and other equipment. Transportation systems may also drain fire district resources because of increased rate of fire starts due to road conditions and adjacent high fuel areas. Also, fire districts bordering state roads are often called upon to respond to accidents, which drain the resource base of small, rural, volunteer fire districts.

Josephine County's major roadways include Interstate 5 and U.S. Highway 99, which comprise the major north/south route through the county. U.S Highway 199 connects Grants Pass and the southwestern county, including Cave Junction. Hwy 199 connects to both the California and Oregon coast, making it important for tourism and product transportation. State Highway 238 connects the southeastern part of the county.

Roads in Josephine County are under the jurisdiction of city, county, state and federal governmental agencies that cooperate to monitor and maintain roadside vegetation, primarily for driver safety. The Public Works Department works in cooperation in and near the Grants Pass City Limits and administers the remaining roads in Josephine County. Josephine County has recently adopted the state mandated Transportation System Plan. This plan describes current road conditions and needs.

Railway service is limited to northwestern Josephine County. The owners of the railroad, the Central Oregon and Pacific Railroad, operate the Siskiyou Line from Springfield Junction in Eugene, OR to Black Butte, CA and the Coos Bay Line from Eugene to Coquille, OR. Both of these lines are former Southern Pacific branches, which were sold off at the end of 1994.

Critical Facilities and Infrastructure

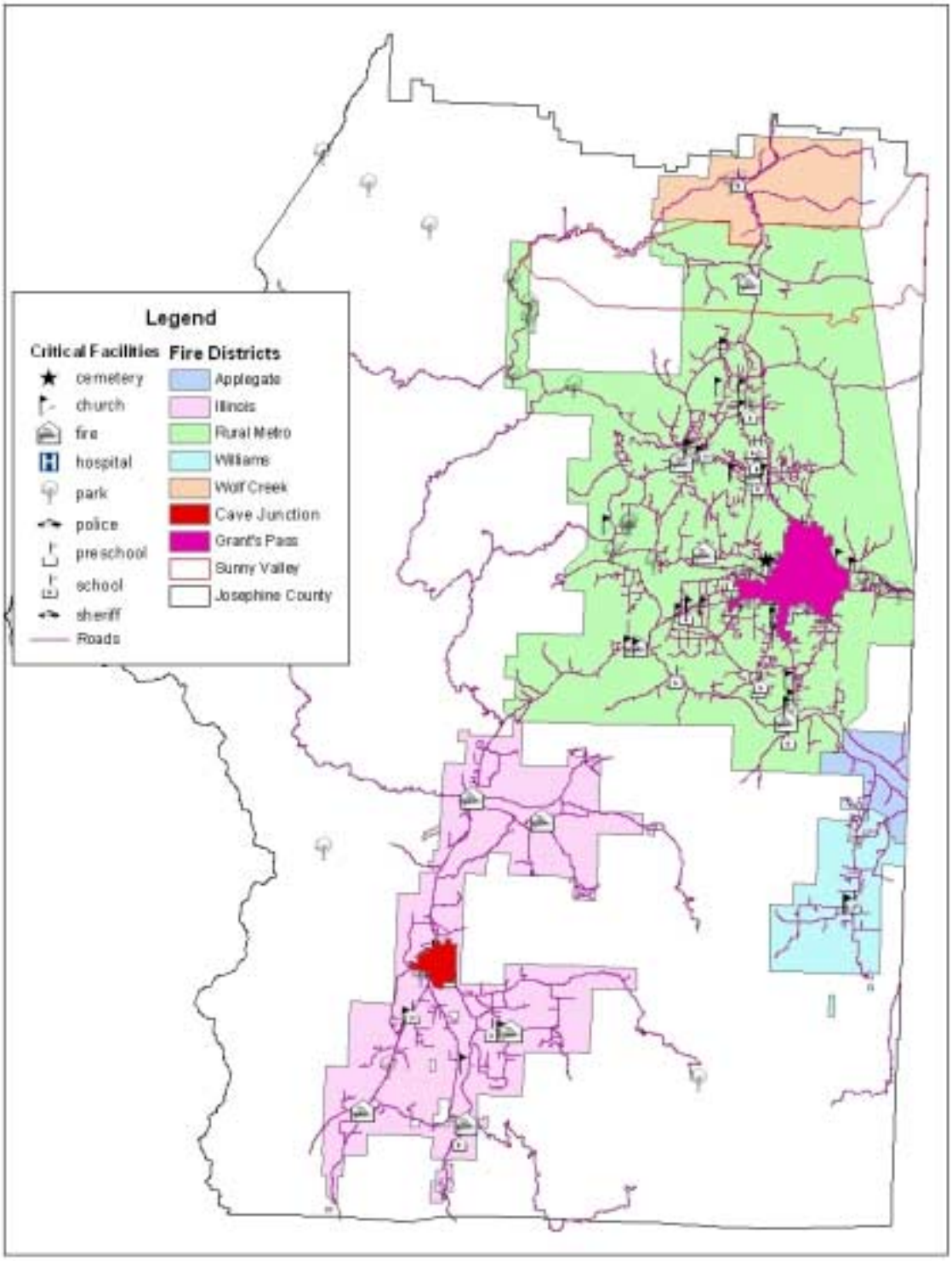
Facilities critical to government response and recovery activities include 911 centers, emergency operations centers, police and fire stations, public works facilities, sewer and water facilities, hospitals, bridges and roads, and shelters. Other critical infrastructure in the County includes cell towers and repeater towers. The County has four cell towers that are all on Forest Service and BLM land. 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. Table 3.8 illustrates the number of critical facilities in Grants Pass, Cave Junction and the County. *(Maps 2 through 4 illustrate Josephine County, Grants Pass, and Cave Junction critical facilities.)*

Table 3.8. Josephine County and Incorporated Cities - Critical Facilities

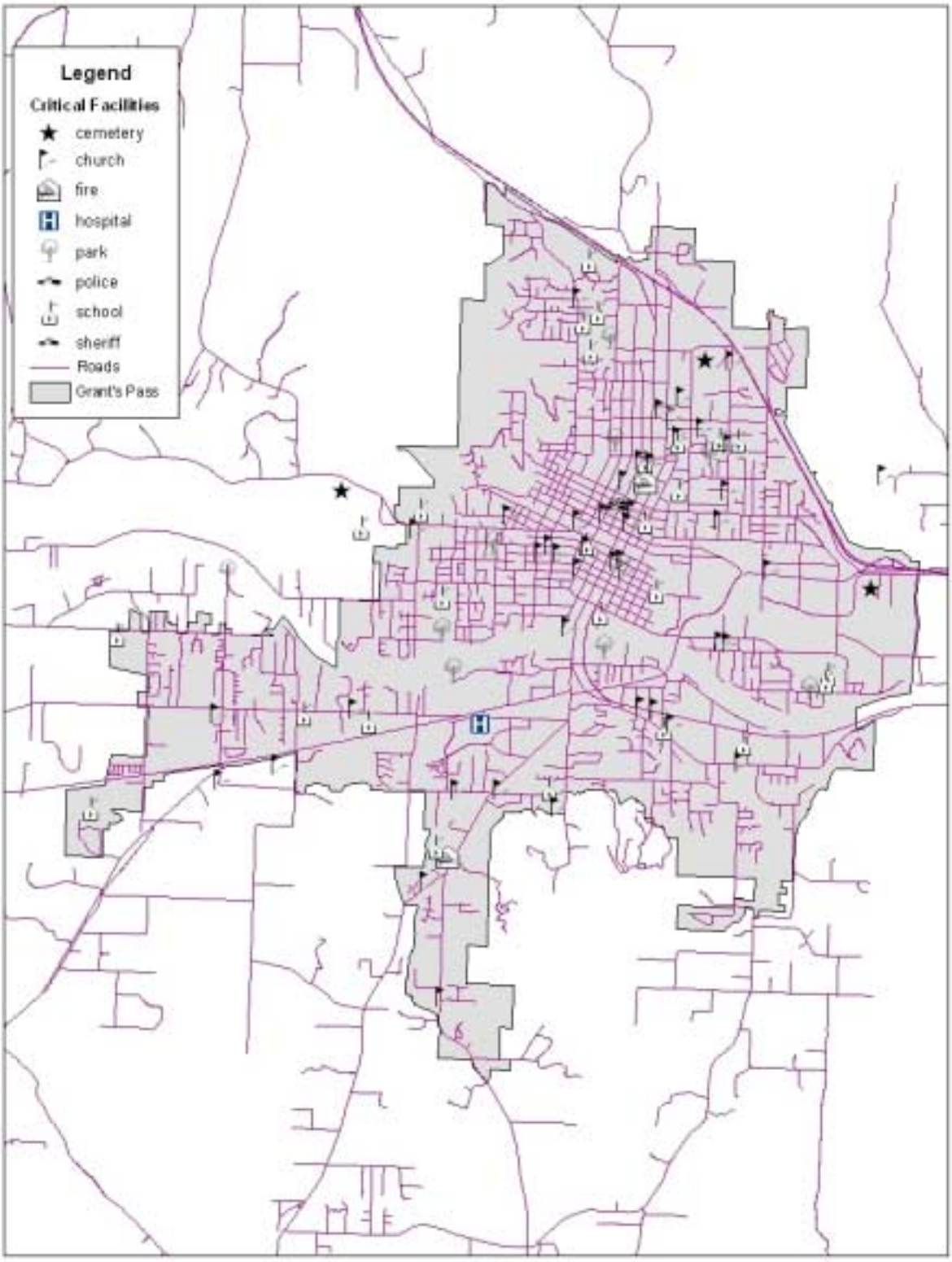
	Grants Pass	Cave Junction	County Total
Churches	42	6	75
Fire Stations	2	1	19
Hospitals	1	0	1
Parks	8	1	30
Preschools	5	1	8
Schools	20	5	44
Sheriff's Offices	1	1	2
Police Stations	1	0	1

Source: Josephine County PUMA data, 2003, PWCH GIS Analysis

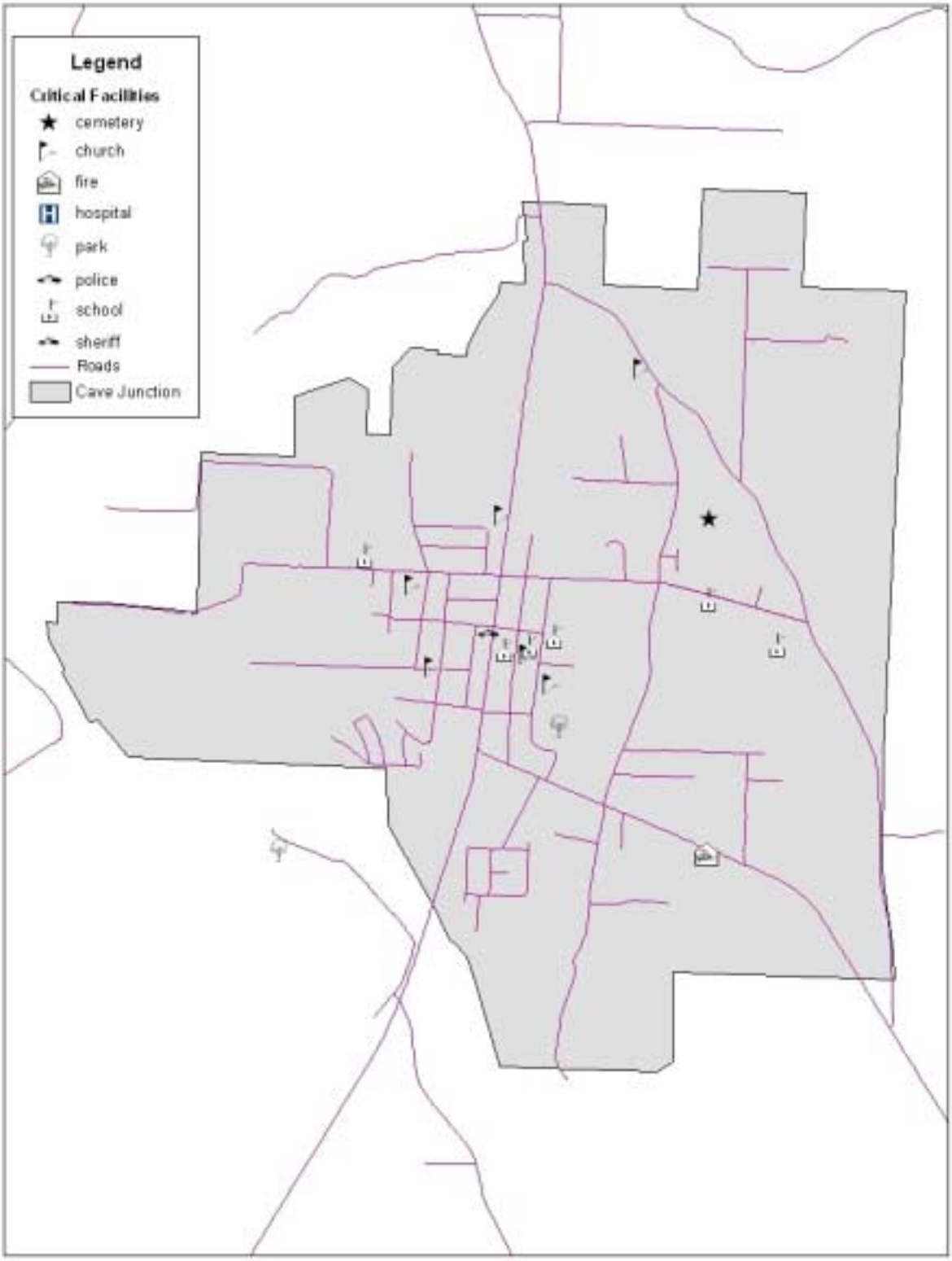
Map 2. Josephine County Critical Facilities



Map 3. Grants Pass Critical Facilities



Map 4. Cave Junction Critical Facilities



Insurance Services Office Ratings

The Insurance Services Office (ISO) is an independent organization that serves insurance companies, fire departments, insurance regulators, and others by providing information about fire risk. ISO's expert staff collects information about municipal fire-protection efforts in communities throughout the United States. In each of those communities, ISO analyzes the relevant data and assigns a Public Protection Classification (PPC) — a number from 1 to 10. Class 1 represents exemplary fire protection, and Class 10 indicates that the area's fire-suppression program does not meet ISO's minimum criteria.

A Community's PPC depends on fire alarm and communications systems, the fire department, and the water supply system. The classifications are developed with the following criteria:

- 10% fire alarm and communication systems, including telephone systems, telephone lines, staffing, and dispatching systems
- 50% the fire department, including equipment, staffing, training, and geographic distribution of fire companies
- 40% the water supply system, including the condition and maintenance of hydrants, and a careful evaluation of the amount of available water compared with the amount needed to suppress fires

The Insurance Services Office's PPC program evaluates communities according to a uniform set of criteria, incorporating nationally recognized standards developed by the National Fire Protection Association and the American Water Works Association. The PPC program provides a useful benchmark that helps fire departments and other public officials measure the effectiveness of their efforts — and plan for improvements.[21] The PPC program could serve as one indicator of a community's limited capacity to deal with wildfire protection.

The Oregon Office of the State Fire Marshal organized information on community fire protection and ISO Ratings, as shown below in Table 3.9.

Table 3.9. Oregon State Fire Marshal Fire Protection Status (July 2003)

City/Area	Fire Protection	Population	ISO
Grants Pass	Dept. of Pub Safety	23,000/ 40,000	3/8-10
Illinois Valley	Illinois Valley RFPD (includes Cave Junction, Dryden, Holland, Kerby, O'Brien, Selma, Takilma, and Waldo)	17000	5-8
Williams	RFPD	3000	8
Rural/Metro	Includes Galice, Hugo, Leland, Merlin, Murphy, Provolt, Wilderville, Placer, and Wolf Creek and Wonder)	35000	6
Wolf Creek	Wolf Creek RFPD (includes Speaker and Placer)	700	8-9

Source: Oregon Office of the State Fire Marshal (July 2003)

[21] Insurance Services Office, Public Protection Classification, http://www.isomitigation.com/fire1.html.

Josephine County Rural Fire Protection Districts

Each of the Fire Protection Districts in Josephine Characteristics possesses unique attributes, diverse citizens, and different natural resources and geography. In this section, we illustrate some of those features and provide information on protection capabilities where data is available. *(See Chapter 12: Fire Districts for more detailed information on each of the fire districts and their current efforts related to the County Fire Plan.)*

Applegate Valley Rural Fire Protection District #9

The Applegate Valley Rural Fire District serves an area of 181 square miles that is west of Medford and Southeast of Grants Pass, Oregon and extends south to the California/Oregon border. It is an area of mountains and valleys, with a population of 10,000 residents. The District has six volunteer stations strategically located throughout the service area. On the average, there are about 47 volunteers that respond to alarms for fires, medical calls or motor vehicle accidents. 15% of the district is located in Josephine County.

Grants Pass (Department of Public Safety)

Grants Pass, with a current population of 24,470, is the Josephine County seat and serves as the major commercial center for the county population of 78,350.[22] Of 9,863 total housing units in Grants Pass in 2000, roughly 50% were owner-occupied and 50% of homes were renter occupied. According to the Oregon Economic and Community Development Department, the Grants Pass Department of Public Safety has 28 paid firefighters and an Insurance Services Office Rating of 3. The largest employers in the City of Grants Pass are the Three Rivers Community Hospital, US Forest Industries and Timber Products/Grants Pass Hardwoods Division.[23]

Illinois Valley Rural Fire Protection District

The Illinois Valley Fire Department protects 20,000 people living in an area of 140 square miles. The District operates out of six stations that protect a primarily rural intermixed area with the incorporated City of Cave Junction as the hub of the district. The fire department is a publicly funded department consisting of 5 full-time employees and approximately 40 volunteers.[24] The five largest employers in the Illinois Valley include Rough-n-Ready Lumber Co, Wild River Brewing & Pizza, Shop Smart, Bridgeview Winery, and Taylor's Sausage Inc.[25]

Rural/Metro Fire Department Service Area

Rural/Metro Fire Department protects 288 square miles around the city of Grants Pass. The area includes the communities of Sunny Valley, Hugo, Fort Vanoy, Merlin, Galice, Murphy, Wilderville, Wonder, North Valley and Shan Creek. Rural/Metro covers three major highways including 22 miles

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[22] City of Grants Pass web site - http://www.ci.grants-pass.or.us/welcome.htm (May 2004).

[23] Source: City of Grants Pass Administration – OECCD Community Profile – www.econ.state.or.us (May 2004).

[24] Illinois Valley Rural Fire Protection District web site - http://www.ivfire.com/ (May 2004).

[25] Source: City of Cave Junction Administration – OECCD Community Profile – www.econ.state.or.us (May 2004).

of I-5. Most of the area is privately owned or BLM land, with a smattering of county and state lands. The area includes approximately 17,000 households. Rural/Metro has subscriptions with about 12,000 of those households.

There are 7 fire stations, 2 of which are staffed 24 hours. The stations are in the North Valley, South Grants Pass, Murphy, Fort Vanoy, Merlin, Sunny Valley and Wilderville. Five of the stations have an Insurance Services Office Fire Hazard Rating of 6. Ratings for Murphy and Sunny Valley will be added in the winter of 2005. Full-time staff for Rural/Metro includes 5 Shift Officers, 1 Fuels Manager/Firefighter, 3 Chief Officers, 2 mechanics and 2 administrative people. Part-time staff includes 45 to 50 paid, on-call reserve firefighters and 10 to 15 administrative and support staff.

Williams Rural Fire Protection District

The Williams Rural Fire Protection District was founded in 1964. This is a volunteer department with one station and a half time paid Chief. The Williams Rural Fire Protection District serves approximately 3000 residents. At this time there are 22 volunteers who provide the following services: firefighting, emergency medical services, vehicle rescue, and search and rescue. The district serves the area around Williams in southeast Josephine County.

Wolf Creek Rural Fire Protection District

The Wolf Creek Rural Fire Protection District (WCRFPD) is 32 square miles, including 10 miles of Interstate freeway I-5 and serves approximately 700 residents. Wolf Creek is directly north of the community of Sunny Valley, which currently receives fire protection from Rural/Metro. WCRFPD is a small department with 6 volunteers, including the fire chief and two Emergency Medical Technicians.[26] The current Insurance Services Office Fire Hazard Rating classification is 8/9.

[26] Firehouse.com (March 2004) http://departments.firehouse.com/content/department/news.jsp

History of Wildfire in Josephine County

Wildfire in Josephine County has a long history. As the cost of fire suppression to agencies, communities, and individuals continues to increase annually throughout the nation[27], the need to address this threat in Josephine County is imminent. Following are two illustrations of recent fires in Josephine County and their impacts on citizens, government and natural resources.

2002 Biscuit Fire

The Biscuit Fire, located in southern Oregon and northern California, began on July 13, 2002 and burned 499,965 acres. Estimated to be one of Oregon's largest in recorded history, the Biscuit Fire was caused by lightning and encompassed most of the Kalmiopsis Wilderness. The boundary of the Biscuit Fire stretches from 10 miles east of the coastal community of Brookings, Oregon; south into northern California; east to the Illinois Valley; and north to within a few miles of the Rogue River.

The fire burned in a mosaic pattern; approximately 20% of the area burned lightly, with less than 25% of the vegetation killed. Another 50% of the area burned very hot, with more than 75% of the vegetation killed. Many acres of critical wildlife habitat burned, and the late seral and old growth stands that remain hold high conservation value.[28]

The Biscuit Fire lasted 120 days from July to November 2002. Of the 499,965 acres burned in Oregon and California, approximately 95% of acres burned occurred in Oregon. Structures lost in the fire include 4 homes, 9 outbuildings, 1 lookout and numerous recreation structures. Twenty-three Regional and National Fire Management Teams and many thousands of firefighters and support personnel were assigned to the fire. At its peak, over 7,000 firefighters and support personnel were assigned and the total cost of the fire exceeded $153 million.[29]

2003 Powell Creek Fire

On July 7, 2003 a fire broke out on the Upper Powell Creek Road in Williams, Oregon. The fire grew quickly from 20 acres to over 200 acres within the first hour of the fire. Vertical smoke columns could be seen from Grants Pass, and blew horizontally once the 30 mph afternoon winds began fanning the fire. Cost estimations for fighting the fire exceeded $800,000. Strong community collaboration resulted in the use of a community phone tree during the evacuation and PACIFICA provided facilities for town meetings, 98% of the water resources necessary for fighting the fire, as well as the airbase for helicopter operations. Two hundred sixty-two acres of wildland urban interface burned in the fire (140 acres of BLM and 122 acres of private property). No lives, homes or livestock were lost, largely due to the valiant efforts of all those involved in the firefighting effort. The fire is still under investigation and began in the area of a logging operation.[30]

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[27] National Interagency Fire Center, Suppression Costs to Federal Agencies, http://www.nifc.gov/stats/wildlandfirestats.html#Costs (August 2004).
[28] Biscuit Fire Recovery, http://www.biscuitfire.com/
[29] Biscuit Fire Recovery, Facts http://www.biscuitfire.com/facts.htm
[30] Williams Rural Fire Protection District, http://www.wrfpd.org/

Oregon's Fire History

Josephine County's wildfire history mirrors the risk facing communities throughout Oregon. Table 4.1 illustrates the number of fires and acres burned from both human and lightning caused fires over the past century.

Table 4.1. Fires Cause on the Siskiyou National Forest, 1910 – 2002

Decade	Acres Burned	# of Fires	Human Caused Fires	Lightning-Caused Fires
1910 - 1919	410,369	849	45%	55%
1920 - 1929	60,813	573	76%	24%
1930 - 1939	153,812	737	85%	15%
1940 - 1949	4,157	270	36%	64%
1950 - 1959	5,805	279	41%	59%
1960 - 1969	4,601	266	53%	47%
1970 - 1979	2,984	518	72%	28%
1980 - 1989	113,621	318	43%	57%
1990 - 1999	12,886	254	44%	56%
2000 - 2002	500,351	95	29%	71%
Totals	1,269,399	4159	59% (average)	41% (average)

Source: Biscuit EIS, USFS 2002.

In Southern Oregon, large costly fires have become regular events, disrupted communities, cost millions of dollars in suppression and recovery costs, and increased the risk to private property owners. As development increases within the wildland-urban interface in Josephine County, the importance of this issue grows. Table 4.2 illustrates recent costs of fire suppression and recovery.

Table 4.2. Southern Oregon Fires – Suppression and Recovery Costs

Year	Fire	Total Acres	Suppression Costs	Recovery Costs
2003	Upper Powell Creek Fire	262	$800,000	No estimate
2002	Biscuit Fire	499,965	$150,000,000	$16,421,000*
2001	Quartz Fire	6,160	$10,500,000	$1,100,000

Source: Biscuit EIS, USFS 2002. Note: *This is an estimated cost of the USFS's preferred alternative that does not take into account timber salvaged to defray costs.

Fire Regimes

The following information on fire regime and condition class is from the Southwestern Oregon Fire Management Plan.

Natural disturbances are an intrinsic part of ecosystem development (Cooper 1913, Raup 1957, Oliver 1981, Pickett and White 1985) and fire has been an important natural process in the maintenance of historic ecosystem health and diversity in the forests of the western United States. In southwest Oregon, ecosystems developed in concert with, and are subject to, a variety of natural, introduced, and altered fire regimes. Most forests in southwestern Oregon were part of a low- to moderate-severity fire regime. There are many forest types in this area where fire played an important ecological role (Agee and Huff, 2000). Naturally occurring disturbances in southwest

Oregon include fire, insects, pathogens, wind throw, weather, avalanches, and earthquakes. Introduced disturbances include livestock grazing, mining, timber harvesting, roads, insects, and pathogens.

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

Ecosystem and landscape composition and structure result from, and in turn, influence fire regimes at different spatial and temporal scales. Disturbances and successional trajectories interact and create patterns of vegetation across landscapes (Bormann and Likens 1979, Pickett and White 1985, Lehmkuhl and others 1994). Landscape vegetation patterns can amplify (Turner and Bratton 1987, Franklin and Forman 1987) or impede (Knight 1987, Rykiel and others 1988) the spread of disturbances across landscapes.

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

The five fire regimes developed by Hardy, et al were modified and further stratified by a group of fire managers and ecologists on October 10, 2000 to reflect Pacific Northwest (Oregon & Washington) conditions. For southwestern Oregon, spatial data layers were developed to display these fire regimes using the Draft Plant Series data that was developed in 1995 for the Southwest Oregon LSR Assessment.

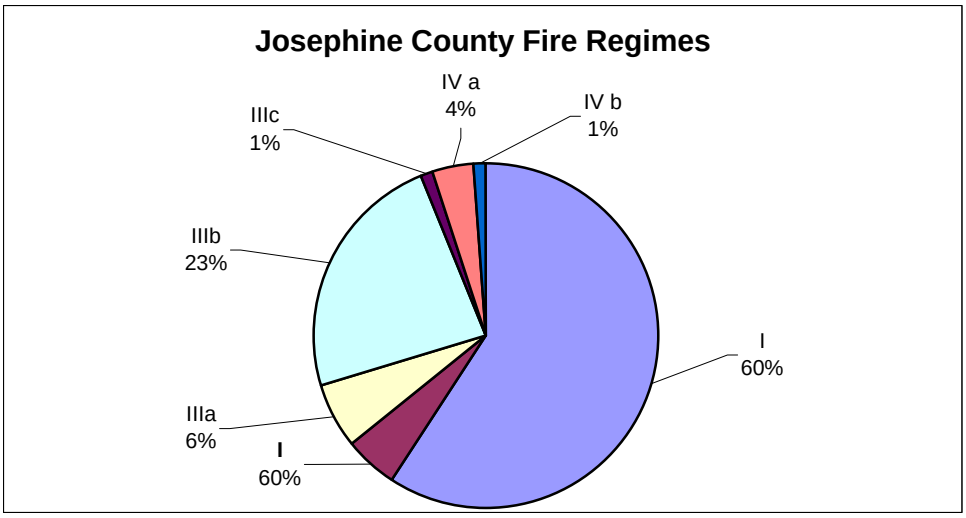
Note that there may be variation among the species listed under each Fire Regime:

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

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 support today, compared to 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.

The following chart illustrates the percentage of total land in Josephine County within each fire regime.



The table below illustrates the number of acres in each fire regime (by land ownership) in Josephine County.

	Fire Regime Classification						
Ownership	**I**	**II**	**IIIa**	**IIIb**	**IIIc**	**IVa**	**IVb**
BLM	117,897.0	7,708.9	13,490.5	45,029.0	20.2	854.1	1,305.2
City	555.9	86.8					
County	16,881.3	1,782.4	834.2	1,463.1	2.4	33.2	7.1
Federal	314.6	11.4	0.2	44.9			
Forest Service	83,327.3	25.8	19,734.7	74,125.9	7,452.5	23,926.3	2,234.6
School District	132.1	171.5					
State	4,288.1	197.7	140.4	418.7		2.9	
Private	98,382.4	17,884.3	1,445.5	6,893.4	2.8	88.1	60.3
Grand Total	321,778.6	27,868.9	35,645.6	127,975.1	7,477.8	24,904.6	3,607.3

More locally-specific information on fire regime and condition class can be found in the Southwest Oregon Fire Management Plan, available by contacting the BLM, Medford District and Rogue-River Siskiyou National Forest.

Condition Class

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

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

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

Lightning-caused Fire

The climate and geologic conditions of Josephine County create an environment conducive to wildfire. The county receives about 62 inches of rain annually. Statewide data on average annual rainfall for Josephine County illustrates a range of annual precipitation from 25 inches east of Grants Pass to 170 inches on the crest of the Coast Mountains on the west edge of the county.[31] Winters are wet and cool; summers are characterized by long drought periods occasionally punctuated by electrical storms. Historically, summer lightning occurring from May to October resulted in wildfires. Lightning strikes are frequent across most of the region during the summer and generally ignite numerous fires.[32]

A 1983 report by Agee & Flewelling indicates that the Siskiyou Mountains exhibit the highest patterns of lightning occurrence in the Pacific Northwest, and as much as twice the number of lightning ignitions that occur in either the Cascades or Olympic Mountains.[33] The higher number of

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31 Precipitation amount is from USGS 1:500,000 scale maps - from Oregon GIS website

32 LaLande, Jeffrey M. Prehistory and History of the Rogue River National Forest: A Cultural Resource Overview. Rogue River National Forest. Medford, OR. 1980.

33 Frost, Evan and Sweeney, Rob, Fire Regimes, Fire History and Forest Conditions in the Klamath-Siskiyou Region: An Overview and Synthesis of Knowledge, (December 2000) Prepared for the World Wildlife Fund, Klamath-Siskiyou Ecoregion Program, Ashland, OR, http://www.worldwildlife.org/forests/attachments/fire_report.pdf

lightning ignitions is due to both increased lightning frequency and decreasing summer precipitation patterns characteristic of the Klamath-Siskiyou region.[34]

Human Interaction with Wildfire

Humans have played an important role in the history of wildfire. The practice of burning the landscape by Native Americans to enhance production of subsistence resources is well documented for tribes in North America. While use of fire varied greatly, tribes used wildfire as a tool for hunting, crop management, improving growth and yields, insect collection, pest management, warfare, signaling, clearing areas for travel, felling trees, clearing riparian areas, and for fireproofing.[35]

Tribes residing within the boundaries of what is now known as Josephine County included the Takilma, Modoc, and Shasta, among others. Each of these groups occupied territory along their respective river drainages but also exploited areas that extended into the uplands. As in many other Native American cultures, "fires were usually set by "Specialists" who owned formulas that were prescriptions for successful burning. Temperature, wind direction, and impacts to specific plants were all carefully considered before fires were set. Fire was viewed as a valuable tool, but it had the potential to damage precious resources that were essential for survival.[36]"

During the settlement period in southwestern Oregon, approximately 1850 to 1910, pioneers also used fire as a tool. Settlers used fire for clearing away brush and forest litter to enhance the visibility of the ground for gold prospecting, or for easier travel or hunting, which stimulated new-growth brush for big game and for livestock, created dense smoke to attract deer escaping the affliction of flies or gnats, and maintained grassy areas for cattle and sheep grazing.[37]

History of Fire Management in the Forest

President Theodore Roosevelt established the Siskiyou Forest Reserve in 1905 in Josephine County, which was later designated as the Siskiyou National Forest in 1907. Along with the creation of the national forest, the federal government instituted an aggressive policy of fire prevention and suppression. Following the Great Fires of 1910, which burned approximately 3 million acres and killed 72 people nationally, forest fire suppression became a priority for federal, state, and local land management agencies. The Weeks Law, passed in 1911 by the U.S. Congress, provided funding for cooperative fire suppression efforts between state and federal agencies. The Josephine County Fire Patrol Association was organized on July 3, 1913. The Association consisted of 285 individuals and

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34Agee, J.K., & Flewelling, R.. "A fire cycle model based on climate for the Olympic Mountains, Washington." *Fire and Forest Meteorology Conference Proceedings*, 7, 32-37. 1983.

35 Williams, Gerald W. Ph.D. References on the American Indian Use of Fire in Ecosystems. USDA Forest Service. Washington, D.C. May 18, 2001.

36 Pullen, Reg. Overview of the Environment of Native Inhabitants of Southwestern Oregon, Late Prehistoric Era. USDA Forest Service, Rogue River & Siskiyou National Forests. 1996.

37 Draft Environmental Impact Statement: The Biscuit Fire Recovery Project : the Rogue River and Siskiyou National Forests, Josephine and Curry counties, OR. USDA Forest Service, Pacific Northwest Region. 2003.

corporations representing 59,446 acres. In 1935, the Association was dissolved and joined with Jackson County to create the Southwest Oregon District of the Oregon Department of Forestry.[38]

By the 1930's the USFS had instituted the 10 a.m. rule, which demanded that fires be put out by 10 a.m. the morning after they started and kept to a minimum of 10 acres or less. A smoke jumper base was established in the 1940's. By the 1950's fire suppression methods for federal, state, and local agencies had improved to the point that very few large wildfires occurred. Suppression efforts throughout the West have resulted in an extreme buildup of fuel in the forest and the occurrence of larger, more devastating wildfires. As stated in the Biscuit Fire Recovery Environmental Impact Statement:

> *"Trees now grow closer together with intertwined canopies and the density of shrubs is much greater. This increase in vegetation, or fuel, makes it extremely difficult, and in some situations impossible, to control forest fires once they start. The intermingling of tree canopies provides a highway for fire to spread through the forest. Additionally, the consistent increase in population has led to more human started, although this number has decreased over time due in part to effective public education efforts."*[39]

38 Oregon Department of Forestry. "ODF Southwest Oregon District History." http://159.121.125.11/swo/swohist.htm. May 19,1999.

39 Draft Environmental Impact Statement: The Biscuit Fire Recovery Project : the Rogue River and Siskiyou National Forests, Josephine and Curry counties, OR. USDA, Forest Service, Pacific Northwest Region. 2003.

CHAPTER 5: WILDFIRE RISK ASSESSMENT

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 and the National Association of State Foresters all provide guidance on conducting a hazard and risk assessment for wildfire. *(See Resource A: Acronyms and Definitions for more information on the definitions and policies referred to in this section.)*

The JCIFP Risk Assessment Committee approached the wildfire risk assessment with a comprehensive review of risk assessment methods and examples from communities throughout the United States. The committee also conducted an inventory of existing data for risk, hazard, values, structural vulnerability and protection capability. Jim Wolf, Oregon Department of Forestry Fire Policy Analyst, and an interagency team represented by Josephine County, the Forest Service, Bureau of Land Management and the Rogue Valley Fire Chief's Association, led the assessment. These efforts resulted in a standard methodology for wildfire risk assessment to be adopted by the Oregon Department of Forestry for use in a statewide assessment of communities at risk.

JCIFP Risk Assessment Committee Members

Jim Wolf, Oregon Department of Forestry - Chair
Bruce Bartow, Josephine County
Don Belville, Rogue River - Siskiyou National Forest
Neil Benson, Josephine County
Dick Boothe, Rogue River – Siskiyou National Forest
Gary Gnauck, Applegate Partnership
Lang Johnson, Rural/Metro and RVFCA
Kathy Lynn, Program for Watershed and Community Health
Charley Martin, Bureau of Land Management, Medford District
Annette Parsons, Bureau of Land Management, Medford District
Charlie Phenix, Rogue River - Siskiyou National Forest
Ed Reilly, Bureau of Land Management
Cody Zook, Josephine County GIS

Risk Assessment Objectives

- Identify Communities-at-Risk and the Wildland-Urban Interface
- Develop and conduct a wildfire risk assessment of all land in Josephine County
- Identify and prioritize hazardous fuels treatment projects for all land in Josephine County

What is a Wildfire Risk Assessment?

- The Josephine County Integrated Fire 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:
- ***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.)

What is GIS and how is it used?

Geographic Information Systems, or GIS, is a computer mapping program that can visually illustrate information and the analysis of varying factors. The Risk Assessment committee uses GIS to illustrate the factors described above: fire hazard, risk, location of values, protection capabilities and the location of vulnerable structures. Presented as individual layers and also in tandem with a combination of physical factors such as slope, aspect and vegetation, GIS is a tool that help us assess the relative level of risk based on what the data provides.

Communities at Risk

In order to determine Communities at Risk, the district 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).

There are many ways to define community, particularly in Josephine County. There are cities, a towns, neighborhoods and groups of people drawn together by common threads – whether it be their post office, grocery store, or community center. This fire plan draws people together in another way – the ability to provide fire protection services and protect people, property and natural resources in the event of a structural or wildland fire. For the intent of this fire plan, the committee defines communities at risk to fire by looking at the common service boundaries for fire protection.

Specifically, our methods for identifying communities at risk are to assess:

1. Residential density: based on 1 structure per 40 acres with a minimum of 4 residences and ¼ mile buffer; and
2. Fire District or Municipal service boundaries. (In Josephine County, there are six fire service agencies that provide structural fire protection.)
3. In areas where there is no fire district or municipality (such as the unprotected areas serviced by Rural/Metro Fire Department), communities will be listed as "Josephine County Unprotected." In order to attribute place names to isolated communities not connected by the 1 per 40-acre density, the methodology uses the LCDC definition for rural communities.[40]

While a number of Josephine County's communities are listed as "unprotected," it is important to note that these communities are NOT without fire service. Rural/Metro Fire Department provides

[40] Land Conservation and Development Commission Definition of rural communities: an unincorporated community which consists primarily of permanent residential dwellings but also has at least two other land uses that provide commercial, industrial, or public uses (including but not limited to schools, churches, grange halls, post offices) to the community, the surrounding rural area, or to persons traveling through the area.

contract structural fire protection services throughout the Josephine County Unprotected area. What is important to note, is that these communities are not within a taxing fire district.

Communities at risk in Josephine County

- Applegate Valley (Provolt and Murphy)
- Grants Pass
- Grants Pass Unprotected
- Josephine County Unprotected
- Illinois Valley
- Williams
- Wolf Creek
- Oregon Caves

Refer to the end of this section for the Communities at Risk Map

Wildland Urban Interface

The Southwest Oregon Fire Management Plan identifies the wildland urban interface on the basis of proximity between private and federal lands, topography, and 6th field watersheds. The Josephine County Integrated Fire Plan adopts this methodology and the Federal FMP definition of the WUI for this plan. *For more information on how the Federal Fire Management Plan defines the WUI boundary, refer to Resource A: Acronyms, Definitions, and Resources.*

Refer to the end of this section for the Josephine County WUI map

Acres in the Wildland Urban Interface by Land Ownership

Ownership	Acres	Percent
Private	268,196	50.4%
BLM	156,333	29.4%
Forest Service	57,127	10.7%
County	26,167	4.9%
Federal (other)	16,203	3.0%
State	6,671	1.3%
School District	1,120	0.2%
City	739	0.1%
Total:	**532,555**	**100.0%**

Risk Assessment Methodology

This risk assessment is based on an extensive literature review of many different methods developed over the years to evaluate wildfire and other natural hazards. The assessment is intended as a tool to illustrate the relative level of risk to life, property and natural resources within any area in the county. As fuels reduction, emergency management and fire prevention projects are implemented through the JCIFP, the maps and priorities developed through the assessment will change, but they will always point to areas identified as having the highest relative ranking for risk and hazard. The assessment considers five categories in determining the relative severity of fire risk illustrated in the table below. In consider how to prioritize treament projects, another consideration includes identifying where there are planned fuels reduction projects on federal, state or county land.

Assessment Categories	Elements	Score
Hazard	Fuels (developed from vegetation information), Slope, Aspect, Elevation, Weather	0-80
Risk	Ignition Density (derived from an ODF database with 35 years of data on fire ignition locations.)	5-40
Values	Residential Density (derived from tax assessment information and aerial photography.) Community values identified in public meetings	0-40
Protection Capability	Fire Response Time – Modeled in Spatial Analyst, Fire District Boundaries, and Community classes (Evaluates how the community as a whole responds to and prepares for wildfire – community education and outreach campaigns, community fire plan, etc.)	0-90
Structural Vulnerability	Roof type (Tax Assessor's information), Defensible space (ODF database), and Access (proximity to county roads that are not dead ends - County GIS)	0-40

Hazard

The Hazard layer is based on vegetation, topography, and land use. The vegetation information comes from the "IVMP" dataset supplied by the BLM. The topographic information (elevation, slope, aspect) is based on 10-meter USGS digital elevation models. The land use characteristics come from UGB boundaries and aerial photography interpretation. The combined elements of this layer have values ranging from 0 to 80.

Vegetation information describes the percent vegetation cover broken into coniferous and broadleaf categories. The initial vegetation information is broken into classes at 30 and 70 percent cover, with the least vegetation being the least hazardous and the most vegetation being the most hazardous. Areas mapped as other than vegetation, for example "snow" or "shadow", are included in the lowest hazard class. These represent an extremely small area. This results in a layer with point values from 0 to 20.

Vegetation: 0-20

Crown Fire potential is produced by first isolating areas with coniferous trees with trunk sizes over 5 inches in diameter at breast height (DBH). These areas are then split into three classes; conifer cover over 70 percent is the most hazardous, conifer cover over 30 percent has some hazard, and conifer cover less than 30 percent has no crown fire potential. This layer has a point range from 0 to 10.

Crown Fire: 0-10

Topographic characteristics are slope, aspect and elevation. Slopes are in three classes broken at 25 and 40 percent slope values (note: percent slope is quite different from degree slope and many GIS packages default to degree slope.). The slope layer has values ranging from 0 (least slope) to 3 (most slope). Aspect is broken into three classes also. These range from 0 (north) to 5 (south). This corresponds roughly to the amount of insolation or sun exposure expected on the site. Finally, elevation values are broken at 3000 and 5000 ft. Lower elevations are considered more hazardous. This layer ranges in value from 0 to 2.

Topographic Characteristics: 0 –10

Weather is the single most important factor in the hazard layer, accounting for 40 points. This factor does not change across the county. However, some areas are simply unlikely to burn regardless of the weather. Irrigated pastures, for example, are not going to burn. Two "Mask" layers were created to isolate areas where weather is not a significant factor. The agriculture mask was produced by using the overlap from the IVMP "agriculture" class and a layer digitized from aerial photography. The urban mask was created using the overlap of the IVMP "urban" class and the urban growth boundaries for the incorporated cities in Josephine County.

Weather: 0-40

Risk

Risk is modeled from the density of historic fire ignitions. The data is derived from an ODF database with 35 years of data on fire ignition locations. However, the methodology only uses the last 20 years in the database. This expands the areas of higher risk compared to using the 35-year database because it is focused on the more recent past. This better reflects present settlement and use patterns.

The density layer is multiplied by 1000 (acres converted to 1000 acres) and divided by 2 (20 years of fires to 10 yrs) to standardize it to units of fires per 1000 acres per 10 years. The break points are 0.5 and 10 ignitions/1000 ac./10 yr. This layer has values ranging from 5 to 40.

Values

The values being considered for this assessment are residences. The Assessment and Taxation database was used in conjunction with tax lots and building footprints to create an address point layer. This layer has a point for each address located on the appropriate building footprint (where available). The density of residences is then used to create the values layer. The classes correspond to 2 acre and 10-acre average lot sizes (as used in S.B 360). This layer has values ranging from 0 to 40.

Additional values are considered after the risk assessment has been completed and community input has been gathered on historic, environmental, cultural and other values. Community input can be factored in as an increase in score or included as an overlay to the initial assessment and used in making decisions about priorities for treatment. Other values may include:

- Businesses/Commercial
- Ecologically Sensitive Areas/ Ecosystem Health
- Wildlife/Habitat/Plants/Water and Watersheds
- Air Quality
- Natural Resource Management Areas: Range, Timber, Agriculture

- Tourism, recreation and cultural resources
- Access, transportation and infrastructure (Roads, Driveways, Bridges, Gates, Culverts)
- Water Availability, Supply Hydrants: Map of Locations, Flows, How Often Checked
- Critical facilities and infrastructure
- Cultural resources
- Environmental resources

Structural Vulnerability

The Structural Vulnerability layer is based on residences. There are three parts to structural vulnerability; access, roof type, and defensible space. Each residence is evaluated on these three factors and given a score. This layer is then created from the residence locations. Areas under a critical density threshold are excluded for the creation of the layer. Otherwise isolated homes exert too great of an influence on the assessment. This layer has values ranging from 0 to 90.

Roof type is determined by the County's Assessment and Taxation database. All shake shingle roofs are given a score of 30; others get a score of 0.

Roof: 0-30

Access is currently determined by proximity to a road that is not a dead end. Those residences located on dead-end roads or outside of a 300-foot buffer of other roads are given a score of 30; others receive a score of 0. Driveways are currently being processed for inclusion, and will increase the accuracy of this layer.

Access: 0-30

Defensible Space is tracked from an ODF database of homes that have received grants or evaluations from ODF. These homes are rated by ODF staff from an on-site visit. Those receiving a "green" rating from ODF get a score of 0; others receive 30 points.

Defensible Space: 0-30

Protection Capability

The Protection Capability layer uses many factors to model the protection capability of a given site. Structural and wildland firefighter response times, community education programs, and whether or not a site is in a fire protection district are all considered.

Structural response times were modeled using the cost/allocation features of Spatial Analyst in Arc GIS. A grid of the transportation network was created using variable cell values based on estimated speeds. For example, highway 199 was modeled for an average speed of 55 mph while minor roads were modeled for an average speed of 35 mph. 300 feet also buffered the transport network. This is the area a firefighter could lay-in hose off their truck. The buffer area was modeled for an average speed of 3 mph. Fire Stations were used as source points and the cost/allocation algorithms found the least cost path from each cell to the nearest (in terms of cost) fire station. This yielded the estimated structural response times.

The wildland response times were modeled from an ODF database of fire ignitions and the response time to each ignition. A layer was created from the response times, and then classed into response times under 20 minutes and over 20 minutes. Fire District boundaries are determined using historic assessment documents that created each taxing district and its subsequent annexations. The

Assessment and Taxation database stores this information for each tax lot. The Community education programs layer is currently assumed to be the same for all of Josephine County. The scoring for this layer is as follows:

- All areas receive 2 points for the community education component (0-4 possible)
- Areas outside of a fire district with wildland response over 20 minutes receive 36 points
- Areas outside of a fire district with wildland response under 20 minutes receive 15 points
- Areas inside a fire district with structural response over 10 minutes receive 8 points
- Areas inside a fire district with structural response under 10 minutes receive 0 points

This layer has values ranging from 0 to 40.

Refer to the end of this section for maps of:
- Josephine County Hazard Layer Map
- Josephine County Risk Layer Map
- Josephine County Values Layer Map
- Josephine County Structural Vulnerability Layer Map
- Josephine County Protection Capabilities Layer Map
- 5-Layer Josephine County Hazard and Risk Assessment Map
- 4-Layer Josephine County Hazard and Risk Assessment Map (w/SV points)
- Case study I - Thompson Creek 4-Layer Josephine County Hazard and Risk Assessment Map

Challenges

The risk assessment team faced many challenges in conducting the risk assessment. It can be tempting to rely on technology to provide answers, but it is important to recognize the limitations of the data and modeling, and to educate the users of these limits. This has been critical in gaining acceptance by the professionals dealing with fire.

Best Available Data

Best available data is a phrase that is commonly used in determining how an assessment should be done. If there are limited resources to conduct an assessment, then using *best available data* can be a way to use the resources effectively. Josephine County data included 30-meter resolution vegetation data derived from remote sensing sources. This data has no information about the under story, ground fuels, or stand structure. Extensive consultation with biologists and fire scientists did yield a way to use the data to characterize the hazard conditions in the landscape. It is not as precise or accurate as would be ideal. However, by augmenting the vegetation data with slopes, aspects, and elevation data the assessment captures the broad outlines of the hazards in the county.

Relative Ranking

The second strategy is to develop a relative ranking system. The committee modeled risk from the density of historic fire ignitions. On a statewide assessment, all of the populated areas of Josephine County would be in the highest risk class. However, for this information to be useful in Josephine County, the assessment illustrates the relative levels of risk throughout the county. We adjusted the class values to allow variation from the highest to lowest classes across the county. The important factor to remember is that the lowest class does not mean that these areas are at “low risk” to wildfire.

Landscape Level Assessment vs. Site-Specific Assessment

The assessment focused on fire as a landscape level event, while taking into account site-specific factors. Of five categories, three categories (Hazard, Risk, and Values) are landscape level layers, while two of the categories (Protection Capability and Structural Vulnerability), take into account site-specific conditions. The site-specific layers are generalized for small scale mapping and for identifying potential sites for prioritizing work. However, the large scale mapping of individual neighborhoods can incorporate the site-specific information. This allows experts to develop customized plans for reducing the hazard and risk of a neighborhood or an individual tax lot.

Identifying and Prioritizing Areas at Risk

The final Wildfire Risk Assessment yields values that are the end result of analyzing over 20 layers of GIS information. The Assessment condenses this information into one numeric value to fulfill the goal of identifying high-risk areas. Our initial approach was to assign values to individual tax lots from the Assessment and to focus on those with the highest values as priorities for mitigation projects. A different approach was needed to characterize small, precisely defined areas (tax lots) with landscape level data.

Using the extensive experience and knowledge of the fire professionals to augment the values from the assessment is the best method for recognizing and analyzing the complex patterns of assessment values. The committee developed maps to show the hazard and risk assessment values along with topography, ownership, transportation routes, planned and completed fuels reduction projects, and residence locations. This information allows experienced professionals to examine many variables that could not be effectively included in the Assessment. They can see high hazard and risk areas identified by the assessment and their relationship to the overall landscape management in the area. This also allows federal and state land managers the opportunity to develop landscape level strategies to reduce fire risk levels as they plan fuel hazard reduction projects.

Strategic Planning Units

Strategic Planning Units are developed by aggregating the highest risk values using 6th and 7th field watersheds to identify landscape areas at risk to wildfire. Note: The data in tables below resulted from a query of the highest risk strategic planning units in the County, across each of the fire districts. The tables below illustrate the highest rank strategic planning units in each fire district (another words, the highest risk units that show up as ‘red’ on the corresponding map of strategic planning units at the end of this section.)

NAME	ACRES	Fire District	Houses	Land Ownership				
				BLM	PRIVATE	STATE	COUNTY	FS
Slagle Creek	4547.0	Applegate RFPD	44	423	536	0	0	0
Honeysuckle Creek	7517.5	Applegate RFPD	96	5801	1621	0	60	0
Pipe Fork	2754.6	Applegate RFPD	9	1322	666	0	407	342
Thompson Creek Forest Camp	1956.7	Applegate RFPD	1	26	110	0	0	1160
Ninemille Creek	2149.7	Applegate RFPD	34	722	745	0	138	0
Mountain Lion Mine	1701.5	Applegate RFPD	8	1086	589	0	19	0
Cave Junction	1058.2	I. V. RFPD	690	20	758	47	3	0
Selma	500.4	I. V. RFPD	75	0	475	0	0	0
East Fork Illinois River	1466.9	I. V. RFPD	142	252	1038	131	2	0
Second Bridge	211.4	I. V. RFPD	33	6	184	0	5	0
Draper Creek	618.3	I. V. RFPD	38	7	595	0	2	0
Deer Creek Too	575.9	I. V. RFPD	43	161	410	0	0	0
Page Creek	40.8	I. V. RFPD	2	0	36	0	4	0
Anderson Creek	798.5	I. V. RFPD	31	56	706	0	1	26
Lakeshore North	445.3	I. V. RFPD	28	174	149	0	104	0
Lower Thompson Crk	247.7	I. V. RFPD	12	30	204	0	5	0
Arrowhead	713.9	I. V. RFPD	40	0	694	0	1	2
Mill Creek	1218.1	I. V. RFPD	99	270	877	0	0	0
Illinois Divide	1466.4	I. V. RFPD	87	241	1194	0	1	0
Rough and Ready Mill	1873.8	I. V. RFPD	116	438	1202	26	173	0
Gilligan Butte	913.5	I. V. RFPD	6	455	330	0	12	0
Little Grayback Creek	547.4	I. V. RFPD	5	294	65	0	0	187
Elk Creek	336.9	I. V. RFPD	15	0	304	0	28	0
Thompson Creek W.	1177.4	I. V. RFPD	14	952	214	0	6	0
Sailor Jack Creek	1312.0	I. V. RFPD	70	561	646	0	2	89
Hope Spring	121.5	I. V. RFPD	13	0	118	0	0	0
Cedar Guard Station	1178.8	I. V. RFPD	9	520	213	0	86	343
Caves HWY	58.2	I. V. RFPD	2	20	38	0	0	0
Holton Creek	2002.3	I. V. RFPD	94	466	1346	0	168	0
Upper Crooks Creek	914.8	I. V. RFPD	5	566	346	0	0	0
Deer Creek	1663.7	I. V. RFPD	105	238	1361	0	0	0
Mooney Mountain	1876.8	I. V. RFPD	2	1020	598	0	256	0
Thompson Creek East	2518.7	I. V. RFPD	42	1243	944	292	12	0
Wood Creek	30.3	I. V. RFPD	4	0	28	0	0	0
Elder Creek	276.0	I. V. RFPD	10	153	120	0	0	0
Sucker Creek	1572.6	I. V. RFPD	114	107	1421	0	14	0
Squaw Mountain	861.6	I. V. RFPD	4	1	68	0	0	660
Draper Trib	369.5	I. V. RFPD	2	13	354	0	1	0
Tarter Gulch	870.9	I. V. RFPD	1	427	323	0	121	0
Blue Creek	605.3	I. V. RFPD	14	54	536	7	0	0
East Fork Chapman	2543.9	I. V. RFPD	46	1053	1475	0	0	0
Takilma	1714.8	I. V. RFPD	71	287	1118	0	2	276
Skag Creek	521.5	I. V. RFPD	17	18	322	0	0	176

NAME	ACRES	Fire District	Houses	Land Ownership				
				BLM	PRIVATE	STATE	COUNTY	FS
Rattlesnake Creek	2391.2	I. V. RFPD	40	645	1704	16	1	0
Crooks Creek	2490.0	I. V. RFPD	62	929	1504	0	22	0
Grosh Creek	907.0	I. V. RFPD	1	498	409	0	0	0
Gilligan Creek	635.4	I. V. RFPD	16	14	545	0	72	0
Lower Elk creek	623.4	I. V. RFPD	3	104	333	0	186	0
George Creek	4689.3	I. V. RFPD	277	1667	2779	112	2	0
Transmission Line	1170.8	I. V. RFPD	14	673	492	0	6	0
Upper Althouse Creek	584.5	I. V. RFPD	2	288	293	0	0	0
Poor Sugar Pass	104.4	ODF	1	49	53	0	0	0
Little Grayback Road	1290.0	I. V. RFPD	11	244	914	0	119	0
Harmon Creek	1000.5	I. V. RFPD	2	496	503	0	0	0
Dwight Creek	760.1	ODF	5	47	216	0	0	0
Upper Grave Creek	600.9	ODF	3	388	213	0	0	0
Sugarloaf	585.4	ODF	3	258	312	0	16	0
Panther Creek	1290.5	ODF	8	829	367	0	82	0
North Dry Creek	576.8	ODF	0	309	203	0	64	0
Little Grayback Peak	2007.9	ODF	0	598	31	0	0	1354
Larkspur Spring	1251.7	ODF	0	282	0	0	0	970
California Bar	1578.0	ODF	2	892	649	0	0	37
North Fork Galice Crk	367.5	ODF	1	358	9	0	0	1
Ferris Gulch	1752.7	ODF	0	5	98	0	0	0
Poorman Creek	126.5	ODF	0	123	2	0	0	0
Upper Sucker Creek	519.3	ODF	1	0	314	0	33	159
McKnobe Creek	1031.4	ODF	3	472	544	0	0	0
Cow Creek	13871.0	ODF	0	152	0	0	0	0
Bummer Gulch	623.3	ODF	0	474	116	0	33	0
OC333	4294.8	ODF	0	0	2	0	0	0
Lone Mountain End	13.2	ODF	0	13	0	0	1	0
OC25	14857.8	ODF	0	389	0	0	0	0
Right Fork Crooks Creek	1257.4	ODF	0	1111	2	0	144	0
Booze Creek	15329.3	ODF	0	15221	0	0	0	25
Snailback Creek	1561.2	ODF	1	0	22	0	0	1539
Eastman Gulch	775.9	ODF	0	570	184	0	21	0
Secesh Gulch	1631.5	ODF	0	1289	130	0	162	0
Oregon Caves National Monument	1101.0	ODF	25	0	0	0	0	755
Clark Creek	19912.6	ODF	1	2964	1004	0	78	0
Big Windy Creek	11358.4	ODF	3	11055	196	0	0	0
Lower Lake Creek	1847.3	ODF	1	1	57	0	0	1730
Angora Creek	1195.6	ODF	0	743	220	0	224	0
Butte Creek	1867.6	ODF	0	1063	502	0	303	0
OC468	10322.0	ODF	0	0	0	0	0	0
Bunker Creek	16369.8	ODF	2	16245	0	0	0	99
Oak Flat Creek	2032.2	ODF	9	0	312	0	0	1720
South Fork Deer Creek	1265.6	ODF	5	723	418	0	114	11

NAME	ACRES	Fire District	Houses	Land Ownership				
				BLM	PRIVATE	STATE	COUNTY	FS
North Fork Deer Creek	2808.7	ODF	7	2599	169	0	41	0
Berglund Gulch	5673.1	ODF	5	2504	2000	0	853	0
Tri-Tip	6.3	Rural Metro	0	0	5	0	0	0
Quartz Creek	82.5	Rural Metro	18	18	55	0	0	0
Winterbottom Riffle	140.6	Rural Metro	39	0	93	0	3	0
Merlin	775.5	Rural Metro	304	0	677	0	1	0
Carl Creek	2956.1	Rural Metro	1177	308	2446	0	25	0
Gulches Crossing	2.5	Rural Metro	2	0	3	0	0	0
Simmons	2558.9	Rural Metro	644	29	2101	0	231	0
Bannister Creek	2778.7	Rural Metro	369	105	2440	0	4	0
Felkner	67.1	Rural Metro	10	0	60	0	2	0
Pickett Mountain	2714.4	Rural Metro	472	381	2083	0	132	0
Bummer Creek	1163.7	Rural Metro	110	99	1044	0	0	0
Stringer Gap	3289.2	Rural Metro	590	151	2867	3	49	0
Ewe Creek	3593.1	Rural Metro	364	428	3066	0	1	0
Rich Gulch	1470.6	Rural Metro	407	286	832	2	178	0
Matson Park	181.8	Rural Metro	11	87	63	5	5	0
Hayes Hill Turnout	95.6	Rural Metro	10	0	93	0	0	0
Fort Vannoy School	3620.7	Rural Metro	330	825	2664	0	1	0
Fruitdale Creek	3780.5	Rural Metro	862	773	2705	0	176	0
Louse Creek	7844.5	Rural Metro	1164	1111	5522	49	341	0
King Gulch	4412.7	Rural Metro	543	288	2923	266	565	0
Sand Creek	2135.5	Rural Metro	576	0	1961	0	1	0
Allen Creek	4312.4	Rural Metro	3973	26	3635	0	113	0
China Creek	554.7	Rural Metro	26	171	371	0	0	0
Wilderville	2899.3	Rural Metro	154	446	2327	8	2	0
Baum Slough	59.9	Rural Metro	4	7	27	11	0	0
Michigan Mine	590.9	Rural Metro	40	214	333	9	23	0
Murphy	802.1	Rural Metro	111	74	560	0	0	0
Limpy Mouth	82.3	Rural Metro	6	6	75	0	0	0
East Fork Gilbert Crk	3273.3	Rural Metro	2483	644	2188	0	104	0
Hugo	5020.9	Rural Metro	273	758	3750	0	267	0
Green Tree Loop	734.9	Rural Metro	46	153	528	0	3	0
Savage Rapids Dam	854.2	Rural Metro	0	22	5	0	0	0
Upper Jumpoff Joe	1486.3	Rural Metro	153	342	1060	0	1	0
Skunk Creek	6167.5	Rural Metro	661	1245	4134	0	501	0
Ash Gulch	1743.1	Rural Metro	1	1300	214	0	229	0
Savage Rapids	2008.8	Rural Metro	185	758	868	22	0	0
Bull Creek	1706.7	Rural Metro	127	174	1519	0	0	0
Centennial Gulch	1260.6	Rural Metro	0	975	286	0	0	0
Wonder	151.7	Rural Metro	15	45	99	2	0	0
Jones Creek	746.9	Rural Metro	447	79	545	0	23	0
West Gold Brook	4913.2	Rural Metro	314	2374	2393	0	73	0
Wilderville Cemetery	800.8	Rural Metro	44	67	680	34	9	0
Rogue Riffles	484.3	Rural Metro	27	254	187	0	1	0

NAME	ACRES	Fire District	Houses	Land Ownership				
				BLM	PRIVATE	STATE	COUNTY	FS
Rocky Gulch	2418.9	Rural Metro	4	2164	254	0	0	0
Jumpoff Joe Creek	4200.3	Rural Metro	198	836	3258	0	25	0
Applegate River	1472.1	Rural Metro	224	53	1280	41	1	0
Applegate Gulch	1837.9	Rural Metro	1	1176	275	16	0	368
Shan Creek	1508.0	Rural Metro	35	125	414	0	1	963
Bailey Creek	1300.7	Rural Metro	2	1195	104	0	0	0
Pickett Creek	3174.6	Rural Metro	178	1073	1860	2	25	0
Upper Waters Creek	1784.1	Rural Metro	0	3	1	0	0	1781
Lozier Creek	4829.6	Rural Metro	23	1896	2103	45	787	0
Rich Creek	1618.2	Rural Metro	123	782	705	0	28	1
Galice	782.0	Rural Metro	30	468	178	95	0	0
Rat Creek	192.3	Rural Metro	7	11	116	1	0	0
Schoolhouse Creek	4401.9	Rural Metro	326	1425	2382	4	346	0
Schoolhouse Gulch	2028.3	Rural Metro	89	559	1274	3	153	0
Love Station	1499.7	Rural Metro	6	57	164	0	0	1276
Lathrop Creek	93.4	Rural Metro	13	0	88	0	0	0
Grants Pass	4000.3	Rural Metro	5256	328	2761	22	12	0
Old Baldy	21766.5	Rural Metro	0	596	441	0	5	0
Grays Creek	2457.9	Rural Metro	80	902	1538	0	0	0
Elk Mountain	27456.9	Rural Metro	0	933	921	0	59	0
Fish Hatchery	1601.8	Rural Metro	97	350	862	0	195	0
Dutcher Creek	657.3	Rural Metro	40	7	630	0	0	1
Fall Creek	913.5	Rural Metro	0	492	112	0	309	0
Leland	378.4	Rural Metro	12	82	274	0	0	0
Corliss Creek	859.3	Rural Metro	44	264	504	0	82	0
Dimmick	2789.4	Rural Metro	234	428	2053	1	199	0
Brimston Gulch	2199.5	Rural Metro	12	904	1041	0	233	0
Paint Creek	710.4	Rural Metro	0	405	240	0	65	0
Case Creek	9335.2	Rural Metro	96	5772	2528	0	963	0
South Middle School	598.8	Rural Metro	954	0	381	0	44	3
Stratton Creek	3728.3	Rural Metro	1	1858	1130	1	740	0
Little Slate Creek	1199.5	Rural Metro	5	0	620	8	0	571
Orofino Mine	2453.8	Rural Metro	9	1070	926	0	329	0
Rainie Falls	15098.9	Rural Metro	0	13938	919	161	0	0
Limpy Creek	1107.6	Rural Metro	22	0	665	79	0	348
Lucy Gulch	5408.0	Rural Metro	16	1302	1481	81	341	0
Eagle Mountain	1511.2	Rural Metro	22	695	785	0	24	0
McNair Creek	11376.2	Rural Metro	1	7345	3040	0	795	0
Butcherknife Creek	67.7	Rural Metro	2	0	65	0	0	0
Jackson Creek	2968.8	Rural Metro	9	1438	1166	0	363	0
Shanks Creek	443.3	Rural Metro	18	50	281	0	105	0
McCourtney Creek	3269.1	Rural Metro	5	1524	1410	0	335	0
Pickett Creek	3199.0	Rural Metro	1	1492	290	132	290	996

NAME	ACRES	Fire District	Houses	Land Ownership				
				BLM	PRIVATE	STATE	COUNTY	FS
Yew Wood Gulch	3312.4	Williams RFPD	154	1356	1907	0	13	0
No. Fork Munger Crk	5156.8	Williams RFPD	53	3342	1497	0	305	0
Bear Wallow Creek	8278.3	Williams RFPD	1	4939	2632	0	354	354
Williams	6816.4	Williams RFPD	296	1799	4886	2	12	0
Benson Gulch	263.9	Wolf Creek	11	162	98	0	0	0
Anaconda Mine	770.2	Wolf Creek	20	222	468	0	70	0
Panning Gulch	1817.9	Wolf Creek	2	1500	165	0	153	0
Douglas I-5	13888.6	Wolf Creek	0	314	34	182	4	0
Hughes Gulch	786.0	Wolf Creek	6	197	259	0	325	0
Wolf Alley	98.8	Wolf Creek	3	0	79	0	7	0
Ramsey Gulch	665.8	Wolf Creek	2	324	290	0	0	0
Coyote Creek	313.1	Wolf Creek	6	125	111	45	24	0
Wolf Creek	3337.9	Wolf Creek	91	677	1725	379	42	0

Identification and Prioritization of Fuels Reduction Projects

The Healthy Forests Restoration Act provision for Community Wildfire Protection Plans (CWPP) requires that communities identify and prioritize hazardous fuels treatments as part of the CWPP. Currently, the Josephine County Integrated Fire Plan risk assessment methodology provides a foundation for assessing hazards and risk. There are three layers of information that should go into the identification and prioritization of fuels treatment projects:

- JCIFP Risk Assessment
- Community input on values and priority project areas (attained from existing CWPPs, and local community meetings in Williams, Illinois Valley, and Wolf Creek)
- Fire district & federal land managers input

The risk assessment committee formed a technical sub-committee to identify Strategic Planning Units based on the Communities-at-Risk identified through this process and using 6th and 7th field watersheds. This process compares the units to the hazard and risk assessment and illustrates a preliminary list of fuels treatment projects based on the strategic planning units. The first phase of this task is to identify the preliminary list of fuels treatment projects. The second phase is to present this information to each of the Fire Districts to gain their input and perspectives on projects and potential priorities. This provides an opportunity to review and integrate input gathered from the public at community meetings. The last phase in this process is to present Countywide information on the priorities for fuels treatment to the JCIFP Executive Committee and to then incorporate the information into the County's Integrated Fire Plan.

As part of the Southwestern Oregon Fire Management Plan, the Forest Service and BLM will examine the process to identify priorities within the JCIFP and review any local community wildfire protection plans to mirror that process to identify priorities on adjacent federal lands. This assessment is meant to be dynamic and will reflect new information as it is identified or developed. The process to identify and prioritize hazardous fuels treatment projects is illustrated in below.

See page 64 for a list of prioritized fuels reduction projects on private land.

Other Fire Plan Priorities

As indicated in previous chapters, some communities within the JCIFP's jurisdiction have already written Community Wildfire Protection Plans, while others are ready to do so. The exercise of planning and prioritizing fuel reduction projects at the community level results in the incorporation of more local history and knowledge, better participation and a sense of responsibility, which in turn produces better projects and longer-term commitment toward continued maintenance of the area. While each Community Wildfire Protection Plan will address different issues, if a local CWPP does plan and prioritize fuel reduction projects utilizing the JCIFP risk assessment as well as its goals and objectives, these local priorities will take precedence over those within the broader JCIFP.

Strategic Planning for Hazardous Fuels Treatment Projects

Treatment strategies can occur at multiple scales.

- Defensible space around individual homes
- Strategic treatments around neighborhoods
- Tactically superior defensible positions – Create fuel breaks that tie into ridges, natural opening such as meadows, lakes, large rocky areas or streams
- Strategic positions for large scale fire events

The Natural Resource Conservation Service defines watersheds as hydrologic unit subdivisions that normally range in size from 40,000 to 250,000 acres. Subwatershed hydrologic units range in size from 10,000 to 40,000 acres, with some as small as 3,000 acres.[41] Seventh field watersheds usually define small sub-basins of several hundred acres, and this may be a convenient size to plan for neighborhood strategies. If necessary, larger sub-basins could be subdivided on ridge or streamlines as needed. When planning occurs in areas with very low density or no housing, watersheds can be aggregated up. This should occur mostly in the drainages where primary ownership is federal.

Prioritization

In order to aid in selecting priority areas to receive funding and attention for fuel reduction efforts, some additional information would be helpful. For each strategic planning area a chart rating each area with the following criteria has been prepared:

- Number of acres and percentage by hazard rating
- Number of acres and percentage by risk rating
- Number of residences
- Residence density rating
- Proximity to federal lands that could be treated
- Willingness of residents to make efforts on their own property
- Additional factors should include:
- Organized groups of neighbors
- County or state facilities needing protection measures
- Percent in Community at Risk or WUI

Some additional factors that should be taken into consideration once an area has been prioritized for treatment dollars are logistical and fire behavior related such as:

- Predominate wind direction during high fire danger days
- Steepness of slope and aspect orientation of landscape in relation to wind flows and neighborhood location
- Type of fire behavior expected at treatment area, during average worst case conditions
- Access to areas best suited for treatment
- Neighbor cooperation in areas best suited for treatment
- Fire behavior concerns should be considered for initial burn period of a fire. Long duration, large fires may need to be modeled separately.

[41] Natural Resources Conservation Service, Watershed Boundary Dataset Resources, 2004, ftp://ftp-fc.sc.egov.usda.gov/NCGC/products/watershed/wbd-factsheet.doc.

Process to Identify, Prioritize and Implement Fuels Treatment Projects

Task	Implementation
1. Conduct the Risk Assessment	Completed by the JCIFP Risk Assessment Committee
2. ID Strategic Planning Units	Being developed by the JCIFP Risk/Technical Committee
3. ID on-the-ground fuel reduction projects	Use JCIFP Risk Assessment & existing CWPP recommendations to coordinate implementation
4. Conduct Fire District/Community Meetings	Review Priority SPU's with Fire Districts – integrate information from community meetings
5. Coordinate with the fuels committee and fire districts	Review Priority SPU's with Fuels Reduction Committee. Identify areas for funding
6. Coordinate public education and Outreach	Begin education and outreach. First about the NEPA process and to gain participation in the fuels treatment (on a sliding scale basis.) For participants of a County social service program, they are eligible for 100% of the cost. For others in the project area, it will be on a sliding scale based on participation.
7. Conduct NEPA	Conduct NEPA on selected sites
8. Conduct Fuels Treatment	Begin implementation
9. Maintain projects over the long-term	Maintain through two-county recognition/certification program. Conduct site-specific multi-party monitoring procedures.

Grant Opportunities

One function of the JCIFP Risk Assessment Committee is to identify and coordinate grant opportunities to gain better data and strengthen risk assessment capabilities. In 2004, the JCIFP Risk Committee coordinated to submit a National Fire Plan grant proposal. Josephine and Jackson Counties proposed to work together with USFS, BLM and ODF to produce a digital fuel model and fire hazard map of Jackson and Josephine Counties. The map will show details of current vegetation and fuel hazard and be integrated into all partner's fire management plans and risk assessments. Detailed vegetation maps will provide insight for related vegetation management such as forest health projects and promoting biomass opportunities. Remote sensing imagery will be used to classify vegetation. The data will update existing fire plans and help shape any new fire plans being produced. The data will provide accurate maps to guide planning of fuel reduction suppression, public outreach and allow monitoring effectiveness of treatments across broad landscapes.

After a ranking process for Oregon and Washington, the Forest Service ranked this project 16th out of the 36 grants to receive funding through the National Fire Plan. Should this funding be awarded to Josephine County, the project could commence as early as spring 2005.

Risk Assessment Actions

1. Develop a methodology for the risk assessment.

This action includes a review of existing risk assessment processes and state and federal requirements for risk assessment.

Timeline:	October – December 2003
Outcomes:	Assessment of wildfire risk in Josephine county
Progress:	**Completed**: Risk Assessment reflects NASF, HFRA, NFP and FEMA requirements and guidelines for risk assessment
Lead:	Jim Wolf, ODF, Charley Martin, BLM

2. Review, identify, and integrate new and best available data in the wildfire risk assessment.

This action includes using reliable data that is compatible among the various partner agencies. Compatibility between County, state and federal fire plans will ensure that all partners have access to information and resources. Furthermore, consistent data will help in identifying fuels treatment projects on adjacent public and private lands.

Timeline:	January – March 2004
Outcomes:	Refined database reflecting the best sources of data as it becomes available
Progress:	**Completed**: JCIFP Risk Assessment reflects BAD from FS, BLM, ODF and other agencies and RFPDs
Lead:	Jim Wolf, ODF; Cody Zook, Josephine County

3. Define and illustrate "Communities at Risk" and the Wildland Urban Interface.

The National Fire Plan and Healthy Forests Restoration Act include guidelines for identifying the WUI and Communities-at-Risk. This task should consistent with those guidelines.

Timeline:	March – June 2004
Outcomes:	Maps and information on the Josephine County WUI and Communities at Risk
Progress:	**Completed**: List and map of Communities at Risk; Adopted Federal FMP definition of WUI
Lead:	Cody Zook, Josephine County; Jim Wolf, ODF

4. Develop strategies for obtaining and using community input in the risk assessment.

Community values must be integrated within the risk assessment. While there are ways of quantifying density and structural value, it is equally as important to gather information from the public and find a way to include it within the risk assessment. Providing citizens with an opportunity to review maps and identify what they value most can result in an overlay for the risk assessment that illustrates social, ecological, cultural and economic values.

Timeline:	March 2004 – May 2005
Outcomes:	Community input on risk and values
Progress:	**Semi-Completed**: Community meeting process implemented in Applegate Valley, Williams, Wolf Creek and Illinois Valley to date. In Fall 2004 and Winter/Spring 2005, the JCIFP will conduct community meetings in the unprotected areas.
Lead:	Kathy Lynn, PWCH; Tracy Katelman, Illinois Valley Fire Plan

5. **Monitor public and private fuels reduction efforts.**

As fuels treatment occurs on public and private lands, the risk assessment database must continue to reflect the treatment occurring on the ground. This will affect priorities, illustrate where work can be done on adjacent lands, and help the County to know how well progress is being made countywide.

Timeline:	Ongoing
Outcomes:	Treatment reflected in updated risk assessment maps
Progress:	Currently, the BLM, Forest Service and ODF provide updated information on existing and planned fuels treatment projects. The Applegate Valley Fire District has also provided the County with data on ongoing efforts. The Forestry Action Committee, Lomakatsi Restoration Group and Illinois Valley CRT are also actively managing defensible space programs.
Lead:	Risk and Fuels Committees

6. **Develop a long-term strategy for monitoring and implementing fuels reduction. Direct fuels reduction efforts to highest risk areas.**

As fuels treatment occurs on public and private lands, the risk assessment database must continue to reflect the treatment occurring on the ground. This will affect priorities, illustrate where work can be done on adjacent lands, and help the County to know how well progress is being made countywide.

Timeline:	September 2004 – June 2005
Outcomes:	Treatment reflected in updated risk assessment maps
Progress:	
Lead:	Risk and Fuels Committees

Monitoring Risk Assessment Actions

Actions	Monitoring Tasks	Performance Measures	Timeline	Coordinator
1. Develop a methodology for the risk assessment.	Maintain information on up-to-date technologies and data for risk assessment. Use reliable and usable data that is compatible among the various partner agencies.	Annual report and maps of wildfire risk Description of data used and findings	Annual	Josephine County GIS
2. Define and illustrate "communities and risk" and the wildland urban interface.	Review existing communities at risk list and any jurisdictional boundary changes that may affect this list Monitor changes in the Federal WUI boundaries.	Annual report on Communities-at-Risk and up-to-date WUI map	Annual	Josephine County GIS, BLM and Forest Service
3. Develop strategies for obtaining and using community input in the risk assessment.	Continue to reflect community input from ongoing meetings as an overlay on the risk assessment	Up-to-date community overlay of resources and values	Annual	Josephine County GIS and Fire Districts
4. Monitor public and private fuels reduction efforts.	Inventory private, county, state and federal existing and planned fuels treatment projects	Maps reflecting existing and planned fuels treatment projects	Annual	Josephine County GIS, ODF, BLM, RFPDs
5. Develop a long-term plan for monitoring and implementing fuels reduction. Direct future fuels reduction efforts to highest risk areas.	One this plan has been completed, monitor acres treated, location and relative risk rating annually. Coordinate with watershed councils and other organizations; utilize multi-party monitoring.	Comparative maps illustrating changes in conditions over time	Annual	County GIS, ODF, BLM, Forest Service, watershed councils, community organizations

Future Grant Opportunities

One function of the JCIFP Risk Assessment Committee is to identify and coordinate grant opportunities to gain better data and strengthen risk assessment capabilities. In 2004, the JCIFP Risk Committee coordinated to submit a National Fire Plan grant proposal. Josephine and Jackson Counties proposed to work together with USFS, BLM and ODF to produce a digital fuel model and fire hazard map of Jackson and Josephine Counties. The map will show details of current vegetation and fuel hazard and be integrated into all partner's fire management plans and risk assessments. Detailed vegetation maps will provide insight for related vegetation management such as forest health projects and promoting biomass opportunities. Remote sensing imagery will be used to classify vegetation. The data will update existing fire plans and help shape any new fire plans being produced. The data will provide accurate maps to guide planning of fuel reduction suppression, public outreach and allow monitoring effectiveness of treatments across broad landscapes.

After a ranking process for Oregon and Washington, the Forest Service ranked this project 16th out of the 36 grants to receive funding through the National Fire Plan. Should this funding be awarded to Josephine County, the project could commence as early as spring 2005.

CHAPTER 6: HAZARDOUS FUELS REDUCTION

Reducing hazardous fuels around homes, along transportation corridors and at a landscape-scale can significantly minimize losses to life, property and natural resources from wildfire. A core focus of the Josephine County Integrated Fire Plan is on reducing losses to life and property; helping protect communities by reducing hazardous fuels while moving toward a more fire-adapted ecosystem.

Research using modeling, experiments, and wildland urban interface case studies indicates that home ignitability during wildland fires depends on the characteristics of the home and its immediate surroundings. These findings have implications for hazard assessment and risk mapping, effective mitigations, and identification of appropriate responsibility for reducing the potential for home loss caused by Wildland-urban interface fires.[42] Wildland-urban ignition research indicates that a home's characteristics and the area immediately surrounding a home within 100 to 200 feet principally determine a home's ignition potential during a severe wildland fire. Jack Cohen with the Forest Service Rocky Mountain Research Station refers to this area that includes a home and its immediate surroundings as the *home ignition zone.*

The JCIFP Fuels Reduction Committee began meeting in November 2003 to discuss how to approach fuels reduction throughout the county and on both public and private lands. Committee members committed to cooperation between public and private organizations to ensure that fuels reduction occur strategically so that adjacent public and private lands will benefit from fire protection. JCIFP Fuels Reduction Committee began by reviewing administration of existing fuels reduction programs and recognized that in has resulted in a checkerboard fuels treatment pattern. The group agreed to work together to pursue funding and identify the most cost effective approaches to implementing defensible space and landscape fuels treatment throughout the County.

JCIFP Fuels Reduction Committee Members

Ron Phillips, Illinois Valley CRT – Chair
Carmela Amato, Wolf Creek RFPD
Bruce Bartow, Josephine County
Don Belville, Rogue River - Siskiyou National Forest
Neil Benson, Josephine County
Dick Boothe, Rogue River - Siskiyou National Forest
Oshana Catranides, Lomakatsi
Susan Chapp, Forestry Action Committee
Rick Dryer, Oregon Department of Forestry
Brett Fillis, Applegate Valley RFPD
Paul Galloway, Rogue River - Siskiyou National Forest
Tim Gonzales, BLM Medford District
Rob Hambleton, Williams Educational Coalition
Vic Harris, Josephine County Forestry
Lloyd Lawless, Rural/Metro
Sara McDonald, Commission for Children and Families
Gail Perotti, 7 Basins Neighborhood Fire Planning Project
Jack Shipley, Applegate Partnership
Jerry Schaeffer, Illinois Valley RFPD
Brad Tally, ODF
Dan Schilberg, Wolf Creek RFPD
Steve Scruggs, Williams RFPD
John Thornhill, Rogue River - Siskiyou National Forest
Dennis Turco, Oregon Department of Forestry
Virgil Witcher, Josephine County Forestry
Jim Wolf, Oregon Department of Forestry
Cody Zook, Josephine County GIS

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

Objectives

- Sustain a landscape-level approach to fuels reduction that focuses on high wildfire risk areas and moves toward a fire-adapted ecosystem.
- Coordinate administration of fuels program that is equitable across fire districts and provides 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.

Priorities for Fuels Treatment (on Private Land)

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 the landscape scale treatment.

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 fuels reduction committee 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.

The projects listed below are the result of a meeting with the fire districts, BLM, Forest Service, ODF, the Illinois Valley Community Response Team and the County to identify immediate priorities for fuels reduction. The table also lists projects that are ongoing in Josephine County using National Fire Plan funds from 2004.

Project	Planned Treatment type / acres	Planned or Funded?	Administrator	Fire District
Thompson Creek	Landscape, roads and defensible space	Funded through National Fire Plan 2004	Illinois Valley Community Response Team	Illinois Valley
Applegate Valley Watershed	30 acres of landscape treatment; 51 acres/7 miles of roads treatment	Funded through National Fire Plan 2004	Applegate Valley Fire District	Applegate/ Williams Fire District
Slate Creek, Applegate River Watershed Council	100 – 200 acres (treatment TBD)	Funded through National Fire Plan 2004	ARWC	Rural/Metro Fire Department
North Selma adjacent to HWY 199	Landscape, roads and defensible space	Tentative funding through National Fire Plan 2005	Illinois Valley Community Response Team	Illinois Valley

Project	Planned Treatment type / acres	Planned or Funded?	Administrator	Fire District
London Peak	79 acres (approx.) Landscape, roads and defensible space	Tentative funding through National Fire Plan 2005	Illinois Valley Community Response Team	Wolf Creek Rural Fire protection District
Cathedral Hills	Landscape, roads and defensible space	Tentative funding through National Fire Plan 2005	Illinois Valley Community Response Team	Rural/Metro
Kenrose Lane – south of Cave Junction	Landscape, roads and defensible space	Tentative funding through National Fire Plan 2005	Illinois Valley Community Response Team	Illinois Valley

Current Projects and Policies

Over the past several years, public and private organizations have managed fuels treatment and defensible space programs within Josephine County. The Forest Service and BLM have managed fuels projects on federal lands, while Oregon Department of Forestry has administered National Fire Plan and Title III funds in the form of a home assessment and rebate program for defensible space work. The Illinois Valley Forestry Action Committee, Lomakatsi Restoration Group, Applegate Valley Fire District and Illinois Valley Community Response team have coordinated community, neighborhood and individual defensible space grants and projects. Additionally, almost half of the 26 proposed fuel reduction projects for Josephine County from the Applegate Fire Plan are either in planning or being implemented. *See Chapter 11, Fire Districts and Fire Plans, for more information on the implementation progress of this CWPP.*

Refer to the end of this section for a map of existing and planned fuels reduction projects

Highlight: Cooperation and Utilization at Lake Selmac

Josephine County Forestry received $300,000 in County Title III funds to coordinate fuels reduction projects on County forestry and County parks land. They have initially targeted 400 acres with $150,000. Through this process, the BLM provided information on planned fuels reduction projects that are adjacent to County land in need of fuels treatment. One of the projects the County selected was fuels treatment on County parks land around Lake Selmac in the Illinois Valley. An additional level of cooperation arose with a local business, Kauffman Industries. Kauffman Industries agreed to purchase small diameter raw materials resulting from the fuels treatment project. The utilization of those raw materials will then result in infrastructure (picnic tables, park benches, etc.) for Lake Selmac park. This example of fuels treatment, fire protection for County residents and visitors, utilization and economic benefit is a strong example of local action and cooperation. The County hopes that it will prove to be a model for other efforts in the County.

Grant Opportunities

National Fire Plan

On February 13, Josephine County submitted three grant applications on behalf of the Fire Plan committees for 2005 National Fire Plan funds. In the past, limited funds had not allowed all fire districts to be able to benefit from the National Fire Plan funds. Through the Josephine County Integrated Fire Plan, the rural fire protection districts, public agencies, and community organizations worked together to identify the best approach for this grant opportunity.

Josephine County requested $1.25 million in 5 blocks of funding ($250,000 each) for fire hazard reduction in the areas of high wildfire risk throughout the County. If funded, each block of funding will allow Josephine County to undertake 5 comprehensive fire hazard reduction projects within high risk areas targeted through the Risk Assessment Instrument in the 5 fire service areas (Wolf Creek, Williams & Illinois Valley Fire District, Grant Pass, & Rural Metro/Applegate Valley) to include a total of 325 acres of fuels treatment (driveways, residences, and landscape) per funding block or 1625 acres for all 5 blocks (average cost: $705/acre). The project will be coordinated through the JCIFP Fuels Reduction Committee, which is comprised of the fire districts, agencies and community organizations in Josephine County.

Forest Service and BLM RAC Grants

The Josephine County Board of County Commissioners, recognizing the need for increased fire protection, requested funding from the Forest Service and BLM RAC grants. Josephine County specifically requested $131,307 to undertake comprehensive fire hazard reduction projects within high-risk areas targeted through the risk assessment instrument and focused on low-income, elderly, disabled, and other citizens with special needs (assisted living facilities or private residences) in 5 fire service areas (Wolf Creek, Williams & Illinois Valley Fire Districts, Grant Pass, & Rural Metro/Applegate Valley). This project will include a total of 138 acres of fuels treatment on driveways and defensible space for residences (average cost: $906/acre). The project will be coordinated through the JCIFP Fuels Reduction Committee and with the County's social service agencies.

Contractors and Certification

There is no shortage of need for employment or potential workers in Josephine County. Given the level of fire risk and the need for hazardous fuels reduction, there is the potential for ample workforce opportunity. An action recommended by the fuels committee is related to providing training and support to contractors and workers in forest-related industries. The expenses and requirements that come along with necessary licensing and bonding often limit opportunities for people that would otherwise want to work. *Resource B of this document provides a list of contractors and businesses available for fuels treatment related projects.*

Case Study: Marble Drive Fuel Hazard Reduction Project[43]

The Marble Drive Fuel Hazard Reduction Project was designed to reduce the potential for severe wildfire by treating vegetation in order to alter fire behavior. The project area is within a larger area that was burned by a high intensity wildfire in the mid 1970s. Approximately 35 years of flammable vegetation accumulation has resulted in a significant wildfire hazard. The absence of frequent landscape wildfire has led to high tree and brush density levels and dense patches of merchantable and non-merchantable size conifers.

The importance of the project is magnified by the fact that the site is bordered by private land and homes. In most cases, the dense vegetation found throughout the project area occurs right up to the property boundaries of private residences, prompting several requests from homeowners for the BLM to address this fuel hazard. The BLM project manager for the site contacted all landowners well in advance of on-the-ground work to discuss the impact of the project and get property owner feedback into the process.

The wildland urban interface area around Merlin and Grants Pass is identified in the National Fire Plan as a community at risk from wildland fire. Furthermore, the 80-acre project area is completely bordered by private land and residences. In most cases, the dense vegetation found throughout the project area occurs right up to the property boundaries of private residences, prompting several requests from homeowners for the BLM to address this fuel hazard. The BLM used existing roads to access the project area, with primary access through a Josephine County right-of-way located off North Marble Drive.

Marble Drive - example of brush removed from site
Photo by Neil Benson

The BLM designed the project to be completed in phases. This was due in part to the location of private properties that surround the site. Project design included a 150 foot buffer area around these properties where the Slashbuster (used during the project) was not allowed to work. This was done, in part, because the machine tends to throw cut brush long distances that could lead to property damage. Hand fuel reduction was used to create the 150-foot buffer zones. Beyond the private property issues, there were also concerns with wildlife, soils and water, botany, and cultural and visual resources. Prior to on-the-ground work, BLM completed an Environmental Assessment (EA) of the site. This EA assisted in the decision-making process by assessing the environmental and human effects resulting from implementing the fuels reduction project.

While the Slashbuster is very effective in removing brush and small trees, there are limitations and concerns with its use. For safety, the Slashbuster is restricted to fairly level areas with slopes of less than 40%. If used inappropriately, there is the potential for soil compaction. To avoid this, the

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[43] *Marble Drive Fuel Hazard Reduction* Environmental Assessment (EA# OR-110-03-19) U.S. Dept. of Interior, Bureau of Land Management, Medford District, Grants Pass Resource Area

Slashbuster is used when soil moisture content is less than 20%. Additionally, the Slashbuster operates on a surface consisting primarily of shredded vegetation; no more than 20% of the tracked surface would be bare soil at any time. Other potential problems with this method of fuels reduction are potential damage to leave trees, spread of noxious weeds, and possible harm to riparian areas. These potential problems can be mitigated through careful planning and effective communication between the project manager and the contractor.

The results of the fuels reduction work accomplished on the Marble Drive site are dramatic. Brush and small trees were removed from the area leaving a mosaic pattern of treated and untreated areas providing for habitat diversity and maintaining a portion of the canopy. Along with reducing fire hazards in the area, another positive result of the project was improved habitat. Removing the brush enhances the vigor of hardwood stands, improves acorn crops, and promotes sprouting, which encourages development of a multi-age stand.

The end result of the project is an area that is clearly more fire resistant, but there is a need for long-term maintenance of the site. The BLM suggests that one to two years following treatment, broadcast or understory burning may be used on the project area to further reduce fuel loadings where slash is greater than 6" deep and continuously covers more than one acre. Within five years following project implementation, vegetation removal and/or low intensity broadcast or underburning may be needed to maintain reduced fire hazard and fuel model objectives throughout the project area.

Marble Drive project site after mechanized brush removal
Photo by Neil Benson

The Marble Drive Fuel Hazard Reduction Project provides a model of effective fuels removal in the wildland-urban interface areas that may be used for sites throughout Josephine County. The essential elements for projects of this type are cooperation between agencies and private landowners, careful planning to avoid site damage, effective communication between the contractor and responsible agencies, and a long-term plan for site maintenance.

In February 2003, the Slashbuster was used on a privately owned site near Medford, OR. As reported by the Medford Mail Tribune, the cost for its use on this site was approximately $412 per acre. Under the current Oregon Department of Forestry fuels reduction program, National Fire Plan funds paid for $330 an acre, leaving just $82 per acre to be paid by the private property owner. This compares with $250 to $1200 per acre cost for hand removal of fuels as reported in the Applegate Fire Plan. The cost and type of the equipment also varies greatly but a Slashbuster costs approximately $80,000.

Increasing access to available fuels reduction dollars

Oregon Department of Forestry (ODF) Southwest Oregon District continues to administer a home assessment and fuels reduction program in Jackson and Josephine Counties. This program assists homeowners in creating defensible space and increasing their resilience to wildfire and can provide safety zones around existing homes and along driveways that will provide safe evacuation or escape routes for residents, access for firefighters and fire-fighting equipment, and staging areas where firefighters will have a better chance of protecting homes from approaching wildfires.

Residents can apply for cost-share incentives of up to $330.00 to modify an acre of vegetation around their homes. In some instances, up to 4 additional acres around a home and driveway may be approved. Modifications include removing dead vegetation, thinning-out flammable brush and small trees, and creating vertical spaces between flammable brush and the lower limbs of larger trees. ODF forest officers meet with residents to design hazard reduction plans. When the work is completed, they return to verify the work and process paperwork for a cost-share reimbursement.[44]

While this program has been successful in assisting homeowners in creating defensible space, there is concern that low-income, elderly, disabled, and other special need residents are not able to pay the costs of creating defensible space, which often exceeds the $330 provided through the ODF program. Josephine County has the sixth highest incidence of poverty in the state of Oregon, with 15% of the population at or below the Federal Poverty Level.[45] A countywide risk assessment conducted by Josephine County and the Oregon Department of Forestry in 2003 further illustrates the level of risk to wildfire throughout the County. With the high level of fire risk and poverty countywide, it is essential that fire protection programs are accessible to special need populations. . If awarded, the 2005 BLM and Forest Service RAC grant will be able to begin to address these concerns.

As part of the JCIFP, PWCH developed a report that documents our efforts to identify special need populations in Josephine County, document the resources available through local social service agencies, and to better understand the full cost of fuels reduction projects. Through this process, PWCH spoke with eight Josephine County social services organizations to determine program eligibility levels and standards, as well as a number of local contractors to identify full costs of completing fuels reduction projects and understand current program administration.

This report (included in Resource F) presents information gathered to date as well as recommendations for alternatives to assist special needs citizens access fire protection resources and reduce their risk to wildfire. Specifically, the report includes information on coordinating with social service organizations, information from local contractors on the average cost of doing an acre of fuels reduction on private land in Josephine County.

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[44] Oregon Department of Forestry website, (December 2002), http://159.121.125.11/swo/news2002/grants.htm
[45] US Census, (2000 Census), http://www.census.gov

Fuels Reduction Actions

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

This action is coordinated directly with the risk assessment committee. The risk assessment considers existing and planned fuels treatments on private and public land, which will aid in making decisions about landscape treatments. Priorities will also consider input gathered at community meetings.

Timeline:	June 2004 – September 2005
Outcomes:	Identification and prioritization of fuels treatment projects.
Progress:	The risk committee is identifying a preliminary list of projects and will present this information to the fire districts and fuels reduction committee for input.
Lead:	Risk Committee

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

As grants are announced, the fuels committee will use information and maps developed through the risk assessment in the applications. Coordination with the risk committee is essential.

Timeline:	Ongoing
Outcomes:	Increased competitiveness for grant dollars
Progress:	In 2004, the JCIFP Fuels Committee submitted National Fire Plan, Forest Service and BLM RAC grants using risk data. This is an ongoing action as funds become available.
Lead:	Fuels Committee (appointed grant writer)

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 citizens.

National Fire Plan and Title III grant dollars are used to provide home assessments and rebates for defensible space on private land. Grant funds have resulted in residents of Josephine County learning about and creating defensible space around their homes. However, the program has not provided an opportunity for strategic, landscape scale fuels treatments that are adjacent to federal land and planned projects, which would further increase fire protection. The rebate of $330 has made it somewhat difficult for those who cannot afford the additional costs of fuels reduction on one-acre of land. Resource C describes interviews with contractors about average costs of defensible space on one acre of land.

Timeline:	Ongoing
Outcomes:	Increased competitiveness for grant dollars
Progress:	In 2004, the JCIFP Fuels Committee submitted National Fire Plan, Forest Service and BLM RAC grants using risk data. This is an ongoing action as funds become available.
Lead:	Fuels Committee (appointed grant writer)

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

This action should be coordinated with the Education and Outreach recognition program action items.

Timeline:	September 2004 – May 2005 (Ongoing action)
Outcomes:	Long-term maintenance of private fuels reduction projects
Progress:	The Education Committee is coordinating w/ Jackson County
Lead:	Fuels Committee

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

Timeline:	September 2004 – May 2005 (Ongoing action)
Outcomes:	Increased safety & effectiveness of evacuation procedures
Progress:	
Lead:	Fuels Committee

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

Timeline:	September 2004 – May 2005 (Ongoing action)
Outcomes:	Increased awareness and citizen action to reduce wildfire risk
Progress:	The JCIFP Education committee is developing a campaign for Spring 2005.
Lead:	Fuels and Education Committee

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

Timeline:	Ongoing
Outcomes:	Increased grant dollars and defensible space
Progress:	See the actions recommended in table A below.
Lead:	Risk and Fuels Committees

8. Identify opportunities to explore and implement biomass marketing and utilization projects to help support long-term fuels reduction efforts.

Timeline:	Ongoing
Outcomes:	Opportunities to market and utilize raw materials from fuels projects. Economic benefit to help sustain long-term fuels reduction projects.
Progress:	See Chapter 9: Biomass Marketing and Utilization for background and information on existing activities
Lead:	RC&D, JSDI, Sustainable Northwest, Fuels Committee

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

This action may include training, a credentialing program and monitoring of the approach contractors take in the field. This action may also include support for residents to be able to do the work themselves around their own homes.

Timeline:	October 2004 - Ongoing
Outcomes:	Increased employment for local contractors and workers
Progress:	Referral list of local contractors and related businesses
Lead:	Fuels Committee

Monitoring Fuels Reduction Actions

Actions	Monitoring Tasks	Performance Measures	Timeline	Coordinator
1. Identify and prioritize fuels treatment projects on county and private land using the risk data.	Coordinate with the Risk Assessment group to identify and prioritize fuels treatment projects on an annual basis.	Updated maps illustrating priority treatment areas and overlays of community values and priorities	Annual	Fuels Reduction and Risk Committee
2. Utilize risk assessment information in applications for National Fire Plan grants and other fuels reduction dollars	Track grants and utilize risk assessment data in new applications	Number of grants submitted for fuels reduction that reference risk assessment data	Ongoing	Fuels Reduction Committee
3. Review how grant dollars for fuels projects are administered.	Track fuels reduction grants and defensible space projects occurring on homes of citizens with special needs	List and map illustrating # of homes and acres treated	Annual	Fuels and Special needs committee
4. Develop long-term strategies for maintenance of fuels reduction projects	Document number of residents that maintain treatment (utilize the recognition program and Article 76)	Certification of homes every 3 years that have maintained defensible space	Every three years	Fuels & Education and Outreach Committees
5. Focus strategic planning for hazardous fuels treatment projects on evacuation routes/corridors	Monitor number of evacuation corridors/roads treated for fire protection on county, private, state and federal roads	Number of miles treated for fire protection along roads	Annual	Josephine County public works?
6. Promote education and outreach in fuels programs	Track education programs, document how well they integrate fuel reduction objectives, Coordinate with Education committee on education campaigns	Annual report document fuels related education and outreach programs	Annual	Fuels & Education and Outreach Committees
7. Increase grant dollars and target fuels reduction and fire protection to citizens with special needs.	Track grant dollars and projects directed to citizens with special needs.	Dollars and defensible space projects directed to citizens with special needs.	Annual	Josephine County Special Needs Committee
8. Explore and implement biomass marketing and utilization projects to help support long-term fuels reduction efforts.	Evaluate existing opportunities and markets and case study examples in the region	Number of projects where raw materials are utilized and derive economic benefit	Annual	RC&D?
9. Increase support for local contractors and workers.	Identify and provide information on approaches to fuels treatment and standards for credentials.	% of contracts completed by local workers and contractors	Bi-annual	Fuels Committee

CHAPTER 7: EMERGENCY MANAGEMENT

The Josephine County Sheriff, Department of Emergency Services is responsible for coordinating emergency management throughout the County. Rural Fire Protection Districts, however, are often the first responders not just to fire, but natural and human-caused disasters as well. In 2003, the County updated the Josephine County Emergency Operations Plan. This provided a strong baseline of information to make connections to fire professionals and strengthen emergency management procedures related to fire protection.

The most important finding through the meetings held, research conducted and needs identified is that there is a need for strong partnerships and coordination among the fire, emergency management, land management, and planning professions to prepare for and respond to a disaster. The formation of a committee to focus on Emergency Management for the JCIFP has resulted in adoption of this group as the Josephine County Emergency Management Board. Specifically, this Board now serves as a standing support group to the Josephine County Emergency Manager. This chapter focuses on existing emergency management procedures for wildfire protection and a series of actions to strengthen emergency management capabilities in Josephine County.

JCIFP Emergency Management Committee Members

Sara Nicholson, Josephine County Emergency Manager – Co-Chair
Phil Turnbull, Rural/Metro Fire Department – Co-Chair
Herman Baertshiger, HB Company
Bruce Bartow, Josephine County
Neil Benson, Josephine County
Jonathan Brock, Josephine County 911 Director
Charlie Chase, Oregon State Fire Marshal
Rick Dryer, Oregon Department of Forestry
Tony Hernandez, American Red Cross
Lang Johnson, Rural/Metro and RVFCA
Kathy Lynn, Program for Watershed and Community Health
Leslee O'Brien, Josephine County Public Health
Chuck Petty, American Red Cross Volunteer
Charlie Phenix, Rogue River - Siskiyou National Forest
Brian Pike, Grants Pass Department of Public Safety
Harry Rich, Illinois Valley RFPD
Jenny Rinell, Jo County Emergency Services
Jerry Schaeffer, Illinois Valley RFPD
Mark Sorensen, Jo County Emergency Services
Steve Scruggs, Williams RFPD

Objectives

- Develop strategies to strengthen emergency management, response and evacuation capabilities for wildfire or other natural disaster
- Build relationships between County government, local fire districts, ODF, BLM, Forest Service, Oregon Emergency Management, Oregon State Fire Marshal, Red Cross and others.
- Coordinate with California state agencies on border issues related to fire protection.

Current Activities and Programs

Emergency Operations Plan

The County recently completed a review and update of the County Emergency Operations Plan (EOP), which is available by contacting Josephine County Emergency Services. Through the development and implementation of the EOP, Josephine County Emergency Services has also led

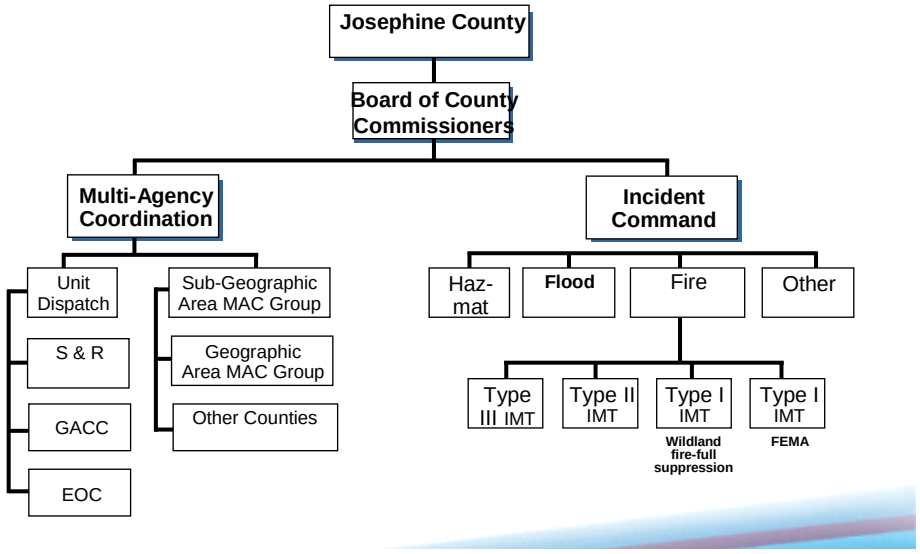
the coordination of a special needs committee focused on providing assistance to low-income, elderly and disabled populations with disaster management planning.

Incident Command System (ICS)

The JCIFP Emergency Management Committee focused one objective on ICS training for all County employees. ODF and the Forest Service agreed to offer training at no charge. The committee agreed that it would meet the objective of training all County employees in ICS 100 by scheduling a series of trainings through Emergency Management. The County Public Health department received this training for all of its employees in February 2004. Phil Turnbull (Rural/Metro), provided the ICS training to the County Community Emergency Response Team volunteers. The committee scheduled an additional three ICS trainings between March and June 2004. The committee also agreed that a Multi-Agency Coordination (MAC) be a functional/outcome of the process.

Multi-Agency Coordination Group

The JCIFP emergency management committee agreed that training County department heads on the design and function of a Multi-Agency Coordination group would assist in meeting the plan's objectives. A Multi-Agency Coordination (MAC) group is part of the National Incident Management System and is a coalition of agency representatives providing jurisdictional, functional or significant support to incidents. Members are fully authorized to commit agency funds and resources to the incident. The purpose of a MAC group is to provide a forum for County agencies to meet and provide guidance and assistance to the Incident Management Team. A MAC group is activated when there are multiple or complex single incidents involving many agencies. It can also be activated if there is competition for resources or if and when the Board of County Commissioners thinks it is necessary. A MAC group sets incident priorities, authorizes allocations of resources, provides a focal point for the overall situation, and provides a political interface. Additionally, the MAC group can monitor implementation, conduct future planning and coordination information releases to the public and other entities. The figure below illustrates the role and function of a MAC group.



A sub-group of the JCIFP Emergency Management Committee met with the Board of County Commissioners (BCC) on Monday, March 8, 2004 to discuss the organization and need for a MAC training for the BCC and Department heads. The BCC supported the idea and agreed to participate in a MAC training and to mandate ICS training for all County employees.

On June 29, 2004 Josephine County Emergency Services, the Josephine County Fire Defense Board, ODF and the Forest Service partnered to host the first "JoMAC" training at the Interagency Fire Center in Grants Pass. Participants included all three County Commissioners and over 20 department heads from County agencies. Rural/Metro Fire Department developed a press release for the event and coordinated with the media the day of the training. Josephine County sponsored a lunch for all participants.

The next step includes developing a written draft for MAC group objectives, guidelines, and an organizational chart at upcoming County Management meetings for each hazard. This Committee will ensure that there are technical experts at the Management Meeting to help to facilitate the discussion. Tasks will include reviewing the EOP for each hazard, appointing a MAC coordinator for wildfire at the first meeting, and developing qualifications and the position description for the MAC Coordinator. This position will require ICS training.

Emergency Call-Down System

The Josephine County Board of County Commissioners authorized spending on an emergency 911 call-down system. (The FY04 Homeland Security Grant will contribute $39,000 toward the purchase of the system and County Title III funds will pay for the balance.) This system will enable the County to send out mass messages to specific populations using Geographic Information System (GIS) technology. The value of this system is that information can be categorized by area and by need. (e.g., citizens in particular location or people with special needs listed in the disaster registry can be targeted.)

The Call-down system has a wide range of functions, including phone, tty, tdd, fax, email, pagers, a program call list, can be pre-set for specific zones such as floodplain areas or for specific groups (such as the Rogue Valley Fire Chief's Association). There a number of different ways in which the call-down system could be used, but these should be taken into consideration with community desires and concerns about a call-down system.

Interoperability between Jackson and Josephine Counties is also important. The system that the County is in the process of purchasing is the same system as Jackson County's system. Community telephone trees can also be incorporated into the system, which will help ensure that consistent messages are sent out during an event. The 911 Technical Advisory Committee is working on a protocol for using this system. This protocol should be consistent with the Jackson County protocol, and take into consideration community.

Many communities, including in the Applegate Valley, have already developed local systems for emergency communications. "Telephone Trees" were promoted in the Applegate Fire Plan; they incorporate 20-30 homes in a local area, accommodate for the infirmed or residents "off the grid," and are being used consistently for anything from a wildfire to a cougar sighting to a lost child. Phone trees play a different role from the Call-Down system, but they can also be incorporated into that countywide system.

Grants

Josephine County Emergency Services coordinated with local fire districts and other County and City agencies to submit a $2.5 million Department of Homeland Security Grant in February 2004. The request included funding for a contractor to conduct a countywide communications assessment and develop a communication plan, as well as equipment, the call-down system and other resources. In May, Josephine County was informed that they had received approximately $200,000 for homeland security, $117,000 law enforcement funds for radio interoperability and equipment, and $23,120 for Citizen Corps, which will assist in reaching Community Emergency Response Team (CERT) training objectives. This grant will also fund training, development of videos, and coordination of an emergency management fair. (There are currently over 100 CERT volunteers in Josephine County and many more signed up for training this spring and summer.)

Special Needs Committee

Since 2003, Josephine County Emergency Services has been coordinating a special needs committee and continues to work with the special needs populations in Josephine County, including elderly, disabled, and youth populations, as well as retirement and assisted living homes serving elderly people and people with developmental disabilities. The committee estimates that 10 percent of Josephine County falls into special needs categories, not including low-income populations. (*See the County profile for more information on poverty and demographics.)*

The special needs committee is working to ensure that in the event of a disaster, there are systems in place for response, evacuation, shelter, etc. They are in the process of identifying a range of issues, including dependence on power and water (dealing with oxygen, dialysis, etc.) A transportation sub-committee has been formed to address evacuation issues.

Rogue Valley Fire Chief's Interface Exercise

The Rogue Valley Fire Chief's Association Exercise is separate from the Josephine County MAC training and is held annually in either Josephine or Jackson County. The 2004 RVFCA wildland fire exercise was held in June in Jackson County.

County Search and Rescue Building

The County has received Title III funding for a County Search and Rescue (SAR) building that is in the process of being designed and constructed. It will also function as a primary Emergency Operations Center.

Evacuation Procedure Review

A county, city or municipal corporation may authorize an agency or official to order mandatory evacuations of residents and other individuals after a declaration of a state of emergency within the jurisdiction is declared. An evacuation under an ordinance or resolution authorized by this section shall be ordered only when necessary for public safety or when necessary for the efficient conduct of activities that minimize or mitigate the effects of the emergency *(ORS 401.309).*

During the Biscuit fire in 2002, Josephine County was forced to notify thousands of residents of a potential evacuation. There were many lessons learned and the JCIFP Emergency Management Committee is in the process of developing guidance and procedures for evacuation. There are certain things that cannot be pre-determined. Evacuation routes and shelter sites will be dependent upon the conditions of event and access to roads and location. The process for evacuation planning can include developing an inventory of road conditions, a map of main arterials and sub-arterials and identifying rally points, safe zones and where people might be able to go for shelter during an emergency. The group identified elements for an evacuation map that includes the following:

Arterial and sub-arterial routes

Potential safe zone/evacuation points

Animal drop sites (Dept. of Public Health, Josephine County Sheriff's Office Posse, Portland Humane Society, Williams Brushriders and Bay Area Riders Club.)

Pre-identified shelter sites that includes number of people and facilities/bedding available (Red Cross has this information and Josephine County Emergency Services is holding meetings to put together a standard agreement for shelters between Red Cross and Emergency Management.)

Emergency Management Actions

1. **Clarify policies and procedures for the EOC, develop clear roles and responsibilities, and develop Standard Operating Procedures.**
   The Emergency Management Committee is the standing Board for the Josephine County Emergency Manager.

Timeline:	January 2004 – ongoing
Outcomes:	Standard Operating Procedures, clear roles and responsibilities in the EOC
Progress:	Ongoing efforts
Lead:	Sara Nicholson, JC Emergency Services and Phil Turnbull, Rural/Metro

2. **Strengthen Incident Command System and Create a Multi-Agency Coordination Group.**

The Committee identified ICS and MAC training as a priority to strengthen emergency response and coordination. ODF and the Forest Service offered to coordinate and provide the ICS and Mac training at no cost.

- *Develop a written draft of MAC objectives and guidelines to present at the next Management Meeting.*
- *Have technical experts at the Management Meeting to help to facilitate the discussion.*
- *Draft MAC groups and coordinators, objectives and guidelines for each potential hazard incident.*
- *Review the EOP for each hazard.*
- *Appoint a MAC coordinator for wildfire at the first meeting and develop the position description.*
- *At the September state mandated disaster response exercise – test the MAC*
- *Create a declaration by the Josephine County Commissioners.*

Timeline:	March 2004 – Ongoing
Outcomes:	Increased Capabilities among County employees and County supervisors
Progress:	**Completed.** • ICS training held for Public Health Department in March. • ICS training also held for County Community Emergency Response Team members (100 citizens have been trained to date.) • 4 open ICS trainings for all County employees held in April - June.

	• Multi-Agency Coordination Group Training held June 29, 2004.
Lead:	Sara Nicholson, JC Emergency Services, Phil Turnbull, Rural/Metro, and Charlie Phenix, Rogue River - Siskiyou National Forest

3. Develop a protocol to use the County 911 Call-down systems

The 911 Technical Advisory Committee is in the process of developing protocols for the call-down system.

Timeline:	June 2004 – December 2004
Outcomes:	Protocol for the call-down system that utilizes GIS capabilities and is reflective of community telephone trees
Progress:	The 911 TAC Committee has begun to meet on this.
Lead:	911 Technical Advisory Committee

4. Strengthen public education and agency coordination on evacuation procedures.

Lessons learned from the 2002 Biscuit Fire indicated that increased public education about evacuation was necessary to control chaotic responses.

Timeline:	June 2004 – December 2004
Outcomes:	Protocol for addressing evacuation in an event of a wildfire or other disaster event, a map of current shelter sites and public education materials on evacuation.
Progress:	Production of an evacuation flyer. A meeting is scheduled for 8/5/04 to review preliminary ideas for the evacuation protocol. A map will be developed with Red Cross shelter sites.
Lead:	Josephine County Fire Defense Board

5. Increase opportunities for emergency management planning and identification of citizens with special needs.

Timeline:	June 2004 – December 2004
Outcomes:	Increased support for and reduced risk to elderly, disabled, youth, low-income and other special needs populations in the County.
Progress:	• Josephine County Emergency Management is coordinating an inter-organizational special needs committee. • JC Emergency Management is also working with the Rogue Valley Council of Government to register citizens in the Special Needs Disaster Registry. • The Special Needs Committee is also developing the HELP program *(see Resource F.)*
Lead:	Josephine County Emergency Management

Emergency Management Monitoring

Actions	Monitoring Tasks	Performance Measures	Timeline	Coordinator
1. Clarify policies and procedures for the EOC, Develop Standard Operating Procedures.	Review policies and procedures on a regular basis.	Standard operating procedures. Policy guide produced	Annual Review	Josephine County Emergency Manager
2. Strengthen Incident Command System and Create a Multi-Agency Coordination Group	Monitor County Management Meetings Evaluate annual exercise; focus on how well the MAC functions	Number of people trained in ICS MAC Coordinators pre-appointed for each hazard event	Annual exercise	Josephine County Emergency Manager
3. Develop a protocol to use the County 911 Call-down systems	Test the call-down system using different variables (location, need, event)	Implementation of the call-down system	Annual	Josephine County 911 Director
4. Strengthen public education and agency coordination on evacuation procedures.	Update map illustrating arterial routes and shelter sites annually Review evacuation procedures with the Jo County Fire Defense Board	Updated resource map Annual evacuation procedures review	Annual	Jo County Fire Defense Board President
5. Increase opportunities for emergency management planning and identification of citizens with special needs.	Monitor all JCIFP program implementation and evaluate how different elements target the special needs population	The number of facilities and residents that participate in the disaster registry or in fuels reduction and education programs	Annual	Josephine County Emergency Manager

CHAPTER 8: EDUCATION AND COMMUNITY OUTREACH

Education and Outreach has become one of the primary focuses of the Josephine County Integrated Fire Plan. The JCIFP Education and Outreach Committee has focused its efforts in the development of goals, objectives and actions for a Spring Preparedness Campaign.

JCIFP Education and Outreach Committee Members

Sue Parrish, Siskiyou Field Institute - Chair
Carmela Amato, Wolf Creek RFPD
Bruce Bartow, Josephine County
Max Bennet, Southern Oregon Research and Extension
Neil Benson, Josephine County
Ralph Bowman, Bowman Production
Susan Chapp, Forestry Action Committee
Rita Dyer, Rogue River - Siskiyou National Forest
Julia Genre, Rogue River - Siskiyou National Forest
Tim Gonzales, Bureau of Land Management Medford District
Rob Hambleton, Williams Educational Coalition
Sara McDonald, Commission for Children and Families
Gail Perotti, 7 Basins Neighborhood Fire Planning Project
Ron Phillips, Illinois Valley Community Response Team
Kent Romney, Rural/Metro
Jack Shipley, Applegate Partnership
Mark Sorenson, Josephine County Emergency Services
Steve Scruggs, Williams RFPD
Sandy Shaffer, Applegate Fire Plan
Jenna Stanke, Fire Safety Officer, Jackson County
Dennis Turco, ODF
Scott Williams, Grants Pass Department of Public Safety

Education and Outreach Objectives

- Develop strategies for increasing citizen awareness and action for fire prevention
- Reach out to all citizens in the county (including people of all ages, ethnicity, income levels, etc.)

Current Activities

The Education and Outreach Committee has focused on developing an education and outreach campaign that can be implemented for many years to come. In 2004, several programs and activities have already taken place while strategic planning continues for 2005 and beyond.

Rogue Valley Fire Prevention Coop

The Rogue Valley Fire Prevention Cooperative (RVFPC) is organized as an interagency fire service/public safety organization. The objectives of the Cooperative are to:

- Unite those agencies engaged in fire prevention and public safety education;
- Promote an interagency exchange of ideas, programs, and resources in the areas of fire prevention and public safety education.
- Promote, coordinate, and actively support interagency participation in fire prevention activities;
- Act as a central agency for the exchange of professional information among its members; and
- Obtain a reduction in the number of preventable fires within the jurisdiction of the Cooperative.

Membership in the Rogue Valley Fire Prevention Cooperative is open to any organization professionally engaged in fire prevention and/or public safety education. More information on the Cooperative can be found at http://159.121.125.11/swo/coop/.

Education and Outreach Programs

There are numerous agencies and organizations in Southern Oregon that provide education opportunities to people of all ages. These organizations can provide a venue for education specifically focused on fire prevention and preparedness.

Many of the social service agencies in Josephine County are also eager to assist in disseminating information and resources to their clients.

Interactive Website for Fire Education

The Siskiyou Field Institute is working on a concept for an interactive online learning center about fuels reduction and fire planning aimed at youth education. The concept is to gather information from different agencies and to put it on a fun, easy to use, interactive web site. There is a structure available for online education that could be used as a model for fuels reduction and fire planning education. The site would be informative, providing education about fuels reduction and other matters related to fire planning, and also interactive, allowing modeling of different prescriptions and landscaping. As the data becomes available, fire hazard maps, available resources, and fire planning options could be linked.

Video

There are many videos on wildfire, available through FIREWISE and other organizations that can help educate citizens and business on fire safety, preparedness and mitigation. Josephine County has also dedicated funds to use video as a part of the education and outreach campaign. Alternatives discussed by the JCIFP Education committee have included developing footage and creating streaming video for the interactive on-line learning center. Video programs could focus on the "how-to" for cleaning gutters, doing defensible space work, etc. This video could be provided to TV stations, used on the on-line website, made into short videos and made available to video stores and libraries. Videos could also be presented at meetings with parents and kids.

Josephine County Fair

The Rogue Valley Fire Prevention Cooperative is hosting the Josephine County Integrated Fire Plan at their booth at the County Fair. The County will provide flyers on home-clean up and evacuation and "Are You Prepared" signs. The County will also provide a map of fire history for the display booth. (Committee members noted that this has proven to be a good idea in the past.) People can identify where they live with a pin.

Recognition Program

Jackson County Planning is in the process of developing a recognition and certification program for homes that meet the County's standards for fire safety. At a meeting with the Rogue Valley Fire Chief's Association, both counties agreed that a two-county recognition program would assist in creating strong name recognition and credibility for the program. The fire chief's and County representatives came to consensus about the standards for the certification (based on the standards

set by both counties fire safety ordinances). Development, marketing and implementation of this program is one of the primary actions of the JCIFP Education and Outreach committee.

The Applegator Newspaper

In the Applegate Valley portion of Josephine County, a local newspaper has been providing special semi-annual fire issues of the Applegator for several years. Articles are written by local residents, fire chiefs and fire fighters, federal and state land managers, and scientists. Sponsored by the Applegate Partnership, these special issues are a part of the continued education element of the Applegate Fire Plan project, and copies of the Applegator are delivered, free of charge, to every home in the valley. The JCIFP Education committee will look into combining efforts with the Applegator staff, as it has been shown to be the most effective method of relating fire issues to the community.

Grant Opportunities

National Fire Plan

Josephine County requested funding from the National Fire Plan in FY 2005 to develop and implement the community fire protection education and outreach program and to support the JCIFP. The grant objectives were aimed at increasing the level of awareness and action of residents throughout the county about fire protection, fuels reduction programs, and fire prevention. The program is intended to support the objectives of the JCIFP through coordination between the public agencies, community organizations and fire districts and will utilize the risk assessment tool developed through the JCIFP as part of the education and outreach program. Unfortunately, this grant was not ranked as a priority for funding by the Forest Service regional office.

Forest Service and BLM Regional Advisory Council (RAC) Title II Grants

Josephine County also submitted grants to the Forest Service and BLM RAC groups for funding to support the development of an interactive, on-line learning center. The Josephine County Community Development Department, Siskiyou Field Institute, and local online education experts propose to build an interactive website that collates the latest information about fire preparedness and fuels reduction to better prepare the public about how to respond to the next forest fire. Grant objectives focused on educating sectors of the public difficult to reach through traditional outreach about how to be Fire Safe in Josephine County. This type of program is intended to maximize the learning opportunities for residents and others using the web site by collating and synthesizing the latest information into engaging activities that allow the user to “play” while learning about the region’s unique attributes, fuels reduction concepts, current laws, etc. to. This program can also enable private landowners to develop a personalized plan that, when implemented, will meet the criteria for fire preparedness. RAC grants are scheduled to be announced in the fall of 2004.

National Fire Prevention Resources

Firewise

The Firewise web site contains educational information for people who live or vacation in fire-prone areas of the United States. It was designed to acquaint residents with the challenges of living with wildland fire. The program includes a website with information for home owners and firefighters.

Educational and informational resources include Wildfire News & Notes (a publication for wildland firefighters) and for the public an interactive games and tutorials, an ask an expert section and message board, publicity for Firewise Communities Workshops, and information for participating in the Firewise Communities/USA recognition program. All information is supplied and approved by the National Wildfire Coordinating Group, a consortium of wildland fire agencies that includes the USDA-Forest Service, the Department of Interior, the National Association of State Foresters, the U.S. Fire Administration and the National Fire Protection Association. *http://www.firewise.org*.

EcoSmart

EcoSmart is a Web-based software program designed to evaluate the economic trade-offs between different landscape practices on residential parcels. The program estimates the impacts of strategic tree placement, rainfall management, and fire prevention practices. Users work in a computer-simulation environment to test various landscape and hydrologic alternatives to arrive at environmentally and economically sound solutions. In 2004, EcoSmart developed the FireWise program. FireWise is an interactive, flexible, graphical tool designed to help residents make fire safety choices while considering ways to enhance beauty, retain native vegetation, ensure privacy, conserve water, and save energy. FireWise is an interactive and flexible graphical-tool designed to assist you in identifying fire-smart choices while considering the ways to retain native fuels, irrigate your landscape, and insure privacy. The EcoSmart program is run by the Center for Urban Forest Research, Forest Service Pacific Southwest Research Station. *http://cufr.ucdavis.edu/ecosmart/firewise*.

Josephine County Wildfire Education and Outreach Campaign 2005

I. Project statement

Conduct an education/awareness campaign in the spring of 2005 to prepare Josephine County residents for living with wildfire, and provide ways for residents to communicate their needs and ideas to the education committee. This campaign will also assist residents prepare for fire season.

II. Campaign Title: Wildfire: Are You Prepared?

III. Introduction:

Josephine County has a fire dependent ecosystem. County residents can minimize the damaging effects of wildfire by taking action around their homes and communities. Spring is an excellent time to prepare for the upcoming wildfire season. This plan provides public education and incentives for wildfire preparedness. Plan implementation will be a coordinated effort between county agencies, fire districts, social service organizations, private non-profits, community groups, and individuals.

IV. Situation Analysis:

The suppression of wildfire in Josephine County has led to dense wildland vegetation. During prolonged drought large quantities of vegetation die creating more potential wildfire fuel intensifying damage during wildfires. Increases in rural home construction in the last 30 years have put more residents at risk during wildfire. This is due to more homes being built in the wildland-urban interface, as well as an increase in the potential for human-caused fires given the proximity of people to the forest.

V. Campaign Objectives:

6. Use campaign theme "Wildfire: Are You Prepared" to motivate Josephine County rural residents to take action to reduce potential losses from wildfire.
7. Communicate to residents specific actions they can do to mitigate wildfires' effects and identify and/or develop promotional and educational tools.
8. Form and utilize partnerships with agencies, counties, private businesses, non-profit and community groups, and individuals to implement the plan and help promote resident actions.
9. Provide incentives to motivate residents to take wildfire mitigation actions (fuel reduction and landscaping to create defensible space around homes.)
10. Develop a communications plan and foster media partnerships to promote resident action.

VI. Target Audience:

The campaign will be targeted to all Josephine County Residents and coordinated with Jackson County organizations and residents.

VII. Priority Activities for 2005 - Campaign Implementation Plan

Objective A: Select campaign theme: **"Wildfire: Are You Prepared"**

Activity A.	Include the theme on all County Fire Plan and related materials		
Project Leader	Kathy		
Target Audience	Josephine and Jackson County Residents		
Task	**Name**	**Date Due**	**Notes**
1: Use theme on all fire-related materials	Kathy	Ongoing	Provide RFPD's, Committee members, ODF, FS, BLM, and Jackson and Josephine Counties with logos and existing campaign materials.

Objective B: Communicate to residents specific actions they can do to mitigate wildfires' effects and identify and/or develop promotional and educational tools.

Activity B.1	Develop flyers and posters campaign theme		
Project Leader	Neil, Julia & Kathy		
Target Audience	Josephine and Jackson County Residents		
Task	**Name**	**Date Due**	**Notes**
1: Print and Distribute Home-Clean up Flyers	Neil	April 2004	Completed
2: Print and Distribute Evacuation Flyers	Neil, Kathy, Bruce, and Jenna	July 15, 2004	Bruce will talk with Grants Pass Courier, Jenna will print and distribute at the County fair, Neil will coordinate to include on Mobile Display.

Activity B.2	Coordinate on-line learning center		
Project Leader	Sue		
Target Audience	Josephine and Jackson County Residents		
Task	**Name**	**Date Due**	**Notes**
1: Obtain Funding	Sue	October 2004	BLM and Forest Service grants submitted for funding
2: Design Website	Julie Joki, Theresa	October 2004	Review curriculum used in Spring 2004
3: Coordinate with Jackson County site	Sue, Keith Massie	December 2004	
4: Include EcoSmart program	Kathy	December 2004	Coordinate with Jim Geiger - http://wcufre.ucdavis.edu/ecosmart/firewise/.

Activity B.3	School Programs selection/development		
Project Leader	Sue		
Target Audience	Josephine County Youth		
Task	**Name**	**Date Due**	**Notes**
1: Identify target schools/populations	Sue, Megan in Jackson County, Sara	October 2004	Identify existing resources and ongoing programs
2: Develop Curriculum	Lloyd Lawless	October 2004	Review curriculum used in Spring 2004
3: Train-the-Trainers	Lloyd Lawless, Sue, Megan	December 2004	Train teachers, volunteer firefighters, FAC, after school program leaders
4: Conduct outreach programs	Lloyd Lawless, Sue, Megan	April/May 2005	For school and after-school programs

Activity B.4	Create mobile display for County Fair		
Project Leader	Neil, Sara, Sue		
Target Audience	All Josephine County Residents and Visitors		
Task	**Name**	**Date Due**	**Notes**
1: Identify Content	Neil, Dennis	July 10, 2004	Use existing JCIFP materials for Display Board
2: Coordinate w/ RVFPC	Neil, Julia, Dennis	July 10, 2004	Identify display dimensions
3: Put display together	Neil	August 10, 04	Coordinate with Dennis, Sue and Sara

Activity B.5	Develop training and materials on home fire protection activities for social service providers to bring to clients		
Project Leader	Sara		
Target Audience	Social service providers (case workers/field staff)		
Task	**Name**	**Date Due**	**Notes**
1: Identify Training Content	Sara and ?	October 2004	Use existing JCIFP materials
2: Provide Caseworkers Training	?	January 2005	
3: Conduct client training	Sara, Caseworkers	April/May 2005	

Activity B.6	Develop and disseminate quarterly JCIFP newsletter		
Project Leader	Kathy		
Target Audience	Josephine County Residents		
Task	**Name**	**Date Due**	**Notes**
1: Talk w/Ap. Ed.	Kathy	Aug. 2004	Review alternatives for publication
2: Develop content	Kathy, ?	Ongoing	Coordinate w/ JCIFP partners quarterly

Activity B.7	Develop, maintain, and disseminate resource clearing house		
Project Leader	Kathy, Neil		
Target Audience	Josephine County Residents		
Task	**Name**	**Date Due**	**Notes**
1: Collect information	Kathy	Oct. 2004	Post information on-line
2: Put information in libraries, video stores and RPFDs.	Neil	December 2004	JCIFP partners will work with local businesses and libraries to organize displays. (Put materials on display.)
3: Post displays	Neil		Assign to libraries, rfpds, video stores
4: Distribute materials			
5: Evaluate success			Talk w/ staff where displays are.

Objective C. Form and utilize partnerships with agencies, counties, businesses, non-profits, community groups and individuals to implement the plan and promote resident actions.

Activity C.1	Coordinate with Municipalities, County Landfills and Biomass One to offer free dump days for fuels (vegetation) cleanup.		
Project Leader			
Target Audience	Jackson and Josephine County Residents		
Task	**Name**	**Date Due**	**Notes**
1: Talk w/ landfills & transfer stations	Bruce and Jenna	August 2004	Josephine and Jackson Counties
2: Find sponsors			Find local sponsors for the event.

Objective D: Provide incentives to motivate residents to take wildfire mitigation actions such as fuel reduction and landscaping to create defensible space around homes.

Activity D.1	Develop standards and design recognition certificate sticker for wildfire safe homes.		
Project Leader	Jenna Stanke, RVFCA		
Target Audience	Jackson and Josephine County Residents		
Task	**Name**	**Date Due**	**Notes**
1: Dev. standards	RVFCA	Aug. 2004	Meeting with RVFCA 6/24/04
2: Material Prod.	J. Stanke		Certificate & sticker. Cost: $6000-$8000
3: Train Certifiers			
4: Marketing plan			.

VIII. Long Term Campaign Objectives and Action Items:

Objective	Task	Coordinator	Audience	Timeline	Priority	Notes
Objective A. Focus on theme	A. 1. Focus "Wildfire: Are You Prepared" on all JCIFP materials	KL, RFPD's, County, BLM, FS, ODF, Jack, Co. RVFPC	Josephine & Jackson County Residents	Ongoing	High	Community meetings, Fire plan Documents, etc.
Objective B. Communicate to residents specific actions they can do to mitigate wildfires' effects and identify and/or develop promotional and educational tools.	B.1. Develop flyers/posters campaign theme	Neil, Julia & Kathy	Citizens w/ special needs, rfpd	Completed 4/04 - Update 1/05	High	2004 Education flyer (home clean-up and evacuation
	B.2. Coordinate on-line learning center	Sue Parrish	Josephine &Jackson County Residents	December 1, 2004	High	Collating existing resources is ongoing. Create structure
	B.3. School Programs selection/development	Sue, OSU (Megan), Sara McDonald, Lloyd, FAC (Participant)	Kids in Josephine and Jackson Counties	December 1, 2004	High	SFI can help coordinate. Lloyd can expand on curriculum developed. OSU can coordinate w/ Jackson Co.
	B.4. Create mobile display	ODF	All Josephine County Residents	August 2004 (Josephine County fair)	High (funding is needed for time)	Coordinated with the RVFPC. SFI can help put this together.
	B.5. Develop training materials for social service providers	Sara McDonald	Case workers/field staff)	December 1, 2004	High	Coordinate training with ODF and County (ICS?)
	B.6. Develop and disseminate quarterly JCIFP newsletter	Kathy, Neil, Dennis, and Applegator editor	Josephine and Jackson County Residents	August, November, February, May	High	This helps provide continuity
	B.7. Develop, maintain, and disseminate resource clearing house	Kathy, Neil	All Josephine & Jackson County Residents	December 1, 2004	High	Collect available resources - post on-line, in stores, RFPDs, libraries and RVFPC.
	B.8. Develop and Distribute Welcome Packet	Chief Steve Scruggs, County Planning, Kathy	Williams residents and new County Residents	December 1, 2004	Medium (dependent on funding)	Coordinate with Article 76 - develop a handout using theme. Distribute summary of JCIFP.
	B.9. Develop contractors training info	Fuels Reduction committee	Contractor	Long-term	Low	Coordinate with fuels reduction committee

Objective	Task	Coordinator	Audience	Timeline	Priority	Notes
Objective C. Form and use partnerships	C. 1 Coordinate with County Landfill for free dump days		Josephine and Jackson Counties	October 1, 2004	High	Coordinate in Spring 2005 as a 2-county effort.
	C.2. Educate commercial nurseries and landscapers - fire resistant plants.	Jenna Stanke and Chris Chambers	Josephine and Jackson Counties	Jackson and Josephine County Fairs - 2005	Medium	Jackson County contacts
	C.3. Work with Real Estate Agents to share info		Home buyers	Long-term	Medium	Brett Fillis has made some initial contacts
	C.4. Work with Pet stores, 4 H, Humane Society, & OSU			Long-term		Jo County Public Health, Rebecca Bentley & Cheryl Henderson.
	C.5. Work w/ Insurance Agents		Home buyers	Long-term	Low	
	C.6. Work w/ Master Gardeners - spring garden fair.			Long-term	Low	Coordinate with OSU and Annual Garden Fair in Jackson County
	C.7. Coordinate Home Depot display w/ fire resistant info.		Builders, developershome-owner	Long-term	Low	
Objective D: Provide incentives - motivate residents	D.1. Develop recognition program	Jenna, RVFCA, Sandy	Jo and Jack. Co. Citizens	December 1, 2004	High	Jenna - materials. RVFCA - standards.
	D.2 Identify fuels treatment financial assistance	ODF and Fuels Reduction Committee	Citizens in high risk areas	December 1, 2004	High	Work through RFPD Fire Plan Efforts
Objective E. Develop a communic-ations plan	E.1. Create media packets	D. Turco, K. Romney, Neil	Local media	January 1, 2005	High	Write press release.
	E.2. Work with TV stations	Ralph Bowman, Kent Romney	Local TV stations	January 1, 2005	Medium	Deliver media packets, create footage
	E.3. Work with newspapers and mags to promote campaign	Jenna	Local garden columns	August 1, 2004	Medium	Courier, Medford Mail Tribune, Real Estate Sections

Education and Outreach Actions

1. Develop principles and strategies for community mobilization.

Timeline:	April 2004 – June 2005
Outcomes:	Model approach for community organizing, Case Study from Thompson Creek Fuels Reduction project.
Progress:	Community Fire Plan meetings and events held and evaluated in Williams and Wolf Creek between April and July 2004. Additional meetings scheduled in the Rural/Metro area and Thompson Creek. Lessons learned will be documented in a case study.
Lead:	Kathy, Neil

2. Refine and implement the JCIFP Spring Fire Prevention Campaign

Timeline:	June 2004 – June 2005
Outcomes:	Actions implemented (see the campaign document.) Evaluation and priorities for future years.
Progress:	A draft campaign document has been developed, priority actions identified and lead coordinators appointed.
Lead:	JCIFP Education Committee

3. Focus on efforts with children.

Timeline:	June 2004 – Ongoing
Outcomes:	Increased fire prevention activities and awareness for children
Progress:	2 presentations by Rural/Metro to after school program in May 2004. Included in Spring 2005 Campaign activities
Lead:	JCIFP Education Committee (Lloyd, Sue and Sara)

4. Coordinate all activities with the Rogue Valley Fire Prevention Cooperative.

Timeline:	June 2004 – Ongoing
Outcomes:	Strengthened partnership with the RVFPC (increased ownership of activities and opportunities for two county coordination.)
Progress:	RVFPC is hosting the JCIFP booth at the County Fair
Lead:	JCIFP Education Committee

5. Identify opportunities to coordinate and leverage resources with the insurance industry.

Two resources include the Institute for Business and Home Safety and the Insurance Information Service of Oregon and Idaho (www.ibhs.org and www.insuranceoregon.org).

Timeline:	October 2004 – Ongoing
Outcomes:	Potential support from the insurance industry. Increased incentives for homeowners.
Progress:	
Lead:	TBD

Monitoring Education and Outreach Actions

Action	Monitoring Tasks	Performance Measures	Timeline	Coordinator
1. Develop principles and strategies for community mobilization	Evaluate techniques used to mobilize and education community members Report on techniques and lessons learned	Increased awareness of fire risk Increase action to reduce fire risk	Annual review	Education & Outreach Committee
2. Refine and implement the JCIFP Spring Fire Prevention Campaign	Evaluate tasks implemented during the campaign, successes and challenges	Number of homes certified in recognition program Number of participants in free day at the dump Number of displays Materials distributed	Annual Review (beginning June 2005)	Education & Outreach Committee
3. Focus on efforts with children.	Evaluate number and type of fire education programs delivered to youth.	Number of children that participate in County or RFPD fire activities	Annual Evaluation	Education and Outreach Committee
4. Coordinate all activities with the Rogue Valley Fire Prevention Cooperative.	Work with RVFPC to build their capabilities to maintain oversight to two-county fire prevention activities.	Number of programs that RVFPC are involved with	Annual evaluation	RVFPC
5. Identify opportunities to coordinate and leverage resources with the insurance industry.	Monitor interest and actions by the Insurance industry	Number of programs (or amount of funds) that the insurance industry invests in.)	Track number of recognition stickers issued annually	JCIFP Education and Outreach Committee

Examples of Educational Materials for Defensible Space

Following are two examples of educational materials for fire protection and defensible space. For more information, refer to resource E for links to website and other educational sources.

Ten Steps to "Get in the Zone!" – FireFree Program – 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 wood piles 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.

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-resistive. 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"

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 can not 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.

CHAPTER 9: BIOMASS UTILIZATION AND ECONOMIC DEVELOPMENT

In order to sustain fire protection in Josephine County, there must be a way to pay for it. To date, grant funding through the National Fire Plan and County Title III funds have paid for most of the fuels reduction work that has occurred on private lands. With National Fire Plan funding declining annually, and County payments in jeopardy of not being reauthorized after 2006, the County must identify a strategy to pay for hazardous fuels treatment in the future.

Local investment and incentives may well be the best strategy there is. Whether it be local businesses or local citizens, paying to reduce fuels around personal property is a big step towards being accountable and responsible for personal safety. An incentive, however, can go a long ways towards motivating people and businesses to take action. If there are markets that will ensure payment for raw materials (and a way to transfer the raw materials), a local landowner may be much more inclined to reduce hazardous fuels.

Even Federal policies recognize the value of biomass marketing and utilization. Since its inception, the National Fire Plan has funded small diameter marketing and utilization through the Forest Service Economic Action Programs. In 2003, President Bush signed into law the Healthy Forests Restoration Act, which included provisions for biomass marketing and utilization. However, meaningful funding and technical assistance must be provided to ensure that communities have the opportunity to identify feasible and economically beneficial ways to use raw materials from fuels reduction projects.

Josephine County, through a number of grants and programs, is beginning to create a foundation for understanding potential markets and utilizing small diameter wood products. A 2003 report developed by Sustainable Northwest for the Sunny Wolf Community Response Team examined timber supply in Josephine County. The same National Fire Plan grant funded a product feasibility study in the region. The Southwestern Oregon Resource and Conservation Development (RC&D) Council is developing a small diameter marketing and utilization clearinghouse through a grant from the National Fire Plan. In addition, the Jefferson Sustainable Development Initiative is currently coordinating the Boaz Forest Health and Small Diameter Utilization Project.

This chapter highlights these projects and reports underway in Josephine County. The JCIFP Fuels Reduction Committee is actively working with these partners to create opportunities for biomass marketing and utilization and sustain fuels reduction through profits from the raw materials.

Josephine County Timber Supply

By Ryan Temple, Sustainable Northwest for the Sunny Wolf Community Response Team

This report is an attempt to quantify the total timber supply of Josephine County and to design harvest scenarios that will assist local planners, business and community members, and natural resource professionals in developing long-term economic development strategies for wood manufacturing in the county. The information used in this report is broad in scope and should be considered as support for strategic decision-making. More detailed, site-specific information is needed to make tactical or project level decisions.

Methods

Forest inventory data for Josephine County was compiled from a variety of sources and forms the foundation of this study. For the purposes of this study the inventoried timberlands were divided between federal (BLM and Forest Service) and state & private lands. The private lands are a combination of non-industrial private land owners and private industrial land owners. State lands represent Oregon state lands and county owned lands.

Inventory data from the two land ownership classes was analyzed based on fire risk to create two sub categories for land at high risk to wildfire. The process created four supply scenarios (all federal land, all state & private land, federal land at risk to wildfire, and state & private land at risk to wildfire).

Three forest restoration treatments were simulated for each of the four supply scenarios utilizing the forest inventory data. The harvest volumes created by the three treatments were summarized and graphed to illustrate the variability in species mix and diameter class across the different supply scenarios and treatments.

Harvest costs and product values were quantified based on local log values and logging conditions on each of the land ownerships for all of the treatments. This information was used to develop potential harvest scenarios based on budgetary and operational constraints.

Data Sets

Forest inventory data for Josephine County was obtained from three sources; Forest Inventory Analysis (FIA) for private and state lands, Continuous Vegetation Surveys (CVS) for the Rogue River - Siskiyou National Forest, and Natural Resource Inventories (NRI) for the Medford District BLM. The FIA and CVS data were downloaded from the web, while the NRI data was obtained from the Forest Service's Pacific Northwest Research Station. For the federal land only forest inventory data from timberlands outside of wilderness and inventoried roadless areas was considered available for harvest. All state & private lands were considered available for harvest.

Potential Supply Scenarios

For each of the landownership classes two potential supply scenarios were developed to give an overview of different possible outcomes of fuel reduction treatments in Josephine County.

1) All federal lands outside of wilderness, roadless areas and other special management areas such as research natural areas.

2) All private and state lands
3) All federal lands outside of wilderness and roadless areas at medium to high risk of wildfire
4) All private and state lands at medium to high risk of wildfire.

Scenario	Private acres	State acres	Federal acres
All Stands	223945	48444	494921
Fire Risk	202408	36146	194977

* See Resource A for definitions of fire hazard

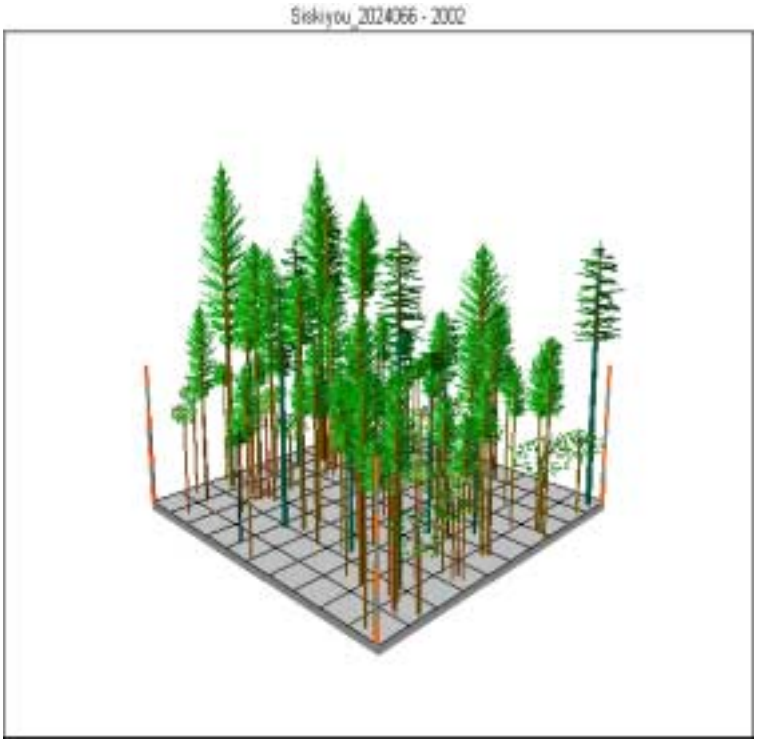
Treatments

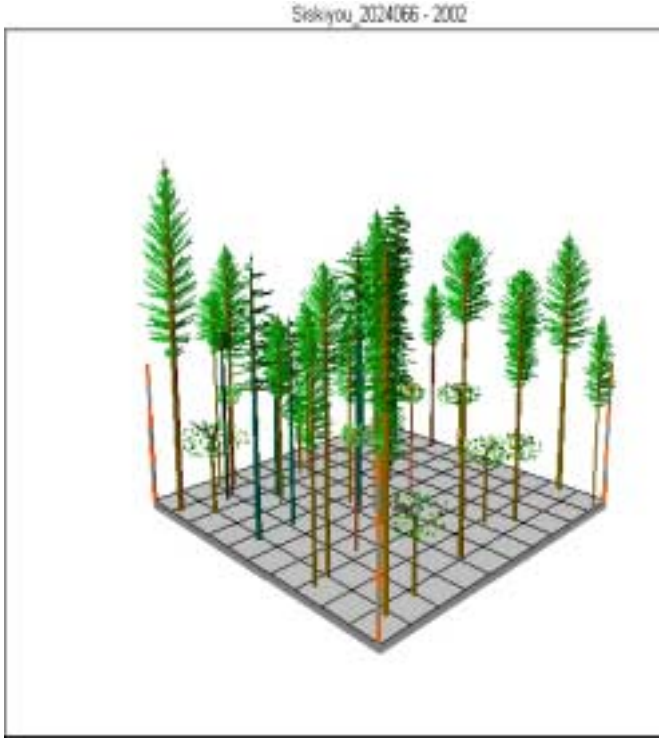
Three treatments were developed based on a literature review and the advice of local land managers. It is important to recognize that the complexity of the forest ecosystems in Josephine County require a great deal of flexibility when applying restoration treatments. All of the land managers that were contacted pointed out the fact that treatments are site specific and that one treatment cannot be used across even a small portion of the landscape. The three treatments that were chosen represent the most widely utilized treatments on both public and private land. For the purpose of this study the treatments needed to be defined to insure uniformity when the treatments are modeled across the various scenarios. Each treatment should be viewed not as a hard a fast rule, but as a general guideline that can be adjusted to fit the site-specific requirements of each project.

1) Thin from below to 9” dbh. This is a standard fuel reduction treatment that reduces ladder fuels by removing stems less than 9 inches dbh.
2) Thin from below to basal area of 120 ft^2. This treatment reduces ladder fuels, but the objective is to create a diverse forest structure that is dominated by larger trees.
3) Thin from below to basal area of 80 ft^2. Removes ladder fuels and some large trees. The treatment is designed to create gap openings in the canopy, which will reduce the threat of crown fire, and promote regeneration of fire tolerant pines.

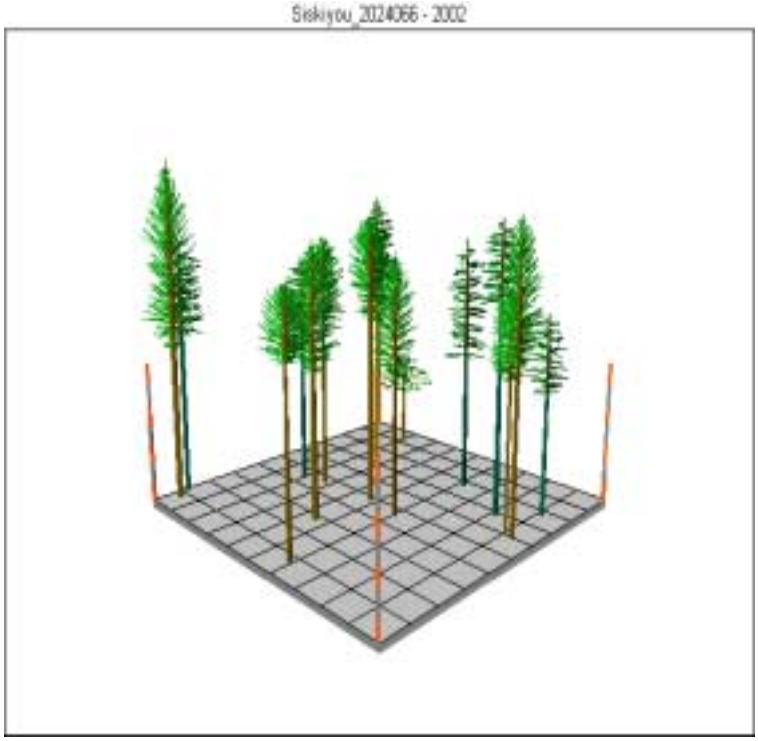
A representative stand was chosen from the Federal lands at medium to high risk of wildfire to show the results of the three treatments.

Stand	Dominant Sp	DBHq (in)	Trees per acre	Basal Area	Volume(BF/acre)
2024066	DF-SP-BO	6.34	954	209	33,755





Thin from below to 120 ft^2 basal area



Thin from below to 80 ft^2 of basal area

Harvest Volumes

The three forest restoration treatments were simulated for each of the four supply scenarios generating total volumes by species and diameter class on a per acre basis. The results of each of the treatments are represented on the following graphs that depict the green tonnage of the seven most dominant species by diameter class. Harvested trees were broken down into four size classes based on diameter at breast height (dbh).

1) < 5” dbh. The smallest size class is generally considered unmerchantable is most often treated in the woods or disposed of at the landing
2) 5-9” dbh. What is commonly referred to as small diameter wood. This size class offers the most opportunity for value added manufacturing in the area because of both its abundance and relatively cheap costs
3) 9-21”. Sawtimber. This size class is the most widely utilized by primary manufactures. 9 inches is generally considered the smallest size tree that mills will take.
4) >21”. Large sawtimber. Harvested trees over 21” are included in the study.

Species Mix

Previous studies in the area focused primarily on quantifying biomass feed stock volumes based on size class and total tonnage and did not separate species. Breaking down the harvest volume by species and diameter is a direct attempt to increase the interest of both primary and secondary manufactures. While biomass plants are only interested in tonnage, secondary manufactures are more concerned with specific species and size classes that are unique to their product lines.

Differences in species and size classes

Variability in elevation and site class and past management practices are reflected in different species mixes and size classes for the two landownership classes. Elevations vary on public land from 1100 ft to 5900 ft with an average of nearly 3000 ft. On state and private lands the range is 1000 ft to 4100 ft with an average of 1700 ft. Higher elevation forests contain a slightly different species mix with large numbers of conifers. Lower elevation drier state & private lands contain a larger proportion of hardwoods. More intense management on state & private lands results in younger stands and a larger percentage of trees in the smaller dbh classes. Less intense management on public lands has left a larger portion of older mature stands that are reflected in the large number of trees in the 21” dbh and greater class.

Note: The full report provides graphs that compare the total harvest volumes from the three treatments across the four supply scenarios to illustrate the dramatic differences in total volumes removed. This report can be found on the Josephine County Integrated Fire Plan Web site.

Developing Harvest Scenarios

It is not feasible that all the lands in need of fuel reductions will be treated, but conservative harvest levels can be developed based on existing planning documents for high priority areas, cost of treatments, and budgetary and operational constraints. The remainder of this report attempts to quantify the major constraints to fuel reductions in Josephine County. This information can then be used to develop simplistic harvest scenarios.

Operational restraints

Because of Josephine County's steep, rough terrain, restoration and fuel reductions will carry high costs. Projects on steeper ground mean increased labor and equipment costs compared with flatter terrain. Most ground based equipment such as feller bunchers, rubber tired skidders and forwarders will no operate on ground steeper than 35%.

Land Ownership (medium to high risk of wildfire)	Total Acres	Cable (>40% slope)	Tractor (<40% slope)	Avg Slope (%)
Federal	194977	144246	48850	52
State-Private	238554	44128	194426	28.5

Treatment Costs

Treatment costs were determined for each ownership class using the average of six representative stands (3 federal and 3 state & private) to compare how costs differed between both treatments and terrain. Treatment costs for each stand were determined by a harvest cost simulator STHARVEST (Hartsough et al, 2001), other published reports, and personal communications with local contractors. Costs were higher for both the TFB 120 BA and TFB 80 BA in both ownership classes because of the larger wood volumes removed. All treatments showed a significant increase in cost when harvest equipment was changed from tractor (ground based) to cable. Lower costs on private land reflect less steep slopes and lower overall removals.

Harvest cost ($/acre)	Federal		State & Private	
Treatments	Tractor	Cable	Tractor	Cable
TFB 9"	$838	$1462	$568	$1200
TFB 120 BA	$1185	$2414	$468	$1524
TFB 80 BA	$1881	$4324	$1018	$2436

Value of Restoration Byproducts

Net values for the representative stands indicate the dramatic increases in value from the removal of larger logs in the TFB 120 BA and TFB 80 BA treatments. Removing larger trees not only produces

higher revenue because of the higher log value it also drives down the cost per unit of wood harvested.

Net cost and revenues with no market for biomass on federal land (per acre)

Treatments	Costs (tractor)	Revenue (NV at landing)	Net Cost/Revenue
TFB 9”	$838	$197	-$641
TFB 120 BA	$1185	$1085	-$100
TFB 80 BA	$1881	$3241	$1360

* See table 7 for sawlog price assumptions

Net cost and revenues with no market for biomass on state & private land (per acre)

Treatments	Costs (tractor)	Revenue (NV at landing)	Net Cost/Revenue
TFB 9”	$568	$26	-$545
TFB 120 BA	$351	$75	-$276
TFB 80 BA	$1018	$1165	$147

* See table 7 for sawlog price assumptions

Potential Biomass Market

At present there is little to no market for small diameter material in Josephine County. If a market for small diameter material could be developed and sustained, net treatment costs would be reduced by 1/3-2/3, depending on the treatment.

Market for Small Diameter on federal lands (Less than 5 in SED)(per acre)

Treatments	Costs (tractor)	Revenue (NV at landing)	Net Cost/Revenue
TFB 9”	$838	$443	-$395
TFB 120 BA	$1185	$1363	$178
TFB 80 BA	$1881	$3629	$1748

* Small diameter (<5 in SED) price $26/ton

Market for Small Diameter on state & private lands (Less than 5 in SED)(per acre)

Treatments	Costs (tractor)	Revenue (NV at landing)	Net Cost/Revenue
TFB 9”	$568	$259	-$309
TFB 120 BA	$351	$199	-$152
TFB 80 BA	$1018	$1450	$432

* Small diameter (<5 in SED) price $26/ton

If we look at potential subsidies to reduce fuel loads it is easy to see the limitations of large-scale projects. Even with a $10 million dollar subsidy to implement fuel reduction treatments only 15,000-18,000 acres of tractor ground or 8,000-9,000 acres of cable ground could be treated with the TFB 9" under existing market conditions. TFB 80 BA on tractor ground is the only treatment that creates a surplus and would provide additional funds for future treatments. The drop in the net treatment cost resulting from a viable market for small diameter material would dramatically increase the number of acres treated within this budget scenario.

$10 million dollar budget	Tractor		Cable	
Federal	Net Cost/Revenue	Acres treated	Net Cost/Revenue	Acres treated
TFB 9"	-$641	15,001	-$1265	7,905
TFB 120 BA	-$100	52,698	-$1329	7,524
TFB 80 BA	$1360	48,850❶	-$1083	9,234
State & Private				
TFB 9"	-$545	18,349	-$1174	8,518
TFB 120 BA	-$276	35,842	-$1449	6,901
TFB 80 BA	$147	194,426❷	-$1271	7,868

❶ All Federal tractor ground. Creates $66 million dollars in revenues that could be reinvested in treatments on private land or on federal cable ground

❷ All State & Private tractor ground. Creates $28 millions dollars in revenues

Harvest Scenarios

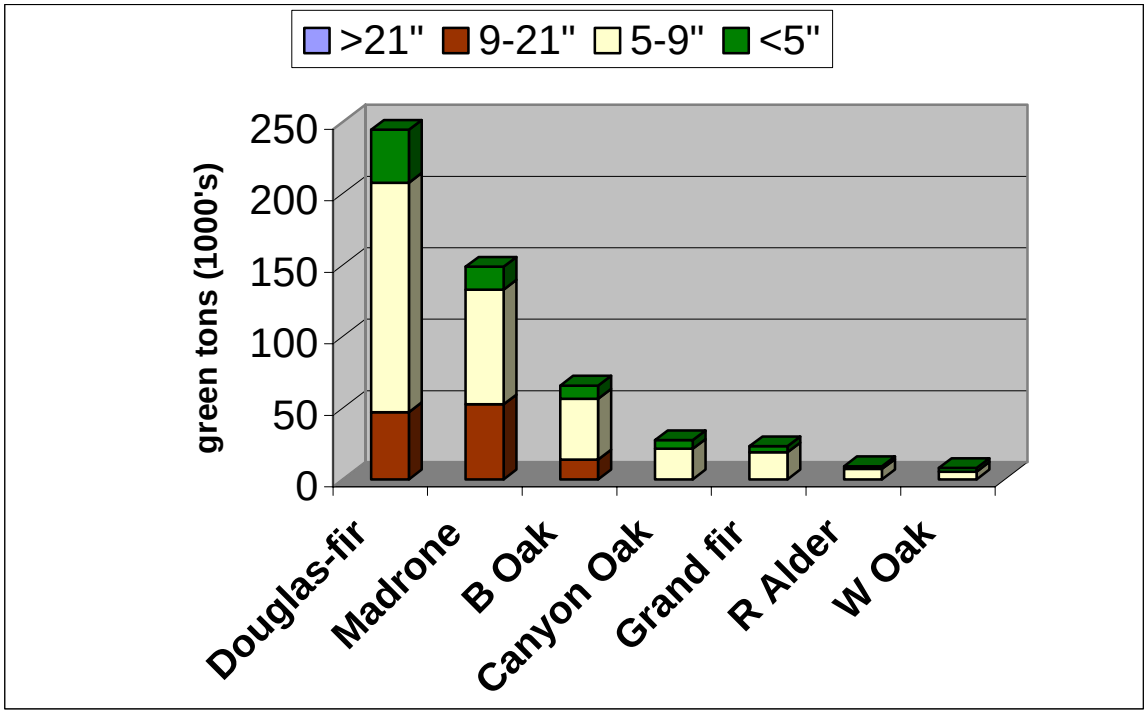
Volumes were compiled in tons/acre so that planners can develop different harvest scenarios based on political, ecological, and economic realities within Josephine County. Below are two examples of possible harvest scenarios.

Example 1

6. $10 million dollar budget (70% of funds to TFB 9", 30% to TFB 120 BA, and 500 acres 80 BA)
7. Thinning on private land at high risk to wildfire
8. Tractor Ground
9. No biomass market

Treatment	TFB 9" 70% ($7.05 million)	TFB 120 BA 30% ($3.02 million)	TFB 80 BA 500 acres
Acres treated	12,938	10,949	500

*The 500 acres treated under the TFB 80 BA creates a surplus of $73,500 that subsidizes the thinning of 174 more acres.



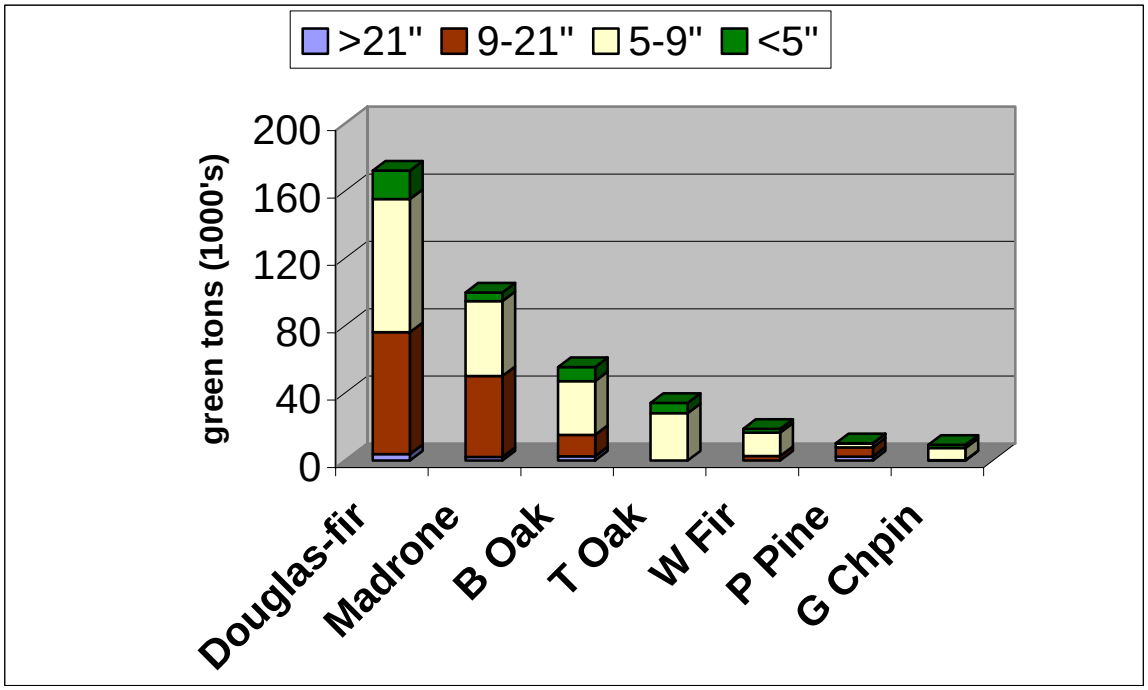
Total harvest volumes under Example 1

Example 2

10. Forest Service and BLM treat 10,000 acres of land at high risk to wildfire with TFB 9”
11. A biomass market exists, which induces private land owners to treat 5000 acres with TFB 80BA and 1000 acres are clear-cut
12. All acres treated are tractor ground

Acres Treated	TFB 9”	TFB 120 BA	TFB 80 BA	Clear Cut
Federal	10,000			
Private			5000	1000

*There would be no offsetting costs or subsidizing because all transactions on private lands would be done primarily for commercial purposes.



Total harvest volume under Example 2

Harvest Analysis

By examining different harvest scenarios land managers and wood manufactures can begin to develop a regional estimate of potential harvest volumes for Josephine County. The two harvest scenarios used in this report show the change in not only volume but species composition when treatments and acreage vary across the landscape. While the three primary species (Douglas-fir, madrone, and black oak) do not change the secondary species shift from canyon live oak, grand fir, red alder, and white oak to tan oak, white fir, ponderosa pine, and golden chinkapin. Manufacturers could come to a general conclusion that Douglas-fir, madrone, and black oak will make up the majority of the future removals and sizes classes will be split between 5-9" and 9-21". Other secondary species will only be represented in the smaller size classes.

Note: Thank you to Sustainable Northwest and the Sunny Wolf Community Response Team for allowing us to include this report.

Southwest Oregon RC&D Small Diameter Marketing and Utilization Clearinghouse Project

The goal of this project is to create a clearinghouse to promote the restoration thinning and market utilization of small diameter timber from forests across the SW Oregon RC&D area of focus, with primary emphasis on Jackson and Josephine counties. An underlying conviction and general purpose for this project is the need to assess and expand markets for the utilization of small diameter timber in the area of interest, as well related external markets.

While patterns of consumption show continued growth, the linkage between available regional resources and related markets display a marked disconnection. Strengthening this connection is a means toward enhancing forest health, bolstering the economic contribution of restoration forestry to regional economics and enriching a cultural connection to the stewardship of private and public forestland.

The goals of this project will be achieved through a related and coordinated series of assessments, network expansion and marketing activities stretching over the calendar year 2004, culminating in a final report in January 2005.

Assessments

Various background (existing) and original assessments will form the basis of departure for the project. The scale for these will be as fine-grained as possible. While the "community" or "affected work-force" is most desirable, it will often be necessary to limit assessment to the county (or larger) scale. These include:

- Socio-economic trends and indicators (approximately 12)
- Forestland ownership patterns, harvest levels and motivating/controlling factors
- Resource supply projections
- Primary and secondary manufacturing capacity

These assessments will be will form the necessary foundation for the inquiry. They will be updated as possible throughout the project and for the final report.

Networking

Networking is an essential component of the project. It forms a foundation for inquiry, as well remains a goal for accomplishment. A strong network of willing and able partners is necessary for the project to accomplish both short- and long-term goals. Networking will proceed across 3 "tiers":

Tier One	Private, non-profit, agency and industry interests actively at work or engaged in managing, manufacturing or marketing small diameter material.
Tier Two	Political, policy, economic development, community, foundation interests observant of and with interests related to the inquiry, but not primarily involved. Managing, manufacturing and marketing interests at work in the sector but distant from active cooperation.
Tier Three	General and consuming public, unengaged landowners, media, and market shapers (e.g. architects, culture/consumption opinion makers).

Tier One networking will proceed with the beginning of the project. These networks will help assess and shape the inquiry. Tier two networks will be engaged after preliminary assessments and through Tier One connections. These are essential for "building out" the capacity of the project and achieving broader goals. Tier Three networks will be both targets of marketing activities and locus of more general information sharing and public support for the endeavor.

Integrated Marketing Plan

In July 2004 partners and advisors to the project will meet with the principal investigator and RC&D to determine next steps. The next step will be to incorporate assembled assessments, developed networks and current opportunities into the most pertinent and informed business plan and public outreach campaign for the marketing of small diameter material. The outline for the plan will be finalized by July, enacted by year-end, and synthesized into the final report. Ryan Temple of Sustainable Northwest will play a key role in shaping and implementing this plan.

Case Study: Boaz Forest Health and Small Diameter Utilization Project

The goal of Boaz project is to enhance forest health and provide regional employment through a collaborative project to remove and process small diameter material. Objectives include assessing technical and economic feasibility, monitoring forest health and fire hazard reduction, determining market opportunities for small diameter material, expanding the capacity of the rural work force, improving community/agency relations, and informing policy discussions at various levels.

The Jefferson Sustainable Development Initiative (JSDI) is leading this effort in collaboration with the BLM in all phases of the Boaz Forest Health and Small Diameter Utilization Project. The benefits of the project to the public interest and community are as follows:

- Models forest restoration and timber stand improvement through thinning of small diameter pole stands;
- Promotes fire hazard reduction, wildlife enhancement and promotion of greater species and habitat diversity;
- Engages the rural work-force; and
- Assesses the economic feasibility of small diameter harvest and production.

CHAPTER 10: SUSTAINING EFFORTS, MONITORING AND EVALUATION

Plan Adoption

To ensure recognition by the public, as well as partner agencies and organizations, Josephine County presented this Josephine County Integrated Fire Plan to the Board of County Commissioners for adoption by resolution on November 8, 2004. Oregon Department of Forestry and the Josephine County Fire Defense Board have also signed the plan in recognition of the collaborative development process.

While the JCIFP provides a foundation and resources for understanding wildfire risk and opportunities to reduce potential losses from wildfire, 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. Examples of local community action include the Applegate Fire Plan, developed in 2001 and the implementation of fuels reduction projects in neighborhoods throughout Josephine County. Other examples include Community Wildfire Protection Plan under development in the Illinois Valley and the recent formation of the Illinois Valley Fire Safe Council. Successful implementation of the JCIFP is dependent upon local community efforts.

The Healthy Forests Restoration Act authorities for Community Wildfire Protection Plans require adoption of this plan, as does the FEMA Disaster Mitigation Act of 2000. With formal adoption of this plan, Josephine County is more competitive for funding that may assist with plan implementation. Furthermore, adoption of this plan highlight the collaborative process between fire districts, local government, community-based organizations and public agencies.

Sustaining Fire Plan Efforts

Development of the JCIFP has been no small task. Implementation and sustaining these efforts will be much more complex. Building a collaborative and cooperative environment between community-based organizations, fire districts, local government and the public land management agencies has been the first step in identifying and prioritizing measures to reduce wildfire risk. Maintaining this cooperation with the public is a long-term effort that requires commitment of all partners involved.

In the past, there has been limited awareness about the investment required to maintain fire protection. From fuels reduction to fire district tax levies, education and prevention to evacuation, citizens must have the information and resources to be active participants in reducing their risk to wildfire. 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 JCIFP encourages citizens to take an active role in identifying needs, developing strategies and implementing solutions to address wildfire risk. Citizen action may be cleaning up brush around homes, installing new smoke detectors, voting to increase support to the local fire district through a bond measure or tax levy, volunteering to be a part of an auxiliary, attending community meetings, or passing along information on fire prevention to neighbors and friends. *Educating people on insurance policies, requirements and incentives is another mechanism for education and outreach. Resource E provides a link to the Institute for Business and Home Safety, along with other educational resources.*

Josephine County is also committed to supporting the fire districts and communities in their fire protection efforts. The County will continue to provide support in coordinating countywide grants when the opportunities become available and providing resource support for mapping and risk

assessment. The County will also support the districts in their endeavors to secure funding for long-term fire prevention efforts. In 2004 and 2005, Josephine County will continue to implement the fire plan by working with fire districts, community organizations and public agencies to coordinate fuels reduction projects with existing dollars. The JCIFP will focus on public meetings in the Rural/Metro region, coordinate a spring education campaign, strengthen emergency management and evacuation procedures, and explore opportunities for biomass marketing and utilization. Finally, the County will provide support to the Rural Fire Protection Districts in their endeavors to develop local Community Wildfire Protection Plans, coordinate fuels reduction projects and strengthen their protection capabilities. JCIFP partners will also focus on refining long-term strategies to maintain fire protection activities in the County.

Assessing Benefits and Costs of Mitigation

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 JCIFP emphasizes developing priorities of 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.

There is national evidence of the benefits that fuels reduction and fire protection. For example, a recent analysis completed by the Rural Technology Initiative as part of a broad investigation of fire risk reduction indicates that the negative impacts of crown fires are underestimated and that the benefits of government investments in fuel reductions are substantial.[46] The report discusses market and non-market values associated with reduction of fire risk, average fire suppression costs by fire size and additional benefits from fuels reductions such as habitat restoration, water quality protection, carbon credits, and others. This type of research can support grant proposals and be used as an educational tool to raise awareness about the need for and benefits from fire protection.

When applying for grants that require benefit/cost analysis, there are resources available through FEMA and other agencies that can assist in quantifying these costs and benefits. Two alternative concepts for assessing the benefits and costs of mitigation projects are described below.

Benefit/Cost Analysis:

Benefit/cost analysis is used in natural hazards mitigation to show if the benefits to life and property protected through mitigation efforts exceed the cost of the mitigation activity. Conducting benefit/cost analysis for a mitigation activity can assist communities in determining whether a project is worth undertaking now, in order to avoid disaster-related damages later. Benefit/cost analysis is based on calculating the frequency and severity of a hazard, avoided future damages, and risk. In benefit/cost analysis, all costs and benefits are evaluated in terms of dollars, and a net benefit/cost ratio is computed to determine whether a project should be

[46] Rural Technology Initiative, Investments in Fuel Removals to Avoid Forest Fires Result in Substantial Benefits, (May 2004), http://www.ruraltech.org/pubs/fact_sheets/fs028/index.asp.

implemented (i.e., if net benefits exceed net costs, the project is worth pursuing). A project must have a benefit/cost ratio greater than 1 in order to be funded.[47]

Precautionary Principle:

The Science and Environmental Health Network is working to implement the precautionary principle as a basis for environmental and public health policy. The principle and the main components of its implementation are:

> *"When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In this context the proponent of an activity, rather than the public, should bear the burden of proof. The process of applying the precautionary principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action."*[48]

Plan Oversight

The primary objective of the Executive Committee is to provide guidance for all elements of planning and implementation of the Josephine County Integrated Fire Plan. The Executive Committee will continue to provide oversight through quarterly meetings and coordination through the Josephine County Fire Defense Board. The specific actions identified by the Executive Committee are listed below with strategies for monitoring outcomes. All activities are ongoing.

Executive Committee Oversight and Monitoring

Objectives	Actions	Outcomes	Performance Measures	Coordinator
Maintain and involvement from each RFPD	Coordinate activities and decisions through the JCFDB.	Coordination & landscape treatments	# of RFPDs involved in the JCIFP #of RFPDs w/ CWPPs.	Jo. County Fire Defense Board
Access and utilize federal dollars while they are available and coordinate priorities for funding	Research potential funding sources Organize efforts to meet funding req. Prepare and submit funding proposals	Increased funding for on-the-ground treatment and planning	Proposals submitted, Grants received Projects implemented and completed Agencies receiving funds and how much	Josephine County Community Development
Find special allocation from Congress to support efforts (Jackson/ Josephine Counties)	Contact legislators and agencies Develop strategies with state and federal agencies	Increased funding for ground treatment and planning	Total funds available to Josephine and Jackson Counties. Total projects implement with funding source	Josephine County Community Development

[47] Oregon Local Natural Hazard Mitigation Plans: An Evaluation Process, Partners for Disaster Resistance and Resilience: Oregon Showcase State, (2002) http://csc.uoregon.edu/PDR_website/projects/state/oem_2002/.
[48] Science and Environmental Health Network, 1998 Wingspread Statement on the Precautionary Principle, http://www.sehn.org/precaution.html.

Objectives	Actions	Outcomes	Performance Measures	Coordinator
Identify incentives for fire protection and community participation (tax incentives, etc.)	Research incentive programs ID programs and develop strategy	Increased fire safety actions by residents/ businesses	Stakeholders involved because of incentives Community participants	Josephine County Fire Defense Board
Engage insurance companies	Contact insurance companies activity involved in wildfire.	Insurance incentive programs	Insurance industry investment in fire-related activities	Oregon Office of the State Fire Marshal
Promote local investment	Research potential investment sources	Business investment/ sponsorship	Increased economic development in Josephine County	Executive Committee

Monitoring

The purpose of this monitoring strategy is to track implementation of activities and evaluate how well the goals of the JCIFP are being met over time. Monitoring measures progress over time so that we can understand how well our objectives are being met. The data we gather will provide in status and trends of the JCIFP. The monitoring strategy also provides a way for the County to be accountable to the public about the outcomes of the JCIFP.

What is 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 ongoing project or program with early indications of progress and achievement of objectives. The following are the types of monitoring:

- Implementation Monitoring: Did you do what you said you would do? Implementation monitoring evaluates implementation met initial objectives.
- Effectiveness Monitoring: Did treatments meet objectives?
- Verification Monitoring: Evaluates whether our objectives helped to meet broad JCIFP goals. Did our actions lead to the outcomes we expected?

What are the benefits of monitoring?

Monitoring is a critical component of all natural resource management programs. Monitoring provides information on whether a program is meeting its goals and objectives. Beyond these benefits, there are also monitoring requirements related to contracting and federal and state statute.

Currently, the Healthy Forests Restoration Act (HFRA) authorizes the Secretaries of the Departments of Agriculture and the Interior to perform multiparty monitoring of projects where there is strong stakeholder interest. Multiparty monitoring was first authorized as part of the USDA Forest Service's stewardship contracting pilot projects (P.L. 105-277) and again in the Collaborative Forest Restoration Program in New Mexico (P.L. 106-393). Multiparty monitoring should be an

open, transparent process that helps rebuild trust in federal land management and diffuses conflicts between people with different values.

Monitoring in HFRA is required at the programmatic level, and multiparty monitoring is optional at the project level, but neither level is funded in FY 2004. The FY 2005 President's proposed budget proposes a 21% increase over the FY 2004 appropriation for Inventory and Monitoring. Community forestry groups believe that a substantial portion this increase should be dedicated to multiparty monitoring, as authorized by HFRA (see associated briefing paper on the Community-based Restoration Funding Package). In addition, monitoring should include monitoring of community impacts. [49]

Multiparty Monitoring

A multi-party monitoring process is a process which seeks to engage community based groups, local/regional/national interest groups, and public agencies to ensure that natural resource management is responsive to diverse interests and objectives. The multi-party process not only legitimizes monitoring and evaluation, it helps build bridges between a variety of parties and interests through effective and meaningful public involvement. A multi-party approach improves the process through increased collaboration, improved public education, and an increase in the overall understanding of project efforts and impacts[50].

Multiparty monitoring is critical to the success of the project since it involves local, state, and federal agencies along with private citizens. At its most effective, multiparty monitoring provides all those impacted by a project the opportunity to be involved in the monitoring process. This provides for a transparent planning process, which builds community trust.

Adaptive Management

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

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

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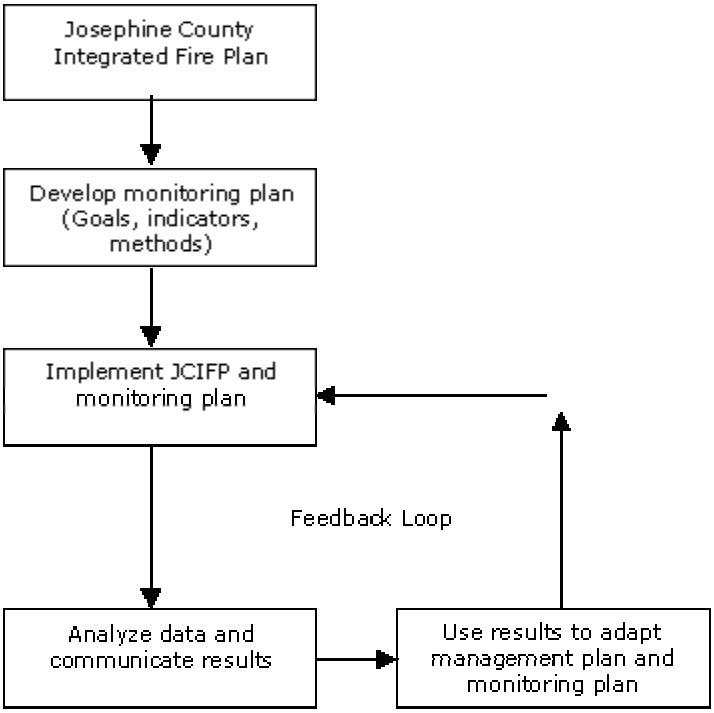
[49] Rural Voices for Conservation – http://www.sustainablenorthwest.org/pdf/policy/nfp/hfra.pdf

[50] Pinchot Institute – www.pinchot.org/community/stewardship_contracting.htm

Figure 10.1 illustrates the adaptive management cycle; providing a consistent level of feedback, which is essential to meeting project goals and objectives.[51]

Figure 10.1. The Adaptive Management Model



Multiparty Monitoring for Fuels Treatment Projects

Josephine County, local fire districts and community organizations are actively pursuing grant funding and implementing fuels reduction projects. Grants submitted for the National Fire Plan and the BLM and Forest Service Title II RAC funds have included elements for multi-party monitoring. In the section below, we provide strategies for multi-party monitoring.

> Stakeholders: *The first step in developing a multiparty process is to identify stakeholders and clarify everyone's interests and concerns. A stakeholder is any person, group or institution that affects or is affected by a particular issue or outcome. Stakeholders may be private landowners, individual citizens, non-government organizations, businesses, public agencies, church and school groups, or others who have a commitment to the community. Ideally, a multiparty group will have at least one individual who broadly represents each of the different identified interests.*[52]

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[51] Final Environmental Impact Statement for the Boundary Waters Canoe Area Wilderness Fuel Treatment – http://www.superiornationalforest.org/july4thstorm 1999/05_21_01_update/Monitoring_Plan.PDF

[52] Multiparty Monitoring and Assessment Guidelines for Community-based Forest Restoration in Southwestern Ponderosa Pine Forests - http://www.fs.fed.us/r3/spf/cfrp/monitoring

Goals: General statements of anticipated project outcomes; usually, more global in scope than objectives and not expected to be measurable; if used, goals should be supported by well-stated objectives. Example: Reduce hazardous fuels in the wildland urban interface.

Objectives: *A specific statement describing the desired accomplishments or outcomes of a project at different levels (short to long term). Objectives should be:*

- Realistic and achievable. Create objectives that are meaningful and achievable within the bounds of management possibilities. In addition, if you have multiple objectives, make sure that they do not conflict. For example, you may have trouble meeting both of the following objectives: 1. dramatically reducing fuel load and 2. maintaining all your overstory trees.
- Specific and measurable. Your objectives should be quantifiable (measurable). They should also identify a target/threshold condition or include the amount and direction of change desired. Specific quantitative elements will allow you to evaluate the success or failure of your management.
- Clearly articulated and focused. Clear and focused objectives will allow current and future stakeholders to have focused discussions regarding the desired state of the resource.
- Example: Coordinate treatment of hazardous fuels to reduce the threat of severe wildland fires to communities-at-risk in Josephine County.

Actions: *Shows specifically, what will be or has been accomplished. Acres with fuels reduction treatments; number of fuels reduction projects. Example: Track acres with fuels reduction treatments (prescribed fire, mechanical, and other) completed by class 1-3, WUI and non-WUI). Example: Track acres with fuels reduction treatments (prescribed fire, mechanical, and other) completed by class 1-3, WUI and non-WUI).*

Performance Measures: Shows the progress of an action against the plan. Indicates to what extent the goals have been reached. Example: Percent of acres in fire-adapted ecosystems in condition classes 2 and 3 (moderate to high risk) compared to condition class 1(low risk).[53]

[53] Multiparty Monitoring and Assessment Guidelines for Community-based Forest Restoration in Southwestern Ponderosa Pine Forests - http://www.fs.fed.us/r3/spf/cfrp/monitoring

Overall Monitoring Strategy

Each functional element of the Josephine County Integrated Fire Plan (risk assessment, fuels reduction, emergency management, and education and outreach) provides monitoring tasks for recommended action items. Table 10.1 provides a summary of monitoring task for each of these functional areas.

Table 10.1 JCIFP Summary of Monitoring Tasks

Objective	Monitoring Tasks	Timeline
Risk Assessment	▪ Maintain information on up-to-date technologies and data for risk assessment. ▪ Continue to use reliable and usable data that is compatible among the various partner agencies.	Annual
	▪ Review existing communities at risk list and any jurisdictional boundary changes that may affect this list. ▪ Monitor changes in the Federal WUI boundaries. ▪ Update risk assessment with new data or changing conditions.	Annual
	▪ Continue to reflect community input from meetings as a risk assessment.	Annual
	▪ Inventory private, county, state and federal existing and planned fuels projects.	Annual
	▪ One this plan has been completed, monitor acres treated, location and relative risk rating annually.	Annual
Fuels Reduction	▪ Coordinate with the Risk Assessment group to identify and prioritize fuels treatment projects on an annual basis.	Annual
	▪ Track grants and utilize risk assessment data in new applications.	Ongoing
	▪ Track fuels reduction grants and defensible space projects occurring on homes of citizens with special needs.	Annual
	▪ Document number of residents that maintain treatment (utilize the recognition program and Article 76).	Every 3 years
	▪ Monitor number of evacuation corridors/roads treated for fire protection on county, private, state and federal roads.	Annual
	▪ Track education programs and document how well they integrate fuels objectives.	Annual
	▪ Track grant dollars and projects directed to citizens with special needs.	Annual
	▪ Evaluate opportunities for biomass marketing and utilization.	Annual
	▪ Identify and provide contractor training and opportunities.	Bi-annual
Emergency Management	▪ Review emergency management policies and procedures.	Annual
	▪ Monitor County Management Meetings. ▪ Evaluate annual exercise; focus on how well the MAC functions.	Annual exercise
	▪ Update map illustrating arterial routes and shelter sites annually. ▪ Review evacuation procedures with the Jo County Fire Defense Board.	Annual
	▪ Monitor all JCIFP program implementation and evaluate how different. elements target the special needs population.	Annual

Objective	Monitoring Tasks	Timeline
Education and Outreach	▪ Evaluate techniques used to mobilize and educate citizens. ▪ Report on techniques and lessons learned.	Annual review
	▪ Review materials available in the clearinghouse.	Bi-annual review
	▪ Monitor number of packets distributed in comparison to building permits issues and new residents.	Annual evaluation
	▪ Random sample of "certified" homes to measure whether or not they continue to meet standards.	Every 3 years
	▪ Evaluate responsiveness of citizens to campaign materials (use the annual BCC survey – are you familiar with the "Are you prepared" campaign?).	Annual Review
	▪ Evaluate # and type of fire education programs delivered to youth.	Annual
	▪ Work with RVFPC to build their capabilities to maintain oversight to two-county fire prevention activities.	Annual evaluation
	▪ Monitor interest and actions by the Insurance industry.	Annual

Evaluation

Evaluation of ongoing JCIFP activities, increased public awareness and collaboration between partners will strengthen the value and impact that the fire plan has within Josephine County. The monitoring tasks within the JCIFP specifically address evaluation. The JCIFP planning committee will administer annual evaluations of the fire planning process and integrate questions about awareness and action into the annual Josephine County survey administered by the Josephine County Board of County Commissioners. Josephine County will share findings from these evaluations on the JCIFP web site. Furthermore, the County will formally revise the fire plan in August 2005 and make recommendations for further evaluation and updates to the plan at that time.

CHAPTER 11. FIRE DISTRICTS IN JOSEPHINE COUNTY

Each of the fire districts in Josephine County has very different activities occurring in relationship to the Josephine County Integrated Fire Plan. Every Fire District has taken an active role in participating in the planning and on the sub-committees for the fire plan. Some fire districts have had the resources to begin local community wildfire protection plans, while others have focused on strengthening the capacity of their boards and volunteer firefighters.

This section highlights activities occurring within the Applegate Valley, Illinois Valley, Williams and Wolf Creek Rural Fire Protection Districts. Year two of the JCIFP planning effort will include a focus on the populated areas not within a taxing fire district. (These areas can receive contract fire service from Rural/Metro Fire Department.) The City of Grants Pass has also been a strong partner in the development of the JCIFP and continues to be active in City fire prevention and fuels reduction programs.

Applegate Valley Fire District

The Applegate Valley Fire District serves an area of 181 square miles that is west of Medford and Southeast of Grants Pass, Oregon and extends south to the California/Oregon border. It is an area of mountains and valleys, with a population of 10,000 residents. The District has seven volunteer stations strategically located throughout the service area and has an Insurance Services Office rating of six. On the average, there are about 47 volunteers that respond to alarms for fires, medical calls or motor vehicle accidents. 15% of the district is located in Josephine County.

The Applegate Valley Fire District has been very active in helping promote fuel reduction in and around homes since 2001. We began with a Pilot project in the China Gulch area where 42 out of 57 homes participated. National Fire Plan funds were used as an incentive for homeowners to reduce fuels around their homes and along driveways. Since 2001, the Fire District along with its partners – Oregon Department of Forestry, Bureau of Land Management, Forest Service, Applegate Partnership and others have completed the "Applegate Fire Plan" and have continued to work with landowners to reduce hazardous fuels in the Applegate Valley.

Roadside Fuels

Everyone who owns property has an obligation to become better stewards of the land that they own, which accomplishes two main objectives – increase the survival odds of the structures that are located in this flammable environment and improve the health of the forest.

In 2003, the Applegate Valley Fire District was awarded a Grant to reduce approx. 33 miles of roadside fuels along driveways in the Applegate Watershed. Target driveways are driveways that have common use amongst area residents. 37 projects were identified by the Chief Fire Officers of the 3 fire districts that protect residents in the watershed.

The objectives of the roadside fuel reduction projects are to reduce fuels 30 feet on both sides of a driveway that will allow safer access by fire agencies, safer egress by residents and allow routine or more conventional tactics to be successful.

The following is a list of the projects that were suggested for, are completed or are being planned:

Applegate Valley RFPD	Rural/Metro Fire Dept.	Williams Fire District
Poorman Creek	Grays Creek Road	Glenlynn Drive
Sterling Creek	Crystal Drive	Blodgett Road
Lomas Road	Scott Drive	Watts Mine Road
Dunlap Road	Weatherbee Road	Cherokee Lane
Cantrall Gulch Road	Murphy Creek Road	Sheraton Drive
Humbug Creek Road	Ingalls Lane	Ragan Road
Hogan Road	Elliott Creek Road	Stephen Way
Miners Creek Road	Wilderville Lane	China Basin
Tumbleweed Trail	Copper Drive	China Creek Road
China Gulch Road		Davidson Road
Woody Acres		Mungers Creek Road
Williams Hwy.		Caves Creek Road
Hyde Park Road		

Defensible Space

In 2002 and 2003, the Fire District along with its many partners continued promoting fuel reduction by visiting with landowners and dispersing grant funds to those landowners that completed projects on their land. The primary goal here was to make the home defendable and less dependant on firefighting resources if and when a fire should spread towards their homes. With hundreds of homes threatened during fires it is simply impossible to place a fire engine at each residence to protect them and in some cases, the fuels were to heavy to safely place equipment and personnel in those situations.

This fuel reduction work will not keep a fire from starting but in most cases will change the dynamics of how a fire burns in an area but keeping the fire burning on the ground, which is a fire of lesser intensity than a fire that burns through the tree tops and produces high intensities and longer range spotting that continues to spread the fire and keeps the fire from being suppressed with routine tactics.

In administering these programs, landowners were given rebates of $ 330 per acre for acres that were included in the agreement that was made between them and the fire official that wrote the agreement. The landowners either completes the work themselves or hires a contractor to complete the work, then after the work is inspected by the fire official, a rebate is sent to the landowner. To date agreements have been written for over six hundred landowners in the Applegate Watershed.

2005 Grants

Still committed, the Applegate Valley Rural Fire District applied for two FY2005 NFP grants, and has been tentatively awarded both of them. One is a grant for continued defensible space work, to replace ODF's past work. Each year the Fire District has a waiting list of about 100 residents waiting for home inspections. The second grant is to coordinate and fund work on private property in the Upper Applegate Road neighborhood as part of a joint fuel reduction project that stemmed from the Applegate Fire Plan. The BLM and Rogue/Siskiyou National Forest are working with the Applegate Partnership and local residents to reduce fuels on all ownerships along almost nine miles of this highly at-risk road.

Applegate Fire Plan

The Applegate Fire Plan (AFP) began as an idea in the spring of 2001, when folks from the Applegate Partnership, the US Forest Service and the Bureau of Land Management were discussing the high fire danger throughout the Applegate Valley and what might be done about it. It was a question without an easy answer. The checkerboard patterns of land ownership in this valley that make land management difficult equally make fire issues a challenge. Nevertheless, they became excited about the possibility of answering this challenge. With millions of federal dollars being made available for localized fire planning, this group decided to submit for funds to write one cohesive fire plan for the entire Applegate watershed. A National Fire Plan grant for this project, which would be developed under the auspices of the Applegate Partnership, was awarded in September 2001.

The project was to write one fire plan for the 500,000 acre Applegate watershed that all partners could support & use. Two project coordinators from the Applegate Partnership began the process much like that used for the JCIFP – with an oversight committee with representatives from a dozen local agencies. By the time the plan was written, eleven months later, well over two dozen partners had signed on to this unique community fire plan. The final plan was mainly written for the community, and covered fire suppression & protection, fuel reduction strategies and emergency communications, but also provided information on fire history, forest health and current conditions, methods of reducing fuels, resources for fire information, lists of contractors, local fire and building codes, a sample stewardship plan, maps and photos.

The community played a large part in this AFP project, with members sitting on all of the committees, providing input at all points, and by attending over 40 community meetings that were held in a one-year period. Three issues of a special fire plan newsletter were written and sent to homeowners to update them on the progress of the project. Residents were continually encouraged to meet, assess local hazards & develop fuel reduction strategies for their area, and this continues two years later. Again, the goal of the Applegate Fire Plan was to encourage a sense of stewardship and responsibility.

Fuel Reduction Strategies from the AFP

The risk assessment procedure for the Applegate Fire Plan came up with over sixty possible strategic fuel reduction projects that were spread across the valley on all lands. Ownerships were not taken into consideration in this exercise. Strategies covered <u>all</u> parts of the watershed, not just the WUI. Examples of types of strategies are:

- Perform defensible space work around homes & along driveways in high risk areas.
- Create fuel breaks between high-hazard drainages.
- Do fuel reduction along key evacuation routes.
- Complete the fuel reduction portions of federal landscape forest health projects.
- Reduce ladder fuels on private industrial lands next to a Late-Successional Reserve (LSR); reduce ladder fuels in LSRs.
- Complete planned prescribed burns on key ridges.

Four-Part Monitoring Program

- 2002: Interview of AFP participants, to appraise the project & the process used. Did it make a difference in how people looked at their jobs?
- Plot and photo points were taken by the Applegate River Watershed Council in varied vegetation stands to observe the effects of fuel reduction treatments on private lands.

- An annual random survey of residents is being conducted on the fire plan, fire & forest health issues, to gauge how much influence the AFP had on residents. Responses are being used in future planning.
- Data collection and map to record the numbers & types of acres treated in the watershed each year, both on private and public lands.

Private Landowners on Fire Issues

- In the first (2003) resident survey, reducing wildfire risk was identified as the most important land management issue.
- 80% of respondents said they were more knowledgeable about fuel reduction strategies as a result of the AFP.
- 70% of respondents are more supportive of federal fuel reduction projects now.
- Over 50 telephone trees (30 homes each) have been set up and used, as a result of the Emergency Communications portion of the AFP.
- The Applegate Rural Fire District's levy was one of only two in the area that were approved by voters in 2002.

Results of Implementation

Of the sixty proposed strategic fuel reduction projects suggested in the AFP, after two years, the following status report was presented:

- 11 items are on the long-range radar screen for planning.
- 13 items are in an active planning stage.
- 4 items are being implemented.
- 14 items have been partially implemented.
- 1 item has been completed.
- 16 items have had no activity/planning.
- 1 item is stalled in litigation.

This work was spread across the valley as follows:

- 22/32 projects are in Communities-at-Risk.
- 16 projects are on private land.
- 13 projects are on BLM lands.
- 6 projects are on National Forest lands.
- 21 projects are in Jackson County.
- 11 projects are in Josephine County.
- 3 projects are/plan to use HFI/HFRA.
- 15 projects utilized National Fire Plan or Title II/III grants.

Results Realized

The Applegate Fire Plan process brought people together who had not previously worked together or talked fire and community issues together. A new appreciation for the many facets of fire issues was recognized, and this has positively affected fuel reduction efforts in the Applegate. Interagency relationships are stronger, so that fuel hazard needs are readily discussed and joint projects are developed more often. Private landowners are working more with the federal agencies on these

projects, and are developing a better understanding of the complexities of fire and land management issues.

Sustaining the Work

- Keep up the public education & outreach. There are always new residents to reach, plus a new approach to an issue might reach a new audience. Repeat the messages, but also build upon them. Look to fuels maintenance in the coming years.
- Keep talking to other agencies, residents, government, neighbors. You never know which conversation will trigger a new contact or a new idea, or save you time!
- Don't consider the Applegate Fire Plan a piece of paper; it's more an attitude and a behavior.

Lessons Learned from the Applegate Fire Plan Process

- Be patient. Outreach takes time.
- Have money. Outreach adds costs.
- Be patient. Folks need to see to accept. The "snowball" effect is starting to show on our fuel reduction monitoring reports.
- Come to the table as an equal partner.
- Try to deliver when you say you will - this helps build trust. Slow implementation loses resident interest.
- Use the Rural and local Fire Districts to send the message or to garner interest.
- Know that none of us can do this alone.

More information on the Applegate Fire Plan can be found at ***http://www.grayback.com/applegate-valley/fireplan/***.

Grants Pass (Department of Public Safety)

Grants Pass, with a current population of 24,470, is the Josephine County seat and serves as the major commercial center for the county population of 78,350.[54] Downtown Grants Pass is a designated National Historic District because of its historic architecture. Of 9,863 total housing units in Grants Pass in 2000, roughly 50% were owner-occupied and 50% of homes were renter occupied. According to the Oregon Economic and Community Development Department, the Grants Pass Department of Public Safety has 28 firefighters and an Insurance Services Office Rating of 3. The largest employers in the City of Grants Pass are the Three Rivers Community Hospital, US Forest Industries and Timber Products/Grants Pass Hardwoods Division.[55]

The City of Grants Pass Public Safety Department Fire Prevention program in 2003 summary of education, inspections and trends are below.

Education

In 2003 many classes were designed and offered in order to educate the community in fire prevention and general fire safety. Focusing on general fire safety, 3,869 adults and children participated in tours, public education, and fire drills. Car seats were distributed and inspected for 144 families. One thousand one hundred and thirty people received disaster training for the Citizens Emergency Response Team. The Citizens Public Safety Academy saw 46 graduates from their program. Numerous businesses and schools benefited from instruction in the appropriate use of fire extinguishers as 514 citizens received training.

Inspections

The year 2003 yielded a total of 386 inspections and 330 re-inspections around the city. There were also 455 self inspections returned. A total of 894 violations were noted with 770 of those being abated at year end. Business occupancy Assembly held 26 of those inspections, 103 violations, and 78 abatements. Occupancy for Business had 72 inspections, 219 violations and 193 abatements. Educational Occupancy had 29 inspections, 89 violations and 73 abatements. The Factory/Industrial Occupancy class had 4 inspections, 2 violations, and 9 abatements. Institutional Occupancy such as hospitals and jails had 13 inspections, 53 violations, and 57 abatements. The Mercantile/Retail Occupancy such as Fred Meyer and Wal-Mart had 32 inspections, 109 violations, and 85 abatements. Residential Occupancy including grass lots held 196 inspections, 290 violations, and 253 abatements. The final Occupancy class of Storage including warehouses and gas stations had 14 inspections, 29 violations, and 22 abatements.

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[54] City of Grants Pass web site - http://www.ci.grants-pass.or.us/welcome.htm (May 2004).

[55] Source: City of Grants Pass Administration – OECCD Community Profile – www.econ.state.or.us (May 2004).

Illinois Valley Rural Fire Protection District

The Illinois Valley Fire Department protects 20,000 people living in an area of 140 square miles. The District operates out of six stations that protect a primarily rural intermixed area with the incorporated City of Cave Junction as the hub of the district. The fire department is a publicly funded department consisting of 5 full-time employees and approximately 40 volunteers.[56] The five largest employers in the Illinois Valley include Rough-n-Ready Lumber Co, Wild River Brewing & Pizza, Shop Smart, Bridgeview Winery, and Taylor's Sausage Inc.[57]

Illinois Valley Fire Plan

The Illinois Valley Fire District (IVFD) received a Title III grant to develop a community-wide fire plan for the Illinois Valley. IVFD is coordinating the development of the IV Fire Plan in conjunction with the Josephine County Integrated Fire Plan. The purpose of the Plan is to identify community priorities for reducing the risks of wildfire in the Illinois Valley. A kick-off community meeting was held on Wednesday, May 19th in Cave Junction. The meeting introduced residents to the IV Fire Plan and the process that will be undertaken to identify the community's priorities for wildfire hazard reduction. A series of community meetings will be held throughout the Valley in June, July, and August to elicit the community's participation in identifying areas of local fire concern, and projects to reduce fire risks.

Tracy Katelman, a consulting forester from ForEverGreen Forestry in Eureka, CA, is coordinating the Fire Plan. The IVFD also hired De Spellman to be its first Fire Prevention Coordinator. This is a new position within the District. She will be organizing community input into the fire planning process, as well as continuing to provide fire prevention education.

Illinois Valley Community Fire Plan Process

First Phase – Development

- Develop/finalize scope of work, including project goals, planning area boundaries, budgets, timeline, tasks, responsible parties, deliverables, etc.
- Hire IVFD Fire Prevention Coordinator.
- Develop/finalize Community Fire Planning Team personnel and responsibilities.
- Develop Fire Plan Outline in conjunction with Josephine County Integrated Fire Plan (JCIFP).

Second Phase – Community Outreach

- Finalize list of neighborhoods/sub-neighborhoods.
- Plan/schedule meetings.
- Coordinate with County to develop maps and other background materials for meetings.
- Initial community meeting in Cave Junction (May 19) to introduce project/process
- "Neighborhood/Community" meetings, one each (six total) in: Selma, Kirby, Cave Junction, O'Brien, Takilma, and Holland. This is the core of the planning process to ensure widespread, real community involvement in both the plan and its implementation. These meetings will be in

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[56] Illinois Valley Rural Fire Protection District web site - http://www.ivfire.com/ (May 2004).

[57] Source: City of Cave Junction Administration – OECCD Community Profile – www.econ.state.or.us (May 2004).

the evening held either at a local center or someone's home. Representatives from local fire fighting organizations will be present as resource people.

Meeting Topics:

- Introduce IVFP in relation to JCIFP.
- Introduction to fire safety/defensible space.
- Discussion of fire history in the neighborhood.
- Where do people think a fire would start in this neighborhood and why? What projects can be done to reduce the risks identified above?
- Mark-up maps: roads (with local names), gates, water tanks, high-risk areas, possible project areas, etc.
- Choose a neighborhood representative for the Fire Council
- Write summary of neighborhood meetings; identify proposed projects as community priorities.
- Initial Fire Council meeting, of representatives from neighborhood meetings, local agencies, and relevant organizations. This body can oversee the development of the draft plan.

Third Phase – Research/Background information *In conjunction with JCIFP.*

- Community description.
- Current fire environment.
- Risk Assessment

Fourth Phase –Plan Writing & Review

- Identify action plan: priority projects, timeline, possible funding sources
- Write Draft Illinois Valley Community Fire Plan
- Fire Council Review of Draft Fire Plan
- Illinois Valley Community Review: public meeting, public comment period
- Write Final Plan

Fifth Phase – Implementation – through Illinois Valley Fire Council

- Identify priority projects
- Identify funding sources
- Identify monitoring plan for both implemented projects and Fire Plan review.
- Ongoing neighborhood meetings for project implementation.

Rural/Metro Fire Department

Rural/Metro Fire Department protects 288 square miles around the city of Grants Pass. Our area includes the communities of Sunny Valley, Hugo, Fort Vanoy, Merlin, Galice, Murphy, Wilderville, Wonder, North Valley and Shan Creek. Rural/Metro covers three major highways including 22 miles of I-5. Most of the area is privately owned and BLM land, with a smattering of county and state lands. The area includes approximately 17,000 households. Rural/Metro has subscriptions with about 12,000 of those households.

There are 7 fire stations, 2 of which are staffed 24 hours. The stations are in the North Valley, South Grants Pass, Murphy, Fort Vanoy, Merlin, Sunny Valley and Wilderville. Five of the stations have an Insurance Services Office Fire Hazard Rating of 6. Ratings for Murphy and Sunny Valley will be added in the winter of 2005. Full-time staff for Rural/Metro includes 5 Shift Officers, 1 Fuels Manager/Firefighter, 3 Chief Officers, 2 mechanics and 2 administrative people. Part-time staff includes 45 to 50 paid, on-call reserve firefighters and 10 to 15 administrative and support staff.

Williams Rural Fire Protection District

The Williams Rural Fire Protection District was founded in 1964. This is a volunteer department with one station and a half time paid Chief. At this time there are 22 volunteers who provide the following services: firefighting, emergency medical services, vehicle rescue, and search and rescue. The district serves the area around Williams in southeast Josephine County.

Community Risk Assessment Meetings

The Josephine County Integrated Fire Plan (JCIFP) team held community meetings in Williams to gain input on community perceptions of risk and community values and to share information about the Josephine County Integrated Fire Plan. The outcomes from these meetings included knowledge of the values and resources the residents of Williams want to protect from wildfire and increased support and participation for fire protection activities in Williams. Meetings occurred April 14, 21, and 28 and were all held in the Williams School cafeteria.

Meeting Organization

The Williams Rural Fire Protection District and the Williams Educational Coalition sponsored these meetings and opened each evening with a welcome and introduction from Steve Scruggs, Williams Rural Fire Protection District Chief and Rob Hambleton, Williams Educational Coalition. Participants had an opportunity to talk about what they hoped to get out of the meeting and ask any questions of the fire district or meeting organizers.

The JCIFP team began each meeting with background on the Josephine County Integrated Fire Plan, information on wildfire risk, populations vulnerable to fire, and past impacts to the community, Wildfire Hazard Risk Assessment, and the JCIFP Spring Campaign: Are you Prepared? The Fire District and the Williams Educational Coalition also had a chance to discuss ongoing fuels reduction projects and telephone tree activities.

Next Steps

Kathy Lynn met with the Board of the Williams Rural Fire Protection District one month after the community meetings to present findings and identify strategies for developing a community fire council and a community wildfire protection plan.

A community fire council is a coalition of public and private sector organizations that share a common, vested interest in reducing risk from wildfires and can help prevent losses and increase awareness and action among diverse community members. Community Fire Councils can help to develop, evaluate and update community fire plans and to assist in identifying and exercising emergency preparedness plans for the community before a wildfire occurs to minimize loss of life, property, homes, businesses, natural and historic areas, and other valuable assets at risk of being destroyed by wildfire. A community fire council can facilitate community events and provide an opportunity for residents and organizations to voice concerns about public safety issues, and protect social and economic interests in the community.

A community fire plan can document a strategy to help communities reduce their risk to wildfire through collaboration, public involvement, identification of priority projects, and increased access to funding. Williams currently has a strong rural fire protection district, strategies and priorities for

fuels reduction developed through the Applegate Fire Plan, a telephone tree organization, fuels reduction projects, community input on wildfire risk, and perhaps most importantly, dedicated volunteers throughout the community.

Following is preliminary approach to forming a community fire council. The process has been adapted from the California Fire Safe Council handbook for Community Fire Safe Councils.

Step 1: Recruit members for the fire council

Identify local citizens and representatives from community organizations for the Community Fire Council. In Williams, this may include an open invitation to interested citizens, as well as representatives from the Williams Creek Watershed Council, Pacifica, Communiversity, the Williams Education Council, Williams School, and the coordinators for the telephone trees in Lower Williams, Cedar Flats and East Fork areas, among others. Additionally, including a volunteer firefighter and a member of the Williams Fire District Board will help maintain continuity with ongoing fire district activities. Finally, inviting representatives from ODF, Forest Service, BLM and the Josephine County Integrated Fire Plan to participate can help in taking advantage of existing resources, partnering in education and outreach programs and ensuring more of a landscape approach to fuels reduction projects. Keeping the fire council to a manageable size and rotating positions is one way to get things done within a smaller group while ensuring diverse participation.

Step 2: Identify preliminary roles and responsibilities of the fire council

Determining goals and objectives for the fire council can be a part of initial meetings with the council. However, providing background and examples from other fire councils can assist people in identifying feasible actions based on the resources and capacity of the group. Roles and responsibilities of council members can include:

- Serving as a liaison between the fire district and the public;
- Participating on Josephine County Integrated Fire Plan committees (education and outreach, fuels reduction, emergency management and biomass marketing and utilization);
- Identifying existing resources
- Developing a community wildfire protection plan for Williams;
- Organizing public events for wildfire education; and
- Assisting the fire district and other organizations to gain participation in fuels treatment projects.

Step 3: Prepare for the initial meetings

Fire safety can be a complicated issue. At your first Fire Safe Council meeting, consider keeping your agenda simple and uncomplicated. Agenda items should be broad, topical areas that can be used as starting points for productive discussions. The goal of the first meeting is to begin a dialogue and build consensus. Showing a video that highlights wildfire prevention and mitigation (such as the “Preventing Home Ignition Video”) can be a good way to get people engaged.

Choosing a facilitator for the first meeting can greatly assist the effectiveness of the council. A good facilitator has the ability to work with people and achieve consensus. The facilitator should be neutral, and understand the diverse views of members and be able to put them in the context of the larger issue. He or she should not be easily swayed by opinion and should have the ability to evaluate issues and concerns raised by members. The Program for Watershed and Community Health, through the Josephine County Integrated Fire Plan, has the ability to facilitate the first few meetings of a fire council in Williams should that be the direction the Board chooses to take. The fire council's initial activities can include developing a mission statement, goals and objectives. This can relate to developing, updating or evaluating a community fire plan.

Step 4: Document meeting activities, updates and outcomes

Meeting minutes are valuable because the group can refer back to the minutes to recall the events of past meetings. This is an excellent way to keep track of new ideas and responsibilities for projects. Meeting minutes are also a way to monitor and evaluate actions outlined in a community fire plan. Meeting minutes should be made available to council members through e-mail or by posting them on a website. They can also be shared with the public as a strategy for education and outreach.

Small Group Breakout Notes

The most important part of the meeting occurred when participants broke out into smaller groups to discuss their past experiences with wildfire, their perceptions of what is at risk and the causes of wildfire in Williams, and to identify values at risk and resources for wildfire protection. Each small group had a map of either lower Williams, Cedar Flats, or East Fork in order 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. The meetings concluded with a focus on identifying projects participants most wanted to see implemented for community protection. These projects ranged from fuels reduction, education and outreach, to emergency management and evacuation procedures. Josephine County GIS is also working on adapting the information that participants identified on the maps into a separate layer that can be used in conjunction with the risk assessment to determine priorities for action.

Group discussion notes

1. Have you experienced impacts from wildfire?

- A majority of participants had seen fire in their communities in the past
- "As a firefighter, I saw many houses burn down."
- Powell Creek Fire (several people stated this)
- Panther Gulch
- Cedar Flat Fire on BLM land
- "We participated in an evacuation including animals (22 horses). Walked horses down to neighbors, volunteers offered their fields for pasture."
- "I saw fire insurance affected. People had challenges in renewing insurance after fires

- Right in their own field

2. What did you learn from those experiences? How did it impact your decisions?

- To do the defensible space work/ hazardous fuels reduction/home clean-up. *(Many people stated this)*
- "Saw the benefits of goats clearing brush on land"
- "We completed a 100-foot strip of defensible space around structure and 2 acres of fuels treatment on adjacent BLM land."
- "There are challenges when dealing with renters or neighbors who don't understand the value of doing fuels work."
- *"3 years ago, we started thinning 10 acres. Since then, neighbors have joined in and done their own. The rebates have paid for most of the work."*
- "The primary responsibility is to take care of our own land, but it's overwhelming."
- "We become more aware of the perimeter – need shade and aesthetic so we don't want to cut everything down."
- Chipping is better than smoke - asthma
- People with poor mobility may need extra assistance. Some residents are unable to reduce fuels because of financial reasons, age, etc.
- Develop some type of home identification process that a house has been evacuated
- Check bridges and locked gates and check for evacuation road bottlenecks
- Where there is an accident or blowdown, there could be blocked egress
- Keep gutters clean, change type of roof, and don't keep cord wood next to structures
- Identify which prized possessions to take in an evacuation. Photograph important things in the house and keep everything in a safe place
- Review insurance policy for benefits

3. What are the causes of wildfire in your community?

- Lightning (Stated by majority of participants) and mowing, dry grass, brush around homes
- Arson
- Bark Beetle
- Basic carelessness – equipment and cigarettes
- Burn barrels
- Chainsaw use
- Cutting too many trees – regrows as brush by removing overstory
- Debris/slash/dead wood
- Drought and climate change
- Eco-terrorism
- Fire exclusion and forest management slash, cutting old growth/scattered apples
- Heavy Equipment
- Humans – campfires and picking bad times to burn
- Log trucks/logging operations. ("They take the trees out which disturbs soil and health of the environment, making it more vulnerable to wildfire.") *Selected logging (e.g., fuels treatment) would be beneficial for fire protection and not harm the environment.*
- Public lands igniting – traveling to homes
- Roads are an ignition point
- Sugarloaf RX Fire Area
- Terrorism

4. Comments on the mapping process (most of these are illustrated on the maps)

- Community Values: Protection of fish and wildlife habitat (birds), and riparian habitat
- Structural Vulnerability: 80% of roads are at risk and need to be priorities for fuels treatment
- Protection Capabilities
    - Williams in general is a culd-e-sac – one way in and one way out. There needs to be strong evacuation procedures. Potentially a route over the mountains.
    - There needs to be an alert system/sirens to ensure people are aware of an emergency
    - There needs to be traffic control in the four corners and rock creek areas.

5. What are your priorities for fuels reduction and fire protection?

- *See map for brown lines that indicate priority roads for treatment*
- Get rid of slash and debris
- Build reservoirs
- Conserve resources
- Multiple addresses for the same property need to be fixed
- State level mandate for education for new residents – welcome packets
- Real estate disclosure
- Instead of burning, use fuels wood for habitat restoration

6. Next steps/Questions

- Build a fire information layer for the community fire plan
- Transfer information – get the maps back to the community
- What happens in a crown fire? What length of clearing needs to occur to ensure a house will not burn during a catastrophic fire? *Lloyd and others provided technical information to this question.*
- Kathy should coordinate with Pat Rickert to have an article in the next Williams Big News *(Press release was submitted for the May issue of the Williams News)*
- Put the 22 BLM roads on the maps
- What's the proportion of human caused and lightning caused fires?

7. What are the best ways to engage the public in future community meetings?

- Coordinate with the Watershed Council and work with the telephone tree coordinators.
- Coordinate with after school programs. *Note: There is an annual event in May where it would be good to have a booth with fire prevention information and use the banners*
- Create a neighborhood watch for fires – early detection is the best tool, you can't just rely on fire districts.
- Hold meetings in the late summer or early fall (October/November) to take advantage of people's heightened awareness after fire season. Also early spring (February/March is good.)
- Have a fire! People will come to a meeting. After the Powell Creek and Biscuit Fires, there were packed meetings at Pacifica. People forget. There is a narrow window of opportunity - take it.
- We need an electronic sign with community announcements.
- Have materials at the Grange breakfast and the American Legion breakfast.
- Have materials for Cycle Oregon and Pacifica's Garden sale.

Williams Community Meeting participants

Participants	Affiliation	Request more info?
Lee Rosenmiller	Resident	Yes
Larry Rosenmiller	Resident	Yes
Dan French	Resident/Fire Board	Yes
Barbara French	Resident	Yes
Bob Williams	Resident	Yes
Marjorie Williams	Resident	Yes
Phil Kessler	Resident	Yes
Dan Ginther	Resident/Fire Board	Yes
Kristin Ginther	Resident	Yes
Paul Sherer	Resident	Yes
Robie Fleming	Resident	Yes
Heidi Hansen	Communiversity	
Luke	Resident	
Crystal Paris	Resident	
Tyler	Fire cadet	
Jamie	Fire cadet	
Marc	Fire cadet	
Walter Lindley	Resident	
Pat Rickert	Resident	
Mary Smiles	IV Volunteer RFPD	Yes
De Spellman	IV Volunteer RFPD	Yes
Dave Levine	Resident	
Don Tipping	Resident	Yes
Roger Fogg	Resident	Yes
Gregg Hyde	Resident	
Jon Scaroni	Resident	
Rodger Miller	Resident	
Henry Deltour	Resident	
Claudia Beausoleil	Resident	Yes
Wayne Perry	Resident/Firefighter	Yes
Steve Scruggs	WRFPD	Yes
Kyle Holcomb	ODF	Yes
Don Belville	Rogue River – Siskiyou NF	Yes
Dick Boothe	Rogue River – Siskiyou NF	Yes
Tim Gonzales	BLM	Yes
Lloyd Lawless	Rural/Metro	Yes
Brett Fillis	Applegate Valley FD	Yes
Wes Nevotti	Resident	Yes
Sue Nevotti	Resident	Yes
Rob Hambleton	Williams Educational Coalition	Yes

Wolf Creek Rural Fire Protection District

In August 2003, the University of Oregon's Program for Watershed and Community Health began working with the Wolf Creek Fire Protection District (WCRFPD) to examine its current capabilities, and identify goals and short-term and long-term objectives. Lang Johnson, with Rural/Metro Fire Department took a lead role in conducting the assessment and providing members of the WCRFPD Board and the Operations Chief with technical support.

The Wolf Creek Rural Fire Protection District (WCRFPD) is 32 square miles, including 10 miles of Interstate freeway I-5 and serves approximately 700 residents. WCRFPD is a small department with 6 volunteers, including the fire chief and two Emergency Medical Technicians.[58] The current Insurance Services Office Fire Hazard Rating classification is 8/9.

As indicated by the 2000 Census, there are 1,586 people, 656 households, and a median age of 44.5 in the communities of Wolf Creek and Sunny Valley. Of 749 housing units, the 2000 Census listed 93 units as vacant.[59] Population growth and land development will create opportunities for expanding the tax base of the fire district, as well as contribute to the risk of wildfire.

Wolf Creek and Sunny Valley are both communities that experience high levels of poverty. As of 2000, the median family income s $33,417 while the per capita income is $15,315. 16.2% of families and 24.8% of individuals are below the federal poverty level while 7.4% of the population is unemployed.[60] Other indicators of special needs and poverty issues include 21.8% of the population listed as civilian veterans, 30% of the population is on disability status and 73.7% of female-headed households with children under 5 are below the federal poverty level. Furthermore, 78.8% of children at the Wolf Creek Elementary School (part of the Three Rivers/Josephine County School District.) receive free or reduced school lunches.[61]

These statistics illustrate the high level of need that exists in relationship to poverty and special needs. In developing strategies for to strengthen the WCRFPD, it is important to consider the composition of the community and identify appropriate strategies for meeting the needs of such diverse community members.

Planning for Fire Protection in Wolf Creek

At the beginning of the JCIFP planning process, The Wolf Creek Rural Fire Protection District recognized that in order to be a strong partner, the district had to have strong capabilities. Rather than engage in a local community fire planning process, they identified other priorities to begin with. Initial objectives set forth by the Fire District Board included the following:

- Develop a road map/outline and of where we need to go and how we get there
- Redirect focus onto strengthening the fire district
- Assess the capabilities of the Fire Protection District and the scope of current activities.
- Know the composition of the district

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[58] Firehouse.com (March 2004) http://departments.firehouse.com/content/department/news.jsp

[59] Population and Demographics of zip code 97497, Sunny Valley and Wolf Creek, Census 2000, http://www.census.gov,

[60] Population and Demographics of zip code 97497, Sunny Valley and Wolf Creek, Census 2000, http://www.census.gov,

[61] Schools by Poverty Levels, Oregon High Need Local Educational Agencies (LEA) and High Need Schools. (August 2003) http://www.ous.edu/aca/highneedschools03.pdf.

- Find facilitators, mentors and educators who can assist WCRFPD through an assessment and reorganization process.
- Manage the fire district successfully, stabilize finances, develop strong administrative and operational capabilities, and be in full compliance with policies and programs
- Identify clear roles and responsibilities for the members of the WCRFPD Board
- Change perception and develop community pride in the fire district
- Attract community volunteers
- Identify short and long-term strategies to achieve objectives
- Reach out and become a part of the larger fire service
- Recognize the progress made within the fire district over the past 15 years

Community Programs

There are a number of community organizations in Wolf Creek and Sunny Valley that provide support to community members, have a means of communicating with the diverse citizens in the region, and have resources that may be leveraged for certain projects related to the fire district. These organizations include the following:

- Josephine County agencies and services
- Local Businesses
- Local Churches
- Oregon Department of Forestry
- Oregon Parents Association
- Post office
- Senior Center
- Small business loan program
- Sunny Wolf Community Response Team
- Sunny Wolf Family Coalition
- Three Rivers School District
- Wolf Creek Inn (National Park)
- Wolf Creek Park

Grants

The Wolf Creek Fire Protection District has received a small number of grants in the past few years, including a grant from the Southern Oregon Regional Economic Development Initiative (SOREDI), an RFA grant for turnouts, and a FEMA grant for equipment and training. Lack of administrative capacity and staff resulted in the District remitting some of the grant funding from one grant because the grant objectives were not completed. In 2002, the Sunny Wolf Community Response Team received a National Fire Plan grant to develop a community fire plan. Staff turnover and a lack of technical assistance resulted in a grant extension filed in December 2003. The initial process did not include coordination with the Fire District.

With the current support for the WCRFPD from Rural/Metro, Josephine County and other organizations, the WCRFPD successfully obtained Title III funding for training, equipment, and communications in February 2004. WCRFPD has also identified a series of needs and is gearing up to be able to apply for funds such as VFA/RFA grants, FEMA's Assistance to Firefighters Grant and Fire Prevention and Safety grants, among others in the future. Potential grant assistance has

been offered from Brett Fillis with the Applegate Valley Fire District and Dave Toler in Illinois Valley.

Board Resources

One of the first steps of the capability assessment included identifying the resources and capability of each of the Board members and of the volunteer operational chief. Some of the attributes that board members shared about one another included the following:

Personal	Community	Management
Loyalty	Lifelong member of the community	Understands grants and funding
Commitment	Multi-generational	Strong communication skills
Positive outlook	Brings people to the table	Development of business plans
Tenacity	Employs volunteer firefighters	Human resource management
Passionate	Gains support from local business	Finance
Respected	Desire to have a successful district	Understands work in the woods
Good follow through	Identifies resources	Analyzing and solving problems
Steps up to challenges	Makes strong connections	Understands policies & programs
Trusted		Task oriented

Successes and Accomplishments

Fire Districts are only as strong as their neighbors.

The support from adjacent fire districts and willingness of neighboring organizations and neighbors themselves to work together in strengthening the Wolf Creek Rural Fire Protection District exemplifies the spirit of cooperation.

Other accomplishments of the WCRFPD include its established tax base, critical services provided to I-5 during when accidents occur, WCRFPD equipment and apparatus, a community fire station, a growing, stable volunteer workforce, WCRFPD communication with outside agencies and community and regional organizations, a strong Fire District Board, and continued provision of fire protection services to the community. And, perhaps most important of all, there is desire, passion and determination to strengthen the WCRFPD's capabilities among the Fire District Board and Volunteer firefighters.

Challenges

Members of the WCRFPD stated several challenges that face them as individuals and the fire district as whole and they move forward and must learn about how to build a strong fire district, while managing existing programs and providing services along the way. Other challenges include gaining credibility and pride from local citizens, creating strong, functional systems for communications and operations, confronting issues of poverty within their community, respecting resident needs for privacy, and many others that will be discovered along the way.

Other challenges faced by the WCRFPD include a disproportionate number of calls to the size of the department extreme diversity in the population, limited revenue and tax base, a small community resource base to draw from, a limited number of local businesses that allow workers to volunteer during normal work hours, lack of administrative capacity, challenges with response time, no substations, as well as the local geography.

WCRFPD Mission and Goals

The mission of the Wolf Creek Rural Fire Protection District is to provide significant fire protection services to the community. Specific goals of this process to strengthen the RFPD include:

- Send positive messages about the WCRFPD's goals and actions to community members
- Achieve long-term, financial stability
- Build community pride in the WCRFPD
- Change existing perception and sustain positive image within the community
- Establish good communication between the RFPD and the citizens, and a good reputation within and outside of the RFPD
- Identify and sustain strong leadership for the WCRFPD
- Build community trust in the WCRFPD Board and volunteers

Workgroup and Board Roles and Responsibilities

WCRFPD Area	Issues Addressed	Lead	Next Steps
Finance	Budget, taxes & accounting	Carmela	Review Oregon Budget law, taxes, county contacts, potential changes to the tax base, bonds, capital improvements
Risk	OSHA, liabilities, Standard Operating Guidelines	Jack, Paul and Roxanne	Review OSHA materials/Division 2L, coordinate with Rural/Metro
Grants	Help sustain RFPD functions	Dave Toler	Work with Brett Fillis and Kathy
Operations	District Operations	Paul	Work with Lang and Rural/Metro
Community	Building community pride/ changing perception	Dan/Merle	Develop function of an auxiliary, build community pride, conduct outreach through Big News, articles, etc.,
Board	OARS, OFDDA and Board responsibilities	Jack/Roxanne	Work with Lang to continue to identify and address Board responsibilities

Target Groups and Stakeholders

As WCRFPD moves forward to hold community meetings, share information on current activities, recruit volunteers and ultimately change the perception (and local investment) of the fire district, it is essential to identify the populations served and with interest in the fire district.

BLM
Businesses
Ex-firefighters
Forest Service
Government agencies
Grayback
Kids
Landowners
Local community organizations
Other employers
People able to assist the RFPD
People who've experienced losses from fire
Seniors
Sunny Valley

WCRFPD Action Plan

The WCRFPD Board developed the following action plan to strengthen the fire district and pursue its goals and objectives.

1. Finance

Action / Objectives	Priority	Timeline	Lead	Next Steps
Organize meetings to educate the Board about grants, budget law and taxing options	H	Completed 2.04	Lang	Review options for Fall Tax Levy
Review 2004 budget	H	Immediate	Paul/Jack	Ongoing
Develop a list of volunteer and paid grant writers	H	Spring 2004	KL & CA	KL – by May 12th
Increase tax base (within Wolf Creek). • Review options for annexation, tax levy's, bond measures, etc.	H	April	Jack, Carmela, and Paul	Set timeline for perception change, education, and proposal of the tax levy
Identify options to bill for services	H	Ongoing	Paul/ Board	Look to annual events and state parks (WC Inn, Golden, Cycle Oregon, ABATE, etc.)
Examine the type of protection the district can support, and viability for expansion. Obtain reports from the tax assessor • Has there been annexation in the past • Is the boundary inaccurate? • Inconsistencies (outside boundary?)	H	Ongoing	Jack	Jack is getting copies of section maps and will review.
Submit FEMA Assistance to Firefighter Grant – Fire Prevention & Safety Grant	L	Fall 2004/ Spring 2005	Jack	Close out old grant.
Lower the RFPD ISO rating • Immediate – maintain, not improve • Educate the public about ISO/write an article in the Big News • Don't make promises or commitments • Long-term improve ISO (to a 7?)	L	Long-term	Board	Coordinate with Mike Kunz on the audit when it comes time

Apply for Dept. of Homeland Security Funds	L	Long-term	TBD	Work with grant writer
Consider merging Sunny Valley & WC RFPD. • 1st focus on perception in Wolf Creek and lowering the ISO rating • Look to mutual aid opportunities to start building credibility w/in Sunny Valley • Work with Rural/Metro so that it is a benefit to both communities	L	Long-term (3-7 years)	WCRFPD & Rural/ Metro	Focus on perception change and mutual aid opportunities

1b. Funding Priorities

Action / Objectives	Priority	Timeline	Lead	Next Steps
Obtain a grant to purchase existing vehicle	A		TBD	Identify grant
Find grant funding for breathing apparatus	B		TBD	RFA Grant
Find grant funding for engine	C		TBD	Identify grant
Find grant funding for station replacement	D		TBD	Identify grant
Find grant funding for tender	E		TBD	Identify grant
Obtain funding for the operations chief (must come from the levy)	M	Long-term	Board	Include in tax levy proposal

2. Community

Action / Objectives	Priority	Timeline	Lead	Next Steps
Increase community awareness of the fire district at local community events, starting with the April 10th Easter Parade.	High	April 10, 2004	Paul	Involve the Board in the Easter Parade. Provide education materials, sign-up sheets for volunteers/auxiliary. • Take pictures!
Provide Quarterly Updates in the Sunny Wolf CRT Big News	High	Quarterly (Jan., April, July, Oct.)	Kathy, Paul, Dan	Prepare July insert with activity timeline
Improve the appearance of the fire station (Paint the station, get rid of the tanker.)	High	Spring 2004	Jack	Completed!
Maintain strong relationships between the firefighters and fire board members	High	Ongoing	All	
Support the firefighters – get them out in the public	High	Ongoing	Board	All Board members should participate in RFPD events (parade, painting the station.)
Form an auxiliary - partner with private-non-profits to be accountable for funding and find a champion to lead the auxiliary.	Medium	Summer 2004	TBD	Put out a call for assistance on Easter and upcoming activities
Create a display board highlighting recent success (pictures and articles)	Medium			
Coordinate with Grants Pass Courier (and other media) to talk about District achievements (Dennis Roller) – coordinate with County Fire Planning efforts	Medium			Carmela will join the JCIFP Education and Outreach Committee
Find a volunteer public information officer for the district				
Explore opportunities for local employment through contracting and training related to fuels reduction and fire prevention.				
Capture the spirit of community assistance – identify and retain volunteers				
Create a community welcome wagon and provide new residents with fire protection information.				
Partner with the local businesses to communicate WCRFPD messages				
Develop and Implement Sunny Wolf Community Fire Plan		Long-term	CRT?	Review Sunny Wolf CRT grant and extension – coordinate w/ Rita Dyer

3. Risk / Operations

Action / Objectives	Priority	Timeline	Lead	Next Steps
Review the Rural/Metro Safety manual for guidance		Completed 2.04	Paul, Lang	
Conduct an Operational audit (equipment, infrastructure, etc.)		Completed 2.04	Paul, Lang, Jack	
Complete an audit of training records		Completed 2.04	Rural/ Metro	
Conduct audit of operations and compliance		Completed 2.04	Paul, Lang	
Review equipment records		Completed 3.04	Paul	
Examine personnel records		Completed 3.04	Paul	
Provide Operations Chief with Training		Ongoing	Paul, Lang	
Become OSHA compliant		Short-term	Paul	
Maintain OSHA compliance		Long-term		
Organize record keeping		Short-term		
Identify liabilities and review RFPD Charter		Medium	Jack	Ask SDAO for assistance
Identify insurance coverage information		Short-term	Jack	Work on with Budget
Review mutual aid agreement with Glendale Fire District to address I-5 response issues		Short-term	Lang, Paul	Prior to 7/4/04
Review/Revise Standard Operating Guidelines		Short-term	Paul	Ongoing effort
Review the District safety program (accidents and worker's compensation, hazard communication, risk communication, blood-born pathogens, etc.)		Short-term	Paul	Paul is working with Dave Campbell
Reprogram CAD system		Long-term	JC FDB	

4. Board

Action / Objectives	Priority	Timeline	Lead	Next Steps
Include representation from all community members on fire plan committees.	High	Ongoing	Jack, Paul, Carmela	Executive – Jack Fuels – Merle/Paul Education - Carmela
Quantify Board progress	High	Ongoing	KL	Monitor progress – develop evaluation
Identify a list of human resources in the community that can potentially assist with Fire District objectives	High	Short-term		
Understand community growth and development	High	Short-term	Kathy/Jack	Review community profile and assessor maps

July 10th Wolf Creek RFPD Community Event

The Wolf Creek Rural Fire Protection District sponsored a community event to gain input from the public for the Josephine County Integrated Fire Plan, share information about the progress and direction of the Wolf Creek Fire District, and build a sense of community pride in the fire district.

Over 90 people attended the event, including representatives from ODF, BLM, OSFM, Forest Service and the Rural/Metro Fire Department. Participants had an opportunity to learn about how to do defensible space, fire-resistant plants, agency programs and activities, and about local and county fire district capability. Participants also had a chance to illustrate what they most value and want to see protected from wildfire. Maps from Josephine County were provided and participants indicated existing water sources and priorities for fuels reduction.

Outcomes included increased awareness among the public about wildfire protection needs and resources, information on public values and perceptions of risk, and increased community pride in the fire district. Other outcomes included five people who signed up to be a part of the Wolf Creek Fire District Auxiliary.

The event schedule included time for the public to visit various tables and stations with information on fire prevention, education, defensible space, BLM programs and Josephine County Fire Plan maps. Paul Leighton, Wolf Creek Fire Chief, Kathy Lynn, PWCH, Lang Johnson, Rural/Metro and Jack Pugsley, Wolf Creek RFPD Board President presented information to the participants during a short presentation. A BBQ, a visit by Smokey the Bear and activities for kids (including very successful balloon animals made by Dan's mom) followed.

The event was a success due in large part to the efforts made by the Fire District Board, Volunteer Firefighters and the Fire Cadets. The week prior to the event, the Fire Cadets visited 75 homes to hand out the flyers, the Sunny Wolf CRT included a flyer in the July 1st edition and the Grants Pass Courier included an announcement in the Friday paper. Additionally, 7 local businesses donated prizes for the raffle, including:

- Martin's Printing and Graphics
- Dr. Matthew A. Johnson
- Thomas Gagnon Photography
- Jack Pugsley (1/2 cord of wood)
- Time and Money Management
- Rural/Metro Fire Department
- Wolf Creek Inn

Next Steps

- Debrief July 10th public event. Scheduled for Thursday, August 5th at 5:00pm.
- Refine action plan and continue to identify coordinators, timeline, and priorities.
- Pursue actions directly related to putting the tax levy on the ballot and coordinating public events around the tax levy.
- Continue to participate in Josephine County Integrated Fire Plan (JCIFP) activities. Appoint one person to participate on each of the JCIFP committees.

CHAPTER 12: ADDRESSING CITIZENS WITH SPECIAL NEEDS IN JOSEPHINE COUNTY

Targeting resources to low-income, elderly, disabled and other citizens with special needs is a focus of the Josephine County Integrated Fire Plan. This section describes the different resources available and efforts underway to address the special needs population in Josephine County.

Special Needs Populations and Agency Partners

Josephine County Emergency Management has formed a special needs committee to provide support to social service agencies and organizations that provide care and services to low-income, elderly, disabled, and other special needs citizens throughout the county. The Committee is comprised of agencies representing the populations listed below.

Living in Licensed Care Facilities	Assisted Living Facilities Residential Care Facilities Long Term Care Facilities Nursing Homes Mental Health Group Homes Adult Foster Care
Living in Non-Licensed Care Facilities	Retirement Homes Senior Housing Senior Mobile Home Parks
Living on their own	Hospice Care Home Health Care Private Duty Nurses Oxygen Dependent Dialysis Patients Hearing/Vision Disabled Mobility Issues Mental Health Issues
Developmental Disabilities	Foster Care Homes (Children and Adults) Group Homes Independent Living Apartments Living at Home
Youth and Children	Licensed Registered Family Child Care Certified Family Child Care Home Child Care Center Non Licensed Preschools
Low-Income	Commission for Children and Families Community Action Agency Public Housing Authority Food Banks County Health Department - WIC program (Women, Infants, and Children) OR Dept. of Human Services: Self-Sufficiency, Child Welfare, Open Door Center Head Start and Early Head Start Foster homes - adult and children

Partners on the Special Needs Committee

Senior and Disability Services	Riverside Home Health Care
Rogue Valley Council of Governments	Oregon Employment Division - Childcare Division
Community Action Agency	County Mental Health - Developmental Disabilities Division
Commission for Children and Families	Josephine Housing Authority
County Public Health	Childcare Providers Group
Three Rivers Community Hospital	Asante Home Health Care
Assisted Living Facilities Group	Medical Equipment Providers Group
Emergency Transportation Group	Counseling Group
Medical Reserve Corps	Parish Nurses

Figure 12.1. Special Needs Committee Organizations

Wildfire and Poverty in Josephine County

Financial and physical constraints may limit the ability of low-income, elderly, disabled and other special need citizens to take precautions to protect their homes from fire, whether it be creating defensible space around their homes or ensuring that they have functioning smoke detectors.

One of the primary forms of fire protection and mitigation in Josephine County is the ODF fuels treatment program. While this program has been successful in assisting homeowners in creating defensible space, there is concern that low-income, elderly, disabled, and other special need residents are not able to pay the costs of creating defensible space, which often exceeds the $330 provided through the ODF program. Josephine County has the sixth highest incidence of poverty in the state of Oregon, with 15% of the population at or below the Federal Poverty Level.[62] Through the JCIFP, we identified special need populations in Josephine County and documented the resources available through local social service agencies in order to better understand the full cost of fuels reduction projects. Through this process, PWCH spoke with Josephine County social service organizations to determine program eligibility levels and standards. We also spoke with local contractors to identify the full costs of completing fuels reduction projects and understand current program administration.

Coordination with Social Service Organizations

PWCH identified and interviewed social service agencies and community services organizations throughout Josephine County. Through this process, we gathered information on social service programs, eligibility requirements, and populations served in Josephine County. Discussions with the various organizations related to the following questions:

- What indicators do you use to determine eligibility for the services or programs that you offer?
- Is there an application procedure that is used to determine eligibility?
- What methods do you use to encourage participation?
- What populations do you serve and where are they located?
- Are your clients predominantly renters or homeowners?
- How many people access your services?
- Would your organization be interested in coordinating with ODF to administer the home assessment program to special needs populations?

During our discussions, we provided information on the ODF home assessment program and the Josephine County Integrated Fire Plan. The contacts that developed through this process have created a strong foundation for collaboration. Many of the organizations we spoke to expressed interest in coordinating with Josephine County and ODF, and distributing information on fire protection to the populations they serve. Table 12.1 on the following page provides a summary of information that we gathered during this process.

[62] US Census, (2000 Census), http://www.census.gov

Table 12.1. Summary of Social Service Agencies in Josephine County

Organization	Programs Offered	Population Served	Eligibility Requirements	Participation Level	Client Locations	Renters / Homeowners
Harbeck Village	Low-income housing community	Low-income population	Based upon income and household size - qualifiers have to make double the monthly rent Rent is set at 30%, 40%, 60% under the tax credit	Currently there are 31 people on the waiting list which is unusually low	Most applicants are from Josephine county but some are from out of state	Renters
Josephine County Health Dept	Family planning, environmental health, WIC, STDs, and other services	General population	WIC: federal guidelines based on income, # of children, and health condition - income not more than 185% of Federal Poverty Level Health services: income slide chart determines discount received	3rd quarter of 2003, they saw 900 people, 56% of which were OHP members	Josephine County Outreach to rural locations for WIC program	Renters and homeowners
JC Mental Health Dept. Development & Disabilities	Vocational Residential Foster Care The Brokerage	Persons with developmental disabilities	For retardation, IQ determines eligibility All other disabilities determined based on there being a significant deficit everyday living skills	35 foster care homes	Clients located all over Josephine County and in all areas	·Renters and homeowners
Siskiyou Community Health Center	Provides primary medical care	General population 60% at/under FPL	Sliding scale dependent on family size and income Below 100% FPL - 100% coverage Between 101% and 150% - 75% coverage 200%+ - no discount	9500 clients with 2900 of those uninsured	Office locations in Cave Junction and Grants Pass, also serving the larger Illinois Valley	·Primarily renters, but includes homeowners
Josephine County Community Action Agency	Meals on Wheels Senior Guardianship LIEAP Food Share Transportation Housing	Seniors Disabled Low-income General population	Senior programs = 60+ years Disability programs = Case by case basis LIEAP = 100%-150% Federal Poverty Level	JOCO Food Share - 28 distribution sites/26,000 boxes annually Meals on Wheels - 500 clients annually Senior and disability services - mailings to 1900 households	Josephine County High poverty areas including Sunny Wolf and Illinois Valley	Housing and energy - majority are renters Senior and disabled - homeowners
JC Housing Authority	Section 8 Housing program	Low-income population	Based upon federal income limits set by HUD	Approximately 800 households 700 on the waiting list		Primarily serves renters
Department of Human Services	TANF (cash assistance) Medical (OHP) Food stamps Day care	Low-income population	All programs are income based TATNF has a lower income limit than all the other programs Food stamps - 185% or below Fed. Poverty Level	N/a	Participation includes west of Selma southeast of the Rogue River	Primarily renters
Senior and Disabled Services	Managed care Residential services Food stamps OHP services	Physically or mentally disabled Low-income	Based upon people at or below 300% of the Supplemental Security Income (SSI) federal standard	N/a	Cover all of Josephine county and the Rogue River	Homeowners and renters

Coordination with Local Contractors

The ODF Home Protection program reimburses homeowners up to $330 for the cost of fuels reduction on 1-acre of land around a home. While an incentive, this program is based on partial reimbursements and does not take into account the full cost of the fuels reduction work. In order to better understand the value of this incentive program, we spoke to six contractors in Josephine County about typical costs of fuels reduction work. Following is a summary of the questions and responses from the contractor discussions.

Average cost of fuels reduction work per acre

Contractors agreed that providing an exact cost for completing an acre of fuels reduction around a home is difficult because of varying conditions of vegetation, slope and soil type. The majority of contractors did agree, however, that the $330 was rarely adequate to cover the compete cost of creating defensible space on an acre of land, and that it likely would not cover even 50% of the cost of the fuels reduction.

All of the contractors we spoke to agreed that on average, 1 acre of fuels reduction in Southern Oregon (with generally medium to heavy fuel types) could range from $700 to $1000, including cutting, chipping, disposal and labor. Depending on the type of work done, however, the cost can exceed $1500 per acre.

Home Assessment Program Administration

The contractors we spoke agreed that the ODF program has provided a strong benefit to residents that have participated in it and that it has increased knowledge and awareness of the need for fire protection and fuels reduction. One contractor indicated that he believed a large percentage of the County's population had now heard about the ODF program. The contractors also mutually agreed that fuels reduction should be a priority. The county is growing at a rapid pace and fuels reduction should become part of the 'cultural heritage' of living in Josephine County.

A majority of the contractors we spoke to had done fuels reduction work for people that had utilized the ODF cost share program. Several contractors cited the example of the Ashland fuels reduction grant program. The city compensates homeowners for 75% of the cost of the fuels reduction work, regardless of the total cost. Therefore, a $1500 job costs the homeowner only $375. Through the current ODF program, the homeowner would have been responsible for $1170.

Other comments made by the contractors about the current program administration include the following:

- A lot of people know about the program. Word of mouth has been the best publicity
- $330 is enough to get people started.
- "90% of the people I work with are using ODF funds."
- Two contractors did state that they do not see cost being a major factor in homeowner participation.

Challenges

Many of the general challenges with the ODF fuels reduction and fire protection program mentioned by the contractors are listed below.

Adequate cost coverage

- This program is not a cost-share program covering half of the costs…
- Given varying vegetation and property conditions, it is not feasible to come up with a specific prescription for completing the work on a broad range of homes.
- $330 is not adequate (currently) to cover the costs of fuels reduction, and low-income people are not able to get the work done.
- Costs related to employee benefits make it hard to keep costs down for contractors (workman's comp, benefits, etc. On average, for every $1000 you pay an employee, $392 goes to workman's comp, 6.2% for social security, unemployment, taxes, etc.)

Social and environmental interests

- People have emotions and concerns about the place they live. Some may be related to environmental concerns (this may increase the cost by adding labor to be more protective of the local environment.
- Burning concerns related to pollution
- Some people just aren't interested in having the work done.

Other

- Renters may not be able to access the grant program.
- Even if people have created defensible space around their homes, access and egress is still a big issue.

Maintenance

- People aren't maintaining the work. Or, if you take advantage of an ODF grant one time, then you aren't eligible for the grant again.

Potential solutions

- Recognize (and let people know) that $330 will not cover the full cost of the fuels reduction work up front.
- Machines designed for brush eradication could help with long-term maintenance and bring down the total costs of fuels reduction work per acre. While expensive (these machines can cost over $80,000), two contractors estimated the average cost per acre at between $350 and $450 dollars once the machine is put into use.
- Create different levels of incentives and assess where the landowner is on the curve. Provide an option to forgo the $330 if the homeowners can afford it themselves. If they meet certain income standards, then raise the amount that they are provided through ODF. (Create a sliding scale and system that allows people who can afford the work to opt out of the incentive. Explain to the owners that work done on their neighbor's home benefits them as well.)
- Forest officers can assess how much work needs to be done on a given piece of property and how much it would cost for the fuels reduction work.
- Work with landlords.

- Develop legislation or tax systems. One option is to tax people if they are unwilling to reduce their fuels. Another option is to provide tax relief for property owners who have completed work around their homes. (Impose a $20 surcharge if you haven't created defensible space.)
- Some people are assessed differently – some resist any new tax. Incentives will temper that and may be a better way to go.
- Call UPS, and ask for their list of people that they can't access because of blocked driveways.
- Send out direct mailers throughout the district

Requirements for being paid up front

- A number of contractors stated that they required some payment up front. "Enough to know that there is good will…" They also stated that they recognize that it's hard when people need to pay the cost up front when they will not receive their reimbursement from ODF until they have a receipt from the contractor.
- It's a risk for contractor's to do the work without payment up front.
- One contractor stated that he works at a loss of $8000 - $12000 a year.
- The $330 reimbursement can be difficult for homeowners, as they may not receive the reimbursement for months down the road.
- Some contractors stated that they do other fuels reduction work with larger landowners.

Outreach

In general, the information that we gathered from the discussions with the social service agencies and community organizations can assist ODF in reaching a more diverse population throughout Josephine County with the home protection program. The eligibility requirements for the programs that the social service and community agencies run are well defined, with many following Federal Poverty Level guidelines and other federal or state standards. Coordinating with the social service organizations will provide ODF with a means to contact and communicate with the county's special need citizens.

We received an overwhelmingly positive response from the social service organizations in regard to the home protection program and our efforts to better assist citizens with special needs. Many of the organizations already belong to a special needs committee developed by Josephine County Emergency Management. This committee is working to increase disaster management plans and services to poor, elderly, disabled, and other special needs citizens in Josephine County.

Of the ten social service organizations that we spoke to, all felt that modifications to the ODF program could benefit special need populations. All program representatives stated that they would be willing to use their program resources as a means of promoting the ODF grant program in the future to the populations they serve. The willingness of these agencies to participate in furthering education and outreach for fire protection provides an opportunity for future coordination.

There is great potential for ODF to expand the reach of the home protection program through the resources available via local social service agencies and community groups. The organizations we spoke with serve the entire geographical region of the County. Some extend into very rural areas where they reach clients through home visits and other mobile programs like Meals on Wheels. For example:

- The Josephine County Community Action Agency suggested several opportunities for distributing information about the ODF program to their clients via their organization. Their resources include the mobile Meals on Wheels program and the public transportation system where flyers and posters could be posted and reach a wide and diverse audience. They also suggested the Josephine County Food Share program as a means of easily delivering information on the grant program to a large number of eligible households. This food share program distributes approximately 26,000 boxes to low income families annually. Another simple way of reaching eligible community members would be to incorporate an informative brochure into the annual mailings of the Josephine County Community Action Agency, where they send information about their programs to approximately 1,900 senior clients.
- The Siskiyou Community Health Center offers a sliding medical services discount based on income, and 60% of their clients (5700 people) fall beneath the 100% Federal Poverty Level.

Access to fire protection: homeowners and renters

Many people in Josephine County who access income determinate community services do not own their own homes, and therefore, are not able to access the ODF wildfire protection home protection program. Groups like the Siskiyou Community Health Center, the Department of Human Services, and the Josephine County Public Housing Authority expressed concern that the majority of their clients would not be eligible for ODF's program because they cannot afford their own homes. To provide renters with access to the wildfire protection home assessment program, there is an opportunity to coordinate with landlords via the Oregon Renters' Association, the Josephine County Housing Authority, and similar homeowner/tenant agencies.

Alternatively, the interviews did reveal that senior and disability programs like the Josephine County Development and Disability Program, Senior and Disabled Services, and the Josephine County Health Department have a higher percentage of clients who are homeowners, or who live with somebody who is. There is a direct link between homeowners who are eligible for such community programs and special need eligibility for extra assistance benefits from the ODF grant program.

Recommended Actions

1. Increase the amount provided for fuels reduction to people who meet low-income, elderly, disabled, or other special needs eligibility requirements.

Increasing the amount provided to low-income, elderly, disabled, and other special needs populations can increase the number of homes that participate in the ODF Home Protection Program. This may be up to 100% of the cost or a percentage thereof. Potential alternatives include creating a sliding scale or an option for homeowners who can afford the full cost to opt out of the incentive program.

Outcomes	Special needs citizens will be able to afford to complete fuels reduction work around their homes
Resources	Increased funding, ODF, Josephine County (Title III funds), National Fire Plan funds
Timeline	January 2004 – Ongoing. Submit NFP grant applications for 2005; Allocate Title III funding for 2004, 2005 & 2006.

2. Utilize a sliding scale program for the ODF Home Assessment Program.

All Josephine County citizens will be eligible for the ODF program; however, they may receive difference incentives based upon whether they are eligible for extra assistance and are participating in Josephine County social service programs. (1) If a Josephine County citizen qualifies for a pre-determined social service program, then they will be eligible to receive up to the full cost of fuels reduction work conducted through the ODF home assessment program. (2) If a Josephine County citizen does not qualify for extra assistance, they will receive the standard $330 benefit. (3) If a Josephine County citizen, no matter what their qualification feels they are able to do the work themselves, or can afford hire a contractor to do it for them, then they may choose to opt out of the program and receive no financial benefit.

Outcomes	Scaled options for the ODF home assessment program
Resources	ODF, Social Service Organizations, Josephine County
Timeline	Winter - Spring 2004

3. Reimburse contractors directly when program participants meet the special needs qualifications.

Many special need citizens cannot afford to pay contractors up front before they have received the reimbursement from ODF. For those citizens qualifying for the extra assistance, ODF could pay the contractors directly. At the same time, citizens can be given a list of local contractors to choose from, retaining the individual choice in the process.

Outcomes	Direct payment to contractors for services
Resources	ODF, Social Service Organizations, Josephine County
Timeline	Winter - Spring 2004

4. Identify specific social service programs in Josephine County to qualify low-income, elderly, or disabled citizens for extra assistance from the ODF grant program for home wildfire protection.

By identifying programs and coordinating with the social service agencies, ODF and Josephine County can provide assistance to special need citizens without the extra burden of determining who is eligible for the additional assistance. The programs we recommend referring to determine eligibility requirements include (1) Josephine County Public Housing Authority (Section Eight Housing based upon Federal Income limits set by the Department of Housing and Urban Development); (2) the Food Stamp program (Administered by the Department of Human Services and based upon the Federal Poverty Level); and (3) Meals on Wheels (Administered by the Josephine County Community Action Agency and is available to those who are over 60 years old AND are unable to leave their home to illness or advanced age, and are not eating properly); and (4) Senior and Disabled Services and the Development and Disability Program.

Other programs include Senior Guardianship Program, LIEAP, Food Share Program, Siskiyou Community Health Center Services where clients qualify for a discount, Women, Infant and Children nutritional supplement program (WIC), Ryan White program, services provided by the Department of Human Services like TANF, food stamps and day care programs,

Outcomes	Standards to qualify citizens for increased financial assistance from the ODF Home Protection Program

Resources	Social Service Organization eligibility requirements *(see Table 1)*
Timeline	Winter 2004

5. Coordinate with social service agency staff and community organizations to disseminate information about fire protection programs to special needs citizens.

This study has illustrated a solid foundation of organizations interested in helping ODF to reach special needs citizens with the wildfire protection home assessment program. There is also a strong network of interrelated community organizations in Josephine County who are willing to collaborate with ODF in conducting outreach and program development. Local social service organizations have effective means of informing special need community members, as well as the community at large. By collaborating with the community organizations in this way, ODF can effectively provide information to and easily access special need community members who may receive extra financial assistance for the home assessment program.

The Community Action Agency, the Josephine Housing Authority, and the Development and Disability Program expressed interest in working with ODF to disseminate information to their clients. Their resources include 1900 senior citizen informational mailings, 26,000 food boxes with flyers included, brochures posted in the public transportation system, and general personal contact between staff members and their clients during application and service situations.

Outcomes	Increased information about fire protection programs delivered to special needs citizens.
Resources	Informational materials on fire protection, Social Service agencies, ODF
Timeline	Ongoing (Informational and food share box mailings occur annually, while access to flyers on the public transportation system, case workers, and general staff at the organizations occurs continuously.)

6. Nominate representatives from each social service agency to coordinate with the Oregon Department of Forestry program for training on the ODF Home Protection program and other fire related resources and programs.

Representatives can relay information to fellow caseworkers and other agency staff. This will ensure a complete understanding of the program, its intentions, implementation and applications. Knowledgeable staff members can then adequately inform eligible citizens of the program and provide assistance in contacting the appropriate ODF coordinator. This direct contact between special need community members and community organization staff members will help tremendously in providing ODF with a personal level of communication within Josephine County. The relationships between social service agency staff and their clients will facilitate dissemination of information to special need citizens. Staff trained by ODF will be able to transfer information to their clients, as well as other staff members.

Outcomes	Trained agency workers; Increased information and resources to special needs citizens
Resources	ODF, Social Service Organizations
Timeline	Spring 2004

7. Contact state and regional landlord associations in order to identify alternatives for fire protection for people who do not own their own homes.

Collaborating with the Oregon Renters' Association (ORA), the Josephine County Public Housing Authority, and other local landlord/tenant organizations can assist in providing special need renters with the same added assistance for the ODF Home Assessment Program that homeowners receive. Owners of rental units at risk to wildfire that are occupied by special need citizens could be eligible for the same type of assistance given to special need citizens that already own their homes.

Outcomes	Increased fire protection and defensible space for low-income, elderly and disabled renters
Resources	Josephine Public Housing Authority, Oregon Renters' Association, ODF
Timeline	Winter 2004

8. Consider long-term tax incentives or other means to ensure maintenance of fuels reduction projects.

Tax or other incentives can assist in ensuring the long-term monitoring, evaluation, and maintenance of fuels reduction and fire protection for all citizens of Josephine County

Outcomes	Long-term maintenance and implementation of fire protection measures.
Resources	Josephine County (Board of County Commissioners)
Timeline	Summer – Winter 2004

Summary of Recommendations

Action	Outcomes	Resources	Timeline
1. Increase funding for fuels reduction to people who meet low-income, elderly, disabled, or other special needs eligibility requirements.	Special needs citizens will be able to complete fuels reduction work around their homes	Increased funding, ODF, Josephine County (Title III funds), National Fire Plan funds	Winter 2004 - ongoing
2. Utilize a sliding scale program for the ODF Home Assessment Program.	Scaled options for the ODF home assessment program	Josephine County, Social Service Organizations, ODF	Winter 2004 - Ongoing
3. Reimburse contractors directly when program participants meet the special needs qualifications.	Direct payment to contractors for services	Josephine County, Social Service Organizations, ODF	Winter 2004 – Ongoing
4. Identify programs in Josephine County to qualify low-income, elderly, or disabled citizens for extra assistance from the ODF grant program for home wildfire protection.	Standards to qualify citizens for increased financial assistance from the ODF Home Protection Program	Social Service Organization eligibility requirements *(see Table 1)*	Winter 2004
5. Coordinate with staff members at social service agencies and community organizations to disseminate information about the ODF Home Protection program to	Increased information about fire protection programs delivered to special needs citizens.	Informational materials on fire protection, Social Service Organizations, ODF	Spring 2004 - Ongoing

special needs citizens.			
6. Nominate representatives from each social service agency to coordinate with ODF for training on fire related resources and programs.	Trained agency workers; Increased information and resources to special needs citizens	ODF, Social Service Organizations	Spring 2004
7. Contact landlord associations to identify alternatives for fire protection for people who do now own their own homes.	Increased fire protection and defensible space for low-income, elderly and disabled renters	Josephine Public Housing Authority, Oregon Renters' Association, ODF	Winter 2004
8. Consider long-term tax incentives or other means to ensure maintenance of fuels reduction projects.	Long-term maintenance and implementation of fire protection measures.	Josephine County (Board of County Commissioners)	Summer – Fall 2004

Help Program

This program is designed to organize, train, and prepare the citizens of Josephine County to respond in an emergency. In a major event, first responders may be unable to assist residents for up to 72 hours. This demands that we prepare our individuals, families, neighborhoods, schools, and businesses to be prepared to carry out basic emergency response services as a result. This approach is designed to accomplish that task.

Organization and Training

The systematic organization of the county will be done along geographical lines. Each neighborhood will be identified and at least one leader will be selected and trained in emergency operations. That leader will then serve as the HELP Leader for their neighborhood. It will be the responsibility of that leader to work with the people in the neighborhood to develop 72-hour kits and to discuss how the residents of the neighborhood will respond in an emergency to see to their own families and then to assist their neighbors, especially those who may have "special needs" that make it difficult for them to respond without assistance. Each HELP Leader could assign two neighbors to assist those that will need additional time or assistance in a disaster.

The basic initial training for the HELP Leader will be the CERT (Community Emergency Response Team) Program. This program provides training in emergency operations, fire safety, emergency medical operations, light search and rescue, disaster psychology, terrorism awareness, and incident command system. Following the CERT training other programs would be made available to assist the leaders and to keep their training current.

Current Neighborhood Watch leaders would be encouraged to become HELP Leaders as a part of their NW activities.

Schools would be organized to work with this program and to have their own HELP Leader if school is in session or a major event such as a football game is occurring. Instructions would be passed to that HELP Leader as to directions to those on campus.

For each group of 6-10 neighborhoods, an Area HELP Leader would be identified. This Leader would receive reports from the neighborhood HELP Leader and communicate major needs to the Emergency Operations Center or a Centralized Command Center. In Grants Pass, it would be expected that 6 Areas would be established. In the remainder of Josephine County, each community would have either one or two Areas. North Valley to Sexton might have two areas with one each in Sunny Valley, Wolf Creek, Murphy, Applegate Valley, Williams, Wonder, Selma, Cave Junction, Kerby, Takilma, and O'Brien. These are only suggestions and each community can work towards the organization that they feel is warranted to meet their own needs for organization. The intent, however, is to cover every street and road (and therefore all residents) in Josephine County on a voluntary basis. NO ONE WILL BE FORCED TO PARTICIPATE.

Response

In a major emergency, each HELP Leader see that their family is prepared to deal with the situation and then move through their neighborhood to check on the families, animals, and property there. Those people who have agreed to assist others in the neighborhood will check in on those people after seeing to their own family needs. All of this information will be shared with the HELP Leader

so that it can be passed on the Area HELP Leader. Emergency situations that require immediate assistance will be passed on as soon as possible.

Each neighborhood can create a system of notification that can assist the HELP Leader to quickly ascertain the status of the residents. This notification may be placards placed in windows or color-coded banners or whatever the group decides. This will greatly speed up the neighborhood evaluation process and thereby speed up the response.

If it becomes imperative that an area is to be evacuated, then the HELP Leader can be notified and will assist those in the area to get their 72-hour kits and valuables loaded and give the residents directions as to the evacuation routes. The HELP Leader may stay behind to communicate with first responders when they arrive and to assist them in whatever ways they require assistance. The HELP Leader may request other(s) from the neighborhood to watch other entrances to the neighborhood as a security measure.

Communications

Each HELP Leader would be assigned and trained on a radio that would allow them to communicate with their Area HELP Leader who in turn would communicate with a Central Command Center or the Emergency Operations Center for the County. Training in operations of the radio and proper emergency communications will be a part of the ongoing training for these leaders.

Benefits

The benefits for individuals and families are that they will be assisted in putting together their 72-hour kits and basic emergency preparedness in their homes. Parents will know that if their children are at school that they are being assisted and that school procedures have been shared with them and are being followed.

Another benefit is that through the neighborhood organizing effort that neighbors will get to know their neighbors and that the Neighborhood Watch Program is enhanced and everyone will be mindful of those entering the neighborhood. Increased safety and security will result.

The identification of those needing additional assistance will be known and addressed locally instead of requiring massive database development and maintenance. Next-door neighbors will agree to help them when needed.

As a community we will be able to quickly assess the needs of the people in a major event and get assistance to the most needy quickly. We magnify the efforts of the first responders and help focus their efforts where they are needed the most.

We believe that the primary benefit is that our area will be a safer, more secure area in which to live and raise our families. We also know that when we have to face an emergency of any type, we will be better prepared and that can save lives and property.

RESOURCE A: ACRONYM LIST AND DEFINITIONS

Acronym List

ARC	American Red Cross
ARES	Amateur Radio Emergency Services
BCC	Board of County Commissioners
BLM	Bureau of Land Management
CERT	Community Emergency Response Team
CRT	Community Response Team
CWPP	Community Wildfire Protection Plan (Healthy Forests Restoration Act)
DEQ	Department of Environmental Quality
DLCD	Department of Land Conservation & Development (State)
DOGAMI	Department of Geology and Mineral Industries (State)
FAC	Illinois Valley Forestry Action Committee
FEMA	Federal Emergency Management Agency
GIS	Geographic Information System
HFRA	Healthy Forests Restoration Act
HUD	Housing and Urban Development (Federal)
ICS	Incident Command System
ISO	Insurance Services Office (Fire Hazard Rating)
JCEC	Josephine County Emergency Communications
JCFDB	Josephine County Fire Defense Board
JCIFP	Josephine County Integrated Fire Plan
JJLCG	Josephine Jackson Local Coordinating Group
LEPC	Local Emergency Planning Committees
MAC	Multi-Agency Coordination
NFP	National Fire Plan
NHMP	Natural Hazards Mitigation Plan
NOAA	National Oceanic and Atmospheric Administration
NWS	National Weather Service
ODF	Oregon Department of Forestry
ODOT	Oregon Department of Transportation
OEM	Office of Emergency Management (State)
OSP	Oregon State Police
PDM	Pre-Disaster Mitigation Program (FEMA)
RVCOG	Rogue Valley Council of Governments
RVFCA	Rogue Valley Fire Chief's Association
RVFPC	Rogue Valley Fire Prevention Cooperative
SAR	Search and Rescue
SFI	Siskiyou Field Institute
UGB	Urban Growth Boundary
USACE	United States Army Corps of Engineers
USFS	United States Forest Service
USGS	United States Geological Survey

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

Policy / Source	Definition
Josephine County Integrated 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

Policy / Source	Definition
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." 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.

Communities at Risk (continued)

Policy / Source	Definition
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 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.

Communities at Risk (continued)

Policy / Source	Definition
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. • *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

Policy / Source	Definition
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
Josephine County Article 76	Article 76: Josephine County Wildfire Protection Code Section 11.030 of the Rural Land Development Code: Wildfire hazard refers to the danger for fire in rural areas and areas where privately owned lands interface with public lands. The factors may contribute to wildfire hazards are weather, vegetative fuels, topography, and remoteness.

Defensible / Survivable Space

Policy / Source	Definition
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.

Defensible Space (continued)

<table>
<tr><th>Policy / Source</th><th>Definition</th></tr>
<tr><td>Josephine County Article 76 – Fire Safety Standards</td><td>Note: These are the not up-dated standards which are under development through a Planning Commission Review.
A fire safety zone is a fuel break designed to slow the speed and intensity of fire to or from structures, and to create an area in which fire suppression operations may more safely and effectively occur. There shall be two types of fire safety zones, designated as the primary safety zone and the secondary safety zone. In all cases the primary safety zone shall be developed for a distance of 100' in all directions from structures as measured along the ground from the farthest extension of the structure, to include attached carports, decks or eaves. A secondary safety zone shall be established around the primary safety zone and the size of the zone shall increase in relationship to the severity of slope, as shown in the following table.
<table>
<tr><td colspan="2">SECONDARY SAFETY ZONE % OF SLOPE SIZE</td></tr>
<tr><td>0 - 9%</td><td>0'</td></tr>
<tr><td>10 – 19%</td><td>50'</td></tr>
<tr><td>20 – 24%</td><td>75'</td></tr>
<tr><td>25 – 39%</td><td>100'</td></tr>
<tr><td>40% or greater</td><td>150'</td></tr>
</table></td></tr>
<tr><td>OAR 629-044-1085: Fuel Break Requirements</td><td>(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</td></tr>
</table>

Defensible Space (continued)

<table>
<tr><th>Policy / Source</th><th>Definition</th></tr>
<tr><td>Senate Bill 360: Forestland Urban Interface Protection Act of 1997. Fuel Break Distance</td><td>
<table>
<tr><td></td><td colspan="2">Total Fuel Break Distance</td></tr>
<tr><td>Classification</td><td>Fire Resistant Roofing</td><td>Non-Fire Resistant Roofing</td></tr>
<tr><td>LOW</td><td>No Requirement</td><td>No Requirement</td></tr>
<tr><td>MODERATE</td><td>30 feet</td><td>30 feet</td></tr>
<tr><td>HIGH</td><td>30 feet</td><td>50 feet</td></tr>
<tr><td>Extreme & High Density Extreme</td><td>50 feet</td><td>100 feet</td></tr>
</table>
</td></tr>
<tr><td>Is Your Home Protected from Wildfire Disaster? A Homeowner's Guide to Wildfire Retrofit, Institute for Business and Home Safety</td><td>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 limbs 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</td></tr>
</table>

Defensible Space (continued)

<table>
<tr><th>Policy / Source</th><th>Definition</th></tr>
<tr><td>Living with Fire: A Guide for the Homeowner</td><td>This guide, distributed in Oregon through the Pacific Northwest Wildfire Coordinating Group, provides information on creating effective defensible space and guidelines illustrated below.
<table>
<tr><th></th><th colspan="3">Defensible Space
Recommended Distances – Steepness of Slope</th></tr>
<tr><th></th><th>Flat to Gently Sloping 0 to 20%</th><th>Moderately Steep 21% to 40%</th><th>Very Steep +40%</th></tr>
<tr><td>Grass: Wildland grasses (such as cheatgrass, weeds, and widely scattered shrubs with grass understory)</td><td>30 feet</td><td>100 feet</td><td>100 feet</td></tr>
<tr><td>Shrubs: Includes shrub dominant areas</td><td>100 feet</td><td>200 feet</td><td>200 feet</td></tr>
<tr><td>Trees: Includes forested areas. If substantial grass or shrub understory is present use those values shown above</td><td>30 feet</td><td>100 feet</td><td>200 feet</td></tr>
</table></td></tr>
<tr><td>Fire Free</td><td>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.</td></tr>
</table>

Illinois Valley Contractors

July 29, 2004

Disclaimer: *The names listed are solely for the purpose of providing information and have been placed here at the request of the businesses listed. Josephine County and the Illinois Valley Community Response Team do not guarantee or warranty the contractors named, or imply that they comply with state or local licensing, bonding, and insurance requirements. References to them do not signify our approval to the exclusion of other contractors.*

David Baker
Harmony Forestry
PO Box 1069
Cave Junction, OR
596-2163 or 592-4233
Logging, thinning, defensible space, hauling

Wayne Fitzpatrick
Deep Roots
Cave Junction, OR
PO Box 1872 CJ
592-2286
Reforestation, fire prevention

Robert Webb
Robert Webb Enterprises
592-3143
Thinning, logging, house pads, roadwork, brushing, restoration, etc.

George Alcorn
659-9940
Thinning, logging, house pads, roadwork, brushing, restoration, etc etc.

Marty Hertler
Martys Tree Service
PO Box 67
Selma, Oregon
597-4610
Hazardous tree removal, pre-com. thining /logging, fuel thinning around homes

Chris Runisey
Tree service
P.O. 2455
Cave Junction, OR
592-3271
Tree removal power line

Dennis Page
592-3199
659-3471
Tree falling and brush clearing

Jim Dougherty
Siskiyou Logging
592-4982
659-0859
Tree removal; logging

Todd Schaeffer
Defensible Space Excavation
596-2007
Fire Prevention Maintenance, back hoe and brush clearing, dump truck

Southern Oregon Laborers for Restoration, Thinning, etc.

June 18, 2004

Disclaimer: *The names listed are solely for the purpose of providing information and have been placed here at the request of the businesses listed. Josephine County and the Oregon Dept. of Forestry/State of Oregon do not guarantee or warranty the contractors named, or imply that they comply with state or local licensing, bonding, and insurance requirements. References to them do not signify our approval to the exclusion of other contractors.*

RURAL/METRO
LAWLESS, Lloyd
807 NE 6th Street
Grants Pass, OR 97526
(541) 474-1218
(541) 660-3518
Fuels management

AAA FORESTRY
PHILLIPS, Stephen
ARNER, Del
PO Box 380
Enterprise, OR 97828
(541) 426-4027
(541) 377-4158 CELL
Pre-Fire Treatment, Pre-Commercial Thinning, Brush Removal

ABC TREE SERVICE
PECKHAM, Mark
3263 DeWoody Lane
Grants Pass, OR 97527
(541) 479-3151

ASHBROOKS FOREST MGMT
BROOKS, Tom
30000 Hwy 62
Trail, OR 97541
(541) 878-3540
(541) 878-9469
Fire Protection, Clearing, Reforestation, & Thinning

BUSY BEAVER TREE SERVICE & STUMP REMOVAL
MURRAY, Nancy
9650 W Evans Creek Rd
Rogue River, OR 97537
(541) 582-6278
1-888-677-9199

CAYTON, Tim
1030 NW Hillside Drive
Grants Pass, OR 97526
(541) 476-3044
General contractor, land improvement, park-like setting, decks, fencing, home repair, tree service, chipper

CLEAR-VIEW
PECKHAM, Matt
900 Mayfair Ln
Grants Pass, OR 97527
(541) 476-5029

COVERED BRIDGE CONSTRUCTION
JOCHEM, Matt
8881 E Evans Creek Rd
Rogue River, OR 97537
(541) 582-1882

CROFT, Norbert
PO Box 765
Cave Junction, OR 97523
(541) 592-4894

ERIC'S TREE SERVICE
WERNER, Eric
233 SE Rogue River Hwy PMB 435
Grants Pass, OR 97527
(541) 479-4064

FOREST & RESOURCE CONSULTANT
GASOW, Bill
PO Box 1692
Grants Pass, OR 97528
(541) 471-3372
E-Mail: fconsult@internetcds.com

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12111 Table Rock Rd
Central Point, OR 97502
(541) 840-8821

HAMANN, Don
PO Box 198
Butte Falls, OR 97522
(541) 865-3310

HARRIS, Mark
6396 Downing Rd.
Central Point, OR 97502
(541) 826-3658

HAUSER, Roy
PO Box 187
Wilderville, OR 97543
(541) 479-0231

HENRY BLANK EXCAVATION
2748 Anderson Creek Rd.
Talent, OR 97540
(541) 535-7295

HIGH COUNTRY REFORESTATION
HOLMES, Chris
532 Sykes Creek Rd.

Rogue River, OR 97537
(541) 582-0965

HONEY DEW HARDWOOD
DAVIS, Kelly
118 Hope Drive
PO Box 794
Selma, OR 97538
(541) 597-4855
(541) 659-4771

INTEGRATED RESOURCE MNG
BARNES, Marc
151 Schultz Rd
Central Point, OR 97502
(541) 665-3700
Marc@irmforestry.com

JACKSON CO COMMUNITY JUSTICE WORK CENTER
DONAGHY, Jeanine
5505 S Pacific Hwy
Phoenix, OR 97535
(541) 774-4965

JEFF DEAN'S TREE SERVICE
DEAN, Jeff
210 Lloyd Drive
Grants Pass, OR 97526
(541) 476-8109

KNIGHT FOREST MGMT & LGN
KNIGHT, John
1394 #A Dowell Rd.
Grants Pass, OR 97527
(541) 471-1266
#8585

LOMAKATSI RESTORATION PROJECT
BEY, Marko
PO Box 3084
Ashland, OR 97520
(541) 488-0208

MICHAEL MAAS ORGANIC FORESTRY SERVICES
102 Slate Creek Rd.
Wildervile, OR 97543
(541) 476-0737
EMAIL:
hsapiens@budget.net

MIKE CREEK INC.
2052 Redwood Ave
Grants Pass, OR 97527
(541) 761-0343

NATIVE LANDSCAPE
GADE, Eric
5950 Riverbanks Rd.
Grants Pass, OR 97527
(541) 479-0834
Fuels Reduction/Salvage

NORTHWEST ARBOR CULTURE, INC.
NASH, Chris
SPALDING, Jillian
LARSON, Jay
31635 Wilsonville Rd NE
(503) 554-8948
CCB# 143287
Bond# LPM4030052
Tree removal, chipping, handwork, brush disposal, reforestation

OUT COLD FIRE SERVICE LLC
JORDAN, Matthew
9500 Lower River Rd
Grants Pass, OR 97526
(541) 660-7586
(541) 474-0597
Wildland fire fighting, fuel reduction, defensible space

OUT OF THE WOODS ECO-FORESTRY
SCHATTLER, Joe
4062 Yale Creek Rd
Jacksonville, OR 97530
(541) 899-7836

PACIFIC OASIS
DODDS, Stephen
1575 E Nevada St
Ashland, OR 97520
(541) 488-4287
(541) 552-9723 **Fax**
Reforestation specialist, Plantation Mgmt

PACIFIC SLOPE TREE CO
DAHL, Chuck
PO Box 353
Williams, OR 97544
(541) 846-9226

PAGE, Dennis
PO Box 1224
Cave Junction, OR 97523
(541) 592-3199
Insured, Fireline Clearing, Tree Thinning, Brush Clearing
#156955 F/F Lic. 8811

POINT OF VIEW THINNING & BRUSH
CLARK, Rodney
PO Box 482
Selma, OR 97538
(541) 659-3952

RAINFORTH LANDWORKS
RAINFORTH, Jerry
556 Glenlyn Drive
Williams, OR 97544
(541) 846-1383
(541) 660-5619
Email:
landworks@budget.net
Mowing, driveway repair, grading, misc. maintenance

RAINWATER FORESTRY & LOGGING
RAINWATER, James
9160 Monument Drive
Grants Pass, OR 97526
(541) 476-7282

ROGER'S TREE SERVICE
PREFONTAINE, Roger
PO Box 271
Williams, OR 97544
(541) 846-6706

S & K EXCAVATION

NACE, Kris
4847 Azalea Glen Rd.
Glendale, OR 97442
(541) 832-2258

SCHUBERT, Kevin
1801 Pacific Way
Gearhart, OR 97238
(503) 738-7808
treeplanterkevin@yahoo.com

SMALL WOODLAND SERVICES
Marty Main
2779 Camp Baker Rd.
Medford, OR 97501
(541) 552-1479

STOUT, Greg
3700 Hosmer Ln
Gold Hill, OR 97525
(541) 582-6516
Fire Break, Fuels Reduction

SUMMITT FORESTS, INC
PMB# 218
1257 Siskiyou Blvd.
Ashland, OR 97520
(541) 535-8920
Fuel Reduction

TED'S QUALITY TREE SERVICE
PECKHAM, Ted Jr.
1916 Carton Way
Grants Pass, OR 97526
(541) 472-1948
(541) 472-0105 FAX
Tree Work, Logging, Etc.

TED'S TREE SERVICE & LGN.
PECKHAM, Ted
P.O. Box 2103
Cave Junction, OR 97523
(541) 592-4789

3 RIVERS TREE SERVICE
PORTER, Scott
950 Jaynes Drive
Grants Pass, OR 97527
(541) 471-7894
(541) 772-7900
(541) 472-2818 PAGER

TRUMBLY, Wayne
777 Wildflower Drive
Merlin, OR 97532
(541) 956-1850
(541) 218-1099 CELL

WILDER, Aaron
600 Pickett Creek
Grants Pass, OR 97526
(541) 472-8435

WOLF CREEK WOODWORKS
STUBBLEFIELD, Jim
PO Box 381
160 Lower Wolf Creek Rd
Wolf Creek, OR 97497
(541) 866-2545
Custom milling, small logging jobs, chipping, unique yarder - low impact

RALPH WYTCHERLEY EXCAVATING
3404 Midway Ave
Grants Pass, OR 97527
(541) 476-1160

Southwest Oregon – Small Logging and Salvage Operators

June 18, 2004

Disclaimer: The names listed are solely for the purpose of providing information and have been placed here at the request of the businesses listed. Josephine County and the Oregon Dept. of Forestry/State of Oregon do not guarantee or warranty the contractors named, or imply that they comply with state or local licensing, bonding, and insurance requirements. References to them do not signify our approval to the exclusion of other contractors.

ABC TREE SERVICE
PECKHAM, Mark
3263 DeWoody Lane
Grants Pass, OR 97527
(541) 479-3151

ACTION HORSE LOGGING
JUDD, Don
233 Rogue River Hwy #273
Grants Pass, OR 97527
(541) 659-9293 PAGER
Horse Logging

APPLIED FOREST TECHNOLOGY & EXCAVATION
ULREY, Robert W
PO Box 850
Rogue River, OR 97537
(541) 821-6547

ATC LOGGING
HAUSE, Anthony
8444 Lower River Rd.
Grants Pass, OR 97526
(541) 479-5361

A TO Z STUMP REMOVAL
ZIEGLER, Bruce
310 Marion Lane
Grants Pass, OR 97527
(541) 474-6057

BARTLETT, Mike
704 Favill Rd.
Grants Pass, OR 97526
(541) 476-9313
Small Jobs

BILLINGS, Don
PO Box 334
2021 Leland Rd.
Sunny Valley, OR 97497
(541) 479-1938

J.W. BLUMENFELD LOGGING
BLUMENFELD, John
PO Box 3350
Applegate, OR 97530
(541) 846-7580
Oregon Professional Logger Cert.

COVERED BRIDGE CONSTRUCTION
JOCHEM, Matt
8881 E Evans Creek Rd
Rogue River, OR 97537
(541) 582-1882

ED PARIERA LOGGING
26261 Hwy 140 W
Klamath Falls, OR 97601
(541) 356-2237

ERIC'S TREE SERVICE
WERNER, Eric
233 SE Rogue River Hwy
PMB 435
Grants Pass, OR 97527
(541) 479-4064

FREEMAN, Robert
12111 Table Rock Rd
Central Point, OR 97502
(541) 840-8821

GRISSOM ENTERPRISE
GRISSOM, Scott
2855 S. Fk. Little Butte Cr. Rd., Eagle Point, OR 97524
(541) 830-8802
Low Impact Logging

HAMANN, Don
PO Box 198
Butte Falls, OR 97522
(541) 865-3310

HAUSER, Roy
PO Box 187
Wilderville, OR 97543
(541) 479-0231

HENRY BLANK EXCAVATION
2748 Anderson Creek Rd.
Talent, OR 97540
(541) 535-7295

INTREGTATED RESOURCE MNG
BARNES, Marc
151 Schultz Rd
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(541) 665-3700
Marc@irmforestry.com

JEFF DEAN'S TREE SERVICE
DEAN, Jeff
210 Lloyd Drive
Grants Pass, OR 97526
(541) 476-8109

KNIGHT FOREST MGMT & LGN
KNIGHT, John
1394 #A Dowell Rd.

Grants Pass, OR 97527
(541) 471-1266
#8585

LITTLEFIELD, Bill
PO Box 1125
Shady Cove, OR 97539
(541) 878-2860
(541) 821-0694 CELL
Logging, sewer systems, road building, & excavation

OUT OF THE WOODS ECO-FORESTRY
SCHATTLER, Joe
4062 Yale Creek Rd
Jacksonville, OR 97530
(541) 899-7836

PACIFIC SLOPE TREE CO
DAHL, Chuck
PO Box 353
Williams, OR 97544
(541) 846-9226

RAINWATER FORESTRY & LOGGING
RAINWATER, James
9160 Monument Drive
Grants Pass, OR 97526
(541) 476-7282

REBER, Michael
PO Box 1350
Rogue River, OR 97537
(541) 582-0946
Low Impact Logging

RICK ROBERTSON LOGGING, INC.
1397 Dutcher Creek Rd
Grants Pass, OR 97527
(541) 476-3435

ROGER'S TREE SERVICE
PREFONTAINE, Roger
PO Box 271
Williams, OR 97544
(541) 846-6706

SEVEN EAGLES TIMBER
CARTER, Francis Lee
C/O 2200 Knowles Rd.
Medford, OR 97501
(541) 770-6784
(541) 821-4007
Independent logger, contractor

STOUT, Greg
3700 Hosmer Ln
Gold Hill, OR 97525
(541) 582-6516
Fire Break, Fuels Reduction

TED'S QUALITY TREE SERVICE
PECKHAM, Ted Jr.
1916 Carton Way
Grants Pass, OR 97526
(541) 472-1948
(541) 472-0105 FAX
Tree Work, Logging, Etc.

TED'S TREE SERVICE & LGN.
PECKHAM, Ted
PO Box 2103
Cave Junction, OR 97523
(541) 592-4789

TERRY NEUENSCHWANDER LOGGING
455 Tolman Creek Rd.
Ashland, OR 97520
(541) 482-2606
Cable or Cat, Small Scale

3 RIVERS TREE SERVICE
PORTER, Scott
950 Jaynes Drive
Grants Pass, OR 97527
(541) 471-7894
(541) 772-7900
(541) 472-2818 PAGER

VALDEZ, Charlie
8171 Deer Creek Rd.
Selma, OR 97538
(541) 597-4005
Stand Improvement

WONSYLD, Michael
891 Coutant Lane
Grants Pass, OR 97527
(541) 479-4517

WRIGHT TIMBER CONTR
2002 Galls Creek Rd
Gold Hill, OR 97525
(541) 855-1823
(541)621-5272
Yarder, skidder, falling, salvage, thinning

HORSE LOGGERS

ACTION HORSE LOGGING
JUDD, Don
233 Rogue River Hwy #273
Grants Pass, OR 97527
(541) 659-9293
Horse Logging

Southern Oregon Consultants and Surveyors

May 12, 2004 – Jackson and Josephine County (from the local area)

Disclaimer: *The names listed are solely for the purpose of providing information and have been placed here at the request of the businesses listed. Josephine County and the Oregon Dept. of Forestry/State of Oregon do not guarantee or warranty the contractors named, or imply that they comply with state or local licensing, bonding, and insurance requirements. References to them do not signify our approval to the exclusion of other contractors.*

DAKE FOREST MANAGEMENT
CYPHERS, Dave
PO Box 280
Talent, OR 97540
(541) 535-3062

FOELLER, Norman F.
2610 Dellwood, Medford, OR
(541) 772-2679

FOREST & RESOURCE CONSULTANT
GASOW, Bill, PO Box 1692
Grants Pass, OR 97526
(541) 471-3372
fconsult@internetcds.com

GREENUP, Mel
Forest Management Consultant, PO Box 157
Wolf Creek, OR 97497
(541) 761-0320

INTEGRATED RESOURCE
BARNES, Marc
151 Schultz Rd
Central Point, OR 97502
(541) 665-3700
Marc@irmforestry.com

KNIGHT FOREST MGMT & LGN, KNIGHT, John
1394 #A Dowell Rd.
Grants Pass, OR 97527
(541) 471-1266

BIOLOGICAL CONSULTANTS
2054 Amy, Medford, OR
(541) 770-6746

LOMAKATSI RESTORATION PROJECT
BEY, Marko, PO Box 3084
Ashland, OR 97520
(541) 488-0208

MICHAEL MAAS ORGANIC FORESTRY SERVICES
102 Slate Creek Rd.
Wildervile, OR 97543
(541) 476-0737
hsapiens@budget.net

NW FOREST RESOURCES MANAGEMENT
KANGAS, Paul
1421 Ramada Ave
Medford, OR 97504
(541) 821-5315
pkangas@charter.net

OUT OF THE WOODS ECO-FORESTRY
SCHATTLER, Joe
4062 Yale Creek Rd
Jacksonville, OR 97530
(541) 899-7836

3 RIVERS TREE SERVICE
PORTER, Scott
950 Jaynes Drive
Grants Pass, OR 97527
(541) 471-7894
(541) 772-7900
(541) 472-2818 (pager)

SISKIYOU WOODLAND COMMUNITY
MAYER, Charles
KING, Kara
PO Box 36
Ashland, OR 97520
(541) 261-6203

SMALL WOODLAND SERVICES
MAIN, Marty
2779 Camp Baker Rd
Medford, OR 97501
(541) 552-1479

STEWART, Martin C
Professional Forester
6370 Hwy 66
Ashland, OR 97520
(541) 488-2831

THOMPSON, Robert
1140 Acacia Lane
Grants Pass, OR 97527
(541) 476-3269

ZIEGLER, Steven
4622 Eagle Trace Drive
Medford, OR 97504
(541) 857-8984
(541) 857-8984 FAX
ziegs@internetcds.com

GROWING SOILS
KITZROW, Gary A.
244 Apple Blossom Lane
Roseburg, OR 97470
(541) 673-4846
(541) 673-0373 FAX
E-MAIL: soileye@mci.net

ACCU-TANKS & EQUIP.
PO Box 31, Williams, OR 97544
(541) 846-0182
sales@accutanks.com

Southern Oregon Consultants and Surveyors

June 2, 2003 – Jackson and Josephine County (from out of the area)

Disclaimer: *The names listed are solely for the purpose of providing information and have been placed here at the request of the businesses listed. Josephine County and the Oregon Dept. of Forestry/State of Oregon do not guarantee or warranty the contractors named, or imply that they comply with state or local licensing, bonding, and insurance requirements. References to them do not signify our approval to the exclusion of other contractors.*

BARNES & ASSOCIATES, INC.
3000 Stewart Parkway, Suite 204
Roseburg, OR 97470
(541) 673-1208
(541) 673-9789 FAX NUMBER

GENETECHS
COURTER
Richard W.
1600 Northwest Skyline Blvd.
Portland, OR 97229
(503) 297-1660
Association of Consulting Foresters of America web page searches can be made to locate ACF Foresters
www.acf-foresters.com

SPITZ, Jim
60045 River Bluff Trail
Bend, OR 97702
(541) 389-5978
(541) 389-9173 FAX

STUNZER, Ron
PO Box 118
Coos Bay, OR 97420
(541) 267-2872

WOODLAND MANAGEMENT INC.
Kruse Woods One Bldg.
Suite # 468
5285 SW Meadows
Lake Oswego, OR 97035
(503) 684-4004
(503) 684-4005 FAX
woodland@woodlandmgmt.com

W.R. WEATHERS & ASSOCIATES
PO Box 39
29 South Alder Street
Lowell, OR 97452
(541) 937-3738
(541) 937-2518 FAX

Portable Saw Mills

June 2, 2004

Disclaimer

The names listed are solely for the purpose of providing information and have been placed here at the request of the businesses listed. Josephine County and the Oregon Dept. of Forestry/State of Oregon do not guarantee or warranty the contractors named, or imply that they comply with state or local licensing, bonding, and insurance requirements. References to them do not signify our approval to the exclusion of other contractors.

HENRY BLANK EXCAVATION
2748 Anderson Creek Rd.
Talent, OR 97540
(541) 535-7295

CRUTCHER, Ron
283 Pickett Creek
Grants Pass, OR 97527
(541) 474-5519
Can cut up to 21'
Shares/Hourly/MBF

FREEMAN, Robert
12111 Table Rock Rd
Central Point, OR 97502
(541) 840-8821

OUT OF THE WOODS ECO-FORESTRY
SCHATTLER, Joe
4062 Yale Creek Rd
Jacksonville, OR 97530
(541) 899-7836

PACIFIC SLOPE TREE CO
DAHL, Chuck
PO Box 353
Williams, OR 97544
(541) 846-9226
Contractor #106737

WOOD MIZER PORTABLE SAWMILL
LATTIMER, Gene
1999 Placer Rd
Sunny Valley, OR 97497
(541) 474-1936
E-Mail latt58@internetcds.com

WOLF CREEK WOODWORKS
STUBBLEFIELD, Jim
PO Box 381
160 Lower Wolf Creek Rd
Wolf Creek, OR 97497
(541) 866-2545
Custom milling, small logging jobs, chipping, unique yarder - low impact

List of Sawmills – Southern Oregon Area

April 22, 2003

Disclaimer

The names listed are solely for the purpose of providing information and have been placed here at the request of the businesses listed. Josephine County and the Oregon Dept. of Forestry/State of Oregon do not guarantee or warranty the contractors named, or imply that they comply with state or local licensing, bonding, and insurance requirements. References to them do not signify our approval to the exclusion of other contractors.

JOSEPHINE COUNTY

LOUISIANA PACIFIC CORP.
PO Box 340
Rogue River, OR 97537
(541) 582-3288

ROUGH & READY LBR & TBR
MCLAUGHLIN, Dan
PO Box 519
Cave Junction, OR 97523
(541) 592-3116

SUPERIOR LUMBER PRODUCTS
MAURER, Ken
PO Box 250
Glendale, OR 97470
(541) 832-2151

JACKSON COUNTY

BOISE CASCADE CORP.
PO Box 100
Medford, OR 97501
(541) 776-6609

HOMESTEAD LOG HOMES
6301 Crater Lake Hwy
Central Point, OR 97502
(541) 826-6888

LOUISIANA PACIFIC CORP.
PO Box 340
Rogue River, OR 97537
(541) 582-3288

TIMBER PRODUCTS CO.
PO Box 766, Yreka, CA 96097
(541) 773-6681

COOS COUNTY

ROSEBURG FOREST PRODUCTS
PO Box 1088
Roseburg, OR 97470
(541) 679-3311

CURRY COUNTY
SOUTH COAST LUMBER
PO Box 670
Brookings, OR 97415
PO Box 670
(541) 469-2136

DOUGLAS COUNTY
C & D LUMBER CO.
PO Box 27, Riddle, OR 97469
(541) 874-2281

D.R. JOHNSON LUMBER CO.
KECK, Jerry
PO Box 66, Riddle, OR 97469
(541) 874-2231

DOUGLAS CO. FOREST PRODUCTS
BLODGETT, John
PO Box 848
Winchester, OR 97495
(541) 957-0209

GLIDE LUMBER PRODUCTS
PO Box 370
Glide, OR 97443
(541) 496-3571

HERBERT LUMBER CO.
PO Box 7, Riddle, OR 97469
(541) 874-2236

KELLER LUMBER
4418 NE Tiller Rd, Roseburg, 97470, (541) 672-6528

LOUISIANA PACIFIC CORP.
PO Box 340
Rogue River, OR 97537
(541) 582-3288

MURPHY VENEER
7975 11th St, White City, OR 97503, (541) 459-4545

ROSEBURG FOREST PRODUCTS
PO Box 1088
Roseburg, OR 97470
(541) 679-3311

SUPERIOR LUMBER PRODUCTS
PO Box 250, Glendale, OR 97470, (541) 832-2151

LONE ROCK TIMBER
PO Box 1127, Roseburg, OR 97470, (541) 673-0141

Southwest Oregon – Self Loaders

May 12, 2004

Disclaimer

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DB CLINE TRUCKING
CLINE, Darren
PO Box 157
Glendale, OR 97442
(541) 476-9686

DAN B CLINE TRUCKING, INC
PO Box 153
Glendale, OR 97442
(541) 832-2620

FRINK, Russell
1075 Tara Circle
Medford, OR 97504
(541) 734-4658

GYPPO LOGGING
VITTO, Mike
222 Granite Hill Rd
Grants Pass, OR 97526
(541) 479-6047

HAMMAFORD, JD
PO Box 397
Eagle Point, OR 97524
(541) 826-5767

JOE VARGAS TRUCKING
399 Mountain View Drive
Eagle Point, OR 97524
(541) 826-3374

JOHN R WOOD TRUCKING
12310 Williams Hwy
Grants Pass, OR 97527
(541) 846-6265

MCFALL, Dale
51 Barton Rd
Eagle Point, OR 97524
(541) 826-4679
Call in the evenings

PLUMLEY INC
7189 Agate Rd
White City, OR 97503
(541) 826-1290

R & S TRUCKING
WARDLE, Rocky
9495 E Evans Creek Rd
Rogue River, OR 97537
(541) 582-1367

RICK MIRANDA CONTRACTING
1500 Merlin Rd Sp #43
Grants Pass, OR 97526
(541) 472-1487

RIGEL, John
9400 Elk Creek Rd
Trail, OR 97541
(541) 878-4219
(541) 840-7196

SCOTT DOWNING SELF LOADING LOG TRUCK
9775 Blackwell Rd
Central Point, OR 97502
(541) 855-5515

UMPQUA SELF-LOADERS LLC
PO Box 189
Sutherlin, OR 97549
(541) 459-303

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A Framework for Community Fire Plans

A collaborative approach to developing community fire plans

June 2004

Framework Developed by:

- Program for Watershed and Community Health, University of Oregon

With Contributions from:

- Josephine County
- Bureau of Land Management, Medford District
- Rogue River - Siskiyou National Forest
- Oregon Department of Forestry, Southwestern Oregon District
- Oregon Office of the State Fire Marshal
- The National Fire Plan office, Region 6, Oregon/Washington

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UNIVERSITY OF OREGON

Community Fire Plans

The Josephine County Integrated Fire Plan encompasses all of the 1,040,000 acres that make up Josephine County. Approximately 75,726 people live on 28% of that land, and the JCIFP acknowledges that each community presents unique needs in relation to wildfire.

The resource document contained herein provides a framework of guidance, resources and ideas for communities interested in developing a local community fire plan. The framework is based upon and is referenced to the Josephine County Integrated Fire Plan. Therefore, by tiering to the JCIFP, localized community fire plans will meet federal requirements or guidelines for community fire plans (CWPPs). This then helps individual communities to be competitive for federal funding sources, as explained in the Executive Summary and Chapter 5 of the JCIFP.

The framework following addresses elements of fire protection, and focuses on engaging the local fire protection district, to help identify and address the needs of the many diverse communities, neighborhoods, and individuals at risk from fire.

Why Should Communities Develop Their Own Local Fire Plans?

While this JCIFP has amassed a tremendous amount of information and resource about the entire one million plus acres of Josephine County, it is recognized that many aspects related to fire and forest management are best addressed at a smaller scale. Also, that local residents inherently know what works best for their community.

The most important element of a Community Fire Plan is the rich discussion fostered among community members and stakeholders. A fire plan can result in a strong understanding of the community priorities of what they think is important, how they want to communicate in time of need, what their local resources and weak spots are, where they think fuel hazard work should be done, and what they are willing to do to reduce the risk of wildfire. Every community that has completed a fire plan has realized a new capacity to work together toward common goals. The enhanced relationships between the community members and their local or federal land and fire managers have only strengthened the wildfire protection efforts.

Issues that might be localized in Community Fire Plans

Wildfire is a complex topic, as evidenced by the many chapters contained in the JCIFP. Not all of the various aspects discussed in the JCIFP need to be readdressed in a local community fire plan. There are several issues, however, that are specially suited to be analyzed at the local, smaller-scale level. These would mainly fall into the Emergency Communications and the Fuel Hazard Reduction areas. Each community is urged to consider their particular needs and address them within their local community wildfire plan.

The JCIFP presents a detailed accounting of what formal Emergency services are available, where they are located, and how they tie in to the community in times of a disaster. Neighborhood communications may be developed to meet particular local needs. Neighborhoods may wish to organize and assess their strengths and weaknesses, in order to better plan for natural disaster and the need to evacuate.

Josephine County's forested lands are diverse, hence the necessity for treatment and methods to be used are as well. Local communities should evaluate the following in their local fire plans: identify

values-at-risk from wildfire, evaluate (using the JCIFP risk analysis) fuel hazards in the area, prioritize hazardous fuel treatment needs, and, identify methods or tools to be used to mitigate the hazards. Finally, methods of measuring the effectiveness of the results should be determined and carried out.

Communication of these endeavors should also be planned and documented: how is the word going to get out to all members of the community, who is going to take the lead on the project, which local agencies should be included in the planning, what additional resources are needed, is an educational program needed in the community on these issues, etc.

Another important aspect of community fire planning is ensuring that all members of the population are included when assessing risk, identifying measures to reduce risk and implementing actions. In many rural communities, there is no government body, special district, or advocate to ensure protection for all citizens. Community fire plans should specifically identify and plan for unprotected structures and/or wildland, and address the needs of low-income, elderly, disabled and other citizens with special needs.

Required Issues to Address in Community Fire Plans

Communities wishing to address fuel hazard reduction projects will need to specifically address certain aspects, in order to comply with federal CWPP requirements. These include:

- Address the ignitability of homes and how to mitigate this possible hazard
- Identify values at risk in the area
- Prioritize those areas with the highest fire hazard and the most values at risk of wildfire
- Determine treatment methods or tools to use to treat the excess fuels hazards
- Acknowledge the risk assessment, hazard ratings, WUI and other definitions used from the JCIFP in your local fire plan
- Address monitoring components to track work completed and results
- Document the collaborative process used in your fire plan development

JCIFP Framework

The National Fire Plan is providing millions of dollars annually for community fire planning, fuels reduction, prevention and utilization across the nation. With the continued threat of fire and attention on the Healthy Forests Restoration Act Community Wildfire Protection Plans, there is increased attention on the need for strategic planning to identify the methods for reducing wildfire risk and engaging diverse stakeholders from throughout a community in the planning process.

This document is a framework that provides guidance and ideas for communities interested in developing a community fire plan. The framework is based on the Josephine County Integrated Fire Plan, developed in 2004 by the Program for Watershed and Community Health. There are state and federal programs and policies addressed in this framework that set forth requirements or guidelines for community fire plans, mitigation plans, or wildfire protection. The outline and process illustrated in this document are intended to address the various requirements of these programs, including:

- Healthy Forests Restoration Act (HFRA) Community Wildfire Protection Plans[63]
- National Fire Plan, A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment 10-Year Comprehensive Strategy, August 2001
- BLM Interim Guidance for Community Risk Assessment and Mitigation Plans
- The wildfire element of the FEMA Pre-Disaster Mitigation Program
- Oregon Senate Bill 360. Forestland Urban Interface Protection Act of 1997. (Sponsored by Committee on Agriculture and Natural Resources)
- Oregon Statewide Land Use Planning Goal 7: Areas Subject to Natural Hazards

How to use the Framework

✓ Use this framework as a guide to facilitate community discussions around and about Community Risk Assessment and Mitigation Plan development. A community may feel that the framework fits well and can use it as a table of contents for their plan. Or a community may decide to approach it differently to address their unique perspectives and concerns.

✓ While potentially daunting, community fire planning does not have to be a complex process. The bulleted items included in this framework can be catalysts for your own ideas, or use them as elements you might include under that heading.

13. A community can use this framework to develop a fire plan that is as complex or as basic as is desired by the community. A completed community fire plan can provide direction on reducing wildfire risk, as well as leveraging funding for fire protection and prevention efforts.

✓ There is no requirement to fill out all of the boxes or address all the bullets illustrated in this framework. Every community fire plan will be unique to the community where it is developed.

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[63] *Excerpt from Healthy Forests Restoration Act – HR 1904.* The term 'community wildfire protection plan' means a plan for an at-risk community that –

A) Is developed within the context of the collaborative agreements and the guidance established by the Wildland Fire Leadership Council and agreed to by the applicable local government, local fire department, and State Agency responsible for forest management, in consultation with interested parties and the Federal land management agencies managing land in the vicinity of the at-risk community;

B) Identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment on Federal and non-Federal land that will protect one or more at-risk communities and essential infrastructure; and

C) Recommends measures to reduce structural ignitability throughout the at-risk community.

- ✓ The most important element of a Community Fire Plan is the rich discussion fostered among community members and stakeholders. A fire plan can result in a strong understanding of the community priorities of what they think is important, where they think work should be done, and what they are willing to do to reduce the risk of wildfire.

Another resource to assist communities in developing fire plans is "Preparing a Community Wildfire Protection Plan: A Handbook for Wildland–Urban Interface Communities" Sponsored By the Communities Committee, National Association of Counties, National Association of State Foresters, Society of American Foresters, and the Western Governors' Association - http://www.safnet.org/policyandpress/cwpphandbook.pdf.

Outline for a Community Fire Plan

This outline provides a framework for the elements of a community fire plan and a process for facilitating the development of the plan. PWCH created this framework as part of the development of an integrated fire plan for Josephine County, an ongoing effort involving the County, public agencies and the fire protection districts. The framework addresses elements of fire protection and focuses on engaging the fire protection districts to identify and address the needs of the many diverse communities, neighborhoods, and individuals at risk from fire. This process is also intended to help meet the requirements for developing a fire plan that meets requirements and guidelines of federal grants programs such as the Federal Emergency Management Agency Pre-Disaster Mitigation program and the National Fire Plan.

Throughout the process, there are opportunities for community participation, collecting information about fire risk, holding planning and outreach meetings, and increasing public awareness and education. We highly recommend using or generating the best available information or developing an action item to improve your data. It is important not to become hung up on having "perfect" information and instead focus on utilizing existing resources and capabilities. For the purposes of this table, community can include citizens, towns, cities, counties, Tribes, or other government agencies involved in fire planning.

Another important aspect of community fire planning is ensuring that all members of the population are included when assessing risk, identifying measures to reduce risk and implementing actions. In many rural communities, there is no government body, special district, or advocate to ensure protection for all citizens. Community fire plans should specifically identify and plan for unprotected structures and/or wildland, and address the needs of low-income, elderly, disabled and other citizens with special needs.

Table B.1. Community Fire Plan Outline

Chapter	Elements	Source	Progress
Executive Summary	Goals and objectives	Community	
	Methodology	Community	
	Action Plan	Community	
Introduction	Background and History • History of fire occurrences/ impacts • Activities for community fire protection	Community	
	Planning Area Boundaries • Communities and neighborhoods, fire districts, unprotected areas, etc.	Community	
	Definitions and Descriptions	Agencies & Community	
	Fire Policies and Programs • Healthy Forests Restoration Act (HFRA), National Fire Plan (NFP), Federal Emergency Management Agency (FEMA), Oregon Senate Bill 360	Agencies & Commissioners	
Planning Process	Description of Partners and Committees	Community	
	Description of Community Fire Committee	Community	
	Collaboration and Community Outreach • Description of community meetings & community, social service, & agency stakeholders • Documentation of community meetings	Community	
	Review of community studies and reports • Planning, land use, visioning, fire • List the information needed -- Gaps in data	Agencies, Commissioners, others	
Community Profile	• Environment and Natural Resources • Population, demographics, socio-economic data • Housing and development trends • Transportation, infrastructure, land use • ISO Fire Hazard Rating	Community	
Wildfire Risk Assessment	**Fire Hazard** (Vegetation, slope) • Description of community fire conditions, history of fire within the community, seasonal weather patterns affecting fire behavior.	Agencies	
	Fire Risk (occurrence/ignition) • Lightning caused, Human caused	Agencies	
	Protection Capabilities, i.e. Infrastructure, road systems, hydrants, firefighters (remember to be realistic – what are the true capabilities)	Community	
	Structural Vulnerability • Roof Type, Access, Defensible Space	Community	
	Values (Lives at risk/residential density) • Economic values (business, industry) • Ecological values (Biological diversity, habitat, T&E, Endemic Species, soil, air, water quality, and ecosystem health) • Social values (Home, property, view, livestock, pets, cultural, historic resources)	Community	

Chapter	Elements	Source	Progress
Emergency Management	**Protection Capabilities & Infrastructure Protection** • Fire District Capabilities • Inventory of fire protection resources • Wildland suppression procedures • Training resources & needs • Mutual aid agreements • Evacuation Procedures, Telephone trees, emergency contacts, community data Next Steps (Needs/Recommendations) *HFRA - Strategies to reduce structural ignitability*	Community/County Emergency Operations Plan	
Mitigation Action Plan	Current Projects and Policies (e.g., ordinances)	Agencies	
	Community strategy for risk reduction	Community	
	Fuels Reduction • Community partners • Description and educational materials • Current activities • Recommended Actions *Identify and prioritize areas for hazardous fuels treatments and methods to be used –HFRA*	Community & Agencies	
	Biomass Utilization and Economic Development • Community partners • Description and educational materials • Current activities • Recommended Actions	Community/Region	
	Education and Community Outreach • Population/audiences • Resources • Evacuation Plan • Current activities • Recommended Actions	Community	
Implementation, Monitoring and Evaluation	Prioritization Process/Coordination	Community	
	Plan Adoption & Community Celebration	Community	
	Implementation • Timeline for project implementation, monitoring and evaluation • Interagency collaboration, cooperative agreements, and public/private partnerships • Identify funding for recommendations • Measures to sustain activity and public involvement within the fire plan	Community, Agencies & others	
	Monitoring • Multi-party monitoring • Description of benchmarks • Annual updates of progress • Plan for updates/community involvement	Community & Agencies	
	Evaluation • Lessons learned • Measure progress using benchmarks • Revise and update with new information	Community & Agencies	

Chapter	Elements	Source	Progress
Appendices *(these items can be referenced to the JCIFP, but meeting notes should be kept in file)*	Notes from public meetings	Community	
	Acronym List	Agencies	
	Bibliography	Community and Agencies	
	Funding and resources	Community and Agencies	
	Maps	Community, local government and Agencies	

Process for developing a Community Fire Plan

Table 2 illustrates a process for developing a community fire plan. The process provides steps for community organizing, gathering information and identifying priorities for action. This process can result in increased capacity within a community to reduce risk from wildfire. These tasks may vary depending on the resources within a community and build off of information being developed through other county, state or federal fire plans and projects.

Table B.2. Community Fire Planning Process

Activity	Tasks	Timeline	Resources Needed
1. Establish a Community Wildfire Committee	1.1. Identify diverse community and agency representatives for the project steering committee. *Include 3 primary decision makers – local government, fire chief, and state forestry. Engage public agency partners in the process. – HFRA*		
	1.2. Establish roles and responsibilities		
	1.3. Review/modify community fire plan outline		
	1.4. Identify communities and neighborhoods within Fire District/planning area boundaries		
	1.5. Identify volunteers in each of the communities/neighborhoods to help with the community fire plan		
	1.6. Develop a timeline for steering committee meetings and public outreach process		
	1.7. Develop system to monitor project timeline, tasks, products, and budget		
2. Identify Goals and Objectives	2.1. Facilitate a session with the steering committee to identify community fire plan goals and objectives		
	2.2. Develop community organizational charts to illustrate organizations and local, state, and federal agencies that participate in various elements of fire protection.		
	2.3. Organize a public meeting to present goals and objectives to community stakeholders and provide project information.		
3. Gather Information on Wildfire Programs	3.1. Coordinate with the County and project subcommittees to present information on fuels reduction and fire protection projects to steering committee		
	3.2. Identify other fire-related projects within the community that have not been identified elsewhere		

Activity	Tasks	Timeline	Resources Needed
4. Review Fire District Capabilities and Household Needs	4.1. Develop an inventory of resources (e.g., staff and volunteers), equipment, service boundaries, revenue and other resources		
	4.2. Distribute household resource surveys to gather data on household accessibility, notification, evacuation routes, special needs, household preparedness, as well as homeowners insurance.		
5. Conduct community meetings	5.1. Organize community/neighborhood meetings		
	5.2. Schedule location and identify logistical tasks		
	5.3. Work with volunteers to conduct community outreach and notify public about the meetings		
	5.4. Coordinate with County to use wildfire risk assessment maps and other background materials for meetings		
	5.5. Coordinate with County to assist w/ meeting facilitation		
6. Identify and Prioritize Activities	6.1. Facilitate committee meeting to reflect on community input. Also review actions outlined in the JCIFP		
	6.2. Identify community needs and potential activities to address those needs		
	6.3 Organize a second public meeting to identify priority activities and strategies for implementation.		
7. Draft the Community Fire Plan	7.1. Document all planning activities, needs, resources, and recommendations		
	7.2. Provide the public with an opportunity to comment on the fire plan and recommended actions		
	7.3. Submit the draft community fire plan to the County		
8. Implement, Monitor and Evaluate	8.1. Develop strategies to prioritize, implement, monitor and evaluate the community fire plan		
	8.2. Provide continued public involvement opportunities throughout implementation of fire plan activities.		
	8.3. Identify potential sources of funding for plan/activity implementation		

Josephine County GIS Risk Assessment Methodology

The Josephine County Integrated Fire Plan (JCIFP) is a partnership between local, state and federal agencies, community organizations, and individuals. It is used to identify wild fire risks, develop priorities for funding, and develop programs to reduce the risk of wildfires to citizens and communities in Josephine County – a risk that the Oregon Department of Forestry has determined is the highest of any Oregon County.

The Josephine County Wildfire Hazard and Risk Assessment (Assessment) project is one part of the JCIFP. It is intended to identify the locations for focused resources allocation to most effectively reduce the wildfire risk. The facts that wildfires can result in devastating losses, as the 2002 Biscuit fire proved, and that wildfire hazard conditions are so widespread in Josephine County makes the Assessment a critical component of the JCIFP. It would take nearly unlimited resources to reduce all of the hazards and risks in the county, but the Assessment provides decision makers with valuable information about where to focus their limited resources to most effectively reduce the risks to communities and citizens.

The approach taken in the Assessment was based on an extensive literature review of the many assessment methods that have been developed over the years for evaluating wildfire and other natural hazards. Input from local fire safety professionals, aware of the latest research from fire scientists and recent conflagrations, was then incorporated to create a methodology for the assessment.

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

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

Challenges

We faced many challenges in the development of the hazard and risk assessment. Most of these issues arose as we refined the goals and processes we used. Below are the main issues that required us to adopt different perspectives and attitudes about the project to achieve success. These same issues will probably arise in any assessment of areas larger than a neighborhood.

Best Available Data

To develop an effective tool, we must first determine the availability of data. It may be important to know the exact configuration and amount of vegetation at any given site. Are ladder fuels present? Are ground fuels present? What is the height to live crown? However, local data sources define the methods that can be employed. Josephine County data included 30-meter resolution vegetation data derived from remote sensing sources. This data has no information about the under story, ground fuels, or stand structure. Extensive consultation with biologists and fire scientists did yield a way to use the data to characterize the hazard conditions in the landscape. It is not as precise or accurate as

would be ideal. However, by augmenting the vegetation data with slopes, aspects, and elevation data we captured the broad outlines of the hazards in the county.

Relative Ranking

The second strategy is to develop a relative ranking system. The Risk layer of the assessment illustrates this concept well. We modeled risk from the density of historic fire ignitions. On a statewide assessment, all of the populated areas of Josephine County would be in the highest risk class. However, for this information to be useful in Josephine County we needed to have areas in different risk classes. We adjusted the class values to allow variation from the highest to lowest classes across the county. The important factor to remember is that the lowest class does not mean "low risk".

Landscape Level Assessment vs. site-specific assessment

Next we viewed fire as a landscape level event, while taking into account site-specific factors. Of five categories, three categories (Hazard, Risk, and Values) are landscape level layers, while two of the categories (Protection Capability and Structural Vulnerability) take into account site-specific conditions. The site-specific layers are generalized for small scale mapping (large area on map) and identifying potential sites for prioritizing work. However, the large scale mapping (small area on map) of individual neighborhoods can incorporate the site-specific information. This allows experts to develop customized plans for reducing the hazard and risk of a neighborhood or an individual tax lot.

Identifying and prioritizing areas at risk

The Assessment yields values that are the end result of analyzing over 20 layers of GIS information. The Assessment condenses this information into one numeric value to fulfill the goal of identifying high-risk areas. Our initial approach was to assign values to individual tax lots from the Assessment and to focus on those with the highest values as priorities for mitigation projects. However, by acknowledging the imperfections in the data, and the inherent problems in trying to characterize small, precisely defined areas (tax lots) with landscape level data, we realized we needed a different approach.

We determined that using the extensive experience and knowledge of the fire professionals to augment the values from the Assessment is the best method for recognizing and analyzing the complex patterns of Assessment values. So we developed maps that show the hazard and risk assessment values along with topography, ownership, transportation routes, planned and completed fuels reduction projects, and residence locations.

This information allows experienced professionals to examine many variables that could not be effectively included in the Assessment. They can then see high hazard and risk areas identified by the assessment and their relationship to the overall landscape management in the area. This provides an opportunity to develop strategies resulting in landscape level changes in the environment as projects are planned that will have the most benefit and to coordinate existing fuels reduction projects on county, state, federal or private land.

Details

The Assessment considers five categories in determining the relative severity of fire risk:

1. Fire Hazard Rating

    Fuels (developed from vegetation information)

    Slope

    Aspect

    Elevation

    Weather

2. Fire Risk

    Ignition Density (17 years of data from various sources)

3. Values

    Residential Density (derived from tax assessment information and aerial photography.)

4. Protection Capability

    Fire Response Time – Modeled in Spatial Analyst

    Fire District Boundaries

Community classes (Evaluates how the community as a whole responds to and prepares for wildfire – community education and outreach campaigns, community fire plan, etc.)

5. Structural Vulnerability

    Roof type (Tax Assessor's information)

    Defensible space (ODF database)

    Access (proximity to county roads that are not dead ends - County GIS)

Hazard

The Hazard layer is based on vegetation, topography, and land use. The vegetation information comes from the "IVMP" dataset supplied by the BLM. The topographic information (elevation, slope, aspect) is based on 10-meter USGS digital elevation models. The land use characteristics come from UGB boundaries and aerial photography interpretation.

The vegetation information describes the percent vegetation cover broken into coniferous and broadleaf categories. The initial vegetation information is broken into classes at 30 and 70 percent cover, with the least vegetation being the least hazardous and the most vegetation being the most hazardous. Areas mapped as other than vegetation, for example "snow" or "shadow", are included

in the lowest hazard class. These represent an extremely small area. This results in a layer with point values from 0 to 20.

Vegetation: 0-20

Crown Fire potential is produced by first isolating areas with coniferous trees with trunk sizes over 5 inches in diameter at breast height (DBH). These areas are then split into three classes; conifer cover over 70 percent is the most hazardous, conifer cover over 30 percent has some hazard, and conifer cover less than 30 percent has no crown fire potential. This layer has a point range from 0 to 10.

Crown Fire: 0-10

The topographic layers are slope, aspect and elevation. Slopes are in three classes broken at 25 and 40 percent slope values (note: percent slope is quite different from degree slope and many GIS packages default to degree slope.). The slope layer has values ranging from 0 (least slope) to 3 (most slope). Aspect is broken into three classes also. These range from 0 (north) to 5 (south). This corresponds roughly to the amount of insolation expected on the site. Finally, elevation values are broken at 3000 and 5000 ft. Lower elevations are considered more hazardous. This layer ranges in value from 0 to 2.

Topographic Characteristics: 0 –10

Weather is the single most important factor in the hazard layer, accounting for 40 points. This factor does not change across the county. However, some areas are simply unlikely to burn regardless of the weather. Irrigated pastures, for example, are not going to burn. Two "Mask" layers were created to isolate areas where weather is not a significant factor. The agriculture mask was produced by using the overlap from the IVMP "agriculture" class and a layer digitized from aerial photography. The urban mask was created using the overlap of the IVMP "urban" class and the urban growth boundaries for the incorporated cities in Josephine County.

Weather: 0-40

Risk

Risk is modeled from the density of historic fire ignitions. The data is derived from an ODF database with 35 years of data on fire ignition locations and a federal database with 19 years of data. These databases overlap for 17 years. The combined 17-year data set is used for the analysis. This expands the areas of higher risk compared to using the 35-year database because it is focused on the more recent past. This better reflects present settlement and use patterns.

The Density layer is multiplied by 1000 (acres converted to 1000 acres) and divided by 1.7 (17 years of fires to 10 yrs) to standardize it to units of fires per 1000 acres per 10 years. The break points are 0.5 and 10 ignitions/1000 ac./10 yr. This layer has values ranging from 5 to 40.

Risk: 5-40

Values

The values being considered for this assessment are residences. The Assessment and Taxation database was used in conjunction with tax lots and building footprints to create an address point layer. This layer has a point for each address located on the appropriate building footprint (where available).

The density of residences is then used to create the values layer. The classes correspond to 2 acre and 10 acre average lot sizes (as used in S.B 360).

Values: 10-50

Structural Vulnerability

The Structural Vulnerability layer is based on residences. There are three parts to structural vulnerability; access, roof type, and defensible space. Each residence is evaluated on these three factors and given a score. This layer is then created from a surface generated from these residence locations. Areas under a critical density threshold are excluded for the creation of the surface. Otherwise isolated homes exert too great of an influence on the assessment.

Structural Vulnerability: 0-90

The Assessment and Taxation database was used to determine roof the type. All shake shingle roofs are given a score of 30; others get a score of 0.

Roof Type: 0-30

Access is currently determined by proximity to a road that is not a dead end. Those residences located on dead-end roads or outside of a 300-foot buffer of other roads are given a score of 30; others receive a score of 0. Driveways are currently being processed for inclusion, and will increase the accuracy of this layer.

Access: 0-30

Defensible Space is tracked from an ODF database of homes that have received grants or evaluations from ODF. These homes are rated by ODF staff from an on-site visit. Those receiving a "green" rating from Odf get a score of 0; others receive 30 points.

Defensible Space: 0-30

Protection Capability

The Protection Capability layer uses many factors to model the protection capability of a given site. Structural and wildland firefighter response times, community education programs, and whether or not a site is in a fire protection district are all considered.

Structural response times were modeled using the cost/allocation features of Spatial Analyst in Arc GIS. A grid of the transportation network was created using variable cell values based on estimated speeds. For example, highway 199 was modeled for an average speed of 55 mph while minor roads

were modeled for an average speed of 35 mph. The transport network was also buffered by 300 feet. This area is the area a firefighter could lay-in hose off their truck. The buffer area was modeled for an average speed of 3 mph. Fire Stations were then used as source points and the cost/allocation algorithms found the least cost path from each cell to the nearest (in terms of cost) fire station. This yielded the estimated structural response times.

The wildland response times were modeled from an ODF database of fire ignitions and the response time to each ignition. A surface was created from the response times, and then classed into response times under 20 minutes and over 20 minutes.

Fire District boundaries are determined using historic assessment documents that created each taxing district and its subsequent annexations. The Assessment and Taxation database stores this information for each tax lot.

The Community education programs layer is currently assumed to be the same for all of Josephine County.

The scoring for this layer is as follows:

All areas receive 2 points for the community education component (0-4 possible)

Areas outside of a fire district with wildland response over 20 minutes receive 36 points

Areas outside of a fire district with wildland response under 20 minutes receive 15 points

Areas inside a fire district with structural response over 10 minutes receive 8 points

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

Protection Capability: 0-40

Article 76: Josephine County Wildfire Safety Standards

In order to be effective in implementing recommendations in the JCIFP, there must be tools and resources available to the public. Article 76 of the Josephine County Rural Land Development Code, Wildfire Safety Standards, is one of the most important tools that the County has in facilitating public engagement with fire protection.

Article 76 is currently under review by the Josephine County Planning Commission. The ordinance establishes requirements for development in wildfire hazard areas. The planning commission has held a series of public hearings and workshops to gain input on the proposed amendment. The Planning Commission adopted the amendments to the ordinance on November 1st public hearing at 7:00 pm in the Anne Basker Auditorium. The changes as adopted by the Planning Commission are at www.co.josephine.or.us/planning/wildfire/. The next step will be to take the proposed changes to the Josephine County Board of Commissioners.

We will include the full text from the revised ordinance when it is made available.

Creating Taxing Districts: Alternatives for Josephine County

Josephine County to protect those citizens who live outside of the current fire protection districts from wildfires. Many households living outside of the fire protection districts in Josephine County receive private structural protection services from Rural/Metro Fire Department. Structural fire protection services often protect structures during a wildfire event.

Background

The documentation to support and provide information on the possible creation of a new fire protection district for taxing purposes within Josephine County can be found primarily in the Oregon Revised Statutes, Chapter 476 — State Fire Marshal; Protection from Fire Generally, ORS476.310 through ORS476.340. Following is a brief summary of the pertinent information found in these statutes as it relates to Josephine County and the Oregon Department of Forestry's efforts to protect those who do not currently belong to a fire protection district.

Creation of Zone 2 Fire Protection District

The law states that a county may, in cooperation with the Oregon Department of Forestry, zone and rezone (1) any lands within the county that are not incorporated into the existing boundaries of cities, and (2) organized rural fire protection districts (ORS 476.310). When these lands are zoned, they are divided into two zones:

(a) Zone 1 is composed of forest, range, grass or undeveloped lands, or any lands intermingled with grazing and agricultural lands.

(b) Zone 2 is composed of rural lands not included in zone 1.

Zone 2 constitutes the lands where ODF would be interested in creating a new fire protection district.

Fire Control and Prevention in Zone 2 – Tax Levy

ORS 476.330 further describes the prevention and control of fires in zone 2 and the implemented tax levy. The Josephine County court or board of commissioners may prevent and control fire occurring within the limits of the declared zone 2 in Josephine County. Fire fighting and fire control facilities may be established and maintained within zone 2 and the County may also contract with existing fire control agencies. The State Fire Marshal, upon the request of Josephine County court or board of commissioners, will meet with and advise the County as to the establishment and maintenance of fire fighting and fire protection equipment and facilities. Once fire protection facilities and services are provided in zone 2, the County may only discontinue services if it has given at least three years notice of its intention to do so

When zone 2 is operational in maintaining fire fighting and fire protection equipment and facilities, Josephine County shall levy a tax upon the taxable property lying within zone 2. This tax is not to exceed one-fourth of one percent (.0025) of the real market value of all taxable property within the zone, computed in accordance with ORS 308.207, for the purpose of furnishing such fire protection. This special tax may only be implemented by the County if first approved by the majority of electors of zone 2 voting at a special election called for this purpose (after notice

provided ORS 255.095). After the tax levy is approved by voters, the Josephine County court or board is then authorized by the voters to borrow money and sell and dispose of general obligation bonds. The bonds may never in the aggregate exceed one and one-fourth of one percent (.0125) of the real market value of all taxable property within zone 2, computed in accordance with ORS 308.207.

NOTE: In event of the organization of a rural fire protection district comprising lands in zone 2, property included within such fire protection district shall not thereafter be taxed or assessed under the provisions of ORS 476.320 or 476.330. [Amended by 1955 c.262 §2; 1963 c.222 §2]

Implications and Recommendations

The research shows that there is a clear and defined ability for Josephine County and the Oregon Department of Forestry to create a new fire protection district (zone 2), and implement a tax levy on the properties within that district provided that the initiative is approved by voters in the region. By creating this new district, rural, high risk areas like Sunny Valley, Hugo, Merlin and North Valley, amongst others, can receive the fire protection services provided by a new fire protection district.

In order to move forward with this process, it is recommended that investigations into the effects that this new district will have on the relationship that Josephine County has with current fire protection service provider Rural Metro. It is also recommended that there be further investigation into the costs of implementing this new fire protection district in terms of the tax that will be levied on citizens within zone 2. Will this tax be more than the current cost of Rural Metro's services? Finally, it is recommended that once the geographical boundaries of zone 2 are identified, that community leaders, stakeholders, community organizations and various other affected groups within that region be contacted in order to gather information and to create a strong network of people with whom to collaborate on bringing this initiative to the public that it intends to serve.

Current and Potential Funding Sources

Program	Funding Agencies	Funding For:	Eligible Applicants	Funding Cycle	Website	Contact
National Fire Plan Community Assistance	USDI - BLM, NPS, USFWS, BIA, USDA - FS	Fuels Reduction, Fire Planning, Education, Biomass Utilization	Counties, Cities, state and local govt. agencies, federally recognized tribes, universities, and state-chartered non-profits	Applications due 2/13/04 for FY05 funds	www.nwfireplan.gov	Lauren Maloney , 503.808.6587 Lauren_Maloney@or.blm.gov Jackson & Josephine Counties, Paul Galloway, 541.552.2921 pgalloway@fs.fed.us
Rural Fire Assistance/ Vol. Fire Assistance	Oregon Dept. of Forestry	Prevention/Education, Equipment, Training	Rural/Vol. Fire Departments serving <10,000	Call for Applications: March - April	www.odf.state.or.us	Don Matlick, 503.945.7444 dmatlick@odf.state.or.us
Assistance to Firefighters Grant Program	FEMA - U.S. Fire Administration	Fire Operations & Firefighter Safety, Fire Prevention, Emergency Medical Services, Firefighting Vehicles Acquisition	Fire Departments (Not Fed. or for-profit organizations)	Call for Applications: March - April	www.usfa.fema.gov	Robert Carnahan, FEMA 425.487.4751
Assistance to Firefighters - Fire Prevention and Safety Grants	FEMA - U.S. Fire Administration	Fire Prevention	Fire Departments	Call for Applications: November - December	www.usfa.fema.gov/fire-service/grants/safetygrant/03-prev-grants.shtm	Robert Carnahan 425.487.4751
PL106-393 Secure Rural Schools and Community Self-Determination Act of 2000 - **Title II**	USDI - BLM USDA - FS	Watershed Restoration and Forest Ecosystem Health (fuels reduction) on and off federal lands, benefiting resources on federal land	Any	Medford BLM, Rogue River – Siskiyou & Umpqua National Forests March-April	www.or.blm.gov/Medford www.fs.fed.us/r6/siskiyou www.fs.fed.us/r6/rogue	Bill Freeland, 541.618.2417 William_Freeland@or.blm.gov Nancy Rose. 541.858.2218 nrose@fs.fed.us
PL106-393 **Title III**	Counties	Search & Rescue, Fire Prevention & Planning, Forest Education, Conservation Easements, Community Forestry	Any	Call for Applications: Josephine Co. - Late spring Jackson Co. - April		Bruce Bartow, 541.474.5421 bbartow@co.josephine.or.us Lin Bernhardt 541.774.6086 BernharLD@jacksoncounty.org
Federal Excess Personal Property	Oregon Dept. of Forestry	Excess federal equipment that can be used in a fire program	Fire Departments	Available equipment posted on web site March-May	www.odf.state.or.us www.fs.fed.us/fire/partners/fepp/	Don Sohler 503.359.7467 Don.W.Sohler@state.or.us
State Fire Assistance	Oregon Dept. of Forestry	Special Projects identified by ODF	ODF staff areas and districts			Don Matlick, 503.945.7444 dmatlick@odf.state.or.us

Program	Funding Agencies	Funding For:	Eligible Applicants	Funding Cycle	Website	Contact
OWEB	Oregon Watershed Enhancement Board	Watershed Restoration, Land&Water Acquisition, Assessment&Action Plans, Monitoring, Education	Any individual, organization, local government, or institute of higher education	Two cycles - Late October & Late April	www.oweb.state.or.us	Mark Grenbemer 541.471.2886 mark.a.grenbemer@state.or.us
OWEB Small Grants Program	Oregon Watershed Enhancement Board	Watershed restoration or enhancement on forest, farm, and rural residential lands	Tribe, watershed council, SWCD, institution of higher education, others	Varies, next Rogue Basin window 3/15-30/04.	www.oweb.state.or.us/SmallGrant/smallgrant.shtml	Mark Grenbemer 541.471.2886 mark.a.grenbemer@state.or.us
National Forest Foundation Community Assistance Program	National Forest Foundation	Creation of locally based forest partnerships.	A newly forming or re-organizing group	4 cycles -- December, March, June and September	http://www.natlforests.org/consp_05_cap.html	National Forest Foundation Alexandra Kenny, Director of Grants Programs 2715 M Street, NW - Suite 100, Washington, DC 20007 202.298.6740
FEMA Pre-Disaster Mitigation Grant Program	FEMA	Hazard Mitigation Planning and Projects	Municipalities, Counties, Special Districts	Annual - Fall 04?	http://www.fema.gov	Sharon Loper, FEMA Region 10, sharon.loper@dhs.gov

Josephine County Integrated Fire Plan - Materials Inventory

Resource	Organization	Type of Resource	Where it can be obtained	Cost per item	Ordering info	Notes
Insurance Information for Homeowners	Institute for Business and Home Safety	Insurance information	http://www.ibhs.org	N/A		
A Homeowners Guide to Wildfire Retrofit (FWC-004-01-BK)	Institute for Business and Home Safety (IBHS)	20 page booklet	http://www.firewise.org/catalog/audiovisual/	S&H Only (2 pkg limit)	http://www.firewise.org/catalog/audiovisual/	This guide, developed by IBHS, provides a solid background in wildfire behavior and how homeowners can make their homes safer through simple, often inexpensive modifications. 20 pages, 25/pkg, 2001
Address on Fire and Vegetation patterns in region	Siskiyou Field Institute (SFI)	Address	institute@siskiyou.org	Not for purchase	Contact SFI - 541-592-4459	541-592-4459
"Saving Homes from Wildfires: Regulating the Home Ignition Zone" (FWC-403-01-RP)	American Planning Association	article reprint	https://www.cmsassociates.com/Firewise/9075_02.pdf	Free Download	http://www.firewise.org/catalog/audiovisual/	This article by Jack Cohen, Nan Johnson, and Lincoln Walther, AICP explains wildland fire behavior, the home ignition zone,and provides suggestions on tools that local planners can use to minimize property losses from wildfire in their jurisdiction.
Living on the Wildside (FWC-404-03-RP)	NFPA Journal	article reprint	https://www.cmsassociates.com/Firewise/9577.pdf	Free Download	http://www.firewise.org/catalog/audiovisual/	"Remote Control" discusses homeowner responsibility for wildfire safety in remote WUI areas. Includes interviews with developers, fire chiefs, homeowners, building contractors and state forestry staff regarding the use of design standards for siting and construction to reduce the potential for home ignitions in a wildfire event. "Show Low Arizona Inferno" is about the 2002 Rodeo-Chediski Fire.
WUI Hazard Assessment Methodology	National WUI Fire Protection Program (FWC-003-98-BK)	Assessment Guide (pdf)	https://www.cmsassociates.com/Firewise/9049.pdf	Free Download	http://www.firewise.org/catalog/audiovisual/	For communities that find other standard assessment systems don't fit their circumstances, this guide will help in establishing and designing a local hazard assessment system.
Firewise Communities: Where We Live, How We Live	Firewise (FWC-001-03-BK)	book	http://www.firewise.org/catalog/audiovisual/	S&H Only (1 pc limit)	http://www.firewise.org/catalog/audiovisual/	This hard-covered book illustrates Firewise homes that demonstrate aesthetically pleasing landscape designs that function as barriers against wildfire. Explanatory text is provided to describe designs and plant materials.

Resource	Organization	Type of Resource	Where it can be obtained	Cost per item	Ordering info	Notes
Firewise Communities Bookmark (FWC-103-03-MK)	Firewise	bookmark	https://www.cmsassociates.com/Firewise/8986.pdf	Free Download	http://www.firewise.org/catalog/audiovisual/	A great handout for meetings, workshops, and Firewise/community days. List important Firewise principles.
Firewise Around Your Home (FWC-201-03-PH)	Firewise	brochure	https://www.cmsassociates.com/Firewise/9060.pdf	Free Download	http://www.firewise.org/catalog/audiovisual/	A brochure that provides a sample home diagram with defensible space with Firewise hints for the homeowner
Firewise Communities/USA (FWC-203-02-PH)	Firewise	brochure	http://www.firewise.org/catalog/audiovisual/	S&H Only (1 pkg limit)	http://www.firewise.org/catalog/audiovisual/	This brochure describes the Firewise Communities/USA Recognition Program, how a community can participate in the program, and the Firewise Communities/USA Standards that must be met to become recognized. 50/pkg, 2002
Firewise - Around Your Home	Firewise	brochure	http://www.firewise.org/brochure.zip	Free Download	http://www.firewise.org/	
Firewise - Around Your Home (Spanish Version)	Firewise	brochure	http://www.firewise.org/around_home_sp.pdf	Free Download	http://www.firewise.org/	
WUI Hazard Assessment Training (FWC-624-03-CD)	Firewise	CD Training Course	http://www.firewise.org/catalog/audiovisual/	S&H Only (1 pc limit)	http://www.firewise.org/catalog/audiovisual/	WUI Interface Hazard_Assessment Training Course presentation and field assessment from Spearfish, South Dakota, and includes field assessments presented in Prescott, AZ; Boise, ID; Daytona Beach, FL; and Toms River, NJ. 3 material CDs provide information on hazard assessments for residential developments in the WUI.
Home Improvement: A Firewise Approach	Firewise (DVD / FWC-603-03-DV)	DVD	http://www.firewise.org/catalog/audiovisual/	S&H Only (1 pc limit)	http://www.firewise.org/catalog/audiovisual/	This home improvement and landscaping video documents one home's journey to become Firewise. The video discusses and illustrates each stage of the landscaping and construction renovations in detail of the home to meet Firewise criteria. Appropriate for homeowners, home construction and landscaping professionals.
Firewise CommunitiesBecoming a Firewise Community - DVD	Firewise (FWC-605-02-DV)	DVD	http://www.firewise.org/catalog/audiovisual/	S&H Only (1 pc limit)	http://www.firewise.org/catalog/audiovisual/	This DVD includes the Firewise Communities USA: Becoming a Firewise Community video as well five individual videos that document the efforts, processes, and activities of several communities around the nation.

Resource	Organization	Type of Resource	Where it can be obtained	Cost per item	Ordering info	Notes
Keeper of the Flame	Firewise (FWC-625-03-DV)	DVD	http://www.firewise.org/catalog/audiovisual/	S&H Only (2 pc limit)	http://www.firewise.org/catalog/audiovisual/	*Keeper of the Flame* tells the story of fire and how fire policy changed dramatically during the 20th Century and how fire is now being re-introduced across the American landscape. The film culminates with the impact of development in the WUI and the changing terrain of fire ecology.
Fire Ecology kit	SOU EE program	Education	seec@students.sou.edu	free	reserve - 541-552-6876	Youth field kit on fire ecology
Fire Fighter Safety in the WUI Series (FWC-602-03-VST)	Firewise	Education	http://www.firewise.org/catalog/audiovisual/	S&H Only (1 pc limit)	http://www.firewise.org/catalog/audiovisual/	The Fire Fighter Safety Series is a multipart instructional package developed for small community fire departments to address the problems faced by structural and wildland firefighters when fighting fires, especially those threatening structures in the WUI. The complete instruction package contains: 1. 3 videos or DVDs (a) Fire Behavior in the WUI (b) Structure Protection Strategies in the WUI (c) Firefighter Safety in the WUI 2. An Instructor Guide 3. A computer-slide presentation corresponding with the videos. The computer-slide presentation has been designed so that the program can be instructor-led in the classroom or self-paced for the individual student
Science Teacher Kit Wildfires: Beware and Prepare	Firewise	educational program	http://www.firewise.org/catalog/audiovisual/	S&H Only (1 pc limit)	http://www.firewise.org/catalog/audiovisual/	Firewise Communities and Lifetime Learning Systems has developed this educational program to assist teachers in explaining wildfire hazards to students in grades 6-8. Students will learn how wildfires start, how they can be prevented, what makes a home or community susceptible to wildfires, and safety features that can be implemented at home or in the community to help reduce the risk and damage of wildfires.
Insiders Guide - Facilitator's / Operators (FWC-005-02-BK)	Firewise	Facilitator's Guide	https://www.cmsassociates.com/Firewise/9080.pdf	Free Download	http://www.firewise.org/catalog/audiovisual/	This guide, for local and regional workshop facilitators and computer operators, can add insight into the simulation exercises as well as providing shortcuts and skills needed for better presentation. 36 pages, 5/pkg, 2002
Living with Fire	PNWCG	Flyer/Newsletter	http://www.or.blm.gov/nwfire/docs/Livingwithfire.pdf		Contact PNWCG	Pacific Northwest Wildfire Coordinating Group
Living with Fire	PNWCG	Flyer/Newsletter	http://www.or.blm.gov/nwfire/docs/Livingwithfire.pdf		Contact PNWCG	

Everyone's Responsibility: Fire Protection in the WUI	National WUI Fire Protection Program	Guide	http://www.firewise.org/pubs/everyones_resp/pdf/resp.pdf	Free Download	http://www.firewise.org/	
Firewise Glossary	Firewise	Guide	http://www.firewise.org/glossary/fwglossary.pdf	Free Download	http://www.firewise.org/	
Is Your Home Protected From Wildfire Disaster?	Institute for Business & Home Safety	Guide	http://www.firewise.org/pubs/is_your_home/WILDFR2.PDF	Free Download	http://www.firewise.org/	The purpose of this document is to provide homeowners with guidance on ways to retrofit and build homes to reduce losses from wildfire damage. It contains suggestions and recommendations based on professional judgment, experience and research and is intended to serve only as a guide.
Fire-Resistant Plants for Oregon Home Landscapes	OSU Extension	Handbook	http://extension.oregonstate.edu/deschutes/FireResPlants02.pdf	free on-ine	Stephen Fitzgerald	541-548-6088 x16 Stephen.Fitzgerald@orst.edu
Is your Home Protected from Wildfire?	Institute for Business and Home Safety	Handbook	http://www.ibhs.org/publications/view.asp?id=130	free on-ine	pdf or hardcopy	Other resources available
Wildland Fire Prevention Education Teams	National	Interactive web site	http://www.firepreventionteams.us/	Free		Wildland fire prevention/education teams can be mobilized in advance of fires, when fire danger becomes extreme. Prevention/education teams are available to support any geographic area preceding and during periods of high fire danger or fire activity. Teams assist the local unit in the prevention of unwanted human-caused wildfires.
Making Your Home Firewise	Firewise	Interactive Web site	http://www.firewise.org/pubs/fwc		http://www.firewise.org/	This presentation gives ideas and techniques for homeowners when constructing or modifying homes in WUI areas. The host demonstrates how a simple walk around the house can give the homeowner an initial Firewise assessment of the property. Topics include roofs, windows, eaves, and decks, with some attention given to landscaping. It also provides information that a prevention officer or anyone with cooperative duties can use in presentation or basis of discussion for various local groups. 1997

Resource	Organization	Type of Resource	Where it can be obtained	Cost per item	Ordering info	Notes
Firewise Landscape Series (3-part series)	Firewise	Interactive Web site	http://www.firewise.org/pubs/fwl/contents.html		http://www.firewise.org/	Landscape architects and designers from across the country wrote this 3-part series. Part 1 includes an overview of the essentials of landscaping design in wildland fire-prone areas and how a well-planned landscape can offer effective protection from wildfire to any home. 12 Min., 1993 Part 2 discusses how the design and installation of all plants is important to their function as well as the color, and structure of the overall landscape. This program provides suggestions that will help you shape your landscape for the best effect as well as the best Firewise use of materials. Firewise homes are used to highlight the elements of design. 15 Min Part 3 stresses that maintenance as the most important factor in keeping the Firewise landscape functioning as a fire resistive barrier to wildfire. Maintenance tips and suggestions are provided. 1993
Everyone's Responsibility: Fire Protection in the WUI	National WUI Fire Protection Program	Interactive Web site	http://www.firewise.org/pubs/everyones_resp/	Free Download	http://www.firewise.org/	
Peak Fire Seasons	Firewise	Interactive Web site	http://www.firewise.org/pubs/peak_fire_seasons/	Free Download	http://www.firewise.org/	
Protecting Your Home From Wildfire	Firewise	Interactive Web site	http://www.firewise.org/pubs/protect/	Free Download	http://www.firewise.org/	
Outdoor Fire Safety	USDA Forest Service & NASF	Interactive Web site	http://www.firewise.org/pubs/outdoor/	Free Download	http://www.firewise.org/	
Tips on evacuating ranch animals from fire	Bay Area Equestrian Network	Interactive web site	http://www.bayequest.info/horsetalk/ranchfire.htm	Available to the public	none	
Fire Hazard Assessment in the WUI	National WUI Fire Protection Program	Interactive Web site & pdf	http://www.firewise.org/pubs/WHAM/nfpa/ http://www.firewise.org/pubs/WHAM/nfpa/wham.pdf	Free Download	http://www.firewise.org/	This website was developed by the National WUI Fire Protection Program with two purposes in mind. First, to educate homeowners and developers of the wildfire problem. And second, to show homeowners and developers simple steps they can take to make homes built in the wildland safer and more likely to survive a wildfire.
Mountains and Rivers Natural Hx Journal	SFI	Journal	institute@siskiyou.org	$6/issue	Contact SFI	541-592-4459

Resource	Organization	Type of Resource	Where it can be obtained	Cost per item	Ordering info	Notes
Firewise Newsletters	Firewise	newsletter	http://www.firewise.org/webumake/firstgroup/newsletter/index.html	Free Download	http://www.firewise.org/	
Firewise Construction/Landscaping Poster Set (FWC-300-03-PT)	Firewise	Poster Set	http://www.firewise.org/catalog/audiovisual/	S&H Only (1 pc limit)	http://www.firewise.org/catalog/audiovisual/	A set of 4 different posters that illustrates Firewise construction and landscaping principles. Great for meetings, workshops, and community Firewise Days.
Proceedings from Second Conference on Klamath-Siskiyou Ecology	SFI	Proceedings	institute@siskiyou.org	$20	Contact SFI	Fairly technical
Fire in Oregon's Forest	Oregon Forest Resources Institute	Special Report	http://www.oregonforests.org	free on-ine	click on publications	Other resources available
Firewise Construction/Landscape Checklist (FWC-200-03-PH)	Firewise	two page checklist	https://www.cmsassociates.com/Firewise/9053.pdf	Free Download	http://www.firewise.org/catalog/audiovisual/	This two page checklist provides helpful hints on Firewise landscaping and construction for the homeowner, landscape designers, and builders.
Operation Water: Planning for Water Supply & Distribution (VHS / FWC-621-93-V)	Firewise / NFPA	VHS & Companion Booklet	http://www.firewise.org/catalog/audiovisual/	S&H Only (2 pc limit)	http://www.firewise.org/catalog/audiovisual/	The program, based on NFPA 1231, Standard on Water Supplies for Suburban and Rural Fire Fighting, 1993 Edition, explains how to estimate water supply needs for fire suppression in rural and small communities and provides guidelines on shuttle and transfer operations from various water sources to the fire. 22 Min., 1993 (Note: NFPA 1231 has now become NFPA 1142.)
Developing a Cooperative Approach to Wildfire Protection (VHS / FWC-600-97-V)	National WUI Fire Protection Program	VHS & Companion Booklet (pdf)	http://www.firewise.org/catalog/audiovisual/ https://www.cmsassociates.com/Firewise/9872.pdf	S&H Only (2 pc limit)	http://www.firewise.org/catalog/audiovisual/	This tape provides an overview of the need to develop an interagency agreement(s) or review an existing one. Intermediate fire officers and other authorities can begin to identify other agencies and organizations within the immediate jurisdiction whose roles and missions are important to the fire department's role and mission. The Developing a Cooperative Approach to Wildfire Protection booklet discusses agreements, mutual aid, and other legal arrangements and explains how to coordinate with those key agencies and outlines the basic steps that will lead to the successful development of an interagency agreement.

Resource	Organization	Type of Resource	Where it can be obtained	Cost per item	Ordering info	Notes
Fire in the Hills - The Oakland Story	Firewise (FWC-604-92-V)	VHS & Companion Booklet (pdf)	http://www.firewise.org/catalog/audiovisual/ https://www.cmsassociates.com/Firewise/9878.pdf	S&H Only (2 pc limit)	http://www.firewise.org/catalog/audiovisual/	The 1991 Oakland fire was one of the worst conflagrations on record and certainly in recent memory. Learn why the fire was so devastating through an historical review of events that created the conditions for the fire through vintage film clips and video.
Making Your Home Firewise	Firewise (FWC-620-97-V)	Video	http://www.firewise.org/catalog/audiovisual/	S&H Only (2 pc limit)	http://www.firewise.org/catalog/audiovisual/	This video presents ideas and techniques for homeowners when constructing or modifying homes in WUI areas. The host demonstrates how a simple walk around the house can give the homeowner an initial Firewise assessment of the property. Topics include roofs, windows, eaves, and decks, with some attention given to landscaping. It also provides information that a prevention officer or anyone with cooperative duties can use in presentation or basis of discussion for various local groups.
Building a Firewise Home (VHS / FWC-601-97-V)	Firewise	Video	http://www.firewise.org/catalog/audiovisual/	S&H Only (2 pc limit)	http://www.firewise.org/catalog/audiovisual/	For builders wishing to offer a market advantage to clients in wildfire prone areas. The video shows features that should be considered when building a home in the WUI. Encourages builders and contractors to learn more about the particular features of a home that are susceptible to ignition from a wildfire. Includes ways to improve a home's chances of survival by suggesting to homeowners the use of alternative materials and design elements and where to place the structure on the lot.
Firewise Landscape Series (3-part series)	Firewise (VHS / FWC-612-93-VST)	Video	http://www.firewise.org/catalog/audiovisual/	S&H Only (1 pc limit)	http://www.firewise.org/catalog/audiovisual/	Part 1 is an overview of the essentials of landscaping design in wildland fire-prone areas and how a well-planned landscape can offer effective protection from wildfire to any home. Part 2 is on design and installation of all plants and their function as well as the color, and structure of the overall landscape and suggestions to help you shape your landscape for the best effect as well as the best Firewise use of materials. Part 3 stresses that maintenance as the most important factor in keeping the Firewise landscape functioning as a fire resistive barrier to wildfire.
Home Improvement: A Firewise Approach	Firewise (FWC-603-03-V)	Video	http://www.firewise.org/catalog/audiovisual/	S&H Only (2 pc limit)	http://www.firewise.org/catalog/audiovisual/	This home improvement and landscaping video documents one home's journey to become Firewise. The video discusses and illustrates each stage of the landscaping and construction renovations in detail of the home to meet Firewise criteria.

Resource	Organization	Type of Resource	Where it can be obtained	Cost per item	Ordering info	Notes
Firewise Communities/USA: Becoming a Firewise Community	Firewise (FWC-605-02-V)	Video	http://www.firewise.org/catalog/audiovisual/	S&H Only (2 pc limit)	http://www.firewise.org/catalog/audiovisual/	This tape provides the necessary information on how residential developments can become Firewise. A review of selected communities that have received recognition helps explain the Firewise standards and the recognition process. 16 Min., 2002
Firewise Communities/USA: Briargate, FL	Firewise (FWC-607-02-V)	Video	http://www.firewise.org/catalog/audiovisual/	S&H Only (1 pc limit)	http://www.firewise.org/catalog/audiovisual/	This program reviews the processes and activities undertaken by a successful community learning to be compatible with wildfire. 8 Min., 2002
Firewise Communities/USA: Emigration Canyon, UT	Firewise (FWC-608-02-V)	Video	http://www.firewise.org/catalog/audiovisual/	S&H Only (1 pc limit)	http://www.firewise.org/catalog/audiovisual/	This program reviews the processes and activities undertaken by a successful community learning to be compatible with wildfire. 9 Min., 2002
Firewise Communities/USA: Hyde Park, NM	Firewise (FWC-609-02-V)	Video	http://www.firewise.org/catalog/audiovisual/	S&H Only (1 pc limit)	http://www.firewise.org/catalog/audiovisual/	This program reviews the processes and activities undertaken by a successful community learning to be compatible with wildfire. 8 Min., 2002
Firewise Communities/USA: Timber Ridge, AZ	Firewise (FWC-610-02-V)	Video	http://www.firewise.org/catalog/audiovisual/	S&H Only (1 pc limit)	http://www.firewise.org/catalog/audiovisual/	This program reviews the processes and activities undertaken by a successful community learning to be compatible with wildfire.
Firewise Communities/USA: Perry Park, CO	Firewise (FWC-611-02-V)	Video	http://www.firewise.org/catalog/audiovisual/	S&H Only (1 pc limit)	http://www.firewise.org/catalog/audiovisual/	This program reviews the processes and activities undertaken by a successful community learning to be compatible with wildfire. 26 Min., 2002
Wildfire! Preventing Home Ignitions	Firewise (FWC-623-01-V)	Video	http://www.firewise.org/catalog/audiovisual/	S&H Only (2 pc limit)	http://www.firewise.org/catalog/audiovisual/	This program is based on the research of Jack Cohen, Forest Service, Research Physical Scientist, at the Fire Sciences Laboratory of the USDA Forest Service in Missoula, MT. The program discusses how the combustion process effects forest fires, what you can do to create survivable space, why some homes are destroyed while others survive, how to identify your home's Ignition Zone – the area that includes the home and its immediate surroundings, which, if properly conditioned, can save the home during a wildfire.
Protecting Your Home From Wildfire	Firewise (FWC-619-00-V)	Video	http://www.firewise.org/catalog/audiovisual/	S&H Only (2 pc limit)	http://www.firewise.org/catalog/audiovisual/	Jack Cohen, Forest Service, Research Physical Scientist, evaluates burn patterns and examines the potential source of home ignitions during the Bitterroot Fires in 2000.

Resource	Organization	Type of Resource	Where it can be obtained	Cost per item	Ordering info	Notes
Keeper of the Flame	Firewise (FWC-625-03-V)	Video	http://www.firewise.org/catalog/audiovisual/	S&H Only (2 pc limit)	http://www.firewise.org/catalog/audiovisual/	*Keeper of the Flame* tells the story of fire and how fire policy changed dramatically during the 20th Century and how fire is now being re-introduced across the American landscape. The film culminates with the impact of development in the WUI and the changing terrain of fire ecology.
Everyone's Responsibility: Fire Protection in the WUI	National WUI Fire Protection Program	Web Video	http://www.firewise.org/videos.html	Free Download	http://www.firewise.org/	
Participant Workbook	Firewise (FWC-006-01-BK)	Workbook	https://www.cmsassociates.com/Firewise/9042.pdf	Free Download	http://www.firewise.org/catalog/audiovisual/	Basic workbook used during Firewise Workshops. Each participant will be able to learn about the Firewise program and use in the simulation exercise. Glossary included. 33 pages, 25/pkg, 2001
Participant Workbook with CD's	Firewise (FWC-006-01-SET)	Workbook & CDs	http://www.firewise.org/catalog/audiovisual/	S&H Only (4 pkg limit)	http://www.firewise.org/catalog/audiovisual/	This set includes the basic workbook used during Firewise workshops as well as two companion CDs. CD 1 allows you to explore, through multimedia and interactive modules, the behavior of wildland fire, the dynamics of wildfire prevention, and the details of wildland firefighting. CD 2 provides resource materials to plan a Firewise Community and Workshop.

Fire Mitigation and Education Resources

Websites

Resource

Keep Oregon Green – http://www.keeporegongreen.org

Firewise – http://www.firewise.org

Pacific Northwest Wildfire Coordinating Group – http://www.pnwcg.org

Northwest Interagency Fire Center – http://www.nifc.gov

EcoSmart – FireWise Program - http://wcufre.ucdavis.edu/ecosmart/firewise/

Fire Ecology Education

Resource

Discovery Channel: Fire Ecology Curriculum K-12 grades
http://school.discovery.com/lessonplans/programs/forestfires/

Prescribed Fire Information and helpful links - http://flame.doacs.state.fl.us/Env/fire.html

Fireworks: A portable trunk that contains educational materials for hands on learning about how forest change over time, especially in relationship to fire. Provides curricula for all grade levels.
http://www.firelab.org/fep/research/fireworks/fireworks.htm

Northwest Fire Prevention Education http://www.or.blm.gov/nwfire/

Minnesota DNR Fire Prevention Education Curriculum -
http://www.dnr.state.mn.us/education/wildfire/curriculum.html

Fire Ecology Quiz - http://www.enn.com/indepth/fire/index.asp

Environmental Education

Resource	Website
The Nature Conservancy	http://www.tnc.org/
National Science Teachers Association	http://www.nsta.org/
A library of creative curriculum resources	http://school.discovery.com/
Ecosystems Matter Curriculum	http://na.fs.fed.us/spfo/ce/content/for_teachers/curriculum/
Project Learning Tree	http://www.plt.org/

Children's Fire Prevention Handouts and Interactive

Resources	Website
Coloring Sheets	http://www.kansasforests.org/Programs/fire/prevention/coloring.htm
FEMA for Kids	http://www.fema.gov/kids/wldfire.htm
Home Fire Escape Plan	http://www.ci.kent.wa.us/fireprevention/publiceducation/
Good Fire Bad Fire	http://www.ci.kent.wa.us/fireprevention/publiceducation/goodfiresbadfires.pdf
Stanislaus NF Kids Center Website	http://www.fs.fed.us/r5/stanislaus/kidcenter/index.shtml
Fire Pals	http://www.firepals.org/

Older Kids Fire Prevention

Smokey takes Algebra	http://illuminations.nctm.org/lessonplans/912/smokey/index.html
Risk Assessments by High School Students as public service	http://www.wildfireprograms.com/search.html?displayId=228

Fire Prevention

NWCG Working Teams Fire	http://www.nwcg.gov/teams/wfewt/biblio/index.htm
Washington State DNR Fire Prevention Curriculum	http://www.dnr.wa.gov/htdocs/rp/prevention/k3.htm
National Fire Protection Association	http://www.firepreventionweek.org/
NIFC: Fire Prevention and Education	http://www.nifc.gov/preved/index.html
FEMA for Kids: teaching kids about prescribed fire	http://www.fema.gov/kids/wldfire.htm
Education World: Fire Safety: Activities to Spark Learning!	http://www.education world.com/a_lesson/lesson026.shtml
Fire Safe is the home page/resource directory for Safety Information	http://firesafe.org/usa.html
Smokey Bear	http://www.smokeybear.com/
IMAX Film, Wildfire: Feel the Heat	http://pictures.discovery.com/dppages/wildfire/wildfire.html
Fire Safety Education	http://www.fire.ca.gov/Education/FireSafety.asp
Sparky the Fire Dog	http://www.sparky.org/index.html
FEMA: Fire Safety Education Resource Directory	http://www.usfa.fema.gov/fserd/
Total Escape Fire Prevention while Camping – Use of Fires	http://totalescape.com/active/camp/firesafe.html

Wildland Urban Interface

Firewise -http://www.firewise.org/

Missoula FireLab - http://www.firelab.org/

Fire Safe Councils - http://www.firesafecouncil.org/

Blue Print for safety - http://www.blueprintforsafety.org/wildfire/wildfire_graph.html

What trees can provide - http://cufr.ucdavis.edu/

Defensible Zones - http://www.cahe.nmsu.edu:16080/defensible_zone/protect/zone.html

Firelab Vegetation Simulator - http://www.firelab.org/fep/research/model/data.html

Home and Fire Magazine - http://www.homeandfire.com/

Living with Fire Utah - http://www.ut.blm.gov/livingwithfire/index.htm

A Model for Improving Community Preparedness for Wildfire - http://www.ncrs.fs.fed.us/4803/highlights/Intro to website.pdf

The Ad Council Firewise Campaign PSA's - http://www.adcouncil.org/campaigns/firewise/

UC Forest Products Lab Fire Resistant Plant Testing Results in a list - http://www.ucfpl.ucop.edu/I-Zone/XIV/vegetati.htm

Where's the Fire Wise choices make safe communities - http://cufr.ucdavis.edu/products/8/cufr_150.pdf

Emergency Management

FEMA (Federal Emergency Management Agency) - http://www.fema.gov/

American Red Cross - http://www.redcross.org/

Fire Prevention Materials: Places to get and order stuff

NWCG Publications (Guides etc) - http://www.nwcg.gov/pms/pms.htm and http://www.firepreventionteams.us/

Smokey Bear Official Licensees List - http://www.smokeybearlicensing.com/

The Ad Council PSA's - http://www.adcouncil.org/psa/newspaper_ftp/

The Firehouse - http://www.thefirehouseinc.com/

UNICOR Posters for Internal Forest Service Ordering - http://fsweb.wo.fs.fed.us/eng/unicor/cover.htm

Jack Cohen's "Wildfire Preventing Home Ignitions" - http://www.fs.fed.us/rm/main/videos/wildfire.html

2003 NIFC Radio PSA's to download - http://www.nwcg.gov/teams/wfewt/wfeduc_psa.htm - 2003

Smokey Fire Danger Rating Sign GSA Contract - http://pmsignsinc.com/shopping/product-detail.php?ProductID=SBR-1*72x72*Redwood*routed

Wildland Fire Prevention Guides and NWCG Prevention Materials - http://www.nwcg.gov/teams/wfewt/products.htm

Fire News and Links

Wildfire News -http://www.wildfirenews.com/fire/links.shtml

Wildfire: Feel the Heat IMAX movie - http://pictures.discovery.com/dppages/wildfire/wildfire.html

Western States Fire Assistance 2002 Competitive Grant Program - http://www.fs.fed.us/r4/sfa_grants/sfa_grants.html

Fire Planning

RAMS (Risk Assessment and Mitigation Strategies) - http://www.nifc.gov/preved/rams.html

National Fire Plan - http://www.fireplan.gov/

WUI: Wildland Urban Interface Project - http://www.fs.fed.us/r3/wui/

Fire Planning - http://www.fs.fed.us/fire/planning/