

*Fire Prevention
Working Group*

*White Paper with
Recommendations for Reducing
Human Caused Fires
And
Making Everyone Aware of
Their Responsibility
For
Wildfire Prevention*

September 2004

*Fire Program Review
Oregon Department of Forestry*

Members of the Prevention Working Group

Rick Gibson Co-Chair

Oregon Department of Forestry

Mary Ellen Holly Co-chair

Keep Oregon Green Association

Suzanne Bader

Facilitator

Norie Dimeo-Ediger

Oregon Forest Research Institute

Krista Fischer

Insurance Information Services of OR & ID

Jim Geisinger

Associated Oregon Loggers

Rochelle Goertzen

Keep Oregon Green Association

Mike Hicks

Boise Cascade

Matt Howard

Oregon Department of Forestry, NE Area

Jeanne Hunt

Weyerhaeuser Company

Ken Johnson

Jackson County Fire District #3

Sara Leiman

Oregon Small Woodland Owner

Bob Panucchio

Retired, Oregon State Fire Marshal

Doug Perry

Eugene Fire & EMS

Bruce Shindler

Oregon State University, Forest Resources

Dewey Tate

USDA Forest Service/Bureau of Land Mgmt

Dennis Turco

Oregon Department of Forestry, SW Area

Fire Prevention Working Group Glossary

For the purposes of this chapter, the terms below are defined:

- Awareness:** Programs or activities that result in showing realization of the problem(s) of wildfire and/or prevention measures that can be taken to prevent wildfire
- Fire Prevention:** Activities and programs including education, engineering, enforcement, and evaluation that are directed at reducing the number of wildfires, the costs of suppression, and fire-caused damages to resources and property
- Fire Suppression:** All work and activities connected with fire extinguishing operations, beginning with discovery and continuing until the fire is completely extinguished
- Human-caused Fire:** Any fire caused directly or indirectly by a person(s)
- Outreach:** Extending services or activities to provide information, awareness, or public education to the public
- Prevention:** The act of holding back or keeping from happening.
- Public Education:** Programs or activities that result in behavior change or modification and, when measured, can deliver the percentage of knowledge gained by the recipient.
- Trend:** The numbers or types of fires that are occurring over a selected period of time
- Wildfire:** Any fire that is out of prescription or out of control and that threatens lives, property, and/or resources

Oregon Department of Forestry Protection from Fire Program Fire Prevention

Introduction

Oregon's forest protection system was created in 1911. At that time, timber harvesting, forest management, and other land-clearing activities were the predominant uses of forestland and also the cause of the majority of Oregon's wildland fires. As a result, the forest protection system was structured to address fires started by these activities. Since that time, there has been a fundamental shift in the use of Oregon's forestlands. Recreational visitors and rural residents now outnumber wood workers in Oregon forests. Due to the Oregon Department of Forestry's (ODF) strong emphasis on industrial wildfire prevention and a significant reduction in the level of industry slash burning over the past 20 years, forest management activities now result in relatively few incidents of fire. Human caused fires on lands protected by ODF are now mostly related to property-owner activities on small parcels of land—primarily in the wildland-urban interface—and to recreation visitors. As an example, the trend of debris disposal fires is upward. Other traditional causes such as carelessness with campfires continue to warrant attention, especially as concerns over forest health and drought increase. To address this shift, ODF's prevention activities now include a greater orientation toward rural residential and public use-related fires.

Currently within the ODF, most prevention efforts are designed and implemented at the local district level. The primary exception is the Keep Oregon Green Association (KOG) that works under contract with ODF to conduct a mass media campaign and large-scale public awareness. This leaves the districts to focus on specific local fire causes. In fulfilling this function, prevention is usually assigned to many personnel, but is usually viewed as a collateral duty. However, the 1999 Tri Data analysis of ODF's prevention programs pointed out that these prevention and suppression responsibilities do not necessarily receive the same level of attention; the report noted the degree of "autonomy" afforded to field prevention is far greater than the autonomy for ODF's fire suppression effort. In a separate survey conducted specifically for this report by the Fire Prevention Working Group, findings (Appendix 1) show that the majority of district prevention programs target general fire awareness and good public relations. As a result, the Group felt that, in most instances, a greater effort is needed to educate homeowners about the prevention of specific human-caused fires that could occur on their properties.

In Oregon, forest communities are undergoing substantial ecological and social change. The threat of large, severe wildfires has become part of this dynamic. But, this situation does not need to be a case of waiting for the next big fire to erupt. In these communities there is a direct relationship between wildfire prevention, the ultimate need for wildfire suppression, and resulting fire damage. A well coordinated, multi-partner prevention program can reduce the cost of suppression activities and the risk to personal property and important forest resources. The purpose of this report is to review existing prevention activities and recommend strategies to reduce the number and severity of human-caused wildfires. The intent is to encourage every Oregonian to take responsibility for wildfire prevention and act as partners with ODF and KOG to achieve a safe, cost effective wildfire prevention program.

Using the existing ODF program as a guide, this report will stress the importance of cooperation and collaboration between agencies, landowners, industry, and citizens to create more successful public awareness and education programs. In this report we discuss improved Department emphasis on prevention, better training for those who need to implement fire prevention outreach, small changes in State statutes, and more focused education efforts to increase citizen understanding of their responsibility in wildfire prevention. This report will also show the need to shift gears and help the public recognize that human-caused wildfires are largely the result of landowner activities on their own lands. Additionally, we will describe the need for a formal training program – cooperatively financed and managed by federal, state, and private agencies – for fire prevention professionals who serve in public education and outreach roles. Finally this report will emphasize that while it is essential to increase public awareness of the wildfire problem through contacts at fairs, home shows, and other public events, it is through targeted public education that behaviors can best be modified or changed.

Background

The Oregon Department of Forestry has a reputation as a world class wildfire management agency and is known for its progressive and innovative use of fire-fighting procedures and technologies. Based on current ten year averages, the Department responds to 762 human caused fires annually. Each year these fires burn across 7,169 acres and cost almost \$14 million to suppress. Overall the trend of human caused fires is slowly falling, suggesting that the general fire prevention message is working. However, certain categories of fires, particularly debris disposal, show sharp upward trends.

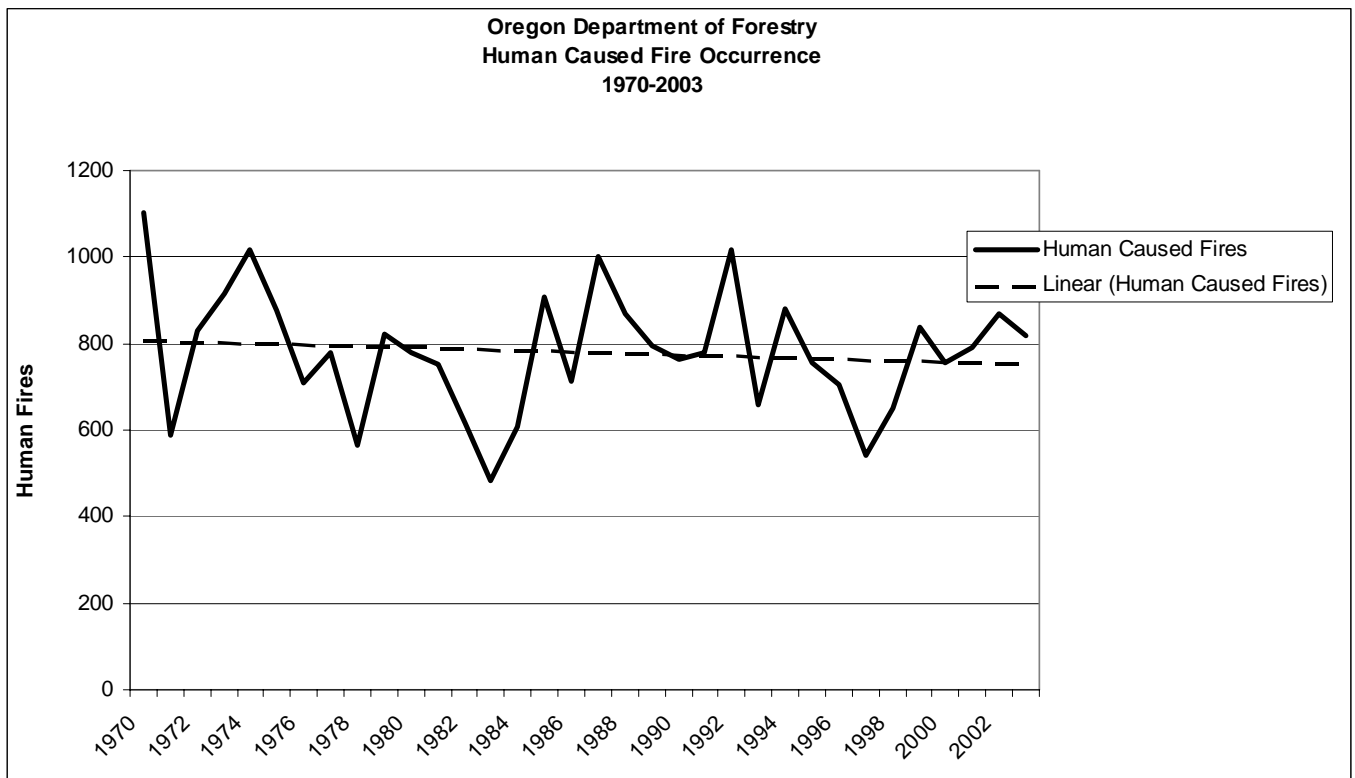


Figure 1

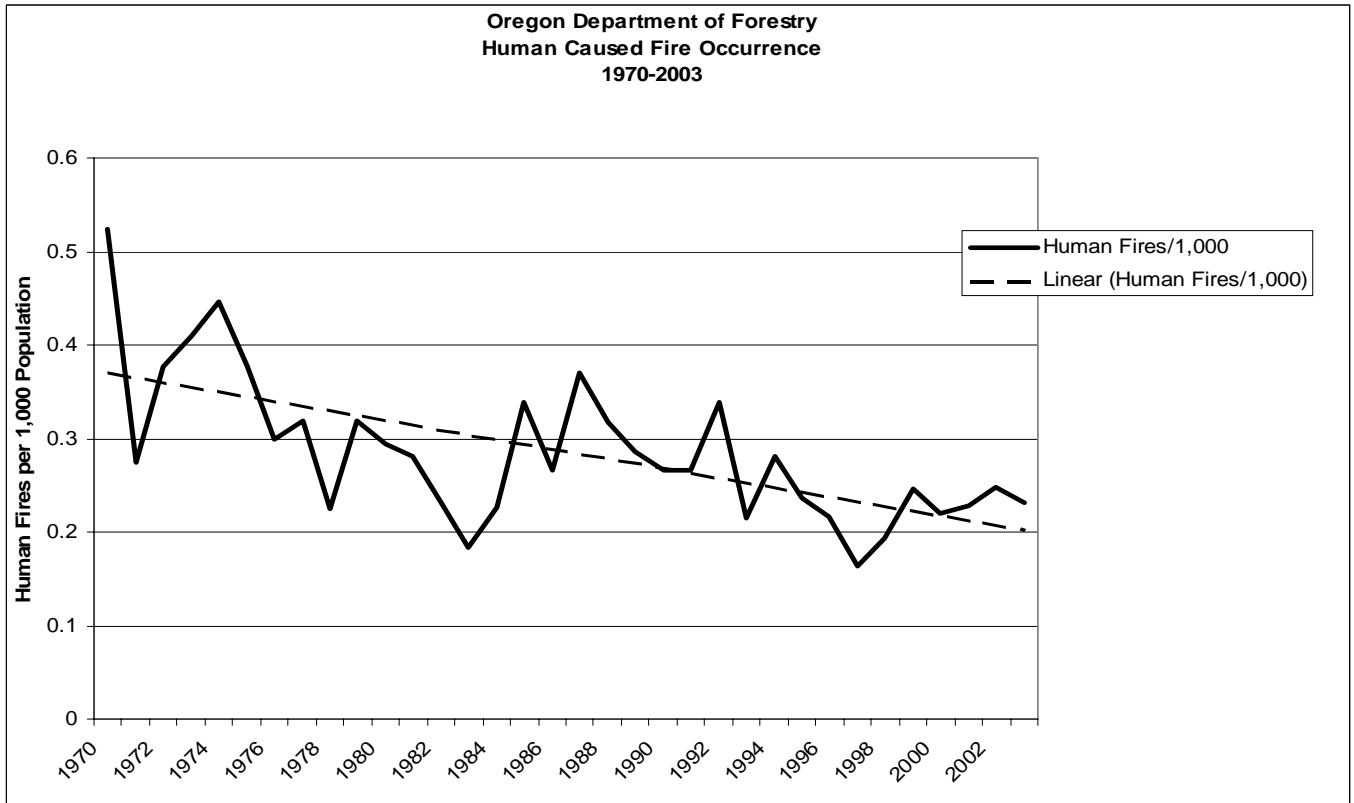


Figure 2

From 1990 to 2001 Oregon's annual rate of population growth was 1.8 percent for a total of 611,000 new residents. This rate was double the national average. Between 2000 and 2009, the state's population is forecasted to increase by an additional 362,000 people. Of particular importance is that most of the population increase is due to in-migration from other states, and many of these individuals may be unaware of Oregon's wildfire problems and the need for ongoing prevention measures. Coupled with the potential for language barriers among this new group, the challenge to educate these new residents is great.

Concurrent with population increases, expanded use of forestland for recreation purposes, and home-site encroachment at the forest interface, there has been an overall decrease in forest health—particularly on adjacent federal lands. It is now generally recognized that aggressive suppression of wildfire over the last hundred years has resulted in wide spread unnatural accumulations of forest fuels. When combined with ongoing climatic changes, more acreage is at risk and fire behavior is far more extreme when fires do occur. Such fires increasingly threaten or destroy home sites that in the near past were not a part of fire fighting strategic planning.

Another consideration is the dramatic increase in the cost of suppressing fires. Today's firefighting challenges mean more than protecting forest resources; many more homes and structures are involved. Relative to other western states, Oregon has yet to experience large interface losses; however, based upon the increasing number of homes in the interface and an increase in landowner-caused fires, such losses are bound to occur. Firefighter safety also has become a greater issue than in previous years. Nationally, firefighter deaths and injuries are on the rise largely because of more severe conditions.

Wildfire management is commonly thought of as having two halves, “prevention” and “suppression.” Oregon law affirms such a structure in statutes that set forth policy and direction. Several relevant statutes are included in Appendices.

In fulfilling such mandates, ODF has effectively suppressed fires, but has been less aggressive in conducting prevention activities. Department suppression costs are well documented; however, the cost of fire prevention related activities is not readily available, and annual budget documents do not distinguish between prevention and suppression activities. As a result, measurement of prevention activities is difficult.

ODF’s fire prevention planning and accomplishment work is performed at the individual District level. Each District is required to annually prepare a fire prevention plan; however, there is no formal plan approval and review process, nor is there an accomplishment and feedback reporting system.

Currently, the level and aggressiveness of fire prevention activity that can be accomplished within ODF is constrained by limited personnel resources. Most Districts have no full time fire prevention professionals and, in most instances, fire prevention is one task among many for managers and suppression personnel. Additionally, over the last ten years, fire prevention capacity in the State Forester’s office has been diluted by staff reorganization as well as the assignment of work that is given a higher priority. There is currently one staff member with the word “prevention” in his title, but less than half his time is devoted to fire prevention activities.

KOG and ODF have a long-standing relationship that has resulted in a cooperative agreement, which defined the responsibilities of each in preventing human caused wildfires.

“[ODF] has statutory responsibility for industrial fire prevention as well as preventing public caused fires on protected forest and range lands. KOG is primarily interested in public fire education on all lands in the state of Oregon. There are many opportunities for coordination and cooperation in furthering the cause of fire prevention in Oregon.”

Over time, this statement has been interpreted to mean that KOG has responsibility for the conduct of wide-scale, mass media fire prevention efforts while ODF is to focus on locally identified concerns and contacts with individual members of the public.

In addition to “traditional” public education and awareness activities, ODF engages in a number of other fire prevention efforts designed to reduce the incidence of human caused fires. These include participation in fire prevention cooperatives, fire investigations, enforcement of fire prevention laws, regulation of public access to forestland, regulation of public conduct on forestland, and hazard reduction. The degree to which each of these categories of activities is performed by the Districts is highly variable.

The fire prevention cooperative movement had its origins in Oregon and the Pacific Northwest in the late 1960s and early 1970s. At that time, there was a strong emphasis within the agency to assist with the formation of cooperatives and to actively participate in their programs. Over time this emphasis has waned and the responsibility for local participation has often been reassigned to lower levels in the organization. In some portions of the state, cooperatives no longer exist or have faded to a minimal level of activity. One reason is a reduced level of participation by ODF and by other wildland fire agencies.

Fire Prevention Working Group Goal & Objectives

The goal of the Wildfire Prevention Working Group was to *review and recommend strategies that reduce the number and severity of human caused wildfires and that encourages every Oregonian to take responsibility for wildfire prevention.*

To meet this goal, the working group identified five principle objectives:

- Determine the current level of cooperation between ODF and other agencies
- Identify existing and potential wildfire prevention programs
- Identify ODF's capacity to deliver wildfire prevention programs
- Summarize successful methods that promote citizen awareness of wildfire prevention
- Assess current ODF authorities that relate to wildfire prevention

Specific tasks were determined for meeting the objectives. These tasks were addressed by using the knowledge and experience of the working group, existing ODF data, two surveys conducted by the group (see Appendices), current statutes, and independent outside studies.

The surveys were designed to provide specific information for the working group and were sent to ODF employees who implement wildfire prevention activities at the District level. Survey #1 asked:

- Who are your target groups for wildfire prevention?
- In what types of prevention activities do you participate?
- Who do you consider to be your agency partners in prevention?
- Who are your non-agency partners in prevention?
- Are your programs awareness/information-based or do they involve lesson plans, pretests, and posttests?
- Do you have evaluation tools in place to determine whether or not your programs are successful in reducing the human-caused fires targeted?

An additional questionnaire was sent to 50 potential respondents and 13 were completed for a 26% response rate.

Survey #2 was sent to some of the same respondents as Survey #1, as well as additional fire prevention personnel across the state asking them to rank the following:

- How would you describe your level of interaction with other agencies on wildfire prevention activities?
- How effective is this current level of cooperation?
- How important is this cooperation to your organization's wildfire prevention efforts?

An additional open-ended question asked participants to list two or three methods that they would recommend for developing or enhancing cooperation. Overall, 20 of 50 potential respondents answered the survey for a 40% response. Data from the surveys will be discussed throughout this report and are included in the Appendices.

Fire Prevention Working Group Findings, Discussions, and Conclusions

From the five principle objectives to reaching our goal, the Working Group examined, through the best information available, the current levels of prevention within ODF. The following discussions and findings led to the recommended strategies that would enhance the current program and further reduce the number of human-caused wildfires in Oregon. Additional recommendations to involve citizens in state-wide wildfire prevention efforts will, hopefully, result in individual responsibility for protecting lives, property, and resources from wildfire devastation.

Changing Perceptions

Two major goals for Oregon Department of Forestry field employees are to teach people how to prevent a wildfire and how to protect their homes and resources before one occurs. The intended outcome of these efforts is to improve public understanding of the fire problem, change or modify behaviors, and decrease the number of human-caused fires. Community planning occurring across the state, largely as a result of the National Fire Plan, is an example of how the Department and citizens can work together to protect their communities from wildfires.

The challenge of changing people's perceptions about wildfire has been recognized for at least 40 years. Mutch (1976) voiced a need for imaginative educational materials to tell the public about fire's ecological role. Unfortunately, fire education among forest agencies was often viewed as merely "a nice thing to do" or was initiated only after a severe, destructive wildfire (USDA-FS 1998). Educational programs ranked low among a land manager's responsibilities and few education specialists were designated to do the job. If programs were implemented, they were done so only in addition to a manager's existing duties. Fire researchers have been looking at the need for public education for decades. In one of the earliest studies to examine adult knowledge, attitudes, and beliefs about wildland fire, Stankey (1976) recommended that managers educate and involve the public, make gradual changes in policy, and provide communications programs aimed at many different audiences. Taylor and Daniel (1984) indicated that fire education programs do not need to be extremely intensive nor expensive to be beneficial. These recommendations continue to be supported by more recent studies (Manfredo et al. 1990, Shindler and Toman 2003). To be effective, public messages should include the ecological role of fire plus aspects of fire management such as fire prevention, suppression, prescribed burning, and the use of wildland fire for resource benefit. Numerous researchers (e.g., Stenberg 1982, Taylor and Daniel 1984) found a correlation between knowledge of fire effects and support for various fire policies.

Acting now to increase ODF's wildfire prevention education before wildfires occur will save lives, property, and important resources. This will require an assessment of ODF information delivery mechanisms. Currently, the personnel who do most of the wildland contacts are seasonal employees hired in late spring when fire danger is already rising. As a result of this timing, they receive little training about the wildfire problem, fire prevention techniques, or how to deliver the message to citizens. Forestry professional recognized that wildfire prevention must be an ongoing process, not just a one-time event. We must consider this program as a continuous, year-round effort that is never finished.

ODF will never prevent all fires, but through a two-tiered system they can certainly reduce the numbers. The first step is to focus on clear, concise, and consistent statewide messages that build awareness among the general public. The second step will be to target property owners in the interface by providing specific strategies for prevention planning and implementation.

From their experiences, prevention professionals continually remind their staffs that it is important that they are well prepared to assist those from communities and local businesses. They must know their communities; that is, its history and the role wildfire has had in its ecosystem. It is critical to also know their audiences. They must be proactive, and build on citizens' knowledge and skills. Cooperation with other organizations and integrating wildfire prevention with local activities will increase their ability to be consistent and also avoid duplication of effort. Using existing relationships and partnerships will augment their abilities to create and sustain these messages. They must strive to keep the leadership diverse, the message fresh, and the outreach broad. And they must not get discouraged. It is accepted that forests will burn; fire is an essential element of the ecosystem and is necessary to maintain forest health. ODF needs to ensure that preventable fires do not occur; but when they do, conditions should be such that they can control them quickly.

A Greater Institutional Emphasis on Prevention

The Working Group examined the need for greater institutional emphasis on wildfire prevention. Survey #2 of ODF employees (See Appendices) revealed that most are not fully aware of the existing prevention programs in other districts. Considering that this information came only from individuals (26% of those surveyed) who were motivated to complete the questionnaire, it is reasonable to believe that the problem may be much worse than indicated by this initial, relatively small study. One solution is for ODF to appoint a leadership team with responsibility for planning, promoting, and directing wildfire prevention efforts statewide. This team could include the Assistant State Forester, the Fire prevention manager, district foresters, and the KOG manager. Other personnel could be added as needed.

Planning

Planning is an essential tool for successful outcomes. Such tools ensure that money is spent well, there are no big surprises, and everyone has a role to play. Currently there is no Department-wide prevention planning process within ODF. Where planning has occurred, there are considerable discrepancies across districts. Some districts prepare prevention plans each year, while others simply update their local fire-cause statistics. Additionally, there is no consistent communication system among districts for tasks such as program planning and implementation, display inventory, or program evaluation. A statewide assessment of current planning and implementation processes is needed and is likely to reveal opportunities for improvements and cost saving measures.

Current Activities

An initial survey of districts found that current field-level activities include:

- Residential contacts in the wildland/urban interface
- Sign posting including wildfire danger, regulated use, and targeted human-caused fires
- Booths at fairs, festivals, and home shows
- Team teaching in schools
- Recreation contacts including campgrounds, fishing and hunting booths, and sport shows
- Industrial inspections
- Wildfire investigations
- Forest law enforcement
- Juvenile firesetter intervention

The survey also showed that human-caused fires (prioritized by numbers, acres, and suppression costs) were targeted by these program activities. Since most fires now occur on private land within the interface, visits are typically made to residents who live in these locations to discuss clearing around homes and other types of prevention such as equipment use during regulated use periods. To reduce the number of industrial and operation fires, field employees also perform inspections to assure compliance with laws and regulations for industrial operations. To target juvenile-set fires, Smokey Bear visited schools, fairs, and campgrounds.

Wildfire investigation is also an important tool in the wildfire planning process. For example, when the cause has been a juvenile playing with fire, intervention with the child and the parents is the first step in changing the juvenile's behaviors. Often fire prevention specialists require children who have set fires to attend fire prevention workshops.

It should also be noted that listed activities are not being conducted statewide, but only by districts that have made prevention a priority. To encourage others to adopt a prevention mentality, ODF leadership could promote or require use of *Risk Assessment and Mitigation Strategies (RAMS)*. This is a wildfire prevention planning tool currently being used by one or two districts. For greater coordination and cooperation across ODF, it would be useful if all districts used this or a similar tool.

Technology

Personnel assigned to prevention roles must keep pace with all components of outreach including television and the internet. Newer technology can be used in all awareness and education programs to capture the interest of the public. For instance, ODF could make better use of Geographic Information Systems to create visual products for outreach planning and opportunities. Education modules should include hands-on learning tools through use of compact discs (CDs) or digital video discs (DVDs) that are now a large part of the curriculum in most school systems.

As an example, Sesame Street was recently forced to reduce the number of programs it produces and determine new methods of delivery for its outreach to children. New technology allows children to watch the same program over and over again. With one click of the mouse, content "on demand" is available. In a similar view, ODF should more aggressively embrace new and emerging technologies and break out of its traditional ways of distributing awareness and education programs. This will require additional training and program funding.

Tools of the Trade

The review of Survey #2 indicated an apparent need for additional "tools of the trade" to enhance employee prevention efforts. These tools include signs that are more durable to withstand the weather, are designed to be universally and instantly recognized, and display language that is more easily understood by all citizens. As an example, a focus group determined that the design of current Regulated Use Closure signs (Appendix #5) could be improved to fully make the public aware of their responsibility for the prevention of wildfires.

Appropriate, timely, and consistent messaging serves to continuously alert the public and keeps their attention on the problem. These "canned" messages, or those developed (potentially) by KOG, focus on specific fire causes and can be made available to field personnel to augment their efforts. Canned messages also give the employee age-appropriate messages that can be delivered at any opportunity.

Another field resource would be a single individual, centrally located, as a clearinghouse for all wildfire prevention programs. The 1999 Tri Data analysis of KOG and ODF's prevention programs suggested that KOG be this clearinghouse for both programs and information. This is still an excellent opportunity. In addition, a practitioner website funded by the Pacific Northwest Wildfire Coordinating Group (PNWCG) is currently being developed and could also be maintained by KOG. KOG has physical space available for the storage of products and, with additional funding, could showcase successful programs and provide guidelines on how the programs can be developed locally. These ideas could be funded through additional grants from the PNWCG or other sources.

Program evaluation

Currently there are no methods in place to evaluate ODF's programs. Simple questions persist. For example, are their programs working? Are they reducing the frequency and severity of targeted fires? Is one better than another? How effective is the current team teaching that is used by fire prevention cooperatives in elementary schools? The public expects results and so do ODF administrators and state legislators. Evaluation improves decision-making, helps in setting and achieving goals and objectives, improves productivity, and can loop back to inform the planning process. Except for data on wildfire causes, costs, and acres, there is a lack of accurate and consistent baselines (where are we compared to past performance? compared to other districts?). These performance measures could be developed through RAMS.

Potential components for evaluation include:

- number of new partnerships and activities implemented
- number of FTE assigned to prevention; resulting programs and activities
- increased public awareness and knowledge from educational programs
- level of risk reduction from thinning timber or removing fuel around homes
- level of loss reduction (i.e., fewer homes burned in interface or lower resource loss from fewer fires)

Prevention programs must be efficient and effective. Several methods are available for evaluation. Some prevention programs are done on evidence-based problems. For instance, in 2003, following the occurrence of six fires in a high-risk location, the Department was forced to initiate a comprehensive order directing aggressive fire-prevention efforts by a railroad. Those efforts immediately stopped the occurrence of such fires. The effectiveness of the ordered prevention activities was illustrated when the order was lifted: Prevention efforts were curtailed, and an additional fire was immediately ignited by railroad activity.

Other forms of evaluation involve measuring simple public awareness of the fire problem as well as public education among citizens about prevention tactics. Programs aimed at changing behaviors can be measured in several ways. This includes pre-testing, educating, reinforcing, and post-testing that give an instructor the ability to determine the current knowledge level, what needs to be taught, and subsequent knowledge learned. Lessons can be repeated where needed and retesting can determine the success. There are important differences between tools used for building public awareness and those for educating citizens, yet most agency fire personnel are unaware these exist.

Other evaluations can be made by analyzing existing data (when databases are maintained). A common example would be to determine whether a targeted wildfire cause is being reduced. By evaluating our programs, the successes of individual districts will act as incentives to others. It is much more likely that program credibility will increase and additional support will follow if we promote wildfire prevention successes with the Board of Forestry and the State Legislature.

Developing curriculum standards

By developing wildfire prevention education curricula to meet State Curriculum Standards, teachers are better able to use Smokey's lessons as part of their classroom teaching modules. Assistance to teachers can come in the form of providing objectives, background information, teaching points, and discussion items. Pre- and post-tests can determine the level of knowledge increase among students, and prevention officers and teachers will have an evaluation tool to share with school boards or supervisors about program success.

Interagency Cooperation

ODF employees clearly stated in both surveys that cooperation between agencies and non-agencies is critical to the success of their programs. The goals of fire prevention cooperatives are similar and generally promote the interagency exchange of ideas and resources to prevent fires through coordinated fire safety education programs. ODF participation in cooperatives varies from district to district; some are very involved, some not at all. Cooperative members represent structural and wildfire departments, federal and state agencies, forest protective associations, and other stakeholders. A model of a fire prevention cooperative is included in the appendices of this report.

Stronger management-level support for and promotion of fire prevention cooperatives would add a level of consistency and cooperation between agencies. One district representative suggested prevention employees should "promote ourselves more as a cooperative instead of just various independent agencies. This might prompt more agencies to get on board when they see us performing more as a group instead of individuals."

Cooperation and coordination with agency and non-agency personnel can bring about many benefits to all partners:

- creation and delivery of timely, simple, and consistent prevention messages.
- increased ability to reinforce messages throughout the wildfire season to maintain public awareness
- cost-sharing for developing messages, programs, and education modules.
- communication network both within ODF and between agencies. For example, federal agencies can alert state agencies about federal grants available for prevention; cooperatives can work together to develop teaching modules on local wildfire problems; and state employees can alert each other about available activities through e-mail and websites.
- better utilization of both agency and individual strengths and resources.

Several Salem-based ODF employees and the president of KOG currently participate in the Pacific Northwest Wildfire Coordination Group (PNWCG) and on its Prevention Working Team. Others serve on National Wildfire Coordination Group (NWCG) working teams. The members of these groups represent all aspects of wildfire management and results in Oregon's voice in national, regional, and state-wide prevention planning and activities.

Training

Currently, within ODF, there exists comprehensive training for fire suppression personnel. However, there are a limited number of training opportunities for prevention personnel. A comprehensive prevention program would improve knowledge of wildfire prevention subject matter, awareness of audience needs, successful prevention programs and activities, and public outreach skills. The NWCG is currently revamping its prevention courses and they could provide a basis for a regional cooperatively funded and managed training program.

Oregon State University and/or KOG can also be sources for curriculum development and training.

Until a formal training program is developed, it is still important that field employees who interact with the public most frequently receive training. KOG can provide this interim training with additional funding. Three levels of fire prevention training are recommended: Basic for seasonal employees, Intermediate for permanent district personnel, and Advanced for prevention specialists. The beginning and intermediate levels could, perhaps, be more agency oriented (training at the district level that can be used in the local communities).

ODF employees have suggested that an annual "summit" be held in late spring (in addition to the current Interagency Workshop in February) to allow all seasonal and full-time prevention employees to attend. Such a summit could serve as an excellent platform for sharing ideas, programs, and successes throughout the regional wildfire prevention communities.

Allocation of FTEs

ODF has few personnel currently devoted to fire prevention activities. Out of 370 (FY2004) full-time equivalencies (FTEs) in the Protection from Fire Program, only a very few are fulltime prevention personnel. In most districts, wildfire prevention usually involves some percentage of time from suppression personnel. In the districts operated by non-profit forest protective associations, the Douglas and Coos Forest Protective associations have one combined prevention/PIO and Walker Range Association has one combined prevention/dispatcher position. The Working Group has been unable to verify the amount ODF spends on prevention, as current cost accounting does not support the collection of this information. Salem staff involvement in prevention activities has been reduced as a result of competing priorities to the point where one manager has a job title that includes prevention but whose time is spent in other areas. Please see Appendix #3 for District responses to an informal survey concerning their allocation of personnel and budgeted dollars for wildfire prevention. A more formal survey regarding prevention FTEs would result in more complete and verifiable data.

Experience in other states has shown a direct relationship between greater prevention efforts and a significant drop in the incidence of human fire starts. In the southwest states in 1996, 31 people devoted 663 person days at a cost of \$180,000 to promote wildfire prevention. Ignitions per week dropped from twenty in Week 1 to ten in Week 2 and then leveled out to less than twelve per week. The cost of this prevention team was less than two percent of the total suppression costs for the fires started. The team was credited with saving millions of dollars. In Texas in 1998, there had been a steady increase in human-caused fires, peaking at over thirty in one week. The drought index was over 600; there had been no rain in over 100 days. After the prevention teams began their outreach efforts, the human ignitions dropped to less than ten. As a result of their successes with the prevention team, Texas developed an expanded prevention program. Careful planning around the local problems was the key to success for these prevention teams.

Most recently, during the 4th of July holiday of 2004, a total of four wildfire prevention teams were assigned to high risk areas in Klickitat County, Washington. Prior to the assignment of these teams, up to 25 fires had occurred over the fourth of July on both sides of the Columbia River. The prevention team effort was coordinated by the Washington Department of Natural Resources and The Dalles district of ODF. As a result, according to the Central Washington Interagency Coordination Center, there were no incidents of firework fires this year in Klickitat County. Less than \$180,000 was spent on the prevention teams who were credited with saving many times that in suppression dollars.

Local ODF employees report that they have conducted successful prevention activities; however, across the Department, the lack of specific prevention data makes it difficult to cite similar successes throughout Oregon.

An appropriate allocation of FTEs among suppression, prevention, and other fire management activities needs to be considered by ODF, with perhaps at least one prevention specialist within each Area. Such a reallocation, with support from Department leaders, would give greater emphasis to wildfire prevention and reduce human-caused fires through leadership, training, cooperation, and coordination.

Promoting citizen involvement

Studies tell us that ODF would benefit by continuing to encourage local residents to take the lead in wildfire prevention activities. (Shindler and Turran 2003, Winter et al 2002) This will mean a redoubling of efforts that promote community participation and leadership in communities. One approach is to call on local professionals and businesses to help carry the message and recruit help (money, materials, and time) from community members. Partnerships with existing businesses and landowner associations can be the backbone of wildfire prevention programs.

Community education is supported through partnerships, the sharing of ideas, and cooperative effort. Public surveys and public hearings give residents an opportunity to voice their opinions, to learn from others, and also provide a means for program evaluation. Focus groups give us an opportunity to hear what the public “gets” from our communication strategies. Do they work? Do they answer questions? Focus groups, such as those used by the Oregon Forest Resource Council, can provide answers to prevention questions – citizen input is critical if we truly want to develop messages that grab the public’s interest.

Another key element to gaining citizen involvement and support is teaching them about wildfire. One study (Parkinson et al 2003) evaluated workshops for the adult public featuring experiential learning about wildfires. Participants used hands-on activities to investigate fire behavior and ecology and to assess hazards in the wildland-urban interface. Effectiveness was examined by pre- and post-testing. Participant’s knowledge increased following the program and their attitudes and beliefs became more supportive of fire management. These changes were still evident a month later.

Wildfire Investigations and Data Bases

Currently, ODF has a limited number of Type I wildfire investigators and is relying heavily on retired personnel to conduct wildfire investigations. An aggressive and ongoing training effort needs to be implemented so that each District has at least one or two trained and experienced Type I investigators. Understanding the causes of wildfires drives the prevention effort.

For purposes of targeted prevention efforts it is essential to know the specific causes of fires. Forest operation fires should be clearly separated from other causes so appropriate prevention efforts can target specific groups. Currently, this is one of the biggest gaps in ODF’s reporting system. For instance, the fire start category "equipment use" now includes fires caused by power saw exhaust in an operation area, along with fires caused by farm machinery, electric fences, power lines, burning vehicles, and other causes unrelated to forest operations.

In addition, there is a large number of wildfires listed under the “Miscellaneous Cause” category. While some of these wildfires are still under investigation, others remain in this

large category because of a lack of specific causes (trends) offered for reporting, reporting errors, or the need for more experienced investigators. Regardless of the reason, improved reporting will give better statistics and give fire prevention personnel more specific causes to target with their activities and programs.

Proposed Statutory Changes

Oregon's laws regarding wildfire prevention are generally adequate. However, the Working Group has identified two new statutes and some housekeeping of others for consideration. The Working Group's recommendations to these Statutes are listed in the Appendices.

Fire Prevention Working Group Recommendations

The following recommendations are offered by the Prevention Working Group in an order that we feel is appropriate for implementation. The Working Group is dedicated to the implementation process and offers its full cooperation.

High Immediately District Foresters/Managers

ODF should improve its wildfire investigation capacity. (Also being addressed by the Workforce Capacity Working Group) Currently the Department has a limited number of Type I wildfire investigators and is relying heavily on retired personnel to conduct wildfire investigations. An aggressive and ongoing training effort needs to be implemented so that each District has at least one or two trained and experienced Type I investigators.

High Immediately State Forester

ODF should actively communicate wildfire prevention successes to the circle of influence such as the Board of Forestry and the Legislature. The communication of successful efforts will enhance credibility and generate support for additional resources for wildfire prevention programs and activities.

High Immediately Assistant Forester/Protection

The Protection from Fire Program should formalize its prevention program in the Fire Protection Division by allocating duties of existing personnel as workloads allow. This may require an additional FTE. Aspects to be accomplished:

Develop a leadership team to promote, direct, and guide wildfire prevention programs and activities. This team would include the Assistant State Forester for Protection, Fire Prevention Manager, District Foresters, and the KOG Manager. Other personnel to be added as appropriate

Develop consistent statewide system for planning, implementation, and evaluation of wildfire prevention programs and activities

Implement a better cost-accounting system to determine actual time and dollars spent on wildfire prevention activities

Incorporate improvements in technology for the delivery of prevention awareness and education programs in order to meet the growing communication needs of the public

Develop wildfire education teaching modules that meet Oregon State Curriculum Standards

Make more outreach tools available to field personnel including signs, canned press releases, educational modules for changing behaviors, etc.

Establish consistent baselines to help field personnel determine current District fire-cause trends and which programs/activities are most successful in reducing these trends

Improve wildfire reporting formats and other fire data collection programs such statistics of homes burned as a result of wildfires and a better breakout of equipment fires

Appoint a single-point contact to share information about all agency resources (programs, posters, handouts, clipart, etc.), with field personnel. Keep Oregon Green should be considered for this role.

High **Next Legislative Session** **Assistant State Forester/Protection**
ODF should propose two new revised statutes and make housekeeping changes in others. Please see the Appendices for suggested new and revised statutes.

High **FY05-06** **OSU/KOG**
ODF should provide leadership to develop a comprehensive training program. Such a program would enhance knowledge of wildfire prevention subject matter, awareness of audience needs, successful prevention programs and activities, and public outreach skills. This program would enhance the continued development of Department leaders, prevention managers and staff.

High **FY05-06** **Assistant State Forester/Prevention**
ODF should identify the appropriate allocation of Full Time Equivalent (FTEs) among suppression, prevention, and other fire management activities. Greater emphasis on prevention should be considered. Experience in other states has shown that there is a direct relationship between greater prevention efforts and a significant drop in the incidence of human fire starts. To determine the number of Fire Prevention FTEs needed on each District, ODF should conduct an in-depth study to accurately determine the types of prevention occurring on each District. What planning tools are in place? With what resources are they accomplishing these activities? What evaluation tools are being used?

Moderate **Immediately** **District Foresters/Managers**
ODF should promote greater citizen involvement in wildfire prevention. These efforts must start at the staff level and continue down to the lowest field level. Citizens can participate in projects, focus groups, and community planning. Such involvement can help them be responsible for preventing wildfires. This involvement will enable the Department to better target community problems and deliver appropriate messages.

Moderate **FY04-05** **State Forester**
ODF personnel should become more involved with local interagency fire prevention cooperatives, and where lacking, work with other agencies to form one. ODF employees stated that participation in a cooperative is critical to their successful programs. A multi-partner approach will improve the consistency and delivery of information and better utilize people's strengths.

References

- Hudson, R., P. Jakes, E. Lang, and K. Nelson, 2003. Spearfish, South Dakota, and the Northern Black Hills: Steps to Improve community Preparedness for Wildfire
- Jakes, P. and V. Sturtevant, 2002. The Bend Community & FireFree: Steps to Improve Community Preparedness for Wildfire
- Jakes, P. and K. Nelson, 2002. Gunflint Trail Community: Steps to Improve Community Preparedness for Wildfire
- Jakes, P. and S. Agrawal, 2003. Waldo, Florida: Steps to Improve Community Preparedness for Wildfire
- Jakes, P. and K. Nelson, 2003. Barnes-Drummond and Northwestern Wisconsin: Steps to Improve Community Preparedness for Wildfire
- National Public Radio, 2004. 'Sesame Street' Shrinks in Crowded Kids' TV Market
- Shindler, B. A. and E. Toman, 2003. Fuel Reduction Strategies in Forest Communities: A Longitudinal Analysis of Public Support. *Journal of Forestry*, 101(6): 8-15
- Sturtevant, V., and C. Corson, 2003. Applegate Communities' Collaborative Fire Protection Strategy (Applegate Fire Plan): Participants' Thoughts About Process and Outcome
- Winter, G.J. and C. Vogt, and J. Fried. 2002. Fuel Treatments at the Wildland Urban Interface: Common Concerns in Diverse Regions. *Journal of Forestry*, 100(1): 15-21

Fire Prevention Working Group Appendices

1. Survey #1 to ODF Employees
2. Survey #2 to ODF Employees
3. Survey #3 to ODF Districts
4. Current Statutes That Pertain to Wildfire Prevention
5. Focus Group Results of "Fire Regulated Use" signs
6. Model of a Fire Prevention Cooperative
7. Recommended New and Edited Oregon Revised Statutes

A p p e n d i x

1

ODF Fire Prevention Query

13 total responses:

Who/what are your target groups?

1. WUI residents
2. Those with special needs (physical, financial)
3. Community Fire Planning Groups
4. Children
5. Forest Recreationalists (Hiking, fishing, sightseeing, etc...)
6. Hunters
7. Utility and Transportation companies (Power Companies/Railroads)
8. Forest Operators
9. Rural landowners
10. Industrial landowners
11. Off-road vehicle groups/clubs
12. Primary school programs (2nd/3rd grade predominantly)
13. Small woodlands owners
14. Debris burners
15. Boy scouts/Girl scouts
16. Hunter Education classes
17. Homeowner association meetings

What activities do you participate in, i.e., school programs, parades, homeowner association meeting, etc?

- Local neighborhood "Appreciation Days"
- Homeowner association meetings
- Hunter association meetings
- FIREFREE "Get in the Zone"
- Fuels reduction workshops
- Firewise workshops
- National Fire Plan fuels reduction projects
- Print/media ads
- Hunting/fishing license covers
- Fisherman booths
- Hunter Booths
- Sportsman shows
- Burning permit issuance
- General recreation contacts
- Write burn plans
- Signing (reg. Use/fire season)
- Forest law enforcements (ORS 477)
- Fuels management through community fire planning and implementation
- Fire safety home visits
- Educational programs for WUI residents (life safety, home survivability, preventions)
- Smokey bear team teaching
- Primary school team teaching
- High school/Junior high team teaching
- Juvenile firesetter intervention
- Fairs/festivals/home shows/ etc
- Local Fire prevention Co-op events
- Industrial inspections
- RR inspections (right-of-way, locomotive inspections, water car requirements, etc)
- Power line inspections
- County fire standards home site inspections (prior to issuance of building permits)
- Arson camera program
- Local fire prevention education teams
- Fire prevention workshops

- ❑ Summer camps
- ❑ Outdoor schools
- ❑ Civic groups
- ❑ Living With Fire
- ❑ I'm Concerned... campaign
- ❑ Operator's Dinner

Who are your agency partners in prevention?

- ❑ USFS, BLM, BIA, NPS, Confederated Tribes of Warm Springs, Local Forest Protective Associations, Oregon State Fire Marshall, City FD's, Rural FD's, Local Fire Chief's associations, Local Fire Prevention Co-ops, Oregon State Parks, County/city parks, KOG,

Who are your non-agency partners in prevention?

- ❑ AOL, Industrial forestland landowners, small woodlands owners, OSU Extension, The Nature Conservancy, ODFW, media (TV/print/radio), Homeowners associations, private citizens, County Governments (planning/emergency services), OSP, County Sheriff's offices, Red Cross, U of O, Various "Community action response teams, Local Fire plan groups, Way foundation, Siskiyou Institute, Williams Education Coalition, Safekids Coalition, Master Gardeners, SAF,

Are your programs awareness/information based or do they involve lesson plans, pretests and posttests?

- ❑ Majority of programs are evidence based (historical fire starts) that focus on Awareness/Information/Education/Engineering. Enforcement is based on direction in ORS 477.

Do you have an evaluation tool in place?

- ❑ Analysis of fire causes/trends based on a 5-10 year average
- ❑ Informal documentation of activities completed
- ❑ Number of public contacts/patrol hours
- ❑ Random sampling used to measure effectiveness of interface-related programs
- ❑ Informal polling of WUI residents on effectiveness of NFP efforts

A p p e n d i x

2

Oregon Department of Forestry
Fire Program Review
Wildfire Prevention Working Group

The following survey is being sent to you because you are, in some manner, involved in wildfire prevention. The questions have been formulated to help the Prevention Working Group determine the level and importance of cooperation with other agencies, private landowners, businesses, etc., and how that cooperation affects, on average, your wildfire prevention programs. Please answer the questions with only your organization in mind.

The Prevention Working Group would like to have this information back to Mary Ellen Holly (mholly@odf.state.or.us) by May 5, 2004, so that it can be compiled before our next meeting on May 11.

We thank you, in advance, for your timely responses. 18/50 responses

On a scale of 1 - 5, with 1 being very low and 5 being very high, please answer the following:

1. How would you describe your level of interaction with other agencies on wildfire prevention activities?
1) One 2) Two 3) Three 4) Six 5) Six
2. How effective is this current level of cooperation?
1) One 2) Three 3) Five 4) Seven 5) Two
3. How important is this cooperation to your organization's wildfire prevention efforts?
1) Two 2) Zero 3) Three 4) Six 5) Seven
4. What are two or three methods that you would recommend for developing or enhancing cooperation?
(All answers are combined below)

Resources

- Having a prevention specialist in each unit
- Funded positions for prevention priority
- Adding a 6 or 9-month fire prevention technician position to the east half of the COD district

Communication

- Better list of people to contact in the other agencies
- Continued dialog on the challenges of facing changing public view of fire and forestry
- identifying new ways of reaching the various public partners
- Communication between agencies
- Information sharing on program levels
- Specific mailing of information
- News and radio spots
- Signs
- Establish open lines of communication for idea sharing
- A publication of success stories that idealizes cooperative prevention campaigns and shares ideas
- Cooperate on many levels not just prevention
- Do things such as barbecues, baseball, basketball, and volleyball games
- Basically just get to know your other agencies better
- Required participation from other agencies in geographical areas

Media

- Use interagency news releases related to regulatory actions only when the regulations are the same between agencies in a given area. Currently interagency/joint news releases related to regulatory actions are frequently held up by the need for high-level management approval. In some instances the end doesn't justify the means, due to the sheer amount of detailed information required, which is often difficult to understand. Details are so lengthy the public may not bother to read them, if the newspapers choose to print them in their entirety, and they're too lengthy to be broadcast on radio or TV. We easily end up with two separate and confusing news releases wrapped in one package, just for the sake of making sure we're doing the "interagency thing" (placing emphasis on serving ourselves rather than the public.) In addition, make terminology consistent between agencies when saying the same things, Public Regulated Use Closure vs. Public Use Restrictions, for example

Training

- Stronger management-level support for and promotion of fire prevention workshops and training. In most cases, agencies view suppression-related workshops/classes as "must attend" while viewing prevention-related workshops as "nice-to-attend." Agencies should break away from their reactive mode of thinking and get proactive through stronger support of fire prevention
- Hold a summit with local, state, and federal agencies and community organizations to build stronger relationships, identify needs, and develop strategies for increasing and maintaining cooperation and common programs. This kind of summit could be held regionally or statewide
- Incorporate rural fire departments in fire prevention training and activities. This is very difficult with the schedules that the volunteer departments keep.

Personal cooperation

- Continue to develop personal relationships with prevention officers in other organizations
- Keep prevention themes as simple as possible. Use proven methods while at the same time looking for new ideas
- Try to find common ground with other organizations and avoid turf battles
- Improve cooperation between the State and BLM and USFS
- Cooperation within agencies and support
- Very important to fairly represent each agencies priorities. Don't short change their wants in favor of yours. Everyone has something to contribute and should not be ignored.
- It helps to show a unified front when all involved can answer questions when presented. Learn about other agency' priorities, objectives, and wants. Don't isolate yourself by only answering for your agency, work on your own knowledge base.
- Involvement - even if an event isn't tailored to what your agency represents, go and help. Prepare and present yourself in the beset possible light. Help them with a smile

Cooperatives

- Stronger management-level support for and promotion of fire prevention cooperatives. This simply means increasing personnel and time commitments to co-op participation and encouraging employees to be involved
- Fire prevention co-op participation
- Better participation from cooperators in the local fire prevention coop
- Communications about fire prevention with cooperators in very helpful
- The Fire Prevention Co-op is a good asset
- Regular monthly meetings of all members of the prevention cooperatives
- Establish county fire prevention cooperatives
- Promote ourselves more as a cop-op instead of just various independent agencies. This might prompt more agencies to get on board when they see us performing more as a group instead of individuals
- Get more people involved. Small areas like this tend to always have the same players and therefore get burnt out easily

Miscellaneous

- Make sure all employees know the value of prevention
- Vinyl "Fire Danger Signs" that were distributed by KOG are a great tool. Many of our local Rural Fire Departments have placed them at their stations. Uniform signing helps in enhancing cooperation and if there are products that all agencies and/or cooperators can use this will help

Appendix

3

SURVEY OF DISTRICT FIRE PREVENTION POSITIONS & BUDGETS

DISTRICT	NO. OF POSITIONS WORKING IN FIRE PREVENTION			% OF BUDGET SPENT ON PREVENTION	ARE OTHER MONIES SPENT FOR PREVENTION?	WHAT IS YOUR BIGGEST PREVENTION BANG FOR THE BUCK?	COMMENTS
	FULL TIME	MOST OF TIME	PART TIME				
Astoria	0	0	6	30	No	School visits County Fair Parades Public contacts at state park	Have enough money only for: One state park visit One parade County Fair
Cascade	0	2	18	5	Yes 20+%	Face to face, on the ground contacts	
Central Oregon	0	2	24	1	Yes Much	Face to face, on the ground contacts Community events Home assessments Home owner presentations FireFree Fire bustlers School programs Fire Prevention Coop activities	
Coos	Did not respond to survey						
Douglas	2	53	10	28+	No	Media contacts	
Forest Grove	0	0	12	15	No	County wide burning bans Closures Industrial inspections School programs Media contacts	Regional prevention approach would be helpful Need to be more proactive with the media Need highway reader boards Need ODFW help with scheduling of seasons
Klamath-Lake	0	1	18	7	Yes Moderate	Atson prevention patrol Poster contest Industrial inspections	
Northeast	0	0	18	4	No	Team teaching Fire danger signs Public contacts	Have used grant monies to fund local prevention projects
Southwest	2	0	37	3	Yes Some	Public awareness Community relations Interagency cooperation	
Tillamook	0	1	3	33	No	Personal contacts Open door policy Local events	
Walker Range	0	0	2	Little	Most	Media (radio, newspaper) contact	
West Oregon	0	0	18	10%	No	Industrial restrictions Public use restrictions Educational programs	No major changes are planned
Western Lane	0	1	34	30	Negligible	Industrial inspections Closures	

Notes:

Positions - Count of positions is based on wording of current position descriptions.
 % of budget - Number provided is an estimate only, rounded to whole percent. The ODF budget process does not allow accurate calculation for prevention activities only.

A p p e n d i x

4

Statutes that currently pertain to ODF Wildfire Prevention

ORS 321.011: *"The prevention and suppression of forest fires on forestlands for the preservation of forest resources and the continuous growth of timber on lands suitable therefore are declared to be the public policy of the State of Oregon."*

ORS 477.005: *"The preservation of the forests and the conservation of the forest resources through the prevention and suppression of forest fires hereby are declared to be the public policy of the State of Oregon."*

ORS 477.360: *"The district fire warden, under the direction of the State Forester, has charge of the fire prevention and suppression system in the forest protection district of the warden and such other duties as are required by law and the rules of the State Board of Forestry."*

ORS 477.365: *"Under instructions from the forester as to their exercise of state authority, all wardens shall...Take proper steps for the prevention and extinguishment of fires within the localities in which they exercise their functions."*

A p p e n d i x

5

December 22, 2003

Introduction

Davis & Hibbitts, Inc. (DHI) conducted two focus groups for the Oregon Forest Resources Institute (OFRI) on Tuesday, December 16 and Wednesday, December 17, 2003. The primary purpose of the research was to test television and print advertising concepts developed by Gard & Gerber. The focus groups also were used to determine opinions about a forest sign and the global impacts of timber harvest.

Excerpt Regarding Signage Test

A roadside sign was displayed and the participants were asked to respond to several questions about it (Appendix N).

There was no variation by group. When asked if they would notice this sign while driving down a country road, 16 said yes and one was unsure. Thirteen agreed that the sign would pertain to them (2 said no, 2 were unsure). Unaided, participants agreed the target audience for the sign was "everyone in the forest," although some were more specific, mentioning campers, hunters, loggers, and smokers.

Unaided, participants were general in interpreting the sign's message ("be careful," "protect the forest," and "follow these rules"). All participants said they understood the symbols on the sign (13 strongly, 4 somewhat).

With the sign still displayed, participants were read the following statement.

These signs are placed along Oregon country roads during fire season. The purpose of these signs is to notify forest users that they are traveling into an area in which the use of the land is restricted in order to prevent fires from starting. The organizations that put these signs up are looking for ways to improve them.

Discussion was very brief, but mentioned was to use "bigger graphics," and more than one participant suggested using bigger text or making the text "more prominent."

Participants were asked if they had suggestions for better symbols (Appendix O), and five said yes, nine chose no, and three were unsure. The five saying yes suggested:

- ♦ the off-road vehicle was hard to see ("How about a road and a large vehicle with a cross through it?")
- ♦ 'tools required' was vague ("Do I need to carry these on my person or only in my car? What if I am hiking?")
- ♦ add somewhere 'this means you!'
- ♦ mention penalties if caught

When asked unaided for other suggestions to improve the sign, suggestions included "make it larger so they are visible from a distance," say 'please use safety equipment' instead of 'tools required,' and one participant suggested a vertical orientation ("too wide to read quickly").

APPENDIX N

Would you notice and look at this sign, if you saw it while driving down a country road?

	Combined	Tuesday Group	Wednesday Group
Yes	16	8	8
No	-	-	-
Don't Know	1	-	1

Would you think that this sign pertained to you?

	Combined	Tuesday Group	Wednesday Group
Yes	13	7	6
No	2	1	1
Don't Know	2	-	2

Who do you think is the target audience for this sign?

Tuesday Group

- It applies to everyone in forest.
- ?
- People like me, going down a country road.
- Anyone who uses the forest or is in it.
- Those who are using the forest.
- Loggers.
- No comment.
- Campers, hunters.

Wednesday Group

- Anyone planning to use forest – however tools required and no chainsaws makes me wonder.
- People who smoke, cut trees, off-road people.
- Everyone in the forest or not.
- Users of the area.
- Everyone.
- Everyone who is close enough to read it.
- Everyone coming into the area.
- Campers.
- Firefighters?

APPENDIX N

Would you notice and look at this sign, if you saw it while driving down a country road?

	Combined	Tuesday Group	Wednesday Group
Yes	16	8	8
No	-	-	-
Don't Know	1	-	1

Would you think that this sign pertained to you?

	Combined	Tuesday Group	Wednesday Group
Yes	13	7	6
No	2	1	1
Don't Know	2	-	2

Who do you think is the target audience for this sign?

Tuesday Group

- It applies to everyone in forest.
- ?
- People like me, going down a country road.
- Anyone who uses the forest or is in it.
- Those who are using the forest.
- Loggers.
- No comment.
- Campers, hunters.

Wednesday Group

- Anyone planning to use forest – however tools required and no chainsaws makes me wonder.
- People who smoke, cut trees, off-road people.
- Everyone in the forest or not.
- Users of the area.
- Everyone.
- Everyone who is close enough to read it.
- Everyone coming into the area.
- Campers.
- Firefighters?

What is the message of this sign?

Tuesday Group

- Restrictions on what you can do.
- Stay out!
- Be careful!
- High fire danger.
- To protect the forest.
- Do not trespass on property – stay on road. No 4 wheeling.
- Danger and be careful.
- Be careful.

Wednesday Group

- What the rules for forest use are in this part of the forest.
- To do what it says.
- Protect our forests.
- Watch out for fire causing actions.
- Be careful.
- Information concerning fire safety.
- Follow these rules for the benefit and safety of all.
- Any of the above can cause a forest fire.
- Regulated use. High fire warning.

Do you understand the symbols on this sign?

	Combined	Tuesday Group	Wednesday Group
Yes – Strongly	13	6	7
Yes – Somewhat	4	2	2
No	-	-	-
Don't Know	-	-	-

A p p e n d i x

6

A Model of a Fire Prevention Cooperative

MEMBERS BY AGENCY/ORGANIZATION

The Oregon Department of Forestry
The USDI Bureau of Land Management
The USDA Forest Service
Local Range Fire Patrol Association
USDI Bureau of Indian Affairs
The Oregon State Fire Marshals Office
Several Local Fire Departments
Several associate members

BY-LAWS/RULES OF ORDER

Mission Statement: It is the mission of this organization to promote an interagency exchange of ideas and resources to encourage members to prevent fires through coordinated fire safety education programs, projects and presentations.

RULES OF ORDER

COMMUNICATION PLAN

BACKGROUND

A. PURPOSE AND GOAL OF THE PLAN

B. OBJECTIVE

C. KEY MESSAGES

D. TARGET AUDIENCES

1. Recreationalists
2. Residents
3. Children
4. Agency and department employees and volunteers
5. Media

E. ACTION PLAN (methods and products, who's responsible, due date)

What are some of your more successful efforts?

We come under the umbrella of the Oregon Fire Chief's Association that has a representative at our meetings. The Chair of the Co-op reports to the chiefs so there is strong accountability. Solid by-laws and a good communication plan have been adopted; we meet every month, and with seasoned and new members participating, we have very successful programs and well supported community events

A P P E N D I X

7

Proposed Statutory Changes

Oregon's statutes regarding wildfire prevention are generally adequate. However, the Working Group has identified a need for one new statute and housekeeping changes that would be desirable in ten existing statutes. Proposed new language is shown in **bold** font and language to be deleted is shown in [~~bracketed italic, bold-strikethrough font.~~]

Proposed new statute, ORS 477.XXX

This statute is recommended because four state agencies currently regulate open burning activities across the state, with additional state and local agencies regulating open burning in specific situations or locations. This has created a confusing, sometime conflicting, system of overlapping responsibility and regulations. This proposed statute would require the agencies to come together and agree on a common, unified system of open burning regulation. The proposed statute is:

ORS 477.XXX

Clarification of open burning regulations.

(1) It is the finding of the Legislative Assembly that the existing statutes governing open burning have created an overlapping system of requirements which is confusing to the public and which causes jurisdictional conflicts between agencies. To remove future confusion and duplication of administration and to promote government efficiency, state agencies that regulate open burning shall jointly develop and present to the 74th Legislative Assembly needed statutory changes.

(2) As used in subsection 1 of this section, "state agencies that regulate open burning" means the Department of Agriculture, the Department of Environmental Quality, the State Fire Marshal and the Department of Forestry.

(3) In preparing the needed statutory changes required by subsection 1 of this section, representatives of county governing bodies, regional air pollution authorities and rural fire protection districts shall be consulted and invited to participate in the process.

(4) The State Forester or authorized representative shall take the lead role in preparing the needed statutory changes required by subsection 1 of this section. The Director of the Department of Environmental Quality or authorized representative shall assist in preparing the needed statutory changes required by subsection 1 of this section.

Proposed amendment to existing statute, ORS 703.411

The amendment to this statute is recommended because, under current Oregon law, employees of a Forest Protective Association conducting fire investigation activities outside of their home district are committing a crime, unless they are licensed by the Oregon Board of Investigators. This change would treat association employees as state employees are now treated and would help to maintain a complete and coordinated fire protection system. The proposed amendment is:

ORS 703.411

Exceptions.

ORS 703.401 to 703.490, 703.993 and 703.995 do not apply to:

(1) A person employed exclusively by one employer in connection with the affairs of that employer only;

(2) An officer or employee of the United States, or of this state, or a political subdivision of either, while the officer or employee is engaged in the performance of official duties;

(3) A person acting as a private security officer as defined in ORS 181.870;

(4) A person who is employed full-time as a peace officer, as defined in ORS 161.015, who receives compensation for private employment as an investigator, provided that services are performed for no more than one person or one client;

(5) A person that provides secured transportation and protection, from one place or point to another place or point, of money, currency, coins, bullion, securities, bonds, jewelry or other valuables;

(6) A person that places, leases, rents or sells an animal for the purpose of protecting property, or any person that is contracted to train an animal for the purpose of protecting property;

(7) A person engaged in the business of obtaining and furnishing information regarding the financial rating of persons;

(8) An attorney admitted to practice law in this state performing his or her duties as an attorney;

(9) A legal assistant or paralegal engaged in activity for which the person is employed by an attorney admitted to practice law in this state;

(10) Insurers, insurance adjusters and insurance producers licensed in this state and performing duties in connection with insurance transacted by them;

(11) Any secured creditor engaged in the repossession of the creditor's collateral and any lessor engaged in the repossession of leased property in which it claims an interest;

(12) An employee of a cattle association who is engaged in inspection of brands of livestock under the authority granted to that cattle association by the Packers and Stockyards Division of the United States Department of Agriculture;

(13) Common carriers by rail engaged in interstate commerce and regulated by state and federal authorities and transporting commodities essential to the national defense or to the general welfare and safety of the community;

(14) Any news media and the employees thereof when engaged in obtaining information for the purpose of disseminating news to the public;

(15) A legal process service company attempting to serve legal process;

(16) A landlord or an agent of a landlord performing duties in connection with rental property transactions; ~~or~~

(17) An engineer or employee of an engineer while the engineer or employee is performing duties as an engineer or on behalf of an engineer. As used in this subsection, "engineer" has the meaning given that term in ORS 672.002; **or**

(18) A person who is employed by a forest protective association and who has been appointed a fire warden pursuant to ORS 477.355, while the employee is engaged in the performance of duties described in ORS 477.365. As used in this subsection, "forest protective association" has the meaning given that term in ORS 477.001.

Proposed amendment to existing statute, ORS 477.001

The amendment to this statute would add a "fireworks" definition to ORS chapter 477 and is a companion to an amendment proposed for ORS 477.510. The proposed amendment is:

ORS 477.001

Definitions.

As used in this chapter, unless the context otherwise requires:

(1) "Additional fire hazard" means a hazard that has been determined to exist by the forester pursuant to ORS 477.580.

(2) "Board" means the State Board of Forestry.

(3) "Campfire" means any open fire used for cooking, personal warmth, lighting, ceremonial or aesthetic purposes that is hand built and that is not associated with any debris disposal activities.

(4) "Department" means the State Forestry Department.

(5) "District" means a forest protection district organized under ORS 477.225.

(6) "Every reasonable effort" means the use of the reasonably available personnel and equipment under the supervision and control of an owner or operator, which are needed and effective to fight the fire in the judgment of the forester and which can be brought to bear on the fire in a timely fashion.

(7) "Fire season" means a period designated pursuant to ORS 477.505.

(8) "Fireworks" is defined by ORS 480.110.

(9)~~(8)~~ "Fiscal year" means the period beginning on July 1 of any year and ending on June 30 of the next year.

(10)~~(9)~~ "Forestland" means any woodland, brushland, timberland, grazing land or clearing that, during any time of the year, contains enough forest growth, slashing or vegetation to constitute, in the judgment of the forester, a fire hazard, regardless of how the land is zoned or taxed. As used in this subsection, "clearing" means any grassland, improved area, lake, meadow, mechanically or manually cleared area, road, rocky area, stream or other similar forestland opening that is surrounded by or contiguous to forestland and that has been included in areas classified as forestland under ORS 526.305 to 526.370.

(11)~~(10)~~ "Forest patrol assessment" means the costs levied and assessed under ORS 477.270.

(12)~~(11)~~ "Forest protective association" or "association" means an association, group or agency composed of owners of forestlands, organized for the purpose of protecting such forestlands from fire.

(13)~~(12)~~ "Forest resource" means the various types of vegetation normally growing on Oregon's forestland, the associated harvested products and the associated residue, including but not limited to brush, grass, logs, saplings, seedlings, trees and slashing.

(14)~~(13)~~ "Forester" means the State Forester or authorized representative.

(15)~~(14)~~ "Governing body" of a county means the county court or board of county commissioners.

(16)~~(15)~~ "Grazing land" is defined by ORS 477.205.

(17)~~(16)~~ "Open fire" means any outdoor fire that occurs in such a manner that combustion air is not effectively controlled and combustion products are not effectively vented through a stack or chimney.

(18)~~(17)~~ "Operation" means any industrial activity, any development or any improvement on forestland inside or within one-eighth of one mile of a forest protection district, including but not limited to the harvesting of forest tree species, the clearing of land, the use of power-driven machinery and the use of fire, excluding, however, the culture and harvesting of agricultural crops.

(19)~~(18)~~ "Operation area" means the area on which an operation is being conducted and the area on which operation activity may have resulted in the ignition of a fire.

(20)~~(19)~~ "Operation in progress" means that time when workers are on an operation area for the purpose of an operation, including the period of time when fire watches are required to be on the operation area pursuant to ORS 477.665.

(21)~~(20)~~ "Operator" means any person who, either personally or through employees, agents, representatives or contractors, is carrying on or has carried on any operation.

(22)~~(21)~~ "Owner" means an individual, a combination of individuals, a partnership, a corporation, the State of Oregon or a political subdivision thereof, or an association of any nature that holds an ownership interest in land.

(23)~~(22)~~ "Political subdivision" includes, but is not limited to, counties, cities and special districts.

(24)~~(23)~~ "Rangeland" is defined by ORS 477.315.

(25) [~~(24)~~] "Routine road maintenance" is defined by ORS 477.625.

(26) [~~(25)~~] "Side" means any single unit of a logging operation employing power-driven machinery.

(27) [~~(26)~~] "Slashing" means the forest debris or refuse on any forestland resulting from the cutting, killing, pruning, severing or removal of brush, trees or other forest growth.

(28) [~~(27)~~] "State Forester" means the person appointed State Forester pursuant to ORS 526.031 or the person serving in the position on an interim or delegated basis.

(29) [~~(28)~~] "Summit of the Cascade Mountains" is considered to be a line beginning at the intersection of the northern boundary of the State of Oregon and the western boundary of Wasco County; thence southerly along the western boundaries of Wasco, Jefferson, Deschutes and Klamath Counties to the southern boundary of the State of Oregon.

(30) [~~(29)~~] "Timberland" is defined by ORS 477.205.

(31) [~~(30)~~] "Warden" means a fire warden appointed under ORS 477.355.

Proposed amendment to existing statute, ORS 477.365

This amendment would remove the current prohibition on ODF's ability to regulate land clearing burning outside of fire season and would permit the application of the same fire prevention standards currently in place for other types of burning. Fires can and do escape and cause damage outside of fire season. In addition, fires ignited outside of fire season often smolder into fire season and become a problem. The proposed amendment is:

ORS 477.365

Duties and powers of wardens.

(1) Under instructions from the forester as to their exercise of state authority, all wardens shall:

(a) Take proper steps for the prevention and extinguishment of fires within the localities in which they exercise their functions.

(b) Control the use of fire for clearing land [~~during fire season~~], as provided by ORS 477.505 to 477.520.

(c) Make such reports of their work and conditions within their localities as may be requested by the forester.

(d) Have the power of peace officers to make arrests or issue citations pursuant to ORS 477.985 for violation of this chapter or rules or orders adopted pursuant thereto.

(e) Enter upon the lands of any owner only in the discharge of their fire prevention and suppression duties, provided that in so entering they exercise due care to avoid doing damage.

(f) Investigate the causes of fires and may secure a fire origin area, at any time, for the purpose of preserving evidence and conducting an investigation pertinent to this chapter and control, restrict or prohibit access by any unauthorized person so long as is reasonably necessary in the judgment of the warden.

(g) Make a written determination, on a form prescribed by the State Forester, of the personnel and equipment reasonably available to an owner or operator who is required to make every reasonable effort pursuant to ORS 477.120 (5) and revise such determination as frequently as is necessary in the judgment of the warden.

(h) Make a written determination, on a form prescribed by the State Forester, of the use of any power-driven machinery in any operation pursuant to ORS 477.670 and revise such determination as frequently as is necessary in the judgment of the warden.

(2) The forester, or any warden coming under the jurisdiction of the forester, may administer oaths in investigations of violations of this chapter and the preparation of reports thereon.

Proposed amendment to existing statute, ORS 477.510

The proposed amendments to this statute would align the law with current fire prevention practices and would prohibit the use of most fireworks on forestland. Including a fireworks prohibition in this statute will signify the importance of preventing fireworks caused fires and would relieve Districts from having to issue annual Regulated Closures, in order to address this cause. The proposed amendments are:

ORS 477.510

Acts prohibited during fire season.

It is unlawful, during a fire season inside or within one-eighth of one mile of a forest protection district, to:

- (1) Smoke while ~~[working]~~ in ~~[or traveling through]~~ any operation **area unless approval has been granted by the forester.**
- (2) Use fuse and caps for blasting unless approval is granted by the forester.
- (3) Use fireworks unless:**
 - (a) Approval is granted by the forester; or**
 - (b) Pursuant to ORS 480.122 to 480.150.**

Proposed amendment to existing statute, ORS 477.535

The proposed amendments to this statute would accomplish the following:

In subsection (1), align the requirements of the law with other ORS chapter 477 statutes and would make the prevention of fires, via the existing closure system, more practical and effective;

In subsection (2), clarify the commonly held misperception that fire prevention measures set forth in a Regulated Closure do not apply to residents who live within the area subject to the closure. It is a companion to a proposed amendment of ORS 477.535; and

In subsection (3), align the law with current fire prevention practices. The proposed amendments are:

ORS 477.535

Forester may proclaim forestland subject to restricted uses; coordination of state and federal land restrictions.

(1) If the forester determines that any ~~[forestland]~~ **area** inside or within one-eighth of one mile of a forest protection district is particularly exposed to fire danger, by proclamation the forester may designate such ~~[forestland]~~ **area** as an extra fire hazard and may restrict the use ~~[of such forestland]~~ thereof.

(2) The proclamation shall designate the area to which and the period during which the restrictions apply, and require that the area be subject to use only upon the condition that entrants **and residents** comply with all the restrictions for the area.

(3) The proclamation shall designate the type of closure as:

- (a) Regulated closure;
- (b) Permit closure; or
- (c) Absolute closure.

(4) For the purpose of consistency and **to avoid confusion** ~~[coordination between all affected agencies in the administration of forestland restrictions, a plan shall be developed by]~~ the forester **shall work to coordinate the imposition and administration of restrictions with appropriate** ~~[, in cooperation with]~~ federal, state and local governmental agencies, landowners and organizations affected by the restrictions. ~~[The primary objective of the plan is uniformity of regulations regardless of land ownership. The plan must recognize variation in fire danger and must specify levels of closure by unique but easily recognizable geographic boundaries].~~

Proposed amendment to existing statute, ORS 477.540

This statute currently requires that ODF inform the public about a closure by posting signs in conspicuous locations that are in or near the area subject to the closure. Such conspicuous locations are frequently limited to highway rights of way, but the posting of signs in such locations is not permitted under other statutes. This proposed amendment would clarify ODF's authority to post closure signs. Additional proposed amendments would standardize wording used within the statute itself and reflect current fire prevention practices. The proposed amendments are:

ORS 477.540

Notice of proclamation; suspension or termination; reinstatement.

(1) The forester shall cause a notice of the closure proclaimed under ORS 477.535 to be posted in conspicuous locations that are in or near the designated areas. **Notwithstanding the requirements of ORS chapters 366 and 368, such postings may be made and maintained on state highways at such places and of such material and design as the forester determines. Postings shall be promptly removed when no longer required.**

(2) The forester shall cause a notice of [~~each proclamation~~] **the closure proclaimed under ORS 477.535** to be published in at least one newspaper published in each forest protection district containing the designated areas. Each published notice shall describe the area, type, restrictions and effective date of closure, and the manner in which permits may be secured if the area is subject to a permit closure.

[~~(2)~~] **(3) [~~The proclamation~~] A notice of the closure proclaimed under ORS 477.535** shall remain in force until the time designated therein expires or until the forester finds that the restricted use is no longer requisite and by order suspends or terminates it. A reinstatement of a closure after a suspension does not require the notices described in subsection (1) of this section.

Proposed amendment to existing statute, ORS 477.545

This amendment would clarify the commonly held misperception that fire prevention measures set forth in a Regulated Closure do not apply to residents who live within the area subject to the closure. It is a companion to a proposed amendment of ORS 477.535. The proposed amendment is:

ORS 477.545

Restricted uses during closure.

(1) Regulated closures require entrants into **and residents of** designated areas to comply with the requirements set forth in the proclamation under ORS 477.535, which requirements in the judgment of the forester are necessary to prevent danger to life, forest resources or property.

(2) Permit closures make the area subject to entry only through permit issued by the forester. The permit shall contain requirements which in the judgment of the forester are necessary to prevent danger to life, forest resources or property. The forester may, during periods of fire hazard conditions, refuse, suspend, revoke or restrict such permits.

(3) Absolute closures restrict the areas to all forms of use and shall be designated only during periods of extreme fire hazard conditions endangering life, forest resources or property.

Proposed amendment to existing statute, ORS 477.625

Currently, there is substantial confusion about when a Permit To Use Fire Or Operate Power-Driven Machinery expires. Because the permit imposes the landowner and the operation with

a \$300,000 liability, it is important to remove this confusion. The new proposed subsection (3) would require an expiration date for each permit issued. Other amendments would standardize wording used within the statute. The proposed amendments are:

ORS 477.625

Permit to use fire or power-driven machinery; exception; conditions; waiver of permit.

(1) Every person conducting an operation inside or within one-eighth of one mile of a forest protection district that uses fire in any form or power-driven machinery shall first obtain from the forester a written permit, which shall require that the holder of the permit:

(a) Take reasonable precautions that in the judgment of the forester are necessary in the use of fire and power-driven machinery to prevent the spread of fire on or from an operation area.

(b) Designate a representative authorized to act on all matters having to do with fire control, which representatives shall be available at all times by direct means of communication with the forester.

(c) If operating west of the summit of the Cascade Mountains, close down any part or all of the operation during any period of time when notified that, in the judgment of the forester, conditions exist as described in ORS 477.670.

(2) Routine road maintenance is excepted from the requirement to obtain a permit [~~to operate power-driven machinery~~] under this section. As used in this subsection "routine road maintenance" means grading, cleaning ditches, culvert cleaning, spot rocking or mechanical brushing along the roadside to maintain visibility.

(3) At the time of issuance, the forester shall assign a termination date to each permit issued under this section. Permits issued prior to the effective date of this section shall terminate on June 30, 2006.

~~(3)~~ (4) (a) The forester may waive the requirement to obtain a [~~written~~] permit under this section when in the judgment of the forester the operation will not constitute a fire hazard sufficient to justify the requirement.

(b) Waiver of the requirement to obtain a [~~written~~] permit under this section does not relieve the owner and operator of the responsibility for complying with other applicable duties, requirements or penalties of this chapter.

Proposed amendment to existing statute, ORS 477.630

Currently, under this statute, information required to administer the fire prevention requirements of ORS chapter 477 is obtained, but there is no mechanism to ensure its accuracy. Requiring the signature of either the landowner or the operator would allow the inclusion if a statement whereby they certify to the validity of the information. The proposed amendment is:

ORS 477.630

Information in permit.

Currently, under this statute, information required to administer the fire prevention requirements of ORS chapter 477 is obtained, but there is no mechanism to ensure its accuracy. Requiring the signature of either the landowner or the operator would allow the inclusion if a statement whereby they certify to the validity of the information.

(1) Each permit issued under ORS 477.625 shall include:

(a) The legal description of the area upon which any operation is to be conducted, or an alternate description of the area permitted by the forester;

(b) The name and address of the operator and owner; and

(c) Any other information considered by the forester to be necessary for the administration of the rules promulgated under this chapter.

(d) The signature of the landowner or the operator.

(2) The information required in subsection (1) of this section shall be provided by the operator or owner, prior to issuance of the permit by the forester.

Proposed amendment to existing statute, ORS 477.745

This amendment would automatically align the liability set forth in the statute with the liability set forth in a parallel statute, ORS 30.765. The proposed amendment is:

ORS 477.745

Liability of parents for costs of suppressing fire caused by minor child.

(1) In addition to any other remedy provided by law, the parent or parents of an un-emancipated minor child shall be liable for costs incurred by the forester in suppressing fires on forestland caused by such minor child. However, a parent who is not entitled to legal custody of the minor child at the time of the fire shall not be liable for such damages.

(2) The legal obligation of the parent or parents of an un-emancipated minor child to pay damages under this section shall be limited to not more than [~~\$5,000~~] **the amount set forth in ORS 30.765**, payable to the forester for one or more acts.

(3) When an action is brought under this section on parental responsibility for acts of their children, the parents shall be named as defendants therein and, in addition, the minor child shall be named as a defendant. The filing of an answer by the parents shall remove any requirement that a guardian ad litem be required.

(4) Nothing in subsections (1) to (3) of this section applies to:

(a) Foster parents.

(b) Parents who have filed a petition for the un-emancipated minor child under ORS 419B.809.