

Smoke Management Review Committee Report



Southern Oregon Coast Range



Oregon Department of Forestry
Fire Protection Program
Smoke Management Section

April 15, 2014

Table of Contents

I. Executive Summary	2
II. Smoke Management Plan 2012-2013 Review Process.....	6
III. Summary of Recommendations	8
IV. Summary of Unresolved Issues	12
V. Appendices	14
Appendix 1 – Smoke Management Review Issue Detail	14
A. Burn Fees.....	14
B. Polyethylene on Piles	15
C. Class I Area Visibility Protection.....	17
D. Emission Reduction Techniques/Alternatives to Burning.....	22
E. Periodic Review	27
F. Smoke Sensitive Receptor Areas	28
G. Compliance and Enforcement	30
H. Large Tonnage Burn Unit Monitoring.....	32
I. Burn Plan Deadline	33
J. Audit Program	34
K. Special Protection Zones	35
L. Complaint Procedures	41
M. Field Coordinator Position.....	44
N. Marginal Day Burning.....	45
O. Data System Changes.....	46
P. Registrations vs. Notifications	49
Q. Education and Communication.....	50
R. Training	50
S. Burning Outside District Boundaries.....	51
T. Prescribed Fire vs. Wildfire for Resource Benefit Terminology	52
Appendix 2 – Committee Members and Other Attendees	53
Appendix 3 – Committee Charter	55
Appendix 4 - Glossary.....	60
Appendix 5 – Instruction Model Guidance Matrix Example	61
Appendix 6 – Smoke Management Review Matrix	62

I. Executive Summary

This report summarizes the results of a review of the Oregon Smoke Management Plan (OSMP) conducted by Oregon Department of Forestry's (ODF) Smoke Management Review Committee (SMRC). Every five years, ODF consults with the Department of Environmental Quality (DEQ) in a periodic review of the OSMP, to assess its effectiveness and consider improvements. The SMRC consisted of 12 members from diverse backgrounds related to forestland prescribed burning. The current periodic review was conducted from June 2012 through May 2013. In its review, the SMRC concluded that the OSMP has been an effective program in both safeguarding public health and maintaining forest landowners' ability to burn to meet land management objectives. As noted in this report, the SMRC reviewed 20 topics related to updates, changes, clarification and corrections to the OSMP.

The summary and recommendations in this report reflect the involvement of DEQ, in that agency's role, consulting with ODF as a participant in the periodic review process. It should be noted that the SMRC is appointed by and serves in an advisory capacity to ODF only. The recommendations from the SMRC are used by ODF in reporting the results of the OSMP review to the Board of Forestry for possible rulemaking. Both ODF and DEQ relied on these recommendations in developing joint rulemaking – ODF in proposing amendments to the OSMP, and DEQ in proposing revisions to the Oregon State Implementation Plan (SIP) to incorporate these amendments.

Smoke Management Program - History

The OSMP was the nation's first state smoke management program, developed as a voluntary program in 1969. It was incorporated into administrative rule as a regulatory program by the State Forester and the Environmental Quality Commission (EQC) in 1972. Since then the program has gone through six major revisions.

The OSMP initially included mainly forestland west of the Cascades, and established seven Designated Areas (DAs) to protect from prescribed burning smoke. In 1977 forest and agriculture burning were increasingly coordinated so that forestry burning was restricted in the northern part of the state during the summer when field burning increased in the Willamette Valley.

Program reviews during the late 1970s through the 1980s added a more intensive effort to manage burning restrictions through: (1) forecasting in smaller geographic areas (fire weather zones), (2) improved smoke intrusion reporting, (3) public meetings to explain program operations, (4) adding new DAs, (5) a more comprehensive data collection effort of fuel and weather information, (6) developing emission limits based on national requirements, (7) initiating an audit program for verifying fuel loadings and burn tonnages, (8) and the start of the summer Visibility Protection Plan for Class I Areas.

House Bill 3475 passage in 1989 enhanced efforts to protect air quality and sustain forestry through consistency with federal Clean Air Act (CAA) goals. It also created a five-member committee that advises the Oregon Department of Forestry (ODF) on forest prescribed burning operations. It also established a more robust smoke management program that added a program manager, fuels specialist and administrative clerk.

Program reviews and improvements during the 1990s included: (1) establishing Special Protection Zones (SPZs) for particulate matter non-attainment areas; (2) establishing a fee-based program for prescribed burning; (3) expanding services to include forecasting, instructions and advisories for south-central Oregon and northeast Oregon; (4) and taking over services from DEQ to include Willamette Valley open burning and providing forecasting assistance for woodstove control programs in Klamath Falls and Lakeview.

In 2002-2005 a comprehensive program review resulted in a more future oriented focus. Program emphasis changed course from where the burn starts to who is impacted. Thus the term “Smoke Sensitive Receptor Areas” (SSRAs) were established to replace DAs. Protected areas increased substantially from 11 to 23, mostly encompassing larger communities east of the Cascades. The fee structure was modified for registering and accomplishing units that included: payments from Federal landowners statewide, minimum fees, and an updated definition and payment for landing piles. Greater focus was placed on increased wood utilization, as well as alternatives to burning and emission reduction techniques. Landowners were given greater responsibility to prevent intrusions into SSRAs.

As Smoke Management moves into the future it continues to utilize new technologies in web-based forecasting products, plume models, and newly acquired Sonic Detection and Ranging (SODAR) equipment to monitor transport wind in additional locations. New areas to focus on will include protecting Class I Areas year round, tracking burn alternatives and emission reduction techniques, and developing an improved smoke data system. The goal of which is to continue to provide for essential forestland burning while minimizing smoke intrusions and emissions.

Review Process

This current review looked at 20 subject areas analyzed through a matrix consisting of an:

- Issue Statement
- Issue Description
- Discussion (*Is there a problem? What are the pros and cons?*)
- Potential Solutions
- Recommendations
- Level of Support

Members of the SMRC were asked to seek consensus on recommendations, when possible, and clearly articulate the range of views when consensus was not possible.

Members of the SMRC (see Appendix 2) were selected based on their knowledge of smoke management issues and a broad range of interests including: industrial and small woodland owners, state districts and forest protective associations, air regulator and environmental interests, biomass and public representatives, federal and tribal agencies.

Recommendations

Of the 20 subject areas proposed for discussion, nine areas received some change to the existing rule, directive, or policy of the program; five areas were addressed but no change was made; and six areas were left unresolved (deemed to be sufficient and not a problem at this time) and left to either the statutorily appointed Smoke Management Advisory Committee (SMAC) or the agency to address. Following is a list of the proposals that received change and their recommendations:

Class I Area visibility protection (OAR 629-048-0130):

- Rule change to remove the summer protection period language to coincide with the Regional Haze Rule (RHR) removing partial year coverage.
- Directive change to list measures to prevent main plume impacts into Class I Areas.
- Implementation plans to (1) update the Smoke Management brochure to avoid main plume impacts. (2) Inform Forest Practices Regional Advisory Committees and affected districts and forests to protect against main plume impacts. (3) Develop a checklist of forecasting and burn procedures to mitigate smoke impacts into Class I Areas.

Emission reduction techniques (ERT)/alternatives to burning (OAR 629-048-0200 and 0210):

- A rule change with minor wording changes and identification of new reference materials for land managers.
- Develop a workgroup to look at long- and short-term ERT improvements based on data needs.
- Analyze existing ODF ERT data.
- Collect ERT and alternative to burning data from landowners and land managers through an annual voluntary survey of land management activities.
- Development of a base line list to identify most well used and effective ERTs.
- Report available ERT and alternative data in the Smoke Management Annual Report.

Periodic review (OAR 629-048-0450): A rule change to review the Oregon SMP (statutes, rule and directive) at least every five years unless there's agreement between the State Forester and the Director of Environmental Quality to review at an earlier or later date not to exceed 10 years.

Compliance and enforcement (OAR 629-048-0500): Add a reference; OAR 629-670, that details enforcement formulas for any violation of forest practices.

Large tonnage burn monitoring (OAR 629-048-0230): Add “monitoring” of large units that exceed 2,000 tons of burnable material.

Burn plan deadline (OAR 629-048-0230): Update administrative rule and directive to change submission deadline from 5 p.m. the day before the burn to 10 a.m. the day of the burn with a possible extension if additional burning is deemed possible.

Special Protection Zones (SPZs) – (Directive 1-4-1-601 Appendix 5):

- Clean up SPZ language in directive to make more readable.
- Remove the SPZ around La Grande.
- Create a topographical SPZ boundary for the Medford area.

Complaint procedures (Directive 1-4-1-601(J)):

- Clean up directive language to make more readable.
- Change directive language to provide follow up to complainants if they request it.
- Add a check box to the complaint form for “investigation follow-up requested.”

Data system changes (OAR 629-048-0310):

- Rule change to include a separate fee for each additional burn treatment registered.
- Make a number of minor changes to the data system entry form and to the invoice form.
- Develop an updated system through a module off the newly developing Forest Activity Electronic Reporting and Notification System (FERNS) program.

II. Smoke Management Plan 2012-2013 Review Process

For the purpose of maintaining air quality, the State Forester and Director of Environmental Quality jointly approve the OSMP. The OSMP is reviewed approximately every five years by ODF in coordination with DEQ and in cooperation with agencies and landowners affected by the plan. The plan is administered by ODF for managing prescribed burning on state, private, federal, and other public lands. The program continues to be very successful for protecting air quality, while maintaining forest health and landowners' ability to meet land management objectives.

The review of the OSMP was undertaken because a periodic review is required, and it has been over five years since the last formal review. A previous thorough review was completed in 2007 that dealt with changing forest management practices, expanding areas to protect, new terminology, new land manager responsibilities, field operation changes, utilization, markets for material and a new fee structure for how the program is funded.

This review was relatively minor compared to the last review and its purpose was to:

- Update and/or clarify new policy changes made since the last review;
- Address any new priorities or processes that have occurred since the last review; and
- If needed, remove elements of the OSMP that have shown little value or are redundant to create efficiencies. The goal was to meet once every one to two months and complete the review work within one year.

For this review additional members from diverse backgrounds and knowledge of prescribed burning were added (See appendix 2) to the SMAC established in ORS 477.556. This new committee, the SMRC, provided in-depth discussion about, and recommendations for, the issues listed below. Staff support came from ODF and DEQ, since both agencies are required to jointly approve the OSMP. In addition a facilitator was chosen to keep the committee focused on each meeting's agenda items and meet the agreed to one-year review schedule.

Smoke management issues came from private, federal, and state landowners and districts, DEQ, and committee members. The list of issues included:

- A. Burn fees
- B. Polyethylene covers on piles
- C. Class I Area visibility
- D. Emission reduction techniques/alternatives to burning
- E. Periodic review scheduling
- F. Smoke Sensitive Receptor Areas
- G. Compliance and enforcement
- H. Large tonnage burn monitoring
- I. Burn plan deadline

- J. Audit program
- K. Special Protection Zones
- L. Complaint procedures
- M. Field Coordinator position
- N. Marginal day burning
- O. Data system changes
- P. Registration vs. Notification timeline
- Q. Education and communication
- R. Training
- S. Burning outside district boundaries
- T. Prescribed fire vs. wildfire for multiple resource objectives terminology

The above issues were placed into an issue matrix in order to arrive at a well thought out solution. The matrix consisted of:

1. Issue statement
2. Issue description
3. Discussion (*Is there a problem? What are the pros and cons?*)
4. Potential solutions
5. Recommendations
6. Level of committee support

The level of support for each issue was decided by voting on each recommendation and consisted of “consensus” (unanimous support), “strong agreement” (at least nine of the twelve members supported), “majority agreement” (seven or eight members supported), or “no agreement” (six or fewer supported).

At times ODF and DEQ staff and upper level management met to ensure committee recommendations were within each agency’s statutory authorities and current leadership constraints.

III. Summary of Recommendations

Burn Fees: Are current and projected burn fees adequate to support the OSMP program needs?

Recommendation: No need for fee changes related to biomass at this time.

Polyethylene (PE) on piles: Consider allowing greater size and thickness of PE on piles when necessary.

Recommendations:

- Keep the rule and exception process the same.
- Ensure burn managers and districts are aware of the existing waiver opportunity.
- Investigate the ability to do a field study in the future. A workgroup has been formed to develop a study design to present to an interested research team.

Class I Area visibility protection: Class I Areas may need more protection.

Recommendations:

- Administrative rule change to remove summer protection language to coincide with RHR revisions and encourage avoiding main smoke plume impact into Class I Areas.
- Directive change to list ways to prevent main plume impacts into Class I Areas, especially focusing on Crater Lake National Park and the Kalmiopsis Wilderness Area.
- Update the Smoke Management brochure to include avoiding main plume impacts into Class I Areas.
- Inform the Forest Practices Regional Advisory Committees at annual meetings on the importance of avoiding main plume impact into Class I Areas.
- Inform affected district and forest leadership of avoiding main plume impact into Class I Areas.
- Develop a checklist of forecasting and burn procedures for burning near Class I Areas to mitigate main plume impacts.

Emission reduction techniques (ERTs)/alternatives to burning: Define and develop tracking system for reporting ERT and alternative use.

Recommendations:

- Administrative rule change with minor wording changes and identification of new reference materials for land managers.
- Form a workgroup to look at long- and short-term ERT improvements based on data needs.
- Analyze existing ODF ERT data.

- Collect ERT and alternative to burning data from landowners and land managers through an annual voluntary survey of land management activities.
- Develop a base line list to identify effective ERTs.
- Report available ERT and alternative data in the Smoke Management Annual Report.

Periodic Review: Clarify administrative rule and directive timeline.

Recommendation: Change OAR 629-048-0450(5):

(5) The Department of Forestry and the Department of Environmental Quality will jointly review the Smoke Management Plan (ORS 477.013, 477.515-.562, OAR 629-048, Directive 1-4-1-601) every five years unless there is agreement by both agencies that the Plan can be reviewed at an earlier or later date, not to exceed 10 years from the previous review. Results of the review will be presented to the State Forester and the Director of Environmental Quality for joint consideration and approval. Representatives of affected agencies may assist the review at the discretion of the State Forester.

Compliance and enforcement: Make clearer

Recommendation: Add a reference; OAR 629-670, that details enforcement formulas for any violation of forest practices.

Large tonnage burn monitoring: Add “monitoring” of smoke from large tonnage burns.

Recommendation: Change OAR 629-048-0230(3):

Prescribed burn operations with large tonnages (2,000 tons or more) or burns that will occur over multiple days should be adequately planned and monitored to provide opportunities to cease lighting and hold the existing burn within smaller compartments to mitigate undesirable smoke effects or changes in the actual burn conditions from those that were forecasted.

Burn plan deadline: Move back deadline to submit plans.

Recommendation: Change OAR 629-048-0230(4):

For prescription burn units on forestland subject to level 1 regulation, burn bosses must provide specific information to be transmitted to the Smoke Management forecast unit in a standard format acceptable to the forester, regarding unit location, method of burning, and fuel loading tonnages by 5:00 p.m. 10 a.m. on the day before of the burn. If additional burning is deemed possible after 10 a.m. in consultation with the forecast unit, the plan may be extended.

Change Directive 1-4-1-601(D1):

In areas of level 1 regulation, units must be registered for burning seven days prior to burning (OAR 629-048-0300), planned in the data system the afternoon before day of the proposed burn (OAR 629-048-0234(4)), and accomplishments reported the first business

day following the actual burn (OAR 629-048-0320) and each additional day that burning is conducted in the unit.

Audit program: Continue, improve or end program.

Recommendation: Audit program will remain the same with improved support from stakeholders and districts.

Special Protection Zones: Remove or alter existing SPZs.

Recommendations:

- Clean up SPZ language in directive to make more readable.
- Remove the SPZ around La Grande.
- Create a topographical SPZ boundary around the Medford area.

Complaint procedures: Clarify language and reduce burden on districts.

Recommendations:

- Clean up directive language to make more readable.
- Change directive language to provide follow-up to complainants if they request it.
- Add a check box to complaint form for “investigation follow-up requested”.

Field Coordinator position: Hire part-time, full-time, or not at all.

Recommendation: Do not fill the position.

Marginal day burning: Need more clarity or guidance on managing burning on poor or marginal days.

Recommendation: ODF staff provided information to SMRC how forecasts and instructions are developed for all burning situations which addressed the concern of how the department provides guidance on managing burning on poor or marginal days (See Appendix 5).

Data system changes: Need to make short-term and long-term changes to current system.

Recommendations:

Short-term changes included changing OAR 629-048-0300(3b):

- If subsequent to burning only landing acres or right-of-way piles, the first time fire is applied to any other portion of a registered unit (typically broadcast or in-unit pile burning), an additional burn fee of \$2.60 per acre [for each additional treatment registered](#) shall be required.

- In the invoice reports under the heading of “Acres,” change the acres recorded from “unit acres” to the number of acres for which fees are assessed by specific treatment.
- Within the “registration” section, change the “Fuel Loading” heading to read “Treatment Summary.”
- Change the “Other Acres/Pile Tons” to “Pile Acres/Tons.”
- Insert a new field and textbox labeled “Broadcast Acres.”
- Reprogram the system to allow for the ability to charge separately for landing acres, pile acres and broadcast acres burned.
- Long-term change will include developing an updated data system through a module off the Private Forests’ FERNS system.

IV. Summary of Unresolved Issues

Smoke Sensitive Receptor Areas (SSRAs):

Issue Description: Simplify process to designate new SSRAs.

Recommendation: A number of potential solutions were suggested but eventually the SMRC voted to dismiss this topic and let the SMAC discuss it at length if they wanted to.

Registrations vs. Notifications:

Issue Description: Timelines for registrations vs. notifications don't match between Smoke Management and Private Forests.

Recommendation: Tabled - to be sent on to SMAC for consideration.

Education and communication:

Issue Description: Are there more opportunities for educating and communicating the Smoke Management program to the public and interested stakeholders?

Recommendation: Tabled - to be sent on to SMAC for consideration.

Training:

Issue Description: Is training needed to bring consistency to rating fuel loading on the ground for prescribed burning?

Recommendation: Tabled - to be sent on to SMAC for consideration.

Burning outside district boundaries:

Issue Description: Need regulation of burning outside of ODF's district boundaries.

Recommendation: Taken out of SMRC Review and to be resolved between ODF and DEQ.

Prescribed fire vs. wildfire for resource benefit terminology:

Issue Description: How do we define between prescribed fires vs. wildfire for resource benefit when the meaning has different implications for participating agencies?

Recommendation: Tabled - to be sent on to SMAC for consideration.

This concludes the main body of the report including: the executive summary, the review process, summary of recommendations, and summary of unresolved issues. Appendix 1 provides a more extensive review of each issue giving insight into how final recommendations were determined. The other appendices provide information on the SMRC members, the committee charter, and a web link to an issue matrix which provides even more detail to the discussion of the issues from each meeting.

V. Appendices

Appendix 1 - Smoke Management Review Issue Detail

A. Burn Fees (OAR 629-048-0310)

Issue Description: Are current and projected burn fees adequate to support the OSMP program needs?

Changes in biomass usage and federal fuels treatment/restoration acres over the next few years could impact revenue coming into the program. It is unclear whether biomass utilization will increase in the future or stay nearly the same as today.

- A consistent method of accounting for biomass utilization relative to fees is needed.
- Need a consistent definition of biomass.
- There are still some lingering issues with multiple burn types and fee assessment (See “Data System Changes” issue).
- Burn fees must be sufficient to meet program operational needs.

Discussion (*Is it a problem? What are the pros and cons?*)

- Two topics: Data tracking and biomass incentives.
- Biomass Utilization Representative gave a presentation on the current and near-term future of biomass utilization in Oregon.
 - Analysis shows it’s unlikely that rates of forest residue utilization will increase in the near term and cause a subsequent decrease in revenue to the Oregon SMP.
 - Biomass utilization may vary by many variables including depending on market conditions and location to markets.
 - Consider change to data system to record alternatives to burning.
 - Registration and burn fee program should have flexibility regarding tracking biomass volumes utilized - may provide incentives for utilization vs. burning.

Potential Solutions

- No need for fee changes related to biomass utilization at this time.

Recommendations

- No program fee changes related to biomass are necessary. Refer to SMAC for further review and consideration.

Level of Support (*See Decision Protocol*)

Consensus support

B. Polyethylene (PE) on piles (OAR 629-048-0210)

Issue Description: Consider allowing greater size and thickness of PE on piles.

The use of PE on piles under current rules for some stakeholders is too restrictive depending on site conditions, especially for federal landowners to effectively meet ERT goals on a site specific basis. The current rule prohibits greater than 4 mil thickness and greater than 10X10 ft sections (100 sq ft) of PE. However, multiple covers exceeding 100 sq ft are allowed if given written approval by the forester. There is a need to use larger, thicker pieces of PE for effective burning when there are factors such as elevation, aspect, proximity to SSRA, size of pile and geographic location. There is benefit to reducing emissions from drier piles of woody material covered by the appropriate amount of PE.

Discussion (*Is it a problem? What are the pros and cons?*)

Two studies have determined there is a benefit to emission reduction by using PE on piles to create a sufficient size dry spot for rapid ignition, complete combustion and reduced smoke generating duration time. During the last OSMP review it was agreed that a piece of PE 4 mil in thickness and no larger than 10X10 ft sheet could be used. A written waiver could be obtained from the district forester to allow multiple layers of 10x10 ft sheets on larger piles. For some in the United States Forest Service (USFS), this was not sufficient because of shredding in high wind leaving no dry area even after the additional investment to minimize emissions. A dry pile burns cleaner whereas wet piles result in incomplete combustion and additional emissions. The request is for optional use of thicker PE and larger size sheets than 10x10 ft where necessary with a waiver process. It was also noted that if piles were covered sufficiently that if biomass utilization options presented themselves there was a better chance for utilization rather than burning.

- DEQ has concerns about changing the rule at this time.
- In addition to the USFS, private landowners are also not satisfied with the administrative rule. A larger piece of PE would give more flexibility, especially when burning near an SSRA. Also, if piles are drier, it allows more flexibility using alternatives such as biomass.
- Landowners only use PE when it helps meet silvicultural goals and air quality objectives. Cost of adding PE is a limiting factor that can control how much is used.
- PE is the best because it produces the least amount of toxins compared to historical alternatives.

- The minimum 4 mil, 10x10 ft sheet has been allowed for five years under the new administrative rule and may now need adjusting to improve combustion and overall burning.
- The goal is a larger, drier spot to preheat wet areas and result in more complete combustion and thus reduced emissions.
- Leave the discretion to the forester to determine the minimum size of PE needed to achieve complete combustion of the fuel and ERT goals.
- A subcommittee was developed to gather further information from landowners and develop a list of changes to the existing administrative rule and a proposed new standard with rationale for the changes. Below is a summary of comments gathered by the subcommittee.
 - Input from federal agencies as well as industrial burners revealed that most wanted more conditional flexibility in the use of PE on piles. Most want the option to choose the appropriate size of PE, preferring coverage of up to 60 percent of the pile when necessary.
 - With the diversity of pile sizes and shapes, the need for flexibility to meet the burning objective is important thus the size of the pile should dictate the size of PE.
 - Some burners would not be interested in thicker PE but may be interested in a larger size sheet of PE.
 - Federal agencies pointed out that for preparing National Environmental Policy Act (NEPA) documents, a 2003 PE study evaluated 10X10 ft PE covers at 4 mil thicknesses. If the administrative rule were changed to allow larger or thicker covers, federal agencies would not be able to utilize without new NEPA and supporting documentation
- ODF and DEQ met to discuss the PE issue. DEQ was not in favor of allowing greater thickness or greater size of PE unless it could be demonstrated through a study that greater amounts of PE would not have an adverse effect on air quality.
- ODF agreed to drop the increased thickness and size of PE proposal and informed the SMRC. ODF pointed out the existing rule provides an exception process to allow for multiple covers of 10X10 ft sheets of PE with the approval of the forester. Education was needed to inform landowners and districts of the waiver process.
- In addition, the committee agreed to have the Bureau of Land Management (BLM) representative and ODF investigate the possibility of getting information from those who could do a study or have them present information at the next committee meeting.
 - Contact was made with Brian Gullet, an EPA research scientist. He estimated an independent PE study for ODF would be about \$85,000.

- Other options presented by the SMRC included checking with the USFS lab in Missoula to determine if they could handle testing large burns indoors. Also, the Joint Fire Science Program (JFSP) was another possible candidate for a study or a funding source.
- The SMRC determined that a workgroup be developed to make a study design and present it to interested research teams to determine who could perform this study and how funding could be appropriated.

Potential Solutions

- Subcommittee recommended to increase the greatest allowable thickness of PE in the rule from 4 mil to not to exceed 6 mil as necessary.
- Increase the maximum size of PE allowed covering a pile from 100 sq ft to not exceeding 400 sq ft per pile without approval.
- Continue to require a written waiver to use more than 100 sq ft of PE per pile. The subcommittee believes the need for this type of waiver will be rare, but it provides a control measure that will help prevent someone from using an excessive amount of PE to cover a pile.
- Continue to explore and evaluate current data on the emissions/effects of PE used on fuel reduction piles. If needed, establish partnerships to evaluate how the research could be conducted and how much it would cost. Until then rely on the research available to date.
- Leave the rule and exception process as is until a field study has been completed.

Recommendations

- Leave the rule and exception process as is.
- Ensure burn managers and districts are aware of existing waiver opportunity.
- Investigate the feasibility of conducting a field study in the future. A workgroup has been formed to develop a study design to present to an interested research team.

Level of Support (*See Decision Protocol*)

Consensus support

C. Class I Area visibility protection (OAR 629-048-0130):

Issue Description: Class I Areas may need more protection.

Regional Haze Rule seeks to improve the 20 percent worst days of visibility in Class I Areas year round, not just the summer protection period. As such, there may be a need for greater restrictions to burning near Class I Areas. States must submit plans showing

how Class I Areas will be protected and progress to improve visibility. They have been unable to show progress mostly due to wildfires.

Discussion (*Is it a problem? What are the pros and cons?*)

Visibility objectives were adopted in 2007. Additionally, there is a year-round, voluntary effort to keep smoke plumes from causing ground level smoke impacts within Class I Areas. DEQ made a commitment in the Regional Haze Plan (RHP) to evaluate in 2013 the impact of prescribed burning in Class I Areas. Findings and recommendations from the study were presented to the committee.

Background on Regional Haze –

- Class I Areas were identified by Congress in 1977 – any national park and any wilderness over 5,000 acres. No additional Class I Areas have been identified since 1977. There are a total of 12 Class I Areas in Oregon.
- The RHR was adopted in 1999.
- In 2018 states are supposed to do a comprehensive review of their entire plan. There may be substantial changes to the RHR.
- For the next 60 years the RHP goal is to reduce haze from the largest contributing and controllable sources.
- The five major pollutants causing haze include sulfates, nitrates, organic carbon and elemental carbon. Organic and elemental carbon is found in wood smoke.
- Why evaluate emissions from prescribed burning? They are a significant emission source and contributor to regional haze. The committee expressed concerns about the RHR not addressing wildfire and its impacts.
 - Often occur close to Class I Areas.
 - IMPROVE monitoring data indicate they are a significant contributor to the 20 percent worst days.
 - It's possible smoke management protection efforts could improve 20 percent worst days (relating to prescribed burning) and provide significant visibility benefits.
 - It's a commitment in the Oregon DEQ's RHP.
- Looking at IMPROVE monitor data, organic and elemental carbon comprise about 50 percent of the pollutants, which is significant.
- IMPROVE monitors do not sample every day, but rather every third day.
- IMPROVE data are a 24-hour average – no real-time data.
- Transport winds vary in time and elevation. This makes for a complex evaluation of all potential sources.
- Conclusions - The primary benefit was to provide a snapshot of Class I Areas most prone to prescribed burn impacts.

- Two of nine Class I Areas studied had 50 percent of the impacts – Crater Lake National Park and the Kalmiopsis Wilderness Area.
- Results suggest these areas would benefit from additional smoke management protection or precautions.
- There was concern that wildfire is not included in the worst 20 percent days. There could be a scenario with impacts from prescribed burning being reduced, yet wildfire smoke impacts increased. After five years in the future there is no change in the 20 percent worst days, but wildfire is the greater factor in what contributes to the worst 20 percent days, while impacts from prescribed burning have declined. What would that mean to future rulemaking as far as prescribed fire, with ODF doing its part to reduce impacts while wildfire impacts continue to increase?
 - The focus of the RHR is on making “reasonable” progress in what is controllable.

Leadership from DEQ and ODF had met regarding implementation of the RHP and protecting visibility in Class I Areas during the 20 percent worst visibility days. Three areas were identified.

- Education – How do we make sure we are protecting Class I Areas within the scope and impacts of prescribed fire?
- Operational Guidance – How to best protect Class I Areas - better forecasts, checklists, etc? What can be done internally?
- Outreach – to districts and burn bosses. Work with districts and landowners, monitoring, showing continual improvement.

DEQ explained the idea was to see what Smoke Management could do to minimize effects on the 20 percent worst days. Using test fires, waiting until later in the day to burn, and providing criteria to help minimize the effects of the burn would all be considered. By 2018 all states will have to review the RHR and may have to look at prescribed burning. DEQ questioned whether reaching “natural conditions” in 60 years is an achievable goal and added that fire (wildfire) and its role are not considered in the RHR.

Through meeting and email correspondence, ODF and DEQ agreed on suggested administrative rule changes and other implementation plan recommendations and presented them to the committee for approval. The following display the variety of member comments:

- The language “are encouraged” as it relates to monitoring to avoid a main plume impact into the Class I Area in OAR 629-048-0130(3) was construed as “too soft.”

The concern was that burn bosses and field administrators may interpret it as giving them a choice.

- The language “are encouraged” came directly from OAR 629-048-0130(5) of the existing rule. They are considered “voluntary” provisions.
- There was also concern about secondary impacts, not just the main plume. The rule language should be more general and not just focus on the main plume but all smoke from prescribed burning.
- Two issues were identified:
 - Moving the language from OAR 629-048-0130(5) into the OAR 629-048-0130(3), keeping in mind that (5) was added from the last periodic review.
 - Are the words “are encouraged” the appropriate words for the administrative rule?
- It was pointed out the Class I Area changes are not just what it says in the administrative rule but includes:
 - An administrative rule change
 - A directive update
 - Outreach and awareness to districts, associations and landowners – implementation plan
 - Education – implementation plan
 - A checklist to screen burns that could have the potential to impact Class I Areas – implementation plan.
- Conceptually, this would be the pathway used to contribute to reducing the 20 percent worst visibility days from the impacts of prescribed burning.

Potential Solutions

- See recommendations

Recommendations

- Recommendations will include an administrative rule change to remove summer protection language, a directive change to prevent main plume impacts into Class I Areas, especially Crater Lake National Park and Kalmiopsis Wilderness Area, and four recommendations that are part of the implementation plan.
 - These include:
 - (1) Updating the Smoke Management brochure to include guidance on avoiding main plume impacts into Class I Areas,
 - (2) Informing the Forest Practices Regional Advisory Committees at annual meetings on the importance of avoiding main plume impact into Class I Areas,

- (3) Informing affected district and National Forest leadership of avoiding main plume impact into Class I Areas, and
- (4) Developing a checklist for forecasting and burn procedures for burning near Class I Areas to mitigate main plume impacts.

Change OAR 629-048-0130(3):

When prescribed burning is conducted outside any Class I Area ~~during the visibility protection period (July 1 to September 15)~~, an objective of the SMP is to minimize any smoke that impairs visibility inside the Class I Area. In addition to compliance with smoke management instructions issued in the daily forecast and compliance with all conditions of the burn permit required under ORS 477.515, burn bosses and field administrators are encouraged to closely observe local conditions at the burn site to avoid the main smoke plume entering a Class I Area at ground level.

(4) When prescribed burning is conducted inside a Class I Area, the Smoke Management Plan objective is to use best practices along with tight parameters for burn site conditions that will vent the main smoke plume up and out of the Class I Area and minimize residual smoke.

~~(5) When prescribed burning is conducted outside the visibility protection period in proximity to, but outside and upwind of Class I Areas, in addition to compliance with smoke management instructions issued in the daily forecast and compliance with all conditions of the burn permit required under ORS 477.515, burn bosses and field administrators are encouraged to closely observe local conditions at the burn site to avoid the main smoke plume entering a Class I Area at ground level.~~

~~(65) The Class I Areas in Oregon areinclude Crater Lake National Park, Diamond Peak Wilderness, Eagle Cap Wilderness, Gearhart Mountain Wilderness, Hells Canyon Wilderness, Kalmiopsis Wilderness, Mountain Lakes Wilderness, Mount Hood Wilderness, Mount Jefferson Wilderness, Mount Washington Wilderness, Strawberry Mountain Wilderness and Three Sisters Wilderness.~~

Change Directive 1-4-1-601(I):

Smoke Impacts: There are two types of smoke impacts:

- (1) Intrusions of smoke into Smoke Sensitive Receptor Areas (SSRA) and
- (2) Smoke incidents where significant smoke enters a Class I Area or other sensitive/populated areas.

For two Class I Areas, extra effort (use of test fires or balloon releases to check wind direction or coordinating with the duty forecaster) is ~~required~~ needed to keep smoke from the main plume of a prescribed burn from impacting the Kalmiopsis

Wilderness Area and Crater Lake National Park during October and November. If a complaint is received, or district personnel otherwise become aware of an intrusion or smoke incident, the District Forester shall assign a qualified individual to conduct an investigation and document the findings.

Change Directive 1-4-1-601(I3a):

Smoke entering a Class I Area ~~during the visibility protection period~~ shall be evaluated as a smoke incident. The method for evaluating these impacts is the same as for intrusions and is documented in a similar fashion.

Level of Support (See Decision Protocol)

Ten in agreement, one opposed

D. Emission reductions techniques/alternatives to burning (OAR 629-048-0200 and 0210)

Issue Description: Define and develop tracking system.

Is there a need to define what's considered an alternative and do we need a system to track alternatives? Current rule only gives a general overview of what an alternative practice is, and the directive encourages reporting alternative use but does not specifically require tracking. It is related to the Regional Haze Rule and other states' programs. It could include what is not being burned (i.e. biomass utilization) and the use of PE.

Discussion (Is it a problem? What are the pros and cons?)

DEQ sees a benefit for tracking the use of alternatives to burning and ERTs under the current smoke management program. Tracking is one of the key elements in the federal RHR and Enhanced Smoke Management Program (ESMP) of which Oregon is currently considered. Elements 1 and 3 of the ESMP require taking actions to minimize emissions and using alternatives to burning.

- Tracking of alternatives and ERTs shows a method for quantifying these practices and measure of their use over time.
- Federal agencies already have a tracking process. It's a National Environmental Policy Act (NEPA) requirement.

A subcommittee was charged with exploring a potential alternative tracking system to use and monitor alternatives to burning and ERTs.

- The subcommittee essentially questioned:
 - Is information is already collected in the ODF system?

- There's an undue impact on landowners – Is there additional work potential with undefined benefits?
- Would market and biomass utilization tracking be better done through staff resources in partnership with Resource Planning or locations receiving biomass material?
- The subcommittee determined the subject needed to be turned over to the SMRC to answer the following questions:
 - Lack of defined benefits raises the question: Is it worth it? Do we need the additional information? The subcommittee fully supports the idea of having additional information but questions the method of gathering it and whether other sources have been fully examined that could satisfy the need.
 - In addition, how would the information be used? Would the information be purely a benefit for DEQ or would the information somehow benefit the landowner as well?
- The subcommittee provided a crosswalk of new clear definitions of ERTs and alternatives with existing definitions in smoke management. Alternatives do not mean the same as ERTs.
 - Alternatives clearly are not burned.
 - ERT's are methods by which burned material emits less emissions
- DEQ provided an overview to the SMRC of how the ESMP is integrated with the RHR:
 - The ESMP goes back to the origin of the RHR, which came out of the 1977 Clean Air Act Amendments from Congress. Its goal is to prevent any future visibility impairment and remedy any existing impairments in Class I Areas.
 - Nine elements make up the ESMP. These nine criteria are specifically required in two parts of Section 309 of the RHR. The RHR came out in 1999 and all states were required to implement it. The Western Regional Air Partnership (WRAP) was tasked with developing guidance documents on how states could implement the RHR. WRAP came out with a guidance document in 2002 that provided more specificity on what goes into an ESMP.
 - As a result, in 2010 DEQ took the elements of the ESMP from the WRAP guidance and included them in the RHP. Language in the RHP states that the Oregon SMP mostly meets those nine criteria, except in three areas:
 - First, actions to minimize emissions. While this is currently being done, there is no formal tracking of emission reduction techniques.

- Second, evaluation of smoke dispersion. While this is being done voluntarily for Class I Areas to avoid major smoke impacts, it is not required.
 - Third, alternatives to burning. Again, while some use of alternatives does occur, there is no formal tracking to verify it.
 - The nine elements of the ESMP are in the ODF Administrative Rule (OAR 629-048-0130) which was adopted in 2007 and came out of the last review. The ESMP's purpose is to protect Class I Areas. The SMRC needs to discuss the tracking of alternatives and ERTs. All the other elements have already been met.
- It was noted that subparagraph (3) of OAR 629-048-0130 no longer is in alignment with EPA requirements. The rule specifically deals with the summer protection period of July 1 through September 15. That differs from the EPA requirement which now requires year-round protection. Result will be consistent language.
 - It was put in the rules in 2007 and DEQ did not adopt the RHP until 2010. The original visibility plan was adopted in 1986, and had a summertime-only focus of July 1 – September 15, which is what (3), reflects. This can now be removed from the rule.
- The nine elements are currently addressed in rule. How it's implemented is the question.
 - What does an ESMP do for the landowner?
 - There has been an ongoing emphasis on promoting alternatives, which encourages emission reductions in the process. It's good for public relations to be able to show that not all forest residues are being burned.
- There is information in the Smoke Management data system that can be captured. Data from landowners are also needed. They need to be tracked and displayed in the annual report. Following is a discussion list of potential ways to track alternatives and ERTs:
 - What gets registered annually and what gets accomplished? The difference is potentially alternatives use.
 - Need to determine what's available, what do we need to collect, what is collectable, etc. and how do we display it?
 - In a web-based system the reason for not burning could be tracked – landowner would be able to enter it if required.
 - Biomass tracking/utilization would be valuable to collect for both the biomass group and Smoke Management.
 - How does ODF collect biomass data? Are there parts of that data we could use?
 - Federal agencies don't have an option to do biomass unless it's addressed in the NEPA. Generally, when they register a unit, the intention is to burn it.

- A survey of alternative treatments could be done by the districts.

Six recommendations came from a meeting between ODF and DEQ. They include:

1. A potential rule change with minor wording modifications and identification of new reference materials for land managers.
 2. Form a workgroup to look at long- and short-term ERT improvements based on data needs.
 3. Analyze existing ERT data as part of the implementation plan.
 4. Collect ERT and alternative to burning data from landowners and land managers through an annual survey of land management activities – part of the implementation plan.
 5. Develop a base line list to identify ERTs – implementation plan.
 6. Report available ERT and alternative data in the Smoke Management annual report – in existing administrative rule.
- The workgroup would be put together after the work of the SMRC is completed. Its work would be presented to the SMAC.
 - It was questioned whether inclusion of specific websites in the administrative rule was advisable since they may change over time.
 - The work group will pull out parts that may not belong in administrative rule and could be maintained and kept current such as links on the ODF website.
 - Marcus Kauffman, ODF Biomass Resource Specialist, presented a proposal for gathering data for enhanced smoke management data collection to be done by an outside contractor. Handouts were provided. Comments from SMRC members on the proposal were also included.
 - The need for the data exists, but should those who pay to burn be required to collect data on what's not being burned?
 - It appears the proposal is very focused on biomass utilization with little on ERTs.
 - It was explained that this proposal is a conversation starter with the recognition that the need is broader than biomass. Some of the comments received included suggestions to broaden the scope of the proposal.
 - This work fits under ODF-DEQ recommendation 4, and it is envisioned that this information could be obtained through district queries to landowners and the Biomass Resource Specialist (for biomass). There's no need for an outside contractor, as the data should be readily available from districts and landowners. The workgroup could perhaps develop the questions that will need to be asked of the landowners.
 - The Biomass Resource Specialist would gather new biomass data as led by the workgroup, utilizing existing personnel and resources.

- It was noted that it's not possible to track the use of PE on piles under the existing system.
- Also, one the largest alternatives are leaving the piles unburned or scattered. This is an alternative activity, so how would it be tracked?
- ERT data collected will not be tied to specific landowners.

Potential Solutions

- Subcommittee will craft a recommendation for this group under the premise that there is data available that needs to be evaluated to determine if there are any gaps and if the data is sufficient.
- ODF collaborates with DEQ to determine what steps are necessary to adequately track alternatives and ERTs.

Recommendations

- An administrative rule change with minor wording changes and identification of new reference materials for land managers.
- Form a workgroup yet to be identified to look at long- and short-term ERT improvements based on data needs.
- Analyze existing ODF ERT data as part of the implementation plan.
- Collect ERT and alternative to burning data from landowners and land managers through an annual voluntary survey of land management activities as part of the implementation plan.
- Develop a base line list to identify ERTs as part of the implementation plan.
- Report available ERT and alternative data in the Smoke Management Annual Report – in existing rule.

Change OAR 629-048-0200:

(1) When planning forest management prescriptions and particularly final harvests (prior to reforestation), owners are strongly encouraged to use practices that will eliminate or significantly reduce the volume of prescribed burning necessary to meet their management objectives. Some practices to consider include, but are not limited to:

(3) Prior to registration, forestland managers are strongly encouraged to consult the following publications ~~on the use of alternatives are recommended reading for forestland managers who frequently engage in prescribed burning:~~

(a) "Non-burning Alternatives to Prescribed Fire on wild lands in the Western United States" at <http://www.wrapair.org/forums/fejftasks/FEJFtask3.html> (Western Regional Air Partnership, February, 2004); ~~and~~

(b) The Oregon Forest Industry Directory website provides information on potential markets for woody material at www.orforestdirectory.com/stories; and

(c) “Oregon Forest Biomass Supply Estimate by County” by Philip S. Cook and Jay O’Laughlin (Western Governor’s Association, January 24, 2011), on the Woody Biomass Utilization Database at Oregon Department of Energy’s website: www.oregon.gov/energy/RENEW/Biomass/Pages/Bioenergy_map.aspx

~~(b) "Annual Emission Goals for Fire Policy" (Western Regional Air Partnership, April, 2003).~~

(4) As described in 629-048-0450(2)(c), the department shall publish an annual report summarizing the use of alternatives to burning.

Level of Support (See Decision Protocol)

Consensus support

E. Periodic Review (OAR 629-048-0450(5) and Directive 1-4-1-601(REVIEW))

Issue Description: Update administrative rule and directive timeline.

Periodic Review language is found in Directive 1-4-1-601 and currently applies to only that directive. It states a review will occur every five years. The previous directive stated the entire OSMP would be reviewed every five years. The question is whether this language should be in rule rather than the directive, and whether the entire OSMP should be reviewed as has been in the past? An additional question would be whether a specific timeframe is necessary or whether the review time period could be flexible?

Discussion (Is it a problem? What are the pros and cons?)

- DEQ would like to see a five-year review consistently and clearly stated in the various program administrative rules and directives, and it should tie together with the RHR and SIP revisions.
- From a historical perspective the last review was longer than five years. The SMRC should advocate a progressive look at issues as they come up (periodic rather than five year) unless there are negative impacts.
- There is the need for flexibility for the program to act quickly on issues as opposed to a set timeline.
- However, a set schedule shows the highest level of commitment. Flexibility can be built in.
- Firm requirement for 5 - 10 years leads to public perspective that it is being reviewed on a regular scheduled basis.

- Why is there no consideration for an interval of less than five years?
 - The SMAC meets semi-annually and could make adjustments as necessary.
 - It gives flexibility and implies that it could be reviewed in less than five years.
- The language, “reviewed at a later date or on a different schedule, not to exceed 10 years” was suggested.
- It was then suggested it “be reviewed at an earlier or later date not to exceed 10 years from the previous review.”

Potential Solutions

- Keep language in directive, but in administrative rule it would be periodic based on DEQ and ODF joint decision and need.
- Five-year review unless jointly agreed on by DEQ and ODF.
- Option to change directive back to reflect that the entire Oregon SMP would be reviewed, with option to change administrative rule (through rulemaking process) to accomplish the same.

Recommendations

Change OAR 629-048-0450(5):

(5) The Department of Forestry and the Department of Environmental Quality will jointly review the Smoke Management Plan (ORS 477.013, 477.515-.562, OAR 629-048, Directive 1-4-1-601) every five years unless there is agreement by both agencies that the Plan can be reviewed at an earlier or later date, not to exceed 10 years from the previous review. Results of the review will be presented to the State Forester and the Director of Environmental Quality for joint consideration and approval. Representatives of affected agencies may assist the review at the discretion of the State Forester.

Change Directive 1-4-1-601(REVIEW):

The Smoke Management Directive shall be reviewed ~~at least every five years~~ according to OAR 629-048-0450(5). The review will be conducted jointly by the State Forester and the Director of Environmental Quality and will include representatives of affected agencies and parties.

Level of Support (*See Decision Protocol*)

Consensus support

F. Smoke Sensitive Receptor Areas (OAR 629-048-0140)

Issue Description: Simplify process to designate new SSRAs

The criteria for listing new SSRAs appear extensive and complicated in the administrative rule. Can they be reduced and simplified?

Discussion (*Is it a problem? What are the pros and cons?*)

- DEQ provided handouts of the current administrative rule requirements of SSRA designation process for committee discussion.
- According to DEQ the administrative rule is complicated and bureaucratic, especially for local governments, thus they may not request special smoke protection. Suggest streamlining process.
- Process is limiting as it relies heavily on monitoring equipment which may not be available.
- Too discretionary regarding frequency, intensity and duration of impacts. ODF/ BOF can deny any request.
- DEQ should be more involved in the process. This is inconsistent with DEQ joint approval authority in statute.
- Based on the approval of more SSRAs (recent trend since 2007), process may not be as cumbersome or necessary as thought.
- Designated SSRAs are permanent, which means less burning possible and thus more buildup of fuels, which could lead to more catastrophic wildfires.
- City of Florence complaints led to ban on residential burning in and around the area.
- SSRA may not be designated but the Florence area is still protected. By raising level of awareness, there has been improvement, especially for Florence.

Potential Solutions

- As part of SMP periodic review process, decide collaboratively between agencies (DEQ and ODF) any SSRA requests.
- DEQ makes determination on community needing SSRA designation. Propose to ODF with evidence and then forward to seek BOF approval.
- Impacted communities verified by DEQ monitoring data would be sufficient for automatic approval of SSRA.
- Community formally requests SSRA as part of review. DEQ and ODF evaluate request and decide whether to bring to SMRC.
- SMRC is presented with and evaluates potential new SSRAs, then provides recommendations in the usual manner. If DEQ and ODF disagree then the SMRC would make recommendation.
- New SSRAs would be added to the SMP as other changes, following completion of periodic review, contingent upon BOF and EQC approval.
- Wildfire management practices that contribute to community being impacted could qualify as SSRA.

- Where DEQ and ODF disagree, seek recommendation from EQC and BOF.
- Dismiss topic and have SMAC discuss issue for any needed changes.
- Table discussion now and bring back to SMRC later.

Recommendations

- Voted to dismiss. Issue may be discussed later by the SMAC.

Level of Support (See Decision Protocol)

Low priority - dismiss at this time. May discuss in SMAC. Majority support - 8

Medium priority – have later discussion. Minority support - 4

G. Compliance and enforcement (OAR 629-048-0500)

Issue Description: Make clearer

How does ODF determine compliance, and what can ODF legally do if someone or some agency does not comply? Does some wording or additional source document need to be added in administrative rule for enforcement? Administrative rule is currently vague on when and how enforcement actions will be taken by ODF on different agencies or landowners.

Discussion (Is it a problem? What are the pros and cons?)

DEQ provided a handout of the ODF's enforcement administrative rule OAR 629-048-0500. In section (4) portions were underlined where DEQ had questions.

- DEQ has raised this as a topic because some language is vague and clarification is needed.
- Is a Facilitated Learning Analysis (FLA) considered standard practice, and if so, should it be reflected in administrative rule?
- Is ODF able to take action against federal agencies?
- ODF provided the following responses to the listed DEQ questions:
 1. What does timely correction of any breakdowns mean?
 - It means what's reasonable and prudent.
 2. Under what circumstances does ODF anticipate no further action would be taken?
 - These administrative rules fit underneath the Forest Practices program in ORS 527. ORS 527 gives ODF the ability to cite private, federal, or other landowners. OAR 629-670 lays out civil penalties. Within those administrative rules, there are three legs of a triangle: enforcement, education, and engineering, positively affecting change. Each circumstance is different.

There are few cases with a clear violation. Last time someone was cited was about 15 years ago via Smoke Management Administrative Rule.

3. Can the administrative rule be more specific on the type of report that needs to be submitted to the State Forester? Would this in most cases be a Facilitate Learning Analysis (FLA)?
 - It's the educational tool to make sure violation doesn't happen again. It's part of the three legged stool – education, engineering and enforcement.
 4. What criteria or guidance will the State Forester use in deciding what warrants enforcement action?
 - A clear violation of the administrative rule.
- DEQ added that if these were their enforcement rules, they would specify a timeframe for investigation of the incident, the kind of documentation to be provided, and probably indicate when a warning letter would be issued instead of actual enforcement action. DEQ added that the SMP is part of the SIP, which makes it federally enforceable. This is a mandatory smoke management program. Enforcement rules must be enforceable. DEQ suggested the administrative rules do not seem to be enforceable as currently written. If the enforcement authority lies in Forest Practices or elsewhere and you can fine up to \$5,000, there should be a cross-reference at a minimum. As the administrative rule reads now, it does not.
 - There are administrative rules which outline how assessments and/or fines would be levied that tie back to Forest Practices. ODF referred to OAR 629-670, which lays out the process for damages and assessments via civil penalties.
 - ODF suggested that OAR 629-670 language be put in the enforcement section, which also includes ORS 477 and ORS 527, which lays out the ability to cite or provide a written statement of unsatisfactory condition. These are the two enforcement actions that OAR 629-670 provides for.
 - Since that's the type of clarification they are already doing, it would keep the references current.
 - DEQ asked what the concern would be of adding this clarification to the administrative rule.
 - It would not add validity to the administrative rule.
 - The administrative rule points to the mechanism for enforcement – the Forest Practices administrative rule.
 - It points to the appropriate authority to do that. ODF also noted that there is an entire section in Forest Practices on smoke management, including education.
 - ODF handed out to DEQ and committee members a flowchart of the Smoke Management enforcement rules. This satisfied DEQ's concern over how SMP violations were handled.

- DEQ had asked its legal counsel if the SMP violations are subject to DEQ enforcement and civil penalties. DEQ legal counsel said DEQ could take separate enforcement action if desired.

Potential Solutions

- Add OAR 629-670 to paragraph 1 of OAR 629-048-0500.
- ODF to develop one-page flowchart tying enforcement through statute to administrative rules.

Recommendations

Change OAR 629-048-0500(1):

(1) Violations of the smoke management plan may be enforced either as violations of the fire prevention statutes and rules (ORS 477.980 to 477.993) or as violations of the forest practice rules (ORS 527.680 to 527.690, 527.990 to 527.992 [and OAR 629-670](#)).

Level of Support (*See Decision Protocol*)

Consensus support

H. Large tonnage burn unit monitoring (OAR 629-048-0230)

Issue Description: Require monitoring of smoke from large burns (2000+ tons).

Large units should be monitored to determine if potential impacts could occur. The word “monitor” does not necessarily need to be defined and could be left to the judgment of the burn boss based on site specific conditions and circumstances.

Discussion (*Is it a problem? What are the pros and cons?*)

- There are many types of monitoring. Monitoring specifics (types and timing) are outlined in the Smoke Management directive.
- The question is whether there is enough information in directive or administrative rule regarding monitoring to ensure SSRAs could determine the source of smoke? Does the SMRC think there is room for improvement?
- Districts and land managers voluntarily monitor burns to determine if they are impacting SSRAs.
- For large burns DEQ suggested adding monitoring in administrative rule. The concern was to deal with large units that are burned over multiple days.
- These large tonnage burns are mostly completed by federal agencies. They are required to monitor by their internal guidance. Using the extended forecast, they work

with the meteorologists to pick the best week for multiple-day burns. They plan a break point in case ignition must be cutoff.

- It was suggested monitoring guidance be placed into administrative rule as well as directive.

Potential Solutions

- Make minor wording changes in OAR 629-048-0230 to add monitoring.

Recommendations

Change OAR 629-048-0230(3):

Prescribed burn operations with large tonnages (2,000 tons or more) or burns that will occur over multiple days should be adequately planned [and monitored](#) to provide opportunities to cease lighting and hold the existing burn within smaller compartments to mitigate undesirable smoke effects or changes in the actual burn conditions from those that were forecasted.

Level of Support (See Decision Protocol)

Consensus Support

I. Burn plan deadline (OAR 629-048-0230)

Issue Description: Move back deadline to submit plans.

Frequently burners make last-minute requests on the day of the burn due to circumstances such as weather changes or crew availability. The districts often work with the landowner and enter data on units the day of the burn. The current deadline of 5 p.m. the day before the burn is not workable - look at moving it back to the day of the burn.

Discussion (Is it a problem? What are the pros and cons?)

- Need more flexibility to allow burn plans up to 10 a.m. on the day of burn, with latitude for additional planning later the same day.
- Staff was asked to review existing language and make revisions to the deadline.

Potential Solutions

- Remove from administrative rule and insert in agency directive.
- Move back deadline to day of the burn.

Recommendations

Change OAR 629-048-0230(4):

For prescription burn units on forestland subject to level 1 regulation, burn bosses must provide specific information to be transmitted to the smoke management forecast unit in a standard format acceptable to the forester, regarding unit location, method of burning, and fuel loading tonnages by ~~5:00 p.m.~~ 10 a.m. ~~on~~ the day ~~before of~~ the burn. If additional burning is deemed possible after 10 a.m. in consultation with the forecast unit, the plan may be extended.

Change Directive 1-4-1-601(D1):

In areas of level 1 regulation, units must be registered for burning seven days prior to burning (OAR 629-048-0300), planned in the data system the ~~afternoon before~~ day of the proposed burn (OAR 629-048-0234(4)), and accomplishments reported the first business day following the actual burn (OAR 629-048-0320) and each additional day that burning is conducted in the unit.

Level of Support (See Decision Protocol)

Consensus Support

J. Audit program (Directive 1-4-1-601, Standards (G))

Issue Description: Consider ending audit program.

This program was implemented in 1987 because adjoining districts blamed each other for misrepresenting tonnages on units to get more burning done. This problem has largely abated since there is much less competition for the air shed due to less burning. The program appears to have served its purpose and evaluates a very small percentage of units. DEQ has not commented or asked how the audit program is ensuring compliance on correct unit tonnages. Do we still need it? Evaluate the benefits in terms of training and social license.

Discussion (Is it a problem? What are the pros and cons?)

- Audit program has been in place since 1987 and under direction of a fuels specialist for a number of years.
- Issues that prompted development of audit program have been resolved – some districts and Smoke Management program staff believe the program is no longer needed. Pressure to get burning done has diminished.
- It has become more difficult to get audits completed due to limitations on time and staff. There appear to be few problems today. Do we still need the program?
- The program was supposed to be under the direction of a field coordinator; however, the position has not been filled.
- Audits maintain compliance and credibility of the program over the long term.

- There are other mechanisms to demonstrate compliance such as reduced intrusions and monitoring.
- The SMRC focused on maintaining audits of pre-burn tonnage.
- DEQ advised focusing on post-burn, not pre-burn audits. The issue is consistency. It has the biggest impact on compliance.
- There are three questions:
 1. Is tonnage reporting consistent and accurate on pre-burn audits?
 2. For the burn day audit, was burning consistent with instructions?
 3. Was tonnage burned reasonably accurate?
- How many burn-day audits are done? Do we have the resources to do them?
 - Audits have been done in the past by neighboring districts/forests doing the audits for each other. But the goal of 1 percent (.5 percent pre-burn and .5 percent post-burn audits) of units being audited is not being met.
- The federal agencies have the requirement that both pre- and post-burn audits be done. It could be done more easily if we had a field coordinator to go from district to district to ensure audits are completed.
- The federal agencies are doing audits internally, but they don't use ODF forms or report to ODF. The audit data is there; we just need to make sure it is getting reported to ODF. The federal agencies will make a more concerted effort to report audits to ODF and get it incorporated into a format that ODF uses.

Potential Solutions

- Maintain pre-burn audits but remove burn-day audits.
- Keep program as is.

Recommendations

- Audit program will remain as is with improved support from stakeholders.

Level of Support (See Decision Protocol)

Consensus Support

K. Special Protection Zones (Directive 1-4-1-601(Appendix 5))

Issue Description: Remove or alter existing SPZs.

This directive item has been in place since the 1991 review. The provisions are rather confusing with multiple scenarios. The most noted is that no burning is allowed in an SPZ from Dec. 1 through Feb. 15 when the meteorologist has been notified of a "Red" day by a local woodstove emissions curtailment program. The expectation was the

district would notify the meteorologist (this was prior to usage of the internet). These SPZs are large blocks of space that don't appear to have been determined meteorologically or topographically. They restrict the meteorologist's ability to scientifically and operationally determine whether the burning could take place in these locations. Further, affected districts did not notify the meteorologist of the air quality rating for the SPZ period. There were probably numerous times a "Red" day was issued yet prescribed burning was conducted without incident. It's known there are good windows of opportunity to burn during this timeframe when there may be a "Red" day for woodstoves. Usually this occurs under a high pressure ridge when the air mass is stable but skies are clear, and drying allows for winter burning at higher elevation where the air mass may not be as stable and winds may be carrying smoke away from the populated area. Thus, it appears the program is unnecessary from an ODF program standpoint and the meteorologists can use their judgment whether burning can be allowed under varying atmospheric stability conditions at all times throughout the year. However, under Environmental Protection Agency (EPA) SIP standards this may be considered "backsliding."

Discussion (*Is it a problem? What are the pros and cons?*)

- Since SPZs are in the SIP, EPA may enforce a "no-backsliding" rule.
- Over the years, burning practices have changed, providing more burning opportunities during winter SPZ protection period.
- The SPZ areas should be defined meteorologically and topographically if they are not removed.
- Since SPZs have been in place for 20 years, are they still effective for what we are trying to accomplish?
- Main issue is compliance with woodstove programs when "Red" days are issued during winter months.

DEQ provided a "redline strike-out" handout to clarify 20-year-old wording in the directive. The language was shortened and made more readable.

- Should SPZs no longer exist? The thought was they were to become SSRAs after the last review. Page 43 of the final report (of the previous review) reads "Eliminate source terminology" SSRAs describe the receptor rather than the source and are given the highest level of protection.
- Change boundaries to make them more reflective of topographical features.
- Using Medford as an example, DEQ had determined that particulate matter levels were too high. DEQ would like to keep SPZs in place but tailor them to current needs – make them more consistent with open burn bans and woodstove curtailment programs and add Air Stagnation Advisory (ASA) days. It's difficult to get

compliance when people see significant burning occurring. On both “Red” and “Yellow” days, no woodstoves are allowed to operate unless they are certified woodstoves emitting at zero opacity except for a half-hour start up and shut down. Industrial sources were required to defer those types of activities that didn’t have to be done every day. Discretionary activities that would increase emissions were not to be done on “Red” and “Yellow days.” That is still in effect. DEQ would like to see no forestry burning on ASA days.

- DEQ noted that there are currently five SPZs (Medford, La Grande, Lakeview, Klamath Falls and Oakridge). Of these five, Klamath Falls and Oakridge currently have PM 2.5 attainment plans developed that are about to be adopted. These SPZs cannot be changed without going back and changing these plans. DEQ noted that the SPZs have worked well. They provide more intensive management in these areas. Another thing they provide is equity. When the public sees burning in the hills, this creates difficulties for local compliance, and air quality restrictions on open burning and woodstoves become ineffective.
- Medford BLM was unaware of the SPZ requirement in the Medford area until last winter. Their desire is to see SPZs removed and instead follow the meteorologists’ burn forecast, even during the winter months. DEQ in Medford doesn’t put the woodstove advisory out until 8 a.m., and that’s too late to put burn crews together.
- Concern was expressed about negative consequences if these protective measures are ended. The science is there to support increased stringency of the standards to protect public health.
- The original proposal was removal of SPZs – appears that the SPZ proposal is not to remove SPZs but rather revise them.

ODF and DEQ met and discussed the SPZ boundaries. DEQ said the La Grande SPZ boundary could be removed due to no impacts during the maintenance period. All other boundaries either needed to stay the same or could be altered but not removed. ODF provided a proposed new boundary for the Medford SPZ that followed ridgelines around Medford. This boundary was well received by DEQ, with the exception of moving the boundary 200 feet below the ridgeline facing away from Medford.

Following the meeting DEQ had concerns about the new proposed boundary and considered the boundary only for use on “Red” woodstove days. They saw no provision for how burning would be considered on “Green” and “Yellow” days and wanted extra protection beyond the proposed boundary for those days. ODF considered the proposed boundary to cover provisions for all days.

- There were questions related to the SPZ, SSRA and the Air Quality Maintenance Area (AQMA). The AQMA applies to a city that has violated air quality standards

and is loosely drawn about 15 miles around the city. Medford did attain compliance and is now in a maintenance area.

- It was asked if the AQMA was similar to an SSRA boundary. The AQMA boundary is the SSRA boundary. The new proposed SPZ boundary was somewhat larger than the SSRA boundary.
- There was concern that it's difficult to relax a standard and then go back to where you were earlier when more stringent comprehensive emissions control strategies were in place. That's why maintenance plans for prior non-attainment areas include a "no-backsliding" component. Medford has the highest propensity for late fall and winter air stagnation. In Jackson County no outdoor open burning is allowed from Nov. 1 through the end of February every year. There is a perceived negative perception by the public when prescribed burning is allowed while residential woodstove, burn barrel use, and all other individual outdoor open burning is prohibited.
- The two agencies will continue to work and take a proposal to SMAC when ready.
- It was also suggested the SMRC review before going to the SMAC.

Potential Solutions

- The SMRC asked that the agencies work together to craft a solution for creating a new boundary for the Medford SPZ.
- DEQ stated that the Oakridge, Klamath Falls, and Lakeview SPZ boundaries need to stay as is due to their non-attainment plans. The La Grande SPZ could be removed due to improved air quality in the non-attainment/maintenance area.

Recommendations

- Recommendations for updating the Special Protection Zones were as follows:
 1. Clean up SPZ language in directive.
 2. Remove the SPZ around La Grande.
 3. Final version of directive language will be reviewed by the SMRC before going to the SMAC.

Change Directive 1-4-1-601, Appendix 5:

Special Protection Zone (SPZ) boundaries are shown in the maps in this appendix.

These SPZ provisions ~~shall~~ apply from November 15 through February 15 to the following communities which are particulate matter (PM) nonattainment/ and maintenance areas ~~from November 15 through February 15 each year:~~ Klamath Falls, Medford, Oakridge, ~~La Grande,~~ and Lakeview. ~~Only~~ ~~†~~ The contingency plan requirements of this appendix shall apply to these areas, and to the Eugene/Springfield, ~~and~~ Grants Pass, and La Grande Particulate Matter (PM) 10 maintenance areas, during the dates specified in the contingency plan.

~~Between From~~ During the November 15 through February 15 ~~period~~, prescribed burning in the SPZ ~~(except Medford)~~ will be allowed on “Green” and “Yellow” woodstove days only when if:

1. ~~the~~The ODF Smoke Management meteorologist believes there will be no measurable smoke impacts ~~within the SPZ nonattainment area~~.
2. Landowners are responsible for intermittent monitoring for at least three days following ignition to ensure the smoke is not causing an impact. ODF can waive this provision if it believes monitoring is unnecessary on a specific burn unit.
3. Landowners provide a level of mop-up, as directed by ODF, to prevent or minimize smoke impacts. Mop-up shall be included as an element of the burn plan.
4. ODF believes that piles will not produce significant smoke after the third day.

~~Between From~~ December 1 and through February 15, no prescribed burning is allowed on “Red” woodstove days in the SPZ. Prescribed burning on “Red” days between from November 15 and through 30 is allowed and subject to the same conditions for “Green” and “Yellow” days.

For the Medford SPZ, burning should be prioritized so units that are smaller and/or further from the SPZ boundary have higher priority to burn than units larger and/or closer to the SPZ boundary.

Districts and Forests having jurisdiction in any SPZ will be responsible for monitoring restrictions in the nonattainment or maintenance area.

~~Between December 1 and February 15, no prescribed burning is allowed on “Red” woodstove days. Prescribed burning on “Red” days between November 15 and 30 is allowed and subject to the same conditions for “Green” and “Yellow” days. Districts and Forests having jurisdiction in any SPZ will be responsible for monitoring restrictions in the nonattainment area.~~

~~Landowners are responsible for intermittent monitoring for at least three days following ignition to ensure the smoke is not causing an impact inside the SPZ the nonattainment city. ODF can waive this provision if it believes that monitoring is unnecessary on a specific burn unit. Landowners must provide a level of mop-up, as directed by ODF, to which will prevent or minimize smoke impacts inside the SPZ the particulate nonattainment areas. Mop-up shall be included as an element of the burn plan for units within SPZs.~~

~~Between December 1 and February 15, no new ignitions will be allowed in the SPZ when the smoke management meteorologist has been notified that a "Red" day has been declared through the local woodstove curtailment program. Between November 15 and~~

~~February 15, no pile burning will be allowed if ODF believes that the piles will produce significant smoke after the third day.~~

The SPZ provisions shall apply as long as the ~~area~~city is in PM nonattainment ~~status for particulates~~, or ~~if until~~ it is ~~jointly~~ determined by the Oregon Department of Environmental Quality (DEQ), ~~ODF, and or~~ the Lane Regional Air ~~Protection~~ Pollution Agency (LRAPA) ~~authority, when appropriate~~, that a specific SPZ is no longer needed for ~~attainment or~~ maintenance of the PM standard. An SPZ shall be developed by ~~ODF and DEQ or LRAPA~~ for any newly declared PM-2.5 nonattainment area, in consultation with ODF. For areas declared ~~out of non~~attainment from January 1 through May 31, the new SPZ requirements shall become effective on November 15 in the year the area is declared ~~out of non~~attainment. If the area is declared ~~out of non~~attainment from June 1 ~~to through~~ December 31, the new SPZ ~~rules~~ shall be effective on November 15 of the following year.

Contingency Plan Requirements:

In the event any of the communities listed above ~~at areas~~ violate the PM-2.5 standards ~~beyond statutory deadlines~~ and prescribed burning is determined ~~demonstrated~~ to be a significant contributory ~~source~~ to the violation, the following provisions shall be implemented:

1. ~~The~~ SPZ boundaries ~~ies~~ will be expanded to include the area from which prescribed burning could impact the PM nonattainment or maintenance area, ~~have a significant impact during the nonattainment period~~. Any boundary change ~~The boundaries~~ will be jointly agreed to by ODF and DEQ.
 2. SPZ restrictions will apply from November 1 ~~to through~~ March 1, except ~~in for~~ Klamath Falls where they will apply. ~~The SPZ will be in effect~~ from November 1 ~~to through~~ April 1 ~~in Klamath Falls~~.
 3. The SPZ ~~for around~~ Klamath Falls, ~~La Grande,~~ and Lakeview, as well as all future PM2.5 nonattainment areas in areas of level 2 regulation under the Oregon Smoke Management Program, shall be subject to burning requirements of level 1 regulation during the time when the SPZ is in effect. ~~The nonattainment city shall be treated as a Smoke Sensitive Receptor Area when the SPZ is in effect.~~
 4. Prescribed burning will be prohibited within the SPZ during December and January if an impact attributable to prescribed forestland burning of 5 to 10 micrograms per cubic meter (24-hour average) is demonstrated by air quality monitoring after the contingency provisions are in effect. Burning will be prohibited from November 1 ~~to through~~ March 1 if a prescribed burning impact of 10 micrograms per cubic meter (24-hour average) is demonstrated by monitoring after the contingency provisions go into effect. ODF and DEQ must jointly agree on the magnitude and duration of the impact before these provisions are enacted. The provisions apply only to burning within the SPZ during the SPZ protection period.
-

Proposed Medford Special Protection Zone Map



-- Current boundary*

-- Proposed boundary

*Current boundary will be removed when inserted into updated directive.

SPZ maps for Eugene, La Grande, and Grants Pass will be removed in Appendix 5 of the directive. The Medford SPZ map will be altered to a terrain-based boundary generally following 200 ft below ridgelines facing away from Medford (see above map).

Level of Support (*See Decision Protocol*)

Consensus Support

L. Complaint procedures (Directive 1-4-1-601, Standards (J))

Issue Description: Simplify language and reduce burden on districts.

The complaint process may be asking more of the districts than necessary. A question is whether a smoke incident report is the same as the complaint form? The complaint form should be the only document that needs to be filled out unless there's an intrusion. The directive requires the district to give the complainant an expected time for an ODF response. It would probably be better not to expect a specific time but rather change language to say "as soon as possible." The directive states the district should call back all complainants with results of the investigation. This may be too burdensome with numerous complaints. Language in the directive could be cleaned up and made less burdensome.

Discussion (*Is it a problem? What are the pros and cons?*)

The intent to updating the directive is to clarify and strike out unnecessary language and remove or alter burdensome requirements. The district should be able to fill out the complaint form to satisfy essentially everything needed to record and track smoke complaints.

- Need to include an obligation that the complainant be provided with the option to receive feedback but doesn't obligate the district to provide investigation results unless asked for.
- Adding a box to check that says "follow-up requested" would provide the means to contact complainants who want investigation results.

Potential Solutions

- Include language "inform complainant that they have the ability to receive follow-up" by adding a check box.
- General clean-up of language.

Recommendations

Change Directive 1-4-1-601(J):

1. Receiving Complaints: Districts and Salem Smoke Management staff shall:
 - a. Respond to the complainant in a timely manner.
 - b. Follow up with appropriate action to the satisfaction of the District Forester.
 - c. Maintain a written record containing at least: the nature of the complaint, names of those involved in the investigation, findings, and action taken. This record shall be kept on file for two years. Copies shall be sent to the area office and the Salem Smoke Management Unit. ~~If a report of smoke is found to be valid, a smoke incident report, or intrusion report, shall also be~~

~~completed.~~

- d. Inform the complainant of the opportunity to receive follow-up of investigation findings ~~and any action taken.~~
2. Initial Contact: When a complaint is received, the person receiving the complaint should use the Smoke Complaint Report form found in Appendix 2, page 8 of this directive to record ~~take notes on~~ the name(s) of the complainant, a nature description of the complaint, and where the problem is located, ~~names of operators or landowners who may be involved, and the timeframe of the problem—i.e., is it ongoing, is it complete, is it yet to happen.~~ If the complaint is received in Salem or by a district other than the one with geographic responsibility, it shall be referred immediately by the person taking the complaint to the proper district. ~~After this information has been received in the proper district, the complainant will be given an expected time that an ODF response will be made. The unit and District Forester shall be notified and shall establish the timing of the investigation and the response based upon other workload and “urgency” of the situation.~~
 - a. If the complainant begins to provide information about health effects resulting from a smoke incident, interrupt the complainant to explain that medical information received by the ODF will become part of the public record and confidentiality cannot be assured.
 - b. If a smoke incident is ongoing when the complaint is received, reasonable effort should be made to dispatch the nearest qualified department personnel to the location in question to observe and document the intensity, duration, scope, and origin of the incident.
 3. Investigation: Other agencies that may have a role in investigating a complaint shall be promptly informed after the initial contact. ODF personnel will cooperate with other agencies involved in joint complaint investigations.
 - a. If the complaint involves an ongoing occurrence, an individual qualified to and capable of investigating the complaint shall be dispatched to the scene immediately. Exceptions must be approved by the District Forester.

If the problem does not require immediate attention, an onsite investigation may be made at the earliest convenience if such site inspection will contribute to the resolution. In all cases, the complainant should be informed of the planned inspection time, if appropriate.
 - b. Observations, notes, and evidence (if appropriate) shall be made/collected in order to make the following determinations:

- i.* Does the problem involve the Smoke Management Plan (prescribed burning of forest fuels on forestland)?
 - ii.* Are there any violations? (If so, follow proper enforcement procedures.)
 - iii.* What may be done to correct the problem?
 - iv.* What actions may be taken to prevent recurrence of the impact?
4. Follow-up: After the investigation is completed, and with the approval of the District Forester on the findings and any necessary follow-up action, ~~the~~ complainants [who requested investigation information](#) should be contacted and informed of the findings and follow-up action.
 5. Reports: A written complaint investigation report or intrusion report as appropriate must be made for all complaints received. For most complaints, use the Complaint Form in Appendix 2, page 8. This form will be sufficient if it contains the minimum information listed above.

For complaints involving violations, or for which evidence has been collected, an expanded investigation report containing pictures, correspondence, and/or other data may be appropriate.

A file of these reports shall be maintained at the district. Copies must be sent to the area office, Salem Smoke Management Unit, and other agencies involved in the complaint. [A summary of complaints will be made available to the Smoke Management Advisory Committee when requested.](#)

Insert a check box on the complaint form with language that reads: “Inform the complainant that they have the ability to receive follow-up.”

Level of Support (*See Decision Protocol*)

Consensus Support

M. Field Coordinator position

Issue Description: Hire part-time, full-time, or not at all

Need to present duties of Field Coordinator, determine if districts or forests really need one, and how they would use this position based on the duty description. Also need to determine whether Smoke Management has the budget for the position, and if there are

enough duties for a part-time or full-time position. The position has not been filled for 17 years; is there a strong need/desire for this position?

Discussion (*Is it a problem? What are the pros and cons?*)

- It was recommended five years ago not to implement this position because there were other priority items in greater need of funds.
- Need to determine whether it's of value to hire a field coordinator for a one- to two-year trial.
- What would it gain the landowner in terms of burn opportunities?
- The position seems to fit into the air quality part of the program. Would joint funding with DEQ be possible?
- The position would cost about \$100,000 per year.
- ODF has been without the position since 1995.

ODF provided a handout of the Smoke Management fund balance from 2009 to the present, adding that with the amount of prescribed burning staying about the same, there would likely be little change in the fund balance in the near future. It was noted it would be difficult to sustain the Field Coordinator position on the current budget.

- Responses from district and federal agencies showed the position was not generally needed.
- What would the person do? What's the goal of the position? With all these variables could the position be justified at this time?

Potential Solutions

- Potential for a one- to two-year trial period.
- Don't fill position.

Recommendations

- Don't fill position.

Level of Support (*See Decision Protocol*)

Consensus Support

N. Marginal day burning (OAR 629-048-0220)

Issue Description: Is more clarity/guidance needed managing burns on poor or marginal days?

Need to demonstrate how instruction model matrix works and how the instruction varies based on mixing height, transport wind, proximity to SSRA, spacing, and tonnage. Is this

an administrative rule vs. guidance issue? Should there be a “bottom line” - no burning threshold or is current guidance adequate? Is it related to SPZ issue? There’s a public perception issue of burning on poor air quality days.

Discussion (*Is it a problem? What are the pros and cons?*)

ODF staff provided a tour of the weather office and showed how forecasts and instructions are developed using a programmed instruction model. The model shows how much tonnage can be burned, allowable spacing between units, and required distance to downwind SSRAs in Fire Weather Zones throughout western Oregon based on forecasted mixing heights and transport wind. An example matrix was shown to illustrate the model concept (see appendix 4).

- The matrix does an excellent job and works well.
- The topographical office map is a tool that helps mitigate risk.

Potential Solutions

- Copies of the model guidance the ODF meteorologists use to write the burn instructions were provided, and how the information was used was explained.

Recommendations

- The goal to address the issue has been met with no further need for an additional “no-burning” threshold.

Level of Support (*See Decision Protocol*)

Consensus Support

O. Data system changes (OAR 629-048-0310)

Issue Description: Information Technology (IT) issues related to the Smoke Management data system.

Need to work on issues of the Smoke Management data system to improve the billings and reduce inefficiencies and staff time as it relates to burn fees. The data system needs to be updated to better satisfy user needs.

Discussion (*Is it a problem? What are the pros and cons?*)

- There is a successful relationship between the federal data system (FASTRAX) and the ODF data system.
- Currently, landowner, district, and Salem work together if there are invoice discrepancies.

- There are issues around the current system and how burn fees are collected. The system should have more flexibility for invoicing multiple burn types.
- Since districts only have access to the data system, landowners/operators can't see what has been input. This sometimes leads to mistakes and misinterpretation. Would like to have access to an online system.

A subcommittee was formed to develop short- and long-term solutions. One issue was dealing with fee system changes. With increased use of whole-tree yarding by bringing most of the forest material to landings, the entire unit is charged \$.50/acre for burning landings and an additional \$2.60/acre for burning subsequent "other acres." Since there could be two types of "other acres" on the same unit, the system needed to handle two separate burn types. Landowners wanted to be charged only for burn types they accomplished. This change will require significant reprogramming of the current system.

Other data system issues included changing the invoice to reflect the actual acres burned for each burn type and changing some headings to better reflect what was being collected. These were minor data system changes.

A request was made for tracking alternatives within the current Smoke Management data system. It was explained the data system is for prescribed burning and fees associated with prescribed burning. It's not a system for tracking alternatives and would require a complete rebuild of the program to do so. An alternative tracking system, if necessary, should be kept separate.

Finally, some landowners would like the ability to check the accuracy of data input before invoices are mailed each month. This long-term solution to create an online data system would take one to two years to complete at a cost of about \$100,000. IT would take over the maintenance of the program. This solution is considered necessary, as moving the current system out of Smoke Management's control is needed for the long-term serviceability of the program.

Discussion of moving the data system to an online system continued in later SMRC meetings, but a new and better opportunity subsequently became available: integrating the current Smoke Management system with Private Forests' new FERNS tracking system.

Lena Tucker, Deputy Chief of the Private Forest Division, was invited to speak to the SMRC to explain FERNS and how Smoke Management's data system could interface with it. Lena explained that one of their goals was to develop a web-based portal for users to enter their timber harvest notifications. They recently accepted a bid from the Timmons Group in Virginia, which has experience building similar systems for other natural resource agencies.

Lena sees the future for Smoke Management fitting into the FERNS system. Smoke Management would have to do its homework – develop user stories (what each user wants from the system), determine what the portal should look like, and what reporting functions are needed. A launch date for FERNS is expected in March or April 2014.

- The launch date would be for FERNS, not the Smoke Management system. A second phase would be the time when a Smoke Management system would be integrated into FERNS.
- The FERNS system is funded through Private Forests. Smoke Management would have to fund the data system development into FERNS' web portal.
- The most important task for Smoke Management is to be very specific about wants and needs (user stories). Timmons does attach a dollar amount for each little piece that assists with decision-making.
- Private Forests would lend their business analyst to lead the process and capture all the user stories.
- The SMRC unanimously agreed they should continue the current path between Smoke Management and Private Forests' staff to build the Smoke Management system into FERNS as the opportunity develops.

Potential Solutions

- New data system options:
 - Work with Private Forests to integrate the Smoke Management data system into FERNS.
 - Create a new system.

Recommendations

Change OAR 629-048-0310(3b):

If subsequent to burning only landing acres or right-of-way piles, the first time fire is applied to any other portion of a registered unit (typically broadcast or in-unit pile burning), an additional burn fee of \$2.60 per acre [for each additional treatment registered](#) shall be required.

- Invoices changes:

In the invoice reports under the heading of "Acres," change the acres recorded from "unit acres" to the number of acres for which fees are assessed by specific treatment.
- Smoke data screen changes:
 - Within the "registration" section, change the "Fuel Loading" heading to read "Treatment Summary."
 - Change the "Other Acres/Pile Tons" to "Pile Acres/Tons."
 - Insert a new field and textbox labeled "Broadcast Acres."

- Reprogram the system to allow for the ability to charge separately for landing piles, pile acres and broadcast acres burned.
- The SMRC unanimously agreed they should continue the path between Smoke Management and Private Forest staff to build the Smoke Management System into the FERNS notification system.

Level of Support (See Decision Protocol)

Consensus Support

P. Registrations vs. Notifications (OAR 629-048-0310)

Issue Description: Timelines for registrations vs. notifications don't match between Smoke Management and Private Forests.

Currently there are two different timelines for Smoke Management registrations and Forest Practices notifications. Smoke Management has a three calendar year re-registration deadline to allow for time to get needed burning done. Private Forests has a one-year notification used to assist counties to determine yearly revenue. Can these two different timelines be reconciled to reduce confusion and paperwork at the district and landowner level?

Discussion (Is it a problem? What are the pros and cons?)

ODF Protection had discussions with Private Forests. Private Forests has already released a Request for Proposal (RFP) for a web-based notification system and staff was not comfortable changing the RFP at this time, but it is open for discussion with the vendor, to change the scope of the agreement. There are two different pathways: (1) a web-based pathway and (2) a policy choice - because there are rules that govern the notification system and the Smoke Management system. It can't happen immediately, but an opportunity exists for future conversations.

- Is there the ability to carry the same notification number throughout the duration of burn permit when harvest notification has expired?
- There are challenges coming from one district noting that it probably needs to be solved by Private Forests. Will keep working on the policy issue of the one-year notification vs. three-year registration issue.
- If the SMAC thinks it's a good way to go and Smoke Management has the funds, it could happen seeking Forestry Business Initiative (FBII) funds.

Potential Solutions

- Tabled at this time. Not an actionable item.

Recommendations

- Tabled - to be sent on to SMAC for consideration.

Level of Support (*See Decision Protocol*)

Consensus Support

Q. Education and Communication

Issue Description: Are there more opportunities for educating and communicating the Smoke Management program to the public and interested stakeholders?

There should be new strategies for utilizing education and communication to demonstrate the importance, success and use of the Smoke Management program.

Discussion (*Is it a problem? What are the pros and cons?*)

Increased education of the public regarding smoke management has taken place since the last review. Public and landowner brochures have been developed and are available online and at district offices. Each season a public service announcement is distributed for radio stations throughout the larger burning areas. They are short statements that let people know why we do burning.

- Collect ideas and then determine how to best utilize education tools and dollars.
- Ensure ODF Public Affairs is ready to facilitate and identify any opportunities for public education of SMP.

Potential Solutions

- Collect ideas for future.
- Tabled. To be addressed by SMAC.

Recommendations

- Tabled - to be sent on to SMAC for consideration.

Level of Support (*See Decision Protocol*)

Consensus Support

R. Training

Issue Description: Is training needed to bring consistency to rating fuel loading on the ground for prescribed burning?

There should be either initial or refresher training required for districts and landowners to assist with consistency in rating fuel loading of slash prior to burning a unit.

Discussion (*Is it a problem? What are the pros and cons?*)

Link topic to the audits. It's an educational issue.

Potential Solutions

- Attach to audit issue and to education and training.
- Tabled – to be addressed in SMAC meetings.

Recommendations

- Tabled - to be sent on to SMAC for consideration.

Level of Support (*See Decision Protocol*)

Consensus Support

S. Burning outside district boundaries (OAR 629-048-0001)

Issue Description: Need regulation of prescribed burning outside of ODF's district boundaries.

The SMP only regulates prescribed burning within ODF forest protection districts. Outside protection districts regulation is administered through DEQ's open burn rules. How do we handle prescribed burning outside of ODF protection boundaries or other types of burning such as agricultural and land-use change?

Discussion (*Is it a problem? What are the pros and cons?*)

No discussion within SMRC.

Potential Solutions

- Resolve between ODF and DEQ.

Recommendations

Taken out of SMRC Review and to be resolved between ODF and DEQ.

Level of Support (*See Decision Protocol*)

N/A

T. Prescribed fire vs. wildfire for resource benefit terminology

Issue Description: Prescribed fire vs. wildfire for resource benefit terminology definition

How do we define the difference between prescribed fires vs. wildfire for resource benefit? How do we administer programs with differing agency definitions and opinions?

Discussion (*Is it a problem? What are the pros and cons?*)

No discussion

Potential Solutions

- Unresolved – tabled for SMAC to consider.

Recommendations

- Tabled - to be sent on to SMAC for consideration.

Level of Support (*See Decision Protocol*)

Consensus support

Appendix 2 - Committee Members and Other Attendees

Committee Members:

Mike Dykzeul, Oregon Forest Industries Council, Industrial Forest Representative

Lee Miller, Miller Tree Farms, Nonindustrial Forest Representative

Gregory McClarren, Retired, Coos County Resident, Public Representative

Willie Begay, Region 6, Bureau of Land Management Representative

Janice Peterson, Pacific NW Research Station, United States Forest Service Representative

Merlyn Hough, Lane Regional Air Protection Agency, County Representative

Mike White, Coos Forest Protective Association, Forest Protective Association Representative

Jeff Classen, Oregon Department of Forestry, ODF District Representative

Bob Palzer, Sierra Club, Environmental Representative

Craig Bienz, The Nature Conservancy, Eastside Landowner Representative

Jeff Nepstad, Grande Ronde Tribes, Tribal Representative

Marcus Kauffman, Oregon Department of Forestry, Biomass Utilization Representative

Proxies for Committee Members:

Harold Merritt, Plum Creek Timber Company, Industrial Forest Representative

Rex Storm, Associated Oregon Loggers, Nonindustrial Forest Representative

Laura Mayer, Region 6, United States Forest Service Representative

Sally Markos, Lane Regional Air Protection Agency, County Representative

Lon Casebeer, JTWR, Eastside Landowner Representative

Mike Wilson, Grande Ronde Tribes, Tribal Representative

Chad Davis, Oregon Department of Forestry, Biomass Utilization Representative

Facilitator:

Ross Holloway, Retired, Oregon Department of Forestry

Agency Technical and Support Staff:

Protection/Smoke Management: Nick Yonker, Oregon Department of Forestry

Air Quality: Brian Finneran, Department of Environmental Quality

Administrative Support: Cindy Smith, Oregon Department of Forestry

Division Management: Nancy Hirsch and Travis Medema, Oregon Department of Forestry

Other Attendees:

Mike Appling, Medford BLM

Dave Cramsey, Roseburg Resources

Justin Gleason, ODF

Mike Jackson, Douglas Forest Protective Association

Jim Little, ODF

Sally Markos, Lane Regional Protection Agency

Harold Merritt, Plum Creek Timber

Deborah Miley, National Environmental Fuels Association

Bea Noyes, ODF

Pete Parsons, ODF

Mike Schuft, ODF

Gary Springer, Board of Forestry

Rex Storm, Associated Oregon Loggers

Appendix 3 - Committee Charter

Oregon Department of Forestry

SMOKE MANAGEMENT PLAN REVIEW COMMITTEE CHARTER

Background and Purpose

The Smoke Management Plan (SMP) is administered by the Oregon Department of Forestry (ODF) to manage prescribed burning on state, private, federal and other public land to protect air quality and maintain forest productivity and forest health. The Board of Forestry and the Environmental Quality Commission approve the SMP. The approved SMP becomes part of the Oregon Clean Air Act State Implementation Plan submitted to the Environmental Protection Agency as part of the state's efforts to attain and maintain air quality standards. The SMP requires periodic review to ensure its adequacy in meeting its objectives; this is accomplished through the Smoke Management Advisory Committee (SMAC) and periodic updates.

The Smoke Management Plan Review Committee (SMRC) has been formed by ODF and charged to address the periodic updates of the SMP.

Guiding Principles and Scope

The State Forester recognizes that Smoke Management rules, incentives, and voluntary measures are all important elements in an integrated effort to attain and maintain air quality standards, while accomplishing land management objectives. The SMRC will make recommendations, which could include housekeeping regulatory changes, incentives, and/or voluntary measures that address the use of prescribed fire. It is anticipated the review will not include major law or rule changes due to the recent thorough review of the program in 2007 and the ongoing efforts of the SMAC. The work of the SMRC should be completed in less than one year and recommendations beyond the committee's scope will be captured in the final report for further evaluation by the SMAC after completion of this review. While consensus is desirable for all issues considered, where consensus may not be possible, the report will reflect the level of agreement around the recommendations.

Charge for the Committee (Objectives)

- (1) Updating and/or clarifying new policy changes made since the last Smoke Management review. Provide recommendations if necessary.
- (2) Address any new priorities or processes that have occurred since the last review.
- (3) If needed, remove elements of the SMP that have shown little value or are redundant over the recent years to create efficiencies.

(4) Review the fee structure and develop recommendations for a budget plan.

(5) Develop recommendations for the Field Coordinator position plan.

The committee will:

1. Review key items and elements of the SMP within the scope of the objectives.
2. Review for the purpose of updating and clarifying how well the Smoke Management rule and directive have been implemented, recognizing that Board of Forestry and the Environmental Quality Commission approval of any rule change is required.
3. Work through each element/item presented, identifying the problem and developing recommendations if necessary for the final report.
4. Review a written report prepared by staff, identifying the issues and recommendations, including the range of views and rationale. Included in the report will be any public comments that are received.
5. Capture additional idea's and issues outside of scope for further review by the SMAC.

Committee Timeline

Term: The duration of the review should not exceed one year consisting of up to six meetings and one field trip.

Communication and Outreach

- Email updates to interested parties and stakeholders
- News releases/meeting announcements prior to meetings
- Individual committee members will communicate with others in their community of interest
- Website updates: <http://oregon.gov/ODF/FIRE/SMP/SMAC.shtml>

Other communications as necessary

- Board of Forestry
- Environmental Quality Commission
- Oregon Department of Forestry leadership
- Department of Environmental Quality leadership

Roles and Responsibilities of Committee Members and Staff

Facilitator

Runs each meeting and ensures the charter and agenda of the meeting are followed. Responsible for assuring the review stays on task and all members have an equal voice in the review process.

Committee Members

Determine committee work schedule, analyze issues, network with others, provide input and guidance to staff, and help develop recommendations.

Technical Staff

Provide technical and policy information and advice; answer questions on technical, policy and legal issues; and offer issue presentations to aid committee deliberation. Identify experts that have information of value to the committee and invite these parties to make presentations to the committee. Provide logistical support. Document the committee's discussions and prepare draft and final reports for the committee.

Department of Environmental Quality (DEQ) Participation

DEQ's representative will assist in the periodic review by providing technical and policy information and advice to the SMRC and ODF staff, consistent with DEQ's statutory authority.

Other Participants

Provide technical and policy information and advice upon request of the committee and answer committee questions.

Committee Guidelines and Protocols:

Statement of Individual Commitment and Accountability; Working Guidelines

Working guidelines are statements of behavior, which, if mutually understood, accepted, and supported by members of a group or team, improve the flow of useful information and create a climate for increased effectiveness.

Members commit to participate actively and will strive to attend all meetings and field trips.

Members will foster collaborative discussion by:

- Listening actively and demonstrate that you understand.
- Making clear if you are speaking for yourself or the group you represent.
- Respecting the difference between fact and opinion.
- Avoiding jargon and 'loaded' words.

- Remaining focused on the objectives outlined in the charter and refraining from pursuing additional issues and objectives.
- Allowing all members to participate and have a voice in the review process.

Members will be respectful of a diversity of opinion and allow for an open, constructive dialogue.

Members will be sensitive to time constraints and keep remarks concise and to the point.

Members will focus on interests/ideas, not on persons.

Members will strive for seeking a range of information sources, recognizing that good information is needed for good decisions.

Committee Decision Making:

Consensus: The SMRC will seek consensus on recommendations whenever possible, and clearly articulate the range of viewpoints when consensus is not possible.

Voting/Quorums: In the event consensus is not possible, the SMRC will vote to establish the level of support for a specific recommendation. A quorum of nine committee members or their designated proxies must be present to establish consensus or to vote on a recommendation for inclusion in the committee's final report. Each of the 12 committee members will have one vote. With the consent of committee members in attendance, members not present to vote on a recommendation may be allowed to submit their vote to agency staff following the meeting.

Proxy: Committee members may designate one individual as their proxy for the duration of the committee's deliberations. The proxy will not be another chartered committee member, and will not be designated as a proxy for more than one committee member.

Establishing level of support for recommendations: For each recommendation considered by the SMRC, a level of support will be determined for inclusion in the final report, as follows:

- Consensus Support - All committee members expressed support for the recommendation.
- Strong Agreement – Nine to 11 committee members expressed support for the recommendation.
- Majority Agreement – Seven or eight committee members expressed support for the recommendation.
- No Agreement (recommendation does not move forward) – Six or fewer committee members expressed support for the recommendation.

Recommendations considered and discussed by the SMRC but not supported by consensus, strong agreement, or majority agreement will be documented in the committee's report. The specific views and points of disagreement between committee members will be included.

Appendix 4 - Glossary

AQMA	Air Quality Maintenance Area
ASA	Air Stagnation Area
BLM	Bureau of Land Management
BOF	Board of Forestry
DA	Designated Area
DEQ	Department of Environmental Quality
EPA	Environmental Protection Agency
EQC	Environmental Quality Commission
ERT	Emission Reduction Technique
ESMP	Enhanced Smoke Management Program
FASTRAX	Fuels Analysis Smoke Tracking and Report Access Computer System
FBII	Forestry Business Initiative
FERNS	Forest Activity Electronic Reporting and Notification System
FLA	Facilitated Learning Analysis
IMPROVE	Interagency Monitoring Protected Visual Environment
IT	Information Technology
JFSP	Joint Fire Science Program
LRAPA	Lane Regional Air Protection Agency
NEPA	National Environmental Policy Act
NFDRS	National Fire Danger Rating System
NWS	National Weather Service
OAR	Oregon Administrative Rule
ODF	Oregon Department of Forestry
ORS	Oregon Revised Statutes
OSMP	Oregon Smoke Management Plan
PE	Polyethylene
PM10	Particulate Matter 10 microns or less
PM2.5	Particulate Matter 2.5 microns or less
RA	Restricted Area
RFP	Request for Proposal
RHP	Regional Haze Plan
RHR	Regional Haze Rule
SIP	State Implementation Plan
SMAC	Smoke Management Advisory Committee
SMP	Smoke Management Plan
SMRC	Smoke Management Review Committee
SPZ	Special Protection Zone
SSRA	Smoke Sensitive Receptor Area
USFS	United States Forest Service
WRAP	Western Regional Air Partnership

Appendix 5 - Instruction Model Guidance Matrix Example

Season: Spring Zone: 618						
Transport Wind Direction	Transport Wind Speed	Mixing Height	Unit Tonnage	Unit Spacing	Distance to SSRA	Additional Instructions
001-229	>5	>=5000	matrix			
		4000-4999	matrix			
		3000-3999	matrix			
		0000-2999	matrix			
	<=5	>=5000	matrix			
		4000-4999	matrix			
		3000-3999	matrix			
		0000-2999	matrix			
230-309	>5	>=5000	matrix			
		4000-4999	2000	8	10	
		3000-3999	2000	10	12	
		0000-2999	1000	15	15	
	<=5	>=5000	matrix			
		4000-4999	2000	8	10	
		3000-3999	2000	10	12	
		0000-2999	2000	10	12	
310-360	>5	>=5000	matrix			
		4000-4999	matrix			
		3000-3999	matrix			
		0000-2999	matrix			
	<=5	>=5000	matrix			
		4000-4999	matrix			
		3000-3999	matrix			
		0000-2999	matrix			

STANDARD GUIDANCE MATRIX:

- Greater than 5,000 ft mixing height:** No burning within five miles of downwind SSRA. Maximum 100 tons per mile from downwind SSRA.
 Example: 500 ton maximum allowed if burned five miles from downwind SSRA.
- 3,000 – 5,000 ft mixing height:** No burning within 10 miles of downwind SSRA. Maximum 75 tons per mile from downwind SSRA.
 Example: 750 ton maximum allowed if burned 10 miles from downwind SSRA.
- Less than 3,000 ft mixing height:** No burning within 15 miles of downwind SSRA. Maximum 50 tons per mile from downwind SSRA.
 Example: 750 ton maximum allowed if burned 15 miles from downwind SSRA.
- All exceptions must be coordinated with the duty forecaster prior to ignition.

Appendix 6 – Smoke Management Review Matrix (see web link below)

<http://www.oregon.gov/odf/FIRE/SMP/2012%20Smoke%20Mgt%20Issue%20Matrix%20Updated%20May%206%202013.pdf>