



Examining the influence and effectiveness of communication programs and community partnerships on public perceptions of smoke management: A multi-region analysis

Year One Project Summary: Oregon 2011

Investigative Team

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Introduction

Larger scale and more frequent wildland fires over the past decade have made fire and its relationship to forest fuel conditions a significant challenge for land managers. Prescribed fire is one viable tool to address this issue and manage fuel loads. However, smoke from fires (prescribed or wild) affects air quality regardless of boundaries, sometimes at great distances and has the potential to impact communities beyond actual fire ignition zones. Because public acceptance and tolerance of smoke can influence their willingness to support the use of prescribed fire as a management tool, it is important to better understand how agencies communicate with communities during wildland fire and smoke events. This study aims to identify communication programs and the presence of fire-related citizen-agency partnerships and to better understand how these tactics influence citizen tolerance of smoke.

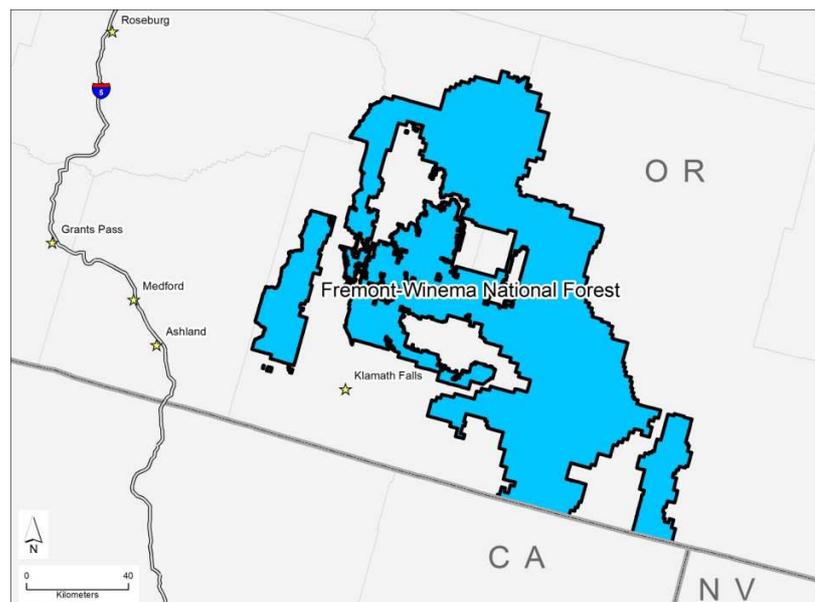
This report summarizes findings from research conducted in south-central Oregon on the topic of smoke and communications related to smoke. These findings are from the first year of a three-year study. Funding for this research was provided by the Joint Fire Science Program.

Study Area

This research focused on communities within or nearby the 2.3 million acre Fremont-Winema National Forest (FWNF) in Klamath and Lake Counties. This region offers a wide range of recreational opportunities and natural resource-based industry. Well over half of the land in the region is publicly-owned, and local economies have historically relied heavily on timber extraction. As timber harvests decreased in the 1990s, the workforce has shifted to agriculture, wood products, manufacturing, tourism and technology. However, the Lakeview Federal Stewardship Unit (a Federal Sustained Yield Unit) established in the late 1950's stipulates a certain portion of Fremont National Forest's timber be sold to mills within a seven mile radius of the towns of Lakeview and Paisley. This has kept some timber operations in business.

Additionally, the construction of a biomass cogeneration plant in Lakeview suggested removal of more forest fuels may be possible in the near future. However, construction has been put on hold due to the slow economy and low energy prices.

The topography in and around Klamath and Lake Counties creates a pre-disposition for air inversions and stagnation, especially during the cold winter months. Woodstove use as a



home heating source is high during this time and contributes to the challenge of air quality attainment. The city of Klamath Falls is currently designated by the U.S. Environmental Protection Agency (EPA) as 2.5PM non-attainment, while air quality regulators in Lakeview are actively working with the U.S. EPA to avoid this label.

Interviews and Selection of Participants

Interviews were conducted in Klamath and Lake Counties (Oregon) from January 23rd through January 27th 2011, including visits to the communities of Chiloquin, Chemult, Klamath Falls, Bly, and Lakeview. Participants were chosen based on key knowledge, ability to address the research topics, and variability in perspectives and experiences with smoke. Most participants were involved in forest and land management, air quality & policy regulation or with citizen engagement and communication. Twenty-three individuals were interviewed, with interviews ranging from 45 minutes to almost two hours. At the conclusion of these interviews, no new information was being discovered, suggesting that the necessary data to answer our research questions had been successfully collected.

Participant Breakdown

- (1) Timber Industry
- (2) Non-Governmental Organization
- (2) Air Quality
- (1) Local Governance
- (11) State or Federal Agency
- (6) Private Landowner

23 total Participants

General Interview Observations

In the fall of 2010, the community of Lakeview experienced heavy smoke from a prescribed burn conducted by the Forest Service when the weather abruptly changed after fire was on the ground. At the time of these interviews, this event was still fresh in the minds of citizens in Lakeview, and was mentioned by interview participants from other communities as well. Smoke from the event was described as thick and lingering. One participant stated, *“The smoke just kept coming. My son goes – Dad, why isn’t the smoke alarm going off? That was how smoky it was in the house.”* Following the event, a public meeting was held to address the situation. The meeting was intended to provide citizens with the opportunity to voice concerns and complaints; however, the meeting was scheduled for mid-afternoon on a weekday. Some community members felt that because the meeting time conflicted with daily business obligations, the public was not given the appropriate opportunity to attend.

Another recurring theme was a lack of public understanding for burn regulations, which lead to the repeated question from citizens regarding their woodstove use and the federal agencies’ prescribed burning: *“Why are they allowed to burn when I am not?”* Following this sentiment, some individuals insinuated the agencies *“can do whatever they want.”* Some expressed the sentiment that the agencies were not adequately concerned about public opinion regarding prescribed burning and smoke impacts.

Some agency interview participants, on the other hand, felt that the public was unable to differentiate between management districts and even agencies. One manager explained: *“It doesn’t matter if it is a state agency or a fed agency; it doesn’t matter, you are an agency.”* Several agency personnel

expressed the feeling of being “blamed” for smoke and burn events in which they had no involvement. One participant commented, *“It doesn’t matter which agency or entity is burning, if something bad happens, I think the public perception automatically tags it to Forest Service; so we get a bad rap for it.”*

While this region is subject to strict regulatory measures for air quality non-attainment, it also experiences high seasonal output of woodstove smoke. Consequently, it should be noted that conversations generally included a discussion on woodstove change-out programs, as well as mention of proposed biomass facilities as an alternative to burning forest fuels and timber industry refuse.

Emerging Findings from Interviews

This section provides additional details discussed during the interviews. It is broken into several themes, with specific items bulleted under those themes. These lists are not all-inclusive; rather, the findings presented here represent some of the most frequently mentioned or interesting findings for each topic.

Concerns Associated with Fire and Smoke

- Potential of smoke impacting air quality attainment
 - Non-attainment label hinders new business development; smoke viewed as negatively impacting regional economy
- Smoke and wildfire reducing tourism and recreation
- Fire escaping/getting out of control
- Health implications associated with smoke, especially for those who are respiratory compromised
- Being blamed for smoke impacts on communities

Perspectives and Perceptions

- When public sees smoke they automatically assume Forest Service involvement
- Lack of communication is a problem (both interagency and with public)
- Lack of public understanding for regulation (esp. burn days and air quality monitoring requirements)
- Stove change out programs have improved local smoke emissions
- Believe public sees smoke (prescribed burning or wildfires) as a sign of wasted forest resources
- Believe public thinks agencies play by their own rules; does not take public opinion into account
- Believe public thinks there is not enough information transferred down from agencies to the public
- People that have resided in the area for an extended period of time (locals) have a better understanding and tolerance of smoke and fire
- Important for agency personnel to display genuine concern for the public (when managing for fire and smoke)
- Agencies need to have effective and timely communication strategies

Public Communication

- Information sharing networks (among colleagues) can be better utilized to deliver and receive information regarding forest/fire/smoke management efforts
- Develop communication plans upfront

- Maintaining personalized communication was valued; many participants preferred personal phone calls or visits rather than mass email notifications
- Personalized public communication fostered better knowledge about fire and smoke issues
- Visual communication strategies (such as maps or diagrams) thought to improve public understanding of messages or information
- Communication trap lines worked effectively as a line of transport for messages when door to door outreach was not a viable option

Partnerships and Collaboration

- Allocated time for discussion and information sharing
- Led to the impression that projects that were approached in a collaborative manner (those which included multiple stakeholders) had better cooperation and acceptance and were more likely to be publically supported
- Assisted in identifying and addressing concerns in the early stages of project planning

Challenges

- Woodstove use common (as a home heating source); smoke emission from woodstoves frequently impacted air quality monitor readings
- EPA air quality non-attainment label
- Local topography creates predisposition for air stagnation and inversions
- Locally depressed economy/low income
- Smoke drift from other regions fairly common
- Scale of impact for fire and smoke activities; impact not limited to city or county lines
- Lack of funding for prescribed burn projects or for continuance of stove change over programs
- Finding ways to reach the public with limited staff and monetary resources

Opportunities Identified for Future Progress

- Small investments in public interface and outreach have opportunity to pay off big in the long run
- Upfront communication planning
 - Avoid problems by providing information and communication before it is necessitated
 - Identify possible scenarios (for smoke or fire impact); have a plan in place to address each scenario
- Providing more public information to reduce questions later (address who, what, when, where and why)
- Inventory under-capitalized existing resources & find ways to utilize (road signs, existing communication lines, partnerships, etc.)

Take Away Messages

Invest in collaborative groups and projects and over the long run they will pay off

While it can be inferred that working in a collaborative manner to address interests brings about a better understanding of concerns and builds a broader knowledge base among participants, the benefits derived from the dissemination of information may not be as obvious. Individuals carry back information gained from the collaborative process to their respective community or agency, thus creating a direct information source. This dissemination of information can assist in increasing acceptance levels because the information is being provided by a trusted source. Projects that take into account multiple viewpoints or objectives are often seen as more credible in the public eye and thus are less likely to meet opposition.

Communication lines: inventory resources and evaluate how to make the most out existing structures

Many resources are under-utilized or not recognized. During times of economic hardship and budget cuts, it is imperative to reevaluate tools and assets that can be better employed for reaching communication goals and objectives. Inventorying not only physical resources (such as available road signs and publically distributed media material) but also intellectual and communication lines can provide managers a better opportunity for circulating information to the public. Consider email lists, school programs, community groups, or meetings and gatherings as a resource tools for providing the public with educational opportunities and a communication avenue.

Consider approaches that build local ties and trust while distributing information to the public

Information delivery that occurs in a personalized manner was widely valued not only between colleagues but also within communities. One participant explained: “Getting out and kicking the gravel pays the dividends.” Obviously time is required to get out of the office and interface with the public but in doing so there is a possibility for lines of trust and understanding to develop. Although in-person contact tended to be the most preferred method for receiving information in this study, the reality is that this may not be applicable in every situation. Communication trap lines can also provide a fast moving information platform. By considering who talks to who in the community and targeting communication efforts at those who are most likely to spread information, managers can derive maximum benefit from outreach efforts.



Thank you to the participants in Chiloquin, Chemult, Klamath Falls, Bly, and Lakeview for making this study possible.
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