

# Using Focus Groups to Involve Citizens in Resource Management—Investigating Perceptions of Smoke as a Barrier to Prescribed Forest Burning

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## Introduction

The information reported here is part of a study of citizens of the Northern Inland West that examined how the source of smoke (agricultural burning, prescribed forest burning, or wildland fire) influences people's tolerance of the negative effects from that smoke (for example, breathing problems and limited visibility) (Weisshaupt *et al.* 2005). Through a series of focus groups we learned the source of the smoke does make a difference, and under certain conditions, smoke from prescribed forest burning will be tolerated and accepted even by anti-agricultural burning interests. However, the focus of this paper is on another lesson from the study: the focus group method can be adapted to serve as a tool for community collaboration in developing and implementing projects for wildland fire management.<sup>1</sup>

## Key Findings

*"I felt my opinion changing as I learned more, and that made me mad."*  
(Anti-smoke activist)

In our research, we found that the most exciting aspect of focus groups is the way members react to and build on the comments and observations of other members. Stewart and Shamdasani (1990: 16) describe "the synergistic effect of the group setting" in which ideas are generated that may not have been uncovered in individual interviews. This "synergistic effect" encouraged learning and change in the focus groups conducted for this study. As a result, we have three recommendations for managers:

**Conduct focus groups as a means of public involvement and a first step in building collaborative relationships.**

Focus groups provide participants with the opportunity to work through their beliefs and feelings about an action. By observing or participating in focus groups, decisionmakers can begin to understand residents' depth of feeling about an issue and their reasons for accepting or resisting different actions.

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<sup>1</sup> A brief summary of specific findings from the research project can be found at the end of this paper.

Building on this understanding, decisionmakers can identify where their own perceptions of problems differ from those of the public and develop more socially acceptable solutions to a problem.

**Develop a dialogue with the public—it may be the most important element of a fire or resource management prescription.**

Colleagues conducting research in hazards communication have long found that it is not enough to tell people what you are going to do or what you expect them to do, you must also tell them why the action is being taken and the expected impacts (Monroe *et al.* 2005). Focus groups provide opportunities for this type of communication—during our focus groups we saw participants change their minds about prescribed forest burning as they learned more about the reasons for and the process of conducting this fuels treatment. They provide a means of establishing a dialogue with the public that allows citizens and resource managers to work through important issues—to have the give-and-take that is critical to understanding others’ perceptions, attitudes, and values.

**Discuss tradeoffs to build understanding of management activities.**

In our focus groups we were able to build understanding and support for prescribed forest burning by describing the tradeoffs between less smoke from prescribed forest burning now versus more smoke from wildland fires later. Participants were also more accepting of prescribed forest burning if the benefits were described in terms of improving forest conditions for a variety of benefits. If managers can build dialogue with the public around the tradeoffs of different management actions, they can often build greater understanding of the desired action. Through these changes in beliefs and values, new behavior is adopted.

## **What is a Focus Group?**

Kruger (1994) identifies six characteristics of a focus group: (1) people, (2) gathered in groups, (3) process certain information, and (4) provide data (5) of a qualitative nature (6) in a focused discussion. A well-run focus group creates an environment in which people face complexity, alternative perspectives, and tradeoffs they might not otherwise encounter. Focus groups can replicate the kind of “working through” that Yankelovich (1991) and other public policy scholars argue is needed in successful public decisionmaking forums that deal with complex issues (Reich 1985, Weber 2003).

Some group discussions are labeled focus groups, when they would more accurately be called community forums, discussions, or hearings. What distinguishes a focus group from these other group conversations is that participants have been specifically recruited to participate, and the topics and the flow of the focus group discussion are carefully predetermined and sequenced based on an analysis of the event,

experience, or topic of interest (Kruger 1994). This directed discussion stimulates new ideas, develops interest, and builds a commitment to take action or make changes (Bader and Rossie 2002).

## The Focus Group Process

The focus group process allows managers to involve citizens in directed discussions of topics of interest. However, to ensure that a focus group is a success, particular attention needs to be paid to two matters (Kruger and Casey 2000). First, the purpose of the group must be clear. Second, the focus group facilitator must have the skills necessary to guide the group. An additional item to consider is ensuring that participants represent the range of relevant points of view.

The purpose of the focus group must be clearly defined and followed or participants will become confused and frustrated. We wanted to find out if the origin of smoke makes a difference in how people perceive that smoke. Along the way we sought additional information on people's perceptions of the conditions of Northern Inland West forests and ways in which public land managers and private citizens could reduce the risk of wildland fire in these areas. Our discussions focused on these three issues—perceptions of smoke, conditions of the region's forests, and ways to reduce the risk of wildland fire.

The moderator is key to ensuring that focus group discussions go smoothly and, if necessary, directing the discussion to the various topics. The moderator introduced topic areas, and the groups were allowed to explore the ideas and tradeoffs at length. In this study we used a professional focus group facilitator to select participants, conduct the focus groups, and produce a transcript. A professional facilitator helped ensure that the quality of all 10 focus groups—in terms of participants, process, and product—was consistent. The facilitator also provided a buffer between the participants and researchers, ensuring the researchers did not influence the content of the discussion or participants' opinions and perceptions. Having a professional facilitator helped protect the integrity of this research.

Kruger and Casey (2000) offer valuable insight for **deciding if a focus group is the right approach** for determining the perceptions, feelings, and thinking of groups of people about issues. They suggest that focus groups can be valuable in a variety of situations including when you are—

- Looking for the range of ideas or feelings that people have about something.
- Trying to understand differences in perspectives among groups or categories of people.
- Trying to uncover factors that influence opinions, behavior, or motivation.
- Trying to draw ideas from a group.

Among the situations for which a focus group would be inappropriate are when—

- You are trying to educate people (although education can be a by-product of focus group discussions).
- You want to give the appearance of listening, but don't intend to use the results.
- You want people to reach consensus.
- The environment is emotionally charged, and a group discussion will likely intensify the conflict.

A professional facilitator may not be needed if someone on staff has the necessary group process skills. However, when facilitating groups, different group objectives can call for different skills, “the processes used to get participants’ reactions to ideas are different from the processes used for group decision making” (Kruger and Casey 2000: 3).

*In general the facilitator needs to show characteristics of supportive leadership: show concern for the well-being and personal needs of [participants]; be friendly and approachable; be considerate; create a friendly climate; and treat group members as equals (Stewart and Shamdasani 1990: 73).*

Finally, to understand the range of perspectives on an issue, it is important to carefully consider who should participate in the focus groups. Our knowledge of the issues related to smoke helped us define citizen categories that represented a range of possible opinions on smoke, and from which focus group participants would be drawn. First, we identified anti-smoke activists—people who actively worked to limit smoke from agricultural fires in the region. After the anti-smoke activists we had our silent majority—people who hadn’t spoken out against smoke, but for whom the issue has salience. We divided the silent majority into urban and rural residents. Our urban residents would come from two metropolitan areas: Spokane, Washington, and Missoula, Montana. Both urban areas had experienced smoke, and Missoula’s recent wildland fire season had produced significant smoke that affected the area for many days. Rural residents would consist of anyone living outside census-defined metropolitan areas. A final group we included was Native Americans.

## **Smoke Focus Group Details**

One of the more significant barriers to increased use of prescribed forest burning is air quality concerns related to the smoke generated by these fires (Weisshaupt *et al.* 2005). In some areas of the West, agricultural field burning has been prohibited because of concerns about air quality from the smoke produced by this practice. To learn more about people’s perceptions of prescribed forest burning and the significance of smoke as a barrier to the increased use of prescribed burning for fuels reduction, we conducted a series of focus groups in eastern Washington and Montana.

## **Methods**

Focus groups were conducted in the greater Spokane, Washington, and Missoula, Montana, areas between October 2003 and January 2004. Each of our focus groups had 6 to 13 participants; all participants in each focus group represented one of the five citizen categories defined above: (1) anti-agricultural smoke, (2) urban—Spokane, Washington, (3) urban—Missoula, Montana, (4) rural, and (5) Native

American (table 1). Although participants were selected for a specific focus group because they fit the category of that particular group, participants could belong to more than one category. For example, a participant in an anti-smoke focus group also could be considered as urban or rural or Native American. Two focus groups were held for each of the five citizen categories, for a total of 10 focus group sessions. Focus group participants were paid \$50. The focus groups were conducted in specially designed facilities that allowed us to videotape and record the discussion for transcription at a later time. We hired a professional focus group facilitator who helped us select local residents to represent our citizen categories, designed a series of questions that would bring us to the topics of interest, conducted the focus groups, and produced transcripts of the discussions.

**Table 1.—Description on citizen categories represented in focus groups**

Citizen categories	Description	Number of participants in each focus group	
		Group 1	Group 2
Anti-smoke	Health/environmentally minded eastern Washington residents	10	13
Urban-Spokane	Citizens residing within Spokane County	10	12
Urban-Missoula	Citizens residing in a town that recently experienced wildfire	10	10
Rural	People from eastern Washington living outside Spokane or reservations	12	12
Native American	Members of the Colville Confederated, Spokane, and Kalispel Tribes, all with reservations in eastern Washington	6	13

The flow of each focus group discussion varied, but the discussion ultimately took us to each of our topics of interest. The discussion began with questions about the quality of life in the region. It then generally moved to what contributed to that quality of life (forests would eventually come up), how participants perceived current forest conditions (dense and dying), what level of wildland fire risk was posed by current forest conditions (high), what could be done to reduce that risk (various methods for mitigating fuels risk), what role prescribed forest burning played in reducing risk (recognized as a tool to mitigate high fuel levels), what barriers prevent use of prescribed forest burning (fear of escape, smoke), and finally, how smoke from prescribed forest burning differed from smoke from agricultural burning and wildland fire (people did see a difference and had greater acceptance of smoke from prescribed forest burning). Each focus group ended with an explanation of why the focus group was being held, and the researcher was available to answer participants' questions about the study. Focus groups generally lasted 90 minutes to 2 hours.

The researchers reviewed the transcripts of each focus group, identifying comments related to the topics of interest. For each topic, themes and issues emerged from the discussions and lead to the findings discussed below.

## Findings

### Fuel Reduction Methods

After the focus group discussed the condition of forests in the region and agreed on the need to reduce the levels of hazardous fuels, the moderator asked participants to suggest different methods for reducing fuels. Time was spent defining and describing each method, so that participants shared an understanding of the different terms being used.

Harvesting was generally the most-often mentioned fuels reduction method, followed by thinning and chipping. The exceptions were the Native American groups—they were most apt to support the use of prescribed forest burning to reduce fuels.

The Native Americans brought to their focus groups the best understanding of prescribed forest burning, the rural groups had some understanding of the practice, while the other groups had little detailed knowledge. Native American members talked about the history of burning on reservation lands:

*Just setting a fire and letting it go. That fire might get a foot and a half maybe two feet high, if that. Then after that the fire would go out...He said 'Now, when this is dead out, and the ash is going to still be there, we've put something back into the ground. We didn't take it all. So when the rains do start coming, that ash is going to help hold that soil there so when the grass starts growing, then I've got something for my livestock out here...'*

(Native American talking about his grandfather burning his property)

Members of the Native American groups also reported they had burned some of their own property:

*It lowers the fuel around my home site if I burn every spring before it gets too dry, or right after its just started to dry out I will do a prescribed burn. So it will take down all the dry old weeds... the green comes back up and you don't have to worry about the danger of high fuel for forest fires. (Native)*

As mentioned above, the urban groups were the least familiar of any with the concept of, and issues surrounding, prescribed forest burning. For them, concerns about smoke and declining air quality were linked to fireplaces or industrial stacks. When the discussion focused on forest or field burning and smoke, the urban group members generally expressed willingness to live with it:

*...the only thing you can do about it is either live with it or move...I choose to live in this area and I know that agricultural burning happens, forest fires happen. There have been days when I cannot leave my house. But it's one of those things. (Urban)*

As participants learned more about prescribed forest burning, they expressed more tolerance for the practice:

*The discussion on why we would have prescribed burns definitely made me look at the subject differently. I really never thought about it at all. (Anti-smoke)*

Many participants thought prescribed forest burning was needed in the forest to reduce fuel loading, wildland fire risk, and potential property loss from wildland fires, but most disliked the idea of a prescribed forest burn being conducted near their homes. They accepted using prescribed forest burning in remote, unsettled areas, but thought that burning in the wildland-urban interface posed unacceptable risks. As our participants discussed the problem of fuels reduction, and worked through various approaches to mitigating risk, they often reached the conclusion that no one method of fuels reduction would adequately reduce fuels and that a combination of thinning and prescribed forest burning would be “most practical.”

### Smoke Sources

The moderator directed the discussion so that participants had the opportunity to consider three different sources of smoke—agricultural burning, prescribed forest burning, and wildland fires. From naturally occurring forest fires to field burning, area residents were accustomed to smoke:

*I know I have it [asthma] and I know that smoke affects it...I live with it. I can't expect the whole world to change just because I have asthma. I have to adapt to the fact that I live where I live and there's smoke. (Rural)*

Most reported they had never differentiated between smoke sources when thinking about their perceptions of or reactions to smoke. However, once the distinction was suggested, many participants, evaluating the various tradeoffs, concluded they would accept the smoke from prescribed forest burning now if it could lead to less smoke from large wildland fires later. By the end of the discussion, a majority of each group, even the anti-smoke groups, thought they would be less opposed to prescribed forest burning if it reduced the number of wildfires and thereby the overall amount of smoke:

*If it is a prescribed burn, there's the possibility for intelligent smoke management... it is an inexact science, but at least it's better than not having any control over it [smoke]... (Anti-smoke)*

Participants, even those opposed to agricultural burning, became more receptive to smoke from prescribed forest burning when they were able to identify a number of positive effects for everyone in the region:

*You are burning the forest so it can renew itself and be better for everyone and if you are burning grass for next year's seed for sale, then that's just individual profit. (Native American)*

When discussing agricultural burning, those who accepted the practice did so for three main reasons: (1) field burning contributed to farmers' incomes and provided jobs, thus contributing to the region's economic base; (2) smoke was a part of life in their community; and (3) agricultural fields were a natural resource and benefited from burning. Anti-smoke groups recognized only one benefit from agricultural burning—to increase a farmer's revenue. They also saw the negative health effects from smoke as affecting many more citizens than the other focus groups.

Although the anti-smoke focus groups were opposed to agricultural field burning, they were willing to accept the smoke from prescribed forest burning. Distinguishing between smoke sources increased the expressed tolerance of prescribed forest burning by these groups. The Missoula focus groups were tolerant of prescribed forest burning smoke because they had been “smoked in” by wildfire smoke the previous summer. They viewed prescribed forest burning as an effective fuels reduction technique that reduced catastrophic wildfire risk and smoke.

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## **References**

- Bader, G.E.; Rossie, C.A. 2002. Focus groups: a step-by-step guide, 3d ed. San Diego, CA: The Bader Group. 61 p.
- Kruger, R.A. 1994. Focus groups: a practical guide for applied research, 2d ed. Thousand Oaks, CA: Sage Publications. 254 p.
- Kruger, R.A.; Casey, M. 2000. Focus groups: a practical guide for applied research, 3d ed. Thousand Oaks, CA: Sage Publications. 213 p.
- Monroe, M.C.; Pennisi, L.; McCaffrey, S. 2005. Social science to improve fuels management: a synthesis of research on communicating with homeowners about fuels management. Gen. Tech. Rep. NC-267. St. Paul: U.S. Department of Agriculture, Forest Service, North Central Research Station. 42 p.
- Reich, R. 1985. Public administration and public deliberation: an interpretive essay. *Yale Law Journal*. (94): 1617-1641.
- Stewart, D.W.; Shamdasani, P.N. 1990. Focus groups: theory and practice. Newbury Park, CA: Sage Publications. 153 p.

Weber, E.P. 2003. Bringing society back in: grassroots ecosystem management, accountability, and sustainable communities. Cambridge, MA: Massachusetts Institute of Technology. 317 p.

Weisshaupt, B.R.; Carroll, M.S.; Blatner, K.A.; *et al.* 2005. Acceptability of smoke from prescribed forest burning in the Northern Inland West: a focus group approach. *Journal of Forestry*. 103(4): 189-193.

Yankelovich, D. 1991. Coming to public judgment: making democracy work in a complex world. Syracuse, NY: Syracuse University Press. 290 p.