

# Fire Management on Public Forests and Rangelands

## A Survey of Citizens in Colorado's Estes Valley and Front Range Communities: Larimer and Boulder Counties

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**Issue:** Public acceptance is critical to successful implementation of natural resource programs on federal lands. Managers concerned with implementing fuel management programs, especially at the wildland-urban interface, need accurate information about public attitudes toward fire and support for fuel reduction practices.

**Objectives:** The purpose of this project is to evaluate the public's perspectives and acceptance of wildland fuel programs on federal forests and rangelands. The setting is the fire-prone region of Colorado's Estes Valley and front range communities where citizens are familiar with forest conditions and have a stake in management outcomes. Specific objectives include:

- Assess public opinion about treatment alternatives, smoke management, and agency communication strategies in affected communities.
- Identify factors that influence the acceptability of wildland fuel reduction strategies and decision processes.
- Measure public confidence in resource agencies for effective implementation of fuels reduction practices.

**Methods:** This study was part of a larger project that included a national survey, targeted surveys of seven fire-prone areas (in OR, UT, CO, AZ, GA, FL, and the Great Lakes Region) and evaluations of local outreach programs.

Findings presented here are a subset of data from a mail survey conducted in 2002 in Larimer and Boulder Counties (n=164) to provide managers with locally relevant information about their publics. Discussions with local cooperators on the Arapaho-Roosevelt National Forest helped inform questionnaire design.

### Preliminary Results:

- Most respondents thought it was likely that a wildfire will break out in the forests or rangelands near their home in the next five years (Figure 1).

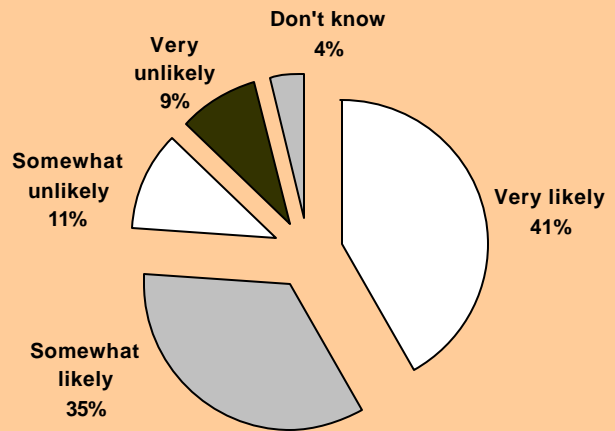


Figure 1: Perceived Likelihood of a Wildfire

Table 1: Acceptance of Fuels Management Practices

	Prescribed Fires	Mechanical Vegetation Removal	Restoration Planting	Grazing
A legitimate tool that resource managers should be able to use whenever they see fit.	46%	59%	83%	62%
Something that should be done only infrequently, in carefully selected areas.	45%	24%	6%	21%
A practice that should not be considered because it creates too many negative impacts.	3%	3%	0%	6%
An unnecessary practice.	1%	3%	2%	3%
I know too little to make a judgment about this topic.	5%	10%	8%	9%

- After reading a short description of each fuel management practice, respondents gave their opinions on the use of prescribed fire, mechanical vegetation removal, restoration planting, and grazing (Table 1).

Restoration planting received the most support overall. However, a majority also thought mechanical vegetation removal and grazing were legitimate tools that managers should be able to use whenever they see fit. Respondents showed the most caution regarding prescribed fires.

➤ Survey participants rated their level of concern about possible nine effects of prescribed fire (Table 2). Three drew moderate or great concern from a majority of respondents. Overall, most concern was expressed about effects on recreation opportunities and the least was over the effects on economic loss of useable timber.

**Table 2: Concerns about Possible Effects of Prescribed Fire**

	Moderate concern/ Great concern	Not a concern/ Slight concern
Effects on recreation opportunities	66%	34%
Damage to private property	56%	44%
Increased soil erosion	51%	49%
Risk to human safety	46%	54%
Loss of wildlife and fish habitat	46%	54%
Increased levels of smoke	42%	58%
Deteriorated public water supply	38%	62%
Reduced scenic quality	36%	66%
Economic loss of useable timber	20%	80%

➤ More specific findings about smoke from prescribed fire (Table 3) suggest that it is managed acceptably and the use of prescribed fire should not be limited because of smoke.

**Table 3: Attitudes about Smoke**

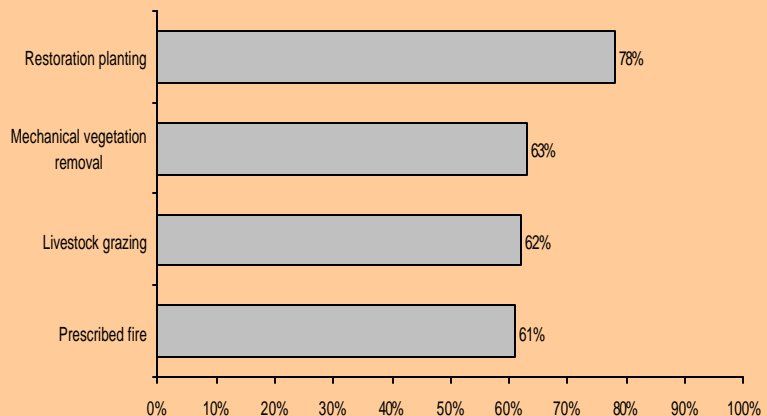
	Agree
Smoke from prescribed fire is a necessary inconvenience	56%
Smoke levels from prescribed fire are a concern, but I think they are managed acceptably	48%
I worry about the effects of smoke from prescribed fire on public health	35%
Smoke from prescribed fire as never been an issue with me	32%
I worry about the effects of smoke from prescribed fire on travel safety	18%
Because of the smoke, prescribed fire isn't worth it	4%

**Table 4: Trust in Agencies to Make Good Decisions about Wildfire Management**

	Full/Moderate	None/Limited	No opinion
U.S. Forest Service	72%	18%	10%
National Park Service	69%	19%	12%
County government	62%	27%	11%
Bureau of Land Management	57%	24%	20%
State government	57%	31%	12%
City government	47%	37%	16%

➤ The trust citizens have in land management agencies influences their judgments about the implementation of fuel management practices. Table 4 shows that approximately two-thirds of participants rated the U.S. Forest Service, National Park Service, and county government as trustworthy decision-makers.

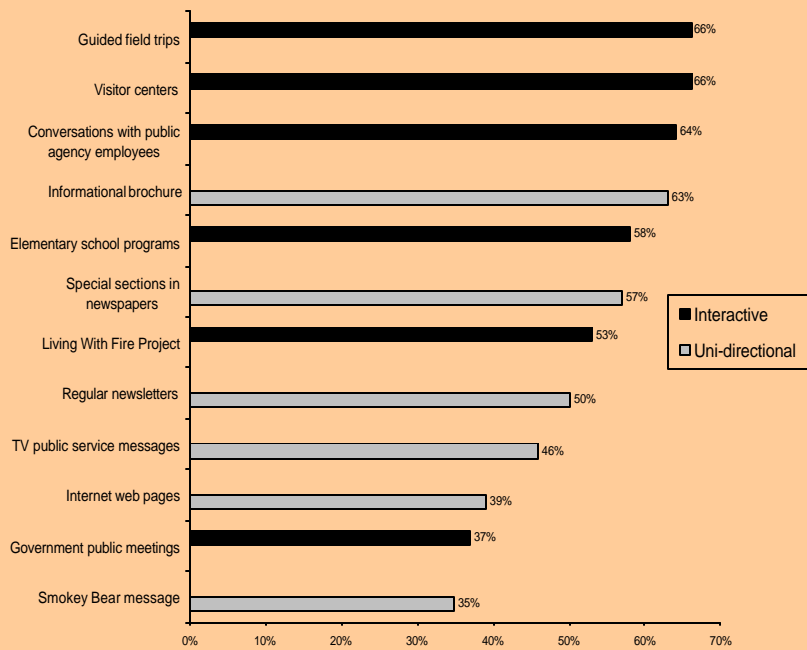
➤ Participants were asked specifically about their confidence in the Forest Service and BLM to use certain fuel management practices (Figure 2). They reported the most confidence in the agencies' ability to use restoration planting, though a majority also reported confidence in the use of each practice. (scale: none, limited, moderate, full)



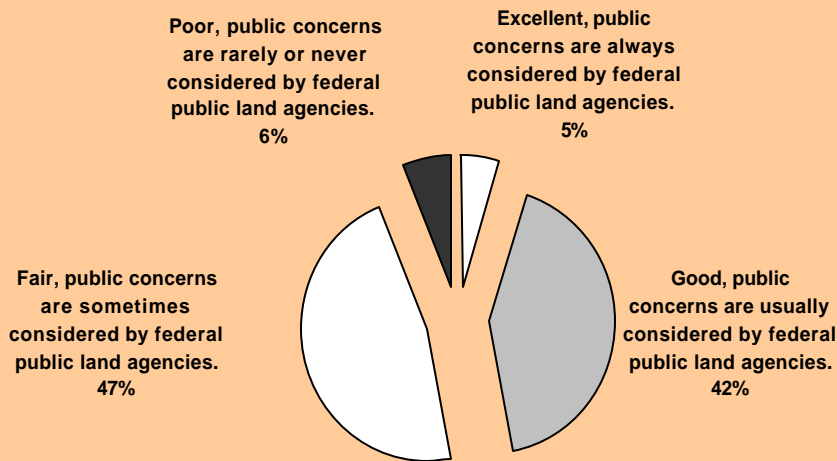
**Figure 2: Confidence in Forest Service and BLM to Use Fuel Treatments (percent citing full or moderate confidence)**

➤ Information and knowledge play an important role in forming support for management practices. Citizens rated the usefulness of 12 different agency information programs (Figure 3). Ratings were influenced by factors such as ease of understanding and credibility. For presentation purposes, the outreach programs are depicted as either interactive or uni-directional. Interactive programs are those that provide for either personal contact with agency representatives or on-the-ground learning experiences. Uni-directional programs are those that typically involve a one-way flow of communication from the agency to the public.

Overall the most useful programs were interactive, indicating greater dividends may be achieved from this form of outreach. Of the interactive programs only public meetings failed to resonate with a majority of respondents.



**Figure 3: Usefulness of Fire Information Programs**



**Figure 4: How Well Agencies Consider Public Concerns**

➤ Positive citizen-agency relationships are key to successful implementation of forest practices. Citizens rated how well the Forest Service and National Park Service have done in considering public concerns in their management activities. Overall 47% rated the agencies as excellent or good at this important aspect of managing public lands (Figure 4).

**Conclusion:** Respondents are aware of a high risk for wildfire in Colorado's Estes Valley and front range communities and overall are very supportive of fuel treatments. They are willing to give managers the greatest discretion to implement restoration planting and also indicated the most trust in agencies to utilize this treatment. Regarding the use of prescribed fire, respondents were most worried about the effects on recreation opportunities and potential damage to private property. Many were concerned about impacts from smoke, but findings further suggest that although smoke is an inconvenience, most respondents feel that it is managed in an acceptable manner. A substantial majority place trust in the Forest Service, National Park Service, and County government to make good decisions regarding fire. Participants recognized interactive forms of communication (field trips, visitor centers, and conversations with employees) as the most useful outreach activities for fire management. Finally, slightly less than one-half of the participants gave the Forest Service and National Park Service good marks for incorporating public concerns in management plans.

The management issues discussed in this study are all important to citizens, especially when their local communities are subject to the threat of wildfire and various fuel treatments. Although responses show a majority of the public in favor of fire management practices, a number of citizens still are likely to withhold their full support of manager's actions. Experience from forest communities indicates that citizens will be waiting to see how well these policies play out before making final judgments.

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