

# The Public and Wildland Fire Management: Social Science Findings for Managers



## “People and Their Environments”

A research work unit of the USDA Forest Service Northern Research Station

1033 University Place, Suite 360  
Evanston, IL  
60201-3172

847-866-9311

For more information, contact Sarah McCaffrey (x 20)



This General Technical Report (GTR) provides information from social science research that grew out of three National Fire Plan sponsored projects at the North Central Research Station. The goal of this GTR is to highlight some of the key research findings that have emerged from this research that we believe may be of interest to individuals working to decrease the wildfire hazard on both private and public lands.

To make the information more accessible to practitioners, we have inverted the format of traditional academic articles where the meat is found at the end in the discussion section and conclusions. Although the diversity of study methods and research topics addressed do not lend themselves to a completely consistent presentation, articles do follow a general format: starting with basic introduction, key findings for managers, and, where appropriate, more detailed findings. Study background, methods, and, in several cases, literature review then follow at the end of the article. Abstracts are provided as a group at the beginning of this GTR to allow readers to quickly assess topics and key findings. All articles were double blind peer-reviewed for scientific quality and accessibility.

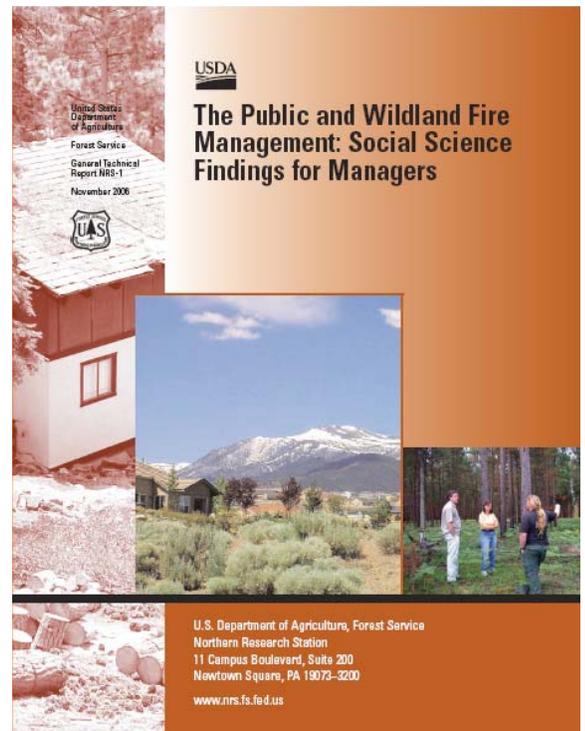
Articles are grouped in three general topic areas:

- Section 1.—Public views and acceptance of fuels management
- Section 2.—Working with homeowners and communities
- Section 3.—Tools that help us understand social issues

Many of the papers contain findings relevant to more than one topic area. For instance, Weisshaupt *et al.* discuss how focus groups can be used to understand public preferences, but their paper also contains useful findings about what influences public acceptance of smoke from fires.

Some general patterns can be seen across papers. A significant portion of the population in the study areas supports both thinning and prescribed burning as management tools to reduce fire risk, and a majority engage in defensible space activities. The most consistent finding is that knowledge and familiarity with a management practice is associated with increased support for the practice. The most effective means of increasing public acceptance is an interactive one that engages affected individuals and communities in the management process.

Not all findings are in complete agreement. For instance, Ryan *et al.* suggests that voluntary defensible space practices may be easier to implement than regulatory ones. However, their research was conducted in areas with no regulations. In contrast, Winter *et al.* found higher approval for defensible space ordinances in California where such regulations were in place but lower approval in study sites where there were no ordinances. This suggests that in areas where homeowners are unfamiliar with a practice



there will be initial resistance to regulatory approaches, but as knowledge increases the resistance can be overcome. It also highlights that, although a number of general patterns can be identified across studies, local context always matters and must be taken into account in any outreach effort.

Although outreach takes time, results indicate that such efforts can increase support for specific fuels treatments as well as for overall agency fire management. We hope the information in this document will facilitate these efforts and help save managers' valuable time and resources.

### Study Sites and Methods of Papers in This Report

Author(s)	Title	Study Sites	Methods
<b>Public views and acceptance of fuels management</b>			
Ryan <i>et al.</i>	Perceptions of wildfire threat and mitigation measures by residents of fire-prone communities in the Northeast: survey results and wildland fire management implications	Massachusetts, New York	Interviews, Mail survey
Winter <i>et al.</i>	Residents warming up to fuels management: homeowners' acceptance of wildfire and fuels management in the WUI	California, Florida, Michigan, Missouri	Focus groups, Mail survey
McCaffrey	What does "wildfire risk" mean to the public?	Arizona, California, Colorado, Montana, Nevada	Focus groups
Bright and Newman	How forest context influences the acceptability of prescribed burning and mechanical thinning	Colorado, Southern Illinois, Metropolitan Chicago	Mail survey
Daniel	Public preferences for future conditions in disturbed and undisturbed northern forest sites	Minnesota, Arizona	Computer visualizations
Merrick and Vining	Characteristics people consider when evaluating forest landscape attractiveness: fuel management implications	Minnesota, Illinois	Process tracing
Hull and Goldstein	Barriers to community-directed fire restoration	Southern California	Interviews, Document analysis
Ryan and Hamin	Engaging communities in post-fire restoration: forest treatments and community-agency relations after the Cerro Grande fire	New Mexico	Interviews, Focus groups
<b>Working with homeowners and communities</b>			
Monroe <i>et al.</i>	Communicating with homeowners in the interface about defensible space	Florida, Minnesota	Mail survey
Toman and Shindler	Wildland fire and fuel management: principles for effective communication	Arizona, California, Colorado, Idaho, Oregon, Utah	Mail survey
Sturtevant and McCaffrey	Encouraging wildland fire preparedness: lessons learned from three wildfire education programs	National	Interviews, Document analysis
Lang <i>et al.</i>	Working with community leadership to promote wildfire preparedness	Minnesota, New Jersey, South Dakota	Telephone interviews
Johnson Shiralipour <i>et al.</i>	Working with neighborhood organizations to promote wildfire preparedness	Alaska, Colorado, Florida, New Jersey, South Dakota, Texas	Interviews
Agrawal and Monroe	Using and improving social capital to increase community preparedness for wildfire	Florida	Mail survey
Fingerman Johnson <i>et al.</i>	Defensible space in the news: public discussion of a neglected topic	National	Newspaper text analysis
<b>Tools that can help us understand social issues</b>			
Weissaupt <i>et al.</i>	Using focus groups to involve citizens in resource management—investigating perceptions of smoke as a barrier to prescribed forest burning	Montana, Washington	Focus groups
Orland and Ursavas	Using computer visualizations to help understand how forests change and develop	National	Computer visualizations
Stewart <i>et al.</i>	The wildland-urban interface in the United States	National	GIS mapping

*To view and print or to order this publication please go to:*  
<http://nrs.fs.fed.us/pubs/8588>