



# **FIRE**SCIENCE **DIGEST** *Research Supporting Sound Decisions*

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## **Building Trust, Establishing Credibility, and Communicating Fire Issues with the Public**

With more people than ever living in the vicinity of the wildland-urban interface, communicating wildland fire management activities and building trust with the public is paramount for safety. Although the time and resources it takes to build and maintain the public's trust may seem daunting, it may be one of the most important factors determining the long-term viability of a fire management program. Trust is built over time through personal relationships with citizens and communities and also by demonstrating competence and establishing credibility. When trust and confidence have been established, managers can enjoy strong support of fire and fuels management programs, even in some of the most challenging communities. Several studies funded by the Joint Fire Science Program (JFSP) have shed light on what the public knows and thinks about fire and the agencies that manage it, as well as the public's views on their own fire risk, their responsibilities in reducing it, and their levels of support for fuels reduction programs on public lands. In addition, land managers know more about how to effectively communicate with the public about fire, whether the goal is to build support for fuels treatments and fire management or to motivate property owners to mitigate their fire risk.



Steve Miller



Prescribed burn on St. Johns River Water Management District property in Florida.

## Building Trust in the Interface

Steve “Torch” Miller is no stranger to managing challenging prescribed burns in the wildland-urban interface. As chief of land management for the St. Johns River Water Management District, Miller is responsible for managing more than 420,000 acres in northeastern Florida. Many of the properties managed by the district are located directly adjacent to dense housing developments, retirement communities, and major transportation corridors such as I-95.

“We are normally burning 30-40 feet from the homes on neighboring properties,” says Miller. “This is some of the most urban of the wildland-urban interface that you will find.” Obviously, public safety, planning, and smoke management are paramount on these burns, but Miller has learned that public communication is perhaps the most important component for successful burn programs in the interface. “We have invested a lot of effort in building trust and confidence because our neighbors literally watch us burn out the picture windows of their homes,” says Miller.

Natural resource managers like Miller have learned that building public trust is crucial to the effectiveness of a fire program. Miller has worked for decades to build good relationships with the neighborhoods and communities in which he works, and he realizes that maintaining the trust that is the foundation of the relationship is a constant process of informing, listening, and exhibiting consistency and competence. Research, specifically studies funded by the Joint Fire Science Program (JFSP), are now illuminating what the public knows and thinks about

fire and fuels and the agencies charged with their management. In addition, research is also revealing the keys to effective communication in educating the public and building support for a fire program.

## They Know More than We Think

There is a bit of conventional wisdom in the fire community that Smokey Bear has been tremendously successful in teaching the public that all fire is bad. While there is no denying Smokey Bear has been an effective messenger, it turns out the public actually often has a more sophisticated understanding of fire than they are given credit for. Studies have shown that, in general, the public understands the basic role of fire in many ecosystems and also the relative risk of fire in natural landscapes.

After decades of research and practice, researchers have a clearer view of the public’s understanding of fire. For example, Travis Paveglio of the University of Montana found that wildland-urban interface residents in Spokane, Washington, had a “working knowledge” of fire, including both its risks and its beneficial ecological role (JFSP Project No. 10-3-01-7). Similarly, Mark Brunson of Utah State University and Bruce Shindler of Oregon State University (JFSP Project No. 99-1-2-08) found that residents of the interface in four western states were reasonably well informed about fire—majorities knew that some plants need fire to regenerate, that fires do not normally kill most animals, and that water quality can be affected after fires. “Agencies are putting more resources into education and outreach for good reason,” says Shindler, a researcher who studies interactions between natural resource management agencies and communities. “There is a payoff.”

Researchers who have examined public understanding of fire say that the misconceptions regarding their knowledge may have once had some accuracy, but successful outreach efforts have actually worked. “If you produce clear information formatted in a way that people want to receive it, they will be more likely to understand,” says Sarah McCaffrey, a research forester and social scientist with the U.S. Forest Service Northern Research Station. “If you don’t make the effort to reach people, you can’t expect them to understand.”

One of the most interesting aspects of the social science research on fire is that there are not great geographical differences in knowledge of fire (JFSP Project No. 07-1-6-12). A range of studies that focused on interface residents in regions across the country all

show residents have relatively good awareness of the dynamics of fire and the environmental conditions that contribute to risk. Also, most studies find no significant or only subtle differences between demographic variables (e.g., education, income, gender) and people's beliefs and actions regarding fire and fuels (McCaffrey and Olsen 2012).

In addition, JFSP-supported research has shown that the views of rural and urban residents are more similar than different. Brunson and Jessica Evans of Utah State University found no differences in views of acceptability of different fuels treatment alternatives among rural and urban residents of Wasatch County, Utah, even in the aftermath of a recent prescribed fire escape (JFSP Project No. 99-1-2-08).

Despite these results, Shindler cautions that there are important differences between urban and rural residents, and this is usually reflected in what they value. "Urban residents generally want to protect recreational areas and wildlife, while rural residents are more concerned with protecting local landscapes and native species and getting rid of invasives," says Shindler. "These differences are important when it comes to developing communication strategies."

## Public Acceptance of Fire/Fuels Management

While fuels reduction projects are occasionally controversial and even litigious, studies show the public generally supports the need for fuels reduction. Surveys on the acceptability of prescribed fire and mechanical thinning have generally shown that around 80 percent of respondents support some use of each treatment. Interestingly, "no action" was consistently the least desired option, showing a clear preference for active fire and fuels management.

While the public accepts the idea of management in general, the specific actions they will actually support depend on a variety of factors. Knowledge and understanding of fire issues certainly play a role, but trust in the competence of the responsible agency is a critical factor as well, along with the perceived level of fire risk and concerns with smoke, escapes, and negative aesthetic impacts.

Research has shown that members of the public with higher concern for forest health are also generally more supportive of fuels treatments. In fact, forest health is an equal or sometimes greater factor for

## Synthesis of Current Social Science

In 2012, with funding from the Joint Fire Science Program (JFSP), Sarah McCaffrey and Christine Olsen completed a synthesis of research on a set of questions that had been driving social science research in fire for decades (JFSP Project No. 06-4-1-26). The questions ranged from assessments of public understanding of fire, acceptance of different fuels treatment options, concerns with smoke, and responsibility for fire risk mitigation. A summary of their findings is as follows:

- People living in high fire hazard areas generally have an understanding of the ecological role of fire on the landscape.
- People use a wide variety of sources of fire information. No single source is best, but government sources are generally trusted, with particular trust placed in local sources and face-to-face interaction.
- Prescribed fire and mechanical thinning are acceptable (at some level) for around 80 percent of the public. Increasing knowledge of the practice, specifically the ecological benefits of a treatment, and trust in those responsible for implementing a practice seem to be the primary drivers of acceptance. In addition, "no action" is consistently the least preferred alternative for forest management, suggesting that there is strong public support for active management.
- The desire to improve forest health and reduce fire risk outweighs concerns with smoke for the majority of the population. However, for about a third of the population, smoke is a major concern due to health issues.
- The public clearly feels the responsibility for mitigating fire risk is shared by all landowners. The public feels the government is responsible for taking care of the land it manages and also for providing information for mitigating risk on private land.
- Members of the public say the main priority in fire management should be public health and safety.
- There is not sufficient evidence to draw conclusions about how costs factor into public assessments of fire management.
- Demographics and geography, except for ethnicity and race, do not seem to influence public attitudes toward fire management.

those in support of fuels management than fire risk reduction. This is an important insight to realize when communicating the reasons for and benefits of fuel reduction treatments. For example, professor Melissa Wright and graduate student Destiny Aman of Pennsylvania State University recently found that residents of Truckee, California, often did not respond well to fear-based communication materials that emphasized the threat of wildfire, and in some cases dismissed the information as a “scare tactic” (JFSP Project No. 11-3-1-29). Instead, residents were motivated more by materials that emphasized the importance of fuels management for forest health.

The association between knowledge and support of fuels treatments is best demonstrated in pre- and post-surveys of participants who went on field tours of treatment sites. Field tours and demonstration sites can lower concerns regarding potential for escape, impacts of smoke, and damage to wildlife and their habitat. Most surveys show that after field tours, participants are more likely to believe that prescribed fire improves wildlife habitat as well as the appearance of the forest after the fire.

Research also suggests that educational programs can significantly raise both the awareness of the ecological role of fire and support for different fire management practices. In a JFSP-funded study, Eric Toman of the Ohio State University and Shindler found that, for respondents in California and Oregon with lower levels of knowledge of and support for fire management, exposure to educational materials

increased both understanding and support (JFSP Project No. 06-4-1-26). Shindler says these results point to the need for a broader conversation with the public about fire. “If given the chance, the public will engage with agency personnel about fire management,” says Shindler. “These conversations can begin simply with local resource values and places that are important to people, but also about the rationale—for example, why forest health is important and why we are using prescribed fire here and thinning there.”

Interface residents care deeply about the forests and natural areas in and around their community, and this has important implications for communication and agency-community relations. After conducting a survey, McCaffrey and others found that the ecological benefits of treatments are rated as key factors in support of proposed actions, even more than the reduction in fire risk (JFSP Project No. 06-4-1-26). Similarly, researchers found that information regarding the benefits of prescribed fire for wildlife habitat had a positive impact on prescribed fire acceptance (JFSP Project No. 99-1-2-10).

Public tolerance of smoke from prescribed fires also increases when people learn of the association between prescribed fire and healthier forests. In a focus group study of tolerance of smoke from prescribed fire, even antismoke activists changed their views after learning about the connections between prescribed fire and improved forest conditions (Weissaupt et al. 2005).



Destiny Aman

Public attitudes toward fuels mitigation activities hinge on the ways residents define and value nature and the spaces around their homes and community.

## Living with Fire

“Living With Fire was developed in Nevada for Nevadans,” says Ed Smith, one of the program’s creators and a natural resource specialist with the University of Nevada Cooperative Extension. “It is a true grassroots program that is built on all of the relationships between the sponsoring organizations and participating communities.”

The Living With Fire program teaches Nevadans how to live more safely with fire in fire-prone areas. Smith, along with Paul Tueller of the University of Nevada, Reno, and Fire Chief Loren Enstaad of the Sierra Front Wildfire Cooperators, initially started Living With Fire in 1998 as an effort to map fire hazard along the Sierra Nevada mountain range of eastern California and western Nevada and to use the hazard information to educate homeowners in the high-hazard areas. According to Smith, the program grew from a focus on the eastern Sierra Nevada range to cover the entire state. Moreover, it has become a national model for how to engage and educate homeowners with messages on fire risk mitigation.

The main focus of the program is to deliver a consistent message to homeowners on how to reduce the threat of wildfire. Many of the program’s materials, such as a guide titled “Fire Adapted Communities: The Next Step in Wildfire Preparedness,” can be customized for individual communities by substituting local photographs and emergency preparedness information. Like many natural resource outreach programs, Living With Fire reaches

homeowners through publications, magazines, online workshops, videos, and a website. However, what makes Living With Fire unique is the level of cooperation from the partners in the program.

The program’s original partnership in the Lake Tahoe Basin has grown to include the U.S. Forest Service, Nevada Fire Safe Council, Nevada Division of Forestry, Bureau of Land Management, Sierra Front Wildfire Cooperators, Nevada Division of Emergency Management, Nevada State Fire Marshal Division, University of Nevada Cooperative Extension, and local fire districts. “Our first rule is that we need a consistent message told multiple times by multiple agencies,” says Smith. “Instead of each agency developing different educational materials for homeowners, why don’t we provide one set of high-quality and effective materials with logos and shared ownership among all the sponsoring organizations.”

Smith says the real key to the program’s success is the relationship that has been built with local fire protection districts. When local firefighters are out doing their inspections, they hand out Living With Fire cards and tell homeowners to go to the program website. “Trust is huge,” says Smith. “Local firefighters are seen as the good guys, so we build off of that point.” For more information, go to [www.livingwithfire.info](http://www.livingwithfire.info).



Ed Smith leads a field tour as a part of the Living With Fire program.



Living With Fire program materials focus on specific actions homeowners can take to reduce their fire risk.

## Trust Matters

The relationship between citizens and fire managers is vitally important for public acceptance of fuel reduction activities and management of wildfires. Surveys show that acceptance of management activities increases when a community has trust and confidence in the responsible agencies and individuals applying the treatments.

In fact, one JFSP-funded project showed how this relationship could even be expressed statistically. Toman and his fellow researchers analyzed the factors that influenced acceptance of fuels treatment activities in neighborhoods adjacent to public lands in Oregon and Utah. They found the single most important factor that influenced acceptance was trust and confidence in the managers implementing specific treatments. When measures of trust increased from “moderate” to “full,” acceptance of thinning increased by a factor of 6.2; acceptance of using prescribed fire in neighborhoods increased by a factor of 4.6; and acceptance of using prescribed fire in remote areas increased by a factor of 2.7 (Toman et al. 2011).

McCaffrey adds, “Competence and credibility are a big part of trust—demonstrating that you know what you are doing and mean what you say.” She points to U.S. Forest Service outreach activities prior to the Gunbarrel Fire in Wyoming to illustrate how this works (JFSP Project No. 12-2-01-47). In the early 2000s, land managers of the Shoshone National Forest realized they had a serious fuels problem. In order to gain support of a fuels treatment program, the forest staff initiated an extensive outreach effort to communicate to the community the extent of the forest’s fuels problem. The staff held a media tour to explain the fuels situation and treatment options. Local

U.S. Forest Service employees worked cooperatively with local government, actively volunteered in their community, and held an annual picnic with property owners. Forest staff also began educating the public about a shift in how some fires were going to be managed, introducing the concept of wildland fire use fires (as these fires were termed at the time), moving away from a total suppression strategy. The community was very supportive when a fuels project got up and running in the region, and between 8 and 10 million board feet of hazardous fuels were removed from the areas surrounding homes and lodges through mechanical thinning and prescribed burns.

In 2008, the Gunbarrel Fire in the Shoshone National Forest, east of Yellowstone National Park, in Wyoming burned more than 68,000 acres. The fire took place in heavy dead and down spruce and fir that had been ravaged by bark beetles. More than 9,000 people in Cody were affected by smoke, and 245 residences were threatened. A wildfire use strategy was used initially and eventually transitioned to a monitor, confine, and contain strategy.

With all of the groundwork laid by the forest staff, there were very few public communication problems during the fire. One resident interviewed after the fire said, “As far as information, I don’t think you could beat what they put out. It was superb, excellent information on a daily basis to everybody—absolutely everybody” (Steelman and McCaffrey 2013). One of the district rangers on the Shoshone said the experience showed him that by being straightforward and credible, the agency could, over time, shape understanding and expectations.

## Effective Communication Strategies

The previous examples of the actions taken before and during the Gunbarrel Fire highlight the importance of communicating with the public, but how is this done effectively? Additional research has focused specifically on effective communication strategies to help deliver the right message, build trust and confidence, and change behaviors or attitudes.

Ed Smith, a natural resource specialist with the University of Nevada Cooperative Extension and the creator of the Living With Fire program, says his first rule of public communication is to have a “consistent message, told multiple times by multiple entities.” In relation to fire information, Smith says the public needs to hear the same message from the local fire marshal, their county extension agent, and U.S. Forest Service representatives. “If one person is saying that

## The Art of Fire

“My interest in fire started out during drives between Denali National Park and Preserve, where I live, and Fairbanks,” says Ree Nancarrow, an Alaska-based artist and biologist. “Over the years, there were numerous fires that crossed the highway, and I’ve driven by the fires when they were actively burning. Then, you come back later, and the area is a wasteland—just stumps. Then, over the years, you gradually watch the new plants that come in and the succession that takes place. I had been thinking for a long time that at some point I wanted to work with these types of images.”

Nancarrow received the opportunity to dive headlong into the connections between fire and art when she was invited, along with eight other Alaskan artists, to participate in a project designed to explore the intersection of wildfire, fire science, and fire management. Participating artists helped develop a unique art exhibit at the Fairbanks Arts Association Bear Gallery in Fairbanks, Alaska, a community art show at the Alaska Public Lands Information Center, and a studio tour/lecture series. The artists included painters, sculptors, photographers, mixed media artists, and Nancarrow, who works with fabrics, silk screening, stenciling, stamping, and dyes. “In a Time of Change: The Art of Fire” was funded by the Joint Fire Science Program and was developed by the Alaska Fire Science Consortium and the Bonanza Creek Long Term Ecological Research Site. The goal of the project was to use art to help the public understand the functionality of fire in the ecosystems of Interior Alaska.

The artists were invited on a series of field trips that covered fire management training and response, as well as fire ecology. “It was really interesting to see the multitude of government agencies working together to solve the problems associated with fire,” Nancarrow said. “We learned a lot about what goes into trying to control a fire, what goes into deciding appropriate action.” Each artist was tasked with completing a body of work (up to 10 pieces of visual art) based on inspiration from field trips, personal observations, and interactions with the fire science and management communities.

Alaska Fire Science Consortium Director Sarah Trainor saw “In a Time of Change” as an opportunity to broaden the horizon of collaboration between scientists and managers in putting the project together. It was also a chance to introduce new voices into conversations about fire science and management. “This is really about building connections between the artistic talent we have in Fairbanks and managers and scientists throughout the state to promote awareness of fire and fire sciences in Alaska,” Trainor said.

The opening of the art show at the Bear Gallery in Fairbanks attracted more than 400 visitors, and hundreds more visited the exhibit and attended studio tours and a lecture/discussion series put on by the participating artists. A survey of exhibit attendees revealed that the project represented a unique way to educate and engage the public on the role of fire in the Alaskan ecosystem. Seventy-four percent of attendees said the exhibit has affected their view of fire, and 64 percent said the exhibit has inspired them to learn more about fire. And, most telling, 94 percent said art can be an effective means to communicate scientific ideas.



This fiber art by Ree Nancarrow is titled “Spruce Smoke.”

James Barker, Alaska Fire Science Consortium

vegetation should be cleared 50 feet from the home and another is saying 100 feet, it creates confusion and hurts the credibility of everyone,” says Smith.

Fire education and outreach are usually designed with the goal of changing people’s level of awareness, attitudes, or behaviors. Simply providing information is rarely sufficient in changing behavior or how people see the world. Shindler notes that to be effective, a communication strategy must be geared toward the target audience and their motives; construct a credible, clear, and persuasive message for the target audience;

and, finally, deliver the message using multiple mediums in a way that inspires people to act or change how they think about fire and fuels.

### *Understanding the Audience*

In constructing an effective communication strategy, first, recognize that there is not one homogenous “public.” In any given location, there are many diverse groups with different beliefs, levels of knowledge, and worldviews. In addition, these groups

change from location to location, making it difficult to completely transfer a communication strategy from one location to another. Furthermore, values and attitudes also influence individual responses to educational efforts. Property owners who value wildlife, aesthetics, and privacy may feel that those values outweigh their concerns for fire risk. Effective messages therefore should emphasize how creating defensible space can enhance nonwildfire values such as wildlife habitat and aesthetics.

The case of Incline Village, Nevada, a mountain resort community on the shore of Lake Tahoe, illustrates the value of targeted messages. In the early 1990s, local fire officials in Incline Village recognized the community faced a significant wildfire threat with heightened fuel loads, drought, and bark beetle attacks. A coalition of local, state, and federal fire agencies began an extensive effort to educate the community about the fire risk and to motivate the community to take steps to mitigate the risk through fuels reduction projects on public and private lands. In her 2002 dissertation, McCaffrey describes how presentations and educational materials were targeted to specific groups, such as year-round residents, the chamber of commerce, local realtors, and schools. For example, homeowners were encouraged to put in defensible space measures, while realtors were challenged to envision selling homes within a blackened landscape.

Working with inaccurate assumptions regarding the target audience's knowledge and beliefs can limit the success of any communication program. For instance, a common assumption in the wildfire community is that most of the defensible space problems in the interface are created by new people who have moved into the area from urban areas. It is commonly presumed the newcomers do not "get" fire and are not mitigating fire risk on their own properties. However, research studies provide little support for this view, and Miller argues that newcomers to Florida are often more open to fire education and information than long-term residents. He says this dynamic is reflected in a retirement community called Great Outdoors near Titusville, Florida, which is adjacent to one of the properties he manages for the St. Johns River Water Management District. "Great Outdoors is filled with people from other parts of the country where prescribed fire is less common," says Miller. "But the residents are very interested and engaged in fire. Every burn we do there's an audience. The residents watch us from golf carts along the road." Miller also points out that Great Outdoors has recently become a Firewise community.

Additionally, it is important to understand that people have to perceive a risk in order to feel that something needs to be done about it, either on their property or in terms of support for agency fuels treatments. However, perceiving the risk is not in and of itself sufficient as people respond to risk differently. Many people choose to live in the interface for the benefits they perceive— aesthetics, privacy, views, etc. These individuals may be aware of the risk of fire but feel the benefits balance or outweigh the risk. Thus, they may need to understand how actions mitigating fire risk and creating defensible space are not inherently incompatible with, and may actually enhance, the amenities they value in the interface.



Prescribed burn on St. Johns River Water Management District property in Florida.

Steve Miller

"Higher risk perception is a precondition for taking action or supporting mitigation activities, but it does not necessarily lead to action or support," says McCaffrey. "Actual decisions to mitigate risk or support mitigation depend on individual risk tolerance, tradeoffs with benefits, and the ability and resources to take action."

### *Constructing the Message*

In a study of interface residents in Minnesota and Florida, Monroe and Nelson (2004) concluded that the key to communicating with people in the interface is to figure out what they care about, learn what is missing in what they know, and support what they are willing to change. Effective and persuasive messages grab the audience's attention, inspire thought, and become stored in memory for recall later. Messages should show how fire mitigation practices fit their interests and values.

Furthermore, programs that increase contact between neighbors can help develop a sense of community, as people work together to reduce hazardous fuels across ownership boundaries. Working together increases the social advantage of adopting defensible space, as such work becomes the norm rather than the exception (JFSP Project No. 04-S-01).

The bottom line is that, to construct an effective message, one should figure out all the reasons people might be motivated to take action or to support agency actions, and use all of those reasons in a range of different messages. This may involve stressing forest health and wildlife habitat over reduced risk, but it is best to cover all bases.

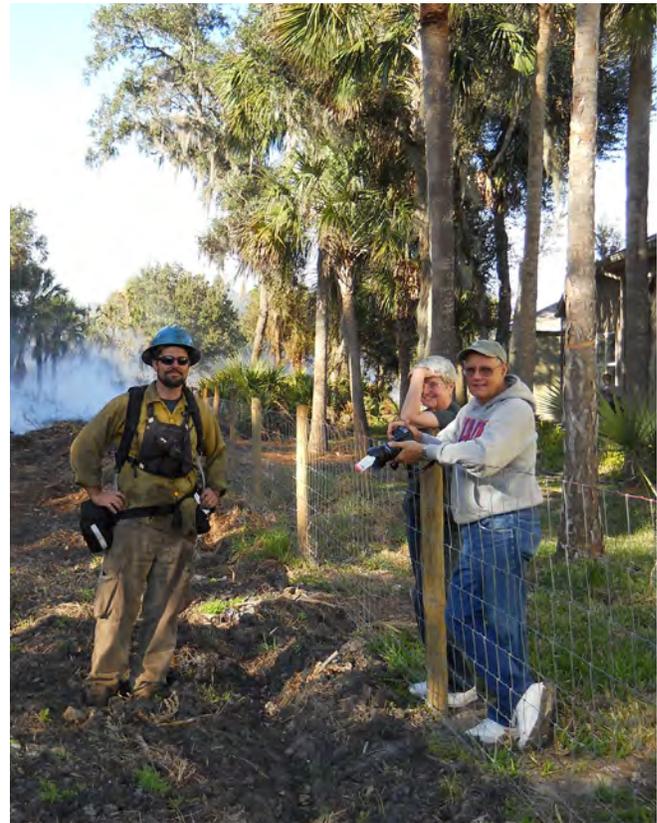
### *Delivering the Message*

The normal model of outreach assumes that if information is provided to the public, awareness is increased, which leads to changes in behavior or opinion/attitude. In practice, however, this is rarely the case. Providing information can lead to increased awareness but does not automatically lead to a change in behavior, unless the message motivates the person to act on the new information.

Toman and Shindler found that people move through various stages in a decision process (JFSP Project No. 06-4-1-26). First, they develop awareness of an issue, such as the need for defensible space or for fuels treatments on public lands. They then form opinions about the suitability of the action based on their understanding of the practice and how they feel about who will implement it. Finally, they decide whether to act (e.g., in creating defensible space on their own property) or to support agency fuels programs. Individuals may rely on different communication or media sources at each of these different stages.

Mass media outreach methods, including public service announcements and brochures, are particularly useful in the first stage of communication when the agency is attempting to increase awareness of an issue and provide basic information to the target audience. Mass communication provides the means to reach a broad audience relatively easily and increase recognition of certain issues; however, the depth of information that can be provided is limited and is unlikely to bring about broad changes in attitudes or behaviors.

Researchers have found that personal contact through small workshops, field trips, demonstration sites, and interpretive programs is the most effective



Steve Miller

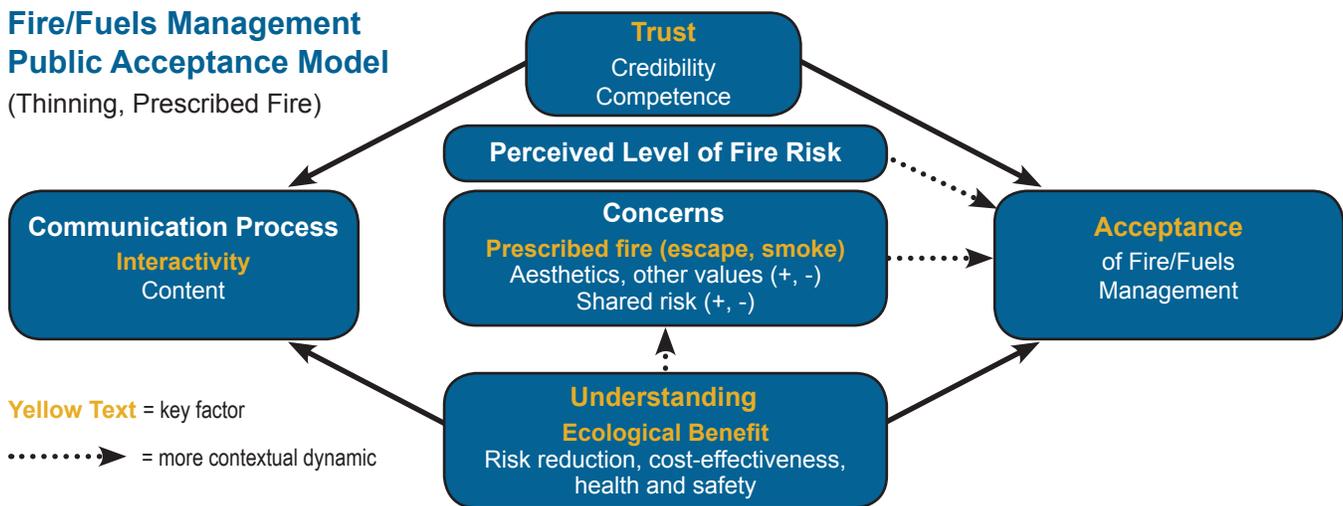
Personal contact is the most effective way to reach people and change attitudes and behaviors.

way to reach people and change attitudes or behaviors. This is especially true for activities that may have a high degree of uncertainty or require a large personal investment, as is the case with defensible space projects. Demonstration sites and neighborhood events also provide opportunities for sharing the aesthetic and wildlife habitat benefits of fuels reduction (JFSP Project No. 04-S-01). These types of events also can spark the desire of many homeowners to “keep up with the Joneses” in reducing fire risk on their property. Some may be influenced by information that describes how others in their community are taking action, making wildfire mitigation a socially desirable activity.

The advantage of interactive communication is that it goes both ways. The experts are able to provide justification for their message and also answer questions and provide clarification. The participants are able to express their concerns and judge the knowledge and transparency of the agency representatives. Interactive events also help build trust by demonstrating openness and transparency in dealings with the public. “People are willing to respect expertise,” says McCaffrey. “But in return they want their point of view and their desire to be informed to be respected.”

## Fire/Fuels Management Public Acceptance Model

(Thinning, Prescribed Fire)



Conceptual model of factors that influence public acceptance of fuels treatments (McCaffrey and Olsen 2012).

## Use All the Tools

A comprehensive communication strategy should include a range of tools that targets different members of the public who have different information needs. Public service announcements, brochures, and the like can be used to broaden awareness of an issue or topic, and interactive events can be used to motivate people to action by reducing uncertainty and increasing trust.

Miller says the St. Johns River Water Management District uses every possible medium to deliver their message and inform the public. The agency uses its website, sign postings on the boundary, and interpretive kiosks to inform residents of benefits of prescribed fire and to also keep their neighbors informed on burn days. However, they also rely on personal contact and outreach before, during, and after the burns to build relationships with their neighbors.

This involves staffing and providing resources for the burn to ensure a firefighter is visible on all sides and sections of the fire. The agency also involves structural firefighters in the burns. “When we are staffing a fire, we try to park big red trucks in neighborhoods closest to the burn,” says Miller. “People recognize those trucks as firefighters more than our vehicles, and it helps build confidence.”

Miller says when the burn program first started ramping up, they held a lot of community meetings, but they do not have to hold those meetings as often anymore. The agency has built a strong relationship with the communities, and it is sustaining because of all the groundwork that has been laid. “I always say that the key to communicating with the public is to tell people you believe in what we are doing, and then go out and show them success,” says Miller.

## Tips for Creating an Effective Message

**Use Simple Language** – Make the message clear and avoid technical jargon, including complex statements from scientists and other experts who have difficulty explaining their work in nonspecialist language.

**Keep the Information Consistent** – To maintain credibility, ensure the same information flows from all sources. Educators from multiple agencies should work together to confirm that their messages are similar.

**Cover 3 Critical Topics** – Clearly explain: (1) the potential losses, (2) the chances the losses will occur in a particular amount of time, and (3) ways to reduce losses.

**Describe Potential Losses** – Help people imagine the impact of a fire on their community or home through pictures, descriptions, and scenarios.

**Discuss the Odds of When the Losses Will Occur** – People want to know the odds of a fire impacting their neighborhood. The timeframe should be relevant, such as the average length of ownership in the area.

**Embrace Uncertainty** – Be clear about the lack of uncertainty. Overstating or understating the risk can turn people off and reduce credibility.

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## Recommended Reading

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