Community-Agency Interaction and Fire Management

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In the last decade, numerous factors including a changing climate, more people living in the wildland urban interface (WUI),threats to fire fighter safety and increasing costs have caused the agencies that fight fire to rethink whether full suppression for every wildfire is always the most appropriate response. A key element that could shape fire managers' ability to choose management options other than full suppression is public acceptance. Therefore, this research project sought to understand what influenced the public's view of fire management during a fire and identify effective practices for interacting with the public about fire management.

Our working hypothesis was: ***Pro-active communication before and during the fire facilitates more flexible fire management during the fire.***   In the summer 2008, our research team traveled to three fires—the Gap, Cascade and Gunbarrel—each of which used a different strategy for managing the fire. At each site, we interviewed key agency individuals and civic leaders working on the fire as well as members of the general public. We asked them about pre-fire communication activities, during fire communication activities, what worked and what didn't for them, and their perspectives on how the fire was being managed.

RESEARCH SITES

We conducted research on fires in three different locales. As this was the first phase of the research process we were interested in looking at a range of fires, primarily in terms of the fire strategies used, but also in terms of the fire environment to identify the full range of potential dynamics affecting communication-agency interactions .

The Gap Fire on the Los Padres National Forest burned nearly 9,500 acres in Santa Barbara County near the town of Goleta. This fire took place in a dense urban interface (180,000 people) in 30-50 year old chaparral. Nearly 3,000 homes were threatened and more than $2 billion in real estate values were at risk. The fire cost $16.1 million dollars. A suppression or full perimeter control strategy was used on the fire. No homes were lost.

The Cascade Fire on the Custer National Forest burned more than 10,000 acres near Red Lodge, Montana in Carbon County. This fire took place in an area that had experienced a large blow down. It affected approximately 3,500 people and threatened 200 homes.   The fire cost $6.5 million dollars. A modified suppression and perimeter containment strategy was employed on the fire. Five homes were lost.

The Gunbarrel Fire on the Shoshone National Forest burned more than 68,000 acres near Yellowstone National Park in Park County, Wyoming. This fire took place in heavy dead and down spruce and fir with 50-80% bug mortality. More than 9,000 people in Cody, WY were affected by smoke and 245 residences were threatened. The fire cost $9.1 million dollars. A wildfire use (WFU) strategy was used initially and eventually transitioned to a monitor, confine and contain strategy. Seven outbuildings were lost.

RESEARCH FINDINGS

There are inherent limitations in drawing conclusions from a small number of research sites, particularly given the diverse nature of our three sites. There are a number of factors –such as population density, public versus private property affected, speed of fire, and topography—that may influence communication dynamics. These factors will be looked at in more depth as the research progresses. However, we did find a number of common patterns among the three locations that suggested some contextual lessons that can inform better communication practices. In brief, we did not reject our hypothesis: More effective pre-fire and during-fire communication was present on those fires where more flexible strategies were used.

The **Gap Fire** experienced several communication problems. This fire had a complex interface that involved a large population base and numerous government agencies and municipalities. The emphasis of pre fire outreach efforts, in which Santa Barbara County played a large role, was primarily on defensible space. Interviews with community members indicated communication problems during the fire. They identified an overwhelmed call center, InciWeb going down, power outages, and ineffective communication during news conferences. One member of the public felt the communication effort was "insulting" because all the fire fighters and visiting officials were thanked for 20 minutes before information about the fire was given out.

The **Cascade Fire** experienced few communication problems. The local forest, in conjunction with the County, had done some pre-fire communication including working on fuel reduction projects and FIREWISE practices. The County had also worked on evacuation drills. Interviewees identified several positive aspects of communication during the Cascade Fire. Key informants claimed that communication was, "…*as good as I've ever seen it in any fire*" and "*I didn't hear any [complaints]… they put out a lot of information that I think satisfied a lot of people*". Members of the general public stated, "…*they were very forthcoming*" with information and that they were thankful to have "*accurate information to counter balance a very natural, natural, sensible fear*".

The **Gunbarrel Fire** experienced few communication problems. Prior to the fire, the local forest had engaged in extensive work to communicate fuel conditions in the forest, including a media tour to educate people about how a fire would be managed. Fuels projects in the region removed 8-10 million board feet of hazardous fuels around summer homes /lodges through mechanical thinning and prescribed burns. Local USFS employees worked cooperatively with local government, actively volunteered in their community, and held an annual picnic with property owners. Interviewees identified several positive communication trends both before the fire and during the fire. Key informants stated, "…*it's all positive... I can't say enough about how they have been forthright*". In commenting on how the local Forest Service had done a good job educating the public, a community member commented, "… *I have heard, with very, very few exceptions, that the public understands*" about the condition of the forest. A member of the general public observed, "*I don't think you could beat what they put out*".

<div align="center">**KEY TAKE AWAY POINTS**</div>

Information Needs—There are different communication needs at different times during the fire.   During the most crisis-driven times of the fire, the public wanted the following information:

►Where is the fire going and where is it likely to go?
►How does the fire affect me?
►What should I be doing?

In less crisis-driven times, although people were content to leave the decisions up to the agencies in charge, they still wanted to know the above information about how the fire might directly affect them and also information about what was being done to fight the fire, including:

►What are the fire management choices?
►Why are these choices being made?
►Why are these the best options?

Evacuation Challenges—The Gap Fire experienced problems with evacuation which was a source of great anxiety for the public. There was a breakdown in evacuation operations and communication with confusion over how local government should be communicating with the public that resulted in confusion over what areas needed to evacuate. The Cascade and Gunbarrel Fires had a clear division of responsibilities for evacuation where the Incident Management Teams coordinated well with local government to execute and communicate the evacuation.

Communication Best Practices

Deliver direct, credible, accurate information—Don't speak down to, try to placate, try to calm down the public or make them go away. Uncertainty makes people uncomfortable, they want blunt communication.

Tolerance in fire management comes from transparency—Clearly tell the public what you are doing to manage the fire and why you need to do this to manage the fire.

Establish realistic expectations – For diverse reasons, people often have unrealistic expectations about what can be accomplished and the ability to provide real time information. Be clear about why some management methods may be inappropriate in the current situation and why. Also be clear about what information you can give, how often you can give it and why. Create a realistic expectation, and then live up to it.

Display accurate and detailed maps—Inaccuracies and lack of detail undermine credibility with the public. Accurate and detailed maps can facilitate more realistic public expectations about what is being done to manage the fire and why. Post limits on how often maps will be updated and explain why these are your limits.

Leverage multiple sources of information—People triangulate information sources from friends, radio, TV, blogs, web pages, TV, neighbors and the newspapers. Make sure the information you are getting out to these various sources is as frequent as possible, and is specific, consistent, and accurate.

Interactive opportunities are important—Fires are complicated events and people need the chance to ask questions and clarify concerns. Don't focus just on one way communication methods such as kiosks and media announcements but provide opportunities for people to interact with fire personnel. Stationing a person at kiosks at certain hours and ensuring that personnel at public meetings are available after the presentation provides people an opportunity to address their individual concerns.

Utilize 21st Century communication tools to deliver more real time information—The public has an expectation for more participatory and interactive communication. TV, radio and newspapers will continue to be important, but people are increasingly looking to the internet or web-driven tools for information.

Establish dedicated and routine updates on TV and radio—People surf around TV and radio looking for information. Dedicating specific times when updates will be given will help lessen their anxiety that they missed the information.

Use the fire as a teachable moment—The fire is a focusing event that creates an opportunity to share information that has a greater chance of being heard. Take advantage of opportunities during and immediately after the fire.

Leverage local resources—Local government has a need to show they are doing their job. Utilizing local resources may lead to less discord between the IMT and locals. Liaison Officers can help identify what local resources are available.

Focus on what the community wants to know, not what you want to tell them—Pre-programmed content that didn't fit the community's need at the time was perceived as disingenuous and offensive. Every community has different information needs. Don't presume you know what they are. Make sure you have opportunities for people to ask questions in an interactive format.

KEY QUESTIONS FOR AGENCY EMPLOYEES TO CONSIDER BASED ON OUR FINDINGS

Based on our research, we devised the lists of questions below that local forest employees as well as Incident Management Teams might want to consider as they interact with communities before and during fires. Even if you think you know the answers to these questions, it might be worthwhile to ask since different people often operate under different assumptions.

Key questions to ask about evacuation:
- Does the local forest/IMT understand how local government is organized for an evacuation?
- Has IMT clarified expectations for evacuation with all local officials?
- What is the local government protocol for an evacuation?
- What is the chain of command during an evacuation? Who will make the call to evacuate? Who needs to be notified after that call has been made? Who will disseminate the message?
- Is the written message clear? Free of jargon? Are terms consistent?
- Is everyone in the chain of command and information delivery clear about their role?
- Has the local forest reached out to local government to remind them that fire season is coming up again?

Key questions to ask about communication:
- What are community expectations for interaction?
- Who in the community has a formal role for delivering information?
- Who in the community has an informal role in information delivery?
- How will we keep formal and informal information delivery partners connected so we are on the same page?
- How can we help local government employees satisfy their need to be seen as effective in their community?
- Could we use this time to teach the public about fire management, the condition of the forest, our role?
- Are our spokespeople credible? Seen as trustworthy? Do we have good command presence?
- Is our message focusing on what the community wants (not what we want)?
- Do people have a chance to get their questions answered?
- Are we delivering up-to-date information and explaining why we have the information we have?
- Are the maps accurate, timely? Are we explaining their limitations?
- Are we using multiple information delivery portals that work for this community? What happens if the power goes down?
- Have we used this fire as an opportunity to build trust in what we do?
- Are we communicating reasonable expectations about what can/cannot be done to manage this fire? Are we explaining why we are doing what we are doing?
- Are we satisfying the different communication needs appropriately?