

Community Impacts from the 2003 Fires in Southern California¹

Deborah J. Chavez²

The San Bernardino Mountains in southern California have been inhabited for more than 7,000 years. Before European settlement, the forest was used mainly for the subsistence of native peoples. These needs included food, shelter, raw materials for tools, basketry, and cooking and warming fires (Nakamura, 2003). The mountains first became urbanized in the 1920s, after introduction of the automobile and improved road systems. Today these and other forests in southern California are home to not only tens of thousands of humans and structures, but also hundreds of rare or at-risk animals and plant species, such as the California spotted owl, San Bernardino flying squirrel and southern rubber boa (Nakamura, 2003).

At 672,000 acres, the San Bernardino National Forest (SBNF) is not one of the nation's largest national forests, but with 24 million people living within a two-hour drive, it is one of the nation's most heavily used forests (Blackwell, 2003). People may hold multiple values for this forest. They may highly value property, fauna, their sense of community, a healthy forest, a drinking water source, or the view.

The four-year drought in southern California and poor air quality have weakened trees and brush allowing various species of endemic bark beetles, root disease and dwarf mistletoe to reach epidemic proportions on the SBNF. In part, this unhealthy forest condition might be the result of too many trees (Jensen, 2003). Forests in these conditions cannot withstand natural stresses. About 474,000 acres of the SBNF have experienced severe tree loss, ranging from ten percent to 100 percent of all the trees in a given area (Blackwell, 2003).

In 2003 southern California was struck by several fires. In October and November human-caused fires destroyed about 750,000 acres, injured about 200 firefighters, killed 14 people and destroyed about 3,500 homes (Parker, Kenworthy & McMahon, 2003). These were the Cedar, Old, Grand Prix and Simi Fires that occurred in parts of Los Angeles, San Bernardino, San Diego, Santa Barbara and Riverside Counties.

The Old Fire on the SBNF started October 25, 2003, was human-caused, and consumed about 91,000 acres. There were mandatory evacuations of 15 communities, including Big Bear and Lake Arrowhead. The fire burned through eastern Lake Arrowhead, destroying about 300 residences. In all, more than 900 structures were destroyed (Parker et al., 2003). More than 2,800 fire fighters were assigned to this fire. The Old Fire cost more than \$36 million to fight (*Press-Enterprise*, 2003) and did another \$272 million in damages (McNary, 2003). The Grand Prix Fire, also on the SBNF, began October 21, 2003, was human-caused and burned more than 59,000 acres. More than 500 firefighters were assigned to this fire, which cost more than \$11 million to contain (Reider, 2003).

Local print and electronic media focused on the fires for several days with follow-up stories after the fires were contained. To learn more about fire impacts of the Old and Grand Prix Fires print media published during and immediately following the fire events were reviewed.

Reviewing media presentations of fire is not a new practice. In an examination of 320 stories about wildfire published since 1988 Smith (1995) pointed out that most journalists tend to focus on drama over explanation. Apsey (1988) noted that fire management is subject to media presentations, and further, the public's perceptions about fire management may be modified by media presentations of those events. In a discussion of the politics of wildfire, Lichtman (1998) noted that the Greater Yellowstone fires in 1988, while ecologically important, were a public relations failure. He cautioned that it is important to consider the reaction of the public and elected officials, which the author considered indispensable for gaining support for natural fire.

Methods

The website archive of one local newspaper was searched for fire-related articles published between October 24 and December 18, 2003. The newspaper accounts focused on the Old and Grand Prix Fires in southern California. Using the keyword "fire" and eliminating all false hits (e.g., recruiting firefighters) yielded 269 articles. Articles were read and topics listed (e.g., school closings, traffic delays, evacuations). Topics were categorized by fire name (Old Fire, Grand

¹ This article was written and prepared by U.S. Government employees on official time and it is, therefore, in the public domain and not subject to copyright

² USDA Forest Service, Pacific Southwest Research Station, 4955, Canyon Crest Drive, Riverside, CA 92507. (909) 680-1558.

Prix Fire) and the stage at which it occurred (i.e., during the fire or post-fire, based on the date published). Topics were then grouped into discrete categories (i.e., community, daily life, outdoor recreation, economics, assistance, politics, weather, or change of behavior). For example, if an article described the evacuation of Crestline, CA, it was categorized as “evacuation” (topic), “Old Fire” (fire name), “fire” (stage) and “community”.

Results

Reporting During the Fire Events

Print stories published during the fire events were grouped into those about community, daily life, outdoor recreation, economics, assistance, politics and weather (see Table 1). Community impacts included immediate health concerns (such as air and water quality), displacement from homes (to shelters, hotels, family and friends, recreational vehicles, cars, tents) and displacement of pets and livestock. Other community issues were fire-related deaths, suspected looting, people who were not evacuees helping themselves to free food and clothing at the shelters, refusals to evacuate, “ordinary people” fighting fires with garden hoses, rescuing of pets, and the donations that were needed by displaced families, including where to donate (local, national) and how donations would be distributed. As the fires progressed, the stories addressed the material losses of fire victims, firefighter injuries, wildlife losses, infestation of the bark beetle in the forest, firefighter safety considerations, road closure notifications, and the need for patrols to keep homeowners and looters out of restricted areas. In addition there were several stories about the hunt for arson suspects (including profiles of arsonists, rewards for the identification and capture of the arsonists, and potential charges once the arsonists were captured). Other stories noted the convergence of the Old and Grand Prix Fires.

Stories about daily life included life in the shelters, closed schools, religious services, power outages, where U.S. mail would be delivered, the continuing grocery strike in southern California (causing people to make decisions about crossing picket lines or finding other stores that were not being picketed), long waits at gas stations (people filling gas tanks in anticipation of evacuation), traffic delays (automobiles and airplanes), suggestions on what to tell children, waiting for news about the condition of their homes, and when access restrictions would be lifted.

Stories of outdoor recreation impacts included those about evacuation of recreation sites and site closures, while economic impacts focused on the cost of fire fighting and lost business income. Assistance stories noted the logistics of supplying firefighters with equipment, supplies, and assistance received in fighting the Old and Grand Prix Fires. These included stories about intra- and interstate assistance from firefighters, National Guard Blackhawk helicopters that were ordered by Governor Davis, firefighting from airtankers dropping fire retardant, cutting of power to mountain communities to avoid a power-line sparked fire, and State Indian tribes.

Stories with a political theme were about Governor Davis’ visit to the shelters, and defense of the response to the fires by State representatives. Weather-related stories discussed how the Santa Ana winds prevented airplanes from their fire fighting tasks, how Santa Ana winds spread fire, how the winds let up so that the airplanes and helicopters could fight fires, and later how rain and cooler temperatures slowed the progression of the fire.

Table 1 - Story Topics on the Old and Grand Prix Fires of Southern California

During the Fires

Air quality concerns
 Bark beetle infestation in the forest
 Convergence of the fires
 Displacement to shelters, hotels, family
 friends, cars, tents, recreational vehicles
 Displacement of pets & livestock
 Donations
 Firefighter injuries
 Firefighter safety considerations
 Fire-related deaths
 Hunt for arson suspects
 Material losses of fire victims
 Non-evacuees at shelters
 Ordinary people fighting fires
 Patrols of restricted areas
 Refusals to evacuate
 Rescuing of pets
 Road closure notifications
 Suspected looting
 Water quality concerns
 Wildlife losses

Community

Post-Fire

Additional arson activities
 Arrests of looters
 Burn victims
 Falling tree limbs
 Fears of high winds
 Mourning loss of forestland
 Mudslide dangers
 Rebuilding delays
 Removal of hazard trees
 Rockslides
 Search for missing people
 Theft of firefighting gear

Daily Life

Closed schools
 Grocery store strike
 Gas station waits
 Life in the shelters
 Power outages
 News about condition of homes
 Religious services
 Traffic delays
 US mail delivery
 What to tell children
 When access restrictions would lift

Apartment shortages
 Delayed return of electricity
 Frauds by contractors and estimators
 Free legal advice
 Hotel discounts for fire victims
 Insurance coverage problems
 Keeping valuables packed and ready
 Lifting of evacuation orders
 Need to stay tuned to radio stations
 Reduced need for evacuation centers
 Restoration of electricity
 Return of high school football games
 Road delays to clear debris
 Schools reopening
 Tax return suggestions
 Waiver of building permit & inspection fees

Recreation Impacts

Evacuation of recreation sites
 Recreation site closures

Hikers ticketed for using closed trails
 Restoration of recreation opportunities
 Restrictions such as hunting ban
 Road and trail closures
 Skiers having limited access routes
 Threats to safety from hazard trees

Economic Impacts

Businesses loss of income
 Cost of fire fighting

Additional taxes possible
 Coverage of costs incurred by local
 communities
 Dept. of the Interior to cover some costs
 Encouraging the return of tourists

Table 1-(continued)

During the Fires

Post-Fire

Assistance

Airtankers dropping fire retardant
Cut power to avoid spark caused fires
Intra- and interstate firefighters
National Guard helicopters
State Indian tribes sending fire engines

Emergency alert system failure
Indian tribes created a disaster relief fund
Return home of firefighters

Politics

Defense of response to fires by state
representatives
Governor Davis visiting the shelters

Criticism of FEMA for slow response
Governor Schwarznegger tour of burned areas
Increased city costs to go to the public
Voter turnout concerns

Weather

Rain and cooler temperatures slowed fire
Santa Ana winds let up so planes could fight fires
Santa Ana winds prevented airplanes from firefighting
Santa Ana winds spread fire

Behavior Changes

Building fire-resistant homes
Buying generators
Carrying extra cash
Informed choices about rebuilding
Recording licenses of unfamiliar cars
Residents traveling with chainsaws

Reporting Post-Fire Events

Print stories published immediately after the fire events were similarly grouped into those about community, daily life, outdoor recreation, economics, assistance, politics, and how the fires may have changed people's behavior (see Table 1). Community issues included rebuilding delays (increased workload overwhelmed contractors), arrests of looters, theft of firefighting gear, removal of hazard trees, fears about more high winds (that complicated fire fighting and accelerated the fires), mudslides, rockslides, falling tree limbs, and additional arson activity. There were also human-interest stories about burn victims, the search for missing family members, and mourning the loss of forestland.

Stories about daily life impacts related to lack of insurance coverage, potential frauds by contractors and estimators, road delays as workers cleared debris, delayed return of electricity, apartment shortages, the need to stay tuned to radio stations for news of new fires, and keeping valuables packed in case of evacuation. There were also stories about the lifting of evacuation orders, schools reopening, the return of high school football games, restoring electricity to most businesses and homes, free legal advice for fire victims, waiver of fees for building permits and inspections, suggestions about tax returns (amend 2002 returns or wait to report losses on 2003 returns), hotel discounts for fire victims, and the reduced need for evacuation centers.

Issues about outdoor recreation included restrictions such as a ban on hunting, hikers ticketed for being on closed trails, skiers challenged by the threat of limited road access to resorts (mud slides, rockslides possible), road and trail closures, and threats to visitor safety from dead or dying trees. Later stories included the restoration of outdoor recreation opportunities such as the reopening of ski areas to the public.

Economic impacts included the possibility of added taxes (to cover fire fighting and infrastructure costs), plans for the Department of the Interior to cover damages on Indian lands, plans for coverage of costs incurred by local communities that were above the costs covered at the federal level, the loss of revenue for businesses, and the difficulty of encouraging the return of tourists.

Assistance stories included how the emergency alert system failed due to incinerated radio towers, how Indian tribes created a disaster relief fund, and the return home of out-of-state firefighters.

Political stories covered the potential for low voter turnout by evacuees, potential increased city costs to be passed along to the public, Governor Schwarzneggers' tour of burned areas by helicopter, and a public meeting used to thank evacuation planners. Other stories reported criticism of Federal Emergency Management Agency for not acting faster, and questions about the delays in funding for handling hazard trees in the forest.

Behavior changes identified from the newspaper stories included immediate post-fire changes such as residents traveling with chainsaws (to clear downed trees from roads), buying generators, photographing homes and valuables for

insurance purposes and keeping those records stored away from home, recording license numbers of unfamiliar cars (in hopes of identifying arsonists and looters), and carrying extra cash in case access to homes was denied. Long-term behavioral changes included stories on the desire to build fire-resistant homes and the need to make an informed choice about living in fire-prone areas even if homes were uninsurable.

Discussion

Carroll and Daniels (2003) noted that the meaning of fire is socially constructed by communities. Communities can define the event as a preventable tragedy, a natural disaster or an act of God. While definitions of community vary, Mendez and others (2003) found that three theoretical conceptions of community helped in understanding community response to disturbance events such as fire. These were: (1) community as geography, (2) community as a social system, and (3) community as shared meaning and identity. Building from the latter (shared meanings) I reviewed stories in the print media about the Old and Grand Prix Fires in southern California.

Stories in the print media were reviewed and differentiated into stories during fire events and stories after. In both I was able to group most of the stories into those about community, daily life, outdoor recreation, economics, assistance and political issues (weather was an added “during the fire event” category while behavior changes was an added “post-fire event” category). A majority of the stories focused on community.

Land managers have emphasized the biophysical aspects of fire and have tended to underemphasize the social dimensions (Mendez et al., 2003). Evaluation of shared meanings, such as those found in the stories I examined, can help land managers in understanding those social dimensions. Ignoring these social effects of wildfire may have harmful impacts (Mendez et al., 2003), for example, on the ability of the land management agency to use prescribed fire or to conduct salvage in the wake of a fire.

Research is needed to determine how the Old and Grand Prix fires impacted public perceptions and how their first-hand experience with fire influences their participation in land management decisions. It may be that first-hand experience with fire influences public reactions to land management issues. A study in southern California found that homeowners who had experienced a wildland fire were more likely to support mechanical strategies, such as firebreaks and clearing vegetation around their homes (Cortner, Gardner & Taylor, 1990). The same study found that these homeowners were also more likely to support fire hazard reduction strategies, such as fuels reductions.

Additional inquiries into electronic and print media might investigate stories related to risk management (Daniel, 2003) in fire-prone areas. Do the stories concentrate on preventing ignitions (such as Smokey messages), suppression of fire (protect what we have, stop the fire), or reduction of fuels (mechanical and prescribed fire; accepting fire as natural and that you have to cut the forest or burn the forest to keep the forest)? Or are all the presentations focused on emergency response and evacuation? Researchers might also ask if the public thinks the fire fighters protected the right things. Future research should include interviews of community members during and after fire events to test for consistency with print media accounts.

References

- Apsey, M. (1988). Fire management in the media age. In Lawson, B.; Hawkes, B.; & G. Dalrymple (Eds.), *In Fire Management in a Climate of Change: Proceedings from 1988 Northwest Fire Council Annual Meeting*. Victoria, B.C., November 14-15.
- Blackwell, J. (2003). On the forest health condition of the San Bernardino National Forest. Testimony before the Committee on Resources, Subcommittee on Forests and Forest Health, US House of Representatives, Lake Arrowhead, CA, September 22. 8 p.
- Carroll, M., & Daniels, S. (2003). Fire in our midst: A look at social science research issues at the community level. In Cortner, H.; Field, D.; Jakes, P.; & J. Buthman (Eds.), *Humans, fires and forests – Social science applied to fire management*. Flagstaff, AZ: Ecological Restoration Institute; 17–25.
- Cortner, H., Gardner, P., & Taylor, J. (1990). Fire hazards in the urban-wildland interface: What publics expect. *Environmental Management*, 14, 3:57-62.
- Daniel, T. C. (2003). Social science of wildfire risk management: Individual level of analysis. In Cortner, H., Field, D., Jakes, P., & J. Buthman (Eds.), *Humans, fires and forests – Social science applied to fire management*. Flagstaff, AZ: Ecological Restoration Institute; 9–15.
- Jensen, J. (2003). Forest health crisis in San Bernardino National Forest: Implications for the West. Testimony before the Committee on Resources, Subcommittee on Forests and Forest Health, US House of Representatives, Lake Arrowhead, CA, September 22. 8 p.
- Lichtman, P. (1998). The politics of wildfire: Lessons from Yellowstone. *Journal of Forestry*, 96, 5:4-9.
- McNary, S. (2003). Filthy hazard. *Press-Enterprise*, November 11, 2003.
- Mendez, S., Carroll, M., Blatner, K., Findley, A., Walker, G., & Daniels, S. (2003). Smoke on the hill: A comparative study of wildfire and two communities. *Western Journal of Applied Forestry*, 18, 1:60-70.

- Nakamura, G. (2003). Living in southern California forests. Unpublished report, 14 p.
- Parker, L., Kenworthy, T., & McMahon, P. Areas 'disaster waiting to happen'. USA Today, November 11, 2003, page 4A.
- Press-Enterprise. (2003). Wildfires at a glance, November 10, 2003.
- Reider, D. (2003). Southern California wildfire status report. Nov. 4, unpublished report. 2 p.
- Smith, C. (1995). Fire issues and communication in the media. In Brown, J., Mutch, R., Spoon, C. & R. Wakimoto (Eds.), *Proceedings of the Symposium on Fire in Wilderness and Park Management*, GTR-INT-320, US Department of Agriculture, Intermountain Research Station. Missoula, Montana, March 30-April 1.