

After a wildfire, attitudes about recovery vary with sense of place and beliefs about fire ecology

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Credit: Oregon State University

How people who live close to burned forests feel about landscape recovery—whether they sense overwhelming loss or see positive signs in the growth of new vegetation—depends largely on their attachment to the area and on their appreciation for the ecological role of fire.

In a survey of more than 800 people living in close proximity to 25 wildfires that occurred in 2011 and 2012 in Oregon, Washington, Idaho and Montana, researchers found that people had slightly positive attitudes about [forest recovery](#) within a year or two after the [fire](#). A strong sense of place—a significant feeling of belonging or identification—and an understanding of the importance of fire in [forest](#) development tend to be associated with those attitudes.

"People have deeply rooted values that are affected by fires," said Chad Kooistra, who led the analysis as a Ph.D. student in the College of Forestry at Oregon State University. "Wildfires are a very salient issue, even months or years after a fire. People who live nearby or go to that area for recreation care a lot about many different aspects of that [landscape](#). Fires can change how they perceive and experience it."

The survey results can assist managers of public forests in the aftermath of a fire, he added. "One way to help people have a positive view of forest recovery is to find ways to restore their attachment to the landscape that's been affected. That could include volunteer activities and visiting places in the burned area. The concept of post-fire landscape recovery could be useful for talking to people about the ecological benefits and necessity of wildfires and how we can adapt to living with them without compromising important values."

Kooistra reported the results in the journal *Environmental Management* with co-authors at Oregon State, the University of Idaho and Eastern Washington University.

Perceptions about forest recovery can vary dramatically among people in the same community, he added. Some residents can look at a burned landscape and regard fire as the first step in a process leading to a new forest, whereas other people can look at the same area and feel that their special place has been destroyed.

One surprise, said Kooistra, is that people who live farther away from the fire perimeter tend to feel more negative about the recovery process. It's possible, he said, that people who live nearby may have more opportunities to see sprouting vegetation and other signs of growth.

Perceptions of landscape recovery were not affected by how long people had lived in the area or whether or not their income or livelihood depended on the forest, the researchers wrote.

Immediately after a fire, emergency response teams move in to address hazards such as the potential for erosion and trees at risk of falling, but such efforts do not usually address the psychological health of local residents. "Our research affirms the need to also address emotional and cognitive aspects related to how people experience the changing landscape after wildfires," said Kooistra.

The researchers sent questionnaires to about 5,000 households within 9 miles of the perimeters of fires larger than 1,000 acres. They were asked to indicate their agreement or disagreement with statements such as: "The wildfire improved the health of the landscape," and "I feel less of a connection to the landscape after the [wildfire](#)." People were surveyed one to two years after the fires had occurred. Respondents had lived in their homes for an average of 20 years.

The survey was part of a larger project funded by NASA at the University of Idaho to understand the social and ecological dimensions of "extreme" wildfires. The researchers interviewed [people](#) in their

homes and evaluated case studies of severe fires. They showed that post-fire landscape [recovery](#) is important for understanding connections between the social and ecological aspects of fires.

Provided by Oregon State University

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