Northwest Fire Science Consortium
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PRIVATE FOREST OWNERS AND WILDFIRE RISK

POLICY IMPLICATIONS IN A DIVERSE POPULATION

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Nonindustrial private forest (NIPF) owners control up to one-third of fire-prone forest lands in the West. Their lands are largely located between public wildlands and populated areas, in what is commonly referred to as the wildland-urban interface (WUI). The WUI is an area of higher potential risk for both natural and human-caused fires, and policies that encourage NIPF owners to reduce hazardous fuels are important for protecting landowner properties and the greater landscapes in which they reside. Private forest owners are diverse however, with varying circumstances and motivations, and creating policies to influence their behavior on a large scale is challenging.

To better understand NIPF owners, and subsequently the types of policies that are most likely to engage them in fuel mitigation strategies, researchers at the USFS Pacific Northwest Research Station and Oregon State University surveyed and interviewed private forest landowners living in fire-prone forests in eastern and central Oregon. Over 500 survey responses and 60 one-on-one interviews with NIPF owners helped the research team better understand different types of landowners, their distinct motivations, and policy suitabilities for hazardous fuels reduction.

KEY FINDINGS

- Four unique subgroups of NIPF owners were identified with unique motivations for hazardous fuels reduction and suitabilities for policy tools.
- The greater the risk of fire that landowners perceived on their property, the more likely they were to take actions to reduce that risk.
- Landowners who lived on their forested property were more likely to reduce hazardous fuels than absentee landowners.
- Landowners who held timber production as a very important goal were more likely to reduce hazardous fuels on their property.

The Northwest Fire Science Consortium is a regional fire science delivery system for disseminating knowledge and tools, and a venue for increasing researcher understanding of the needs of practitioners.

RESULTS

Four groups of NIPF owners were identified. Landowner circumstances, relationships to their land, and motivations for fuel reduction were different for each group:

Commodity managers: 27% of owners, 40% of area

"If a fire came through the timber I would lose 50% of its value today, and I would lose all my baby trees…it's going to take another 80 years to get some trees on it"

Landowners in this group are motivated to harvest and sell timber for income, to protect assets, and to perpetuate a family legacy of forestry. They are concerned about fire risk and they own larger parcels, though they do not necessarily live on them. Policies that reinvigorate markets for small-diameter wood products could motivate these owners and provide economic justification for reducing fuel. This group may also respond to tax credits and cost-share programs that would provide alternative revenue streams if markets are not available. Commodity managers are not looking for a government "carrot"; however, they are more likely to manage if there are incentives that offset the costs of fuel reduction activities.

Amenity managers: 21% of owners, 10% of area

"Losing your home is the biggest thing, and losing a forest: the resource, the habitat for the animals…Losing half of my life and a place that would just break my heart to have destroyed. To manage it is OK, but to have it destroyed would be disastrous."

These landowners tend to actively reduce fuel out of a desire to protect things of sentimental and amenity value: habitat, aesthetics, their homes, and the forests that define where they live. They typically live on their properties and indicate they are likely to use *Firewise* practices to protect these values. Amenity managers are not necessarily seeking a monetary payoff, and constraints they experience in fuel reduction are generally due to their own limited capacity. Therefore, these managers could benefit from technical and financial assistance programs, coupled with campaigns that cast wildfire risk as a threat to home, habitat, scenery and privacy.

Recreational managers: 27% of owners, 26% of area

"To pass on to the kids an area that is beautiful and safe and something you can use, not to grow timber…for cross-country skiing and hiking in the summer time…and snowmobiling in the winter."

are absentee owners who manage for the recreational opportunities their land provides them. They are not as likely to take action to reduce fuels as often as commodity managers. If they do choose to reduce hazardous fuels they are motivated primarily by amenities such as scenery, privacy, and as a legacy for future generations, and often use *Firewise* strategies. They rarely take these actions more than once. Providing public incentives through third-party contractors or consultants who can help recreational managers plan future fuel reduction may increase the frequency and scale of their treatments. Complimenting incentives with campaigns about the risks of wildfires to recreational opportunities, scenery, and privacy may also be effective.

Passive managers: 25% of owners, 24% of area

"The risk is high but probability is low. If it starts, it's going to go. But how much prevention do you want to do?"

Passive managers are absentee owners of large parcels. They hold few significant management goals and tend not to be very concerned about wildfire. They are unlikely to reduce fuel on their own or respond to incentives. More research is needed to determine whether the forest conditions on the lands owned by this group are hazardous, and if so, why owners are not concerned. It may be necessary to allow this group to respond to policies designed for other manager types, until more is known about the forest conditions on lands owned by passive managers and why they are not concerned.

IMPLICATIONS

NIPF landowners are a diverse population with many different objectives, management styles, and reasons for owning land. This study suggests that fuel reduction may be inconvenient for those NIPF owners who do not live on their land, and may be viewed as unnecessary by those who are not focused on timber production, residential protection, or providing a family legacy. It can be helpful to segment this population into management types when designing campaigns for wildfire mitigation. Using financial incentives, educational opportunities, campaigns that appeal to landowner values, or a combination of these strategies, may increase the likelihood that forest owners will take steps to reduce hazardous fuels on their properties.

MORE INFORMATION

This brief is based on the following article :

Fischer PA, Kline JD, Charnley S, and Olsen C. Identifying policy target groups with qualitative and quantitative methods: the case of wildfire risk on nonindustrial private forest lands. Forest Policy and Economics. 2013 (28).

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