

## ***Forest Landholders and Fire: A Case Study in Two Counties in Northeastern Washington State***

*This study focused on the role of fire both as a perceived threat and a management tool of NIPF and Tribal forestland owners/managers in two counties in northeastern Washington state. Using qualitative social research methods, we identified distinct categories of landholders with different reasons and strategies for holding and managing their forestlands. We found similarities in categories of landholders/managers in each county, ranging from those who actively manage for timber production and forage to residential and recreational users who manage for wildlife, aesthetics, or fire safety, and those who don't manage at all. There were differences between landholders in the two counties over the perception of fire as a threat and measures taken to reduce the threat of fire, and the use of prescribed fire (broadcast burning) as a management tool. Additional differences appeared in the level of trust landholders have in public land management entities. These county differences can be related to landholders' experiences with fire (wild and prescribed), land tenure, financial and physical restraints, and their reasons for owning the land.*

The control of fire has been a concern for as long as people have attempted to co-exist with forests (Pyne 1995, Schama 1995). In the Inland West of the United States, longstanding management practices and recent events have converged to place fire once again front and center on the public lands policy agenda. The suppression and exclusion of lightning and traditional Native American ignitions and a variety of other influences have brought about a decline in forest health and changes in species composition, fire regime, and fuel loading (Clark and Sampson 1995). The replacement of open forest stands of fire-resistant species and size classes by closed, dense, fire-prone stands has resulted in a corresponding change in fire regimes from frequent, low intensity ground fires to less frequent, stand-replacing fires. Not only do these large-scale, high intensity fires threaten water, plant, and wildlife resources on public lands, they also frequently pose a threat to private and tribal lands and to rural forest landholders and residents. While much public attention and debate has focused on the role of fire as a natural process, a threat, and a management tool on public forestlands, less attention has been focused on fire in other forestland ownership categories.

The primary purpose of the research reported here was to develop a better understanding of the role-playing by fire both as a potential threat and a potential tool in the management strategies of non-public forest landholders in two counties in northeastern Washington state. The two categories of forestland of focus were non-industrial private forests (NIPF) and tribally held forests. Although fire was the topic of ultimate interest for this study, we wished to understand where fire fits in the complex of issues and considerations forest landholders face. Therefore, the inquiry was structured in such a way as to attempt to elicit what, if anything, landholders saw as significant threats and risks to their forest and the place, if any, which fire occupied in the broader constellation of threats and risks as perceived by landholders.

NIPF landholders own 25% and 4% of forestland in Stevens and Okanogan counties, respectively. These private parcels are intermingled with those of state and federal agencies with the result that NIPF lands are affected by what happens on adjacent lands. Two tribal entities, the Spokane Tribe of Indians and the Colville Confederated Tribes, together control 5.9% and 7% of forestland in Stevens and Okanogan counties, respectively. Tribal forestlands include lands held in common by the respective tribes in a trust relationship with the federal government, and a portion held by tribal individuals and families as allotments, which are technically also held in trust. In addition, forestlands within the reservation boundaries also include parcels owned in fee simple by native and non-native individuals and timber companies.

Previous research suggests that NIPF landholders comprise a diverse group with a range of management objectives, ranging from timber production to rural home ownership (Blatner et al. 1991, Bliss and Martin 1989, Bliss et al. 1994). Forest landholders in eastern Washington share in this diversity and face many of the same forest health problems and management challenges as those found on public lands: small diameter, overstocked stands, insect and disease problems, unnaturally high fuel loads, past harvesting practices, and a changed species composition. Some NIPF landholders think that public land management agencies can learn something from them and the silviculture treatments applied to private lands (Findley et al. 2000).

The threat of wildfire is not the primary factor affecting forest management decisions for many landholders. Economic objectives (other than avoiding fire losses, which themselves have economic implications) are often more immediately



pressing and the forestry professionals interviewed claimed that landholders base their management decisions on what will bring a return on their investment and fits their management objectives. Fire hazard reduction treatments or improvements in forest conditions through the use of fire are not, in many cases, seen to meet neither the first criterion nor the second. Consultants and extension foresters also appeared to support this when they stated that landholders do not form management or ownership objectives around risk or threats. Instead, their management actions are based on what will give them the most return for the least amount of expenditure, and that usually eliminates the use of fire as a management tool. Said on landowner, “Economics dictates what I have to do as opposed to what I want to do.” Further, the barriers to prescribed burning are formidable and the fear of an escaped fire coupled with the resulting liability make it a non-option for many landowners.

The implications of this research on the use of prescribed fire by NIPF landholders include a need for change in liability laws related to “escaped fires”, technology transfer on the methods and application of prescribed fire, and additional study on smoke issues.

The fear of an escaped prescribed fire and the resulting liability are the biggest concerns for landholders with an interest in using prescribed fire. If policy makers want to encourage landholders to thin and burn to reduce fire hazard and/or improve forest conditions, making changes in state liability laws would likely be necessary. Liability laws would need to be changed to limit landowner liability for escaped prescribed fires or to allow for more public/private cooperative efforts. The interest in using prescribed fire exists among some groups of landowners, but the knowledge to implement prescribed fires generally does not. This is an opportunity for extension agents to develop inclusive programs for a range of landholders. Such programs would cover fire ecology as well as the techniques and applications of prescribed burning for small parcel owners (e.g. the lifestyle who wants to burn pine needles or improve wildlife habitat) as well as large-active landholders who want to use fire as a thinning tool or an immediate treatment.

Landholders in this study were not highly concerned about smoke problems. However, smoke from prescribed burning may be an issue for their neighbors and has the potential to affect urban areas where residents may be more vocal in their opposition to smoke. One aspect if this may be different level of tolerance for smoke by rural and urban populations as well as Native American and non-native populations. Another aspect may be the acceptability of smoke from “natural” fires versus from agricultural burning.

If there is a single, take-home message from the interviews conducted with a wide variety of forest landholders in this study, it is that “one size does not fit all”, either in terms of the extent to which wildfire or the specter of wildfire is important in influencing management decisions or in the possibilities of using fire more extensively as a forest management tool. Not only is there the complex interaction of qualitative and quantitative risk assessment factors, different biological conditions and fire regimes in the two counties along with social and cultural differences in land management practices and objectives between Native Americans and non-natives influence decisions and risk assessment. Finally, the economic and institutional constraints of using a particular practice or tool play into the decision making matrix. Given this, it would be unrealistic to expect a uniform response by forest landholders to the threat or promise of fire.

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