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COMMUNITY VALUES IN THE BITTERROOT VALLEY AS INPUT TO FUELS REDUCTION

Keywords: place attachment, wildland-urban interface, fuels reduction, landscape values, social values, wildland fire use

Background & Management Issues: The population of Western Montana's Bitterroot Valley increased by nearly 50% in the 1990s. Most development is concentrated on the valley floor, but settlement has also increased on the western side of the valley adjacent to forested land managed by the Bitterroot National Forest (BNF). This rapid population growth, coupled with an economic shift away from traditional natural resource industries, has altered the valley's character in many ways.

Over 70% of the Bitterroot is public land, and a large portion of the Bitterroot Range is designated wilderness. The Range is important to newcomers and long-term valley residents for its aesthetic beauty and recreation potential. In the summer of 2000, wildfires burned more than 350,000 acres of forest along the front of the Range. A recent analysis of the social impacts of the Bitterroot fires found a lack of trust in the Forest Service to make decisions that affect local values among community members (Watson 2001), and the widespread perception of a need to modify forest stewardship practices to reduce wildland fire fuels.

Project Objectives:

- ❖ To develop a deeper understanding of values attached to local places by Bitterroot residents, and determine how Bitterroot National Forest fuel management decisions interact with those values.
- ❖ To integrate places and their landscape values into ecological modeling efforts that include the relationship between humans and the Bitterroot Front as a basis for evaluating alternative fuel hazard



The Bitterroot Range

Photo: U.S. Fish and Wildlife Service

Project Description: Interviews and focus groups were conducted with a purposeful sample of valley residents, focusing on local community knowledge to capture as much context as possible about the relationship people have to the Bitterroot Front. The sample size was small and an emphasis was placed on depth of understanding rather than statistical generalizability. Participants were asked the following questions:

- Why do you live in the Bitterroot Valley?
- Could you describe what it means to live in the Bitterroot Valley?
- What specific places on this map do you spend the most time on the Bitterroot Front?
- Are there other areas that you consider important, but that you have seldom or never spent time at?
- How would fuel hazard reduction treatments affect the 3 most important places (on the Bitterroot Front) where you spend time?

Interviews were analyzed and used to develop a GIS map of social values on the Bitterroot Front.

Results: Many interviewees mentioned the combination of a rural setting close to wildlands coupled with access to a nearby urban center as significant reasons for their residency in the Bitterroot Valley. Quality of life in the Bitterroot Valley is intimately tied to the amenities offered by the National Forest and Wilderness. Some people spoke of a choice they had made to live in the valley, despite the fact they could make more money elsewhere.

The reasons cited by interviewees to explain the personal significance of specific places along the Bitterroot Front included ease of access, scenery and natural features, uniqueness, natural values

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associated with Wilderness and roadless areas, historic and work-oriented ties, and watershed protection. Places not selected as “important” generally were those lacking road or trail access.

Most respondents expressed support for fuel hazard reduction treatments along the Bitterroot Front, including prescribed burning. They also recognized the importance of private property owners assuming responsibility for fuels reduction on their own property. Some respondents expressed concern that the Forest

Service might use fuels reduction simply as a rationale to harvest more trees, and that fuels reduction might have a negative influence on wildlife habitat. Although the interview guide did not specifically reference wildland fire use in the Selway-Bitterroot Wilderness, it was mentioned by some respondents as an important management strategy. However, confusion existed among other respondents as to which fuel hazard reduction treatments are allowed in wilderness.

Management Implications:

- ❖ A visual representation of landscape values can be used to relate place-based values to management decisions such as fuel hazards reduction treatments.
- ❖ A social values layer should be included as a primary input in ecological modeling to assist managers in understanding how the physical locations proposed for fuel treatments interface with local values. In this way, landscape values can be integrated into existing ecological modeling efforts.

Opportunities for Further Research:

- ❖ Road and trail access emerged as a key indicator of which places were important to residents. How does access to specific sites contribute to the relationships people have to places they deem important?
- ❖ How does the input of social values influence fuel treatments, and how do prescribed fires interact with social values?

Publications / Products:

- ❖ Gunderson, K. Watson, A. Nelson, and Titre. 2004. BEMRP Research Project Summary: Mapping place meanings on the Bitterroot National Forest – a landscape-level assessment of personal and community values as input to fuel hazard reduction treatments. Final report on file at: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Aldo Leopold Wilderness Research Institute, Missoula, MT. 41 p. [Read it here!](#)
- ❖ Watson, Alan E. 2001. Bitterroot National Forest. Community telephone survey open-ended questions analysis. Report to the Bitterroot National Forest. March 2001. Available from Bitterroot National Forest and the Aldo Leopold Wilderness Research Institute.
- ❖ A subsequent Joint Fire Science project is evaluating and improving methods used to map social values in GIS and increase effectiveness of the integration of human values into planning fuels treatments. [Read Research Update!](#)



Bitterroot Valley with Bitterroot Range and burned area in background.

For additional information...

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