

Federal compensation for conservation programs in the US Mountains:

Experiences and reflections

Alton Byers

The Mountain Institute, USA

2002

Keywords: mountains, ecosystem management, conservation, USA.

Images:



Blister Swamp: More than 40 acres of the high altitude Blister Swamp were protected from cattle through a program involving federal donors, local government agencies, non-profit organizations, and volunteers. The numbers of rare plants in the exclosure (brown because of finally reaching the seed stage after 100 years of grazing) increased by 25 percent during the first year. Balsam seedlings from local stock

will be planted as of the fall, 2002.



Postdriver: The U.S. Fish and Wildlife Service, Elkins, WV donated the Bobcat, hydraulic postdriver, and labor toward completion of the 7,000'+ fence.



Jacobs Ladder--Jacobs Ladder (*Polemonium van-bruntiae*), one of the globally uncommon plants found in the swamp.

"My vision is to one day step out on the front porch in the morning and see the sun rising through the balsam fir that is growing again in Blister Swamp".

John Dalen, November, 1998

The 1998 vision of the private landowner in mountainous Pocahontas County, WV will most likely become a reality within the next 10 years, thanks to co-financing from the National Fish and Wildlife Foundation, Environmental Protection Agency, and numerous non-profit, local government, and volunteer partners. However, that few mountain-specific compensation mechanisms for conservation and sustainable development exist in the U.S. remains a problem in need of further review, and thoughtful comparison with the international experience.

Blister (the local name for "balsam fir") Swamp in Pocahontas County, WV represents one of the last remaining Balsam Fir-Red Spruce wetlands in unglaciated eastern North America. Beginning in the early 1900s, the beautiful and remote region was significantly altered by deforestation, livestock grazing, and aggressive non-native species. In spite of this, sixteen rare plant species have been reported, of which two are globally uncommon, and the swamp has remained a significant breeding bird site. Beginning in the early 1990s and with the counsel of Dr. Roy Clarkson, a botanist from West Virginia University, the private landowners sought ways to protect and restore this unique habitat for future generations of family, friends, and educators.

In 1998, the landowners approached The Mountain Institute (TMI) and The Nature Conservancy/WV Chapter (TNC) for assistance. Together, the three parties developed a series of project objectives that included (1) reduce or eliminate the most significant threats to the special flora and the key ecological processes that affect the wetland, (2) enhance populations of rare plants and restore key ecological processes within the wetland ecosystem, (3) protect the long-term health of the ecosystem by developing an ongoing conservation program that maintains these activities into the foreseeable future, and (4) document and disseminate the lessons learned from the project's participatory approach and strategies.

Funding for the project was obtained from the National Fish and Wildlife Foundation <http://www.nfwf.org/>, created by Congress in 1984 to "conserve healthy populations of fish, wildlife and plants, on land and in the sea, through creative and respectful partnerships, sustainable solutions, and better education." The Foundation is "mandated by Congress to ensure that each federal matching dollar awarded is leveraged with a non-federal dollar or equivalent goods and services", and competitive proposals normally provide at least a 2:1 return on its project portfolio -- \$2 raised in challenge funds to every federal matching dollar awarded.

In addition to the Dalen family, TMI, and TNC, a number of partners were added whose contributions were essential to the project's success. They included the Environmental Protection Agency, Five-Star Restoration Program; U.S. Fish and Wildlife Service/ Elkins; WV Highlands Conservancy; WV Division of Natural Resources, Non-Game Wildlife and Natural Heritage Program; Itasca Corporation (seedling cultivation); Natural Resource Conservation Service Plant Materials Center/WV; U.S. Forest Service/Elkins; and volunteers from TNC, TMI, and local communities.

Together, the groups and individuals constructed more than 7,000' of fence that protected approximately 40 acres of the swamp from cattle grazing. Approximately 20 acres were further protected from whitetail deer browsing by extending and electrifying the fence to a height of 8 feet. Thousands of balsam fir seedlings collected in 1998 was successfully germinated, with the first seedling planting scheduled for the fall of 2002. Results from the first seasons' rare plant surveys showed a 25 percent increase in rare plant populations after only one year of protection. Plans for extending the project onto adjacent U.S. Forest Service property have been made and are contingent on the receipt of anticipated donor funding.

At its completion in the spring of 2002, the Blister Swamp Conservation and Restoration Project were considered to be a success by most and represented a model of cooperation between multiple stakeholder groups that included the private landowner, government agencies, non-profit organizations, and volunteers. A number of other federal and state programs exist that can help the mountain landowner to implement better watershed and wildlife habitat management, such as the USDA's "Wildlife Habitat Incentives Program" (WHIPS) <http://www.wi.nrcs.usda.gov/programs/whip.asp>, or a U.S. Fish and Wildlife Service's program that provides all fence construction free of charge to the landowner who purchases materials (<http://northeast.fws.gov/prhab.html>).

In summary, in our experience the existing systems work well, the federal agencies have been exceptionally supportive and helpful, and certain conservation goals are being met. Projects in mountain regions are more expensive to implement than those in the lowlands because of distance, remoteness, and comparative lack of facilities, but the higher "cost per beneficiary" seems to be understood and accepted by the funding partners once adequately quantified and documented.

What still seems to be lacking, however, is a system of incentives that could address much larger scales and issues. Steep and fragile hillslopes better suited to a protected forest status, rather than clear cut, could be maintained if systems for providing landowner compensation and incentives existed. Zoning against the subdivision of scenic mountaintop land, and increasingly rapid construction of vacation homes--an attractive option to the landowner with no other alternatives--could be achieved to the benefit of the watersheds as well

as down stream populations. Rather than bulldoze streams in an effort to channelize and thus avoid periodic flooding, the biological and hydrological value of the natural stream should be recognized by the landowner, and rewarded by better governmental insurance and protection mechanisms. Likewise, mountain-grown wool and other products are not currently competitive in the international marketplace, resulting in a loss of traditional income that in turn can lead to less sustainable landuse alternatives described above.

Notes to readers

This paper is a case study on Legal, Economic, and Compensation Mechanisms in Support of Sustainable Mountain Development. A Mountain Forum e-consultation for the UNEP/ Bishkek Global Mountain Summit. 23-28 April 2002.