



BAD GOAT, GOOD BUSINESS: BYPRODUCTS BRING BIG GAINS FOR WATERSHED RESTORATION

FACT SHEET EIGHT • SPRING 2013

This fact sheet series highlights innovative ways that family forest and ranch owners are prospering from protecting and enhancing ecosystem services on their land. Ecosystem services are the benefits people receive from nature such as water quality, wildlife habitat, and carbon sequestration.

Restoration contractors in western Montana are fostering ecosystem services on private lands while offering a variety of services to landowners. One such business, Watershed Consulting, LLC, has developed a successful business model that centers on the provision of ecological expertise and highly skilled work across the watershed in forest, range, and riparian land types. Watershed Consulting also markets wood harvested during restoration projects, through Bad Goat Forest Products, LLC. Selling these sustainably harvested wood products in niche markets, or working with landowners to utilize their own wood in building projects, can be seen as an embedded payment for ecosystem services, especially if they garner market share or a premium price because of the ecosystem values associated with the wood.

PARTNERS

Formed in 1994, Watershed Consulting has twelve staff specializing in forest and watershed restoration and sustainable forest management to enhance ecological integrity and promote forest health and vigor. Based in Missoula, Montana, the company offers services across the Interior Northwest and works with local, state, federal, and tribal agencies as well as private landowners, watershed groups, Resource Conservation and Development districts, and other NGOs.

To market and add value to the byproducts of restoration work, one of Watershed Consulting's principals, forester and restoration ecologist Mark Vander Meer, developed a second business, Bad Goat Forest Products, LLC. His company has a small mill, timber framing shop, and experienced craftsmen. They make a variety of products including out-buildings, fencing, and furniture, with wood sourced only from local restoration projects.

THE PROGRAMS

Watershed Consulting offers a broad base of knowledge and expertise that is particularly attractive to private landowners. The company offers the full gamut of restoration work, from forest to stream restoration, and even addresses road issues. They have the skills for every phase of a project, making them a one-stop shop for ecological



assessment, planning, and on-the-ground projects. Mar-nie Criley, staff at Watershed Consulting, emphasized why they are unique: "Most businesses are either focused on forestry work or watershed enhancement. At Watershed Consulting our goal is to achieve multiple outcomes for the landowner. When we work with private landowners as contractors for a hazardous fuels project, we look at fuels reduction, but we also pay attention to and mitigate impacts to soils, wildlife communities, and riparian areas. We often use the byproducts of pre-commercial thinning for stream restoration efforts."

OUTCOMES

As forest ownership in Montana shifts, many new private landowners with small to medium-sized parcels have limited knowledge of forest and riparian restoration or management. Watershed Consulting and other intermediaries

in the area help introduce landowners to their properties, providing them with information about the principles of ecological forestry and directing them to classes offered by Montana State University Extension. They also help landowners access cost-share programs to assist in paying for restoration work. In particular, they often work with the Bitterroot RC&D to provide cost-share for fuels reduction and forest restoration work for landowners who need assistance.

For many private landowners, lack of markets for small diameter material and the current downturn in the housing market limit the work they can afford to do on their property. As a forester and small sawmill owner and operator, Mark Vander Meer understands the market side of this work and the dilemma of logs that “don’t pay their way out of the woods.” One of the services Bad Goat Forest Products offers private landowners is construction of outbuildings using their harvested trees. The landowner pays for restoration but also gets a beautiful and functional structure. Sometimes after hazardous fuels reduction or thinning a bug-infested area, Bad Goat will buy the harvested logs from landowners and turn them into unique products the company can sell itself.

Bad Goat sells beams, slabs, and fence boards made from restoration byproducts through a local home reuse center called Home Resource. Sales have gone up dramatically in the last year. Many new businesses in Missoula have begun using wood from Bad Goat for tables, shelving, and decorative siding. In particular, Bad Goat’s slabs have become very popular for tables and bars in local homes and businesses. Bad Goat mills and sells 65 million board feet of rough cut boards and beams annually, most of that in the form of timber frame barns and outbuildings.

CHALLENGES

Certification for sustainable forest practices and products under the Forest Stewardship Council or Sustainable Forestry Initiative can increase the value of products coming off of private lands and provide access to niche markets. However, certification can be very expensive for a small private landowner and has been slow to take off in the Missoula area. Bad Goat provides an alternative through the market it has created for local, value-added wood products. By creating Bad Goat Forest Products, Watershed Consulting is better able to assist landowners with ecologically and economically viable forest restoration projects.

So far, Watershed Consulting has worked primarily with wealthier private landowners who can more easily meet the match requirements of cost-share programs. Focused

outreach to lower income landowners by intermediary groups could increase their access and the work being done on private lands.

FUTURE PROSPECTS

Just outside of Missoula along the Clark Fork River, Watershed Consulting was contracted by the city to develop and install a poplar plantation on 130 acres of leased private land that will absorb effluent from a Missoula sewage treatment plant. After initiating a 1.6 acre proof of concept pilot in 2009, the city has decided to invest \$1.375 million into developing this larger system that will be able to handle 10% of Missoula’s effluent. Treated waste water is rich in phosphorus and nitrogen, nutrients that are harmful to river water quality but provide amazing fertilizer for poplars. The poplars act as a natural filtration system that will also produce high quality wood. Watershed Consulting has been able to work with the city to install the system, and Bad Goat Forest Products plans to purchase some of the thinnings from the project to create value-added wood products. Bad Goat estimates \$2-3 million worth of milled product will come off the project site. While the cost of the project is high, it is 10 to 20 times cheaper than installing more equipment to meet growing environmental standards for water quality. The city’s investment in poplars—or payment for the ecosystem services the trees provide in filtering water and reducing nutrients—is a win-win for Watershed Consulting, Bad Goat Forest Products, the city of Missoula, and local residents who pay utility prices for clean water.

LEARN MORE

Watershed Consulting LLC:
<http://www.watershedconsulting.com/home>

Bad Goat Forest Products LLC:
<http://www.badgoatgoodwood.com/home>

For more information about the project and to read the full fact sheet series, go to:

www.tinyurl.com/SNWEcosystemServices, or contact:

Hannah Gosnell, Oregon State University
gosnellh@geo.oregonstate.edu

Lauren Gwin, Oregon State University Extension
lauren.gwin@oregonstate.edu

Cass Moseley, University of Oregon
cmoseley@uoregon.edu

Alaina Pomeroy, Sustainable Northwest
apomeroy@sustainablenorthwest.org

Max Nielsen-Pincus, University of Oregon
maxn@uoregon.edu

This fact sheet series is part of a multi-state research collaboration involving Oregon State University, University of Oregon, and Sustainable Northwest, with funding from the USDA National Institute for Food and Agriculture, Grant #2009-85211-06102-C0405A. Photo credits: header—Emily Jane Davis; p.1—Cass Moseley.



UNIVERSITY OF OREGON

www.tinyurl.com/SNWEcosystemServices