

# WALLOWA RESOURCES

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SPRING 2005

NEWSLETTER ISSUE 25

## Biomass Heating for Schools

*It makes economic and  
resource sense...*

*Nils D. Christoffersen*



Talk about a win-win opportunity! Commercially available woodchip heating systems using forest slash and pulpwood can provide heat cleanly and efficiently to our public schools. Our schools can devote

scarce funds to teachers, supplies and programs instead of diesel, and help finance hazardous fuel reduction in our forests.

Wallowa Resources, in partnership with the Biomass Energy Resource Center from Vermont, conducted a pre-feasibility study for the Enterprise and Wallowa School Districts in December 2004. The original analysis with heating oil costs at \$1.55

per gallon projected savings of nearly \$40,000 per year for Enterprise, and \$15,000 for Wallowa. In March, when both schools filled their fuel tanks, the cost of heating oil had risen to over \$1.95 per gallon. None of the schools had anticipated that kind of inflation in heating costs in their budgets. Over a 30-year life cycle cost analysis the projected savings from conversion to woodchip heating exceed \$1,000,000 for Enterprise, and \$400,000 for Wallowa.

The cost of biomass fuel is generally half to one third the cost of fuel oil on a Btu basis. There are similar savings compared to natural gas, particularly when gas prices are high, and higher savings if compared to propane. These hard dollar savings often make the investment in biomass heating technology a win-win

for school boards looking to reduce expenditures wherever they can.

In addition to the obvious benefits to our cash-strapped schools, woodchip heating systems generate a range of public benefits:

- Biomass systems keep energy dollars in the local economy and supports jobs in the forest products industry.
- Burning wood for energy has a positive impact in moderating global climate change. When wood is burned, it recycles carbon that was already in the natural carbon cycle. Fossil fuel combustion takes carbon that was locked away underground (as crude oil and gas) and transfers it to the atmosphere as CO<sub>2</sub>.
- Wood chipped for fuel provides a productive use of a low-grade waste product, which benefits forest

harvesting operations and local sawmills.

- By establishing a market for low grade wood fuels, biomass energy projects help mitigate costs for hazardous fuel reduction in western forests.

Wallowa County, Oregon

is ideally suited to develop school wood energy projects and other small-scale biomass energy projects. We have an abundant biomass resource that is sorely underutilized and poses a risk to forest health and public safety. We have a history of resource-based businesses, as well as residents and community leaders who appreciate the economic benefits that can be derived from developing a biomass fuel market. We would prefer to find constructive uses for this biomass waste rather than just burning it in either controlled or uncontrolled fires.

What we need now is creative financing to help the schools and the county capture the benefits of biomass energy.

**“Huge volumes of low-grade wood in the national forests of the western states pose a fire forest risk to communities; using this wood for energy both protects communities and reduces reliance on costly fossil fuels”.**

*-Biomass Energy Resource Center*

WALLOWA  
RESOURCES

*Promoting  
Healthy lands  
and  
Communities*

Wallowa Resources creates opportunities in Wallowa County for natural resource stewardship, prosperous families, and promotes a broader understanding of the links between community well-being and ecosystem health

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**Wallowa Resources Hosts Upcoming College Classes and Teacher Workshops**

*Ellen Bishop*

This summer, Wallowa Resources will turn Wallowa County landscapes into college classrooms. Partnerships with Pacific University, Oregon State, the University of Portland, and Eastern Oregon University will provide one to two –weeklong intensive college courses and teacher workshops in subjects from forestry and rural economies to geology.

The first offering, Pacific University’s new course, Ecology and Economy of the Wallowa Mountains, brought nine students to the area. Beginning May 23<sup>rd</sup>, the group explored Wallowa County’s natural resource-based economy thru field trips and lectures. Taught by Nils Christoffersen and Ellen Bishop, the course included discussions and field trips with a variety of local resource professionals and experienced producers, including Jack McClaren, Mack Birkmaier, and Bruce Dunn. County Commissioners Mike Hayward and Ben Boswell and Joseph Mayor Peggy Kite Martin were also involved.

The course explored the many ways that rural communities are connected to and sustained by their surrounding natural resources. Students

investigated the County’s past, present and its future opportunities on trips to the Zumwalt Prairie, Promise, Maxville, Flora, Wallowa, Enterprise and the Wallowa Lake Basin. Field guides for these excursions included Jack McClaren, Nature Conservancy ecologist Rob Taylor, and USFS zone archeologist Skip Miller. In addition, the class interviewed Joseph and Enterprise merchants to understand how local businesses are connected to community, tourism, and landscape. Overall, students received a rounded picture of the county’s history and land management.

Additional college courses planned for the summer and fall include a teachers’ workshop focused on local forests and grasslands—tentatively planned for Billie Meadows Guard Station June 20-23. Another teachers’ workshop, developed by Wallowa Resources in partnership with the University of Portland, will focus on Oregon’s geology, August 5-20. Both provide college credit and are free to qualified Wallowa County teachers. In September, Wallowa Resources will offer a full term of field –based Forest Resources’ courses in partnership with Oregon State University. Local resource professionals provide the instruction in all these programs, providing a boost to Wallowa County’s economy, as well as a deepened understanding of our ties to this landscape.

**Thank you to the following collaborators, partners and sponsors of Wallowa Resources:**

- Friends of Wallowa Resources
- Sustainable Northwest
- USDA/US Forest Service
- Wallowa County Board of Commissioners
- Wallowa County Natural Resource Advisory Commission
- Wallowa County Chamber of Commerce
- Ted E. Gould Trucking
- OSU Cooperative Extension
- Oregon Department of Forestry
- Bella Vista Foundation
- Intermountain West Joint Ventures
- Oregon Community Foundation
- Northeast Oregon Economic Development District
- Flintridge Foundation
- Rocky Mountain Elk Foundation
- Ralph L. Smith Foundation
- National Fish & Wildlife Foundation
- Sand County Foundation
- The Nature Conservancy
- Weyerhaeuser Family Foundation
- Wild Horse Foundation
- Sterling Savings Bank
- Aspen Institute
- Ford Foundation
- American Forests
- Grande Ronde Model Watershed Program
- Milligan Motors
- Bronson Log homes
- Rocky Mountain Elk Initiative
- Yum! Brands Foundation, Inc.
- Bureau of Land Management
- Wallowa County Business Facilitation
- Executive Tree Care
- FC&C Enterprises
- Buhler Ranch Partnership
- Oregon Economic & Community Development Department
- Bonneville Power Association
- Oregon Department of Fish & Wildlife
- Oregon State Weed Board
- National Forest Foundation
- Oregon Watershed Enhancement Board
- Edison, Hurley & Co.
- Wallowa Lake Lodge
- Community Bank
- Les Bridges Farmers Insurance
- Stangel Industries
- National Association of Counties
- Oregon Employment Dept



## **Diane's Desk**

Diane Snyder, Executive Director

War in Iraq; Social Security Reform; access to health insurance; public education - the list of competition for federal funding to rural communities and public land management is long. Like many other Americans, I find myself concerned about how these issues will be addressed by the decision-makers in Washington, D.C. Early this May, I had the chance to visit DC with other rural community representatives concerned about public land management. During the jam-packed four-day flurry, I found myself feeling fortunate that Americans have access to our decision-makers.

Several issues were covered during our visit including stewardship contracting authorities, funding for the Forest Service and their programs, and the use of woody biomass. Four western states were represented among the group including California, New Mexico, Washington, and, of course, Oregon.

Stewardship Contracting is an innovative way to create benefit for rural communities while collaboratively working on public land restoration and stewardship. Policy makers, managers, and communities are experimenting with implementation of the new authorities and quickly developing new approaches. During this phase of rapid change, positive innovations are taking place. However, some developments may make

effective implementation of stewardship contracting difficult.

- A barrier to local capture of stewardship contracting work is the scale of projects and their bonding requirements. It is important to keep the scale of projects and contracts appropriately sized to allow smaller local contractors the opportunity to compete for the work.
- Hazardous fuels reduction work is being performed through stewardship contracting for fuels reduction rather than a more broad focus of forest restoration work, and often discourages investments in project design and development that could improve utilization opportunities of by-products. This results from the Forest Service's Washington office setting targets for annual acres of accomplishment, which often forces fuels reduction efforts in areas that are easier to treat. We encouraged the Forest Service to address multiple issues in through Stewardship Contracting. Also, we encouraged incentives to make investments in the "harder" acres to treat as well as local utilization of product.

Funding for the Forest Service is a critical concern. In order for federal land management activities to occur, adequate funding is necessary for personnel and project implementation. In addition, crucial programs that assist communities are disappearing with the reduction of funds to support them, such as the Economic Action Programs that providing grants to communities for various community projects.

- Emphasis should be placed on restoring the Economic Action Program. Elimination of this base program hurts rural communities and businesses by removing an effective grant and technical assistance program.
- Investment is needed in vegetation, watershed management, rehabilitation, wildlife and fisheries management. Many local contractors access work in these important areas.

Woody Biomass utilization will reduce the costs of hazardous fuel reduction and

forest management activities. It will also provide jobs in the woods and in processing facilities that use the by-product. By keeping the work at the local scale, incentives for over-harvest or over-treatment will not occur.

- Biomass utilization is a land management issue, not just an energy production concern. We encouraged funds being targeted at biomass utilization to support development of diversified forest products sectors including uses beyond energy generation. Focusing only the use of woody biomass for energy could harm existing businesses that utilize small diameter forest products.
- Federal biomass policies that are targeted at energy production should encourage the development of facilities at a variety of scales. Smaller scale facilities will benefit and encourage development of woody biomass energy production in many rural communities.

Over fifty appointments were held during the course of our four-day trip. We visited with members of our Congressional Delegations, Administration officials, agency representatives and partner organizations. It is an overwhelming experience to walk the halls of Congress and have the opportunity to provide information to decision-makers. Hopefully, the information we shared will result in some positive changes for rural resource-dependent communities across the nation. To read the policy statements in full, please visit the policy section of [www.sustainablenorthwest.org](http://www.sustainablenorthwest.org).

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**“We shall not fail or falter; we shall not weaken or tire...Give us the tools and we will finish the job”**

**-Sir Winston Churchill,**

**BBC broadcast, Feb 9, 1941  
(1874-1965)**

# Hells Canyon Sustainable Rangelands Project

Mark Porter



Wallowa Resources is working with Dennis Sheehy's **International Center for the Advancement of Pastoral Systems (ICAPS)** to study

domestic and wild large herbivore interactions with our prairies and canyons - as well as with each other. We will look at two different breeds of cattle (Corriente, a small Spanish cow often used in rodeos for rope stock and standard English Breeds like Hereford and Angus Cattle). Corriente offer different behavior patterns and diet selection than the English breeds and also have different marketing opportunities.

The study seeks to measure the response of plant communities to herbivory (grazing) by each breed as well as the response to the combined herbivory of both breeds and that of elk, deer and bighorn sheep. Currently the work is being done at the Berland Place on the North end of the Zumwalt Prairie (recently under new ownership) and in Horse Creek in the Lower Imnaha.

Field crews will be measuring sample plots that are distributed throughout pastures. Each plot is a half-meter square and analysis includes measurement of total cover, species composition, and clippings by growth form (grass, shrubs, trees) to measure forage production.

New to the study this year is the direct involvement three universities. Oregon State University (OSU) Range Department will be donating the use of GPS collars that will go on the cattle to track their movements, which will allow

us to link where they are with what plant community they are in. English and Spanish Cattle within 5 different pastures will be collared. Also an OSU M.S. student will track, measure, and quantify distribution and movement patterns within pastures when separated by breed (Spanish and English) and when combined. The student will measure key factors influencing distribution including terrain, distance to water, ground and air temperature.

We hope that diet of large herbivores on canyon winter rangelands and prairie summer rangelands will be tracked by a University of Idaho student. Also, Texas



*Corriente Cattle on the Prairie*

A&M University is helping out by donating data analysis using cutting edge technologies that will help to make this study applicable to the larger picture issues of Wallowa County's rangeland health and economies. These university connections come largely due to Dennis Sheehy's long relationship with these two institutions. This project has been made possible by generous funding from Bradley Fund for the Environment and The Sand County Foundation. WR staff is pursuing further funding for the expansion of this project.

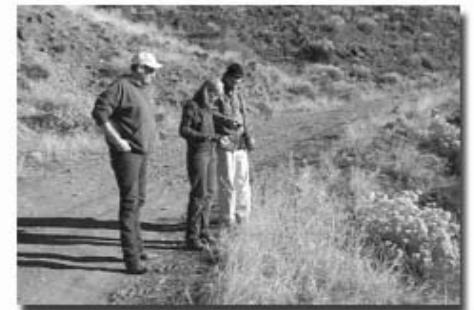
Livestock grazing is a critical part of this county's economy and culture. With this project, we hope to preserve that economic productivity in the county as well as maintain and improve our own level of stewardship.

# Wallowa Canyonlands Partnership

*The noxious weed control battle rages on!*

Though the Lower Grande Ronde Noxious weed Program is still going strong, Wallowa Resources staff has joined forces with more partners to focus on more of our highest risk areas.

The Wallowa Canyonlands Partnership (WCP) builds on the Cooperative Weed Management Area format in the Lower Grande Ronde Canyons, but expands the area to encompass the Imnaha and Snake River canyons. This project will complete the cooperative weed management network for the Hells Canyon grasslands.



*WCP cooperators use GPS to mark the location of a new patch of Yellow Starthistle in Imnaha*

The new project is driven by the efforts of the Wallowa County Vegetation Management Department, The Wallowa Zone USFS, The Nature Conservancy and Wallowa Resources. Project cooperators also include numerous private landowners, the BLM, State agencies in Oregon and Washington, and the Nez Perce Tribe.

This project will help to protect and restore one of the largest and most important high quality native grassland ecosystems left in the United States.

Noxious weeds are fast invading Hells Canyon and directly threaten the

productivity of those grasslands for agricultural forage production and ecological diversity. Numerous wildlife species, several federally listed plant species associated with these grasslands, and federally listed fish species such as steelhead, spring Chinook salmon and bull trout will benefit.

## Wallowa Resources Cost Share Programs

Wallowa Resources is once again inviting landowners and managers in Wallowa County to participate in our cost share programs. Cost share programs provided through Wallowa Resources include:

**Alder Slope Fuels Reduction** Many homes located within or adjacent to forests are at risk from wildfire. Cost-share for hazardous fuel reduction work around homes is available for properties on the Ski Run Road area along the base of Alder Slope to Sunrise Road. The cost-share program is designed like a rebate. A forester working for Wallowa Resources will visit each property to assess the amount of work that needs to be done, and the amount of cost-share that can be provided.

The landowner may do completion, and authorize the cost-share payment. Landowners that signed up last year but did not complete the work, may complete the work this year. Funding for this program has been provided by the Oregon Department of Forestry.

**Aspen Restoration** Aspen communities have been identified as important habitat components of the Blue Mountains. Big game and neo-tropical birds are two wildlife types commonly associated with healthy Aspen stands. Our cost-share provides for the construction of enclosure fences to protect existing Aspen from livestock and wildlife pressure. Enclosure

fences should remain in place for a minimum of 10 years. Landowner’s in-kind contributions include the commitment to maintain the fence and protect the Aspen. Landowners are not expected to grant general public access to their property. Any landowner in the County is eligible to participate. The Oregon Department of Fish and Wildlife and The Nature Conservancy have provided funding for this program.

**Noxious Weed Control** The Lower Grande Ronde Noxious Weed Program will provide cost share for noxious weed treatment and revegetation work for private landowners in the North end of Wallowa County and the South end of Asotin County *that drain into the Grande Ronde (i.e. Troy, Eden, Minam, Flora, Grossman, Schumaker, etc).*

New this year, Wallowa Resources formed the Wallowa Canyonlands Partnership with Wallowa County, the USFS, and The Nature Conservancy and will be providing cost share for weed treatment work on private lands in the Imnaha and Snake River. Cost share is available for chemical, or grass seed costs, and for contract labor expenses.

In both areas, priority will be given to treatment and prevention of Rush Skeletonweed, Spotted Knapweed, Leafy Spurge, Dalmatian Toadflax, Whitetop and Yellow Starthistle and on a first come, first served basis. Consultation and a site visit with the Weed Program Coordinator (Mark Porter 426-8053) or County Vegetation Manager (Allen Schnetzky – 426-3332) is a prerequisite.

“Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.”

-Margaret Mead  
(1901-1978)

## Weed Bounty Program

*\$200 Bounty Encourages Public Participation in Weed Control*

Wallowa Resources is launching a new program to get the public involved in noxious weed control. The Weed Bounty Program offers a cash prize for finding new sites of six top priority noxious weeds.

- Rush Skeletonweed  
(*Chondrilla juncea*),
- Leafy Spurge (*Euphorbia esula*),
- Meadow Hawkweed  
(*Hieracium pratense*),
- Spotted Knapweed  
(*Centaurea maculosa*),
- Medusahead rye  
(*Taeniatherum caput*),
- Orange Hawkweed  
(*Hieracium aurantiacum*)

Ten bounty prizes will be awarded for the verified identification of a **NEW** site of one of these weeds. All six of these weeds establish new sites extremely fast, are aggressive competitors and have great potential to harm livestock and wildlife habitat. Only Leafy Spurge has effective biocontrol agents. All have limited distribution in the county. If we find them soon, they can be eradicated. It is impossible for professional weed managers to keep an eye on every acre of the vast landscape of Wallowa County. The bounty program will help accomplish early detection at a very low cost. Early detection can lead to eradication, which is hugely more cost effective than managing containment areas and landscape level infestations. “The eyes of educated outdoorsmen may be our most valuable tool in weed control”, says WR noxious weed manager Mark Porter. The Bounty Program is a proactive approach to stimulating public education and awareness while involving outdoorsman of all kinds in noxious weed identification and management.

Working together we can stop these weeds dead in their tracks! Ten bounty

prizes will be awarded on a first come – first served basis. If you are interested, please pick up a Bounty Hunter packet with rules and a map of identified sites at Wallowa Resources. The Bounty Program started June 6, 2005.

## **Biodiversity Indicators – Finding Measurements with Meaning.**

*Nils Christoffersen*

Maintaining biodiversity is a primary goal of sustainable forestry. However, maintaining “life in all its forms” is an overwhelming (seemingly impossible) task. The number of species and their potential interactions cannot be quantified. ‘Biodiversity’ is simply too complex to measure or monitor, and therefore cannot be effectively managed. The only practical solution is to agree on specific priorities for current management, and then use indicators to monitor progress against those priorities.

The most critical aspect in identifying priority indicators is having a socially-inclusive process for their selection. If the indicators to monitor biodiversity conservation and benefits are not understood and accepted by the public, then even the best, most scientifically rigorous efforts to document sustainability will fail.

In response to this challenge, Wallowa Resources hosted an all-day workshop at the Historic Union Hotel, in Union, Oregon, on March 29, 2005 on “How to Select Biodiversity Indicators for Sustainable Forestry”. John Hagan, Ph.D. and Andrew Whitman, from the Manomet Center for Conservation Sciences in Maine led the workshop. The Manomet Center is a non-profit research center that provides technical assistance in

biodiversity conservation to natural resource decision makers.

Wallowa Resources invited a diverse mix of technical professionals, local experts, and general stakeholders from Eastern Oregon and Washington to participate in the workshop. The workshop explored the terms and concepts used in monitoring biodiversity, and reviewed the latest version of the ecological measurements from the Blue Mountains Forest Plan Revision Team’s sustainability framework.

The Blue Mountains Forest Plan Revision Team is revising the forest plans for the Malheur, Umatilla, and Wallowa-Whitman National Forests using a sustainability framework with criteria and indicators. Workshop participants used these criteria and indicators as an example for discussion purposes. The results of the workshop should increase and strengthen the dialogue on what sustainability means for the Blue Mountains. It also set the stage for the next round of Community Collaborative Workshops hosted by the Blue Mountains national forests in April and May.

Additional information on these issues and recent work done on biodiversity indicators is available on the National Commission on Science for Sustainable Forestry web-site ([www.ncssf.org](http://www.ncssf.org)), the USFS PNW Research Station web-site ([www.fs.fed.us/pnw](http://www.fs.fed.us/pnw)), and the Blue Mountain Forest Plan Revision web-site ([www.fs.fed.us/r6/uma/blue\\_mtn\\_planrevision](http://www.fs.fed.us/r6/uma/blue_mtn_planrevision)).

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**“A sense of humor is part of the art of leadership, of getting along with people, of getting things done”**  
*-Dwight D. Eisenhower (1890-1969)*

## **Upper Joseph Creek Watershed Assessment: Peer Review**

*Erin Melville*

Wallowa Resources presented the Upper Joseph Creek Watershed Assessment to the standing committee and full body of the Natural Resource Advisory Committee at two meetings in January and February, 2005. Overall, the reception was very positive, with the committee recommending mostly minor edits. Those changes complete, the Upper Joseph Creek Watershed Assessment is entering into its next critical phase: *external peer review*.

External peer review is in keeping with the inclusive and transparent nature of the community planning process. The reviewers’ comments will help us determine what parts of our assessment were particularly successful or where a different approach may be helpful. This type of information will be particularly valuable as it should increase our efficiency and effectiveness in assessing other watersheds in Wallowa County. Sustainable Northwest, a long-time partner of Wallowa Resources, will serve as review coordinator. In that capacity, they have helped to determine potential reviewers and will help choose review framework and questions, distribute the assessment and serve as a communication point between the reviewers and our collaborative group. Anticipated reviewers include: Richard Hart, Soil Ecologist; Wayne Elmore, National Riparian Service Team; Greg Aplet, Forest Ecologist, The Wilderness Society; Melanie Parker, Executive Director, Northwest Connections; and Charles Johnson, Ecologist, US Forest Service (retired).

Wallowa Resources will publish key review findings in a future newsletter. In the meantime, Erin Melville would be

happy to answer any questions about the assessment. She can be reached at (541) 426-8053 or erin@wallowaresources.org.

# Salt Creek Summit Multi-Purpose Building

*Nils Christoffersen*

After years of planning and fundraising efforts, construction on the Salt Creek Summit Multi-Purpose Building will finally begin in June 2005. This 2,500 square foot building will provide a focal point for winter recreation, and should help expand the seasonal use of tourism infrastructure (hotels, bed and breakfasts, restaurants, sports shops, other services). In the summer, the facility will cater to hikers, bikers and ATV enthusiasts, and provide a base for forest management and education activities.

The project is a joint activity of the USFS, Wallowa County, Wallowa Resources, Oregon State Snowmobile Association and its local chapter, Eagle Cap Ski Club, Wallowa County Search and Rescue, Wallowa Valley Trail-riders Association, Oregon Department of Parks and Recreation, and the National Forest Foundation. The USFS Forest Products Laboratory, with the assistance of a Beaudette Consulting Engineers, Inc, produced the building plans.

The building includes a visitor information and warming room, a base for search and rescue operations, and separate garages to store snowmobile and ski trail grooming equipment. Development of this facility responds to needs identified in the existing County and USFS winter recreation plans, and complements the ongoing promotion of winter recreation opportunities by the

USFS, Wallowa County Chamber of Commerce and local businesses.

Salt Creek Summit has served as a trailhead since the early 1970's and offers trail access into the Eagle Cap Wilderness and the Wallowa Valley Ranger District. The area has over 100 miles of roads which offer various recreational opportunities including ATV and snowmobile use, skiing, hunting, hiking, dispersed camping, and wildlife viewing.

In 1989, Salt Creek Summit was designated a Sno-Park and is the desired hub for winter recreation in Wallowa County. This Sno-Park provides access



to over 175 miles of designated snowmobile trails, and 20 miles of cross-country ski trails. In addition, backcountry skiing and snowshoeing opportunities abound.

Recent increases in winter recreation activities have elevated the need for a multi-purpose building. Currently, there are no facilities to house equipment, conduct rescue operations or adequately provide visitor information. The facility will house County Search and Rescue equipment and provide a central command location for conducting operational rescues. In addition, the facility will provide much needed space for the storage of equipment and training of individuals associated with rescue operations.

The County views the expansion of tourism throughout the winter as one key

element in its economic revival. Promotion of the winter recreation opportunities by the Wallowa County Chamber of Commerce, local service providers and the Oregon's Tourism Authority has generated increased interest. Winter visitor numbers have been steadily rising, and national magazines have responded to this trend with stories on the area and its opportunities (e.g. Outside, Dec 2001; Skiing, Jan 2003; Sno-West, Winter 2002-2003, etc.).

The Salt Creek Summit Sno-Park Multi-Purpose Building will provide the facility and services needed to promote winter tourism. It will assist in concentrating

visitors within areas designated for winter use, thereby securing conservation benefits for the larger forest area.

Through the use of small diameter

roundwood, and the prominent location in the County and along the All American Road, this Multi-Purpose Building will also promote new construction technology from the USFS Forest Products Lab. This new technology offers important opportunities for the millions of acres of overstocked forest across the West, which are in need of thinning to reduce wildfire risk.

Concerted effort is being made to find new uses for this material in traditional markets. New markets in construction applications offer the opportunity for higher revenue generation from fuel reduction by-products. They will also generate greater public awareness of forest conditions and innovative new solutions to reduce fire risk while maintaining ecological integrity.

# Wallowa River McDaniel Habitat Restoration

*Ripples Spring 2005*

*R. Coby Menton &  
Nils Christoffersen*

Doug McDaniel grew up fishing on the Wallowa River when it was still meandering across the valley floor. He watched as it was moved to the valley edge against the bluff to improve access and management of pasture, and reduce the impacts of flooding. For over a decade now, he's been trying to restore the natural structure and meanders that provide good fish habitat. When he's 85 and retired, he wants to hobble down to the bank and find a good fishing hole.

The Wallowa River/McDaniel Habitat Restoration project, an effort to restore a section the Wallowa River on Doug's property outside of Lostine, Oregon is finally under way. In 1992, Doug began the process of converting a ½ mile of straightened river to a natural meandering channel that provides excellent habitat, seasonal flood plane access, and improved water quality. In the fall of 2003 at the suggestions of Grand Ronde Model Watershed Program staff Coby Menton and Lyle Kuchenbecker, and after many years of frustrations in the planning, permitting, and design stages, Doug and project manager Nils Christoffersen of Wallowa Resources visited the Bear Creek channel restoration project at Longley Meadows. What they saw impressed them so much, they immediately signed up Vance McGowan of Oregon Department of Fish and Wildlife and Allen Childs of Confederated Tribes Umatilla Indian Reservation (CTUIR) to their design and construction management team.

## Design and Permitting

The project design is based on one-foot topographic surveys, current channel surveys and reference channel details. This information is captured with survey grade GPS (see GIS article), aerial photography, and stream survey techniques. These surveys not only describe elevation of the project area but the current and rebuilt channel length, width, depth, substrate, and hydraulic characteristics. The design methodology includes new channel excavation, logs and root wads to stabilize meander bends and provide fish habitat, rock grade control structures to maintain channel elevation, and a planting program to restore the riparian vegetation. The new meandering channel extends the length by nearly 800 feet (42% increase for that section), and



*Project Area Pre-Excavation  
Photo Taken March 9th, 2004*

decreases the gradient from a 0.95% slope to 0.64%. Before the design can be implemented, permitting and ESA (Endangered Species Act) consultation must be accomplished. The DSL issued a General Authorization for Fish Habitat Enhancement and Wetland Restoration Enhancement for the McDaniel project on June 29, 2004. The DEQ issued a 401 Certification for the project on July 21, 2004. The project also secured a 404 (fill and removal) permit from the US Army Core of Engineers, a mining permit from Oregon Department of Geology and Mineral Industries, and a

cultural resources protection permit from the State Historic Preservation Office. ESA consultation initiates with a biological assessment (BA) describing the effects the project may have on ESA listed plants and animals. Both NOAA Fisheries and US Fish and Wildlife Service review the BA and issue their own biological opinions with terms and conditions for project implementation. Permitting processes for the McDaniel project began in 1998, and concluded in December of 2004 with a biological opinion from US Fish and Wildlife Service.

## Construction Begins

Excavation to re-establish the historic channel characteristics finally began in July 2004. Ken Nash led a Hopkins Forestry team, which excavated, separated and stockpiled the topsoil and 29,000 cubic yards of gravel-dirt material over the 2,550-foot reconstructed channel. Terry Jones supplied 600 boulders averaging 3 feet in diameter, and Dave Turner brought in 150 20-foot logs and root wads harvested off of RY Timber land. About 90% of the channel reconstruction was completed by the late fall of 2004.

Following the completion of scheduled excavation work, local contractors, high school students, and ODFW staff initiated an ambitious revegetation program over the fall and winter that included transplanting over 7,000 sedge plugs, 5,000 willow cuttings, several hundred 5- 10 year old trees, and the distribution of over 100 pounds of riparian seed mix. Most of the material came from Doug's own property, with the Wallowa Union Railroad contributing willow cuttings from their right-of-way. Pam Harshfield provided additional rooted stock.

Doug McDaniel provided regular weed maintenance spraying. ODFW established eleven permanent photo points and four channel cross sections for long-term monitoring.

In July 2005 construction will resume. The final 470 feet of reconstructed channel will be excavated to connect it to the Wallowa River, and the existing channel will be filled.

The old dikes will be blended into the existing topography. Two ponds adjacent to the new channel will be re-contoured and enlarged.



*Project area post-excavation  
Photo taken August 25th, 2004*

In the fall, project implementation will conclude with another round of planting. The project should be completed around Doug’s 70<sup>th</sup> Birthday. This stretch of the Wallowa River will be nearly doubled in length, provide excellent habitat for fish, wildlife, and other aquatic organisms, and improve hydrologic, floodplain, and water storage function. These benefits will be realized because a dedicated landowner and persistent project sponsor refused to let an opportunity supported by current knowledge go unrealized.

**Contributors**

- Doug McDaniel (landowner): Doug is contributing 16% of the total project cost (including a direct contribution and contribution of all revenue from the sale of excess riparian aggregate to a local ready-mix company).
- Wallowa Resources: Project sponsor and project management. Wallowa Resources is providing 11 % of total project cost.
- Oregon Department of Fish and Wildlife (ODFW): Design,

implementation, and on-site management. ODFW is providing 10 % of total project cost.

- Grande Ronde Model Watershed Program (GRMWP): Funding acquisition, funding source, and monitoring. The GRMWP, with support from BPA, is providing 31 % of total project cost.

- Oregon Watershed Enhancement Board (OWEB): OWEB is providing 32 % of total project cost.

- Additional contributions:
  - o The Confederated Tribes Umatilla Indian Reservation (CTUIR) is providing in-kind contributions in support of the design and on-site construction management.

- o The Natural Resources Conservation Service (NRCS) is prepared to contract with the landowner to implement a CREP conservation easement when the project is completed.

**Benefits**

The project is generating habitat improvement and local economic benefits.

- The riparian floodplain benefits through natural vegetative recovery. Riparian fencing and adaptive management will protect approximately 30 acres of instream, riparian and upland habitats.

- The instream habitat benefits from the redevelopment of meanders and the restoration of complex pool habitat. These improvements should restore historic spawning and rearing habitat, increase water storage capacity of adjacent meadows, and improve water quality.

- Adult and juvenile summer steelhead and juvenile spring chinook are the targeted species of concern, but many species of wildlife such as neotropical birds, and big game will benefit as well.

- Local contractors, businesses and landowners benefit from the job and material supply opportunities provided by these types of projects.

- This project is intended to be a model for future river restoration projects in Wallowa County.

**Monitoring Plan**

Wallowa Resources, ODFW, GRMWP and the landowner will collaborate in project monitoring. The monitoring plan includes the following components:

- Documentation of the physical change in channel morphology. To see change over time these sites will be resurveyed during the 1<sup>st</sup>, 5<sup>th</sup>, and 10<sup>th</sup> years following project implementation.

- Permanent photographic points will be installed prior to project installation and replicated annually following implementation for up to 10 years. Photo points provide a fine scale documentation of change that is readily recognized in a project.

- Fish species presence and abundance will be sampled through snorkeling by ODFW throughout the project reach on a bi-annual basis.

- Noxious weeds will be located and eliminated on a continual basis.

- Water quality change will be monitored annually for 10 years above, below and within the project area. Additionally groundwater observation wells will be installed to observe water table change in the project reach.

The GRMWP, ODFW and Wallowa Resources will make monitoring reports for this project available to the public.

**For more information on this and similar watershed restoration projects, visit**

**[www.WallowaResources.org](http://www.WallowaResources.org), or contact us at 541-426-8053, today!**

# On the Ground with Wallowa Resources

2001-2004

Erin Melville



Wallowa Resources is wrapping up its five-year relationship with Ford Foundation's community forestry program. We assembled the following information

as part of our reporting process to Ford. It's quite a list. One could look at it only as on-the-ground accomplishment. But, if we read between the lines we see jobs for contractors and all of the important relationships we've built with our partners. Thank you to everyone who has helped to make Wallowa Resources' programs so successful!

## Aspen Restoration

- Constructed > 7.5 miles of fence (using local small diameter roundwood).
- Protected ~ 126 acres (including 18 private acres for 7 different landowners).
- Improved habitat for over 70 species of birds, mammals and other wildlife. Bird species include:
  - Red-breasted sapsucker
  - Williamson's sapsucker
  - Veery
  - Red-eyed vireo
  - Yellow warbler
  - Warbling vireo
  - Mountain bluebird
  - Hairy woodpecker

## Parks Ditch Water Conservation

- Converted irrigation system from an open ditch to a pipeline, returning to the Imnaha River 5.14 cfs of an existing 7.52 cfs water right.
- Improved habitat for 3 federally listed ESA species:  
Threatened: Snake River Steelhead, Bull Trout



*Marr Flat Aspen Grove Restoration project on Buhler Ranch 10-17-01*

Endangered: Chinook Salmon

## Noxious Weeds Management

(results for noxious weeds reported through 2003.)

- Inventoried over 201,600 acres for new weed infestations
- Coordinated revegetation/reseeding of 367 acres
- Released over 200,000 biocontrol insects to control Leafy Spurge, Yellow Starthistle, Diffuse Knapweed, and Dalmatian Toadflax
- Aerial treatment of 2911 acres
- Ground treatment of 2275 acres

## Hazardous Fuels Reduction

### Wallowa Lake

Conducted fuel-reduction thinning to create a firebreak and reduce fire danger around homes and other structures at Wallowa Lake.

- Phase I targeted ground bordering Eagle Cap Wilderness at the south end of Wallowa Lake treating 48.4 acres on 3 landowners' properties
- Phase II moved to the east side of Wallowa lake treating 61.5 acres on 14 landowners

## Alder Slope

Cost-shared fuel-reduction thinning with homeowners to create a fire break and reduce fire danger around homes and other structures on Alder Slope.

- 36 landowners
- 147 acres



*Use of insects for biological control of leafy spurge, Yellow Starthistle, Diffuse Knapweed and Dalmatian toadflax*

## Wildlife Projects

### Bat Gates

Participated in a project with the USFS to close 8 abandoned mines in the Snake and Imnaha watersheds with gates designed to protect 5 species of bats.

- Species protected: small-footed myotis, long-eared myotis, long-legged myotis; and two federally listed species: Yuma myotis and Townsend's big-eared bat.

### Surveys

Participated in several wildlife survey projects in Wallowa County including: Lynx habitat, spruce grouse, bald eagles nesting sites, and fresh water mussels.



*Wallowa Lake Fuels Reduction Project*

Indian Reservation to reconstruct a section of river meander to reestablish a more natural meadow riparian system that was lost with the extensive channelization practices of 50 years ago. Between the two ends of the construction project:

- added 778 feet to stream length, an increase of 44%
- decrease in slope of 32%



*Swamp Creek Habitat Improvement Project*

## **Riparian Stewardship Projects**

### *Bear Gulch*

Working with 4 landowners and 2 USFS permittees to improve riparian function and reduce livestock grazing impact:

- Constructed over 2 miles of fence to protect 4 ephemeral draws, 4 springs and 3 ponds
- Installed 7 livestock watering troughs and 4 spring boxes
- Planted over 100 native plants
- Installed French Drain, 1500 gallon holding tank and 80 ft. snow fence to improve capture and safe release of water.

### *Swamp Creek*

Working with USFS and permittees to improve water quality, instream habitat, and riparian areas for threatened steelhead and a variety of other wildlife species:

- Constructed 3 miles of riparian pasture fence
- Planted 2,000 native riparian hardwood seedlings
- Caged 44 existing native shrubs
- Cleaned 5 ponds for off-stream livestock watering

### *Wallowa River*

Working with private landowner, Oregon Department of Fish and Wildlife and Confederated Tribes of the Umatilla

wildfire protection in priority areas

- Examined 2.2 million acres

### **Blue Mountain Forest Plan Revision**

The revision process will result in a new forest plan that will affect:

- 20 million acres
- 18 counties
- 3 National Forests

Wallowa Resources has been an active participant in the process. In addition to serving as a process advisor and communicating sense of place values to the Forest Plan Revision Team, we hosted a biodiversity indicators workshop in March, 2005.

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## **Join in the Fun at Wallowa Resources' Watershed Festival!**

Monday, June 27<sup>th</sup>

12PM-6PM

Wallowa County Fairgrounds

A festival celebrating & building awareness of our county's natural resources; also highlighting the natural resource research projects students have done both in the local schools & through Wallowa Resources' education programs.

- Photo Contest with Prizes
- Music by Local Musicians
- Cowboy Poetry
- Potentially local food from local producers
- Bird Box Building (1 per family)

## **Collaborative Planning**

### *Upper Joseph Creek Watershed Assessment*

- Assessed 174,674 acres through a collaborative community-based process.
- Recommended road closures will, when implemented, result in a 52% reduction in open road densities — 42% below Forest Plan direction of 2.5 miles per square mile.
- Resulted in development of the following projects that will be implemented in 2005:

### *Buck Stewardship Pilot*

Led the multiparty monitory team for this National Stewardship Pilot to confirm ecological benefits of vegetation treatment (including harvest systems designed to minimize soil impacts), utilization of by-products, and local benefits.

*Wallowa County Community Fire Plan*  
Facilitated development of a plan for Wallowa County to address needs for

**Wallowa Resources**

**Board Members:**

Gail Hammack, Co-Chair  
Glenn McDonald, Co-Chair  
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Officer  
Kathy Reynolds, Financial  
Manager  
Rick Bombaci, Business  
Development Officer

**Did you know**, in addition to the articles presented here, Wallowa Resources is working on a broad variety of educational, range stewardship, natural resource, policy and watershed restoration projects throughout Wallowa County? To find out more about what is happening at Wallowa Resources, just go to **[www.WallowaResources.org](http://www.WallowaResources.org)** or call us at **541-426-8053** **Today!**



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