Ripples in the Grande Ronde

DATE: OCTOBER 2002 MOTTO: RIVERS UNITING NEIGHBORS VOLUME: 1 ISSUE 3

"Cowgirl up!"

By: Melissa Cochran
GRMWP

I was lucky enough to experience a week *ridin'* horses through eastern Oregon canyons with twelve teenage girls from the Portland area. How you may ask? I volunteered to help out at the Wallowa Ranch Camp. I would like to share what the campers and I learned with those of you who have not heard of the Wallowa Ranch Camp.

The campers arrived on Sunday evening after a seven hour van ride. They were tired and ready to find a cabin and unpack their gear. I could see that the friendships had already begun to develop. The energy of the camp was trembling with anticipation of which horse each camper would ride and the week long events that were scheduled for them and their mount. This year's activities were different from past years. In the past, activities included cattle drives and cattle branding. Camp Directors, Dave Yost and Larry Nall, both expressed some concerns about the fence building project funded by the Rocky Mountain Elk Foundation. This project was not expected to be highly popular with the campers, for it would require hard, tiring work.

Our first full day was spent getting to know our horses, familiarizing ourselves with the tack and in which direction the saddle horn should face, relative to the horse's head, of course. Each camper was expected to care for their horse for one full week. These duties included: catching their horse, leading him to water (for we all know you can't make him drink), feeding and brushing him, giving special care when needed such as ointment on cuts, saddling and bridling the horse correctly before loading him into a trailer to be hauled to a trailhead where the day's ride would begin.

Even though it was late June and much of the state was experiencing cooler temperatures we had plenty of hot sun beating down upon us and our horses as we rode through canyons and up steep valleys to our work sites and learned about the natural environment that surrounded us. Dave and Larry not only showed us how to properly ride a horse but also taught us about the natural resource management of the lands. They talked about the history of the forests and fire. We saw signs of cattle grazing and were enlightened about the complex process of grazing management. We were also able to gaze upon beautiful vistas of the Wallowa Mountains and the dramatic Seven Devils rooted in Idaho as we rode on through the hot afternoon hours.

In the evenings, upon our return to camp we were expected to unsaddle and unbridle our horses, put away our tack, lead our horses to water and finally let them loose for the evening. During the hours between chores and dinner we were to write a journal entry about a given topic that was determined at breakfast. This part of the program is called "Ridin' and Writin' on the Ranch." Sometimes the topics were about a particular event that made an impact on our lives, or maybe we were to write about someone that had influenced us in our life, or maybe our most embarrassing moment. Each night we would sit around a campfire and volunteer to share our days *writin'*. This was the

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A long day in the saddle

Inside this Edition

Editor's Notes

This is the third quarterly issue of the Ripple newsletter published by the Grande Ronde Model Watershed Program. This newsletter is a local education outreach effort dedicated to citizens of Wallowa and Union counties. The Ripple will bring you updates about local restoration projects, urban solutions, educational links, children's activities, student artwork and much more. The Ripple staff looks forward to bringing you a quality publication. Your comments, suggestions, submissions and corrections should be sent to:

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If you would like to be placed on the electronic distribution list, please contact us at: ripple@eou.edu

Ripple issues are also available on the GRMWP website: http://www.fs.fed.us/pnw/modelwatershed/

Celebrating the 10th Year Anniversary of the Grande Ronde Model Watershed Program

In April of 1992, the Grande Ronde Basin was selected by the Northwest Power Planning Council as the model watershed project in Oregon. The selection was reviewed and approved by the Strategic Water Management Group, and certified by the Office of the Governor. A Board of Directors, composed of local representatives and natural resource management agency personnel was formed to coordinate policy for the program.

The concept of watershed management focuses on the resources and ecosystems within an area, starting from the crest of the mountain range, incorporating the forest, streams, wildlife and communities within the basin, and continuing down to the eventual outflow of the rivers to the next geographic basin.

The purpose of a model watershed program is to coordinate the goals and objectives of all interests to use available natural, human and fiscal resources in the most beneficial manner. The process seeks to bring together local landowners, resource managers, and key interest groups to formulate goals and initiate activities to restore and improve habitat and native fisheries, improve water supply and quality, and foster community development within the region.

The Program covers the Grande Ronde and Imnaha sub-basins in the Blue Mountain Region of northeastern Oregon. It comprises approximately 5265 square miles and 280 rivers and streams containing over 2600 miles of fisheries.

The Grande Ronde Model Watershed Program is happy to announce their 10th year anniversary.

GRMWP STAFF FROM LEFT ARE, HEATHER HALL, LYLE KUCHENBECKER, CECILIA NOYES, JEFF OVESON, MARY ESTES, COBY MENTON, AND MELISSA COCHRAN

A small hole can sink a big ship- Russian Proverb

Welcome to La Grande

By: Melissa Cochran
GRMWP

We would like to welcome the US Fish and Wildlife Service (USFW) Field Office to La Grande. The newest addition to the group of natural resource agencies located here in La Grande. You can find the USFW field office housed at the US Forest Service on Hwy. 30. This field office covers a seven county region containing Malheur, Baker, Wallowa, Union, Morrow, Grant and Umatilla counties. The USFW staff will initially place emphasis on completing consultation for projects that are federally funded, authorized, or carried out by a federal agency. Consultation is the process where the USFW service reviews a project and determines the effect the project may or may not have upon an endangered or threatened species or its designated critical habitat. Upon completion of the consultation, the USFW provides either a letter of concurrence or a biological opinion back to the action agency, providing Endangered Species Act (ESA) coverage for the project. The process, at times, can be a lengthy and complicated one and can contributed to delays in implementing projects. It is the hope of Gary Miller, La Grande field office supervisor, that consultation and the project review process will become more efficient for project managers with local USFW presence. In addition to putting staff closer to where the actions are happening, Gary has the authority to sign required documents such as: letters of concurrence or biological opinions before a project can be implemented. As a former Oregon State Deputy Supervisor for USFW, Gary brings the experience necessary to see that the review process is more efficient and consistent.

Miller is a native Oregonian who has been living in Portland for the past 12 years. He was raised in Condon and is happy about his move back to eastern Oregon. While working in Portland, he was able to build relationships with a number of people working for federal and state natural resource agencies in this area. He looks forward to getting "out in the field more often" and continuing to develop new relationships with the community and local agencies.

USFW as a national agency is divided into three main programs (Fisheries, Refuges, and Ecological Service). Gary explained in brief detail the responsibilities of each program. The Fisheries program has a number of responsibilities, including native fish conservation, Native American Tribal assistance, restoring fish passage, and fish hatchery operations. Hatchery operations have changed over the years, with many of the hatcheries established to replace fish that were lost through natural and human influences, including the building of our major dam system. Recent efforts have focused more on restoration of native stocks, with salmonids being the most common species in the northwest. The fish hatcheries, in our area, are a part of the mitigation for the dams on the Snake River.

The Refuge program is probably the most well known USFW program. This program administers a network of lands and waters for the conservation, management, and where appropriate, restoration of a variety of fish, wildlife, and plant resources and their habitats, for the benefit of the public. Some refuges have also been key areas for helping recover threatened and endangered species. In March 2003, the USFW will be celebrating the 100th anniversary of the National Wildlife Refuge System.

The La Grande Field Office is part of the Ecological Services Program. Although most people believe it deals exclusively with endangered species issues, the program is much broader than that. In addition to endangered species issues, it also deals with contaminant issues, review and technical assistance on federal project activities including permits and licenses, habitat restoration programs, including the Partners for Fish and Wildlife program. The Partners for Fish and Wildlife program helps to conserve, protect and enhance fish and wildlife habitats by working with private landowners. The program offers technical and financial assistance to private landowners to voluntarily restore wetlands and other fish and wildlife habitats on their land. The La Grande Field Office is currently working with the Snake River Basin Fish and Wildlife Office to transition the current work from Boise to La Grande for the Snake River portion of Oregon. Gary wants to reassure everyone that the intent is to have a seamless transition so that nobody is left without service.

The USFW, in addition to National Marine Fisheries Service (NMFS) are responsible for threatened and endangered species listings. The USFW is responsible for fish and wildlife that are not marine species. NMFS has responsibility for marine species or species that spend more than fifty percent of the time in a marine

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Conservation Reserve Enhancement Program

By: Union Soil and Water Conservation Distrcit

By now many of you have heard of CREP (Conservation Reserve Enhancement Program), which adds an additional cost-share component to the continuous CRP (Conservation Reserve Program), but for those of you who haven't heard of it or for those who just want to know more about it, here is a brief summary.

What is it?

The Conservation Reserve Enhancement Program (CREP) is a joint federal and state conservation program that focuses on significant environmental effects related to agriculture. In Oregon it was specifically developed to assist in the restoration of habitat for salmon and trout listed under the Federal Endangered Species Act. The two restoration practices used in Union County are the creation of Forested Riparian Buffers and Wetlands Restoration.

The goals of the program are:

- Reduce water temperature to natural ambient conditions
- Reduce sediment and nutrient pollution from agricultural lands adjacent to streams by more than 50 percent
- Stabilize stream banks along critical salmon and trout streams
- Restore stream hydraulic and geomorphic conditions

What are the benefits?

CREP is intended to provide a number of benefits to Oregon's streams, salmon, trout and other wildlife. The establishment of Forested Riparian Buffers assists in restructuring streams and increases the availability of insects and other fish food. Large woody vegetation will provide shade along the stream and reduce the rate of solar water heating and cooling. Riparian buffers will also reduce water pollution and improve stream water quality by filtering overland runoff and reducing stream bank erosion. In addition to improving fish habitat and reducing pollutants, these riparian buffers will provide habitat for a variety of other wildlife.

What land is eligible?

First, the offered acreage needs to be adjacent to streams that have, *or historically have had*, the presence of at least one of the three listed species in Union County (those include the Snake River Steelhead, the Snake River chinook, and the bull trout). Both cropland and marginal pasture land are eligible. The land needs to be adjacent to a permanent or seasonal stream that provides at least a seasonal flow and be suitable for use as a riparian buffer zone.

So what are the incentives?

There are several incentives to encourage landowners to enroll into CREP and help pay for the conservation practices.

- Signup Incentive Payment: A one-time payment made after the contract has been approved. This payment equals $10.00/acre X the number of acres X the number of full years in the contract (10 to 15 years).
- Practice Incentive Payment: A one-time payment made to producers, after all practices identified in the Conservation Plan are completed. This payment is equal to 40% of all eligible costs.
- Cumulative Impact Payment: This is a one-time payment of four times the base annual rental rate per acre. Producers become eligible for this payment when a minimum of 50% of a 5 mile stretch of stream bank is enrolled. For example: Producer Smith enrolls .5 miles of stream bank in the Riparian Forest Buffer Practice. His neighbors, Farmer Jones and Farmer Johnson see how well the practice works. Farmer Jones has 1 mile of stream which he enrolls in the program. Farmer Johnson has an additional 1.5 miles of stream that she enrolls in CREP. Between the 3 farms, they now have 3 miles (>50%) of stream bank enrolled under the Riparian Forest Buffer Practice, and are now eligible for the Cumulative Impact Payment.

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At high tide the fish eats ants; at low tide the ants eat fish- Thai Proverb

Project Monitoring

By: R. Coby Menton, GRMWP

For the past nine years, the Grande Ronde Model Watershed Program (GRMWP) in cooperation with local, state, federal and private partners has implemented restoration projects in the Grande Ronde Basin. During this time, conservation project implementation and effectiveness monitoring have experienced some difficulties and growing pains. In the spring of 2002, Coby Menton was hired to coordinate monitoring activities at the GRMWP.

River and stream restoration projects are implemented each year in the Grande Ronde Basin to improve water quality and quantity, which in turn improves wildlife and fisheries habitat. In recent years the majority of watershed restoration projects have been designed primarily to improve the quality of fisheries habitat including spawning, rearing and migration corridors. These projects range from off-stream watering facilities and riparian fencing for livestock to large woody debris placement in the stream channel.

The development of the monitoring program for the Grande Ronde Basin includes water quality monitoring and project implementation and effectiveness monitoring on both private and public lands. Water quality monitoring coordination is the effort by which all of the partners, participating in water quality monitoring, share data, streamline efforts to increase coverage and produce more effective data sets, and contribute monitoring data to a common storage facility. Water quality in the Grande Ronde Basin will be assessed through this process and used to evaluate the effects our conservation projects are having on water quality in Union and Wallowa counties.

Project implementation monitoring is documenting that a restoration project was implemented according to approved project plans. This is determined through a completion report by the project applicant. Completion reports include a summary of the project accomplishments, a map depicting the location of the work area, project costs, participants, evaluation and photo point documentation. Project applicants can be the Forest Service, Soil and Water Conservation Districts, counties, non-profit organizations or other state or federal agencies.

Project effectiveness monitoring is used to assess whether the project is producing the intended results and can be determined in a variety of ways including photo point monitoring, measuring stream parameters or vegetative response. Often times the water quality parameter that a project is intended to enhance, cannot be detected in a short-time frame or for a specific stream reach. In this case, the monitoring of surrogate parameters is employed; shade as a surrogate for decreased water temperature, vegetation growth as a surrogate for decreased sediment input or water conservation as a surrogate for increased stream flow are specific examples.

There are seven stream flow gages in Wallowa County that are operated and maintained by Coby Menton. These gages are located on the Wallowa River, Lostine River and Bear Creek. Real time data for four of the seven gages can be viewed at the Oregon USGS website under the Snake River Basin heading (http://waterdata.usgs.gov/or/nwis/current/?type=flow) for Wallowa River above Cross Country Canal, Lostine River near Lostine, Lostine River at Baker Road and Bear Creek near Wallowa. This website gives current flow, long-term median flow and current stage. Each of the seven gages is monitored for stream temperature throughout the summer and early fall seasons. The purpose of this monitoring program is to document temperature and flow relationships during the summer when air temperatures and irrigation demands are high and anadromous fish are migrating. Partners currently funding stream flow gaging and temperature monitoring include the GRMWP, Oregon Watershed Enhancement Board and the Nez Perce Tribe. Production partners for stream flow gaging include the GRMWP, Wallowa SWCD, Oregon Water Resources Department, United States Geological Survey and Bureau of Reclamation.

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Cowgirl up...continued from page 1

Oh yea, girl-power built this fence!

It's ALL uphill from here!

time when we were able to get to know one another and share aspects of our lives that make each one of us unique.

Our most rewarding day's work was building a Buck and Pole fence on the Zumwalt property to protect a struggling stand of aspen trees. The fence was built to prevent elk and cattle from foraging on the young, tender new growth of aspen. We began the project in the early morning before the hot afternoon sun could bake us into little human raisins. The campers formed two groups and performed duties as a team. One set of campers built the "A" frame units, while others dragged poles to designated areas, and the remainder placed and nailed cross poles to complete each ten-foot section piece by piece. These girls worked harder than any group of teenagers I have ever had a chance to work with. We were all proud of our team work. We completed 180 feet of Buck and Pole fence in four hours. It was uplifting to listen to the girls brag about their work and watch them appreciate the sweat and hard work that built the fence before them. I never heard anyone complain about the blisters they were developing, the splinters that were lodged under their skin or the sweat that stung their eyes as they held each pole in place and asked another girl to nail it down before moving on to the next pole. At the end of the day's work, the girls wanted to know if they could come back the next day and build more fence.

Every one of us learned something those seven days. Did you know bacon grease keeps biting flies off a horse's neck? This is just one of the things I learned that week. Visitors are welcome at camp throughout the week, but expect to write and read your journal entry. And you never know, you too may learn an old cowboy remedy.

Dave and Larry, Sharon Nall and Megan Yost all deserve tremendous thanks for lettingthe girls and I become part of their family at Wallowa Ranch Camp. We wish you all the very best.

Hard day's work

Beautiful Buckskins

The frog does not drink up the pond in which he lives- Native American Proverb

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environment. Salmon and steelhead are anadromous fish, meaning that they migrate to salt waters and live out a portion of their life at sea before returning to their fresh water habitat to spawn.

Since the listing of many endangered species the USFW has noticed a positive change for several inland species such as cutthroat trout in the southeast portion of the state, due to a change or adjustment in management activities, landowner cooperation and restoration efforts. For anadromous fish it is difficult to determine any immediate response from restoration activities because there are more variables such as ocean and stream conditions and migration complications posed by dams and other barriers. It is easier to evaluate the individual components of their habitat such as stream temperatures, sediment levels, flow, and water quantity, which are objectives of watershed restoration projects.

For more information about the USFW visit their web page at: http://www.fws.gov/

CREP...continued from page 3

- Cost Share: Cost share is 75% of eligible costs expended implementing the program. Fifty percent is paid by the Federal Government and 25% comes from the state.

How is it affecting Union County?

At this time, there are 43 CREP contracts in Union County. These contracts protect 890 acres and approximately 16 miles of stream. Thirty-eight contracts are for Riparian Forest Buffers and four contracts are for Wetland Restoration Practices. The Riparian Forest Buffer Practice has been extremely beneficial for ranchers concerned about compliance with SB 1010. This practice allows them to fence livestock out of riparian areas while giving them financial assistance for the fencing and development of off-stream livestock water. In addition, these producers receive an annual rental payment for setting aside this land during the life of the contract.

Project Monitoring...continued from page 3

Improvements to the monitoring program will increase the level of accountability for public funds invested in restoration projects in the Grande Ronde Basin. Project implementation and effectiveness monitoring in conjunction with instream water quality monitoring and academic research studies will help determine the types of projects implemented in the future. The goal for the GRMWP, and all of the restoration partners, is to fund and promote conservation projects that have been demonstrated to have a positive impact on the watershed and are supported by water quality trends observed throughout the basin.

Does it Disappear?

By: Melissa Cochran, GRMWP

What is garbage? It is the stuff we don't need anymore, the junk we think is useless. It's the rejects we don't want to deal with and cast-offs from the way we live. It comes from our homes, businesses, agencies, and institutions like schools and hospitals.

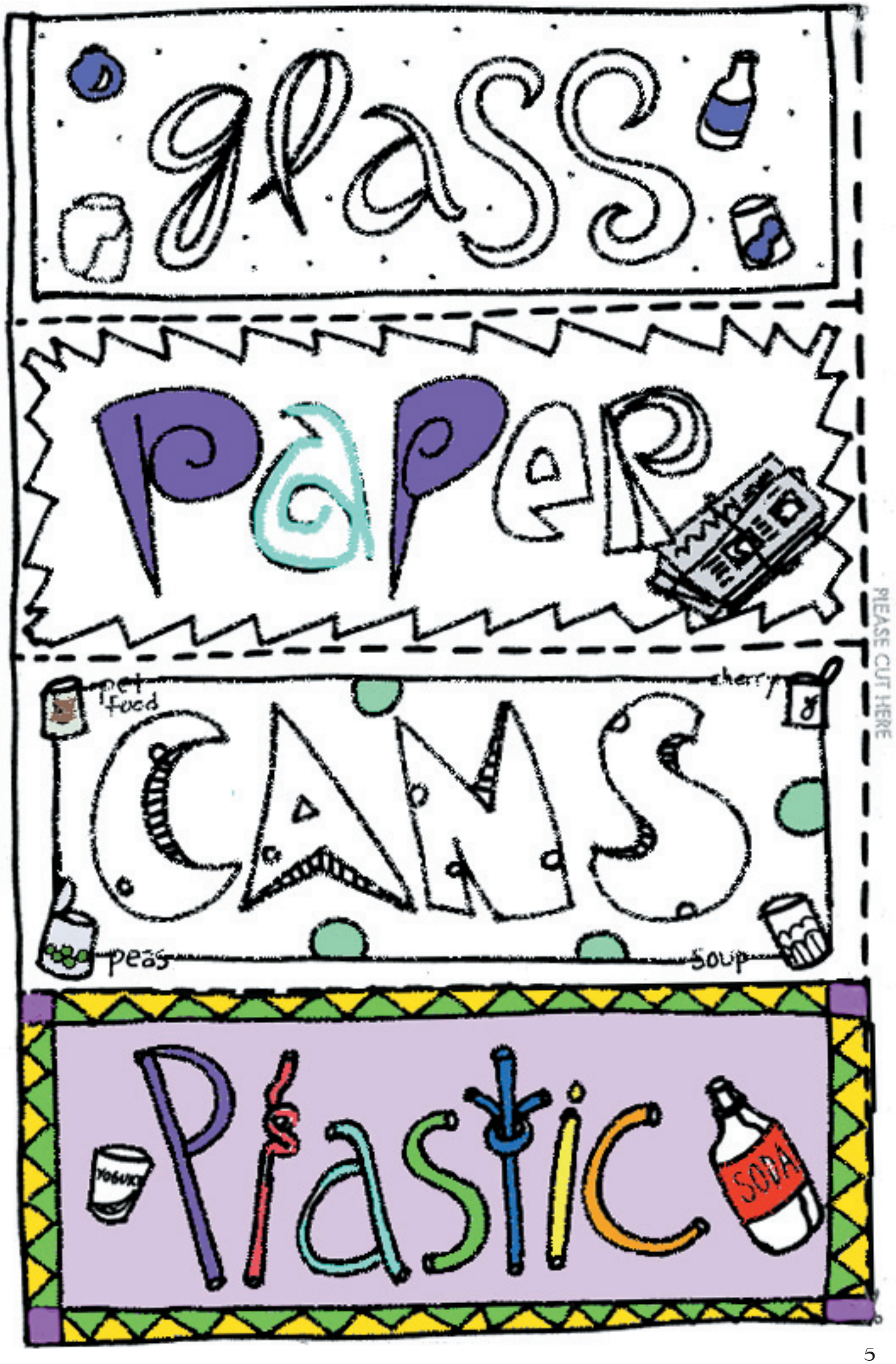
Americans create nearly 210 million tons of garbage each year…now that is a lot of garbage, YUCK!!

What is the stuff you put in your trash everyday? Once you toss it, chances are you never want to think about it or smell it again. Here are the things that make up our trash.
Paper 42%
Metal, plastic and glass 23%
Yard waste (grass and leaves) 18%
Food waste 7%

Try as we might, we can never make garbage disappear. When we throw garbage "away" or drag it to the curb it just goes somewhere else. That "somewhere else" is most likely a landfill where it may stay forever. Most of the garbage you've sent to the landfills in your lifetime is still there. It doesn't go "away" and it doesn't disappear. We burn some trash but that can pollute the air if not properly controlled. We'll always need to bury the garbage that can't be reused, recycled, composted or burned. If we make less garbage in the first place and find other uses for it, our landfills will last longer.

Recycling makes use of materials over and over again. It takes time, energy, labor and money to make new products from recycled ones. Separating glass jars, aluminum, paper, glass, and plastic and taking them to a recycling center is only the first part of the recycling process. To complete the recycling loop, those cans, paper, and bottles must be made into new products that you buy and use. We recycle 50% of our aluminum, 38% of all the paper, 20% of our glass and only 5% of all the plastic that we use, but 45% of that is plastic bottles.

Of all the environmental problems we face, garbage is the one each of us can really do something about. If you don't recycle, why not start today? It can be a fun activity for the whole family. Gather four boxes cardboard or plastic and decorate them. You can start by coloring the labels on this page. Then cut them apart and attach one to each box designating it for paper, glass, plastic or cans. You will be pleasantly surprised how much this will decrease the amount of garbage you are dragging to the curb.



United States Department of Agriculture
NRCS Natural Resources Conservation Service

Local Conservation Opportunities Abound in new Farm Bill

BY: RON ALVARADO

The Farm Security and Rural Investment Act of 2002 is landmark legislation for conservation funding and for focusing on environmental issues. It represents the single most significant commitment of resources toward conservation on private lands in the Nation's history. While the program details are still being hammered out, one thing is certain. The new Farm Bill provides unprecedented conservation opportunities for local farmers and ranchers. This legislation simplifies existing programs and creates new programs to address high-priority environmental and production goals.

The conservation provisions will assist farmers and ranchers in meeting environmental challenges on their land. The legislation responds to a broad range of emerging natural resource challenges faced by farmers and ranchers, including soil erosion, wetlands, wildlife habitat, and farmland protection. Private landowners will benefit from a portfolio of voluntary assistance, including cost-shares, land rental, incentive payments, and technical assistance to develop and maintain conservation practices that reduce soil erosion, protect wetlands, improve wildlife habitat and protect water quality.

In the past, farmers and ranchers have enthusiastically embraced conservation programs when they've been offered. We've seen firsthand the success of the voluntary conservation cost-share programs offered through local conservation districts. Now we have the opportunity to reach out even further and help get even more conservation on the ground. Clearly, the local soil and water conservation districts are central to that effort. Here in Oregon and throughout the United States, the Soil and Water Conservation Districts have been given a tremendous opportunity and responsibility to direct NRCS conservation technical and financial assistance.

The implementation of these programs comes together through locally led conservation. The principles behind locally led conservation are:

- v Community members identify and resolve natural resource problems.
- v Dovetails with Conservation District authorities, responsibilities, long-range and annual planning.
- v It's timeless; bigger than one farm bill, any one fiscal year, and any one program.
- v Focus is on voluntary, non-regulatory, incentive-based approaches.
- v Natural resource driven, not program driven.
- v Uses mixes of federal, state, local, and private programs and resources.

Locally led conservation involves a logical set of steps:

- v Conservation district convenes local working group with partners and engages stakeholders.
- v Obtain public participation.
- v Access conservation needs.
- v Identify and prioritize conservation needs.
- v Set goals.
- v Identify programs and funding sources.
- v Develop an area-wide action plan and proposals.
- v Implement plan.
- v Measure performance.

Through local working groups and the day-to-day conservation partnership, conservation districts provide the essential local direction needed for any successful conservation undertaking.

Local work group responsibilities are:

- v Identify priority natural resource concerns.
- v Set local priorities based on public inputs and resource needs.
- v Make program policy recommendations.
- v Recommend payment and cost-share levels.
- v Rank cost sharing applications and update ranking criteria annually.
- v Obtain community and stakeholder participation.
- v Assist with public outreach and information efforts.
- v Identify educational assistance needs.

The conservation provisions in the new Farm Bill not only support family farms and rural communities, but the provisions provide an investment in resource conservation that will benefit every American who enjoys wildlife, open spaces clean water and a healthy dependable food supply.

For additional information please visit the Natural Resources Conservation Service web-site at www.nrcs.usda.gov or the Farm Service Agency at www.fsa.usda.gov. Or you can contact us at the Ag Service Center, (541) 963-4178.

You can't learn to swim in a field- Spanish proverb

Five-week Statewide Celebration of Watersheds

River festivals, watershed clean-ups, planting parties, kayak tours, arts and crafts events, hikes, and workshops will be part of the fourth annual Oregon Watershed Weeks, which runs from September 14 through October 20. The state-wide events are sponsored by watershed councils, non-profit environmental groups, soil and water conservation districts, government agencies, nature centers, and aquariums.

"We all live in a watershed, but most people don't often think about that," said Paul Heimowitz, Oregon State University Sea Grant Extension Educator. "We started Oregon Watershed Weeks four years ago to give Oregon families a fun way to learn about watersheds and how to take care of them. The event has really grown since then." The first Oregon Watershed Weeks featured 75 events. This year there are 133 registered events.

Most Oregon Watershed Weeks events are free and family-oriented. Information about events can be found in free event guides available at libraries, post offices, chambers of commerce, Wells Fargo bank branches, and state parks around Oregon. People can also get information by visiting http://www.watershedweeks.org or by calling 1-888-854-8377. Events are happening all over the state including the Portland area, the coast, the Willamette Valley, Central, Eastern and Southern Oregon, and the Columbia River Gorge.

Oregon Watershed Weeks 2002 is being coordinated by For the Sake of the Salmon, a regional salmon recovery organization.

"Healthy watersheds are essential for healthy salmon runs. Oregon Watershed Weeks is a great opportunity for getting out and seeing our waterways and surrounding watersheds, and spreading the word about watershed care," said Deb Merchant, For the Sake of the Salmon's Watershed Program Manager.

Oregon Watershed Weeks sponsors include Oregon State University Extension Service, Oregon Sea Grant, Metro, Oregon Watershed Enhancement Board, Oregon State Parks, and Wells Fargo.

With the Help of the Communities

By: Melissa Cochran, GRMWP

The Grande Ronde Model Watershed Program (GRMWP) was busy this summer with annual river cleanups, fair booths, project tours, and their 10 year anniversary celebration.

The Union County River Cleanup took place in June from Orodell Ditch to Island City bridge. The twenty-five volunteers managed to yank, pull, drag, carry and pile three pickups full of garbage from four miles of the river.

The Wallowa County Cleanup took place in August from the Boy Scout Camp (post mud slide) to Wallowa Lake. After the destruction caused by the July mudslide, there was much work to be done. The majority of the volunteers worked around the site of the Boy Scout Camp moving massive debris with machinery, digging debris out with hand tools, and piling the debris for removal. Two additional parties worked within the stream removing debris that had been carried down stream. These two parties waded into the streams and wrestled large pieces of plywood, hot water tanks, and building materials from the depths of the icy cold waters. The debris removed for the streams was hauled, dragged and rolled to roadside access.

The success of these cleanups could not have been achieved without the dedication of the volunteers and agencies donating staff and equipment. A special thanks goes to the landowners, USFS, ODFW, State Parks, Wallowa Resources, Wallowa County, OWEB, Girl Scouts of America, Hells Canyon Preservation Council, Eastern Oregon University, Resource Assistance for Rural Environments (RARE), Union County and GRMWP.

The river cleanups are annual events and we are always looking for suggested areas that could use a thorough cleaning. If you have suggestions, please contact the GRMWP at 962-6590 or email: Ripple@eou.edu

We would also like to thank everyone who visited the GRWMP Union County Fair booth and painted on the watershed mural. The mural hangs in our office and is adorned with a blue ribbon thanks to all of your artistic talent. You are welcome to stop by and view the completed watershed mural.

Don't change horses while crossing a stream- American Proverb

TEACHER TOPICS and LEARNING LINKS

Liquid Links

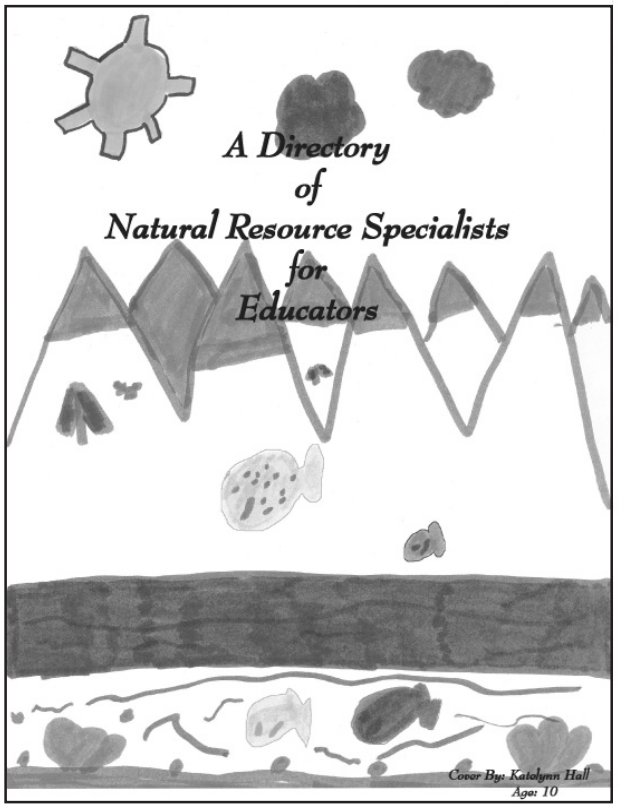
By: Melissa Cochran

This quarter I have only one *liquid link* I would like to suggest. Don't be disappointed because this website is loaded with many more links. You will be busy with this one website. I hope you enjoy it.

River of Words

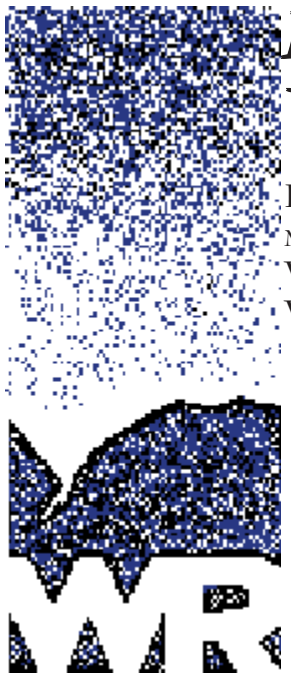
http://riverofwords.org

River of Words is an environmental art and poetry program designed to bring about watershed awareness, literacy, and the arts. An annual art and poetry contest along with education materials help communities explore the natural and cultural history of their own backyards. River of Words website brings together many different subjects. It ties science and environment to the arts and languages. This website is overflowing with educational links for teachers, adults and students. There is also a kids' corner, an educators' corner, a place to view poetry, artwork and much more. You shouldn't miss this website.



Directories, Hot off the Press

Educators, it is time for you to get your Directory of Natural Resource Specialists. The directory was completed in September, 2002. This directory holds valuable contact information about natural resource specialists that can contribute to your education efforts. The specialists may be available to give a guided tour, help organize a field trip, come to your classrooms and talk about a specific topic, or help you locate materials for lesson plans. The second half of the directory contains a list of contact information for federal, state, county and non-profit organizations in the tri-county area. Copies of the directories have been distributed to Union, Wallowa and Baker County schools. If you would like a copy and have not yet received one please contact your administration office, ESD, or the Grande Ronde Model Watershed Program. The directories can be downloaded from the **Education Outreach** section of the GRMWP web site: http://www.fs.fed.us/pnw/modelwatershed/



Learning the Weed Curve

By: Mark Porter
member of the
Wallowa County
Weed Board

Not many people use the word noxious on a daily basis but it is increasingly common for anyone who owns or manages land. It comes right before the word weed.

Webster defines noxious as "injurious to physical health." Think about the following:

- Oregonians lose 83 million dollars of personal income a year (the equivalent of ~3,329 jobs) to only 21 of the 99 state listed Noxious Weeds. If you throw six "new" invaders into the mix you can add ~$51 million annually to the losses.
- Nationally, agriculture loses $20 billion of production annually to Noxious Weeds.
- An elk habitat study in Montana showed that Spotted Knapweed infestations reduced available winter forage between 50 and 90 %.
- A similar study in North Dakota showed that Leafy Spurge reduced deer and elk forage by 70% and Bison forage by 83%.
- Leafy Spurge and Spotted Knapweed are expanding at 10 -25% per year in Montana. We have small infestations of both in the Northeast Oregon.
- In southwest Idaho, Rush Skeletonweed went from 40 acres to over 4 million in less than 30 years. Currently we have less than forty acres that we know of in Wallowa and Union Counties.
- A Dalmatian Toadflax infestation increased from four acres to 2,000 acres in twelve short years in Northwestern Wyoming. Dalmatian Toadflax is spreading in Union and Wallowa County.
- In a Montana study areas dominated by Spotted Knapweed had 56% higher runoff and 192% more sediment yield than sites dominated by bunchgrass vegetation types.
- Noxious Weeds reduce habitat value and diversity for non-game species including birds, small mammals, reptiles and insects.
- In 1996, the BLM estimated that on combined federal lands 4,600 acres of wildlife habitat were being lost to noxious weeds - ***per day!***

Noxious is a very appropriate term for these non-native invasive plants!

Are we doomed to be overrun by *noxious weeds*? Not yet. Is this an emergency? Absolutely! Northeastern Oregon is not weed free. Weeds cause permanent damage to the ecosystem. "With today's economics and technology it is impractical to restore most extensive weed infestations –especially in steep or rocky terrain" (TechLine, Winter 2002, pg 2). However, northeast Oregon is better off than much of the west where many areas are so seriously infested with weeds that land values have dropped because of low forage production and high control costs. (References for sources are available by calling Wallowa Resources at 541-426–8053.

We need to stay ahead of the curve - the weed curve that is. The weed curve shows how most weed populations behave over time: they grow slowly for a long time and then explode - increasing rapidly in number until they have filled all the land that they can. Time is not on our side!

Efforts to reduce weed populations once they have begun to explode are very expensive in time and dollars (and gallons of chemicals). The longer a weed population exists, the tougher it is to kill; roots grow deeper, seed loads increase, and it covers more area. To stay ahead of the curve, we must manage weed populations as soon as they are introduced, before their populations explode. We save time and money by attacking when root mass, seed load, and infestation size are small. For every dollar spent on prevention, eradication or control there is a seven to thirty-four dollar benefit – money well spent!

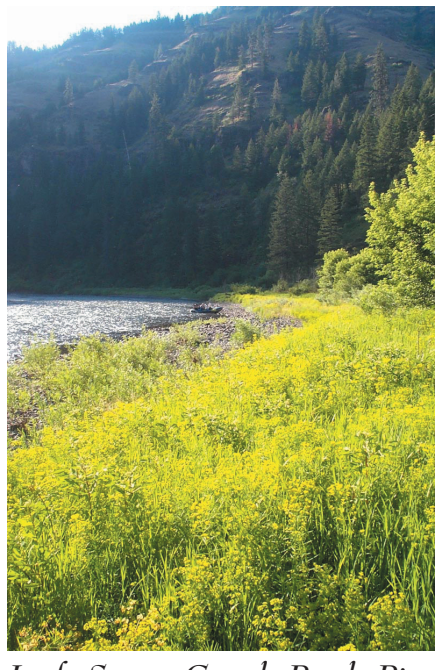
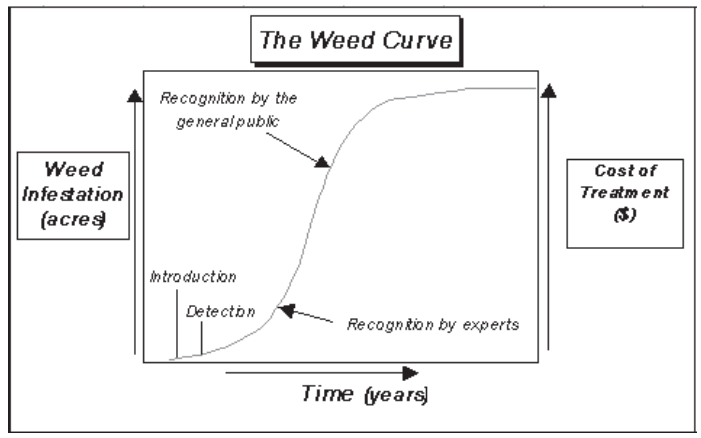


Photo Courtesy of Wallowa Resources

Leafy Spurge Grande Ronde River

Staying ahead of the curve takes two key ingredients. First, we need to recognize *noxious weeds* immediately. Northeast Oregon is now threatened by rapidly growing populations of at least a dozen non-native invaders.

At the top of the list are Leafy Spurge, Rush Skeletonweed, Spotted Knapweed, Meadow Hawkweed, Dalmatian Toadflax, Sulfur Cinquefoil, Common Bugloss, Japanese Knotweed, and Whitetop. They are all here already. Do you know what they look like? Do you have them in your pasture, driveway, or yard? Would you know what to do if you had them? How would you find out? What about the weeds that aren't known to be here yet? Would you know them if you saw them?



The second key ingredient is that we need coordinated and effective treatments. How do you get your neighbors to control their weeds so you don't get a fresh crop of seed every year? Do you have enough money to deal with your own weeds? Are there cost-share funds available? Can you have someone come spray them for you? Are there bugs that control weeds, and are they safe?

This is where the weed managers come in: helping people identify and wisely manage *noxious weeds*. Your local weed manager can help you answer all the above questions. Invite them to your school, your club meeting, your ranch or your office.

The ideal way to manage weed infestations is prevention, which keeps us off of the curve all together. Educational programs, weed-free hay, vehicle cleaning, and the Minam hay station are a few good examples of prevention work. But we also prevent weeds by keeping our ground in good shape – chock full of native and desirable plants. Weeds have a much harder time establishing in vigorous, healthy perennial vegetation.

Northeast Oregon is sliding towards the population explosion with many of these weed species. We need to work together now to educate ourselves and actively identify and manage our weeds. To wait would be foolish. Just ask someone who lives behind the curve.

Photo Courtesy of WR

Sulfur Cinquefoil