RIPPLES in the GRANDE RONDE

SPRING 2005 | RIVERS UNITING NEIGHBORS | VOLUME 3, ISSUE 1

Catherine Creek Fish Habitat Improvement

Lyle Kuchenbecker

The upper pond before sediment removal
Staff photo

The Grande Ronde Model Watershed Program (GRMWP), in cooperation with several other agencies and landowner Dave Ricker, recently completed the Catherine Creek Off-Channel Rearing Habitat Improvement Project. The project is located on Catherine Creek, approximately two miles above the City of Union at the abandoned City of Union water intake facility. The objective of the project was to provide off-channel rearing habitat, primarily for juvenile chinook salmon and steelhead.

One of the most significant changes to watersheds in Eastern Oregon, since the region was settled, has been the loss of connectivity between streams and adjacent wetlands, side-channels and riparian areas. Streams have been channelized, and in some cases "relocated" to convenient locations on one side or the other of valley bottoms. Rock rip-rap has been placed along streambanks to protect roads, buildings, cities, and farmland.

The effect on fish has been the loss of what we refer to as "off-channel juvenile rearing habitat." Resident trout, and juvenile chinook salmon and steelhead, use this off-channel habitat to rear, and when conditions dictate, to take shelter from floodwaters laden with sediment or ice flows.

The Oregon Department of Fish and Wildlife research group has been conducting juvenile steelhead and chinook tracking studies for several years in Catherine Creek, the Grande Ronde River and the Wallowa River systems. Although numbers vary by system, it has become evident that a significant proportion of juvenile fish begin their downstream migration the fall prior to their spring trek to the ocean. In the early fall, as water temperatures fall and flows increase, juvenile fish start moving downstream to occupy habitats at lower elevations that may offer more hospitable winter living conditions. On average, in Catherine Creek, around sixty percent of chinook juveniles are spending the winter in the lower reaches of the system.

The discovery of the extent of the fall juvenile fish migration has elevated the importance of the lower elevation habitat, including the Grande Ronde Valley. The mainstem reaches of Catherine Creek and the Grande Ronde River were once thought of as mostly just migration corridors. The fish tracking data suggests now that restoration activities directed toward improving lower elevation habitat could be very beneficial to the spring chinook and summer steelhead in the Grande Ronde system.

Obviously, we will never fully restore all lost off-channel rearing habitat. Relocating highways and cities is not likely to occur. However, there are still opportunities to reconnect segments of secondary stream channels and backwater with limited impacts to infrastructure, agricultural lands, or public safety. One such opportunity has been realized with this project.

Prior to the mid-1980's, Union's domestic water source was Catherine Creek. The water system included two sediment-settling ponds. Water was diverted from Catherine Creek, through two ponds into a treatment facility, and piped to the City of Union. Excess water flowed through the ponds and back to Catherine Creek. The ponds were accessible to fish from Catherine Creek. The City periodically removed sediment (every 8-10 years) to maintain the pond capacity. The City discontinued use of the facility as a domestic water source in the mid-1980's. Sediment had been accumulating since that time.

**Catherine Creek-
Continued on Page 8**

The Upper pond after sediment removal
Staff photo

IN THIS ISSUE

Bioswales

By
Richard W. Galloway

City of La Grande Assistant Public Works Director Norm Paullus is a busy man with a long list of projects on the big dry erase board in his office. The thought that came to my mind when I walked into his office to interview him about the use of Bioswales for the purpose of cleaning and controlling water runoff at many projects in the La Grande area was, if you want something done, give it to a busy person. Bioswales are a key component of the Storm Sewer Pre-Treatment program, which is a cooperative effort with the City of La Grande Public Works Department, Union County, Oregon Department of Fish and Wildlife, (ODFW), and Ducks Unlimited. Bioswales are a simple system that uses natural materials and vegetation to treat and remove sediments or contaminates, and control the flow of water that runs from our streets, yards, roofs or parking lots.

The type of Bioswale used on a project depends on factors such as terrain, distance the water has to travel, the runoff volume, time of year, and the time it needs to be held at a given location. A Bioswale can be as simple as placing straw bales in runoff locations to slow water flow and direct the flow of sediment to settle in a trench. Larger applications may use a rock barrier/containment system with a riser pipe to remove water from the upper surface of the retained water.

Most of the new Bioswales are constructed by contractors working on developments or new buildings. Some are more long-term projects, such as the one that will be undertaken by the City of La Grande Public Works Department, the Oregon Department of Transportation, the Oregon Department of Fish and Wildlife, Union County and several private landowners. This project is located between the City of La Grande and the Ladd Marsh Wildlife Refuge. The runoff water will be used to augment water levels in ponds that are home to waterfowl, various shore birds, small mammals and big game animals.

In some larger cities, rooftops, or green roofs, are considered to be Bioswales if the owners or tenants are using that space to grow trees or gardens. The use of trees and vegetation helps to keep the rooftop cool. If the plants are strategically placed to control the water flow and cleanse the water before it runs off the roof, the rooftop is considered to be a Bioswale.

While there may not be any green roofs in La Grande, there are several Bioswale projects that are currently in use. A fine example of what a Bioswale looks like and how it works can be found at the new National Guard Armory on 12th Street in La Grande. The shallow dip in the surrounding terrain looks like a natural drainage system used to beautify the building and parking area. In reality, it is a very carefully designed system to control the runoff from the building and parking lot. By having an area of vegetation to filter and slow the runoff, the moisture is allowed to infiltrate into the ground. This additional moisture absorption is beneficial to the area in many ways. For example, a conventional drainage system would result in water running into a culvert or other underground system that makes no further use of the water, and does not filter out impurities. While a filter system could be added to the drainage pipes, they are costly, require many hours of maintenance, and do not add to the attractiveness of the surroundings.

At the near-by senior center, Anderson-Perry and Associates designed the Bioswales. The green belt that surrounds the center now adds a pleasantness to the area and makes the complex look like a part of the land.

Much public land now is going back to an open style ditch to move storm water and spring runoff. Starting near Riverside Park on Spruce Street and running southeasterly to near the Flying J Truck Stop is a Bioswale/green belt area. Over the next few years this system will be extended with the addition of some currently closed systems being opened and run to ponds near the US Forest Service complex on Highway 30. The Bioswales and ponds will allow the sediments, phosphates, and heavy metals to separate from the water, which will then be used to augment the natural areas in Ladd Marsh near I-84.

"This will be a win-win situation for everyone involved; the landowner, the public, the contractor, the developer, and the wildlife. This creates new habitat for wildlife, gives us better water quality, and is a voluntary program. There are no regulations at this time mandating Bioswales and they are actually cheaper for developers and contractors," said Norm.

Any new streets in the city will incorporate Bioswales, where possible, in their design. The work being done on Riddle Road to Mulholland Drive is a prime example. There will be a sediment pond between 26th and 27th streets to slow the water and allow it to infiltrate into the ground. Additionally, there is a standard in the land use code that designates a percentage of the land on any new development to be landscaped. By utilizing Bioswales, this land can serve dual purposes—treating the runoff water and beautifying the project or home.

Bioswales are a new concept on the east side of the state where water runoff has not really been considered a problem as compared to the west side. There are few studies done on this subject. The City is looking for funding to make La Grande the pioneer for Eastern Oregon. They hope to obtain state and federal funding for project development and testing.

Bioswales face a long-term review and evaluation process. The Department of Environmental Quality, the Urban Forestry Planning Commission, The Union Soil and Water Conservation District, the Grande Ronde Model Watershed Program and the public will all be involved locally. The major selling points at this time are the strictly volunteer aspect of the system and the lower cost to developers and contractors.

For further information contact Norm Paullus, Jr. at the City of La Grande Public Works Department or go online at http://www.deq.state.or.us/nwr/stormwater.htm

###

Bioswale on Cove Avenue
© Rock Rabbit Photo

Editor's Note

Welcome to the tenth issue of the *Ripples* newsletter published by the Grande Ronde Model Watershed Program. We at *Ripples* strive to highlight local restoration efforts, volunteer opportunities, and educational tips and activities in Wallowa and Union Counties. We want to bring you an informative and engaging newsletter. Feel free to contact us if you have any questions, concerns or suggestions.

– Richard W. Galloway, *Ripples* Editor

Send your Letters to the Editor to:
Grande Ronde Model Watershed Program
10901 Island Avenue
La Grande, OR 97850
Phone: (541) 962 – 8599
Fax: (541) 962 – 6593
ripple@eou.edu

E-mail us if you would like to be included on our electronic mailing list!

Electronic versions of this and all past newsletters are available at:

http://www.fs.fed.us/pnw/modelwatershed

Keeping the Valley Beautiful

By Anne Marie Moss

Farmer Phil Hassinger is known for outstanding care of his land, its wildlife and water

Here at GRMWP, we enjoyed the following article from "Oregon Agriculture" the Oregon Farm Bureau Magazine. Our thanks to Anne Marie Moss at "Oregon Agriculture" for permission to reprint it here. Our thanks also to Phil and the rest of the Hassingers for being good examples of responsible resource managers.

If you haven't visited the Grande Ronde River Valley in eastern Oregon, you should. It's "an emerald paradise," lush and green, surrounded by mountains and ribboned with clear creeks. And if you're anything like OFB member Phil Hassinger, the valley will change your life. While a veterinary student at UC-Davis in northern California, Hassinger spent a summer at Russell Elmer's family farm in Cove, right in the heart of the valley.

Grande Ronde Valley from Mt. Emily
© Rock Rabbit Photo

He quickly fell in love not only with the scenery, but also with Russell's daughter Trudy, who he ended up marrying.

Now 27 years later, Hassinger finds himself the third generation of a family farm, growing peppermint, grass seed, alfalfa, and wheat. And he can only wonder how others pass through the Grande Ronde Valley without stopping.

"I never could understand how Lewis and Clark trekked right by here," he laughs. "It's amazing they continued looking for anything else."

Hassinger's passion for the land stems partially from a childhood spent in urban Philadelphia, far from the great outdoors. His respect emanates in his farming practices. He's known in the ranks of the Farm Bureau, as well as the Oregon Department of Fish & Wildlife (ODFW) for his proactive environmental stewardship, particularly in terms of water usage.

Respect for Water Runs Deep

The picturesque Catherine Creek meanders through Hassinger's 800-acre farm and enhances the property's natural beauty. But with it comes with a lot of responsibility. Between fish protection, erosion prevention, and water quality, Oregon farmers and ranchers along waterways work hard to surpass myriad state and federal regulations.

Hassinger not only complies, but he's a leader in responsible water management, serving on the Grande Ronde Model Watershed technical review committee for Union and Wallowa Counties, and the ODFW Fish Screening Task Force for the entire state.

It's through the model watershed, an organization that operates as a forum between landowners and grant money, that Hassinger has gotten funding for many of his projects along Catherine Creek.

He installed "rock barbs," a series of boulders that were placed in a diagonal path through a strong current created by a narrow channel in the creek. These rocks break up the force of the current, which would normally crash into the bank and cause substantial erosion. "It's just like putting your finger at the end of a hose," he explains. "It splits the stream into different directions, minimizing that concentrated energy, and preserving the land."

Hassinger also used a watershed grant to create "water gaps," which help improve water quality and minimize erosion. A number of 20-yard sections along the creek are open for cows and horses to access the stream. In those areas, landscaping fabric covered with gravel allows the animals to walk along the banks without causing any turbidity in the water.

Fifteen- to 30-yard buffers of land surrounding the stream banks are designated for the growth of tall grasses and brush, and to provide habitat for native deer, elk, coyotes, muskrat, beaver, river otters, hawks, geese, and herons, any of which can be encountered depending on the season. The buffers also deter any runoff from fertilizers used in nearby fields.

A Fish's Friend

It's not only the work for life aboveground that distinguishes Hassinger's farm; a lot of effort goes into to preserving wildlife below the water's surface.

Because he built an impoundment, a reservoir of water that's formed by a moveable, temporary structure in the creek, Hassinger installed a fish ladder. "This gives the fish a way to move upstream through the impoundment without any trouble," says Hassinger. He's seen everything from spawning salmon to 3-inch minnows make their way through.

For the last six years, Hassinger has served an appointed position on the ODFW Fish Screening Task Force. A fish screen is a devise that's applied to pump suctions or impoundments to prevent fish from being sucked up into an irrigation system. Today's NOAA-certified fish screens have 3/32-inch-diameter holes – a huge difference from the boiler plate with ¼ inch holes that many farmers used 20-plus years ago, mainly to keep sticks out of the pipes.

Now landowners can get slapped with a hefty fine if their irrigation system is found to be harmful to fish. That's where the Fish Screening Task Force comes in. The group reviews project proposals for Oregon's share of a $4 million federal grant, which is designed to inspire more fish screening projects in the Northwest.

"ODFW has made these types of programs attractive enough that landowners want to comply through the funding that's available – a 60 percent cost share, for example – rather than having them beat you over the head with a fine," says Hassinger. "It's really a win-win. The fish are happy and we're happy."

In fact, incentive programs and other rulings that give property owners more control of their acreage have helped improve the relationship between landowners and ODFW since the 1980s. "You knew times had really changed when the director of ODFW was invited to speak at the Union County Farm Bureau in the early '90s," laughs Hassinger. "Ten years prior, he would have had to bring in bodyguards. It's been an interesting transition."

Making A Mint

Walking through Hassinger's fields in summer, a minty fragrance permeates the air, only adding to the overall effect of the valley's rolling, green beauty. For a farmer, this is literally the smell of money. Though peppermint represents only 20 percent of Hassinger's land, it has historically brought in the most revenue. Grass seed is his second most profitable crop, followed by wheat and alfalfa.

"Fifty years ago, you could make a reasonable income with just a wheat and fallow rotation every other year," says Hassinger. "Today, because those commodity prices are so low, there's not a prayer that you could do that in this part of the state."

Mint is profitable, but it's expensive to grow because it requires 10 times the water as wheat, 20 times the input investment, plus the cost of hand weeding (because few herbicides are approved for use on mint). That equals an establishment cost for a mint crop of about $600 an acre. But potentially lucrative contracts with companies that supply to Colgate and Wrigley's make it often worth the risk.

Hassinger has also been fortunate to secure some ongoing grass seed contracts with Blue Mountain Seeds, a seed cleaning and certification company that sells through Scotts and other major retailers.

Grande Ronde Valley from Mt Emily
© Rock Rabbit Photo

Valley- Continued on page 7

Early Return Hatchery Broodstock Collection

By
Richard W. Galloway

Part of what it's all about-Flyfishing and Steelhead © Mark A. Gomez

Brad Smith and Bill Knox love to talk about fish. The species is not all that important they just like fish. As fish biologists for the Oregon Department of Fish and Wildlife, I guess that is to be expected, but these two take it far more seriously than just a job.

Our discussion this time revolved around a project to increase the number of fall returning hatchery steelhead and why this project came into being. The goal of the project was a sensible one, more hatchery fish for Oregon's fishermen and women. The project is designed to catch fall returning hatchery fish, spawn them, raise the fry up to smolt size for release, and return a higher proportion of hatchery steelhead to the Grande Ronde in the fall.

The project is a part of the Grande Ronde Hatchery Steelhead Program, which in turn is part of the Lower Snake River Compensation Plan. (LSRCP) The hatchery program was designed in part to augment the numbers of steelhead available in the Snake and Grande Ronde Rivers for harvest by fishermen of all ages.

The impetus for the fall broodstock collection started in March of 1999 when the National Oceanic and Atmospheric Administration (NOAA) developed the Biological Opinion (BIOP) on Artificial Propagation in the Columbia River Basin. This directs the LSRCP action agencies to work up plans to reduce interactions between hatchery and wild steelhead in the Grande Ronde and other Columbia Basin tributaries. This included addressing concerns about the Wallowa stock of steelhead turning into the Deschutes River rather than traveling up stream to their intended destination.

The immediate goal of the broodstock project is to increase the proportion of the hatchery return that arrives in the Grande Ronde River in the fall. Early arrival to the Grande Ronde River is expected to increase harvest of hatchery steelhead and minimize impacts to native populations of steelhead. The hope is that the switch from later returning fish to an earlier returning run will reduce the loss of fish into the Deschutes Basin and increase fish available to Grande Ronde anglers in the fall.

The Wallowa hatchery stock is a proven producer and is endemic to the Snake River Basin. The Wallowa stock was developed from broodstock gathered in the spring at the dams on the lower Snake River, not in the Grande Ronde Basin. Some Grande Ronde fish were in this group, but it included some from the Clearwater, the Salmon, etc. They had spent all winter in the Columbia or Deschutes rivers, holding over until February or March when it was near time to spawn and they again headed up stream. Because of their late arrival at Snake River dams, it appears the fish collected for broodstock had a propensity to dally around in the Columbia River. The new broodstock development project attempts to select fish that have obviously traveled rapidly up river and into the Grande Ronde.

Jim Tomlinson and Bill Knox
© ODFW

The expectation is that progeny from these fish will show a similar tendency to move upstream in the fall. A study conducted on the Clearwater River steelhead indicated selection of early returning broodstock resulted in earlier returning fish the next generation. This is what they hope to do for the Wallowa run.

Because the ODFW needed an efficient way to catch up to 200 early returning fall run steelhead for the Wallowa broodstock and knowing that local fishermen are willing to help ODFW increase the available fish for them to catch, they asked for volunteers. This year there were a total of 33 volunteers who contributed over 1200 hours and nearly 10,000 miles of travel. Employees of the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) also contributed many hours of valuable assistance to the project. Without the assistance of these devoted volunteers, and co-managers, this project would not be possible.

With this project still in the early stages, verified outcomes are still a few years away. The time line of capturing, spawning, rearing, tagging, release, the run to the ocean, life in the ocean, the return up stream and capture is normally four years or more. With the adult return and harvest data coming in starting with the fall of 2007 for fish released in the spring of 2005, the time to compile the data, compare it to previous data and figure out what it all means, it is easy to see that the data may not be seen until 2008 or later. Since this is slated to be a ten-year project, it is important to understand that the problems and changes in the fish runs have happened over the last hundred years. It is not something that can be reversed in a short time, nor should we expect such instant fixes.

The decision to collect broodstock in October coincides with the prime time for the fish run, generally good weather and fishing conditions. There are generally a fair number of fish in the river by mid-October. Since fish availability is somewhat variable, it was decided to schedule collection at a time when volunteers would likely be available. The mid-October time period is geared to run when fish are available, but mostly for logistic reasons rather than fish. Knowing that most of the sportsmen and women are also likely to be hunters, the ODFW scheduled the capture time to fall between hunting seasons so the volunteers would not have to choose between the capture work and hunting.

Adult fish collected during the project are included in a hooking mortality study. Each time a volunteer catches a hatchery fish, they fill out a data sheet to account for the gear they use (flies, lures, or bait). It also notes whether they use a multiple or single point hook, barbs or no barbs and where the fish is hooked. This data is linked to each fish with a Passive Integrated Transponder (PIT) tag that has a single code to identify individual fish. Each tag code and corresponding hooking data is entered into a database. The survival of fish is tracked at the hatchery until spawning. To this point, 2-3 percent of hatchery fish caught have died as a result of hooking and handling related injuries.

Steelhead anesthetized in tank with transport tube ready to be moved to hathery facility. This does not harm the fish in anyway. © ODFW

Hatchery fish collected for the broodstock are transported to the Wallowa Hatchery in Enterprise then held over the winter until it is time for them to spawn. In the spring, the fish are spawned as a separate group at Wallowa Hatchery. The Wallowa Hatchery program also includes spawning of fish that return to the hatchery in the spring. Eggs are incubated there for a short time then transported to the Irrigon Fish Hatchery where they are hatched and reared through fry stage to smolts. Eggs and fish resulting from the early returning broodstock group are kept separate throughout the incubation and rearing process. At the proper time, they will be returned to the Wallowa and Big Canyon acclimation facilities and held for three to eight weeks for acclimation to their home waters before being released.

Dick Kenton of La Grande with a steelhead
© Mark A. Gomez

The release of the smolts takes place in a varying window of time, but is normally in the month of April or early May depending on conditions such as temperatures and water levels in the streams. Brad stated that truck availability and road conditions have been factors as well, but seldom delay the process more than a day or two at most.

All hatchery steelhead smolts released in the Grande Ronde are marked with the normal hatchery harvest mark; the adipose fin is clipped. A portion is additionally marked as experimental groups with coded wire tags. All fish in a release group receive tags with the same code. Information collected from the tags is used to evaluate harvest in various locations, to estimate total harvest impact, and to evaluate the affects of different rearing or release strategies. Normally the left ventral fin is clipped to designate fish that have received a coded wire tag. However, the right ventral fin will be clipped to designate fall broodstock so that they can be distinguished visually from other returning hatchery fish. In the future adults with a right ventral fin clip returning to the trapping sights can be incorporated as spawners in the fall broodstock project. They might tag a portion of the fish with a coded wire, or all of them, that is undecided at this point. In addition to broodstock management and on-going research, the various marks will be used to evaluate straying into the Deschutes and other river systems and to assess survival and timing of returns to the Snake and Grande Ronde Rivers.

The first indications of return timing and survival will be based on tracking fish passing Bonneville and Lower Granite dams. The numbers from the Lower Granite are used most often to track steelhead expected in the Grande Ronde Basin because Lower Granite dam is higher in the system and there is a lower percentage of fish moving into other basins after they pass through the fish ladder where a sample of PIT tags are read. Smolt to adult survival of steelhead from the Snake River system has ranged from one-half to around two percent with wild steelhead surviving at a slightly higher rate than hatchery steelhead. Survival rates have been on the higher end of this scale recently, throughout the Columbia Basin, because of good downstream migration and ocean rearing conditions.

Brad estimates there have been several thousand hatchery fish harvested annually in the basin the past several years. Some Grande Ronde River fish are also harvested in the Deschutes, John Day and Snake Rivers and the Columbia River Tribal Net and Sport Fisheries, but this downriver harvest varies a lot depending on flow and water temperature conditions each year. Flow conditions also affect harvest rates in the Wallowa and Grande Ronde Rivers.

Wild steelhead numbers in the areas inventoried have increased along with other fish runs in recent years. There are over 1200 miles of steelhead spawning streams in the Grande Ronde Basin, less then 100 miles are inventoried annually to estimate numbers of spawning fish. This process was started in the 60's giving the ODFW a long record of data to draw from in this instance.

When asked about relating the recent increases in the numbers of returning adults to habitat enhancement actions, Brad responded:

"The improvement projects will affect productivity in the long run, but we have been at habitat improvement for a relatively short time, and affected a limited amount of habitat. Determining effects of individual projects is difficult because habitat use by steelhead is variable from year-to-year and season-to-season and very dependent upon flow conditions and fish numbers. They spawn in one place one year and some place else next year. Juveniles migrate from one area to another to find better rearing conditions. We just simply do not have conditions or techniques that allow us to track increases in productivity in individual stream reaches. We have broad scale inventory that allows us to track population trend over time, but nothing that allows a good look at a finer scale. While habitat enhancement activities in the Grande Ronde Basin have likely contributed to recent improvements in survival, it's difficult to seperate those effects from the larger scale effects such as migration conditions in the Snake and Columbia and ocean rearing conditions."

Habitat improvements completed and planned in the Grande Ronde Basin that will lead to even greater potential wild fish return are coordinated to an extent. Brad said, "Some themes are occurring, there are riparian and in-channel stream improvements, water conservation and passage improvements. All of these are occurring in places where there are impacts that have affected productivity for populations." The efforts to date affect a fair number of streams in the basin, but it is still a small percentage of the basin. Also, to be fair, not all streams need improvement.

The improvements to passage conditions downstream likely have lead to some increase in returning steelhead. However, the data is not conclusive. A lot of work has been done in regards to passage conditions and flows at dams but the huge number of complicating factors regarding fish survival in the mainstem Columbia and Snake Rivers make evaluation difficult.

To look at the preliminary numbers that compare the 2004 return with previous years, you can go to the Columbia River Data Access in Real Time, (DART) site at http://www.cqs.washington.edu/dart/adult.html. This gives counts back a few years for steelhead. Make sure to compare apples-to-apples and remember that the numbers for 2004 are not all back yet. Also, be sure to compare the correct time of year. Summer steelhead runs at Lower Granite Dam are counted from June 1st through May 31st. While some steelhead straggle until May in the Columbia and Snake Rivers, after June 1st they count on the next run year's numbers.

If you are interested in helping Brad and Bill with this project, give them a call. They ask that local anglers sign up ahead of time so they can work out the logistics of needed camping space, food and materials. However, not all do sign up. Some sign up on site when they see others fishing. There were 33 sportsmen this year over a two-week period. Some were from Umatilla on a trip and stopped to help. Some came from La Grande to help. They even had volunteers from Maine and Illinois lending a hand. This will be an annual event for at least the next couple of years. The event will always be in mid October, between deer and elk seasons if possible, so no one needs to choose one over the other.

Brad and Bill can be reached at the Oregon Department of Fish & Wildlife, Wallowa District Office, 65495 Alder Slope Road, Enterprise, OR 97828. Phone: 541-426-3279. Via email you can reach Brad at fishsmith@oregontrail.net or Bill at gofish@oregontrail.net

###

Meet the Staff

Mary Estes

Mary Estes was born and raised in Bend, Oregon. She moved to Union County after graduating from high school. She met her husband Don shortly after arriving in Union County. They have three children, Stephanie, Chris and Michael. The children keep them very busy with sports, hunting, and church and school activities. Her favorite past time is spending time with her family and friends.

She graduated from La Grande Business College. After college, she worked for the La Grande Ranger District in Business Management. She joined the Grande Ronde Model Watershed Program in 1994. She is the office manager of the program and the secretary of the Grande Ronde Model Watershed Foundation. She loves being part of a team that is working hard to make our rivers and communities a better place to live. She enjoys visiting a completed project site to see the final product. She emphasizes that "The flowing of a stream is such a beautiful sound and very relaxing!"

Besides working in the office, you will find her gathering volunteers from the community and the various agencies to work on river cleanups, planting projects, fairs, community activities, and school activities during the spring and summer months in both Union and Wallowa Counties. If you would like to volunteer or know of any areas by water bodies that need cleaned, notify Mary. "The most satisfying work.....helping others!"

###

Mary Estes, helping others.
-Staff Photo

Urban Update – Water Uses and Abuses

By
Katie Lazich

Mmmmmmmm a nice hot bath after a cold foggy day - Ah, ah, ah, that will cost you 36 gallons.
Ok, Ok how about a long shower – 10 minutes! – That will be 50 gallons!
Shucks, OK, I can settle for a five minute shower today, that will only be 25 gallons then, have you done the math yet, a shower costs you about five gallons of water per minute.

A typical toilet requires six gallons of water every time it is flushed. Brushing your teeth with the tap running throws twogallons down the drain and washing your hands with the tap running is another two gallons. Uggg, what about all that water that went down the drain while I was waiting for it to get warm.

I consider myself rather frugal in most categories in my life, my family hardly ever wastes food, we recycle everything, reuse Ziploc bags, buy things on sale, used on E-bay, and garage sales, but I am not yet frugal enough about my water use. I followed all the water saving tips about watering my lawn, but now that I am turning my inspector eyes inside my home, I am seeing lots of areas for improvement.

Here are some comparisons for your use and some ideas of how to stop abusing your water supply. (Most information from www.mrwa.com/wateruse.html)

Typical Usage
Good, Water-Saving Habits

Showering, 20-40 gallons, 5 gallons (Wet down, soap up, rinse off)

Tub Bathing, 36 gallons (full) 10-15 gallons (low-level)

Toilet Flushing, 6 gallons, 1.6 gallon with new standard toilet

Teeth Brushing, 2 gallons (tap running) 1 pint (wet, brush, rinse briefly)

Hand Washing, 2 gallons (tap running) 1 gallon (fill basin, rinse briefly)

Shaving, 3-5 gallons (tap running) 1 gallon (fill basin, rinse briefly)

Dish Washing, 20 gallons (tap running)
5 gallons (wash, rinse, in pan or sink)

Automatic Dish Washer, 15 gallons (full cycle)
Do FULL LOADS/Buy an efficient dish washer

Clothes Washer, 36-60 gallons (full cycle)
Do Only FULL LOADS/ Buy an efficient washer

Conservation Security Program (CSP) Newsletter Article

Reprinted with permission of NRCS & OSU Extension

Private land managers in selected watersheds throughout Oregon will have the opportunity to participate in USDA's new Conservation Security Program in 2005, according to the Natural Resources Conservation Service. CSP is a voluntary program that financially rewards private land managers who are actively conserving natural resources on their land.

"Private landowners and managers in Oregon have been protecting our soil and water resources for years," says NRCS State Conservationist Bob Graham. "Now they will be rewarded for that stewardship, and will become the models for future CSP participants. It's a bright new day for conservation and I'm delighted we're a part of this sign-up."

CSP isn't limited by land use or size. It is based on rewarding outstanding conservation stewards, whether you are a beef producer, grain grower, horse operator, rancher, grass seed grower or any of a number of other producers. The common thread is your commitment to conservation.

The Lower Grande Ronde watershed was selected, which includes cropland, pastureland, rangeland, and forestland. Ten Oregon watersheds have been selected to participate in this new program for 2005. Over the next several years, all private land managers in Oregon will have the opportunity to apply for CSP as their watershed is selected for a signup.

If the majority of your land is inside one of the selected watershed boundaries, you have met the first eligibility criteria for CSP. Signup dates for the program have not yet been announced, but you can begin preparing by checking out http://www.or.nrcs.usda.gov. On the site, you can find additional information about the selected watersheds, maps, eligibility requirements and the signup process.

Conservation--continued on page 8

SOME HELPFUL HINTS

- Putting a "displacement device" in your toilet tank to reduce the amount of water your tank will hold will reduce water used per flush. You can make one by using a plastic bottle (label removed), or buy a displacement bag specifically designed for toilet tanks at the hardware store. Ultra-low flush toilets use only 1.5 gallons of water per flush, they cost between $100-$200. If you're really hard-core, you could look into composting toilets, but check your city ordinances before you make any permanent changes.

- If you are going to let the water run until it is warm, capture the cold water for watering plants, or fill up your kettle, a pan for cooking dinner, the dog bowl, etc. etc.....

- Dishwashers are pretty efficient in comparison to hand washing dishes, but make sure you are running only full loads! Also, instead of running water to clean dishes of excess debris, use a rubber scrapper.

- Compost your kitchen scraps instead of running the garbage disposal.

- Fill a pot of water to rinse fruits and vegetables in, and use a vegetable brush to remove debris instead of a forceful stream of water.

- Install low-flow faucet aerators – less than $4.00 each, will reduce faucet flow from 5-15 gallons per minute to 3 gallons per minute. Or, more expensive, replace the faucet. Most new faucets flow at 2.75 gallons per minute.

- Install low-flow showerheads, these can reduce the flow from 5 to 7 gallons per minute to about 3 gallons per minute.

The Oregon Department of Energy provides technical help, low-interest financing, and tax credits for water efficiency measures that also reduce energy use.

Oregon homeowners and renters can get a state income tax credit for buying new appliances that save water and energy – and cut utility bills.

The tax credit for clothes washers is up to $230.00 and for dishwashers the credit is $50 to $70.

Clothes washers that qualify for the Residential Energy Tax Credit use 40% less water and detergent and 60% less energy. Qualifying dishwashers save up to 1,000 gallons of water a year and use up to 25% less energy. See the Oregon Department of Energy website for more information www.energy.state.or.us/Cons/water.htm or call 1-800-221-8035.

(Quote) *The frog does not drink up the pond in which he lives.* Buddhist Proverb

Teacher Tips and Liquid Links

By
Katie Lazich

This quiz for adults and students alike comes from the following website – www.deq.state.la.us/assistance/educate/liquid3.htm

How many gallons of water do you use every day? *Try to estimate your family's water use every day by using the following chart.*

Water Use	**Average Amount Used**
Family Water Use	
Drinking Water	6-8 ounces per glass
Making beverages	32 ounces per quart
Flushing Toilets	3-5 gallons per flush
Taking a Shower	5 gallons per minute
Taking a Bath	35-40 gallons
Washing Dishes	10-15 gallons
Doing Laundry	19-45 gallons
Washing Hands	32 gallons
Brushing Teeth	1 gallon
Washing Car	20-30 gallons
Watering Lawn	240 gallons/half hour
Other_____	
Other_____	
Other_____	

Questions

1. Read your family's water meter at the start and end of a 24-hour period. See if the results are equivalent with the chart above. What do you think you forgot in your chart?

2. Are there times when the water is just "running down the drain" and not being used? When are some of these times?

3. What can you do to you reduce the amount of water wasted in your home?

###

Valley-
Continued from page 3

Hassinger grows a variety of proprietary bluegrasses and fine fescues that are designed to be shorter, greener, or tougher than other brands. If a certain variety is particularly prolific, it's a boon for the farmer, who commonly gets paid by the pound of raw seed. Like many commodities, the challenge of growing a perennial grass is the slow profit turnaround. Hassinger didn't see any return for two years after his first planting.

Crop rotation is an important part in keeping Hassinger's field yields, and cash flow, in balance. The grass seed, mint, and alfalfa are all on four- or five-year rotations, which make them work well together. In the off years, wheat is planted.

As Hassinger looks over his crops, surrounded by a panorama of blue-tinted mountains and flanked by a rippling stream, a satisfied smile comes to his face. "I was born in Philadelphia, so this rural environment is like paradise to me. I could do a job other than farming and make more money, but every day when I go to work, it's an enjoyable experience."

###

Grande Ronde Valley from Mt. Emily
© Rock Rabbit Photo

Removing sediment from upper pond
Staff photo

Catherine Creek-
Continued from page 1

In 1995, the old concrete water diversion structure in the main Catherine Creek channel was replaced with a five-weir concrete structure to facilitate year around adult and juvenile fish passage (Oregon Watershed Health Program-Catherine Creek Fish Passage). During the course of this project, and subsequent work around the site, biologists learned that the two ponds were heavily used by juvenile steelhead and chinook even though they were gradually filling with sediment. By 2003, the ponds had nearly completely filled with sediment and were only about a foot deep. Even with the limited water depth, sampling reveled the ponds were still being used by juvenile fish.

The Grande Ronde Model Watershed Program initiated the planning process in 2003 to deepen the ponds. In coordination with ODFW, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), the City of Union, an adjacent landowner, and the regulatory agencies; the GRMWP developed a funding proposal, a work plan, and a schedule to complete the work. Components of the project included removal and disposal of the accumulated sediment, removal or replacement of undersized culverts for water in-flow and out-flow, and replacement of the control headgate at Catherine Creek.

Work was accomplished in August 2004. It began early one morning by slowly draining the ponds and salvaging juvenile fish. Fish were captured using a combination of electro-shocking and netting. Fish were placed in buckets and immediately relocated to nearby Catherine Creek. Over the course of the next three weeks, the culverts were replaced and nearly 5000 cubic yards of sediment and gravels were removed from the ponds. Brush and small logs were cabled in bundles and anchored in both ponds, prior to refilling, to provide structure and shelter for juvenile fish. Water depth now averages 4-6 feet.

Juvenile fish have open access to the ponds both through the inflow and outflow and between the ponds. It is expected that several thousand juvenile chinook and steelhead will use the ponds throughout most of the year, especially at times when the stream environment becomes less hospitable during peak flow or ice events.

Fish use will be monitored periodically throughout the year. Adventurous biologists will conduct snorkeling surveys as one method to determine use. The adventure part comes in when the surveys are done in the winter, and at night. Night snorkeling with lights often reveals true fish use and much higher numbers than would be observed during daylight hours.

The project was funded primarily by the Bonneville Power Administration Fish and Wildlife Program. However, projects such as this take more than money to be successful. In the end, it was successful because of the on-the-ground efforts of several individuals and entities. Biologists and technicians with ODFW, CTUIR, USFWS, and NOAA Fisheries were invaluable in the fish removal operations, not to mention the planning and paperwork aspects. Adjacent landowner Dave Ricker provided the site for sediment disposal. Judy Construction of Union brought a can-do, innovative approach to crafting the water control structures and installing the culverts.

For additional information on this or other habitat restoration projects contact the Grande Ronde Model Watershed Program, 541-962-6590.

###

Anchoring brush in the upper pond
Staff photo

Conservation- continued from page 6

Once you've determined you're in a selected watershed, you can begin preparing by taking the following steps:

- Complete the CSP Self-Assessment Workbook (available at http://www.or.nrcs.usda.gov or at your local NRCS field office)
- Gather records to document your past conservation work. These records may include:
    - A map of your farm including soils information
    - Records that show how you manage your crop. This may include
        - pesticide applications,
        - irrigation or other water use,
        - planting/harvesting dates,
        - weed management,
        - pest management,
        - fertilizers applied, etc.
    - Records of work you've completed to benefit wildlife. This may include planting field border areas to permanent vegetation, managing water use to match with wildlife needs, or building areas that encourage bird nesting
- Visit your local USDA Service Center to receive a USDA Identification Number
- Watch for CSP program updates. In early 2005, NRCS will announce:
    - CSP signup dates
    - CSP informational meeting and workshop dates
    - Any additional eligibility requirements for CSP

Contact:
Tom Smith, 541-426-4521 ext. 101
Patty Shumway, 541-523-4437 ext. 101

###