



Curry Currents

Winter, 1998

Volume 1, Issue 2

Checking the Horizon by Cindy Ricks

During the past field season, a state of contained chaos might describe our monitoring activities: piles of equipment and supplies out with each crew; phone calls to landowners for access via roads, streams, and fields; recruiting (arm-twisting) volunteers; sorting out valuable records; computer glitches; and yes, paying the bills. Now that the northwest wind has calmed, we can take a moment to check the horizon and regain some perspective on where we are.



Curry County streams are varied and diverse, from Floras and Willow Creeks flowing into New River down through Elk and Sixes Rivers, Mill Creek feeding Garrison Lake, and working south to Hubbard, Euchre, and Hunter Creeks. Among the many lower tributaries of the mighty Rogue River are Jim Hunt, Saunders, Edson and Lobster Creeks. The rivers of the south county all flowing to the Pacific are Pistol, Chetco, and Winchuck. From headwaters to estuaries, each of these streams has tributaries of its own, confluences that influence every water temperature, pool depth, and sediment source that we monitor.

The scientific side of monitoring helps focus our thinking about water and fish habitat, to distinguish what we think we know from what we don't know. In some cases, we know a lot, enough to plan beneficial activities and know the results with nothing more than a photograph. In other places we need to know more. If we find that one stream is three degrees warmer than another, or that a series of pools is becoming more shallow, we need to know why. Monitoring results prompt us to reframe our questions, to refine our understanding in a way that will help us choose our restoration activities wisely.

Monitoring also tells us how effective our restoration activities have been in improving the conditions of our streams...if the trees we've planted are thriving...if the large wood we've placed is capturing sediment and limbs while scouring deeper pools...if the channels we've reshaped are developing sustainable meanders and new streamside vegetation...if the culverts we've replaced are allowing fish to migrate upstream.

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In this newsletter, we've highlighted several monitoring activities and our results to date. Please evaluate our success and let us know if you think we have we learned something new that is useful. Check the horizon - does it help us understand where we are and where we need to go?

Editors Note: Cindy Ricks is the Monitoring Coordinator for South Coast Coordinating Watershed Council and Lower Rogue Watershed Council

Inventory: On the Road



Rain falling on the sheep in the fields and into the firs on the slopes, gathering up into streams and running down roads. Just after storms have passed is the easiest time to trace the path of the water through culverts, down ditches, across road surfaces and back into the hillslopes and streams. It's a soggy job - last spring we had to send our rangefinder (the one with a setting for "rain") to the factory for repair - they sent a note informing us that it wasn't designed to be water-proof. Guess they couldn't visualize the kind of steady rain we have and thought we'd dropped it in the creek!

In 1998, the Watershed Council, in cooperation with ODFW, designed a road inventory for landowners to meet a variety of objectives. Finding problem spots on road systems helps landowners protect their investment while preventing excess sediment in fish-bearing streams. Often a landowner needs to maintain or restore road access to his/her property, but wants to protect streams as those improvements are made. This inventory builds on the "Culvert Survey" of 185 culverts that were checked for fish passage in 1995 under the Hire-the-Fishermen program. This year our road crew, Matt Swanson and Ralph Dairy, conducted inventories for eight different land owners in several watersheds. Our focus was on Lobster Creek, with its value for the Lower Rogue fisheries, where we completed 41 miles of road in eight weeks. Combined with an inventory of 120 road-stream crossings just completed by the Siskiyou National Forest, a basin-wide approach to road restoration has begun. Thanks also to our other road warriors, Howard Crombie, Jennifer Dwyer, Rod Burns, Mike McGuire, Paul Hoobyar, Cecil Ashdown, Jeff Bonotto, Derek Godwin, and Harry Hoogesteger.

The Landowner Road Inventory collects information on road-stream crossings, road drainage, and potential failures of road fills. Participating landowners can receive detailed continuous logs of their roads with maps and lists of prioritized sites with appropriate culvert sizes and fill volumes for estimating costs. Privacy is protected by releasing only the number of miles and crossings inventoried to the granting agency, and the inventory can be adapted to each landowner's needs and preferences. The Watershed Councils are committed to helping landowners to secure funds for work on high priority road restoration. We have 8-10 weeks of crew time starting in April, 1999 and would like to increase the numbers of landowners that we are serving with inventories or training. For more information, please contact Cindy Ricks at 247-2755.

Watershed Council Meetings

Floras Creek - 1st Tues. 7PM

Langlois School

Chetco River - 1st Weds. 7PM, 555 5th St.

Forest Service Building, Brookings

South Coast Coordinating Council -

1st Thurs. 7PM, Extension Service

Building, Fairgrounds, Gold Beach

Lower Rogue - 2nd Thurs. 6:30PM,

Extension Service Building, Gold Beach

Port Orford - 3rd Weds. 7PM, City Hall

Elk / Sixes - 4th Weds. 7PM

Hunter Creek / Pistol - 4th Thurs. 7PM,

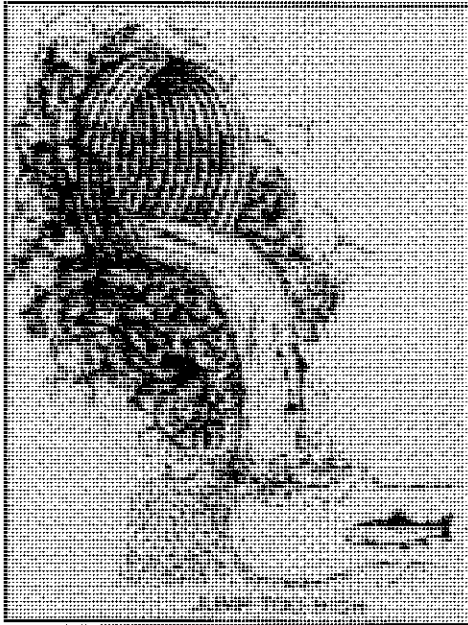
Extension Service, Gold Beach

Our Projects - A Learning Experience

Continuing progress in restoring our watersheds depends on critical evaluation of our projects. Most everyone can agree that good fish habitat and water quality are desirable, but we all want assurances that our tax dollars are producing the desired results. It's easy to understand how these evaluations could be lacking. While projects tend to be funded by 1-2 year grants, the measurements of instream structures after flood flows or increases in shade from vegetation are long-term. Especially in the early stages of a program, the desire to get results that people can see doesn't leave much time for surveys. To be honest, sorting photos and organizing files isn't as glamorous as planning the next project.

In Curry County we are fortunate to have funds from the Governor's Watershed Enhancement Board and Oregon Department of Environmental Quality for a dedicated work force to accomplish project effectiveness monitoring. The first step has been simply to list the types and numbers of projects that have been implemented over the years since the Watershed Health program began.

Each project type corresponds to one or more objectives that can be monitored. Formal and informal techniques may be appropriate. For example, a barrier to juvenile fish migration could have a formal aquatic survey before and after the new culvert or bridge is installed. One could also visit the site at high and low flows to check the jump height and flow velocity. Another way to reduce monitoring costs is to choose a representative sample of each project type to monitor. Our project monitoring plan uses both approaches.



Formal Surveys: For instream wood projects, a section of stream was surveyed using ODFW methods prior to installing large wood at several sites. The crew, Matt Swanson and John Wilson, are scheduled to repeat the survey next summer. Two bank/channel stability projects were selected for topographic surveys of channel and stream bank shape before and after project installation. Topographic surveys were also used to map conditions at two educational sites, including one wetland enhancement project.

Informal Surveys: Visits to several fish passage and sediment reduction road sites are planned for this winter and early spring. Photo points and other casual observations will be collected during project tours.

Other measurements: Many temperature sites have been located to measure changes as riparian vegetation projects begin to provide summer shade to streams. At this time, just three years after the first trees and willows were planted, it is too early to expect temperature decreases even on the smallest streams. Although monitoring is a long-term investment, some lessons are already clear. Before and after photos are excellent tools for illustrating changes in the growth of vegetation for shade and bank stability.

This year we cornered Ralph Scott and his Youth Conservation Corps to ask, "How are the trees doing?" Their impressions of tree survival and growth, along with that of those from past Hire-the-Fisherman crew leader, Cecil Ash-down, create the following report. Generally, trees are surviving at rates of 70-90%, thanks to the care and maintenance of the crew and the landowners. Trees are doing best where they receive water from adjacent irrigated fields. Along some streams they are struggling to outcompete blackberry brambles, and there have been a couple of failures where livestock managed to get past a protective fence. Some species are less tolerant of wind exposure, and one site is suspected to have poor soil conditions for trees. It is clear that our riparian vegetation will need continued care.

For structures designed to protect stream banks and scour pools, we have learned that some of the older techniques needed to be changed. Barb structures were constructed to project out into the stream flow and connect to the bank above the level of the active channel (bankfull). During the November 1996 floods, some of these structures were associated with turbulence and bank erosion. Newer rock vein and boulder weir designs have lower profiles to work with the stream flow pattern.

To those generous folks who agreed to have us watching their projects over the long-term, if we have a learning experience, it's thanks to you.

Dan Leighton - A Unique Style of Teaching:

Communication, Compare & Compromise

Dan Leighton, Science Teacher at Blanco Middle School, Langlois, is an advocate of a three-pronged approach to teach science while encouraging his students to gain the practical skills needed to excel in "real-world" scenarios. Dan stresses the need to effectively **communicate**. He comments, "While most students are capable of collecting scientific data, many lack the ability to approach professionals and convey their often valuable discoveries." He encourages students to question their discoveries as well as what they read or hear from others and **compare** their results with similar processes and conclusions. Finally, Dan points out that not all findings result in the so called "Best Management Practice" and that often we are forced to **compromise** but that by doing so, we demonstrate collaboration and willingness to experiment with new ideas.

Mr. Leighton teaches general science to 6th and 7th grade students while integrating watershed education in his 8th grade class where his students conduct a variety of community-based experiments related to a variety of watershed issues. The following is a list of active research/projects undertaken by Dan and his students.

- **Seasonal & Topographic Variation in Production Levels of Pastures** - Two students hope to provide a local landowner valuable information that may influence the timing and quantity of fertilizer applications.
- **Revegetation of a Riparian Zone** - Several students are working with Dan Van Dyke, a Wildlife Biologist from Oregon Department of Fish and Wildlife. Together, they are leading an intensive effort to restore the bank along New River known locally as "Orchard's Hole".
- **Amphibian Study** - Students are also working with Mr. Van Dyke to determine population numbers in Sixes River. Mr. Leighton points out that "amphibians are indicator species, meaning that a relative decline or burst in populations should provide some indication to the overall health of the Sixes watershed".
- **Biodiversity Study** - Conducted in collaboration with Mrs. Leslie Mzar from the Bureau of Land Management in the New River Estuary.
- **Water Quality Monitoring** - Students are conducting seven tests in the New River, utilizing equipment provided by grant money via the South Coast Watershed Councils. All data, collected by the students, will be presented to scientists at the Hatfield Marine Science Center.

Curry County Research and Educational Watershed Symposium (C~CREWS) - This year, Dan plans to lead his class for the second consecutive year in organizing his students to present their research at C~CREWS, tentatively scheduled for April 22, 1999.

Aquatic Insects By Alyssa Babin (9th grade Honors Biology Term Project)

Determining the habitat of aquatic invertebrates in Jack's Creek was the subject of my project. Observing the creek bed to determine which type of insects out-lived the others was my main inquiry. I also wanted to see if these insects actually would survive the winter.

During the winter, these insects go through many challenges in the ever-changing creek bed. Many of their niches are destroyed by the harsh conditions.

At the end of the term, my observations showed that many insects did, in fact, survive the winter. The survivors, however, were very few. The beetle larvae and Caddis flies seemed able to exist the longest amount of time. These two types of aquatic life have hard outer bodies and/or shells, thus leading to the observation that the soft bodied insects were less likely to survive.

The results of my research paper proved very interesting and helpful in beginning to understand aquatic invertebrates.

Editors Note: Alyssa Babin was one of the presenters at the 1998 Watershed Symposium

**Symposium 2 -
Earth Day - April 22,
1999**

Look for more information in the
Spring Edition of Curry Currents

Lower Rogue Hires New Coordinator

The new Lower Rogue Watershed Coordinator is Bruce Follansbee from Tillamook, Oregon. Bruce will be starting his new duties in January. Bruce has spent the last two years as the senior scientist with the Tillamook Bay National Estuary Project. This project has put together a comprehensive management plan for the Tillamook estuary to ensure water quality and economic benefits for communities.

Bruce has a doctorate in ecology from the University of California, Davis. His special area of emphasis is wetlands restoration. He also has a master's degree in environmental horticulture – specializing in the propagation of native plants. His bachelor's degree is from Humboldt State University in Forestry Science.

"I'm excited about the possibilities for restoration in Curry County," Bruce said. "There is some innovative work going on in your streams, and I'd like to be part of it. I'm looking forward to helping with some hands-on projects." Bruce has also expressed interest in putting together a library of watershed reference materials, and perhaps starting a nursery to propagate native plants and trees.

Bruce has also done a number of watershed assessments, something that the Governor's Watershed Enhancement Board is emphasizing for smart, focused restoration on a broad scale. Bruce will take over the Coordinator's duties from Jennifer Dwyer, who moved to Montana, and Mike Maguire, who has served as interim coordinator.

Welcome aboard Bruce!

Winter is the time...

for conifer tree planting in our watersheds. This year, the South Coast and Lower Rogue Watershed Councils will plant approximately 30,000 young trees along riparian areas in Curry County streams. The main species to be planted include Douglas fir, spruce, hemlock, cedar, and redwood. Some native hardwoods (maple, myrtlewood) may be planted as well.

"Tree planting along creeks and rivers is one of the most positive things we can do for our rivers and streams," said Harry Hoogesteger, South Coast Watershed Coordinator. "Trees help to hold the soil, thereby reducing erosion into our rivers. They contribute organic matter to the streams, which provides food for young fish. They grow up to provide shade for the river, thereby cooling water temperatures. And eventually, they provide large wood to the system, a vital component of salmon and steelhead habitat."

This year's crew will be led by Cecil Ashdown, who has many years of tree planting experience as leader of the Hire the Fisherman program in Curry County. The planting season will be in January and February.

Interested landowners who would like help in maintaining or improving their riparian areas with native trees may call the Watershed & Soil Water Conservation District Office at 247-2755.



A View From The Creeks

by Matt Swanson



When I first arrived in Oregon a few years back, a prudent Oregonian greeted me with some infamous words of wisdom "I hope you like rain". My reaction was to retaliate, claiming a few months of rain couldn't be worse than the sleet and snow of the Indiana winters that I've endured. Now that I've survived a few seasons of "Oregon Sunshine" I can boast of the moss taking root in my ears. It also occurs to me that all this rain is a blessing, not a curse. From the pounding ocean surf to the mist enshrouding the ridge-tops it is apparent that water is the driving force behind the ecology and topography of Curry County. Likewise, one does not have to look far to see that many of the local folks also depend on this abundance of water for a steady forest reproduction, loyal salmon population, cranberry bogs, ranch-land, recreation, etc. Perhaps then

it should have been no surprise to find a strong grass roots conservation effort taking place in the county.

Coming from Indiana, though, where soils as black as night and rich as Arabia are used to graze suburban dynasties it was not only a surprise, but an inspiration, to see a consolidated effort at conservation and watershed protection. Working with the Watershed Councils and the County Soil and Water Conservation District has been some of the most gratifying days of my employed career. I feel the effort to monitor the quality and morphology of the streams will prove invaluable as more effort is made at restoration. I am indebted to Cindy Ricks for sharing so much of her "book smarts" and field "know how" with me. As a watershed technician I have traced the rain down many miles of road in the Lobster Creek drainage, critiqued its manners, taken more channel measurements than a tailor on prom night, and recognize many of the steelhead, chinook and coho on a first name basis. It has been great fun getting to know the area and all of you, and I look forward to returning for another season.

Interview with Joe Brown, Landowner by Mike McGuire

Ya' ever tried a "Brown" chicken? Mmmmmmmmm good! Since 1995, Joe Brown and his brother/partner Mike have owned and operated *Brown Livestock L.L.C.*, an opportunistic and business minded farm. Their goal: to promote good land and water stewardship while making a profit. Chickens? Yes, chickens. The Brown's chickens, like their cattle and lambs, are moved to fresh pasture once or twice a day on an intensive grazing system. The result, a healthy, hormone-free chicken that tastes delicious and is sold for an affordable price.

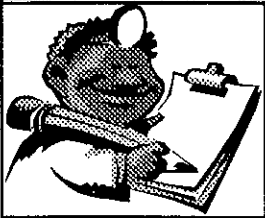
The Brown's investments aren't just about chickens or lambs or any other farm animal. During the past 3 years both of the Brown brothers have been very active with the local watershed councils. For example, they have fenced and planted the majority of their riparian zones, including 1 mile on Floras Creek and a ½ mile on Willow Creek. Both of these creeks are home to a variety of salmonid fish populations.



Joe commented on the benefits of a fenced riparian area. "Livestock production has increased, the pasture is higher in quality, and we now manage more animals per acre". Their secret? Poly-wire. Through the utilization of poly-wire, the Browns divide one large pasture into several smaller parcels in order to maintain adequate stocking levels while providing sufficient fallow periods for the remaining pasture. The size of each parcel fluctuates with the number of animals and productivity of the grasses which varies with the amount of applied fertilizer and rainfall/irrigation as well as other significant factors such as seasonal variation. Joe comments, "It may sound intensive, but hauling hay also requires a significant amount of time and energy."

During this past summer alone, *Brown Livestock L.L.C.*'s involvement with restoration work included: **Road Inventories** - conducted by South Coast Watershed Council's monitoring crew. **Off-Stream Watering** - designed to provide water to their livestock outside of the riparian area. Over 1,800 feet of pipe was placed throughout the Stonecypher Ranch and hills above Floras Creek. **In-Stream Restoration** - intended to enhance the overall stability of Willow Creek by restoring the channel pattern on a small reach. This project may also create more fish habitat by improving pool to riffle ratios of the stream.

Brown Livestock L.L.C. is yet another example of landowners who have enhanced their watersheds and benefited from proactive work conducted through the assistance of watershed councils and O S U Extension Service. Brown Livestock L.L.C. recognizes the important relationship between economic and ecological prosperity. Joe and Mike have learned quite a bit over the past two years and both realize a cookbook approach to managing a farm does not exist. The Browns welcome visitors to their ranch. Please contact the Browns at: (541) 348-2956 for more information.



Dear River Doc:

High water is causing my stream banks to erode, What can I do?

First of all, don't get too close to the edge. **Second**, think warm, sunny, and dry thoughts and find a nice comfortable spot where you can watch at different flow levels. You can

learn a lot about how river's function during high water. Rivers and creeks that are relatively flat tend to meander like a sine wave. They erode on the outside bends and deposit sediment on the inside. **Third**, there is not a lot you can do right now to save your land. If you are losing structures, like houses, you can apply for an "Emergency" Fill and Removal permit with the Oregon Division of State Lands (Mike McCabe #503-378-3805). This allows you to place rock structures in the creek to save your property. Otherwise, wait to see the damage and possibly apply for a similar permit in the spring to do work in the summer. Also, plant lots of native vegetation as it helps stabilize your stream bank.

Tis the season to be jolly. What else can I do this season?

If you like getting dirty, cold, wet, tired, and physically abused, it is time to plant trees! One of the best watershed projects involves planting trees in riparian areas along rivers, creeks and wetlands. These trees will help in the future to stabilize banks, provide food and large wood, give cover, and shade the streams to benefit fish and wildlife. However, now is the time to plant and the weather can be miserable. If you would like to be involved, even if it is only in good weather, contact your local watershed council coordinator. If you are interested in buying and planting trees contact Oregon Department of Forestry (#267-4136) or your local coordinator for information.

If you have any questions for the River Doc, or need more information, contact the OSU Extension Service at 247-6672 or 1-800-356-3986.

Watershed Steward Educational Program

The Watershed Steward Educational Program continues! Come join us if you want to learn about watershed processes, salmon life cycles, water quality, mass erosion, riparian areas, and wetlands; come join us. A different program is held each month in one part of the County. Each program includes an evening session followed by a field tour the following morning. To sign up and learn more about the workshops call 1-800-356-3986 or 247-6672. We'll see you there!

Curry Schools Hatch Young Salmon *By Carla Sowell*

The Oregon Department of Fish and Wildlife's (ODFW) "Salmon Trout Enhancement Program" (STEP) will once again be undertaking its annual educational program in local elementary and middle schools this year. The program, conducted by Carla Sowell, Experimental Biologist Aide from the Gold Beach office, will engage nine schools from throughout Curry County. The purpose of the program is to teach students the life cycle and habitat requirements of salmon. Sowell will achieve this goal by providing the students with hands-on experience in effort to raise salmon in the classroom

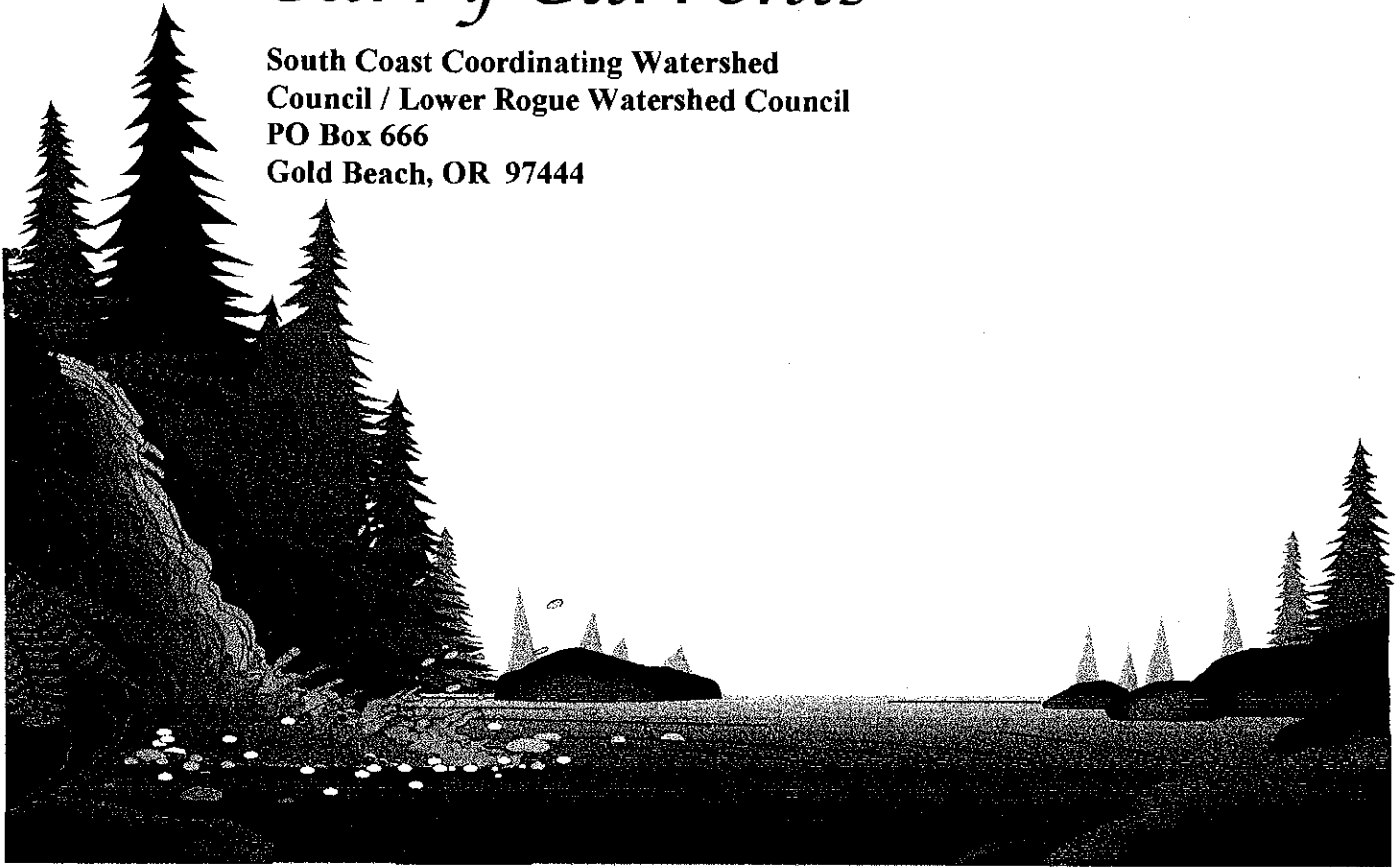
Sowell will present lectures to classrooms and provide teachers with a curriculum, salmon eggs and special insulated aquariums for rearing young salmon. The salmon eggs are brought from Elk River Hatchery and placed in special insulated aquariums for rearing young salmon or so called "fry". Students help raise incubating eggs by monitoring temperature to determine when the eggs hatch and how quickly they mature. She also provides an anatomy presentation and dissects an adult steelhead. This is a highlight for most children; they never again look at fish in quite the same way!

The students monitor the eggs over approximately two months while they hatch and develop into the fry stage. Sowell then leads the class on a field trip where students learn about the importance of riparian zones and fish habitat. Each student is given a plastic glass that contains water and several fry and then release the fish into the stream but not before naming several.

This learning exercise provides a wonderful opportunity for students to become personally involved and assume a genuine role of responsibility and ownership in this valuable natural resource.

Curry Currents

South Coast Coordinating Watershed
Council / Lower Rogue Watershed Council
PO Box 666
Gold Beach, OR 97444



CURRY CURRENTS

Who We Are

Curry County Soil and Water Conservation District: (541) 247-2755

Michael Knapp - Chairman, Earl Lang - Vice Chairman, - Don Smith Secretary/Treasurer,
Keith Smith - Director, Bob Pommarane - Director, Cecil Ashdown - Administrator

Oregon State University Extension Service: (541) 247-6672 or (800) 356-3986

Derek Godwin, Watershed Extension Agent

South Coast Coordinating Watershed Council: (541) 247-2755

Lucie La Bonte² - Chair, Harry Hoogesteger - Coordinator, Cindy Ricks - Monitoring Coordinator

Lower Rogue Watershed Council: (541) 247-2755

Co-Chairs - John Lighty & Steve Beyerlin, Bruce Follansbee - Coordinator

Cindy Ricks - Monitoring Coordinator

Chetco Watershed Council: (541) 247-2755

Roger Thompson - Chair, Ted Freeman - Vice Chair, Angie Dillingham - Secretary

Port Orford Watershed Council: (541) 247-2755

Holly Witt - Chair

Elk/Sixes Watershed Council: (541) 247-2755

Joe Marsh - Chair

Floras Creek: (541) 247-2755

Joe Brown - Chair

Hunter Creek/Pistol River Council, Winchuck Council, Euchre Creek Watershed Council