

# Fish Tales

Maintaining water quality and fish populations from source to sea in the streams of the Umpqua

July 2009



*An excavator lifts a log for structure placements*

## Upcoming Events

- |  |  |
|--|--|
| July 21 <sup>st</sup><br>Tuesday<br>10 am  | <b>PUR Annual Meeting</b><br>Winchester Bay<br>Call PUR for Details              |
| Every 3 <sup>rd</sup><br>Tuesday<br>9 am   | <b>Monthly Council Meeting</b><br>Oregon Department of Fish & Wildlife, Roseburg |
| Every 1 <sup>st</sup><br>Wednesday<br>1 pm | <b>TAC Meeting</b><br>Oregon Department of Fish & Wildlife, Roseburg             |
| February<br>2010                           | <b>Beaver Conference</b><br>Seven Feathers Convention Center, Canyonville        |

## Wolf Creek Project

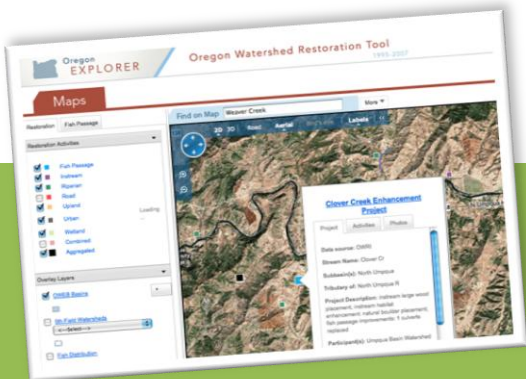
No doubt about it, the Wolf Creek fish habitat project is PUR's largest undertaking to date.

This project is also unique in its scope and goals. "We are working on an entire watershed. Our goal is to improve fish habitat and by doing so increase fish survival," said project manager, Terry Luecker Burleson.

While most fish habitat projects in the region add a few logs and boulders to segments of streams, the scope of this project is to improve the entire watershed. In Phase I, PUR raised \$800,000 to place 1,000 logs and 6,500 boulders in 12 miles of Wolf Creek and its tributary streams. The plan for Phase II is to treat another 4 miles with helicopter-placed logs in 2010 and 2011. Landowners for the project are BLM and Roseburg Resources Company. Roseburg Resources generously donated \$20,000 to support the project.

Though a few of these logs were donated, most were purchased from private landowners with small holdings, providing a boost to the local economy.

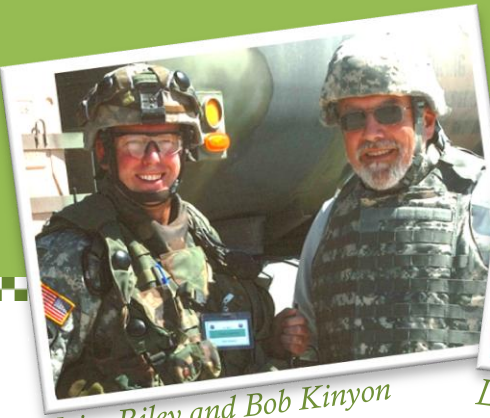
This project was funded primarily with grants from the BLM through the Title II program, and from the Oregon Watershed Enhancement Board.



## Have you seen the Umpqua Explorer?

The Partnership has been working with Oregon State University on the Umpqua Explorer website at [www.umpquaexplorer.info](http://www.umpquaexplorer.info). It is a state of the art, web accessible, natural resources digital library. Check it out!

[www.umpquaexplorer.info](http://www.umpquaexplorer.info)



*Major Riley and Bob Kinyon*



*Lisa Winn*



*Eric Riley*

## The Soldier Amongst Us

After a year of planning and preparing, as a Major with the Oregon National Guard, Eric Riley is being deployed to Iraq.

Eric Riley, while working as PUR's Wetland Project Manager, also serves as a Major in the Oregon National Guard. Shortly Eric and the rest of 162<sup>nd</sup> Infantry Regiment will be deployed to Iraq for a year to year and a half tour of duty. This will be Eric's second deployment to Iraq.

As operations officer, Eric has been training for many months in preparation for his deployment to an area north of Baghdad. He will be serving mostly in a command center as executive officer and operations officer.

PUR's executive director Bob

Kinyon had the opportunity to see Eric in action last August near Boise, Idaho. The entire 41st Infantry Combat Brigade, which includes Eric's regiment, was training in Idaho and invited guardsmen's civilian bosses to come watch them maneuver in the desert heat. Soldiers practiced encounters in villages, working with interpreters, and detecting the presence of improvised explosive devices (IEDs).

PUR will of course miss Eric while he is away, but we are keeping his seat warm for him. Since 2002, Lisa Winn has been a

private consultant for PUR working on riparian restorations and watershed assessments. Last fall she stepped in for Eric as estuary project manager until his return. She is implementing three of Eric's projects this summer, as well as helping to develop several future projects. PUR projects are certainly in good hands.

We couldn't be more proud of Eric's service to our country and we hope he is home safe with his family soon.

## Notes from the Executive Director

❖ 12 years at PUR and each culvert replacement is different. When we replaced the Clark's Branch culvert on Dole Road this fall, there were 3 fiber optic cables and a water main to deal with. We attached the cables to a steel I-beam 60 feet long and 24 inches tall. The AT&T cable had to be placed inside a PVC pipe welded to the steel beam. Now that's one secure project!

❖ We recently received word that the Coos Bay Resource Advisory Committee (RAC) has set aside \$650,000 for Douglas County from their Title II funds.

❖ We applied to the USEPA for a Technical Assistance Grant to provide outreach and information to County residents about the Superfund Site - Acid Mine Drainage - at Formosa Mine that affects 18 miles on Middle Creek, a



*Bob Kinyon*  
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tributary to Cow Creek in the South Umpqua Basin.

❖ PUR is submitting a grant to OR Dept. of Environmental Quality's 319 program for Water Quality Monitoring

❖ Our fisheries technician, Bill  
(Continued on next page ...)

# Focus on the Estuary

“We have two major goals here: improving estuary salmon habitat and restoring wetland vegetation.”



*Dean Creek*

In a short year and a half, wetlands project manager Eric Riley has met dozens of landowners in the Umpqua River estuary, and put together two restoration projects in the Dean Creek watershed.

“We have two major goals here: improving estuary salmon habitat and restoring wetland vegetation. We will place large wood structures in tidal channels to create hiding cover. In addition logs placed within the wetland will be used as nurse logs for planting spruce seedlings.” Riley explained.

The floodplain in the sites to be restored were formerly a spruce swamp that was cut during World War II to supply strong, light wood for airplane construction.

The “nurse logs” in the floodplain will have holes cut into them with chainsaws where spruce seedlings will be planted. This

technique mimics natural processes where spruce trees regenerate on fallen wood. Nurse logs will be anchored in place to aid the establishment of the new trees.

Roads are scarce near the project area, so logs will be placed by helicopter. Because both projects are nearby, they will be implemented this summer simultaneously to save on costs.

Local companies have allowed the 150 logs for these projects to be decked at their facilities until this summer. About 23 complex wood structures will provide habitat for salmonids during their many life stages. The landowners of the restoration sites are Wayne Shammel, and Mark and Lisa Hitchcock.

Funding for the first project comes from the Oregon Watershed Enhancement Board and from the Bureau of Land Management

through the Title II program. Funding for the second project is from mitigation from Knife River Company.

Eric Riley has two additional estuary projects in the planning phase. The first is on Elliot State Forest, in which the Oregon Department of Forestry and the Department of Fish & Wildlife are partners. The second project will be in partnership with the U.S. Forest Service and a private landowner.



*A pile of fish logs*

## Notes from the Executive Director – Continued

... Jones, is working with ODF&W on the North Umpqua River with mitigation funding from Pacific Power.

- ❖ Our summer fish technician crew received funding through next May. They will continue to work with Holly at ODF&W.
- ❖ We’ve restarted our education

and outreach committee in accordance with the strategic plan. Attending our first meeting were board members Amy Amoroso and Stan Petrowski, Keith Barger of Wildlife Safari, and Dave Loomis of the Mercep Umpqua River Foundation. The group is working on a plan entitled “Framework for Education.”

### Recently Awarded Grants

- ❖ **OWEB: \$47,348**  
A Technical Assistance Grant
- ❖ **OWEB: \$366,244**  
More Fish Habitat Restoration
- ❖ **OWEB: \$34,011**  
Oak Creek Restoration

## Council Spotlight: Interview with the President

Last spring, PUR President Amy Amoroso stepped down as the Natural Resource Director of the Cow Creek Tribe, the organization she represented on the PUR Board of Directors. Prior to her four years with the tribe, Amy worked in Colorado for the National Wildlife Federation. She has elected to stay on as council president, much to the delight of the rest of the board. Amy is now a language arts professor at Umpqua Community College and teaches yoga.

**Fish Tales:** You recently coordinated a lamprey workshop. Why the lamprey?

**Amoroso:** There used to be a lot more lamprey in our rivers than today. My point to the feds is: why are you waiting to deal with the problem that is so dramatic? Don't wait for a listing. Be proactive! When a species declines so dramatically, it affects other species. How much we don't know. So we wanted to initiate actions beyond just studies at dams.

**Fish Tales:** What do you see as the biggest challenge facing PUR?

**Amoroso:** There are two. First,

fundraising and diversification of funding, being that Title II is on its way out. We're beginning to address that with the fundraising plan. Second is Bob's retirement. He's really the glue that has held the organization together for so many years.

**Fish Tales:** Do you have any tips for president-elect Stan Petrowski?

**Amoroso:** Yes, we had lunch recently (to discuss this). Get involved in something in depth. Doing that prepared me for this leadership role and relationships with other board members.

**Fish Tales:** What's your main focus at PUR now?

**Amoroso:** Education, getting a plan for the Partnership. I want to do more community events that benefit us and educate the community. I have a secret project in mind for my neighborhood, but after I leave the board.

**Fish Tales:** I guess we'll just have to wait.



*Amy Amoroso*



*Council meeting in Reedsport*

## Eight Fish Passage Barriers Removed on Jordan and Alder Creeks

Using the watershed approach similar to the Wolf Creek project, PUR improved fish passage at 8 barriers in the Jordan and Alder Creek watersheds last summer.

The largest barrier was a 330 foot-long smooth concrete culvert



*One of the new bridges*

under Interstate 5 that was originally constructed in the early 1960s, according to PUR project manager Terry Luecker Bursleson.

"ODOT placed plastic weirs (gravel collectors) on the bottom of the smooth concrete culvert that had been acting as a velocity barrier. ODOT donated the 12-14 inch tall weirs, so fish can temporarily rest behind them," Bursleson explained.

Six landowners were involved in this project, including the Cow Creek Tribe, who made a sizeable contribution to a railcar bridge that

replaced a passage-blocking culvert on their land. Other barriers were addressed by the placement of pre-fabricated three-sided, open-bottomed concrete culverts.

Douglas County provided in-kind installation for this project.

The primary funder of this project is the Oregon Watershed Enhancement Board, who gave PUR a \$407,000 grant for this project.

## Summer 2008 Monitoring Studies

### Umpqua Temperature Study

“We found fish holed in the cooler mouths of tributaries in the lower Umpqua River, while the mainstem was nearing 80 degrees (Fahrenheit),” said Sandy Lyon, PUR monitoring coordinator.

Lyon was part of a crew that floated the lower Umpqua last summer, attempting to locate cold water refugia. The only cold water they found proved to be in very small areas at the mouths of tributaries.

The PUR crew consisted of Sandy and Kris Lyon, accompanied by consultant hydrologist Kent Smith, and volunteer boatman extraordinaire – Vince Fox. The group attempted to verify cold water spots identified on a map made by Oregon Dept. of Environmental Quality. That map used an infra-red remote sensing technique during a flyover of the river. The TIR (thermal infrared) map was color-coded according to temperature bands.

“We placed 19 temperature data loggers in tributaries, and the mainstem, and measured temperature at different depths along cross-sections on the mainstem,” said Lyon. “We expected a cooling influence from groundwater, but did not find it. We found very little temperature change even in the deepest pools.”

The cool temperatures indicated by the TRI map did not, at first glance, appear to turn up on the float trips and was not associated with any measurable upwelling. Kent Smith feels that “The limited time-series data suggests that the TRI variability pattern may be the result of an asynchronous response to daily solar input on different parts of the river. It also appears that this pattern is dynamic, with the daily extremes occurring at different times on different parts of the river.

If this proves to be the case, an enterprising fish could possibly travel with the diurnal minimum as it moves up the river.”

Phase two of this project will begin this summer in an upriver section, working with Oregon DEQ, to provide better information for the modeling, as well as gathering temperature data on the tributaries in this area.

### Effectiveness Monitoring

The PUR monitoring crew also collected pre-project data for the massive Wolf Creek project (see page 1). Summer temperature data was continuously measured above and below the project to detect changes due to the large wood and boulder placements. Physical cross-sections were taken to be able to measure substrate accumulation (gravel buildup) above the structures.



*Cross-section monitoring*

### Volunteer Monitoring

Thanks to our dedicated volunteers we have been able to expand our water quality monitoring efforts into new watersheds: Elk Creek near Tiller, Myrtle Creek, the South Umpqua from Days Creek to Dillard, and the Umpqua River from Roseburg to Reedsport. Temperature, dissolved oxygen, turbidity, conductivity, pH, and bacteria are measured. Thank you to M.A. Hansen, Jean Blair, and Diane Phillips for making this happen.



*Top: Sandy and Vince take a sample  
Bottom: Kris records data*

“We found fish holed in the cooler mouths of tributaries in the lower Umpqua River, while the mainstem was nearing 80 degrees.”



*Kent and Vince look over a map*

“Thanks to our dedicated volunteers we have been able to expand our water quality monitoring efforts into new watersheds.”



## Our Mission

Through collaboration with diverse participants, the Partnership for the Umpqua Rivers maintains and improves water quality & fish populations from source to sea in the streams of the Umpqua.

We educate people about the value of healthy streams; we work with willing landowners to improve stream conditions; we monitor the health of the streams and their fish populations.

Through these actions the Partnership contributes to the ecological and economic well-being of the basin.

### Partnership for the Umpqua Rivers



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## Partnership for the Umpqua Rivers

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