LONG TOM WATERSHED COUNCIL

Bimonthly watershed news and meeting notice

MARCH 2010

Action Through Understanding

January Watershed Council Meeting

Fern Ridge Library

Tuesday, March 30, 2010 @ 5:30 p.m.

Free and open to everyone—refreshments served!

Fish passage barrier results

Meeting host: Jim Pendergrass

- Fish passage inventory results and prioritization

  Intro: Rebecca Flitcroft, Fish Research Ecologist

  Data: Jed Kaul, Long Tom Watershed Council

- Project example: Spencer Creek

  Cindy Thieman, Long Tom Watershed Council

Juvenile Spring Chinook like these were found in the Long Tom River below the Monroe Dam.

Inside:

The Long Tom Watershed Council serves to improve water quality and watershed condition in the Long Tom River basin through education, coordination, consultation, and cooperation among all interests, using the collective wisdom and voluntary action of our community members.

751 S. Danebo Ave., Eugene, OR 97402 · Phone: (541) 683-6578 · Fax: (541) 683-6993

www.longtom.org

MEETING BACKGROUND

FISH PASSAGE INVENTORY RESULTS AND BARRIER PRIORITIZATION

Jed Kaul, Restoration Technician, Long Tom Watershed Council

Resident Cutthroat Trout

Reducing stream crossing barriers is one of the most basic improvements land managers can make to restore native fish species. This past summer, the Long Tom Watershed Council contacted over 400 landowners and completed surveys for 275 culverts within the watershed. After analyzing the data, we found that 82% of those culverts are barriers to cutthroat trout, preventing them from reaching spawning habitat or cooler water in summer. There are over 200 barriers in the Long Tom Watershed—43 of those are high priority sites. The Coyote Creek subbasin has the highest number of high priority sites with 20.

Cutthroat trout are currently found in the Long Tom River, as well as many of the tributary streams. Three "life histories" of cutthroat trout are present in the Long Tom Watershed: *resident* fish that spend their entire lives in one stream, *fluvial* cutthroat that migrate between rivers (like the Long Tom and the Willamette), and *adfluvial* fish that migrate in and out of large freshwater bodies (like Fern Ridge Reservoir). Cutthroat trout need to move up and down stream to find suitable habitat to spawn and to access cooler waters containing higher levels of oxygen, especially in summer. Most people are surprised at how a small stream not only has fish but can have great habitat for them.

This culvert creates a barrier due to the high water velocity **coming out, even though it doesn't appear to be a jump height** problem. Even small jumps, 4-**6", can be a problem for juveniles.**

Culverts and other stream crossings are considered barriers if:

- The water isn't deep enough to swim through (In order for fish to pass through a culvert, the water depth needs to match the depth of the stream and allow fish to be completely submerged.)

Would you like a presentation about the watershed and our Council?
Would your organization like to talk about ideas for collaboration?

Please call Dana Dedrick at 683-6578

MEETING BACKGROUND (CONTINUED)

FISH BARRIER PRIORITIATATION: COYOTOE & SPENCER CREEK SUBWATERSHED MAP

- There is excessive water velocity or sudden changes in velocity (In general, 2 feet per second (fps) or greater for juvenile cutthroat and 4 fps or greater for adults)
- It creates an excessive jump height (Juvenile cutthroat can only jump 4-6 inches!)

Passage barriers also isolate fish populations from one another and make it more difficult to exchange genes. Lower genetic diversity increases a population's risk to disease, competitors, and decreases their ability to respond to environmental changes such as change in water temperature. Barriers also cause higher densities of cutthroat, which compete for resources and spawning habitat and reduce the health of the population overall.

Priority Barriers:

Using GIS to analyze the culvert survey data, we've identified priority sites eligible for removing passage barriers for cutthroat trout. These sites present an opportunity to improve conditions not only for cutthroat trout, but for other native fish such as lamprey and sculpin.

The Long Tom Watershed Council applies for grant funding to address fish barriers while still maintaining access for landowners.

We look forward to furthering our partnerships with landowners and improving conditions for fish populations with this new information.

This culvert is significantly "perched", creating a barrier to juvenile and adult fish trying to move upstream.

Thank you!

Funders: Oregon Watershed Enhancement Board , Meyer Memorial Trust.

Technical Expertise: Rebecca Flitcroft, Pacific Northwest Research Station,

Culvert survey training: biologists from Bureau of Land Management, Roseburg office

AND

The many landowners who gave permission to survey and are interested in local fisheries.

What habitats do you have and could you enhance them?
What can you do about the health of your stream and riparian area?

Call our Restoration Team—Cindy at 683-2983 or Jed at 683-6183—to discuss project possibilities

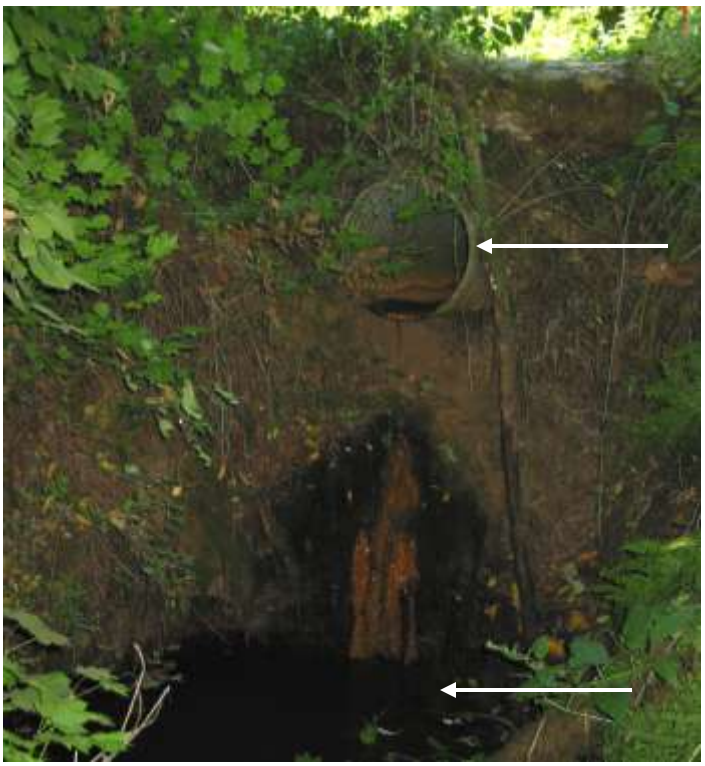
SPENCER CREEK TRIBUTARY AND FISH PASSAGE IMPROVEMENT PROJECT

BACKGROUND AND PROJECT DESCRIPTION

This project replaced two culverts at road crossings on a tributary to Spencer Creek. This stream provides good winter rearing habitat for juvenile cutthroat trout and spawning gravels for adults.

The two culverts, about 100 yards apart, were both undersized and perched several feet above the stream bottom at their outlet, which created fish passage barriers and elevated stream bank erosion. We conducted macroinvertebrate sampling on this stream as part of our watershed-wide study and found good physical habitat conditions, excellent shade along the channel, and a diverse insect community that is good food for fish.

The Long Tom Watershed Council has ranked fish passage improvement as a top priority for Council action, and the Oregon Conservation Strategy (OCS) also lists fish passage conservation as a recommended conservation action for the Willamette Valley ecoregion. OCS cites habitat fragmentation, or actions that increase population isolation, as a limiting factor for cutthroat trout. This project directly addressed both of these issues. Other limiting factors for cutthroat in the Long Tom Watershed include a lack of instream habitat diversity and spawning gravels. Removing these culverts expanded access to existing gravel upstream and may help improve instream habitat by passing woody debris and coarse sediment downstream.



Before the project: The culvert blocked upstream fish passage due to the severe perch (top arrow) at its outlet. The stream is several feet below (bottom arrow).

After the project: The upstream culvert was replaced with a stream-simulation pipe arch culvert that allows cutthroat trout and other native aquatic species to migrate upstream. By counter-sinking it, the bottom simulates a stream bottom. This, or a bridge, is the best design to benefit fish as well as turtles and other stream life.

Project Site: ★

SPENCER CREEK FISH PASSAGE (CONTINUED)

PROJECT GOALS AND OBJECTIVES

The goal of this restoration project was to replace two undersized culverts on a tributary to Spencer Creek. Project objectives include:

- Allow access to high-quality habitat, including seasonal spawning ground, for cutthroat trout and other aquatic species
- Decrease downstream erosion from undersized culvert due to increased stream velocities
- Allow movement of large wood and debris through culvert during high flow events

RESTORATION TECHNIQUES

Bridges were considered at both sites, but given the small size of the stream and the relative cost of a bridge, larger, counter-sunk culverts were chosen as the appropriate design for the crossing. The new culverts, at 67" tall by 95" wide, were designed to be able to pass a 50-year flood event. The original culverts they replaced were approximately 24" in diameter.

The new culverts were counter-sunk 24" feet below the stream grade and then brought back to grade by installing boulders and cobbles. After one winter, the stream had sealed up the new streambed inside the culvert with fine sediment from upstream.

Construction: Contractor Dennis Cole places the new culvert in the streambed.

Construction: Contractor Forrest Laiche installs boulders and cobble throughout the length of the new culvert to create a continuous streambed.

PROJECT BENEIFTS

- This project opened up 0.5 miles of spawning and rearing habitat for resident cutthroat trout and other aquatic species. Juvenile trout can now use important habitat upstream of the culverts for winter rearing during high flow events.
- Sedimentation of Spencer Creek was diminished by stopping erosion at the outlet of the culvert. High sediment levels increase turbidity and decrease water quality.
- The increased culvert size allowed for the normal movement of large wood and debris.

PROJECT FUNDING & SUPPORT

Project Cost:	$46,175
OWEB Funding:	$36,095
Landowner Match:	$10,080

Partners

Derek Jaros, *Landowner*
Oregon Watershed Enhancement Board

The Long Tom Watershed Council thanks our partners and funders!

Watershed Calendar & Announcements

Council Meetings

Fish Passage Barrier Results: Tues, March 30

- Results from the Fish Barrier Study 2008-10—where are fish able to access good habitat, and where are they blocked?
- How to replace a culvert that is blocking fish.
- Issues in local fisheries

Free, with refreshments. 5:30—7:30 p.m. Fern Ridge Library, Veneta.

Project Tours:

Coyote Creek at Atkinson's: Tues, April 27

Owens Creek at McFadden's: Tues, May 25

Free, with refreshments. 5:30—7:30 p.m. Various watershed locations and date can change due to site availability. Stay tuned!

Contact: Dana Dedrick, 683-6578
www.longtom.org

McKenzie River Trust: Upcoming Events

The Living River: April 2 to May 1
Jacobs Gallery, Hult Center, Eugene; Opening Reception—Fri, April 2, 5:30 - 8.30 p.m.
Over 60 regional artists explore their interactions with and responses to the rivers in their lives and communities in this juried art exhibit of 81 diverse works.

River Webs – Wed, April 7, 7 p.m.
Studio, adjacent to the Jacobs Gallery: Hult Center
This documentary film offers a rare view beneath the surface of rivers and streams and focuses on life, death, and science.

Ritual Space and Urban Rivers – Wed, April 14, 7 p.m.
Studio, adjacent to the Jacobs Gallery: Hult Center
Portland architect William C. Tripp will be speaking on his vision of urban rivers and a perspective on the choices necessary when a river runs through a city .

Kesey's Living Rivers – Fri, April 23, 7 p.m. Studio adjacent to the Jacobs Gallery: Hult Center
Kesey biographer Robert Faggen speaks about the iconic Northwest storyteller's work.

Wild Comfort: the Solace of Nature – Wed, April 28, 7 p.m.
Studio, adjacent to the Jacobs Gallery: Hult Center
Author and environmental philosopher Kathleen Dean Moore will speak about how rivers and nature are an integral part of human health. New book: *Wild Comfort*

For more information call 345-2799, or visit

WREN Wetland Wanders and More

Eggs and Nests
Saturday, April 3, 10:00—11:30 a.m.
Discover the beauty and wonder of wetland bird nests and eggs. During the program, participants will have the opportunity to paint an egg to take home. For more information call 683-6494 or email info@wewetlands.org

Wetland Wander and Steward Park Natural Area
Saturday, Tuesday, April 13, 9:00—10:00 a.m.
Wetland Wanders are casual walks through various West Eugene Wetlands sites on the second Tuesday of each month. This month we walk along the Tsanchiifin Trail. For more information call 683-6494 or email info@wewetlands.org

Contacts for volunteer opportunities:
Long Tom Watershed Council: 683-6949
WREN: 683-6494
Nearby Nature: 687-9699
City of Eugene, Parks Volunteers: 682-4845
City of Eugene Stream Team: 682-4850

Watershed Announcements

Potential continuation of grant funding for watershed work

Currently, 15% of state lottery proceeds go toward parks, beaches, and wildlife—7.5% of that to salmon and watersheds. A portion of that is available for competitive grants like the ones we apply for to support the watershed council and to conduct assessment, monitoring, education, and restoration activities. There is a "Water Parks and Wildlife" ballot initiative that would continue allocating the 15% to water, parks and wildlife habitat indefinitely (current legislation ends in 2014). Currently, supporters are gathering signatures for the June 30, 2010 deadline for placement on the November 2010 ballot. The campaign organizers are people from The Nature Conservancy, Trust for Public Land, and other conservation groups. The original 1998 measure was broadly supported by environmental and industry groups as a locally-based, non-tax approach to Oregon natural resource issues. For more information, please contact (503) 206-8933.

Signature Gatherers & Donations Needed

Oregonians for Water, Parks and Wildlife

a project of The Conservation Campaign
1125 SE Madison St #102, Portland, OR 97214 • (503) 206-8933 campaign@waterparkswildlife.org • www.waterparkswildlife.org

YES! I WANT TO HELP!

❒ I can help collect signatures at events and stores.

❒ Please send a starter packet so I can gather signatures from friends.

I'll help the campaign with a contribution of:

☐$250 ☐$100 ☐$50 ☐$35 ☐$25 ☐Other_____

Name_____

Street Address_____

City, State, Zip_____

Home Phone_____ Cell_____

E-mail_____ _____

For Donations Only:

Credit Card #_____ Expiration Date_____

Name on card _____Signature_____

*Occupation_____

*Employer's Name, City, State_____

** Information required for contributions by state law*

Our Watershed & Council

Action Through Understanding

Steering Committee

Lower Long Tom
Jason Hunton
Jim Pendergrass, *Treasurer*
Chad Stroda

Upper Long Tom
Patti Little
Carl Harrison

Amazon
Peg Boulay
Eric Wold, *Vice-Chair*
Brad Taylor, *Chair*

At Large
Kat Beal, *Secretary*
Kim Carson
Steve Cole
Rich Reeves
Deborah Saunders-Evans, *Vice-Chair*
Tony Stroda, *Past Chair*

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STAFF

Watershed Coordinator / Executive Director: Dana Dedrick 683-6578
Restoration & Monitoring: Cindy Thieman 683-2983; Jed Kaul & Josh Harrison 683-6183
Fiscal Manager: Amanda Wilson 683-6949
Operations Manager: Rob Hoshaw 683-6949

Please Support the Council

Support the work of the Long Tom Watershed Council!

The watershed council model is based on building a shared community approach to solving natural resource issues. The success of this approach depends on community involvement and support. We hope this will include your help. There are many ways to support the Council's work - volunteering, attending meetings and tours, and equally as crucial–donating funds.

The Council has a 11-year history working with watershed residents improve water quality and habitat through learning and action. We just hit a milestone of 30 completed restoration projects. Since most of the land in our watershed is privately owned, much of this education and restoration work involves developing relationships with private landowners and supporting their efforts to be stewards of their land. In addition to the watershed benefits, this work also contributes to our local economy—over 90% of the restoration grant dollars that the Council brings in are spent in this county—on local contractors, suppliers, businesses, and employees.

The Council does more than restoration—we are the only entity that monitors water quality and stream health throughout the basin, and we share watershed information with the community. Council meetings, tours, and discussions stimulate learning and problem-solving. We also partner with local agencies and organizations to address the crucial, big picture issues in our watershed that no one entity can tackle alone.

With your support, we can continue to enhance and restore the ecology of our watershed that sustain our quality of life and create partnerships that cross all boundaries.

Yes, I'd love to help with a tax-deductible donation to the Long Tom Watershed Council to improve water quality and the watershed in my community!

Your name: _____

Mailing address: _____

City: _____ State: _____ Zip Code: _____

*Phone: _____ *Email: _____

Note:The Council will not release your personal information to other organizations.

☐ Check here if you'd like to receive our newsletter and other announcements via email

Amount Enclosed: $ _____

Please make your donation check payable to Long Tom Watershed Council. Send completed form and tax-deductible donation to:

Long Tom Watershed Council
751 S. Danebo Ave.
Eugene, OR 97402

THANK YOU!

Questions?
Dana Dedrick
Executive Director
683-6578

Upcoming Meeting: Where are fish blocked from good habitat in the Long Tom Watershed and what can be done?
TUESDAY, MARCH 30, 5:30 p.m. — FERN RIDGE LIBRARY, VENETA

Long Tom Watershed Council
Phone: 683-6578
e-mail: coordinator at longtom.org
www.longtom.org
751 S. Danebo Avenue
Eugene, OR 97402

MARCH WATERSHED COUNCIL MEETING
Tuesday, March 30, 5:30 p.m. — Fern Ridge Library, Konnie room

Directions to Fern Ridge Library

From Eugene, head west on **West 11th/Hwy 126** to **Veneta.**

At the traffic signal head **south/left** on **Territorial Rd** for about 1/2 mile from junction of 126 and Territorial Rd (by Bi-Mart).

The **Fern Ridge Library** is on the right (or west) side of the road, and the meeting is in the **Konnie Room** (on the south side of the building).