Johnson Creek Watershed Council
Within Your Reach
reach: a) a portion of a stream or river b) an extent, esp. of knowledge or comprehension

Gateway To The North Fork

- Chuck Lobdell, JCWC

The replacement of the lower-most fish passage barrier in the North Fork of Johnson Creek was completed in the summer of 2017! Located under the Springwater Trail just upstream from the confluence of the North Fork with Johnson Creek proper, this culvert replacement is part of a comprehensive effort addressing the length of the North Fork in partnership with Multnomah County and the East Multnomah Soil and Water Conservation District.

The project, which began in 2015, had a couple "passage barriers" of its own along the way. The summer of 2017 began with our project being 90% designed and with most permits pending issuance. The project was one of several initiated with the idea that the Council would provide funding and management, Inter-Fluve would be our contract engineer, and a private contractor would implement the projects. Unfortunately, we were not able to secure a written agreement with the contractor involved and had to put the project out for bid in July.

As we worked through the final stages of permitting, and securing an agreement with a new contractor, we also had to re-design our traffic control plan for bicycle/pedestrian detour safety. This was no simple task, as Telford road is both a narrow roadway and has narrow shoulders, but we got the final design approved at the eleventh hour (literally). The final design exceeded our budget, but thankfully the City of Portland's Parks and Recreation Department was able to pay for the traffic control implementation which ultimately made the project go.

(*Continued on page 3)*

Springwater Trail detour near North Fork and Main Johnson Creek confluence.

Building A Reservoir Of Beaver Data

- Alexis Barton, JCWC

Beaver believers curing the fever.

This summer we directed the second season of JCWC's Beaver Surveys. Beaver dams create cool water habitat that supports salmon and other wildlife. Data collected over time will inform project managers of how beaver behave in an urbanized watershed, where they are geographically resource-limited.

JCWC trained 33 volunteers who surveyed ten reaches of the creek, and City of Gresham AmeriCorps members surveyed an additional four. Surveyors walked mile-long reaches of Johnson Creek and its tributaries, carefully recording signs of beaver activity.

The results are coming in! In addition to dams and lodges, data was recorded when there was a significant amount of other beaver sign: bank tunnels, mud slides, beaver chews, canals, and scent mounds. Surveyors found 40 dams and 3 lodges, and a whole lot of other beaver activity signs!

Thanks to EMSWCD for providing the funding for this project, and Kate Holleran from Metro, our scientific advisor on this project. Stay tuned for more on our findings!

DIRECTOR'S DESK

Say Hello To eDNA!

- Daniel Newberry, JCWC

Johnson Creek is the only free-flowing stream in Portland with coho salmon. For the past six years our volunteers have walked stream reaches in search of salmon redds and carcasses. While we've documented coho in each of these years, the numbers have been low. This might naturally lead you to the conclusion that the coho population is low. We had a similar experience this past winter and spring with our first steelhead & lamprey spawning surveys.

One of the difficulties in documenting redds and carcasses in urban streams, as our community scientists will tell you, is that we have a lot of rain from October to May and that rain creates turbidity. A new technology—eDNA—shows great promise for documenting salmon and lamprey. This "environmental DNA" technology filters biological material from stream water and tests the resulting DNA against known DNA of species you request. If you get a positive result for say, coho, it means that coho are present upstream from your sampling location. The stronger the test result, the more numerous the upstream population.

This past summer, Portland's Bureau of Environmental Services (BES) began DNA testing in Crystal Springs Creek for steelhead, coho, Pacific lamprey, and cutthroat trout. All four species were found at multiple sites. In particular, Pacific lamprey was found up to 28th Avenue, near Reed College. Since lamprey are notoriously difficult to find in any life stage, this new technology has the potential to discover the range of aquatic species in ways not possible with visual monitoring. BES is taking samples for us at some of our fish passage project sites. This will help us discover how soon salmonids and lamprey use the newly opened habitat made possible by repairing or removing culverts. Stay tuned!

Credit: DNA illustation by Zephyris at Wikipedia; used under Creative Commons license.

NEW GRANTS

The Nature Conservancy/Portland General Electric – "North Fork Johnson Creek Open Migration" - Replace and retrofit 2 culverts. This culvert replacement project is part of a larger, multi-partner project that will significantly improve fish passage by replacing or retrofitting seven fish passage barriers on North Fork Johnson Creek. ($25,000)

Oregon Department of Environmental Quality – A 319 grant to support the removal an artificial in-line pond that is a significant contributor to elevating the temperature of Mitchell Creek. JCWC has monitored temperature above and below the in-line pond for several years and has documented as much as a 14C rise in temperature. ($25,000)

Environmental Services City of Portland – To raise awareness and celebrate salmon recovery and restoration, JCWC was selected as part of their Salmon Sanctuary program. ($5,000)

Meyer Memorial Trust – support for our Equity and Inclusion Plan that provides a strategic road map for increasing diversity, equity and inclusion into the Council's organizational structure, operations, marketing and communications. ($67,305)

GIVING NEWS

JCWC In The WW Give!Guide Again

Last year, Willamette Week's Give!Guide campaign raised more than $4 million from 9,324 individual donors in their online Give Guide. JCWC was one of 140 participating Metro-area nonprofits. This year JCWC is back again.

From November 1 through December 31, please considering giving to JCWC and your other favorite nonprofits online at giveguide.org. There are several "Big Give" days where those who donate on that day are entered into drawings for large and very cool prizes.

On November 30, from 7-9 p.m., JCWC will host a Give!Guide party at Coalition Brewing, complete with prizes of our own for folks who have donated in the month of November and watershed-themed games. Coalition Brewing is generously donating a free beer to everyone who donates on November 30, a Big Give day! Check our website for details.

THANK YOU MODA

Thank you Moda!

We would like to express our gratitude to Moda for printing our newsletters.

A bicyclist enjoys the safety of our traffic control plan.

Excavation of the old, undersized culvert.

(*Continued from page 1)*

The North Fork of Johnson Creek was historically accessible to anadromous salmonids, and still has potential as good spawning and rearing habitat for salmonids and other native fish species. Like other tributaries in upper Johnson Creek, the North Fork's key features for salmonid habitat are forested riparian areas for much of its length and cold water refugia. Special thanks to our funding partners: Metro, National Fish and Wildlife Foundation, The Nature Conservancy/Portland General Electric, Portland Parks and Recreation Department and Inter-Fluve!

The new, 12 foot culvert in its new home!

The finished product; the gateway to the North Fork!

What Do the Bugs Say? Aquatic Insects Tell All!

- Noah Jenkins, JCWC

Johnson Creek and its tributaries host a wide variety of fascinating creatures. While salmon, eagles, and other iconic animals tend to grab the spotlight, their presence depends on a less showy realm of the animal kingdom: aquatic macroinvertebrates.

These spineless, inconspicuous creatures live under rocks and on plant debris in streams, where a keen-eyed observer might find them chewing on fallen leaves (or each other!), making their nutrients available to juvenile salmon and other fish that rely on these bugs as a source of food.

Aside from their critical role in the stream food web, they are also very useful to scientists seeking to understand watershed health and processes, since different bugs show different levels of tolerance for high temperature, sediment, and other pollutants.

For the past eight years, partners from the Inter-Jurisdictional Committee for Johnson Creek (IJC) have teamed up on an annual macroinvertebrate sampling effort to study what bugs are where in the watershed, and what that might mean. Staff from JCWC, Oregon DEQ, the cities of Portland and Gresham, the East Multnomah SWCD, and Multnomah County collect samples according to a set protocol: A total of eight locations are sampled from riffle habitat over a 150 meter stream reach. These are aggregated to represent the site overall. Field identification of macroinvertebrates can generally only get as far as family; in order provide the most useful data, we need the samples identified to species, which requires looking at microscopic differences. We therefore preserve samples in the field and send them to a lab for specific identification.

The sites are all part of the Oregon Master Sample, a set of random study points on streams throughout the state that allows for statistical comparison between watersheds. We typically sample five or six sites each year; these sites make up a "panel." In order to get a longer-term picture of stream health, the panels are re-sampled on a four-year rotation; we just completed the second full rotation of all the panels. The City of Portland also does its own, more intensive sampling using the same protocol, allowing us to pool all of our results.

What have we learned so far? The good news is that there are several streams in the watershed—such as the upper reaches of Kelley,

Chastain, and Butler creeks (all in Gresham)—that have very healthy macroinvertebrate communities! These streams originate on forested buttes where large, protected natural areas keep the biotic community healthy. This makes an argument for continuing to protect these areas.

Johnson Creek, and many tributaries with significant development, show broad impairment to the bug community: no one issue stands out based on the data, so this impairment is likely due to a combination of factors (temperature, sediment, other water quality issues, and/or habitat loss).

An interesting finding is that the degree of impairment has more to do with upstream, watershed-scale impacts than the conditions of the immediate riparian zone; a site with lots of development upstream is likely to show impairment even if the riparian area at the sample site is healthy. So, while streamside restoration provides important benefits, our efforts need to reach the whole watershed to provide the best chance of success in helping macroinvertebrate communities—and, by extension, the biota that depend on them—return to health.

New Summer Interns in 2017

Our interns make our work possible, doing many things including spreading the word about JCWC, supporting events, acquiring donations, and entering the data that makes the volunteer program run like a well-oiled machine.

Jeff Pryor: An environmental engineering student at PSU, Jeff has done quite a bit of tabling outreach at events, and supported the coordination of the Science Symposium.

Mike Parks: A Fisheries and Wildlife Science student at OSU, Mike was our database guru, did some deep cleaning on our data, and supported the Clean-Up.

James Nault: An Environmental Studies major with a double minor in Writing and Sustainability at PSU, James supported a large chunk of recruiting for the Clean-Up, and supported the Amphibian Eco-Blitz, as well as many other tasks including power washing the courtyard at the office, hauling trash for the Clean-up, and doing projects around the office.

Shandi Hunt: An Environmental Studies and Business major at PSU, Shandi has helped us with tabling outreach, Clean-Up planning, a ton of data management, promoting our Science Talk, and donations acquisitions for our donor party.

Breanna Briggs: An Environmental Studies major at PSU, Breanna has helped us with tabling outreach, our Lichen/mushroom/moss Eco-Blitz, and did a big outreach push for our fall events.

We've teamed up with Urban Forestry to organize a tree giveaway in the Centennial neighborhood, one of the least-treed neighborhoods in the watershed. Two JCWC interns will be helping to spread the word to the Centennial neighborhood and surrounding areas.

Jennifer Mora: Jennifer holds a Masters in Environmental Engineering and is helping do community outreach for our Tree Giveaway with Urban Forestry.

Kyza White: Kyza is a PSU Environmental Studies graduate and is helping to do community outreach for our Tree Giveaway with Urban Forestry.

We've kicked off the Multi-lingual Johnson Creek program, whose interns will be translating JCWC outreach materials and organizing a nature-based event for their community members.

Abdulahi Abib: volunteers with AYCO (African Youth Community Organization), and will be translating into Somali.

Phuc Le Nguyen: is a member of APANO's youth group ALLY (API Leaders for the Liberation of Youth), and will be translating into Vietnamese.

Planning For The Future

In May, the Johnson Creek Watershed Council Board of Directors adopted a new **five-year strategic plan**. This plan does not prescribe our project content—that was laid out in our 2015 Action Plan—it introduces a framework, with objectives, for *how* we do business.

Earlier this spring, we adopted our first **Equity Action Plan**, a document with a road map for improving JCWC's community inclusion, and for achieving our equity goals.

Both plans were designed to work together and we will evaluate our progress annually, to ensure that these documents really do guide our actions. To read the full text of either plan, visit our website, *jcwc.org*, and click on the menu item "About Us."

The **Equity Action Plan** covers three areas: ***Governance*** (how we do business), ***Facilities*** (creating a welcoming environment), and ***Building Community*** (through our volunteer and outreach programs). The goals are listed below. Each goal has one or more associated tasks.

The goals cover topics such as:

- Creating a diverse staff, board, and volunteer base.
- Serving the needs of diverse communities.
- Expanding our workforce development programs to provide job training for under-served communities.
- Making outreach materials available in multiple foreign languages.

Recent grants from the Collins Foundation and Meyer Memorial Trust will help us implement this plan through funding for a new Community Outreach Coordinator.

The **Strategic Plan 2017-2022** has five goals, which are listed below. A total of 29 objectives are included as part of these goals.

The goals cover topics such as:

- ***Goal 1: Building Community.*** Johnson Creek Watershed Council is a community of those people and organizations that live, work, play and pray in our watershed. All community members are welcome at our events. We work to engage the community in all aspects of our restoration and educational work.
- ***Goal 2: Organizational Sustainability and Governance.*** JCWC is a well-established, respected, sustainable organization with the human and financial resources and effective stakeholder partnerships to carry out its program plans and actualize it mission.
- ***Goal 3: Restoration and Monitoring.*** JCWC is guided by a comprehensive scientific framework for watershed health based primarily on the document JCWC Action Plan: 2015-2025. Projects are chosen and scheduled strategically.
- ***Goal 4: Inter-Organizational Coordination and Participation.*** Partners are essential to our work and our success.
- ***Goal 5: Facilities.*** JCWC is truly place-based: its office is a welcoming community hub and gathering place, provides a productive workspace, and supports the Council's activities.

Welcome Chuck!

Chuck Lobdell recently joined the Johnson Creek Watershed Council as the Restoration Project Manager.

A University of Idaho graduate (B.S. Fisheries, '93; M.S. Wildlife, '96), Chuck brings 21 years of experience in protecting and restoring floodplain and estuarine habitats, with a special emphasis on fish passage design.

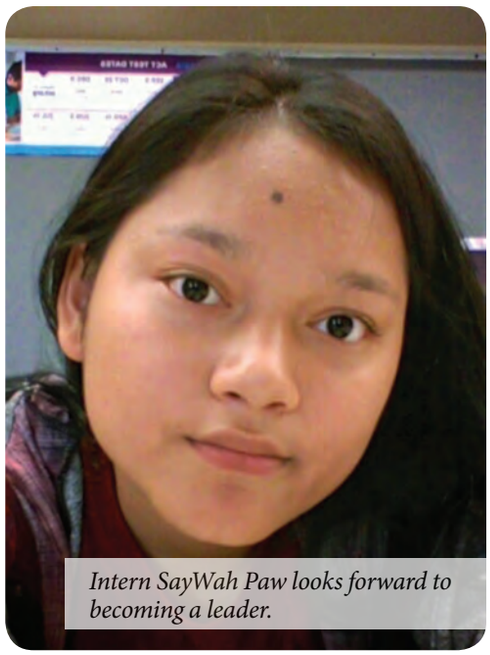
From site selection and project initiation to project design through construction and final inspection, he is intimately familiar with developing and implementing successful aquatic restoration projects. His expertise includes restoration of historic floodplain/estuary condition, restoration with adaptive management to accommodate management or exclusion of invasive species, replication of natural wetland hydrologic functions where floodplain function cannot be restored, and addressing fish passage needs.

Chuck also has considerable experience restoring habitats to address specific needs of rare amphibians and reptiles, including projects that were designed for western pond turtles and red-legged frogs.

Working with Oregon State University, he also initiated and led a regional fisheries monitoring program that produced the most complete ecological assessment of juvenile salmonid use of floodplain habitats to date. These works focused on monitoring how and when juvenile salmonids seek to utilize off-channel habitats to better understand key restoration design factors.

Intern Spotlight

Say Wah Paw was an incredible intern for the volunteer program this year. She is a junior at David Douglas HS, loves being outdoors and connecting with nature. Her primary role at the council was as a 10th Annual Clean-Up intern, where 238 volunteers removed more than 5 tons of trash from 7 miles of the creek! Her people skills, commitment, drive, and genuine caring attitude were a joy for all of us at the Council. Thank you, Say Wah for all of your hard work this summer!



Intern SayWah Paw looks forward to becoming a leader.

Why do you care about Johnson Creek?

Because it's one of the only salmon bearing streams in the Portland area. It's not trashed, it's people who are trashing it and we are working hard to clean it up so it can continue to support the animals that still live in the creek.

What was your primary project here at JCWC?

I helped to prepare for the 10th annual Clean-up, which involved a lot of outreach and a lot of paperwork! I entered data into the database and talked to lots of new people at our tabling events. It really helped me with my comfort level and public speaking. I got to talk so much that I didn't want to stop!

What was your favorite part of working at JCWC?

Tabling and outreach were my favorite parts because when you're face to face with someone you can tell the expression on their face and you can pull them into the conversation with eye contact. Also I liked teaching people and learning from them, too. Also I liked working with so many supportive staff and volunteers at JCWC.

What surprised you? Did you learn anything new?

The amount of paperwork surprised me, and I didn't think I was very good at computers when I first came into the internship. What also surprised me was that I improved and I really GOT the process and felt comfortable working with the database by the end of my time with JCWC.

How do you hope to carry your experiences at JCWC forward into the future?

I hope I can be more of a leader now. Usually I'm a follower but the tabling especially helped me to become a leader. It also helped me improve many of my skills, for future interviews or jobs. I also learned a lot about Johnson Creek and that helps me in conversations with people in my everyday life. Most people don't even know they're in a watershed!

Johnson Creek Watershed Council
1900 SE Milport Road, Suite B
Milwaukie, OR 97222

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Upcoming Opportunities

Find details, registration, and more at our online Events Calendar: ***www.jcwc.org/events-calendar.***

Holiday Fundraising Party
Thu, November 30th, 7 PM - 9 PM
Free, though donations are requested
Coalition Brewing, 2705 SE Ankeny St, Portland, OR

Work Party with Friends of Tideman Johnson
Sat, December 2nd, 9 AM - 12 PM
Tideman Johnson Park

Volunteer Appreciation Dinner
Fri, December 8th
Mt Scott Community Center

Restoration Planting
Sat, December 9th, 9 AM - 12 PM
Johnson Creek Park

Restoration Planting
Sat, December 16th, 9 AM - 12 PM
Errol Heights Park

JCWC Board Meeting
Tue, January 16th — *Open to the public!*
JCWC Office: 1900 SE Milport Rd, Milwaukie

Creek Crew Training
January 2018
More details soon!

Park Stewards Orientation
January 2018
More details soon!

SAVE THE DATE!

20th ANNIVERSARY WATERSHED WIDE EVENT!

March 3rd, 2018
Taking place at multiple locations throughout the watershed!

Johnson Creek Watershed Council
1900 SE Milport Road, Suite B
Milwaukie, OR 97222
503-652-7477
JohnsonCreekWC

Alexis Barton
AmeriCorps Outreach & Riparian Specialist

Courtney Beckel
Volunteer Coordinator

Cathy Geiger
Operations & Finance Coordinator

Noah Jenkins
Riparian Program Manager

Daniel Newberry
Executive Director

Chuck Lobdell
Restoration Project Manager

Newsletter design by Kyung Lee - www.kyungblee.com