



Johnson Creek Watershed Council

Within Your Reach

reach: a) a portion of a stream or river b) an extent, esp. of knowledge or comprehension



JCWC aims to replace this dilapidated culvert at Badger Creek with a new, fish-friendly one in 2016.

Focus On Fish Passage - Daniel Newberry, Executive Director

The Council's new focus on improving fish passage is the next step in a multi-year process. Narrow culverts can hinder salmon and steelhead's long journey as they travel to their natal stream from the ocean. Once a salmon reaches fresh water, it stops eating, so any extra energy expended lowers the chances of reaching its intended spawning ground. Each time it has difficulty negotiating a culvert or other obstacle—whether or not it is successful—the effort is exhausting.

While repairing or replacing every difficult culvert is an ideal solution, it is also prohibitively expensive. So in 2013, we surveyed approximately 340 culverts throughout the watershed with help from students at Portland Community College and Portland State University. In 2014, the data was entered into the Anadromous Fish Passage Optimization Tool (APASS) modeling software to prioritize the culverts that proved to be fish passage barriers. APASS considers not only barrier severity and the number of miles each culvert blocks, but also the cost of construction. The end result is a cost-benefit analysis of fixing fish passage problems in the watershed.

After several runs of this model, we settled on 15 culverts in the Johnson Creek Watershed we feel we can restore—and raise the funds to restore—in the ten years covered by our new action plan.

We are planning two projects for 2016. The first is on Badger Creek under the Springwater Trail near Rugg Road between Gresham and Damascus. We will be replacing three undersized damaged culverts with a single culvert. The new, wider culvert will be countersunk below the streambed surface to prevent scouring below the outlet and ensure a wider, non-constricting flow. This project is a partnership with Portland Parks & Recreation, the owner/manager of the Springwater Trail.

The second is a maintenance project on the North Fork of Johnson Creek where it passes under Highway 26. This project is a partnership with the Oregon Department of Transportation and includes adding a series of step pools below the culvert, which will raise the stream's water level at the outlet and slow the velocity of the current.

RECAP: JCWC 20th Anniversary

We just had a big birthday! The Johnson Creek Watershed Council is no longer a teenager—we recently celebrated our 20th anniversary on May 21 with a gala event at Reed College.

Co-founder and former board Chair Walt Mintkeski gave a presentation highlighting JCWC's significant accomplishments during the past 20 years. Robin Jenkinson, our staff Watershed Science Director, discussed the Council's new 10-year Action Plan—that she wrote in collaboration with the JCWC Board and the Interjurisdictional Committee.

Thank you to the 187 supporters who joined us at Reed College for the event. Through business sponsorships, donations and a silent auction, the Council raised \$23,000! The Celebration has proven to be the pivotal gathering opportunity for jurisdictional partners, residents, volunteers and businesses — who all come together to support our mission and celebrate recent accomplishments.

Every year, the Council recognizes five key partners who best exemplify our mission over the past year with a Riffle Award. The recipients for 2015 are:

- **Business:** Walker Emulsions
- **Government:** East Multnomah Soil and Water Conservation District
- **Individual/Ernie Francisco Award:**
Kevin D. Hay
- **Nonprofit/Community Group:**
Confluence Environmental Center
- **School/Youth Group:**
Mt. Scott Learning Center

Special thank you to our 2015 sponsors:

- Aquatic Contracting • Brown and Caldwell • CH2M Hill • City of Gresham • Clackamas Soil and Water Conservation District • GeeksAKnockin • Jameson Partners • Metro • Oregon RFID • Otak • Riverview Community Bank • Vigil Agrimis

Welcome New Board Members - Daniel Newberry, Executive Director

We recently added two new board members to the Council.

Tim Crawley is an attorney with Nichols Law Group. He lives in the Powellhurst-Gilbert neighborhood with his wife Ashley and their baby. If Tim's name sounds familiar, it's because he was a candidate for U.S. Senate last year.

Mary Ann Schmidt and her husband Robert live in the Sellwood-Westmoreland neighborhood. Mary Ann is a recently retired environmental educator and former director of the Environmental Professional Program at Portland State University. She is also the co-chair of the Crystal Springs Partnership.

Welcome Tim and Mary Ann! We bid a fond farewell to David Scharfenberg, who has been a board member since 2011.



Thank You To Our Lamprey Supporters:



What's In The Water? - Bruce Newton, Board of Directors

Urban streams have their fair share of challenges, from stormwater runoff to treeless riparian areas. The Oregon Department of Environmental Quality published their most recent cleanup standards for the Lower Willamette—including Johnson Creek—in 2006. How has the water quality in Johnson Creek changed in the last decade? That's what the Johnson Creek Inter-Jurisdictional Committee (IJC) set out to find when they recently reviewed the available monitoring data from 2009 and 2014.

Excessive water temperature remains the most significant challenge to water quality throughout the watershed. Most of our stream system lacks the tall, mature shade trees that keep water temperatures cool enough for salmon and many other fish species. For salmon rearing and migration, 18° Celsius (64°F) is the critical threshold, measured as an average of the daily maximums of seven consecutive days.

Data from 91 sites were used in this analysis. Butler, Jenne, Botefuhr, and Miller Creeks had the lowest temperatures, making them the most hospitable for fish. As a general trend, water temperatures rise as we travel downstream. The Watershed Council continues to plant trees in many sections of the stream system, but it can take a decade or more for trees to grow tall enough to measurably benefit stream temperatures.

The report also found that when the creek flows through a pond (an "in-line" pond), it enters relatively warm water. The pond's large surface area collects heat, and when the stream exits the pond, its temperature is significantly raised. That is one reason the removal of the large duck pond at Westmoreland Park is a great success story. Portland Bureau of Environmental Services reports that Crystal Springs Creek no longer experiences a rise in temperature in the area occupied by the former pond!



Westmoreland Park site of in-line pond removal.
Photo: Ronda Fast

Sampling of copper and lead—two pollutants usually associated with industrial activity and automobile traffic—were also analyzed in this report. Both of these substances were found to be within acceptable concentrations.

Bacteria in the form of *E. coli* were also evaluated in the IJC study. Long a problem in the watershed, *E. coli* in urban streams is usually caused by failing septic/wastewater treatment systems and animal waste. Only 5 of the 39 sites sampled were determined to have "Good" average values, and the maximum *E. coli* counts at all sites were in excess of Oregon water quality standards.

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Creekside Hero II: Carol Zyvatkaukas - Danielle Miles, Volunteer and Outreach Coordinator

Carol and her husband Kirk are stewards living on the mainstem of Johnson Creek in Gresham. They also serve on the JCWC Board. Carol is an avid wildlife watcher and a skilled wildlife photographer. You can see many of her photographs on our Facebook page.

What do you value about living in the Johnson Creek Watershed?

Where frogs, fish, otters, ducks and beavers roam – that’s the place for me. Johnson Creek is home to an amazing array of animals. I fell in love with the creek the first time I saw a mother mallard leading her ducklings downstream. That the watershed can support deer, coyotes and salmon in the midst of so much human activity astounds me. It’s enormously rewarding living alongside so many creatures as they travel through the watershed. I especially enjoy photographing all this and sharing it with others.

What role should homeowners have in Johnson Creek management?

It’s our responsibility to live harmoniously with all our neighbors: first to prevent harmful foreign substances such as chemicals from entering the creek. Second, as homeowners we can help restore and keep this riparian environment as natural as possible with native plantings.

Just over a year ago I noticed a few unusually skinny salamanders hiding under rocks. A wildlife representative from the City of Gresham came over and identified them as rare Oregon slender salamanders. This encouraged me to build a simple sanctuary for them of fallen leaves, rocks, rotting wood and moss. Now we have identified over six species of newts and salamanders in our yard.

When the swampy area close by nearly dried up in the spring, I took a clutch of stranded eggs and hatched them out in a tank. This July we released little red-legged frogs and northwestern salamanders into a small pond we created at the foot of Gresham Butte.

It takes so little to create a sanctuary for small creatures. With patience, a home owner can turn any patch of land



“It takes so little to create a sanctuary for small creatures... a home owner can turn any patch of land into a safe haven,” says Carol Zyvatkaukas, Johnson Creek Hero.

Photo: bruceamacgregorphotography.com

into a safe haven. Just leaving leaf litter alone will attract birds and amphibians plus many beneficial insects.

Tell us about your relationship with the Watershed Council.

My husband Kirk and I were asked to join the board when the staff noticed we were showing up at a lot of events. As someone who took early retirement from a life of meetings, I was at first a bit hesitant. I feel that my role on the council is to be an advocate for the animals that cannot be at the table when decisions are made about watershed health and improvements.

What is the ideal future for your Johnson Creek and how do you hope to be a part of it as a creekside homeowner?

It would be wonderful to see more beaver dams to help salmon spawn. In the short space of time that we have lived along the creek, we’ve seen a remarkable increase in wildlife and all that required was leaving it alone. The previous owners had been keen on pesticides and herbicides. We did some natural plantings and then let the skunk cabbages bloom. It’s now delightful to see ground bees, dragonflies, caddisflies and the like luring in the frogs, turtles, and even bats.

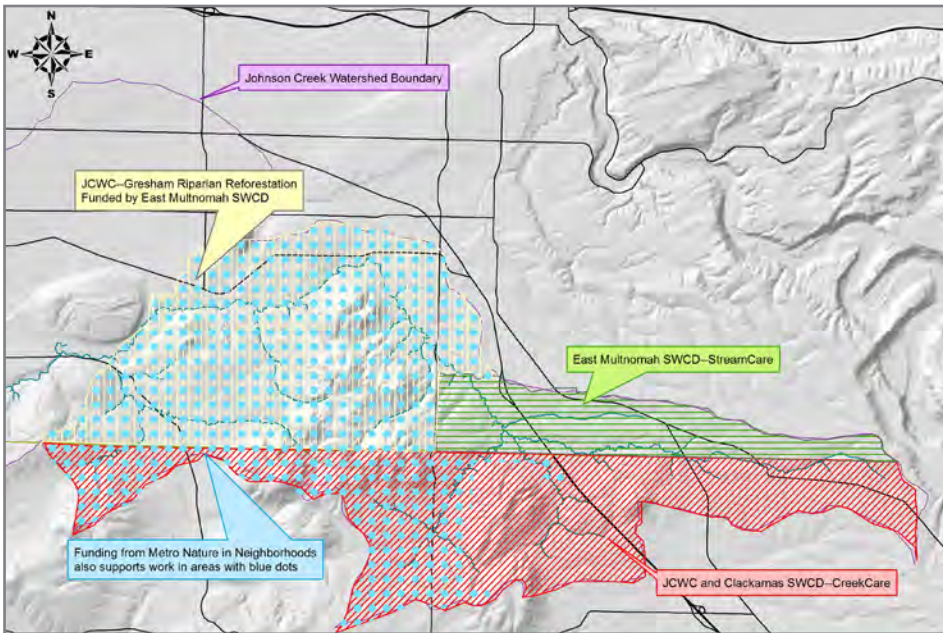
What kinds of the challenges do you face as a Creekside homeowner?

We think there is a general level of environmental ignorance or complacency about the watershed. Some proposed restoration efforts have been met with a certain degree of resistance from residents. Much of this stems from people not having direct contact with the creek.

There are several plans to improve the watershed in Gresham, particularly near Ambleside. That project, still in the planning stage, was in response to a voter initiative to create more green space. In keeping with that sentiment, we would like to encourage more community involvement with the creek. Ideally that would include creating natural areas and access points where everyone can experience the watershed.

Studies, reports and communications materials are important tools but there is no replacement for hands-on experience. It does my heart good to see youngsters looking for salamanders under rocks and pointing out crayfish while walking across the Gresham City Park bridge. If the people can see and touch the creek they will protect it.

“Creek Heroes” is a storytelling portrait series focusing on homeowners with creekside property.



Say No To Fish Soup - Noah Jenkins, Riparian Program Manager

Fish soup? Not if we can help it!

These crazy summer temperatures (that we've had since early spring—yikes!) may be uncomfortable for some Pacific Northwesterners, but they're literally deadly for salmon and trout.

These fish can start having serious problems when water temperatures go much above the mid-60s (17.8°C, or 64°F, to be exact) for more than a week*, so it's critical to put shade on watershed streams to help keep them cool.

JCWC's CreekCare program works with private landowners (primarily in the upper watershed) to do just that: with generous funding from the Clackamas and East Multnomah SWCDs, Metro, and OWEB, we control invasive weeds on streamside properties and replace them with native vegetation to shade the water and improve habitat. We've enrolled 14 new landowners since last year, treated more than 12 acres of invasive weeds, and planted over 15,000 native trees and shrubs along more than a mile of streams.

Do you live along a stream in the watershed, or know someone who does? We'd love to help you to get more shade on that stream! Contact JCWC to find out more.

**It's actually a little more complicated, but there isn't room here for all the details.*

Bon Voyage, Robin!

For the past five years, JCWC's restoration efforts were guided by Watershed Science Director Robin Jenkinson.

She has been instrumental in every aspect of the Council's on-the-ground work: from building our Riparian Reforestation Strategy, which guides our revegetation efforts; to assessing fish passage barriers throughout the watershed, positioning us to begin making the watershed more accessible to salmon and trout; to creating the Johnson Creek Science Symposium, and the synthesis of years of watershed data into a comprehensive report on water quality in the basin; and helping write a new ten-year Action Plan for the Council, to help direct restoration efforts and guide our organization forward in the coming years.

Robin and her family are off to France for international watershed adventures! We will miss Robin's drive and enthusiasm, and wish her all the best in her new habitat—may the water be cool, the bread fresh, and the wine abundant!

New Grants

- OWEB small grant "Badger Creek-Mystic Woods Restoration" – to restore proper Riparian functioning to a property in the community of Boring (\$10,000)
- OWEB small grant "Badger Culvert at Springwater Trail" – matches funding to replace a culvert on Badger Creek where it crosses the Springwater Trail. (\$10,000)
- OWEB Council Support – General support for the biennium beginning 7/1/15 (\$110,275)

Thanks For Supporting JCWC

  <p>Johnson Creek Restoration, Portland-Milwaukie Light Rail Tacoma Station Opening on September 12th</p>	<p>Water Resources Engineering Environmental Science Landscape Architecture</p> <p>vigil-agrimis.com</p>	<p>CITY OF GRESHAM Healthy Streams Program</p> <p>Help keep our streams healthy and save money on your stormwater bill</p> <p>503-618-2522</p> <p>Downspout@GreshamOregon.gov</p> <p>GreshamOregon.gov/Watershed</p> <p>Free parts and labor Utility bill discount</p>  <p>Ayude a mantener nuestros arroyos saludables y ahorre dinero en su factura de agua de lluvia.</p> <p>Desconectar los canaletas permite que el escurrimiento del techo penetre en céspedes y jardines, reduciendo la contaminación de los arroyos.</p> <p>Partes gratis y descuentos en factura de servicios públicos</p>
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Volunteer Program Update

In June, Volunteer and Outreach Coordinator Amy Lodholz accepted a position as Development Director at the Corvallis Environmental Center. Over the past six years, Amy forged the framework of our incredible Volunteer Program.

During her time here, our volunteer base more than doubled. Amy helped JCWC greatly increase not only the number of volunteer events we host each year, but also the kinds of opportunities we offer. She collaborated with partner organizations to create our Park Stewards and Green Street Stewards programs, grew the number of internship opportunities at the Council, and was instrumental in implementing many of our citizen science endeavors.

Danielle Miles will step into the Volunteer Coordinator role. Danielle has been at JCWC over the past year as a Confluence Environmental Center AmeriCorps service member, working in both our Riparian and Volunteer Programs.

Additionally, long-time volunteer and former JCWC contractor Peregrine Edison-Lahm will be helping Danielle to coordinate the Johnson Creek Clean Up and other summer events. Both are excited to plan an action-packed summer of volunteer opportunities, including: a Tree Inventory project in the Powellhurst-Gilbert neighborhood, the annual Johnson Creek Clean Up, and Johnson Creek Days in September. Check out the Upcoming Events section for more information!

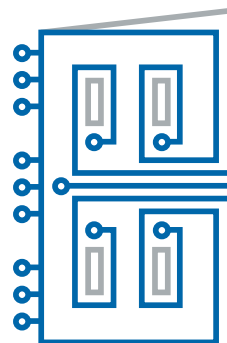


First Annual Johnson Creek Science Symposium Recap

The Johnson Creek watershed hosts so many restoration projects, monitoring studies, and research programs that the scientific community gathered together for what we hope is the first of many Annual Science Symposiums. Scientists, natural resources managers, and researchers from universities all reported on the latest natural and social science findings in our watershed.

This year's symposium included five academic speakers, five natural resources practitioners, a dozen poster presentations, and a panel discussion on water quality/quantity and fisheries featuring members of the Johnson Creek Inter-Jurisdictional Committee. JCWC's Watershed Science Director, Robin Jenkinson, coordinated. More than 100 people attended, most staying for the 20th Anniversary Celebration nearby (see page 1 for a recap). The symposium area was so packed, we may have to find a bigger space next year!

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Calendar of Events

For more details or to RSVP at any event, please email: Danielle@jwcw.org

TriMet Orange Line and Tacoma Boardwalk Grand Opening

Saturday, Sept. 12, 11 am - 6 pm @ Tacoma Street MAX Station

Come see the newly unveiled Tacoma Boardwalk, featuring a large stream restoration project and interpretive boardwalk.



2015 Johnson Creek Days Events

Science Talk: Dragonfly Conservation

Wednesday, Sept. 16, 5:30 pm - 8 pm @ Gustav's in Clackamas, 12605 SE 97th Ave.

Come learn the science of dragonfly conservation and basic dragonfly identification skills.
Registration required; event is limited to 50 participants.

Dragonfly Walk

Saturday, September 19, 10 am - 2 pm @ location TBD

Hone your dragonfly ID skills on this informative dragonfly walk.
Registration required; event is limited to 30 participants.



Salmon Celebration and Sunday Parkways Ride

Sunday, September 27th, 11 am - 4pm @ Westmoreland Park

Portland's 2nd annual celebration of the seasonal return of Coho to Johnson Creek featuring a Salmon Bake, Native American blessing, tours of the restoration work, inter-tribal activities, and plenty of crafts and games for children and adults.

Confluence Nature Walk

Sunday, October 4, 10 am - 11 am @ Milwaukie Riverfront Park

Come to our family-friendly Nature Walk and tour an in-stream restoration project at the confluence of Johnson Creek and the Willamette River.



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