



Johnson Creek Watershed Council

Within Your Reach

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

3rd Annual Salmon Celebration Commemorates Returning Salmon

- Danielle Miles, Volunteer & Outreach Coordinator



Cli on Bruno, co-founder of the National Indian Parent Information Center, bakes wild salmon over a fire.

Mark your calendars for one of the most uplifting community events of the year—the third annual Salmon Celebration at Westmoreland Park.

In 2014, when the restoration project that turned a large in-stream pond on Crystal Springs Creek into a healthy, salmon-bearing stream and prime dragonfly habitat was completed along with a beautiful new nature-play area for children, the community needed a celebration. We joyously watched as wild salmon returned to spawn in the newly opened Crystal Springs Creek. On October 2nd, we continue to celebrate this wonderful project and to give thanks for the return of salmon to the city.

Last year, the Salmon Celebration teamed up with Sunday Parkways and saw over 30,000 people come through Westmoreland Park to sign the salmon-safe pledge, sample traditionally prepared salmon and lamprey, and hear Native American storytelling. This year's program includes these great attractions as well as inter-tribal games. Booths from community groups will include hands-on science activities, wilderness skills, nature crafts, and games for children and adults alike. The event is free and open to all.

We hope that you will join us in celebration of the restoration of Crystal Springs Creek and the return of salmon to the city on Sunday, October 2nd, from 11am to 4pm at Westmoreland Park.

Thanks to all of the amazing community partners who make this event possible: Crystal Springs Partnership, Portland Parks & Recreation, Portland Bureau of Environmental Services, Portland Bureau of Transportation, Native American Community Advisory Council to Portland Parks and Recreation, New Seasons Market, Sellwood-Moreland Improvement League, and Trackers Earth.

Johnson Creek Days 2016: September 11th- 17th



Each Fall, we host a variety of recreational and educational events as part of our Johnson Creek Days.

The Celebration in Boring

- Sunday, September 11th, 10am-3pm
- Boring Middle School

JCWC will host a children's nature art table at this fun, family-friendly community festival.

Science Talk: Amphibians in Johnson Creek

- Wednesday, September 14th, 6-8pm
- Location TBD

Come learn about amphibian species in the Johnson Creek watershed, including an exciting discovery from our first EcoBlitz at Powell Butte last May!

Restoration Bike Tour

- Saturday, Sept 17th, 9:30-11:30am
- Foster Floodplain Natural Area

Come see the (restoration) sites on this fun bike tour with JCWC Executive Director, Daniel Newberry. Stay afterwards for lunch at a nearby business.

Mark your calendars for these events! To sign up, email info@jwc.org or call 503-652-7477 ext 101.



Community Science: Volunteerism At The Next Level

- Daniel Newberry, Executive Director

Last year our Council had a record 1,425 volunteer-days and 7,300 volunteer hours. Most of our volunteers engaged with the Council in our stewardship events: riparian tree planting & shrubs and removing invasive plants. More and more, volunteers have asked us, “How can I help out in a way that challenges me more, where I can learn more about the flora and fauna in Johnson Creek?”

The answer is Community Science: helping the Council collect valuable natural resources data that is used by the Council and public agencies to enhance stream and land management. For five years now we have run a program to record the location of coho salmon and their redds in partnership with the Oregon Dept. of Fish & Wildlife. This program has been so well attended that we asked our agency partners how we might be able to fill significant data gaps.

We’ve added four new programs this year. In a one-day EcoBlitz at Powell Butte Nature Park in May, 130 volunteers helped document birds, butterflies, amphibians, plants, and mammals. More than 900 observations were recorded—mostly of birds—and more than 100 species. Next year we plan to work at other properties managed by Portland Parks & Recreation.

We’ve just started two other programs: migratory dragonfly and beaver surveys. Specific dragonfly species can indicate the health of a wetland. We’re surveying Westmoreland Park and Brookside Wetlands this year. Documenting the location of the beaver dams in the watershed can help us estimate the local population size and determine how to better manage and accommodate beaver.

We’re adding lamprey & steelhead spawning surveys next winter. Our volunteers have consistently told us: this is a great way to learn what’s in our back yard and its great fun!

Welcome To Our Newest Board Members

Andrew Brown is our new jurisdictional representative from the East Multnomah Soil & Water Conservation District. Andrew has managed the legacy lands program for the District since last year.



Most of his career has been spent in planning and conservation in his native South Africa. Prior to joining the district he was a Management Analyst at the Multnomah County Drainage District.

Andrew holds a M.S. in Conservation Biology from the Durrell Institute of Conservation and Ecology at the University of Kent in the UK, and a B.S. in Botany and Environmental and Geographical Science from the University of

Cape Town, South Africa.

Vinh Nguyen, P.E., is an electrical engineer who works at Portland General Electric as a Program Manager Contract Design. Vinh, his wife and baby live in Happy Valley. Johnson Creek’s well-being is integral to his family’s well-being, as they bike and run along the creek on a weekly basis.

Vinh holds a B.S. in Electrical Engineering from Oregon State University and a M.S. in Electrical Engineering from Portland State University.

Environmental issues are not new to Vinh, as he worked as an engineer for three years for the U.S. Fish & Wildlife Service.



New Grants

East Multnomah Soil and Water Conservation District

A 5-year “Strategic Partnership Agreement” between the District, Johnson Creek, Columbia Slough and Sandy watershed councils, which provides long-term funding and helps the organizations work together to increase the effectiveness of our conservation efforts. This includes annual general council support of \$25,000, and a recent award of \$47,916 over three years of Community Science program expansion.

Water Environment Services

“River Health Watershed Stewardship” grant to help partially fund our annual Creek Cleanup, one Watershed Wide site, service learning with schools, and a science talk. (\$11,358)

Clackamas County Soil and Water Conservation District

Annual general council support that will partially fund our outreach, watershed education & action planning, and volunteer & landowner engagement in Clackamas County. (\$9,500)

Bureau of Environmental Services, City of Portland

“Community Watershed Stewardship” grant to help partially fund our annual Creek Cleanup. (\$5,500)

Multnomah County Transportation

Annual general support for JCWC programs related to protection, restoration, outreach, education and stewardship services. (\$5,000)

Jubitz Family Foundation

Supports our Community Science expansion of data collection to help inform watershed restoration by both the Council and agency partners. We will add surveys for steelhead & lamprey, beaver activity, migratory dragonflies, and a single-day bioblitz at Powell Butte Park. (\$2,500)

Portland General Electric Foundation

Supports our Volunteer Stewardship program (\$2,500).

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Johnson Creek Restoration, Portland-Milwaukie Light Rail Tacoma Station

Water Resources Engineering
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Toxics 101

What are toxics?

Toxic substances found in Johnson Creek and most other waterways are both natural and human-made. Some of these substances are natural components of the underlying geology and soils, including metals like mercury, lead, chromium, manganese, iron, nickel, copper, zinc and molybdenum. Polycyclic Aromatic Hydrocarbons (PAHs), are naturally occurring compounds in coal, crude oil and gasoline, and they are concentrated by the burning of fossil fuels and the incomplete burning of carbon-containing materials, like wood, tobacco, and coal.

Human-made chemicals are made up of many different substances like pesticides and polychlorinated biphenyls (PCBs). Pesticides are used to destroy, suppress or change the life cycle of a pest. Although pesticides are regulated under the Federal Insecticide, Fungicide and Rodenticide Act (more commonly referred to as FIFRA), the long-term use of pesticides has had severe ecological and human health impacts across the United States. Historically, DDT (dichlorodiphenyltrichloroethane) and dieldrin, which are toxic organochlorine pesticides, were used extensively as agricultural insecticides and were banned from use in the United States in the 1970's and 80's.

PCBs, which were also banned in the United States in 1979, were commonly used in transformers, capacitors, plasticizers, paint and many more items starting in 1929. PCBs, DDT and dieldrin persist in the environment because they are very unreactive and insoluble in water. These legacy chemicals are still found in small concentrations in Johnson Creek. Typically, only a small portion of these pollutants will dissolve in water, leaving the majority to bind to organic particles and remain in the sediments of rivers, streams and wetlands. Once in the sediment, they are 'taken up' by invertebrates and accumulate in the tissues of fish and other consumers.

What are sources of contamination?

Sources of water and sediment pollution can be from a confined, discrete source, called "point" sources, while other "non-point" sources originate in many, diffuse sources. Industrial discharges and sewage treatment plants that discharge waste directly into waterways are examples of point sources.

Non-point sources of water and sediment pollution include air deposition from manufacturing processes, fuel combustion by motor vehicles, and power plant emissions which contain numerous chemicals that make their way into creeks and rivers when rain washes over land. Pesticides also

travel through the environment through erosion and runoff from chemical-treated land into waterways. This stormwater runoff carries dirt, oil and other toxic pollutants to rivers and streams and can also cause erosion and flooding that harms properties and wildlife habitat. Green streets, ecoroofs, trees, and other green infrastructure help manage stormwater, filter pollutants and toxins, and protect water quality.

Perhaps the biggest source of toxics in Johnson Creek comes from parking lots via storm drains. Oil and antifreeze from thousands of leaky automobiles get washed into storm drains and ultimately into Johnson Creek. Regular maintenance and repair of our autos can have a huge positive impact on stream water quality!

What is being done?

Section 303(d) of the Clean Water Act requires DEQ to identify waterways that do not meet water quality standards. Johnson Creek was listed as water quality limited for the pesticides DDT and dieldrin in 1998 because high levels were found in surface water in the early 1990's. In 2002, Oregon DEQ added PCBs and PAHs to the 303(d) List for Johnson Creek.

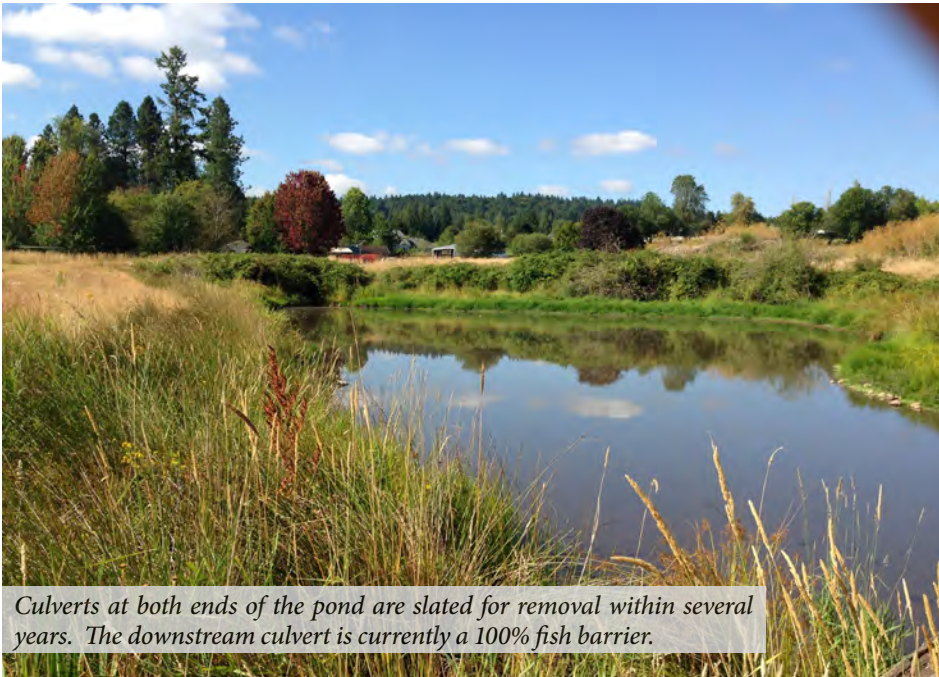
After a waterbody is placed on the 303(d) list, the next step is to develop a total maximum daily load (TMDL) for the listed parameters. The TMDL serves as a road map for the amount a pollutant needs to be reduced by from both point and non-point sources to meet water quality standards instream. A recent water quality report for Johnson Creek confirms that dissolved copper, lead and zinc levels are within acceptable levels for healthy aquatic life. Runoff from mercury that deposits in Johnson Creek from the air continues to impact Johnson Creek. However, the water quality report indicates that 97% of all samples taken were within the range the state has determined to be safe for aquatic species.

Protecting Oregonians and our environment from the impacts of toxic pollutants is a priority across Portland and throughout the entire state and is the responsibility of residents, business, and government alike. City and state environmental agencies address toxic pollutants by routinely monitoring and assessing waterways, developing toxics reduction strategies, permitting and monitoring commercial and industrial discharges, enforcing on noncompliant discharges and complying with sewer and stormwater regulatory programs. We can all help improve water quality in Johnson Creek by safely disposing of unused medication, minimizing fertilizer and chemical use on your property, disposing of pet waste, planting trees, and fixing chemical drips from our automobiles.



Mitchell Creek Improvements

- Daniel Newberry, Executive Director



Culverts at both ends of the pond are slated for removal within several years. The downstream culvert is currently a 100% fish barrier.

On an undeveloped 35-acre property between Portland and Gresham sits a shallow pond that covers about an acre. The pond was built decades ago by excavating an area of Mitchell Creek and placing culverts at both ends. The downstream culvert is currently a 100% fish passage barrier. This acre of shallow water is heated significantly in the summer, which is also harmful to fish. Hot summer water temperature is one of Johnson Creek’s biggest impediments to increasing the watershed’s salmon population. The warmer the water, the less oxygen it can hold and the higher the concentration of pathogens that are often fatal to fish.

As climate change causes air temperatures to rise, it is even more important to keep the water temperature down. For most of the Council’s 21-year history, we’ve planted trees in riparian areas to increase streamside shading. One of the next steps is to do what we can to reduce the heat-related impacts from inline ponds. An inline pond is one that intercepts and later releases water back into the same stream.

The Centennial School District purchased this property during the last decade to build a new school. We’re excited to be working with the District to restore this artificial pond to a free flowing river. The Council recently contracted with the engineering firm, OTAK, to design this project.

In addition to removing the two culverts, we plan to recreate a new stream channel in the footprint of the existing pond, and add large wood to this new channel to improve fish habitat. We’re even exploring the possibility of creating habitat in the new channel for turtles, salamanders, and other amphibians. If all goes according to plan, we’d like to complete this project in the summer of 2018.



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Creek Hero V: Donna Starita

- Danielle Miles, Volunteer & Outreach Coordinator



"The Council so impressed me with their vision, their authenticity and selfless commitment to the land. Noah Jenkins and Danielle Miles have open-heartedly supported me in re-claiming the creek..." —Donna Starita, Johnson Creek Hero.

Photo: brucemacgregorphotography.com

Donna Starita has been working with Johnson Creek Watershed Council for two years to care for her property on Badger Creek that she lovingly refers to as Mystic Woods. Seventeen years ago, Donna put a conservation easement on the property to protect the mature trees that she had come to love. She has opened her property to JCWC volunteers for two Watershed Wide Events and numerous service learning opportunities for youth in the community.

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

In my life, I have grown to appreciate how intimately connected we all are to Nature and to each other. The creek running through my property reminds me of that inter-connection.

What role do you think homeowners should have in Johnson Creek management?

I believe we should regard that stewardship as an honor and a responsibility.

Our chance to give back to the "mother", our planet, and nature.

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

My children grew up playing in the creek. I spent many hours there myself, finding peace in the woods. The property at Mystic Woods could provide a location for a lovely home and family. Its place may also be as a wildlife corridor or a green space.

What are some of the challenges you have faced as a creekside homeowner?

There were several years when I wasn't able to oversee the property and yard clipping and debris were dumped there, blocking the natural flow of the stream. [In 2014, Watershed Wide volunteers helped remove the debris and replanted the newly-freed stream. Today, young willows are flourishing where the waste piles once stood.]

Tell us about your relationship to the Council.

I was introduced to the council several years back via a mailer advertising an upcoming 'coffee-klatch' in Boring. I'm so glad I attended. The Council so impressed me with their vision, their authenticity and selfless commitment to the land. Noah Jenkins and Danielle Miles have open-heartedly supported me in re-claiming the creek after it became overrun with blackberries and clogged with yard debris from neighbors dumping there. I had been in a position of wanting to do something to reclaim the space, but not knowing where to start. Many crews and volunteers have given countless hours in all kinds of weather to help me reclaim the space and free up the creek to restore its natural flow.

With support from photographer Bruce MacGregor, "Creek Heroes" is a storytelling portrait series that focuses on homeowners with creekside property.

New Bat Boxes Along Johnson Creek

- Janel Hull, AmeriCorps Technician

Did you know that Oregon has fifteen species of bats? And at least five of those species frequent Johnson Creek? High school students from Mt. Scott Learning Center sure do!

JCWC has been partnering with Clackamas County Water Environment Services and North Clackamas Parks and Recreation District to create meaningful outdoor experiences for students.

Recently, students from Mt. Scott Learning Center, an alternative school in Southeast Portland, met at Mill Park every month for service learning trips. For two months, students worked with Janel Hull, our Outreach and Riparian Specialist, to explore urban bat populations. Students had noticed bats flying at night near their favorite neighborhood parks and wanted to learn more about these mysterious creatures.

Through monthly service learning lessons, they learned that there are five species of bat that visit parks along Johnson Creek. Many of them have lost their historical roosting sites because humans have removed old trees, standing dead trees, and disturbed caves.

In order to fight this habitat loss, students decided to build bat houses. Borrowing tools, they built wooden boxes with roofs to protect bats from heavy rains, nailed walls firmly together to prevent drafts, and carved grooves in the backboards to allow bats to perch.

After construction, the students mounted the boxes on trees at Mill Park along Johnson Creek. Each box was hung facing South to assure it would be warm enough for bats roosting in the winter.

While climbing the ladder, students joked about whose bat house was better built. After the bat boxes were all complete, students marveled at their completed work. Thanks to the Mt. Scott Learning Center students, Mill Park will now be home to local bat species.



Students from Mt. Scott Learning Center measure wood to construct a bat box.

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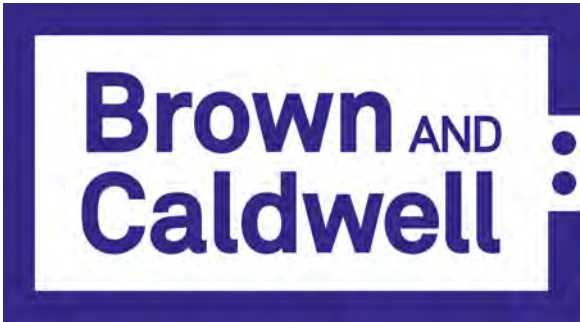
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Danielle Heading For Master's

Dear JCWC Community,

It is with love and gratitude that I leave JCWC as your Volunteer and Outreach Coordinator in order to pursue a Master's in Teaching program this Fall. These past two years at JCWC have been pivotal for me. I am very grateful to the staff, board, and volunteers that make this such an inspiring and effective organization. As a former student of Environmental Science, I entered this field with a heavy heart and grim outlook on the current state of environmental problems. I must say that today, I have a very different view—the result of working with thousands of people of all ages and backgrounds who are working, without compensation, in their free time, to improve our natural areas. It is truly a labor of love that spans this entire watershed. One of my heroes, Paul Hawken wrote in his book *Blessed Unrest*:

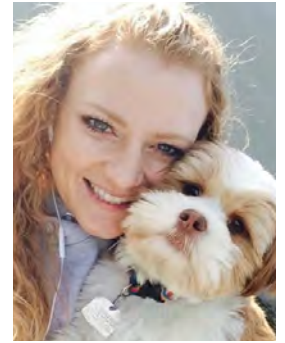
"If you look at the science that describes what is happening on earth today and aren't pessimistic, you don't have the correct data. If you meet people in this unnamed movement and aren't optimistic, you haven't got a heart."

If you ever begin to feel discouraged, I recommend that you spend time with our volunteers. Truly. It is not a coincidence that we are seeing wild salmon returning to Johnson Creek and its tributaries to spawn. It is a testament to this community, which has rallied around a creek with a long history of abuse and decided to reclaim it. It has been a joy to be a part of this effort, and has forever changed my understanding of the potential that a community truly holds to be an agent of change. I thank you all for this lesson, and for two wonderful years. —Danielle

New Interns

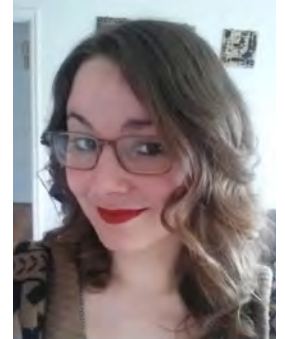
Brianna Ames

Brianna is a student at Portland State University pursuing a degree in Environmental Studies. She is interested in public outreach and communications to address environmental issues.



Kelsey Asbell

Kelsey is a trained florist with over 10 years of experience. She created the lovely floral arrangements for our Annual Celebration in May using plants from our own native plant garden. She is excited to explore new career paths, including event coordination.



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Calendar of Events

For more information, contact us at info@jcw.org or call 503-652-7477 ext 101

Johnson Creek Clean Up

Help remove trash from Johnson Creek at one of our most exciting events of the year!

-  Saturday, Aug 27, 8:30am - 12pm
Community BBQ & Awards 12 - 2pm
Mill Park in Milwaukie

Johnson Creek Days: Sept 11 - 17

JCWC will have a children's nature art table at this fun, family-friendly community festival.


-Boring Celebration

Sunday, September 11, 10am - 3pm
Boring Middle School

-Restoration Bike Tour


Saturday, September 17, 9:30 - 11:30am
Foster Floodplain Natural Area
Come see the (restoration) sites on this fun bike tour with JCWC Executive Director, Daniel Newberry. Stay afterwards for lunch at a nearby business.

-Science Talk: Amphibians in Johnson Creek

-  Wednesday, September 14, 6-8pm
Location TBD

Come learn about amphibian species in the Johnson Creek watershed, including an exciting find at our first ever EcoBlitz at Powell Butte last May!

JCWC Board Meeting

-  Tuesday, September 20, 5:30 - 7:00pm
Special location: MODA Building
10505 SE 17th Ave, Milwaukie

Salmon Celebration and Sunday Parkways Event

Sunday, October 2nd, 11am-4pm
Westmoreland Park

Portland's 3rd annual celebration of the seasonal return of Coho to Johnson Creek with a Salmon Bake, inter-tribal games, Native American storytelling, and plenty of crafts and games for children and adults alike. Grab your bicycle and stop at the celebration during a Sunday Parkways ride.

Parke Diem

Saturday, October 15th, 9am-12pm
Lower Errol Heights (SE Harney & 45th Ave)
Help restore this newly acquired Portland Parks & Rec property with JCWC, Friends of Trees, and Friends of Errol Heights!



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JohnsonCreekWC

Cathy Geiger

Operations & Finance Coordinator

Janel Hull

AmeriCorps Outreach & Riparian Technician

Noah Jenkins

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Katie Songer

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