



Acronym Soup: JCWC WWE at an HOA, BES Funding, FTW!

Noah Jenkins, JCWC Riparian Program Manager



March 5th, 2022 marked the 24th anniversary of the Johnson Creek Watershed Council's Watershed Wide Event (JCWC's WWE—two acronyms down!), with restoration efforts from planting, to mulching, to weed removal, to trash pickup happening at nine locations throughout the watershed and over 250 participants! While all of these efforts are an important piece of improving the health of the creek and its watershed, one location represented a new area

of focus for the Council: Homeowners' Association (HOA—there's number three!) common spaces.

Many HOAs were set up as part of newer housing developments in the watershed; often, these groups are tasked with the maintenance of areas that were set aside for resource protection as a condition of the development (think places with steep slopes and streams). Some HOAs no longer exist, or exist only on paper; and those still operating often lack the resources to manage their common spaces, which are frequently overrun with non-native plants (such as blackberries and English ivy). This impairs the habitat function of these areas, and may be unsightly for neighbors (who often think it's City-owned property); moreover, because many HOA common spaces abut publicly-owned property, this can pose a management challenge for public agencies.

Seeing these impacts, the City of Portland, Bureau of Environmental Services (BES—that's four!) began providing funding to JCWC to allow the Council to partner with HOA groups to tackle the problem. JCWC reached out to residents of a now-defunct former HOA on Clatsop Butte and after a few initial hiccups, we were able to work with neighbors from the area, as well as crews from Wisdom of the Elders and an AmeriCorps team, to remove blackberries and other problem weeds from about ¾ acre of common space, culminating with a planting of over 900 native trees and shrubs at this year's WWE.

JCWC is currently starting work with a second nearby HOA, and another defunct HOA area on Mt. Scott has some interested landowners. JCWC, WWE, HOAs, and BES for the win (FTW—and that's the last of them)!



Volunteers at Watershed Wide Event 2022

Annual Celebration 2022: A Hybrid Success

Daniel Newberry, JCWC Executive Director

In May, JCWC celebrated our 27th birthday at our Annual Celebration. After two years as an online/Zoom event, this year we ventured into hybrid territory, with guests attending at Milwaukie's Masonic Lodge and via Zoom.

Our Riffle Award winners this year were the African Youth & Community Organization (Community Partner), Lloyd Vivola (Ernie Francisco award for an individual volunteer), and North Clackamas Parks & Recreation District (Agency Partner). Riffle awards are for partners in each category who have contributed to the Council's success during the past year.



Riffle Award Winners, l-r: Tonia Williamson and Michael Bork (NCPRD), Lloyd Vivola, Nuradin Abdirahman, Jamal Dar, Abdirahman Abdirahman (AYCO).

A Fond Farewell From Courtney

Courtney Beckel, former JCWC Volunteer Program Manager

Endings and beginnings: It is with a hopeful heart that I am leaving the Johnson Creek Watershed Council for a position with Multnomah County.

I appreciate the last almost six years working with you and the greater JCWC community. I'm so proud of everything we have accomplished together, our strong partnerships, and am excited to see our shared visions continue to come to fruition in the future. I have learned so much, and poured my heart into building up the organization, this culture, and our many projects together. Thank you for all you have shared with me over the years.

That said, I won't be a stranger, don't be surprised if you see me out on a dragonfly survey or planting event :) Hope to see you around!

- Courtney



Courtney helping dig the amphibian pond at Leach Botanical Garden

Emerging from the COVID Cocoon

Daniel Newberry, JCWC Executive Director

Like many organizations, Johnson Creek Watershed Council has had to alter our operations significantly during the 2+ years of the COVID pandemic. Early on, all face-to-face interactions, like volunteer events, were prohibited by stay-at-home directives. Later we dealt with a confusing array of public agency restrictions on the use of their land, each one different.

Fortunately, that has sorted itself out and we're back to doing volunteer events much as we were before March, 2020, albeit with a continued emphasis on social distancing and other public health measures.

As the number of volunteers and volunteer events begins to climb again, we've been able to reconnect with long-time partners, such as the St. Mary's Ethiopian Orthodox Church, as you see in this photo. A group of over 30 of us recently maintained the church's rain garden and helped with landscaping. This was especially gratifying, as this was the rain garden that JCWC and Depave created with the church in 2013. It still prevents flooding.

In 2020, our Creek Cleanup was confined to removing trash from the streambanks and parks because volunteers would have needed to be closer than six feet from each other to be effective. Last year we were back in the stream, but without many volunteers. We hope to have many more people join us during this August's cleanup event, now that people feel more comfortable being around each other and public health measures are more routine.

Our fish passage work has continued relatively unimpacted: last year we repaired fish passage barriers on both Mitchell Creek and the North Fork Johnson Creek, and we have one more planned for this summer. Our community science volunteer projects are back in full force this year and in fact have expanded: during the next year we'll be monitoring amphibian egg masses in stormwater ponds in Gresham.

We're not looking backwards, but rather, we're working on defining a new normal.

Daniel

Daniel Newberry, Executive Director



Our partners at St. Mary's Ethiopian Orthodox Church.

A Living Laboratory Brings Learning Outside

Gwyn Case, JCWC Confluence AmeriCorps Member

We could all use a little good news right now. The looming specter of climate change, a seemingly endless global pandemic, a new generation that spends more time in the virtual world than the real one... current events conspire to paint a gloomy picture of the future. But before you fall into despair, you should meet the David Douglas High School students who come to the Leach Botanical Garden every month.

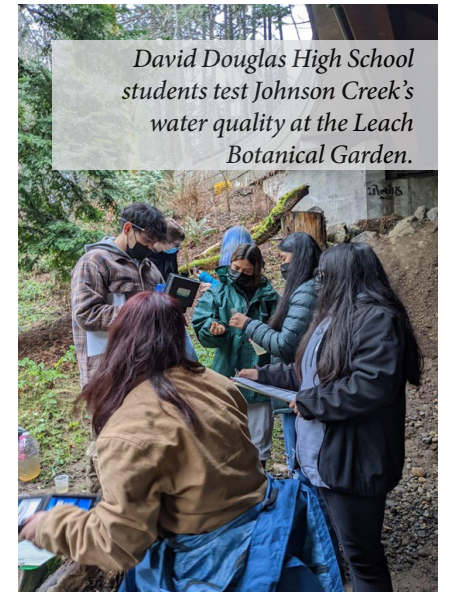
The students, mostly juniors and seniors, come to take advantage of the Leach Botanical Garden's Back 5 Project, an outdoor classroom and restoration project located just beyond the Garden's carefully manicured paths. They're part of David Douglas High School's Natural Resources and Sustainability classes, two science courses that teach youth the skills and concepts they need to live and work in a more sustainable future. Johnson Creek Watershed Council staff, along with Leach Botanical Garden staff and other Back 5 Project partners, join the students at the Garden to give them hands-on lessons in science and stewardship.

The Back 5 Project launched in 2018 as a partnership between the Johnson Creek Watershed Council, the Leach Botanical Garden, Wisdom of the Elders, and The Blueprint Foundation, with the African Youth and Community Organization joining a year later. The goal is to transform more than three acres of unmanaged land alongside the Garden—previously a pig farm—into a healthy native ecosystem and urban field station.

Since they began visiting the Back 5 in 2019, David Douglas High School students have had lessons in subjects

like mindfulness, plant identification, and GPS mapping. They've also contributed hundreds of hours of work toward restoring the native ecosystem by removing invasive weeds and planting native plants. These experiences provide students some of the skills and knowledge needed for a career in Science, Technology, Engineering, and Math (STEM), or the sustainability industry, but perhaps more importantly, they give students a tangible connection to nature.

Teenagers are notoriously apathetic, but these students are anything but disinterested. While sometimes out of their element in the outdoors, they're still curious, engaged, and excited to be in the Back 5. Environmental education like the kind offered by the Johnson Creek Watershed Council may not cure a virus, but it's a powerful antidote to the causes of ecological destruction and disconnection from nature. The Back 5 Project has given David Douglas High School students the chance to embrace environmental education in a big way, and we call that good news.



David Douglas High School students test Johnson Creek's water quality at the Leach Botanical Garden.

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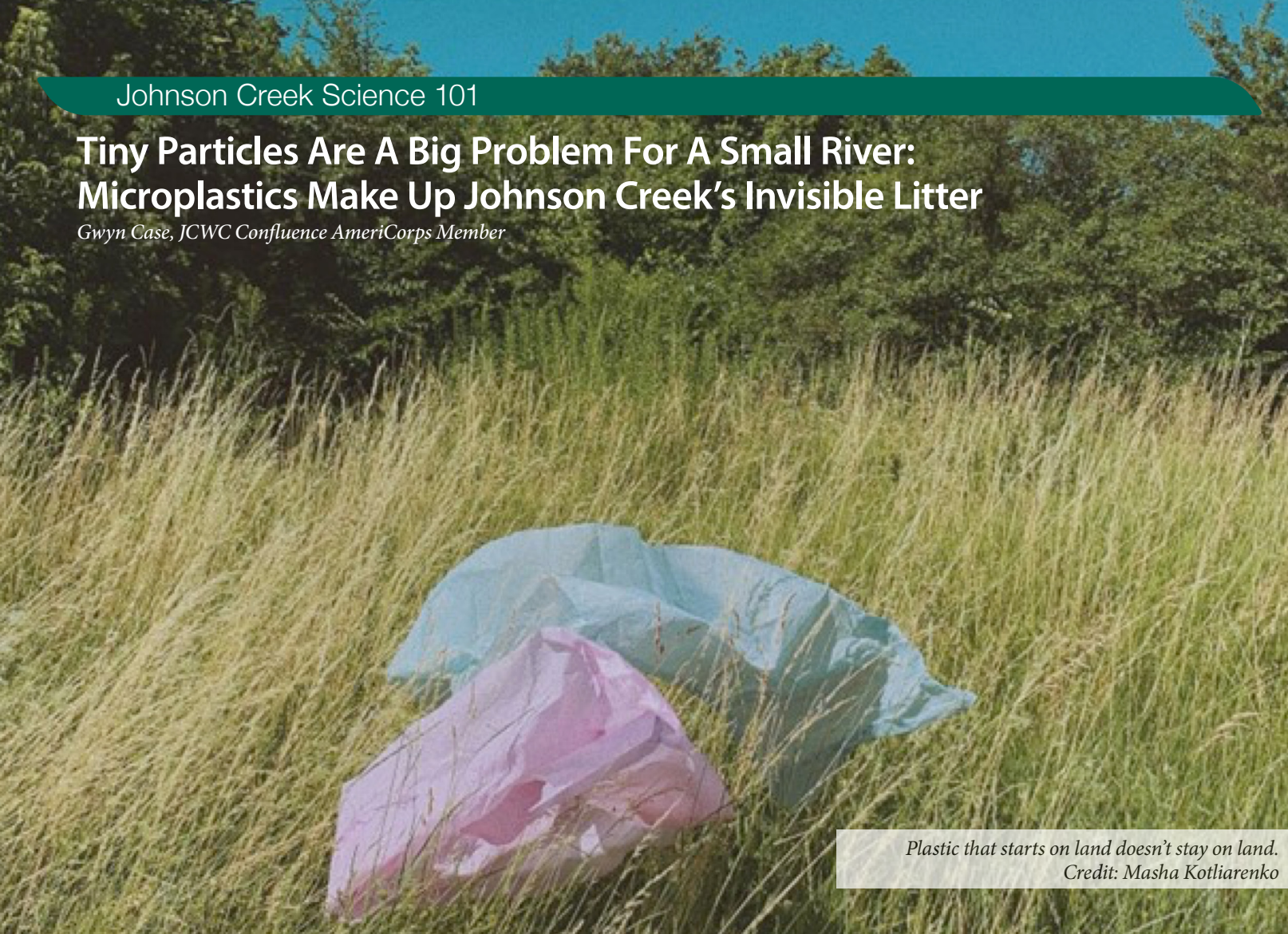


Thank You Sponsors!



Tiny Particles Are A Big Problem For A Small River: Microplastics Make Up Johnson Creek's Invisible Litter

Gwyn Case, JCWC Confluence AmeriCorps Member



Plastic that starts on land doesn't stay on land.
Credit: Masha Kotliarenko

Every year Johnson Creek Watershed Council (JCWC) hosts the August Creek Clean-Up. It's one of our largest and most popular events, with hundreds of volunteers jumping into Johnson Creek (or staying on land) to get wet, muddy, and messy in the cause of removing litter from the creek. Over the years we've pulled tons (literally tons) of trash out of the water, ranging from everyday objects like plastic bags to oddities like electric guitars. The work our volunteers do during the Clean-Up is fun, rewarding, and undeniably good for the creek, but there's a kind of litter in the water that can't be stuffed in a garbage bag or even seen with the naked eye. You probably know what I'm talking about: microplastics, those tiny bits of plastic either made to be small or formed by the breaking-up of larger pieces.

Most people think of microplastics in a marine context: all of the top search results for "microplastic pollution" focus on microplastics in the ocean. But Rebecca Talbot, a Portland State University graduate student who presented her research at JCWC's Science Symposium in 2021, has a fresh(water) take on the subject. She investigated microplastics in Johnson Creek and another urban waterway, the Clackamas River. Sure enough, she found microplastics in both waterbodies, including a surprising number of tiny fragments of automobile tires, called "tire wear particles." But the real surprise was how microplastics varied based on time and place.

The majority of studies of microplastics use a snapshot of the microplastics found at a single location during a single time. Not Rebecca's study. She sampled microplastics at different sites on both rivers and revisited those sites during different seasons in order to understand how time and location affect microplastic pollution. Her results show that changes in rainfall and water levels throughout the year make a difference. When it comes to location, though, it's what's right next to the water that counts, rather than the watershed as a whole.

"[Some] sites were characterized by lots of litter in the direct vicinity of the sites so that's probably a source right there," Rebecca explained in a Question & Answer session during the Symposium. "Or, for example, fibers that we saw at [Milo McIver State Park on the Clackamas River], those might be due to more recreational activities like kayakers or hikers or things like that."

However, she acknowledges that she wasn't able to make a direct match between the litter she saw in and around the creek and the microplastics she collected. "In future studies I think it would be really interesting to address that," she said.

Rebecca also found many microplastics that probably didn't come from riverside litter or dumping. The second-most common type of microplastics she found were fibers, which originate from synthetic fabrics. Microfibers commonly enter freshwater and, eventually, the ocean, via household washing machines. Ev-

ery time an item of clothing made from synthetic fabric is washed, it sheds microscopic plastic fibers into the washing machine. The wastewater treatment facilities that later treat the washing water aren't equipped to trap the fibers, which are then free to enter waterways. Likewise, tire wear particles can originate with tires dumped in a river but more often come from everyday driving on roads and freeways. Over time, the roadway slowly erodes tiny flecks of rubber off automobile tires. Rebecca found the largest number of tire wear particles in September, when fall rains flushed them off roads and into the water.

Tire wear particles are especially concerning because more and more evidence points to pollution from tires as fatal to coho salmon. Coho salmon live and spawn in Johnson Creek, in fact, it's the last tributary in Portland to host any salmon run. A chemical known as 6PPD-quinone, which is produced when tires react with ozone, causes the blood-brain barrier in coho to break down. The results are lethal: some urban streams in Seattle have seen massive fish die-offs as a result of stormwater polluted with 6PPD-quinone. The effects of other kinds of microplastics on salmon and other wildlife is less clear. Research has documented microplastic consumption in a wide range of animals, from coral to newts, and even in plants, with side effects ranging from neutral to

negative. Most of that research has been done on marine animals living in the ocean, but it seems safe to suppose that microplastics aren't doing freshwater ecosystems any favors.

Here at JCWC, we often hear people's concerns about trash, litter, and dumping along Johnson Creek, and we share a lot of those concerns. No one likes seeing trash in the creek! But Rebecca's work on microplastics encourages us to look closer and think deeper about the issue. I am reminded that a myopic focus on only the largest and most obvious forms of pollution can lead me to overlook many other forms of pollution, which are equally important but not equally obvious. I'm looking forward to this summer's Big Clean-Up and I have no doubts about how important the event is, but next time I'm pulling a shopping cart out of the creek I'll remember how the everyday actions of our ordinary lives can have invisible consequences.

You can read Rebecca Tablot's paper on microplastics in Johnson Creek in the Journal of Science of the Total Environment <<https://www.sciencedirect.com/science/article/pii/S0048969722022367#!>>.

*Want to help out with pollution, big and small?
Join us in August for the Big Clean-Up!*

Thank You Sponsors!



Otak is proud to renew our support for the Johnson Creek Watershed Council.

Our team of water and natural resources engineers has enjoyed years of volunteer and design opportunities alongside the Johnson Creek Watershed Council. We look forward to our continued partnership in community restoration.



Otak staff at the Watershed-Wide Event



Foster Floodplain Project



Cedar Crossing project, pre-construction

Welcome Elizabeth!



Elizabeth Brosig joined the Council as our new Restoration Project Manager in December of 2021. She is providing leadership and guidance to the Council's restoration programs and managing the Council's restoration projects. She earned her Bachelor of Science in Environmental Resources Engineering from Humboldt State University and worked as a water resources engineer, specializing in fish passage and urban stormwater design.

Elizabeth is passionate about native plants and wildlife. She is a certification technician for the Backyard Habitat Certification Program and loves meeting new gardeners and seeing the amazing habitats people create in their yards.

Most of her free time is spent in her garden, growing food and habitat. Elizabeth can also be found hiking, bird-watching, cooking, and reading with her husband Sean and their dog Bentley.



Welcome Marissa!



Marissa joined the Council in March, 2022. Since graduating from Pacific University in 2019 with a Bachelor of Science in Biology, they have been exploring what the world of natural resources, environmental education, and community engagement has to offer.

Before joining the Council Marissa served as an Americorps member with the City of Gresham and directed environmental education programs with Tualatin Hills Parks and Recreation District.

As an advocate for environmental and social justice Marissa believes in building equitable futures through collaboration with the community. They are very excited to be working with volunteers throughout the Johnson Creek Watershed to further watershed health and community building.

Most of their free time is spent eating food with friends, cuddling with their cats Worf and Barclay, and taking walks around their neighborhood.






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Upcoming Events


See our website at JCWC.org/events-calendar or Facebook for links to the following events!

 **Dragonfly Days**
Sat, Jul 23rd, 1 PM - 3 PM
Tegart Ponds in Gresham

 **Beaver Surveys**
Orientation in Early August (date and time TBD)
Survey season: August - September

 **The Annual Johnson Creek Clean-up**
Sat, Aug 20th, 8:30 AM - 12 PM
Multiple locations

 **Habitat Stewardship at Leach Botanical Garden**
Second Wednesday of every month
9am-12pm

 **Habitat Stewardship at Tideman Johnson Park**
First Saturday of the month
9am-12pm

 **JCWC Board Meetings**
Second Monday of the Month
5:30pm-7pm
-Join in on our virtual board meetings, open to all community members.
-Even months we discuss in-depth topics.
-Odd months we discuss general board topics.
-No need to sign up in advance!

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



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