



The Clackamas

# CURRENT NEWS

CLACKAMAS RIVER BASIN COUNCIL NEWSLETTER

## Fall 2018

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## Thank You Volunteers!

A big thank you to the 330 volunteers who participated in the Down the River Cleanup.

We appreciate your committment along with the many volunteers who participate in workparties and planning year-round.

## Down the River Cleanup Success

The 16th Annual Down the River Cleanup, a partnership of Clackamas River Basin Council and We Love Clean Rivers, drew 330 volunteers to the Clackamas River to scout the water for bottles, cans and other debris.

Volunteers scoured the banks for trash. Non-motorized drift boats, rafts, kayaks and other paddle crafts launched at Milo McIver State Park, Barton Park, Carver Boat Ramp, and Riverside Park to work as garbage scows. This year, three dive teams were on hand to search for sunken bottles and debris. The Clackamas Sheriff's Office dive team were joined by divers from Eco-Dive NW in Oregon City and Valhalla Dive Group from Vancouver, Washington.

This year's event collected .6 tons more trash than the 2017 effort, and volunteer participation increased by 33%. Following the event, volunteers gathered for a celebration BBQ.

**2.5 tons/4,300 lbs.**  
of trash was removed from  
the Clackamas River this year

**33% was recycled**

**330 volunteers  
participated**

## Stash The Trash Wrap Up

The *Stash The Trash* program wrapped up its 8th year in September. Clackamas River Basin Council provided over 6000 collection bags to Clackamas River users over the summer months. *Stash The Trash* bags are available at 4 different boat ramps at State and County Parks as well as several private properties along the river. The project is designed to raise awareness and knowledge of the river's value as a recreational resource, habitat for fish and as a drinking water source for nearly 400,000 homes.

Recreational use of the Clackamas is rising. Park rangers at the main floaters launch at Barton Park count up to 1000 cars entering the park on hot summer days, with 90% of those vehicles being floaters. *Stash The Trash* offers the community an opportunity to act as stewards of the river by keeping trash out of the water.

Additionally, the program has made a significant reduction in the tonnage of waste collected in the annual Down the River Cleanup. Since 2011, the Down the River Cleanup tonnage has dropped by 63%. "We are finding considerably less trash in the river due to the success of the Stash The Trash program," says CRBC Executive Director Cheryl McGinnis.

This program relies on sponsorships from: [Clackamas County Water and Environmental Services](#), [Dump Stoppers](#), [Clackamas River Water Providers](#), [Clackamas Soil and Water Conservation District](#), [Oregon State Parks](#), [Warn Industries](#) and [We Love Clean Rivers](#).

Thank you sponsors!



## Voices from the Watershed

### Healthy Streams and Forests: A Walking Tour to Remember

By William Lenon, CRBC Board Member

This summer, I joined a group for the "Healthy Streams and Forests" walking tour. The tour was sponsored in part by the Clackamas River Basin Council and was the first of three summer programs hosted by Suzi Cloutier, CRBC's Outreach and Stewardship Manager. Other programs offered are "Living with Wildlife" and "What's In My Stream?" On this tour, we visited a *Shade Our Streams* program site, a woodlot in the George area east of Estacada owned by Dave and Mary Ann Bugni. Dave Bugni gave a very comprehensive small woodlot management overview based on how he, and his wife and children, manage their family woodlots. It was, in many respects, an extremely well done lesson in forest management.

After the overview of the Bugnis' accomplishments on their land, the walking tour provided an impressive demonstration of their family forest management style. The Bugnis' plan included not only harvesting timber, but more importantly, helping return their forest to a more natural state beneficial to all wildlife, especially to fish, invertebrates and amphibians.

The land included a stream and wetland at the bottom of a small valley, so the Bugnis decided to use skyline or highlead yarding to harvest the timber. This technique prevented soil and vegetation damage from yarding with large machinery and helped preserve the natural ecology of the stream and wetlands. Fortunately, the lay of their land favored this approach and was infinitely better for forest and stream health. The Bugnis certainly felt this was a worthwhile endeavor, and seeing the result I think all would agree.



Landowner Dave Bugni leads the "Healthy Streams and Forests" tour organized by Suzi Cloutier of Clackamas River Basin Council.



A combination of large wood, boulders and gravel provide suitable habitat for spawning and smolt.

were laid over smaller logs in the stream bed to provide smolts and growing fish with areas for resting and hiding. The large logs were anchored strategically between larger standing trees to keep them in place during peak stream flow. They will provide a healthy habitat for endangered fish populations.

The stream, classified as SSBT (Salmon, Steelhead, and Bull Trout), had over the years been gravel starved and scoured down to bedrock. There were no spawning redds (gravel nests) or areas of viable fish spawning habitat. Streamside vegetation necessary for cool water and shade for young fingerling salmonids was spotty. The stream bed lacked large wood obstructions, allowing fast moving water in winter to scour the bed and destroy whatever fish habitat was available. Seeing an opportunity to greatly improve what should obviously be a vibrant and productive stream for fish, as well as invertebrates and amphibians, the Bugnis decided to make the stream and wetlands a focus of restoration.

In an impressive feat of geo-engineering, they trucked in rounded gravel and large rock of various sizes. Small loaders were used to move materials to the stream. By hand, they placed the larger boulders strategically to slow the stream and spread the gravel to help build spawning beds for salmonids. Clackamas River Basin Council, as part of the *Shade Our Streams* program, helped by planting quick growing native trees and shrubs to begin shading parts of the stream that were open to the sun. Finally, large logs



Dave Bugni points out aspects of the stream restoration project from a bridge he designed for the site.

Dave made an interesting observation about how and why he placed his trees as he did, "If you have to cable them in, they are probably in the wrong place!" Seeing how he did it made me realize how much more natural and effective his method was than some placements I have seen.

Part of the stream had previously been diverted to create a small pond. The Bugnis opened up the top and bottom of the pond to create a slow water channel as a refuge for fish when winter rains cause heavy stream flow in the main channel. Dave, a retired civil engineer, designed and built a handsome bridge at this same point, where the group stood to see the extent of the project. When asked if the bridge was strong enough to hold all of us, Dave reassured us it was very safe. In fact, it was designed to safely hold people shoulder to shoulder in a double row completely filling the bridge. As a small woodland owner with a type N (No fish) stream I was once again impressed. I found myself mulling over designs to span my own creek as Dave and I had discussed when I attended his course on bridge building at OSU's Clackamas Tree School. The bridge was a beautiful and appropriate example of engineering design fitting well with the environment.

Walking on trails that his son had created, we saw many examples of various other techniques the Bugnis use to manage their timber and forest lands. One method to deal with slash, was to spread piles out and

allow them to become habitat for critters as they decompose. Part of Dave's point in doing this was to avoid smoke pollution and help, in an admittedly small way, mitigate global warming by using the forest to sequester carbon. Also, since some of these critters living in slash piles, such as boomers (mountain beavers), can cause significant damage to newly planted trees, Dave uses solid plastic tubes to prevent boomers from girdling or climbing and eating the tree from top. Mesh is then placed on top to prevent browsing by deer.



Hand girdled trees are left standing to create snags for birds and other wildlife.

One of the things I learned was that the tip (apical stem leads) of seedlings can get caught in the mesh causing deformed growth and a probable loss of that year's growth. It pays, as Dave does, to walk through your plantings as new growth starts and check your leads so they are not caught in the mesh and deformed.

The Bugnis spent considerable effort to limb their larger trees up about 18 feet to prevent fire "laddering" up the trees. With global warming a reality, woodland owners all need to take such measures to lessen and hopefully prevent catastrophic wildfires. Our forests are not only investments, but critical habitat. And fire is the small woodlot owner's main enemy.

We saw examples of thinning and inter-planting of deciduous trees among stands of firs and cedars to increase the diversity of the forest as a whole. Trees in varying sizes were hand girdled with an axe to provide snags as habitat for birds and other wildlife. Indeed, much of the Bugnis' forest management philosophy is providing and maintaining viable, healthy forest and stream habitat for wildlife, as well as harvesting trees for profit. Of all the forestry models I have visited, the Bugni's property is perhaps the best example of integrated management I have seen. Dave's walking tour was a true eye-opener. If you ever get the chance to visit the Bugnis' forest, do so. It will be well worth your time!

## River Heroes

### Leading by Example

*Amazing things happen when people intersect with nature. The Clackamas River has inspired some of our local citizens to become hands-on caretakers for this amazingly beautiful watershed and resource.*

#### Michael Walker

Michael Walker has grown up along the Clackamas River between Barton and Carver since he was four years old. When he learned how to swim, he started looking for treasure on the river. From the top of the bluff where his home is, Michael used look down and see hundreds of salmon congregating in the pools and side channels of the river. It's a memory that he now cherishes.

Over the past 10 years, what Michael started seeing was a reef of trash. Instead of the silvery scales of fish flashing in the sun, now he often sees the glint of 200+ cans resting in the stream. He knew that someone needed to step-up and help to clean-up the river. In his Junior year in high school, students were asked to participate in a volunteer effort of their choice. That was all the motivation that Michael needed to begin his work on the river. He started floating in tubes and rafts before moving to a drift boat to be able to collect more trash. Now, four years later, he tows a couple of rafts behind the boat to haul out even more refuse on each trip.

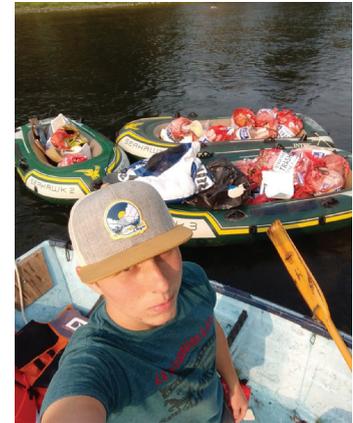
Michael free dives for sunken bottles and cans. Lately he's added a snorkel and mask to his gear to make scanning the river bottom more efficient. "It's hard work," Michael says of the dozens of trips he's made down the river this year. "By the end of summer, I'm in fantastic shape," he grins.

And things are changing. Over the past four years, Michael says he's seeing less trash in the river. He credits the Clackamas River Basin Council's Stash The Trash program for some of that effect. *Stash The Trash* provides net bags at boat ramps at State and County parks and private properties along the river. The bags offer boaters and floaters a way to collect and haul out their trash when they are on the river. Michael stocked four of the *Stash The Trash* stations this summer. He noted that he'll put out 100 bags at each station on Friday, and by Sunday afternoon they will all be gone. He's noticed boaters using the bags and other river users helping to pick up trash on their outings. "Not everyone hauls all of their trash out with the bags," says Michael, "people leave them heaped at the stations. But that still makes it easier to collect."

Michael has also noted the drop in trash collected during the annual *Down the River Cleanup*. "I know that my work, and that of other river users, combined with the *Stash The Trash* program have had an impact," he says. "In the past, those dumpsters for the *Down the River Cleanup* were overflowing. Now they may only be partly full."

Unfortunately, the restrictions on alcohol use at riverside parks has reversed some of the trend toward a cleaner river. Michael is seeing a lot more sunken beer cans and bottles turning up during his river runs. "People are still drinking on the river," says Michael. "But now they are afraid they will be cited or arrested if they haul their empty bottles out at one of the parks – so they sink them." Michael suggests that police patrols on the river might be a way to minimize drinking and sinking.

*Michael Walker is now in his junior year at PSU. He's on a premed track, studying to become a doctor.*



## Tina Johnson and Erin Holland

Tina Johnson and Erin Holland have been friends for over 20 years. Tina first floated the Clackamas River 23 years ago with friends. In recent years, Tina had been noticing increasing impacts on the river. "Use has grown immensely over the years," says Tina. "I used to float the river on weekends and could easily find parking. Now the parks often close off entry by 11:30 a.m. on Saturdays and Sundays."

Erin Holland was noticing changes as well. Her daughter had been president of the environmental club at N. Clackamas High School and worked with Clackamas River Basin Council to initiate the *Stash The Trash* program. Erin was inspired by her daughter's work and decided to start collecting trash when she kayaked the river.

In 2017 Tina and Erin began Monday kayak trips on the river; collecting lost gear and trash along the banks with a single *Stash the Trash* bag. It wasn't long before they realized that they needed to find ways to haul out more trash if they were going to make a difference.

This summer, they tied a two man raft to one of their kayaks to provide more room. On one of their first floats in July, Tina and Erin found 22 damaged rafts and floaties abandoned along the river. They needed bungee straps to keep the heap of discarded trash and gear on their raft. When they arrived at Carver Park, a sheriff's deputy took note of the enormous pile and congratulated them for their efforts. Just by coincidence, he was waiting for a TV reporter to stop by to do a story on the littering problems along the river. He asked Tina and Erin if they would be willing to be interviewed for the story.

Neither Tina or Erin were seeking public recognition for their work. They were just doing what they saw needed to be done. But the publicity has had an impact. Many more people are now aware of the problems that thousands of recreational users can cause on a popular and scenic river. And more people are beginning to help out.

To really make a difference, Erin and Tina decided to share some tips on how to responsibly float the river.

- Fasten everything to something that floats especially keys, wallets and cell phones.
- Take off flip flops and fasten them to your flotation device. They easily float away when your feet are dangling in the water.
- If you bring food, bring a container to carry out any unwanted leftovers.
- If you bring a bag of chips, bring a Ziploc bag to keep them dry and to pack it out.
- Bring a waterproof bag that is fastened to your flotation device to keep your belongings dry and safe.
- One puncture is all it takes to stop your float. Bring an extra tube in case you need it.
- Avoid bringing big heavy items. If left behind, they are difficult to remove.
- Connect your child's inner tube to an adult's. A child can easily let go of their tube, and then it is gone.

Tina and Erin have some ideas for public awareness.

- Make carabineers, lanyards and bags available at launch sites for people to attach their belongings.
- Add reminders along the shore where some of the worst littering occurs, so people know they are responsible for their trash.
- Get the word out that no one will be cited for hauling out empty beer cans and bottles at landings, but that they will be fined for littering if they toss or sink bottles and cans.

Tina's last words, "Lets find a clever phrase or slogan that will become part of the culture to keep our rivers clean." Any ideas?



# Hazardous Spill Response Drill

## Preparing for a River Emergency

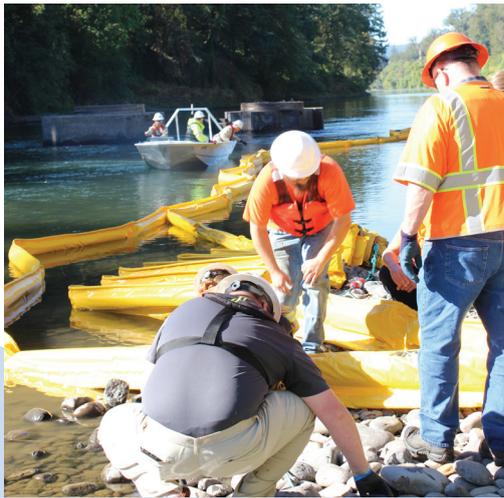
The Clackamas River is a drinking water source for over 300,000 people in Clackamas and Washington counties. In late September, the river is low, but still running swift and cool. On this weekday morning at Riverside County Park in Clackamas, the park is closed for an emergency spill response exercise sponsored by the Clackamas River Water Providers.

The purpose of the drill is to test some of the strategies that have been developed to protect drinking water infrastructure to see how well they work and what could be improved.

Under the picnic shelter is a gathering of representatives who are all involved in some aspect of responding to a hazardous material spill. Water Environment Services staff are on hand, along with County Public Health and Transportation employees. Several staff from the Department of Environmental Quality join the group. Firemen from Clackamas Fire District 1 pull up in their fire engine. Suzi Cloutier and Pat Kaczmarek from Clackamas River Basin Council attended to observe and gain insights.



Water Resource Manager Kim Swan outlines the drill scenarios for the response teams.

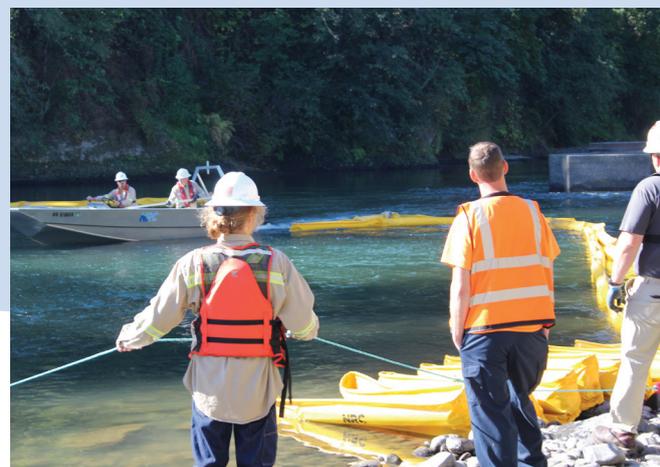


Attaching boom segments.

Kim Swan, the Water Resource Manager from Clackamas River Water Providers, hands out situation manuals and detailed site information for the drill. She introduces the emergency response team from the National Response Corporation (NRC) who will be carrying out the on-water drill. NRC has come prepared with several 100 foot booms that they plan to use as a barrier to surface contaminants on the water. The crew unloads four of the booms and starts towing them upriver to position them above the water intake to the Clackamas Water District's plant which is located just adjacent to the park. They use rock anchors to secure portions of the boom and tie off to a nearby boulder on shore. Midway through the boom placement, the mid-stream rock anchor gives way and moves downstream. The crew responds by reevaluating the river flow and adjusting the plan for the boom deployment. After about two hours, the boom is secured in place.

Once all of the equipment is removed and stored, the team gathers to debrief the drill. Two major lessons learned included the extended lead time needed to deploy the booms and the lack of good anchoring locations along the bank. The NRC equipment is stored at a location in Portland, and with travel time and set-up, it may take up to four hours to position a boom in place after a spill contractor is notified. Other issues included inconsistency in the chain of command protocol for spill reporting and in the warning system to alert the general public. A lack of a widely accepted protocol that determines when NRC or another professional hazardous spill contractor is called in can cause additional delays when an emergency occurs.

Kim Swan with Clackamas River Water Providers summed up the value of a physical on-site drill. "By gaining clarity on our disaster planning now," she said, "and by developing cooperative relationships, we can impact the success of a hazardous spill response in the future." Participants provide more detailed suggestions for future training. The many agencies involved in the drill take away valuable experience and a clearer understanding of their role in case of an emergency that might pose a threat to drinking water and to the special environment of the Clackamas River Basin.



Boom deployment above water intake.

## 2018 Clackamas Watershed In-Stream Projects

*Clackamas River Basin Council completed two major in-stream projects this summer*

### The Clear Creek North Restoration Project

Clear Creek is a free-flowing tributary to the Clackamas River, which is used by 11 different species of fish, including federally listed as threatened species of Chinook, winter steelhead, and the last significant run of late-run coho in the lower Columbia River Basin.

This summer, Clackamas River Basin Council partnered with Metro and Oregon Department of Fish and Wildlife (ODFW) to implement a fish habitat restoration project on Clear Creek. The site is located on the 68 acre Clear Creek North Natural Area with nearly 3,000 feet of stream frontage. Clear Creek contributes a significant portion of high quality habitat in the lower Clackamas River. This project was designed to restore the section to historic conditions.



Large wood logs are anchored in place with a vibratory pile driver to provide complexity and protective cover for aquatic species.



Chemically treated wood structures were removed from Clear Creek to restore the stream to pristine conditions.

By reconnecting alcoves and providing off-channel cover, the restoration will now offer improved conditions for steelhead spawning. Large wood and buried sill logs were installed to decrease flow velocity during high water and maintain the integrity of the bank. The site has been part of the Portland General Electric *Shade our Streams* program that has supported invasive species removal and planting of native plant species.

The project was implemented during the ODFW regulated "in-water work period," and followed guidelines to limit the impact on important fish, wildlife and habitat resources. Funding for this project was provided by the U.S. Forest Service, Oregon Watershed Enhancement Board (OWEB) and Metro's voter-approved parks and natural areas levies.

### North Fork Clackamas River Restoration Project – Phase II

The North Fork Clackamas River is a tributary to the Clackamas mainstem northeast of Estacada. This stream location was selected for habitat restoration to provide habitat for all life stages of Chinook, coho and steelhead that are listed as threatened species in the Clackamas River Basin. The restoration of just over 3/4 miles of the river and 8.5 acres of floodplain creates off-channel rearing habitat for juvenile coho, spring Chinook, and winter steelhead and spawning habitat for winter steelhead and coho salmon. Invasive plants were removed from 1.25 acres. This area will be planted with native trees, shrubs, sedges and rushes helping to reestablish floodplain vegetation. Clackamas River Basin Council partnered with the Bureau of Land Management on the project. Funding was provided by the Oregon Watershed Enhancement Board (OWEB), U.S. Forest Service, and the Drinking Water Providers Partnership.



Tipped trees provide cover, increase water quality and revitalize a historic side channel on the North Fork Clackamas River



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## Get Involved

### Council Meetings

CRBC meets on the third Thursday of each month from 6-8:30 pm at the Mt. Scott Fire Station in Happy Valley.  
Council meetings are open to the public - we'd love to hear from YOU!

## Volunteer With Us!

**Get involved with CRBC this fall at one of the following volunteer work parties.**

November 17th at Noyer Creek, 9-12. Meet at St. Paul of Damascus Lutheran Church for an ivy pull!  
December 1st at the Rock Creek Confluence, 9-12. Help plant natives to shade the stream.

More information on volunteer events can be found on the "VOLUNTEER" page at  
[clackamasriver.org](http://clackamasriver.org)

**Curious about other ways to support our work?**  
**Visit [clackamasriver.org/donate](http://clackamasriver.org/donate) for more details.**