

Another summer has come and gone on the Clackamas River. Timothy Lake in particular has been very busy this season. Between cutthroat trout studies, habitat enhancement at Dinger Creek (a tributary of the lake), amphibian surveys for our terrestrial staff and summer camping, the stunning spot below Mount Hood has hardly seen a moment's rest. Meanwhile, construction is underway at the Faraday powerhouse, causing water to spill at the diversion dam (see photo on the right). All this excitement at Faraday Lake may be the reason why several bull trout decided to make their way through our project. Regardless of the cause, we were thrilled to see these rare fish.

To learn more about our work on the Clackamas and to find past issues of the newsletter, visit: PortlandGeneral.com/ClackamasUpdates.



Featured Study: Timothy Lake Flow Evaluations



This August, PGE biologists once again donned their snorkel suits to brave the waters below Timothy Lake Dam in search of a special fish: the spectacular cutthroat trout. Cutthroat are native to the cold-water streams of the Pacific Northwest, and can be distinguished from other trout by red slash marks under the jaw. This study, which takes place every five years, helps us assess the status of cutthroat and other trout populations, including rainbow, brown and brook trout. Through these evaluations, we hope to learn more about the potential impact of our new flow regime below Timothy Lake Dam.

What is the purpose of the study?

In 2013, flows were enhanced downstream of Timothy Lake Dam to help improve conditions for fish in the Oak Grove Fork. To determine the effect of these new flows, we capture, mark and count cutthroat and other salmonid species, allowing us to calculate population estimates and collect data on the size and abundance of fish. We hope that the studies will eventually show whether or not the new flow regime has changed the population structure or assemblage of fish.

How is the study conducted?

Biologists angle for fish, which they mark with a small notch in one fin and then release. Then our scientists suit up and snorkel (during the day and at night!) observing and counting both marked and unmarked fish. This mark-recapture method allows for a population estimate to be calculated by comparing the ratio of marked to unmarked fish. We use the same methods every time we conduct the study so we can compare results from year-to-year.

What have we learned so far?

Between 2009 and 2014, cutthroat trout populations appear to have increased in three of the four sites surveyed. However, the median length of all fish caught decreased over that same period. Until this year, 2014 was our only survey conducted since the flow regime changed, so further studies are still needed in order to observe any statistically significant trends. We will continue to repeat this evaluation every five years for the remainder of our hydropower license on the Clackamas River.



Juvenile Fish Update

Juvenile Species	2019 Run Year Totals (Oct. 2018— Aug. 2019)	Run Relative to 10-Year Total Average
Coho	319,204	264% (n=120,565)
Steelhead	47,039	133% (n=35,343)
Chinook	238,677	377% (n=63,238)

*Numbers in this chart represent total outmigration for all facilities combined, and 10-year averages represent the total run year.

- Summertime serves as an important window for fish facility maintenance. All downstream passage infrastructure was recently serviced to ensure reliability during peak passage months in the fall.

Adult Fish Update

Adult Species	Run Totals to date
Spring Chinook	1,965
Coho	31
Steelhead	181

How long does it take a wild spring Chinook to swim from Cathlamet Channel to River Mill Dam?

On June 26, the Wild Fish Conservancy PIT tagged an adult wild spring Chinook. The fish was subsequently detected at River Mill Dam on July 5th. This means it took the fish **only 10 days** to travel approximately 122 miles. That's 12.2 miles of swimming per day!

Complete daily fish counts can be [found online](#).

- The Clackamas spring Chinook run has a forecasted total of 2,459 fish, or 113% of the 10-year average (n= 2,182). Their regional counterparts on the Willamette and Columbia Rivers returned at 51% and 37% of their respective 10-year averages.
- While it's too early in the coho return to generate an accurate forecast, early indications suggest an above average run.



Clackamas Bull Trout Spotted Out and About

We passed five adult bull trout in the last two weeks of July. Compare that to zero in all of 2018! After thousands of years living in the Clackamas Basin, bull trout disappeared in 1963. The U.S. Fish and Wildlife Service launched a reintroduction program in 2011, leading to a return of natural spawning in the basin. The recent uptick in bull trout coming through our Adult Sorting Facility is another positive sign for the reintroduction program. We released all five trout to continue their migration upstream. Read about the [Clackamas Bull Trout Reintroduction Program](#).

Announcements, News and Resources

- Due to reconstruction of the Faraday Powerhouse, Faraday Lake and Park are closed through spring 2021. Learn more on our [webpage](#).
 - ◊ The Clackamas River is also closed to boating from the Faraday Diversion Dam to 100 feet downstream of the powerhouse. Details from the [Oregon State Marine Board](#).
- Our new nature play area in Timber Park was featured in the [Estacada News](#).
- PGE leased the West Linn Paper Company property at Willamette Falls to Columbia Ventures Corp. for five years, while keeping an eye on long-term redevelopment. Read more in [The Oregonian](#).
- Construction of a new pipeline that feeds more water to the Clackamas Fish Hatchery should be completed this fall, improving fish production. Read more in the [Estacada News](#).
- The strong progress of bull trout restoration in the upper Clackamas was mentioned in [The Oregonian](#).
- "Fish on the Run, Irrigation Done." Clackamas Water Providers is asking local residents to reduce or stop outdoor watering this fall to make sure fall Chinook and coho have enough water to complete their migrations. Learn more on [CWP's website](#).
- The Forest Service is asking the public to weigh in on added protections to rivers within the Mt. Hood National Forest, including the Clackamas. More in the [Sandy Post](#).
- ODFW's Recreation Report for the Willamette Zone, including the Clackamas River, can be found on [their website](#).
- Fish counts and other information about the Eagle Creek National Fish Hatchery can be found on the [USFWS website](#).

Restoration Report: Dinger Creek Habitat Enhancement

In 2012, PGE placed ten bundles of logs (50 logs total) and 30 individual trees near the confluence of Dinger Creek and Timothy Lake. These placements helped increase habitat complexity near the shoreline, providing places for juvenile fish to hide from predators and improving their odds of survival. However, these materials have deteriorated over the last six years. So this summer, our fisheries staff took this opportunity to collaborate with PGE Parks, repurposing hazardous trees removed from our campgrounds and turning them into valuable habitat for coastal cutthroat trout. These newly constructed “cutthroat hotels” will hopefully conserve native cutthroat trout and provide cover for all species of fish in Timothy Lake.



Clackamas Habitat Fund

We recently selected projects that will receive \$1.8 million in grants from our Clackamas Habitat Fund. Past projects have helped shade streams, deposit gravel, improve flows, create habitat for fish and more. We look forward to seeing what our partners have in store for improving the Clackamas Basin. Learn more about [Clackamas habitat restoration](#) on our website.

Discover PGE Parks

- Thank you for another wonderful summer at PGE Parks! The last day of camping is September 14th, but you can continue to enjoy many of our day-use areas year-round. More details on the [PGE Parks webpage](#).
- Congratulations to our **#PGE Parks Summer Contest Winner**. We loved seeing everyone’s photo submissions. Check out some of the awesome pictures we received on [Facebook](#).
- **Cascading Rivers Rides**: Join other cyclists for a series of rides along the scenic Clackamas River, September 28th and 29th. Find your ride on [BikeReg](#).
- **Faraday Lake remains closed** until Spring 2021 to allow for the Faraday Powerhouse rebuilding.



Adorable Amphibian Alert! Frog surveys at Timothy Lake



The wetlands around Timothy Lake are prime breeding habitat for frogs, and they are home to two species considered “sensitive” by the Oregon Department of Fish and Wildlife: the northern red-legged and Cascades frogs. Because PGE controls water levels in Timothy Lake, our biologists closely monitor these species to ensure that our operations do not affect their breeding. Each April, we conduct an egg mass survey in the lakeshore breeding pools, followed by monthly surveys of the wetlands and surrounding streams in the summer. Years of practice have given our scientists the skills to catch the camouflaged young frogs — which are often less than an inch long — while simultaneously wading upstream and dodging downed wood in the summer heat.

When we do find a frog, we document its location, species and size before releasing it. The measurements allow us to determine age, and thus, if the population is breeding normally. This year, though reproduction occurred slightly later than usual, the presence of healthy tadpoles in the wetlands and young juveniles upstream in Cooper Creek demonstrated successful breeding.

Thank you for reading our Summer 2019 newsletter!

Visit our [website](#) to find more information about the Clackamas, including informative videos, fact sheets and reports. News, updates and past issues of this newsletter can be found [here](#).

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