

July 2, 2019

Pelton Round Butte Fish and Wildlife Newsletter



After years of data collection, analysis, complex modeling and independent technical review, our long-awaited water quality study was completed and released this June. This study is an important addition to the body of scientific data on the Deschutes, and we're excited to use the new information to help us continue making informed decisions. The Pelton Round Butte Fish Committee is already at work reviewing the report and considering next steps.

Meanwhile, we're encouraged by a strong run of upper basin adult spring Chinook, which have returned to the Pelton Trap at rates that exceed regional trends. Five of these fish have been tracked all the way up to Whychus Creek, where they're able to utilize prime habitat restored by the Deschutes Land Trust.

We look forward to seeing many of you at the upcoming Fisheries Workshop, and hope you'll join us at an open house following the presentations to learn more about the water quality study.

Past newsletters can be found on our [Deschutes Updates and Events](#) page. [Subscribe](#) to our mailing list.

Join us for the 25th Annual Pelton Round Butte Fisheries Workshop

Presentations will cover lower river fire restoration efforts, water quality study results, Opal Springs fish passage progress and more! Check out the complete workshop agenda on our [website](#).

When: July 17-18, 2019

Where: The Riverhouse Convention Center
2850 NW Rippling River Ct,
Bend, OR 97703

RSVP: [Register](#) for the workshop.

- **Register now!** Registration is only open through **July 5th**.
- The venue is centrally located with additional lodging options nearby.



Juvenile Fish Update

Juvenile Species	May 2019	Yearly Total (through May 2019)
Chinook	17,549	31,247
Steelhead	8,150	10,086
Sockeye	7,426	90,441

- In May, 49,638 fish from seven species of salmonids were processed at the Fish Transfer Facility.
- Chinook, steelhead and sockeye were transported and released downstream into the Lower Deschutes River.
- An adult white sturgeon (51-inches long!) was recently captured at the SWW. It was released below Sherars Falls, into its native habitat.

Adult Fish Update

Adult Species	June 2019	Yearly Total (hatchery, wild and upper basin)
Spring Chinook	245	412

- This season, we have passed 47 upper basin spring Chinook above Round Butte dam, as well as 13 bull trout known to have originated upstream of the project.
- Adult sockeye should begin returning this month, around the Fourth of July, and we expect a strong return.

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



Biologists tag adult spring Chinook and collect scale samples.



Featured Study: Water Quality Study for the Pelton Round Butte Project and the Lower Deschutes River



Why was this study conducted?

Since our salmon and steelhead reintroduction efforts in the Deschutes Basin began, PGE and the Confederated Tribes of Warm Springs have worked together to make well-informed, science-based decisions for the benefit of fish and water quality above and below the Pelton Round Butte Hydroelectric Project. Several years ago, it became clear we needed a better understanding of water quality conditions in the upstream tributaries, reservoirs and Lower Deschutes River to continue making these informed decisions. In 2015, we commissioned an outside expert to conduct a multi-year study to collect and analyze water quality data in the basin. This comprehensive report supplements our ongoing fisheries research and water quality monitoring program.

Who conducted the study? What data was collected?

This water quality study was conducted and authored by Joe Eilers and Kellie Vache of MaxDepth Aquatics. They are respected experts on water quality and modeling, with extensive research experience in the Deschutes Basin and throughout the region. They studied more than twenty parameters to evaluate water chemistry, nutrients and biological factors. Sites were chosen along the Lower Deschutes in order to represent the entire length of the river below our project. We also determined sites based on their accessibility over multiple seasons and years so that the data could track variability over time. Where we could access them, we selected a subset of sites from a similar study that was conducted in 1997, allowing for historical comparison.

What's in the study?

The study has two main parts: water quality monitoring and scenario modeling. The monitoring section describes the status of water quality in the river and reservoirs. The modeling section forecasts possible outcomes that could result from changes in operation of the project, as well as factors beyond our control, like climate change.

What are the results?

The research found that many factors are at play in changes that have occurred on the river. Low stream flows and increased overall regional temperatures have led to undesired changes in the tributaries and the Lower Deschutes River. The Selective Water Withdrawal system has also influenced other changes.

- The SWW has effectively reconnected the Deschutes Basin, which was artificially divided for half a century. Fish are migrating downstream and benefiting from a more natural seasonal temperature pattern. The SWW is doing what it was designed to do.
- Unfortunately, reconnecting the upper and lower Deschutes has also caused some unanticipated issues. The water quality study confirms that by passing warmer, nutrient-rich surface water, largely from the Crooked River, below the dams, the SWW unintentionally promotes algae growth downstream. Restored connection means that the Lower Deschutes River is no longer “buffered” from conditions upstream, and decisions affecting the upper basin now have a more direct impact on the lower river as well.
- Rising temperatures in the tributaries have reduced the amount of cold water in the depths of Lake Billy Chinook, leaving less available for mixing by the SWW. Climate change and continued development in the upper basin will likely exacerbate these issues.

What's next?

Now that the study is done, PGE and the Tribes are working with the Pelton Round Butte Fish Committee to consider targeted solutions. Together, we will consider potential changes by weighing their combined long-term effect on water quality and fish passage. We also have to consider public safety, recreation access and license obligations. While some of the scenarios we've modeled offer results that are worth exploring, it's important to note that none provide a perfect fix to address every concern on the Deschutes. We believe this study will give all of us a deeper understanding of what's going well on the Deschutes and what we can do, together, to make basin-wide improvements.

Where can I find the study?

The study, data and helpful resources to guide your reading can be found at: PortlandGeneral.com/WaterQuality. We recommend downloading the [FAQ](#) and [Reading Guide](#), and encourage you to join us for an [Open House event](#).



Join us at an **open house event** to learn more about the Water Quality Study

Come learn about the results of the study, ask us your questions in person, and hear about our other environmental work in the Deschutes Basin. Find [more information](#) online.

Central Oregon: July 17th, 4 p.m. to 6 p.m. — Riverhouse on the Deschutes

Portland: July 23rd, 5 p.m. to 7 p.m. — Ecotrust, Billy Frank Junior Conference Center

Maupin/The Dalles: TBA, sometime **Fall 2019**



Partner Feature: Joe Eilers — MaxDepth Aquatics



Joe Eilers – who authored our water quality study along with Kellie Vache – has 43 years of research experience under his belt, including decades in the Deschutes River Basin. In fact, Joe worked on a similar study for PGE in 1997 that served as a historic comparison for this 2019 study. Joe graduated with a BA in biology from the University of California, Santa Barbara in 1973, then went on to earn his master's in Water Resources from the University of Wisconsin, Madison in 1976. He has conducted research on waterways across the nation, but says Oregon remains his favorite. According to Joe, the best part of his job is having the ability to continuously learn. "Each lake and river is different and one needs to keep an open mind regarding the data," he says. "It's also humbling." We're grateful for Joe's hard work on this massive study.

Announcements and News

- Upper basin spring Chinook returns are over nine times higher than last year. More on PGE's work behind these numbers in the [Bend Bulletin](#), [KTVZ](#) and the [Columbia Basin Bulletin](#).
 - ◊ Several Chinook have even returned to Whychus Creek! Details from the [Deschutes Land Trust](#).
- PGE and CTWS recently released our multi-year water quality study. Read about the study results in the [Columbia Basin Bulletin](#) and [Madras Pioneer](#).
- The Oregon Health Authority released a seasonal blue-green algae advisory for Lake Billy Chinook. This is a new approach to algae warnings — a season-long precautionary announcement asking visitors to remain aware. OHA will *not* announce algae concerns at Lake Billy Chinook on a case-by-case basis this year. More information in the [Madras Pioneer](#).
- Our partner the Crooked River Watershed Council is celebrating its 25th anniversary this year. Read about the organization's history in the [Central Oregonian](#).
- Summer is here! Check out the many recreation opportunities at Lake Billy Chinook in the [Bend Bulletin](#).
- BLM campfire restrictions are in effect across the Deschutes Basin. Details on [KTVZ](#).
- Join the 23rd Annual Deschutes River Cleanup on July 27 at Riverbend Park. RSVP [here](#).
- Stay safe while having fun on the Deschutes this summer. Water safety tips in the [Bend Bulletin](#).

Thanks for reading our July newsletter!

Visit our [website](#) to find more information about the Deschutes, including informative videos, fact sheets, and reports.

- ◊ Have suggestions for what you'd like to see in the next newsletter? Want to schedule a tour? Contact us at deschutes.passage@pgn.com.
- ◊ Not on our mailing list? [Subscribe](#) to the newsletter.
- ◊ To unsubscribe, send an email to deschutes.passage@pgn.com with the subject line "unsubscribe."

