



WEST MULTNOMAH
Soil & Water Conservation District

Sturgeon Lake Restoration Project Update



District Manager's Message

Our second Sturgeon Lake Restoration Project newsletter comes as we get closer to the actual construction date and the realization of many years of planning! Our goal of restoring tidal and seasonal flows from the Columbia River to Sturgeon Lake has not wavered. The intricacies of such a complicated project involving multiple landowners and funders has been daunting at times but incredibly rewarding as we work out the final details before construction is slated to begin in July.

We are keeping our eyes on the prize. Sturgeon Lake is an important link in the Pacific Flyway for waterfowl and a large variety of bird species and is critical to juvenile salmon, which use the lake for rearing and foraging as they prepare to migrate to the ocean. Hundreds of thousands of people visit and use the lake and surrounding natural areas for recreational activities each year.

Read further to learn more about plans to replace two failing culverts with a bridge over Dairy Creek at Reeder Road, the first phase of the restoration project that also includes work to open the water channel connecting Sturgeon Lake to the Columbia River.

Jim Cathcart, District Manager, West Multnomah Soil & Water Conservation District

The Latest News



Sturgeon Lake of silt and debris.

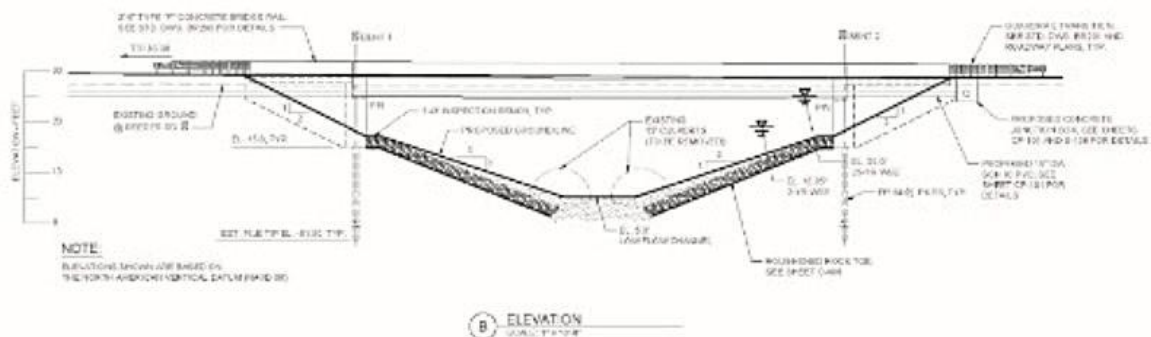
We are pleased to announce that **Elting Northwest** has been selected by the Columbia River Estuary Task Force (CREST) as the contractor for construction of the new bridge over Dairy Creek! The bridge (please see the design spotlight below) will replace two failed culverts that have prevented fish passage and tidal flows from the Columbia. The new permanent tidal channel is intended to help flush

Elting Northwest was chosen from a field of 22 contractors who attended the “Construction Pre-bid Site Visit” in late February. Elting Northwest is a family owned business based in Gladstone and operated for almost 50 years. President, Tom Elting, says his father started Elting, Inc in 1969 and worked on many major grading projects including Washington Square Mall, Clackamas Town Center, Charbonneau, Mt. Hood Community College and initial construction of I-205. When his father retired in 2005, the company moved forward as Elting Northwest, Inc. with new ownership but with the same crews and work focus. Tom Elting has spent almost his whole life in Oregon, earning a bachelor degree in civil engineering from OSU and working his entire career in construction, with positions at Elting Northwest and two bridge contractors.

Elting Northwest has a core staff of 6 and employs up to 30 seasonal workers during construction season, focusing primarily on public works road projects (excavation and underground utility work) and private commercial sitework.

Tom says, “We were initially interested in the Sturgeon Lake project because it was a size and nature of work that suited our abilities. We have not worked with CREST before but we had heard good things about them so we were anxious to work together with CREST both on Sturgeon Lake and on future projects. Once we learned more about the work, we realized the diverse activities and tight schedule made it a project that we could really sink our teeth into. Our company is deeply infused with a culture of innovation so when we see a project that requires thinking outside the box, we really get excited. We know that CREST could have chosen anyone to perform this challenging project. We are pleased that Elting Northwest was chosen and we are excited to get underway on the Sturgeon Lake project. All the construction permits have been submitted and construction is projected to start this July.”

Design Spotlight



A primary project feature for the restoration of Sturgeon Lake is to replace the current road crossing at Dairy Creek to allow for full channel connectivity as well as meeting ODFW fish passage criteria. The Reeder Road structure is a single-span bridge over Dairy Creek and replaces the two existing (and failing) 12 foot culverts. The span is 96 feet long (center-to-center of end bents) and 40 feet wide. The roadway width is 36 feet and consists of two 12' traffic lanes with 6' minimum shoulders. Forty-two inch concrete barriers on the outside of the bridge provide safety for cyclists on the route.

Superstructure: The superstructure consists of ten 42" precast, pre-stressed adjacent box beams topped with a minimum 3" thick Asphalt Concrete Wearing Surface (ACWS) and a waterproofing membrane.

Substructure: The bridge will sit on reinforced concrete pipe-pile foundations. Each foundation will consist of six pipe piles driven into the ground to a depth of approximately 45 feet. Wingwalls (much like retaining walls) will be parallel to the structure's centerline to protect the foundations from high water events.

This Multnomah County-approved bridge design provides full hydrologic, sediment, and biological connectivity and meets ODFW fish passage criteria (ODFW 2008) to:

- Simulate or mimic natural geomorphic channel and bank features and hydraulic conditions underneath and throughout the new bridge; and
- Ensure that average water depths and velocities mimic those in the surrounding channel as measured outside the influence of the existing structure.

With this new structure, Dairy Creek will be fully connected to Sturgeon Lake and allow the greatest flows when the water is high, particularly at important fish migration times from April to July.

Project Spotlight: Tom Josephson

Tom is the Senior Habitat Restoration Project Manager for CREST, the Columbia River Estuary Study Taskforce. He manages planning and implementation for projects in the



Portland and SW Washington area, including Sturgeon Lake and other projects on Sauvie Island as well as those in Vancouver Lake, Longview and Cathlamet, Washington. He performs landowner outreach and oversees the quality of subcontracted work, restoration design, regulatory permitting, and construction.

Tom earned his undergraduate degree in Environmental Education from Western Washington University, and his graduate degree in Environmental Planning from the University of Hawai'i, with a stint with the Peace Corps in Palau sandwiched in-between. Prior to joining the CREST

team in 2011, he volunteered with a variety of environmental organizations, and worked as a Conservation Planner and a Groundwater Science Technician with The Nature Conservancy.

As with the Sturgeon Lake Restoration Project, most of Tom's work on Sauvie Island involves floodplain connectivity (removing culverts and levees and improving riparian vegetation) with the goal of restoring juvenile salmonid habitat. He's able to join biologists gathering data in the field, which balances out his management work dealing with a project's permitting process, legal requirements and other details involved in moving from concept to implementation. Tom says his favorite part of the job is seeing the transformation of a degraded landscape to a thriving ecosystem and then watching the site change over the years. He points to the decades-long stewardship commitment by West Multnomah SWCD and the Oregon Department of Fish & Wildlife as key to the long-term success of the Sturgeon Lake Restoration Project.

Funder Spotlight: Metro Parks and Nature

Starting in 2016, the District began using Metro's Nature in Neighborhood grant funds for real estate due diligence. The money supports efforts to secure permanent conservation and temporary construction easements from four private and two state landowners with properties covering the Dairy Creek portion of the project area. The District's contract real estate attorney, W.P. "Fritz" Paulus, is

conducting real estate due diligence (e.g., review of title, review of water rights and negative impacts to water rights, review of state ownership claims of bed and banks below tidally influenced reaches of Dairy Creek) and coordinating District negotiations with the affected landowners.

At stake are acquiring interests in the 26.7 acres of temporary construction easements and 14.6 acres of permanent conservation easements that are necessary for project completion. The temporary construction easements will allow access for the contractors and delineate specific zones such as staging areas and temporary access roads while also putting specifications on work environments and leaving the affected areas used for construction in as well, or better, condition than prior to construction. Permanent easements are individually negotiated but roughly cover the same major points of: (1) protecting the conservation values (hydrological connectivity and natural habitats) established by the project, (2) allowing the District to access the site for maintenance and monitoring, (3) restricting non-compatible uses within the easement, and affirming the right of private landowners to restrict public access to their lands.



Metro Nature in Neighborhood funds have been instrumental in making this happen. The flexibility that both Metro and their staff have shown has allowed for a smooth process and strong support from all six landowners. These easements, which would not be possible without detailed legal review

and development, will ensure successful implementation of the project and long-term stewardship for the benefit of people, wildlife and the environment.

“Metro Council and the grants review committee recognized the importance of this large, impressive and centrally located project to restore 3,000 acres of Sturgeon Lake and provide habitat for 180,000 wintering waterfowl and juvenile salmon,” said Crista Gardner, Metro Nature in Neighborhoods grants coordinator.

“Committee members appreciated that the \$100,000 Nature in Neighborhoods grant would leverage extensive funds from the U.S. Army Corps of Engineers and contributions from numerous partners and the community.”

Timeline

- October, 2017 - invasive vegetation removal completed
- July, 2018 - by-pass road installed, culvert removal, bridge construction begins
- August/September, 2018 - bridge and channel work
- October/November, 2018 - project completed, final site cleanup, native riparian plantings
- February, 2019 - additional native riparian plants installed

The District has secured a dedicated email address and web page for information about the project. Please visit wmswcd.org/sturgeonlake or email sturgeonlake@wmswcd.org with any questions.

In future newsletters we will let you know how the project is proceeding, so stay tuned! Updates will also be available on our website.

Thank you for your participation and interest in restoring this spectacular lake for all to enjoy.

*Compiled by Carolyn Myers Lindberg, Communications Coordinator
West Multnomah Soil & Water Conservation District*