



Sturgeon Lake Restoration Project

Since the construction of the Sauvie Island levee by the U.S. Army Corps of Engineers (USACE) in 1941, open water habitat on the island has been reduced by 45%. The levee and the upstream dams have altered hydrology and sedimentation in the lake which continues to reduce in size.

Today, Sturgeon Lake covers 3,000 acres, yet grows to almost 7,000 acres when the Columbia River reaches flood stage in winter. The lake offers important winter habitat to 200,000 ducks and geese, and juvenile salmonids that leave the Columbia River in search of refuge from high flows. The fish also rely on the lake for food, to fuel their growth, and increase their likelihood of survival when they reach the ocean.

A project in the 1980's, led in part by West Multnomah Soil & Water Conservation District (WMSWCD), attempted to reverse the sedimentation in the lake by cutting a new channel from the Columbia River through Dairy Creek. It worked, however the channel was blocked by the February 1996 floods, and water passage has been restricted ever since. Beginning in the late 1990s, a team of private landowners, public agencies, and non-profit organizations worked to implement a new plan that incorporated lessons from the previous project. In 2018, the planning was done and the project became a reality!

The Project

In 2010, the USACE sought to better understand what went wrong in past efforts as well as look for permanent, sustainable solutions to the problem. In December 2011, a large group of partners and landowners drafted over 30 possible solutions to the following project goals:

- Provide new, direct fish access between the main stem Columbia River and Sturgeon Lake for the primary benefit of Chinook, Coho, and steelhead.
- Improve daily tidal flow within the lake, thereby improving habitat complexity, supporting native plant communities and open water habitats for waterfowl.
- Maximize exchange of water between the lake and Columbia River during flood events to restore the natural process and stop sedimentation.

In order to meet these goals, the plan was narrowed down and the eventual construction design focused on three areas:

- Reopen Dairy Creek between the Columbia River and Sturgeon Lake by removing existing sediment. Construct a “two-stage” Dairy Creek channel: a small “low flow” channel to keep water velocity up and prevent sedimentation and a “high

flow” or flood channel to allow for the maximum movement of water during floods.

- Minimize debris (logs) and sediment from the Columbia River entering Dairy Creek and depositing at the mouth.
- Replace two undersized, failing culverts which pass Dairy Creek under Reeder Road with a full channel-spanning bridge.

Funding

Bringing this plan to reality was the work of many partners and community members. Of the total cost of \$6.9 million, the majority came from Bonneville Power Administration (BPA) (\$3,724,000) and USACE (\$2,073,000). In addition, there were 19 other public and private funders. Oregon Wildlife Foundation led a campaign for private donations which raised over \$400,000. Donors included the Wessinger Family Foundation, Hilltop Foundation, Reser Family Foundation, Ducks Unlimited, Oregon Community Foundation, King Family Fund, RH Parker/United Foundation, Ann & Bill Swindells Charitable Trust, Papé Family Foundation, Oregon Waterfowl Festival Association, Oregon Duck Hunter’s Association, ESCO Corporation, as well as individual Oregon Wildlife Foundation donors.

Public, state, and local funders included Multnomah County (\$300,000), Oregon Department of Fish and Wildlife (\$100,000), Metro Parks and Nature (\$100,000), Oregon Watershed Enhancement Board (\$57,500), and WMSWCD.

Construction

Much of the construction work occurred on private lands. WMSWCD worked with 4 private and 2 public landowners to secure both temporary construction easements and permanent conservation easements to permanently protect the site. All landowners were willing sellers and supportive of the project. Construction of the new bridge and opening of the channel, work overseen by the Columbia River Estuary Study Taskforce (working for BPA) and contracted by Elting Northwest Inc., officially began on July 2, 2018 with the majority of activities wrapped up by the end of September 2018. The old, 12-foot steel culverts were replaced with a channel-spanning 96-foot wide bridge with full travel and bike lanes. Over 25,000 cubic yards of sand and woody material were removed to reopen Dairy Creek. Finally, structures were installed at the mouth, such as a floating debris deflector, to minimize long-term maintenance.

To learn more about the Sturgeon Lake Restoration Project, contact:

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Ongoing construction at the mouth of Dairy Creek on the Columbia River. Rock, willow bundles and logs placed to prevent erosion. Vertical pilings for the debris boom (deflector) can be seen on the river's edge.
Image date: September 12, 2018



Reeder Road bridge at Dairy Creek, under construction. The bridge girders (supports) have been installed though the channel under the bridge is still blocked with fill.
Image date: September 7, 2018