

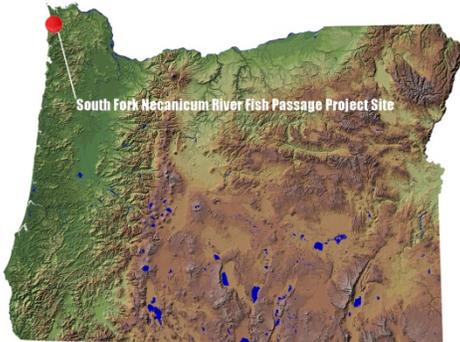


More Water, Safe Passage

The South Fork Necanicum Fish Passage Project

Ensuring a Steady Water Supply for a Community, Native Fish

Residents in Seaside, Oregon, and native salmon, steelhead, and coastal cutthroat trout are benefitting from a 2012 retrofit to the city's outdated diversion dam and pumping system. Multiple partners, including the Service, have installed a fish screen and energy efficient pumps at locations on the South Fork and mainstem Necanicum River. The improvements provide safe fish passage, better habitat, and a steady supply of municipal drinking water year-round



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Balancing a Conservation Challenge with Municipal Water Needs

The Necanicum River is located on the Northern Oregon Coast, and enters the Pacific Ocean near the City of Seaside. The Necanicum and its South Fork tributary supply Seaside's municipal water supply from two sources: a channel-spanning diversion dam on the South Fork of the Necanicum River (roughly 1.2 miles upstream from the confluence with the mainstem Necanicum), and Peterson Point diversion, located at river mile 5 on the Necanicum.

Until 2012, the South Fork Necanicum diversion dam and the mainstem diversion point (Peterson Point) both lacked fish screens that met regulatory guidelines to protect Endangered Species Act-listed fish. The South Fork diversion infrastructure and Peterson Point diversion also used outdated infrastructure to control and pump water



The South Fork Necanicum River and this diversion dam supplies the City of Seaside's drinking water. (Credit: USFWS)

withdrawals, which wasted electricity, unnecessarily reduced instream flows, and even dewatered sections of the South Fork at times during low flow periods. Moreover, the South Fork diversion dam's fish ladder didn't fully function, blocking migration seasonally for adult fish and year-round for juveniles.



Prior to (re)construction, the diversion dam's fish ladder was only partly functional. (Credit: USFWS)



Columbia River Fisheries Program Office

1211 SE Cardinal Ct., Suite 100

Vancouver, WA, 98683

360/604-2500

<http://www.fws.gov/columbiariver>



Reconstructing the South Fork Necanicum's river channel.
(Credit: USFWS)

Collaboration Leads To Solutions

Using a collaborative approach, the City of Seaside, Oregon Watershed Enhancement Board, the Necanicum Watershed Council, Oregon Department of Fish and Wildlife, Longview Timber, NOAA-Fisheries, and the Service crafted a multi-faceted solution that met the city's legal water right and restored fish habitat and passage.

The agencies 'roughened' and reconstructed a segment of the South Fork Necanicum's channel, removed part of the diversion dam, and installed a regulatory-compliant, rotating belt fish screen. The changes all year-round passage for native fish at all life stages, and ensure that if river flows fall below three cubic feet per second, all water flow stays in the river.

On the mainstem Necanicum, the Peterson Point diversion received energy efficient pumps that withdraw water at lower volumes. New fish screens on the intake structure to help the City better protect fish and follow its water management plan. Now Seaside's water withdrawals equal—but do not exceed—meet the community's seasonal water needs. Water that in the past was unnecessarily diverted is now left in the river, where it supports aquatic species.

Precision pumping and fish-friendly screens makes good business sense for the residents of Seaside. But another community benefits, too: Necanicum River native fish now have more water, safer passage, and better habitat in which to find food, find shelter, or prepare for the next generation.



Above: Final completed channel with fish passage restored. Fall Chinook (below, left) and coho salmon (below right) will benefit from the project. (Credit: USFWS)



"It is easy to become demoralized about environmental news. It can appear that fish runs are on an inexorable downward curve, caused by ocean conditions that lay well beyond anyone's ability to change.

If we succumb to that dire perspective, we forget there is much we can do to improve fish habitat. Nancy McCarthy's pair of articles in Friday's edition are a heartening illustration of what can happen when an array of agencies focuses on the Necanicum River."

-- The Daily Astorian (7/18/2012)



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