

HEMLOCK DAM REMOVAL

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Hemlock Dam was demolished and removed in the summer of 2009. The dam was an aging Forest Service facility on Trout Creek, in the Wind River watershed of southwest Washington. At 26-feet high and 183 feet across, the concrete dam formed a migration impediment to Lower Columbia River steelhead, and degraded water quality and habitat for the fish through the lower two miles of Trout Creek.

Trout Creek is a major tributary to the Wind River. At one time Trout Creek was estimated to have returned some 700 adult steelhead annually, representing 20% or more of the total return to the Wind River system. From 1980 to 1995, the annual adult return to Trout Creek declined from 450 to less than 10 fish, highlighting the tenuous nature of the run, and underscoring the importance of taking action to improve conditions for the fish.

The dam was in place since its construction in 1935 by the Civilian Conservation Corps. Originally generating power, the dam was retooled for irrigation storage in the 1950's to support the adjacent Wind River Nursery. By 1997, the nursery closed and there was no longer a need for irrigation storage. Following completion of an EIS in 2005 which analyzed several options for improving habitat and passage at the dam site, the Forest Service opted to remove the dam, excavate fine sediments from behind the dam, and to construct a stream channel through the reservoir footprint.

The project began in early July 2009, with fish removal from the project area, and installation of pumps and pipes that would convey Trout Creek flows around the worksite for the summer. Once the reservoir was drained, excavation began. Over the next month, approximately 55,000 yards of sand and fine-grained sediments were excavated and hauled offsite to make way for the new channel. Over 1200 logs and whole trees were used in constructing the channel and floodplain. Once the channel was constructed, removal of the concrete dam took just 3 days to complete.

The dam was removed in early August, and by mid-August the flow of Trout Creek was directed into the newly constructed channel. Several hours after restoring flow to Trout Creek and removing the downstream coffer dam, an adult steelhead was captured on video navigating up through the new channel. In spring and fall of 2010, some 20,000 seedlings will be planted onsite. The site will continue to support recreational activities as project activities are completed.

The project was a collaborative effort involving numerous partner agencies and organizations. Funding organizations include: Bonneville Power Administration, U.S. Fish and Wildlife Service, Salmon Recovery Funding Board, Ecotrust, Yakama Nation, American Rivers, NOAA Fish Restoration Center, and Mid Columbia Fisheries Enhancement Group. Many of these and other organizations assisted with project implementation including the University of Washington and their Canopy Crane program, Gifford Pinchot Task Force, USGS Columbia River Research Lab, Columbia Gorge National Scenic Area, Underwood Conservation District, Smith-Root Inc, and Rosauers.