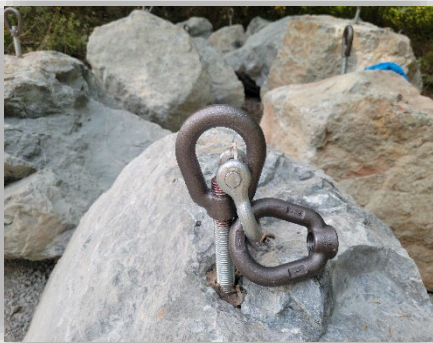


Upper Phillips Irrigation Efficiency & Fish Passage Improvement Project



Figure 1. Looking upstream at Upper Phillips Irrigation Diversion on Little Applegate River pre-project in 2021 (top). The second from top shows Upper Phillips after completion of log and boulder fish passage structure and new irrigation headgate (constructed upstream of the concrete dam which remains in place). The lower photos show project components: boulders, concrete pipe, and headgate (left to right).



Project Description: The Applegate Partnership & Watershed Council (APWC) partnered with water users of the Upper Phillips irrigation diversion and ditch to improve water management capability and fish passage. Completed in the summer of 2021, the project updated the irrigation system with a new headgate, water diversion structure, and an enhanced bypass channel for fish passage. Annual construction of a push-up dam will no longer be required to divert irrigation water. APWC has also secured an additional \$980,000 of grant funding for piping 2.5 miles of the open ditch in 2022.



Figure 2. The top photo shows a birdseye view at new headgate during installation at diversion intake on river right. The photo to the right shows construction in progress of log and boulder fish passage and habitat enhancements in river left side channel.



Project Details: The project had three primary components: 1) construction of a permanent boulder ribs/rock fill structure to provide a permanent mechanism for diverting irrigation water into both the Upper Phillips ditch and into the fish passage bypass channel; 2) installation of a new headgate to allow for better control of irrigation water diversion and reduce maintenance and winter flooding, and; 3) enhancement of the existing bypass channel with logs and boulders to provide fish passage. The project design retained the existing concrete dam at the request of the irrigators, save lowering dam's river left wing.

Cost: The cost of the upgrades to the diversion and fish passage improvement was \$240,000 plus \$40,000 to cover project design and permitting. APWC has also secured \$980,000 of grant funding for additional piping of 2.5 miles of ditch in 2022. The funding was provided by the Oregon Department of Water Resources, Oregon Watershed Enhancement Board, Oregon Department of Fish & Wildlife, Jackson County Soil & Water Conservation District, and Pacific Power Blue Sky Program. There was no cost to water users who donated their time and logs as match.



Figure 3. Aerial view of the project area at the Upper Philips diversion on Little Applegate River in Ruch, Oregon. The upper photo shows Upper Philips Dam and Ditch in 2020 before the project commenced (top). Streamflow bottom to top. The lower photo from Aug 2021 shows the completed boulder ribs/rock fill diversion structure and partial log placement in the fish passage bypass channel. Headgate/piping have not been completed in this photo and the open ditch is visible in lower right. Streamflow left to right.



About the Applegate Partnership & Watershed Council:

We are a nonprofit resource for landowners who are interested in irrigation efficiencies, land stewardship, clean water, and improving fish & wildlife habitat. Our office is in Ruch.

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