

LOWER BRIDGEPOINT IRRIGATION EFFICIENCY & FISH PASSAGE PROJECT



Figure 1. Lower Bridgepoint Dam and headgate before (upper left). New headgate and roughened channel (lower left). Right three photos show pipe and headgate installation.

Project Description: The Applegate Partnership & Watershed Council partnered with water users along the Lower Bridgepoint Ditch including Blue Fox and Whistling Duck Farms and the Bureau of Land Management (BLM) on this irrigation upgrade project. The project updated the irrigation system with a new headgate, roughened channel, flat plate fish screen, and pipeline that replaced the current push-up dam diversion, fish screen, headgate, and open ditch. The new headgate and 3/4 mile of pipeline will improve the diversion, save 30% more water, and reduce maintenance along the ditch and at the pushup dam. A pushup dam will no longer need to be constructed. Completed in 2020.



Figure 2. Looking downstream at completed Bridgepoint Ditch concrete headgate and roughened channel on Williams Creek (top). On right, same view during construction with concrete headgate and boulder ribs placed within Williams Creek channel that make up roughened channel.

Project Details: Fish passage was improved by installing a new irrigation diversion to replace the dam. APWC installed a precast concrete vault with flat plate fish screen where the headgate was on Williams Creek. This was coupled with a roughened channel (spaced boulders) to raise the water level similar to the way a dam does but over a longer distance. This allows for fish to migrate up and downstream while building up elevation necessary to supply irrigation water. Improving fish passage allowed for grant funding to install 4500ft of 15-in ADS N-12 pipe in Lower Bridgepoint Ditch (\$186,000).

Cost: There was no cost to the Ditch Association. APWC used grants from Oregon Watershed Enhancement Board (OWEB), Oregon Department of Transportation (ODOT), Paul Allen Foundation through American Rivers, US Fish and Wildlife Service, National Marine Fisheries Service (NOAA) Restoration Center, and volunteer hours from Bureau of Land Management, Oregon Department of Fish & Wildlife, Oregon Water Resources Department, and Lower Bridgepoint Ditch Association to provide match for each other. The Ditch Association had previously piped and lined 2/3 of the ditch previously which can also be match. Total project cost covered by grants was \$520,000.



Figure 3. Aerial view of the project area at the Lower Bridgepoint diversion on Williams Creek in Provolt, Oregon, facing upstream. Lower Bridgepoint Dam and ditch before (upper) and after with new headgate and roughened channel and buried pipeline (lower).



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.

Project Contact: Julie Cymore, Applegate Partnership & Watershed Council
541-890-9765 or julie@apwc.info