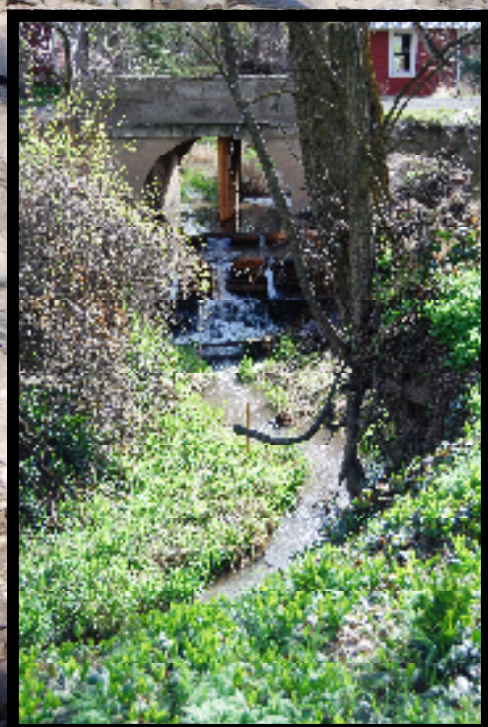


Walla Walla County Conservation District
Spring Creek Barrier Removal
Project Implementation Report
BOA Project 2007-396-00, Contract 39456



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Spring Creek Fish Passage Project

May 2010

THE PROBLEM

Spring Creek is one of the small feeder streams of Dry Creek, a tributary of the Walla Walla River in Walla Walla County, WA. While Spring Creek is somewhat “flashy” by nature and subject to rapidly increasing flows influenced by weather events such as rapid snow melt (Chinooks) or intense rainstorms, it has strong base flows of very cold water of good quality issuing from several springs. Due to bridges, culverts and drop structures, however, Spring Creek has been inaccessible for fish since at least 1921 when the bridge into the A. L. Kibler farm headquarters was constructed.



Figure 1: Nowogroski headquarters bridge and perched outfall apron – the lowest barrier to fish migration on Spring Creek prior to the project construction.



Figure 2: Perched culvert and gully plug structure at Margaret Kibler Farm prior to project construction

THE LOCATION

The confluence of Spring Creek with Dry Creek is about three miles southwest of Dixie, WA. The lowest barrier targeted for removal was at 46.11388 N, 118.21079 W at the Jay Nowogrowski Farm headquarters. Approximately ½ mile upstream at the Margaret Kibler Farm, 46.10853 N, 188.20401 W, a second barrier targeted. The remediation of these passage barriers would open up over three miles of this spring fed cold-water stream to fish use.

CREEK INFORMATION

As mentioned above, Spring Creek is a tributary to Dry Creek, one of the Walla Walla River's main tributaries with its confluence at the middle reach of the river just west of Lowden, WA. The stream is classified as a priority protection reach in the Snake River Salmon Recovery Plan. Priority protection reaches require projects that maintain existing stream conditions. While Lower Dry Creek currently is not considered a priority for salmon recovery due to extensive damage caused by head cutting, the upper reach supports a wild population of steelhead. The size of the population is not known.

While Mid-Columbia Steelhead are the primary beneficiary of restoration work of Dry Creek and its tributaries, Chinook and Bull Trout have been identified as secondary species that will benefit from work on stream.

THE ROAD TO IMPLEMENTATION

1. The potential for this project came on the Walla Walla County Conservation District's (WWCCD's) radar screen during a field survey to discover cold water springs with fish habitat potential in the Dry Creek drainage. Dry Creek is a tributary to the Walla Walla River.
2. The WWCCD coordinated a site visit by an interagency multi-disciplinary team to determine what methods could be used to eliminate the two large passage barriers discovered on Spring Creek. Participating on the team were: Mike Denny, WWCCD, Richard Weller, WWCCD Engineer, Jed Volkman, Confederated Tribes of the Umatilla Indian Reservation (CTUIR), Jim Webster, CTUIR, and Dave Karl, Walla Walla Watershed Steward, WA Dept. of Fish and Wildlife (WDFW).
3. The two private landowners were brought into the project in late 2008-early 2009 by signing landowner agreements with WWCCD. There was no match required by the grant covering this project.
4. WWCCD applied to WDFW for the Hydraulic Permit Application (HPA) which was received late in 2009.
5. The design work was completed by Richard Weller, WWCCD Engineer.
6. The contractor, Dick Rubenser, was selected through the competitive bid process in late 2009.
7. The first cut at the Cultural Resources Survey was done by Ray Tracy, a private archeologist consultant. The final report was completed by Kevin Smith, BPA.
8. Work began on the project on December 8th, 2009 and was completed on May 31st, 2010.
9. A post-construction site visits and critiques were coordinated by Mike Denny, WWCCD in late May, 2010 and included Jed Volkman, CTUIR, Dave Karl, WDFW, and Richard Weller, WWCCD Engineer.
10. Total cost for the project was \$127,606.00.

PROJECT RESULTS

With the construction of step-up weirs at the lower barrier and the installation of an arched culvert in combination with step-up weirs at the upper barrier, the lower three miles of Spring Creek is now open for salmonid use.

Below are photographs of the completed project:



Figure 3: Nowogrowski Farm headquarters bridge looking upstream after the installation of step-up weirs.



Figure 4: Kibler Farm's new arched culvert after installation of step-up weirs.



Figure 5: Nowogrowski Farm's wood cross-channel weirs in association with large woody debris (LWD).