

13310-2009-140 Fish passage and screens at two diversions on Eagle Creek (Powder River), Oregon

State(s): Oregon

Managing Agency/Organization: U.S. Fish and Wildlife Service

Type of Organization: Federal Government

Project Status: Completed

Project type: WNTI Project

Project action(s): Fish passage

Trout species benefitted: Bull Trout

Population: Powder River Basin

Fish screens will be installed on two major irrigation ditches that divert water out of Eagle Creek to protect bull trout and redband trout from entrainment. In 2008, the in-stream diversion dams for these ditches were replaced with rock weir structures that were specifically designed to provide upstream fish passage for all life stages.

The importance to the Resource: With high-elevation headwaters located mostly within designated Wilderness, Eagle Creek is a high-quality, cold water stream that supports excellent bull trout and redband trout spawning habitat in its upper branches. The removal of fish passage barriers is identified in the draft Bull Trout Recovery Plan as a key management need in this basin.

The problem: The lower section of Eagle Creek is heavily diverted for agricultural uses. There are six major diversions, all of which are currently unscreened, which create highly unfavorable conditions for fluvial fish that migrate to the lower Powder and Snake rivers. Two of the largest unscreened diversions are the Kay-Young (40+ cfs) and the Nash (22 cfs).

The method: The Oregon Department of Fish and Wildlife's Fish Screen Program will design & install the screens, selecting the type of screen best suited to the site and the diversion size. The screens will meet NOAA-Fisheries design criteria for passage of adult and juvenile salmonids.

Further description:

This project is part of a larger, ongoing effort to work with landowners in the Eagle Creek Valley to replace push-up dam diversion structures, screen diversions, and improve stream habitat conditions. Since 2007, three new fish-friendly diversion structures have been installed. As we successfully complete more projects, adjacent landowners are showing increasing interest in expanding efforts to other sections of the creek and addressing other diversions in the Valley. Funding applications have been submitted to ODFW's Fish Screen Shop and they have been approved pending identification of sufficient cost-share funding. Funds requested from WNTI are intended to contribute to the cost share. Cultural Resource surveys and other environmental compliance requirements were completed in 2008 in advance of the diversion dam replacement projects.

Objectives:

- Eliminate two passage barriers that are major sources of fish mortality in a high-quality drainage with excellent prospects for long-term bull trout recovery.
- Foster cooperation with local landowners on an activity that furthers fish habitat restoration to build trust and support in the community for additional fish passage projects.

Partners:

- Eagle Valley Soil and Water Conservation District - Matching \$7,000 - In Kind \$0
- Oregon Department of Fish and Wildlife - Matching \$123,000 - In Kind \$0
- Oregon Partner's for Fish and Wildlife - Matching \$20,000 - In Kind \$0
- Private Landowners - Matching \$7,500 - In Kind \$7,500
- USFWS Recovery Program - Matching \$20,000 - In Kind \$0

Measures:

- Total number of fish passage barriers removed or bypassed - 2
- Number of all tasks implemented, as prescribed in Recovery Plans (Fisheries PART) - 1

Funding Source(s):

- National Fish and Wildlife Foundation

Project cost: \$238,100.00

Start Date: 01/01/2009 **Completion Date:** 01/01/2010