January 14, 2015

Sue Mattenberger U.S. Fish and Wildlife Service 1936 California Avenue Klamath Falls, OR 97601



**RE:** Final Report for Cooperative Agreement #F13AC00891, North Fork Sprague, North Ditch.

Dear Sue,

This letter is intended to serve as the final report for the above Cooperative Agreement.

**Project background:** The primary goal of this project was to improve both upstream and downstream passage of native salmonids at the most upstream diversion point in the North Fork Sprague River. The diversion posed a significant entrainment risk for native redband and bull trout, Klamath lamprey, and other native fishes as the water right allows for the majority of the river to be diverted at this point. Sampling of the ditch has revealed that both juvenile and adult salmonids are readily entrained in the ditch. In addition, the steep profile of the North Fork Sprague channel around the diversion likely limited upstream fish passage, especially for juvenile salmonids and potentially lamprey and Klamath largescale suckers.

Completed activities: In the winter and spring of 2014, project partners met with the water users to discuss the fish screen design which was completed by Joel Watts of the Oregon Department of Fish and Wildlife. Comments and revisions to plans were provided to Rich Kilbane and Joel Watts of ODFW. During this same time period, several other stakeholder meetings were held to coordinate the logistics of the project, including finalizing the budget and securing additional grants, identifying lodging options, incorporating the fish passage design with the screen design, and permitting. By early summer, the plans were fully complete and vetted by all of the stakeholders, many of the necessary materials had already been fabricated or purchased, contracts were in place with ODFW and others, and construction was able to begin in July. A large fish salvage project was also conducted with several partners and stakeholders prior to dewatering of the ditch and project construction. Redband trout, marbled sculpin, and lamprey were three native fish species collected in large numbers in the ditch. Multiple ages of redband trout were collected and several large brown trout were also captured.

ODFW's Central Point shop started on-site construction in July 2014, and utilized a 3-8 person crew until construction was completed in October. The crews were able to stay locally at the High Serenity Ranch near the town of Sprague River, which reduced their commute time and improved their efficiency. The construction crew was led by Todd Doughton of ODFW and there were no major delays once construction began. The resulting screen is able to function between 5 and 75 cubic feet per second, and includes three screen bays, each with a paddle wheel driven cleaning mechanism. Each bay includes six screen panels and is capable of screening approximately 25 cfs. In addition, the crews installed a trashrack and headgate which will allow the water users precise control over the amount of water diverted. A measuring device will also be installed in the winter of 2015.

The fish passage design was completed by Cascade Stream Solutions in August 2014 and the bypass channel around the diversion was improved for upstream fish passage in September 2014. A large planting event was also organized and held in late October with the help of the Klamath County Flycasters. This group spread native grass seed on disturbed areas adjacent to the screen. Native shrubs and woody species were also planted along the bypass channel.

**Future activities:** KBRT will continue to work with ODFW and the water users to ensure that the screen is functioning properly. ODFW guaranteed the operation of the screen for one year and all maintenance and/or adjustments to the screen will be the responsibility of ODFW for one year. KBRT will also ensure that the flow monitoring device will be installed in early winter 2015. All of the supplies have already been purchased and after the USFS completes NEPA, we will be able to install the flow monitoring gauge and staff plate.

**Budget:** The USFWS monies leveraged several other sources of funding, which assisted with project implementation, including the Klamath Country Flycasters, Western Native Trout Initiative, U.S. Forest Service (including a Resource Advisory Council grant), National Fish Passage Program, and the Oregon Watershed Enhancement Board. A complete list of each organizations contributions, along with the breakdown of the USFWS funds is below:

Funding Source	Amount/Value
OWEB	\$51,414
USFWS (including WNTI grant)	\$92,400
U.S. Forest Service (including a RAC grant)	\$317,000
Nat. Fish Pas. Prog (Formely Newman and Whisky Creek monies)	\$89,060
Klamath Country Fly Casters	\$4,500
Total Estimated Funds	\$554,374

**USFWS Partners Funds Expended in 2014:** 

Personnel	Contracted Services	Materials Supplies	Travel	Admin 6%	Total
6,645.21	47,827.84	32,191.75	165.2	5,590	92,420

KBRT is grateful for the opportunity to partner on such an important project in our basin!

Sincerely,

Jared Bottcher Executive Director

Klamath Basin Rangeland Trust



Fish Screen early in the construction (left) and after completion (right)



The fish screen and headgates at various points of completion



Paddlewheel cleaning mechanisms (left) and the completed fish passage channel (right; photo courtesy of Cascade Stream Solutions)



The completed fish passage channel, a bird's eye view of both the screen and passage channel at the Point of Diversion, and the Klamath Country Fly Casters volunteering their time to help revegetate the project area



