Lower McDermitt Creek Fish Barrier to Protect Lahontan Cutthroat Metapopulation, Nevada

State(s): Nevada
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, Watershed, Introduced species, Genetic diversity
Trout species benefitted: Lahontan Cutthroat

Efforts to prevent nonnative trout present in the Quinn River from accessing roughly 54 miles of connected LCT habitat in the McDermitt Creek subbasin, the largest metapopulation within the Northwest DPS are needed. A barrier is critical to the success of the efforts to remove nonnative trout. WNTI funds have been obtained to complete barrier design work to construct a barrier that passes high-volume flood flows and provides a water velocity barrier as well. Construction funds are needed.

The importance to the Resource: Efforts to prevent nonnative trout from accessing roughly 54 miles of connected LCT habitat in the McDermitt Creek subbasin, the largest potential metapopulation in the Northwest DPS are needed. A long-term barrier is critical to the success of the restoration efforts implemented by the NWDPS team to remove nonnative trout. Barrier Design work will be necessary to design for high-volume flood flows and provide an average water velocity barrier as well.
The problem: Nonnative trout negatively impact LCT through competition, predation and hybridization. Without the permanent, long-term barrier nonnative trout would be able to access this metapopulation which would severely affect recovery of LCT in the Northwest DPS.
The method: The long-term, permanent barrier will be designed and constructed as a velocity barrier which will provide average water velocities over the structure greater than the target nonnative trout's burst swimming speed. The barrier will also pass the high-volume flood flows.
Objectives:

- Conduct site visit with Team and design contractor to refine barrier location and identify potential issues. • Prepare conceptual barrier design and preliminary construction estimate for review prior to preparation of detailed engineering design. • Prepare detailed engineering design and construction estimate.
- • Contract awarded to engineering contractor in August 2008. • Barrier location identified at August 2008 site visit with Team and contractor and with Wilkinson Ranches in September. • Meeting held with contractor in November 2008 to review and approve conceptual barrier design.

Partners:

- Nevada Dept. of Wildlife
- Oregon Dept. of Wildlife
- Bureau of Land management
- Wilkerson Ranches

Funding Source(s):

- National Fish Habitat Action Plan

Project cost: $100,000.00
Start Date: 06/02/2008 **Completion Date:** 11/30/2010