

**Final Project Report to US Fish and Wildlife Service - Western Native Trout Initiative**  
**North Fork Spanish Creek Westslope Cutthroat Trout Restoration**  
**Turner Endangered Species Fund, LLC (TESF)**  
**Grant Agreement F17AP01044**  
**November 22, 2019**

**Project Summary.** Native westslope cutthroat trout will be restored to 17 miles of upper North Fork Spanish Creek in the Gallatin River sub-basin of southwestern Montana and protected with a constructed fish movement barrier. Successful implementation of this project, located predominately on public lands, will more than double the 2% of historical habitat currently occupied by native westslope cutthroat trout in the Gallatin River sub-basin, providing a large, self-sustaining population as a source of individuals for restoration elsewhere.

**Background.** Westslope cutthroat trout are currently found in only 5% of their historically occupied habitat in the upper Missouri River. In the Gallatin River portion of their native range, wild aboriginal westslope cutthroat trout remain in low densities in only 4 of 1048 (0.5%) suitable stream miles. Introductions of westslope cutthroat trout into historically fishless or renovated streams have added another 12 miles of occupied habitat. The proposed North Fork Spanish Creek project will more than double the currently occupied habitat in the Gallatin River sub-basin and provide the only self-sustaining population large enough to provide consistent numbers of source individuals for other restoration projects.

Westslope cutthroat trout have declined primarily due to competition and hybridization with non-native salmonids and habitat degradation. We are using piscicides to remove non-native trout from the upper 17 miles of the North Fork Spanish Creek drainage. A constructed fish movement barrier is critical to prevent reinvasion of the restored North Fork Spanish Creek westslope cutthroat trout population. This is a collaborative effort among the Custer Gallatin National Forest, Montana Fish Wildlife and Parks, and Turner Endangered Species Fund/Turner Enterprises, Inc. (TEI), and 75% of the project is on accessible public lands. The project represents the last of seven native cutthroat trout restoration projects sponsored or initiated by the TESF/TEI Native Cutthroat Trout Initiative that will ultimately lead to recovery or conservation of native cutthroat trout in over 250 miles of stream habitat.

The primary partners – MFWP, CGNF, and TESF/TEI – have an established track record of successfully working together. In 2010 these entities successfully completed the 60-mile Cherry Creek westslope cutthroat trout restoration project the project. These entities have agreed to share in all aspects of project planning and implementation. For example, MFWP took the lead on environmental analyses; TEI led barrier design and construction; CGNF is leading public outreach and project implementation. This collaborative approach will continue through completion of all phases. This project is consistent with and meets the objectives of the *Memorandum of Understanding and Conservation Agreement for Westslope Cutthroat Trout and Yellowstone Cutthroat Trout in Montana* (July 2007) signed by a diverse array of Montana stakeholder groups. This project was identified as a restoration opportunity by several area fisheries biologists representing several state and federal agencies within the draft *Status and Conservation Needs for Westslope Cutthroat Trout in Southwest Montana*.

The overall project is being implemented in five distinct phases. This project addressed only Phase II - Barrier Construction. The barrier site is located on private land owned by TEI (see Figure 1). Implementation of Phases III - Lake and Stream Treatment (for non-native trout removal) began in summer 2019.

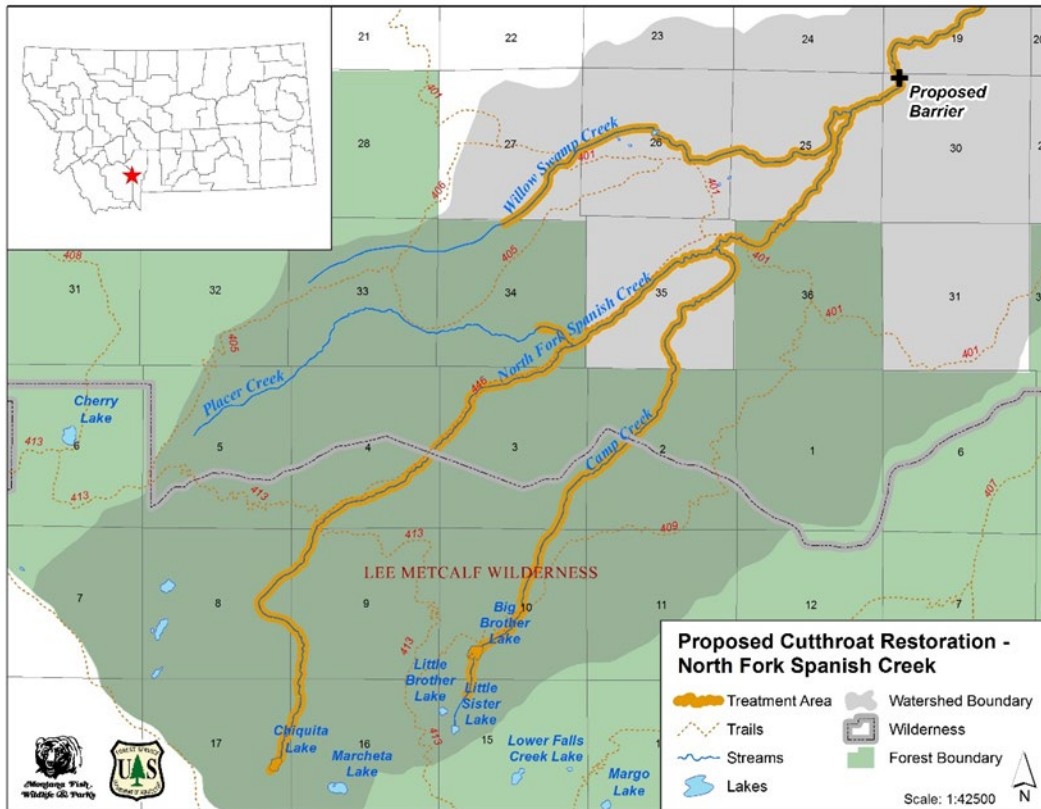


Figure 1. Map of project area showing land ownership (green = public lands; white = private lands owned by Turner Enterprises, Inc.)

**Accomplishments.**

- 1) Fundraising. Initial estimated costs for design, construction, and construction oversight of the fish movement barrier (\$239,700 in 2016) were woefully inadequate by the time the project went out for bid. This grant agreement was based on the original estimate of \$239,700, which was significantly less than the accepted bid amount of \$474,669 (including engineer costs) for the project. Between 2016 and 2018 additional funds were raised to construct the barrier. Final funding was cost shared as follows:

- US Fish and Wildlife Service Western Native Trout Initiative - \$15,000
- National Fish and Wildlife Foundation - \$90,000
- Montana Future Fisheries Program - \$87,500
- US Forest Service Custer Gallatin National Forest - \$77,500
- Turner Enterprises, Inc/Turner Endangered Species Fund - \$85,000
- Northwestern Energy - \$75,000
- Trout Unlimited - \$35,000
- Montana Arctic Grayling Committee - \$10,000

- 2) Barrier Construction. The fish movement barrier construction was completed during the period August 17 – September 28, 2018. See Figures 2-6 for construction progress. A time lapse video of the construction can also be viewed at <https://www.youtube.com/watch?v=bv8kpEf-ORI&feature=youtu.be>.

- 3) Lake and Stream Treatment (*related accomplishment*). Piscicide removal of non-native trout above the fish movement barrier was initiated in July 2019, and continued with pulses of activity in August and September. The only two (of five) headwater lakes containing fish – Chiquita and Big Brother lakes – were treated in late July and again in September (Figures 1 and 7). Outlet streams from the lakes – NF Spanish Creek and Camp Creek (Figure 1) were treated downstream to barrier falls in July and September. Willow Swamp Creek was treated in early August. The entire drainage will be treated again in 2020.



Figure 2. NF Spanish Creek fish movement barrier site – August 14, 2019.



Figure 3. Fish movement barrier under construction – Sept 4, 2019.



Figure 4. Fish movement barrier under construction – September 18, 2019.



Figure 5. Completed fish movement barrier – September 28, 2019.



Figure 6. Fish movement barrier under spring runoff conditions – June 20, 2019.



Figure 7. Treatment boat at Chiquita Lake – September 18, 2019.