

## Dalton Creek Cutthroat Trout Passage

**State(s):** Utah

**Managing Agency/Organization:** Trout Unlimited

**Type of Organization:** Nonprofit

**Project Status:** Scheduled for July 2021- September 2022

**Project type:** WNTI Project

**Project action(s):** **Barrier Removal.** Removal of 1 barrier and reconnection of 4.0 miles of stream.

**Trout species benefitted:** Bonneville Cutthroat Trout

**Population:** Weber River

**Project summary:** Dalton Creek is one of eight small direct tributaries that flow into the lower Weber River near Peterson, Utah. Although small (1-4 miles in length), these tributary streams play an important role in supporting critical spawning and rearing habitats for the fluvial (migratory) Bonneville Cutthroat Trout that occur within this reach of the Weber River. These cutthroat trout are not only highly-sought-after by anglers, but also represent an ecologically important conservation population with a unique migratory life history. Unfortunately, most of the spawning habitat in these tributaries has been rendered inaccessible; blocked by road crossings and irrigation diversions. Over the past 5 years Trout Unlimited, Utah Division of Wildlife Resources, the Western Native Trout Initiative, the US Fish and Wildlife Service and other partners have worked collaboratively to improve fish passage on all of these tributaries. Examples of these projects include culvert replacement on Jacobs Creek, [a step-pool complex to secure passage around a driveway bridge on Gordon Creek, and a vertical slot fish ladder on Strawberry Creek under I-84](#). Complimentary to the conservation actions taken in the tributaries, the project partners have also been engaged in reconnection efforts on the mainstem of the Weber River, including fish passage and screening on the [Lower Weber River Diversion](#) and relicensing on the Pacificorp Hydropower Facility. [See a Trout Unlimited blog post about this effort.](#)

Aided by a new and expanding dataset, with over 2000 Bonneville Cutthroat Trout in the Weber River tagged with PIT tags and a PIT tag antenna array distributed among the spawning tributaries, the UDWR has identified Dalton Creek as a potentially important spawning tributary for BCT in this reach of the Weber River, based on the number of fish detected traveling over PIT tag antennas. This recent information indicates that Dalton Creek has the potential to play an important role in contributing spawning habitat to this population. But, much like every other tributary in this section of the Weber River, a road culvert, approximately 400 feet upstream of its terminus represents a significant challenge to fish migrations associated with the access road for the Gateway Canal. This specific culvert is associated with a road that is operated by the Weber Basin Water Conservancy District. The existing culvert is 60.5' long, 8.25% slope, perched vertically, with over a 4 ft drop, with another vertical drop at the upstream end of the culvert, rendering this culvert completely impassable for trout and blocking approximately 4 miles of spawning habitat.

**Problem the Project Addresses:** The primary need for this project is to reduce habitat fragmentation for migratory cutthroat trout in the Weber River and diversify the spatial distribution of spawning habitat. Spawning habitat within this reach of the Weber River is confined to small tributary habitats. This project addresses the risk of habitat fragmentation within the Weber River. A 2013 basinwide barrier assessment identified almost 400 fish migration barriers across the entire Weber River watershed. The approach taken by Trout Unlimited and the Utah Division of Wildlife Resources has been to focus on several key areas in the watershed and prioritize restoration and reconnection actions within those areas, to effectively address the basinwide challenge. This reach of the Lower Weber River and its tributaries is a priority because of the presence of migratory Bonneville Cutthroat Trout and Bluehead sucker strongholds.

**Objectives:** The objectives of the overall project are to modify or replace this culvert so migratory Bonneville Cutthroat Trout can access spawning habitat located upstream. By ensuring that fish passage is re-established at this culvert, the overall goals of reconnecting important cutthroat trout habitat in the Weber River is achieved.

This project supports the following restoration plans:

Bonneville Cutthroat Trout Conservation Agreement and Strategy, which identified habitat fragmentation as a primary threat to BCT persistence. Reconnecting habitat for populations with unique life histories is a primary objective in the Northern and Bear River GMU's.

This project supports WNTI strategic plan goals of protecting, restoring and enhancing western native trout populations through the implementation of actions that restore life history and migratory needs of Bonneville Cutthroat Trout.

Weber River Watershed Plan described the importance of assessing and identifying fish passage barriers as a key strategy within the 2014 watershed plan, specifically as the assessments lead towards prioritized habitat reconnection projects in key areas. This passage project meets those criteria and supports reconnection actions in the plan.

**Project Activities:** The primary project methodology will be to replace the existing 60" diameter culvert with a wider 120" bottomless design constructed at grade with 3-5 boulder step pools constructed below. WNTI funds will be used to purchase materials and rent the necessary equipment; Weber Basin Water Conservancy Staff will utilize their staff to complete implementation.

**Partners: This project includes a broad list of stakeholders:**

- Trout Unlimited
- Utah Division of Wildlife Resources
- Weber Basin Water Conservancy District
- US Fish and Wildlife Service
- National Fish and Wildlife Foundation
- Lawrence T and Janet T Dee Foundation
- Western Native Trout Initiative

**Project Monitoring:** An effective monitoring program has been in place on this reach of the Weber River since 2011 using a PIT tag antenna array. This monitoring indicates that Dalton Creek is potentially an important spawning tributary to the fluvial Bonneville Cutthroat Trout living in the Weber River. After project completion, PIT tag antennas will be placed upstream and downstream of this culvert to track use and success of passage in the reconstructed or replaced culvert. Partners also hope to develop an understanding of which tributaries are the most important to the Bonneville Cutthroat Trout in the Weber River, to help guide potential water leasing opportunities. After this project is accomplished, several of the tributaries will have been reconnected and partners will move forward with a radio telemetry study to assess the effectiveness of the broader reconnection effort.

**Funding Source(s):** National Fish Habitat Action Plan

**Project cost:** \$30,000

**Start Date:** 01/1/2020 **Completion Date:** 12/31/2020

**Project Contacts:** Paul Burnett, Utah Water and Habitat Program Director, Trout Unlimited, [pburnett@tu.org](mailto:pburnett@tu.org), 801-436-4062.