

REDBURN RANCH DIVERSION PROJECT

CWCB CONTRACT # CTGG1 2015-2791

FINAL COMPLETION REPORT

TROUT UNLIMITED

2018.05.28



PROJECT OVERVIEW

BACKGROUND

The Redburn Ranch is a large farm and ranch operation mid-way up the river between Dolores and Rico. The ranch was placed in a conservation easement with Montezuma Land Conservancy in 2006. Historically the Ranch maintained a large cobble push-up dam located on Forest Service Land just upriver from the Ranch. It spanned the main stem of the Dolores River and required repair with heavy equipment every year after spring runoff. Because it was composed of river cobble, the river percolated through it and there was no over-topping, thus it blocked fish passage for the majority of the year, except in the early spring when it was washed out by high flows. Fry (young fish) were observed being stopped from moving downstream by the dam on multiple occasions and it was a barrier to fish migration upstream as well. At low water, the permeability of the cobble dam made it difficult for the ranch to access its full water right, often requiring plastic to be placed on the face of the dam.

PROJECT SUMMARY

The cobble pushup dam was replaced with a series of three stepped large rock cross vane weirs capable of passing flood flows and sediment loads, allowing for fish and safe boat passage while ensuring the landowner's reliable access to their full water right,

even at low water. Over the years significant downcutting had occurred below the diversion. To restore and stabilize the channel, the channel was regraded, the new structures were spread out over approximately 600 feet, and large cobble fill was placed in the riffles between the rock weirs. The head gate was moved upstream approximately 190 feet and reconstructed to be reliable and easy to maintain.

Additional bank restoration and stabilization through grading, rock work and planting was completed, as well as placement of various sizes of boulders in the riffles to create channel diversity and fish habitat.

PROJECT TIMELINE

Trout Unlimited, in collaboration with the ranch owners and manager and the Forest Service (FS) laid out a path to design, permit and complete the project in late 2014. Funding was secured from CWCB, the NRCS, and TU in early 2015. By 2015 The preliminary design was finished, and the permitting processes was largely complete. In early 2016 we wrapped up final design, FS clearances, and had bids and schedules from contractors in hand. We were all set to build in fall 2016 however due to some internal confusion with the NRCS regarding final approval of the plans, we missed our Fall construction window and had to delay the project until fall of 2017. We extended our contracts and the project was completed on schedule and under budget in the fall of 2017. All parties have been very pleased with the outcome.

PROJECT PHOTOS

Original Diversion



New Structures





