

# Trout Health Beyond the Water's Edge

by Nancy Johnston Bramlett



RAZER CREEK DAM MAINTENANCE IN PROGRESS



**A**s we all know, you can't have a healthy trout population without having a healthy river—and you can't have a healthy river without having a healthy watershed!

Across the globe, there is increasing pressure from a changing climate. In Colorado, the summer of 2021 brought drought and diminished water supply to meet downstream water needs, catastrophic wildfires with subsequent ash flows and landslides, massive monsoonal flooding, and proliferation of the devastating mountain pine beetle. Leading scientists' models and predictions for the future all call for even more extremes.

So, what can be done? Looking beyond the edge of water, into the floodplain and riparian zone is the obvious first step. Beyond that, investigate the entire

landscape, evaluate the forest and upland watershed to ensure the whole ecosystem is healthy, for generations to come. CTU is proud to be working with several groups across the state that are taking this more holistic approach to conservation and we look forward to telling their stories.

## **The Upper Gunnison Watershed as a Role Model**

The upper Gunnison River watershed is truly remote, spectacularly beautiful, and little-known by many. These uppermost tributaries to the Colorado River are precious ecosystems that provide much of the southwestern U.S. water supply—and happen to hold some of Colorado's best trout fisheries.



**A NEW DIVERSION ON TOMICHI CREEK NEAR GUNNISON**

Leading the charge to conserve, protect and restore the Upper Gunnison are Sonja Chavez (General Manager) and Beverly Richards (Water Resource Specialist) from the Upper Gunnison River Water Conservancy District (UGRWCD), along with TU's Jesse Kruthaupt (Gunnison River Project Coordinator). They have been working on local water resource projects with the state Colorado Water Conservation Board, federal Natural Resources Conservation Service (NRCS), and other partners since before the state water plan was issued in 2015.

This watershed will see long term benefits from the ambition and forward-thinking of Sonja and Beverly of the UGRWCD paired with Jesse's multi-generational knowledge of the local ranching community. It was logical for this team to lead with a methodical evaluation of agricultural irrigation infrastructure. Their up- to down- stream evaluation maximizes river health (healthy fish!) and water delivery system efficiencies.

Using a whole-system approach to watershed health, UGRWCD has assembled a wide range of stakeholders that regularly convene to compare notes, share plans and data, and identify potential gaps and overlaps—as well as form sub committees when an identified issue needs additional focus. These groups include representatives from federal land managers and conservation agencies, state agencies, expert technical consultants, interested nonprofit organizations, and many local landowners and businesses from the communities within the district.

The UGRWCD's efforts are resulting in on-the-ground benefits from projects like the 2021 Upper Gunnison River Restoration and Irrigation Infrastructure Improvement Project. Sonja Chavez describes the partnerships and leveraging their collaboration has produced:

This project is but one example of the importance of our Upper Gunnison District Grant Program and outcomes from their stream and watershed management planning processes. It also highlights the importance of our partnerships with water right holders and water users, non-governmental entities like Trout Unlimited, and governmental partners like the Colorado Water Conservation Board, Colorado River District, and the U.S. Fish and Wildlife Service. As part of our mission, the Upper Gunnison District is continually analyzing and pursuing opportunities to

partner with others and leverage your community taxpayer dollars to help protect and improve your Upper Gunnison Basin water resources. Since 2009, the District has invested \$1.6M dollars into water resource improvement projects through our Grant Program and leveraged these dollars 6:1 with \$9.6M of outside funding!

The UGRWCD is making great progress, and they're just getting started. They continue to find and evaluate partners' data and are currently expanding their watershed research by mapping fire hazard zones and assessing the fluvial geomorphology of the watershed in key locations. The careful curation of these studies will identify post-fire hazards that can be used to target pre-fire or post-fire actions or other watershed protection measures, and cross reference where streams are likely to be more (or less) dynamic and how this relates to in-corridor infrastructure and land management.

This cumulative research will inform identification and prioritization of future project locations and recommend implementation/mitigation strategies such as grazing practices, irrigation diversion improvements, dam maintenance, silviculture (forest management), riparian stewardship, bank stabilization, and fish habitat enhancements.

Finding money for projects frequently relies on collaboration across multiple funding sources, which is a demonstration of the multiple "wins" each project produces. When a huge multi-year 6-figure NRCS grant relies on partner funding—from state grant funds such as water planning and river restoration, federal and state agency monies and staff time, private foundation contributions, landowner buy-in, and money from the municipality and/or water conservancy district—it's no small stretch to see how TU members' monetary and volunteer contributions multiply their impact through partnerships extending well beyond the water's edge!

## ABOUT THE AUTHOR

**Nancy Johnston Bramlett** is Colorado TU's Conservation Projects Coordinator, based out of Whitewater.