



**AMERICAN FISHERIES SOCIETY
MONTANA CHAPTER**

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Montana Department of Environmental Quality
Attn: Carole Mackin
PO Box 200901
Helena, Montana 59620-0901

Dear Carole Mackin,

The Montana Chapter of the American Fisheries Society (MCAFS) appreciates the opportunity to comment on the Water Quality Assessment and TMDLs for the Ruby River. The MCAFS is an organization of professional fisheries scientists and students from multiple agencies, universities and the private sector across Montana. One of our objectives is the conservation, development and wise utilization of Montana's fisheries. We are extremely interested in the conservation of native and recreational fisheries in Montana, and we believe that the TMDL process is an important conservation and management strategy that protects critical fish populations and the habitats on which they depend. MCAFS has several comments regarding the protection this plan will afford fisheries in the Ruby River watershed.

It is apparent that a logical approach was employed during the development of the Ruby River watershed TMDL. A thorough compilation and synthesis of existing data was conducted and gaps in the data were identified with recommendations for monitoring strategies that would address these gaps.

The document addresses many site-specific sources of anthropogenic disturbance that are negatively impacting streams and fish populations with a number of recommendations for remediation. Impairments identified in the TMDL that may have negative impacts on fish populations and their habitats include sedimentation, dewatering of streams, and increased water temperatures. Successful implementation of grazing and road management BMPs at sites identified as sediment sources, and reducing sediment-laden ditch returns should improve the condition of streams currently impaired by increased sediment loads. Improving the efficiency of irrigation systems and leasing water rights for instream flows while reducing the return of warmer, nutrient-altered ditch water to the stream should have a positive effect on fish populations of the Ruby River watershed. The TMDL identifies potential negative impacts that improving stream continuity and

fish passage may have on pure or nearly pure populations of native westslope cutthroat trout, such as genetic mixing with rainbow trout, which must be avoided. The costs and benefits to these populations must be identified prior to implementation of such alterations (as recommended in the TMDL). Improving riparian habitats, restoring historical stream discharge, and reducing ditch returns to streams will improve water temperature conditions on streams currently impaired by elevated temperatures.

Re-establishing beaver populations in headwater areas will not only trap sediments, reduce peak flows, and increase summer low flows, but may also improve fish habitat, particularly by providing over-winter pool habitat for yearling grayling, whose reintroduction to the upper Ruby River has been limited by yearling overwinter mortality (Oswald, MFWP, personal communication).

The TMDL addresses the potential for improving irrigation diversions and headgates on Wisconsin Creek to prevent fish from entering the canals (entrainment). Whereas improvements to headgates and weirs are also recommended for several other streams to improve irrigation efficiency and increase instream flows, entrainment prevention is not mentioned as a restoration priority for any of these streams. MCAFS recommends an assessment of the feasibility of altering diversions and headgates, or installing fish exclusion devices (e.g. fish screens) to prevent fish from entering irrigation canals at all sites listed for headgate and weir improvements. Irrigation canals that entrain westslope cutthroat trout or arctic grayling should receive top priority.

Thank you for your interest and work toward conserving and improving Montana's aquatic natural resources.

Sincerely,

/s/ Kate Walker

**Kate Walker, President
Montana Chapter of the
American Fisheries Society**