

**Water Supply Reserve Account – Grant and Loan Program**  
**Water Activity Summary Sheet**  
**July 16-17, 2014**  
**Agenda Item 20(h)**

**Applicant:** Colorado Water Trust

**Water Activity Name:** White River-Highland Ditch Diversion & Headgate Redesign

**Water Activity Purpose:** Agriculture/Study

**County:** Rio Blanco

**Drainage Basin:** Yampa

**Water Source:** White River

**Amount Requested:** \$30,000

**Source of Funds:** Yampa/White/Green Basin Account

**Matching Funds:** \$62,500 cash, or 68% total project cost (\$30,000 from private landowners/CWT; \$7,500 Trout Unlimited; \$25,000 CPW – refer to *Funding Overview/Matching Funds*)

<b>Staff Recommendation</b>
Staff recommends approval of up to \$30,000 from the Yampa/White/Green Basin Account to assist in the funding of the study titled: White River-Highland Ditch Diversion & Headgate Redesign.

**Water Activity Summary:** The CWT is requesting funding for a multi-purpose project, which will develop final engineering designs for the replacement of the Highlands Ditch diversion structure and headgate using a modern agricultural diversion system. The current ditch structure prevents fish migration during the irrigation season by entraining fish, and has the capability to sweep the White River. The existing design of the wing wall and overflow apron at the headgate of the diversion is such that even when a portion of the water flows back into the main channel of the river, fish are still swept into the ditch. Once the fish enter the ditch there is no way for them to return to the river on their own. In low water years, the push up dam across the river makes it impossible for any fish to bypass the dam and stay in the river. According to Colorado Parks and Wildlife, over 1,000 native and sport fish are stranded and die annually within the Highland Ditch system.

The new design will ensure full and efficient water delivery to the 29 Highland Ditch shareholders without negatively impacting water operations or the 5,000 irrigated acres. Additionally, the modern diversion system will reduce heavy equipment operating and labor costs for the ditch company and enhance stream health by minimizing fish entrainment into the ditch, eliminating aquatic habitat degradation and barriers to fish migration associated with the annual building of the push up dam across the river. When built in 2015, the new structure will reconnect 20 miles of healthy stream habitat, improve 4 miles of stream, and restore 2 acres of channel bed.

**Discussion:**

The redesign (and subsequent rebuilding) of the Highland Ditch on the White River will assist in meeting the agricultural water supply needs of the basin as identified in SWSI 2010, and addresses

the non-consumptive needs of the basin identified by SWSI in the Appendix D-9 Yampa/White Basin Mapping Results. The project area is listed as having “multiple environmental and recreational values including most extensive, valuable connectivity of the Colorado Cutthroat Trout populations in the Yampa/White/ Green basin...(and)... valuable private and public water fisheries providing significant economic benefits for the upper White basin.” SWSI NCNA also lists the State Threatened and Endangered Species, and Important Riparian Habitat. State Threatened and Endangered Species include Flannel mouth sucker, Colorado River Cutthroat Trout, and Northern leopard frog. Important Riparian Habitats include riparian and wetland dependent rare plants and significant riparian/ wetland plant communities.

**Issues/Additional Needs:**

No issues or additional needs have been identified.

*Funding Overview/Matching Funds*

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
WSRA Yampa/White/Green Basin Account	\$30,000	n/a	\$30,000
Private Landowners/ CWT	\$30,000	\$0	\$30,000
Trout Unlimited	\$7,500	\$0	\$7,500
Fishing is Fun/ CPW	<u>\$25,000</u>	<u>\$0</u>	<u>\$25,000</u>
Total Project Costs	\$92,500	\$0	\$92,500

**Staff Recommendation:**

Staff recommends approval of up to \$30,000 from the Yampa/White/Green Account to assist in the funding of the study titled: White River-Highland Ditch Diversion & Headgate Redesign.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

**Reporting and Final Deliverable:** The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

**Engineering:** All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.