

**Water Supply Reserve Account Program  
Water Activity Summary Sheet  
July 2013 CWCB Meeting  
Agenda Item 23.c**

**Applicant:** Trout Unlimited, Inc.

**Water Activity Name:** Kerber Creek Restoration Project (Phase 2)

**Water Activity Purpose:** Non-consumptive Water Project

**County:** Saguache

**River Basin:** Rio Grande

**Water Source:** Kerber Creek

**Amount Requested:** \$34,871 (Rio Grande Basin Account)

**Matching Funds:** \$350,700 from numerous sources

<b>Staff Recommendation</b>
Staff recommends approval of up to \$34,871 from the Rio Grande Basin Account for Kerber Creek Restoration Project (Phase 2).

**Water Activity Summary:**

The Kerber Creek Restoration Project (KCRP) is a partnership among government agencies, nonprofit organizations, and private landowners dedicated to restoring the Kerber Creek watershed, which has been heavily impacted by legacy mining activities in the Bonanza Mining District. Since 2007, the project has successfully treated over 60 acres of mine wastes, restored over 4,000 feet of stream bank, and installed over 250 in-stream rock structures in the lower watershed. These accomplishments have been made possible by the over \$2 million in grant funding awarded to the project to date and scores of project volunteers, who have collectively contributed over 13,000 hours. On behalf of KCRP, Trout Unlimited (TU) is now requesting \$34,871 to contribute to the restoration of 47,520 additional feet of stream bank. This request is part of the larger effort to restore site KC16, the largest privately owned parcel of land in the watershed. Site KC16 includes almost 30% of the untreated mine waste deposits remaining in the watershed and 17.3% of the entire length of stream bank along Kerber Creek. If this proposal is accepted, funds will be available to completely restore site KC16.

In 2012, TU was awarded a second Colorado Nonpoint Source grant for \$413,000 to treat 36 acres of mine wastes and to restore over 47,520 feet of stream bank at site KC16, the largest privately owned parcel of land in the watershed. This project has received \$350,700 of cash match and in-kind donations from a number of other private, state, and federal entities, and NRCS has contributed \$60,950 to the project through landowner cost-share programs (Table 1, Exhibit A). Site KC16 is divided into three parcels: (1) KC16-E, the easternmost parcel, (2) KC16-M, the middle parcel adjacent to KC16-E, and (3) KC16-W, the western parcel separated from KC16-M by other private lands. The project began in the fall of 2012 with the installation of 46 in-stream rock structures on the easternmost 5,170 ft of stream bank located within KC16-E and will continue in the field seasons of 2013 and 2014, throughout which an additional 10,024 ft of stream bank will be restored in conjunction with the treatment of 19.1 acres of mine wastes at KC16-E. This plan will leave 4,800 ft of un-restored stream bank at KC16-E. NRCS plans to fund the restoration of the westernmost 2,500 ft of this portion in addition to the entire length of stream bank at KC16-M in 2014; however, additional funding is required to restore the remaining 2,300 feet, thus connecting the NRCS and project funded portions (Figures 1-2, Exhibit B; Figures 4-7, Exhibit C).

TU is requesting \$34,871 from WSRA to install 25 in-stream rock structures along this stretch and to reshape the associated stream bank. In-stream rock structures redirect the thalweg to the center of the stream, reducing erosion by decreasing the shear stress on stream banks, improving aquatic habitat by creating pool-riffle

sequences, and decreasing the width-to-depth ratio. Over time, in-stream restoration will also help to reestablish the connection between the stream and its floodplain, thereby increasing groundwater storage and baseflows. Specifically, \$17,484 will be used to purchase 282 cubic yards of rock, \$8,688 will be used to reshape banks, and \$4,963 will pay labor cost. An additional \$3,490 is needed to cover TU administrative, project management, and oversight costs (Table 2, Exhibit A). Where possible, any established riparian vegetation disturbed as a result of project implementation will be recycled by incorporation into channel design using bioengineering techniques, decreasing the quantity of rock needed and thus project costs. Both the phytostabilization and in-stream restoration techniques have proven effective along Kerber Creek in past restoration projects completed between 2008 and 2012.

In addition to project implementation, Colorado Nonpoint Source grant and matching funds will be used to monitor progress towards ecological goals as defined in the Project Implementation Plan I, to supplement environmental education efforts in the Northern San Luis Valley, and to sustain the BSG, a citizen-based coalition of watershed landowners.

#### *Threshold and Evaluation Criteria*

The application meets all four Threshold Criteria.

#### **Issues/Additional Needs:**

The monitoring plan should conform to the CWCB Measurable Results Program's Standard Operating Procedures for Topographic Survey of Stream Channels.

#### **Staff Recommendation:**

Staff recommends approval of up to \$34,871 from the Rio Grande Basin Account for Kerber Creek Restoration Project (Phase 2).

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.

## Location Map:

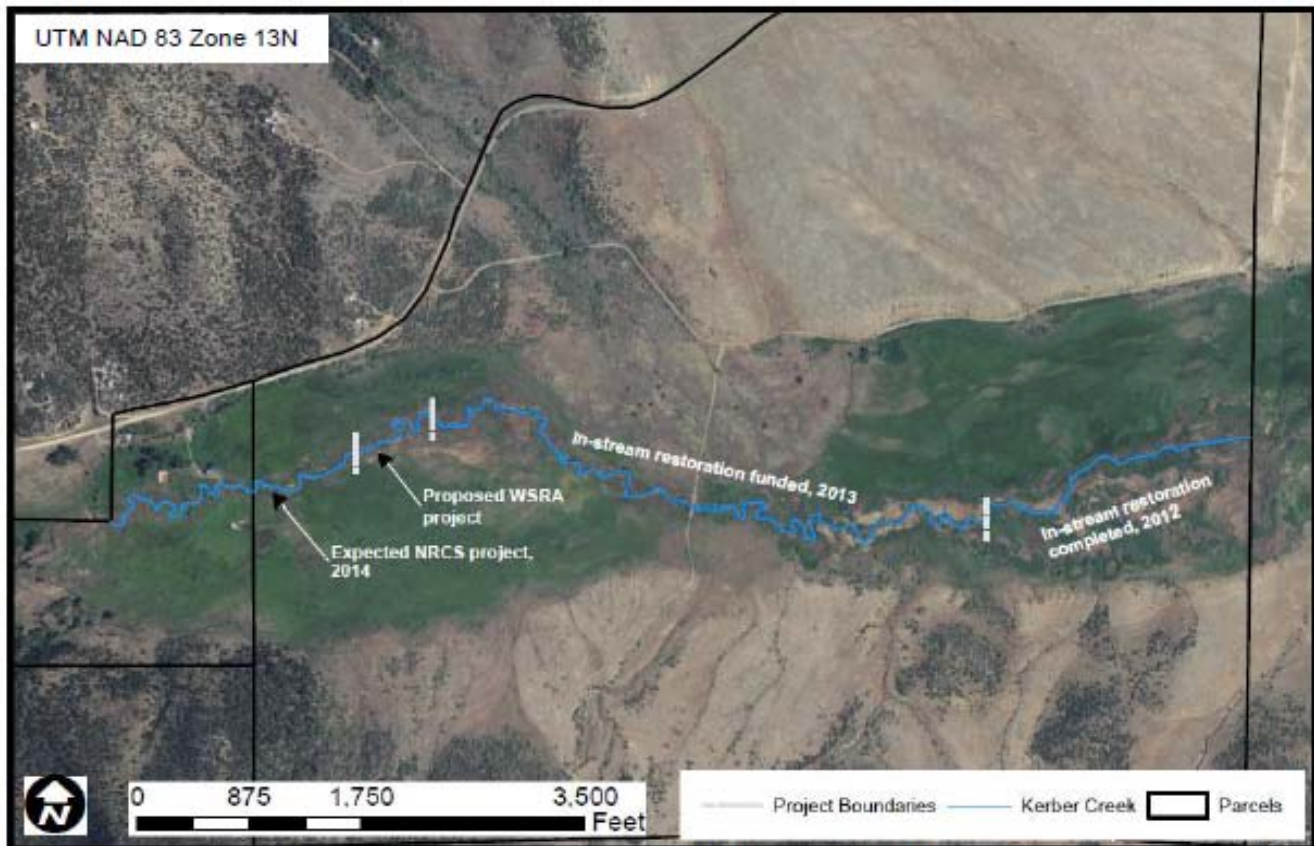


Figure 1. Overview of past and upcoming projects at site KC16-E. KC16-M is represented by the parcel to the left, and KC16-W is not depicted.



Figure 2. Large-scale view of the WSRA proposed project area labeled in Figure 1 as "Proposed WSRA project."