



**COLORADO WATER CONSERVATION BOARD**  
**WATER SUPPLY RESERVE ACCOUNT**  
**APPLICATION FORM**



**Kerber Creek Restoration Project (Phase II)**

**Name of Water Activity/Project**

**Trout Unlimited, Inc.**

**Name of Applicant**

**Rio Grande Interbasin  
Roundtable**

**Amount from Statewide Account:**

**0.00**

**Amount from Basin Account(s):**

**34,871**

**Total WSRA Funds Requested:**

**34,871**

**Approving Basin Roundtable(s)**  
*(If multiple basins specify amounts in parentheses.)*

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**Required Exhibits**

- A. Statement of Work, Budget, and Schedule
- B. Project Map
- C. As Needed (i.e. letters of support, photos, maps, etc.)

**Appendices – Reference Material**

- 1. Program Information
- 2. Insurance Requirements
- 3. WSRA Standard Contract Information (Required for Projects Over \$100,000)
- 4. W-9 Form (Required for All Projects Prior to Contracting)

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### **Instructions**

To receive funding from the Water Supply Reserve Account (WSRA), a proposed water activity must be approved by the local Basin Roundtable **AND** the Colorado Water Conservation Board (CWCB). The process for Basin Roundtable consideration and approval is outlined in materials in Appendix 1.

Once approved by the local Basin Roundtable, the applicant should submit this application **with a detailed statement of work including budget and schedule as Exhibit A** to CWCB staff by the application deadline.

WSRA applications are due with the roundtable letter of support 60 calendar days prior to the bi-monthly Board meeting at which it will be considered. Board meetings are held in January, March, May, July, September, and November. Meeting details, including scheduled dates, agendas, etc. are posted on the CWCB website at: <http://cwcb.state.co.us> Applications to the WSRA Basin Account are considered at every board meeting, while applications to the WSRA Statewide Account are only considered at the March and September board meetings.

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf>

The application, statement of work, budget, and schedule **must be submitted in electronic format** (Microsoft Word or text-enabled PDF are preferred) and can be emailed or mailed on a disk to:

Greg Johnson – WSRA Application  
Colorado Water Conservation Board  
1580 Logan Street, Suite 200  
Denver, CO 80203  
[gregory.johnson@state.co.us](mailto:gregory.johnson@state.co.us)

If you have questions or need additional assistance, please contact Greg Johnson at: 303-866-3441 x3249 or [gregory.johnson@state.co.us](mailto:gregory.johnson@state.co.us).

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**Part I. - Description of the Applicant** (Project Sponsor or Owner);

1. Applicant Name(s):

**Trout Unlimited**

Mailing address:

Trout Unlimited  
523 Arbor Drive  
Lafayette, CO 80026

Taxpayer ID#:

38-1612715

**Primary Contact:**

Elizabeth Russell

Position/Title:

Project Manager

Email:

erussell@tu.org

Phone Numbers:

Cell:

720-938-5438

Office:

720-242-7489

**Alternate Contact:**

Jason Willis

Position/Title:

Field Coordinator

Email:

jwillis@tu.org

Phone Numbers:

Cell:

719-221-0411

Office:

2. Eligible entities for WSRA funds include the following. What type of entity is the Applicant?

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Public (Government) – municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities and the local entity should be the grant recipient. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.

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Public (Districts) – authorities, Title 32/special districts, (conservancy, conservation, and irrigation districts), and water activity enterprises.

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Private Incorporated – mutual ditch companies, homeowners associations, corporations.

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Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.

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Non-governmental organizations – broadly defined as any organization that is not part of the government.

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3. Provide a brief description of your organization.

The Kerber Creek Restoration Project (KCRP) is a collaborative effort dedicated to restoring the Kerber Creek watershed, which has been heavily impacted by legacy mining activities in the Bonanza Mining District. Dozens of silver, lead, copper, and zinc mines operated in the District from the 1880s to the 1970s, with major production occurring mainly during the 1920s and 1930s. Mine wastes and tailings, originally sequestered behind dams in the upper watershed, were transported downstream and deposited in the Kerber Creek floodplain during high flow events that caused the dams to fail. These mine waste deposits led to phytotoxic soil conditions that decimated the riparian vegetation, which subsequently destabilized the stream banks and significantly altered channel morphology. In addition to these impacts, groundwater and runoff flowing through and over the mine waste deposits as well as flow from draining adits at former mine sites impaired water quality throughout the watershed. In the 1990s, the American Smelting and Refining Company (ASARCO, Inc.) partnered with local landowners, the US Forest Service (USFS), and the Bureau of Land Management (BLM) to initiate voluntary cleanup efforts in the watershed. These efforts significantly improved water quality and aquatic habitat by plugging the Rawley 12 draining adit and relocating major tailings deposits. However, additional work on lower watershed mine waste deposits was not possible after 2002, when ASARCO, Inc. declared bankruptcy.

In 2005, BLM began an investigation of the environmental condition of the lower watershed, completing a full environmental assessment in 2006. This investigation was the beginning of KCRP, which today functions as a non-legal entity grounded in partnerships among a variety of organizations, including, but not limited to, USFS, BLM, the US Fish and Wildlife Service (USFWS), the Natural Resources Conservation Service (NRCS), Trout Unlimited (TU), Saguache County Sustainable Environment and Economic Development (ScSEED), the Colorado Department of Public Health and Environment (CDPHE), and the Bonanza Stakeholders Group (BSG), a coalition of more than 20 private landowners in the Kerber Creek watershed. 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.

TU, an organization dedicated to the restoration of this nation's cold-water fisheries, has been involved in KCRP since its inception. In 2009, TU was awarded a large Colorado Nonpoint Source Program grant on behalf of KCRP to complete phytostabilization of mine wastes along 12 miles of stream covering approximately 40 acres of private and public land. The local TU chapter, Collegiate Peaks Anglers, has contributed over 600 hours of volunteer labor and has committed to adopting this watershed for future work days throughout the length of the project. TU and federal partners have been instrumental in gathering local support for the project and have recruited numerous private landowners to participate in the project and serve as project partners. Because TU is an essential KCRP partner and manages the majority of project funding, it will serve as the applicant and fiscal agent for this grant.

4. If the Contracting Entity is different than the Applicant (Project Sponsor or Owner) please describe the Contracting Entity here.

TU will serve as the Contracting Entity in this case given its extensive involvement and sponsorship of KCRP.

5. Successful applicants will have to execute a contract with the CWCB prior to beginning work on the portion of the project funded by the WSRA grant. In order to expedite the contracting process the

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CWCB has established a standard contract with provisions the applicant must adhere to. A link to this standard contract is included in Appendix 3. Please review this contract and check the appropriate box.

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The Applicant will be able to contract with the CWCB using the Standard Contract

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The Applicant has reviewed the standard contract and has some questions/issues/concerns. Please be aware that any deviation from the standard contract could result in a significant delay between grant approval and the funds being available.

6. The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.

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### Part II. - Description of the Water Activity/Project

1. What is the primary purpose of this grant application? (Please check only one)

<input checked="" type="checkbox"/>	Nonconsumptive (Environmental or Recreational)
<input type="checkbox"/>	Agricultural
<input type="checkbox"/>	Municipal/Industrial
<input type="checkbox"/>	Needs Assessment
<input type="checkbox"/>	Education
<input type="checkbox"/>	Other

Explain:

2. If you feel this project addresses multiple purposes please explain.

The environmental effects of legacy hardrock mining in the Kerber Creek watershed, including drastically altered stream morphology, reduced connectivity between the stream and its floodplain, and the deposition of acidic, metalliferous mine wastes along the stream, have negatively impacted private lands along Kerber Creek that are allocated for agricultural uses. In addition, the KCRP has provided numerous opportunities for tours, school field trips, and educational events for San Luis Valley residents since 2008 focusing on stream restoration and watershed processes. Thus, the proposed project addresses environmental, agricultural, and educational issues.

3. Is this project primarily a study or implementation of a water activity/project? (Please check only one)

<input type="checkbox"/>	Study	<input checked="" type="checkbox"/>	Implementation
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4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

<input type="text"/>	New Storage Created (acre-feet)
<input type="text"/>	New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)
<input type="text"/>	Existing Storage Preserved or Enhanced (acre-feet)
<b>47,520</b>	Length of Stream Restored or Protected (linear feet)
<input type="text"/>	Length of Pipe/Canal Built or Improved (linear feet)
<input type="text"/>	Efficiency Savings (acre-feet/year OR dollars/year – <b>circle one</b> )
<b>36</b>	Area of Restored or Preserved Habitat (acres)
<input type="text"/>	Other -- Explain: <input type="text"/>

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4. To help us map WSRA projects please include a map (Exhibit B) and provide the general coordinates below:

Latitude:

**38°13'13"**

Longitude:

**106°05'21"**

5. Please provide an overview/summary of the proposed water activity (no more than one page). Include a description of the overall water activity and specifically what the WSRA funding will be used for. A full **Statement of Work** with a detailed budget and schedule is required as **Exhibit A** of this application.

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 miles 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 unrestored 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<sup>1</sup>, to supplement environmental education efforts in the Northern San Luis Valley, and to sustain the BSG, a citizen-based coalition of watershed landowners.

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<sup>1</sup> Kerber Creek Restoration Project. 2013. Project Implementation Plan. BLM Saguache Field Office.

**Part III. – Threshold and Evaluation Criteria**

1. Describe how the water activity meets these **Threshold Criteria**. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines.)

- a) *The water activity is consistent with Section 37-75-102 Colorado Revised Statutes.<sup>2</sup>*

In-stream restoration activities will in no way impact the current system of allocating water within Colorado. No currently existing water rights will be diminished, impaired, or otherwise injured as a result of the implementation of restoration activities as described in this document. All in-stream restoration projects are engineered such that any diversion point that does exist along the relevant reach receives its respective appropriated water right as it had before the restoration project was implemented.

- b) *The water activity underwent an evaluation and approval process and was approved by the Basin Roundtable (BRT) and the application includes a description of the results of the BRTs evaluation and approval of the activity. At a minimum, the description must include the level of agreement reached by the roundtable, including any minority opinion(s) if there was not general agreement for the activity. The description must also include reasons why general agreement was not reached (if it was not), including who opposed the activity and why they opposed it. Note- If this information is included in the letter from the roundtable chair simply reference that letter.*

This information is included in the letter from the Rio Grande Roundtable Chair, Mike Gibson, accompanying this proposal.

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<sup>2</sup> 37-75-102. Water rights - protections. (1) It is the policy of the General Assembly that the current system of allocating water within Colorado shall not be superseded, abrogated, or otherwise impaired by this article. Nothing in this article shall be interpreted to repeal or in any manner amend the existing water rights adjudication system. The General Assembly affirms the state constitution's recognition of water rights as a private usufructuary property right, and this article is not intended to restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under Colorado law. (2) The General Assembly affirms the protections for contractual and property rights recognized by the contract and takings protections under the state constitution and related statutes. This article shall not be implemented in any way that would diminish, impair, or cause injury to any property or contractual right created by intergovernmental agreements, contracts, stipulations among parties to water cases, terms and conditions in water decrees, or any other similar document related to the allocation or use of water. This article shall not be construed to supersede, abrogate, or cause injury to vested water rights or decreed conditional water rights. The General Assembly affirms that this article does not impair, limit, or otherwise affect the rights of persons or entities to enter into agreements, contracts, or memoranda of understanding with other persons or entities relating to the appropriation, movement, or use of water under other provisions of law.



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- c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.<sup>3</sup> The Basin Roundtable Chairs shall include in their approval letters for particular WSRA grant applications a description of how the water activity will assist in meeting the water supply needs identified in the basin roundtable's consumptive and/or non-consumptive needs assessments.

As stated in section 8.5.1 of the Rio Grande basin's non-consumptive needs assessment, "The primary objectives of the environmental and recreational options...are to provide flow and/or habitat enhancement of surface water features," which include fish habitat, water quality, and riparian corridors, among others. This project meets a number of these objectives, including the enrichment of aquatic habitat and the already thriving brook trout fishery through the installation of in-stream rock structures that increase the frequency of pool habitats in Kerber Creek, the improvement of riparian corridors through the treatment and revegetation of mine waste deposits, and the enhancement of water quality through the reduction of the bioavailability of heavy metals. In addition to these improvements in non-consumptive use, in-stream restoration and phytostabilization in the Kerber Creek watershed will increase the availability of uncontaminated surface water to agricultural uses without causing harm to aquatic life; specifically, the many landowners that ranch in the watershed will have improved access to surface water for irrigation purposes. Finally, approval is expected by middle to late summer 2013 on in-stream flow rights on four reaches throughout the Kerber Creek watershed. The approval of this in-stream flow application will ensure that Kerber Creek remains flowing throughout the year, enhancing both its consumptive and its non-consumptive uses. Currently, Kerber Creek frequently runs dry at Villa Grove in late summer. The in-stream flow rights pending approval are detailed in Table 5, Exhibit C.

- d) Matching Requirement: For requests from the **Statewide Fund**, the applicants is required to demonstrate a **20 percent** (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of **5 percent** of the total grant amount from Basin Funds. Sources of matching funds include but are not limited to Basin Funds, in-kind services, funding from other sources, and/or direct cash match. Past expenditures directly related to the project may be considered as matching funds if the expenditures occurred within 9 months of the date the application was submitted to the CWCB. Please describe the source(s) of matching funds. (NOTE: These matching funds should also be reflected in your Detailed Budget in **Exhibit A** of this application)

Funds are requested from the Basin account only.

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<sup>3</sup> 37-75-104 (2)(c). Using data and information from the Statewide Water Supply Initiative and other appropriate sources and in cooperation with the on-going Statewide Water Supply Initiative, develop a basin-wide consumptive and nonconsumptive water supply needs assessment, conduct an analysis of available unappropriated waters within the basin, and propose projects or methods, both structural and nonstructural, for meeting those needs and utilizing those unappropriated waters where appropriate. Basin Roundtables shall actively seek the input and advice of affected local governments, water providers, and other interested stakeholders and persons in establishing its needs assessment, and shall propose projects or methods for meeting those needs. Recommendations from this assessment shall be forwarded to the Interbasin Compact Committee and other basin roundtables for analysis and consideration after the General Assembly has approved the Interbasin Compact Charter.

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2. For Applications that include a request for funds from the **Statewide Account**, describe how the water activity/project meets all applicable **Evaluation Criteria**. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines and repeated below.) Projects will be assessed on how well they meet the Evaluation Criteria. **Please attach additional pages as necessary.**

**Evaluation Criteria** – the following criteria will be utilized to further evaluate the merits of the water activity proposed for funding from the Statewide Account. In evaluation of proposed water activities, preference will be given to projects that meet one or more criteria from each of the three “tiers” or categories. Each “tier” is grouped in level of importance. For instance, projects that meet Tier 1 criteria will outweigh projects that only meet Tier 3 criteria. WSRA grant requests for projects that may qualify for loans through the CWCB loan program will receive preference in the Statewide Evaluation Criteria if the grant request is part of a CWCB loan/WSRA grant package. For these CWCB loan/WSRA grant packages, the applicant must have a CWCB loan/WSRA grant ratio of 1:1 or higher. Preference will be given to those with a higher loan/grant ratio.

### **Tier 1: Promoting Collaboration/Cooperation and Meeting Water Management Goals and Identified Water Needs**

- a. The water activity addresses multiple needs or issues, including consumptive and/or non-consumptive needs, or the needs and issues of multiple interests or multiple basins. This can be demonstrated by obtaining letters of support from other basin roundtables (in addition to an approval letter from the sponsoring basin).
- b. The number and types of entities represented in the application and the degree to which the activity will promote cooperation and collaboration among traditional consumptive water interests and/or non-consumptive interests, and if applicable, the degree to which the water activity is effective in addressing intrabasin or interbasin needs or issues.
- c. The water activity helps implement projects and processes identified as helping meet Colorado’s future water needs, and/or addresses the gap areas between available water supply and future need as identified in SWSI or a roundtable’s basin-wide water needs assessment.

### **Tier 2: Facilitating Water Activity Implementation**

- d. Funding from this Account will reduce the uncertainty that the water activity will be implemented. For this criterion the applicant should discuss how receiving funding from the Account will make a significant difference in the implementation of the water activity (i.e., how will receiving funding enable the water activity to move forward or the inability obtaining funding elsewhere).
- e. The amount of matching funds provided by the applicant via direct contributions, demonstrable in-kind contributions, and/or other sources demonstrates a significant & appropriate commitment to the project.

### **Tier 3: The Water Activity Addresses Other Issues of Statewide Value and Maximizes Benefits**

- f. The water activity helps sustain agriculture & open space, or meets environmental or recreational needs.
- g. The water activity assists in the administration of compact-entitled waters or addresses problems related to compact entitled waters and compact compliance and the degree to which the activity promotes maximum utilization of state waters.
- h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.
- i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.

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- j. The water activity is complimentary to or assists in the implementation of other CWCB programs.

Continued: Explanation of how the water activity/project meets all applicable **Evaluation Criteria**.

### **Tier 1a**

The project will address both consumptive and non-consumptive needs. To satisfy non-consumptive needs, the project will enhance fish habitat, improve water quality, and enrich riparian habitat through the implementation of in-stream restoration and mine waste treatment. Additionally, this water activity will improve the quality of water used for irrigation and help to guarantee that all appropriated water rights are fulfilled without causing significant harm to the downstream aquatic habitat. Moreover, through the pending acquisition of four in-stream flow rights (described in detail in Exhibit C), the project will legally ensure that Kerber Creek remains flowing throughout the year, improving access to flow for both consumptive and non-consumptive uses.

### **Tier 1b**

This water activity will be conducted as an extension of KCRP, which actively engages more than 16 partners in restoration activities and seeks to promote increased interaction among all partners. KCRP relies on cooperation among a number of non-profit organizations, government agencies, and local landowners, including both agricultural producers with water rights and non-producing residents without water rights, to ensure that sufficient funding and staff are available to complete restoration projects in a timely, effective manner and to engage San Luis Valley community residents in the stewardship of the Valley's natural resources. See Table 6, Exhibit C for a full list of project partners. In addition to the project's collaborative structure, the project will address intrabasin interests by reconnecting Kerber Creek to its floodplain, which, as preliminary studies in similar areas have shown<sup>4</sup>, will increase groundwater recharge over time. Because the Kerber Creek watershed is located within the Rio Grande Closed Basin, it is expected that even small increases in groundwater recharge in watersheds like Kerber Creek will eventually increase flows throughout the Closed Basin in both streams and wells.

### **Tier 2d**

WSRA funding will allow for the implementation of restoration activities on an area of KC16-E that is not currently funded. While the project's Colorado Nonpoint Source grant does dedicate \$105,000 to in-stream restoration, the entirety of this sum is needed to address the 10,024 feet of stream bank directly west of the 5,170 feet of stream bank that have already been restored at KC16-E. In the next two years, NRCS cost share programs will support the restoration of the westernmost 2,500 feet of stream bank at KC16-E and the entirety of KC16-M, leaving the 2,300 foot gap in between for which the project is requesting funds from WSRA (Figures 5-6, Exhibit C). Thus, without WSRA funds, degraded conditions will persist along a significant portion of stream located within site KC16, which comprises 17.3% of the entire length of stream banks along Kerber Creek. These conditions could negatively impact the project's investment in the stream reaches upstream and downstream of this area.

### **Tier 2e**

The \$34,871 requested from WSRA constitute only 4.2% of the total confirmed budget for the restoration of site KC16, which is the central goal of KCRPS's second Colorado Nonpoint Source grant. However, this

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<sup>4</sup> Lindquist, D.S. and J. Wilcox. "New concepts for meadow restoration in the northern Sierra Nevada." Feather River Coordinated Resource Management, 2000. Accessed 28 March 2013 at <http://www.feather-river-crm.org/pdf/ieca.pdf>. AND Hammersmark, C. T. and J. F. Mount. "Geomorphic, hydrologic, and ecological effects of the Bear Creek Meadow restoration project: A layman's review." U.C. Davis Center for Watershed Sciences, 2005.

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relatively small sum will be sufficient to allow for the restoration of 7.1% of stream bank in the immediate project area. In total, the confirmed project budget is \$824,650, of which (1) \$413,000 are from the Colorado Nonpoint Source program (CDPHE), (2) \$255,600 are matching funds from state agencies (Colorado State Forest Service, Colorado Water Conservation Board, CDPHE, Division of Reclamation Mining and Safety) and private organizations (BSG, Commission for Environmental Cooperation, Xcel Energy, Tiffany Company Foundation, Norcross Wildlife Foundation), (3) \$85,100 are in-kind donations from local landowners and volunteers, (4) \$10,000 are from federal agencies, and (5) \$60,950 are from NRCS engineering and implementation services on the already completed in-stream restoration project. It is expected that NRCS will contribute approximately \$460,000 in additional funds over the next two or three years through the EQIP cost-share program to complete in-stream restoration at sites KC16-M and KC16-W (Table 2, Exhibit A); however, the project is currently pursuing other funding opportunities in the instance that this funding is not available in the future. This diverse funding base illustrates the variety of interests that KCRP serves and the numerous organizations that have been and continue to be committed to the project.

### **Tier 3f**

This water activity will help to ensure that sufficient quantities of surface water are available to support ranching activities in the Kerber Creek watershed, which occur on the three largest privately owned parcels of land (KC16, KC17, and KC18) as well as other, smaller parcels further upstream. In addition, furthering the restoration effort at site KC16 is necessary to protect the improving environmental conditions at site KC17, located directly downstream of site KC16, and site KC18, located downstream of site KC17. The Rio Grande Headwaters Land Trust (RiGHT) holds a conservation easement on site KC17, and the owners of KC18 are currently pursuing a conservation easement with RiGHT. Although these sites have already undergone significant restoration efforts, the restoration of site KC16 is essential to ensuring that the environmental integrity of these protected areas is maintained in perpetuity.

### **Tier 3g**

As described above under Tier 1b, the reconnection of Kerber Creek and its floodplain will increase groundwater recharge, which will eventually help to increase groundwater quantities in the Closed Basin. This, in turn, could provide some additional flow that could supplement the water currently available for distribution as required by the Rio Grande Compact. In addition, the acquisition of in-stream flow rights throughout the Kerber Creek watershed (see Exhibit C) will incrementally increase surface flow in San Luis Creek.

### **Tier 3h**

According to the BLM Environmental Assessment of the Kerber Creek watershed completed in 2006<sup>5</sup>, potential habitat for the Southwestern Willow Flycatcher (SWWFL) does exist throughout the watershed, including at site KC16. Although surveys conducted in 2004 and 2005 on adjacent BLM lands found that no SWWFLs were present, it is possible that restoration of the Kerber Creek riparian corridor will allow for the development of more suitable habitat that will eventually contribute to the recovery of SWWFL in Colorado. No SWWFL surveys have been conducted since the completion of the environmental assessment.

### **Tier 3i**

The WSRA funds requested comprise 4.2% of the total confirmed budget for the project (Table 1, Exhibit A). However, if accepted, the proposed project will contribute to the contiguous restoration of 17.3% of the entire length of stream banks along Kerber Creek. This figure clearly demonstrates the significance of the impact that funding this proposal would have on the Kerber Creek watershed relative to the amount of funds requested.

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<sup>5</sup> Bureau of Land Management. 2006. Environmental Assessment CO-500-07-014 EA. BLM Saguache Field Office.

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### **Tier 3j**

The restoration of this portion of Kerber Creek will assist in the implementation of CWCB's in-stream flow program by helping to ensure that the pending in-stream flow rights on Kerber Creek can be maintained as described. Furthermore, WSRA funding will complement the \$37,000 that CWCB has already contributed to KCRP as matching funds for this project through other grant programs.

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### Part IV. – Required Supporting Material

1. ***Water Rights, Availability, and Sustainability*** – *This information is needed to assess the viability of the water project or activity. Please provide a description of the water supply source to be utilized, or the water body to be affected by, the water activity. This should include a description of applicable water rights, and water rights issues, and the name/location of water bodies affected by the water activity.*

The Kerber Creek watershed is located in the northeastern San Juan Mountains in Saguache County, Colorado (Figure 1, Exhibit C). It is geographically defined by the United States Geological Survey (USGS) as a 5<sup>th</sup> level watershed with the HUC 1301000302. Kerber Creek flows through the towns of Bonanza (elevation 9,465 feet) and Villa Grove (elevation 7,986 feet) before confluencing with San Luis Creek. The watershed is part of the Rio Grande Closed Basin. The entire Kerber Creek watershed encompasses 64,323 acres, and Kerber Creek is 26 miles long from its origin to its confluence with San Luis Creek. The San Luis Creek watershed is defined as a 4<sup>th</sup> level watershed with the HUC 13010003. Major tributaries include Slaughterhouse Creek, Brewery Creek, Skunk Creek, Rawley Gulch, Eagle Gulch, and Squirrel Creek.

The proposed water activity will in no way impact, diminish, impair, or otherwise injure the water rights that currently exist throughout the watershed.

2. *Please provide a brief narrative of any related studies or permitting issues.*

BLM holds both the U.S. Army Corps of Engineers 404 permit and the CDPHE stormwater permit that allow for the implementation of restoration activities. These permits were renewed in 2009 and are valid throughout the duration of the project.

3. *Statement of Work, Detailed Budget, and Project Schedule*

The statement of work will form the basis for the contract between the Applicant and the State of Colorado. In short, the Applicant is agreeing to undertake the work for the compensation outlined in the statement of work and budget, and in return, the State of Colorado is receiving the deliverables/products specified. **Please note that costs incurred prior to execution of a contract or purchase order are not subject to reimbursement.** All WSRA funds are disbursed on a reimbursement basis after review invoices and appropriate backup material.

**Please provide a detailed statement of work using the template in Exhibit A.** Additional sections or modifications may be included as necessary. Please define all acronyms and include page numbers.

## **REPORTING AND FINAL DELIVERABLE**

**Reporting:** 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 statement of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

**Final Deliverable:** 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.

## **PAYMENT**

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 5 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed. 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 help promote the development of a common technical platform.

The above statements are true to the best of my knowledge:

**Signature of Applicant:**



**Print Applicant's Name:** Elizabeth Russell (Trout Unlimited)

**Project Title:** Kerber Creek Restoration Project (Phase II)

**Date:** 6/4/2013

**Return an electronic version (hardcopy may also be submitted) of this application to:**

Greg Johnson – WSRA Application  
Colorado Water Conservation Board  
1580 Logan Street, Suite 200  
Denver, CO 80203  
[gregory.johnson@state.co.us](mailto:gregory.johnson@state.co.us)

**Exhibit A**  
**Statement of Work**

**WATER ACTIVITY NAME – Kerber Creek Restoration Project**

**GRANT RECIPIENT – Trout Unlimited**

**FUNDING SOURCE – Rio Grande Interbasin Roundtable Account**

**INTRODUCTION AND BACKGROUND**

Provide a brief description of the project. (Please limit to **no more than 200 words**; this will be used to inform reviewers and the public about your proposal)

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 4000 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 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.

**OBJECTIVES**

List the objectives of the project

- 1) Effectively manage project
- 2) Phytostabilization of 36 acres of mine waste deposits
- 3) Stream bank stabilization along 47,520 feet of stream bank
- 4) Installation of in-stream rock structures where necessary along 23,760 feet of stream
- 5) Monitoring of geomorphological, biological, and water quality variables
- 6) Engineering at upper watershed source areas
- 7) Development of a sustainable BSG

**TASKS**

Provide a detailed description of each task using the following format

**TASK 1 – Project management**

Description of Task

Project funds will be effectively managed and documented, and all necessary project reports will be completed efficiently and submitted in a timely manner.



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### Method/Procedure

TU personnel will manage all project funding in a consistent manner and use its considerable experience to ensure that all reports are submitted to the appropriate entity on time, as it has in the past.

### Deliverable

Appropriately completed project reports; Completed restoration project

## **TASK 2 – Mine wastes treatment (not funded through WSRA)**

### Description of Task

A total of 36 acres of mine wastes will be treated at site KC16, the largest privately owned parcel of land along Kerber Creek. In-situ phytostabilization is the treatment method of choice.

### Method/Procedure

A pre-determined mixture of soil amendments will be applied to 36 acres of mine waste deposits and incorporated to a depth of 18". Amendments include: (1) lime, to neutralize soil pH in the short-term, (2) limestone, to provide long-term buffering capacity, and (3) compost, to limit bioavailability in soils by chemically binding metals to the organic molecules. This method also limits the bioavailability of metals mobilized from the deposit to the stream by runoff or groundwater, since metals will still remain bound to the organic component. Specific amendment application rates have been determined using data from previous site characterization efforts and from rates used to treat deposits at similar sites in the Kerber Creek watershed. Following amendment application, a native seed mix will be distributed using broadcast seeding to promote revegetation of the treated deposits. Straw will then be crimped on top to provide protection from erosion.

### Deliverable

36 acres of mine wastes treated

## **TASK 3 – Stream bank stabilization**

### Description of Task

A total of 47,520 feet of stream bank at site KC16 will be restored using both vegetation and engineered rock structures. WSRA funding will be used to restore 2,300 feet of stream bank.

### Method/Procedure

Following the appropriate site survey and design of engineered structures by NRCS personnel, a contractor will implement restoration activities where prescribed. These activities include the installation of root wads, willow fascines, and engineered rock structures. In-stream restoration will be implemented before Task 1 (mine wastes treatment) to prevent negative impacts from heavy equipment on treated areas. Volunteers will plant willows, sedge mats, and cottonwoods with supervision from project personnel following the completion of construction activities.

### Deliverable

47,520 feet of stream bank restored

**TASK 4 – Engineered rock structure installation**

Description of Task

A variety of engineered in-stream rock structures will be installed at designated points along 47,520 feet of stream bank. WSRA funds will be used for rock structures to be installed along 2,300 feet of stream bank located at KC16-E, and NRCS will contribute the necessary engineering as an in-kind donation.

Method/Procedure

Cross vanes, J-hooks, rock barbs, and low-head dams will be installed as per NRCS engineering designs. These structures redirect the thalweg to the center of the stream, reducing erosion by decreasing the shear stress on stream banks, improving aquatic habitat by allowing for the development of self-scouring pools separated by shallower riffles, increasing sinuosity, and decreasing the width-to-depth ratio.

Deliverable

Approximately 250 in-stream rock structures installed along 47,520 feet of stream bank

**TASK 5 – Monitoring (not funded through WSRA)**

Description of Task

Project personnel will monitor a variety of geomorphological, biological, and water quality variables at previously established sites throughout the watershed. Data collected will be used to evaluate the effects of the project and to document project success.

Method/Procedure

As specified in the KCRP Sampling and Analysis Project Plan (SAPP)<sup>6</sup>, available upon request: water quality, stream sinuosity, macroinvertebrate population, fishery density, and vegetation cover will be monitored at five sites; channel width and channel depth will be monitored at four sites; and repeat photographs will be taken at five sites that correspond with vegetation monitoring sites. All monitoring and data analysis methods will follow standard, approved practices that have been utilized for past restoration projects in the watershed, thus allowing for direct comparison between data collected before and after restoration.

Deliverable

Documented improvement in both geomorphological and biological variables as a result of restoration that can be included in project reports

**TASK 6 – Engineering at source areas (not funded through WSRA)**

Description of Task

Design alternatives will be developed for contaminant source areas in the upper watershed to help mitigate persistent water quality issues in the Kerber Creek watershed. Specifically, efforts will focus on the identification of possible solutions to contaminant loadings from the Minnie Lynch Mine Site.

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<sup>6</sup> Kerber Creek Restoration Project. 2013. Sampling and Analysis Project Plan. BLM Saguache Field Office.

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### Method/Procedure

TU will contract with experts to complete an Engineering Evaluation/Cost Analysis (EE/CA) that will identify cleanup alternatives for the Minnie Lynch Mine Site. The EE/CA will use characterization data collected in 2009 and 2010 and compiled into a technical memorandum to evaluate potential options.

### Deliverable

Implementation alternatives that could result in a 30-60% reduction in metals loading to Kerber Creek downstream of its confluence with Rawley Gulch

## **TASK 7 – BSG Development (not funded through WSRA)**

### Description of Task

Efforts to keep BSG members engaged in the project and to share project successes will continue. Through outreach documents, conference attendance, and educational tours, San Luis Valley residents will remain knowledgeable of and interested in KCRP.

### Method/Procedure

Quarterly BSG meetings will continue throughout the remainder of the project to keep stakeholders informed of watershed issues. In addition, KCRP will continue to publish quarterly newsletters, to host public watershed tours, and to attend and present at a variety of relevant conferences. Finally, three interpretive signs will be designed and installed throughout the watershed to provide visitors with an introduction to the project and the history of the watershed.

### Deliverable

Committed stakeholders; informed public; quarterly newsletters; three interpretive signs

## **REPORTING AND FINAL DELIVERABLE**

**Reporting:** 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 statement of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

**Final Deliverable:** 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.

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### **BUDGET**

Provide a detailed budget by task including number of hours and rates for labor and unit costs for other direct costs (i.e. mileage, \$/unit of material for construction, etc.). A detailed and perfectly balanced budget that shows all costs is required for the State's contracting and purchase order processes. Sample budget tables are provided below. Please note that these budget tables are examples and will need to be adapted to fit each individual application. Tasks should correspond to the tasks described above.

Two budget tables are attached (Tables 1 and 2). Table 1 presents a complete project budget with confirmed funding, expected funding from NRCS, and proposed funding from WSRA. Table 2 presents an itemized budget specific to the proposed WSRA project.

### **SCHEDULE**

Two schedules are presented (Tables 3 and 4). Table 3 presents a generalized project schedule, and Table 3 gives a schedule specific to the proposed WSRA project.

### **PAYMENT**

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 5 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed. 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 help promote the development of a common technical platform.

## **Appendix 1**

### **Reference Information**

The following information is available via the internet. The reference information provides additional detail and background information.

- Water Supply Reserve Account main webpage:
  - <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/main.aspx>
- Water Supply Reserve Account – Basin Fund Application Details:
  - <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/BasinWaterSupplyReserveAccountGrants.aspx>
- Water Supply Reserve Account – Statewide Fund Application Details:
  - <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/StatewideWaterSupplyReserveAccountGrants.aspx>
- Colorado Water Conservation Board main website:
  - <http://cwcb.state.co.us/>
- Interbasin Compact Committee and Basin Roundtables:
  - <http://cwcb.state.co.us/about-us/about-the-ibcc-brts/Pages/main.aspx/Templates/BasinHome.aspx>
- House Bill 05-1177 – (Also known as the Water for the 21<sup>st</sup> Century Act):
  - <http://cwcbweblink.state.co.us/DocView.aspx?id=105662&searchhandle=28318>
- House Bill 06-1400 – (Adopted the Interbasin Compact Committee Charter):
  - <http://cwcbweblink.state.co.us/DocView.aspx?id=21291&searchhandle=12911>
- Senate Bill 06-179 – (Created the Water Supply Reserve Account):
  - <http://cwcbweblink.state.co.us/DocView.aspx?id=21379&searchhandle=12911>
- Statewide Water Supply Initiative 2010:
  - <http://cwcb.state.co.us/water-management/water-supply-planning/Pages/SWSI2010.aspx>

**Appendix 2**  
**Insurance Requirements**

NOTE: The following insurance requirements taken from the standard contract apply to WSRA projects that exceed \$25,000 in accordance with the policies of the State Controller's Office. Proof of insurance as stated below is necessary prior to the execution of a contract.

**13. INSURANCE**

Grantee and its Sub-grantees shall obtain and maintain insurance as specified in this section at all times during the term of this Grant: All policies evidencing the insurance coverage required hereunder shall be issued by insurance companies satisfactory to Grantee and the State.

**A. Grantee**

**i. Public Entities**

If Grantee is a "public entity" within the meaning of the Colorado Governmental Immunity Act, CRS §24-10-101, et seq., as amended (the "GIA"), then Grantee shall maintain at all times during the term of this Grant such liability insurance, by commercial policy or self-insurance, as is necessary to meet its liabilities under the GIA. Grantee shall show proof of such insurance satisfactory to the State, if requested by the State. Grantee shall require each Grant with Sub-grantees that are public entities, providing Goods or Services hereunder, to include the insurance requirements necessary to meet Sub-grantee's liabilities under the GIA.

**ii. Non-Public Entities**

If Grantee is not a "public entity" within the meaning of the GIA, Grantee shall obtain and maintain during the term of this Grant insurance coverage and policies meeting the same requirements set forth in **§13(B)** with respect to sub-Grantees that are not "public entities".

**B. Sub-Grantees**

Grantee shall require each Grant with Sub-grantees, other than those that are public entities, providing Goods or Services in connection with this Grant, to include insurance requirements substantially similar to the following:

**i. Worker's Compensation**

Worker's Compensation Insurance as required by State statute, and Employer's Liability Insurance covering all of Grantee and Sub-grantee employees acting within the course and scope of their employment.

**ii. General Liability**

Commercial General Liability Insurance written on ISO occurrence form CG 00 01 10/93 or equivalent, covering premises operations, fire damage, independent Grantees, products and completed operations, blanket Grantual liability, personal injury, and advertising liability with minimum limits as follows: **(a)** \$1,000,000 each occurrence; **(b)** \$1,000,000 general aggregate; **(c)** \$1,000,000 products and completed operations aggregate; and **(d)** \$50,000 any one fire. If any aggregate limit is reduced below \$1,000,000 because of claims made or paid, Sub-grantee shall immediately obtain additional insurance to restore the full aggregate limit and furnish to Grantee a certificate or other document satisfactory to Grantee showing compliance with this provision.

**iii. Automobile Liability**

Automobile Liability Insurance covering any auto (including owned, hired and non-owned autos) with a minimum limit of \$1,000,000 each accident combined single limit.

**iv. Additional Insured**

Grantee and the State shall be named as additional insured on the Commercial General Liability and Automobile Liability Insurance policies (leases and construction Grants require additional

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insured coverage for completed operations on endorsements CG 2010 11/85, CG 2037, or equivalent).

**v. Primacy of Coverage**

Coverage required of Grantee and Sub-grantees shall be primary over any insurance or self-insurance program carried by Grantee or the State.

**vi. Cancellation**

The above insurance policies shall include provisions preventing cancellation or non-renewal without at least 45 days prior notice to the Grantee and the State by certified mail.

**vii. Subrogation Waiver**

All insurance policies in any way related to this Grant and secured and maintained by Grantee or its Sub-grantees as required herein shall include clauses stating that each carrier shall waive all rights of recovery, under subrogation or otherwise, against Grantee or the State, its agencies, institutions, organizations, officers, agents, employees, and volunteers.

**C. Certificates**

Grantee and all Sub-grantees shall provide certificates showing insurance coverage required hereunder to the State within seven business days of the Effective Date of this Grant. No later than 15 days prior to the expiration date of any such coverage, Grantee and each Sub-grantee shall deliver to the State or Grantee certificates of insurance evidencing renewals thereof. In addition, upon request by the State at any other time during the term of this Grant or any sub-grant, Grantee and each Sub-grantee shall, within 10 days of such request, supply to the State evidence satisfactory to the State of compliance with the provisions of this §13.

**Appendix 3**

**Water Supply Reserve Account Standard Contract Information**

NOTE: The standard contract is required for WSRA projects that exceed \$100,000. (Projects under this amount will normally be funded through a purchase order process.) Applicants are encouraged to review the standard contract to understand the terms and conditions required by the State in the event a WSRA grant is awarded. Significant changes to the standard contract require approval of the State Controller's Office and often prolong the contracting process.

It should also be noted that grant funds to be used for the purchase of real property (e.g. water rights, land, conservation easements, etc.) will require additional review and approval. In such cases applicants should expect the grant contracting process to take approximately 3 to 6 months from the date of CWCB approval.

The standard contract is available here under the header "Additional Resources" on the right side:

<http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/BasinWaterSupplyReserveAccountGrants.aspx>



**Appendix 4**  
**W-9 Form**

NOTE: A completed W-9 form is required for all WSRA projects prior execution of a contract or purchase order. Please submit this form with the completed application.

**Exhibit A**  
**Project Budget**

See the final page of this document for project budget tables (Tables 1-2)

**Project Schedule**

**Table 3: Complete Project Schedule**

Tasks	Task Description	Start Date*	Finish Date
1	Project management <sup>7</sup>	6/1/2011	2/1/2016
2	Mine wastes treatment <sup>8</sup>	8/1/2011	12/1/2015
3	Stream bank stabilization <sup>9</sup>	10/1/2012	12/1/2015
4	Engineered rock structure installation <sup>9</sup>	10/1/2012	12/1/2015
5	Monitoring <sup>10</sup>	10/29/2012	10/29/2016
6	Engineering at source areas	6/1/2013	6/1/2015
7	BSG development <sup>11</sup>	5/1/2012	12/1/2015

**Table 4: Project Schedule: WSRA Funds**

Tasks	Task Description	Start Date	Finish Date
3	Stream bank stabilization		
	Reshaping & excavating banks	Upon NTP <sup>†</sup>	12/1/2014
4	Engineered rock structure installation		
	Rock	Upon NTP	12/1/2014

\*All listed dates are approximate. Project implementation (i.e., tasks 2-5) is dependent upon weather conditions.

<sup>†</sup>NTP: Notice to proceed from CWCBC.

<sup>7</sup> Project management is ongoing. Dates listed refer to the period throughout which the project as identified in documents necessary for the Colorado Nonpoint Source Program grant will be managed (see *Kerber Creek Restoration Project. 2013. Project Implementation Plan. BLM Saguache Field Office AND Kerber Creek Restoration Project. 2013. Sampling and Analysis Project Plan. BLM Saguache Field Office*).

<sup>8</sup> The KCRP Colorado Nonpoint Source Program grant includes treatment of mine wastes completed before the grant was officially awarded.

<sup>9</sup> In-stream restoration activities began in October, 2012 on the easternmost 2,585 feet of KC16-E as identified in Figure 5 (Exhibit C).

<sup>10</sup> Project monitoring will continue past the official end date of the Colorado Nonpoint Source Program project, which is 12/1/2016 (see *Kerber Creek Restoration Project. 2013. Sampling and Analysis Project Plan. BLM Saguache Field Office*).

<sup>11</sup> BSG development is ongoing. Dates listed refer to the period throughout which these activities will be documented for the Colorado Nonpoint Source Program grant.

Exhibit B  
Project Map

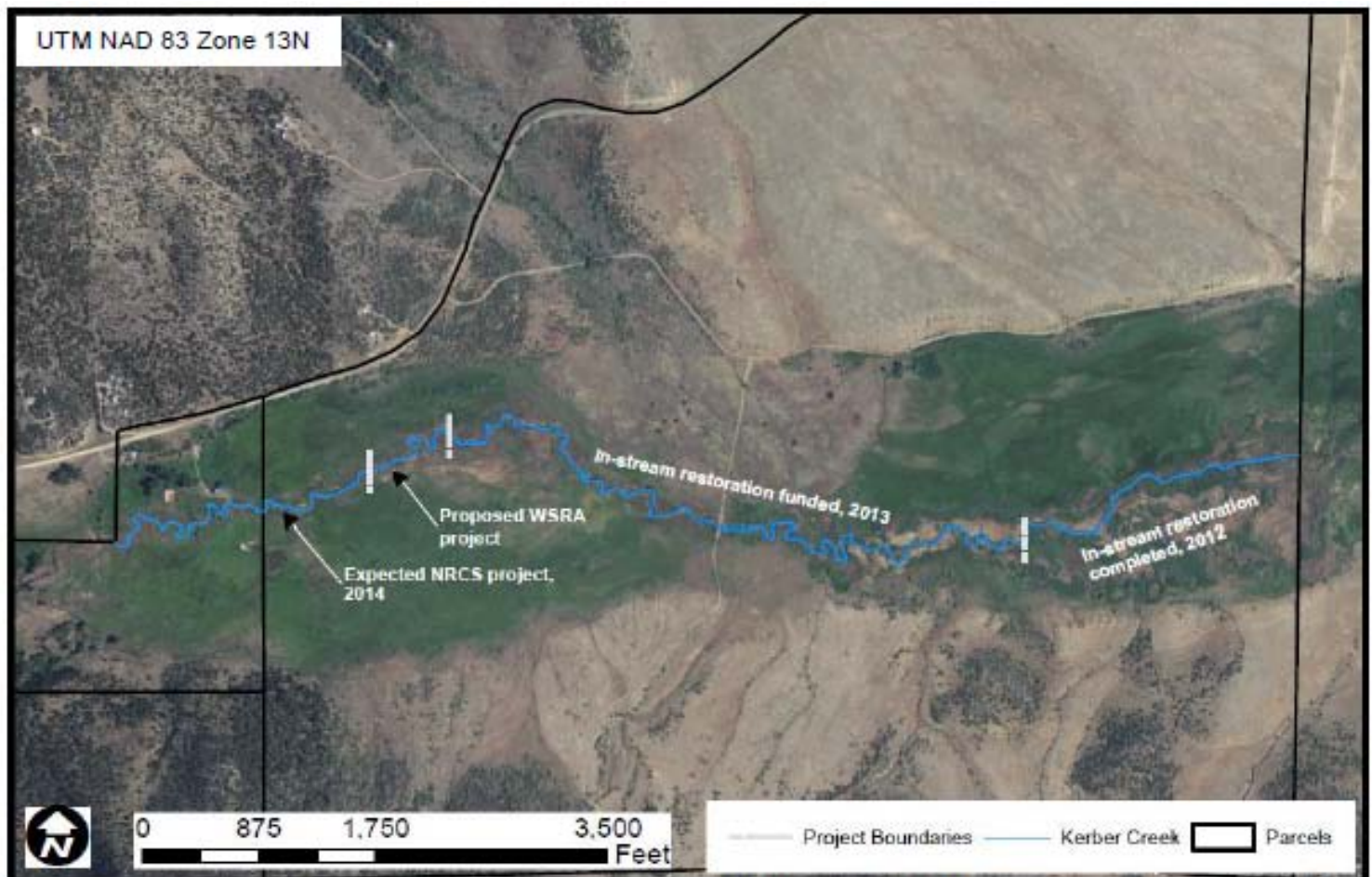


Figure 1. Overview of past and upcoming projects at site KC16-E. KC16-M is represented by the parcel to the left, and KC16-W is not depicted.



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

Exhibit C  
Additional Maps and Tables

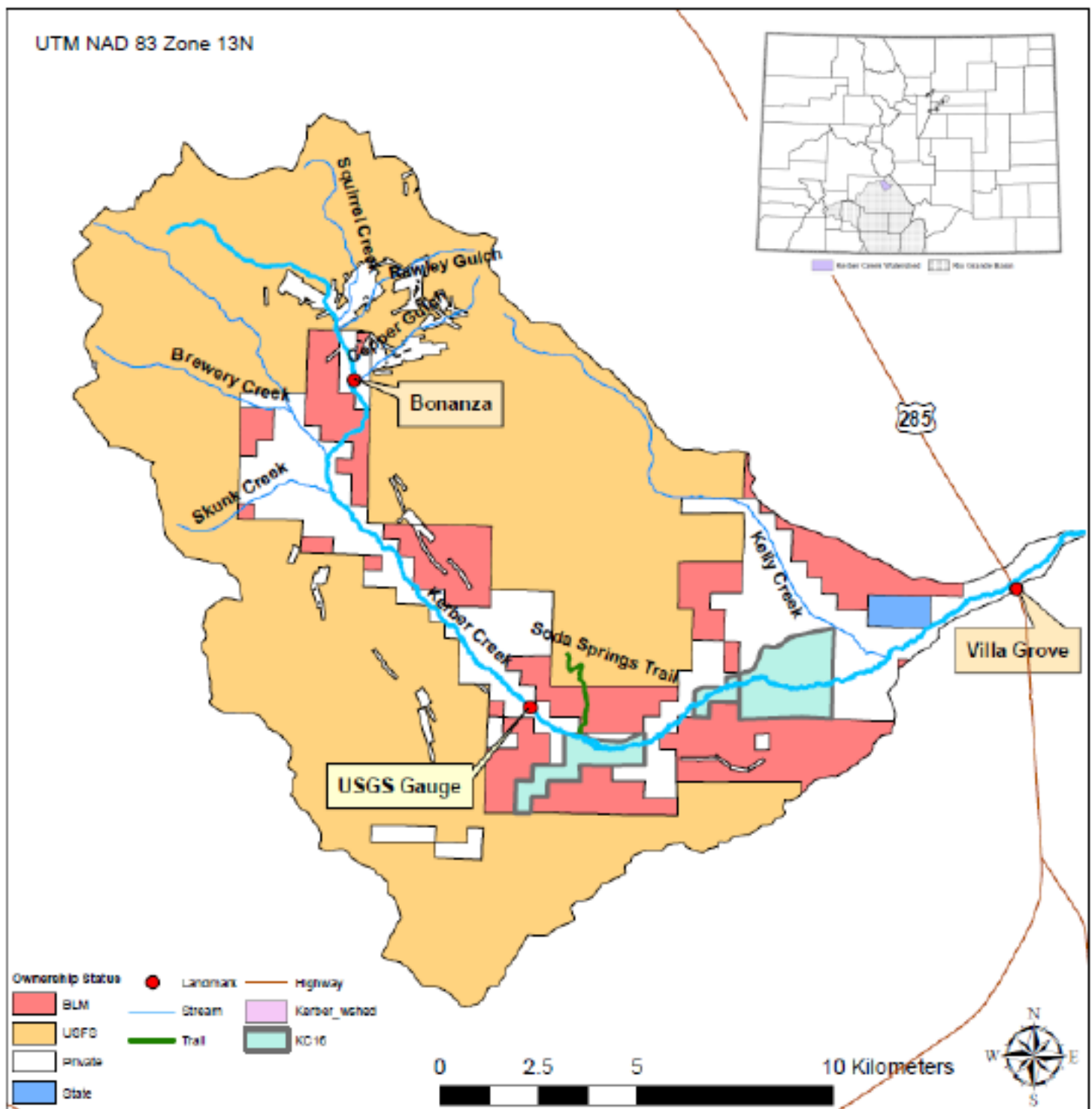


Figure 3. Kerber Creek watershed with tributaries, major landmarks, and project site location. Inset shows Kerber Creek watershed location within Colorado's Rio Grande basin.



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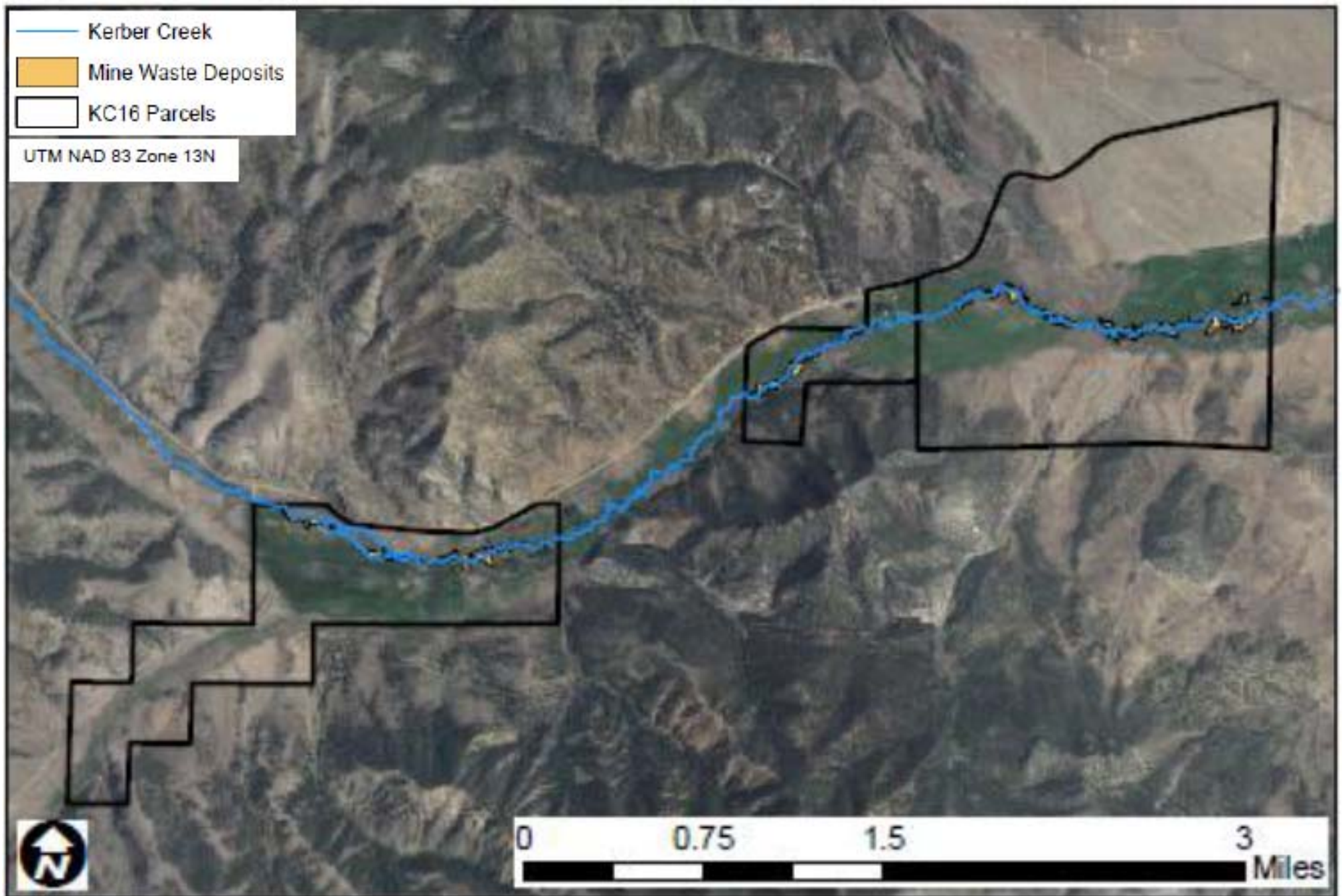


Figure 4. Overview of KC16 parcels against 2011 NAIP imagery.



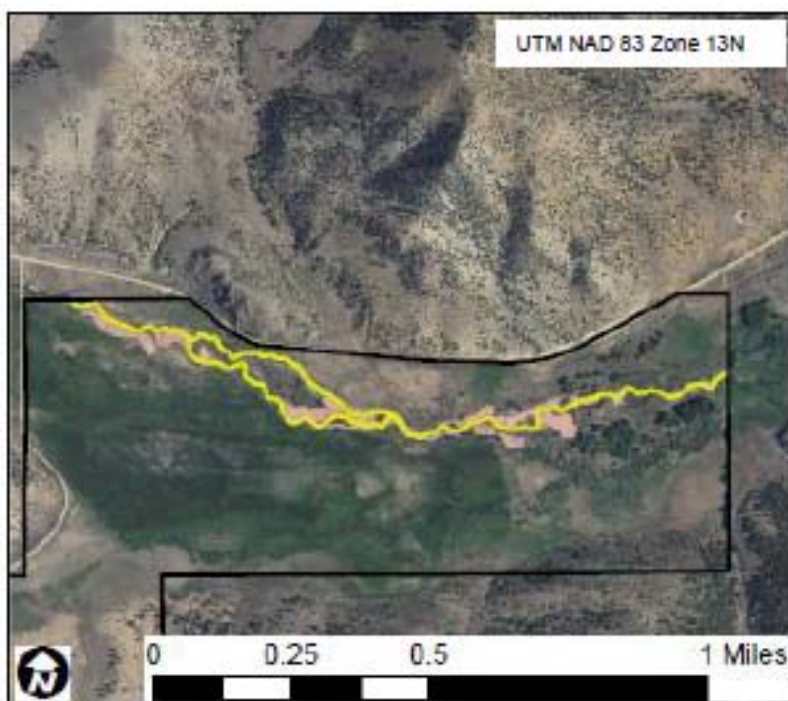
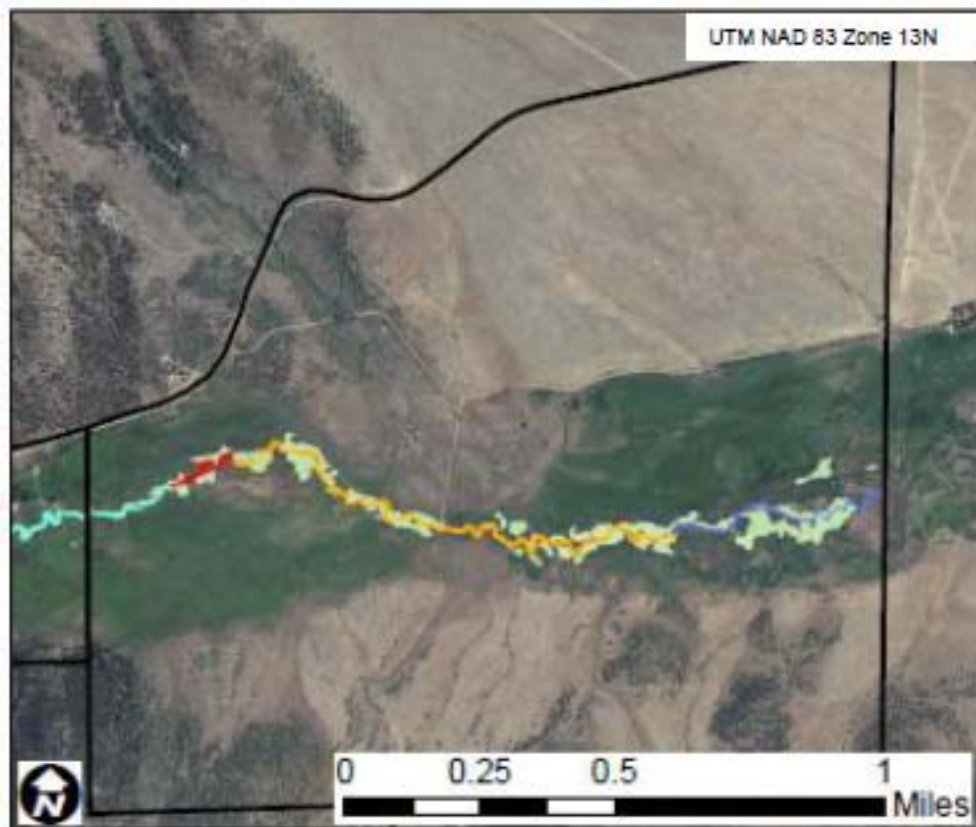


Figure 5 (top left). KC16-E. Figure 6 (top right). KC16-M. Figure 7 (bottom left). KC16-W. All figures display planned project work in each parcel as described in the legend (bottom right) against 2011 NAIP imagery.

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**Table 5: Proposed In-stream flow rights within the Kerber Creek watershed.**

	Brewery Creek: USFS Boundary to Confluence with Kerber Creek	Elkhorn Gulch: USFS/BLM Boundary to Confluence with Kerber Creek	Kerber Creek: Confluence with Elkhorn Gulch to Confluence with Brewery Creek	Kerber Creek: Brewery Creek to Wells Kerber Ditch Headgate
April 1 – July 31	2.85 cfs			6.75 cfs
April 16 – July 15			3.5 cfs	
April 15 – July 31		1.05 cfs		
July 16 – October 31; March 2 – April 15			1.45 cfs	
August 1 – November 15	2.10 cfs			4.0 cfs
August 1 – April 14		0.55 cfs		
November 1 – March 1			10.8 cfs	
November 16 – March 31	1.60 cfs			2.6 cfs

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**Table 6: Complete List of KCRP Partners**

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*Nonprofit Organizations*

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Collegiate Peaks Anglers Chapter, Trout Unlimited  
Commission for Environmental Cooperation  
Norcross Wildlife Foundation  
Office of Surface Mining Western Hardrock Watershed Team / AmeriCorps Volunteer in Service to America Program  
Orient Land Trust  
Saguache County Sustainable Environment and Economic Development  
Trout Unlimited, National  
Rio Grande Watershed Conservation and Education Initiative  
Southwest Conservation Corps

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*Government Agencies (State and National)*

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Bureau of Land Management  
Colorado Department of Public Health and Environment  
Colorado Parks and Wildlife  
Colorado State Forest Service  
Colorado Water Conservation Board  
Colorado Division of Water Resources – Division 3  
Division of Reclamation Mining and Safety  
Environmental Protection Agency  
Natural Resources Conservation Service  
U.S. Fish and Wildlife Service  
U.S. Forest Service

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*Other*

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AmeriCorps – Saguache Methodists  
Bonanza Stakeholders Group  
Center Conservation District  
Northern San Luis Valley Conservation Roundtable  
Tiffany and Company Foundation  
Xcel Energy

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Exhibit A  
Project Budget

Table 1: Total Project Budget

Tasks    Task Description		Sources																	
		Nonpoint Source	DRMS	CWCB	CSFS	CDPHE	BSG	Tiffany & Company Foundation	CEC	Xcel Energy	Norcross Wildlife Foundation	In-Kind Donations	Federal Funding	NRCS <sup>12</sup>	Confirmed Totals	Expected NRCS Funding <sup>13</sup>	Expected Totals <sup>14</sup>	Proposed WSRA Funding	Proposed Totals <sup>15</sup>
1	Project management	\$36,000	\$0	\$6,200	\$3,800	\$6,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$52,000	\$0	\$52,000	\$3,736	\$55,736
2	Mine wastes treatment	\$221,000	\$19,400	\$0	\$30,600	\$30,000	\$19,500	\$4,000	\$28,000	\$2,500	\$0	\$50,000	\$0	\$0	\$405,000	\$0	\$405,000	\$0	\$405,000
3	Stream bank stabilization	\$44,000	\$5,600	\$27,400	\$0	\$12,000	\$5,000	\$5,000	\$6,000	\$0	\$0	\$5,000	\$0	\$8,000	\$118,000	\$60,000	\$178,000	\$11,169.50	\$189,169.50
4	Engineered rock structure installation	\$53,000	\$0	\$3,400	\$0	\$6,000	\$500	\$10,600	\$4,900	\$0	\$0	\$5,000	\$0	\$52,950	\$136,350	\$400,000	\$536,350	\$19,965.50	\$556,315.50
5	Monitoring	\$22,000	\$0	\$0	\$0	\$3,000	\$0	\$0	\$6,000	\$0	\$0	\$5,100	\$10,000	\$0	\$46,100	\$0	\$46,100	\$0	\$46,100
6	Engineering at source areas	\$25,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,000	\$0	\$25,000	\$0	\$25,000
7	BSG development	\$12,000	\$0	\$0	\$0	\$3,000	\$0	\$400	\$5,100	\$0	\$1,700	\$20,000	\$0	\$0	\$42,200	\$0	\$42,200	\$0	\$42,200
Source Totals		\$413,000	\$25,000	\$37,000	\$34,400	\$60,000	\$25,000	\$20,000	\$50,000	\$2,500	\$1,700	\$85,100	\$10,000	\$60,950	\$824,650	\$460,000	\$1,284,650	\$34,871	\$1,319,521

Table 2: WSRA Proposed Project Budget

Tasks	Task Description	Price per CY	CY	Total Cost
1	Project Management			
	TU Administrative Costs			\$3,736
3	Stream bank stabilization			
	Reshaping & excavating banks	\$4	2172	\$8,688
4	Engineered rock structure installation			
	Rock	\$62	282	\$17,484
		Price per Hour	Hours	Total Cost
Labor <sup>16</sup>		\$43.15	115	\$4,963
Total				\$34,871

<sup>12</sup> NRCS funding includes both project design and implementation. NRCS funds projects through landowner cost-share programs (e.g., EQIP, WHIP); thus, TU does not receive NRCS funding directly. Rather, NRCS funds are used to restore private lands either by reimbursing landowners who pay the contractors or by directly paying the contractors. The NRCS funds listed here were used to pay the contractor who completed in-stream restoration on the easternmost 2,585 feet of stream at KC16-E.

<sup>13</sup> NRCS expects to receive approximately half of the listed sum in 2014 through the EQIP program to complete in-stream restoration on the westernmost 1,250 feet of stream at KC16-E and the entirety of the stream at KC16-M. A second application to the EQIP program for the other half will be written in 2014 to cover in-stream restoration at KC16-W. Because NRCS cost-share programs depend on federal budget allocations, TU is also pursuing other potential grant funding opportunities to complete the associated restoration projects.

<sup>14</sup> Expected totals list totals for each task equivalent to the sum of confirmed totals and expected NRCS funding.

<sup>15</sup> Proposed totals list totals for each task equivalent to the sum of confirmed totals, expected NRCS funding, and proposed WSRA funding.

<sup>16</sup> Labor costs cover both rock installation and bank stabilization. For this reason, labor costs are halved and distributed between tasks 3 and 4 in Table 1.