COLORADO
Colorado Water Conservation Board
Department of Natural Resources

1313 Sherman Street, Room 718
Denver, CO 80203

June 10, 2015

Mr. Jason Willis, Project Manager
Trout Unlimited, Inc.
128 East 1st Street, Suite 203
Salida, CO 81201

RE: Notice to Proceed - WSRA Grant – POGG1 2015-286 Kerber Creek Restoration Middle Parcel in the Rio Grande River Basin

Dear Jason,

This letter is to inform you that the purchase order to assist in the above WSRA grant project was approved on June 10, 2015. This email serves as the original documentation for your records.

With the executed purchase order, you are now able to proceed with the project and invoice the State of Colorado for costs incurred through October 31, 2016 according to the schedule in Exhibit A. Please provide the project name, contract or purchase order number, and basin when corresponding with or invoicing the State of Colorado for your project. Upon receipt of your invoice(s), the State of Colorado will provide payment no later than 30 days after review and signed approval by the project manager. I wish you much success in your project.

If you have any questions or concerns regarding the project, please contact me. You can contact Dori Vigil at 303-866-3441 ext. 3250 for invoicing and payment disbursement questions.

Sincerely,

//s//

Chris Sturm
Stream Restoration Coordinator
O 303-866-3441 x3236| F 303-866-4474
1313 Sherman St., Rm. 721, Denver, CO 80203
chris.sturm@state.co.us | cwcb.state.co.us

Attachments

STATE OF COLORADO
Department of Natural Resources

ORDER
Number: POGG1 PDAA 20150000000000000286
Date: 06/10/15
Description:
PDAA 2500 WSRA Kerber Creek Restoration Middle Parcel
Effective Date: 06/10/15 Expiration Date: 10/31/16

BUYER
Buyer:
Email:

VENDOR
TROUT UNLIMITED INC
1777 N KENT ST
100
ARLINGTON, VA 22209-2133

Contact: Jason Willis
Phone: 7192210411

**** IMPORTANT ****
The order number and line number must appear on all invoices, packing slips, cartons and correspondence

BILL TO
COLORADO WATER BOARD CONSERVATION
1313 SHERMAN STREET, ROOM 718
DENVER, CO 80203

SHIP TO
COLORADO WATER BOARD CONSERVATION
1313 SHERMAN STREET, ROOM 718
DENVER, CO 80203

SHIPPING INSTRUCTIONS
Delivery/Install Date:
F.O.B:
VENDOR INSTRUCTIONS:

Line Item	Commodity/Item Code	UOM	QTY	Unit Cost	Total Cost	MSDS Req.
1	G1000		0	0.00	$30,000.00	☐

Description: PDAA 2500 WSRA Kerber Creek Restoration Middle Parcel

Service From: 06/10/15 Service To: 10/31/16

TERMS AND CONDITIONS
https://www.colorado.gov/osc/purchase-order-terms-conditions

DOCUMENT TOTAL = $30,000.00

Exhibit A
Statement of Work

WATER ACTIVITY NAME – Kerber Creek Restoration Project – Middle Parcel

GRANT RECIPIENT – Trout Unlimited

FUNDING SOURCE – WSRA 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)

TU plans to restore six acres of mine tailings contained within the floodplain of site KC16-M. Site KC16-M is in the Kerber Creek watershed in northern Saguache County. The reclamation of these six acres will coincide with 5,900 feet of in-stream improvements planned for 2015 by NRCS. TU will institute phytostabilization as the treatment method of choice for the associated mine tailings. This treatment technique has efficiently worked at several sites throughout the watershed since 2008. Phytostabilization is defined as an on-site technology using calculated amounts of soil amendments and metals-tolerant plants to reduce soil toxicity and metal mobility. For KC16-M, a pre-determined mixture of soil amendments will be applied to six acres of mine tailings and incorporated to a depth of 18-24". Amendments include lime, limestone, and compost that work together to chemically bind metals to organic molecules present in the soil. 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 broadcast on treated deposits followed by a layer of straw to provide protection from erosion.

OBJECTIVES
List the objectives of the project
1) Effectively manage project
2) Phytostabilization of 6 acres of mine tailings
3) In-stream restoration of 5,900 feet of stream
4) Monitoring of geomorphological, biological, and water quality variables

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 according to aforementioned deliverables.

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 documented in the past.

Deliverable
Appropriately completed project reports; Successful completion of restoration work.

TASK 2 – Phytostabilization of Mine Tailings

Description of Task
A total of six acres of mine wastes will be treated at site KC16-M. Phytostabilization will be the treatment method.

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
Six acres of treated mine tailings

TASK 3 – In-stream Restoration (Not funded through WSRA)

Description of Task
A total of 5,900 feet of stream will be restored using both vegetative transplants and engineered rock structures. An estimated 1,200 cubic yards of bank will be reshaped during stream restoration procedures.

Method/Procedure
A site survey and design of engineered structures was completed by NRCS personnel. A contractor will implement restoration activities according to engineered designs and these activities will include the installation of root wads, willow fascines, and engineered rock structures. In-stream restoration will be implemented in-conjunction with Task 2(Phytostabilization of mine tailings) to prevent future negative erosional impacts. Volunteers will plant willows, sedge mats, and cottonwoods with supervision from project personnel following the completion of construction activities, where applicable.

Deliverable
5,900 feet of in-stream restoration and 1,200 cubic yards of bank reshaping

TASK 4 – 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)[5], 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.

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.

[5] Kerber Creek Restoration Project. 2013. Sampling and Analysis Project Plan. BLM Saguache Field Office.

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.

****** See Project Budget in Tables 1 and 2 below**

SCHEDULE
Provide a project schedule including key milestones for each task and the completion dates or time period from the Notice to Proceed (NTP). This dating method allows flexibility in the event of potential delays from the procurement process. Sample schedules are provided below. Please note that these schedules are examples and will need to be adapted to fit each individual application.

****** See Project Schedule in Tables 3 and 4 below.**

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.

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	Ongoing	12/1/2016
2	Phytostabilization of mine tailings	7/1/2015	10/31/2016
3	In-stream restoration[6]	7/1/2015	10/31/2016
4	Monitoring[7]	Ongoing	12/1/2016

Table 4: Project Schedule: WSRA Funds

Tasks	Task Description	Start Date	Finish Date
1	Project Management	NTP†	12/1/2016
2	Phytostabilization of mine tailings		
	Amendment Purchase	NTP	10/31/2016
	Contractor Labor	NTP	10/31/2016

*All listed dates are approximate. Project implementation (i.e., tasks 2-3) is dependent upon weather conditions.
†NTP: Notice to proceed from CWCB or 7/1/2016.

[6] In-stream restoration activities will begin in summer of 2015 on 5,900 feet of stream in the middle parcel. (Exhibit B).
[7] 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*).

Table 5: Complete List of KCRP Partners
Nonprofit Organizations
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
Government Agencies (*State and National*)
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
Other
AmeriCorps – Saguache Methodists
Bonanza Stakeholders Group
Center Conservation District
Northern San Luis Valley Conservation Roundtable
Tiffany and Company Foundation
Xcel Energy

Exhibit A
Project Budget

Table 1: Total Project Budget

Tasks	Task Description	Sources						
		TU 319 Nonpoint Source Grant	DRMS	In-Kind Donations	NRCS[8]	Confirmed Totals	Proposed WSRA Funding	Proposed Totals[9]
1	Project management	$	$5,000	$	$	**$5,000**	$3,000	**$8,000**
2	Phytostabilization of mine tailings	$10,000	$	$20,000	$	**$30,000**	$27,000	**$57,000**
3	In-stream restoration	$	$	$	$207,667	**$207,667**	$	**$207,667**
4	Monitoring	$	$5,000	$	$	**$5,000**	$	**$5,000**
Source Totals		$10,000	$10,000	$20,000	$207,667	**$247,667**	$30,000	**$277,667**

[8] 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 will be for 5,900 feet of stream restoration at KC16-M.
[9] Proposed totals list totals for each task equivalent to the sum of confirmed totals, NRCS funding, and proposed WSRA funding.

Table 2: WSRA Proposed Project Budget				
Tasks	**Task Description**	**Price per hour**	**Estimated Hours**	**Total Cost**
1	Project Management			$3,000
2	Phytostabilization of mine tailings			
	Amendments (Materials)			$16,644
	Contractor Labor	$43.15	240	$10,356
Total				**$30,000**

Exhibit B
Project Map

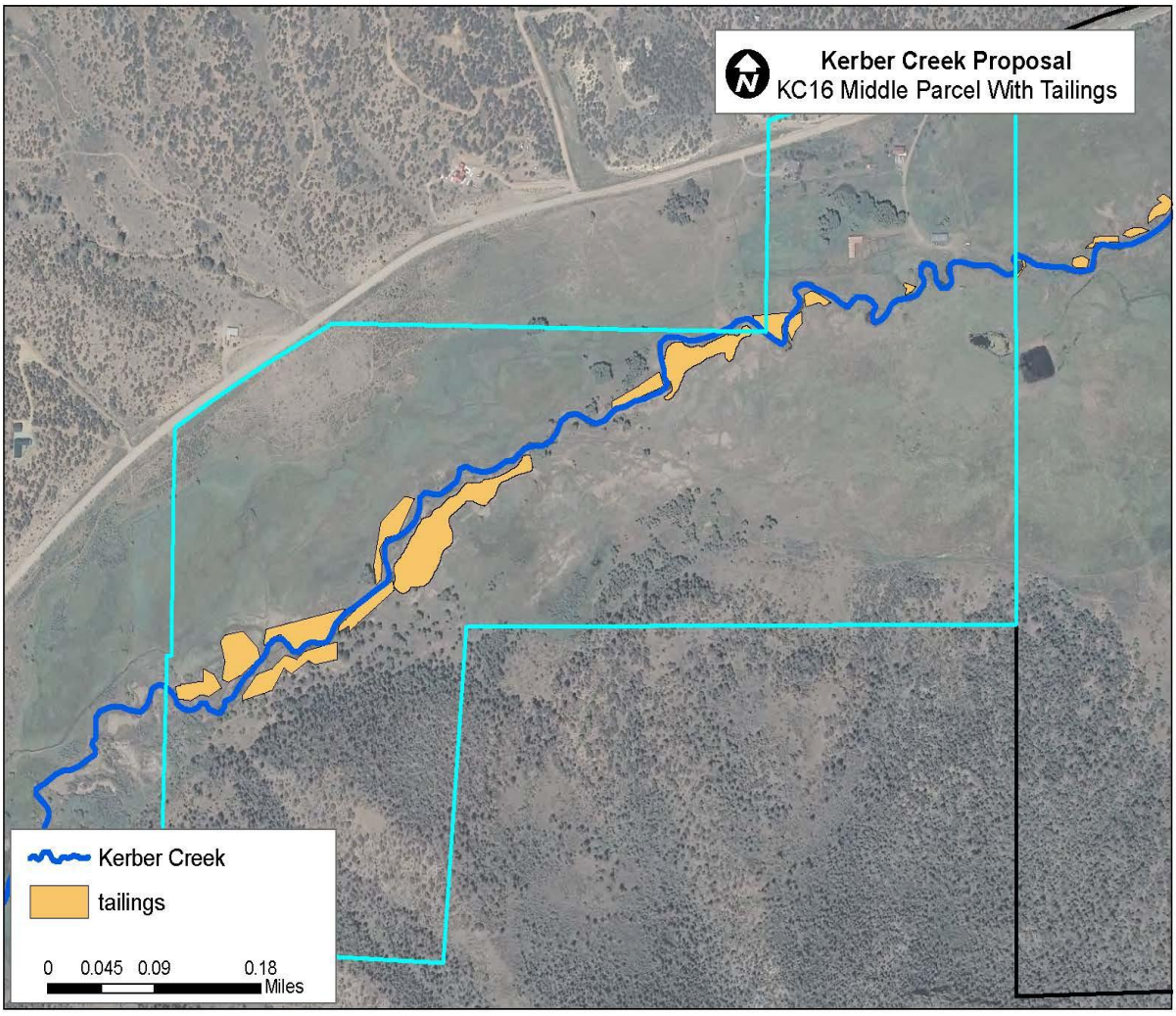

Exhibit C
Additional Maps and Tables

Figure 1: Watershed boundary and location map.

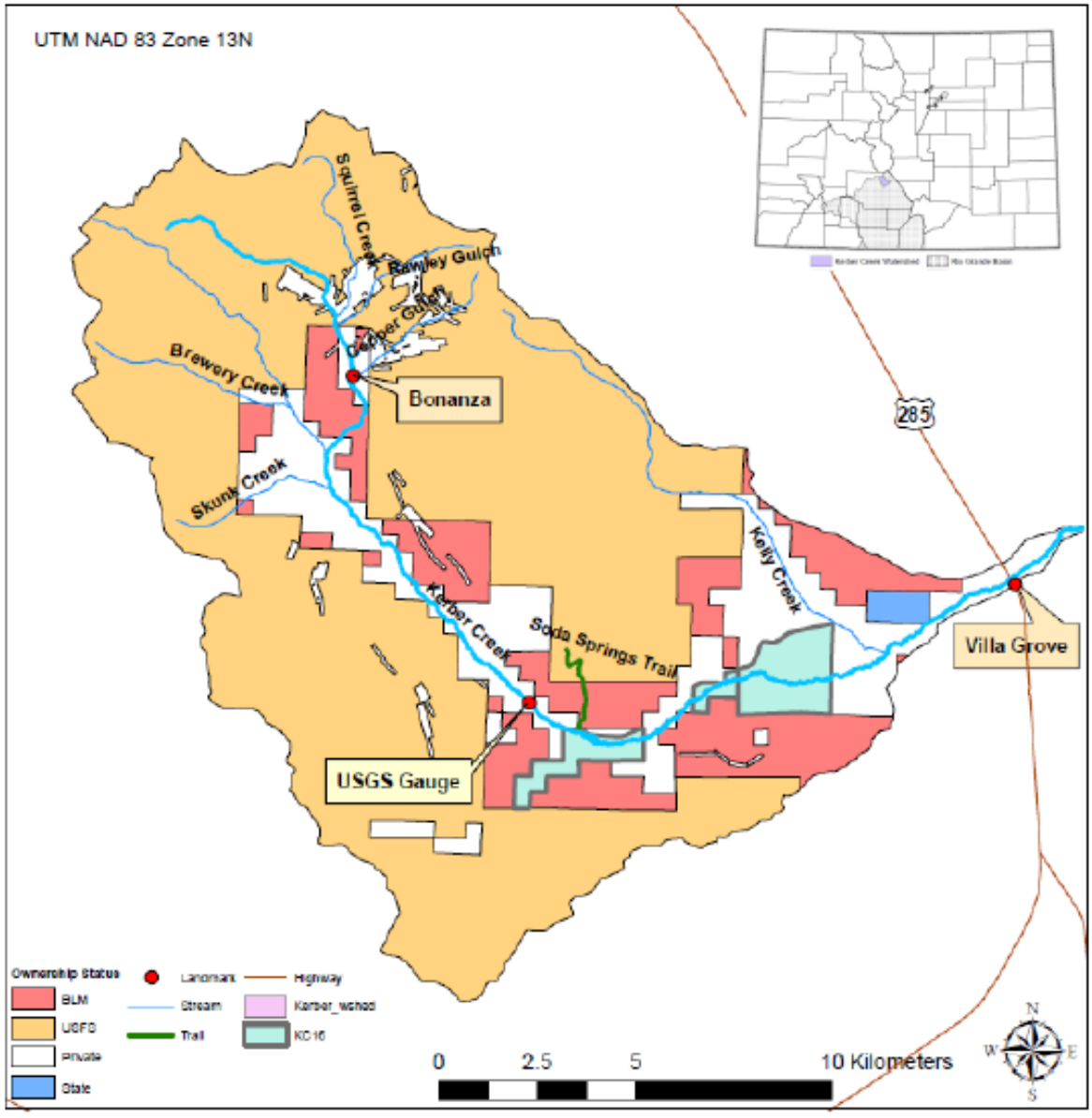

Figure 3. Kerber Creek watershed with tributaries, major landmarks, and project site location. Inset shows Kerber Creek watershed location within Colorado's Rio Grande basin.

Figure 2: Site KC16 Plan View of East, Middle, and Western Sections