COLORADO
Colorado Water Conservation Board
Department of Natural Resources

1313 Sherman Street, Room 721
Denver, CO 80203

October 10, 2014

Trout Unlimited, Inc.
Attn: Jesse Kruthaupt
57564 Hwy 50
Gunnison, COI 81230

RE: Notice to Proceed – WSRA Grant – Upper Ohio Flow Restoration

Dear Jesse:

This letter is to inform you that the purchase order request for the WSRA grant to assist in the Upper Ohio Flow Restoration in the Gunnison River Basin was approved on October 10, 2014.

With the executed purchase order, you are now able to proceed with the project and begin invoicing the State of Colorado for costs incurred through December 31, 2014. Upon receipt of your invoice(s), the State of Colorado will provide payment no later than 45 days. I wish you much success in your project.

Sincerely,

/s/

Craig Godbout
Program Manager
Colorado Water Conservation Board
1313 Sherman St, Rm. 721
Denver CO 80203
(303) 866-3441, ext 3210 (office)
craig.godbout@state.co.us

Attachments

STATE OF COLORADO
Department of Natural Resources

ORDER
Number: POGG1 PDAA 20150000000000000161
Date: 10/10/14
Description:
PDAA WSRA BasinTrout Unlimited - Upper Ohio Flow Restoration

BUYER
Buyer:
Email:

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

Contact: .
Phone: .

**** 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	$6,000.00	☐

Description: PDAA WSRA BasinTrout Unlimited - Upper Ohio Flow Restoration

Start Date: 10/10/14 End Date: 12/31/14

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

DOCUMENT TOTAL = $6,000.00

Exhibit A

Statement of Work

WATER ACTIVITY NAME –Upper Ohio Flow Restoration Project

GRANT RECIPIENT – Trout Unlimited

FUNDING SOURCE – Gunnison Basin Roundtable Basin Account, Water Supply Reserve 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)

This project is a collaborative effort between Acme Ditch water users, Trout Unlimited, and the NRCS. The project is located in the Upper Ohio Creek Valley approximately 20 miles north of Gunnison, CO. The goal of the project is to improve irrigation water use efficiency for water diverted from Castle Creek into Acme Ditch in order to maintain a minimum flow in Castle Creek. This will be accomplished by converting an area from flood irrigation to sprinkler irrigation, remotely monitoring flows in the creek and the ditch at the head gate, and coordinating irrigation water management for individual users on the ditch. The end product will make the irrigators, the creek, and other water users downstream more resilient during periods of water supply shortages.

OBJECTIVES
List the objectives of the project
The following objectives will accomplish the following objectives:

- Improve irrigation efficiency and overall irrigation system function
- Improve in stream water quality in Castle Creek and Upper Ohio Creek
- Record how sprinkler irrigation influences production in Upper Gunnison Basin
- Maintain agricultural values of Upper Ohio Creek Valley
- Maintain use of pre compact water rights

TASKS
Provide a detailed description of each task using the following format

TASK 1 – Infrastructure and management improvements at the Rock House

Description of Task
This task will involve converting approximately 40 acres from flood to sprinkler irrigation (pivot design in Exhibit C). This 40 acres is difficult to irrigate via flood because the distance from the ditch and the topography. There is 80 feet of fall from the ditch to the portion of the field where the pivot will be located. The original proposal included a small pump to pressurize the pivot but, the contractor installing the pivot believes the pump will not be necessary. If this is possible I would like to propose using the money saved from the pivot installation to fully automate the head gate.

The NRCS also contributed to an irrigation water management plan for the Rock House property (Rock House IVM appendix A). The plan is based on soil type, climate, efficiency of irrigation method, and peak crop demand. Water delivery recommendations are based on maintaining optimum soil moisture content for production. Soil moisture sensors will be used to help direct water delivery planning. For the purpose of the plan we figured irrigation to 40 acres under sprinkler at 70% efficiency, and the remaining 120 acres at 30% efficiency. This plan will reduce deliveries to the Rock House by 46%. In 2013 and average of 9.2 cfs were delivered to the Rock House between May 30 and July 16th. The diagram in the attached irrigation management plan illustrates how the irrigation management plan will work on the ground. If this plan was incorporated on a similar year as 2013 approximately 4cfs be available to remain in Castle Creek from May 30th to July 16th. This aspect of the project is the bulk of where the water savings will come from. Tasks 2 and 3 are meant to insure the water saved makes it past Acme Diversion.

Method/Procedure

The IWM plan will be implemented during the 2014 irrigation season before the pivot is installed. Design for the center pivot was completed in the fall of 2013 with assistance from the NRCS. The settling structure, delivery pipe, pump, and pivot will be installed in the fall of 2014. High Country Equipment of Hotchkiss will order and install the Pivot and pump. As well as assist in the installation of the pipe and settling structure.

Deliverables

- Installation of infrastructure complete by November 2014.
- First full season of irrigation records and yield will available in fall of 2015.

TASK 2 – Monitoring equipment at the Head gate (Completed)

Description of Task

In order to trace the water saved from efficiency improvements and management strategies back to the creek, equipment will be installed to remotely monitor flows in Acme Ditch and Castle Creek at the point of diversion. The equipment installed will be compatible with and solar powered actuator, which will allow the head gate to be remotely controlled. Users have agreed to attempt to maintain a minimum flow in the creek below the diversion of 7cfs. The 7cfs target is based on the minimum instream flow right held by the Colorado Water Conservation Board for Castle Creek above the diversion.
If there is money left in the budget users would be interested in

Method/Procedure

Dynotek Inc will be contracted to install the monitoring and telemetry equipment at the Acme head gate in June of 2014. Flow measurements will be transmitted via satellite to ditch mangers email or phone.

Deliverable

- Installation complete in June of 2014
- First season of flow data in Castle Creek will be available in fall of 2014

TASK 3- User coordination

All the users on Acme Ditch have been working on improving irrigation management and are interested in protecting the fishery in Castle Creek and Ohio Creek. Developing and coordinating irrigation management plans between users is an additional solution that will help meet the minimum flow target in Castle Creek.

Method/Procedure

Closely matching irrigation deliveries to crop demands and alternating sets between different users during times of shortage will make additional water available to remain in Castle Creek, while maintaining production.

Deliverables

- If flows go below the target of 7cfs users will adjustments irrigation deliveries to maintain that amount.

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.

Project Schedule

Project Milestones	Summer 2013	Fall 2013	Spring 2014	Fall 2014	Late Fall 2014
Rock House pivot and IWM design/planning					
Acme Ditch and Castle Creek flow monitoring					
Pivot design selection and bid process					
Installation of monitoring equipment at Acme diversion					
Installation of Rock House pivot					
Additional monitoring and irrigation planning/WSRA grant funds					
Final report					

	Rock House flume Purchase and installation	Rock House Pivot Design engineering & coordination	Rock House pivot equipment and installation	Acme Head gate Automation and monitoring	Individual totals $
Trout Unlimited	$3,500.00	$5,000.00	$19,000.00	$1,800.15	$29,300.15
Rock House Ranch	$500.00	$0.00	$40,000.00	$0.00	$40,500.00
Castle Creek Ranch	$0.00	$0.00	$0.00	$1,000.00	$1,000.00
NRCS	$0.00	$4,000.00	$0.00	$0.00	$4,000.00
UGRWCD	$0.00	$0.00	$10,000.00	$5,000.00	$15,000.00
CRWCD	$0.00	$0.00	$25,000.00	$0.00	$25,000.00
WSRA (CWCB)	$0.00	$0.00	$6,000.00	$0.00	$6,000.00
Sub Totals	$4,000.00	$9,000.00	$100,000.00	$7,000.00	$120,000.00
Expenditures as of Oct 1	$4,000.00	$8,480.00	$63,837.00	$7,800.15	$84,117.15
Status	Completed Spring of 2013	Completed summer 2013	Currently installing	Completed spring 2014	

Status	% of Total
secured	23.80%
pledged	33.80%
pledged	0.80%
secured	3.30%
requesting	12.50%
requested	20.80%
requested	5.00%
Total	100.00%