



COLORADO

Colorado Water
Conservation Board

Department of Natural Resources

Contract CORE No. POGG1 2018-901 & POGG1 2018-902
CMS #

May 7, 2018

Trout Unlimited, Inc.
Attn: Danielle Typinsli, Grant Compliance Coordinator
Attn: Jesse Kruthaupt, UG Project Specialist
1777 N. Kent Street, Suite 100
Arlington, VA 22209

Dear Grantee:

We are pleased to inform you that the Colorado Department of Natural Resources, Colorado Water Conservation Board (CWCB) has approved your application for funding pursuant to the WSRF Grant Program ("Program") in the amount of \$34,500.00 and Water Plan Grant Program ("Program") in the amount of \$75,000.00. This letter authorizes you to proceed with the Tomichi Water Conservation Project ("Project") in accordance with the terms of this Grant Award Letter.

Attached to this letter are the terms and conditions of your Grant. Please review these terms and conditions, as they are requirements of this Grant to which you, Trout Unlimited, Inc. agree by accepting the Grant Funds.

The WSRF Criteria & Guidelines can be located on our website for additional information along with the Water Plan Grant details.

If you have any questions or concerns regarding the project, please contact Craig Godbout, Project Manager at 303-866-3441 ext. 3110 or at Craig.Godbout@state.co.us. Please send the 6-month progress reports and invoices directly to the Project Manager and cc me at Dori.vigil@state.co.us.

Thank you.

Sincerely,

//s//

Doriann Vigil

Program Assistant II

O 303-866-3441 ext. 3250

1313 Sherman Street, Rm. 719, Denver, CO 80203

Dori.vigil@state.co.us / cwcb.state.co.com

Attachments



STATE OF COLORADO
Department of Natural Resources

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ORDER

*****IMPORTANT*****

Number: POGG1,PDAA,201800000901

Date: 5/4/18

Description:

PDAA 2500 WSRF TROUT - TOMICHI_GUNN
RIVER BASIN

Effective Date: 05/04/18

Expiration Date: 10/31/22

The order number and line number must appear on all invoices, packing slips, cartons, and correspondence. Please review each line for its corresponding shipping/billing address and delivery instructions.

BUYER

Buyer:

Email:

VENDOR

TROUT UNLIMITED INC

1777 N KENT ST

100

ARLINGTON, VA 22209-2133

Contact: .

Phone: .

EXTENDED DESCRIPTION

Line Item	Commodity/Item Code	UOM	QTY	Unit Cost	Total Cost	MSDS Req.
1	G1000		0	0.00	\$34,500.00	<input type="checkbox"/>

Description: PDAA 2500 WSRF TROUT - TOMICHI_GUNN RIVER BASIN

Service From: 05/04/18

Service To: 10/31/22

Delivery Instructions

FOB: FOB Dest, Freight Allowed

Delivery Date: -

Ship To:

Bill To:

COLORADO WATER BOARD
CONSERVATION

COLORADO WATER BOARD CONSERVATION

1313 SHERMAN STREET, ROOM 718

1313 SHERMAN STREET, ROOM 718

DENVER, CO 80203

DENVER, CO 80203

TERMS AND CONDITIONS

<https://www.colorado.gov/pacific/osc/small-dollar-grant-award-terms-conditions>

DOCUMENT TOTAL = \$34,500.00



STATE OF COLORADO
Department of Natural Resources

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ORDER

*****IMPORTANT*****

Number: POGG1,PDAA,201800000902

Date: 5/7/18

Description:

PDAA 2500 WSP TROUT - TOMICHI_GUNN RIVER
BASIN

Effective Date: 05/04/18

Expiration Date: 10/31/22

The order number and line number must appear on all
invoices, packing slips, cartons, and correspondence.
Please review each line for its corresponding shipping/
billing address and delivery instructions.

BUYER

Buyer:

Email:

VENDOR

TROUT UNLIMITED INC

1777 N KENT ST

100

ARLINGTON, VA 22209-2133

Contact: .

Phone: .

EXTENDED DESCRIPTION

Line Item	Commodity/Item Code	UOM	QTY	Unit Cost	Total Cost	MSDS Req.
1	G1000		0	0.00	\$75,000.00	<input type="checkbox"/>

Description: PDAA 2500 WSP TROUT - TOMICHI_GUNN RIVER BASIN

Service From: 05/04/18

Service To: 10/31/22

Delivery Instructions

FOB: FOB Dest, Freight Allowed

Delivery Date: -

Ship To:

Bill To:

COLORADO WATER BOARD
CONSERVATION

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1313 SHERMAN STREET, ROOM 718

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TERMS AND CONDITIONS

<https://www.colorado.gov/pacific/osc/small-dollar-grant-award-terms-conditions>

DOCUMENT TOTAL = \$75,000.00



Colorado Water Conservation Board

Exhibit A – Scope of Work

Statement Of Work

Prepared Date:	9/27/2017
Name of Applicant:	Jesse Kruthaupt
Name of Water Project:	Tomichi Water Conservation Program
Funding Source:	CWP implementation grants
Water Project Overview:	
<p>This agricultural water conservation project proposal is located in the upper Gunnison basin on Tomichi Creek, tributary to the Gunnison River above Blue Mesa Reservoir. Trout Unlimited has helped organize this proposal in coordination with six individual land owners, local water leaders, and the Nature Conservancy. This three-year water conservation project will involve regional coordination to improve environmental and recreational flows through the Tomichi State Wildlife Area, as well as to reduce agricultural shortages below the SWA. The program will also provide an example of how temporary, voluntary, and compensated reduction of consumptive use can be used to reduce local watershed shortages during drought years and protect water users from increasing water demands on the Colorado River.</p> <p>The lower Tomichi Creek region was chosen as the demonstration site because existing relationships and past coordination will provide a project that is ready for implementation. Trout Unlimited has consulted with water users in the project area but will not seek commitment until funding is available.</p> <p>This water conservation approach will be transferable to other areas in the upper Gunnison and western Colorado. Documents used for contracting, accounting, verification, and monitoring will be provided as project deliverables to support future innovative water conservation efforts throughout the state.</p>	
Objectives:	



Develop a program that will demonstrate how temporary and coordinated split-season agricultural water conservation can provide the flexibly necessary to sustain robust agriculture and healthy streams in the upper Gunnison Basin.

The primary focus of this proposal will be will to reduce local shortages during drought years. The secondary goal is to provide a conservation program template that will be useful in the future.

Tasks

Task 1 – Raise funding and enroll participants in voluntary conservation program

Description of Task:

Trout Unlimited will raise the money necessary to compensate water users for participation in the program and for their portion of reduced of consumptive use. Once sufficient funding is raised, Trout Unlimited will present water users on lower Tomichi Creek with the program and the opportunity for enrolment. To avoid potential negative impacts, participation will be limited to regionally coordinated split-season fallowing or deficit irrigation. Additionally, we will establish a stakeholder group to review the program. Question: Is Trout Unlimited still raising money for this task?

Background

The upper Gunnison basin is unique among the valleys in western Colorado due to its elevation, short growing season, high quality grasses, broad irrigated floodplains, and proximity to Blue Mesa Reservoir. In most cases, irrigation practices in the upper Gunnison Basin mimic natural hydrology because water diverted during spring runoff flows into ditches and is spread throughout the floodplain, thereby recharging the fluvial aquafer. Seepage from the aquafer helps maintain base flows for environmental and other uses later in the season. However, this irrigation practice can be difficult during periods of below average water availability because significant carriage water is needed to effectively saturate the cobble substrate and soil profile.

Furthermore, research suggests it can take several years for irrigated mountain meadow grasses in the Upper Gunnison to recover from a full season of fallowing. All these factors influence the effectiveness of agricultural water conservation in this region.

This proposed conservation program is designed with the appropriate “side boards” to address common concerns like crop recovery, ground water recharge and release, and the relationship of

Commented [JK1]: No project is %100 funded

Commented [VD2]: Is Trout still raising \$?



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Tasks

irrigation practices between property boundaries. This program will be flexible and fine-tuned based on user experiences to avoid the impacts a severe drought would have on the upper Gunnison community.

Method/Procedure:

Outreach material will be developed describing the program and its purpose and will be provided to water users in the project area. Enrollment will be open to parties in the region from March 2018 until June 2018. Trout Unlimited will work individually with interested parties to develop a summary of the irrigated land, irrigation ditches, and the proposed conservation strategy. The summaries will be submitted to UGRWCD General Manager, Division 28 water commissioner, and other stakeholders on the watershed. Conservation strategies will be coordinated between water users with input from agency staff in an effort to avoid negative impacts.

Conservation efforts will begin as early as June 25th, 2018 and the program will end in October 2021. Implementation of conservation measures will occur during one year in the three-year period. Participants will receive a base rate of \$20 per acre to incentivize three-year enrollment. Water users will be compensated per acre foot of water conserved during the year conservation actions take place. Implementation of the water conservation program on the chosen year will be contingent on water availability as predicted by the Colorado River Water Forecast Center. Climate criteria for implementation will be developed with water user input and by modeling completed by Wilson Water Group.

Trout Unlimited will individually contract with participating water users. The rate for reduced consumptive use will be negotiated and agreed upon the spring prior to any conservation measures taken place. This rate will not exceed \$180 an acre foot.

Grantee Deliverable:

Enrollment of 6 property owners and Colorado Parks and Wildlife resulting in 800-1000 acre feet of conserved water and a 5-10% increase in flows through the State Wildlife area during critical low flow periods.

CWCB Deliverable:



Tasks

1. Outreach documents for program enrollment
2. Summary of conservation plans for participating lands
3. TU, water user contracts.

Tasks

Task 2 – Estimate and verify reduced consumptive use and resulting overall impacts

Description of Task:

Trout Unlimited will hire a qualified water resource engineer and coordinate with water users to appropriately estimate and verify reduction of consumptive use and document the resulting stream flow impacts. This task will also collect and summarize input from participating water users including production estimates and challenges with implementation.

Method/Procedure:

Method Procedure

Trout Unlimited will contract with Hydro's Consulting to model how the chosen split-season water conservation strategies will impact water availability through and downstream of the project area during average and dry water year types. Wilson Water Group will be contracted with Upper Colorado River Commission through the SCPP program to verify reduced consumptive use for the proposed conservation actions Penman–Monteith method and climate data from a selected CoAgMet station located near the project area..

Trout Unlimited will coordinate with water user's to photo the participating ditch headgate and irrigated field before and after the agreed shutoff date. These will be accompanied by a monthly site visit and report. Soil moisture sensors and an atmometer will be installed to monitor available soil moisture and evaporation in the project area. Measurements will be referenced to



Tasks

Gunnison COAgMet station located 5 miles to the north of the project site to estimate actual vs. modeled conserved water.

Participate summaries will include production estimate for the year participating vs. typical operations (bale count, grazing days, residual forage) and a short survey on participation experience.

Trout Unlimited will measure stream flow and temperature at the western end of the Tomichi State Wildlife Area prior to and after the irrigation shut off date. These measurements will be compared to Tomichi at Gunnison USGS gauge located 3 miles downstream. The relationship between these two measurements will illustrate the amount of conserved and water diverted for irrigation use below the project area. Additional site specific monitoring may be included depending on individual contracts and selected conservation strategies.

Grantee Deliverable:

Project partners are interested in a better understanding of changes to stream flow and actual conserved water.

CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task

1. Verification plan, photos, and reports for each site visit.
2. Modeled stream flow through the project area depicting changes resulting from conservation measures during average and dry water years.
3. Report summarizing relationship between scenario model runs and actual flow and temperature monitoring during implementation
4. Report summarizing participants input and concerns.

Tasks

Task 3 – Secure water right protections

Description of Task:



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Tasks

By using existing legislation (C.R.S 37-92-103) water users can participate in this water conservation program without risking abandonment or reduction in historic consumptive use.

Method/Procedure:

The participating water rights will be included in a package application describing the conservation effort. This application will be submitted to the Colorado River District or Colorado Water Conservation Board to request approval as a sponsored water conservation program and provide the water rights the protection of C.R.S 37-92-103. The local water commissioner will be provided this application and notified prior to any conservation actions.

Grantee Deliverable: Describe the deliverable the grantee expects from this task

Receive approval as a sponsored conservation program and demonstrate to other irrigators that C.R.S 37-92-103 is a tool available for those willing to take conservation measures.

CWCB Deliverable:

1. Package application requesting approval as sponsored water conservation program
2. Approval letter from sponsoring agency

Tasks

Task 4 – Evaluate opportunities to bank conserved water in Aspinall Unit.

Description of Task:



Tasks

This task will outline and evaluate if contracting with the Bureau of Reclamation and storing upper Gunnison conserved water in the Aspinall Unit is a realistic option to protect a wide range of junior water rights in the upper Gunnison Basin during consecutive drought years.

The analysis and monitoring in Task 2 will help inform this task by providing a better understanding of actual consumptive use savings potential.

Method/Procedure:

This task would need to be completed in coordination with the Upper Gunnison River Water Conservancy District, the Colorado River Water Conservancy District, the Colorado Division of Water Resources, the Bureau of Reclamation, The Nature Conservancy, Uncompahgre Valley Water Users Association, and other members of the Water Bank Working Group.

Trout Unlimited with assistance from the partners listed above will meet with the Bureau of Reclamation and request input on the steps necessary to allow contracting for one year of substitute storage of conserved water in the Aspinall Unit or Taylor Reservoir.

We will use BOR recommendations, stream flow monitoring, and consumptive use reduction analysis to evaluate the feasibility of pursuing a permanent arrangement with the BOR. If the evaluation demonstrates that storing conserved water in Blue Mesa is not feasible then this task will be considered completed.

If contracting storage water in Blue Mesa is possible partners will further analyze, refine and fund the following methodology. The first priority would be to use upper Gunnison conserved water to offset a Gunnison Tunnel call during back-to-back dry years. If a tunnel call is not expected, the water will be released during Aspinall Spring Operations and flow to Lake Powell.

Grantee Deliverable:

Same as below.

CWCB Deliverable:

1. BOR recommendations on necessary steps to allow contracting of stored water for one year.
2. Pilot contracting template with BOR.



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Budget and Schedule

This Statement of Work shall be accompanied by a combined Budget and Schedule that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format.

Reporting Requirements

Progress Reports: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status 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. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

Final Report: At completion of the project, the applicant shall provide the CWCB a Final Report on the applicant's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

The CWCB will withhold disbursement the last 10% of the budget until the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

Payment

Payment will be made based on actual expenditures and must include invoices for all work completed. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

Costs incurred prior to the effective date of this contract are not reimbursable. The last 10% of the entire grant will be paid out when the final deliverable has been received. All products, data and information developed as a result of this contract must be provided to CWCB in hard copy and electronic format as part of the project documentation.

Performance Measures

Performance measures for this contract shall include the following:

(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit B. Per WSRF Guidelines and the Water Plan Grant Guidelines, the CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per WSRF Guidelines and the Water Plan Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per WSRF Guidelines and the



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Performance Measures

Water Plan Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.

(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.

(d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.



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**Exhibit B
Budget and Schedule**

Name of Applicant: Trout Unlimited

Name of Water Project: Tomichi Water Conservation Project

Task No.	Task Description	Start Date	End Date	Unit	WSRF Grant Funding Request	Cash Match CWCB (WPG)	SCPP Funding Request (Approved)	Cash Match UGRWCD (will request)	Cash Match Private	In-kind Match TU	Inkind Match TNC	Total
1	Enroll Participants and Implement Conservation program	5/4/2018	10/31/2022		\$29,670.00	\$75,000.00	\$50,000.00	\$0.00	\$20,000.00	\$7,000.00	\$0.00	\$181,670
	Landowner program Enrollment payment (\$20/AF)			1000 acres	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0	\$20,000
	Payments for reduced Consumptive Use \$180/AF			859acre ft	\$29,670	\$55,000	\$50,000	\$0	\$20,000	\$0	\$0	\$154,670
	Program Facilitation, outreach and meetings (\$40/hr)			50 hrs	\$0	\$0	\$0	\$0	\$0	\$2,000	\$0	\$2,000
	Program contracting (\$125/HR)			40 hrs	\$0	\$0	\$0	\$0	\$0	\$5,000	\$0	\$5,000
2	Estimate and Verify CU and Impacts (\$150/HR)	5/4/2018	10/31/2022	132.2/HRS	\$4,830	\$0	\$0	\$10,000	\$0	\$5,000	\$0	\$19,830
	2.1 TU Admin				\$630.00							\$630.00
	2.2 Consultant Modeling				\$4,200.00					\$500.00		\$4,700.00
	2.3 Aerial Imagery							\$7,000.00		\$2,500.00		\$7,000.00
	2.4 Stream flow monitoring							\$3,000.00		\$2,000.00		\$5,000.00
3	Water Rights Protection (\$100/HR)	7/1/2018	10/31/2022	44/HRS	\$0	\$0	\$0	\$0	\$0	\$4,400	\$0	\$4,400
4	Evaluate opportunities to bank conserved water in Aspinall (\$100/HR)	7/1/2018	10/31/2022	80/HR	\$0	\$0	\$0	\$0	\$0	\$3,000	\$5,000	\$8,000
Total					\$34,500	\$75,000	\$50,000	\$10,000	\$20,000	\$19,400	\$5,000	\$213,900