COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Last Updated: June 2020

Colorado Water Conservation Board
Water Plan Grant Application

Instructions
To receive funding for a Water Plan Grant, applicant must demonstrate how the project, activity, or process (collectively referred to as "project") funded by the CWCB will help meet the measurable objectives and critical actions in the Water Plan. Grant guidelines are available on the CWCB website. If you have questions, please contact CWCB at (303) 866-3441 or email the following staff to assist you with applications in the following areas: Water Storage Projects — Matthew.Stearns@state.co.us Conservation, Land Use Planning — Kevin.Reidy@state.co.us Engagement & Innovation Activities — Ben.Wade@state.co.us Agricultural Projects — Alexander.Funk@state.co.us Environmental & Recreation Projects — Chris.Sturm@state.co.us **FINAL SUBMISSION: Submit all application materials in one email to *waterplan.grants@state.co.us* in the original file formats [Application (word); Statement of Work (word); Budget/Schedule (excel)]. Please do not combine documents. In the subject line, please include the funding category and name of the project.**

Water Project Summary	
Name of Applicant	Trout Unlimited
Name of Water Project	Supporting Outreach and Engagement for the "Evaluating Conserved Consumptive Use in the Upper Colorado River" Project
CWP Grant Request Amount	$50,000
Other Funding Sources: American Rivers	$25,000
Other Funding Sources: The Nature Conservancy	$25,000
Other Funding Sources: Co Basin RT PEPO	$ 1,000
Applicant Contribution	$15,000
Total Project Cost	$116,000

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Applicant & Grantee Information
Name of Grantee(s): Trout Unlimited
Mailing Address: P.O. Box 1544, Pagosa Springs, CO 81147
FEIN
Organization Contact: Mely Whiting
Position/Title: Trout Unlimited's Colorado Water Project Legal Counsel
Email: mely.whiting@tu.org
Phone: (720) 470-4758
Grant Management Contact: Mely Whiting
Position/Title
Email
Phone
Name of Applicant (if different than grantee)
Mailing Address
Position/Title
Email
Phone
Description of Grantee/Applicant
Provide a brief description of the grantee's organization (100 words or less).

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Trout Unlimited, Inc. (TU) is a 501(c)(3) non-profit founded in 1959. Today, TU is the nation's largest grassroots coldwater conservation organization with a mission to conserve, protect and restore North America's trout and salmon fisheries and their watersheds. TU works to achieve this mission on a local, state and national level through an extensive volunteer network and dedicated staff.

TU currently has staff nationwide that oversee watershed restoration projects, organize hunters and anglers to advocate for improved public lands management, work to systematically improve state water policy to benefit rivers and fish, or promote youth education programs.

Type of Eligible Entity (check one)	
	Public (Government): Municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
	Public (Districts): Authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises.
	Private Incorporated: Mutual ditch companies, homeowners associations, corporations.
	Private Individuals, Partnerships, and Sole Proprietors: Private parties may be eligible for funding.
✓	**Non-governmental organizations (NGO):** Organization that is not part of the government and is non-profit in nature.
	Covered Entity: As defined in Section 37-60-126 Colorado Revised Statutes.

Type of Water Project (check all that apply)	
✓	Study
	Construction
	Identified Projects and Processes (IPP)
✓	Other

Category of Water Project (check the primary category that applies and include relevant tasks)	

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	Water Storage - Projects that facilitate the development of additional storage, artificial aquifer recharge, and dredging existing reservoirs to restore the reservoirs' full decreed capacity and Multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap.. *Applicable Exhibit A Task(s):*	
	Conservation and Land Use Planning - Activities and projects that implement long-term strategies for conservation, land use, and drought planning. *Applicable Exhibit A Task(s):*	
✓	Engagement & Innovation - Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website. *Applicable Exhibit A Task(s): Tasks A and B*	
✓	Agricultural - Projects that provide technical assistance and improve agricultural efficiency. *Applicable Exhibit A Task(s): Tasks A and B*	
	Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. *Applicable Exhibit A Task(s):*	
	Other	Explain:

Location of Water Project	
Please provide the general county and coordinates of the proposed project below in **decimal degrees**. The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Counties	Grand County
Latitude	40°03’47.25” N
Longitude	106°23’24.26” W

Water Project Overview
Please provide a summary of the proposed water project (200 words or less). Include a description of the project and what the CWP Grant funding will be used for specifically (e.g., studies, permitting process, construction). Provide a description of the water supply source to be utilized or the water body affected by the project, where applicable. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, and area of habitat improvements, where applicable. If this project addresses multiple purposes or spans multiple basins, please explain. **The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, Other Funding Sources/Amounts and Schedule.**

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In April of 2020, TU was awarded an ATM grant for the Evaluating Conserved Consumptive Use in the Upper Colorado project (ATM Project), a research project designed to evaluate the potential agronomic and socioeconomic impacts associated with the adoption of alternative transfer methods and water conservation programs in higher elevation irrigated grass systems in Colorado. The ATM project is a 4-year project, expected to yield highly technical information. Funding from the Colorado Water Plan's Engagement and Innovation grant program is requested to work with a consultant to assist in translating and communicating this highly technical information to stakeholders and the public. Funding is also requested to complete a series of interviews and social network analysis to understand the perspective and experience of project participants. These insights can help understand conditions that make partnerships between agricultural water users and other entities possible and valuable.

Measurable Results	
To catalog measurable results achieved with the CWP Grant funds, please provide any of the following values as applicable:	
	New Storage Created (acre-feet)
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
	Existing Storage Preserved or Enhanced (acre-feet)
	Length of Stream Restored or Protected (linear feet)
	Efficiency Savings (indicate acre-feet/year OR dollars/year)
	Area of Restored or Preserved Habitat (acres)
	Quantity of Water Shared through Alternative Transfer Mechanisms
	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning
Thousands	Number of Coloradans Impacted by Engagement Activity

	Other	Explain:

Water Project Justification
Provide a description of how this water project supports the goals of Colorado's Water Plan, the most recent Statewide Water Supply Initiative, and the applicable Roundtable Basin Implementation Plan and Education Action Plan. The Applicant is required to reference specific needs, goals, themes, or Identified Projects and Processes (IPPs), including citations (e.g. document, chapters, sections, or page numbers). The proposed water project shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan Framework for State of Colorado Support for a Water Project (CWP, Section 9.4, pp. 9-43 to 9-44;)
The underlying ATM project will provide valuable information on the benefits and impacts of applying water conservation measures in high altitude pastures. This information is important to further the Colorado Water Plan's conservation and compact compliance goals. The tasks outlined in this project further the Colorado Water Plan's goal to enhance communication, outreach, education and public engagement by making highly technical information accessible to broad audiences and by establishing a course to distribute this important information. Section 6.4 of the CWP emphasizes the importance of alternative agricultural transfers and identifies potential impediments to ATM success to include irrigators' concerns about the potential impact to their water rights and transactional costs. Section 9.5 of the CWP emphasizes the importance of Outreach, Education and Public Engagement. This project will help the state and all its stakeholders better understand the factors and considerations irrigators must address in implementing water conservation activities on the ground. What lessons can we learn from this ATM Project to help make future projects successful? The CWP also identifies Education, Outreach and Innovation as an important measurable objective to improve the level of public awareness and engagement statewide. Both aspects of this project meet these objectives. Furthermore, this project involves the collaboration of multiple participants addressing multiple needs to pursue future ATM projects. One of the CBRT Themes is to sustain agriculture. BIP, p. 16; p.43; pp.49-53. Goals include developing incentives to support agricultural production and increased education among the agricultural community about Colorado River Basin issues. ATMs are widely viewed as one mechanism to achieve this and the aim of this project is to distill the information needed to share with irrigators and others involved in agriculture. Another CBRT Theme is to secure safe drinking water, yet another outcome from ATMs. BIP, p. 16; p.43; pp. 54-58. A third Theme is to encourage a high level of basin wide conservation and a listed goal to promote agricultural conservation that maintains agricultural production and viability. BIP. p. 16; p.43; pp. 59-64. This project will provide important data to further all these goals.

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The goal of the CBRT Education Action Plan (EAP) is to promote better stewardship and decision-making related to water resources. This project will help identify what information irrigators need to decide whether or not to participate in an ATM and it will create educational materials that can be used and understood by a variety of stakeholders including the state, irrigators, watershed groups and educators. See CBRT 2017-2020 EAP. Note that on November 23, 2020, the CBRT approved the use of $1000 of its PEPO funds for this project.

Related Studies

Please provide a list of any related studies, including if the water project is complementary to or assists in the implementation of other CWCB programs.

Agronomic Responses of Grass and Alfalfa Hayfields to No and Partial Season Irrigation
This study, completed by the Water Bank Work Group (WBWG) and Colorado State University (CSU), evaluated how reduced irrigation would impact crops and how crops recover once full irrigation was restored. This three-year study took place on seven different sites on the West Slope that included both grass and alfalfa fields. The study compared reduced irrigation and normal irrigation side by side and took measurements of yield and forage quality, as well as basic estimates of water use. The study helped quantify the reductions in yield expected with reduced irrigation and provided critical info on how well and how long it takes fields to recover.

Water Bank Phase IIC: Agronomic Impacts and Measurements of Water Savings
Like the previous study, this expanded study also involved a side by side comparison of several different reduced irrigation practices with normal irrigation. It also included a number of the same agronomic variables, including yield and forage quality. The study also assessed issues with recovery and management factors such as weed pressure and impacts to soil moisture. This study conducted an in-depth measurement of water savings using different methods. Each field was instrumented to measure a full water budget: water delivered and applied, surface runoff, soil moisture at three different depths, and influence from groundwater, if any. Each study site also has, or is near, a full weather station allowing for robust calculations of water use. This is a highly accurate, but costly way to measure water savings. In order to address the question of how to scale up, CSU also used remote sensing data to calculate water use and water savings.

MacIlroy, K. 2019. "Exploring perceptions of voluntary agricultural water conservation program on the Western Slope of Colorado." Report published by The Nature Conservancy.
This research reports perceptions of water conservation among agricultural stakeholders on the Western Slope to understand what people think about a potential demand management program.

The research highlighted three key findings: (1) There is a lack of clarity and understanding around what demand management is, which leads to confusion and concern; (2) Discussion about what a potential program would look like are dependent on a variety of factors including location, geography, cropping and herding patterns, as well as local and regional pressures, and; (3) Perceptions of demand management are crafted in the context a history of resource dependent communities that feel they are facing another battle to protect the resources that sustain them. The report recommends pilot studies to help unpack why some agriculturalists are more or less willing to engage in water conservation practices and projects.

Taylor, P. L., MacIlroy, K., Waskom, R., Cabot, P. E., Smith, M., Schempp, A., & Udall, B. 2019. "Every ditch is different: Barriers and opportunities for collaboration for agricultural water conservation and security in the Colorado River Basin." ***Journal of Soil and Water Conservation*****, *74*(3), 281-295.**
This paper examines six instrumental case studies of innovative partnerships between agriculture and environmental organizations, municipalities, and government agencies for the purpose of conserving agricultural water. The study examines key social, cultural, and legal barriers to conservation along with the hydrological, legal, and social openings that have supported collaboration and conservation. Highlighting the broad range of geographic and climactic conditions found in the Colorado River Basin, the study identifies a framework of analytical questions that can be used to assess the structural and social conditions for potential conservation collaborations. These questions for assessment include: How does the water moves across the physical and geographical landscape? To what extent are legal and regulatory frameworks supportive and enabling? Do water-related political conditions encourage collaboration for agricultural water conservation? Do agricultural production conditions accommodate water conservation without undue risk to farmer livelihoods? Do participants benefit from agricultural water conservation? Whose problem is agricultural water conservation: is it a community issue or isolated in agriculture?

Skaalsveen, K., Ingram, J., & Urquhart, J. 2020. "The role of farmers' social networks in the implementation of no-till farming practices." ***Agricultural Systems*****, *181*.**
This study examines the influence of farmer's social network in terms of adopting new practices, learning, and decision-making in the context of no-till agriculture. Findings suggest that early adopters with a social presence and intermediary farmers play the most important role for spreading knowledge and influencing decision-making. When looking for information, farmers often connected with other farmers who they perceived as having extensive experience, success, and comparability. Additionally, social media can play an important role as farmers were more likely to communicate with like-minded farmers who were further away than local farmers who utilized conventional methods, which highlights the importance of particular farming identities. This study provides additional evidence to support the contention that farmer-to-farmer knowledge and information sharing is crucial and thus understanding those networks is essential. Second, identifying and enabling intermediaries and key knowledge brokers will bolster knowledge diffusion as they fulfill a bridging role connecting distant clusters of farmers.

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Previous CWCB Grants, Loans or Other Funding

List all previous or current CWCB grants (including WSRF) awarded to both the Applicant and Grantee. Include: 1) Applicant name; 2) Water activity name; 3) Approving RT(s); 4) CWCB board meeting date; 5) Contract number or purchase order; 6) Percentage of other CWCB funding for your overall project.

Stream Restoration-SMP	CTGG12020-032	$126,819	7/1/2019	12/31/2021	Town of Silverthorne, Blue Valley Ranch, Summit Co., SCWQ.	$32,000	TU, Blue River Watershed Group	$31,710	**$253,639**
CWP-Environment/Recreatic	CTGG12020-032	$30,000	7/1/2019	12/31/2021					
CWP-Engagement/Innovatio	CTGG12020-032	$16,000	7/1/2019	12/31/2021					
WSRF-CBRT Basin Funds	CTGG12020-032	$17,110	7/1/2019	12/31/2021					
	not executed yet	$77,389	TBD	TBD					
	CTGG1 2018-902	$75,000	5/4/2018	10/31/2022					
nt	CTGG1 2018-901	$34,500	5/4/2018	10/31/2022					
	CTGG1 2018-298	$364,711	1/4/2018	9/1/2022	BOR. Gypsum, FWS, CPW, oth	$549,700	Buckhorn, TU, CPW	$74,700	**$1,341,650**
WSRF-CBRT Basin Funds and State Funds (50/50)	POGG1 2017-0749	$63,500	2/14/2017	12/31/2018	CPW-Fishing is Fun (FWS funding $78,500), CPW-Cash ($8,500), TU-Cash ($4880)	$91,880	TU	$19,550	**$174,930**
	CTGG1 2017-0667	$465,400	11/29/2016	9/30/2021	Irrigators	$465,400			**$990,800**
WSRF-CRBT	POGG1 2016-0900	$30,000	5/18/2016	1/31/2017					**$30,000**
CWP-Environment/Recreatic	CTGG1 2019-2233	$325,237	12/3/201	11/30/2023	NRCS, Northern, CWCB constr	$1,803,910			**$2,129,147**
WSRF-SWBRT and Watershec	POGG1 2016-0800	$96,413	3/22/2016	5/31/2021	SWCD	$20,138	TU, San Miguel Watershed	$12,000	**$128,551**
	POGG1 2015-0286	$30,000	6/10/2015	10/31/2016					
	CTGG1 2015-3313	$113,000	6/9/2015	5/31/2016	River Ranch	$70,000			**$183,000**
	CTGG1 2015-2791	$148,500	1/27/2015	6/1/2018					
	POGG1 2016-0610	$15,000	1/8/2015	5/31/2017					
	POGG1 2015-0175	$10,000	11/14/2014	10/31/2016					
	POGG1 2015-0161	$6,000	10/10/2014	12/31/2014					

Taxpayer Bill of Rights

The Taxpayer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect your application.

Not applicable.

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Submittal Checklist	
✓	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract.
Exhibit A	
✓	Statement of Work(1)
✓	Budget & Schedule(1)
	Engineer's statement of probable cost (projects over $100,000)
✓	Letters of Matching and/or Pending 3rd Party Commitments(1)
Exhibit C	
	Map (if applicable)(1)
	Photos/Drawings/Reports
	Letters of Support (Optional)
	Certificate of Insurance (General, Auto, & Workers' Comp.) (2)
	Certificate of Good Standing with Colorado Secretary of State(2)
	W-9(2)
	Independent Contractor Form(2) (If applicant is individual, not company/organization)
Engagement & Innovation Grant Applicants ONLY	
✓	Engagement & Innovation Supplemental Application(1)

(1) Required with application.

(2) Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.

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ENGAGEMENT & INNOVATION GRANT FUND SUPPLEMENTAL APPLICATION

Introduction & Purpose

Colorado's Water Plan calls for an outreach, education, public engagement, and innovation grant fund in Chapter 9.5.

The overall goal of the Engagement & Innovation Grant Fund is to enhance Colorado's water communication, outreach, education, and public engagement efforts; advance Colorado's water supply planning process; and support a statewide water innovation ecosystem.

The grant fund aims to engage the public to promote well-informed community discourse regarding balanced water solutions statewide. The grant fund aims to support water innovation in Colorado. The grant fund prioritizes measuring and evaluating the success of programs, projects, and initiatives. The grant fund prioritizes efforts designed using research, data, and best practices. The grant fund prioritizes a commitment to collaboration and community engagement. The grant fund will support local and statewide efforts.

The grant fund is divided into two tracks: engagement and innovation. The Engagement Track supports education, outreach, communication, and public participation efforts related to water. The Innovation Track supports efforts that advance the water innovation ecosystem in Colorado.

Application Questions

*The grant fund request is referred to as "project" in this application.

Overview (answer for both tracks)
In a few sentences, what is the overall goal of this project? How does it achieve the stated purpose of this grant fund (above)?
The overall goal of this project is twofold: First, we will create a robust outreach plan and communication materials to share data, analysis and results of the underlying "Evaluating Conserved Consumptive Use in the Upper Colorado" project. Second, we will use a social science approach to better understand the perspective and experience of project participants. This information will help provide a look behind the numbers and will increase understanding of what's required to implement water conservation activities on the ground and the conditions that make partnerships between agricultural water users and other entities both possible and valuable for all parties involved. These related project goals directly address the intended purposes of the Engagement & Innovation work in multiple ways. Clear and concise communications of the ATM Project results will ensure critical information about the benefits and impacts of water conservation programs in high altitude Colorado pastures reaches multiple audiences and will help address several related factors for advancing our understanding of agricultural water conservation. Results from the social science work can help the State, Roundtables, and other stakeholders better engage the ag community in water work as well as provide insight into where ATMs are more and less mutually beneficial.

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Overview (answer for both tracks)
The underlying research study involves multiple components, and both the substance and results can be complex and technical. Therefore, the primary goal of the communications work is to make this research and its outcomes accessible to multiple audiences for different purposes. For example, CWCB Board members and leadership staff can review an executive summary with key highlights, Roundtable members and others those more deeply engaged in water conservation can access a robust summary of the work with detailed results, and those in the research field can quickly and easily access the data they need. We are facing unprecedented challenges when it comes to water use in Colorado, and we know that we need agricultural producers and water users at the table driving innovation and developing solutions. To do this however, stakeholders need information on how to effectively engage agricultural partners and a better understanding of the constraints/opportunities for ag water conservation at the field and ditch level. Furthermore, while the ATM Project focuses generally on the many complicated technical issues related to ag water conservation, we know that this work takes place in diverse cultural and social contexts. Understanding this context is essential for creating and implementing successful projects and policies to address Colorado's future water challenges.
Who is/are the target audience(s)? How will you reach them? How will you involve the community?
Target audiences: • Basin Roundtable members and participants, including PEPO members and the Demand Management workgroup members. • Colorado Water Conservation Board Directors and staff engaged in Alternative Transfer Methods, Instream Flow Program, and Demand Management. • Past participants in the CWCB's Demand Management Workgroups • Colorado River Water Conservation District Board and staff • Colorado River Water Bank Work Group members • Agricultural producers and formal agricultural groups (e.g. Colorado Ag Water Alliance, Colorado Cattleman's Association, Family Farm Alliance). • Colorado State University Extension/Colorado Water Center • Colorado Division of Water Resources staff, including local water commissioners • Other stakeholders engaged in Alternative Transfer Methods, Instream Flow Program, and Demand Management. **Outreach methods:** • Distribution of final report, executive summary, and other communication materials through lists maintained by the CWCB, River District, Water Education Colorado, and Colorado Mesa University. • Presentation and discussion at Roundtable meetings and CWCB Board meetings • Presentation and discussion through conferences (or webinars pending public health restrictions) • Press • Small meetings with specific audiences • Short videos

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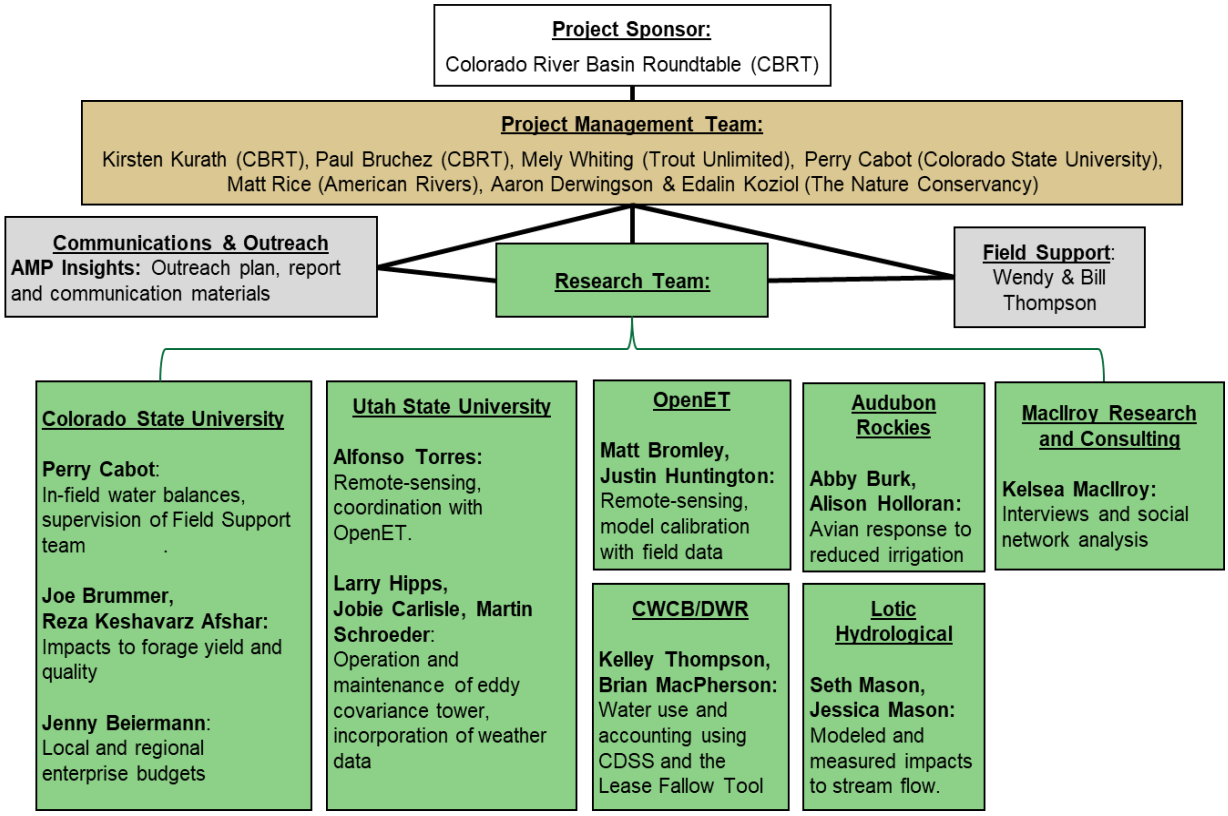
Overview (answer for both tracks)
Community involvement: The consultant, along with the project management and research team, will directly engage the participating producers in this work, as well as other outside stakeholders identified in the social network analysis. The full team will also work closely with the Colorado Basin Roundtable demand management group and PEPO group on the communications plan, outline and draft of the summary report, and in identifying and creating any additional communications elements.
Describe how the project is collaborative or engages a diverse group of stakeholders. Who are the partners in the project? Do you have other funding partners or sources?
The figure below provides an overview of the full team involved in the research project. This is a large collaborative effort engaging the Colorado Basin Roundtable, multiple research universities, conservation NGOs, state staff, and several consultants. Furthermore, the project team is working with the agricultural producers who have enrolled in the project and agreed to participate in the research. Initial project funding has come from the CWCB's Alternative Transfer Methods grant program along with match funding from American Rivers, The Nature Conservancy, and Trout Unlimited.



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Overview (answer for both tracks)
Describe how you plan to measure and evaluate the success and impact of the project?
Success will be measured by tracking engagement with and feedback from our target audiences with whom we share either the social science research report or the communications tools. We will also keep track of what may get picked up by and discussed in the media.
What research, evidence, and data support your project?
N/A. The project is intended to make research and data developed through the "Evaluating Conservation in the Upper Colorado River" project available to broad audiences.
Describe potential short- and long-term challenges with this project.
The primary short term challenge with the project will be adapting the proposed interviews and group meetings to a virtual format considering the COVID-19 pandemic and associated restrictions. However, the social science researcher has significant experience with telephone interviews and virtual meetings and the project team is confident that we will get valuable information even without in person meetings. Other potential challenges include a potential lack of participation in interviews, group meetings, or surveys. In order to address concerns related to this the researcher will adhere to all confidentiality guidelines, best practices, and guidance provided by the Institutional Review Board at Colorado State University. These practices will be outlined before participation commences and allow for participants to withdraw from the research at any point in time, without fear of penalty. Based on the level of participation to date, the project team is confident that participation will be high.

Please fill out the applicable questions for either the Engagement Track or Innovation Track, unless your project contains elements in both tracks. If a question does not relate to your project, just leave it blank. Please answer each question that relates to your project. Please reference the relevant documents and use chapters and page numbers (Colorado's Water Plan, Basin Implementation Plan, PEPO Education Action Plan, etc.).

Engagement Track
Describe how the project achieves the education, outreach, and public engagement measurable objective set forth in Colorado's Water Plan to "significantly improve the level of public awareness and engagement regarding water issues statewide by 2020, as determined by water awareness surveys."

Please see response to "Water Project Justification" above. The final products from this project will be extremely useful in synthesizing a tremendous amount of data which will be used in education, outreach and public engagement.
Describe how the project achieves the other measurable objectives and critical goals and actions laid out in Colorado's Water Plan around the supply and demand gap; conservation; land use; agriculture; storage; watershed health, environment, and recreation; funding; and additional.
Please see response to "Water Project Justification" above. This project addresses the supply and demand gap by making the data from the "Evaluating Conserved Consumptive Use in the Upper Colorado" research study useable by more than simply the academics. It will provide useful information to both the agricultural users and the entities desiring to better understand the role of ATMs in addressing Colorado's water challenges. Furthermore, by providing useful tools to help educate a wide audience, many of these measurable objectives and critical goals are advanced.
Describe how the project achieves the education, outreach, and public engagement goals set forth in the applicable Basin Implementation Plan(s).
Please see response to "Water Project Justification" above. This project is all about gathering and distilling complex data, either scientific or social, and creating tools that make the results accessible and comprehensible to the wider public and that can assist stakeholders across the spectrum of water users make more informed decisions.
Describe how the project achieves the basin roundtable's PEPO Education Action Plans.
Please see response to "Water Project Justification" above. The goal of the Colorado Basin Roundtable (CBRT) Education Action Plan for 2017-2020 is to promote better stewardship and decision-making related to water resources. The CBRT EAP seeks to reach beyond the community of people who are already aware of and interested in water. The CBRT EAP supports activities that will enhance students' awareness of regional water issues. This project will advance these goals as evidenced by the CBRT support letter and grant of $1000 in PEPO funds.

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Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	**November 20, 2020**
Name of Grantee:	**Trout Unlimited**
Name of Water Project:	**Supporting Outreach and Engagement for the "Evaluating Conserved Consumptive Use in the Upper Colorado River" Project**
Funding Source:	**Colorado's Water Plan Grant: Engagement & Innovation Activities**
Water Project Overview:	
This proposed project will help advance the broader goals of the "Evaluating Conserved Consumptive Use in the Upper Colorado" research study through two complimentary efforts. The first will involve a series of interviews and social network analysis to understand the perspective and experience of project participants. Because of the diverse contexts of agricultural production in Colorado and the Colorado River Basin, there is no "one size fits all" solution to creating successful ATMs. Furthermore, we know from past work that there are multiple barriers and reasons why agricultural producers do not currently participate in ATMs. Drawing on the success of our ATM Project to date, we will gather and evaluate social science data that can help stakeholders understand the conditions that make partnerships between agricultural water users and other entities possible and valuable. This insight can also help guide future ATM program planning, improve decision making, and avoid costly and time-consuming unintended consequences The second aspect will develop effective communication tools and an outreach plan for the underlying research study. That effort is already generating significant data addressing questions on estimating actual water savings, quantifying impacts to crop production, evaluating payments for water conservation, and determining effects on wildlife habitat and streamflow. These results will be relevant to a variety of audiences, including the State, Basin Roundtables, agricultural water users, and stakeholders engaged in addressing water supply challenges in Colorado. Developing an engaging and accessible summary, along with an outreach plan, helps ensure that these different audiences have easy access to project results to help guide and inform decisions and future work.	

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Project Objectives:
Agricultural producers in Colorado and throughout the West are facing multiple challenges related to water and irrigation from climate change and aridification, population growth, and environmental needs. Agriculturalists are on the front lines in terms of experiencing the impacts of these climatic changes and weathering the pressures that water management entails. Within this context, there is an increased interest in pursuing agricultural water conservation strategies in Colorado. Drawing on the extensive experience from the project participants and their perception of the issues at hand, the primary objective of the social science aspect is to better understand challenges, considerations, and potential paths forward in relation to water conservation in Colorado and the Upper Colorado River Basin. The primary objective of the communications work is to: (1) develop an engaging and accessible summary report of the "Evaluating Conserved Consumptive Use in the Upper Colorado" project and its results for 2020, and (2) create and implement an outreach and communications plan to distribute the summary report and other stand-alone communication elements on specific topics(e.g. water use, ag best practices, economics, etc.) for different target audiences. Taken together, the information from this proposed project is critical to understanding the many social, technical, and practical considerations for implementing water conservation activities on the ground that meet multiple objectives. As stakeholders throughout the state continue to explore different types of ATM programs, this project can provide valuable information to make those programs successful and sustainable if they move forward.

Tasks
Task 1A – Background Research & Document Review
Description of Task:
The researcher will become familiar with the ATM Project by talking with project partners and reviewing project related documents. This includes proposals, reports, meeting notes and agendas, data already gathered, and other pertinent information. The purpose of this step is to help guide the development of the project participants' interview questions.
Method/Procedure:
Informal interviews and document review; drafting of project participant questions.
Deliverable:
Final project participants' interview questions.

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Tasks
Task 2A – Interviews with Participants
Description of Task:
This task will involve semi-structured, conversational interviews with willing participants from the ATM Project, and with any additional stakeholders identified by the project team, throughout the course of the four-year Project. In these interviews, the researcher guides the interviewee through a variety of topics based on the final interview questions from Task 1, but creates space for them to talk through their thoughts and opinions on the topics in an open-ended manner that gives control back to the participant to discuss the topics as they see fit. Interviews will last 45-60 minutes. Interview questions will ask participants to reflect on the previous season(s), share their thoughts on upcoming seasons, as well as discuss their reasons for participating in the project. In addition, these interviews will investigate how participants assess agricultural water conservation, water use, Colorado River issues and the River Basin overall, considering the challenges and potential opportunities that agricultural faces.
Method/Procedure:
Project participants are not under a contractual obligation to participate in these interviews nor are they being paid to do so. Accordingly, interviews will be conducted only with willing participants. Interviews will be conducted via Zoom, telephone, or in person (pending current health and safety rules and protocols) at a time and location conducive to both the researcher and the participant. The interview, with permission from the participant, will be recorded. The researcher will adhere to all confidentiality guidelines, best practices, and guidance provided by the Institutional Review Board at Colorado State University. These practices will be outlined before participation commences and allow for participants to withdraw from the research at any point in time, without fear of penalty. Due to the nature of the study and small group of participants, it is not possible for the researcher to guarantee anonymity but will strictly practice confidentiality in data gathered. The recording will be transcribed by a transcriptionist. Transcribed interviews will be coded and analyzed using Quirkos software by the researcher alone. Recordings, transcriptions, and all associated data files will be kept on a password protected computer and paper documents will be kept in a locked safe box. Other than transcription, only the researcher will have access to these files and passwords. In addition, the researcher will engage in a continual process of note taking and memo writing after each interview (or observation, as relevant), recording observations, reviewing relevant material and processing it into a cohesive whole.
Deliverable:
The researcher will produce an annual written report and presentation detailing the findings of the interviews following each year of the ATM Project.

Last Updated: June 2020

Tasks
Task 3A – Participant Group Meetings
Description of Task:
***Details of this task are contingent on the status of COVID-19 infection rate, any relevant State and local regulations, and all best practices for safety precautions.* This task will involve voluntary group meetings through the research period. These meetings involve a facilitator – the researcher – who initiates conversation among willing stakeholders using a list of discussion topics or questions. The facilitator guides the conversation, keeping it on topic, and making sure all voices are heard. Group meetings are insightful for what participants say and the interaction among stakeholders.
Method/Procedure:
The researcher will conduct group meetings throughout the project period regarding participation in the ATM Project, providing participants the option of two times to join and limiting group size to 4-8. These meetings, lasting 1.5-2 hours, will serve as a "check in" to see if and how perceptions and narratives about the project have changed over time. The meetings will engage participants in a group format to discuss their hopes and lessons learned related to the ATM Project, obstacles and challenges to participation in agricultural water conservation practices and projects, and how they talk about their participation. The researcher will pay particular attention to interactions between group members. If possible, the researcher will attend meetings and conferences, and conduct observations of relevant activities to the project. These observations can provide supplemental insight into the formal and informal social processes that sometimes are subconscious or "common sense" and yet vital to the success. As with the interviews, the researcher will adhere to all confidentiality guidelines, best practices, and guidance provided by the Institutional Review Board at Colorado State University. These practices will be outlined before participation commences and allow for participants to withdraw from the research at any point in time, without fear of penalty. Due to the nature of the study and small group of participants, it is not possible for the researcher to guarantee anonymity but will strictly practice confidentiality in data gathered. If the group members agree, the group meeting will be recorded for analysis by the researcher enabling the research to focus on the group discussion and not note taking. If a recording is permitted by the group, the recording of the group meetings will be transcribed by a transcriptionist. Transcribed interviews will be coded and analyzed using Quirkos software by the researcher alone. Recordings, transcriptions, and all associated data files will be kept on a password protected computer and paper documents will be kept in a locked safe box. Other than transcription, only the researcher will have access to these files and passwords. ***Due to COVID-19, meetings held on Zoom are also eligible for observation, with explicit invitation and permission of participants.*

Last Updated: June 2020

Tasks
Deliverable:
The researcher will produce an annual written report and presentation detailing the findings of the group meetings each year.

Last Updated: June 2020

Tasks
Task 4A – Social Network Surveys and Analysis
Description of Task:
This task will gather data on ranchers' social networks at the beginning, middle, and end of the ATM Project. It is well accepted in network science literature that there is a connection between the interpersonal networks and the diffusion of information and innovative practices, particularly when conventional advice is no longer as relevant. Since social network analysis reports on patterns of interaction, understanding the social networks of the participating ranchers can provide details on how information is being disseminated formally and informally. Exploring how ranchers' social networks change over the course of the project related to their farming and ranching practices can reveal if the ATM Project and associated activities leads to a growth, change, or adaptation of networks.
Method/Procedure:
To complete this task, the researchers will administer voluntary social network surveys annually during the ATM Project using the software tool ONA Survey, which was designed to collect social network data. Presentation of the social network data will be discussion-oriented, encouraging dialogue among stakeholders to interpret and synthesize results from the social network diagrams with their experiences. The goal of these discussions is to provide detailed insights and critical engagement that reflects on the way networks operate, and to consider actionable changes and strategies regarding how the networks operate. The researcher will consult with an expert in Social Network survey analysis in designing the survey for optimal performance and data gathering. All associated files and survey data will be kept on a password protected computer and in password protected files to which only the researcher will have access.
Deliverable:
The researcher will produce a written report detailing the findings of the social network survey. After each survey, the researcher will organize, analyze, synthesize and present survey results to the team in the form of a PowerPoint presentation. Presentations in future years will include a comparison in social networks from year-to-year.

Last Updated: June 2020

Tasks
Task 5A – Final Report and Presentation
Description of Task:
This task will involve the production of a final report for the entire project that will summarize the findings of the interviews, group meetings, and social network surveys. The report will include anonymized quotes, social network diagrams, and other related data and will be available for use and distribution by participants, project partners, and funders. This task will also involve the creation of a final presentation on the findings distilled from the written report. This will include an explanation of social network analysis and how to interpret the data along with diagrams.
Method/Procedure:
N/A
Deliverable:
Final report and presentation, delivered to the Colorado River Basin Roundtable and other stakeholders on request.

Tasks
Task 1B – Develop project schematic of communications elements
Description of Task:
The purpose of this task is to map out the different elements of the underlying ATM Project and how they fit together, both visually, and in brief narrative form. This schematic will identify what outputs can be expected from each project element, when those outputs or other results can be expected and in what format, and how the different elements fit together or relate to one another. The project team will then use this schematic to outline a final summary report, develop different communications pieces, and complete an overall outreach plan.
Method/Procedure:
The communications consultant will review background documents and then work with project researchers at Colorado State University, Utah State University, and the Desert Research Institute, as well as the other project consultants and the project management team to develop the communications schematic.
Deliverable:
A visual schematic and brief narrative of the main project elements and proposed communication elements.

Last Updated: June 2020

Tasks
Task 2B – Detailed report outline
Description of Task:
For this task, the consultant will work with the project management and research teams to develop a detailed draft outline for the first written report covering an overview of the project itself as well as the results from 2020 for the individual research components. The outline can serve as a template to update the report with results from future years. The outline will include proposed narrative and visual content for each element. Development of the report outline will also include work with the project management team to confirm priority outcomes for both the summary report and individual elements. Building from these outcomes, the team will also identify key audiences and a general timeline of what will be communicated in this first summary report and in future years.
Method/Procedure:
An iterative writing process with the project management and research teams to outline the different parts/elements of summary report, identify which elements results will be included in the report for 2020, and identify graphics and data visualization needs.
Deliverable:
Completed outline for the summary report and component elements, list of target audiences, general timeline.

Tasks
Task 3B – Prepare final draft summary report
Description of Task:
Using the outline developed in Task 2B, produce a final summary report.
Method/Procedure:
In coordination with the project management and research teams, determine priority formats for the final report. This may include a professionally printed version, an online version that can be printed at home/office, and/or a web specific version. Circulate a draft report to the full team for review and feedback and circulate individual project elements to relevant research partners for review and feedback. Develop detailed plans/sketches for any elements that need specific data or graphical work. Convene a group of stakeholders (including project participants, Roundtable members, and CWCB staff as appropriate) for a focus group to review and provide input on the report.
Deliverable:

Tasks
Final draft report incorporating feedback from project management team, research team, and other outside reviewers.

Tasks
Task 4B – Develop a communications plan with associated metrics for tracking outreach; Identify and develop ancillary communication elements.
Description of Task:
This task will involve work with the project management team, research team, and other key stakeholders to develop an outreach plan for communicating project results to different audiences, developing metrics for tracking outreach and engagement, and identifying and developing other important communication elements such as PowerPoint presentations or videos.
Method/Procedure:
Work with the project management team to develop an outreach plan that includes target audiences identified in Task 2B, key messages and project elements for each audience, and forums and methods for reaching those audiences. With input from the project management team, research team, and other key stakeholders, determine priority format(s) for final written report (e.g. published document, online document, website). Identify and create (as needed) additional communication elements. Include these elements and what role they would they play in reaching specific audiences in the outreach plan. Develop metrics for tracking outreach and communication to target audiences.
Deliverables:
Final outreach and communications plan, with metrics for tracking and evaluating outreach. Additional communication elements as determined by the group, and as time and budget allow.

Tasks
Task 5B – Implement Communications & Outreach Plan
Description of Task:
For this task, the consultant and the project management team will finalize the summary report and other materials based on the previously developed drafts and results of the communications and outreach plan work. With these final materials, the project management team, research team, and others as necessary will implement the communications and outreach plan and use the plan's metrics to track and report on progress.
Method/Procedure:

Last Updated: June 2020

Tasks
1. Finalize production of the summary report as per the communication plan, including professional layout/printing as necessary and distribution. 2. Finalize other materials (powerpoints, posters, etc.) as necessary 3. Conduct planned outreach i. Distribution of written materials ii. Conference and other presentations iii. Webinars iv. Targeted meetings w/ specific audiences, for example (CWCB staff and board, agricultural producers, ag extension offices, and ag groups like Colorado Cattleman's Association, NGOs, etc.) 4. Track and report on outreach/communication metrics
Deliverables:
Final summary report; other final communication materials as needed and identified by the project team; outreach per the plan; bi-annual outreach progress reports.

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.
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 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.

Last Updated: June 2020

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 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 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 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.

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Exhibit B
Budget and Schedule

Prepared Date: 11/20/2020

Name of Applicant: Trout Unlimited

Name of Water Project: Supporting Outreach and Engagement for the *"Evaluating Conserved Consumptive Use in the Upper Colorado River"* Project

Project Start Date: December 1, 2020

Project End Date: April 1, 2024

Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1A	Background Research & Document Review	1/1/2021	3/1/2020	$ -	$ 2,000	$2,000
2A	Interviews with Participants	12/1/2020	12/31/2023	$ 5,200	$ 21,925	$27,125
3A	Participant Group Meetings	12/1/2020	12/31/2023	$ 5,200	$ 2,880	$8,080
4A	Social Network Surveys and Analysis	12/1/2020	12/31/2023	$ 4,800	$ 5,800	$10,600
5A	Final Report & Presentation	6/1/2023	4/1/2024	$ 2,080	$ 2,080	$4,160
1B	Develop project schematic	1/1/2021	3/1/2021	$ -	$ 3,525	$3,525
2B	Detailed report outline	2/1/2021	5/1/2021	$ 4,060	$ 5,640	$9,700
3B	Report drafting	3/1/2021	7/1/2021	$ 10,365	$ 7,265	$17,630
4B	Outreach plan; other commnication elements	5/1/2021	1/31/2022	$ 9,300	$ 6,085	$15,385
5B	Implement outreach plan	12/1/2021	4/1/2022	$ 3,525	$ -	$3,525
	Direct Costs	12/1/2020	4/1/2024	$ 5,470	$ 3,011	$8,481
	Administrative Costs	12/1/2020	4/1/2024	$ -	$ 5,000	$5,000
	Contingency	12/1/2020	4/1/2024	$ -	$ 789	$789
			Total	$50,000	$66,000	$116,000

THE COLORADO BASIN ROUNDTABLE
C/O P.O. BOX 1120
GLENWOOD SPRINGS, COLORADO 81602

December 1, 2020

Colorado Water Conservation Board
Attn: Ben Wade
1313 Sherman St., Room 721
Denver, CO 80203

Dear Colorado Water Conservation Board Members:

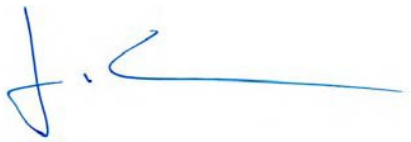
I am writing on behalf of the Colorado Basin Roundtable (CBRT) to offer our support for Trout Unlimited's Colorado Water Plan grant application: *Supporting Outreach and Engagement for the "Evaluating Conserved Consumptive Use in the Upper Colorado River" Project.*

We are facing unprecedented challenges when it comes to water use in Colorado, and we need to understand the potential role agricultural water conservation can play in addressing these challenges and be able to communicate related issues and opportunities to different stakeholders. Furthermore, while the technical issues related to agricultural water conservation are important to address, we also recognize that better understanding the social context where agricultural water discussions take place is essential for creating and implementing successful projects and policies to address Colorado's future water challenges.

The CBRT fully supports this effort and is committed to engaging in this work and supporting partners in the design, development, implementation of communications materials and outreach plan to share results of this important work. We will also work with partners to help distribute this information to Basin Roundtables, the State of Colorado, agricultural producers, and other stakeholders involved in agricultural water work.

This is work is relevant for our roundtable, the State, and the broader Upper Colorado River Basin. The CBRT fully supports the project and encourage the CWCB to provide the funding requested.

Regards,



Jason V. Turner, Chair

American Rivers
RIVERS CONNECT US®

November 30, 2020

Colorado Water Conservation Board
Attn: Ben Wade
1313 Sherman St., Room 721
Denver, CO 80203

Dear Colorado Water Conservation Board Members:

I am pleased to submit this letter of commitment from American Rivers to contribute $25,000 in cash to match funds for the Colorado Water Plan Grant application: *Supporting Outreach and Engagement for the "Evaluating Conserved Consumptive Use in the Upper Colorado River" Project.* American Rivers is a committed parter to the project and has been engaged in projects to benefit the Upper Colorado River and the people that depend on it for more than 9 years.

This project is an important research component of the "Evaluating Conserved Consumptive Use in the Upper Colorado River" Project. Understanding the social implications of conserved consumptive use projects in the headwaters will likely improve engagment with the agricultural community, NGO's, and water providers throughout Colorado. This project will build on and support statewide efforts to understand and investigate the feasibility of conserved consumptive use projects and programs. American Rivers appreciates and supports the Colorado River Basin Roundatable and its leadership with this project and its leadership advancing solutions for a healthy Colorado River.

Thank you for your consideration and please feel free to contact me if you have any questions or require additional specification about this commitment.

Matt Rice

Director, Colorado River Basin Program
American Rivers
1536 Wynkoop St.
Denver, Colorado 80202
803-422-5244

The Nature Conservancy
Colorado River Program
2424 Spruce St.
Boulder, CO 80302

nature.org/coloradoriver

November 30, 2020

Colorado Water Conservation Board
Attn: Ben Wade
1313 Sherman St., Room 721
Denver, CO 80203

Dear Colorado Water Conservation Board Members:

Please accept this letter of commitment from The Nature Conservancy to contribute $25,000 in cash as match funds for the Colorado Water Plan Grant application: *Supporting Outreach and Engagement for the "Evaluating Conserved Consumptive Use in the Upper Colorado River" Project.* The Conservancy is a committed partner in this proposed project, as well as the underlying research study.

This work builds on the research project to complete social research that will improve engagement from the agricultural community in addressing water challenges and more effectively communicate the results and outcomes from the research itself. This critical work builds on the State's past support the Water Bank Work Group, the System Conservation Pilot Program, and the Grand Valley Conserved Consumptive Use Pilot Projects, which have all received previous support from the Colorado Water Conservation Board. Under the guidance of the Colorado Basin Roundtable, we believe this project is tremendously important to the sustainability of the Colorado River Basin.

Thank you for your consideration and please feel free to contact me if you have any questions or require additional specification about this commitment.

Sincerely,

Taylor Hawes
Colorado River Program Director, The Nature Conservancy

cc: Carlos Fernandez, State Director, The Nature Conservancy of Colorado
Jason Turner, Colorado Basin Roundtable & Colorado River District