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## 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  
Conservation, Land Use Planning  
Engagement & Innovation Activities  
Agricultural Projects  
Environmental & Recreation  
Projects

Anna.Mauss@state.co.us  
Kevin.Reidy@state.co.us  
Ben.Wade@state.co.us  
Alexander.Funk@state.co.us  
Chris.Sturm@state.co.us

**FINAL SUBMISSION:** Submit all application materials in one email to

**[waterplan.grants@state.co.us](mailto: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	Coalition for the Poudre River Watershed	
Name of Water Project	Engaging Stakeholders & Communities in the Poudre Through Citizen Science, Collaboration, & Outreach	
CWP Grant Request Amount		\$68,375
Other Funding Sources <u>Bureau of Reclamation</u>		\$32,640
Other Funding Sources <u>Rocky Mountain Research Station</u>		\$27,800
Other Funding Sources _____		\$
Applicant Funding Contribution		\$8,440
Total Project Cost		\$137,255



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Applicant & Grantee Information
Name of Grantee(s): <a href="#">Coalition for the Poudre River Watershed (CPRW)</a>
Mailing Address: <a href="#">320 East Vine Dr, ste 121, Fort Collins, CO 80524</a>
FEIN: <a href="#">46-2850042</a>
Organization Contact
Position/Title: <a href="#">Jennifer Kovecses/Executive Director</a>
Email: <a href="mailto:jenk@poudrewatershed.org">jenk@poudrewatershed.org</a>
Phone: <a href="tel:970-222-5754">970-222-5754</a>
Grant Management Contact
Position/Title: <a href="#">Jennifer Kovecses/Executive Director</a>
Email: <a href="mailto:jenk@poudrewatershed.org">jenk@poudrewatershed.org</a>
Phone: <a href="tel:970-222-5754">970-222-5754</a>
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).
<a href="#">CPRW's mission is to improve &amp; maintain the ecological health of the Poudre River watershed through community collaboration. CPRW formed after the 2012 wildfires damaged our river &amp; water supplies. We worked with stakeholders to complete &gt;300 ac post-fire restoration, ~300 ac of wildfire mitigation using our Upper Poudre Resiliency Plan to guide implementation. With stakeholders' input, we extended the Poudre River Health Assessment into the headwaters and launched a volunteer monitoring program. We also began work with downstream stakeholders to develop a Lower Poudre River Resiliency plan and are poised to further restoration design in priority reaches.</a>



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Type of Eligible Entity (check one)	
	<b>Public (Government):</b> 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.
	<b>Public (Districts):</b> Authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises.
	<b>Private Incorporated:</b> Mutual ditch companies, homeowners associations, corporations.
	<b>Private Individuals, Partnerships, and Sole Proprietors:</b> Private parties may be eligible for funding.
X	<b>Non-governmental organizations (NGO):</b> Organization that is not part of the government and is non-profit in nature.
	<b>Covered Entity:</b> As defined in <a href="#">Section 37-60-126 Colorado Revised Statutes</a> .

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

Category of Water Project (check the primary category that applies and include relevant tasks)	
	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.. <i>Applicable Exhibit A Task(s):</i>
	Conservation and Land Use Planning - Activities and projects that implement long-term strategies for conservation, land use, and drought planning. <i>Applicable Exhibit A Task(s):</i>
X	Engagement & Innovation - Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website. <i>Applicable Exhibit A Task(s):</i> <ul style="list-style-type: none"> <li>Build the stakeholder conversation in the CLP around water and watershed health</li> <li>Empower &amp; engage the CLP community through Citizen Science</li> <li>Increase community awareness and knowledge of the Poudre &amp; its water resource/watershed health issues</li> </ul>
	Agricultural - Projects that provide technical assistance and improve agricultural efficiency. <i>Applicable Exhibit A Task(s):</i>
	Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation.



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	<i>Applicable Exhibit A Task(s):</i>	
	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/Countries	Larimer & Weld Co
Latitude	40.5853° N
Longitude	105.0844° 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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This project has two major goals – facilitate and build stakeholder/community understanding of watershed health in conversations about water in the Cache La Poudre (CLP) and increase community engagement by empowering residents to participate directly in vital watershed monitoring through CPRW’s nascent citizen science monitoring program.

1. Engage basin stakeholders by continuing to convene CPRW’s existing stakeholder advisory group for the Upper Poudre and Lower Poudre to ensure progress towards collaborative decision making around river health assessment, river resiliency building in the lower watershed, and forest resiliency work and monitoring in the upper watershed.
2. Create outreach & education materials/events specific to the watershed, river resiliency and water quality needs of the CLP to increase local residents awareness and understanding of water resource and watershed issues by coordinating the annual Poudre RiverFest and creating novel communication and education materials (mini video on river resiliency in the Lower Poudre, improved tools for our outreach booth, etc)
3. Engage & empower local residents through CPRW’s nascent Citizen Science Water Quality Monitoring Program to build a dataset of scientifically defensible data

### 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
Poudre RiverFest: 2000 participants, general outreach 500-1000 individuals; benefits to the	Number of Coloradans Impacted by Engagement Activity



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200k residents that rely on the Poudre for drinking water		
	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;)

Our proposal supports many of the goals articulated in the Colorado's Water Plan, Statewide Water Supply Initiative, South Platte Roundtable Basin Implementation Plan, and South Platte Roundtable Basin Education Action Plan. Specifically, our proposal will contribute measurable outcomes to those goals that relate to public outreach, engagement, and education and those related to protecting the health, stewardship, and resiliency of water resources.

#### Colorado Water Plan Alignment:

[Section 6.2](#) (pg 15): "Colorado's Water Plan uses a grassroots approach to formulate projects and methods that avoid some of the undesirable outcomes of the supply-demand gaps. The plan addresses the gaps from multiple perspectives—such as water storage, reuse, recycling, integrated water management, restoration, and conservation."

This section acknowledges the goals and measurable outcomes of the Basin Implementation Plans, including:

- Meet Colorado's environmental and recreational water needs.
- Meet Colorado's water quality management needs.
- Protect and restore watershed health.
- Continue participation, education, outreach, and communication.

Our existing collaborative stakeholder groups by design bring in multiple perspective as they include municipal utilities, federal, state, and regional natural resources agencies, community groups, non-profits and members of the public. In 2019, we have set goals to broaden the representativeness of our stakeholder committees. Together, our stakeholders have already collaborated on incorporating environmental needs, water quality, and protection/restoration of watershed health into our planning. Funding will allow us to keep our stakeholders working together on critical next steps for our River Health Assessment work, planning for water quality monitoring & forest restoration to protect water quality, and river resiliency design & prioritization in the river east of I-25.

By facilitating our participation in groups like Poudre Runs Through It, the Preble's Jumping Mouse Site Conservation Team, and Poudre River Monitoring and Data Sharing working group, we can help ensure that environmental needs are included in these collaborative dialogues about water resource and infrastructure planning & ensure that our citizen science data is also incorporated into basin wide water resources planning where relevant. This would



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help meet the goals outlined in Section 6.2, which identifies the South Platte Goals and Measurable Outcomes (pg 25) that recommend projects “take into consideration environmental and recreational attributes when considering storage and other infrastructure projects and methods”.

Section 6.6 Goals (pg 157): “Understand, protect, maintain, and improve conditions of streams, lakes, wetlands, and riparian areas to promote self-sustaining fisheries and functional riparian and wetland habitat to promote long-term sustainability and resiliency”.

By continuing to directly engage community members about the critical connection between forest health and water supply protection, as well as the vital importance of increasing river resiliency and restoration, our outreach program will directly address this Section 6.6 goal. Furthermore, our lower Poudre Resiliency Plan included threats to critical infrastructure in its multi-metric evaluation. By building community conversations around river resiliency in the lower Poudre, our project will directly address the Section 6.6 objective to “Maintain watershed health by protecting or restoring watersheds that could affect critical infrastructure and/or environmental and recreational areas”.

One of our main outreach projects is coordinating the annual Poudre RiverFest, which seeks to celebrate, educate, and restore the Cache La Poudre river. Through engaging interactive booths & workshops, participants get to learn about the ecology of the river, watershed health, the role the Poudre plays in water law, safety while recreating on the river, and opportunities to help restore and protect the Poudre. This event directly supports all aspects of Section 6.6 goals. The festival tracks attendance and has started using post event surveys to better capture participants experiences. We have so far had participation between 1,000 – 3,000 people and we have set a target to increase participation and the depth of the learning experience in the coming years.

We also aim to improve the quality of CPRW’s education materials so that we can improve our community’s understanding of our key issues around watershed health, river resiliency, the connection between forest health and water supply, and river ecosystems. Our project is therefore proposing to create outreach tools tailored to the needs of our basin for use in our outreach booth to use at events (Poudre RiverFest, the Poudre Forum, the Children’s WaterFestival) and to create other communications tools (short videos on river resiliency, better visualizations of our citizen science outcomes, factsheets on community benefits of river resiliency, etc).

Section 6.2 also identifies the South Platte Goals and Measurable Outcomes (pg 25) that recommend projects that “monitor, protect and improve watershed water quality and identify and document progress and improvements”.

By engaging stakeholders, residents, and other community members in our citizen science monitoring project, our project will align directly with this goal. By building tools that will document & communicate our monitoring results, our project will help track progress and improvements. Indeed, it is part of the purpose of building the program – to track progress towards increasing resiliency in our watershed.

Importantly, Chapter 6 recognizes that the Cache la Poudre River is the only river in Colorado that is currently designated as a Wild and Scenic River (Pg 166 Wild and Scenic Rivers). Our





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monitoring work includes multiple sites in the Wild & Scenic corridor, providing a unique opportunity for community members to learn about this much valued section of our river, while helping to build a dataset to help protect it.

Section 7.1 Watershed Health & Management Goal to “[Promote] watershed health and [support] the development of watershed coalitions and watershed master plans that address the needs of a diverse set of local stakeholders through identified actions such as:

- Identify watersheds that are critical to water supply.
- Monitor projects to ensure that objectives are met and maintained.
- Conduct adaptive management as necessary.
- Coordinate statewide watershed-coalition and partnership plans, projects, monitoring, and adaptive management strategies.

Our stakeholder-driven collaborative planning has already identified which sub-watersheds are critical to water supply. By continuing to convene our stakeholder group, we will be able to further our work on collaboratively monitoring, planning, and assessing conditions in our basin. Our citizen science water quality monitoring program will help monitor projects and speak to adaptive management in our watershed.

Critically, this chapter specifically articulates that “successful watershed management necessitates collaborative discussions on managing forests to benefit water supply.... And that watershed health largely focuses on forest-health concerns (Section 7.1 pg 7). Our work in the Upper Poudre is driven by restoring and protecting forested headwaters to protect our water supplies, communities, and river ecosystems. We will continue to work with our stakeholders to further this goal. Our project will also help residents understand these critical watershed connections by engaging them directly in citizen science water quality monitoring in the headwaters. This work will support adaptive management of CPRW’s work in the basin and other agencies (Forest Service) adaptive management needs. We will also provide learning opportunities at outreach events such as the Poudre RiverFest and the Poudre Forum.

Similarly, this work also aligns with the State Water Supply Initiative Section 8 Recommendation (pg. 8-1): 1. “Support meeting Colorado’s non-consumptive water needs by working with Colorado’s water stakeholders to help: (1) Protect or enhance environmental and recreational values that benefit local and statewide economies; and (2) Encourage multi-purpose projects that benefit both water users and native species.

Section 7.3 Goals “Colorado’s Water Plan promotes waters that fully support their classified uses by 2050 through strategies designed to meet Colorado’s current and future consumptive, recreational, and environmental water needs. These strategies incorporate the protection and restoration of water quality as a key objective”.

Our citizen science monitoring program is currently focused on water quality monitoring. We have two main goals with this program – to develop a baseline data set of water quality in high priority reaches (based on CPRW’s Resiliency Plan) and to collect water quality data to measure the impact of prescribed fire, an increasingly important forest management tool, on our waterways. We will not only help people better understand the link between forest health





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and rivers but will also help state water managers and stakeholders monitor current water quality conditions and evaluate the status of surface-water quality in the CLP headwaters. This will help assess whether water bodies are meeting regulatory standards and provide additional data for evaluating baseline conditions into the future.

**Section 7.3 D 1.** Stakeholder and Public Outreach (pg 33) “Stakeholder and public outreach is critical to meeting the water quality and -quantity integration goal. 1. Use a watershed approach for outreach and community engagement around water quality, ways to protect water quality, and solutions to water quality issues”.

**AND**

**Section 9.5 Outreach, education, and public engagement (pg 1)** “Colorado’s Water Plan provides technical and financial assistance for high-quality, balanced, and grassroots water education and outreach efforts that inform Coloradans about issues so that they may engage in determining Colorado’s water future”.

With funding from the Colorado Water Plan, CPRW can continue to act as the organizing chair for the Poudre RiverFest, giving CPRW & our partners a strategic opportunity to increase our residents’ opportunities to learn about the varied water resource and watershed issues in a fun, meaningful, and engaging way. Our outreach program also includes developing community meetings/tours/events to increase people’s understanding of these issues and to create communication tools (videos, web portal, etc) to support these outcomes.

The South Platte BIP defines facilitating “effective South Platte communications and outreach programs that complement the State’s overall program” as one of the 11 Key Plan Elements. In Chapter 4, Projects & Methods, section 4.1 Education, Participation, and Outreach includes the following Suggested Activities (4.1.3 pg 193) ‘Develop Messages’ and ‘Develop and Maintain Basin-Specific Outreach Tools and Approaches’. As part of our work, we will develop and continue to refine key watershed and river resiliency messages by creating a messaging document. We have already created one for our headwaters work that we will continue to refine based on feedback from our target audiences. We will complete one for our work on river resiliency in the Lower Poudre. Further, we intend to create other tools: data visualization tools, factsheets on the community value of river resiliency, and basin specific outreach tools (e.g. watershed model) for our outreach booth to be used at community events. Our proposed activities are all in line with activities and outreach tools described in the South Platte BIP Table 4-3 (pg 192), Engagement Tools and Intended Audiences.

Additionally, our proposed activities all support the following other SP BIP goals through education and outreach:

1. S.5.5 Protect and enhance environmental and recreation attributes. Recommendation: Fill existing data gaps regarding protection of environmental and recreational attributes in order to better understand the adequacy of existing and future protections.
2. S.5.9 Facilitate effective South Platte communications and outreach programs that complement the state’s overall program. Recommendation: Design and implement an intensive education, participation and outreach program designed to generate a lasting baseline of public awareness and support.



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Our citizen science data will help fill data gaps regarding environmental attributes and will help generate a vital baseline data set that will be communicated to the public through our reports, presentations, and web portal.

The South Platte Basin Roundtable Education Action Plan includes “II. Educational Priorities & Implementation: Overall goals of the Education and Outreach Committee of the South Platte Basin Roundtable include a focus on educating and engaging the public, decision-makers and elected officials on the scope and purpose of the BIP and the State Water Plan, with an over-arching theme of focusing on solutions-oriented water supply planning”.

By engaging residents directly in the development of high-quality water data, we will empower participants by facilitating their participation in water resource science. Participants will gain hands-on knowledge of the Poudre’s water resources, the connection between how forest management affects water quality, and how restoring our headwaters protects downstream water uses. This program will provide a venue for volunteers to interact with, and learn about, water resource challenges and science. Participants and other members of the public will also be able to learn more about the Poudre’s water resources through our reporting of the data, trends, and outcomes. This information will be available through our newsletter, website, and social media. It will also be uploaded into statewide water quality databases for use by decision makers on baseline conditions in our basin.

### 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.

Upper Poudre Watershed Resiliency Plan, January 2017. Prepared for CPRW by JW Associates, 119 pgs.

Lower Poudre River Recovery & Resilience Master Plan. Prepared for CPRW by Lynker Associates. 139 pgs.

State of the Poudre River Assessment City of Fort Collins, 2017. 125 pgs

City of Fort Collins Source Water Protection Plan. 60 pgs.

City of Fort Collins. Upper Cache la Poudre (UCLP) Collaborative Water Quality Monitoring Program Standard Operating Procedures

Integrated Water Quality Monitoring and Assessment Report, 2018. Colorado Water Quality Control Board, Department of Public Health & Environment. 519 pgs.

### 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.



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CPRW has received four CWCB grants. We currently have 2 active CWCB grants.

**CWCB Watershed Restoration Program, Stream Management Plan**

- 1) Applicant name: Coalition for the Poudre River Watershed
- 2) Water activity name: Assessing Existing Conditions in the Upper Poudre Watershed
- 3) Approving RT: N/A
- 4) CWCB board meeting date: 1/12/2018
- 5) Purchase order: POGG1 PDAA 201800000793
- 6) % of other CWCB funding for project: 0%
- 7) :

**CWCB Watershed Restoration Program**

- 1) Applicant name: Coalition for the Poudre River Watershed
- 2) Water activity name: Post-fire Restoration at Sub-Drainage Unnamed 3
- 3) Approving RT: N/A
- 4) CWCB board meeting date: 1/12/2017
- 5) Purchase order: POGG1 PDAA 201700000909
- 6) % of other CWCB funding for overall project: 0%

**CWCB Watershed Restoration Program**

- 1) Applicant name: Coalition for the Poudre River Watershed
- 2) Water activity name: Post Fire Restoration Design and Planning in the Cache La Poudre basin
- 3) Approving RT: N/A
- 4) CWCB board meeting date: Awarded 8/10/2016
- 5) Purchase order: POGG1 PDAA 201700000327
- 6) % of other CWCB funding for overall project: 0%

**CWCB Watershed Restoration Program**

- 1) Applicant name: Coalition for the Poudre River watershed
- 2) Water activity name: Post-fire Restoration in the Poudre River Watershed
- 3) Approving RT: N/A
- 4) CWCB Board meeting date: Awarded 12/5/2014
- 5) Purchase order: POGG1 PDAA 20150000000000000197

% of other CWCB funding for overall project: 0

**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.

As a non-profit entity, we are not affected by TABOR.



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Submittal Checklist	
	I acknowledge the Grantee will be able to contract with CWCB using the <a href="#">Standard Contract</a> .
Exhibit A	
x	Statement of Work <sup>(1)</sup>
x	Budget & Schedule <sup>(1)</sup>
	Engineer's statement of probable cost (projects over \$100,000)
x	Letters of Matching and/or Pending 3 <sup>rd</sup> Party Commitments <sup>(1)</sup>  <a href="#">Attached to email are the cover sheet for our executed agreement with the Rocky Mountain Research Station and Bureau of Reclamation.</a>
Exhibit C	
	Map (if applicable) <sup>(1)</sup>
	Photos/Drawings/Reports
	Letters of Support (Optional)  <a href="#">CPRW has contacted the South Platte Basin Roundtable and will present this project at an upcoming meeting to request a letter of support</a>
	Certificate of Insurance (General, Auto, & Workers' Comp.) <sup>(2)</sup>
	Certificate of Good Standing with Colorado Secretary of State <sup>(2)</sup>
	W-9 <sup>(2)</sup>
	Independent Contractor Form <sup>(2)</sup> (If applicant is individual, not company/organization)
Engagement & Innovation Grant Applicants ONLY	
x	Engagement & Innovation Supplemental Application <sup>(1)</sup>

(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 to engage & educate stakeholders and residents about water resources and watershed health in the Cache La Poudre. We propose to do this by convening diverse stakeholders, coordinating the Poudre RiverFest, and empowering residents to participate in CPRW's new citizen science water quality monitoring program. These objectives directly support the above stated goals. Our stakeholder teams are diverse (representing 8 – 10 stakeholder categories) and collaborative. Together, we work on watershed resiliency planning & implementation, river assessments, restoration planning & implementation, and planning our monitoring needs. The Poudre RiverFest's planning team designs the festival to provide engaging ways for locals to learn about all facets of the river: its role in the evolution of water law, what water is used for, recreational safety, and the ecology/watershed health of the Poudre. Importantly, the planning team has set a goal of incorporating more hands-on learning opportunities & a greater representation from ag and other water-dependent industries in 2020-2021 events. Finally, our citizen science water monitoring program will provide an opportunity for volunteers and others to learn about the critical connection between forest health and water quality downstream, while gaining valuable science experience. Our aim with the program is not just education but also to create defensible, science-driven data. We are basing our standard operating procedures and quality control standards on those used by the City of Fort Collins watershed monitoring program and are working with water quality experts at the US



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Overview (answer for both tracks)
Forest Service Rocky Mountain Research Station to ensure we are meeting best practices for monitoring and data collection.
<b>Who is/are the target audience(s)? How will you reach them? How will you involve the community?</b>
<p>We have a tiered approach to targeting our desired audiences. At its broadest, we are aiming to reach residents across our watershed through digital and physical means. We have a strong audience through CPRW's communication tools: we have a monthly digital newsletter, visits to our website and social media (audience ~1000), and we have also been working with the North 40 News to feature articles in their newspaper on watershed and forest health (readership 50,000). Our target audience in these efforts are residents in mountain communities, communities adjacent to the river, and communities that rely on the Poudre for municipal, industrial, or ag for water supply. Similarly, the annual Poudre RiverFest attempts to reach a broad swath of people who live in the area and desire to learn more about the river. To date, we have had participation ranging from 1,500 – 3,000.</p> <p>Our citizen science program will target any local that is interested in learning more about the science behind watershed health and wishes to commit time to creating data for water resource decision making. We have broadly advertised that program and so far, have a wide range of participants.</p> <p>Some of our other outreach work has more specific or targeted audiences. We are proposing conducting tours/community meetings to increase people's understanding of watershed health and river resiliency. For these events, we focus on specific communities that are proximate to our planned implementation work. We are targeting people that would be most directly affected by our work. This includes people who live adjacent to the river east of I-25 and people who live in mountain communities near our forest health work. As part of our outreach work, we do also host tours for downstream beneficiaries – local water-dependent businesses, elected officials, interested residents, and the recreational community.</p>
<b>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?</b>
<p>As a watershed coalition, we operate through stakeholder collaboration. Our upper Poudre stakeholder team has been meeting regularly for five years and includes representatives from the US Forest Service, Colorado State Forest Service, local conservation districts, local non-profits, CSU, water utilities, and community groups. We advertise the meetings publicly, so anyone is welcome to participate in our meetings. Similarly, for our work in the lower Poudre, we work with natural resource experts, local county and municipal representatives and have set a goal of expanding the group to include more non-profits, ag, water utilities, and local university representatives.</p>



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Overview (answer for both tracks)
<p>For our citizen science project, we work closely with scientists from Rocky Mountain Research Station and with water quality experts from the City of Fort Collins and Colorado State University.</p> <p>We have funding to help support this work through Rocky Mountain Research Station to support our citizen science work and the Bureau of Reclamation WaterSmart Program to support outreach and river resiliency design in the Lower Poudre.</p>
<p><b>Describe how you plan to measure and evaluate the success and impact of the project?</b></p> <p>We will measure success through multiple means:</p> <p>For our citizen science program, we will track volunteer participation (volunteer hours) and we will evaluate the data collected to ensure it meets quality control standards and analyze it for trends. Success will be defined by volunteer engagement (volunteer sign ups consistently meets our data collection labor needs) and whether our data meets our quality control standards. The impact will be seen in multiple ways: using the data as a basis for adaptive management in our watershed, whether we can detect trends in the data, and whether our data can meet standards to be included in state-wide databases (CDSN) so that it can have impact at a statewide level. We will provide annual summary reports/factsheets on the data, and we are working on a data portal for our website.</p> <p>For the Poudre RiverFest, in 2018 we began using surveys at the event to gather data on participants experience of the event and we will continue to do so moving forward.</p> <p>In 2018-2019, CPRW began experimenting with using digital marketing tools to track how people were interacting with our messaging and we are proposing to do the same for this project. We have also begun using short surveys for our events and to targeted audiences to gather input on residents' concerns and issues. For this project, we have included some budget to have a consultant help us design more effective questions for data tracking purposes.</p> <p>CPRW always tracks participation in our stakeholder and community meetings as the most basic measure of success and impact.</p>
<p><b>What research, evidence, and data support your project?</b></p> <p>For our citizen science program, we rely on research, evidence, data in two different ways. First, there is increasing evidence in the scientific literature that has highlighted the value and quality of the volunteer data, as well as best practices for ensuring that quality. For example, Kosmala, M et al 2016 noted in "Assessing data quality in citizen science" (Frontiers in Ecology and the Environment. Vol 14, issue 10, pgs 551-560) that "[w]hile scientists are often skeptical of the ability of unpaid volunteers to produce accurate datasets, a growing body of publications clearly shows that diverse types of citizen-science projects can produce data with accuracy equal to or surpassing that of professionals. Successful projects rely on a suite of methods to boost data accuracy and account for bias, including iterative project development,</p>





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Overview (answer for both tracks)

volunteer training and testing, expert validation, replication across volunteers, and statistical modeling of systematic error". CPRW has already incorporated this type of evidence-based recommendations into our program development. We have a volunteer training program to ensure the volunteers know how to properly collect data, we have provided them with ready-made kits with substantial information to guide them while in the field, and we have a QA/QC protocol. Experts at RMRS will validate samples and we will be including replication as one of our QA/QC measures. As this is our first year of data collection, we have not yet conducted any statistical analyses but will use our protocols to analyze for errors along with other statistical trends. Second, through our collaboration, we also have access to the water quality dataset collected by the local water utilities in the Poudre. Thus, we will have a reputable dataset against which we can compare our data to better understand whether the ranges of data our volunteers collect fall within expected values for this river. We are also using their standard operating procedures (SoP) as a basis for creating our SoPs and QA/QC. See below for other research that supports this project.

Additionally, for our general outreach in the headwaters, we have been working closely with expert social science researchers from Rocky Mountain Research Station who study the best practices for communicating with private landowners regarding critical watershed/forest issues. This research is complemented by our partnership with American Forest Foundation, a national organization with vast expertise in outreach and engagement with private landowners in forested communities. Through our partnership with AFF, we have learned to leverage conventional (direct mail messaging campaigns) and novel (digital marketing campaigns) outreach tools and mechanisms for tracking that outreach. We will build on this knowledge and incorporate it into our outreach efforts.

As part of our broader community outreach, we will use existing expert best practices as a foundation for our approaches to educate our audiences about relevant water issues to the Poudre. For example, the University of Madison-Wisconsin's National Extension Water Outreach Education program has extensive guidance on Best Education Practices for water education (<https://fyi.extension.wisc.edu/wateroutreach/water-outreach-education/what-are-beps/essential-beps/>) that includes best practices for engaging communities around water issues and will inform how we shape our community outreach efforts.

Finally, although not research per se, we are working with other watershed coalitions such as the Lefthand Watershed Center to discuss whether there are opportunities for leveraging frameworks/SoPs/approaches and determine whether we can achieve greater comparability of our datasets across the Front Range.

Cit Sci Research

Bonney, R. 2014. *Next Steps for Citizen Science*. Science 28, Vol. 343, Issue 6178, pp. 1436-1437

Hunter, J. et al. 2013. *Assessing the quality and trustworthiness of citizen science data*. 13 September 2012. Volume25, Issue4, Pages 454-466

Swanson, A. et al. A generalized approach for producing, quantifying, and validating citizen science data from wildlife images \*



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Sheppard S. & Terveen. L. *Quality is a verb: the operationalization of data quality in a citizen science community*. Proceeding WikiSym '11 Proceedings of the 7th International Symposium on Wikis and Open Collaboration Pages 29-38

Silvertown, J. *A new dawn for citizen science*. Trends in Ecology and Evolution. Volume 24, Issue 9, September 2009, Pages 467-471

Social Science Research

McCaffrey, Sarah M.; Olsen, Christine S. 2012. Research perspectives on the public and fire management: a synthesis of current social science on eight essential questions.

McCaffrey, Sarah M.; Stidham, Melanie; Toman, Eric; Shindler, Bruce. 2011. Outreach programs, peer pressure, and common sense: What motivates homeowners to mitigate wildfire risk.

Steelman, Toddi A.; McCaffrey, Sarah M.; Velez, Anne-Lise Knox; Briefel, Jason Alexander. 2015. What information do people use, trust, and find useful during a disaster Evidence from five large wildfires.

McCaffrey, Sarah. 2009. Crucial factors influencing public acceptance of fuels treatments.

**Describe potential short- and long-term challenges with this project.**

Our most immediate short-term challenge is ensuring that our volunteers can collect data that meets our data standards. We will manage this challenge by continuously testing and evaluating our standard operating procedures and using our quality control standards. We will adaptively manage our training programs based on the outcomes of evaluating this data to adjust any learning gaps in our training protocols. A second short-to-medium term challenge is data management and visualization. Our intent is to sustain this program into the future, which will result in a large dataset that will require management. Furthermore, we aim to make sure that our data is usable for other agencies and therefore, we need to store and manage data in such a manner that it is easily shareable with other database frameworks. For the citizen science program, our longer-term challenge remains sustaining the program financially. The dataset will be more valuable the longer the baseline set of data it contains, but that will require continuous financial support from CPRW.

For our community and stakeholder engagement work, one challenge is measuring impact or change as a result of our work. While it is easy and straightforward to measure participation, detecting whether the information results in learning or change in behavior is more difficult. We are addressing this by incorporating budget to have a consultant assist us with designing better questions for our post event surveys.



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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."

Our proposal will contribute to the State meeting this objective in multiple ways. First, we are specifically aiming to increase the public's awareness of key water issues of interest to the Water Plan; watershed health, river restoration & resiliency, forest health & how it protects water supply, the importance of non-consumptive uses in our basin. Additionally, through our work on the Poudre RiverFest, we will incorporate learning opportunities about the history of & current water use in the Poudre, recreation safety, and ecology/restoration of the Poudre. For each of these tasks, we use simple surveys to document participation and participants appreciation or awareness of the relevant issues.

Finally, our citizen science program provides a direct, hands-on opportunity for residents to learn about key water quality, watershed, and river issues. Volunteers will be surveyed to assess their experiences & motivations for participation.

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.

Our project aligns with the following goals/actions/themes from the Colorado Water Plan

**Section 6.2 (pg 15):** "Colorado's Water Plan uses a grassroots approach to formulate projects and methods that avoid some of the undesirable outcomes of the supply-demand gaps. The plan addresses the gaps from multiple perspectives—such as water storage, reuse, recycling, integrated water management, restoration, and conservation."

Our existing collaborative stakeholder groups by design bring in multiple perspective as they include municipal utilities, federal, state, and regional natural resources agencies, community groups, non-profits and members of the public. In 2019, we are setting some goals to broaden the representativeness of stakeholder committees. Together, our stakeholders have already collaborated on incorporating environmental needs, water quality, and protection/restoration of watershed health into our planning. In 2020, CPRW & our stakeholders will work together on critical next steps for our River Health Assessment work, planning for water quality monitoring & forest restoration to protect water quality, and river resiliency design & prioritization in the river east of I-25.



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Our Lower Poudre River Resiliency Plan included threats to critical infrastructure in its multi-metric evaluation. By building community conversations around river resiliency in the lower Poudre, our project will therefore directly address the Section 6.6 objective to “Maintain watershed health by protecting or restoring watersheds that could affect critical infrastructure and/or environmental and recreational areas”.

By facilitating our participation in groups like Poudre Runs Through It, the Preble’s Jumping Mouse Site Conservation Team, and Poudre River Monitoring and Data Sharing working group, we can help ensure that environmental and recreational needs are included in these collaborative dialogues & ensure that our citizen science data is also incorporated into basin wide water resources planning. This would help meet the goals outlined in Section 6.2 also identifies the South Platte Goals and Measurable Outcomes (pg 25) that recommend projects “take into consideration environmental and recreational attributes when considering storage and other infrastructure projects and methods”.

Section 6.6 Goals: “Understand, protect, maintain, and improve conditions of streams, lakes, wetlands, and riparian areas to promote self-sustaining fisheries and functional riparian and wetland habitat to promote long-term sustainability and resiliency”.

By continuing to directly engage community members about the critical connection between forest health and water supply protection, as well as the vital importance of increasing river resiliency and restoration, our outreach program will directly address this Section 6.6 goal.

One of our main outreach projects is coordinating the annual Poudre RiverFest, which seeks to celebrate, educate, and restore the Cache La Poudre river. Through engaging interactive booths, participants get to learn about the ecology of the river, watershed health, the role the Poudre plays in water law, safety while recreating on the river, and opportunities to help restore and protect the Poudre. This event directly supports all aspects of Section 6.6 goals. The festival tracks attendance and has started using post event surveys to better capture participants experiences. We have so far had participation between 1,000 – 3,000 people and we have set a target to increase participation and the depth of the learning experience in the coming years.

We also aim to improve the quality of CPRW’s education materials so that we can improve our communities understanding of our key issues around watershed health, river resiliency, the connection between forest health and water supply. Our project is therefore proposing to create outreach tools tailored to reflect issues in our basin for use in our outreach booth to use at events like Poudre RiverFest and the annual Poudre Forum, to create short videos on river resiliency, and create better visualizations of our citizen science outcomes.

Section 6.2 also identifies the South Platte Goals and Measurable Outcomes (pg 25) that recommend projects that “monitor, protect and improve watershed water quality and identify and document progress and improvements”.

By engaging stakeholders, residents, and other community members in our citizen science monitoring project, our project will align directly with this goal. By building tools that will document & communicate our monitoring results, our project will help track progress and



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improvements. Indeed, it is part of the purpose of building the program – to track progress towards increasing resiliency in our watershed.

Importantly, Chapter 6 recognizes that the Cache la Poudre River is the only river in Colorado that is currently designated as a Wild and Scenic River (Pg 166 Wild and Scenic Rivers). Our monitoring work includes multiple sites in the Wild & Scenic corridor, providing a unique opportunity for community members to learn about this much valued section of our river, while helping to build a dataset to help protect it.

Section 7.1 Watershed Health & Management Goal to “[Promote] watershed health and [support] the development of watershed coalitions and watershed master plans that address the needs of a diverse set of local stakeholders. through identified actions such as:

- Identify watersheds that are critical to water supply.
- Monitor projects to ensure that objectives are met and maintained.
- Conduct adaptive management as necessary.
- Coordinate statewide watershed-coalition and partnership plans, projects, monitoring, and adaptive management strategies.

Our stakeholder-driven collaborative planning has already identified which sub-watersheds are critical to water supply in the Poudre headwaters. By continuing to convene our stakeholder group, we will be able to further our work on collaboratively monitoring, planning, and assessing conditions in our basin. Our citizen science program will help monitor projects and speak to adaptive management in our watershed.

Critically, this chapter specifically articulates that “*successful watershed management necessitates .. collaborative discussions on managing forests to benefit water supply.... And that watershed health largely focuses on forest-health concerns (Section 7.1 pg 7)*. Our work in the Upper Poudre is driven by restoring and protecting forested headwaters to protect our water supplies and river ecosystems. We will continue to work with our stakeholders to further this goal. Our project will also help local residents understand these critical watershed connections by engaging them directly in citizen science water quality monitoring in the headwaters and providing learning opportunities at outreach events such as the Poudre RiverFest and the Poudre Forum.

Section 7.3 Goal: “Colorado’s Water Plan promotes waters that fully support their classified uses by 2050 through strategies designed to meet Colorado’s current and future consumptive, recreational, and environmental water needs. These strategies incorporate the protection and restoration of water quality as a key objective”.

Our citizen science monitoring program is currently focused on water quality monitoring. We have two main goals with this program – to develop a baseline data set of water quality in high priority reaches (based on CPRW’s Resiliency Plan) and to collect water quality data to measure the impact of prescribed fire, an increasingly important forest management tool, on our waterways. We will not only help people better understand the link between forest health and rivers but will also help state water managers and stakeholders monitor current water quality conditions and evaluate the status of surface-water quality in the CLP. This will help



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assess whether water bodies are meeting regulatory standards and provide additional data for evaluating baseline conditions into the future.

**Section 7.3 D 1.** Stakeholder and Public Outreach (pg 33) “Stakeholder and public outreach is critical to meeting the water quality and -quantity integration goal. 1. Use a watershed approach for outreach and community engagement around water quality, ways to protect water quality, and solutions to water quality issues”.

**AND**

**Section 9.5 Outreach, education, and public engagement (pg 1)** “Colorado’s Water Plan provides technical and financial assistance for high-quality, balanced, and grassroots water education and outreach efforts that inform Coloradans about issues so that they may engage in determining Colorado’s water future”.

With funding from the Colorado Water Plan, CPRW can continue to act as the organizing chair for the Poudre RiverFest, giving CPRW & our partners a strategic opportunity to increase our local residents’ opportunities to learn about these varied water resource and watershed issues in a fun and engaging way. Our outreach program also includes developing community meetings/tours/events to increase people’s understanding of these issues and to create communication tools (videos, web portal, etc) to support these outcomes. In all of our messaging and outreach, we affirm a watershed approach.

**Describe how the project achieves the education, outreach, and public engagement goals set forth in the applicable Basin Implementation Plan(s).**

The South Platte BIP defines facilitating “effective South Platte communications and outreach programs that complement the State’s overall program” as one of the 11 Key Plan Elements. In Chapter 4, Projects & Methods, section 4.1 Education, Participation, and Outreach includes the following Suggested Activities (4.1.3 pg 193) ‘Develop Messages’ and ‘Develop and Maintain Basin-Specific Outreach Tools and Approaches’. As part of our work, we will develop and continue to refine key watershed and river resiliency messages by creating a messaging document. We have already created one for our headwaters work that we will continue to refine based on feedback from our target audiences. We will complete one for our work on river resiliency in the Lower Poudre. Further, we intend to create other tools, data visualization tools, and creating basin specific outreach tools (e.g. watershed model) for our outreach booth to be used at community events. Our proposed activities are all in line with activities and outreach tools described in the South Platte BIP Table 4-3 (pg 192), Engagement Tools and Intended Audiences.

Additionally, our proposed activities all support the following other SP BIP goals through education and outreach:

1. S.5.5 Protect and enhance environmental and recreation attributes. Recommendation: Fill existing data gaps regarding protection of environmental and recreational attributes in order to better understand the adequacy of existing and future protections.

**AND**

2. S.5.9 Facilitate effective South Platte communications and outreach programs that complement the state’s overall program. Recommendation: Design and implement an





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intensive education, participation and outreach program designed to generate a lasting baseline of public awareness and support.

Our citizen science data will help fill data gaps regarding environmental attributes and will help generate a vital baseline data set that will be communicated to the public through our reports, presentations, and web portal.

Describe how the project achieves the basin roundtable's PEPO Education Action Plans.

The South Platte Basin Roundtable Education Action Plan includes "II. Educational Priorities & Implementation: Overall goals of the Education and Outreach Committee of the South Platte Basin Roundtable include a focus on educating and engaging the public, decision-makers and elected officials on the scope and purpose of the BIP and the State Water Plan, with an over-arching theme of focusing on solutions-oriented water supply planning".

Our project will create multiple pathways to help achieve this goal. By engaging residents directly in the development of high-quality water data, we will empower participants by facilitating their participation in water resource science. Participants will gain hands on knowledge of the Poudre's water resources, the connection between how forest management affects water quality, and protects downstream water uses. This program will provide a venue for volunteers to interact and learn about water resource challenges and science. Participants and other members of the public will also be able to learn more about the Poudre's water resources through our reporting of the data, trends, and outcomes. This information will be available through our newsletter, website, and social media. It will also be uploaded into statewide water quality databases for use by decision makers on baseline conditions in our basin.

#### Innovation Track

Describe how the project enhances water innovation efforts and supports a water innovation ecosystem in Colorado.

Describe how the project engages/leverages Colorado's innovation community to help solve our state's water challenges.

Describe how the project helps advance or develop a solution to a water need identified through TAP-IN and other water innovation challenges. What is the problem/need/challenge?





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Innovation Track
Describe how this project impacts current or emerging trends; technologies; clusters, sectors, or groups in water innovation.

**COLORADO****Colorado Water  
Conservation Board**

Department of Natural Resources

**Colorado Water Conservation Board****Water Plan Grant - Exhibit B****Budget and Schedule****Prepared Date: 7/28/2019****Name of Applicant: Coalition for the Poudre River Watershed****Name of Water Project: Engaging Stakeholders & Communities in the Poudre Through****Project Start Date: 1/1/2019****Project End Date: 12/31/2022**

<b>Task No.</b>	<b>Task Description</b>	<b>Task Start Date</b>	<b>Task End Date</b>	<b>Grant Funding Request</b>	<b>Match Funding</b>	<b>Total</b>
1	CPRW proj mgmt	1/1/2020	12/30/2022	\$3,600	\$0	\$3,600
2	Engage Stakeholders	1/1/2020	11/1/2022	\$35,625	\$38,580	\$74,205
3	Citizen Science	3/1/2020	11/30/2021	\$15,500	\$27,800	\$43,300
4	Community Outreach & Engagement	1/1/2020	11/1/2022	\$13,650	\$2,500	\$16,150
<b>Total</b>				<b>\$68,375</b>	<b>\$68,880</b>	<b>\$137,255</b>



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Colorado Water Conservation Board
<b>Water Plan Grant - Exhibit A</b>

Statement Of Work	
<b>Date:</b>	7/28/2019
<b>Name of Grantee:</b>	Coalition for the Poudre River Watershed
<b>Name of Water Project:</b>	Engaging Stakeholders & Communities in the Poudre Through Citizen Science, Collaboration, & Outreach
<b>Funding Source:</b>	U.S. Forest Service Rocky Mountain Research Station; Bureau of Reclamation WaterSmart Phase 1
<b>Water Project Overview:</b>	
<p>This project has two major goals: build stakeholder/community conversations around water and watershed health in the Cache La Poudre (CLP) and increase community awareness of water resources in the Poudre by empowering them to participate in vital watershed monitoring through CPRW's nascent citizen science monitoring water quality monitoring program.</p> <p>CPRW has successfully built a stakeholder team that has met regularly for the past 5 years. Through that collaboration, we develop a collaborative, science-driven master plan for the Upper Poudre that identifies which sub-drainages are most likely to have negative impacts to rivers, water supplies, and communities due to high intensity wildfires. Since completing that plan, we have steadily worked towards implanting forest resiliency projects together to help protect our watershed and its resources. In 2019, we launched an effort to extend the Poudre River Health Assessment Framework. Implemented in the urban corridor by City of Fort Collins, into the headwaters. Similarly, CPRW has been working closely with stakeholders in the lower Poudre (east of the I-25) to develop Lower Poudre River Resiliency Master Plan. CPRW aims to expand our stakeholder group and engage river community members in furthering river restoration design in 1-3 high priority reaches. To support this work, CPRW is also proposing to conduct extensive community outreach in the upper and lower basin through workshops, tours, community meetings, and co-hosting an annual Poudre RiverFest. CPRW will also participate in existing external collaborative water/river related dialogues to ensure that watershed health/non-consumptive uses are adequately addressed.</p> <p>Finally, CPRW will build and expand our citizen science water quality monitoring program for the twin purposes of providing a hands-on mechanism for residents to learn more about critical watershed issues like forest management, drinking water supply protection, and river health, but also to provide a high-quality baseline water quality dataset that can be used by river and forest managers.</p>	
<b>Project Objectives:</b>	



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To achieve these two goals, we propose the following measurable objectives:

1. Build and maintain stakeholder collaboration around key watershed issues in the Cache La Poudre (CLP) by convening meetings of our advisory stakeholder with representatives from the USFS, Co State Forest Service, NRCS, county government representatives, local water utilities, local non-profits and community groups. To achieve this, we will coordinate 3 -4 meetings per year to focus on river health assessment, forest resiliency projects to protect water supplies, and monitoring water quality.
2. Expanding stakeholder collaboration and community engagement in the Lower Poudre (east of I-25) to build support for river restoration. This work will result in 1 –2 river resiliency restoration designs informed by community and stakeholder input.
3. Ensure watershed health, non-consumptive concerns, & CPRW's water quality data are incorporated in water resources planning in the basin by participating in existing discussions/work groups (Poudre Runs Through It, Poudre River Monitoring and Data Sharing Work Group, etc).
4. Increase the awareness and understanding of water and watershed issues in the Poudre basin through community engagement and outreach events.
5. Empower local residents' ability to contribute to water resource decision making through CPRW's Citizen Science Water Quality Monitoring Program.

Tasks
<b>Task 1 – Project/Contract Management</b>
<b>Description of Task:</b>
CPRW staff will ensure that all administrative aspects of the project are managed efficiently and in a timely manner.
<b>Method/Procedure:</b>



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Tasks
<ul style="list-style-type: none"><li>• Maintaining accurate documentation of project metrics, timelines &amp; milestones,</li><li>• Tracking costs and budget</li><li>• Preparing requests for reimbursements</li><li>• Completing project reporting.</li></ul>
<b>Deliverable: Timely &amp; accurate grant reports and requests for reimbursements</b>
<ul style="list-style-type: none"><li>• A well-managed project with accurate reporting metrics</li></ul>

Tasks
<b>Task 2 – Build the stakeholder conversation in the CLP around water and watershed health</b>
Description of Task:



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## Tasks

CPRW has successfully managed a multi-stakeholder watershed stakeholder committee for the past five years. To date our focus has been on post wildfire recovery, wildfire/forest resiliency planning & implementation to protect rivers and water supplies and developing a River Health Assessment Framework modelled after the work completed by the City of Fort Utilities/Natural Areas.

### Sub-task 1: Sustain CPRW's Upper Poudre Stakeholder Advisory Team

- In 2019, CPRW will have completed the River Health Assessment Framework (RHAF) for the Upper Poudre. In 2020 CPRW & our stakeholders will work together to create a strategy for integrating the outcomes from that effort with that of the City of Fort Collins RHAF efforts in the urban portions of the basin, and the lower Poudre (get all 'sections' of the river on meaningful & coordinated schedule to ensure data comparability).
- Continue to convene and sustain stakeholder team to identify additional high priority forest resiliency and other watershed protection projects
- Complete a strategic plan for the group

### Sub-task 2: Participate in existing basin collaborative dialogues

- Participate in the Poudre Runs Through It Study/Action Work Group (PRTI) – a diverse group of regional leaders and experts that seeks to make the Poudre the best example of a healthy/working river. As part of this work, CPRW will participate in the Poudre Flows Coordination & Communication sub-committee to improve communication about water use across the basin.
- Provide input & data to the Poudre River Monitoring and Data Sharing working group. This group has formed to discuss ways to leverage opportunities for data sharing and for coordination of water quality monitoring in the Poudre River watershed led by Northern Water.
- Engage the Preble's Jumping Mouse Site Specific Conservation Team. The North Fork of the Poudre is designated Preble's habitat, is also the location of two proposed water storage reservoir expansion projects and is a high priority for forest health restoration work by CPRW and its partners. It is thus critical that CPRW participate in planning conversations regarding this listed species to ensure we can design projects that are protective of the Preble's Jumping Mouse and leverage opportunities to partner with others to achieve multi-objective projects.

### Sub-task 3: Build and expand CPRW's Lower Poudre Advisory Stakeholder Team

- Invite additional representatives from local environmental groups, ag representatives, and/or other water utilities, among others
- Work together to select 1 – 3 priority river resiliency projects to further restoration planning
- Organize community meetings/tours/events to gather input from river adjacent communities regarding river restoration design

## Method/Procedure:



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Tasks
<ul style="list-style-type: none"><li>• Convene 3 -4 stakeholder meetings per year in upper and lower watersheds</li><li>• Consult with stakeholders on developing a strategy for integrating the various RHAF initiatives</li><li>• Engage prospective new stakeholders through community meetings, advisory meetings, and tours.</li><li>• Engage river adjacent businesses/industries in river resiliency meetings/tours/workshops</li><li>• Attend meetings of existing water resource related collaborative processes</li><li>• Provide our water quality data to the Poudre River Monitoring and Data Sharing working group</li></ul>
<b>Deliverable:</b>
<ul style="list-style-type: none"><li>• A collaborative plan &amp; schedule for implementing the River Health Assessment Framework across the whole basin</li><li>• Engaged CPRW stakeholders that consider multi-perspectives when developing strategies, restoration projects, or watershed projects</li><li>• Input on watershed health and environmental concerns in on-going water collaborative processes</li><li>• 1 – 2 resilient river restoration designs for the Poudre corridor east of I-25 developed with input from stakeholders and community members</li><li>• 1-2 forest/watershed protection projects selected through collaborative input without upper Poudre stakeholders.</li></ul>

Tasks
<b>Task 3: Empower &amp; Engage the CLP community through Community Science</b>
<p>CPRW will continue to build our new citizen science water quality monitoring program to create a scientifically defensible dataset on water quality for areas of our watershed with critical data gaps. In this phase of the program, we are focusing our data monitoring around two key monitoring objectives 1-collecting baseline water quality data in high priority reaches based on CPRW's Resiliency Plan &amp; 2 – collecting data to better understand impacts of forest management activities like prescribed fire on water quality.</p> <p>Sub-Task 1: Engage volunteers</p> <ul style="list-style-type: none"><li>• Recruit new volunteers</li><li>• Train 10 – 15 volunteers per year &amp; engage returning volunteers</li><li>• Each year, deploy volunteers to sampling 1x a month from May-October to collect basic water with hand-held probes and collect grab samples for lab analysis on nutrients, turbidity, and other key water chemistry indicators</li></ul> <p>Sub-task 2: Analyze data</p> <ul style="list-style-type: none"><li>• Work with scientists at Rocky Mountain Research Station to analyze samples</li><li>• Finalize database for managing data</li><li>• Analyze data for QA/QC and data trends; revise training protocols &amp; SoPs as necessary</li></ul>





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Tasks
<p>Sub-task 3: Assess program and communicate results</p> <ul style="list-style-type: none"><li>• Create mechanisms to identify volunteers' motivations for participating and their learning outcomes</li><li>• Upload data to state-wide databases</li><li>• Communicate results of data with the public</li></ul>
<p><b>Method/Procedure:</b></p>
<p>Sub-Task 1: Engage volunteers</p> <ul style="list-style-type: none"><li>• Use social media, e-newsletter, &amp; outreach events to recruit</li><li>• Host 1-2 training events (lecture with field training) annually</li><li>• Provide field monitoring kit to volunteers with detailed protocols, directions, safety, and monitoring equipment and data sheets</li><li>• Annually host thank you event for volunteers to communicate data results with the volunteers and celebrate their commitment; gather feedback from them on their experiences</li></ul> <p>Sub-task 2: Analyze data</p> <ul style="list-style-type: none"><li>• Conduct statistical analysis of data and review quality control</li><li>• Upload data that meets quality standards into CPRW database</li><li>• If quality control indicates the need, adjust protocols and training materials to ensure improved data accuracy</li><li>• Pilot incorporating additional monitoring components such as geomorphology/sediment transport</li></ul> <p>Sub-task 3: Assess program and communicate results</p> <ul style="list-style-type: none"><li>• Survey volunteers for feedback on their participation and motivations</li><li>• Work with a consultant to design simple and easy to use data visualization tool to communicate data results on our website</li><li>• After reviewing data quality, submit data to the Colorado Data Sharing Network</li><li>• Create annual report describing data results</li></ul>
<p><b>Deliverable:</b></p>



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Tasks
<ul style="list-style-type: none"><li>• A well-trained corps of citizen scientists with increased awareness of water issues in the Poudre</li><li>• Scientifically defensible water quality dataset for the upper Poudre</li></ul>

Tasks
<b>Task 4 – Increase community awareness and knowledge of the Poudre &amp; its water resource/watershed health issues</b>
Description of Task: <p>CPRW will directly engage residents of the Cache La Poudre (CLP) watershed through a variety of outreach and engagement efforts to increase residents understanding and awareness of key watershed and water resource issues that affect the Poudre.</p> <p>Sub-task 1: Increase awareness/understanding of watershed issues &amp; acceptance of watershed projects of our local residents</p> <ul style="list-style-type: none"><li>• Organize and host various engagement events to engage local residents on watershed issues</li><li>• Organize tours of the watershed and river restoration projects to increase peoples understanding of watershed protection and restoration</li></ul> <p>Sub-task 2: Improve CPRW’s outreach tools to improve education outcomes</p> <ul style="list-style-type: none"><li>• Work with stakeholders to develop various communication tools on river resiliency (mini-videos, improved factsheets on the value of river resiliency, interactive ESRI storymaps on our river resiliency work, etc.)</li><li>• Develop new outreach tools for CPRW’s outreach booth (watershed models, interactive displays, etc.)</li></ul> <p>Sub-task 3: Ensure the success of the annual Poudre RiverFest</p> <ul style="list-style-type: none"><li>• Coordinate collaborative planning team made up of 4 other non-profit partners</li><li>• Lead goal planning for the annual event</li><li>• Ensure successful implementation of event logistics</li></ul>
Method/Procedure:



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Tasks
<ul style="list-style-type: none"><li>• Coordinate bi-monthly festival planning committee meetings</li><li>• Work with planning committee to increase &amp; deepen the learning opportunities at the event</li><li>• Create opportunities to support specific river restoration opportunities through the event</li><li>• Connect the local business community more closely with the Poudre RiverFest to engage them in learning and supporting a healthy and resilient Poudre River.</li><li>• Hire event coordinator and provide oversight of their tasks to ensure milestones are met</li><li>• Coordinate day-of logistics with volunteers, planning team, and staff</li></ul>
<b>Deliverable:</b>
<ul style="list-style-type: none"><li>• One communication plan that focuses on effective messaging around river resiliency and its value to communities</li><li>• Increased awareness and understanding of watershed health issues and values by residents documented by participation in workshops/tours/meetings and survey results from outreach events</li><li>• Participation of 1500-3000 local residents in the Poudre RiverFest annually</li><li>• 2 -4 activities/booths/hands-on engagement activities offered each year at the festival to increase resident's awareness of water use &amp; history, river ecology &amp; restoration, and river recreation &amp; safety.</li><li>• Survey results that quantify Poudre RiverFest participants experience and learning at the festival.</li></ul>



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### 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.

### 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.



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Performance Measures