



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

Matthew.Stearns@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

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	Open Water Foundation	
Name of Water Project	River Basin Information Websites	
CWP Grant Request Amount		\$ 25,000
Other Funding Sources <u>WSRF South Platte & Metro</u>		\$ 30,000
Other Funding Sources <u>WSRF Statewide (pending)</u>		\$15,000
Other Funding Sources <u>3rd party match (pending)</u>		\$ 50,000
Applicant Funding Contribution		\$ 50,000
Total Project Cost		\$ 170,000



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Applicant & Grantee Information	
Name of Grantee(s):	Open Water Foundation
Mailing Address:	320 East Vine Dr. Suite 203, Fort Collins, CO 80524
FEIN	46-2676240
Organization Contact:	Steve Malers
Position/Title:	CEO
Email:	steve.malers@openwaterfoundation.org
Phone:	970-988-1447
Grant Management Contact:	Steve Malers
Position/Title:	CEO
Email:	steve.malers@openwaterfoundation.org
Phone:	970-988-1447
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).	
<p>The Open Water Foundation (OWF) is a nonprofit social enterprise located in Fort Collins that focuses on open source software and open data solutions to make better water resources decisions. We help improve access to data and technologies and increase transparency on complex water issues.</p>	



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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.
X	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)
X	Other

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>	
	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. <i>Applicable Exhibit A Task(s):</i>	
X	Other	Explain: A parallel WSRF grant application is being submitted.



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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, Boulder, also South Platte Basin including Metro
Latitude	40.76
Longitude	105.45

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.

The Open Water Foundation (OWF) proposes to fully implement the Poudre Basin Information website in order to provide cross-jurisdictional information related to water issues in the basin. See the initial website (<http://poudre.openwaterfoundation.org/latest>), which has so far been developed primarily using OWF research and development funding. The website integrates information from many data sources including local up to federal datasets. The information can be used for education and to inform planning and operational decisions. The website is a community resource with a scope beyond any single project or organization and can serve many entities. All software, data, analysis workflows, and documentation are open source and support collaboration.

The amount of funding that is ultimately obtained, including matching funds, will allow full implementation of the Poudre Basin Information website as well as implementing additional websites for basins within the larger South Platte Basin, such as Big Thompson and Saint Vrain. These basins have been impacted by wildfires, floods, and droughts and also involve issues for multiple sectors (municipal, agricultural, environment, recreation, industry). Basin websites will be linked to the South Platte Roundtable website to facilitate use by Roundtable members and the public.

Note that this CWP Engagement and Innovation grant proposal is being submitted parallel to a WSRF grant application. The text from the WSRF proposal is being included in this application to a large degree.



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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)	
X	Efficiency Savings (indicate acre-feet/year OR dollars/year) – see below	
	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	
X	Number of Coloradans Impacted by Engagement Activity – This project is expected to directly impact numerous persons and entities involved in water-related issues in Northern Colorado, in particular participants in Poudre Runs Through It and constituent organizations (many important water entities in the basin), and South Platte and Metro Roundtables and constituent organizations. The project will also benefit water education programs for various ages and knowledge levels and serve as a resource for onboarding staff and board members for various organizations.	
X	Other	Explain: This project will provide cross-jurisdictional integrated information that helps to achieve all of the above measurable outcomes as well as supporting additional outcomes such as improved water quality, forest health, and open space. The website is a community resource that results in efficiency savings by sharing costs for the website and providing integrated information that helps with other measurable results.

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;)



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Water touches everything and water planners and decision-makers need to understand many issues while focusing on the mission and operation of each organization, as well as collaborating on regional projects. Specific water projects and uses have broadly been categorized into use types of “agricultural”, “municipal”, “industrial”, “environmental”, and “recreational”. The South Platte and Metro roundtables have prioritized multi-purpose projects that benefit more than one use category. Projects that provide water supply while minimizing negative impacts to the environment are also desirable. Because of the cross-jurisdictional, interrelated nature of water, there is a need for cross-jurisdictional, integrated information. This information should be context-specific and also emphasize connections. There are many sources of data and information; however, data and information are often difficult to find and integrate to support planning, decisions and actions. This leads to repeated efforts, inefficiencies, incomplete understanding of issues, and wasted funding.

This project will address the need for information, leverage previous work and ongoing projects, and benefit future projects that need information. The results of the project will result in a community information resource that benefits many entities and the public, focusing on basin scale (~DWR water district) websites to allow the issues of the basin to be emphasized. The following are examples of how this project aligns with the goals of CWP, BIP, and WSRF Criteria Guidelines:

- This project addresses the WSRF Criteria Guidelines:
 - Demonstrates a commitment to collaboration by supporting involvement of a large group of stakeholders and the public.
 - Addresses an identified water gap by simplifying access to water demand and use data, population, etc. needed to understand water gap trends, causes, and opportunities.
 - Demonstrates sustainability by providing basin-wide information about trends, critical values, and impacts. An open source approach is also sustainable because it encourages sharing website development and maintenance costs.
- The Colorado Water Plan defines measurable objectives such as water conservation goals, agricultural water sharing, and protecting streams. However, the numerical goals set at a state level lack context at a local level. This project helps connect local data such as water use and conservation to the larger goals by showing trends and integrating data such as population growth and water use. A successful CWP will require actions at the local level that cumulatively achieve statewide goals.
- The “Outreach, Education, and Public Engagement” chapter of the CWP states that “To achieve a sustainable water future, Coloradans must be sophisticated water users”. This project helps to achieve that outcome by providing context and information at a basin level so that citizens can be informed and take action. Lacking an integrated information source, people will continue to spend much more time finding and integrating information...time that they often don’t have.
- South Platte and Metro Basin Implementation Plan emphasizes the need for multi-purpose projects. However, gaining an understanding of the interconnections between water issues across spatial and temporal scales is difficult. This project will help explain those complexities and identify opportunities for multi-purpose projects.
- Anyone who has worked with water data in Colorado knows that it is complicated. This project provides a simple interface for complex topics, and allows a deep dive in the original source data. The results of the project can be used to onboard and educate Roundtable members and other water leaders in the basin. This will allow those individuals and their organizations to more efficiently and effectively perform their work in support of CWP, BIP, and implementation projects.

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.



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This project leverages many studies and other resources and is complementary to all CWCB programs. In particular, datasets from Colorado's Decision Support Systems (CDSS) are used to create maps and information products. Population data from the State Demographer Office and datasets from Colorado Information Marketplace are also used. Many of the State's datasets, technologies, and reports are complex and difficult for the public and even water professionals to understand. This project provides information so that people of different ages, knowledge, and skills can understand. Information is provided with basin context so that website users can relate the information to their local perspective. Additionally, where appropriate, statewide studies and information are provided to connect basin issues to broader issues, such as for climate change and changing demographics of rural and urban populations.

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.

The Open Water Foundation has received multiple grants from the CWCB related to decision support systems, basin implementation plan, and other projects. Some of the most recent and relevant grants are listed below. Most projects for the CWCB did not involve Roundtable approval.

- Open Water Foundation, "StateMod Dataset Cloud Publishing", CWCB, Date?, POGG1,PDAA,202000002053
- Open Water Foundation, "OpenCDSS (Transfer CDSS to Open Source)", CWCB, Date?, CT PDAA 2017-1401
- Open Water Foundation, "South Platte Roundtable Data Platform" (stories that are now on the Roundtable website), South Platte & Metro RT, Date?, POGG1 2018-451 – 20% SPBRT, 20% SPBRT, 60% State
- Open Water Foundation, "Agricultural Land and Water Buffer Feasibility Analysis", South Platte & Metro RT, March 18, 2015, CTGG1 2015-3419 – Fiscal agent
- Open Water Foundation, subcontractor to West Sage for South Platte and Metro BIP

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.

This project does not have any TABOR issues.



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Submittal Checklist	
X	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract .
Exhibit A	
X	Statement of Work ⁽¹⁾ – same as WSRF statement of work
X	Budget & Schedule ⁽¹⁾ – same as WSRF budget and schedule
x	Engineer's statement of probable cost (projects over \$100,000) – OWF has extensive experience with the software and approach and ensures that the cost estimate is reasonable.
X	Letters of Matching and/or Pending 3 rd Party Commitments ⁽¹⁾
Exhibit C	
X	Map (if applicable) ⁽¹⁾ – same as for WSRF
X	Photos/Drawings/Reports – same as WSRF - see map
X	Letters of Support (Optional) – same as for WSRF
x	Certificate of Insurance (General, Auto, & Workers' Comp.) ⁽²⁾ – already in place with the CWCB
x	Certificate of Good Standing with Colorado Secretary of State ⁽²⁾ – already in place with the CWCB
x	W-9 ⁽²⁾ – already in place with the CWCB
	Independent Contractor Form ⁽²⁾ (If applicant is individual, not company/organization)
Engagement & Innovation Grant Applicants ONLY	
X	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)?
This project will implement cross-jurisdictional information websites for river basins in the South Platte Basin, initially focusing on Poudre Basin and then scaling to other basins. The websites will be a community resource that benefits citizens with varying levels of education and knowledge. Information topics are presented with maps and data visualizations and span different temporal timescales including historical, current conditions, seasonal outlook, and future planning. The project is closely aligned with the purpose of the grant fund and supports innovation and engagement. The project provides access to data and information and encourages community engagement and collaboration.
Who is/are the target audience(s)? How will you reach them? How will you involve the community?
The project has multiple target audiences including the following, and other groups: <ul style="list-style-type: none">• Poudre Runs Through It Work Group and constituents• South Platte and Metro Basin Roundtables and constituents• Water educators, such as water leaders programs, STEM educators, and roundtable PEPO• Nonprofit and other organizations with boards and commissions The audience and broader community will be reached by coordinated outreach to the above and other groups, encouraging entities to link to the websites to encourage more traffic, presenting the websites at virtual and in-person conferences and webinars, and by individual follow-up with "influencers" in the water community.
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?



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Overview (answer for both tracks)
The project relies on a core technical team at the Open Water Foundation to implement the websites. However, the design of the software and websites is such that many entities are involved in providing datasets and information at basin and sometimes state level. OWF staff work with key partners such as Poudre Runs Through It Work Group (PRTI) members and other leading entities in other basins. These entities represent diverse interests from municipal, agricultural, environmental, industrial, recreational, and other perspectives. OWF is pursuing funding from members of PRTI and other entities in Northern Colorado. This is challenging given COVID-19 impacts and the focus on wildfire mitigation. OWF is attempting to partner with entities to support wildfire recovery efforts by providing useful information.
Describe how you plan to measure and evaluate the success and impact of the project?
OWF will use Google Analytics to track website traffic. Access to the websites can also be measured by the number of organizations that link to the website, such as water providers, government, educators, nonprofits, etc. OWF will also work to link the websites to southplattebasin.com. At a personal level, OWF will communicate with water professionals, attendees at virtual and in-person events, and education program leaders such as Water Education Colorado and Colorado State University.
What research, evidence, and data support your project?
The current Poudre Basin Information prototype website provides access to over 20 water and land datasets and it is envisioned that up to 50 or more datasets may ultimately be included. OWF creates integrated maps and visualizations that are easy to use, provide documentation explaining maps and datasets, and links back to original data. Documentation often links to useful websites, studies, and reports. Because the websites are intended to be living resources, new datasets and information will be added over time.
Describe potential short- and long-term challenges with this project.
The main challenge is to secure enough funding for this type of work, especially given COVID-19 budget cuts. Many funding programs focus on “shovel ready” physical projects. However, almost every water-related project has a strong dependence on data and information. Many studies spend project money to reinvent and redo data work whereas this project would be an investment to create sustainable data and information resources that can benefit other projects and the public. The work done on this project can be scaled to other basins in the State and ideally other Roundtables will be receptive towards investing in additional websites once initial websites are implemented and demonstrate value. The time necessary to contact many organizations can be daunting, which is why linking the basin websites to high-visibility sites is important.

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.).

Answers are provided for both tracks since this project strongly aligns with both tracks.

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.”



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The “Outreach, Education, and Public Engagement” chapter 9.5 of the CWP states in its first sentence that “To achieve a sustainable water future, Coloradans must be sophisticated water users”. The initial Poudre Basin Information website has explored how to achieve this outcome by providing access to comprehensive cross-jurisdictional information with appropriate context. This can be achieved by presenting information with spatial and temporal context so that people can understand trends, magnitudes/limits, and comparisons. Water education is like many things in that “you don’t need it until you need it”. Quite often water education seems to require matching a program with a need. This project provides a basin-wide resource that relates to people’s place-based understanding of the world and water issues in their community, regardless of their age or knowledge level. The websites will include many water topics, connects the dots between topics and points to additional resources, entities, and programs for more information.

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.

The websites will present datasets and information for all categories of demand and supply in order to illustrate that water issues are related and occur within a system. For example, land use is tied to population growth and has impacts on water demand and supplies. Water for agriculture can benefit the environment, such as for wetlands and as water flows to downstream agricultural areas. The initial Poudre Basin Information prototype has pointed out many areas of interaction that will be explored.

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

The South Platte and Metro Basin Implementation Plan is a long document that is difficult to read, search, and absorb. It is likely that very few people have read the BIP in its entirety and retain what it says. Finding information in the document due to its length is a challenge. In contrast, the websites proposed in this project (and based on the initial Poudre Basin Information website) provide “fingertip” access to information on many topics in a map-based form, which most people understand. The BIP describes leveraging educational resources and performing outreach through the website and ongoing events. Rather than requiring that extensive new education materials and programs are developed, the websites will efficiently support existing and new outreach, education programs, and presentations.

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

The basin information websites can be linked to the southplattebasin.com website, thereby leveraging resources in both directions and increasing the number of visitors on the roundtable website. The basin information websites will also help Roundtable members and their constituents better understand issues of others in the basin so that the Roundtables can do their work more effectively and efficiently. The project will also increase educational resources for the public (to learn on their own schedule) and educational programs, by providing useful foundational datasets and information. Incremental enhancements to the websites will be completed more efficiently in response to new requests for information.

Innovation Track

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



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Innovation Track
The Open Water Foundation is located in the Innosphere building in Fort Collins, which is a start-up incubator that is associated with innovation. OWF also uses an open innovation business model whereby public investment results in innovative open source software tools that can be applied to complex water resources issues. In short, OWF is highly involved with water innovation in Northern Colorado and funding this project will support that ecosystem.
Describe how the project engages/leverages Colorado's innovation community to help solve our state's water challenges.
OWF's open innovation model and willingness to collaborate helps solve Colorado's complex water challenges. Collaboration is difficult and takes time. Shared data and information such as provided by the proposed websites shortens the runway to achieving meaningful results. Projects can spend more resources on solving water challenges rather than duplicating data discovery and publishing data. The websites can be used in collaborative settings to streamline discussions and data-driven decisions.
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?
OWF previously participated in TAP-IN and Trout Tank H20. This experience helped us formulate an approach and resulted in the development of new software tools that are being used in this project. The TAP-IN experience illustrated the need for data and information. For example, OWF has created statewide datasets of municipalities and water providers that cross-reference identifiers for different government agencies. These datasets can be used to streamline analysis of statewide water issues. The need is for an organization such as OWF to help sustain such data and tools, rather than relying on projects that deliver a partial solution. By providing the datasets and information to the public, we are building the data infrastructure for water. We may participate in TAP-IN again based on progress on solutions.
Describe how this project impacts current or emerging trends; technologies; clusters, sectors, or groups in water innovation.
OWF was a member of the Colorado Water Innovation Cluster before its demise. We have seen multiple such clusters fail for various reasons (member competition, lack of projects, long timelines, etc.). OWF CEO Steve Malers is also a member of the Poudre Runs Through It Work Group (PRTI), which is a loose association of parties interested in making the Poudre the best example of a healthy working river. PRTI's model allows for a free flow of ideas. OWF also works with organizations such as the Babbitt Center for Land and Water Policy and the Water Center at Colorado State University. Our experience is that many approaches are necessary to encourage innovation and there is no perfect recipe. Our goal is to be a leader in open innovation because there are many water problems to solve and we need to remove friction from the innovation process if we can.



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Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	Nov 30, 2020
Name of Grantee:	Open Water Foundation
Name of Water Project:	River Basin Information Websites
Funding Source:	South Platte, Metro, Statewide (pending) WSRF, CWP Engagement and Outreach (pending), Matching funds
Water Project Overview:	
<p>The scope is the same as provided in the parallel WSRF grant application. with minor changes.</p> <p>The Open Water Foundation (OWF) proposes to fully implement the Poudre Basin Information website in order to provide cross-jurisdictional information related to water issues in the basin. See the initial website version (http://poudre.openwaterfoundation.org/latest), which has so far been developed primarily using OWF research and development funding. The website integrates information from many data sources including local up to federal datasets. The information can be used for education and to inform planning and operational decisions. The website is a community resource with a scope beyond any single project or organization and can serve many entities. All software, data, analysis workflows, and documentation are open source and support collaboration.</p> <p>The amount of funding that is ultimately obtained, including matching funds, will allow full implementation of the Poudre Basin Information website as well as implementing additional websites for basins within the larger South Platte Basin, such as Big Thompson and Saint Vrain. These basins have been impacted by wildfires, floods, and droughts and also involve issues for multiple sectors (municipal, agricultural, environment, recreation, industry). Basin websites will be linked to the South Platte Roundtable website to facilitate use by Roundtable members and the public.</p>	
Project Objectives:	



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Objectives of the project include:

1. **Demonstrate that integrated data and information for the Poudre (and other basins) as a community resource increases knowledge, collaboration, efficiency, and transparency; reduces costs to organizations and other projects; and leads to solutions for complex water issues.**
2. Effectively use public datasets, and develop new datasets as necessary, to provide context-specific information products relevant to the river basin, focusing on maps and related data. Datasets from multiple sources will be integrated to provide cross-jurisdictional information.
3. Provide data and information resources to support education, outreach, and engagement, and facilitate innovation.
4. Enhance existing (and free to use) open source software tools from Colorado's Decision Support Systems (CDSS) and Open Water Foundation to provide cost-effective technology solutions to water organizations and the public.
5. Implement automated data processing workflows to create information products, which can be implemented in multiple basins within and outside of this project.
6. Establish value and relationships that will encourage ongoing funding by organizations that use the websites for basin-wide education, outreach, planning, and operations.
7. An immediate objective is to streamline information access to help with wildfire recovery.

Tasks
Task 1 – Software Development
Description of Task: This task will enhance and support the software used for basin information websites. The Open Water Foundation (OWF) has already invested significant resources to develop the software tools used for this project, including InfoMapper and GeoProcessor software. Colorado's Decision Support Systems (CDSS) software such as HydroBase and TSTool will also be used. It is expected that additional software enhancements will be needed as websites are implemented and OWF responds to user feedback. Therefore, this task will focus on software development for the open source software products, including implementation of automated tests and creating documentation.
Method/Procedure:



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Tasks
Software is maintained in public GitHub repositories, which provide tools to software changes over time and manage product issues. Software development uses an agile approach where a design roadmap is developed and software enhancements and bug fixes are completed as needed to implement required functionality. This methodology is well established for CDSS and OWF software development.
Deliverable:
The basin information websites will be available to the public (see Task 2). Open source software, tests, and documentation, will be made available in GitHub repositories including those for OpenCDSS (see: https://github.com/OpenCDSS) and Open Water Foundation (see: https://github.com/OpenWaterFoundation). These deliverables will be publicly available from the first day of the project and will be updated as the project is completed.

Tasks
Task 2 – Data Processing, Website Configuration, and Documentation
Description of Task:



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Tasks
<p>Website information products are organized by sector/theme, and timescales, as illustrated by the initial Poudre Basin Information website (http://poudre.openwaterfoundation.org/latest). For example, information products indicate whether the product focuses on agriculture, municipal, environment, recreation, education, or industry. Information is presented with timescale for historical, current conditions, seasonal outlook, and future planning. This task will perform work necessary to create maps and other information products in the websites. Information products that are currently disabled will be fully implemented.</p>
Method/Procedure:
<p>Implementing maps and other information products involves researching data availability, automating data processing to create integrated information products, configuring the website to display the maps and visualizations, and documenting the products for website users. OWF will implement automated workflows using appropriate tools based on data source and format. For example, some maps can directly use data from web services. Other maps require downloading and processing data. The initial Poudre Basin Information website includes approximately 70 maps and information products, many of which need to be completed. All workflows will be documented so that the public can understand data sources and processing. Outreach efforts (see Task 3) will generate feedback resulting in enhancements to the information products.</p>
Deliverable:
<p>The published websites will be available to the public. Documented workflows and configurations to produce website maps and other information products, available in GitHub repositories.</p>

Tasks
Task 3 – Outreach
Description of Task:



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Tasks
<p>The Open Water Foundation (OWF) will perform outreach activities to entities within and outside of the basins including:</p> <ul style="list-style-type: none">• Poudre Runs Through It work group and its member organizations including Coalition for the Poudre River Watershed• Roundtables and their member organizations• Nonprofits• Organizations that perform water education• Government including water providers and CWCB• Others <p>The goal is to encourage as much use of the websites as possible in order to increase knowledge and effectiveness of organizations and individuals, and respond to feedback from website users.</p>
Method/Procedure:
<p>OWF will engage in Roundtable meetings, conferences, newsletters, social media, basin forums, presentations at board meetings, one-on-one communications, media, and other opportunities to make people aware of the websites. Virtual attendance such as webinars will be prioritized to increase outreach and decrease costs.</p> <p>Outreach will make entities aware of the websites, encourage members of these organizations to actively use the websites, encourage feedback, and spread the word about the websites. Efforts will ideally result in organizations linking to the websites from their organization websites. OWF will also educate organizations about how they can publish open data so that the datasets can be effectively used by the public.</p> <p>OWF will also work with the South Platte and Metro Roundtables to use the websites to directly benefit Roundtable members in performing the work of the Roundtables.</p>
Deliverable:
<p>Deliverables will include: tracking information for organizations contacted, attendance at events, social media interactions, and feedback gained from engagements.</p>

Tasks
Task 4 – Project Management
Description of Task:



Last Updated: June 2020

Tasks	
<p>Website information products are organized by sector/theme, and timescales, as illustrated by The Open Water Foundation (OWF) will perform project management tasks for the project including reporting and invoicing.</p>	
Method/Procedure:	
<p>Implementing maps and other information products involves researching data availability, OWF will perform project management activities according to CWCB project guidelines, including submitting invoices and supporting documentation.</p> <p>OWF will create a 6 month and final project delivery memorandum describing results and lessons learned.</p>	
Deliverable:	
<p>Project management tasks will result in successful hand-off of final deliverables and payment for work performed. Lessons learned from the project will allow for additional business development to implement similar websites in other basins.</p>	

Budget and Schedule
<p>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.</p>



Last Updated: June 2020

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.

Last Updated: June 2020



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Exhibit B Budget and Schedule

Prepared Date: October 28, 2020

Name of Applicant: Open Water Foundation

Name of Water Project: River Basin Information Websites

Project Start Date: Contract Date

Project End Date: Start + 1 Year

Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1	Software Development	Contract Date	Start + 1 Year	\$0	\$50,000	\$50,000
2	Data Processing, Website Config., and Doc.	Contract Date	Start + 1 Year	\$12,500	\$67,500	\$80,000
3	Outreach	Contract Date	Start + 1 Year	\$12,500	\$16,700	\$29,200
4	Project Management	Contract Date	Start + 1 Year	\$0	\$10,800	\$10,800
Total				\$25,000	\$145,000	\$170,000

No "Indirect Costs" tab was provided in the example sheet so this sheet was added.

Task 4 (Project Management) has a budget of \$10,800 which is 6% of the total budget.
Activities to performed for this budget include:

Activity	Cost
Project initialization and invoices	\$5,040
6 month report	\$1,440
Project completion report	\$4,320
	\$10,800

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

November 27, 2020

Re: South Platte Basin Roundtable support for WSRF Basin and WSRF State grants for Open Water Foundation's "River Basin Information Websites" project.

Dear Ben:

At the November 10, 2020 meeting of the South Platte Roundtable (SPBRT), the SPBRT unanimously voted to recommend approval of the Open Water Foundation's South Platte WSRF Basin Grant of \$20,000 and to support Statewide WSRF Grant of \$15,000 for "River Basin Information Websites". A summary of the funding request for State grant programs for this project is shown below.

Funding Source	Amount	Status
South Platte BRT WSRF	\$20,000	Approved unanimously by SPBRT at November 10 th meeting (this letter of support is being provided to the CWCB).
Metro Basin BRT WSRF	\$10,000	Approved unanimously by MBRT at November 12 th meeting (separate letter of support is being provided by MBRT to the CWCB).
Statewide WSRF	\$15,000	Approved unanimously to support by SPBRT at November 10 th meeting and MBRT at November 12 th meeting
CWP Engage. and Innov. Grant	\$25,000	Approved unanimously to support by MBRT at November 12 th meeting. OWF is submitting the CWP application to SPBRT for formal approval.

Due to the timeline necessary to meet the WSRF application deadline, the Open Water Foundation was unaware that the SPBRT required the full Statewide CWP grant application to be able to provide a formal approval of that element of the proposal. The Open Water Foundation is submitting the CWP grant applications to the SPBRT in order to comply with the SPBRT process.

This innovative project will provide a number of benefits, including providing cross-jurisdictional information as an easily-accessible community resource. Data and information will inform organizations and individuals about many complex water issues in order to achieve the goals of the South Platte and Metro Basin Implementation Plan and Colorado Water Plan. The initial focus on the Poudre Basin will increase the effectiveness and efficiency of implementing multi-purpose water projects that address the water supply gap in the basin. The project will also help with collaboration on important issues such as wildfire mitigation, drought and flood response, sustainable agriculture, and environmental flows. The project will support water education and public engagement on water issues. The results of the project can be scaled to other basins within the South Platte and statewide.

Sincerely,



Garrett Varra
Chair, South Platte Basin Roundtable

November 25, 2020

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

Re: Metro Basin Roundtable support for WSRF Basin and State grants for Open Water Foundation's "River Basin Information Websites" project.

Dear Ben:

At the November 12, 2020 meeting of the Metro Basin Roundtable (MBRT), the MBRT voted unanimously to approve the Open Water Foundation's Metro WSRF Basin Grant of \$10,000 and to support Statewide Basin Grant of \$15,000 and Colorado Water Plan Grant for \$25,000 for "River Basin Information Websites". A summary of the funding request for State grant programs for this project is shown below.

Funding Source	Amount	Status
Metro BRT WSRF	\$10,000	Approved unanimously by MBRT at November 12 th meeting (this letter of support is being provided to the CWCB).
South Platte BRT WSRF	\$20,000	Approved unanimously by SPBRT at November 10 th meeting (separate letter of support is being provided by SPBRT to the CWCB).
Statewide WSRF	\$15,000	Approved unanimously to support by MBRT at November 12 th meeting. OWF is submitting the Statewide WSRF grant application to SPBRT for formal approval.
CWP Engage. and Innov. Grant	\$25,000	Approved unanimously to support by MBRT at November 12 th meeting. OWF is submitting the CWP grant application to SPBRT for formal approval.

This project will provide a number of benefits, including providing cross-jurisdictional information as an easily-accessible community resource. Data and information will inform organizations and individuals about many complex water issues in order to achieve the goals of the South Platte and Metro Basin Implementation Plan and Colorado Water Plan. The initial focus on the Poudre Basin will increase the effectiveness and efficiency of implementing multi-purpose water projects that address the water supply gap in the basin. The project will also help with collaboration on important issues such as wildfire mitigation, drought and flood response, sustainable agriculture, and environmental flows. The project will support water education and public engagement on water issues. The results of the project can be scaled to other basins within the South Platte and Metro Roundtable areas and statewide.

The MBRT supports this project.

Sincerely,



Barbara Biggs
Chair, Metro Basin Roundtable



COLORADO WATER TRUST

3264 Larimer Street, Suite D, Denver, CO 80205

Tel: 720.570.2897 | www.coloradowatertrust.org

September 15, 2020

South Platte and Metro Roundtables
WSRF Grant Program

To Whom It May Concern:

I am providing this letter to express Colorado Water Trust's (CWT) support for the Open Water Foundation (OWF) project "River Basin Information Websites". OWF Chief Executive Officer Steve Malers provided CWT staff a demonstration of the Poudre Basin Information website, and we think the information on this website can help CWT in its efforts to protect and enhance environmental flows.

CWT has helped implement multiple projects on the Poudre River, including removal of an inactive diversion dam, implementation of fish passage on a diversion dam, and updating Colorado's water laws to allow use of an augmentation plan to provide water for instream flows. We appreciate the opportunity to see this and other work by CWT and our partners highlighted in the Poudre Basin Information website.

Basin information websites for other basins would also inform Colorado's citizens about water issues, and help CWT and others in the field find additional project opportunities. Simplifying access to useful information decreases the cost of projects and increases public outreach.

We recommend proving funding for this project.

Regards,

Andy Schultheiss
Executive Director, Colorado Water Trust



October 12, 2020

Ditch and Reservoir Company Alliance
140 W. 29th St. Ste. #339
Pueblo, CO 81008

South Platte and Metro Roundtables
WSRF Grant Program

To Whom it May Concern:

DARCA supports the Open Water Foundation (OWF) project, "River Basin Information Websites". OWF Chief Executive Officer Steve Malers provided information regarding the Poudre Basin Information website to the DARCA Board of Directors as an example of a website that can be implemented for South Platte and other basins as an educational tool for a variety of audiences.

There is a basic need to educate the public about the topics that can be displayed in this project for water as a whole and may benefit organizations as well as individuals and each are represented in DARCA's membership. It is also important to provide information about challenges and opportunities for collaboration that can help sustain each water sector while also addressing issues such as increasing urban water demand while maintaining water for agriculture, desire to protect the environment, and economic challenges.

There are many organizations and individuals who may benefit from basin information websites proposed by OWF and we look forward to collaborating in order to emphasize the value of this educational tool.

Regards,

Amber Weber

Amber Weber
Executive Director
Ditch and Reservoir Company Alliance



**COMMUNITY FOUNDATION
OF NORTHERN COLORADO**

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September 14, 2020

4745 Wheaton Dr.
Fort Collins, CO 80524

South Platte and Metro Roundtables
WSRF Grant Program

WSRF Grant Committee,

I am providing this letter to express the Community Foundation of Northern Colorado's (Foundation) support for the Open Water Foundation (OWF) project "River Basin Information Websites". Steve Malers, OWF chief executive officer, demonstrated the Poudre Basin Information website to members of our staff and we quickly found synergies for how it could support the work of the Foundation, in particular given the Foundation's interest in water and the importance of the Poudre River to the lifestyle, economy, and environment of Northern Colorado.

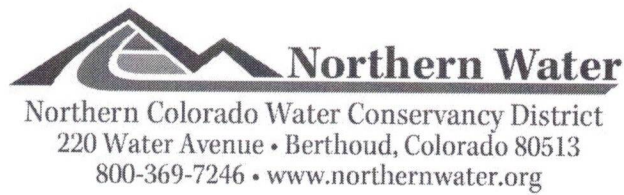
In fall of 2019 the Foundation launched the Hach Center for Regional Engagement which was established to support regional collaboration on complex issues facing Northern Colorado, which includes Larimer and Weld Counties. Key initiatives of the Hach Center focus on leadership, regionalism, and water. Weld and Larimer Counties physically overlap the Poudre Basin and consequently land and water issues in the Poudre Basin are of direct interest to Hach Center programs.

A program of the Hach Center, Water Literate Leaders, educates leaders in the region around the incredibly topic of water so that they can better contribute to solutions surrounding this increasingly complex challenge. The Poudre Basin Information website being developed by OWF can help inform bold leaders and make the process of collaborative innovation more effective and efficient. We are also interested in the implementation of an information website for the Big Thompson basin to support programs in that basin.

Regards,

Ella Fahrlander

Ella Fahrlander
Chief Engagement Officer
Community Foundation of Northern Colorado



September 22, 2020

South Platte and Metro Roundtables
WSRF Grant Program

Dear Roundtable Members:

I am providing this letter to express our support for the Open Water Foundation (OWF) project "River Basin Information Websites". As an employee of Northern Water, member of a Poudre Runs Through It (PRTI) work group, and a long-time participant in the South Platte and Metro Roundtables, I appreciate the need for easy to understand information about complex water resources. The proposed project would assist meeting the need for cross-jurisdictional information that integrates data from different entities at basin scale. This information can support collaboration on basin water solutions.

My work with PRTI illustrates challenges trying to coordinate conversations among persons from different water organizations and backgrounds. The virtual meetings required by COVID-19 pandemic have introduced additional difficulties in sharing information. The Poudre Basin Information website and other similar websites for other basins, can educate, help coordinate decisions within a basin, and provide a foundation for discussions about complex water issues.

Northern Water supports funding for this project.

Sincerely,



Jim Hall, P.E.
Senior Water Resources Engineer



November 30, 2020

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

Re: Matching Funding Commitment for Open Water Foundation WSRF and CWP Project "River Basin Information Websites"

Dear Ben:

As founder and Chief Executive Officer (CEO) of the Open Water Foundation (OWF), I am writing to confirm commitment of in-kind matching funds for OWF's proposed project "River Basin Information Websites". OWF has contributed research and development funding of over \$100,000 to date to develop software tools used in this project and expects to contribute \$50,000 or more additional in-kind match over the project period.

My experience at OWF, as a member of the Fort Collins Water Board, member of the Poudre Runs Through It Work Group, and other experience has pointed out the need for cross-jurisdictional water resources information at river basin scale. The unique mission and capabilities of OWF allow us to implement information technology solutions as a public benefit, which will increase the effectiveness and efficiency of other projects that are implementing water supply solutions. The convergence of COVID-19 pandemic, wildfires, drought, and ongoing water supply issues point out the need for accessible data and information, especially in an age of increased virtual collaboration.

In addition to the Statewide WSRF account request, the proposal requests funding from the Colorado Water Plan (CWP) Engagement & Innovation grant fund. This project is innovative and addresses significant needs in engaging the public, professionals, and decision-makers. The results of this project will form the foundation of a sustainable resource that can be used by South Platte and Metro Basin Roundtable members and citizens of the basins, and can be scaled to other basins.

Due to COVID-19 budget restrictions on State funding, the proposed budget relies on significant matching funds from OWF and other organizations. Unfortunately, the wildfires have added additional demands on organizations and require more time to explore match options beyond the significant OWF in-kind match. The attached letters of support illustrate the support for this project and OWF is continuing to follow up with these and other organizations to secure third-party matching funds.

I appreciate the opportunity to submit this project and believe that it can greatly contribute to the goals of the WSRF and CWP programs.

Regards,

A handwritten signature in black ink, appearing to read "Steve A. Malers", written in a cursive style.

Steve Malers, Founder and CEO, Open Water Foundation



ST. VRAIN AND LEFT HAND WATER CONSERVANCY DISTRICT

9595 Nelson Road, Suite 203 • Longmont, CO 80501 • 303-772-4060 • www.svlhwcd.org

September 14, 2020

South Platte and Metro Roundtables

Re: WSRF Grant Program

To Whom it May Concern:

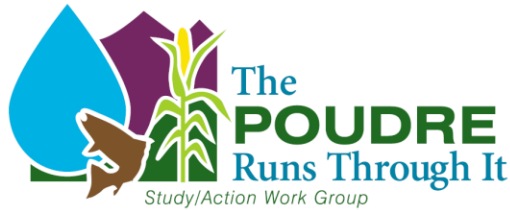
I am providing this letter to express my support for the Open Water Foundation (OWF) project "River Basin Information Websites". OWF Chief Executive Officer Steve Malers demonstrated the Poudre Basin Information website to me and I believe that such a tool implemented for the South Platte Basin would benefit the South Platte and Metro Basin Roundtable members, their organizations, and the public. There is a need to provide access to water resources data in a way that is easy to understand and supports the discussion of many issues in the South Platte and Metro Roundtable geographic areas. Funding this project could also help the Roundtables' education efforts on complex water issues. From my perspective as IBCC representative for the South Platte Roundtable, this project could also help provide information to explain East Slope water issues to West Slope Roundtables.

A similar website implemented at the scale of the Saint Vrain basin would be a useful information resource for my organization and citizens of the basin and I hope that project funding would consider this as a potential outcome. Datasets that have been recently collected for the Stream Management Plan could be made available to the public.

Regards,

A handwritten signature in blue ink, appearing to read "Sean T. Cronin".

Sean T. Cronin
Executive Director



Julie Kallenberger
Colorado Water Center | Colorado State University
E121 Engineering Building | 1033 Campus Delivery
Fort Collins, CO 80523-1033
970.491.5124
Julie.Kallenberger@colostate.edu
watercenter.colostate.edu/prti

September 14, 2020

South Platte and Metro Basin Roundtables
WSRF Grant Program

To Whom it May Concern:

I am providing this letter to express Poudre Runs Through It (PRTI) support for the Open Water Foundation (OWF) project "River Basin Information Website". OWF Chief Executive Officer Steve Malers is a founding member of PRTI and has invested his own time and directed OWF resources to the development a new Poudre Basin Information website. The PRTI membership is now beginning to use this resource for background information and as input to ongoing discussions, including initiatives such as the Committee on Enhancing and Coordinating Poudre River Flows. The recently created map of the Cameron Peak wildfire has also provided useful information to the group. The website can also serve as a resource for those who attend the annual Poudre River Forum, perhaps even more so if a virtual conference is required this year.

In addition to using the Poudre Basin Information website for PRTI, the Colorado Water Center at Colorado State University organizes the Water Literate Leaders of Northern Colorado program. This program can benefit from the Poudre Basin Information website, especially if enhancements can be completed as part of the proposed project. We are also interested in implementing a similar website for the Big Thompson Basin, which is within the Water Literate Leaders program geographic area.

One of PRTI's goals is to act as a catalyst for projects that benefit the Poudre River, and we rely on champions for initiatives and projects. OWF's work on the Poudre Basin Information website and other similar websites demonstrates innovation and we hope that funding will be provided to support the project.

Regards,
Julie Kallenberger

Julie Kallenberger
PRTI Facilitator
Colorado Water Center