

**Water Supply Reserve Fund  
Water Activity Summary Sheet  
March 15-16, 2022  
Agenda Item 25(a)**

**Applicant & Grantee:** Arkansas Groundwater & Reservoir Association  
**Water Activity Name:** West Pueblo Reservoir Project (WPRP)  
**Water Activity Purpose:** Agricultural & Municipal/Industrial - Implementation  
**County:** Pueblo County  
**Drainage Basin:** Arkansas River  
**Water Source:** West Pueblo Reservoir  
**Amount Requested:** \$84,110 Arkansas Basin Account  
\$756,994 Statewide Account  
\$841,104 Total Request

**Matching Funds:** **Basin Account Match = \$84,110**  
• 11.11% of statewide request (meets 10% min)  
**Applicant & 3rd Party Match = \$869,424 (cash)**  
• 113.4% of the statewide request (meets 10% min)  
**Total Match (Basin request & Applicant Match) = \$953,534**  
• 125% of the statewide request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$84,110 from the Arkansas Basin Account and up to \$756,994 from the Statewide Account to help fund the project: West Pueblo Reservoir Project (WPRP)

**Water Activity Summary:** The West Pueblo Reservoir Project (WPRP) involves the design and construction of inlet and outlet conveyance appurtenances at a former gravel pit mining operation in Pueblo County. The reservoir is currently lined with a compacted clay embankment and has an available storage volume of nearly 1,230 Acre-Feet (AF). However, the reservoir can only be filled at the present time using pumps, and water from the reservoir cannot be released to the river, if needed for augmentation purposes.

The preferred inlet alternative involves a connection to a gravity-driven, raw water pipeline currently owned and operated by Pueblo Board of Water Works (PBWW). Constructing inlet works to the reservoir would involve the construction of approximately 311 Linear Feet (LF) of 24-Inch High Density Polyethylene (HDPE) pipe to convey a planned 30 Cubic Feet per Second (CFS) to fill the reservoir.

The preferred outlet alternative is to construct a pumping station to deliver water to the river as needed. The pumping station will deliver water at a maximum rate of 20 CFS. Anticipated energy costs from this facility are about \$7,000 per year, at about \$7.00 per AF or \$0.02 per KWH.

If approved, WSRF funds would be used to fund the design and construction of the inflow and pump station.

**Discussion:** This project supports the goals of the Colorado Water Plan and the Arkansas Basin Roundtable Implementation plan by enhancing the use of waters for augmentation in the basin and providing a permanent and sustainable storage vessel that will ensure that water secured for augmentation is not at risk of spill from Pueblo Reservoir, which would result in the loss and waste of this water. Additionally, this project supports multipurpose objectives in the basin and helps support recreation purposes as well as provides an example of collaboration and cooperation between municipal and agricultural interests in the Arkansas River Basin.

**Issues/Additional Needs:** No issues or additional needs have been identified.

**Eligibility Requirements:** The application meets requirements of all eligibility components.

**Evaluation Criteria:** Staff has determined this activity satisfies the Evaluation Criteria.

<b>Funding Sources/Match</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Status</b>
Arkansas Groundwater & Reservoir Association	\$869,424	\$0	\$869,424	Secured
<b>Sub-Total Matching Funds</b>	\$869,424	\$0	\$869,424	
WSRF Arkansas Basin Account	\$84,110	\$0	\$84,110	Secured
WSRF Statewide Account	\$756,994	\$0	\$756,994	
<b>Sub-Total WSRF Funds</b>	\$841,104	\$0	\$841,104	
<b>Total Project Costs</b>	<b>\$1,710,825</b>	<b>\$0</b>	<b>\$1,710,528</b>	

**CWCB Project Manager:** Rachel Pittinger



Last Update: July 20, 2021

<b>Colorado Water Conservation Board</b>
<b>Water Supply Reserve Fund Grant Application</b>

Instructions
<p>All WSRF grant applications shall conform to the current <a href="#">2020 WSRF Criteria and Guidelines</a>.</p> <p>To receive funding from the WSRF, a proposed water activity must be recommended for approval by a Roundtable(s) <b>AND</b> the approved by the Colorado Water Conservation Board (CWCB). The process for roundtable consideration and recommendation is outlined in the 2020 WSRF Criteria and Guidelines. The CWCB meets bimonthly.</p> <p>If you have questions, please contact the WSRF Grant Program Manager (for all Roundtables) or your Roundtable Liaison:</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>Ben Wade  <a href="mailto:ben.wade@state.co.us">ben.wade@state.co.us</a>  303-866-3441 x3238 (office)</p> </div> <div style="text-align: center;"> <p>Sam Stein  <a href="mailto:Sam.stein@state.co.us">Sam.stein@state.co.us</a>  303-866-3441 (office)</p> </div> </div>

WSRF Submittal Checklist (Required)
<p>YES <input type="checkbox"/> NO <input type="checkbox"/> This request was recommended for CWCB approval by the sponsoring roundtable.</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> I have read and understand the <a href="#">2020 WSRF Criteria and Guidelines</a>.</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Grantee will be able to contract with CWCB using the <a href="#">Standard Contract</a>.<sup>1</sup></p> <p style="text-align: center; margin-top: 20px;"><b>Application Documents included:</b></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Exhibit A: Statement of Work<sup>2</sup> (<i>Word – see Template</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Exhibit B: Budget (including Detailed Budget) &amp; Schedule<sup>2</sup> (<i>Excel Spreadsheet – see Template</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Letters of Matching and/or Pending 3<sup>rd</sup> Party Commitments<sup>2</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Map<sup>2</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Photos/Drawings/Reports</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Letters of Support</p> <p style="text-align: center; margin-top: 20px;"><b>Contracting Documents<sup>3</sup></b></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Detailed/Itemized Budget<sup>3</sup> (<i>Excel Spreadsheet – see Template</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Certificate of Insurance<sup>4</sup> (<i>General, Auto, &amp; Workers' Comp.</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Certificate of Good Standing<sup>(4)</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> W-9 Form<sup>4</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Independent Contractor Form<sup>4</sup> (<i>If applicant is individual, not company/organization</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Electronic Funds Transfer (ETF) Form<sup>4</sup></p>

<sup>1</sup>Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

<sup>2</sup> Required with application if applicable.

<sup>3</sup> Additional documentation providing a Detailed/Itemized Budget maybe required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

<sup>4</sup> Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.



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Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	October 1	Basin Account
March	December 1	Basin/Statewide Account/Water Plan Grant Match <sup>1</sup>
May	February 1	Basin Account
July	April 1	Basin Account
September	June 1	Basin/Statewide Account
November	August 1	Basin Account

<sup>1</sup> If either the basin or statewide match includes matching funds from a pending Water Plant Grant, both must be submitted by December 1st deadline for March Board meeting review.

Water Activity Summary		
Name of Applicant	Arkansas Groundwater and Reservoir Association (AGRA)	
Name of Water Activity	West Pueblo Reservoir Project (WPRP)	
Approving Roundtable(s)		Basin Account Request(s) <sup>1</sup>
Arkansas Basin Roundtable		\$84,110
Basin Account Request Subtotal		\$84,110
Basin Account Request Subtotal Approved by Roundtable		\$86,942 (pending revision to \$84,110)
Statewide Account Request <sup>(1)</sup>		\$756,994
Total WSRF Funds Requested (Basin & Statewide)		\$841,104
Total Project Costs		\$1,682,208

<sup>1</sup> Please indicate the amount recommended for approval by the Roundtable(s)

Grantee and Applicant Information	
Name of Grantee(s)	Arkansas Groundwater and Reservoir Association (AGRA)
Mailing Address	205 South Main Street, Fowler, Colorado, 81039
FEIN	





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Grantee and Applicant Information	
<b>Grantee's Organization Contact<sup>1</sup></b>	Daniel R. Tucker, PE
Position/Title	Water Resources Engineer/Project Manager
Email	<a href="mailto:dan@agraco.net">dan@agraco.net</a>
Phone	719-826-2597, Ext. 3
<b>Grant Management Contact<sup>2</sup></b>	Daniel R. Tucker, PE
Position/Title	Water Resources Engineer/Project Manager
Email	<a href="mailto:dan@agraco.net">dan@agraco.net</a>
Phone	719-826-2597, Ext. 3
<b>Name of Applicant (if different than grantee)</b>	
Mailing Address	
Position/Title	
Email	
Phone	

<sup>1</sup> Person with signatory authority

<sup>2</sup> Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee
Provide a brief description of the grantee's organization (100 words or less).
<p>The Arkansas Groundwater and Reservoir (AGRA) is a 501-c12 not-for-profit company which seeks to develop and manage surface and groundwaters in the Arkansas River Basin for the purposes of replacing out-of-priority depletions caused by well usage. AGRA's service area extends from Lake County at the headwaters of the Arkansas to John Martin Reservoir, along the river's mainstem in Bent County, as well as up Fountain Creek in El Paso County. AGRA provides replacement water for nearly 90,000 acres under irrigation and for drinking water for over 40,000 residents in Southeastern Colorado.</p>

Type of Eligible Entity (check one)	
<input type="checkbox"/>	<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.
<input type="checkbox"/>	<b>Public (Districts):</b> authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises
<input checked="" type="checkbox"/>	<b>Private Incorporated:</b> mutual ditch companies, homeowners associations, corporations



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Type of Eligible Entity (check one)	
	<b>Private Individuals, Partnerships, and Sole Proprietors:</b> are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
X	<b>Non-governmental organizations:</b> broadly, any organization that is not part of the government
	<b>Covered Entity:</b> as defined in <a href="#">Section 37-60-126 Colorado Revised Statutes</a>

Type of Water Activity (check one)	
	Study
X	Implementation

Category of Water Activity (check all that apply)		
	Nonconsumptive (Environmental)	
	Nonconsumptive (Recreational)	
X	Agricultural	
X	Municipal/Industrial	
	Needs Assessment	
	Education & Outreach	
	Other	Explain:

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in <b>decimal degrees</b> . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Countries	Pueblo
Latitude	104°41'32.90" W
Longitude	38°15'47.61" N

Water Activity Overview
<p>Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. 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, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain.</p> <p>The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.</p>



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Water Activity Overview
<p>The West Pueblo Reservoir Project (WPRP) involves the design and construction of inlet and outlet conveyance appurtenances at a former gravel pit mining operation in Pueblo County. The reservoir is currently lined with a compacted clay embankment and has an available storage volume of nearly 1,230 Acre-Feet (AF). However, the reservoir can only be filled at the present time using pumps, and water from the reservoir cannot be released to the river, if needed for augmentation purposes.</p> <p>The preferred inlet alternative involves a connection to a gravity-driven, raw water pipeline currently owned and operated by Pueblo Board of Water Works (PBWW). Constructing inlet works to the reservoir would involve the construction of approximately 311 Linear Feet (LF) of 24-Inch High Density Polyethylene (HDPE) pipe to convey a planned 30 Cubic Feet per Second (CFS) to fill the reservoir.</p> <p>The preferred outlet alternative is to construct a pumping station to deliver water to the river as needed. The pumping station will deliver water at a maximum rate of 20 CFS. Anticipated energy costs from this facility are about \$7000 per year, at about \$7.00 per AF or \$0.02 per KWH.</p>

Measurable Results		
To catalog measurable results achieved with WSRF funds please provide any of the following values.		
	New Storage Created (acre-feet)	
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive	
1,228	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)	
311	Length of Pipe/Canal Built or Improved (linear feet)	
	Other	Explain:

Water Activity Justification
<p>Provide a description of how this water activity supports the goals of <a href="#">Colorado's Water Plan</a>, the most recent <a href="#">Statewide Water Supply Initiative</a>, and the respective <a href="#">roundtable Basin Implementation Plan and Education Action Plan</a> <sup>(1)</sup>. 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).</p> <p>For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in <a href="#">2020 WSRF Criteria and Guidelines</a>).</p>



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### Water Activity Justification

The construction of the West Pueblo Reservoir Project (WPRP) will accomplish several goals related to the State Water Plan and the Arkansas Basin Implementation Plan. As outlined in the overview of the Arkansas River Basin in the State Water Plan, the basin faces numerous challenges in the next 40 years. These challenges include increased augmentation, replacement of non-sustainable groundwater supplies, water transfers from agriculture to municipal use, and water quality concerns. The WPRP will help improve the management of water resources in the basin in the following ways, related to these challenges. First, the project will provide AGRA with offline, non-Federal reservoir storage space. With this new, Association-owned storage, AGRA will no longer be at risk of uncontrolled spills from its Excess Capacity (EC) accounts in Pueblo Reservoir, which have occurred in recent years. In these events, fully consumable water leased or owned by AGRA has been released directly to the mainstem of the river downstream, and AGRA has accordingly suffered a loss of dominion and control over that water. AGRA will now be in direct control of its stored water and will have full authority over when to direct the release of water, as directed by its reservoir accounting or in consultation with Division of Water Resources (DWR) staff in Pueblo. Unplanned losses of crucial water will no longer occur and AGRA will provide an improved system for conservation of basin water resources.

Augmentation is explicitly given as a forthcoming challenge for the basin in coming years, and augmentation is the driving force behind the existence of AGRA. Accordingly, ownership of reservoir storage space will provide AGRA with much-improved operational flexibility for managing its supply of augmentation water. Decision-making will be placed at the Association level, with residents of the basin who are members of AGRA, which includes private individuals but also Lower Arkansas River Valley municipalities such as Fowler and La Junta, having more input and control over how water resources which directly impact their lives are managed. Additionally, AGRA will be developing two more gravel pit reservoirs located east of Pueblo. That complex, together with the WPRP, will provide AGRA with a suite of operational alternatives that it does not currently possess to make replacements of stream depletions, to route and move water to offset environmental factors such as evaporation, and to better time replacements based on river conditions so as to make optimal use of each drop of water, getting it to where it needs to be, in time and in right.

WPRP will provide an example of multipurpose uses and collaboration between agriculture, recreation, and municipal interests in the Arkansas River Basin. AGRA's membership is comprised of both agricultural and municipal individuals and entities in the basin, from small hobby farmers, to towns like Manzanola, as well as the largest farmers in the valley. This project will serve as an example of how their water can be jointly managed in a more sustainable and optimal manner, and will provide each interest with greater stakeholder participation at the project level. By taking delivery of its supplies through a Pueblo Board of Water Works pipeline located nearby, there are further opportunities for engagement, friendship, and thoughtful discourse between AGRA and one of the largest water utilities in the basin. These discourses provide a vehicle for further positive relationships between municipal and agricultural interests in the basin.

AGRA and Colorado Parks and Wildlife (CPW) are in discussions regarding the land use around the reservoir. Both parties see a future for public recreation at the site and are actively working to create such a space. CPW owns significant portions of the land around the reservoir site, and wishes to have legal use of the reservoir, so a continuous body of land can be used by the recreational public from Lake Pueblo, to the Pueblo Greenway and Nature Center. CPW plans to construct a pedestrian bridge and other trail facilities near the nature center to create a continuous and maintainable trail system, and would like to see these facilities constructed at and through the West Pueblo Reservoir property, to accomplish this vision. AGRA is fully supportive of this goal, and sees this as an opportunity to build public spaces for the enjoyment of the residents of Southern Colorado, and all those who travel to this region to pursue their recreational interests, such as hikers, primitive campers, and those who enjoy fly fishing.

Finally, the construction and development of this storage space creates new usable storage in the basin. This reservoir will provide nearly 1,230 Acre-Feet of storage; when combined with other AGRA storage projects mentioned above, this reservoir will be part of nearly 3000 AF of storage located just offline from the Arkansas mainstem. This project will help refine management of basin water resources, and will diversify ownership of water storage into the hands of local basin interests and residents.

<sup>1</sup> Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.



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Matching Requirements: Basin Account Requests	
<b>Basin (only) Account</b> grant requests require a 25% match (cash and/or in-kind) from the Applicant or 3 <sup>rd</sup> party and shall be accompanied by a <b>letter of commitment</b> as described in the <a href="#">2020 WSRF Criteria and Guidelines</a> (submitted on the contributing entity's letterhead). Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind)
Arkansas Groundwater and Reservoir Association	\$86,942
Total Match	\$86,942
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.	

Matching Requirements: Statewide Account Requests	
<b>Statewide Account</b> grant requests require a 50% match as described in the <a href="#">2020 WSRF Criteria and Guidelines</a> . At least of 10% of the required Statewide Account Grant request match shall be cash from Basin Account funds whether that is from one or multiple basins; and the remaining 40% of the required match may be provided from any source, including other grants, cash from the Basin Account, or any combination of cash, in-kind services, or in-kind materials.and shall be accompanied by a <b>letter of commitment</b> . Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind):
Arkansas Groundwater and Reservoir Association	\$782,482
Total Match	\$782,482
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	



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### Related Studies

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

1. AGRA, formerly known as Colorado Water Protective and Development Association (CWPDA), is currently finishing a study, partially supported by a Colorado Water Conservation Board (CWCB) grant, of several former gravel pit sites in Pueblo County, one of which is the West Pueblo Reservoir, for the purposes of turning them into storage reservoirs. This study has focused on inflow and outflow conveyance of these vessels, and has examined route alternatives for inflow and outflow, available storage capacities, and outflow alternatives including both gravity flow and pumping systems. This study, which is nearly complete and which will produce a final report as its deliverable, has determined that the West Pueblo Reservoir can be filled by diverting from gravity systems adjacent in the area. The most feasible alternative for releasing water from the vessel will be a pumping station. Finished storage in the vessel will be approximately 1,228 Acre-Feet (AF).

### Previous CWCB Grants

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

1. Colorado Water Protective and Development Association (CWPDA)
  - a. CWPDA Gravel Pit Storage Feasibility Study
  - b. Roundtable: Arkansas River Basin
  - c. Board Meeting Date: April 03, 2020
  - d. Contract Number or Purchase Order: POGG1,PDAA,202000003031
2. Colorado Water Protective and Development Association (CWPDA)
  - a. CWPDA Highline Recharge Construction Project
  - b. Roundtable: Arkansas River Basin
  - c. Board Meeting Date: TBD, Forthcoming
  - d. Contract Number or Purchase Order: POGG1,PDAA,202100002089

### Tax Payer Bill of Rights

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

AGRA is not aware of any issues related to TABOR that may affect this application.

# Arkansas Basin Roundtable

December 6, 2021

**Via Electronic Mail: [ben.wade@state.co.us](mailto:ben.wade@state.co.us)**

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

Re: Water Supply Reserve Fund Grant Application: *Arkansas Groundwater and Reservoir Association – West Pueblo Reservoir Project*

Dear Ben:

At its November 10, 2021, meeting, the Arkansas Basin Roundtable (ABRT) approved support of the West Pueblo Reservoir Project request for \$84,110 from the Arkansas Basin account and an additional \$756,994 from the Statewide account. The applicant is providing \$841,110 in matching funds.

This project supports the goals of the Colorado Water Plan and the Arkansas Basin Roundtable Implementation plan by enhancing the use of waters for augmentation in the basin and providing a permanent and sustainable storage vessel that will ensure that water secured for augmentation is not at risk of spill from Pueblo Reservoir, which would result in the loss and waste of this water. Additionally, this project supports multipurpose objectives in the basin and helps support recreation purposes as well as provides an example of collaboration and cooperation between municipal and agricultural interests in the Arkansas River Basin.

The Arkansas Basin Roundtable approved supporting this application by consensus and there were no dissenting views.

Should you have any questions or concerns, please feel free to contact me either by telephone, (719) 668-8028

Thank you,

/s/ Mark Shea

Mark Shea, Chair

Copy via email: Dan Tucker/AGRA; Abby Ortega/Needs Assessment Chair

AGRA  
205 S. Main St.  
Fowler, CO 81039  
(719) 826-2597  
[www.agraco.net](http://www.agraco.net)



December 2, 2021

Colorado Water Conservation Board  
1313 Sherman Street, Ste. 718  
Denver, CO, 80203

Re: AGRA West Pueblo Reservoir Project

Dear Mr. Wade,

The Arkansas Groundwater and Reservoir Association ("AGRA") would like to express its gratitude for the opportunity to apply for a grant from CWCB for its West Pueblo Reservoir Project. This project will provide a new mechanism to manage and conserve water in the Arkansas River Basin. AGRA will have the ability to exercise self-reliance and to store its water in its own storage vessel, providing an increased level of stability, flexibility, and sustainability to the water resources used by residential well owners, farmers, and municipalities in the Lower Arkansas River Valley that rely on AGRA-provided water to maintain their economic independence and vitality.

AGRA is asking for \$841,101 in Water Supply Reserve Funds (WSRF) for its West Pueblo Reservoir Project (WPRP), which has a total project cost of \$1,682,202. AGRA commits to a 50% match of the requested WSRF amount, or \$841,101. AGRA will provide these funds from on-hand cash and in-kind contributions.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel R. Tucker", is placed over a light gray rectangular background.

**Daniel R. Tucker, PE**

Water Resources Engineer,  
Arkansas Groundwater and Reservoir Association  
CC: Kent Ricken – AGRA General Manager





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<https://cwcb.colorado.gov/>

<b><u>Colorado Water Conservation Board</u></b>	
<b>Water Supply Reserve Fund</b>	
<b><u>Exhibit A - Statement of Work</u></b>	
<b>Date:</b>	<b>December 1<sup>st</sup>, 2021</b>
<b>Water Activity Name:</b>	<b>West Pueblo Reservoir Project (WPRP)</b>
<b>Grant Recipient:</b>	<b>Arkansas Groundwater and Reservoir Association (AGRA)</b>
<b>Funding Source:</b>	<b>Water Supply Reserve Fund (WSRF)</b>
<b>Water Activity Overview:</b> (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for. (PLEASE DEFINE ALL ACRONYMS).)	
<p>The West Pueblo Reservoir Project (WPRP) seeks to build conveyance works at a lined former gravel pit located near the City of Pueblo. The vessel has a current storage capacity of 1,228 Acre-Feet (A-F) and is lined with a compacted and approved clay embankment. This structure does not have permanent conveyance works to deliver or release water, however. AGRA, a well augmentation association which replaces well depletions in the Arkansas River Basin, has acquired this vessel so that it can reduce its dependence on storage space in Pueblo Reservoir, and intends to construct structures which can deliver water to the reservoir and in the event that it needs replace depletions, release water from storage.</p>	
<b>Objectives:</b> (List the objectives of the project. (PLEASE DEFINE ACRONYMS).)	
<p>The objectives of this project are as follows:</p> <ol style="list-style-type: none"><li>1. Design and construct structures to deliver water to West Pueblo Reservoir. A connection is planned to divert water from a 78-inch steel pipeline currently owned by Pueblo Board of Water Works (PBWW) that runs nearby. This has been determined to be technically feasible by PBWW and additional agreements regarding carriage, diversion, and construction are expected in the coming months.</li><li>2. Design and construct outlet structures, including pumping equipment, discharge lines, instrumentation and controls (I&amp;C), and metering equipment, to release water to the Arkansas River in the event that augmentation of well depletions is required.</li></ol>	



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<https://cwcb.colorado.gov/>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b>Task 1 - (Name)</b>
Description of Task:  Design of inlet structures to the West Pueblo Reservoir (WPR). This effort will consist of designing a connection to divert raw water from a Pueblo Board of Water Works (PBWW) 78-inch raw water pipeline to fill the WPR. The expected design flow rate is to be 30 Cubic Feet per Second (CFS). The design will include diversion structures and/or appurtenances including but not limited to weirs, junction structures, pipelines, flow meters, pressure relief valves, concrete headwalls, and energy dissipation structures.  Design of pumping facilities and associated appurtenances and devices, such as layout of pumps, motors, electrical services, discharge lines, flow metering and measurement devices, metering vaults, open channels, flumes, headwalls, and other structures required to complete structures necessary to pump and release augmentation water to the Arkansas River.
Method/Procedure:  The expected design methodology will consist of collection of field topographic survey to understand site conditions, and the use of industry-accepted tools such as AutoCAD Computer-Aided Drafting (CAD) software to layout the proposed connection to the PBWW pipeline, the route of the inflow pipeline to the reservoir, the position of the pumping station and equipment, all outfall devices and structures such as headwalls, aprons, energy dissipation structures, meter vaulting or earthwork to construct open channels and flumes, and associated structures and devices.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)  The grantee expects the final deliverable from this process to be complete construction plans and specifications to be used by the construction contractor who is successfully chosen to complete this project.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)  The grantee expects to provide CWCB with copies of final design drawings, final Engineers' Opinion of Probable Cost (EOPC), and construction specifications.



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<https://cwcb.colorado.gov/>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 2 - (Name)</u></b>
Description of Task: <p>Construction of inlet and outlet structures and devices at West Pueblo Reservoir (WPR) to support the storage and release of augmentation water in the Arkansas River Basin to replace stream depletions caused by well pumping. Construction for inlet structures shall include establishing a connection and diversion from a 78-inch raw water pipeline owned by Pueblo Board of Water Works (PBWW), construction of a metering structure to measure inflows to the reservoir, a pipeline to carry up to 30 Cubic Feet per Second (CFS) of raw water to fill the reservoir, and construction of supporting devices such as headwalls, aprons, and energy dissipation structures to direct water into the vessel.</p> <p>Construction of outlet structures and systems shall include the construction of a pumping station, discharge piping, metering equipment for measuring pressurized flow including a flow meter, a meter vault, and associated instrumentation and controls for transmitting flow data to online hosting platforms. Additional appurtenances for discharging water to the river shall include riprap or concrete energy dissipation structures such as aprons, headwalls, and rundowns.</p>
Method/Procedure: <p>Construction methods shall consist of those common to the state of the practice currently in construction, for those aspects of the project including but not limited to construction of water supply structures and pipelines, earthwork, concrete formwork and placement, excavation, emplacement and backfill, revegetation and site restoration. Expected construction equipment shall include but not be limited to excavators, grading equipment, tractors, bulldozers, compaction equipment, dewatering pumps, formwork/falsework, support of excavation (SOE), and other equipment to perform the required work.</p>
Grantee Deliverable: (Describe the deliverable the grantee expects from this task) <p>The grantee expects to have completed inlet and outlet works at the reservoir. The grantee expects to be able to use these structures to fill the vessel and to make releases to the river as determined by internal water accounting procedures or through consultation with state Division of Water Resources (DWR) staff members.</p>
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task) <p>The grantee will provide CWCB with deliverables including but not limited to a final construction walkthrough before acceptance of the project from the contractor, as-built drawings determined from post-construction topographic survey, photos documenting completed, post-project conditions, all invoices and pay application related to the work, log books, progress meeting minutes, and all other like materials.</p>



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

**Repeat for Task 3, Task 4, Task 5, etc.**

### Budget and Schedule

**Exhibit B - Budget and Schedule:** This Statement of Work shall be accompanied by a combined [Budget and Schedule](#) that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format. A separate excel formatted Budget is required for engineering costs to include rate and unit costs.

### Reporting Requirements

**Progress Reports:** The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

**Final Report:** At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee'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.

### Payments

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. 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.

The CWCB will pay the last 10% of the entire water activity 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 water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

### Performance Requirements

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 Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per the 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 the 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.



**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

### **Performance Requirements**

(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 Update: 7/20/2021



## COLORADO

**Colorado Water  
Conservation Board**

Department of Natural Resources

## Colorado Water Conservation Board

## Water Supply Reserve Fund

### EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs

**Date: December 1st, 2021**

**Water Activity Name: West Pueblo Reservoir Project (WPRP)**

**Grantee Name:** Arkansas Groundwater and Reservoir Association (AGRA)

<u>Task No.</u> <sup>(1)</sup>	<u>Description</u>	<u>Start Date</u> <sup>(2)</sup>	<u>End Date</u>	<u>Matching Funds</u> (cash & in-kind) <sup>(3)</sup>	<u>WSRF Funds</u> (Basin & Statewide combined) <sup>(3)</sup>	<u>Total</u>
<u>1</u>	<u>Inlet and Outlet Structures - Design</u>	<u>NTP</u>	<u>NTP + 5.5 Months</u>	<u>\$ 76,464.00</u>	<u>\$ 76,464.00</u>	\$152,928
<u>2</u>	<u>Inlet and Outlet Structures - Construction</u>	<u>NTP</u>	<u>NTP + 1.25 Years</u>	<u>\$ 764,640.00</u>	<u>\$ 764,640.00</u>	\$1,529,280
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
<b>Total</b>				\$841,104	\$841,104	\$1,682,208

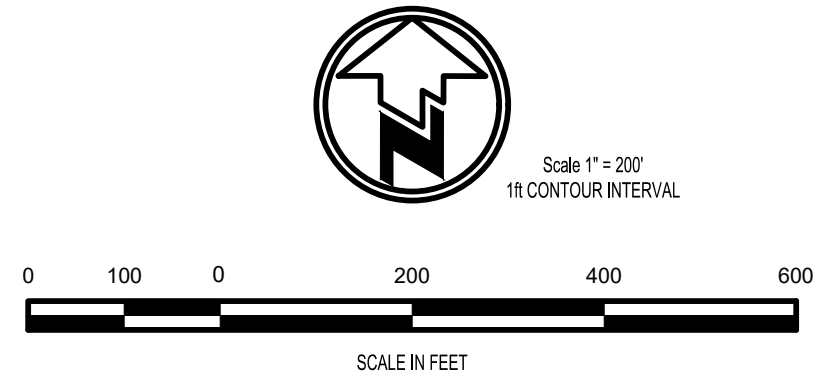




WEST PUEBLO RESERVOIR PROJECT

SITE PLAN

No.	Revision/Issue	Date
Firm Name and Address		
<div><p><b>AGRA</b> Arkansas Groundwater &amp; Reservoir Association</p></div>		
Project Name and Address		
WEST PUEBLO RESERVOIR 2596 CO-96 PUEBLO, COLORADO 81001		
Project	Sheet <div><div></div><div></div></div>	
Date		
Scale		
	01/DEC/21	
	As Noted	



Plot Date: 12/01/21 - 213 jpm, Printed by: mtd, Drawing Path: K:\Swp\A\Public\10565 Drawing Name\AGRA West Pueblo Reservoir exhibit.dwg



10% CONCEPT DESIGN DRAWINGS

# WEST PUEBLO GRAVEL PIT STORAGE PROJECT RESERVOIR FILL AND RELEASE INFRASTRUCTURE

FOR THE

## ARKANSAS GROUNDWATER AND RESERVOIR ASSOCIATION

November 3, 2021



VICINITY MAP  
NOT TO SCALE

SHEET LIST		DWG NO	SHEET NO
COVER SHEET		CS	1
NOTES		N-1	2
OVERALL PLAN		P-1	3
RESERVOIR FILL ENLARGEMENT PLAN		P-2	4
RESERVOIR FILL PROFILE		PF-1	5
COLUMN PUMP ENLARGEMENT PLAN		P-3	6
COLUMN PUMP PROFILE		PF-2	7

KNOW WHAT'S BELOW  
**811**  
CALL BEFORE YOU DIG

No.

Revisions:

Date:

ARKANSAS GROUNDWATER AND RESERVOIR ASSOCIATION  
West Pueblo Reservoir  
Pueblo County, Colorado

Cover Sheet

Wayne E. Eckas, P.E.

2171 Reliance Court  
Windsor, CO 80550  
970-690-1001 (Cell)

Designed By: WEE

Drawn By: WEE

Checked By: DT

Date: 12-1-2021

Sheet No.  
CS



GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ANY BURIED UTILITIES (WATER, ELECTRIC, GAS, PHONE, ETC) THAT MAYBE IN THE PROJECT AREA. THE PRESENCE OR ABSENCE OF UTILITIES ON THE CONSTRUCTION DRAWINGS DOES NOT ASSURE THAT THERE ARE OR ARE NOT UTILITIES IN THE WORK AREA. COORDINATE UTILITY LOCATES ("CALL BEFORE YOU DIG") OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION
2. THE CONTRACTOR IS RESPONSIBLE FOR KNOWING AND FOLLOWING ALL APPROPRIATE SAFETY STANDARDS AS REQUIRED.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER IMMEDIATELY OF ANY FIELD CONDITION NOT CONSISTENT WITH THE CONTRACT DOCUMENTS AND SHALL NOT PROCEED WITH ANY WORK RELATED TO THE INCONSISTENT FIELD CONDITION WITHOUT WRITTEN AUTHORIZATION OF THE OWNER.
4. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO THEIR ORIGINAL CONDITION OR BETTER AS DESIGNATED BY THE OWNER.
5. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE OWNER AND/OR ENGINEER. THE OWNER AND ENGINEER RESERVE THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DO NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE QUALITY OF THE CONTRACTOR'S WORK.
6. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY AND ALL REQUIRED LOCAL, STATE OR FEDERAL PERMITS FOR THIS PROJECT WITH THE EXCEPTION OF A PERMIT FROM THE ARMY CORPS OF ENGINEERS FOR WORK WITHIN THE RURAL DITCH. A PERMIT FROM THE ARMY CORPS OF ENGINEERS WILL BE PROVIDED BY THE OWNER FOR WORK WITHIN THE RURAL DITCH.
7. THE CONTRACTOR SHALL SUBMIT CATALOG DATA FOR ALL MATERIALS TO BE USED ON THE PROJECT FOR REVIEW AND APPROVAL BY OWNER. SUBMITTALS ARE REQUIRED FOR PIPE, FITTINGS, VALVES, PUMPS, CONCRETE, REBAR, HEAD GATES, PRECAST CONCRETE, AND ALL OTHER COMPONENTS CALLED FOR IN THE PLANS AND DETAILS.
8. TOPOGRAPHIC SURVEY OF THE PUEBLO WEST RESERVOIR WAS PROVIDED B JT CONSULTING, DATED 11-14-2017. THIS TOPO IS FOR THE PUEBLO WEST RESERVOIR CONTOURS WITHIN IN THE PROPERTY LINE FOR THE PARCEL. TWO FOOT LIDAR CONTOURS WERE OBTAINED FROM PUEBLO COUNTY FOR THE AREAS OUTSIDE OF THE PUEBLO WEST RESERVOIR PARCEL.
9. DEWATERING MAYBE REQUIRED TO EXCAVATE THE FOREBAY POND AND INTAKE STRUCTURE IN THE RESERVOIR, AND DEWATERING MAY ALSO BE REQUIRED TO CONSTRUCT THE PIPELINES. CONTRACTOR SHALL POT HOLE AREAS WHERE EXCAVATIONS ARE REQUIRED TO DETERMINE THE NEED FOR DEWATERING. IF DEWATERING IS REQUIRED THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND EQUIPMENT TO PERFORM THE DEWATERING.
10. COORDINATE WITH OWNER'S REPRESENTATIVE ON FINAL GRADE ELEVATIONS AROUND STRUCTURES AND PUMP STATION. OWNER WILL BE PLACING ROAD BASE AROUND STRUCTURES AND THE PUMP STATION AFTER CONSTRUCTION ACCEPTANCE. ROUGH GRADES ARE BUILDINGS AND SRUCTURES SHALL BE AS SHOWN ON THE PLANS.

GENERAL PIPELINE CONSTRUCTION NOTES:

1. THE PIPELINE SHALL BE STAKED PER THE DRAWINGS. LAYOUT SHALL BE APPROVED BY THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
2. 30" PIPELINE SHALL BE AWWA C905 GASKETED PVC PIPE, DR 51 RATED FOR 80 PSI. FITTINGS SHALL BE MECHANICAL JOINT DUCTILE IRON FITTINGS.
3. PIPE SHALL BE INSTALLED WITH A MINIMUM DEPTH OF COVER OF 4.0-FT. AND A MAXIMUM DEPTH OF COVER OF 9 FEET.
4. AIR AND VACUUM RELIEF VALVES OR VENTS ARE REQUIRED AT ALL HIGH POINTS, THE APPROXIMATE LOCATION OF AIR AND VACUUM RELIEF VALVES OR VENTS ARE SHOWN ON THE DRAWINGS. ADDITIONAL AIR AND VACUUM RELIEF VALVES OR VENT ASSEMBLIES MAYBE REQUIRED.
5. MAINTAIN A MINIMUM CLEARANCE OF 12-INCHES BETWEEN EXISTING UTILITIES AND PIPELINES.

GENERAL STRUCTURE NOTES:

1. STRUCTURAL CONCRETE FOR REINFORCED CONCRETE STRUCTURES TO BE CONSTRUCTED PER COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD PLAN NO. M-601-20 WINGWALS FOR PIPE OR BOX CULVERTS AND STANDARD PLAN NO. M-601-10 HEADWALLS FOR PIPES. PROVIDE AND INSTALL REBAR PER STRUCTURE DETAILS. REBAR SIZES AND QUANTITY ARE INCREASED TO PROVIDE ADDITIONAL STRUCTURAL SUPPORT FOR A 250 PSI LIVE LOAD SURCHARGE PRESSURE ON THE BACKFILL SIDE OF EACH STRUCTURE.
2. CONCRETE SHALL BE CLASS D CONCRETE PER CDOT STANDARD SECTION 601 STRUCTURAL CONCRETE. ONE CONCRETE SAMPLE MUST BE TESTED FOR STRENGTH FOR EACH POUR AT EACH STRUCTURE. TESTING TO BE PROVIDED BY CONTRACTOR AND REPORTS PROVIDED TO OWNER.
3. PROVIDE AND INSTALL REINFORCING STEEL PER CDOT STANDARD SPECIFICATION SECTION 602. SIZE, PLACEMENT, AND QUANTITY PER DETAILS.
4. REINFORCING BAR LAP LENGTHS SHALL BE A MINIMUM OF 24" FOR #4 REBAR, AND A MINIMUM OF 30" FOR #5 REBAR.
5. THE MINIMUM REINFORCING BAR STANDARD HOOK DEVELOPMENT LENGTH SHALL BE A MINIMUM OF 12" FOR #4 REBAR, AND 16" FOR #5 REBAR.
6. PROVIDE AND INSTALL ADDITIONAL REBAR AT STRUCTURE CORNERS AND AROUND PIPE PENETRATIONS PER CDOT STANDARDS.
7. PROVIDE AND INSTALL STRUCTURAL FILL UNDER CONCRETE STRUCTUES. STRUCTURAL FILL SHALL BE CLASS 1 AGGREGATE BASE COURSE PROVIDED AND INSTALLED PER CDOT STANDARD SPECIFICATION SECTION 703.03.
8. BACKFILL CONCRETE STRUCTURES WITH EXCAVATED NATIVE SOIL. SOIL SHALL BE COMPACTED IN 9-INCH LIFTS TO 95% STANDARD PROCTOR DENSITY.
9. RIP-RAP SHALL BE PROVIDED AND INSTALLED PER CDOT STANDARD SPECIFICATION SECTION 506.
10. RIP-RAP FILTER BED MATERIAL SHALL BE CLASS \_\_\_\_\_ INSTALLED AND PROVIDED PER CDOT STANDARD SPECIFICATION SECTION 703.09 FILTER MATERIAL.
11. RESEED DISTURBED AREAS PER \_\_\_\_\_.

CONNECTION TO CITY OF PUEBLO RAW WATER PIPELINE FOR RESERVOIR FILLING:

1. AGRA HAS STARTED NEGOTIATIONS WITH THE CITY OF PUEBLO TO UTILIZE THE EXISTING 78-INCH DIAMETER STEEL RAW WATER PIPELINE TO CONVEY WATER OWNED OR LEASED BY AGRA TO BE CONVEYED TO THE PUEBLO WEST RESERVOIR FROM PUE BLO RESERVOIR. DETAILS FOR THE CONNECTION HAVE NOT BE WORKED OUT AT THIS TIME. THESE PLANS SHOW A CONCEPTUAL CONNECTION TO THE PIPELINE AND INCLUDES A WELDED FLANGED CONNECTION TO THE PIPELINE, 30" BUTTERFLY VALVE, AIR AND VACUUM RELEASE VALVE, WATER METER, AND OUTLET STRUCTURE WITH A GROUTED RIP RAP RUNDOWN TO DELIVER WATER TO THE RESERVOIR. ESTIMATED FLOW RANGE IS UPTO 30 CFS. THE FINAL DESIGN FOR THE FILL PIPE AND APPURTANCES WILL BE ADJUSTED FOR THE ACTUAL HGL OF THE RAW WATER PIPELINE. CONNECTION TO THE PIPELINE WIL NEED TO BE THOROUGHLY COORDINATED WITH THE CITY OF PUEBLO.
2. PIPE SHALL BE INSTALLED WITH A MINIMUM DEPTH OF COVER OF 4-FT EXCEPT WHERE THE PIPELINE IS CURVING UP TO THE OUTLET INVERTS INTO EACH POND. MINIMUM COVER AT THE OUTLET POINTS IS 2-FT.
3. MAINTAIN A MINIMUM CLEARANCE OF 12-INCHES BETWEEN EXISTING UTILITIES AND PIPELINES.
4. COORDINATE INSTALLATION OF METERS PER STATE OF COLORADO DIVISION OF WATER RESOURCES REQUIREMENTS TO MEASURE FLOW INTO AND OUT OF THE PUEBLO WEST RESERVOIR.

SUBMERSIBLE COLUMN PUMP SPECIFICATIONS:

1. THE SUBMERSIBLE CAN PUMP SHALL PROVIDE THE FOLLOWING FLOW AT THE TDH (TOTAL DYNAMIC HEAD) NOTED AT 1180 RPM (FULL SPEED);  
A. A FLOW RANGE OF 7 CFS TO 20 CFS AT 30 FT OF TOTAL DYNAMIC HEAD (TDH).
2. THE PUMP CURVE SHALL BE CONTINUOUS RISING FROM MAXIMUM FLOW TO SHUT-OFF HEAD. THE PUMP SHALL BE RATED FOR CONTINUOUS OPERATION FOR FLOWS ABOVE 7 CFS .
3. COLUMN PIPE: THE SUBMERSIBLE SHALL BE INSTALLED IN A 32" DIAMETER, FLANGED STEEL PIPE PER THE INSTALLATIONS DETAILS AND PUMP MANUFACTURERS SPECIFICATION AND RECOMMENDATION. THE PIPE SHALL BE ASTM A36 STEEL. THE PIPE SHALL BE COATED WITH TWO COATS OF A COAL TAR COATING, MOBILE MO-TAR 47 OR MANUFACTURERS RECOMMENDED PRODUCT. PIPE SHALL BE FABRICATED WITH STEEL GUIDES AS REQUIRED FOR THE PROPER INSTALLATION AND ALIGNMENT OF THE SUBMERSIBLE PUMP AND MOTOR. THE COLUMN PIPE SHALL INCLUDE ALL FITTINGS AND COMPONENTS AS SHOWN IN THE DRAWINGS INCLUDING:  
3.1. ACCESS FLANGE WITH SUBMERSIBLE PUMP ELECTRIC CABLE SEAL.  
3.2. WATERSTOP FLANGE AT INTAKE STRUCTURE.  
3.3. FABRICATED FLANGED EL (IMMEDIATELY UPSTREAM OF SUBMERSIBLE PUMP SUCTION)  
3.4. PUMP SUCTION INTAKE BELL SEATING FITTING  
3.5. 12-INCH FLANGED OUTLET TO WATER METER  
3.6. 2-INCH THREADED OUTLET FOR A AIR AND VACUUM RELIEF VALVE
4. A PULLING CABLE SHALL BE PROVIDED TO FACILITATE THE INSTALLATION AND REMOVAL OF THE SUBMERSIBLE PUMP AND MOTOR. THE CABLE MUST BE SECURED TO THE PUMP AND MOTOR ASSEMBLY AND TO A HOOK LOCATED WITHIN THE PUMP COLUMN PIPE AT THE ACCESS FLANGE WITHIN THE PUMP HOUSE..
5. THE SUBMERSIBLE PUMP MOTOR SHALL BE SUITABLE FOR USE WITH A VARIABLE FREQUENCY DRIVE (VFD). THE PUMP MOTOR SHALL BE SIZED SUCH THAT THE PUMP HORSEPOWER REQUIREMENT DOES NOT EXCEED THE PUMP NAME PLATE HORSE POWER (DE-RATED FOR USE AT AND ELEVATION OF 5,000 FT PER MOTOR MANUFACTURERS CATALOG DATA ) AT ANY POINT ALONG THE PUMP CURVE. A 125 HP PUMP MOTOR IS ANTICIPATED.
6. THE SUBMERSIBLE PUMP CABLE SHALL BE AS PROVIDED BY THE PUMP MANUFACTURER. THE CABLE SHALL BE A SINGLE CABLE, CONTINUOUS IN LENGTH WITH NO SPLICES FROM THE PUMP MOTOR TO THE PUMP MOTOR CONTROL PANEL. A MINIMUM OF 10 OF EXCESS CABLE LENGTH SHALL BE PROVIDED. THE EXCESS CABLE SHALL BE COILED AND STORED IN THE PUMP STATION BUILDING..
7. THE PUMP MANUFACTURER SHALL SUBMIT PRODUCT SUBMITTALS AND SHOP DRAWINGS OF THE PUMP, MOTOR, SUBMERSIBLE POWER CABLE, FLANGED COLUMN PIPE, AND MISCELLANEOUS EQUIPMENT AND COMPONENTS FOR REVIEW AND APPROVAL BY OWNER PRIOR TO FABRICATION AND INSTALLATION. THE SUBMITTAL SHALL INCLUDE PUMP BOWL PERFORMANCE CURVES DOCUMENTING TDH, BRAKE HORSEPOWER, AND EFFICIENCY OVER THE ENTIRE PUMP OPERATING RANGE OF FLOWS.
8. THE SUBMERISBLE CAN PUMP SHALL BE MODEL NO. SEMF20 AS MANUFACTURED BY MWI COPORATION, DEERFIELD BEACH, FLORIDA OR ENGINEER APPROVED EQUAL. THE MWI REPRESENTATIVE IN COLORADO IS BOYER & SEELEY PUMPS & PROCESS INC.. PHONE NUMBER 303-741-2900.

ARKANSAS GROUNDWATER AND RESERVOIR ASSOCIATION

West Pueblo Reservoir

Pueblo County, Colorado

Notes

Wayne E. Eckas, P.E.

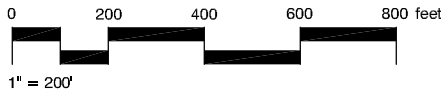
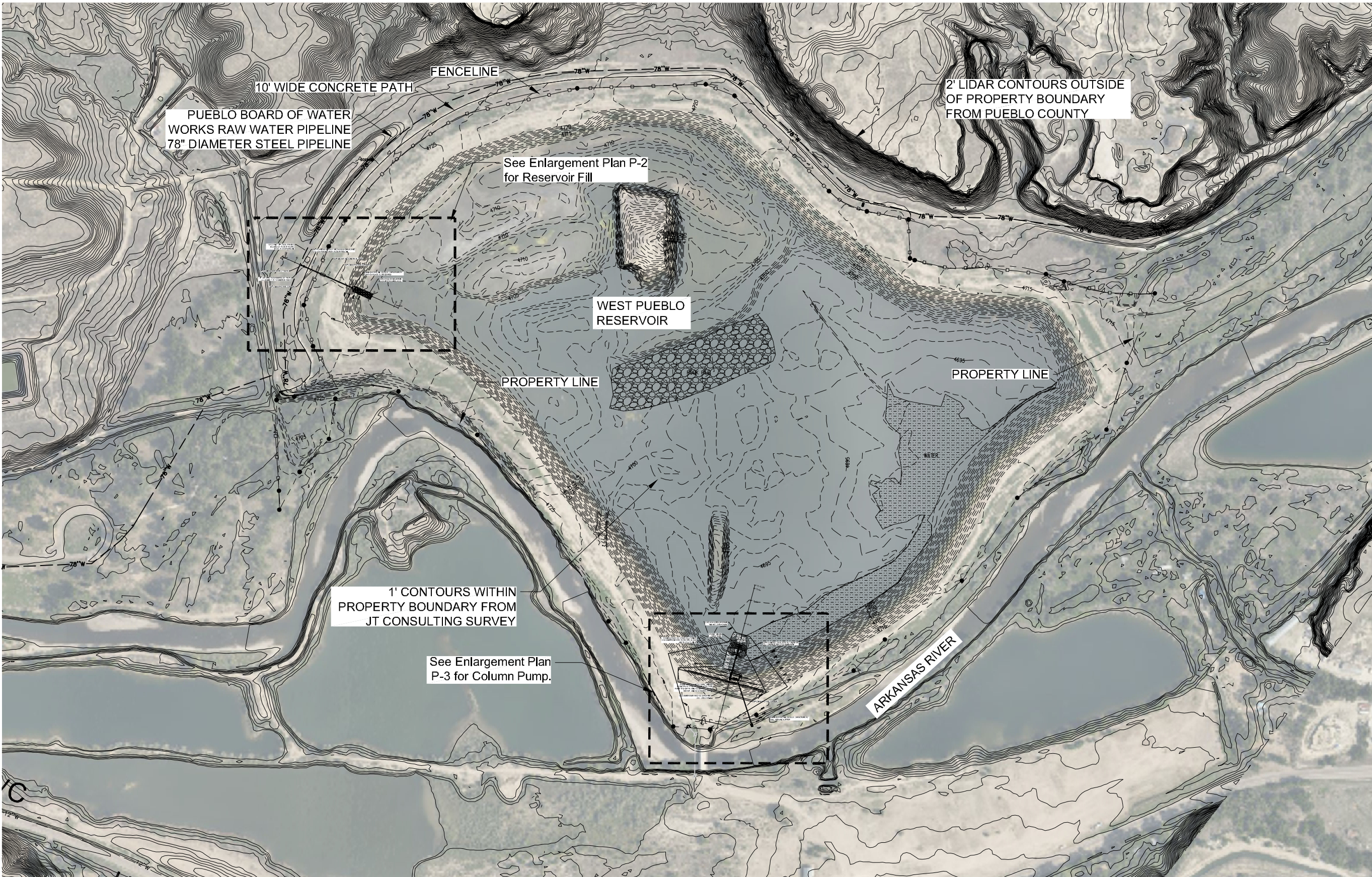
2171 Reliance Court  
Windsor, CO 80550  
970-690-1001 (Cell)

KNOW WHAT'S BELOW

811

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Note: Plan Scale is 1"=400'  
for 11" x 17" sheet

KNOW WHAT'S BELOW

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No.	Revisions:	Date:

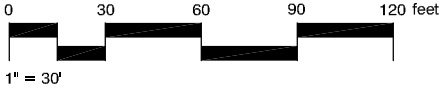
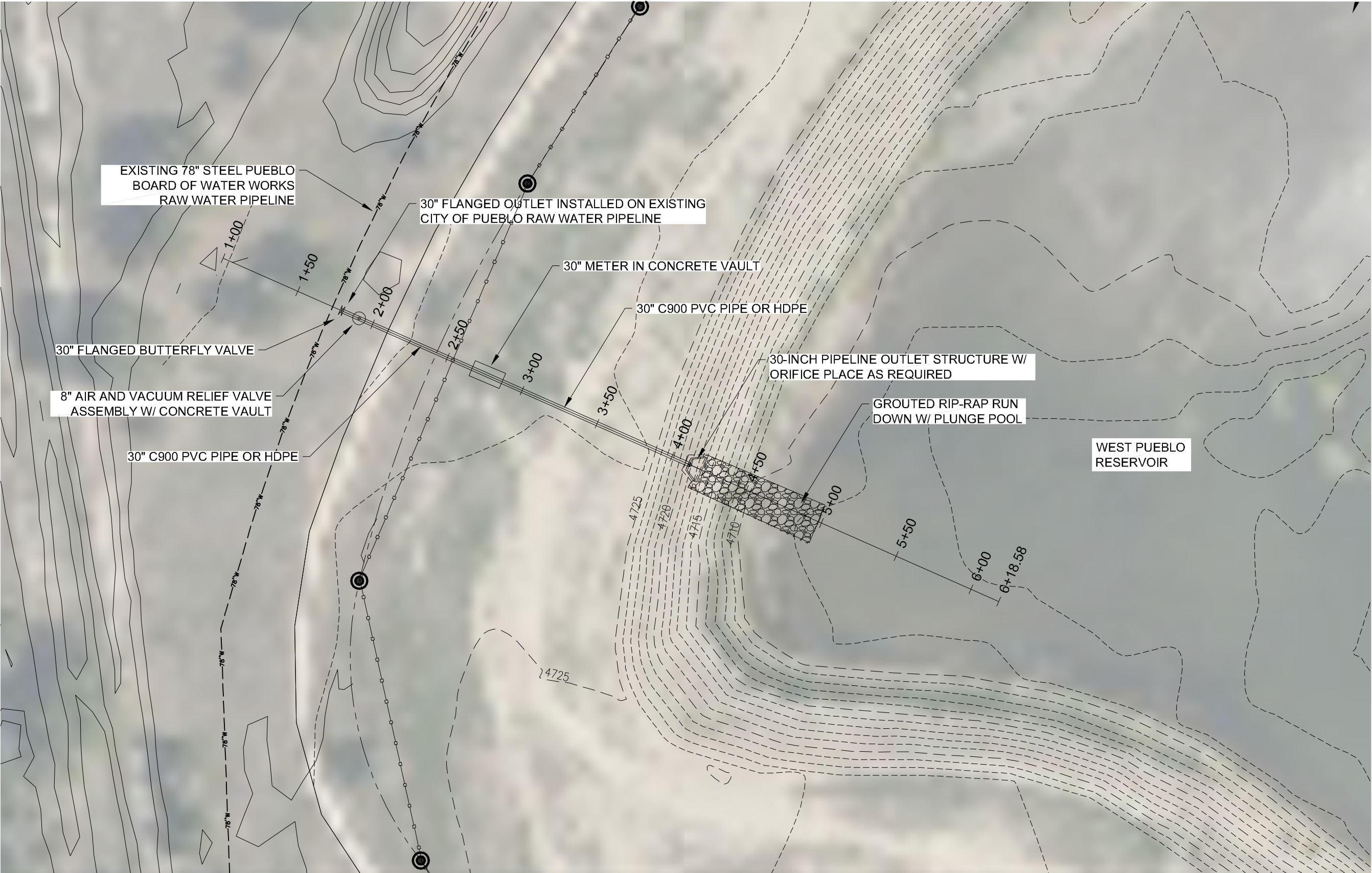
ARKANSAS GROUNDWATER AND RESERVOIR ASSOCIATION	Overall Plan
West Pueblo Reservoir Pueblo County, Colorado	

Wayne E. Eckas, P.E.
2171 Reliance Court Windsor, CO 80550 970-690-1001 (Cell)

Designed By: WEE
Drawn By: WEE
Checked By: DT
Date: 12-1-2021
Sheet No.

P-1





Note: Plan scale is 1" = 60'  
for 11 x 17 sheet

KNOW WHAT'S BELOW

**811**

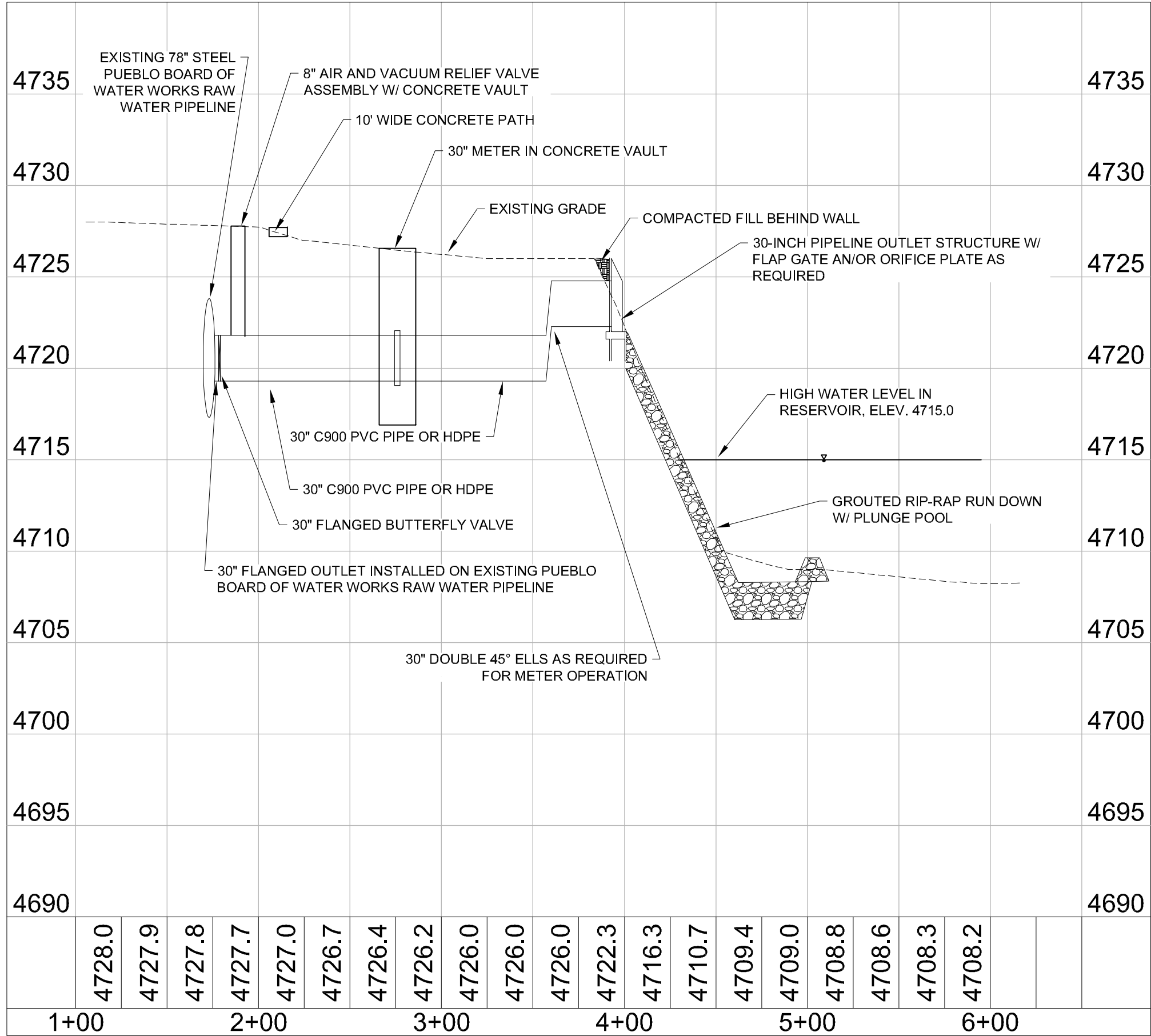
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Revisions:		Date:
No.	Revisions:	

ARKANSAS GROUNDWATER AND RESERVOIR ASSOCIATION	
West Pueblo Reservoir	
Pueblo County, Colorado	
Reservoir Fill — Enlargement Plan	

Wayne E. Eckas, P.E.	
2171 Reliance Court Windsor, CO 80550 970-690-1001 (Cell)	

Designed By:	WEE
Drawn By:	WEE
Checked By:	DT
Date:	12-1-2021
Sheet No.	P-2

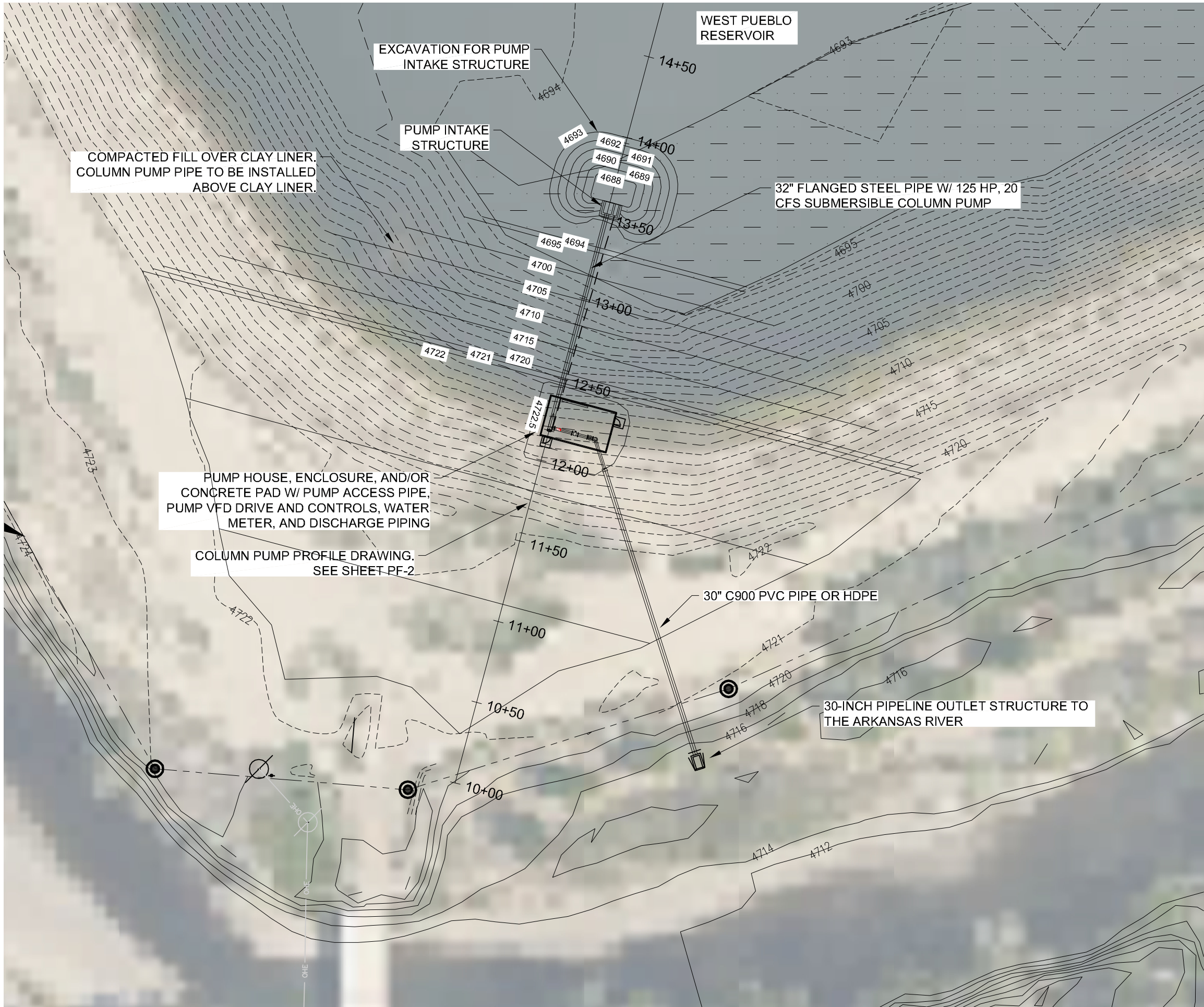


Horizontal Scale = 1"= 30'  
Vertical Scale 1" = 3'  
(Horizontal Scale = 1"= 60' for 11 x 17 plan  
Vertical Scale 1" = 6' for 11 x 17 plan)

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Arkansas Groundwater and Reservoir Association West Pueblo Reservoir Pueblo County, Colorado		Pond Fill - Profile	
Wayne E. Eckas, P.E. 2171 Reliance Court Windsor, CO 80550 970-690-1001 (Cell)			
Designed By: WEE		Date: 12-1-2021	
Drawn By: WEE		Sheet No. PF-1	
Checked By: DT			
No. Revisions:			
Date:			





Note: Plan scale is 1" = 60'  
for 11" x 17" plan

0 30 60 90 120 feet  
1" = 30'

NORTH

KNOW WHAT'S BELOW  
**811**  
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Revisions:		Date:
No.	Revisions:	

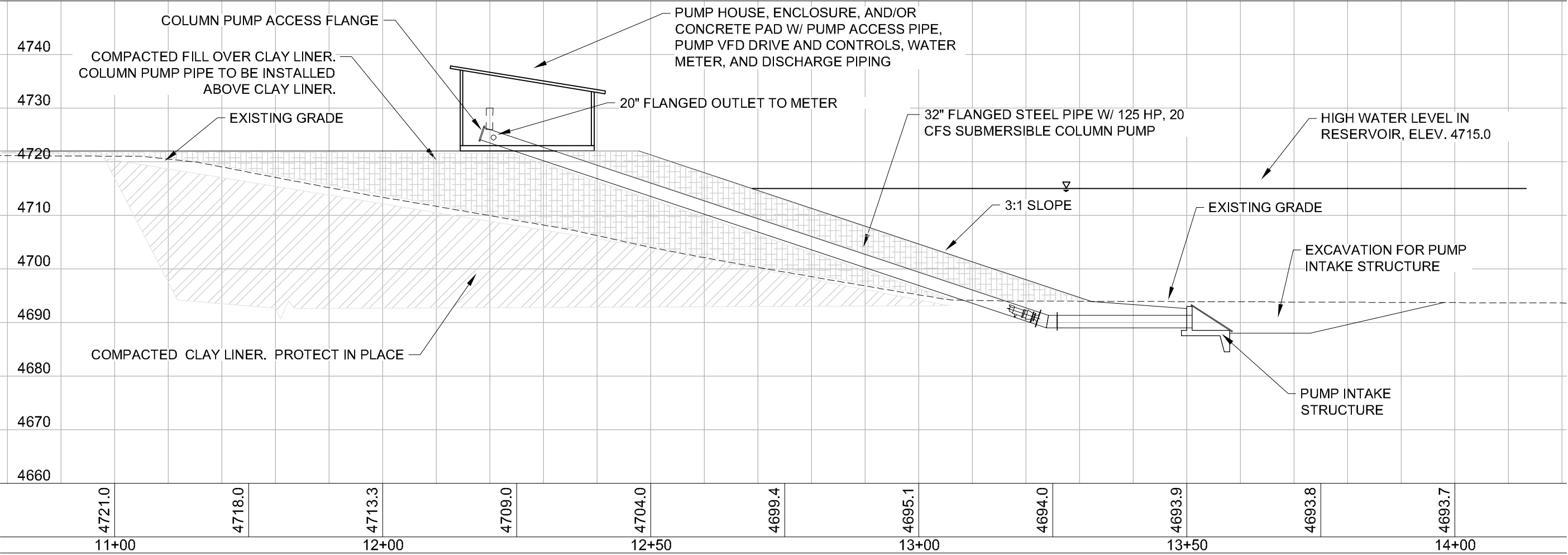
ARKANSAS GROUNDWATER AND RESERVOIR ASSOCIATION  
West Pueblo Reservoir  
Pueblo County, Colorado

Column Pump Enlargement Plan

Wayne E. Eckas, P.E.

2171 Reliance Court  
Windsor, CO 80550  
970-690-1001 (Cell)

Designed By:	WEE
Drawn By:	WEE
Checked By:	DT
Date:	12-1-2021
Sheet No.	P-3



2 Column Pump Profile  
Station 0+11 to 14+00

Horizontal Scale = 1"= 100'  
Vertical Scale 1" = 10'  
(Horizontal Scale = 1"= 20' for 11 x 17 plan  
Vertical Scale 1" = 10' for 11 x 17 plan

KNOW WHAT'S BELOW

811

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No.	Revisions:	Date:

ARKANSAS GROUNDWATER AND RESERVOIR ASSOCIATION  
West Pueblo Reservoir  
Pueblo County, Colorado

Column Pump Profile

Wayne E. Eckas, P.E.

2171 Reliance Court  
Windsor, CO 80550  
970-690-1001 (Cell)

Designed By:	WEE
Drawn By:	WEE
Checked By:	DT
Date:	12-1-2021
Sheet No.	PF-2

**Water Supply Reserve Fund  
Water Activity Summary Sheet  
March 15-16, 2022  
Agenda Item 25(b)**

**Applicant & Grantee:** Upper Arkansas Conservation District  
**Water Activity Name:** Sunnyside Irrigation Ditch Rehabilitation  
**Water Activity Purpose:** Agricultural - Implementation  
**County:** Chaffee County  
**Drainage Basin:** Arkansas River  
**Water Source:** Arkansas River & Sunnyside Park Ditch  
**Amount Requested:** \$12,730 Arkansas Basin Account  
\$114,570 Statewide Account  
\$127,300 Total Request

**Matching Funds:** **Basin Account Match = \$12,730**  
• 11.11% of statewide request (meets 10% min)  
**Applicant & 3rd Party Match = \$501,500 - \$440,000 (cash)  
& \$61,500 (In-kind)**  
• 437% of the statewide request (meets 40% min)  
**Total Match (Basin request & Applicant Match) = \$514,230**  
• 448% of the statewide request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$12,730 from the Arkansas Basin Account and up to \$114,570 from the Statewide Account to help fund the project: Sunnyside Irrigation Ditch Rehabilitation

**Water Activity Summary:** The Sunnyside Park Ditch serves 17 shareholders including several large ranches irrigating 780 acres and impacting over 10,000 acres of land. The ditch runs along two miles of the Arkansas River, through two growing subdivisions and is clearly visible from two major highways making it an accessible, visible demonstration site for Integrated Watershed Management Planning (IWMP) activities.

This project was chosen based on need due to the ditch experiencing leakage issues and is increasingly difficult to maintain due to housing developments along the ditch as well as willingness and readiness of major shareholders to participate in IWMP activities. Ditch shareholders have participated in grant writing, feasibility planning, agriculture community outreach and the NRCS EQIP application process for this project.

If approved, WSRF funds will be used to match funds obtained through Chaffee Common Ground, NRCS-EQIP and Colorado State Conservation Board (CSCB) for implementation of this ditch rehabilitation project which entails laying 2,800 feet of pipe, installing water control structures and seeding disturbed areas.

The applicant continues to lead IWMP activities in the Upper Arkansas Watershed and will continue to present this proposal as a demonstration site and an example of stakeholder collaboration, natural resource conservation practice, and support for sustaining agriculture.

**Discussion:** This project supports the goals of the Colorado Water Plan and the Arkansas Basin Roundtable Implementation plan by improving irrigation efficiency, reducing loss and improving safety conditions in the project area. Additionally, this project supports and Integrated Watershed Planning process and is being utilized as a way of “sharing lessons, principles, and practices in ways that foster collaboration between basins and disciplines-encouraging effective project implementation and on the ground actions.”

**Issues/Additional Needs:** No issues or additional needs have been identified.

**Eligibility Requirements:** The application meets requirements of all eligibility components.

**Evaluation Criteria:** Staff has determined this activity satisfies the Evaluation Criteria.

<b>Funding Sources/Match</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Status</b>
Chaffee Common Ground	\$100,000	\$0	\$100,000	Secured
NRCS - EQIP	\$340,000	\$0	\$340,000	Secured
Sunnyside Park Ditch Shareholders	\$7,250	\$7,250	\$14,500	Secured
CSCB	\$25,000	\$0	\$25,000	Secured
AgWater Network	\$22,000	\$0	\$22,000	Secured
<b>Sub-Total Matching Funds</b>	<b>\$494,250</b>	<b>\$7,250</b>	<b>\$501,500</b>	
WSRF Arkansas Basin Account	\$12,730	\$0	\$12,730	Secured
WSRF Statewide Account	\$114,570	\$0	\$114,570	
<b>Sub-Total WSRF Funds</b>	<b>\$127,300</b>	<b>\$0</b>	<b>\$127,300</b>	
<b>Total Project Costs</b>	<b>\$621,550</b>	<b>\$7,250</b>	<b>\$628,800</b>	

**CWCB Project Manager:** Rachel Pittinger





Last Update: July 20, 2021

**Colorado Water Conservation Board**

**Water Supply Reserve Fund  
Grant Application**

**Instructions**

All WSRF grant applications shall conform to the current [2020 WSRF Criteria and Guidelines](#).

To receive funding from the WSRF, a proposed water activity must be recommended for approval by a Roundtable(s) **AND** the approved by the Colorado Water Conservation Board (CWCB). The process for roundtable consideration and recommendation is outlined in the 2020 WSRF Criteria and Guidelines. The CWCB meets bimonthly.

If you have questions, please contact the WSRF Grant Program Manager (for all Roundtables) or your Roundtable Liaison:

Ben Wade  
[ben.wade@state.co.us](mailto:ben.wade@state.co.us)  
303-866-3441 x3238 (office)

Sam Stein  
[Sam.stein@state.co.us](mailto:Sam.stein@state.co.us)  
303-866-3441 (office)

**WSRF Submittal Checklist (Required)**

YES ☐ NO ☐ This request was recommended for CWCB approval by the sponsoring roundtable.

YES ☐ NO ☐ I have read and understand the [2020 WSRF Criteria and Guidelines](#).

YES ☐ NO ☐ Grantee will be able to contract with CWCB using the [Standard Contract](#).<sup>1</sup>

**Application Documents included:**

YES ☐ NO ☐ Exhibit A: Statement of Work<sup>2</sup> (*Word – see Template*)

YES ☐ NO ☐ Exhibit B: Budget (including Detailed Budget) & Schedule<sup>2</sup> (*Excel Spreadsheet – see Template*)

YES ☐ NO ☐ Letters of Matching and/or Pending 3<sup>rd</sup> Party Commitments<sup>2</sup>

YES ☐ NO ☐ Map<sup>2</sup>

YES ☐ NO ☐ Photos/Drawings/Reports

YES ☐ NO ☐ Letters of Support

**Contracting Documents<sup>3</sup>**

YES ☐ NO ☐ Detailed/Itemized Budget<sup>3</sup> (*Excel Spreadsheet – see Template*)

YES ☐ NO ☐ Certificate of Insurance<sup>4</sup> (*General, Auto, & Workers' Comp.*)

YES ☐ NO ☐ Certificate of Good Standing<sup>(4)</sup>

YES ☐ NO ☐ W-9 Form<sup>4</sup>

YES ☐ NO ☐ Independent Contractor Form<sup>4</sup> (*If applicant is individual, not company/organization*)

YES ☐ NO ☐ Electronic Funds Transfer (ETF) Form<sup>4</sup>

<sup>1</sup>Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

<sup>2</sup> Required with application if applicable.

<sup>3</sup> Additional documentation providing a Detailed/Itemized Budget maybe required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

<sup>4</sup> Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.



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Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	October 1	Basin Account
March	December 1	Basin/Statewide Account/Water Plan Grant Match <sup>1</sup>
May	February 1	Basin Account
July	April 1	Basin Account
September	June 1	Basin/Statewide Account
November	August 1	Basin Account

<sup>1</sup> If either the basin or statewide match includes matching funds from a pending Water Plant Grant, both must be submitted by December 1st deadline for March Board meeting review.

Water Activity Summary		
Name of Applicant	Upper Arkansas Conservation District	
Name of Water Activity	Sunnyside Irrigation Ditch Rehabilitation	
Approving Roundtable(s)	Basin Account Request(s) <sup>1</sup>	
Arkansas Basin	\$12,730.00	
Basin Account Request Subtotal	\$12,730.00	
Basin Account Request Subtotal Approved by Roundtable	\$12,730.00	
Statewide Account Request <sup>(1)</sup>	\$114,570.00	
Total WSRF Funds Requested (Basin & Statewide)	\$127,300.00	
Total Project Costs	\$628,814.00	

<sup>1</sup> Please indicate the amount recommended for approval by the Roundtable(s)

Grantee and Applicant Information	
Name of Grantee(s)	Upper Arkansas Conservation District
Mailing Address	5575 Cleora Road, Salida, CO 81201
FEIN	84-0677889



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Grantee and Applicant Information	
<b>Grantee's Organization Contact<sup>1</sup></b>	Nancy Roberts
Position/Title	Board President
Email	upperarkansascd@gmail.com
Phone	303-618-3135
<b>Grant Management Contact<sup>2</sup></b>	<u>Natalie Allio</u>
Position/Title	Agriculture Programs Manager/District Manager
Email	upperarkansascd@gmail.com
Phone	719-619-6457
<b>Name of Applicant (if different than grantee)</b>	
Mailing Address	
Position/Title	
Email	
Phone	

<sup>1</sup> Person with signatory authority

<sup>2</sup> Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee	
Provide a brief description of the grantee's organization (100 words or less).	
<p>The Upper Arkansas Conservation District serves as a legal entity to organize local landowners to voluntarily control soil erosion and manage natural resources such as soil and water. For over 50 years, the Upper Arkansas Conservation District has cooperated with individuals, ditch companies, local, county, state and federal agencies/government departments to address natural resource concerns. The Upper Arkansas Conservation District serves landowners within district boundaries (covering approximately 670,000 acres) by developing and implementing collaborative programs for conservation and stewardship of natural resources through education and outreach, assistance with farm/ranch management, and securing cost-share funding to address landowner natural resource concerns.</p>	
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.
X	<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> are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.



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Type of Eligible Entity (check one)	
<input type="checkbox"/>	<b>Non-governmental organizations:</b> broadly, any organization that is not part of the government
<input type="checkbox"/>	<b>Covered Entity:</b> as defined in <a href="#">Section 37-60-126 Colorado Revised Statutes</a>

Type of Water Activity (check one)	
<input type="checkbox"/>	Study
<input checked="" type="checkbox"/>	Implementation

Category of Water Activity (check all that apply)		
<input type="checkbox"/>	Nonconsumptive (Environmental)	
<input type="checkbox"/>	Nonconsumptive (Recreational)	
<input checked="" type="checkbox"/>	Agricultural	
<input type="checkbox"/>	Municipal/Industrial	
<input type="checkbox"/>	Needs Assessment	
<input type="checkbox"/>	Education & Outreach	
<input type="checkbox"/>	Other	Explain:

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in <b>decimal degrees</b> . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Counties	Chaffee
Latitude	38°36'45.50"N, Lon 105°03'41.67"W
Longitude	105°03'41.67"W

Water Activity Overview
<p>Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. 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, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain.</p> <p>The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.</p>



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### Water Activity Overview

The Sunnyside Park Ditch serves 17 shareholders including several large ranches irrigating 780 acres and impacting over 10,000 acres of land. It runs along 2 miles of the Arkansas river, through two growing subdivisions and is clearly visible from two major highways making it an accessible, visible demonstration site for Integrated Watershed Management Planning (IWMP) activities.

This project was chosen based on need (the ditch is experiencing leakage issues and is increasingly difficult to maintain due to housing developments along the ditch) as well as willingness and readiness of major shareholders to participate in IWMP activities. Ditch shareholders have participated in grant writing, feasibility planning, agriculture community outreach and the NRCS EQIP application process for this project.

WSRF funds will be used to match funds obtained through Chaffee Common Ground, NRCS-EQIP and Colorado State Conservation Board (CSCB) for implementation of this ditch rehabilitation project - laying 2,800 feet of pipe, installing water control structures and seeding disturbed areas.

UACD continues to lead IWMP activities in the Upper Arkansas Watershed and will continue to present this project as a demonstration site and an example of stakeholder collaboration, natural resource conservation practice, and support for sustaining agriculture.

### Measurable Results

To catalog measurable results achieved with WSRF funds please provide any of the following values.

	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)	
2800	Length of Pipe/Canal Built or Improved (linear feet)	
	Other	Explain:

### Water Activity Justification

Provide a description of how this water activity supports the goals of [Colorado's Water Plan](#), the most recent [Statewide Water Supply Initiative](#), and the respective [roundtable Basin Implementation Plan and Education Action Plan](#) <sup>(1)</sup>. 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).

For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in [2020 WSRF Criteria and Guidelines](#)).



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### Water Activity Justification

#### **Project Justification:**

##### **Colorado Water Plan – Chapter 9 Alignment of State Resources and Policies**

This project demonstrates commitment to collaboration (9-43). It has served as a demonstration of collaboration and support for the agriculture community as part of the larger Upper Arkansas Watershed Partnership process. Multiple participants are involved including the Upper Arkansas Watershed Partnership, Upper Arkansas Conservation District, Sunnyside Ditch Company, Ag Water NetWORK and Colorado State Conservation Board.

This project demonstrates sustainability (9-44) through rehabilitation of aging irrigation infrastructure.

This project demonstrates sound fiscal and technical feasibility (9-44). A feasibility study has been completed using an NRCS engineer for technical assistance and working with an additional local engineer. The rehabilitation project will be implemented in accordance with Feasibility Study recommendations for efficient, cost effective solutions. Funding has been secured through local, state and federal resources and will be leveraged with WSRF funds to pay for this project. Preliminary planning and design work is completed and ditch improvements are being reviewed by the Division of Water Resources to ensure compliance with any efficiency regulations. The project is ready to proceed upon receipt of necessary funding.

#### **CWCB 2021 Water Plan Update Guidance Document**

##### **Emerging Challenges & Opportunities (pages 2-4)**

**INFRASTRUCTURE ENHANCEMENTS** – This infrastructure enhancement project will improve irrigation efficiency by reducing evaporative losses, reduce water loss due to seepage, and establish increasingly adaptive operations.

**EXPANDED WATERSHED MANAGEMENT PLANS** - Management plans like Stream Management Plans (SMPs), Integrated Water Management Plans (IWMPs), and other efforts (e.g. River Health Assessments) work to provide deeper levels of understanding that help shape basin priorities as they are developed. This project is supports an Integrated Watershed Planning process and is being utilized as a way of “sharing lessons, principles, and practices in ways that foster collaboration between basins and disciplines — encouraging effective project implementation and on the ground actions.”

#### **CWCB Water Plan Action Plan Chapter 10**

##### **Section D Agriculture (p. 10)**

**Maintain Agricultural Viability:** This ditch serves 17 shareholders including several large ranches irrigating 780 acres and impacting over 10,000 acres of land. It is critical to the viability of these ranching operations.

#### **CWCB Water Plan Section 6: Water Supply Management**

**Sec. 6.3.4 Action:** Continue to support the rehabilitation of diversions and ditches. This ditch rehabilitation project will be used in as a demonstration project with the goal of identifying addition multi-benefit diversion and ditch projects.

#### **This project aligns with the following Arkansas Basin BIP Goals & Objectives:**

##### **Arkansas River Basin 2015 BIP**

##### **Sec. 1.6.2.2: Agricultural Goals & Objectives**

1. Sustain an annual \$1.5 billion agricultural economy in the basin;



Last Update: July 20, 2021

Water Activity Justification
<p><b>UPDATED Arkansas River Basin Roundtable Goals (2021)</b></p> <p><u>Agricultural Goals</u></p> <ol style="list-style-type: none"> <li>1. Support projects within and outside the Basin that will help meet the Arkansas Basin Agriculture water supply gap, maintain existing supplies, better manage vulnerable supplies, and maximize utilization of water users' entitlements.</li> <li>2. Sustain a productive agricultural economy in the Basin that sustains viable rural, agriculturalbased communities.               <ol style="list-style-type: none"> <li>b. Support efforts that maximize productivity while making the most efficient use of ag water supplies</li> </ol> </li> <li>5. Sustain recreation and environmental activities that depend on habitat and open space associated with farm and ranch land.               <ol style="list-style-type: none"> <li>b. Look at current multi-purpose projects and identify successful strategies that support both ag and E&amp;R values.</li> </ol> </li> </ol>

<sup>1</sup> Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.

Matching Requirements: Statewide Account Requests	
<p><b>Statewide Account</b> grant requests require a 50% match as described in the <a href="#">2020 WSRF Criteria and Guidelines</a>. At least of 10% of the required Statewide Account Grant request match shall be cash from Basin Account funds whether that is from one or multiple basins; and the remaining 40% of the required match may be provided from any source, including other grants, cash from the Basin Account, or any combination of cash, in-kind services, or in-kind materials.and shall be accompanied by a <b>letter of commitment</b>. Attach additional sheet if necessary.</p>	
Contributing Entity	Amount and Form of Match (note cash or in-kind):
Chaffee Common Ground	\$100,000.00
NRCS-EQIP	\$340,000.00
In Kind (and Shareholder funds)	\$61,500.00
Total Match	\$501,500.00
<p>If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).</p>	



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#### Related Studies

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

This activity is complimentary to and assists in the implementation of Upper Arkansas Watershed Resiliency Plan. It is supported by a feasibility and design report performed by NRCS and HydroGeo Design LLC.

#### Previous CWCB Grants

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

Upper Arkansas Conservation District: WPGGF/CWRP upper ark watershed resiliency plan CMS#169448  
Upper Arkansas Conservation District: WPGGF/CWRP upper ark watershed resiliency plan CMS#169448

#### Tax Payer Bill of Rights

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



# Arkansas Basin Roundtable

November 16, 2021

**Via Electronic Mail: [ben.wade@state.co.us](mailto:ben.wade@state.co.us)**

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

Re: Water Supply Reserve Fund Grant Application: *Upper Arkansas Conservation District – Sunnyside Ditch Project*

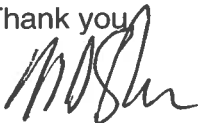
Dear Ben:

At its November 10, 2021, meeting, the Arkansas Basin Roundtable (ABRT) approved support of the Sunnyside Ditch Project request for \$12,370 from the Arkansas Basin account and an additional \$114,570 from the Statewide account. The applicant is providing \$501,514 in matching funds.

This project supports the goals of the Colorado Water Plan and the Arkansas Basin Roundtable Implementation plan by improving irrigation efficiency, reducing losses and improving safety conditions in the project area. Additionally, this project supports an Integrated Watershed Planning process and is being utilized as a way of “sharing lessons, principles, and practices in ways that foster collaboration between basins and disciplines — encouraging effective project implementation and on the ground actions.”

The Arkansas Basin Roundtable approved supporting this application by consensus and there were no dissenting views.

Should you have any questions or concerns, please feel free to contact me either by telephone, (719) 668-8028

Thank you  


Mark Shea  
Chair

Copy via email: applicant; Abby Ortega/Needs Assessment Chair

## Arkansas Basin Roundtable

November 16, 2021

***Via Electronic Mail: [ben.wade@state.co.us](mailto:ben.wade@state.co.us)***

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

Re: Water Supply Reserve Fund Grant Application: *Upper Arkansas Conservation District – Sunnyside Ditch Project*

Dear Ben:

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Thank you  
  
Mark Shea  
Chair

Copy via email: applicant; Abby Ortega/Needs Assessment Chair



UPPER ARKANSAS  
**WATER CONSERVANCY**  
DISTRICT

November 17, 2021

Ms. Natalie Allio, District Manager  
Upper Arkansas Conservation District  
5575 Cleora Road  
Salida, CO 81201

Re; Support for the Sunnyside Ditch Piping Grant Application

Dear Ms. Allio;

The Water District was formed to support and protect water rights in the Upper Arkansas Basin. The subject project is important since it protects the continued delivery and beneficial use of water in the Upper Basin and therefore the goals and purposes of the Upper Arkansas Water Conservancy District.

The Water Supply Reserve Account Grant funds administered by Colorado Water Conservation Board through the Arkansas Basin Roundtable are intended for these type projects. Based upon the mission and purposes of the Water District and the Roundtable we wholeheartedly support this grant request.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ralph L. Scanga, Jr.', followed by a horizontal line.

Ralph L. Scanga, Jr  
General Manager



Natural Resources Conservation Service  
Salida Field Office  
5575 Cleora Road  
Salida, CO 81201

---

November 23, 2021

CWCB – WSRF Grant Program  
Attn: Ben Wade Program Manager

Re: Letter of Commitment – Sunnyside Park Ditch Company Pipeline Project

Dear Mr. Wade:

The Natural Resources Conservation Service (NRCS) is committed to ensuring productive working lands and healthy ecosystems. NRCS supports activities that address natural resource and socio/economic concerns. The Sunnyside Park Ditch Company Pipeline Project is an irrigation water improvement project that will protect almost ½ mile of fragile Arkansas riverbank and the residential homes that have been built above it by replacing that section of 100+ year old dirt ditch with a 48" diameter pipeline.

NRCS funded a large, (\$368,673) Environmental Quality Incentives Program contract for this project to be completed in FY 22. This grant will allow the shareholders of the Sunnyside Ditch to complete this project without incurring undue personal financial hardship.

Please accept this letter of awareness that NRCS has provided financial and technical assistance to the Sunnyside Park Ditch Company and is committed to natural resource conservation.

Thank you,

A handwritten signature in blue ink that reads "Joni".

Joni Burr  
Resource Conservationist, NRCS/USDA  
[jeni.burr@usda.gov](mailto:jeni.burr@usda.gov)  
719-626-3170

NRCS  
Helping People Help the Land

USDA is an equal opportunity provider, employer, and lender.



#### Exhibit A

Date: 11/24/2021

#### Project Name:

Sunnyside Park Ditch – Sunnyside Park Ditch Rehab Project

#### Approved Funding:

2021 - \$50,000

2022 - \$50,000 (Contingent on Annual Appropriations)

#### Purpose:

Grant dollars must be used for the purposes stated in the application, and copied below.

1. Purchase and install pipe for highest priority 40% of the two-mile stretch of the ditch that runs along the Arkansas River that needs over 2021 and 2022.

#### Grant Deliverables:

Specific deliverables, as listed below directly from the grant application, are expected as a result of this funding:

1. Install pipe to prevent leakage along the river.
2. Issue at least one press release, take photos/videos of your project, follow signage requirements and post information about your project on social media. Share these deliverables with Common Ground when you complete them ([ccg.cac@gmail.com](mailto:ccg.cac@gmail.com)) per the Communications Guidance. Support is available if needed by contacting Common Ground.
3. Cash match delivered to the project will be:
  - a. Sunnyside Park Ditch - \$5,488.50
  - b. NRCS - \$383,282
  - c. Colorado State Conservation Board - \$32,000
4. In-kind match delivered to the project will be:
  - a. Sunnyside Park Ditch - \$19,680 for planning and procurement and project oversight

#### Roles and Responsibilities:

The terms and conditions of this Exhibit are hereby accepted and agreed to by the undersigned  
as of the above date.

GRANTEE

By: \_\_\_\_\_

Printed Name:

Title:

GRANTOR

By \_\_\_\_\_



**COLORADO**

Colorado Water  
Conservation Board

Department of Natural Resources

Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

<b>Colorado Water Conservation Board</b>	
<b>Water Supply Reserve Fund</b>	
<b><u>Exhibit A - Statement of Work</u></b>	
<b>Date:</b>	
<b>Water Activity Name:</b>	<b>Sunnyside Park Ditch Rehabilitation</b>
<b>Grant Recipient:</b>	
<b>Funding Source:</b>	
<b>Water Activity Overview:</b> (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for. (PLEASE DEFINE ALL ACRONYMS).)	
<p>The Sunnyside Ditch project is critical component of a locally driven watershed planning effort by the Upper Arkansas Watershed Partnership (UAWP). This effort has received support through the CWCB Water Restoration Fund (\$99,000) and the CWCB Water Plan Fund (\$27,500) to work with the agricultural community to identify key issues, challenges, and opportunities their operations face in order to develop projects that mitigate risk, improve efficiency, and keep agriculture operations viable. Information obtained in this planning process will also help inform conversations at the basin and state level regarding supply, abandonment, infrastructure, augmentation, climate adaptation, and development.</p> <p>The project was identified early in the watershed planning process as an opportunity to build and improve relationships within the agriculture community and the broader stakeholder community while improving irrigation water efficiency on a major ditch. It will also serve as an example for education and outreach to engage other irrigators and water stakeholders in planning to improve efficiency of water use and agriculture resiliency in the Upper Arkansas Watershed.</p> <p>WSRF funds will be used to match funds secured through National Resource Conservation Service (NRCS) (\$340,000), Chaffee County Common Ground (\$100,000), and Colorado State Conservation Board (CSCB) (\$25,000) to implement ditch rehabilitation tasks.</p>	
<b>Objectives:</b> (List the objectives of the project. (PLEASE DEFINE ACRONYMS).)	



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<https://cwcb.colorado.gov/>

**Key objective: Sunnyside Ditch Rehabilitation**

1. Increase drought resiliency of operations served by Sunnyside ditch
2. Increase productivity of operations served by Sunnyside ditch

**Additional objectives:**

1. Strengthen relationships with local agricultural water users
2. Provide support for agricultural water users through education and system optimization.
3. Identify mutually-beneficial projects that can be addressed through a collaborative approach;

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 1 – Sunnyside Ditch Rehabilitation</u></b>
Description of Task: Ditch rehabilitation and improvements. Install pipeline, concrete inlet and screen, and cleanouts.  A feasibility study of the Sunnyside Ditch was completed in 2020 by an engineer from the NRCS and a local contractor.  Approximately 2800' of ditch was identified to be piped as the #1 priority. The ditch in this area runs directly parallel to the Arkansas River, the mesa above it has been developed with houses overlooking the ditch and river. This section of ditch is prone to blowouts due to damage from burrowing animals. The combination of steep slope/embankment and access through a development of multiple landowners, makes repairs to this area of the ditch very challenging.
Method/Procedure: Implementation of ditch improvement in accordance with NRCS recommendations.





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<https://cwcb.colorado.gov/>

Tasks
<ol style="list-style-type: none"><li>1. Replace the existing ditch with an underground pipeline.</li><li>2. Install a new concrete inlet and screen structure and run the ditch via gravity flow in a 48-inch buried pipe. Corrugated HDPE, corrugated metal pipe (CMP), reinforced concrete pipe (RCP) and solid PE pipe were evaluated for use. With provisions to maintain open channel flow, the Corrugated HDPE Plastic (HDPE-CPP), with smooth interior wall (ADS HP Storm Pipe) results in the most durable option that will accomplish the water user's objectives.</li><li>3. Install cleanouts along the pipeline alignment to provide additional maintenance points. Cleanouts will be placed in locations where water can be outletted safely in a non-threatening, and non-erosive manner, in the event of the pipeline plugging.</li></ol>
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Irrigation efficiency improved by approximately 17% through elimination of seepage losses in the conveyance system. Elimination of most daily maintenance requirements reducing labor/time by 30%. A significant increase in the service life (>25 years).
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
The Sunnyside Ditch Company will provide a report to CWCB documenting completion of this task. Photos and copies of invoices will be included.

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 2 - Agriculture Community Outreach and Engagement</u></b>
Description of Task: Plan/Implement Education and Outreach Activities
<p>This project will serve as a demonstration of collaboration and on the ground conservation practice in UAWP stakeholder outreach.</p> <p>As local conveners of the UAWP, the UACD (Upper Arkansas Conservation District) will collaborate with partners and funders including the Ag Water NetWORK, the River Network, Chaffee County Common Ground and CSCB to utilize this project as an educational demonstration site.</p>
Method/Procedure: On-site demonstrations, written and oral presentations through multiple networks



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Tasks
<p>Task 1: 1-2 Educational field trip(s) on site in 2022.</p> <p>Task 2: Engage in storytelling opportunities locally through Chaffee County Common Ground reporting, UACD communications, UAWP communications and local media outlets.</p> <p>Task 3: Engage in statewide communications with Colorado Association of Conservation Districts (CACD), Upper Arkansas Watershed Association, River Network and AG Water NetWORK.</p> <p>Task 4: Report progress and learning to Arkansas Basin Roundtable.</p> <p>.</p>
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
<p>Increased engagement from agriculture community in watershed planning activities including agriculture needs assessment, water and irrigation infrastructure assessment, and general community education and outreach.</p> <ul style="list-style-type: none"><li>- 20 agricultural (large) landowners will participate in educational field trip/workshop on Sunnyside Park Ditch to learn about collaborative opportunities in irrigation management.</li><li>- 60 community members will attend rancher/agriculture outreach event at or featuring Sunnyside Park Ditch to learn about agriculture irrigation and benefits to local community and eco-system.</li><li>- 3-5 Ditch Companies will perform infrastructure assessment and improvement as a result of Sunnyside Ditch project being used as an example of successful collaboration in outreach and information sharing.</li></ul>
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
Report to CWCB documenting outreach and education activities including results of evaluations and surveys.



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Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
1. <u>Task 3</u> -
Description of Task:
Method/Procedure:
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)



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**Repeat for Task 3, Task 4, Task 5, etc.**

### Budget and Schedule

**Exhibit B - Budget and Schedule:** This Statement of Work shall be accompanied by a combined [Budget and Schedule](#) that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format. A separate excel formatted Budget is required for engineering costs to include rate and unit costs.

### Reporting Requirements

**Progress Reports:** The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

**Final Report:** At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee'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.

### Payments

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. 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.

The CWCB will pay the last 10% of the entire water activity 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 water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

### Performance Requirements

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 Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per the 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 the 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.



**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

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### **Performance Requirements**

(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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**COLORADO**

Colorado Water  
Conservation Board

Department of Natural Resources

**Colorado Water Conservation Board**

**Water Supply Reserve Fund**

**EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs**

**Date: 10/19/2021**

**Water Activity Name: Irrigation Ditch Rehabilitation**

**Grantee Name: Upper Arkansas Conservation District Conservation**

<u>Task No.</u> <sup>(1)</sup>	<u>Description</u>	<u>Start Date</u> <sup>(2)</sup>	<u>End Date</u>	<u>Matching Funds</u> (cash & in-kind) <sup>(3)</sup>	<u>WSRF Funds</u> (Basin & Statewide combined) <sup>(3)</sup>	<u>Total</u>
<u>1</u>	Implementation	<u>6/1/2020</u>	<u>9/1/2021</u>	494,000	127,300	\$621,300
2	Outreach & Education			7,500		\$7,500
<b>Total</b>				\$501,500	\$127,300	\$628,800

**Water Supply Reserve Fund  
Water Activity Summary Sheet  
March 15-16, 2022  
Agenda Item 25(c)**

**Applicant & Grantee:** Center for Snow and Avalanche Studies

**Water Activity Name:** Colorado Dust on Snow Project

**Water Activity Purpose:** Agricultural, Education & Outreach, Municipal/Industrial  
Nonconsumptive (Environmental & Recreational) -  
Implementation

**County:** Multiple Counties across Mountainous Regions

**Drainage Basin:** Statewide

**Water Source:** N/A

**Amount Requested:** \$15,000 Arkansas Basin Account  
\$15,000 Colorado Basin Account  
\$15,000 Gunnison Basin Account  
\$15,000 Metro Basin Account  
\$15,000 Rio Grande Basin Account  
\$15,000 South Platte Basin Account  
\$15,000 Southwest Basin Account  
\$15,000 Yampa/White/Green Basin Account  
\$120,000 Statewide Account  
\$240,000 Total Request

**Matching Funds:** **Basin Account Match = \$120,000**  
• 100% of statewide request (meets 10% min)  
**Applicant & 3rd Party Match = \$274,000 (cash)**  
• 228% of the statewide request (meets 40% min)  
**Total Match (Basin request & Applicant Match) = \$304,000**  
• 253% of the statewide request (meets 50% min)

<b>Staff Recommendation:</b>
Staff recommends approval of up to \$15,000 from the Arkansas Basin Account, up to \$15,000 from the Colorado Basin Account, up to \$15,000 from the Gunnison Basin Account, up to \$15,000 from the Metro Basin Account, up to \$15,000 from the Rio Grande Basin Account, up to \$15,000 from the South Platte Basin Account, up to \$15,000 from the Southwest Basin Account, up to \$15,000 from the Yampa/White/Green Basin Account and \$120,000 from the Statewide Account to help fund the project: Colorado Dust on Snow Project

**Water Activity Summary:** The applicant states the Colorado Dust-on-Snow Project is an applied science effort on behalf of the Colorado water community. The Senator Beck Study Basin (SBB) is the “sentry site” for dust-on-snow monitoring but the Project spans multiple basins throughout the Colorado Mountains:

- Park Cone
- Red Mountain
- Spring Creek
- Wolf Creek
- Hoosier
- Grizzly Peak (Loveland)
- Berthoud Summit
- Willow Creek
- Rabbit Ears
- McClure
- Grand Mesa

In addition to dust presence, severity and location in the snowpack, project collected data includes other variables (i.e. Snow Water Equivalent) essential to water professionals and streamflow forecasting. Timely updates describe conditions, by major watershed, and predict the influence on snowmelt timing/rates.

SBB is located between 11,000’-13,500’ (higher than any SNOTEL) and has three meteorological stations and stream gage. Unique measurements allow assessment of the snowpack energy budget to forecast near-term melt rates.

The applicant believes the project addresses multiple purposes: Dust-on-snow, snowpack, and meteorological information collected is unique to their organization. The applicant states that no other entity is collecting this kind of information and making it available to Colorado water managers (environmental, storage, conservation, and recreation), researchers, and public.

If approved, funding will be used for field work, data collection and reporting.

**Discussion:** All of the approving Basins have stated this project aligns with goals in their respective Basin Implementation Plans. The applicant states this project aligns with multiple Water Plan goals by providing monitoring and reporting on snowpack that will help water resource management for municipalities, agricultural producers as well as helping to meet some conservation goals.

**Issues/Additional Needs:** No issues or additional needs have been identified.

**Eligibility Requirements:** The application meets requirements of all eligibility components.

**Evaluation Criteria:** Staff has determined this activity satisfies the Evaluation Criteria.



<b>Funding Sources/Match</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Status</b>
Center for Snow & Avalanche Studies	\$274,000	\$0	\$274,000	Secured
<b>Sub Total Matching Funds</b>	<b>\$274,000</b>	<b>\$0</b>	<b>\$274,000</b>	
WSRF Arkansas Basin Account	\$15,000	\$0	\$15,000	Secured
WSRF Colorado Basin Account	\$15,000	\$0	\$15,000	Secured
WSRF Gunnison Basin Account	\$15,000	\$0	\$15,000	Secured
WSRF Metro Basin Account	\$15,000	\$0	\$15,000	Secured
WSRF Rio Grande Basin Account	\$15,000	\$0	\$15,000	Secured
WSRF South Platte Basin Account	\$15,000	\$0	\$15,000	Secured
WSRF Southwest Basin Account	\$15,000	\$0	\$15,000	Secured
WSRF Yampa/White/Green Basin Account	\$15,000	\$0	\$15,000	Secured
WSRF Statewide Account	\$120,000	\$0	\$120,000	
<b>Sub Total WSRF Funds</b>	<b>\$240,000</b>	<b>\$0</b>	<b>\$240,000</b>	
<b>Total Project Costs</b>	<b>\$514,000</b>	<b>\$0</b>	<b>\$514,000</b>	

**CWCB Project Manager: Andrew Rlckert**



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Colorado Water Conservation Board
Water Supply Reserve Fund Grant Application

Instructions
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All WSRF grant applications shall conform to the current [2020 WSRF Criteria and Guidelines](#).

To receive funding from the WSRF, a proposed water activity must be recommended for approval by a Roundtable(s) **AND** the approved by the Colorado Water Conservation Board (CWCB). The process for roundtable consideration and recommendation is outlined in the 2020 WSRF Criteria and Guidelines. The CWCB meets bimonthly.

If you have questions, please contact the WSRF Grant Program Manager (for all Roundtables) or your Roundtable Liaison:

Ben Wade <a href="mailto:ben.wade@state.co.us">ben.wade@state.co.us</a> 303-866-3441 x3238 (office)	Sam Stein <a href="mailto:Sam.stein@state.co.us">Sam.stein@state.co.us</a> 303-866-3441 (office)
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WSRF Submittal Checklist (Required)
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YES ☐ NO ☐ This request was recommended for CWCB approval by the sponsoring roundtable.

YES ☐ NO ☐ I have read and understand the [2020 WSRF Criteria and Guidelines](#).

YES ☐ NO ☐ Grantee will be able to contract with CWCB using the [Standard Contract](#).<sup>1</sup>

**Application Documents included:**

YES ☐ NO ☐ Exhibit A: Statement of Work<sup>2</sup> (*Word – see Template*)

YES ☐ NO ☐ Exhibit B: Budget (including Detailed Budget) & Schedule<sup>2</sup> (*Excel Spreadsheet – see Template*)

YES ☐ NO ☐ Letters of Matching and/or Pending 3<sup>rd</sup> Party Commitments<sup>2</sup>

YES ☐ NO ☐ Map<sup>2</sup>

YES ☐ NO ☐ Photos/Drawings/Reports

YES ☐ NO ☐ Letters of Support

**Contracting Documents<sup>3</sup>**

YES ☐ NO ☐ Detailed/Itemized Budget<sup>3</sup> (*Excel Spreadsheet – see Template*)

YES ☐ NO ☐ Certificate of Insurance<sup>4</sup> (*General, Auto, & Workers' Comp.*)

YES ☐ NO ☐ Certificate of Good Standing<sup>(4)</sup>

YES ☐ NO ☐ W-9 Form<sup>4</sup>

YES ☐ NO ☐ Independent Contractor Form<sup>4</sup> (*If applicant is individual, not company/organization*)

YES ☐ NO ☐ Electronic Funds Transfer (ETF) Form<sup>4</sup>

<sup>1</sup>Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

<sup>2</sup> Required with application if applicable.

<sup>3</sup> Additional documentation providing a Detailed/Itemized Budget maybe required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

<sup>4</sup> Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.



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Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	October 1	Basin Account
March	December 1	Basin/Statewide Account/Water Plan Grant Match <sup>1</sup>
May	February 1	Basin Account
July	April 1	Basin Account
September	June 1	Basin/Statewide Account
November	August 1	Basin Account

<sup>1</sup> If either the basin or statewide match includes matching funds from a pending Water Plant Grant, both must be submitted by December 1st deadline for March Board meeting review.

Water Activity Summary		
Name of Applicant	Center for Snow and Avalanche Studies	
Name of Water Activity	Colorado Dust-on-Snow Project	
Approving Roundtable(s)	Basin Account Request(s) <sup>1</sup>	
Gunnison Basin Roundtable	\$15,000	
Colorado Basin Roundtable	\$15,000	
Southwest Roundtable	\$15,000	
Rio Grande Roundtable	\$15,000	
Yampa/White/Green Roundtable	\$15,000	
Metro Roundtable	\$15,000	
Arkansas Roundtable	\$15,000	
South Platte Roundtable	\$15,000	
Basin Account Request Subtotal	\$120,000	
Basin Account Request Subtotal Approved by Roundtable	\$120,000	
Statewide Account Request <sup>(1)</sup>	\$120,000	
Total WSRF Funds Requested (Basin & Statewide)	\$240,000 (to cover 4 year project duration)	
Total Project Costs	\$514,000 for 4 years (128,500/year for 4 years)	

<sup>1</sup> Please indicate the amount recommended for approval by the Roundtable(s)

Grantee and Applicant Information	
Name of Grantee(s)	Center for Snow and Avalanche Studies



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Grantee and Applicant Information	
Mailing Address	P.O Box 190, Silverton, CO, 81433
FEIN	04-3737768
<b>Grantee's Organization Contact<sup>1</sup></b>	Jeff Derry
Position/Title	Research Scientist
Email	jderry@snowstudies.org
Phone	(Office) 970-387-5080 (Cell) 970-231-6595
<b>Grant Management Contact<sup>2</sup></b>	Jeff Derry
Position/Title	Research Scientist
Email	jderry@snowstudies.org
Phone	(Office) 970-387-5080 (Cell) 970-231-6595
<b>Name of Applicant (if different than grantee)</b>	Jeff Derry
Mailing Address	P.O Box 190, Silverton, CO, 81433
Position/Title	Research Scientist
Email	jderry@snowstudies.org
Phone	(Office) 970-387-5080 (Cell) 970-231-6595

<sup>1</sup> Person with signatory authority

<sup>2</sup> Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee
Provide a brief description of the grantee's organization (100 words or less).
<p>The Center for Snow &amp; Avalanche Studies (CSAS) is an independent, not-for-profit 501(c)(3) organization that seeks to fund the Colorado dust-on-snow (CODOS) Project for four years. Our Senator Beck Study Basin (SBB) (<a href="http://www.snowstudies.org">www.snowstudies.org</a>) serves the mountain science community and regional resource managers by hosting and conducting interdisciplinary research and sustaining integrative 24/7/365 monitoring of weather, snowpack, radiation, soils, plant community and hydrologic signals of regional climate trends. SBB is also the sentry site of CODOS (<a href="http://www.codos.org/#codos">www.codos.org/#codos</a>) which forecasts, on behalf of the water management community, dust-on-snow conditions and associated impacts on Colorado snowmelt runoff behavior throughout the entire State.</p>

Type of Eligible Entity (check one)
<input type="checkbox"/> <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.



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Type of Eligible Entity (check one)	
<input type="checkbox"/>	<b>Public (Districts):</b> authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises
<input type="checkbox"/>	<b>Private Incorporated:</b> mutual ditch companies, homeowners associations, corporations
<input type="checkbox"/>	<b>Private Individuals, Partnerships, and Sole Proprietors:</b> are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
<input checked="" type="checkbox"/>	<b>Non-governmental organizations:</b> broadly, any organization that is not part of the government
<input type="checkbox"/>	<b>Covered Entity:</b> as defined in <a href="#">Section 37-60-126 Colorado Revised Statutes</a>

Type of Water Activity (check one)	
<input type="checkbox"/>	Study
<input checked="" type="checkbox"/>	Implementation

Category of Water Activity (check all that apply)		
<input checked="" type="checkbox"/>	Nonconsumptive (Environmental)	
<input checked="" type="checkbox"/>	Nonconsumptive (Recreational)	
<input checked="" type="checkbox"/>	Agricultural	
<input checked="" type="checkbox"/>	Municipal/Industrial	
<input type="checkbox"/>	Needs Assessment	
<input checked="" type="checkbox"/>	Education & Outreach	
<input type="checkbox"/>	Other	Explain:

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in <b>decimal degrees</b> . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Counties	Statewide, across all mountain regions of Colorado. The Senator Beck research and dust-on-snow "sentry" site is located in Ouray County, but adjacent to San Juan, San Miguel, Hinsdale, and Dolores Counties
Latitude	37° 54' 24.89088N
Longitude	-107° 42' 40.75924W

Water Activity Overview
Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. 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, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain.



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Water Activity Overview	
The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.	
This request is for broad based support since each roundtable will be receiving benefits of proposed activity, and as such, in effect and by design, are leveraging each other's contribution.	
<p>The Colorado Dust-on-Snow Project is an applied science effort on behalf of the Colorado water community. Senator Beck Study Basin (SBB) is the "sentry site" for dust-on-snow monitoring but the Project spans multiple basins throughout the Colorado Mountains:</p> <ul style="list-style-type: none"> <li>• Park Cone</li> <li>• Red Mountain</li> <li>• Spring Creek</li> <li>• Wolf Creek</li> <li>• Hoosier</li> <li>• Grizzly Peak (Loveland)</li> <li>• Berthoud Summit</li> <li>• Willow Creek</li> <li>• Rabbit Ears</li> <li>• McClure</li> <li>• Grand Mesa</li> </ul> <p>In addition to dust presence, severity and location in the snowpack, Project collected data includes other variables (i.e. SWE) essential to water professionals and streamflow forecasting. Timely updates describe conditions, by major watershed, and predict the influence on snowmelt timing/rates.</p> <p>SBB is located between 11,000'-13,500' (higher than any SNOTEL) and has three meteorological stations and streamgage. Unique measurements allow assessment of the snowpack energy budget to forecast near-term melt rates.</p> <p>Project addresses multiple purposes. Dust-on-snow, snowpack, and meteorological information collected is unique to our organization. <i>No other entity is collecting this kind of information and making it available to Colorado water managers (environmental, storage, conservation, recreation), researchers, and public.</i> Funding will be used for field work, data collection and reporting.</p>	

Measurable Results		
To catalog measurable results achieved with WSRF funds please provide any of the following values.		
	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)	
	Length of Pipe/Canal Built or Improved (linear feet)	
X	Other	Explain: Much of the information is used for decision making for water management, reservoir optimization, recreation, and environmental purposes. Our data allows an analysis that



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Measurable Results		
		improves snowpack accumulation/ablation understanding. It would be difficult to justify an exact number of acre-feet preserved or dollars saved. We inform about climate induced changes. It is difficult to give a measureable result. However one recent measure of success can be found in successful management of reservoirs and streamflows in SW Colorado in WY2019. We allow managers to make informed decisions which lead to quantifiable savings down the line.

Water Activity Justification
<p>Provide a description of how this water activity supports the goals of <a href="#">Colorado's Water Plan</a>, the most recent <a href="#">Statewide Water Supply Initiative</a>, and the respective <a href="#">roundtable Basin Implementation Plan and Education Action Plan</a> <sup>(1)</sup>. 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).</p> <p>For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in <a href="#">2020 WSRF Criteria and Guidelines</a>).</p> <p>The Center for Snow and Avalanche Studies (CSAS) and its heavily instrumented Senator Beck Study Basin (SBB) was established to support the applied climate and hydrologic science community and directly address many great needs. The high elevation study basin (11,000 – 13,500') is located at the headwaters of the Uncompahgre River and is directly proximal to headwaters of the Animas/San Juan, San Miguel/Dolores, and Rio Grande watersheds. CSAS conducts a comprehensive year-round monitoring program capturing a rich variety of measurements related to climate, snowpack, dust-on-snow, radiation, hydrology, soils, plant communities and associated processes and changes. There is no comparable dataset in Colorado. Research out of SBB has established the important role of dust deposition on snow in the Upper Colorado River Basin, where radiative forcing by dust has been shown to advance melt by 1–2 months, shift timing and intensity of peak runoff, <i>reduce total water yield</i>, and has been correlated to model forecasting errors.</p> <p>CSAS, through the Colorado Dust-on-Snow Project, will track dust-on-snow in every major basin throughout the state of Colorado to assess severity and timing of dust exposure to the snowpack surface, thereby accurately predicting snowmelt/streamflow timing and magnitude. The sampling methodology (digging snow profiles to the ground) is labor intensive, but allows for predictive ability (longer lead times) of snowmelt timing forecasts, providing one-of-a-kind information to water managers (e.g., Reclamation, water districts), water supply forecasters (e.g., CBRFC, NRCS), municipalities, and other stakeholders via our publicly available web-based assessments, datasets and interpretative products. The proven added value of these observations and measurements has been thoroughly demonstrated to maximize use of water supplies. This allows for reservoir storage to be maximized, optimize flood control preparations, maximize minimum flow targets for environmental and endangered species requirements, and allow for informed agricultural and recreational decision making. This project aims to optimize the use and knowledge of existing supplies.</p> <p>The Colorado dust-on-Snow Project aligns with these actions of the:</p> <p><b><u>Colorado Water Plan</u></b></p> <p>As mentioned in <b>Chapter 4-Water Supply section of the Colorado Water Plan (page 4-14), under</b></p>



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### Water Activity Justification

**the header “Dust-on-Snow Events,”** dust-on-snow events introduce a level of uncertainty into managing water supplies. Dust-on-snow “can advance snowmelt timing, enhance snowmelt runoff intensity, and decrease snowmelt yields”. This can lead to on average “peak runoff three weeks earlier than normal.” “This shift is independent of climate change, which may also result in earlier snowmelt patterns.” And if dust events continue as the *Colorado Dust-On-Snow Program has documented*, this will affect “Colorado’s present and future water supply by decreasing flows by 5%, on average. On the Colorado River, these reductions would result in a decrease of 750,000 cfs, or twice the amount of water the City of Denver uses annually.”

#### **Goal A. Supply-Demand Gap (CWP, Chap. 10, Sec. 10.3, Pg. 10.9).**

Proposed project is cost effective and efficient. Through monitoring and reporting snowpack and dust conditions and its consequences on snowmelt timing/rate and hence streamflows, allow water management to be better informed to allocate water resources with more predictability and assuredness, enhancing the ability of managers to keep reservoirs, and water user allocations, at optimum levels throughout snowmelt season and beyond, closing the supply-demand gap.

#### **Goal B. Conservation (CWP, Chap. 10, Sec. 10.3, Pg. 10.9)**

The Project through monitoring and reporting on snowpack and dust conditions and its influence on snowmelt timing/rate and streamflow promotes highly efficient water management. Insightful knowledge promotes better forecasting, hence management, promoting conservation of water for environmental and endangered species flows. Project data and analysis are very helpful in extreme years (i.e. drought/flood) that assist where current forecasting models, based on long-term averages, may be at a disadvantage.

#### **Goal C. Land Use (CWP, Chap. 10, Sec. 10.3, Pg. 10.10)**

CSAS’s expertise on the subject of dust-on-snow allows us to speak to the causes and consequences dust-on-snow. We do extensive speaking engagements where we education managers and the public on how poor land use decisions (or inaction) in the Southern Colorado Plateau lead to dust events in Colorado. It is important to advocate for change in land use in the Southern Colorado Plateau in order to reduce dust severity/events in Colorado. We collect dust samples for USGS analysis that sources the dust and documents other impurity deposition in the CO mountains such as microplastics.

#### **Goal D. Agriculture (CWP, Chap. 10, Sec. 10.3, Pg. 10.10)**

Proposed Project promotes accurate and confident agricultural allocation and efficiency. Improved water allocation allows a more “adaptive management” of resources based on current conditions and a confident forecast of future streamflow.

#### **Goal E. Storage**

Accurate snowmelt/streamflow forecasts provided by Project is a crucial tool in optimizing reservoir storage. Bureau of Reclamation attributes dust on snow observations to successful storage operations at multiple reservoirs in Southwest Colorado.

#### **Goal F. Watershed Health, Environment, and Recreation (CWP, Chap. 10, Sec. 10.3, Pg. 10.12)**





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### Water Activity Justification

Through monitoring and timely reporting on snowpack, dust conditions, and radiation (albedo) conditions allows much improved knowledge of streamflow conditions. This means water enthusiasts are better informed for safe and enjoyable water experience. This also means water managers can confidently manage and maximize flows (i.e Mcphee) for downstream rafters and environmental and watershed health flows.

#### **Goal H. Education, Outreach, and Innovation (CWP, Chap. 10, Sec. 10.3, Pg. 10.13)**

CSAS actively engages in education and outreach. Every year we speak to k-12 students, teach university field classes (UC-Colorado Springs, U of Minnesota, Geneseo, Prescott College, etc), and hold a “Snow School for Water Professionals” class for folks active as a water professional. We also regularly speak at conferences and water organizations (Law of the Rio Grande, Colorado River District, San Miguel Watershed Coalition, Mesa State, Animas Watershed Forum, Colorado Outdoor Industry) as well as for water conservation districts. We are active on social media and do press interviews often.

#### **Goal I. Additional Critical Goals and Actions (CWP, Chap. 10, Sec. 10.3, Pg. 10.14)**

**Climate Change:** Monitoring for climate induced changes in our mountain systems is part of CSAS’ mission statement. Climate change researchers around the world have recognized mountains as a sensitive bellwether of global change, where system responses quicker to present than in lower elevation urbanized or rural settings. Our Senator Beck Research Basin is a high elevation study site where we monitor (three highly instrumented meteorological stations) and document (5-year repeat plant species inventory) for climate induced changes. We have been doing so since the start of megadrought we are currently experiencing. We also host a wide array of researchers investigating snowpack, ecology, and health of our high mountain basin.

#### **Basin Implementation Plans**

Similar to the Water Plan goals, Project addresses most BIP goals of all basin roundtables. Having dust on snow information allows for accurate and confident decision making that includes improved runoff forecasts, maximize reservoir storage, optimize flood control preparations, maximize minimum flow targets for environmental and endangered species requirements, and allow for informed agricultural and recreational decision making.

Since Project grant request includes eight basin roundtables, below is a general summary of applicable BIP goals.

**Colorado Basin Roundtable-BIP: “Preparing for climate uncertainty, support environmental and recreation projects, efficient and effective water infrastructure.”**

**Gunnison Basin Roundtable-BIP: “Protect Existing Water Uses in the Gunnison Basin.”**

**Southwest Basin Roundtable-Basin Implementation Plan: “Maintain Agriculture Water Needs, Meet Recreational Water Needs, Meet Environmental Water Needs.”**

#### **Other BIP goals Project addresses:**

- Addressing multiple purposes including municipal, industrial, environmental, recreation, agricultural, risk management, and compliance needs.



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### Water Activity Justification

- Implement efficiency measures to maximize beneficial use and production.
- Implement IPP's that work towards meeting agricultural water supply shortages.
- Maintain the condition and natural function of streams, lakes, wetlands and riparian areas.
- Support hydropower operations
- Protect existing water uses, and water supply options for all existing and new uses and values

### **SWSI 2010**

**Recommendation #1. Actively encourage projects to address multiple purposes, including municipal, industrial, environmental, recreational, agricultural, risk management, and compact compliance needs.**

The proposed Project is multi-purposed. We monitor snowpack conditions, dust-on-snow conditions, collect high elevation meteorological data, monitor plant species amount and migration, and host research professionals developing new snow measurement technologies and investigating snow accumulation/ablation processes. All of this information feeds into many uses; recreation, climate change, environment, storage/supply, water allocation, and risk management.

**Recommendation #5. Support meeting Colorado's nonconsumptive water needs by working with Colorado's water stakeholders.**

<sup>1</sup> Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.

### Matching Requirements: Statewide Account Requests

**Statewide Account** grant requests require a 50% match as described in the [2020 WSRF Criteria and Guidelines](#). At least of 10% of the required Statewide Account Grant request match shall be cash from Basin Account funds whether that is from one or multiple basins; and the remaining 40% of the required match may be provided from any source, including other grants, cash from the Basin Account, or any combination of cash, in-kind services, or in-kind materials.and shall be accompanied by a **letter of commitment**. Attach additional sheet if necessary.

Contributing Entity	Amount and Form of Match (note cash or in-kind):
Center for Snow and Avalanche Studies (please see attached letter)	\$274,000 (\$68,500/year for 4 years)-cash
WSRF – Arkansas Basin Account	\$15,000
WSRF – Colorado Basin Account	\$15,000
WSRF – Gunnison Basin Account	\$15,000
WSRF – Metro Basin Account	\$15,000
WSRF – South Platte Basin Account	\$15,000
WSRF – Rio Grande Basin Account	\$15,000
WSRF – Southwest Basin Account	\$15,000



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Matching Requirements: Statewide Account Requests	
WSRF – Yampa/White/Green Basin Account	\$15,000
Total Match	\$394,000
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	

Related Studies
Please provide a list of any related studies, including if the water activity is complimentary to or assists in the implementation of other CWCB programs.
<p>A significant number of research and technical studies have resulted from the Center for Snow and Avalanche Studies' (CSAS) dust-on-snow data collection. A comprehensive list can be found on the CSAS website, <a href="http://www.snowstudies.org/pubs1.html">http://www.snowstudies.org/pubs1.html</a>, and Colorado Dust-on-Snow website <a href="http://www.codos.org/#lit">http://www.codos.org/#lit</a>.</p> <p><b>A brief list of dust-on-snow related studies is below:</b></p> <p>CSAS has supported the Airborne Snow Observatory since its inception in 2013 at our Senator Beck Study Basin. Activities we have supported include; Uncompahgre River above Ridgway Reservoir at 1-4 flights/year from 2013-2017, Animas River above Durango at 2 flights in 2021.</p> <p><i>Colorado Water Conservation Board: Colorado's Water Plan, Chapter 4</i>  (<a href="https://www.colorado.gov/cowaterplan">https://www.colorado.gov/cowaterplan</a>).</p> <p><i>Painter, T. H., S. M. Skiles, J. S. Deems, W. T. Brandt, and J. Dozier (2017), <a href="#">Variation in rising limb of Colorado River snowmelt runoff hydrograph controlled by dust radiative forcing in snow</a>, Geophysical Research Letters, 44, <a href="https://doi.org/10.1002/2017GL075826">https://doi.org/10.1002/2017GL075826</a>.</i></p> <p><i>Bryant, A. B., T. H. Painter, J. S. Deems, and S. M. Bender (2013), <a href="#">Impact of dust radiative forcing in snow on accuracy of operational runoff prediction in the Upper Colorado River Basin</a>, Geophys. Res. Lett., 40, doi:10.1002/grl.50773, 2013.</i></p> <p><i>Deems, J. S., T.H. Painter, J.J. Barsugli, J. Belnap, and B. Udall (2013), <a href="#">Combined impacts of current and future dust deposition and regional warming on Colorado River Basin snow dynamics and hydrology</a>, Hydrol. Earth Syst. Sci., 17, 4401-4413, doi:10.5194/hess-17-4401-2013.</i></p> <p><i>Skiles, S. M., T. H. Painter, J. S. Deems, A. C. Bryant, and C. Landry (2012), <a href="#">Dust radiative forcing in snow of the Upper Colorado River Basin: Part II. Interannual variability in</a></i></p>



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Related Studies

[\*radiative forcing and snowmelt rates\*](#), *Water Resour. Res.*, doi:10.1029/2012WR011986.

Painter, T. H., S. M. Skiles, J. S. Deems, A. C. Bryant, and C. Landry (2012), [\*Dust radiative forcing in snow of the Upper Colorado River Basin: Part I. A 6 year record of energy balance, radiation, and dust concentrations\*](#), *Water Resour. Res.*, doi:10.1029/2012WR011985.

Painter, T. H., J. Deems, J. Belnap, A. Hamlet, C. C. Landry, and B. Udall (2010), [\*Response of Colorado River runoff to dust radiative forcing in snow\*](#), *Proceedings of the National Academy of Sciences*, published ahead of print September 20, 2010, doi:10.1073/pnas.0913139107.

Lawrence, C. R., T. H. Painter, C. C. Landry, and J. C. Neff (2010), [\*Contemporary geochemical composition and flux of aeolian dust to the San Juan Mountains, Colorado, United States\*](#), *Journal of Geophysical Research*, 115, G03007, doi:10.1029/2009JG001077.

Steltzer, H., C. Landry, T. H. Painter, J. Anderson, and E. Ayres. 2009. [\*Biological consequences of earlier snowmelt from desert dust deposition in alpine landscapes\*](#). *Proceedings of the National Academy of Sciences*. 106:11629-11634, doi\_10.1073\_pnas.0900758106.

Neff, J.C., A.P. Ballantyne, G.L. Farmer, N.M. Mahowald, J.L. Conroy, C.C. Landry, J.T. Overpeck, T.H. Painter, C.R. Lawrence and R.L. Reynolds. 2008. [\*Increasing eolian dust deposition in the western United States linked to human activity\*](#), *Nature Geoscience*, Vol. 1, No. 3, pp. 189-195, March 2008, doi: 10.1038/ngeo136

Painter, T. H., A. P. Barrett, C. C. Landry, J. C. Neff, M. P. Cassidy, C. R. Lawrence, K. P. Thatcher, L. Farmer. (2007) [\*Impact of disturbed desert soils on duration of mountain snow cover\*](#). *Geophysical Research Letters*. V34, 12, L12502, 10.1029/2007GL030208.

Landry, C. C., K. A. Buck, M. S. Raleigh, and M. P. Clark (2014), [\*Mountain system monitoring at Senator Beck Basin, San Juan Mountains, Colorado: A new integrative data source to develop and evaluate models of snow and hydrologic processes\*](#), *Water Resour. Res.*, 50, doi:10.1002/2013WR013711.

Zhuojun Zhang, Harland L. Goldstein, Richard L. Reynolds, Yongfeng Hu, Xiaoming Wang, and Mengqiang Zhu (2018), [\*Phosphorus Speciation and Solubility in Aeolian Dust Deposited in the Interior American West\*](#), *Environ. Sci. Technol.*, 2018, 52 (5), pp 2658–2667. doi: 10.1021/acs.est.7b04729

Skiles, S.M. and Painter, T. (2017) [\*‘Daily evolution in dust and black carbon content, snow grain size, and snow albedo during snowmelt, Rocky Mountains, Colorado’\*](#), *Journal of*



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#### Related Studies

*Glaciology*, 63(237), pp. 118–132. [doi: 10.1017/jog.2016.125](https://doi.org/10.1017/jog.2016.125).

Skiles, S.M., Painter, T. and Okin, G.S. (2017) '[A method to retrieve the spectral complex refractive index and single scattering optical properties of dust deposited in mountain snow](#)', *Journal of Glaciology*, 63(237), pp. 133–147. [doi: 10.1017/jog.2016.126](https://doi.org/10.1017/jog.2016.126).

Axson, J. L., H. Shen, A. L. Bondy, C. C. Landry, J. Welz, J. M. Creamean, A. P. Ault (2016), *Transported Mineral Dust Deposition Case Study at a Hydrologically Sensitive Mountain Site: Size and Composition Shifts in Ambient Aerosol and Snowpack*, *Aerosol and Air Quality Res.*, 16: 555-567, [doi:10.4209/aaqr.2015.05.0346](https://doi.org/10.4209/aaqr.2015.05.0346)

J. Brahney, A.P. Ballantyne, C. Sievers, J.C. Neff. *Increasing Ca<sup>2+</sup> deposition in the western US: the role of mineral aerosols*. *Aeolian Research* (2013), <http://dx.doi.org/10.1016/j.aeolia.2013.04.003>

Clow, D.W., M.W. Williams, P.F. Schuster. *Increasing aeolian dust deposition to snowpacks in the Rocky Mountains inferred from snowpack, wet deposition, and aerosol chemistry*. *Aeolian Research* (2016), TBD

#### Previous CWCB Grants

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

Applicant Name	Water Activity Name	Approving RT	CWCB Board Meeting Date	Contract Number
Center for Snow & Avalanche Studies	Colorado Dust and Snowpack Project	Rio Grande, Southwest, Gunnison, Colorado	N/A	CTGG1 2017-1239
Center for Snow & Avalanche Studies	Center for Snow & Avalanche Studies	N/A	N/A	POGG1 PDAA 201800000436
Center for Snow & Avalanche Studies	Center for Snow & Avalanche Studies	N/A	N/A	POGG1 PDAA 201700000467



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Previous CWCB Grants					
Center for Snow & Avalanche Studies	Center for Snow & Avalanche Studies	N/A	N/A	POGG1 PDAA 20160000000000000173	
Center for Snow & Avalanche Studies	Center for Snow & Avalanche Studies	N/A	N/A	POGG1 PDAA 20150000000000000144	
Center for Snow & Avalanche Studies	Center for Snow & Avalanche Studies	N/A	N/A	OE PDA 14000000021	
Center for Snow & Avalanche Studies	Center for Snow & Avalanche Studies	N/A	N/A	OE PDA 13000000008	
Center for Snow & Avalanche Studies	Center for Snow & Avalanche Studies	N/A	N/A	OE PDA 11000000107	
Center for Snow & Avalanche Studies	Center for Snow & Avalanche Studies	N/A	N/A	OE PDA 10000000058	

Tax Payer Bill of Rights
The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.
No Tabor issues will affect this application

# Arkansas Basin Roundtable

November 16, 2021

**Via Electronic Mail: [ben.wade@state.co.us](mailto:ben.wade@state.co.us)**

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

Re: Water Supply Reserve Fund Grant Application: *Center for Snow and Avalanche Studies – Dust on Snow project*

Dear Ben:

At its November 10, 2021 meeting, the Arkansas Basin Roundtable (ABRT) approved support of the Center for Snow and Avalanche Studies request for \$15,000 in Basin funds and \$120,000 from Statewide funds for the Dust on Snow Project. The applicant is providing \$274,000 in matching funds.

This project supports the goals of the Colorado Water Plan and the ABRT Implementation Plan by developing collaborative solutions that benefit multiple municipal and agricultural water users. Providing additional data about snowpack and potential impacts to runoff patterns becomes even more critical during water short periods, this project will help fill some of those gaps for the Arkansas River basin and allow for better forecasting of runoff across the State. We believe that leveraging the dollars available in the individual basin funds as well as the statewide accounts for the benefits of a multi-year project is a benefit to all water users.

The ABRT approved supporting this application by consensus and there were no dissenting views.

Should you have any questions or concerns, please feel free to contact me either by telephone, (719) 668-8028, or by email.

Thank you,



Mark Shea  
Chair

Copy via email: Applicant; Needs Assessment Chair



***THE COLORADO BASIN ROUNDTABLE  
C/O 201 CENTENNIAL STREET, SUITE 200  
GLENWOOD SPRINGS, COLORADO 81601***

November 30, 2021

Colorado Water Conservation Board  
c/o Ben Wade  
1313 Sherman Street, Room 721  
Denver, CO 80203

RE: Center for Snow and Avalanche Studies WSRF Basin Account Grant Request

Dear Ben,

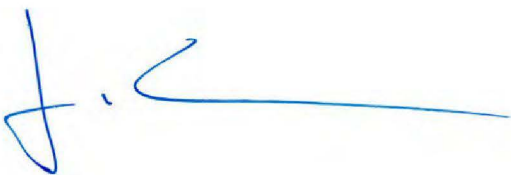
The Colorado Basin Roundtable ("CBRT") voted unanimously at its November 29, 2021 meeting to support the Center for Snow and Avalanche Studies ("CSAS") request for WSRF Basin Account funds in the amount of \$15,000.00. Furthermore, the CBRT supports CSAS' Statewide Account request in the amount of \$120,000.00.

CSAS serves the mountain science community and regional resource managers by hosting and conducting interdisciplinary research and sustaining integrative 24/7/365 monitoring of weather, snowpack, radiation, soils, plant community and hydrologic signals of regional climate trends. SBB is also the sentry site of CODOS which forecasts, on behalf of the water management community, dust-on-snow conditions, and associated impacts on Colorado snowmelt runoff behavior throughout the entire State.

CSAS work is used to help inform water managers on reservoir optimization and is also beneficial information for recreational and environmental interest throughout the State of Colorado. In particular CSAS' work supports the Colorado Basin Roundtable's Basin Implementation Plan goals of preparing for climate uncertainty, its support of environmental and recreational projects and efficient and effective water infrastructure.

We urge you give this grant application your highest consideration.

Regards,



Jason V. Turner, Chair  
Colorado Basin Roundtable



# Gunnison Basin Roundtable

March 1, 2022

Colorado Water Conservation Board

1313 Sherman Street, Room 718

Denver, Colorado 80203

Attn: Board of Directors

Re: Center for Snow and Avalanche Studies.

The Gunnison Basin Roundtable at their November 15, 2021, voted to support the Center for Snow and Avalanche Studies for the study of dust on snow on a state wide basis. The total project is estimated to cost \$514,000 over four years. Center for Snow and Avalanche Studies plans to finance the project with a basin grant from each of the nine basins.

The Gunnison Basin is in support of this project and is hopeful that this will lead to improved runoff forecasts.

Sincerely,



Steven A. Anderson

Chair

# Metro Basin Roundtable

November 12, 2021

Colorado Water Conservation Board  
1313 Sherman St #721  
Denver, Colorado 80203

Re: Water Supply Reserve Fund Grant Application: Center for Snow and Avalanche Studies WSRF Grant Request for Colorado Dust-on-Snow Project

Dear Colorado Water Conservation Board,

This letter is in support of the Center for Snow and Avalanche Studies (CSAS) and to confirm that the Metro Roundtable unanimously voted to approve CSAS' WSRF Grant Application on November 11, 2021 to provide \$15,000 from the Metro Basin Roundtable account for CSAS's Colorado Dust-on-Snow Project. The MRT also voted to support the \$120,000 in matching funds from the Statewide WSRF for this project. Funding CSAS through WSRF makes sense since Statewide funds are for projects that have a Statewide benefit, and the Dust-on-Snow Project certainly qualifies.

This project supports the goals of the Colorado Water Plan and the South Platte Basin Implementation Plan by providing real-time data concerning the effects of dust on snow and the subsequent projections of runoff timing for agricultural, municipal, reservoir operations, environmental and recreational stream flows. We support this project not only for the Metro Basin but the State as a whole. We are hopeful the Center for Snow and Avalanche Studies will be awarded funding to enable practical, useful decision making tools for streamflow forecasting.

The completed Grant Application will be forwarded directly to you by the applicant. Please contact the applicant directly or me at [barbara@roxwater.org](mailto:barbara@roxwater.org) if you have questions or wish to discuss this application in more detail.

Sincerely,



Barbara Biggs  
Chair



November 11, 2021

Colorado Water Conservation Board  
1313 Sherman St #721  
Denver, Colorado 80203

Dear Colorado Water Conservation Board,

This letter is in support of the Center for Snow and Avalanche Studies (CSAS) and to confirm that on November 9, 2021 the Rio Grande Basin Roundtable Members unanimously approved the request to provide \$15,000 from the Rio Grande Basin Roundtable account for CSAS's Colorado Dust-on-Snow Project. This application was considered fully and there was a quorum of members at the meeting. We would also like to highly recommend approval of \$120,000 in matching funds from the Statewide WSRF for this project. Funding CSAS through WSRF makes sense since Statewide funds are for projects that have a Statewide benefit, and the Dust-on-Snow Project most certainly qualifies.

The proposed project meets a multitude of the Colorado Water Plan's Goals & Objectives by providing real-time data concerning the effects of dust on snow and the subsequent projections of runoff timing for agricultural, municipal, reservoir operations and environmental stream flows. It also supports the Rio Grande Basin Roundtable's Measurable Goals or Outcomes of the BIP to meet agricultural, municipal, environmental, and recreation water needs. We are proud to support such a worthy and beneficial project not only for the Rio Grande Basin but the State as a whole. We are hopeful that Center for Snow and Avalanche Studies will be awarded funding to enable practical, useful decision making tools for streamflow forecasting.

The completed Grant Application will be forwarded directly to you by the applicant. Please contact the applicant directly or me at 719-588-3090, [cwcd1971@hotmail.com](mailto:cwcd1971@hotmail.com) if you have questions or wish to discuss this application in more detail.

Sincerely,

Nathan Coombs  
Rio Grande Basin Roundtable Chair

## **SOUTHWEST BASINS ROUNDTABLE**

C/O La Plata Archuleta Water District  
PO Box 1377  
Ignacio, Colorado 81137

October 29, 2021

Colorado Water Conservation Board  
Water Supply Planning Section  
WSRF Application  
1313 Sherman Street, Room 718  
Denver, Colorado 80203

RE: Center for Snow and Avalanche Studies  
WSRF Grant Request

The Southwest Basins Roundtable approved funding of \$15,000.00 from the Southwest Basins Roundtable account for the Center for Snow and Avalanche Studies' Dust on Snow Project. This application was considered fully and approved by the Southwest Basins Roundtable at the October 28, 2021 meeting. There was a quorum of members present at the meeting. We would also like to recommend approval of \$120,000.00 from the Statewide WSRF for this project.

The proposed project meets a multitude of the Colorado Water Plan's Goals & Objectives by providing real-time data concerning the effects of dust on snow and the subsequent projections of runoff timing for agricultural, municipal, reservoir operations and environmental stream flows. It also supports the Southwest Basins Roundtable's Measurable Goals or Outcomes of the BIP to meet agricultural, municipal, environmental, and recreation water needs.

The completed Grant Application will be forwarded directly to you by the applicant. Please contact the applicant directly or me at 970-563-0320, [etolen@laplawd.org](mailto:etolen@laplawd.org), if you have questions or wish to discuss this application in more detail.

Sincerely,



Edward Tolen  
Southwest Basins Roundtable Chair

Garrett Varra, Chair South Platte basin Roundtable

November 29, 2021

Ben Wade  
Colorado Water Conservation Board  
1313 Sherman St #721  
Denver, Colorado 80203

Re: Water Supply Reserve Fund Grant Application: Center for Snow and Avalanche Studies WSRF Grant Request for Colorado Dust-on-Snow Project

Dear Ben,

This letter is in support of the Center for Snow and Avalanche Studies (CSAS) and to confirm that the South Platte Roundtable Members passed in full agreement a resolution on November 9, 2021 to provide \$15,000 from the South Platte Basin Roundtable account for CSAS's Colorado Dust-on-Snow Project. We would also like to highly recommend approval of \$120,000 in matching funds from the Statewide WSRF for this project. A quorum of the membership was present. Funding CSAS through WSRF makes sense since Statewide funds are for projects that have a Statewide benefit, and the Dust-on-Snow Project most certainly qualifies. This application was considered fully and there was a quorum of members at the meeting.

This project supports the goals of the Colorado Water Plan and the South Platte Basin Roundtable Implementation plan by providing real-time data concerning the effects of dust on snow and the subsequent projections of runoff timing for agricultural, municipal, reservoir operations, environmental and recreational stream flows. We are proud to support such a worthy and beneficial project not only for the South Platte Basin but the State as a whole. We are hopeful the Center for Snow and Avalanche Studies will be awarded funding to enable practical, useful decision making tools for streamflow forecasting.

The completed Grant Application will be forwarded directly to you by the applicant. Please contact the applicant directly or me at 720-272-2857, [gvarra@varracompanies.com](mailto:gvarra@varracompanies.com) if you have questions or wish to discuss this application in more detail.

Sincerely,



Garrett Varra  
Chair, South Platte Basin Roundtable





November 23, 2021

Colorado Water Conservation Board  
1313 Sherman St #721  
Denver, Colorado 80203

Re: Water Supply Reserve Fund Grant Application: Center for Snow and Avalanche Studies WSRF Grant Request for Colorado Dust-on-Snow Project

Dear Colorado Water Conservation Board,

This letter is in support of the Center for Snow and Avalanche Studies (CSAS) and to confirm that the Yampa/White/Green Roundtable Members passed in full agreement on November 10, 2021 to provide \$15,000 from the Yampa/White/Green Basin Roundtable account for CSAS's Colorado Dust-on-Snow Project. We would also like to recommend approval of \$120,000 in matching funds from the Statewide WSRF for this project. Funding CSAS through WSRF makes sense since Statewide funds are for projects that have a Statewide benefit, and the Dust-on-Snow Project most certainly qualifies. This application was considered fully and there was a quorum of members at the meeting.

This project supports the goals of the Colorado Water Plan and the Yampa/White/Green Basin Roundtable Implementation plan by providing real-time data concerning the effects of dust on snow and the subsequent projections of runoff timing for agricultural, municipal, reservoir operations, environmental and recreational stream flows. We are pleased to support this project not only for the Yampa/White/Green Basin but the State as a whole. We are hopeful the Center for Snow and Avalanche Studies will be awarded funding to enable practical, useful decision making tools for streamflow forecasting.

The completed Grant Application will be forwarded directly to you by the applicant. Please contact the applicant directly or me at 970-675-5055, [al@rioblancowcd.org](mailto:al@rioblancowcd.org) if you have questions or wish to discuss this application in more detail.

Sincerely,

A handwritten signature in blue ink that reads 'Alden Vanden Brink'.

Alden Vanden Brink  
Chair

Alden Vanden Brink, Chairperson  
Yampa White Green Basin Round





CENTER FOR  
SNOW & AVALANCHE  
STUDIES

BOARD OF DIRECTORS

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Martha "Marti" Whitmore

November 30, 2021

Colorado Water Conservation Board of Directors  
1313 Sherman Street #721  
Denver, Colorado 80203

RE: Letter of Matching Funding for Colorado Dust-on-Snow Project

To Whom it May Concern,

The Center for Snow and Avalanche Studies (CSAS) is applying for a Water Supply Reserve Fund (WSRF) grant titled "Colorado Dust-on-Snow Project". This letter is to state that CSAS intends to match roundtable and state funds for this WSRF request at the \$68,500/year level or a total \$274,000 for duration of the four year project. This cash match amount comes from our research operations and broad base of core supporters that contribute annually to our organization. These operations and supporters have full intentions of continuing into the foreseeable future.

Sincerely,

Jeff Derry – Executive Director

Jeff Derry  
Executive Director

**Mail:**  
P.O. Box 190  
Silverton, CO  
USA 81433

**Center:**  
1428 Greene Street  
Suite 103  
Silverton, CO

**Telephone:**  
Office: (970) 387-5080  
Cell: (970) 231-6595

**Website:**  
[www.snowstudies.org](http://www.snowstudies.org)

**Email:**  
[jderry@snowstudies.org](mailto:jderry@snowstudies.org)



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

<b><u>Colorado Water Conservation Board</u></b>	
<b>Water Supply Reserve Fund</b>	
<b><u>Exhibit A - Statement of Work</u></b>	
<b>Date:</b>	<b>November 29, 2021</b>
<b>Water Activity Name:</b>	<b>Colorado Dust-on-Snow Project</b>
<b>Grant Recipient:</b>	<b>Center for Snow and Avalanche Studies</b>
<b>Funding Source:</b>	<b>WSRF: Multiple Basin and State Funds</b>
<b>Water Activity Overview:</b> (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for. (PLEASE DEFINE ALL ACRONYMS).)	
<p>This request is for broad based support since each roundtable will be receiving benefits of proposed activity, and as such, in effect and by design, are leveraging each other's contribution.</p> <p>The Colorado Dust-on-Snow Project is an applied science effort on behalf of the Colorado water community. Senator Beck Study Basin (SBB) is the "sentry site" for dust-on-snow monitoring but the Project spans multiple basins throughout the Colorado Mountains:</p> <ul style="list-style-type: none"><li>• Park Cone</li><li>• Red Mountain</li><li>• Spring Creek</li><li>• Wolf Creek</li><li>• Hoosier</li><li>• Grizzly Peak (Loveland)</li><li>• Berthoud Summit</li><li>• Willow Creek</li><li>• Rabbit Ears</li><li>• McClure</li><li>• Grand Mesa</li></ul> <p>In addition to dust presence, severity and location in the snowpack, Project collected data includes other variables (i.e. SWE) essential to water professionals and streamflow forecasting. Timely updates describe conditions, by major watershed, and predict the influence on snowmelt timing/rates.</p> <p>SBB is located between 11,000'-13,500' (higher than any SNOTEL) and has three meteorological stations and streamgage. Unique measurements allow assessment of the snowpack energy budget to forecast near-term melt rates.</p> <p>Project addresses multiple purposes. Dust-on-snow, snowpack, and meteorological information collected is unique to our organization. <i>No other entity is collecting this kind of information and making it available to Colorado water managers (environmental, storage, conservation, recreation), researchers, and public.</i> Funding will be used for field work, data collection and reporting.</p>	



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>**Objectives:** (List the objectives of the project. (PLEASE DEFINE ACRONYMS)).

The Colorado Dust-on-Snow Project objective is to serve the Colorado water community for the next four years by:

- Conduct statewide dust-on-snow field campaigns to track the severity and extent of dust events throughout the snow accumulation and ablation period
- Collect DOS samples to be analyzed for dust sourcing, mass, mineral composition, microbes and micro-plastics
- Analyze data and provide timely and applicable updates to modelers, forecasters, water managers, water community and stakeholders
- Maintain project webpages with data files, graphics, and relevant information
- Improve data, visualization, and interpretation platforms on basin specific webpages for easy public dissemination of information
- Provide educational outreach throughout Colorado
- Maintain Project's three energy balance climate stations and stream gauge
- Dust-on-snow and meteorological data management, QA/QC, and reporting

### Tasks

Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)

#### **Task 1 - Statewide Dust-on-Snow Field Campaigns**

Description of Task:

Collect dust-on-snow and snowpack observations at Senator Beck Study Basin (SBB) and at least 10 other locations throughout Colorado during the winter and spring, locations include: Park Cone, Spring Creek Pass, Wolf Creek Pass, Hoosier Pass, Grizzly Peak, Berthoud Summit, Willow Creek Pass, Rabbit Ears Pass, McClure Pass, and Grand Mesa. Collect dust-on-snow samples at each location for USGS analysis that includes mass, dust sourcing, composition, micro-plastics. At SBB to include microbe analysis.

Method/Procedure:

Timely statewide visits, via motorized vehicle, to CODOS sites to collect full profile snowpack information. These profiles of the snowpack allow the documentation of the severity and spatial extent of dust events. A field assistant will accompany Researcher on trip, and, when appropriate will visit some sites solo to optimize human resources. Field trips will occur at least 3 times a year. Data collection at SBB, our DOS sentry site, will be frequent (once every few days).

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



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

Tasks
Field data documentation including snow profile forms, pictures of dust-on-snow profiles and surrounding landscapes. Collection of snow samples and delivery to USGS project partners for mass loading and chemical analysis (peer reviewed published data)
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
Regular and timely updates via email and posted to our website of field assessments and analyses that contains field collected data. End of season report summarizing winter season and dust impacts. Peer reviewed USGS published data sets.

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 2 - Frequent and Timely Dust-on-Snow Updates and Reporting</u></b>
Description of Task:
Collation of field observations and timely creation of dust-on-snow updates, analyses, and alerts to water community throughout winter season. Season summary posted to project webpage and progress reports. Field data formatted and summarized, data includes the collection of USGS streamflow data, NRCS SNOTEL data, SBB station data, dust observations, and NWS weather forecasts. Creation of dust-on-snow analysis documents.
Method/Procedure:
Involves immediately summarizing observations following a field campaign, including data plots and tables, and analyzing information, and then issuing timely reports (via email notices and webpage posting) to the Colorado water community.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
These timely, actionable, iterative updates and alerts describe current dust-in-snow conditions, by major watershed, and predict the likely influence of dust-on-snow on near-term snowmelt timing and rates. Analyses includes association of dust-on-snow, snowpack, and weather conditions to hydrograph patterns observed since 2006 at 19 headwater stream gauges monitored in most major watersheds. Project reports to CWCB and other funders. Consultations and presentations to stakeholders, funders, general public, university and K-12 students.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)



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<https://cwcb.colorado.gov/>**Tasks**

Regular and timely updates via email and posted to our website of field assessments and analyses that incorporates field collected data. End of season report summarizing activities, data collected, assessment recap, and spring runoff conditions.

**Tasks**

Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)

**Task 3 - Near-Real Time Data Availability, Graphics, and Interpretation Tools**

Description of Task:

Website to include webpages dedicated to each basin's data collection site. These webpages to include access to data, interactive visualization and interpretation tools, and dissemination of dust-on-snow, snowpack, weather, and snowmelt information.

Also includes climate station data download on an hourly basis to Project website as well CAIC, Bureau of Reclamation, and NWS data servers.

Method/Procedure:

Web Administrator to maintain webpage and data access platforms, tools and webpage content.

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

Ability to download near-real time data files to be used in forecasting and hydrologic modeling, the creation of near-real time dust-on-snow and meteorological data graphics, and the construction of an interactive webpage that allows the water community to post, share, and view dust-on-snow conditions throughout the Colorado Mountains.

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

Project completed website including end of season report and CWCB progress reports





Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

### Budget and Schedule

**Exhibit B - Budget and Schedule:** This Statement of Work shall be accompanied by a combined [Budget and Schedule](#) that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format. A separate excel formatted Budget is required for engineering costs to include rate and unit costs.

### Reporting Requirements

**Progress Reports:** The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

**Final Report:** At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee'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.

### Payments

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. 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.

The CWCB will pay the last 10% of the entire water activity 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 water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

### Performance Requirements

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 Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per the 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 the 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 Update: 9/17/2021



**COLORADO**

Colorado Water  
Conservation Board

Department of Natural Resources

**Colorado Water Conservation Board**

**Water Supply Reserve Fund**

**EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs**

**Date: October 30, 2021**

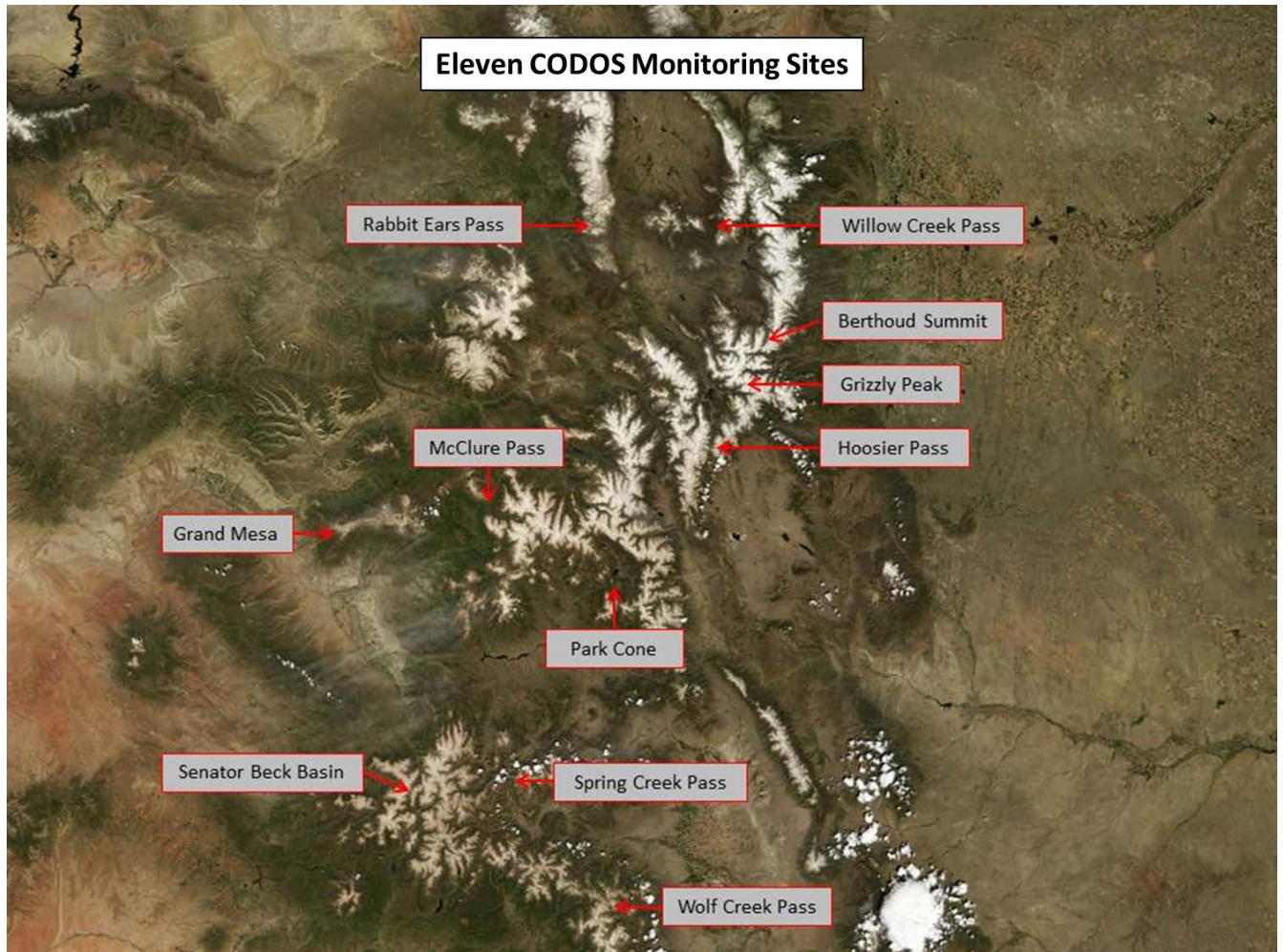
**Water Activity Name: Colorado Dust-on-Snow Project**

**Grantee Name: Center for Snow and Avalanche Studies**

<u>Task No.</u> <sup>(1)</sup>	<u>Description</u>	<u>Start Date</u> <sup>(2)</sup>	<u>End Date</u>	<u>Matching Funds</u> (cash & in-kind) <sup>(3)</sup>	<u>WSRF Funds</u> (Basin & Statewide combined) <sup>(3)</sup>	<u>Total</u>
1	Statewide Dust-on-Snow Field Campaigns	5/1/2022	5/1/2026	\$171,250	\$144,000	\$315,250
2	Frequent and Timely Dust-on-Snow Updates and Reporting	5/1/2022	5/1/2026	\$68,500	\$64,800	\$133,300
3	Near Real Time Data Availability, Graphics, and Interpretation Tools	5/1/2022	5/1/2026	\$34,250	\$31,200	\$65,450
<b>Total</b>				\$274,000	\$240,000	\$514,000

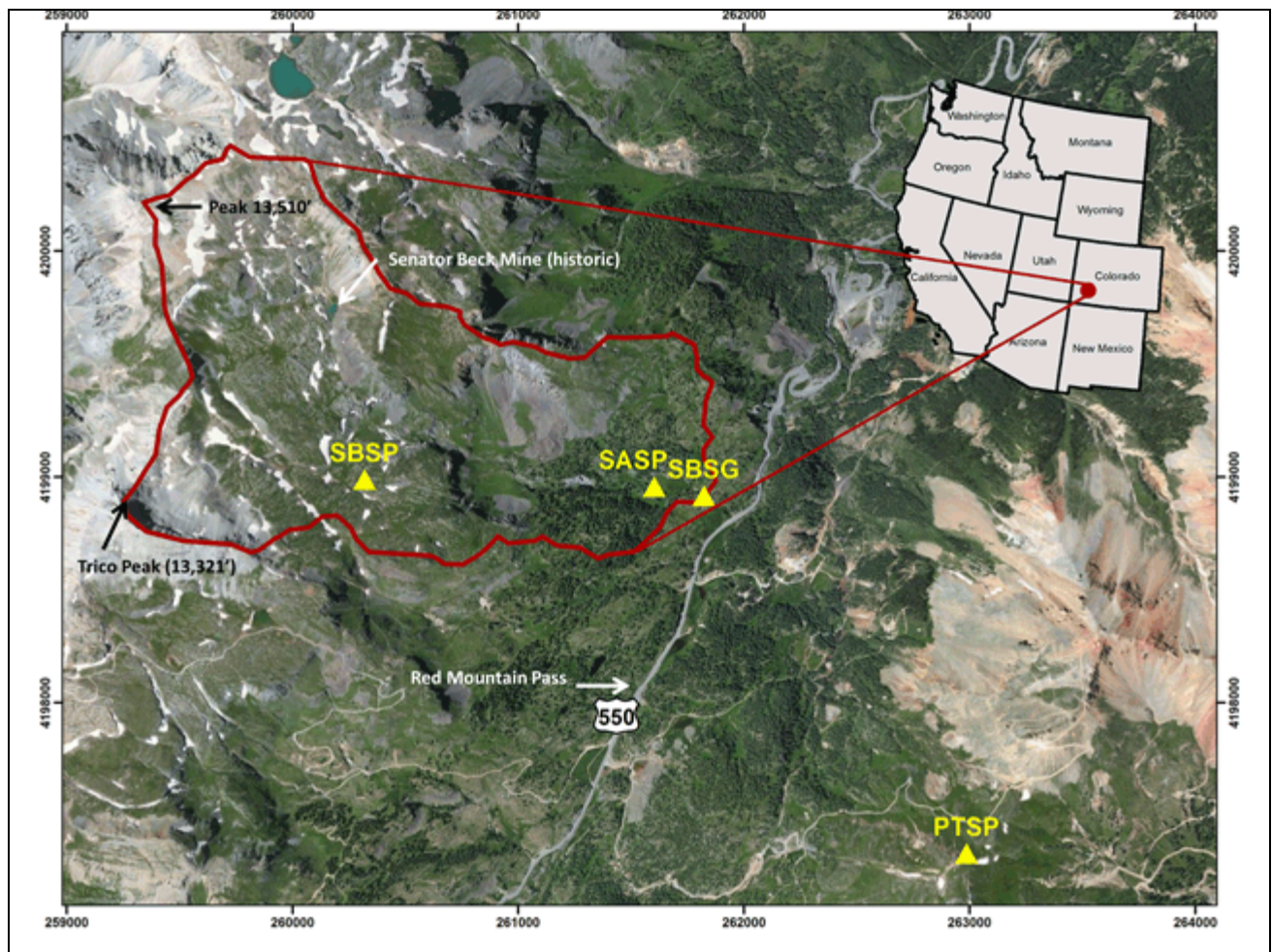
# Colorado Dust-on-Snow Project

## Project Maps

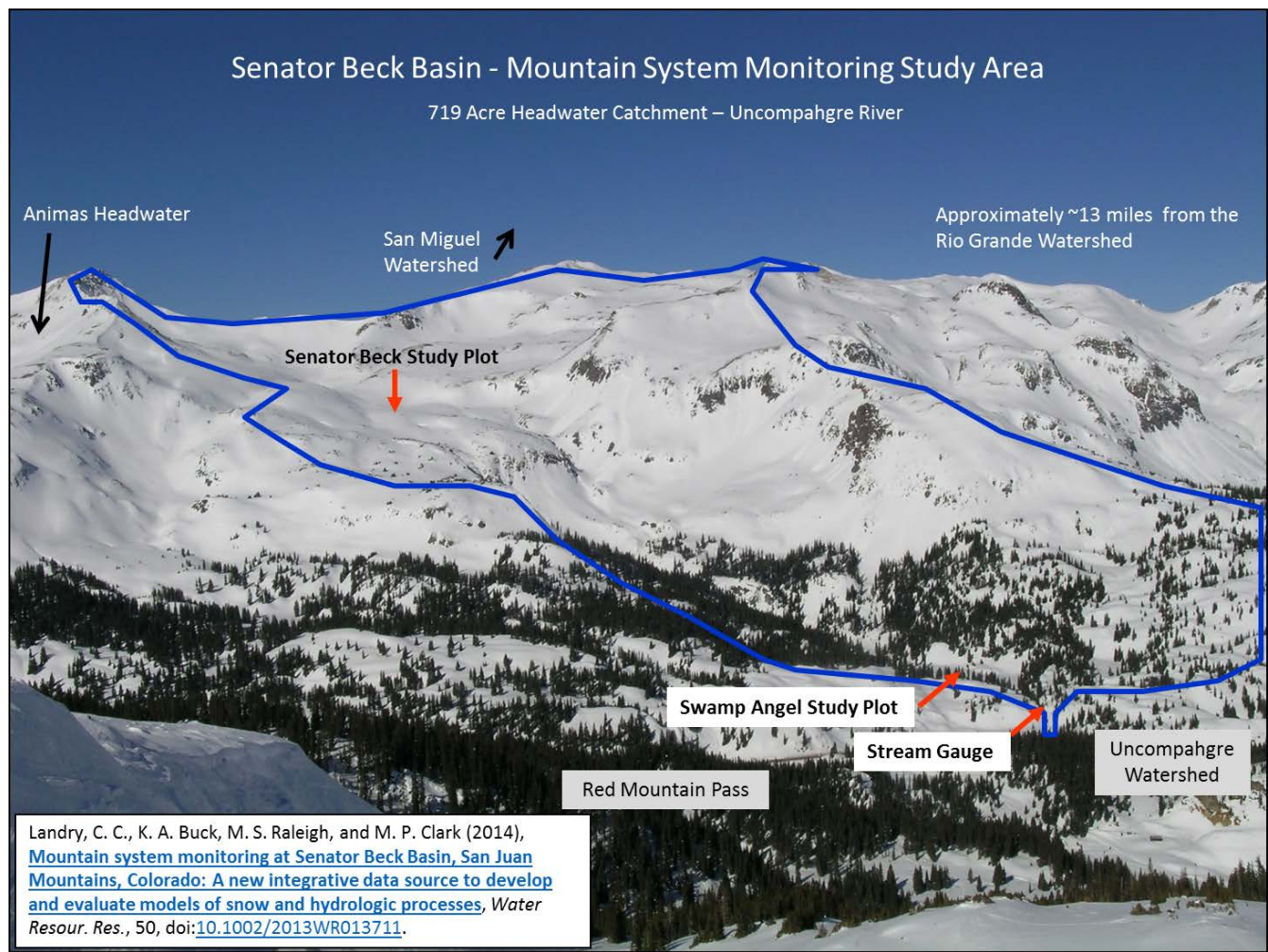


Map of the Project sample locations throughout Colorado. All sites are located at the summit of mountain passes near SNOTEL stations to compliment both datasets. Note the difference of dust-on-snow severity in Southwest Colorado vs Northeast Colorado in this MODIS image.





Senator Beck Basin Study Area is located at 37°54'24.8"N x 107°43'34.6"W in the Ouray Ranger District of the Uncompahgre National Forest in the Western San Juan Mountains of Southwestern Colorado. A Special Use Permit was granted to the Center for Snow and Avalanche Studies in October 2003. Under that permit, CSAS received permission to develop and use two study plots and develop a stream gauging station within the 719 acre (290 ha) Senator Beck Basin.



Senator Beck Basin is a high elevation headwater catchment located in the Uncompahgre Watershed. The Uncompahgre River is a major tributary to the Gunnison River, itself a major tributary to the Colorado River. SBB also immediately adjoins headwater catchments of the Animas River, a major tributary of the San Juan River, and headwaters of the San Miguel River, a major tributary to the Dolores River, all of which are also tributaries to the Colorado River. SBB is 13 miles to the west of the Rio Grande watershed.



**Water Supply Reserve Fund  
Water Activity Summary Sheet  
March 15-16, 2022  
Agenda Item 25(d)**

**Applicant & Grantee:** Orchard City Irrigation District

**Water Activity Name:** Fruitgrowers Dam Outlet Gates Improvement Project

**Water Activity Purpose:** Agricultural, Nonconsumptive (Environmental), Other - Implementation

**County:** Delta

**Drainage Basin:** Gunnison River

**Water Source:** Fruitgrowers Reservoir

**Amount Requested:** \$50,000 Gunnison Basin Account  
\$100,000 Statewide Account  
\$150,000 Total Request

**Matching Funds:** **Basin Account Match = \$50,000**

- 50% of statewide request (meets 10% min)

**Applicant & 3rd Party Match = \$465,400 (cash)**

- 465% of the statewide request (meets 40% min)

**Total Match (Basin request & Applicant Match) = \$515,400**

- 515% of the statewide request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$50,000 from the Gunnison Basin Account and up to \$100,000 from the Statewide Account to help fund the project: Fruitgrowers Dam Outlet Gates Improvement Project

**Water Activity Summary:** The applicant has partnered with the US Bureau of Reclamation, who owns the Fruitgrowers Reservoir, to plan for upgrades to the control gates which release water from the reservoir and partition the water as it leaves the reservoir. The applicant serves 590 irrigation users on approximately 2,760 acres of farmland in Orchard City.

This project will install the infrastructure needed for increased gate control efficiency. The existing outlet and portioning gates are old and worn. The planned improvements include replacing control gates with one low maintenance, long service life, standard gate valve and two triple offset butterfly valves, installing a Supervisory Control and Data Acquisition (SCADA) control house with electrical power and ventilation, computer, and software to be used for water management.

This project will: Modernize an irrigation dam and reservoir that have been in use continuously since 1937; Replace old and worn gates; Increase the reliability of water supplies in the irrigation reservoir water; Improve infrastructure that makes future SCADA projects possible; and continue to provide bird habitat and birdwatching activities.

If approved, these grant funds will be used for engineering, permitting, construction oversight by the Bureau of Reclamation, construction costs, coffer dam, and associated materials costs. The project will be designed and supervised by the US Bureau of Reclamation Western Colorado Area Office. The applicant states these upgrades will result in 4,450 acre feet of existing storage preserved.

**Discussion:** The project aligns with the goals of the Water Plan and the Gunnison Basin Implementation Plan by addressing aging agricultural infrastructure, identifying multipurpose projects that would preserve storage within the Basin as well as preserving habitat for migratory birds and a recreational bird watching area.

**Issues/Additional Needs:** The applicant is planning to apply for a CWCB Loan in the future and has identified the loan as match for this proposal. If approved, CWCB Staff will wait to contract this project until all matching funds have been secured. No additional issues or needs have been identified.

**Eligibility Requirements:** The application meets requirements of all eligibility components.

**Evaluation Criteria:** Staff has determined this activity satisfies the Evaluation Criteria.

<b>Funding Sources/Match</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Status</b>
CO River Dist. Community Funding Partnership	\$225,000	\$0	\$225,000	Secured
CWCB Loan	\$240,400	\$0	\$240,400	Pending
<b>Sub-Total Matching Funds</b>	<b>\$465,400</b>	<b>\$0</b>	<b>\$465,400</b>	
WSRF Gunnison Basin Account	\$50,000	\$0	\$50,000	Secured
WSRF Statewide Account	\$100,000	\$0	\$100,000	
<b>Sub-Total WSRF Funds</b>	<b>\$150,000</b>	<b>\$0</b>	<b>\$150,000</b>	
<b>Total Project Costs</b>	<b>\$615,400</b>	<b>\$0</b>	<b>\$615,400</b>	

**CWCB Project Manager:** Matt Stearns



Last Update: July 20, 2021

<b>Colorado Water Conservation Board</b>
<b>Water Supply Reserve Fund Grant Application</b>

Instructions
<p>All WSRF grant applications shall conform to the current <a href="#">2020 WSRF Criteria and Guidelines</a>.</p> <p>To receive funding from the WSRF, a proposed water activity must be recommended for approval by a Roundtable(s) <b>AND</b> the approved by the Colorado Water Conservation Board (CWCB). The process for roundtable consideration and recommendation is outlined in the 2020 WSRF Criteria and Guidelines. The CWCB meets bimonthly.</p> <p>If you have questions, please contact the WSRF Grant Program Manager (for all Roundtables) or your Roundtable Liaison:</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>Ben Wade  <a href="mailto:ben.wade@state.co.us">ben.wade@state.co.us</a>  303-866-3441 x3238 (office)</p> </div> <div style="text-align: center;"> <p>Sam Stein  <a href="mailto:Sam.stein@state.co.us">Sam.stein@state.co.us</a>  303-866-3441 (office)</p> </div> </div>

WSRF Submittal Checklist (Required)
<p>YES <input type="checkbox"/> NO <input type="checkbox"/> This request was recommended for CWCB approval by the sponsoring roundtable.</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> I have read and understand the <a href="#">2020 WSRF Criteria and Guidelines</a>.</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Grantee will be able to contract with CWCB using the <a href="#">Standard Contract</a>.<sup>1</sup></p> <p style="text-align: center; margin-top: 20px;"><b>Application Documents included:</b></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Exhibit A: Statement of Work<sup>2</sup> (<i>Word – see Template</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Exhibit B: Budget (including Detailed Budget) &amp; Schedule<sup>2</sup> (<i>Excel Spreadsheet – see Template</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Letters of Matching and/or Pending 3<sup>rd</sup> Party Commitments<sup>2</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Map<sup>2</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Photos/Drawings/Reports</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Letters of Support</p> <p style="text-align: center; margin-top: 20px;"><b>Contracting Documents<sup>3</sup></b></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Detailed/Itemized Budget<sup>3</sup> (<i>Excel Spreadsheet – see Template</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Certificate of Insurance<sup>4</sup> (<i>General, Auto, &amp; Workers' Comp.</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Certificate of Good Standing<sup>(4)</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> W-9 Form<sup>4</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Independent Contractor Form<sup>4</sup> (<i>If applicant is individual, not company/organization</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Electronic Funds Transfer (ETF) Form<sup>4</sup></p>

<sup>1</sup>Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

<sup>2</sup> Required with application if applicable.

<sup>3</sup> Additional documentation providing a Detailed/Itemized Budget maybe required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

<sup>4</sup> Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.



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Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	October 1	Basin Account
March	December 1	Basin/Statewide Account/Water Plan Grant Match <sup>1</sup>
May	February 1	Basin Account
July	April 1	Basin Account
September	June 1	Basin/Statewide Account
November	August 1	Basin Account

<sup>1</sup> If either the basin or statewide match includes matching funds from a pending Water Plant Grant, both must be submitted by December 1st deadline for March Board meeting review.

Water Activity Summary		
Name of Applicant	Orchard City Irrigation District	
Name of Water Activity	Fruitgrowers Dam Outlet Gates improvement Project	
Approving Roundtable(s)	Basin Account Request(s) <sup>1</sup>	
Gunnison Basin Roundtable	\$50,000	
Basin Account Request Subtotal	\$50,000.	
Basin Account Request Subtotal Approved by Roundtable	\$	
Statewide Account Request <sup>(1)</sup>	\$100,000.	
Total WSRF Funds Requested (Basin & Statewide)	\$150,000	
Total Project Costs	\$615,349	

<sup>1</sup> Please indicate the amount recommended for approval by the Roundtable(s)

Grantee and Applicant Information	
Name of Grantee(s)	Orchard City Irrigation District
Mailing Address	13937 Hwy 65, Orchard City, CO 891418
FEIN	84-0814728



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Grantee and Applicant Information	
<b>Grantee's Organization Contact<sup>1</sup></b>	Andy Wick
Position/Title	President, OCID
Email	<a href="mailto:apwick@tds.net">apwick@tds.net</a>
Phone	970-210-6932
<b>Grant Management Contact<sup>2</sup></b>	Suzie Bilberry
Position/Title	Manager, Delta Conservation District
Email	<a href="mailto:dcdprojectmanagementservices@gmail.com">dcdprojectmanagementservices@gmail.com</a>
Phone	970-399-8194
<b>Name of Applicant (if different than grantee)</b>	
Mailing Address	
Position/Title	
Email	
Phone	

<sup>1</sup> Person with signatory authority

<sup>2</sup> Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee
Provide a brief description of the grantee's organization (100 words or less).
The Orchard City Irrigation District, organized in 1940, assumed operation and maintenance of the Fruitgrowers Reservoir in March 1940. The Reservoir was constructed and is owned by the U.S. Bureau of Reclamation. The District serves 590 irrigation users on an estimated 2760 acres of farmland in and around Orchard City in Delta County, Colorado.

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.
X	<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> are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
	<b>Non-governmental organizations:</b> broadly, any organization that is not part of the government





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Type of Eligible Entity (check one)	
	<b>Covered Entity:</b> as defined in <a href="#">Section X</a>

Type of Water Activity (check one)	
	Study
X	Implementation

Category of Water Activity (check all that apply)		
X	Nonconsumptive (Environmental)	
	Nonconsumptive (Recreational)	
X	Agricultural	
	Municipal/Industrial	
	Needs Assessment	
	Education & Outreach	
X	Other	Explain: Infrastructure repair and upgrade

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in <b>decimal degrees</b> . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Counties	Delta, CO
Latitude	107.9545783996582
Longitude	38.826669923445486

Water Activity Overview
<p>Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. 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, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain.</p> <p>The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.</p>



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Water Activity Overview
<p>The Orchard City Irrigation District (OCID) has partnered with the US Bureau of Reclamation, who owns the Fruitgrowers Reservoir, to plan for upgrades to the control gates which release water from the reservoir and partition the water as it leaves the reservoir. This project will install the infrastructure needed for increased gate control efficiency. The existing outlet and portioning gates are old and worn. The planned improvements include replacing control gates with one low maintenance, long service life, standard gate valve and two triple offset butterfly valves, installing a Supervisory Control and Data Acquisition (SCADA) control house with electrical power and ventilation, computer, and software to be used for water management.</p> <p>This project will: <b>1)</b> Modernize an irrigation dam and reservoir that have been in use continuously since 1937 (<i>meets CWP Goals and Action, Section 10.2.E.2, Storage, BIP identified multipurpose projects</i>); <b>2)</b> Replace old and worn gates (<i>meets CWP Goals and Action, Section 10.3.D.3, Agriculture aging infrastructure</i>); <b>3)</b> Increase the reliability of water supplies in the irrigation reservoir water (<i>meets CWP Objective, Section 10.2.D.1, Agriculture</i>); <b>4)</b> Improve infrastructure that makes future SCADA projects possible (<i>meets CWP Goals and Action, Section 10.3.D.3, Agriculture, updates and improvements</i>); <b>5)</b> Continue to provide bird habitat and birdwatching activities (<i>meets CWP Objective, Chapter 10 Section 10.2.E. Watershed Health, Environment, and Recreation</i>).</p> <p>If approved, these grant funds will be used for engineering, permitting, construction oversight by the Bureau of Reclamation, construction costs, coffer dam, and associated materials costs. The project will be designed and supervised by the US Bureau of Reclamation Western Colorado Area Office in Grand Junction, CO.</p>

Measurable Results		
To catalog measurable results achieved with WSRF funds please provide any of the following values.		
	New Storage Created (acre-feet)	
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive	
4540 Acre ft	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)	
	Length of Pipe/Canal Built or Improved (linear feet)	
X	Other	<p>Explain: <b>The Outlet Improvement Project will modernize an irrigation dam and reservoir that have been used continuously since 1937.</b></p> <p><b>Components installed to enable Supervisory Control and</b></p>



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Measurable Results		
		<p>Data Acquisition (SCADA) in a future phase.</p> <p>Existing migratory bird stopover preserved.</p> <p>Developed recreational bird watching area preserved.</p>

Water Activity Justification
<p>Provide a description of how this water activity supports the goals of <a href="#">Colorado's Water Plan</a>, the most recent <a href="#">Statewide Water Supply Initiative</a>, and the respective <a href="#">roundtable Basin Implementation Plan and Education Action Plan</a> <sup>(1)</sup>. 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).</p> <p>For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in <a href="#">2020 WSRF Criteria and Guidelines</a>).</p> <p>The Fruitgrowers Reservoir serves 590 irrigation water users. At the 2021 Annual Orchard City Irrigation District meeting, the membership voted for a Resolution to borrow funds from the Colorado Water Conservation Board to assist with the partial financing of this project. In addition, the project manager will seek additional grants from the Colorado River District's Community Funding Partnership.</p> <p>The replacement and upgrade to the valves and gates is included on the current Gunnison Basin Implementation Plan.</p> <p>This project will replace existing guard and regulating gate valves that were installed during the construction of the dam in 1938. They are old and have deteriorated as per the attached Fruitgrowers Dam Comprehensive Review. Replacing these devices will allow for more accurate flow monitoring and accuracy via upgraded electric controls for new guard and regulating gates and installation of electrical components for Supervisory Control and Data Acquisition (SCADA) control to be installed at a later phase. The motor operated regulating valve will make it possible to decrease spills and over-deliveries to irrigators. Replacement will also prevent a possible failure of the gates and valves, especially the emergency gate valve that does close but is leaking approximately 1500 gal/min when closed.</p> <p>A control housing on a concrete building is also included in the project. It will be pre-cast concrete and placed over the gate chamber access hatch. 200-amp service will be brought in to supply power to a ventilation system, regulating gate motor operator, electrical outlets, and interior and exterior lights. It will be wired and prepared for a future SCADA installation.</p> <p>The Reservoir is well known for its bird watching. Twenty-six percent (26%) of the world's population of Greater Sandhill Cranes stops at this site in the spring migration from central</p>



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### Water Activity Justification

New Mexico. The reported numbers of White-faced Ibis using the reservoir on migration approaches 20% of the world's population. Southwestern Willow Flycatchers occur at both ends of the reservoir. Whooping Crane, Bald Eagle, Brewer's Sparrow and Least Tern are also found at this location. There is a hard-surface watchable wildlife trail, about 750 feet long with a turnout with signage and a parking area. The area also holds an annual crane festival. If the outlet gates are not replaced at some point the Bureau of Reclamation will issue a 'no fill' order and there will be no reservoir for birds or bird watching.

Upon occasion you see a person fishing the lake for carp. According to the local CPW Game Warden, there is a heard of approximately 100 elk that pass through or winter at the Reservoir.

This project is expected to help prevent a water-related crisis or conflict. At present the OCID board of directors has limited information available to help make the annual decisions on the amount of water to appropriate for each share of OCID stock. This has led to very tense discussions in which a shareholder has water on the books near the end of the irrigation season, but there is no water in the reservoir to fill the order. The improvements planned in this project includes water management software which will yield information to help the OCID board make more informed decisions at the beginning of the irrigation season.

It is anticipated the water management software portion of this project will increase the efficiency and accuracy in setting annual water appropriations to shareholders. This will decrease the mismatch between "water on the books" and water available for delivery in the reservoir.

According to the U.S. Drought Monitor website the project area has been in drought conditions 3 out of the last 4 years. The irrigation reservoir is critical for the agriculture in the irrigation district as well as the wildlife that visit or make the Reservoir their home.

<sup>1</sup> Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.

### Matching Requirements: Basin Account Requests

**Basin (only) Account** grant requests require a 25% match (cash and/or in-kind) from the Applicant or 3<sup>rd</sup> party and shall be accompanied by a **letter of commitment** as described in the [2020 WSRF Criteria and Guidelines](#) (submitted on the contributing entity's letterhead). Attach additional sheet if necessary.

Contributing Entity	Amount and Form of Match (note cash or in-kind)
Colorado Water Conservation Board (Loan)	\$240,400.
Total Match	\$240,400.
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.	



Last Update: July 20, 2021

Matching Requirements: Basin Account Requests	

Matching Requirements: Statewide Account Requests	
<p><b>Statewide Account</b> grant requests require a 50% match as described in the <a href="#">2020 WSRF Criteria and Guidelines</a>. At least of 10% of the required Statewide Account Grant request match shall be cash from Basin Account funds whether that is from one or multiple basins; and the remaining 40% of the required match may be provided from any source, including other grants, cash from the Basin Account, or any combination of cash, in-kind services, or in-kind materials.and shall be accompanied by a <b>letter of commitment</b>. Attach additional sheet if necessary.</p>	
Contributing Entity	Amount and Form of Match (note cash or in-kind):
Colorado River District Community Funding Partnership	\$225,000 (Secured)
Colorado Water Conservation Board (Loan)	\$240,400.
Gunnison Basin Roundtable	\$ 50,000.
Total Match	\$515,400.
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	

Related Studies
Please provide a list of any related studies, including if the water activity is complimentary to or assists in the implementation of other CWCB programs.





Last Update: July 20, 2021

#### Related Studies

*Fruitgrowers Dam Outlet Works Evaluation*, included with this application.

#### Previous CWCB Grants

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

N/A

#### Tax Payer Bill of Rights

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

N/A

# Gunnison Basin Roundtable

March 1, 2022

Colorado Water Conservation Board

1313 Sherman Street, Room 718

Denver, Colorado 80203

Attn: Board of Directors

Re: Orchard City

The Gunnison Basin Roundtable at their November 15, 2021 meeting approved and supported the Orchard City's project to repair the outlet works on Fruit Growers Reservoir. The total project is estimated to cost \$615,349. Orchard City plans to finance the project with a basin grant of \$50,000 and a state grant of \$100,000. Orchard City plans to apply for a Colorado River Water Conservation Community Partnership Funding Grant in the amount of \$225,000.

Orchard City's project is to replace and upgrade the valves on Fruit Growers Reservoir. The project is included on the Gunnison Basin BIP list.

Sincerely,



Steven A. Anderson

Chair



**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

1313 Sherman Street, Room 718

Denver, CO 80203

**September 11, 2020**

**Suzie Bilberry  
Orchard City Irrigation  
District  
690 Industrial Blvd  
Delta, CO 81416**

**RE: Colorado Water Conservation Board Loan  
Consideration Orchard City Irrigation District  
Fruitgrowers Dam Outlet Gate Replacement and  
Upgrade**

**Dear Ms. Bilberry:**

I am writing to inform you that the Orchard City Irrigation District's Fruitgrowers Dam Outlet Gate Replacement and Upgrade Project fits the initial project criteria for the Colorado Water Conservation Board's (CWCB) Water Project Loan Program.

The CWCB currently funds dam rehabilitation projects with loan terms of 1.75% for 30 years; however, please note that rates do adjust with the market. Loan approval is also subject to a financial review of the borrower's ability to repay debt.

In order to receive a loan, Orchard City Irrigation District must submit a completed Loan Feasibility Study for review by CWCB staff. That information will then be presented at a future CWCB meeting for Board approval of the loan.

If you have any questions regarding the CWCB Water Project Loan Program, please feel free to contact me at 303-866-3441 x 3257 or at [matthew.stearns@state.co.us](mailto:matthew.stearns@state.co.us).

Sincerely,

**Matthew Stearns,  
P.E.  
Finance Section  
Colorado Water Conservation Board**

P 303.866.3441 F 303.866.4474 [www.cwcb.state.co.us](http://www.cwcb.state.co.us) Jared Polis,  
Governor | Dan Gibbs, DNR Executive Director | Rebecca Mitchell, CWCB Director



September 3, 2020

**Bureau of Reclamation  
Financial Assistance Support  
Section WaterSMART Grant for  
Fiscal Year 2020**

**To Whom It May Concern:**

**Please accept this letter as the Butte Ditch Board of Directors support for the Orchard City Irrigation District's (OCID) Fruitgrowers Dam Outlet Gate Improvement Project.**

**It is our understanding, the main goal of this project is to improve the safety, efficiency and control of the water being released from the dam. By replacing the existing gates with upgraded gates and upgrading controls to a SCADA enabled system, outlet water will be managed accurately, allowing for proper irrigation water delivery and time savings.**

**As Colorado struggles with a continuing drought, water supply is limited and it is imperative that water be managed in the most efficient and accurate way possible. We would like to see them take advantage of the US Bureau of Reclamation recommendation to change out the gates and in doing so upgrade to a SCADA enabled system to deliver water more efficiently.**

**Sincerely,**

*Andy Wick* | *preside*  
*R. O. K.*  
*K/R*  
*Dugg*

Fogg Ditch Company

P.O. BOX 330

Eckert, CO 81418

September 14, 2020

Bureau of Reclamation  
Financial Assistance Support Section  
WaterSMART Grant for Fiscal Year 2020

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Sincerely,

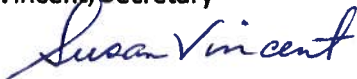
A handwritten signature in blue ink that reads "Marsha Thomas - President".

Marsha Thomas, President

A handwritten signature in blue ink that reads "Gale Doudy".

Gale Doudy, Vice President

Susan Vincent, Secretary

A handwritten signature in blue ink that reads "Susan Vincent".

Jeff Hinkley, Board Member at large

A handwritten signature in blue ink that reads "Jeff Hinkley".A handwritten signature in blue ink that reads "Tom Holland".

Tom Holland, Board Member at large





**Delta County**  
COLORADO

**Board of County  
Commissioners**

J. Mark Roeber, Chair | District 3  
Don Suppes, Vice-Chair | District 2  
Mike Lane | District 1

September 3, 2020

Bureau of Reclamation  
Financial Assistance Support Section  
WaterSMART Grant for Fiscal Year 2020

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Please accept this letter as the Butte Ditch Board of Directors support for the Orchard City Irrigation District's (OCID) Fruitgrowers Dam Outlet Gate Improvement Project.

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Sincerely,

Don Suppes  
Vice-Chair  
Delta Board of County Commissioners

# COLORADO RIVER DISTRICT COMMUNITY FUNDING PARTNERSHIP



Date: February 9, 2022

Sent via e-mail to: [deltaconservationd@gmail.com](mailto:deltaconservationd@gmail.com)

Suzie Bilberry  
Delta Conservation District  
690 Industrial Blvd  
Delta, CO 81416

Re: Award Letter for the Fruitgrowers Dam Outlet Gates Improvement Project

Dear Ms. Bilberry,

The Colorado River District is pleased to inform you that your application to the Community Funding Partnership has been approved and will be awarded grant funding in the amount of \$225,000 to assist in the implementation of the Fruitgrowers Dam Outlet Gates Improvement Project.

Enclosed please find your grant overview which details any award contingencies or special contract provisions of your award. Also included are the expected tasks and disbursement schedule. In addition, please submit a completed Exhibit A.1– Scope of Work and Exhibit A.2 – Budget (attached), which will become exhibits to your contract. As part of the contracting process, please note that you will be required to submit a completed W-9 and appropriate Certificates of Insurance.

Additionally, our External Affairs team will be announcing this funding award and are available to assist you with outreach regarding this award. Together, we encourage you to share the news of your grant award and project with your network, project partners and community members.

On behalf of the Board and staff, thank you for your commitment to the mission of the Colorado River District to lead in the protection, conservation, use, and development of the water resources of the Colorado River basin for the welfare of the District, and to safeguard for Colorado all waters of the Colorado River to which the state is entitled.

Congratulations! We look forward to growing our partnership as you undertake the responsibilities of this funding agreement.

Sincerely,

Amy Moyer  
Director of Strategic Partnerships

**SECURING THE FUTURE FOR WEST SLOPE WATER**



## Grant Overview

**Project Title:** Fruitgrowers Dam Outlet Gates Improvement Project

**Awardee:** Orchard City Irrigation District

**Award Amount:** \$225,000  
**Total Project Cost:** \$615,400

**Award Contingencies (if any):** N/A

**Contract Provisions (if any):** N/A

**Insurance Requirements\*:** As indicated previously, you and/or your contractor must provide Certificates of Insurance for Commercial General Liability, Commercial Automobile Liability, and Workers Compensation and Employer's Liability upon execution of the Grant Contract that abide by CRD's standard insurance requirements (included at the end of this packet). If extenuating circumstances or hardships exist that prevent you from fulfilling this requirement, please request an insurance modification form.

### Expected Tasks:

- Task 1: Contract with: USBOR, Admin Support, Consulting Engineer; Programmer - Project design, drawings, water management software development
- Task 2: Environmental Review - completed NEPA/FONSI Cultural Studies Report
- Task 3: Solicit and Award Construction Contract: Review Work Plans - Advertise, receive, and award construction contract
- Task 4: Purchase of Materials - Order materials for on-site delivery as needed (order long-lead time items)
- Task 5: Install gate isolation mechanism; Remove existing gates; Install new gates - Install/remove coffer dam, remove old/install new gates
- Task 6: SCADA prefab building purchase, installation and wiring - Electrical housing installed, wired and tested

### Expected Deliverables:

- Replacement of existing guard and regulating gate valves with one low maintenance, long service life, standard gate valve and two triple offset butterfly valves
- Purchase and installation of a Supervisory Control and Data Acquisition (SCADA) control house with electrical power and ventilation
- Purchase of computer and water management software

**Disbursement Schedule:** The disbursement will follow the standard CRD distribution schedule as follows:

- After execution of the contract and upon notification that the project will commence within 90 days, the CRD will forward 25% of the funding amount.
- Two progress payments will be made in 25% increments based upon evidence of paid invoices provided by the awardee.



- The remaining 25% of the funds will be paid upon a determination that the project is substantially complete, and the CRD has received a completed Request for Final Payment Form with all required documentation.

\*The CRD has normal minimum requirements for insurance for contractual agreements as follows:

1. General Liability:
  - a. Bodily Injury & Property Damage:
    - \$1,000,000 each event
    - \$1,000,000 aggregate
  - b. Personal Injury:
    - \$1,000,000 each event
    - \$1,000,000 aggregate
2. Automobile Bodily Injury & Property Damage Liability:
  - \$1,000,000 any one accident or loss
3. Workers' Compensation and Employer's Liability:
  - a. Workers' Compensation: Statutory
  - b. Employer's Liability:
    - \$100,000 each accident
    - \$100,000 disease - each employee
    - \$500,000 disease - policy limit



**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

1313 Sherman Street, Room 718

Denver, CO 80203

**September 11, 2020**

**Suzie Bilberry  
Orchard City Irrigation  
District  
690 Industrial Blvd  
Delta, CO 81416**

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Consideration Orchard City Irrigation District  
Fruitgrowers Dam Outlet Gate Replacement and  
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Sincerely,

**Matthew Stearns,  
P.E.  
Finance Section  
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P 303.866.3441 F 303.866.4474 [www.cwcb.state.co.us](http://www.cwcb.state.co.us) Jared Polis,  
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September 3, 2020

**Bureau of Reclamation  
Financial Assistance Support  
Section WaterSMART Grant for  
Fiscal Year 2020**

**To Whom It May Concern:**

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*Andy Wick* | *preside*  
*R. O. K.*  
*K/R*  
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Fogg Ditch Company

P.O. BOX 330

Eckert, CO 81418

September 14, 2020

Bureau of Reclamation  
Financial Assistance Support Section  
WaterSMART Grant for Fiscal Year 2020

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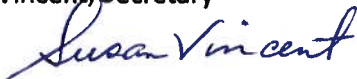
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Marsha Thomas, President

Handwritten signature of Gale Doudy in blue ink.

Gale Doudy, Vice President

Susan Vincent, Secretary

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Tom Holland, Board Member at large



**Delta County**  
COLORADO

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Mike Lane | District 1

September 3, 2020

Bureau of Reclamation  
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WaterSMART Grant for Fiscal Year 2020

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Sincerely,

Don Suppes  
Vice-Chair  
Delta Board of County Commissioners



Last Update: March 17, 2020

<https://cwcb.colorado.gov/>

<b><u>Colorado Water Conservation Board</u></b>	
<b><i>Water Supply Reserve Fund</i></b>	
<b><u>Exhibit A - Statement of Work</u></b>	
<b>Date:</b>	<b>September 20, 2021</b>
<b>Water Activity Name:</b>	<b>Fruitgrowers Dam Outlet Gates Improvement Project</b>
<b>Grant Recipient:</b>	<b>Orchard City Irrigation District</b>
<b>Funding Source:</b>	<b>Gunnison Basin Roundtable / Statewide</b>
<b>Water Activity Overview:</b> (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for. (PLEASE DEFINE ALL ACRONYMS).)	
<p>The Orchard City Irrigation District (OCID) has partnered with the US Bureau of Reclamation, who owns the Reservoir, to plan for upgrades to the control gates which release water from the reservoir and partition the water as it leaves the reservoir. This project will install the infrastructure needed for increased gate control efficiency. The existing outlet and portioning gates are old and worn. The planned improvements include replacing control gates with one low maintenance, long service life, standard gate valve and two triple offset butterfly valves, installing a Supervisory Control and Data Acquisition (SCADA) control house with electrical power and ventilation, computer, and software to be used for water management.</p> <p>If approved, these grant funds will be used for engineering, permitting, construction oversight by the Bureau of Reclamation, construction costs, coffer dam, and associated materials costs. The project will be designed and supervised by the US Bureau of Reclamation Western Colorado Area Office in Grand Junction, CO.</p>	
<b>Objectives:</b> (List the objectives of the project. (PLEASE DEFINE ACRONYMS).)	
<p>This project will: 1) Modernize an irrigation dam and reservoir that have been in use continuously since 1937; 2) Replace old and worn gates; 3) Increase the reliability of water supplies in the irrigation reservoir; 4) Improve infrastructure that makes future SCADA projects possible; 5) Continue to provide bird habitat and birdwatching activities.</p>	



Last Update: March 17, 2020

<https://cwcb.colorado.gov/>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b>Task 1 - Contract with the United States Bureau of Reclamation to produce design, specs, and drawings</b>
Description of Task:  Contract with the United States Bureau of Reclamation, Engineering Division, to provide technical assistance for engineering work to include design, specifications, and creation of all necessary drawings to complete the project, oversight of the implementation and provide personnel for project inspections as required. Contract to be in place within 6 months of funding approval. Design/Specs/Drawings will take approximately 6 months to complete.
Method/Procedure:  After funding is approved, US Bureau of Reclamation will be contacted, and subsequent negotiations will produce a contract for the work listed above.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Completed contract between Orchard City Irrigation District and the US Bureau of Reclamation spelling out deliverables: design, specifications, drawings, and time frames.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
A progress/status report will be provided to the Gunnison Basin Roundtable and CWCB at least every 6 months that will include invoices, reporting of any major issues and how they were resolved.





Last Update: March 17, 2020

<https://cwcb.colorado.gov/>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b>Task 2 - (Name) Environmental Review</b>
Description of Task:  An environmental review will be contracted with the US Bureau of Reclamation, Environmental Division, and completed within the first reporting period. The US Bureau of Reclamation has provided an estimate of \$46,200 for this activity. This task is estimated to take 6-months from time of contract.  Conduct Environmental review
Method/Procedure:  Upon funding approval, Orchard City Irrigation District will contact US Bureau of Reclamation, Environmental Division, and contract to provide the National Environmental Policy Act and cultural resource required reviews.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)  The Orchard City Irrigation District will receive a completed National Environmental Policy Act and Cultural Resource report that will meet all State and Federal requirements. Any discrepancies found during this evaluation will be addressed immediately so project momentum will not be hindered.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)  A progress/status report will be provided to the Gunnison Basin Roundtable and CWCB every 6 months that will include invoices, reporting of any major issues and how they were resolved.



Last Update: March 17, 2020

<https://cwcb.colorado.gov/>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b>Task 3 - (Name) Solicit and Award Contract</b>
Description of Task:
Project Management will define and solicit for contractor related work for the project. Orchard City Irrigation District will be kept informed of the progress and potential awardees. This task is estimated to take 2 months.
Method/Procedure:
US Bureau of Reclamation will provide interested contractors with all final drawings and specifications for competitive bidding for the project award.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Complete bid package from contractors that have been reviewed by the US Bureau of Reclamation for accuracy.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
A progress/status report will be provided to the Gunnison Basin Roundtable and CWCB every 6 months that will include invoices, reporting of any major issues and how they were resolved.



Last Update: March 17, 2020

<https://cwcb.colorado.gov/>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b>Task 4 - (Name) Purchase of Materials</b>
Description of Task:
Purchase materials as spelled out in project specifications. This task is estimated to take 3 months to complete.
Method/Procedure:
Project Management will place the order and monitor delivery. Orchard City Irrigation District will be kept informed of any delivery delays.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Procurement of gates, vales and housing as required by specification provided by US Bureau of Reclamation and approved by Orchard City Irrigation District.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
A progress/status report will be provided to the Gunnison Basin Roundtable and CWCB every 6 months that will include invoices, reporting of any major issues and how they were resolved.



Last Update: March 17, 2020

<https://cwcb.colorado.gov/>

Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b>Task 5 - (Name) Install gate Isolation mechanism, Install new gates</b>
Description of Task:
<p>Upgrade of the gate valves will require the water in the lake to be isolated from the outlet works. The reservoir will be drained to accomplish this requirement. Water coming from the tributaries upstream must be collected by a coffer dam and pumped over the spillway.</p> <p>Once the new vales and gates are installed the coffer dam will be removed.</p> <p>This task is estimated to take 3 weeks.</p>
Method/Procedure:
<p>The reservoir will be drained. The water coming from the tributaries upstream of the dam will be collected by a coffer dam and pumped over the spillway to eliminate the flow of water through the outlet works. Pumping the water during gate installation will likely require an environmental analysis. This procedure will be inspected by US Bureau of Reclamation and reviewed by Orchard City Irrigation District representatives.</p>
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Removal of degraded gates; Installation of a coffer dam, gates and valves as defined in the specifications and drawings. Removal of the coffer dam and required pumps.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
A progress/status report will be provided to the Gunnison Basin Roundtable and CWCB every 6 months that will include invoices, reporting of any major issues and how they were resolved.



Last Update: March 17, 2020

<https://cwcb.colorado.gov/>

Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b>Task 6 - (Name) SCADA Prefab building purchase, installation, and wiring</b>
Description of Task:
A concrete pad and pre-cast concrete building will be placed over the gate chamber access hatch. Electric service will be brought in to supply power. A control panel will be installed for the motor operations and position indicator on the regulating gate. This task is estimated to take 30 days.
Method/Procedure:
A concrete pad and pre-cast concrete building will be placed over the gate chamber access hatch. 200-amp electric service will be brought in to supply power for the ventilation system, regulating gate motor operator, electrical outlets, and interior and exterior lighting. A control panel will be installed for the motor operations for all and position indicator on the regulating gate.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
A concrete pad and prefab building to be installed and wired for electrical equipment/fixtures.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
A progress/status report will be provided to the Gunnison Basin Roundtable and CWCB every 6 months that will include invoices, reporting of any major issues and how they were resolved.





Last Update: March 17, 2020

<https://cwcb.colorado.gov/>

### Budget and Schedule

**Exhibit B - Budget and Schedule:** This Statement of Work shall be accompanied by a combined [Budget and Schedule](#) that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format. A separate excel formatted Budget is required for engineering costs to include rate and unit costs.

### Reporting Requirements

**Progress Reports:** The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

**Final Report:** At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee'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.

### Payments

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. 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.

The CWCB will pay the last 10% of the entire water activity 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 water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

### Performance Requirements

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 Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per the 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 the 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 Update: March 17, 2020

<https://cwcb.colorado.gov/>

## Performance Requirements

Competitive

Last Update: 7/20/2021



**COLORADO**

Colorado Water  
Conservation Board

Department of Natural Resources

**Colorado Water Conservation Board**

**Water Supply Reserve Fund**

**EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs**

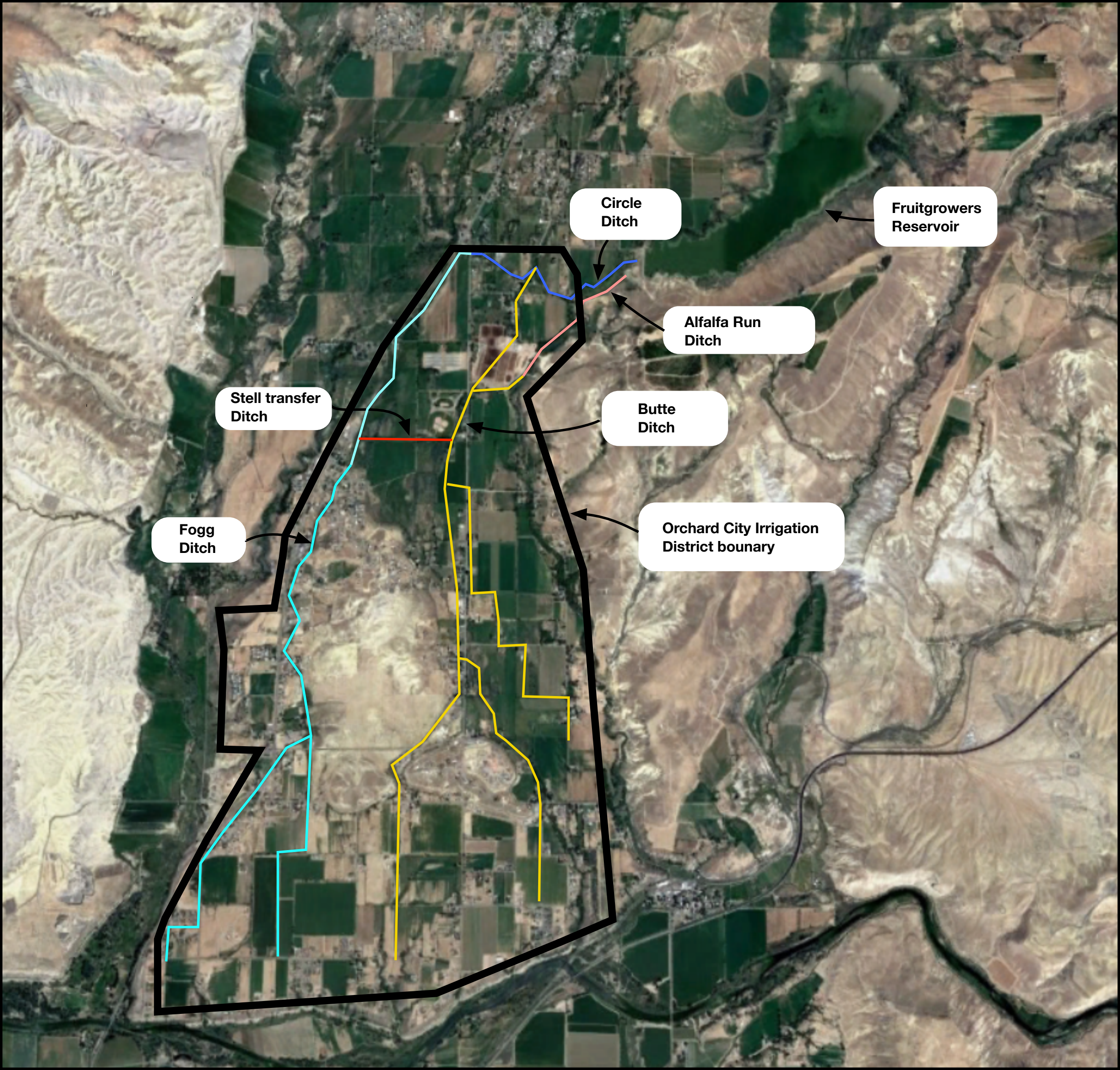
**Date: September 24, 2021**

**Water Activity Name: Fruitgrowers Dam Outlet Gates Improvement Project**

**Grantee Name: Orchard City Irrigation District**

<u>Task No.</u> <sup>(1)</sup>	<u>Description</u>	<u>Start Date</u> <sup>(2)</sup>	<u>End Date</u>	<u>Matching Funds</u> (cash & in-kind)(3)	<u>WSRF Funds</u> (Basin & Statewide combined)(3)	<u>Total</u>
1	Contract with: USBOR, Admin Support, Consulting Engineer; Programmer	1-May-22	15-Feb-23	\$ 141,900		\$141,900
2	Environmental Review	1-May-22	15-Sept-22	\$ 46,200		\$46,200
3	Solicit and Award Construction Contract: Review Work Plans	1-July-22	15-Oct-22	\$ 9,000		\$9,000
4	Purchase of Materials	15-Oct-22	15-Nov-22	\$ 152,300	\$ 5,000	\$157,300
5	Install gate isolation mechanism; Remove existing gates; Install new gates	15-Nov-22	15-Jan-23	\$ 19,100	\$ 102,300	\$121,400
6	SCADA prefab building purchase, installation and wiring	15-Oct-22	25-Nov-22	\$ 74,800	\$ 40,700	\$115,500
						\$0
	Contingencies	1-May-22	15-Feb-2023	\$ 22,100	\$ 2,000	\$24,100
						\$0
						\$0
						\$0
						\$0
						\$0
<b>Total</b>				\$ 465,400	\$ 150,000	\$615,400





Circle  
Ditch

Fruitgrowers  
Reservoir

Alfalfa Run  
Ditch

Stell transfer  
Ditch

Butte  
Ditch

Fogg  
Ditch

Orchard City Irrigation  
District bounary



**Water Supply Reserve Fund  
Water Activity Summary Sheet  
March 15-16, 2022  
Agenda Item 25(e)**

**Applicant & Grantee:** Town of Olathe

**Water Activity Name:** Water Meter & Water Conservation

**Water Activity Purpose:** Municipal/Industrial, Education & Outreach - Implementation

**County:** Montrose

**Drainage Basin:** Gunnison River

**Water Source:** Uncompaghre River, East Fork Dry Creek & West Fork Dry Creek

**Amount Requested:** \$25,000 Gunnison Basin Account  
\$157,403 Statewide Account  
\$150,000 Total Request

**Matching Funds:** **Basin Account Match = \$25,000**

- 15.8% of statewide request (meets 10% min)

**Applicant & 3rd Party Match = \$185,587.50 (\$150,600 cash & \$34,987.50 In-kind)**

- 118% of the statewide request (meets 40% min)

**Total Match (Basin request & Applicant Match) = \$210,587.50**

- 133% of the statewide request (meets 50% min)

<b>Staff Recommendation:</b>
Staff recommends approval of up to \$25,000 from the Gunnison Basin Account and up to \$157,403 from the Statewide Account to help fund the project: Water Meter & Water Conservation

**Water Activity Summary:** The Town of Olathe has a current population of approximately 1,850 people. Olathe has a diverse population and is classified as a Disadvantaged Community (DAC) by DOLA. The Town is a member of Project 7 and purchases treated water from Project 7. The Town provides for the storage and distribution of the treated water. The Town serves approximately 570 residential and 74 commercial taps. CWCB approved a Water Efficiency Plan for the Town in 2019 to implement water efficiency programs & measures to avoid water demands exceeding their Project 7 allocation.

The Town has estimated about a 25% gap between water purchased and water sold (unaccounted for water). The Town has been working to install meters on all connections including public facilities to try to account for all the water that is purchased from Project 7. The project will upgrade 30 plus year old manual read water meters. As meters age they typically read more slowly. The Town believes this is likely the cause of a significant amount of the unaccounted for water and is also could be resulting in lost revenue.

If approved, WSRF funds will be used to purchase and install new water meters which would help reduce the difference of purchased and sold water. Using newer and more sophisticated meters will allow customers to have a better picture of their water usage. That coupled with outreach by the Town with information about community specific ways to conserve and be more efficient with water use is expected to result in a modest reduction of 10-20 acre feet per year in consumptive use.

**Discussion:** The project aligns with the goals of the Gunnison Basin Implementation Plan by identifying and addressing municipal water shortages, maintaining and modernizing critical water infrastructure and educating residents regarding critical water resources.

**Issues/Additional Needs:** No issues or additional needs have been identified.

**Eligibility Requirements:** The application meets requirements of all eligibility components.

**Evaluation Criteria:** Staff has determined this activity satisfies the Evaluation Criteria.

<b>Funding Sources/Match</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Status</b>
Town of Olathe	\$150,600	\$34,987.50	\$185,587.50	Secured
<b>Sub-Total Matching Funds</b>	\$150,600	\$34,987.50	\$185,587.50	
WSRF Gunnison Basin Account	\$25,000	\$0	\$25,000	Secured
WSRF Statewide Account	\$157,403	\$0	\$157,403	
<b>Sub-Total WSRF Funds</b>	\$182,403	\$0	\$182,403	
<b>Total Project Costs</b>	<b>\$333,003</b>	<b>\$34,987.50</b>	<b>\$367,990.50</b>	

**CWCB Project Manager:** Kevin Reidy





Last Update: July 20, 2021

<b>Colorado Water Conservation Board</b>
<b>Water Supply Reserve Fund Grant Application</b>

**Instructions**

All WSRF grant applications shall conform to the current [2020 WSRF Criteria and Guidelines](#).

To receive funding from the WSRF, a proposed water activity must be recommended for approval by a Roundtable(s) **AND** the approved by the Colorado Water Conservation Board (CWCB). The process for roundtable consideration and recommendation is outlined in the 2020 WSRF Criteria and Guidelines. The CWCB meets bimonthly.

If you have questions, please contact the WSRF Grant Program Manager (for all Roundtables) or your Roundtable Liaison:

Ben Wade  
[ben.wade@state.co.us](mailto:ben.wade@state.co.us)  
303-866-3441 x3238 (office)

Sam Stein  
[Sam.stein@state.co.us](mailto:Sam.stein@state.co.us)  
303-866-3441 (office)

**WSRF Submittal Checklist (Required)**

- YES ☐ NO ☐ This request was recommended for CWCB approval by the sponsoring roundtable.
- YES ☐ NO ☐ I have read and understand the [2020 WSRF Criteria and Guidelines](#).
- YES ☐ NO ☐ Grantee will be able to contract with CWCB using the [Standard Contract](#).<sup>1</sup>

**Application Documents included:**

- YES ☐ NO ☐ Exhibit A: Statement of Work<sup>2</sup> (*Word – see Template*)
- YES ☐ NO ☐ Exhibit B: Budget (including Detailed Budget) & Schedule<sup>2</sup> (*Excel Spreadsheet – see Template*)
- YES ☐ NO ☐ Letters of Matching and/or Pending 3<sup>rd</sup> Party Commitments<sup>2</sup>
- YES ☐ NO ☐ Map<sup>2</sup>
- YES ☐ NO ☐ Photos/Drawings/Reports
- YES ☐ NO ☐ Letters of Support

**Contracting Documents<sup>3</sup>**

- YES ☐ NO ☐ Detailed/Itemized Budget<sup>3</sup> (*Excel Spreadsheet – see Template*)
- YES ☐ NO ☐ Certificate of Insurance<sup>4</sup> (*General, Auto, & Workers' Comp.*)
- YES ☐ NO ☐ Certificate of Good Standing<sup>(4)</sup>
- YES ☐ NO ☐ W-9 Form<sup>4</sup>
- YES ☐ NO ☐ Independent Contractor Form<sup>4</sup> (*If applicant is individual, not company/organization*)
- YES ☐ NO ☐ Electronic Funds Transfer (ETF) Form<sup>4</sup>

<sup>1</sup>Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

<sup>2</sup> Required with application if applicable.

<sup>3</sup> Additional documentation providing a Detailed/Itemized Budget maybe required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

<sup>4</sup> Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.



Last Update: July 20, 2021

Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	October 1	Basin Account
March	December 1	Basin/Statewide Account/Water Plan Grant Match <sup>1</sup>
May	February 1	Basin Account
July	April 1	Basin Account
September	June 1	Basin/Statewide Account
November	August 1	Basin Account

<sup>1</sup> If either the basin or statewide match includes matching funds from a pending Water Plant Grant, both must be submitted by December 1st deadline for March Board meeting review.

Water Activity Summary		
Name of Applicant	Town of Olathe	
Name of Water Activity	Water meter & water conservation	
Approving Roundtable(s)	Basin Account Request(s) <sup>1</sup>	
Gunnison Basin	25,000.00	
Basin Account Request Subtotal	\$25,000.00	
Basin Account Request Subtotal Approved by Roundtable	\$25,000.00	
Statewide Account Request <sup>(1)</sup>	\$157,403.00	
Total WSRF Funds Requested (Basin & Statewide)	\$182,403.00	
Total Project Costs	\$367,990.50	

<sup>1</sup> Please indicate the amount recommended for approval by the Roundtable(s)

Grantee and Applicant Information	
Name of Grantee(s)	Town of Olathe
Mailing Address	PO Box 789, Olathe CO 81425
FEIN	84-6000703



Last Update: July 20, 2021

Grantee and Applicant Information	
<b>Grantee's Organization Contact<sup>1</sup></b>	Patty Gabriel
Position/Title	Town Manager
Email	pgabriel@olatheco.us
Phone	970 323 5601
<b>Grant Management Contact<sup>2</sup></b>	Patty Gabriel
Position/Title	Town Manager
Email	pgabriel@olatheco.us
Phone	970 323 5601
<b>Name of Applicant (if different than grantee)</b>	
Mailing Address	
Position/Title	
Email	
Phone	

<sup>1</sup> Person with signatory authority

<sup>2</sup> Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee
Provide a brief description of the grantee's organization (100 words or less).
<p>The Town of Olathe is a statutory town in Montrose County. It is located about half way between the City of Montrose and the City of Delta. The Town has a current population of about 1800 people. It has a diverse population and is classified as a Disadvantaged Community (DAC) by DOLA. The Town is a member of Project 7 and purchases treated water from Project 7. The Town provides for the storage and distribution of the treated water. There are approximately 632 water customers on the Town's water system.</p>

Type of Eligible Entity (check one)	
X	<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



Last Update: July 20, 2021

Type of Eligible Entity (check one)	
<input type="checkbox"/>	<b>Private Individuals, Partnerships, and Sole Proprietors:</b> are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
<input type="checkbox"/>	<b>Non-governmental organizations:</b> broadly, any organization that is not part of the government
<input type="checkbox"/>	<b>Covered Entity:</b> as defined in <a href="#">Section 37-60-126 Colorado Revised Statutes</a>

Type of Water Activity (check one)	
<input type="checkbox"/>	Study
<input checked="" type="checkbox"/>	Implementation

Category of Water Activity (check all that apply)		
<input type="checkbox"/>	Nonconsumptive (Environmental)	
<input type="checkbox"/>	Nonconsumptive (Recreational)	
<input type="checkbox"/>	Agricultural	
<input checked="" type="checkbox"/>	Municipal/Industrial	
<input type="checkbox"/>	Needs Assessment	
<input checked="" type="checkbox"/>	Education & Outreach	
<input type="checkbox"/>	Other	Explain:

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in <b>decimal degrees</b> . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Countries	Montrose County
Latitude	38.605200
Longitude	-107.997600

Water Activity Overview
<p>Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. 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, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain.</p> <p>The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.</p>



Last Update: July 20, 2021

Water Activity Overview	
<p>The Town serves approximately 570 residential and 74 commercial taps. There is +/- 25% gap between water purchased and water sold (unaccounted for water). The Town has been working to install meters on all connections even public facilities to try to account for all the water that is purchased from Project 7. The project will upgrade 30+ year old manual read water meters. As meters age they typically read more slowly. That is likely the cause of a significant amount of the unaccounted for water and is also could be resulting in lost revenue. New water meters will help reduce that difference and using newer more sophisticated meters will allow customers to have a better picture of their water usage. That coupled with outreach by the Town with information about community specific ways to conserve and be more efficient with water use is expected to result in a modest reduction in consumptive use.</p>	

Measurable Results		
To catalog measurable results achieved with WSRF funds please provide any of the following values.		
	New Storage Created (acre-feet)	
Included below	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)	
10-20 AF	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
	Area of Restored or Preserved Habitat (acres)	
	Length of Pipe/Canal Built or Improved (linear feet)	
	Other	Explain: Reduction in unaccounted for water and with people able to more readily see their usage a reduction in use per capita.

Water Activity Justification
<p>Provide a description of how this water activity supports the goals of <a href="#">Colorado's Water Plan</a>, the most recent <a href="#">Statewide Water Supply Initiative</a>, and the respective <a href="#">roundtable Basin Implementation Plan and Education Action Plan</a> <sup>(1)</sup>. 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).</p> <p>For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in <a href="#">2020 WSRF Criteria and Guidelines</a>).</p>





Last Update: July 20, 2021

### Water Activity Justification

The project meets several of the Gunnison Basin BIP goals especially Goal 4 - Identify and address municipal water shortages, Goal 8 - restore, maintain and modernize critical water infrastructure, and Goal 9 - Education and outreach regarding water resources. The existing meters are mostly more than 30 years old consistent with Goal 8. In 2020 the Town used +/- 310 AF of water, about 3% more than the 300 AF the Town provides to Project 7. With outreach to the community and a little precipitation this summer, it looks like the Town will be under 300 AF this year. The meter upgrade project will help water users have a better idea of how much water they use. The Town will couple the meter upgrades with a conservation outreach project to help their customers understand ways they can use water more efficiently. The new meters and outreach are expected result in more efficient water use to help address water shortages. Note that the Town is also working separately from the meter project to secure additional water rights, but strongly believes that conservation and using water more efficiently is critical to the Town's long term water plan.

<sup>1</sup> Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.



Last Update: July 20, 2021

Matching Requirements: Basin Account Requests	
<b>Basin (only) Account</b> grant requests require a 25% match (cash and/or in-kind) from the Applicant or 3 <sup>rd</sup> party and shall be accompanied by a <b>letter of commitment</b> as described in the <a href="#">2020 WSRF Criteria and Guidelines</a> (submitted on the contributing entity's letterhead). Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind)
Total Match	
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.	

Matching Requirements: Statewide Account Requests	
<b>Statewide Account</b> grant requests require a 50% match as described in the <a href="#">2020 WSRF Criteria and Guidelines</a> . At least of 10% of the required Statewide Account Grant request match shall be cash from Basin Account funds whether that is from one or multiple basins; and the remaining 40% of the required match may be provided from any source, including other grants, cash from the Basin Account, or any combination of cash, in-kind services, or in-kind materials.and shall be accompanied by a <b>letter of commitment</b> . Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind):
Town of Olathe - inkind	\$34,987.50
Town Cash	\$150,600.00
Total Match	\$185,587.50
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	



Last Update: July 20, 2021

#### Related Studies

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

Water Efficiency Study  
Water Rights Assessment

#### Previous CWCB Grants

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

Water Efficiency Study

1) Town of Olathe 2) Water Efficiency Study 3) N/A 4) N/A 5) POGG1 2018 697

Water Rights Assessment

1) Town of Olathe 2) Water Rights Assessment 3) N/A 4) N/A 5) POGG1 PDAA 2015000000000000215

#### Tax Payer Bill of Rights

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

The scope of work is for the benefit of the Water and Sewer Enterprise Fund which are exempt from TABOR.

# Gunnison Basin Roundtable

March 1, 2022

Colorado Water Conservation Board

1313 Sherman Street, Room 718

Denver, Colorado 80203

Attn: Board of Directors

Re: Town of Olathe

The Gunnison Basin Roundtable at their November 15, 2021 meeting approved and supported the Town of Olathe's project to replace old outdated water meters in their service area. The total project is estimated to cost \$367,990. The Olathe plans to finance the project with a basin grant of \$25,000 and a state grant of \$157,403..

The Town of Olathe is using all of their existing water rights and is looking to conserve water. The project meets several of the Gunnison Basin BIP goals. Especially, Goal 4 identify and address municipal water shortages.

Sincerely,



Steven A. Anderson

Chair



December 2, 2021

Ben Wade  
Project Manager  
Water Supply Planning

Dear Mr. Wade:

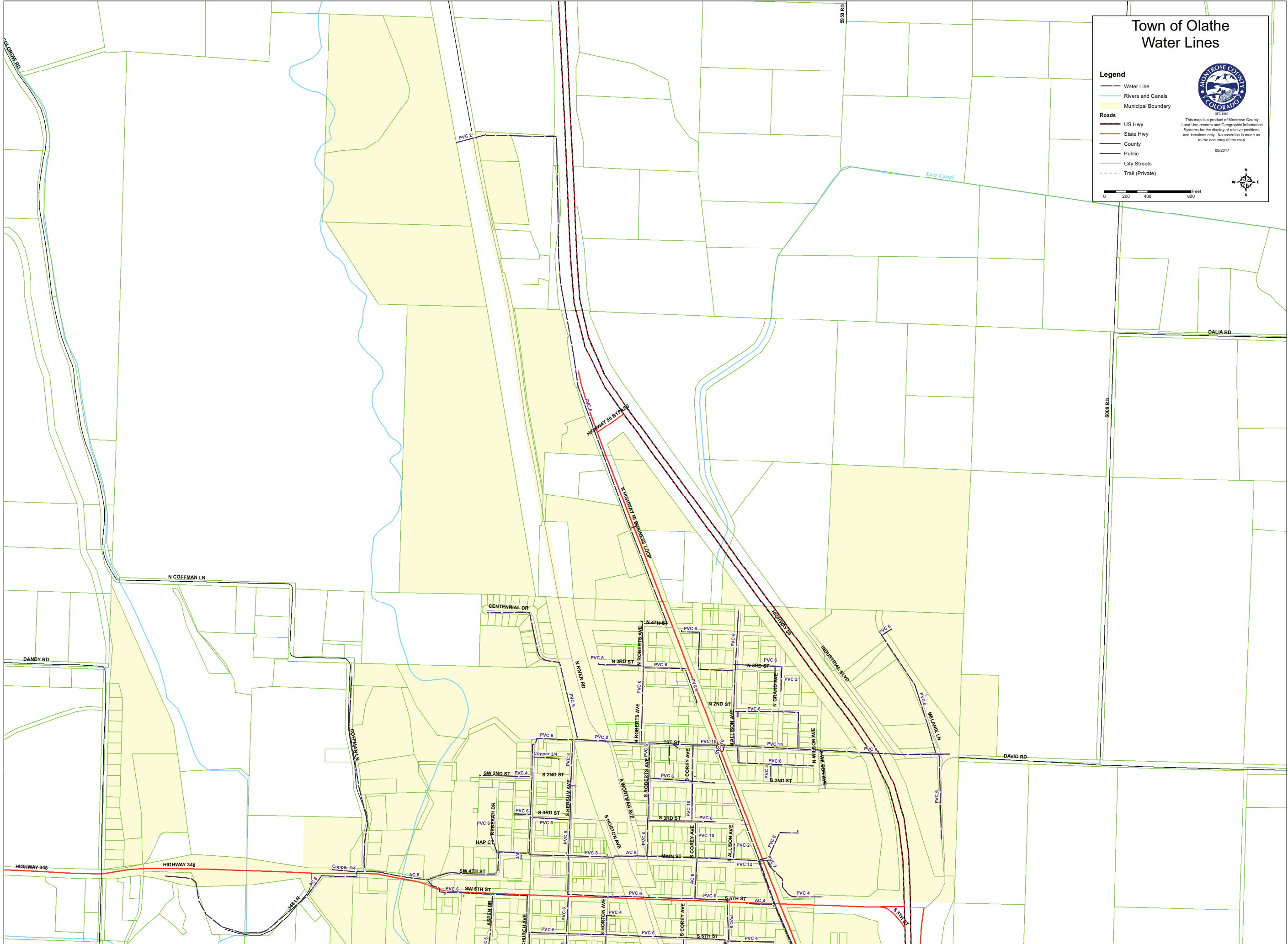
The Town of Olathe is committed to providing \$150,600 in cash toward the meter replacement grant request. That commitment will be reflected in the Town's 2022 budget due to be adopted on 12/13/2021. The Town is also committed to providing at least \$34,972.50 in in-kind contributions to the project. The Town uses PubWorks to track project time and will provide a report from PubWorks that demonstrates that staff has contributed time and equipment hours to meet that commitment.

Please let me know if you have questions.

Thank you,

Patty Gabriel  
Town Administrator






### Town of Olathe Water Lines

**Legend**

- Water Line
- Rivers and Canals
- Municipal Boundary



**Roads**

- US Hwy
- State Hwy
- County
- Public
- City Streets
- Trail (Private)



This map is a product of Montrose County Land Use records and Geographic Information Systems for the display of relative positions and locations only. No assertion is made as to the accuracy of the map.

08/2017





Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

<b><u>Colorado Water Conservation Board</u></b>	
<b>Water Supply Reserve Fund</b>	
<b><u>Exhibit A - Statement of Work</u></b>	
<b>Date:</b>	<b>9/29/21</b>
<b>Water Activity Name:</b>	<b>Water Meter Upgrade and Water Conservation Outreach</b>
<b>Grant Recipient:</b>	<b>Town of Olathe</b>
<b>Funding Source:</b>	<b>Water Supply Reserve Fund, Water Plan, and Town of Olathe funds</b>
<b>Water Activity Overview:</b> (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for. (PLEASE DEFINE ALL ACRONYMS).  The project would replace water meters that are mostly 30+ years old. New meters would be more accurate and the smart meters would allow consumers to more easily analyze their water use patterns. That coupled with Town outreach with water conservation suggestions will help users identify viable ways to reduce consumption. In addition to meter replacement, the project includes updates to meter reading hardware and software and billing software. WSRF funds will be used for all facets of the project. The Town will also provide in kind services in the form of project inspection and project management as well as some in kind work in replacing meters.	
<b>Objectives:</b> (List the objectives of the project. (PLEASE DEFINE ACRONYMS).  Reduce unaccounted for water Improve water use efficiency More rapidly identify water leaks Encourage water conservation and reduce per capita water demand.	



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 1 - (Engineering / Construction)</u></b>
Description of Task: Upgrade water meters and associated hardware and software
Contract with a qualified contractor to furnish and install new smart meters. Town staff will also do some of the meter replacements. Part of the scope of work would be to have the meter supplier provide the necessary hardware and software to read the new meters and integrate the smart meters into the Town's meter reading and water billing system and provide training to Town staff.
Method/Procedure:
The Town would prepare design and bidding documents to solicit bids for the project construction. The Contractor would furnish and install most of the meters. The Town would purchase some meters and install them. Services the Town would upgrade would typically be those where the service need more than just a meter upgrade or was a larger meter.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Installation of the new meters and integrating it into the Town's existing meter reading and water billing system.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
Confirmation that the meters are installed and the meter reading and billing system are operating properly.



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 2 - (Name) Water Conservation</u></b>
Description of Task: Outreach and Education regarding Water Conservation
Develop water conservation guidelines and recommendations. Provide information on using the meter data to use water more efficiently. Outreach to the public
Method/Procedure:
Select a consultant to expand the Town's water efficiency plan to develop recommendation for water conservation and help the Town with outreach to the Town's diverse community about ways to reduce how much water they use as well as providing guidance to users on how they can track their personal usage.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
A plan for water conservation Educational materials for outreach on conservation and using water meter data Meetings with various groups explaining how they can conserve water.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
Community specific Water Conservation Education materials for the community with suggestions for conservation.

**Repeat for Task 3, Task 4, Task 5, etc.**



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

### Budget and Schedule

**Exhibit B - Budget and Schedule:** This Statement of Work shall be accompanied by a combined [Budget and Schedule](#) that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format. A separate excel formatted Budget is required for engineering costs to include rate and unit costs.

### Reporting Requirements

**Progress Reports:** The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

**Final Report:** At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee'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.

### Payments

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. 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.

The CWCB will pay the last 10% of the entire water activity 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 water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

### Performance Requirements

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 Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per the 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 the 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.



**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

### **Performance Requirements**

(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 Update: 12/12/21



**COLORADO**

Colorado Water  
Conservation Board

Department of Natural Resources

**Colorado Water Conservation Board**

**Water Supply Reserve Fund**

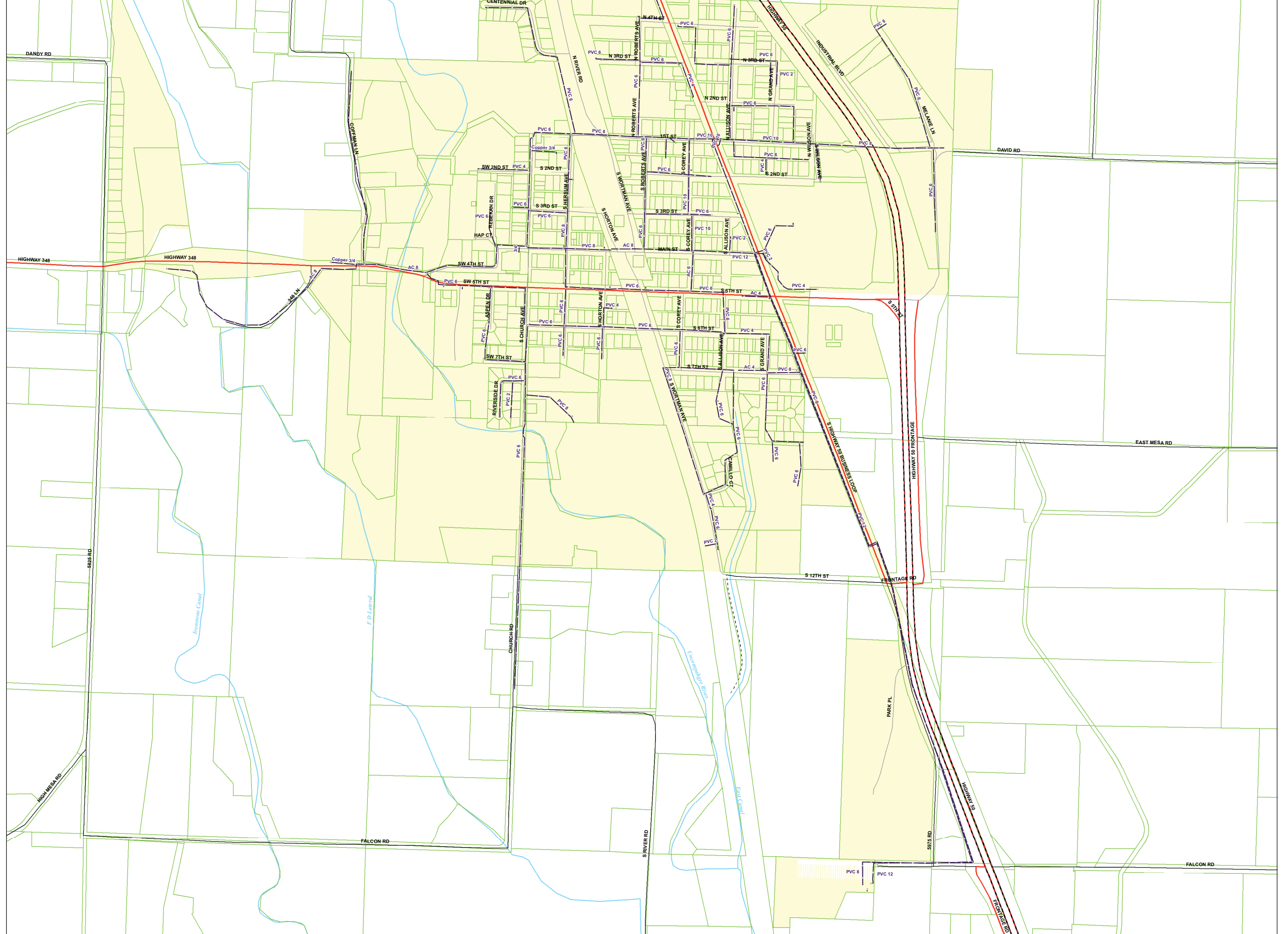
**EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs**

**Date: 10/30/21**

**Water Activity Name: Water Meter Upgrades**

**Grantee Name: Town of Olathe**

<u>Task No.</u> <sup>(1)</sup>	<u>Description</u>	<u>Start Date</u> <sup>(2)</sup>	<u>End Date</u>	<u>Matching Funds</u> (cash & in-kind) <sup>(3)</sup>	<u>WSRF Funds</u> (Basin & Statewide combined) <sup>(3)</sup>	<u>Total</u>
1	Engineering / Construction	7/1/22	4/30/23	\$150,600.00	\$171,703.00	\$322,303.00
2	Water Conservation Planning and Outreach	7/1/22	8/31/23	\$34,987.50	\$10,700.00	\$45,687.50
<b>Total</b>				\$185,587.50	\$182,403.00	\$367,990.50



**Water Supply Reserve Fund  
Water Activity Summary Sheet  
March 15-16, 2022  
Agenda Item 25(f)**

**Applicant & Grantee:** Trout Unlimited

**Water Activity Name:** Stewart Ditch Diversion Improvement Project

**Water Activity Purpose:** Agricultural, Nonconsumptive (Environmental & Recreational) - Implementation

**County:** Delta

**Drainage Basin:** Gunnison River

**Water Source:** North Fork River Gunnison River

**Amount Requested:** \$40,000 Gunnison Basin Account  
\$100,000 Statewide Account  
\$140,000 Total Request

**Matching Funds:** **Basin Account Match = \$40,000**

- 40% of statewide request (meets 10% min)

**Applicant & 3rd Party Match = \$465,400 (cash)**

- 465% of the statewide request (meets 40% min)

**Total Match (Basin request & Applicant Match) = \$515,400**

- 515% of the statewide request (meets 50% min)

<b>Staff Recommendation:</b>
Staff recommends approval of up to \$40,000 from the Gunnison Basin Account and up to \$100,000 from the Statewide Account to help fund the project: Stewart Ditch Diversion Improvement Project

**Water Activity Summary:** This project will achieve multiple goals and objectives by repairing and improving in-river push-up dam and diversion infrastructure used by the Stewart Ditch on the North Fork of the Gunnison. The tasks related to this effort have been supported by CWCB funds that have provided site survey, hydraulic modeling of concepts and engineered plans.

The proposed project will build upon on-going engineering and modeling efforts by constructing a new rock dam in the river and replace antiquated and deficient irrigation diversion infrastructure.

This project will provide immediate improvements to the river channel that will benefit fish, including native fish, as well as recreational water users. Improving and replacing the diversion infrastructure will support more than 240 water user who rely on the Stewart Ditch for irrigation of nearly 2,600 acres near the Town of Paonia. These improvements will improve operations for the water users by reducing labor related to operating the diversion and down-ditch screens. New diversion infrastructure will also improve water use efficiency and protect the ditch from overtopping.

**Discussion:** The project aligns with the goals of the Water Plan and the Gunnison Basin Implementation Plan by addressing aging agricultural infrastructure, identifying multipurpose projects that would preserve storage within the Basin as well as preserving habitat for migratory birds and a recreational bird watching area.

**Issues/Additional Needs:** No issues or additional needs have been identified.

**Eligibility Requirements:** The application meets requirements of all eligibility components.

**Evaluation Criteria:** Staff has determined this activity satisfies the Evaluation Criteria.

<b>Funding Sources/Match</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Status</b>
Colorado Department of Agriculture	\$50,000	\$0	\$50,000	Secured
Colorado River Water District	\$200,000	\$0	\$200,000	Secured
CWCB Water Plan Grant	\$170,000	\$0	\$170,000	Pending
Stewart Ditch & Reservoir Company	\$3,000	\$22,000	\$25,000	Secured
Trout Unlimited	\$6,000	\$40,000	\$46,000	Secured
US Fish & Wildlife Service	\$68,000	\$0	\$68,000	Pending
Western Slope Conservation Center	\$8,000	\$0	\$8,000	Secured
<b>Sub-Total Matching Funds</b>	<b>\$505,000</b>	<b>\$62,000</b>	<b>\$567,000</b>	
WSRF Gunnison Basin Account	\$40,000	\$0	\$40,000	Secured
WSRF Statewide Account	\$100,000	\$0	\$100,000	
<b>Sub-Total WSRF Funds</b>	<b>\$140,000</b>	<b>\$0</b>	<b>\$140,000</b>	
<b>Total Project Costs</b>	<b>\$707,000</b>	<b>\$62,000</b>	<b>\$769,000</b>	

**CWCB Project Manager:** Andrea Harbin-Monahan



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<b>Colorado Water Conservation Board</b>
<b>Water Supply Reserve Fund Grant Application</b>

Instructions
<p>All WSRF grant applications shall conform to the current <a href="#">2020 WSRF Criteria and Guidelines</a>.</p> <p>To receive funding from the WSRF, a proposed water activity must be recommended for approval by a Roundtable(s) <b>AND</b> the approved by the Colorado Water Conservation Board (CWCB). The process for roundtable consideration and recommendation is outlined in the 2020 WSRF Criteria and Guidelines. The CWCB meets bimonthly.</p> <p>If you have questions, please contact the WSRF Grant Program Manager (for all Roundtables) or your Roundtable Liaison:</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>Ben Wade  <a href="mailto:ben.wade@state.co.us">ben.wade@state.co.us</a>  303-866-3441 x3238 (office)</p> </div> <div style="text-align: center;"> <p>Sam Stein  <a href="mailto:Sam.stein@state.co.us">Sam.stein@state.co.us</a>  303-866-3441 (office)</p> </div> </div>

WSRF Submittal Checklist (Required)
<p>YES <input type="checkbox"/> NO <input type="checkbox"/> This request was recommended for CWCB approval by the sponsoring roundtable.</p> <p>YES <input type="checkbox"/> I have read and understand the <a href="#">2020 WSRF Criteria and Guidelines</a>.</p> <p>YES <input type="checkbox"/> <input type="checkbox"/> Grantee will be able to contract with CWCB using the <a href="#">Standard Contract</a>.<sup>1</sup></p> <p style="text-align: center; margin-top: 10px;"><b>Application Documents included:</b></p> <p>YES <input type="checkbox"/> <input type="checkbox"/> Exhibit A: Statement of Work<sup>2</sup> (<i>Word – see Template</i>)</p> <p>YES <input type="checkbox"/> <input type="checkbox"/> Exhibit B: Budget (including Detailed Budget) &amp; Schedule<sup>2</sup> (<i>Excel Spreadsheet – see Template</i>)</p> <p>YES <input type="checkbox"/> <input type="checkbox"/> Letters of Matching and/or Pending 3<sup>rd</sup> Party Commitments<sup>2</sup></p> <p>YES <input type="checkbox"/> <input type="checkbox"/> Map<sup>2</sup></p> <p>YES <input type="checkbox"/> <input type="checkbox"/> Photos/Drawings/Reports</p> <p>YES <input type="checkbox"/> <input type="checkbox"/> Letters of Support</p> <p style="text-align: center; margin-top: 10px;"><b>Contracting Documents<sup>3</sup></b></p> <p>YES <input type="checkbox"/> <input type="checkbox"/> Detailed/Itemized Budget<sup>3</sup> (<i>Excel Spreadsheet – see Template</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Certificate of Insurance<sup>4</sup> (<i>General, Auto, &amp; Workers' Comp.</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Certificate of Good Standing<sup>(4)</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> W-9 Form<sup>4</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Independent Contractor Form<sup>4</sup> (<i>If applicant is individual, not company/organization</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Electronic Funds Transfer (ETF) Form<sup>4</sup></p>

<sup>1</sup>Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

<sup>2</sup> Required with application if applicable.

<sup>3</sup> Additional documentation providing a Detailed/Itemized Budget maybe required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

<sup>4</sup> Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.



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Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	October 1	Basin Account
March	December 1	Basin/Statewide Account/Water Plan Grant Match <sup>1</sup>
May	February 1	Basin Account
July	April 1	Basin Account
September	June 1	Basin/Statewide Account
November	August 1	Basin Account

<sup>1</sup> If either the basin or statewide match includes matching funds from a pending Water Plant Grant, both must be submitted by December 1st deadline for March Board meeting review.

Water Activity Summary		
Name of Applicant	Trout Unlimited	
Name of Water Activity	Stewart Ditch Diversion Improvement Project	
Approving Roundtable(s)	Basin Account Request(s) <sup>1</sup>	
Gunnison Basin	\$140,000	
Basin Account Request Subtotal	\$ 40,000	
Basin Account Request Subtotal Approved by Roundtable	\$	
Statewide Account Request <sup>(1)</sup>	\$100,000	
Total WSRF Funds Requested (Basin & Statewide)	\$140,000	
Total Project Costs	\$769,000	

<sup>1</sup> Please indicate the amount recommended for approval by the Roundtable(s)

Grantee and Applicant Information	
Name of Grantee(s)	Trout Unlimited
Mailing Address	1777 N. Kent Street Arlington, VA 22209
FEIN	38-1612715
Grantee's Organization Contact <sup>1</sup>	Cary Denison





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Grantee and Applicant Information	
Position/Title	Project Manager
Email	cdenison@tu.org
Phone	970-596-3291
<b>Grant Management Contact<sup>2</sup></b>	Danielle Typinski
Position/Title	Grants Compliance Officer
Email	<a href="mailto:dtypinski@tu.org">dtypinski@tu.org</a>
Phone	(703) 284-9429
<b>Name of Applicant (if different than grantee)</b>	
Mailing Address	
Position/Title	
Email	
Phone	

<sup>1</sup> Person with signatory authority

<sup>2</sup> Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee
<p>Provide a brief description of the grantee's organization (100 words or less).</p> <p>Trout Unlimited (TU) is the nation's largest coldwater conservation organization with approximately 150,000 volunteers and roughly 277 employees nationwide, working to protect, reconnect, restore and sustain America's fisheries. TU's volunteers and their local chapter groups work on a variety of initiatives that meet the unique needs of their watersheds.</p> <p>TU's focus in the Gunnison Basin is to find win-win solutions to water supply and infrastructure issues by collaborating with water users and water managers. TU has completed numerous projects in the Gunnison basin similar to the project described herein.</p>

Type of Eligible Entity (check one)
<input type="checkbox"/> <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.
<input type="checkbox"/> <b>Public (Districts):</b> authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises
<input type="checkbox"/> <b>Private Incorporated:</b> mutual ditch companies, homeowners associations, corporations



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Type of Eligible Entity (check one)	
	<b>Private Individuals, Partnerships, and Sole Proprietors:</b> are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
X	<b>Non-governmental organizations:</b> broadly, any organization that is not part of the government
	<b>Covered Entity:</b> as defined in <a href="#">Section 37-60-126 Colorado Revised Statutes</a>

Type of Water Activity (check one)	
	Study
X	Implementation

Category of Water Activity (check all that apply)		
X	Nonconsumptive (Environmental)	
X	Nonconsumptive (Recreational)	
X	Agricultural	
	Municipal/Industrial	
	Needs Assessment	
	Education & Outreach	
	Other	Explain:

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in <b>decimal degrees</b> . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Countries	Delta
Latitude	38° 54' 53" N
Longitude	107° 32' 39" W

Water Activity Overview
<p>Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. 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, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain.</p> <p>The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.</p>



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### Water Activity Overview

This proposed water activity is the result of a collaborative effort between Stewart Ditch and Reservoir Company (SDRC) and Trout Unlimited (TU) to restore riparian function at and improve water management. This proposed project will address water needs for agricultural, and recreational users.

The Stewart Ditch diversion is a 1200-foot-long push-up dam and an antiquated headgate. The diversion dam is unstable and requires in-river construction which damages the river. The current orientation of the dam causes erosion on the riverbank opposite the diversion. The height of the dam is a hazard for boaters and recreational users of the North Fork. During low flows, the dam is a barrier for fish trying to navigate to better habitat upstream of the diversion. The canal intake also removes fish and debris from the river which causes maintenance issues for the water users and impacts the populations of fish, including the native bluehead sucker and wild non-native trout.

Trout Unlimited is requesting WSRF funding to complete the final 25% of the design phase, complete construction of the diversion, and monitor and fine tune the completed structure.

### Measurable Results

To catalog measurable results achieved with WSRF funds please provide any of the following values.

	New Storage Created (acre-feet)	
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive	
	Existing Storage Preserved or Enhanced (acre-feet)	
1,500	Length of Stream Restored or Protected (linear feet)	
	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
5	Area of Restored or Preserved Habitat (acres)	
	Length of Pipe/Canal Built or Improved (linear feet)	
4.3 miles of habitat	Other	Explain: Project will open up over 4.3 miles of river to fish and improve boater safety and water use efficiency

### Water Activity Justification

Provide a description of how this water activity supports the goals of [Colorado's Water Plan](#), the most recent [Statewide Water Supply Initiative](#), and the respective [roundtable Basin Implementation Plan and Education Action Plan](#) <sup>(1)</sup>. 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).

For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in [2020 WSRF Criteria and Guidelines](#)).



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### Water Activity Justification

The Stewart Ditch Diversion is a 1200-foot-long push-up dam and an antiquated headgate. The rock dam creates a barrier for fish, a hazard for boaters, and a maintenance issue for the users of the ditch. At high flow the river breaks through rock and cobble dam and overtops the diversion structure and erodes the north riverbank. The orientation of the river can prove difficult to navigate for boaters and can hazard to boaters during high flows. During low flow, the dam is a barrier to fish that are trying to navigate upstream. The canal intake removes fish and debris from the river which cause maintenance issues for water users on the ditch.

This infrastructure improvement project will address multiple needs including agricultural, recreation and environmental needs. On page 4 of the first chapter of the water plan, the need for – “implementing projects and methods that take into account potential multiple beneficiaries, potential multiple uses, and the effects on river systems on which all Coloradans rely” is clearly stated as a goal of the CWCB.

A key value of residents of the State is environment and healthy water sheds as illustrated in Chapter page 6 of the water Plan: *A strong environment that includes healthy watersheds, rivers and streams, and wildlife*. This project will improve environmental attributes on the North Fork of the Gunnison.

The concept of protecting agriculture along with environmental needs is discussed on page 18 of Section 6.2 – Water Supply Management of the Water Plan. The Stewart diversion Improvement Project addresses will address the needs of senior water rights users while reducing impacts on the environment and recreational uses. This project will also create an example of how consumptive and non-consumptive needs can be addressed through infrastructure improvements.

The goal of promoting “restoration, recovery, sustainability, and resiliency of endangered, threatened, and imperiled aquatic- and riparian-dependent species and plant communities” is listed on page one of Section 6.6 of the Water Plan. This project will restore fish passage and reduce losses of fish to entrainment in the ditch. The effort will improve populations of native bluehead suckers, speckled dace, mottled sculpin, and wild non-native trout.

This project will help achieve the following basin goals of the Gunnison Basin Implementation Plan (p.4):

The Gunnison Basins stated primary goal is - *Protect existing water uses in the Gunnison Basin*. This project will protect the agricultural uses under the Stewart Ditch as well as the recreational uses in the North Fork of the Gunnison.

By removing a hazard and improving habitat and access to habitat, this project will achieve goal #5 list in the GBIP: *Protect environmental and recreational water uses*.

Reducing in-river work on the diversion dam will achieve goal #6: *Maintain or, where necessary, improve water quality throughout the Gunnison Basin*

Removal of the dam and improving fish numbers will *encourage a beneficial relationship between agricultural and environmental recreational water uses* which is the 7<sup>th</sup> goal listed in the BIP.

This project will meet goal #8. *Restore, maintain, and modernize critical water infrastructure,*



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### Water Activity Justification

*including hydropower, by replacing an antiquated diversion structure and dam.*

Completing this project including the related monitoring and reporting will help the Gunnison Basin achieve goal #9. *Create and maintain active, relevant and comprehensive public education, outreach and stewardship processes involving water resources in the six sectors of the Gunnison Basin.*

This section of the North Fork is listed as an Environmental Segment in the Statewide nonconsumptive needs assessment map.

The Gunnison Basin Implementation Plan highlights the need for : *Diversion infrastructure improvements that increase accuracy and reduce maintenance costs while preserving stream connectivity (p.71)*

The BIP identifies the segment of the North Fork between Paonia Reservoir and the confluence with the Gunnison as a key recreational reach.(p.65)

The BIP identifies addressing aging agricultural infrastructure needs as a key solution to preserving agricultural water use in the Gunnison Basin.

While there is not a node on the State's Flow Tool in the area of the Stewart Ditch, streamflow gages in the area illustrate that the river can be nearly dried up at the Stewart Ditch at certain times, particularly late in the year.

This project addresses more than one type of need and involves multiple participants including TU, local TU chapter, agricultural users, neighboring landowners, recreational river users and others. Project stakeholders have consulted with local county commissioners, Colorado River District, US Fish and Wildlife Service, BLM, Colorado Department of Transportation, and Army Corps of Engineers about this project.

Improvements to this structure are recommended in the Environmental and Recreational Needs Assessment, completed by Western Slope Conservation Center with CWCB support. The report provides the following:

- b. Construction of a new diversion or rehabilitation of the existing*
  - i. facilities at the Stewart Ditch, with incorporated riparian bioengineering and geo- stabilization on the "island" created between the diversion channel and the North Fork.*

The North Fork Water Conservancy District's Irrigation Management Plan, part of a Stream Management Planning effort, identified a number of deficiencies with the Stewart Diversion and recommended a suite of potential improvements. The Irrigation Management plan also recommended addressing the rock dam to reduce risks to boater and other river users.

This project will greatly reduce adverse effects on the environment by providing access to better habitat for fish. By reducing in-river construction, this project will mitigate water quality impacts related to diversion maintenance and reduce impact to riparian areas. Upgrading diversion and water control infrastructure will help the SDRC make more efficient diversions and better meet the



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### Water Activity Justification

demands of the water users while minimizing impacts on river flows.

Reducing the amount of debris and fish that are diverted by the Stewart Ditch will compliment the substantial improvements to the ditch and on-farm irrigation infrastructure that have been made by the users. These improvements could lead to other water users under the ditch to make efficiency upgrades which can help reduce agricultural and environmental water shortages.

<sup>1</sup> Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.

### Matching Requirements: Statewide Account Requests

**Statewide Account** grant requests require a 50% match as described in the [2020 WSRF Criteria and Guidelines](#). At least of 10% of the required Statewide Account Grant request match shall be cash from Basin Account funds whether that is from one or multiple basins; and the remaining 40% of the required match may be provided from any source, including other grants, cash from the Basin Account, or any combination of cash, in-kind services, or in-kind materials.and shall be accompanied by a **letter of commitment**. Attach additional sheet if necessary.

Contributing Entity	Amount and Form of Match (note cash or in-kind):
Colorado River Water Conservancy District	\$200,000 (cash, secured)
Trout Unlimited	\$6,000 (cash) \$40,000 (in-kind)
Western Slope Conservation Center	\$8,000 (cash)
Stewart Ditch and Reservoir Company	\$3,000 (cash) \$22,000 (in-kind)
US Fish and Wildlife Service	\$68,000 (cash, pending approval)
Colorado Department of Agriculture	\$50,000 (cash, secured)
CWCB Water Plan Environmental & Recreation Grant	\$170,000 (cash, Pending approval)
Total Match	\$ 567,000
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	

### Related Studies

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





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### Related Studies

North Fork of the Gunnison River Irrigation Management Plan – November, 2017

North Fork of the Gunnison River, Environmental and Recreation Needs Assessment, 2017

### Previous CWCB Grants

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

Project Name	Basin RT	CWCB meeting	PO or contract #
1) Irrigation Efficiency and its Effects in Northwestern Colorado	Yampa/White	21-Jan	202000002712
2) Granby Diversion Structure Improvement Project.	Colorado	21-Jan	CTGG1 2020*2708
3) Evaluating Conserved Consumptive Use in the Upper Colorado River	Colorado	20-Mar	CTGG1 2020-2976
4) Canyon Creek Fish Passage Project	Colorado	20-Jul	in process
5) Upper Gunnison multiple diversion project.	Gunnison	20-Jan	PDAA,202100002108
6) Applying Technology to Monitor CU and grass yield	Gunnison	20-Jan	PDA,202100002064
7) Conejos Meadows Resilient Habitat Project	Rio Grande	20-Jan	PDA,202100002064
8) Lower Elkhead Crk. Restoration Project-Phase 1	Yampa/White	20-Jan	CMS #164227
9) Colorado River Connectivity Channel	Colorado	Jan-21	CMS 162919
10) Boles and Manny Ditch Infrastructure Improvement	Gunnison	Jan-21	PDAA,202100002597



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Previous CWCB Grants				
11) Blue River-Integrated Water Mgt. Plan-Phase 2.	Colorado	21-Jan		
12) Upper Gunnison Water, Forest and Range Resiliency	Gunnison	21-Jan		
13) Stewart Mesa Canal Diversion Modification and Restoration Project-WSRC and Watershed Restoration	Gunnison	Jan-21	POGG1 2022-2167	
14) Vouga Reservoir Rehabilitation	Gunnison	pending		
15) Copeland Elk Creek Ditch Efficiency	Gunnison	pending		
16) Lawrence Ditch Diversion Improvement	Gunnison	pending		

Tax Payer Bill of Rights
The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.
No impact.



8833 Ralston Road  
Arvada, CO 80002  
303.431.6422  
[info@coloradocattle.org](mailto:info@coloradocattle.org)  
[www.coloradocattle.org](http://www.coloradocattle.org)

Colorado Water Conservation Board  
c/o Chris Sturm, Watershed Program Director  
1313 Sherman St., Rm. 721  
Denver, CO 80203

December 11, 2020

Dear Colorado Water Conservation Board members,

Colorado Cattlemen's Association (CCA) supports the request submitted by Trout Unlimited for Watershed Restoration grant funding to support design and implementation of improvements at the Stewart Ditch and Reservoir Company diversion on the North Fork of the Gunnison River near Paonia, Colorado.

Trout Unlimited is assisting the Stewart Ditch and Reservoir Company in securing and administering funds to develop design options. From an environmental and recreational perspective, the project will ameliorate channel flow dynamics, mitigate active erosion along the north bank of the river, enhance aquatic life habitat, and improve recreational safety and enjoyment. From an irrigation standpoint, the project will lead to a screened and automated headgate that is repositioned to deflect debris and sediment and capable of fully diverting the irrigation company's decreed water rights.

This project will compliment past and ongoing improvements on the ditch that have increased efficiency and eliminated seepage. The Stewart ditch diversion is identified as a priority in both North Fork of the Gunnison River Irrigation Management Plan and the North Fork of the Gunnison Environmental and Recreational Assessment. This project will "address the needs of a diverse set of local stakeholders," which is a stated goal in the Colorado Water Plan.

Phil Brink, Consulting Coordinator for CCA's Ag Water NetWORK will be documenting the progress of this project to help other agricultural irrigation companies and water stakeholders better understand the funding, planning and implementation components of a complex, multi-benefit project of this nature.

We strongly recommend funding for this project

Sincerely,

Janie VanWinkle  
President

# COLORADO RIVER DISTRICT COMMUNITY FUNDING PARTNERSHIP



Date: October 21, 2021

Sent via e-mail to: [stewartditchandreservoir@gmail.com](mailto:stewartditchandreservoir@gmail.com)  
[Cary.Denison@tu.org](mailto:Cary.Denison@tu.org)

Susan Miller  
Stewart Mesa Ditch and Reservoir Company  
PO Box 836  
Paonia, CO 81211

Re: Award Letter for Stewart Mesa Ditch Diversion Improvement Project

Dear Ms. Miller

The Colorado River District is pleased to inform you that your application to the Community Funding Partnership has been approved and will be awarded a grant in the amount of \$200,000 to assist in the implementation of the Stewart Mesa Ditch Diversion Improvement Project.

Enclosed please find your grant overview which details any award contingencies or special contract provisions of your award. Also included are the expected tasks and disbursement schedule. In addition, please submit a completed Exhibit A.1– Scope of Work and Exhibit A.2 – Budget (attached), which will become exhibits to your contract. As part of the contracting process, please note that you will be required to submit a completed W-9 and appropriate Certificates of Insurance.

Additionally, our External Affairs team will be announcing this funding award and are available to assist you with outreach regarding this award. Together, we encourage you to share the news of your grant award and project with your network, project partners and community members.

On behalf of the Board and staff, thank you for your commitment to the mission of the Colorado River District to lead in the protection, conservation, use, and development of the water resources of the Colorado River basin for the welfare of the District, and to safeguard for Colorado all waters of the Colorado River to which the state is entitled.

Congratulations! We look forward to growing our partnership as you undertake the responsibilities of this funding agreement.

Sincerely,



Amy Moyer  
Director of Strategic Partnerships

**SECURING THE FUTURE FOR WEST SLOPE WATER**



## Grant Overview

**Project Title:** Stewart Mesa Ditch Diversion Improvement Project

**Awardee:** Stewart Mesa Ditch and Reservoir Company

**Award Amount:** \$200,000  
**Total Project Cost:** \$732,500

**Award Contingencies (if any):** N/A

**Contract Provisions (if any):** N/A

**Insurance Requirements\*:** As indicated previously, you and/or your contractor must provide Certificates of Insurance for Commercial General Liability, Commercial Automobile Liability, and Workers Compensation and Employer's Liability upon execution of the Grant Contract that abide by CRD's standard insurance requirements (included at the end of this packet). If extenuating circumstances or hardships exist that prevent you from fulfilling this requirement, please request an insurance modification form.

### Expected Tasks:

- Task 1: Design and Estimating, August 2021- February 2022
- Task 2: Contractor Selection, March 2022 - May 2022
- Task 3: Permitting, December 2022 - June 2022
- Task 4: Construction, July 2022- February 2023
- Task 5: Monitoring and fine-tuning, April 2023 - July 2023

### Expected Deliverables:

- "Request for Final Reimbursement" form upon project completion that includes a narrative description of the project, accounting and receipts documenting the final costs of the project, and relevant photos, and any public relations information which may have been generated by the project.

**Disbursement Schedule:** The disbursement will follow the standard CRD distribution schedule as follows:

- Upon execution of the contract and receipt of required certificates of insurance, the CRD will forward 25% of the funding amount.
- Two progress payments will be made in 25% increments based upon evidence of paid invoices provided by the awardee.
- The remaining 25% of the funds will be paid upon a determination that the project is substantially complete, and the CRD has received a completed Request for Final Payment Form with all required documentation.

\*The CRD has normal minimum requirements for insurance for contractual agreements as follows:

#### 1. General Liability:

- a. Bodily Injury & Property Damage:



- \$2,000,000 each event
    - \$2,000,000 aggregate
  - b. Personal Injury:
    - \$2,000,000 each event
    - \$2,000,000 aggregate
- 2. Automobile Bodily Injury & Property Damage Liability:
  - \$2,000,000 any one accident or loss
- 3. Professional Liability:
  - \$2,000,000 each loss
- 4. Workers' Compensation and Employer's Liability:
  - a. Workers' Compensation: Statutory
  - b. Employer's Liability:
    - \$100,000 each accident
    - \$100,000 disease - each employee
    - \$500,000 disease - policy limit





## BOARD OF COUNTY COMMISSIONERS

Commissioner Mike Lane - DIST 1

Commissioner Don Suppes - DIST 2

Commissioner Wendell Koontz - DIST 3

Delta County Administration Building | 560 Dodge Street - Delta, CO 81416

July 9, 2021

Colorado River Water Conservancy District

201 Centennial Suite 200

Glenwood Springs, CO 81601

RE: Support letter for Colorado River District Partnership Project Fund

Delta County Board of Commissioners (BOCC) is fully supportive of the Stewart Ditch and Reservoir Company application to Colorado River District (CRD) Partnership Project Fund for irrigation improvement. The Stewart Ditch is an incorporated ditch company and comprised of numerous Stock Shares.

The current head gate diversion is located on the North Fork of the Gunnison River along Hwy 133. The diversion is very old and is in need of updating and solidifying existing structures. The Stewart Ditch and Reservoir Company are matching the grant request with \$10,000 of in-kind labor to complete the project.

Delta County Board of Commissioners supports this funding. If you have any questions, feel free to reach out to Robbie LeValley, Delta County Administrator at 970-874-2102 or [rlevalley@deltacounty.com](mailto:rlevalley@deltacounty.com)

Sincerely,

Delta Board of County Commissioners

  
Mike Lane, Chair

  
Don Suppes, Vice-Chair

  
Wendell Koontz, Commissioner

Dear Stewart Ditch and Reservoir Company:

I am excited to notify you that your Agricultural Drought Resiliency Fund application has been approved by the review committee at the Colorado Department of Agriculture. Congratulations, you will receive funding for your project from the Drought Stimulus grant program.

Please find attached:

- a W-9 form
- an Electronic Funds Transfer (EFT) document
- a draft Scope of Work

Fill out and return the W-9 and EFT forms as soon as possible in a reply email, unless you would prefer a check.

We would like to set up a phone call with each of you to discuss award amount and Scope of Work--in that vein please complete this [Doodle poll](#) with your preferred time. Keep in mind we cannot reimburse any expenses incurred prior to contracting.

Thank you for your participation and patience as we worked through reviewing over 90 applications.

Sincerely,

Les Owen  
Conservation Services Division Director  
303-869-3032  
[les.owen@state.co.us](mailto:les.owen@state.co.us)

# Gunnison Basin Roundtable

March 1, 2022

Colorado Water Conservation Board

1313 Sherman Street, Room 718

Denver, Colorado 80203

Attn: Board of Directors

Re: Stewart Ditch Diversion

The Gunnison Basin Roundtable at their November 15, 2021, meeting approved and supported the Stewart Ditch Diversion project to replace the existing diversion structure. The total project is estimated to cost \$769,000. Stewart Ditch and Reservoir Company plans to finance the project with a state grant of \$140,000. Stewart Ditch and Reservoir Company has gained financial support from Trout Unlimited, Western Colorado Conservation Center, District, Colorado River Water Conservation District, Colorado Department of Agriculture, and the US Fish and Wildlife Service.

Stewart Ditch and Reservoir Company's project is to replace the existing pushup diversion dam and antiquated headgate with a new facility which will be easier for the company to operate and friendly to fish and boaters. The project meets the Gunnison Basin Roundtable's goal of addressing aging infrastructure.

Sincerely,



Steven A. Anderson

Chair

**From:** [Susan Miller](#)  
**To:** [Cary Denison](#)  
**Subject:** CWCB Water Plan Grant  
**Date:** Tuesday, November 30, 2021 11:42:07 AM

---

Cary,

The Stewart Ditch and Reservoir Company is committed to provide \$22,000 for in-kind contributions to the Headgate project as well as a cash amount of \$3,000.

Please let me know if you need any additional information.

*Kind Regards,*

*Susan Miller*

*Treasurer*

*Stewart Ditch and Reservoir Company*

*Cell 719-207-0472*



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

<b>Colorado Water Conservation Board</b>	
<b>Water Supply Reserve Fund</b>	
<b><u>Exhibit A - Statement of Work</u></b>	
<b>Date:</b>	<b>10/1/2021</b>
<b>Water Activity Name:</b>	<b>Stewart Ditch Diversion Improvement Project</b>
<b>Grant Recipient:</b>	<b>Trout Unlimited</b>
<b>Funding Source:</b>	<b>Water Supply Reserve Fund – Gunnison Basin and State</b>
<b>Water Activity Overview:</b> (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for. (PLEASE DEFINE ALL ACRONYMS).)	
<p>This proposed water activity is the result of a collaborative effort between Stewart Ditch and Reservoir Company (SDRC) and Trout Unlimited (TU) to restore riparian function at and improve water management. This proposed project will address water needs for agricultural, and recreational users.</p> <p>The Stewart Ditch diversion is a 1200-foot-long push-up dam and an antiquated headgate. The diversion dam is unstable and requires in-river construction which damages the river. The current orientation of the dam causes erosion on the riverbank opposite the diversion. The height of the dam is a hazard for boaters and recreational users of the North Fork. During low flows, the dam is a barrier for fish trying to navigate to better habitat upstream of the diversion. The canal intake also removes fish and debris from the river which causes maintenance issues for the water users and impacts the populations of fish, including the native bluehead sucker and wild non-native trout.</p> <p>Trout Unlimited is requesting WSRF funding to complete the final 25% of the design phase, complete construction of the diversion, and monitor and fine tune the completed structure.</p>	
<b>Objectives:</b> (List the objectives of the project. (PLEASE DEFINE ACRONYMS).)	
<p>b) Project Goals and Objectives:</p> <p>The overarching goals of the project are to restore riparian function while improving diversion infrastructure to mitigate impacts to wildlife and river users while improving operations for water users.</p> <p>These goals will be met by achieving the following objectives:</p> <ol style="list-style-type: none"><li>1. Complete engineered plans for diversion modification including necessary survey, hydraulic modeling, and stakeholder input.</li><li>2. Secure necessary permits and environmental clearances including CDOT access permit, ACOE 404 waiver or permit, Delta County floodplain permit, and NEPA compliance</li><li>3. Construction of diversion dam and intake structures that meet water users needs while also allowing for fish passage and reduced entrainment.</li><li>4. Complete monitoring and tuning to ensure project goals are achieved</li></ol>	



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 1 – Final Design and Engineering</u></b>
Description of Task:  Within this task stakeholders will ensure that engineers complete the final 25% of the design to allow for contractor selection and construction.
Method/Procedure:  Professional Engineers will build upon the already created design alternatives, hydraulic models, site surveys, and stakeholder meetings. Engineers will incorporate feedback from stakeholders and information from 2D hydraulic models of preferred alternatives to create final engineered designs including details structural descriptions and final probable cost estimate
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)  A complete design of in-river dam/fish passage, headgate, fish/debris screen, and related components.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)  A copy of the final design. Report on design process including description of major benchmarks.





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<https://cwcb.colorado.gov/>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 2 - Construction</u></b>
Description of Task:
Contractor(s) selected by stakeholders will complete tasks necessary for the correct construction of the of the engineered plans necessary to meet the objectives of the project.
Method/Procedure:
Within this task it is expected that contractors will mobilize heavy equipment, prepare jobsite and staging area, coffer off critical areas, demolish existing infrastructure, dewater, armor banks, restore damage areas, excavate, fill, form and place concrete, install headgate, install fish/debris screen, reclaim disturbed areas, and complete other tasks related to construction. Activities will be overseen and directed by engineers and representatives from key stakeholders as necessary.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
A completed diversion improvement project including diversion dam and engineered riffle, headgate structure, installed screen, and other infrastructure.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
Project proponent will provide the CWCB with project reports including project photos, descriptions of the construction process, and notices about any changes to design or project.

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 3 – Monitoring and Adjustments</u></b>
Description of Task:
Project stakeholders will evaluate the performance of the improved diversion structure and ensure that project objectives are met.
Method/Procedure:



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

Tasks
TU with assistance from Colorado Parks and Wildlife will evaluate water velocities across the dam and engineered riffle at a range of river flows using water measuring equipment. SDRC will monitor the operations of the screen, new headgates, and other equipment. Adjustments to the infrastructure and in-river rock structure will be adjusted as necessary. Recreational water users will also be interviewed about the safety and usability of the structure at a range of flows.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Assurance that the project is meeting the stated objectives.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
Descriptions of the evaluation and monitoring process including responses from stakeholders and water users along with a description of any work that was done to correct deficiencies.

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 4 – Project Administration and grant management</u></b>
Description of Task:
Trout Unlimited will oversee, guide, and manage the various phases of this project including grant management and administrative duties.
Method/Procedure:



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>**Tasks**

TU will administer grant funds, complete invoices and other accounting tasks, prepare progress reports, oversee and manage various phases of the project and guide in-kind contributions

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

Grantee expects to this task to provide requisite reports and required oversight necessary to complete this project and compensate contractors.

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

The CWCB will be provided with in time and accurate invoicing, project reports, project photos, and provide a single point of contact for this project

**Budget and Schedule**

**Exhibit B - Budget and Schedule:** This Statement of Work shall be accompanied by a combined [Budget and Schedule](#) that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format. A separate excel formatted Budget is required for engineering costs to include rate and unit costs.

**Reporting Requirements**

**Progress Reports:** The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

**Final Report:** At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee'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.

**Payments**



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

### Reporting Requirements

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. 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.

The CWCB will pay the last 10% of the entire water activity 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 water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

### Performance Requirements

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 Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per the 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 the Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.

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

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



**COLORADO**

Colorado Water  
Conservation Board

Department of Natural Resources

**Colorado Water Conservation Board**

**Water Supply Reserve Fund**

**EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs**

**Date: 10/1/2021**

**Water Activity Name: Stewart Ditch Diversion Improvement Project**

**Grantee Name: Trout Unlimited**

<u>Task No.</u> <sup>(1)</sup>	<u>Description</u>	<u>Start Date</u> <sup>(2)</sup>	<u>End Date</u>	<u>Matching Funds</u> (cash & in-kind) <sup>(3)</sup>	Water Plan Grant (Pending)	<u>WSRF</u>	<u>Total</u>
1	Construction	July 2022	Feb. 2023	\$345,725	\$129,500	\$115,000	\$590,225
2	Monitoring and Adjustments	Feb. 2023	Feb. 2024	\$45,000	\$15,000	\$5,000	\$65,000
3	Project Administration & Grand Management	July 2022	April 2024	\$68,275	\$25,500	\$20,000	\$113,775
<b>Total</b>				\$459,000	\$170,000	\$140,000	\$769,000



## Map Viewer



### Legend

County

### Location



### Notes

Lat: 38.91451 N  
Long: 107.54415 W

14.17 0 7.09 14.17 Miles

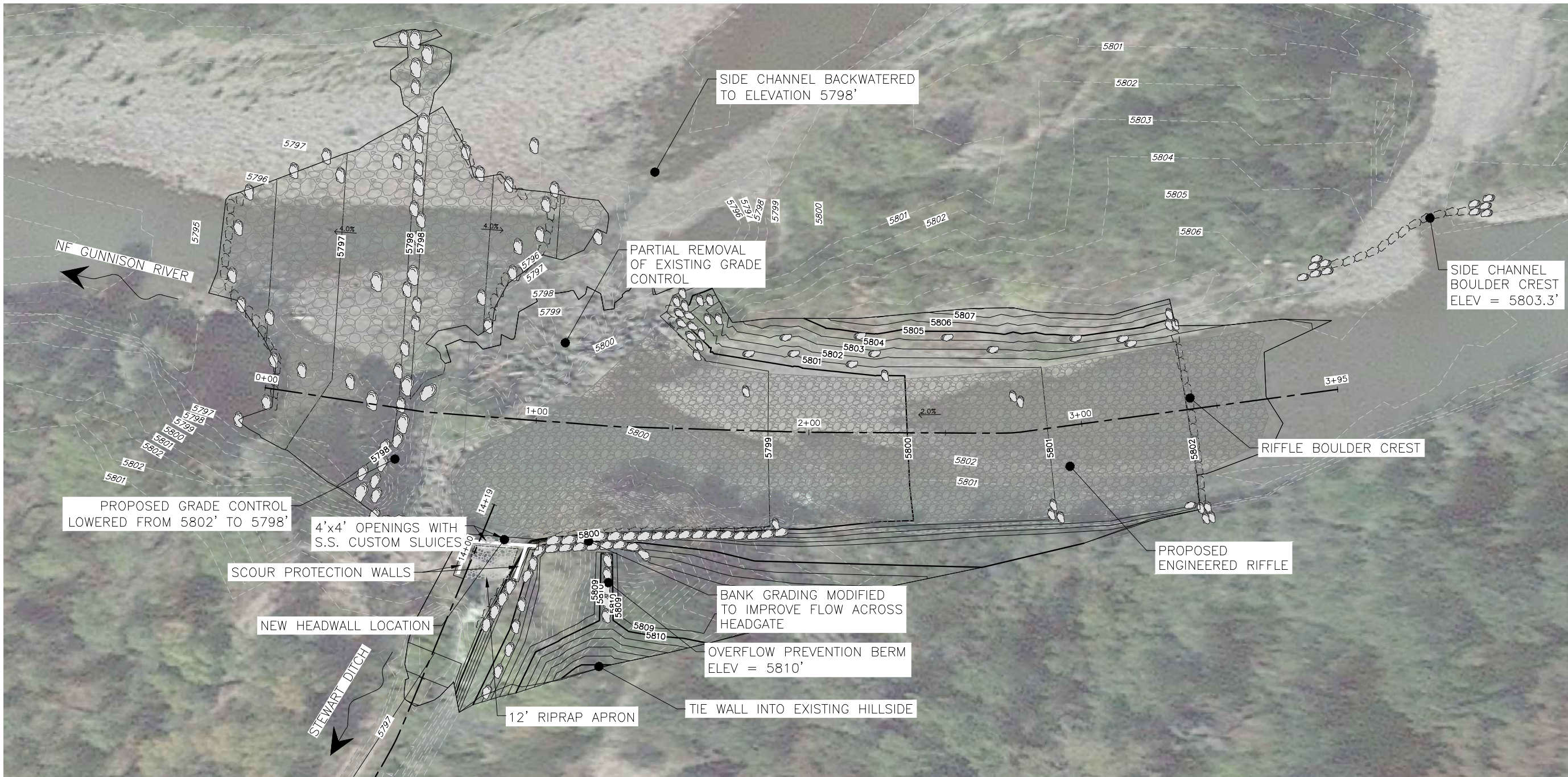
1: 449,028



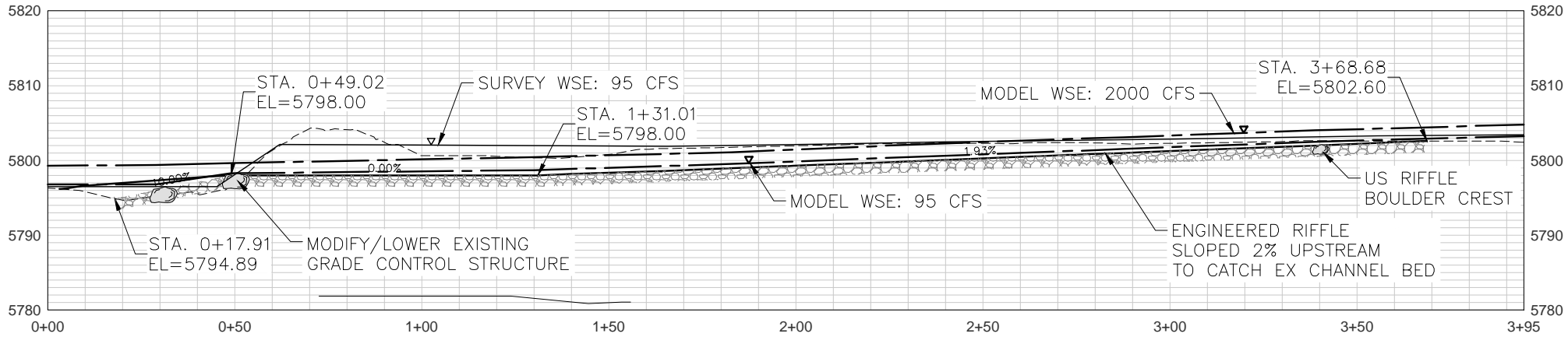
This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Date Prepared: 9/23/2021 8:04:47 PM





NF Gunnison River CL PROFILE  
HORIZ. SCALE: 1" = 20'  
VERT. SCALE: 1" = 10'



CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

PROFESSIONAL ENGINEER STAMP

PRELIMINARY

STEWART DIVERSION MODIFICATION  
CONCEPT 2 PROPOSED GRADE PLAN VIEW

No.	REVISION/UPDATE	Date

CLIENT NAME AND ADDRESS



Trout Unlimited - Gunnison Basin  
239 Grand Ave  
Delta, CO 81416

DESIGN FIRM NAME AND ADDRESS



RiverRestoration  
P.O. Box 248  
Carbondale, CO 81623  
www.RiverRestoration.org

PROJECT NAME AND ADDRESS

STEWART DIVERSION MODIFICATION  
NORTH FORK GUNNISON RIVER  
PAONIA, CO 81428

Project

38061

Date

JULY 2021

Scale

1"=30' (FULL SIZE)

Sheet

R01



**Water Supply Reserve Fund  
Water Activity Summary Sheet  
March 15-16, 2022  
Agenda Item 25(g)**

**Applicant & Grantee:** Arapahoe County

**Water Activity Name:** Arapahoe County Water Supply Study

**Water Activity Purpose:** Municipal/Industrial, Education & Outreach - Study

**County:** Arapahoe

**Drainage Basin:** South Platte

**Water Source:** Surface & Groundwater within County boundary

**Amount Requested:** \$25,000 Metro Basin Account  
\$50,000 South Platte Basin Account  
\$50,000 Statewide Account  
\$125,000 Total Request

**Matching Funds:** **Basin Account Match = \$75,000**

- 150% of statewide request (meets 10% min)

**Applicant & 3rd Party Match = \$163,000 (cash)**

- 217% of the statewide request (meets 40% min)

**Total Match (Basin request & Applicant Match) = \$238,000**

- 476% of the statewide request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$25,000 from the Metro Basin Account, up to \$50,000 from the South Platte Basin Account and up to \$50,000 from the Statewide Account to help fund the project: Arapahoe County Water Supply Study

**Water Activity Summary:** If approved, the applicant would use WSRF funds to retain a consultant to conduct a Water Supply Study that covers 623 square miles of urban and rural unincorporated areas of Arapahoe County in collaboration with water providers and with community input. The study's purpose is to provide a comprehensive review of current water demand and supply and an evaluation of demand, supply, groundwater, and other water resources to 2050. The study will identify approaches for water demand management, water efficiency, and water conservation. The primary objective is to ensure that the County's land-use decisions balance the efficient use of limited water supplies with the needs of new residents and industry.

The chosen consultant will help the County update a water study completed in 2001. Since 2001, unprecedented growth in the county in addition to a drying climate has put pressure on water providers to find additional water supplies. The 2001 water study was intended to project through a 20-year period, which has now expired. An updated Comprehensive Plan, approved in 2018, outlined new policies for proof of water supply and water conservation. The study would update data from the 2001 water study, provide an analysis of water supply

and demand, identify alternatives to groundwater reliance, and provide recommendations for new County policies and regulations. Once completed, the County will provide approximately 97,000 residents, property owners and developers with educational information regarding the County's water supply and projected water needs.

**Discussion:** The Water Supply Study will help implement the goals and measurable outcomes identified in Colorado's Water Plan and the South Platte Basin Implementation Plan (BIP). This project is aligned with several goals in both plans that focus on coordinating and integrating land-use and water planning. The primary goal of the project is to ensure that land-use decisions are made based on balancing the efficient use of limited water supplies with the needs of residents and future development to have a reliable water supply.

**Issues/Additional Needs:** No other issues or additional needs have been identified.

**Eligibility Requirements:** The application meets requirements of all eligibility components.

**Evaluation Criteria:** Staff has determined this activity satisfies the Evaluation Criteria.

<b>Funding Sources/Match</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Status</b>
Arapahoe County	\$163,000	\$0	\$163,000	Secured
<b>Sub-Total Matching Funds</b>	\$163,000	\$0	\$163,000	
WSRF Metro Basin Account	\$25,000	\$0	\$25,000	Secured
WSRF South Platte Basin Account	\$50,000	\$0	\$50,000	Secured
WSRF Statewide Account	\$50,000	\$0	\$50,000	
<b>Sub Total</b>	\$125,000	\$0	\$125,000	
<b>Total Project Costs</b>	<b>\$288,000</b>	<b>\$0</b>	<b>\$288,000</b>	

**CWCB Project Manager:** Kevin Reidy



Last Update: July 20, 2021

Colorado Water Conservation Board

Water Supply Reserve Fund  
Grant Application

Instructions

All WSRF grant applications shall conform to the current [2020 WSRF Criteria and Guidelines](#).

To receive funding from the WSRF, a proposed water activity must be recommended for approval by a Roundtable(s) **AND** the approved by the Colorado Water Conservation Board (CWCB). The process for roundtable consideration and recommendation is outlined in the 2020 WSRF Criteria and Guidelines. The CWCB meets bimonthly.

If you have questions, please contact the WSRF Grant Program Manager (for all Roundtables) or your Roundtable Liaison:

Ben Wade  
[ben.wade@state.co.us](mailto:ben.wade@state.co.us)  
303-866-3441 x3238 (office)

Sam Stein  
[Sam.stein@state.co.us](mailto:Sam.stein@state.co.us)  
303-866-3441 (office)

WSRF Submittal Checklist (Required)

YES ☒ NO ☐ This request was recommended for CWCB approval by the sponsoring roundtable.

YES ☒ NO ☐ I have read and understand the [2020 WSRF Criteria and Guidelines](#).

YES ☒ NO ☐ Grantee will be able to contract with CWCB using the [Standard Contract](#).<sup>1</sup>

Application Documents included:

YES ☒ NO ☐ Exhibit A: Statement of Work<sup>2</sup> (*Word – see Template*)

YES ☒ NO ☐ Exhibit B: Budget (including Detailed Budget) & Schedule<sup>2</sup> (*Excel Spreadsheet – see Template*)

YES ☒ NO ☐ Letters of Matching and/or Pending 3<sup>rd</sup> Party Commitments<sup>2</sup>

YES ☒ NO ☐ Map<sup>2</sup>

YES ☐ NO ☒ Photos/Drawings/Reports

YES ☒ NO ☐ Letters of Support

Contracting Documents<sup>3</sup>

YES ☐ NO ☐ Detailed/Itemized Budget<sup>3</sup> (*Excel Spreadsheet – see Template*)

YES ☐ NO ☐ Certificate of Insurance<sup>4</sup> (*General, Auto, & Workers' Comp.*)

YES ☐ NO ☐ Certificate of Good Standing<sup>(4)</sup>

YES ☐ NO ☐ W-9 Form<sup>4</sup>

YES ☐ NO ☐ Independent Contractor Form<sup>4</sup> (*If applicant is individual, not company/organization*)

YES ☐ NO ☐ Electronic Funds Transfer (ETF) Form<sup>4</sup>

<sup>1</sup>Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

<sup>2</sup>Required with application if applicable.

<sup>3</sup>Additional documentation providing a Detailed/Itemized Budget maybe required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

<sup>4</sup>Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.



Last Update: July 20, 2021

Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	October 1	Basin Account
March	December 1	Basin/Statewide Account/Water Plan Grant Match <sup>1</sup>
May	February 1	Basin Account
July	April 1	Basin Account
September	June 1	Basin/Statewide Account
November	August 1	Basin Account

<sup>1</sup> If either the basin or statewide match includes matching funds from a pending Water Plant Grant, both must be submitted by December 1st deadline for March Board meeting review.

Water Activity Summary		
Name of Applicant	Arapahoe County	
Name of Water Activity	Arapahoe County Water Supply Study	
Approving Roundtable(s)	Basin Account Request(s) <sup>1</sup>	
Metro Basin Roundtable	\$25,000	
South Platte Basin Roundtable	\$50,000	
Basin Account Request Subtotal	\$75,000	
Basin Account Request Subtotal Approved by Roundtable	\$75,000	
Statewide Account Request <sup>(1)</sup>	\$50,000	
Total WSRF Funds Requested (Basin & Statewide)	\$125,000	
Total Project Costs	\$288,000	

<sup>1</sup> Please indicate the amount recommended for approval by the Roundtable(s)

Grantee and Applicant Information	
Name of Grantee(s)	Arapahoe County
Mailing Address	Public Works and Development, 6924 S. Lima St., Centennial, CO 80112
FEIN	84-6000740



Last Update: July 20, 2021

Grantee and Applicant Information	
<b>Grantee's Organization Contact<sup>1</sup></b>	Bryan Weimer
Position/Title	Director of Public Works and Development
Email	BWeimer@arapahoegov.com
Phone	720-874-6521
<b>Grant Management Contact<sup>2</sup></b>	Loretta Daniel
Position/Title	Long Range Planning Program Manager
Email	LDaniel@arapahoegov.com
Phone	303-906-8941
<b>Name of Applicant (if different than grantee)</b>	
Mailing Address	
Position/Title	
Email	
Phone	

<sup>1</sup> Person with signatory authority

<sup>2</sup> Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee	
Provide a brief description of the grantee's organization (100 words or less).	
<p>Arapahoe County is the third-most populous county in the state with a 2020 population of 655,070 and it continues to be one of Colorado's fastest-growing counties. The county spans 805 square miles and while there are 13 cities and towns in the county, the unincorporated part of the county includes both urban and rural areas. The unincorporated area has a 2020 population of 97,125 and is projected to grow by about 46 percent to 142,000 by 2045. The Public Works and Development Department oversees all aspects of growth and development in the unincorporated area and will lead this planning study.</p>	
Type of Eligible Entity (check one)	
X	<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> are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.





Last Update: July 20, 2021

Type of Eligible Entity (check one)	
<input type="checkbox"/>	<b>Non-governmental organizations:</b> broadly, any organization that is not part of the government
<input type="checkbox"/>	<b>Covered Entity:</b> as defined in <a href="#">Section 37-60-126 Colorado Revised Statutes</a>

Type of Water Activity (check one)	
<input checked="" type="checkbox"/>	Study
<input type="checkbox"/>	Implementation

Category of Water Activity (check all that apply)		
<input type="checkbox"/>	Nonconsumptive (Environmental)	
<input type="checkbox"/>	Nonconsumptive (Recreational)	
<input type="checkbox"/>	Agricultural	
<input checked="" type="checkbox"/>	Municipal/Industrial	
<input type="checkbox"/>	Needs Assessment	
<input checked="" type="checkbox"/>	Education & Outreach	
<input type="checkbox"/>	Other	Explain:

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in <b>decimal degrees</b> . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Counties	Arapahoe County
Latitude	39.68630 (centroid of county)
Longitude	-104.43953 (centroid of county)

Water Activity Overview
<p>Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. 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, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain.</p> <p>The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.</p>



Last Update: July 20, 2021

### Water Activity Overview

Arapahoe County is seeking WSRF funds to conduct a Water Supply Study for the urban and rural unincorporated areas of the county in collaboration with water providers and with community input. The study's purpose is to provide a comprehensive review of current water demand and supply and an evaluation of demand, supply, groundwater, and other water resources to 2050. It will identify approaches for water demand management, water efficiency, and water conservation. The primary objective is to ensure that the County's land-use decisions balance the efficient use of limited water supplies with the needs of new residents and industry.

The requested WSRF funds will support retaining a consultant to update a water study completed in 2001. Since 2001, unprecedented growth in the county in addition to a drying climate has put pressure on water providers to find additional water supplies. The 2001 water study was intended to project through a 20-year period, which has now expired. An updated Comprehensive Plan, approved in 2018, outlined new policies for proof of water supply and water conservation. The study would update data from the 2001 water study, provide an analysis of water supply and demand, identify alternatives to groundwater reliance, and provide recommendations for new County policies and regulations.

### Measurable Results

To catalog measurable results achieved with WSRF funds please provide any of the following values.

	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)	
This study will help meet Colorado's Water Plan goal of conserving 400,000 acre-feet/year	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
	Area of Restored or Preserved Habitat (acres)	
	Length of Pipe/Canal Built or Improved (linear feet)	
X	Other	Explain: Provide approximately 97,000 residents, property owners, and developers with educational information regarding water supply and projected water needs in the 623 square mile study area of unincorporated Arapahoe County.

### Water Activity Justification

Provide a description of how this water activity supports the goals of [Colorado's Water Plan](#), the most recent [Statewide Water Supply Initiative](#), and the respective [Roundtable Basin Implementation Plan and Education Action Plan](#) <sup>(1)</sup>. 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).

For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in [2020 WSRF Criteria and Guidelines](#)).



Last Update: July 20, 2021

### Water Activity Justification

The proposed Water Supply Study will help implement the goals and measurable outcomes identified in Colorado's Water Plan and the South Platte Basin Implementation Plan. Land-use planning can contribute significantly to reducing the water "footprint" of Colorado's growing population. While the County will have challenges because urban and rural areas have different water issues, it is essential to ensure that future growth occurs as water-efficiently as possible. Policies and actions identified in Colorado's Water Plan and the South Platte Basin Implementation Plan emphasize the importance of integrating land-use planning and water resource planning.

#### Colorado's Water Plan (CWP)

The County's proposed Water Supply Study fits well with the CWP's water and land-use goals and measurable outcomes. At the beginning of section 6.3, Water Conservation and Reuse, there are a series of statewide long-term goals, and one relevant to the Water Supply Study is "Further integrate land use and water planning" (CWP p. 6-59). The goals and the strategies in Section 6.3.3. are intended to help Colorado close the water supply gap through increased conservation, better integration of land use and water planning, and other actions (CWP p. 6-59).

The CWP recognizes the increasing importance of the connection between land-use planning and water planning in the following measurable objective: "One objective of Colorado's Water Plan is that by 2025, 75 percent of Coloradans will live in communities that have incorporated water-saving actions into land-use planning" (CWP p. 6-89). While the unincorporated part of the county is the focus of the Water Supply Study, there are new communities poised to grow. The new master-planned communities of Sky Ranch and Prosper, located east of Aurora, cover over nine square miles and could have a combined population of about 35,000 at build-out. Strasburg, Byers, and Deer Trail are also growing. Addressing future water supplies and infrastructure are important components of the County's proposed study.

The Land Use section of the CWP (Section 6.3.3) identifies specific actions that the State and its partners can undertake. The first is "1. Encourage the use of local development tools", and specifies that an important topic is "Including water supply and demand management in comprehensive plans" (CWP p. 6.89). With the knowledge obtained through the Water Supply Study, the County can stipulate policies in the County's 2018 Comprehensive Plan to ensure that new growth and development does not exceed water supply. The main implementation tool of the Comprehensive Plan is the County's Land Development Code, and new policies identified in the Water Supply Study can be implemented through regulations in the Code.

Another action identified is "4. Strengthen partnerships" and an implementation step is that "Local municipalities, local water providers, and county governments will implement water and land-use plans." (CWP p. 6-90). The County will collaborate with water providers, developers, and the water districts serving the unincorporated towns to provide opportunities for the sharing of information with the goal of ensuring successful, integrated water and land-use planning.

The CWP also "sets a measurable objective to achieve 400,000 acre-feet of municipal and industrial water conservation by 2050." (CWP p. 10-5) Water conservation is also a key element of the Water Supply Study and specific tasks such as improving the County's landscaping regulations (in both urban and rural areas of the county), revisions to the building code, and other County actions can reduce water use.

#### South Platte Basin Implementation Plan (BIP)

The South Platte Basin Roundtable has prioritized "Improve municipal and industrial water efficiency" and states that successful implementation of projects in this category will reduce the M&I gap and reflect the BIP. This is the category that the Water Supply Study will most directly address.



Last Update: July 20, 2021

### Water Activity Justification

The South Platte BIP discusses the role that water departments, water utilities and local governments can have in reducing water usage. The BIP states “Coordinating or integrating the land-use and water planning process is a relatively new area being explored for reducing municipal water use. Increasing awareness of limited future water supply opportunities and the potential effects of climate change helps to spur this integration of planning.” (SPBIP p. 5-5) There are two approaches that the County can take through the Water Supply Study to address this. The first is through the actual findings and recommendations of the study, and the second approach is through the study process that will emphasize collaboration with water providers.

In addition, the South Platte BIP specifically identifies actions that can be done: “Opportunities for reducing water use in the land-use planning process include:

- Updates to Comprehensive Plans,
- Changes to zoning requirements,
- Revising water/land use subdivision regulations
- Utilizing the direction provided by the State Water Engineer and recent legislation” (SPBIP p. 5-5)

The goal of the Water Supply Study is to make recommendations that the County can implement through policies in the Comprehensive Plan, revisions and new regulations related to zoning and subdivision requirements, and working with the State Water Engineer to implement potential new groundwater requirements.

With regards to opportunities, the BIP states that “increasing residential density has the potential to significantly improve water use efficiency and will continue to result in reduced effects on natural resources. The highly urbanized areas of the Front Range corridor have many opportunities to redevelop lands for higher population densities.” (SPBIP p. 5-24) The impact of higher densities in the urban, unincorporated areas of the county will also be investigated in the Water Supply Study. While County water issues will differ from a municipality, subdivisions, as well as urban levels of density, are proposed, requiring County officials and staff to be well informed on water issues.

The BIP concludes with the recommendation for “Further Analysis of Planning Coordination— The South Platte and Metro Roundtables recommend further investigation into options for increased coordination between water utilities and land-use planners to better plan for water-efficient growth.” (SPBIP p. 6-16) Land use and water are highly connected resources but in the county, they are managed and regulated by different entities. In the Water Supply Study, the County will collaborate with the water providers by sharing data and integrating water management into the development process. Aggregating water demands from the different water providers can provide a complete picture to compare to the available water supply. Calculating this county-wide can determine whether an area may be water-limited for future development.

The Water Supply Study will also address the Education and Outreach priority of the South Platte Basin Roundtable by involving the public at several stages in the study and providing information on Colorado’s Water Plan. Section S.5.9 of the BIP emphasizes the importance of public awareness and engagement with “Improving public understanding about the goals, needs, and plans of the state and the South Platte Basin will help to improve public acceptance of the need for innovative water rate structures, energetic conservation measures, and more integrated land-use and water supply planning.” (SPBIP p. S-15)

<sup>1</sup> Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.



Last Update: July 20, 2021

Matching Requirements: Basin Account Requests	
<b>Basin (only) Account</b> grant requests require a 25% match (cash and/or in-kind) from the Applicant or 3 <sup>rd</sup> party and shall be accompanied by a <b>letter of commitment</b> as described in the <a href="#">2020 WSRF Criteria and Guidelines</a> (submitted on the contributing entity's letterhead). Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind)
Arapahoe County	\$163,000 (cash)
Total Match	\$163,000 (cash)
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.	

Matching Requirements: Statewide Account Requests	
<b>Statewide Account</b> grant requests require a 50% match as described in the <a href="#">2020 WSRF Criteria and Guidelines</a> . At least of 10% of the required Statewide Account Grant request match shall be cash from Basin Account funds whether that is from one or multiple basins; and the remaining 40% of the required match may be provided from any source, including other grants, cash from the Basin Account, or any combination of cash, in-kind services, or in-kind materials and shall be accompanied by a <b>letter of commitment</b> . Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind):
Metro Basin Roundtable	\$25,000 (cash)
South Platte Basin Roundtable	\$50,000 (cash)
Arapahoe County	\$163,000 (cash)
Total Match	\$238,000
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	



Last Update: July 20, 2021

### Related Studies

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

#### **Arapahoe County Comprehensive Plan –2001**

As part of the preparation of the 2001 Arapahoe County Comprehensive Plan, a water resource study was prepared by Leonard Rice Engineering that focused on the eastern part of the county, the area most likely to experience future population growth. The study analyzed water demand and supply and found that the 2001 water demand in that area was essentially met solely by groundwater. Projections for water demand and supply were made to a 2020 planning horizon. The water study recommended that the County limit groundwater development to 50 percent of that allowed by Colorado statutes, and that limitation was adopted as a policy in the 2001 Comprehensive Plan. This “200-year rule” has been applied by the County and the Office of the State Engineer since 2001 to any development proposing to use groundwater.

#### **Arapahoe County Comprehensive Plan –2018**

Since the adoption of the 2001 Plan, the county along with other Front Range communities experienced unprecedented growth. Between 2001 and 2018, the population in the county grew by 34 percent. That growth, coupled with a drying climate, has put pressure on water providers to find additional water supplies. As a result, when the County updated its Comprehensive Plan in 2018, the Planning Commission revisited its groundwater policy and recommended a 300-year rate, rather than the 200-year rate. No regulations have yet been put into place to implement the 300-year rate, and the proposed water supply study will assess the feasibility and appropriateness of that policy, or whether there are more appropriate policies and resultant regulations.

The 2018 Comprehensive Plan contains policies for development projects in the county and maps indicating future land uses reflecting those policies. Both the 2001 and 2018 versions of the Comprehensive Plan included policies related to water supply and quality. The 2018 Comprehensive Plan also included several new goals and policies related to water, following the guidance provided in Colorado’s Water Plan to require and promote water demand management, efficiency, and conservation. These new policies promote water conservation, reuse, updating of County regulations for water efficiency, and direction to conduct a water supply study in conjunction with water suppliers.

#### **Sonoran Institute Growing Water Smart Workshop, May 2021**

Though not technically a study, this is presented here as an important activity that the County participated in together with several water providers in the county. The outcome of this three-day workshop was an Action Plan that brought together representatives from water districts and County staff to discuss challenges in water supply and land-use planning, increasing development pressures in rural areas, impacts of land use and density on water supply, and alternative water supplies for new developments.

This was an opportunity to build better partnerships between the water districts and the County and to acknowledge the importance of thinking about water and land-use planning more strategically. The County’s team included a County Commissioner, and representatives from Aurora Water, Arapahoe County Water and Wastewater Authority, Lost Creek Groundwater Management District, Byers Water and Sanitation District, East Cherry Creek Valley Water and Sanitation District, Strasburg Water and Sanitation District, and Rangeview Metropolitan District. The resulting Action Plan identified several projects that the water providers and the County would work on collaboratively.





Last Update: July 20, 2021

#### Related Studies

The Sonoran Institute received funding from a Colorado Water Plan grant in 2020 for the Growing Water Smart workshops and other activities that support strategies for integrating land-use and water planning.

##### Watkins/Bennett Area Water Resource Study and Review - October to December 2021

County staff is currently undertaking a vision study for a 42-square-mile planning area adjacent to I-70 between Watkins and Bennett with the goal of developing policies that will guide land development decisions and regulations. Part of this study area has been identified in the County's 2018 Comprehensive Plan as "Urban Reserve", which is an area that could accommodate urban-level growth. Future water supply is a major issue since the majority of residents and businesses in the eastern part of the county rely on Denver Basin groundwater and population growth will increase demands on this nonrenewable resource. The viability of future land uses in the study area depends on a reliable water supply.

The County retained LRE Water, a consulting engineering firm, on October 1, 2021 to review the water demand and supply for three land-use scenarios developed by staff with input from an advisory committee. The consultant will analyze the water demand of these land-use and density scenarios, evaluate the groundwater and water supplies available, and identify any potential issues with water supply specific to the study area. The consultant's recommendations will assist the County to make the best possible decisions for future land uses and growth in the study area by integrating information on water demand and supply with the planning process. The County decided to pursue supplemental budget funding and retain a consultant for this study because without this important information on water resources in the study area, staff was not able to effectively evaluate the impacts and feasibility of new development and increasing population density in the area.

#### Previous CWCB Grants

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

Arapahoe County has not received any grants from the CWCB.

#### Tax Payer Bill of Rights

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

Arapahoe County has no TABOR concerns.

## METRO BASIN ROUNDTABLE

November 22, 2021

Ben Wade  
Colorado Water Conservation Board  
1313 Sherman St., Room 718  
Denver, CO 80203

**Re: Metro Roundtable Letter of Recommendation for Water Supply Reserve Fund Grant Application for the "Arapahoe County Water Supply Study"**

Dear Ben:

I am writing to recommend approval of the "Arapahoe County Water Supply Study" project submitted by Arapahoe County for Water Supply Reserve Fund (WSRF) grants. At the November 11, 2021 meeting of the Metro Roundtable, the Roundtable unanimously voted to recommend approval of the WSRF Basin Grant of \$25,000 and to support the Statewide WSRF Grant of \$50,000 for the project.

The Water Supply Study will help implement the goals and measurable outcomes identified in Colorado's Water Plan and the South Platte Basin Implementation Plan (BIP). This project is aligned with several goals in both plans that focus on coordinating and integrating land-use and water planning. The primary goal of the project is to ensure that land-use decisions are made based on balancing the efficient use of limited water supplies with the needs of residents and future development to have a reliable water supply. Since the County is not a water supplier, the County will work with water districts in their respective water planning efforts as well as with various stakeholders and the public.

Arapahoe County's WSRF application meets the Metro Roundtable's Guidelines for WSRF Applications and the WSRF Grant Criteria and Guidelines. The project fits with the Metro Roundtable's Conceptual Projects category. The project will address implementing actions identified in the South Platte BIP to reduce water use in the land-use planning process. The project will result in recommendations to address water supply and demand through policies and regulations for the Arapahoe County Comprehensive Plan and Land Development Code. With the knowledge obtained through the Water Supply Study, the County can stipulate new policies in the County's 2018 Comprehensive Plan to ensure that growth and development does not exceed water supply. The main implementation tool of the Comprehensive Plan is the County's Land Development Code, and recommendations of the Water Supply Study can be implemented by new regulations in the Code.

We believe that this project should be funded, and the Roundtable looks forward to working with Arapahoe County.

Sincerely,



Barbara Biggs, Chair  
Metro Roundtable

Garrett Varra, Chair  
South Platte Basin Roundtable

November 29, 2021

Ben Wade  
Colorado Water Conservation Board  
1313 Sherman St., Room 718  
Denver, CO 80203

**Re: South Platte Basin Roundtable Approval Recommendation for Water Supply Reserve Fund Grant Application for the "Arapahoe County Water Supply Study"**

Dear Ben:

I am writing to recommend approval of the "Arapahoe County Water Supply Study" project submitted by Arapahoe County for Water Supply Reserve Fund (WSRF) grants. At the November 9, 2021 meeting of the South Platte Basin Roundtable, the Roundtable unanimously voted to recommend approval of the WSRF Basin Grant of \$50,000 and to support the Statewide WSRF Grant of \$50,000 for the project. A quorum of the membership was present.

The Water Supply Study will help implement the goals and measurable outcomes identified in Colorado's Water Plan and the South Platte Basin Implementation Plan (BIP). This project is aligned with several goals in both plans that focus on coordinating and integrating land-use and water planning. The primary goal of the project is to ensure that land-use decisions are made based on balancing the efficient use of limited water supplies with the needs of residents and future development to have a reliable water supply. Since the County is not a water supplier, the County will work with water districts in their respective water planning efforts as well as with various stakeholders and the public.

Arapahoe County's WSRF application meets the South Platte Basin Roundtable's WSRF program guidelines and the WSRF Grant Criteria and Guidelines. The project will address implementing actions identified in the South Platte BIP to reduce water use in the land-use planning process. The project will result in recommendations to address water supply and demand through policies and regulations for the Arapahoe County Comprehensive Plan and Land Development Code. With the knowledge obtained through the Water Supply Study, the County can stipulate new policies in the County's 2018 Comprehensive Plan to ensure that growth and development does not exceed water supply. The main implementation tool of the Comprehensive Plan is the County's Land Development Code, and recommendations of the Water Supply Study can be implemented by new regulations in the Code.

We believe that this project should be funded, and the Roundtable looks forward to working with Arapahoe County.

Sincerely,



Garrett Varra, Chair  
South Platte Basin Roundtable



## **Exhibit E**

### **Letters of Support**

Arapahoe County is pleased to submit the following letters of support.

1. Aurora Water
2. Arapahoe County Water and Wastewater Authority (ACWWA)
3. Rangeview Metropolitan District
4. Vogel & Associates
5. Byers Water and Sanitation District
6. Town of Bennett
7. Arapahoe County Open Spaces Department

15151 E. Alameda Parkway, Ste. 3600  
Aurora, Colorado 80012  
303.739.7370



September 14, 2021

Colorado Water Conservation Board  
1313 Sherman Street, 7<sup>th</sup> floor  
Denver, CO 80203

Subject: Arapahoe County Water Supply Study

To the Colorado Water Conservation Board and Staff:

On behalf of the Aurora Water, I am pleased to provide this letter of support for Arapahoe County and their application for CWCB grant funding for the Arapahoe County Water Supply Study.

As a water provider within Arapahoe County, Aurora Water is keenly interested in future planning for changing land uses, growth and water. Growth pressures in the Eastern part of the County present ever increasing challenges including that of finding sustainable sources of water. Since many areas in both the urban and rural parts of the county rely on the Denver Basin aquifer system for water, we need to have a forward-thinking county-wide water study that identifies options for more sustainable solutions for new developments and the future use of valuable water resources.

Our interest in this study stems in part from our participation with the County in a Growing Water Smart Workshop hosted by the Sonoran Institute in May 2021. Arapahoe County's efforts to bring different stakeholders together at the workshop to discuss water issues impacting the County was an important and successful step. We have had the opportunity to review the scope of the proposed Water Supply Study and believe that it will not only aid in continuing collaboration between the water providers, stakeholders, and the County but also provide important data and recommendations for future land use planning. The proposed Study will be an important addition to our knowledge and understanding about water demand and supply options for Arapahoe County.

Additionally, the recommendations from this study will help the County make wise decisions, policies and regulations regarding that land use and development based on a solid understanding of water resources. This Study will be valuable not only to the County and its decision makers but also for the water providers and the smaller jurisdictions in the county.

We strongly support Arapahoe County's application for grant funding for the Water Supply Study. Funding from the Colorado Water Conservation Board is critical to helping the County undertake this important study. Thank you for your consideration of this grant request that will help the County plan for the future.

Sincerely,

Marshall P. Brown



Arapahoe County Water & Wastewater Authority  
13031 E Caley Ave, Centennial, CO 80111  
303-790-4830 • acwwa.com

9/19/2021

Attn: Ben Wade  
1313 Sherman St.  
Denver, CO 80203

Subject: Arapahoe County Water Supply Study

To the Colorado Water Conservation Board:

I am writing to express Arapahoe County Water and Wastewater Authority's (ACWWA) support for Arapahoe County's efforts to conduct a Water Supply Study that will focus on the water challenges in the county. We know that meeting the water needs for a county experiencing growth pressures and continuing proposals for new development requires wise decisions on land use based on a solid understanding of water resources. We believe that the Arapahoe County Water Supply Study will be valuable not only to the County and its decision makers but also for the water providers and the smaller jurisdictions in the county.

Arapahoe County is continuing to grow, and we expect new development to occur throughout the county. The Water Supply Study aims to provide data and recommendations for land planning while considering water resources. We feel that it is important to consider the local land use context together with an assessment of the available water supply. The recommendations from this study will result in County policies and regulations that will provide better decisions for land use and development, and this will benefit ACWWA.

Another major benefit of this study will be a common understanding of data and this information can be used by organizations such as ours. Since many areas in both the urban and rural parts of the county rely on the Denver Basin aquifer system for water, we need to have a forward-thinking county-wide water study that identifies options for more sustainable solutions for new developments and the future use of valuable water resources. This study will provide a solid foundation to make better-informed decisions on future land uses and development in the county.





Arapahoe County Water & Wastewater Authority  
13031 E Caley Ave, Centennial, CO 80111  
303-790-4830 • [acwwa.com](http://acwwa.com)

Thank you for your consideration of the grant request for the Arapahoe County Water Supply Study.

Sincerely,

Steve Witter

General Manager



September 23, 2021

Colorado Water Conservation Board  
Denver, CO 80203

Re: Arapahoe County Water Supply Study

To the Colorado Water Conservation Board:

On behalf of the Rangeview Metropolitan District I am pleased to provide this letter of support for Arapahoe County and their application for grant funding for the Arapahoe County Water Supply Study.


As a water provider within Arapahoe County, Rangeview is interested in the future planning for changing land uses and the need for water supplies such development generates. Growth pressures in the eastern part of the county are presenting challenges and requiring more as well as sustainable sources of water. The proposed Arapahoe County Water Supply Study will be an important addition to the knowledge about water demand and supply options.

Our interest in this study results from our participation with the County in a Growing Water Smart Workshop hosted by the Sonoran Institute in May 2021. I feel that Arapahoe County's efforts to bring different stakeholders together at the workshop to discuss water issues in the county was an important step. We have had the opportunity to review the scope of the proposed Water Supply Study and it will be a further step in setting up collaboration between the water providers, the different jurisdictions in the county, and the County.

The proposed Water Supply Study will provide important data and recommendations that will guide County decision makers and determine development in the county. Information from this study will be also useful to water providers like ours and smaller jurisdictions in the county.

Thank you for your consideration of this grant request that will help the County plan for the future.

Sincerely,  
RANGEVIEW METROPOLITAN DISTRICT

  
\_\_\_\_\_  
Mark Harding, President



September 10, 2021

Colorado Water Conservation Board  
Denver, CO 80203

*RE: Arapahoe County Water Supply Study*

To the Colorado Water Conservation Board:

On behalf of Prosper Farms Investments, I am writing to express support for Arapahoe County's efforts to conduct a Water Supply Study. It is our understanding the study will include evaluating water supply considerations associated with the eastern Arapahoe County region. Providing a reliable long term water supply system will be critical for the region and Prosper.

Based on discussions with County staff and water providers, the study is to provide data that will further address strategies for accommodating growth within the I-70 corridor. It is our understanding that this data will be available to Prosper.

Funding from the Colorado Water Conservation Board will enable the County to undertake the Water Supply Study. It is requested that the Colorado Water Conservation board consider the funding the grant to advance the study.

Sincerely,

Vogel & Associates, LLC

Jeffrey Vogel, AICP

Principal

September 22<sup>nd</sup>, 2021

Colorado Water Conservation Board  
Denver, CO 80203

Subject: Arapahoe County Water Supply Study

To the Colorado Water Conservation Board:

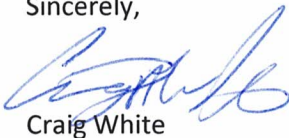
I am writing to express Byers Water & Sanitation District's support for Arapahoe County's efforts to conduct a Water Supply Study that will focus on the water challenges in the county. We know that meeting the water needs for a county experiencing growth pressures and continuing proposals for new development requires wise decisions on land use based on a solid understanding of water resources. We believe that the Arapahoe County Water Supply Study will be valuable not only to the County and its decision makers but also for the water providers and the smaller jurisdictions in the county.

Arapahoe County is continuing to grow, and we expect new development to occur throughout the county. The Water Supply Study aims to provide data and recommendations for land planning while considering water resources. We feel that it is important to consider the local land use context together with an assessment of the available water supply. The recommendations from this study will result in County policies and regulations that will provide better decisions for land use and development, and this will benefit Byers Water & Sanitation.

Another major benefit of this study will be a common understanding of data and this information can be used by [organizations, towns] such as ours. Since many areas in both the urban and rural parts of the county rely on the Denver Basin aquifer system for water, we need to have a forward-thinking county-wide water study that identifies options for more sustainable solutions for new developments and the future use of valuable water resources. This study will provide a solid foundation to make better-informed decisions on future land uses and development in the county.

Thank you for your consideration of the grant request for the Arapahoe County Water Supply Study.

Sincerely,



Craig White

Byers Water & Sanitation District

# Trish Stiles, Town Administrator



welcome neighbors.

September 22, 2021

Colorado Water Conservation Board  
Denver, CO 80203

Subject: Arapahoe County Water Supply Study

To the Colorado Water Conservation Board:

I am writing to express Bennett's support for Arapahoe County's efforts to conduct a Water Supply Study that will focus on the water challenges in the county. We know that meeting the water needs for a county experiencing growth pressures and continuing proposals for new development requires wise decisions on land use based on a solid understanding of water resources. We believe that the Arapahoe County Water Supply Study may be valuable not only to the County and its decision makers but also for the water providers and the smaller jurisdictions in the county.

Arapahoe County is continuing to grow and we expect new development to occur throughout the county. The Water Supply Study aims to provide data and recommendations for land planning while considering water resources. We feel that it is important to consider the local land use context together with an assessment of the available water supply. The recommendations from this study will result in County policies and regulations that will provide better decisions for land use and development, and this could benefit the Town of Bennett.

Since many areas in both the urban and rural parts of the county rely on the Denver Basin aquifer system for water, we need to have a forward-thinking county-wide water study that identifies options for more sustainable solutions for new developments and the future use of valuable water resources. This study will provide a solid foundation to make better-informed decisions on future land uses and development in the county.

Thank you for your consideration of the grant request for the Arapahoe County Water Supply Study.

Sincerely,

Trish Stiles, Town Administrator





September 27, 2021

Colorado Water Conservation Board  
Denver, CO 80203

Subject: Arapahoe County Water Supply Study

To the Colorado Water Conservation Board:

I am writing to express Open Spaces Department's support for The County's efforts to conduct a Water Supply Study that will focus on the water challenges in the county. We know that meeting the water needs for a county experiencing growth pressures and continuing proposals for new development requires wise decisions on land use based on a solid understanding of water resources. We believe that the Arapahoe County Water Supply Study will be valuable not only to the County and its decision makers but also for the water providers and the smaller jurisdictions in the county.

Arapahoe County is continuing to grow, and we expect new development to occur throughout the county. The Water Supply Study aims to provide data and recommendations for land planning while considering water resources. We feel that it is important to consider the local land use context together with an assessment of the available water supply. The recommendations from this study will result in County policies and regulations that will provide better decisions for land use and development, and this will benefit the Open Spaces department.

Another major benefit of this study will be a common understanding of data and this information can be used by Parks, Trails and Open Space departments such as ours. Since many areas in both the urban and rural parts of the county rely on the Denver Basin aquifer system for water, we need to have a forward-thinking county-wide water study that identifies options for more sustainable solutions for new developments and the future use of valuable water resources. This study will provide a solid foundation to make better-informed decisions on future land uses and development in the county.

Thank you for your consideration of the grant request for the Arapahoe County Water Supply Study.

Sincerely,

**Shannon Carter**

Open Spaces Director

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## ARAPAHOE COUNTY

### PUBLIC WORKS AND DEVELOPMENT

BRYAN D. WEIMER, PWLF  
Director

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December 20, 2021

Colorado Water Conservation Board  
Water Supply Planning Section  
1313 Sherman Street, Room 718  
Denver, CO 80203



**Re: Water Supply Reserve Fund Grant Application by Arapahoe County for the "Arapahoe County Water Supply Study" - *Updated***

Colorado Water Conservation Board Members:

In support of the Water Supply Reserve Fund grant application for the Arapahoe County Water Supply Study, Arapahoe County is committing to fund \$163,000 in matching costs for this project. This was approved as part of the 2022 County Budget, which was adopted on December 14, 2021.

We previously provided a tentative letter of commitment for this funding; that letter was dated November 24, 2021. This updated letter is being provided now that the commitment for this funding has been formally approved through adoption of the 2022 County Budget by the Board of County Commissioners on December 14.

As one of the fastest-growing counties in Colorado, Arapahoe County wishes to proactively plan for future water supply needs. This project will benefit Arapahoe County by evaluating water supply together with potential development to ensure sufficient water supplies can realistically support growth in the future.

Please do not hesitate to contact me if you have any questions or if you need additional information.

Sincerely,

Bryan D. Weimer, PWLF  
Director of Public Works and Development



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<b><u>Colorado Water Conservation Board</u></b>	
<b>Water Supply Reserve Fund</b>	
<b><u>Exhibit A - Statement of Work</u></b>	
<b>Date:</b>	<b>October 27, 2021</b>
<b>Water Activity Name:</b>	<b>Arapahoe County Water Supply Study</b>
<b>Grant Recipient:</b>	<b>Arapahoe County</b>
<b>Funding Source:</b>	<b>Metro Basin and South Platte Basin Roundtable WSRF Grants, Statewide WSRF Grant</b>
<b>Water Activity Overview:</b> (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for. (PLEASE DEFINE ALL ACRONYMS).  Arapahoe County is seeking WSRF funds to conduct a Water Supply Study for the urban and rural unincorporated areas of the county in collaboration with water providers and with community input. The study's purpose is to provide a comprehensive review of current water demand and supply and an evaluation of demand, supply, groundwater, and other water resources to 2050. It will identify approaches for water demand management, water efficiency, and water conservation. The primary objective is to ensure that the County's land-use decisions balance the efficient use of limited water supplies with the needs of new residents and industry.  The requested WSRF funds will support retaining a consultant to update a water study completed in 2001. Since 2001, unprecedented growth in the county in addition to a drying climate has put pressure on water providers to find additional water supplies. The 2001 water study was intended to project through a 20-year period, which has now expired. An updated Comprehensive Plan, approved in 2018, outlined new policies for proof of water supply and water conservation. The study would update data from the 2001 water study, provide an analysis of water supply and demand, identify alternatives to groundwater reliance, and provide recommendations for new County policies and regulations.	
<b>Objectives:</b> (List the objectives of the project. (PLEASE DEFINE ACRONYMS).  Arapahoe County's goal is to proactively plan for future water supply needs as the county continues to grow. The County is respectfully requesting funding to accomplish the following objectives:  1. <u>Integrate water and land-use planning.</u> The primary objective of the Water Supply Study is to ensure that land-use decisions are made based on balancing the efficient use of limited water supplies with the needs of residents and future development to have a reliable water supply while working cooperatively with water suppliers in their respective water planning efforts. Ensuring adequate water is a critical factor in determining future growth, and it is incumbent on the County to coordinate land-use planning with water demand, efficiency, and conservation. Information from the study will inform the Board of County Commissioners, County officials and staff, developers, citizens, and water providers in the county of water supply issues and potential solutions. Recommendations from the Water Supply Study will be incorporated as	



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updated policies within the 2018 Comprehensive Plan and through regulations in the Land Development Code.

2. Identify the potential water supply gap in 2050 and recommend solutions. The study would update and expand on the data and recommendations from the County's 2001 water study and identify supplies and quantify long-term projected water demand through 2050 under varying growth scenarios. To achieve this objective, water supply and demand information would be collected and analyzed. The county would be divided into sub-areas reflecting current and projected growth areas. An analysis of the effectiveness of the County's 200-year requirement for groundwater supply will be assessed as well as the impacts and applicability of the proposed 300-year proof of groundwater supply. An important element of this objective will be the collaboration with the water providers and groundwater management districts in the county to address water supply issues and assess alternative water sources and infrastructure needs.
3. Provide education and outreach on water issues in the county. Engaging with the general public and property owners is vital to learn their ideas and concerns about water supply. The objective of education and outreach is to share information on the study's progress through a digital engagement platform and maps. This will provide an opportunity for the public to provide topical and location-specific comments as well as provide feedback during the different phases of the study. Public open houses will be important opportunities for citizens to provide their feedback through comments and surveys. An advisory committee will be assembled representing a range of stakeholders in the county to ensure public engagement, share ideas about different water supply strategies, and general water concerns. Sharing the progress and information from the study will help raise the public's awareness of water needs, alternative water resources, and the importance of County policies and regulations in carrying out Colorado's Water Plan.

## Tasks

Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)

### **Task 1 – Project Management and Stakeholder/Public Participation**

Description of Task:

The first tasks that the project team and consultant will undertake are to establish an Advisory Committee, develop the communications and public participation plan, and review and summarize all documents and policies that will impact the study.

1. Establish an Advisory Committee.

An Advisory Committee will be convened to provide input to the Water Supply Study and will be in place for the duration of the study. The Committee will represent broad stakeholder interests that will help guide the development of the study. Committee members could include representatives from governmental agencies (e.g., Town of Bennett, Town of Deer Trail, Aurora Water, and Denver Regional Council of Governments), water providers and special districts, water planning entities such as South Metro Water Supply Authority, groundwater management districts, community



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## Tasks

organizations, developers, and area property owners. The Committee will also assist in finalizing the goals and objectives of the study.

### 2. Establish a communications and public participation plan.

A communications and public participation plan will be prepared with the guiding principles of transparency, inclusiveness, and accessibility. The intent is to engage the public and stakeholders in productive conversation and to also explain how this study carries out the objectives of Colorado's Water Plan.

Public input will be sought at three points in the study process. The first public open house will be to solicit input on issues and to explain the study process. At the second open house, data and projections of future water demand together with water supply information will be presented. A needs analysis will identify any gap between water demand and supply. At the final open house, the draft study will be presented for comments before the study's adoption as part of updates to the 2018 Arapahoe County Comprehensive Plan.

In addition, there will be regular updates to the County's Planning Commission and the Board of County Commissioners.

### 3. Project Management.

This task also includes the project management duties for the duration of the study. The project team will meet regularly to discuss and track the study's progress (e.g., resource allocation, monthly progress reports, meeting summaries, etc.). The project team will be responsible for ensuring that all project tasks are completed efficiently and are consistent with the project budget and schedule.

## Method/Procedure:

1. Establish the Advisory Committee and the schedule for all meetings. At the first Committee meeting, the study's goals, objectives, and milestones will be refined based on input from the Committee. Subsequent meetings will be held at key decision points in the study process where the Committee's input can provide direction.
2. Prepare the communications and public participation plan that will detail the engagement process and actions. Throughout the study process, the project team will solicit public and development community comments through multiple methods, including a project website where the public can share their ideas and concerns and where the Advisory Committee meeting materials will be posted, and public open houses with surveys. The survey results will be shared with the public. Online newsletters and mailings will provide updates to the public on the study.
3. Review water-related goals and objectives in: County plans and regulations; water supply plans for municipalities and water providers; Colorado's Water Plan; and the South Platte Basin Implementation Plan. Findings from this review will be summarized by the consultant in a summary memo.
4. Hold regular project team meetings and develop performance measures and evaluation metrics.



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Tasks
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
<p>The project team will establish the Advisory Committee and the schedule for the meetings. A communications and public engagement plan will describe the framework for all public meetings, surveys, mailings, and other outreach methods. A summary memo describing important information from the survey of background documents will be prepared by the consultant.</p> <p>A project website with information and interactive capability for receiving and documenting comments and input, public meetings, and Advisory Committee meeting materials will be prepared.</p>
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
<p>As this task continues for the duration of the study, Arapahoe County will provide the CWCB with a Progress Report every six months. The County will provide the CWCB with the final Water Supply Study at the end of the project. The project team will also produce a stakeholder engagement summary as part of the final study, identifying Advisory Committee members, public outreach and involvement, and meetings with stakeholders, the County's Planning Commission, and the Board of County Commissioners.</p>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 2 – Mapping and Data Development</u></b>
Description of Task:
<p>Much of this task involves identifying, collecting, and updating all the important background and technical data to be used. The consultant will identify and map current water supplier boundaries for the study area as well as existing and projected facilities, with the intent of identifying opportunities for cooperative facility planning, service redundancy interconnections, and emergency planning. For the purposes of this study, the following water providers in the study area will not be included: Denver Water and City of Aurora.</p>
Method/Procedure:



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### Tasks

Background data collection will consist of:

1. Review existing data and future plans from the water districts and groundwater management districts.
2. Assemble baseline data sets. Establish variables to consider, which may include soil data, land use and density, agricultural uses, land tenure, floodplains, and other study area characteristics. Historic conditions will also be researched.
3. Define areas within the study area for more detailed data collection.
4. Document the findings in geospatial format.

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

A study area background document with:

- Maps of important study area characteristics
- Maps of water suppliers' service areas and existing and projected facilities
- Identification of physical and institutional barriers to cooperative planning, water sharing, and interconnection of facilities.

All the maps and data will be included in the final study.

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

The project team will provide the mapping and data summary to the CWCB once it is completed. It will also be included in the six-month progress report.

### Tasks

Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)

#### **Task 3 – Land Use and Socioeconomic/Scenario Development**

Description of Task:





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The project team and consultant will prepare information on existing and future conditions to support alternatives analyses. Scenarios will include present-day and long-term (2050) conditions and will be consistent with the modeling performed for the recent Arapahoe County Transportation Master Plan update. The consultant will review the data and match it to water service provider areas. The study area will be divided into smaller planning sub-areas since some sub-areas will experience more growth than others. The scenarios will be reviewed with the Advisory Committee, stakeholders, and the public.

**Method/Procedure:**

The development of the land-use analysis and scenarios will include the following:

1. Identify existing land use conditions and their impact on water supply and demand. Determine the land uses that are currently in place or legally vested to develop as approved.
2. Identify future land use conditions. Determine the land uses that are currently anticipated in the Comprehensive Plan, Sub-Area Plans, and approved development plans. Identify pending or potential major development proposals and assess their impact on water demand and supply.
3. Identify relevant socioeconomic data. Utilize data from the County's Comprehensive Plan, Colorado's Water Plan, the State Demographer, and other data sources to develop information on population and economic trends to forecast future land-use scenarios.
4. Compile all the information collected in #1 - #3 identified above into a report that will be reviewed by the Advisory Committee and other stakeholders.
5. Present the alternative scenarios to the public at a public workshop for review and comment.
6. Refine the alternative scenarios based on the comments received and develop the final alternative scenarios.

**Grantee Deliverable: (Describe the deliverable the grantee expects from this task)**

The project team will prepare a summary document identifying the alternative scenarios, comments on these scenarios from the Advisory Committee, other stakeholders and the public, and the final alternative scenarios.

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

Arapahoe County will provide the summary document on the alternative scenarios to the CWCB. The information will also be included in the six-month progress report and final study.



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Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 4 – Groundwater Analysis</u></b>
Description of Task:  The water providers covered by this study primarily or exclusively rely on groundwater for their supply. In addition, approximately 6,000 homes in eastern Arapahoe County rely on individual wells. The consultant will review the information from the County's 2001 Water Study, collect new information on wells, and prepare an estimate of the available groundwater in the county.
Method/Procedure:  The consultant will: <ul style="list-style-type: none"><li>• Identify well development according to type (e.g., domestic, municipal, agricultural, etc.)</li><li>• Assess groundwater flow, levels, and amount</li><li>• Assess groundwater use</li><li>• Assess Denver Basin aquifer storage</li><li>• Assess aquifer sustainability and groundwater levels</li><li>• Document all the information in a summary report</li><li>• Present the groundwater analysis to the public at a public workshop for review and comment.</li></ul>
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)  The consultant will prepare a report describing groundwater conditions in Arapahoe County, including any changes from the description in the County's 2001 Water Study. For water providers dependent on groundwater, the report will also include an assessment of the ability of their source to meet the expected demand in 2050.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)  Arapahoe County will provide the groundwater analysis report to the CWCB once it is completed. It will also be included in the six-month progress report.



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Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 5 – Development of Water-Conscious Landscaping Standards</u></b>
Description of Task: <p>The County’s existing landscaping standards are in the process of being revised by staff to promote water conservation. This task involves the consultant’s review of the proposed new landscaping regulations for the Arapahoe County Land Development Code (LDC) and the Landscape Plans section of the Arapahoe County Development Application Manual. The County’s objective for updating the current landscaping regulations is to implement new approaches for water-conserving design, efficiency, and reuse. The challenge the County faces is developing different regulations suitable for the unincorporated urban and rural areas, developing a plant list suited for each of these areas, identifying xeric and native plants that are readily available at local nurseries, and promoting conservation design measures that encourage reuse of stormwater and reduction of high water use landscapes.</p>
Method/Procedure: <p>The consultant will review the existing and proposed landscaping standards in the LDC, plant lists, and other requirements. The consultant will make recommendations so that the County landscaping standards are more sensitive to water availability, water supplier limitations, and development location (i.e., urban vs. rural areas of the county). Specific tasks include:</p> <ol style="list-style-type: none"><li>1. Review goals, objectives, and actions for integrating water resource planning and conservation practices into landscape design and implementation.</li><li>2. Recommend land-use code amendments to promote improved management of water resources.</li><li>3. Recommend water conservation methods and design for urban landscape areas of the county, which are often served by large municipal water providers.</li><li>4. Recommend water conservation methods and design for rural landscape areas, which are often reliant on non-renewable well water or smaller water providers.</li><li>5. Recommend plant lists, plant densities, hydrozones, and water budgets for both the urban and rural landscapes.</li><li>6. Recommend water conservation methods and water-saving incentives that align with local water districts. Identify any changes to plan submittal requirements and qualifications.</li></ol>
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
The consultant will prepare a summary memo with recommendations to the proposed County landscaping regulations.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)



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### Tasks

The project team will provide CWCB with a summary memo that summarizes the consultant recommendations for the new landscape regulations.

### Tasks

Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)

#### **Task 6 – Assessment of Water Conservation Plans on Future Water Demand**

Description of Task:

The objective of this task is to audit the water conservation plans of water providers in the study area. Currently, individual water providers are responsible for developing their own water conservation planning, emergency planning, and drought planning standards. Smaller providers may have little or no experience in developing conservation plans.

Method/Procedure:

The consultant will:

1. Review the water conservation plans of the water districts in the study area.
2. Estimate the effect of water conservation plans on future water demands in the county.
3. Recommend any elements of conservation planning that should be included in the County's land development regulations.

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

The consultant will prepare a report that details the water conservation plans which have been adopted by water providers, the effect of such plans on forecasted water demand, and recommendations for conservation elements that can be utilized by the County in reviewing future land development applications.

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

The project team will provide CWCB with a report on the water conservation plans of the water districts in the study area. The findings from the report will also be included in the final Water Supply Study.



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Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 7 – Demand and Supply Analysis</u></b>
Description of Task:  The consultant will analyze current and long-term (2050) projected water demands compared to current and projected water supply in order to identify any deficiencies for service providers or areas expected to develop before 2050. The analysis will include both land within water service areas and those lands expected to develop utilizing individual wells. The supply analysis is to be based upon existing and projected conditions and will also provide an overall county-wide gap analysis between water demand and supply.
Method/Procedure:  The consultant will:  <ol style="list-style-type: none"><li>1. Develop a framework for future water needs and opportunities, based on sub-regions in the study area, projected growth areas, and the planning horizon of 2050.</li><li>2. Collect and analyze water supply and demand information from the water providers. Future water supplies may include those supplies that water providers plan to acquire and/or connect to their systems. There may or may not be specific Identified Projects and Processes (IPPs) associated with those future supplies.</li><li>3. Quantify current and 2050 water demands for exempt and non-exempt wells outside of centralized water service areas. Quantify current and 2050 water supplies for these same areas.</li><li>4. Categorize water demands and supplies by sub-region. The analysis of supply and demand shall also consider zoning densities and their impact on current and projected water demand and water supply.</li><li>5. Perform a needs analysis for the identified sub-regions by defining the difference between the projected future demand for water and the current available water supply. Identify sub-regions and development areas that may have water supply challenges and areas where water efficiency and reuse measures would be most useful, and aggregate the water demand, supply, and the gap for the county. The needs analysis would quantify the additional supplies required for the 2050 horizon compared to the supplies currently available.</li><li>6. Inventory and analyze the water rights or availability associated with County-owned property, including rights of way, to provide a more thorough understanding of available assets.</li><li>7. Map and inventory areas affected by perfluorinated compounds (PFCs) along with the interim measures adopted by the affected water providers.</li><li>8. Present the demand and supply analysis to the public at a public workshop for review and comments.</li></ol>
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)



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Tasks
<p>The deliverables for Task 7 will include:</p> <ul style="list-style-type: none"><li>• Written and graphical depictions of current and projected demand and supply for water suppliers and an explanation of the needs analysis</li><li>• Maps of needed extensions/interconnections/improvements and a list of prioritized improvements</li><li>• Inventory and maps of districts/suppliers, including service areas, inventory of current and projected supply</li><li>• Inventory of exempt and non-exempt wells by sub-region, groundwater management district, and whether inside or outside of water service areas.</li></ul>
<p>CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)</p>
<p>The project team will summarize the deliverables for Task 7 in a report and provide this to the CWCB.</p>

Tasks
<p>Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)</p>
<p><b><u>Task 8 – Water Reuse Analysis</u></b></p>
<p>Description of Task:</p>
<p>Reuse can be an important component of water supply planning, and some water providers have already implemented or are planning to implement reuse strategies. The South Metro Water Supply Authority is currently evaluating reuse for participating providers. The objective of this task is to identify the current status of reuse, and constraints and opportunities for reuse potential for all water providers in eastern Arapahoe County. This reuse analysis will build on the demand and supply analysis performed as Task 7.</p>
<p>Method/Procedure:</p>





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Tasks
<p>The consultant will:</p> <ol style="list-style-type: none"><li>1. Review and inventory current and planned reuse activities by the water providers in the study area.</li><li>2. Identify the barriers and potential expansion opportunities for the water providers.</li><li>3. Identify actions the County can take to promote water reuse in new development projects.</li></ol>
<p>Grantee Deliverable: (Describe the deliverable the grantee expects from this task)</p>
<p>The consultant will provide a report summarizing water reuse currently occurring or projected to occur among the eastern Arapahoe County water suppliers, with recommendations for additional reuse planning which can be utilized by the County in reviewing land development applications.</p>
<p>CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)</p>
<p>The project team will provide the CWCB with a report summarizing the status of water reuse in the study area and planned reuse projects.</p>

Tasks
<p>Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)</p>
<p><b><u>Task 9 – Recommendations for Modifications to Regulations</u></b></p>
<p>Description of Task:</p>
<p>Even though Arapahoe County has utilized a 50 percent recoverable water supply subdivision regulation since 2001, there has been no analysis of either the effectiveness of the regulation or the effect the regulation has had on land use patterns. Theoretically, this regulation should have encouraged utilization of renewable water for the supply to new development; however, there has been limited development of projects proposed to deliver renewable water to areas where growth in the county is being planned or is occurring. The 2018 update to the Comprehensive Plan includes a policy to revise this to a 300-year water supply requirement. As with the currently used 50 percent recoverable water supply regulation, an analysis is needed to know whether a 300-year water supply requirement is feasible and appropriate for accomplishing water supply and sufficiency goals.</p>



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### Tasks

Currently, the County relies on “will serve” statements from water providers when reviewing development projects. However, the County has no standards for such letters. Some letters provide detailed descriptions of the capacity of the provider to meet the proposed development’s needs; others include no information. A consistent approach to providing needed documentation is needed.

The land entitlement process will be the primary mechanism for implementing the Water Supply Study and revisions to the Land Development Code will carry out the recommendations from the study.

#### Method/Procedure:

The project team and consultant will:

1. Analyze the impact the 50 percent recoverable water supply requirement has had on land development patterns and density.
2. Analyze the effectiveness of the current County water policies and regulations have for achieving long-term water supply objectives as they apply to new development projects.
3. Analyze the feasibility of incentives, such as density increases, to encourage water conservation, renewable water, and greater water use efficiency.
4. Identify areas of the county suitable for increased density for development.
5. Recommend revisions to the zoning and subdivision regulations in the Land Development Code to ensure a long-term water supply. This would include requirements for the “will serve” letter of commitment.
6. Identify methods to encourage the utilization of renewable water in new development projects.

#### Grantee Deliverable: (Describe the deliverable the grantee expects from this task)

The project team and consultant will create a final report that will detail all the recommendations for modifications to the Land Development Code.

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

Arapahoe County will provide the CWCB with the final Water Supply Study containing all data and maps, the public engagement process and public meeting summaries, the Advisory Committee’s input, information on water resources, projected water supply needs, descriptions of water efficiency and reuse, and recommendations for implementation.



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Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 10 –Comprehensive Plan Update and Implementation</u></b>
Description of Task: <p>The 2018 Comprehensive Plan is the high-level plan the promotes the County’s vision, goals, and policies and establishes the processes for growth and development. The Comprehensive Plan is an advisory document that guides zoning and other land-use regulations. The intent is to incorporate the Water Supply Study by reference as part of the Comprehensive Plan. However, recommendations from the Water Supply Study will also be used to amend the Plan. This may take the form of additional policies (e.g., analysis and policies regarding the potential 300-year groundwater requirement) or a new water section in the Plan that emphasizes that thoughtful water supply planning and conservation are critical to ensure the future for the eastern part of the county.</p> <p>The recommendations from the study will identify new goals, policies, and strategies for the review of development applications that will guide future growth and land use in the unincorporated area of the county. The study will also assist staff and applicants to determine water sufficiency in the review of subdivision applications and will help identify when additional water sources are needed. The Water Supply Study will also be an educational resource for the public.</p>
Method/Procedure: <p>This task will be carried out together with Task 9 because the same analyses will be used to create new County policies in the 2018 Comprehensive Plan and the regulations for the Land Development Code. Specific actions for this task include:</p> <ol style="list-style-type: none"><li>1. Maintain and develop partnerships with the water providers by establishing a forum for regular meetings to share information.</li><li>2. Develop messaging for the public so that they understand the differences in water supply sources.</li><li>3. Identify goals, policies, and strategies for the Comprehensive Plan that:<ol style="list-style-type: none"><li>a. Support the efficient use of water supplies</li><li>b. Plan for water resources</li><li>c. Identify projected water supply needs</li><li>d. Promote water conservation</li><li>e. Promote the long-term use of renewable water and water reuse</li><li>f. Identify any water supply issues early in the land development process</li><li>g. Require proof of water availability for proposed developments</li><li>h. Address adaptations to drought conditions</li><li>i. Identify opportunities for renewable water partnerships.</li></ol></li></ol>
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)



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### Tasks

The project team and consultant will create a final report that will detail all the recommendations for modifications to the 2018 Comprehensive Plan.

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

Arapahoe County will provide the CWCB with the final Water Supply Study containing all data and maps, the public engagement process and public meeting summaries, the Advisory Committee's input, information on water resources, projected water supply needs, descriptions of water efficiency and reuse, and recommendations for implementation.

### Budget and Schedule

**Exhibit B - Budget and Schedule:** This Statement of Work shall be accompanied by a combined [Budget and Schedule](#) that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in [excel format](#). A separate [excel formatted](#) Budget is required for engineering costs to include rate and unit costs.

### Reporting Requirements

**Progress Reports:** The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

**Final Report:** At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee'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.

### Payments

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. 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.

The CWCB will pay the last 10% of the [entire](#) water activity 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 water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

### Performance Requirements

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 Grant Guidelines, the CWCB will pay out



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<https://cwcb.colorado.gov/>

### Performance Requirements

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

(b) Accountability: Per the 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 the 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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**COLORADO**

Colorado Water  
Conservation Board

Department of Natural Resources

**Colorado Water Conservation Board**

**Water Supply Reserve Fund**

**EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs**

**Date: October 27, 2021**

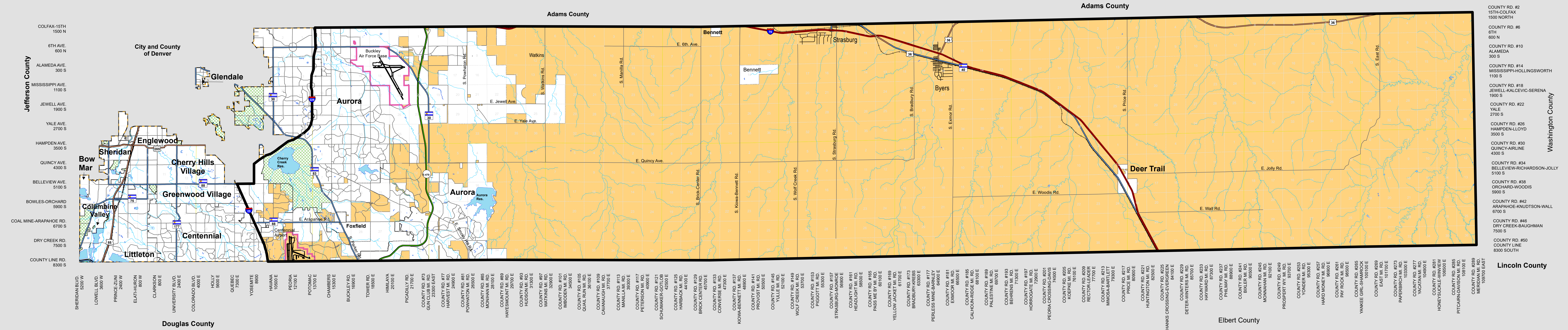
**Water Activity Name: Arapahoe County Water Supply Study**

**Grantee Name: Arapahoe County**

<u>Task No.</u> <sup>(1)</sup>	<u>Description</u>	<u>Start Date</u> <sup>(2)</sup>	<u>End Date</u>	<u>Matching Funds</u> (cash & in-kind) <sup>(3)</sup>	<u>WSRF Funds</u> (Basin & Statewide combined) <sup>(3)</sup>	<u>Total</u>
1	Project Management and Stakeholder/Public Participation	1-Aug-22	31-Dec-23	\$23,800	\$18,200	\$42,000
2	Mapping and Data Development	1-Aug-22	1-Oct-22	\$10,200	\$7,800	\$18,000
3	Land Use and Socioeconomic/Scenario Development	1-Sep-22	1-Nov-22	\$6,800	\$5,200	\$12,000
4	Groundwater Analysis	1-Sep-22	31-Dec-22	\$13,600	\$10,400	\$24,000
5	Development of Water Conscious Landscaping Standards	1-Dec-22	1-Feb-23	\$6,800	\$5,200	\$12,000
6	Assessment of Water Conservation Plans on Future Water Demand	1-Jan-23	1-Apr-23	\$6,800	\$5,200	\$12,000
7	Demand and Supply Analysis	1-Jan-23	1-Jul-23	\$67,800	\$52,200	\$120,000
8	Water Reuse Analysis	1-May-23	1-Jul-23	\$6,800	\$5,200	\$12,000
9	Recommendations for Modifications to Regulations	1-Jul-23	31-Dec-23	\$10,200	\$7,800	\$18,000
10	Comprehensive Plan Update and Implementation	1-Jul-23	31-Dec-23	\$10,200	\$7,800	\$18,000
<b>Total</b>				<b>\$163,000</b>	<b>\$125,000</b>	<b>\$288,000</b>



# Arapahoe County Water Supply Study



## Roads

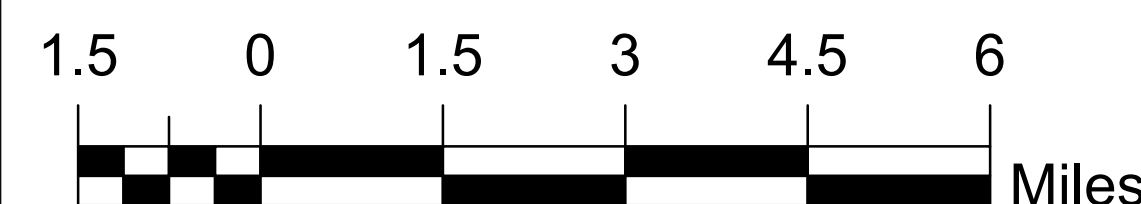
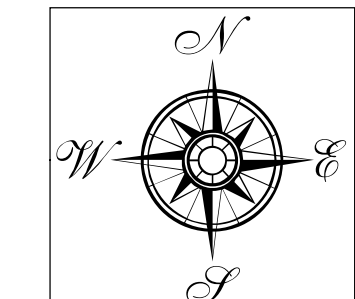
- Interstate
- State Highway
- Toll Road
- US Highway
- Airport Runways
- Airports
- Railroads

## JURISDICTIONS

- INCORPORATED JURISDICTIONS
- UNINCORPORATED NOT IN STUDY AREA

- Townships
- Sections

- County Boundary



Produced By:  
Arapahoe County Mapping Division  
6924 S. Lima St  
Centennial, Co. 80112  
Ph. 720-874-6686

Date: 9/28/2021  
Path: G:\DSI\HIMAPPING\GIS\Projects\Tier 1\Maps2021\WaterSupplyStudy\_2021.mxd

General Disclaimer:  
Arapahoe County Makes No Representation Or Warranty As To The Accuracy Of This Base Map, And Assumes No Responsibility Or Liability To Any User. This Base Map Is Not A Legal Document. It Is Intended To Serve As An Aid In Graphic Representation Only.





**Water Supply Reserve Fund  
Water Activity Summary Sheet  
March 15-16, 2022  
Agenda Item 25(h)**

**Applicant & Grantee:** Colorado Trout Unlimited

**Water Activity Name:** Lower South Boulder Creek - Watershed Restoration  
Ditch Structure Automation Demonstration Project

**Water Activity Purpose:** Agricultural, Education & Outreach,  
Municipal/Industrial, Nonconsumptive (Environmental) -  
Implementation

**County:** Boulder

**Drainage Basin:** South Platte

**Water Source:** Boulder Creek

**Amount Requested:** \$22,000 Metro Basin Account  
\$22,000 South Platte Basin Account  
\$123,000 Statewide Account  
\$167,000 Total Request

**Matching Funds:** **Basin Account Match = \$44,000**

- 35.7% of statewide request (meets 10% min)

**Applicant & 3rd Party Match = \$163,000 (cash)**

- 217% of the statewide request (meets 40% min)

**Total Match (Basin request & Applicant Match) = \$238,000**

- 476% of the statewide request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$22,000 from the Metro Basin Account, up to \$22,000 from the South Platte Basin Account and up to \$123,000 from the Statewide Account to help fund the project: Lower South Boulder Creek - WSR Ditch Structure Automation Demonstration Project

**Water Activity Summary:** This proposal is a multi-phase effort for South Boulder Creek in Boulder County on the ~9 miles from Eldorado Springs to the Boulder Creek confluence. This stretch is notable both as a working river delivering water to many water users and for its extensive public recreational access and potential environmental value for native species.

This proposal focuses on progressing engineering designs, permitting and installation for automated and networked ditch head-gate operations. This project was identified during the on-going Watershed Restoration Phase I (WSR PH 1) project through collaboration between the Phase 1 project team and New Dry Creek Carrier (NDCC).

Seven ditch companies and a storage location receive water from NDCC. The Cities of Boulder and Lafayette have significant ownership in NDCC. If approved, WSRF funds will be used for contractors to provide needed professional services in support of developing

designs and material requirements to upgrade gates, repair degraded components, and add automated gate actuators, flow gauges, and supporting network and software components. All efforts have been and will continue to be in partnership with local stakeholders including municipal, ditch companies, and private landowners.

The applicant plans to promote the project to other interested parties to demonstrate the feasibility and efficiency gains of automation and networked ditch head-gate operations.

**Discussion:** The proposal aligns with the Water Plan and the South Platte Basin Implementation Plan goals to improve agricultural operations and water management efficiency, reduce safety hazards, include more stakeholders in their process, as well as improving habitat and watershed resiliency.

**Issues/Additional Needs:** No other issues or additional needs have been identified.

**Eligibility Requirements:** The application meets requirements of all eligibility components.

**Evaluation Criteria:** Staff has determined this activity satisfies the Evaluation Criteria.

<b>Funding Sources/Match</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Status</b>
City of Boulder	\$5,000	\$20,000	\$25,000	Secured
New Dry Creek Carrier Ditch	\$97,000	\$15,000	\$112,000	Secured
Trout Unlimited	\$0	\$8,000	\$8,000	Secured
<b>Sub-Total Matching Funds</b>	\$102,000	\$0	\$163,000	
WSRF Metro Basin Account	\$22,000	\$0	\$25,000	Secured
WSRF South Platte Basin Account	\$22,000	\$0	\$50,000	Secured
WSRF Statewide Account	\$123,000	\$0	\$50,000	
<b>Sub Total</b>	\$167,000	\$0	\$125,000	
<b>Total Project Costs</b>	<b>\$269,000</b>	<b>\$43,000</b>	<b>\$312,000</b>	

**CWCB Project Manager:** Andrea Harbin-Monahan



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Colorado Water Conservation Board
Water Supply Reserve Fund Grant Application

Instructions
--------------

All WSRF grant applications shall conform to the current [2020 WSRF Criteria and Guidelines](#).

To receive funding from the WSRF, a proposed water activity must be recommended for approval by a Roundtable(s) **AND** the approved by the Colorado Water Conservation Board (CWCB). The process for roundtable consideration and recommendation is outlined in the 2020 WSRF Criteria and Guidelines. The CWCB meets bimonthly.

If you have questions, please contact the WSRF Grant Program Manager (for all Roundtables) or your Roundtable Liaison:

Ben Wade  
[ben.wade@state.co.us](mailto:ben.wade@state.co.us)  
 303-866-3441 x3238 (office)

Sam Stein  
[Sam.stein@state.co.us](mailto:Sam.stein@state.co.us)  
 303-866-3441 (office)

WSRF Submittal Checklist (Required)
-------------------------------------

YES ☒ NO ☐ This request was recommended for CWCB approval by the sponsoring roundtable.

YES ☒ NO ☐ I have read and understand the [2020 WSRF Criteria and Guidelines](#).

YES ☒ NO ☐ Grantee will be able to contract with CWCB using the [Standard Contract](#).<sup>1</sup>

**Application Documents included:**

YES ☒ NO ☐ Exhibit A: Statement of Work<sup>2</sup> (*Word – see Template*)

YES ☒ NO ☐ Exhibit B: Budget (including Detailed Budget) & Schedule<sup>2</sup> (*Excel Spreadsheet – see Template*)

YES ☒ NO ☐ Letters of Matching and/or Pending 3<sup>rd</sup> Party Commitments<sup>2</sup>

YES ☒ NO ☐ Map<sup>2</sup>

YES ☒ NO ☐ Photos/Drawings/Reports

YES ☒ NO ☐ Letters of Support

**Contracting Documents<sup>3</sup>**

YES ☐ NO ☐ Detailed/Itemized Budget<sup>3</sup> (*Excel Spreadsheet – see Template*)

YES ☐ NO ☐ Certificate of Insurance<sup>4</sup> (*General, Auto, & Workers' Comp.*)

YES ☐ NO ☐ Certificate of Good Standing<sup>(4)</sup>

YES ☐ NO ☐ W-9 Form<sup>4</sup>

YES ☐ NO ☐ Independent Contractor Form<sup>4</sup> (*If applicant is individual, not company/organization*)

YES ☐ NO ☐ Electronic Funds Transfer (ETF) Form<sup>4</sup>

<sup>1</sup>Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

<sup>2</sup> Required with application if applicable.

<sup>3</sup>Additional documentation providing a Detailed/Itemized Budget maybe required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

<sup>4</sup> Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.



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Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	October 1	Basin Account
March	December 1	Basin/Statewide Account/Water Plan Grant Match <sup>1</sup>
May	February 1	Basin Account
July	April 1	Basin Account
September	June 1	Basin/Statewide Account
November	August 1	Basin Account

<sup>1</sup> If either the basin or statewide match includes matching funds from a pending Water Plant Grant, both must be submitted by December 1st deadline for March Board meeting review.

Water Activity Summary	
Name of Applicant	Colorado Trout Unlimited
Name of Water Activity	Lower South Boulder Creek – WSR Ditch Structure Automation Demonstration Project
Approving Roundtable(s)	Basin Account Request(s) <sup>1</sup>
South Platte Basin Roundtable	\$22,000
Metro Basin Roundtable	\$22,000
Basin Account Request Subtotal	\$44,000
Basin Account Request Subtotal Approved by Roundtables	\$44,000
Statewide Account Request <sup>(1)</sup>	\$123,000
Total WSRF Funds Requested (Basin & Statewide)	\$167,000
Total Project Costs	\$311,700

<sup>1</sup> Please indicate the amount recommended for approval by the Roundtable(s)



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Grantee and Applicant Information	
<b>Name of Grantee(s)</b>	Colorado Trout Unlimited (CTU)
Mailing Address	1536 Wynkoop Street, Suite 320, Denver, CO 80202
FEIN	84-0628113
<b>Grantee's Organization Contact<sup>1</sup></b>	David Nickum
Position/Title	Executive Director
Email	dnickum@tu.org
Phone	303.440.2937 x1
<b>Grant Management Contact<sup>2</sup></b>	David Nickum
Position/Title	Executive Director
Email	dnickum@tu.org
Phone	303.440.2937 x1
<b>Name of Applicant (if different than grantee)</b>	Stephen Brant (representing Boulder Flycasters Chapter of Trout Unlimited)
Mailing Address	PO Box 541, Boulder, CO 80306
Position/Title	Project Sponsors' Representative / Project Coordinator
Email	slbrant62@gmail.com
Phone	303.885.4141

<sup>1</sup> Person with signatory authority

<sup>2</sup> Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee
Provide a brief description of the grantee's organization (100 words or less).
CTU is a statewide organization of more than 12,000 members in 24 local chapters dedicated to conserving, protecting, and restoring Colorado's coldwater fisheries and their watersheds. CTU is coordinating with its Boulder Flycasters Chapter, which led previous South Boulder Creek (SBC) Stream Management Plan (SMP PH I & II) and Watershed Restoration – Engineering (WSR PH I) project phases. CTU works through collaboration, education, grassroots action, and on-the-ground volunteerism. Current efforts include cooperation with front range and west slope water users on "Learning by Doing" in the Colorado headwaters; partnership with Colorado Parks and Wildlife on native trout restoration; and local youth education initiatives.

Type of Eligible Entity (check one)
-------------------------------------





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Type of Eligible Entity (check one)	
<input type="checkbox"/>	<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.
<input type="checkbox"/>	<b>Public (Districts):</b> authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises
<input type="checkbox"/>	<b>Private Incorporated:</b> mutual ditch companies, homeowners associations, corporations
<input type="checkbox"/>	<b>Private Individuals, Partnerships, and Sole Proprietors:</b> are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
<input checked="" type="checkbox"/>	<b>Non-governmental organizations:</b> broadly, any organization that is not part of the government
<input type="checkbox"/>	<b>Covered Entity:</b> as defined in <a href="#">Section 37-60-126 Colorado Revised Statutes</a>

Type of Water Activity (check one)	
<input type="checkbox"/>	Study
<input checked="" type="checkbox"/>	Implementation

Category of Water Activity (check all that apply)		
<input checked="" type="checkbox"/>	Nonconsumptive (Environmental)	
<input type="checkbox"/>	Nonconsumptive (Recreational)	
<input checked="" type="checkbox"/>	Agricultural	
<input checked="" type="checkbox"/>	Municipal/Industrial	
<input type="checkbox"/>	Needs Assessment	
<input checked="" type="checkbox"/>	Education & Outreach	
<input type="checkbox"/>	Other	Explain:

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in <b>decimal degrees</b> . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Countries	Boulder County
Latitude	39.986081
Longitude	-105.220804

Water Activity Overview
Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. 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, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain.



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Water Activity Overview
<p>The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.</p> <p>This multi-phase effort for SBC is in Boulder County on the ~9 miles from Eldorado Springs to the Boulder Creek confluence. This stretch is notable both as a working river delivering water to many users and for its extensive public recreational access and potential environmental value for native species.</p> <p>This proposal focuses on progressing engineering designs, permitting and installation for automated and networked ditch head-gate operations. This project was identified during the (current and on-going) WSR PH I project through collaboration between the WSR PH I project team and New Dry Creek Carrier (NDCC – at South Boulder Road). Seven ditch companies and a storage location receive water from NDCC. The Cities of Boulder and Lafayette have significant ownership in NDCC. Funds will be used for contractors to provide needed professional services in support of developing designs and material requirements to upgrade gates, repair degraded components, and add automated gate actuators, flow gauges, and supporting network / software components. All efforts have been and will continue to be in partnership with local stakeholders including municipal, ditch company, and private landowners.</p> <p>The project will be promoted to other interested parties to demonstrate the feasibility and efficiency gains of automation and networked ditch head-gate operations.</p>

Measurable Results		
To catalog measurable results achieved with WSRF funds please provide any of the following values.		
	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)	
	Length of Pipe/Canal Built or Improved (linear feet)	
TBD	Other	Explain: Structure repaired and improved for water use and operational efficiencies, reduced maintenance, increased worker safety, improved low flow management. Will monitor results before and after implementation.

Water Activity Justification
<p>Provide a description of how this water activity supports the goals of <a href="#">Colorado's Water Plan</a>, the most recent <a href="#">Statewide Water Supply Initiative</a>, and the respective <a href="#">roundtable Basin Implementation Plan and Education Action Plan</a> <sup>(1)</sup>. 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).</p> <p>For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP,</p>



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### Water Activity Justification

Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in [2020 WSRF Criteria and Guidelines](#)).

- South Boulder Creek’s environmental and recreational attributes were called out in the South Platte Basin non-consumptive use analysis, and this initiative will help achieve the CWP goal by progressing design / construct / implement projects for that important waterway. (SWP p. 10-12).
- The CWP also identifies as a critical action for its storage goal (SWP p.10-11). The project will support successful efficient use of current available flows, as well as the potential Gross Reservoir Environmental Pool flows, part of the multi-purpose Moffat Collection System IPP
- In a similar vein, by fast tracking ditch automation (separate from longer term design build for significant structure modification projects), this project will help progress multiple elements of the South Platte Basin Implementation Plan.
  - Assisting with planned mitigation for the Moffat Firming Project (BIP 5.5.1)
  - Developing designs for environmental / low flow management (BIP 5.5.5)
  - On-going stakeholder outreach will advance the BIP (BIP 5.5.9)
- This project complies with the criteria for state support
  - It demonstrates “a commitment to collaboration” (SWP p.9-43)
  - Continue to facilitate the multi-purpose aspects of the Moffat Collection System IPP and provide multiple stakeholders opportunities for input (SWP p.9-44)
  - Help fill the non-consumptive gap on South Boulder Creek, improving water use efficiency and facilitating a water-sharing program through which water delivered for municipal use will create environmental and recreational benefits. (SWP p.9-44)
  - Finally, the results of the SMP and WSR projects to date and plans going forward demonstrate “fiscal and technical feasibility” (SWP p.9-44). Local partners are contributing both cash and in-kind to the project, and the combination of Denver Water, Cities of Lafayette and Boulder, and ditch companies have the capacity and commitment to provide implementation funds for this and future phases.

<sup>1</sup> Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.



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Matching Requirements: Basin Account Requests	
<b>Basin (only) Account</b> grant requests require a 25% match (cash and/or in-kind) from the Applicant or 3 <sup>rd</sup> party and shall be accompanied by a <b>letter of commitment</b> as described in the <a href="#">2020 WSRF Criteria and Guidelines</a> (submitted on the contributing entity's letterhead). Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind)
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.	

Matching Requirements: Statewide Account Requests	
<b>Statewide Account</b> grant requests require a 50% match as described in the <a href="#">2020 WSRF Criteria and Guidelines</a> . At least of 10% of the required Statewide Account Grant request match shall be cash from Basin Account funds whether that is from one or multiple basins; and the remaining 40% of the required match may be provided from any source, including other grants, cash from the Basin Account, or any combination of cash, in-kind services, or in-kind materials, and shall be accompanied by a <b>letter of commitment</b> . Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind):
New Dry Creek Carrier Ditch	\$97,000 / cash
City of Boulder	\$5,000 / cash
<b>TOTAL CASH MATCH</b>	<b>\$102,000 / cash</b>
New Dry Creek Carrier Ditch	\$15,000 / in-kind
City of Boulder	\$20,000 / in-kind
Trout Unlimited	\$8,000 / in-kind
<b>TOTAL IN-KIND MATCH</b>	<b>\$43,000 / in-kind</b>
<b>TOTAL MATCH</b>	<b>\$145,000 (47% of total funding)</b>
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	



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### Related Studies

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

This project builds on the South Boulder Creek Stream Management Plan Phase I & II and Watershed Restoration PH I grant outcomes as described above. Additionally, it will help enhance the ability to meet minimum in-stream flows and manage low flows on a stretch protected by a CWCB appropriation (1-80CW379A) that was limited by water availability. Boulder and Lafayette will coordinate with the In-stream Flow and Natural Lake Level program on the legal mechanisms to best protect the additional flow en-route to its ultimate point of diversion.

**Benefits:**

As part of the WSR PH I infrastructure assessment and associated conceptual designs, we determined and prioritized modifications needed to address: a) Low flow management / passage; b) Restoring channel connectivity for fish / aquatic organism passage; c) Managing flow / water management efficiency; and d) Improving resilience, habitat, and operational efficiency where possible.

The proposed project will improve efficiency of a large diversion structure that significantly disrupts downstream stream function, and to act as a demonstration project to show how automation will support low flow management / passage, increase efficient water use and contribute to stream function / resiliency.

### Previous CWCB Grants

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

Colorado Trout Unlimited, South Boulder Creek Watershed Restoration – Phase I, South Platte and Metro Basin Roundtables, 3/12/20, Purchase order#: POGG1, PDAA, 202100000046

Colorado Trout Unlimited, South Boulder Creek Stream Management Plan – Phase II, South Platte and Metro Basin Roundtables, 3/12/20, Purchase order#: POGG1, PDAA, 202100000050

Colorado Trout Unlimited, South Boulder Creek Stream Management Plan – Phase I, South Platte and Metro Basin Roundtables, 3/20/19, Purchase order#: POGG1 2019-2848

Colorado Trout Unlimited, Species Trust Big Barnes Fish Passage Design, 1/8/16, Purchase order # PO PDAA 20160000000000006486

Boulder Flycasters, Rogers Park Restoration, Healthy Rivers Fund grant, final report (2009) available: <https://dnrweblink.state.co.us/cwcb/0/doc/139063/Electronic.aspx?searchid=0bf57dd9-a907-47b3-adc7-acadbec168b0>

### Tax Payer Bill of Rights

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

As a non-governmental entity, CTU is not subject to any separate TABOR limitations.

## METRO BASIN ROUNDTABLE

Ben Wade

[ben.wade@state.co.us](mailto:ben.wade@state.co.us)

Colorado Water Conservation Board

1313 Sherman Street, Room 721

Denver, CO 80203

**RE: Letter of support for the South Boulder Creek WSR Ditch Structure Automation Demonstration Project WSRF Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)**

Dear Mr. Wade:

At their meeting on November 11, 2021, the Metro Roundtable voted unanimously to support an application for \$22,000 in Basin WSRF for lower South Boulder Creek (SBC) that were identified in the Stream Management Plan (SMP). Specifically, the Ditch Structure Automation Demonstration Project has potential to greatly improve operations and water management efficiency, reduce safety hazards, and bring more stakeholders to the process in the next few years. We also believe that this kind of project aligns with DWR's direction for more efficient water management.

During previous phases of the SMP and associated Watershed Restoration (WSR) projects, and based on the stakeholder letters of support, we understand that that TU has done a very good job coordinating with appropriate lower SBC stakeholders. To date, these stakeholders and TU identified priority needs for stream restoration and promoted opportunities for multi-benefit partnerships among conservationists, recreationists, municipalities, agricultural, and other stakeholders. The TU proposal will result in moving forward with an important implementation project, as recommended in the SMP and endorsed by stakeholders.

TU presented the project to the Metro Roundtable on November 11, 2021, and the members voted in support of the grant request. We approved \$22,000 of funds from the basin WSRF account. We encourage CWCB to also approve this project to continue the process of improvement for lower South Boulder Creek.

We look forward to working with TU to improve habitat and further our mutual goals of water use efficiency and watershed resiliency.

Sincerely,



Barbara J. Biggs

Chair



Garrett Varra, South Platte Basin Roundtable Chair

11/29/2021

Ben Wade

Colorado Water Conservation Board

1313 Sherman Street, Room 721

Denver, CO 80203

**RE: Letter of support for the South Boulder Creek WSR Ditch Structure Automation Demonstration Project WSRF Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)**

Dear Ben,

On behalf of the South Platte Basin Roundtable we are pleased to indicate our support of the proposed projects for lower South Boulder Creek (SBC) that are resulting from the Stream Management Plan (SMP). Specifically, the Ditch Structure Automation Demonstration Project has potential to greatly improve operations and water management efficiency, reduce safety hazards and bring more stakeholders to the process in the next few years. We also believe that this kind of project aligns with DWR's direction for more efficient water management.

During previous phases of the SMP and associated Watershed Restoration (WSR) projects, and based on the stakeholder letters of support, we understand that that TU have done a very good job coordinating with appropriate lower SBC stakeholders. To date, these stakeholders and TU identified priority needs for stream restoration and promoted opportunities for multi-benefit partnerships among conservationists, recreationists, municipalities, agricultural, and other stakeholders. The TU proposal will result in moving forward with an important implementation project, as recommended in the SMP and endorsed by stakeholders.

TU presented the project to the South Platte Basin Roundtable on November 9, 2021, and the we voted in support of the grant request. We approved \$22,000 of funds from the basin WSRF account. A quorum of the membership was present. We encourage CWCB to also approve this project to continue the process of improvement for lower South Boulder Creek.

We look forward to working with TU to improve habitat and further our mutual goals of water use efficiency and watershed resiliency.

Sincerely,

A handwritten signature in blue ink, appearing to read "Garrett Varra", with a stylized, flowing script.

**South Boulder Creek  
WSR Ditch Structure Automation Demonstration Project**



Chris Sturm  
[chris.sturm@state.co.us](mailto:chris.sturm@state.co.us)  
Colorado Water Conservation Board  
1313 Sherman Street, Room 721  
Denver, CO 80203

**RE: Letter of support for the South Boulder Creek WSR Ditch Structure Automation Demonstration Project  
Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)**

Dear Mr. Sturm:

On behalf of Colorado Trout Unlimited and Boulder Flycasters Chapter of Trout Unlimited (collectively "TU") we are pleased to indicate our support of the proposed projects for lower South Boulder Creek (SBC) that are resulting from the Stream Management Plan (SMP). Specifically, the Ditch Automation Demonstration Project has potential to greatly improve operations and water management efficiency, reduce safety hazards and bring more stakeholders to the process in the next few years. We also believe that this kind of project aligns with DWR's direction for more efficient water management.

During previous phases of the SMP and associated Watershed Restoration (WSR) projects TU and local stakeholders identified priority needs for stream restoration and promoted opportunities for multi-benefit partnerships among conservationists, recreationists, municipalities, agricultural, and others. The TU proposal will result in moving forward with an important implementation project, as recommended in the SMP and endorsed by stakeholders.

For this project, TU will provide a WSRF grant in-kind match valued at \$8,000 in volunteer services.

We look forward to working with CWCB and other State and Federal agencies to improve habitat and further our mutual goals of water use efficiency and watershed resiliency.

Sincerely,

A blue ink signature of David Nickum.

David Nickum  
Executive Director  
Colorado Trout Unlimited  
1536 Wynkoop Street, Suite 320  
Denver, CO 80202

A blue ink signature of Brendan Besetzny.

Brendan Besetzny  
President  
Boulder Flycasters  
PO Box 541  
Boulder, CO 80306



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**EXHIBIT F: LETTERS OF SUPPORT**

To reviewers of this grant request:

Most of the letters of support attached were originally requested and acquired when the expectations for the Watershed Restoration Project Phase II was to include the WSR Ditch Structure Automation Demonstration Project as part of a single grant request. Based on later consultation with CWCB personnel, the project was split into two grant requests, as follows:

1. Colorado Water Plan Grant Application: Lower South Boulder Creek – Watershed Restoration Phase II: Engineering Design and Permitting for Priority Diversion Structures, Including Fish Passage, Flow Management and Operational / Habitat Improvement Modifications (“WSR PH II”)
2. Water Supply Reserve Fund Grant Application: Lower South Boulder Creek – WSR Ditch Structure Automation Demonstration Project

As a result of the letter of support request timing, the letters typically reference both project aspects. Our intent is to use these letters to show support for both of the above referenced projects. Additional letters of support are still in process and will reference the two projects as appropriate.



## **City of Boulder Open Space & Mountain Parks**

2520 55<sup>th</sup> St., Boulder, CO 80301; 303-441-3440

<http://www.osmp.org>

October 25, 2021

Chris Sturm

[chris.sturm@state.co.us](mailto:chris.sturm@state.co.us)

Colorado Water Conservation Board

1313 Sherman Street, Room 721

Denver, CO 80203

**RE: Letter of support for the South Boulder Creek WSR Ditch Structure Automation Demonstration Project Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)**

Dear Mr. Sturm:

On behalf of the City of Boulder we are pleased to indicate our support of the proposed projects for lower South Boulder Creek (SBC) that are resulting from the Stream Management Plan (SMP). Specifically, the Ditch Automation Demonstration Project has potential to greatly improve operations and water management efficiency, reduce safety hazards and bring more stakeholders to the process in the next few years. We also believe that this kind of project aligns with DWR's direction for more efficient water management. Boulder is a significant owner of SBC water rights, and associated ditch companies.

During previous phases of the SMP and associated Watershed Restoration (WSR) projects, our professional staff feel that TU have done a very good job coordinating with appropriate lower SBC stakeholders. To date, these stakeholders and TU identified priority needs for stream restoration and promoted opportunities for multi-benefit partnerships among conservationists, recreationists, municipalities, agricultural, and other stakeholders. The TU proposal will result in moving forward with an important implementation project, as recommended in the SMP and endorsed by stakeholders.

The City of Boulder is currently working through budgets for 2022. However, we are confident that we will be able to provide \$5,000 in cash match and \$20,000 of in-kind services for this project over CYs 2022 and 2023. We look forward to working with TU to improve habitat and further our mutual goals of water use efficiency and watershed resiliency.

Sincerely,

A handwritten signature in cursive script that reads "Amy Willhite".

Amy Willhite

Water Resources Administrator

November 18, 2021

Chris Sturm

[chris.sturm@state.co.us](mailto:chris.sturm@state.co.us)

Colorado Water Conservation Board

1313 Sherman Street, Room 721

Denver, CO 80203

**RE: Letter of support for the South Boulder Creek WSR Ditch Structure Automation Demonstration Project WSRF Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)**

Dear Mr. Sturm:


On behalf of the water users of the New Dry Creek Carrier (NDCC) Ditch, I share our support of the proposed projects for lower South Boulder Creek (SBC) that are resulting from the Stream Management Plan (SMP). Specifically, the Ditch Automation Demonstration Project has potential to greatly improve operations and water management efficiency and reduce safety hazards in the next few years. We also believe that this kind of project aligns with DWR's direction for more efficient water management. The New Dry Creek Carrier is a critical component of the water delivery system for the City of Lafayette, Base Line Land and Reservoir Company and six ditch companies.

During previous phases of the SMP and associated Watershed Restoration (WSR) projects, our representatives feel that TU coordinated well with the NDCC stakeholders. The TU proposal will result in moving forward with an important implementation project, as recommended in the SMP and endorsed by stakeholders.

The water users of NDCC are currently working through budgets for 2022. The various users are planning to present budgets at their annual meetings to collectively provide \$97,000 in cash match and \$15,000 of in-kind services for this project over CYs 2022 and 2023.

We look forward to working with TU to improve habitat and further our mutual goals of water use efficiency and watershed resiliency.

Sincerely,

A handwritten signature in cursive script that reads "Melanie Asquith".

Melanie Asquith, representing the water users of the New Dry Creek Carrier  
President, Base Line Land and Reservoir Company



## City of Boulder Open Space and Mountain Parks

2520 55<sup>th</sup> Street, Boulder, CO 80301; 303-441-3440

<http://www.osmp.org>

26 October 2021

Chris Sturm  
Colorado Water Conservation Board  
1313 Sherman Street, Room 721  
Denver, CO 80203

**RE: Letter of support for the South Boulder Creek Watershed Restoration Grant Phase II Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)**

Dear Mr. Sturm:

The City of Boulder Open Space and Mountain Parks (OSMP) is pleased to provide our support for the proposed projects for lower South Boulder Creek (SBC) that are resulting from the Stream Management Plan (SMP). Specifically, Phase II of the Watershed Restoration project will: 1) further develop engineering designs to modify high priority diversion structures and associated facilities to provide low flow management and fish passage, and 2) improve operation and reduce maintenance requirements of these diversion structures. These tasks, combined with proximate riparian habitat restoration, will further our mutual goals of water use efficiency and watershed resiliency.

During previous phases of the SMP and associated Watershed Restoration (WSR) projects, TU has done an excellent job coordinating with appropriate SBC stakeholders. To date, these stakeholders and TU identified priority needs for stream restoration and promoted opportunities for multi-benefit partnerships among conservationists, recreationists, municipalities, agricultural, and other stakeholders. The TU proposal will result in moving forward with implementation projects recommended in the SMP and endorsed by stakeholders.

We are particularly pleased that the proposed next phase of projects will address important stakeholder needs. Specifically, advancing engineering designs and the permitting processes on two important structures that, in combination with the existing project to provide fish passage at the East Boulder Ditch, are important to restoring a significant reach of SBC within City of Boulder open space lands. We endorse progressing the development of preliminary designs on two additional priority structures to ensure momentum into 2023 and beyond. Lastly, the ditch operations automation demonstration sub-project has potential to bring more stakeholders to the process in the next few years, and aligns with DWR's direction for more efficient water management.

The City of Boulder is currently planning out-year budgets. We hope to have these budgets finalized in the next 60 days to be able to support this project, both through cash and in-kind services. Additionally, we would like to make CWCB aware of the recent level of financial support that includes staff time in-kind match for SMP PH II / WSR PH I, and \$20,000 cash match to support progressing the East Boulder Ditch fish passage project (WSR PHI). The City also funded an additional approximately \$65,000 to complete the East Boulder Ditch fish passage design and began permitting for construction in 2022. Construction is estimated to be approximately \$600,000 and will be funded by the City and Xcel Energy. The new structure will include instrumentation to support low flow management.

We look forward to working with TU to transition to the design/build and implement phases for structures and habitat to improve lower SBC's health and resiliency.

Sincerely,

Don D'Amico



Senior Resource Project Manager/Wetland Ecologist  
City of Boulder Open Space and Mountain Parks  
2520 55<sup>th</sup> Street  
Boulder CO 80301  
[damicod@bouldercolorado.gov](mailto:damicod@bouldercolorado.gov)  
303.579.0583



September 30, 2021

Chris Sturm  
chris.sturm@state.co.us  
Colorado Water Conservation Board  
1313 Sherman Street, Room 721  
Denver, CO 80203

**RE: Letter of support for the South Boulder Creek Watershed Restoration Grant Phase II Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)**

Dear Mr. Sturm,

I am providing this letter in continued support of the watershed restoration (WSR) and stream management work that CTU and BFC are doing on South Boulder Creek (SBC). Currently Phase II is being completed moving toward final design and recommendations for SBC.

We have appreciated being involved as a member of the steering committee in the development of the proposed plans to improve operation and maintenance of the New Dry Creek Carrier Diversion/South Boulder Creek structures. We look forward to the next phase of the project, moving into design engineering and permitting. The potential improvements will be beneficial to not only New Dry Creek Carrier water users, but also to other landowners and agencies on SBC. Lastly, the ditch operations automation demonstration sub-project has potential to bring more stakeholders to the process in the next few years and aligns with DWR's direction for more efficient water management.

The City of Lafayette, as a significant owner of SBC water rights, and associated ditch / storage companies, will continue to work with CTU and BFC on ways that the Environmental Pool of the Gross Reservoir Expansion can aid in creek health when constructed. The City of Lafayette is currently working through budgets for 2022. We hope to have concrete numbers in the next 60 days to be able to support this project. Once Gross Reservoir is permitted, budgets can again be reviewed to determine financial and manpower support available to the WSR grant.

We look forward to continuing the work with CTU and BFC as we move into this next phase of the projects.

Sincerely

Melanie Asquith, PE  
Principal Utility Engineer and Water Resources Manager





Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

<b>Colorado Water Conservation Board</b>	
<b>Water Supply Reserve Fund</b>	
<b><u>Exhibit A - Statement of Work</u></b>	
<b>Date:</b>	01 October 2021
<b>Water Activity Name:</b>	Lower South Boulder Creek (SBC) – WSR Ditch Structure Automation Demonstration Project
<b>Grant Recipient:</b>	Colorado Trout Unlimited
<b>Funding Source:</b>	Basin / State WSRF
<b>Water Activity Overview:</b> (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for. (PLEASE DEFINE ALL ACRONYMS).)	
<p>This multi-phase effort for SBC is in Boulder County on the ~9 miles from Eldorado Springs to the Boulder Creek confluence. This stretch is notable both as a working river delivering water to many users and for its extensive public recreational access and potential environmental value for native species</p> <p>This proposal focuses on progressing engineering designs, permitting and construction for automated and networked ditch head-gate operations. This project was identified during the (current and on-going) Watershed Restoration (WSR) PH I project through collaboration between the WSR PH I project team and New Dry Creek Carrier (NDCC). Seven ditch companies receive water from NDCC. The Cities of Boulder and Lafayette have significant ownership in NDCC. NDCC is located just south of South Boulder Road and on the downstream side with the headgate directly on the main channel of SBC.</p> <p>Funds will be used for contractors to provide needed professional services in support of developing designs and material requirements to upgrade gates, repair degraded components, and add automated gate actuators, flow gauges, and supporting network / software components. All efforts have been and will continue to be in partnership with local stakeholders including municipal, ditch company, and private landowners.</p> <p>The project will be promoted to other interested parties to demonstrate the feasibility and efficiency gains of automation and networked ditch head-gate operations. The results will be monitored before and then through one irrigation season post implementation.</p>	
<b>Objectives:</b> (List the objectives of the project. (PLEASE DEFINE ACRONYMS).)	
<p>WSR Ditch Structure Automation Demonstration Project goals are to:</p> <ol style="list-style-type: none"><li>1. Continue to work closely with priority ditch companies and related parties as described in the Lower South Boulder Creek Stream Management Plan Communications Plan</li><li>2. Design and construct ditch head-gate automation / networking to both improve efficiency of a large diversion structure that significantly disrupts downstream stream function, and to act as a demonstration project</li><li>3. Promote to, develop content for, and make stakeholder personnel available for interested parties to learn from this project</li></ol>	



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 1 - Execute Stakeholder Communications Plan</u></b>
Description of Task:
1.1 Communication and coordination required to design and implement demonstration project, especially ditch owners and major ditch company shareholders, and proximate private landowners
Method/Procedure:
<ul style="list-style-type: none"><li>Through meetings, design and other documents, and field visits</li></ul>
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
<ul style="list-style-type: none"><li>Meeting schedules, meeting notes, reports to stakeholders and correspondence with stakeholders</li></ul>
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
<ul style="list-style-type: none"><li>Summary of meeting / field visit occurrence and notes, and reports to stakeholders</li></ul>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 2 - Develop Designs, Construct / Repair Headgates, and Install Automation / Telemetry</u></b>
Description of Task:
Subtask 2.1: Develop designs to install and implement 4 headgates and 1 existing sand-gate motorized actuators, associated power requirements, and automated / networked flow gauges <ul style="list-style-type: none"><li>Proposed: Design / Install - New Dry Creek Carrier (NDCC)</li><li>TU, ditch company and contractors: Responsible for overall project coordination; engineering design of automation, materials list / specifications; and headgate installation oversight</li><li>Ditch company: Provide and install 4 new headgates, repair / replace sand-gate, provide for electric power to the site, conduct surveys, obtain permits, and responsible for disposition of existing headgate</li><li>City of Boulder: Provide automated gauges downstream of NDCC in the main channel</li><li>Ditch company: Repair / replace automated gauges in the south branch down-ditch of the new headgates</li></ul>
Subtask 2.2: Monitor results through one irrigation season <ul style="list-style-type: none"><li>Ditch Owners / State of Colorado: Maintain records, maintenance logs and join monthly to quarterly status meetings (estimated to be April -September 2023)</li></ul>



Last Update: July 20, 2021

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Tasks
Subtask 2.3: Allow third party visits to observe and understand project results, benefits, etc. <ul style="list-style-type: none"><li>TU: Develop materials and publish results to be shared with other interested parties, and co-host field visits, accept telephone inquiries, etc.</li><li>Ditch Owners: Participate in field trip visits and review / development of materials</li></ul>
Method/Procedure:
Grantee Deliverable: (Describe the deliverable the grantee expects from this task) <ul style="list-style-type: none"><li>Develop designs and material requirements to upgrade gates, repair degraded components, and add automated gate actuators, flow gauges, and supporting network / software components</li><li>Develop support materials for interested parties and field visits</li></ul>
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task) <ul style="list-style-type: none"><li>Completed Design Documents, photos of construction / implementation, optional field visit for CWCB personnel</li><li>Demonstration project support material for interested parties</li></ul>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 3 - Program Management and Administration</u></b>
Description of Task:
Subtask 3.1: Continue Program Management Office <ul style="list-style-type: none"><li>Functions, staffing and costs</li><li>Supplies, printing, copying, mailing, etc.</li></ul>
Subtask 3.2: Budget Tracking and Management <ul style="list-style-type: none"><li>Grant administration and reporting</li><li>Periodic reporting to governance and other interested parties</li><li>Budget tracking and management</li><li>In-kind and third-party donations</li></ul>
Subtask 3.3: Third-Party / Contract Services <ul style="list-style-type: none"><li>Continue established contracting standards</li><li>Prepare scope and fee agreements</li><li>Conduct RFP process(es) to select and contract with engineering / consulting firm(s)</li></ul>



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>**Tasks**

## Subtask 3.4: Manage Deliverables

- Oversee and critique task level deliverables
- Consolidate findings, recommendations, projects, and next steps as developed
- Create and / or manage the creation of final deliverables / grant reports

## Method/Procedure:

## Grantee Deliverable: (Describe the deliverable the grantee expects from this task)

- Project budget / timeline tracking documents
- Time sheets (in-kind)
- Contractor invoices
- Periodic reporting to funding sources
- RFP process documents
- Final reports

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

Final reports incorporating budget, timeline, in-kind time sheet support, summary of RFP process - in accordance with Progress Reports and Final Report requirements

Periodic invoices and back up to State – invoices, time sheets, etc.

**Budget and Schedule**

**Exhibit B - Budget and Schedule:** This Statement of Work shall be accompanied by a combined [Budget and Schedule](#) that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format. A separate excel formatted Budget is required for engineering costs to include rate and unit costs.

**Reporting Requirements**

**Progress Reports:** The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.





Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

### Reporting Requirements

**Final Report:** At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee'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.

### Payments

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. 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.

The CWCB will pay the last 10% of the entire water activity 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 water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

### Performance Requirements

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 Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per the 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 the 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 Update: 7/20/2021



**COLORADO**

Colorado Water  
Conservation Board

Department of Natural Resources

**Colorado Water Conservation Board**

**Water Supply Reserve Fund**

**EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs**

**Date: 01 December 2021**

**Water Activity Name: WSR Ditch Structure Automation Demonstration Project**

**Grantee Name: Colorado Trout Unlimited**

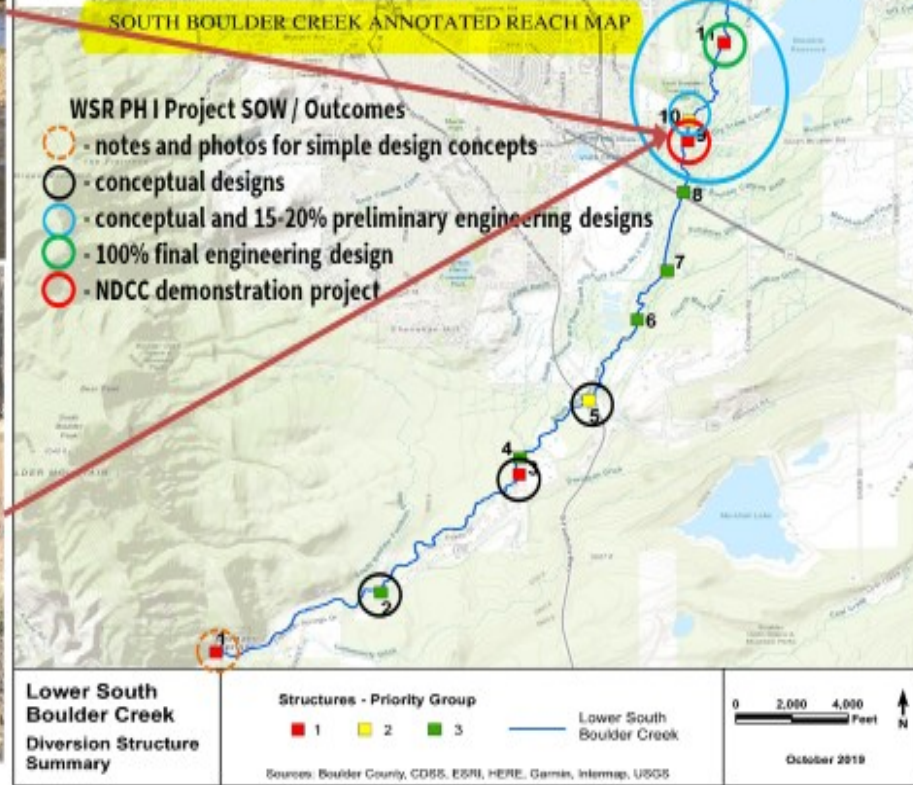
<u>Task No.</u> <sup>(1)</sup>		<u>Start Date</u> <sup>(2)</sup>	<u>End Date</u>	<u>Matching Funds</u> (cash & in-kind) <sup>(3)</sup>	<u>WSRF Funds</u> (Basin & Statewide combined) <sup>(3)</sup>	<u>Total</u>
<u>1</u>	Execute Stakeholder Communications Plan	7/1/2022	10/30/2023	\$3,100	\$5,600	\$8,700
2	Develop Designs, Construct / Repair Head-Gate and Install Automation / Telemetry	7/1/2022	10/30/2023	\$129,300	\$153,800	\$283,100
3	Program Management and Administration	7/1/2022	10/30/2023	\$12,300	\$7,600	\$19,900
Total				\$144,700	\$167,000	\$311,700

## EXHIBIT G: PROPOSED DEMONSTRATION STRUCTURE LOCATION MAP

### WSR Ditch Structure Automation Demonstration Project New Dry Creek Carrier



Structure	Name	Location	Priority Group
1	Community Ditch	39.932, -105.281	1
2	Davidson Ditch	39.939, -105.23	3
3	Goodhue Ditch	39.951, -105.242	1
4	S Boulder Canon Ditch	39.972, -105.228	3
5	Marshallville Ditch	39.959, -105.233	2
6	Schwaner Ditch	39.968, -105.227	3
7	S Boulder Bear Cr Ditch	39.953, -105.242	3
8	McGinn Ditch	39.981, -105.221	3
9	New Dry Cr Carrier Ditch	39.986, -105.221	1
10	Howard Ditch	39.989, -105.22	2
11	East Boulder Ditch	39.996, -105.216	1
12	Legget-Valmont Inlet D	40.016, -105.214	1
13	Series of concrete weirs and pipe crossings	40.022, -105.216	3
14	KOA Inlet	40.026, -105.217	3
15	KOA Outlet	40.029, -105.218	2
16	Butte Mill Ditch Confluence	40.031, -105.218	2





## New Dry Creek Carrier Ditch – Head Gate; Weir; Downstream of Head Gate Monitoring Location with ALERT Network



**Water Supply Reserve Fund  
Water Activity Summary Sheet  
March 15-16, 2022  
Agenda Item 25(i)**

**Applicant & Grantee:** Colorado Rio Grande Restoration Foundation

**Water Activity Name:** Conejos River Partnership Project - Phase 1b

**Water Activity Purpose:** Agricultural, Nonconsumptive (Environmental) & Other - Implementation

**County:** Conejos

**Drainage Basin:** Rio Grande

**Water Source:** Conejos River

**Amount Requested:** \$33,000 Rio Grande Basin Account  
\$297,000 Statewide Account  
\$330,000 Total Request

**Matching Funds:** **Basin Account Match = \$33,000**

- 11% of statewide request (meets 10% min)

**Applicant & 3rd Party Match = \$340,000 (cash)**

- 114% of the statewide request (meets 40% min)

**Total Match (Basin request & Applicant Match) = \$373,000**

- 125% of the statewide request (meets 50% min)

Staff Recommendation:	
Staff recommends approval of up to \$33,000 from the Rio Grande Basin Account, and up to \$297,000 from the Statewide Account to help fund the project: Conejos River Partnership Project - Phase 1b	

**Water Activity Summary:** Aging irrigation infrastructure and degraded riparian and aquatic habitat are significant issues affecting Conejos River water users as well as the health of the river system. High maintenance diversion structures are often incapable of efficiently diverting water, particularly during low streamflow. Poorly functioning and inefficient headgates put a strain on water users and managers who rely on accurate diversions. In many cases, diversion infrastructure adversely affects aquatic and riparian habitats by disrupting natural sediment regimes, increasing bank erosion and floodplain disconnection, and creating barriers to fish passage.

If approved, WSRF funds would assist in rehabilitating and enhancing diversion infrastructure and surrounding river channels through the following activities: replacement of diversion structures and headgates; automation of headgates; enhancement of aquatic habitat; and streambank stabilization and riparian restoration.

This project will improve diversion efficiency and reduce maintenance, allowing water managers to administer water rights and meet Rio Grande Compact water delivery requirements more efficiently.

Additionally, the applicant believes these activities will enhance water quality by reducing sediment input and improve aquatic habitat by creating refugia during low flow conditions. Finally, the project will help ensure the Conejos River continues to support the farmers, ranchers, riparian and aquatic species, and communities who rely on its proper function.

**Discussion:** The proposal aligns the Rio Grande Basin Implementation Plan by addressing agricultural, environmental and water administration needs facing the Basin. The project also aligns with Water Plan goals by meeting community and agricultural water needs and balancing the needs of the environment and recreation.

**Issues/Additional Needs:** No other issues or additional needs have been identified.

**Eligibility Requirements:** The application meets requirements of all eligibility components.

**Evaluation Criteria:** Staff has determined this activity satisfies the Evaluation Criteria.

<b>Funding Sources/Match</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Status</b>
CO Department of Agriculture Drought Resilience	\$150,000	\$0	\$150,000	Secured
Colorado Housing & Finance Authority	\$60,000	\$0	\$60,000	Secured
Conejos Water Conservancy District	\$15,000	\$0	\$15,000	Secured
Ditch Landowner Contributions	\$20,000	\$0	\$20,000	Secured
North American Wetland Conservation Act	\$50,000	\$0	\$50,000	Secured
Sangre de Cristo National Heritage Area	\$20,000	\$0	\$20,000	Secured
Trinchera Blanca Foundation	\$25,000	\$0	\$25,000	Pending
<b>Sub-Total Matching Funds</b>	<b>\$340,000</b>	<b>\$0</b>	<b>\$340,000</b>	
WSRF Rio Grande Basin Account	\$33,000	\$0	\$33,000	Secured
WSRF Statewide Account	\$297,000	\$0	\$297,000	
<b>Sub Total</b>	<b>\$330,000</b>	<b>\$0</b>	<b>\$330,000</b>	
<b>Total Project Costs</b>	<b>\$670,000</b>	<b>\$0</b>	<b>\$670,000</b>	

**CWCB Project Manager:** Rachel Pittinger





Last Update: July 20, 2021

Colorado Water Conservation Board
Water Supply Reserve Fund Grant Application

<b>Instructions</b>
---------------------

All WSRF grant applications shall conform to the current [2020 WSRF Criteria and Guidelines](#).

To receive funding from the WSRF, a proposed water activity must be recommended for approval by a Roundtable(s) **AND** the approved by the Colorado Water Conservation Board (CWCB). The process for roundtable consideration and recommendation is outlined in the 2020 WSRF Criteria and Guidelines. The CWCB meets bimonthly.

If you have questions, please contact the WSRF Grant Program Manager (for all Roundtables) or your Roundtable Liaison:

<p>Ben Wade  <a href="mailto:ben.wade@state.co.us">ben.wade@state.co.us</a>  303-866-3441 x3238 (office)</p>	<p>Sam Stein  <a href="mailto:Sam.stein@state.co.us">Sam.stein@state.co.us</a>  303-866-3441 (office)</p>
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<b>WSRF Submittal Checklist (Required)</b>
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YES ☐ NO ☐ This request was recommended for CWCB approval by the sponsoring roundtable.

YES ☐ NO ☐ I have read and understand the [2020 WSRF Criteria and Guidelines](#).

YES ☐ NO ☐ Grantee will be able to contract with CWCB using the [Standard Contract](#).<sup>1</sup>

**Application Documents included:**

YES ☐ NO ☐ Exhibit A: Statement of Work<sup>2</sup> (*Word – see Template*)

YES ☐ NO ☐ Exhibit B: Budget (including Detailed Budget) & Schedule<sup>2</sup> (*Excel Spreadsheet – see Template*)

YES ☐ NO ☐ Letters of Matching and/or Pending 3<sup>rd</sup> Party Commitments<sup>2</sup>

YES ☐ NO ☐ Map<sup>2</sup>

YES ☐ NO ☐ Photos/Drawings/Reports

YES ☐ NO ☐ Letters of Support

**Contracting Documents<sup>3</sup>**

YES ☐ NO ☐ Detailed/Itemized Budget<sup>3</sup> (*Excel Spreadsheet – see Template*)

YES ☐ NO ☐ Certificate of Insurance<sup>4</sup> (*General, Auto, & Workers' Comp.*)

YES ☐ NO ☐ Certificate of Good Standing<sup>(4)</sup>

YES ☐ NO ☐ W-9 Form<sup>4</sup>

YES ☐ NO ☐ Independent Contractor Form<sup>4</sup> (*If applicant is individual, not company/organization*)

YES ☐ NO ☐ Electronic Funds Transfer (ETF) Form<sup>4</sup>

<sup>1</sup>Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

<sup>2</sup> Required with application if applicable.

<sup>3</sup>Additional documentation providing a Detailed/Itemized Budget maybe required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

<sup>4</sup> Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.



Last Update: July 20, 2021

Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	October 1	Basin Account
March	December 1	Basin/Statewide Account/Water Plan Grant Match <sup>1</sup>
May	February 1	Basin Account
July	April 1	Basin Account
September	June 1	Basin/Statewide Account
November	August 1	Basin Account

<sup>1</sup> If either the basin or statewide match includes matching funds from a pending Water Plant Grant, both must be submitted by December 1st deadline for March Board meeting review.

Water Activity Summary	
Name of Applicant	Colorado Rio Grande Restoration Foundation
Name of Water Activity	Conejos River Partnership Project – Phase 1b
Approving Roundtable(s)	Basin Account Request(s) <sup>1</sup>
Rio Grande Interbasin Roundtable	Water Supply Reserve Fund
Basin Account Request Subtotal	\$33,000
Basin Account Request Subtotal Approved by Roundtable	\$
Statewide Account Request <sup>(1)</sup>	\$297,000
Total WSRF Funds Requested (Basin & Statewide)	\$330,000
Total Project Costs	\$670,000

<sup>1</sup> Please indicate the amount recommended for approval by the Roundtable(s)

Grantee and Applicant Information	
Name of Grantee(s)	Colorado Rio Grande Restoration Foundation
Mailing Address	623 Fourth St, Alamosa, CO 81101
FEIN	75-3169057
Grantee's Organization Contact <sup>1</sup>	Emma Reesor
Position/Title	Executive Director
Email	emma@riograndeheadwaters.org
Phone	(719) 589-2230
Grant Management Contact <sup>2</sup>	Emma Reesor



Last Update: July 20, 2021

Grantee and Applicant Information	
Position/Title	Executive Director
Email	emma@riograndeheadwaters.org
Phone	(719) 589-2230
Name of Applicant (if different than grantee)	Same as grantee
Mailing Address	
Position/Title	
Email	
Phone	

<sup>1</sup> Person with signatory authority

<sup>2</sup> Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCBC staff.

Description of Grantee
Provide a brief description of the grantee's organization (100 words or less).
The Colorado Rio Grande Restoration Foundation, a non-profit organization, is the fiscal agent for the Rio Grande Headwaters Restoration Project (RGHRP). The mission of the RGHRP is "to restore and conserve the historical functions and vitality of the Rio Grande Basin in Colorado for improved water quality, agricultural water use, riparian health, wildlife and aquatic species habitat, recreation and community safety while meeting the Rio Grande Compact." The RGHRP was formed to implement the recommendations of the 2001 Study. Since formed, the RGHRP has improved the condition of the Rio Grande by partnering with landowners, diverse stakeholders, and multiple ditch companies.

Type of Eligible Entity (check one)	
<input type="checkbox"/>	<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.
<input type="checkbox"/>	<b>Public (Districts):</b> authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises
<input type="checkbox"/>	<b>Private Incorporated:</b> mutual ditch companies, homeowners' associations, corporations
<input type="checkbox"/>	<b>Private Individuals, Partnerships, and Sole Proprietors:</b> are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
<input checked="" type="checkbox"/>	<b>Non-governmental organizations:</b> broadly, any organization that is not part of the government
<input type="checkbox"/>	<b>Covered Entity:</b> as defined in <a href="#">Section 37-60-126 Colorado Revised Statutes</a>

Type of Water Activity (check one)	
<input type="checkbox"/>	Study
<input checked="" type="checkbox"/>	Implementation

Category of Water Activity (check all that apply)



Last Update: July 20, 2021

✓	Nonconsumptive (Environmental)	
	Nonconsumptive (Recreational)	
✓	Agricultural	
	Municipal/Industrial	
	Needs Assessment	
	Education & Outreach	
✓	Other	Explain: This project also benefits water rights administration, specifically administration of the Rio Grande Compact.

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in <b>decimal degrees</b> . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Countries	Conejos
Latitude	37.102062
Longitude	-106.002297

Water Activity Overview
<p>Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. 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, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain.</p>
<p>The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.</p>
<p>Aging irrigation infrastructure and degraded riparian and aquatic habitat are significant issues affecting Conejos River water users as well as the health of this important river system. High maintenance diversion structures are often incapable of efficiently diverting water, particularly during low streamflow. Poorly functioning and inefficient headgates put a strain on water users and managers who rely on accurate diversions. In many cases, diversion infrastructure adversely affects aquatic and riparian habitats by disrupting natural sediment regimes, increasing bank erosion and floodplain disconnection, and creating barriers to fish passage.</p> <p>To address these challenges, WSRF funds would rehabilitate and enhance diversion infrastructure and surrounding river channels through the following activities:</p> <ol style="list-style-type: none"> <li>1) Replacement of diversion structures and headgates;</li> <li>2) Automation of headgates;</li> <li>3) Enhancement of aquatic habitat;</li> <li>4) Streambank stabilization and riparian restoration.</li> </ol> <p>This project will improve diversion efficiency and reduce maintenance, allowing water managers to administer water rights and meet Rio Grande Compact water delivery requirements more efficiently. Additionally, these activities will enhance water quality by reducing sediment input and improve aquatic habitat by creating refugia during low flow conditions. Finally, the project will help ensure the Conejos River continues to support the farmers, ranchers, riparian and aquatic species, and communities who rely on its proper function.</p>



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Measurable Results		
To catalog measurable results achieved with WSRF funds please provide any of the following values.		
	New Storage Created (acre-feet)	
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive	
	Existing Storage Preserved or Enhanced (acre-feet)	
1,200	Length of Stream Restored or Protected (linear feet)	
120 acre-feet/year	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
	Area of Restored or Preserved Habitat (acres)	
	Length of Pipe/Canal Built or Improved (linear feet)	
	Other	Explain: Final designs for two project sites; 2 headgates automated

Water Activity Justification
<p>Provide a description of how this water activity supports the goals of <a href="#">Colorado's Water Plan</a>, the most recent <a href="#">Statewide Water Supply Initiative</a>, and the respective <a href="#">roundtable Basin Implementation Plan and Education Action Plan</a> <sup>(1)</sup>. 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).</p> <p>For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in <a href="#">2020 WSRF Criteria and Guidelines</a>).</p> <p>The Conejos River Partnership Project – Phase 1b (Phase 1b) will enhance consumptive and non-consumptive needs by replacing poorly functioning diversion and headgates, stabilizing streambanks, improving riparian and aquatic habitat, and improving the ability of water administrators to effectively administer water rights. As such, the project will address agricultural, environmental, recreational, and water administration needs facing the Rio Grande Basin and State of Colorado.</p> <p>Phase 1b will meet the following Basin Implementation Plan (BIP) goals:</p> <ul style="list-style-type: none"> <li>• Healthy watersheds that provide critical ecosystem services, are resilient to disturbances, and benefit from ongoing efforts to protect water sources, improve water quality, enhance aquatic, riparian, wetland, and upland habitat, and maintain connected ecosystems.</li> <li>• Vibrant and resilient agriculture, recreation, municipal, and industrial economies that support thriving communities.</li> <li>• Water administration that is adaptive, flexible, and creative while complying with state statutes and the doctrine of prior appropriation, and fully utilizing Colorado's compact entitlements under the Rio Grande and Costilla Creek compacts.</li> </ul> <p>In addition to meeting three of the five Rio Grande BIP goals, Phase 1b also meets the Colorado Water Plan (CWP) Goals and Criteria in these ways:</p> <ul style="list-style-type: none"> <li>• By replacing multiple aging diversions and headgates on the Conejos River, Phase 1b supports agricultural goals to "maintain agricultural viability" and "support agricultural conservation and efficiency" (CWP, Section 10.3, pp. 10-10). Further, these activities directly address the CWP's critical agricultural action to "update and improve Colorado's aging agricultural infrastructure, especially where</li> </ul>



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### Water Activity Justification

improvements provide multiple benefits.”

- Through restoration of riparian areas and fish habitat improvements, the project supports the goal to “Protect Healthy Environments: 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 resiliency” (CWP, Section 10.3, pp. 10-12).

Additionally, Phase 1b will help meet the agricultural gap and environmental needs identified in the 2019 Technical Update to the Water Plan (Technical Update, formerly SWSI). The Technical Update quantified agricultural water needs and supplies as well as current and future agricultural gaps. The Technical Update also resulted in the development of the Environmental Flow Tool which assesses potential future risks associated with predicted changes in streamflow.

Phase 1b will mitigate the agricultural water gap by improving diversion efficiency and mitigate stressors due to low streamflows by improving fish passage and enhancing aquatic habitat refugia during low-flow conditions. Phase 1b was identified as a priority project through the Conejos River Stream Management Plan (SMP) and is a result of planning and collaboration between the Conejos Water Conservancy District (CWCD), multiple ditches, RGHRP, the Colorado Division of Water Resources (DWR), Colorado Parks and Wildlife (CPW), and area landowners, farmers, and ranchers. Participation from this diverse group of stakeholders ensures that both consumptive and non-consumptive needs are being met through the design and implementation of each project component. In addition, project partners have raised a significant amount of funding through the North American Wetlands Conservation Act grant program, Sangre de Cristo National Heritage Area, Colorado Housing and Finance Authority, and partner contributions totaling 50% of the project cost. Without the requested WSRF funds, project partners would likely not be able to raise sufficient dollars out of pocket or from other grant sources in time to retain the grants currently secured. As such, WSRA funds are critical to complete Phase 1b.

By replacing multiple aging diversion dams and headgates on the Conejos River, Phase 1b allows for agriculture demands to be met by increasing the ability of irrigators to divert their appropriated water rights when they are in priority. These actions will protect water users and landowners along the Conejos River from loss by replacing aging diversion and headgate infrastructure, repairing the river channel, and restoring habitat within the riparian corridor, thereby preserving the values inherent in the San Luis Valley’s rural and agricultural communities.

Through streambank stabilization, riparian and aquatic habitat restoration, and improvements to diversion structures to allow for fish passage, Phase 1b will result in multiple environmental benefits including improved streambank stability, water quality, riparian, and aquatic habitat. Currently, multiple diversion structures form partial or complete fish barriers. Through this project, each diversion will be replaced with structures that allow for fish passage according to CPW’s recommendations. Aquatic and riparian habitat will be further enhanced through streambank stabilization, channel shaping, floodplain reconnection, and riparian revegetation.

Additionally, Phase 1b activities are located within the management area for the San Luis Valley Regional Habitat Conservation Plan (HCP) for the Southwestern Willow Flycatcher and the Yellow-billed Cuckoo. In accordance with the HCP, the riparian restoration activities will improve streambank habitat for these threatened species and contribute to recovery efforts.

Finally, as the Rio Grande Basin faces water shortages and prolonged periods of drought, the need for accurate water management becomes increasingly crucial. Phase 1b will assist in administration of the Conejos River by improving diversion efficiency and measurement capabilities for multiple ditches. Increased diversion efficiency and more accurate measurements will enable DWR to administer water rights more efficiently and effectively, thereby assist the Division 3 Engineer in water management and meeting the Rio Grande Compact. Increased efficiencies within the Conejos River system will allow water managers to maximize flows in the Conejos River, providing benefits for wildlife and water rights holders.

<sup>1</sup> Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.





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Matching Requirements: Statewide Account Requests	
<b>Statewide Account</b> grant requests require a 50% match as described in the <a href="#">2020 WSRF Criteria and Guidelines</a> . At least of 10% of the required Statewide Account Grant request match shall be cash from Basin Account funds whether that is from one or multiple basins; and the remaining 40% of the required match may be provided from any source, including other grants, cash from the Basin Account, or any combination of cash, in-kind services, or in-kind materials and shall be accompanied by a <b>letter of commitment</b> . Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind):
Colorado Department of Agriculture Drought Resiliency (Cash)	\$150,000
Colorado Housing and Finance Authority (Cash)	\$60,000
North American Wetland Conservation Act Grant (Cash)	\$50,000
Sangre de Cristo National Heritage Area Grant (Cash)	\$20,000
Ditch Contributions (Cash)	\$20,000
Conejos Water Conservancy District (Cash)	\$15,000
Trinchera Blanca Foundation (Cash – pending)	\$25,000
Rio Grande Basin Account (Cash)	\$33,000
Total Match	\$373,000
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	

Related Studies
Please provide a list of any related studies, including if the water activity is complimentary to or assists in the implementation of other CWCB programs.



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### Related Studies

The Conejos River Partnership Project was identified and prioritized in the Conejos River Stream Management Plan (SMP). As part of the Conejos River SMP, a diversion infrastructure assessment was completed to assess conditions and provide improvement recommendations for each Conejos River surface water diversion structure. The ditches included in the CRPP were all listed as top priorities for improvement in the SMP. This multi-benefit project meets multiple goals listed in the Conejos River SMP including:

- Goal A. Improve function and reduce maintenance of irrigation infrastructure, both for water users and river health.
- Goal B. Maintain or improve bank and channel stability, especially near important wildlife habitat and critical infrastructure such as homes, diversion structures, roads, and bridges.
- Goal C. Maintain and improve the function of floodplains, associated alluvial aquifers, and natural channel processes.
- Goal D. Maintain and improve the extent and condition of riparian areas.
- Goal F. Maintain or improve water quality, with a focus on mine reclamation projects and compliance with state water quality standards.
- Goal G. Maintain or improve long term sustainability of Conejos River fisheries and associated aquatic habitat.

Finally, the Conejos River SMP itself directly supports the CWP by helping meet the goal “that 80 percent of locally prioritized rivers be covered by stream management plans (SMP) by 2030.”

### Previous CWCB Grants

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

<b>Applicant Name</b>	<b>Water Activity Name</b>	<b>Approving RT</b>	<b>CWCB Board meeting date</b>	<b>Contract number</b>
CRGRF	2021 Rio Grande Diversion Infrastructure, Recreation, and Habitat Improvement Project	n/a, Colorado Water Plan Grant	September-21	CTGG1 PDAA 2022*2413
CRGRF	Conejos River Partnership Project – Phase 2	n/a, Colorado Water Plan Grant	March-21	Not Contracted
CRGRF	Conejos River Partnership Project – Phase 1	Rio Grande	Sept-20	CTGG1 PDAA 2021*3056
CRGRF	Rio Grande Riparian Stabilization Project – Phase 5	n/a, Watershed Restoration Program	Jan-20	CTGG1 PDAA 2021-0020



**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

Last Update: July 20, 2021

Previous CWCB Grants				
CRGRF	Rio Grande, Conejos, and Saguache Stream Management Plans (WSRF Grant)	Rio Grande	Jun-19	POGG1 PDAA 202000002065
CRGRF	Park Creek Watershed Improvement Project	n/a, Colorado Water Plan Grant	May-19	POGG1 PDAA 202000002111
CRGRF	Del Norte Riverfront Project	n/a	Nov-18	POGG1 PDAA 201900002852
CRGRF	Del Norte Riverfront Project – Phase 1	n/a	CWCB Severance Fund Grant	POGG1 PDAA 201800000980
CRGRF	Rio Grande, Conejos River and Saguache Creek SMP (CWRP Grant)	n/a	Jan-18	POGG1 PDAA 201800000791
CRGRF	Five Ditches Project	Rio Grande	Sep-17	CTGG1 2018-971
CRGRF	Rio Grande State Wildlife Area Design Project	Rio Grande	May-17	POGG1 2017-0001
CRGRF	Upper Rio Grande Assessment	Rio Grande	May-16	POGG1 2017-268
CRGRF	Plaza Project: Phase 3 – Prairie Ditch	Rio Grande	Feb-14	CTGG12015-295
CRGRF	Plaza Project: Phase 2 – McDonald Ditch	Rio Grande	Sep-13	C150492
CRGRF	Plaza Project: Phase 1 – Plaza Plan	Rio Grande		
CRGRF	2009 Rio Grande Riparian Stabilization Project – Phase 4	Rio Grande		C150486
CRGRF	2008 Rio Grande Riparian Stabilization Project – Phase 3	Rio Grande		
CRGRF	Lower Rio Grande Assessment	CO Healthy Rivers Fund		POGG1 PDAA 20150000000000000260
CRGRF	Rio Grande Project – Cooperative with Southwest	CO Healthy Rivers Fund		



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Previous CWCB Grants				
	Conservation Corps			

Tax Payer Bill of Rights
The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.
The Applicant, The Colorado Rio Grande Restoration Foundation, is not subject to TABOR limitations, as it is a Colorado nonprofit organization operating under Section 501(c)(3) of the U.S. Internal Revenue Code.

## EXHIBIT C – Letters of Support, Letters of Funding Commitment, and Project Maps



November 09, 2021

Becky Mitchell and CWCB Board of Directors  
Colorado Water Conservation Board  
1313 Sherman St., Rm. 721  
Denver, CO 80203

**Re: WSRF Application for the Conejos River Partnership Project – Phase 1b**

Dear Ms. Mitchell,

On behalf of the Rio Grande Basin Roundtable (Roundtable), please accept this letter of support for the Conejos River Partnership Project (CRPP) - Phase 1b sponsored by the Colorado Rio Grande Restoration Foundation (CRGRF). The Water Supply Reserve Fund Application for the CRPP was evaluated by the Roundtable and was unanimously approved by voting members at the November 9, 2021 Roundtable meeting. The CRPP's WSRF application totals \$330,000 with \$33,000 requested from the basin account and \$297,000 requested from the state account, pending matching funds from a Colorado Department (CDA) of Agriculture Drought Resiliency grant. The Roundtable recommends fully funding the CRPP's WSRF request pending the successful procurement of CDA matching funds.

The Roundtable recognizes that the CRPP Phase 1b addresses agricultural, environmental, and water administration needs facing the Rio Grande Basin. The project will result in the replacement of aging diversions structures, headgate automation for increased efficiency, and aquatic and riparian habitat restoration on the Conejos River. The project will benefit water users on multiple ditches by improving diversion efficiency and reducing maintenance. Project activities will also include improvements to aquatic habitat, streambank stabilization, and riparian restoration, which will improve river health, water quality, and wildlife habitat. These project methods and activities meet the following Rio Grande Basin Implementation Plan Goals:

- Healthy watersheds that provide critical ecosystem services, are resilient to disturbances, and benefit from ongoing efforts to protect water sources, improve water quality, enhance aquatic, riparian, wetland, and upland habitat, and maintain connected ecosystems.
- Vibrant and resilient agriculture, recreation, municipal, and industrial economies that support thriving communities.
- Water administration that is adaptive, flexible, and creative while complying with state statutes and the doctrine of prior appropriation, and fully utilizing Colorado's compact entitlements under the Rio Grande and Costilla Creek compacts.

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In addition to meeting three of the five Rio Grande BIP goals, Phase 1b also helps meet Colorado Water Plan (CWP) Goals and Criteria in these ways:

In addition to meeting many of the BIP goals, the CRPP aligns with the Colorado Water Plan's Goals and Criteria by meeting community and agricultural water needs, while balancing the needs of the environment and recreation.

Thank you for your consideration of this application.

Sincerely,



Nathan Coombs  
Chair, Rio Grande Basin Roundtable





**Conejos Water Conservancy District**  
**P. O. Box 550**  
**Manassa, CO 81141**  
**Cwcd1971@hotmail.com**  
Phone 719-843-5261 fax 5452

December 9, 2021

Becky Mitchell and CWCB Board of Directors  
Colorado Water Conservation Board  
1313 Sherman St., Rm. 721  
Denver, CO 80203

Re: WSRF Application for the Conejos River Partnership Project – Phase 1b

Dear Ms. Mitchell,

I am writing to confirm that the Conejos Water Conservancy District's (CWCD) has secured an additional \$20,000 in cash contributions from ditch companies and water users to help fund the Conejos River Partnership Project (CRPP) – Phase 1b. The CWCD worked with ditch companies and water users to secure this additional funding, which will be critical to project implementation and successful completion.

CWCD has been a project partner on the CRPP from the beginning when it was identified as a priority project in the Conejos River Stream Management Plan (SMP). CRPP builds upon our efforts to improve the efficiency, function, and benefits of irrigation infrastructure on the Conejos River. The requested WSRF grant will provide additional funding needed to implement headgate automation, diversion structure rehabilitation, and riparian and aquatic habitat restoration, which will expanding the efficiency and watershed benefits of the project activities.

We are thrilled to be a partner in this effort. CWCD will continue to work closely with the Colorado Rio Grande Restoration Foundation (CRGRF) to ensure the project components, including diversion infrastructure and riparian and aquatic habitat enhancement, are designed and constructed to provide the greatest benefits to the health and resiliency of the Conejos River.

Thank you for your consideration of this project.

Sincerely,

A handwritten signature in blue ink that reads "Nathan Coombs".

Nathan Coombs, Manager



**Conejos Water Conservancy District**  
**P. O. Box 550**  
**Manassa, CO 81141**  
**Cwcd1971@hotmail.com**  
Phone 719-843-5261 fax 5452

November 17, 2021

Becky Mitchell and CWCB Board of Directors  
Colorado Water Conservation Board  
1313 Sherman St., Rm. 721  
Denver, CO 80203

Re: WSRF Application for the Conejos River Partnership Project – Phase 1b

Dear Ms. Mitchell,

I am writing on behalf of the Conejos Water Conservancy District (CWCD) to express our support and commitment to participate in the Conejos River Partnership Project (CRPP) Phase 1b. CWCD operates Platoro Reservoir, which provides water to farms and ranches on the Conejos River. We have facilitated projects to improve the condition of gaging and diversion structures throughout the river system, resulting in improved flow management. Additionally, in recent years we have partnered with Colorado Parks and Wildlife and Trout Unlimited to increase winter flows from Platoro Reservoir to benefit downstream fisheries.

The Conejos River Partnership Project Phase 1b was identified in the Conejos River Stream Management Plan (SMP), a planning process in which CWCD has played an active role. This project, which builds upon CRPP Phase 1, is part of a multi-phased restoration effort on Conejos River and brings together a diverse group of stakeholders to pair irrigation infrastructure rehabilitation with river restoration. The project will directly benefit the shareholders of each ditch by improving diversion efficiency and reducing maintenance by replacing aging irrigation infrastructure and automating headgates. The project will enhance water quality by reducing sediment input and enhancing riparian and aquatic habitat.

The project will work in concert with CWCD's past and present work with landowners, water rights holders, and state and federal agencies on the Conejos River. CWCD is excited to work with the Rio Grande Headwaters Restoration Project as a partner on this project and has committed \$15,000 in cash match to support project implementation. In addition, CWCD worked to secure an additional \$20,000 cash contributions from water users and landowners involved in the project. We hope these contributions speak to ours and the broader community's investment in the project and its benefits to the Conejos River.

Sincerely,

A handwritten signature in blue ink, appearing to read "Nathan Coombs".

Nathan Coombs, Manager

Colorado Rio Grande Restoration Foundation  
Rio Grande Headwaters Restoration Project  
623 Fourth Street  
Alamosa, CO 81101  
(719) 589-2230



November 19, 2021

Becky Mitchell and CWCB Board of Directors  
Colorado Water Conservation Board  
1313 Sherman St., Rm. 721  
Denver, CO 80203

**Re: WSRF Application for the Conejos River Partnership Project – Phase 1b**

Dear Ms. Mitchell,

I am writing to confirm the Colorado Rio Grande Restoration Foundation's (CRGRF) financial contribution of \$310,000 to the *Conejos River Partnership Project – Phase 1b*. The CRGRF has been awarded \$130,000 in grant funding through the Colorado Housing and Finance Authority, North American Wetlands Conservation Act grant program, and the Sangre de Cristo National Heritage Area to help fund the project activities. Additionally, \$180,000 in grant funding through the Colorado Department of Agriculture and Trinchera Blanca Foundation is pending approval in December 2021. The requested WSRF grant will provide additional funding needed to implement headgate automation, diversion structure rehabilitation, and riparian and aquatic habitat restoration, which will expanding the efficiency and watershed benefits of the project activities. The CRGRF will track these contributions for grant reporting purposes. By partnering with diverse stakeholders and funders, the CRGRF will ensure the project components are completed as described in our grant application.

As the project lead, the CRGRF will work closely with the project partners, engineers, and contractors to ensure the project components, including diversion infrastructure and riparian and aquatic habitat enhancement, are designed and constructed in an environmentally sustainable way and will contribute to the health and resiliency of the Conejos River. The project will result in improved river health and diversion efficiency, benefiting the human, agricultural, and ecological communities that depend on the Conejos River.

Thank you for your consideration of this project.

Signed,

Emma Reesor  
Executive Director, CRGRF



Last Update: July 20, 2021

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<b>Colorado Water Conservation Board</b>	
<b>Water Supply Reserve Fund</b>	
<b><u>Exhibit A - Statement of Work</u></b>	
<b>Date:</b>	11/2/2021
<b>Water Activity Name:</b>	Conejos River Partnership Project – Phase 1b
<b>Grant Recipient:</b>	Colorado Rio Grande Restoration Foundation
<b>Funding Source:</b>	Water Supply Reserve Fund (Rio Grande Basin and Statewide Accounts)
<b>Water Activity Overview:</b> (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for. (PLEASE DEFINE ALL ACRONYMS).)	
<p>Aging irrigation infrastructure and degraded riparian and aquatic habitat are significant issues affecting Conejos River water users as well as the health and function of this important river system. High maintenance and inefficient headgates and diversion structures are often incapable of diverting a ditch's full decree, particularly during low streamflow conditions. In many cases, this diversion infrastructure adversely affects aquatic and riparian habitats by disrupting natural sediment regimes, increasing bank erosion and floodplain disconnection, and creating barriers to fish passage. This WSRF request will address these issues by rehabilitating diversion infrastructure and restoring surrounding river channels.</p> <p>Project activities will provide multiple benefits for Conejos River water users by improving diversion efficiency and reducing maintenance by replacing aging diversion dams and headgates. The project will allow water managers to administer water rights and meet Rio Grande Compact water delivery requirements more efficiently. Additionally, this project will enhance water quality by reducing sediment inputs, improving riparian condition, and improving aquatic habitat by ensuring diversions are passable by fish. More broadly, the project will help ensure the Conejos River continues to support the farmers, ranchers, riparian and aquatic species, and communities who rely on its proper function.</p>	
<b>Objectives:</b> (List the objectives of the project. (PLEASE DEFINE ACRONYMS).)	
<ol style="list-style-type: none"><li>1. Improve diversion efficiency and reduce maintenance by replacing the aging diversions and headgates identified in the Conejos River SMP;</li><li>2. Improve aquatic habitat through fish barrier removal and bank stabilization structures, which will also provide refugia and habitat complexity for fish species;</li><li>3. Improve riparian condition by stabilizing streambanks and restoring riparian vegetation;</li><li>4. Enhance water quality by reducing erosion and sediment inputs;</li><li>5. Increase sediment transport capacity on the Conejos River;</li><li>6. Improve local recreation by including fish passage in new diversion structures and bolstering fisheries.</li></ol>	





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Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 1 - Planning, Design, and Engineering</u></b>
Description of Task:
Conduct project planning with partners, including Conejos Water Conservancy District (CWCD), Colorado Parks and Wildlife (CPW), water users and ditch companies, and landowners. Complete project design, engineering, and required permitting for the rehabilitation diversion infrastructure and restoration activities in consultation with all project partners.
Method/Procedure:
The CWCD and Colorado Rio Grande Restoration Foundation (CRGRF) will coordinate with project partners to ensure each project design meets the multiple needs of all partners. The CWCD and CRGRF will retain an engineer to complete project design, engineering, and required permitting.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Final project designs, engineering, and required permits.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
The CRGRF will provide CWCB with final designs, permits, construction updates, and progress reports, including before and after photographs. All project tasks will be documented and shared with CWCB in the final report upon project completion.

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 2 - Project Construction</u></b>
Description of Task:
Replace diversion infrastructure with updated, more efficient infrastructure and implement streambank stabilization and riparian and aquatic habitat improvements upstream and downstream of diversion structures. Diversion structures and headgates are the primary infrastructure to be retrofitted. Automation of select headgates and replacement of select ditch measurement structures is also an important part of this task.
Method/Procedure:



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Tasks
The CRGRF will hire contractors to remove current diversion dams and headgates, clear the stream channel adjacent to each structure, and enact pollution control. Contractors will then complete grade preparation, build new diversion dams, and install new headgates. The contractor will implement channel and streambank stabilization measures, which may include, bank shaping, channel reconfiguration, rock or log structure installation, and riparian habitat improvements. Riparian improvements may include, but are not limited to, willow clump plantings and grass and forb seeding. Upland areas disturbed during onsite activities will be reseeded with appropriate species.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Improved water diversion efficiency and riparian and aquatic habitat. Reduced maintenance, increased riparian vegetation, and improved water quality resulting from streambank stabilization measures.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
The CRGRF will provide CWCB with final designs, permits, construction updates, and progress reports, including before and after photographs. All project tasks will be documented and shared with CWCB in the final report upon project completion.

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b><u>Task 3 - Project Monitoring</u></b>
Description of Task:
Monitor project sites for two years using the Rio Grande Headwaters Restoration Project's (RGHRP) Sampling and Analysis Plan (SAP).
Method/Procedure:
Monitoring will consist of multiple assessments that include documenting streambank locations with cross sections, photographic documentation, visual stream assessments, and structure assessment. Pre-construction, post-construction, and long-term surveys will map locations and features of the streambanks, diversion, and headgate over time. Photographic documentation will be used to track conditions of the riparian and shoreline plant communities, bank stabilization, and overall visual condition of the Project area. The United States Department of Agriculture's Stream Visual Assessment Protocol II (SVAP II) will be used to assess the sites. Project engineers will complete an annual check sheet that assesses the condition and function of the headgate and diversion structure. This monitoring strategy is used in other RGHRP projects. The RGHRP will be responsible for monitoring.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Annual Reports which summarize monitoring data and condition of the sites to demonstrate diversion efficiency improvements, relative stability of streambanks, and to evaluate the degree of improvement in the riparian condition.





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<https://cwcb.colorado.gov/>**Tasks**

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

The CRGRF will provide CWCB monitoring reports. All project tasks will be documented and shared with CWCB in the final report upon project completion.

**Tasks**

Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)

**Task 4 - Project Administration**

Description of Task:

Complete project oversight, management, and partner coordination. Complete all necessary contracts, status reports, and internal and external documents. Ensure tasks are completed within the approved costs and timelines. This task also includes construction management to ensure construction activities are conducted according to design specifications.

Method/Procedure:

The Rio Grande Headwaters Restoration Project (RGHRP) will manage and administer the Conejos River Partnership Project – Phase 1b in partnership with the CWCD. The RGHRP will complete contracts with CWCB, project partners, landowners, and contractors; obtaining the necessary environmental permits; managing budgets, and reimbursement requests; and completing semi-annual and final reports. Additionally, the RGHRP and CWCD will perform project construction oversight, ensuring project design and implementation are timely and accurate.

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

All appropriate contracts, external and internal reports, and on-site project activities completed within planned period and anticipated costs.

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

The RGHRP will provide CWCB all contracts, reimbursements requests, and progress reports within the planned timeline. All project tasks will be documented and shared with CWCB in the final report upon project completion.

**Budget and Schedule**

**Exhibit B - Budget and Schedule:** This Statement of Work shall be accompanied by a combined [Budget and Schedule](#) that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in [excel format](#). A separate [excel formatted](#) Budget is required for engineering costs to include rate and unit costs.



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### Reporting Requirements

**Progress Reports:** The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

**Final Report:** At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee'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.

### Payments

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. 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.

The CWCB will pay the last 10% of the entire water activity 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 water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

### Performance Requirements

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 Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per the 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 the 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 Update: 7/20/2021



**COLORADO**

Colorado Water  
Conservation Board

Department of Natural Resources

**Colorado Water Conservation Board**

**Water Supply Reserve Fund**

**EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs**

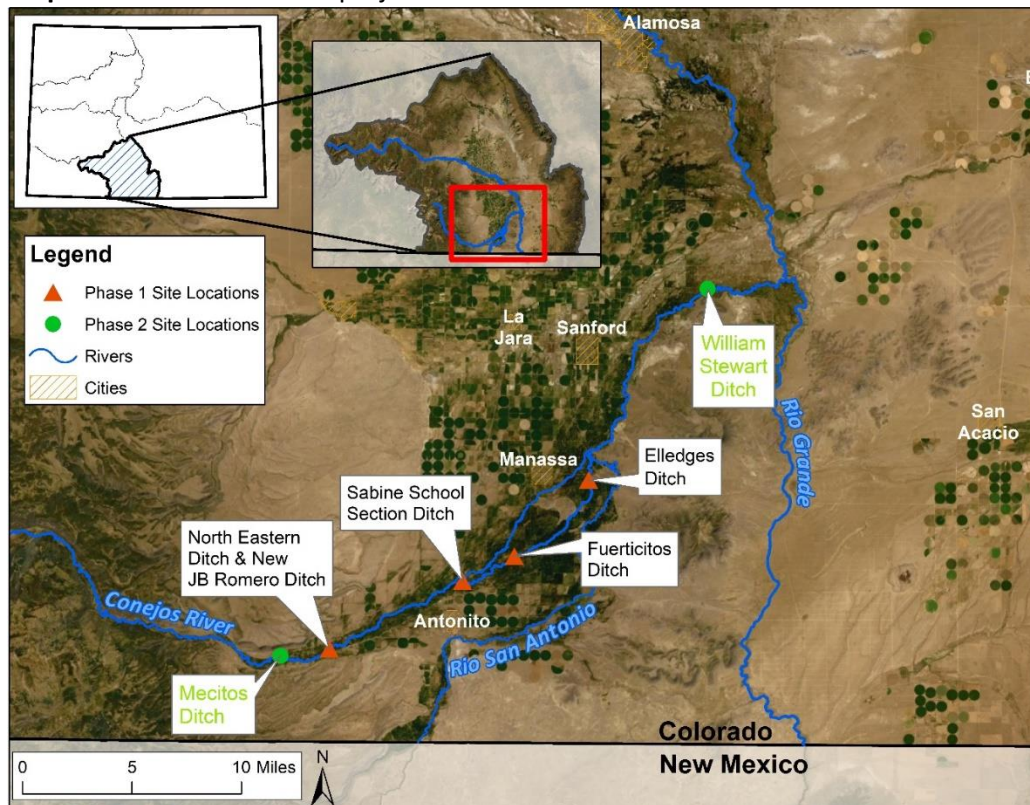
**Date: 11/2/2021**

**Water Activity Name: Conejos River Partnership Project - Phase 1b**

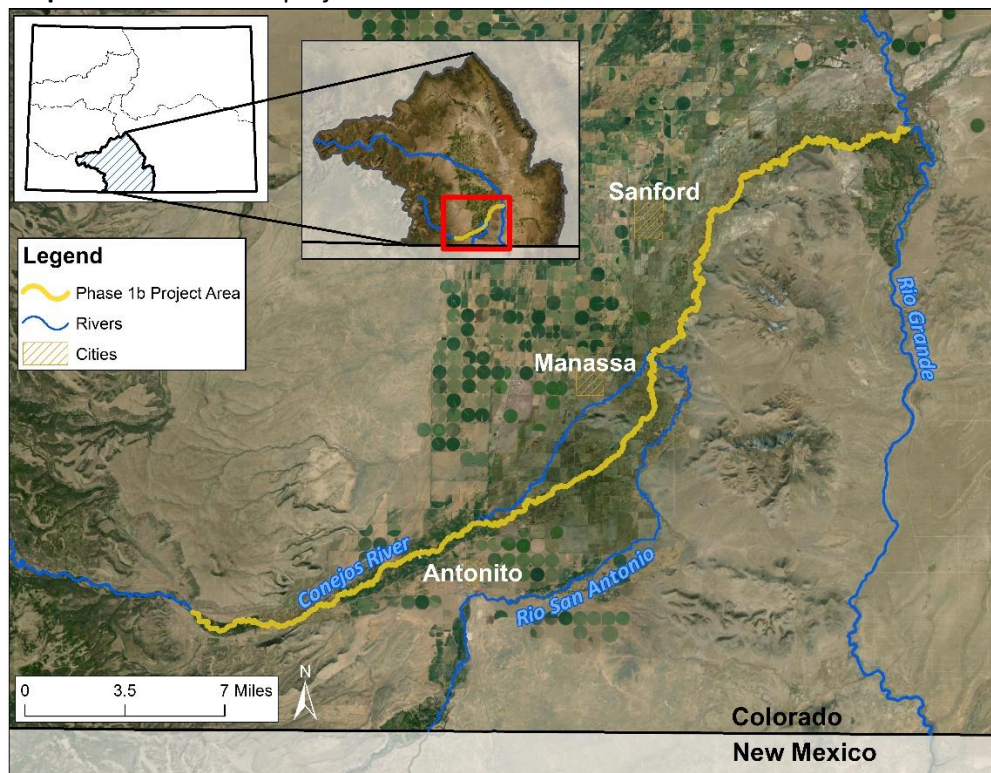
**Grantee Name: Colorado Rio Grande Restoration Foundation**

<u>Task No.</u> <sup>(1)</sup>	<u>Description</u>	<u>Start Date</u> <sup>(2)</sup>	<u>End Date</u>	<u>Matching Funds</u> (cash & in-kind) <sup>(3)</sup>	<u>WSRF Funds</u> (Basin & Statewide combined) <sup>(3)</sup>	<u>Total</u>
1	Project Planning and Engineering	3/1/2022	5/1/2023	\$ 5,000.00	\$ 40,000.00	\$45,000
2	Project Construction	9/1/22	4/1/24	\$ 316,000.00	\$ 258,000.00	\$574,000
3	Project Monitoring	7/1/22	10/1/26	\$ 9,000.00	\$ 11,000.00	\$20,000
4	Project Administration	3/1/22	10/1/26	\$ 10,000.00	\$ 21,000.00	\$31,000
<b>Total</b>				\$340,000	\$330,000	\$670,000

**Map a.** CRPP Phase 1 and 2 project locations.



**Map b.** CRPP Phase 1b project area.



**Water Supply Reserve Fund  
Water Activity Summary Sheet  
March 15-16, 2022  
Agenda Item 25(j)**

**Applicant & Grantee:** San Luis Valley Water Conservancy District

**Water Activity Name:** Shaw Reservoir Rehabilitation Project

**Water Activity Purpose:** Municipal/Industrial, Nonconsumptive (Environmental) - Implementation

**County:** Mineral

**Drainage Basin:** Rio Grande

**Water Source:** Shaw Reservoir

**Amount Requested:** \$40,000 Rio Grande Basin Account  
\$302,600 Statewide Account  
\$342,600 Total Request

**Matching Funds:** **Basin Account Match = \$40,000**

- 13% of statewide request (meets 10% min)

**Applicant & 3rd Party Match = \$342,600 (cash)**

- 113% of the statewide request (meets 40% min)

**Total Match (Basin request & Applicant Match) = \$382,600**

- 126% of the statewide request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$40,000 from the Rio Grande Basin Account, and up to \$302,600 from the Statewide Account to help fund the project: Shaw Reservoir Rehabilitation Project

**Water Activity Summary:** The project includes rehabilitation of the Shaw Reservoir feeder ditch and headgate, upgrading the reservoir outlet works, lining the outlet pipe, and adding automated measurement and controls. The ditch and headgate were damaged in the West Fork Complex Fire. The applicant states this project will protect the ability for this pre-compact reservoir and recreation asset remain full a majority of the time and operate safely with greater flexibility. The applicant has partnered with the Bureau of Land Management, Mineral County, and Trout Unlimited.

If approved, the WSRF funds will be used in Task 3 to upgrade the reservoir outlet works and line the outlet pipe. The project would help preserve 680 acre feet of existing storage and improve 500 feet of piping.

**Discussion:** The proposal aligns the Rio Grande Basin Implementation Plan goals of maintaining healthy watersheds, keep the agricultural industry vibrant and resilient and comply with state statutes and compact entitlements while keeping water administration flexible, adaptive and creative.



**Issues/Additional Needs:** No other issues or additional needs have been identified.

**Eligibility Requirements:** The application meets requirements of all eligibility components.

**Evaluation Criteria:** Staff has determined this activity satisfies the Evaluation Criteria.

<b>Funding Sources/Match</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Status</b>
Mineral County	\$33,000	\$0	\$33,000	Secured
San Luis Valley Water Conservancy District	\$309,600	\$0	\$309,600	Secured
<b>Sub-Total Matching Funds</b>	\$342,600	\$0	\$342,600	
WSRF Rio Grande Basin Account	\$40,000	\$0	\$40,000	Secured
WSRF Statewide Account	\$302,600	\$0	\$302,600	
<b>Sub Total</b>	\$342,600	\$0	\$342,600	
<b>Total Project Costs</b>	<b>\$685,200</b>	<b>\$0</b>	<b>\$685,200</b>	

**CWCB Project Manager:** Cole Bedford





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<b>Colorado Water Conservation Board</b>
<b>Water Supply Reserve Fund Grant Application</b>

Instructions
<p>All WSRF grant applications shall conform to the current <a href="#">2020 WSRF Criteria and Guidelines</a>.</p> <p>To receive funding from the WSRF, a proposed water activity must be recommended for approval by a Roundtable(s) <b>AND</b> the approved by the Colorado Water Conservation Board (CWCB). The process for roundtable consideration and recommendation is outlined in the 2020 WSRF Criteria and Guidelines. The CWCB meets bimonthly.</p> <p>If you have questions, please contact the WSRF Grant Program Manager (for all Roundtables) or your Roundtable Liaison:</p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="text-align: center;"> <p>Ben Wade  <a href="mailto:ben.wade@state.co.us">ben.wade@state.co.us</a>  303-866-3441 x3238 (office)</p> </div> <div style="text-align: center;"> <p>Sam Stein  <a href="mailto:Sam.stein@state.co.us">Sam.stein@state.co.us</a>  303-866-3441 (office)</p> </div> </div>

WSRF Submittal Checklist (Required)
<p>YES <input type="checkbox"/> NO <input type="checkbox"/> This request was recommended for CWCB approval by the sponsoring roundtable.</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> I have read and understand the <a href="#">2020 WSRF Criteria and Guidelines</a>.</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Grantee will be able to contract with CWCB using the <a href="#">Standard Contract</a>.<sup>1</sup></p> <p style="text-align: center; margin-top: 20px;"><b>Application Documents included:</b></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Exhibit A: Statement of Work<sup>2</sup> (<i>Word – see Template</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Exhibit B: Budget &amp; Schedule<sup>2</sup> (<i>Excel Spreadsheet – see Template</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Letters of Matching and/or Pending 3<sup>rd</sup> Party Commitments<sup>2</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Map<sup>2</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Photos/Drawings/Reports</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Letters of Support</p> <p style="text-align: center; margin-top: 20px;"><b>Contracting Documents<sup>3</sup></b></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Detailed/Itemized Budget<sup>3</sup> (<i>Excel Spreadsheet – see Template</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Certificate of Insurance<sup>4</sup> (<i>General, Auto, &amp; Workers' Comp.</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Certificate of Good Standing<sup>(4)</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> W-9 Form<sup>4</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Independent Contractor Form<sup>4</sup> (<i>If applicant is individual, not company/organization</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Electronic Funds Transfer (ETF) Form<sup>4</sup></p>

<sup>1</sup>Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

<sup>2</sup> Required with application if applicable.

<sup>3</sup> Additional documentation providing a Detailed/Itemized Budget maybe required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

<sup>4</sup> Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.



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Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	October 1	Basin Account
March	December 1	Basin/Statewide Account/Water Plan Grant Match <sup>1</sup>
May	February 1	Basin Account
July	April 1	Basin Account
September	June 1	Basin/Statewide Account
November	August 1	Basin Account

<sup>1</sup> If either the basin or statewide match includes matching funds from a pending Water Plant Grant, both must be submitted by December 1st deadline for March Board meeting review.

Water Activity Summary		
Name of Applicant	San Luis Valley Water Conservancy District	
Name of Water Activity	Shaw Reservoir Rehabilitation Project	
Approving Roundtable(s)	Basin Account Request(s) <sup>1</sup>	
Rio Grande Basin Roundtable	\$ 40,000.00	
Basin Account Request Subtotal	\$ 40,000.00	
Basin Account Request Subtotal Approved by Roundtable	\$ 40,000.00	
Statewide Account Request <sup>(1)</sup>	\$ 302,600.00	
Total WSRF Funds Requested (Basin & Statewide)	\$ 342,600.00	
Total Project Costs	\$ 685,200.00	

<sup>1</sup> Please indicate the amount recommended for approval by the Roundtable(s)

Grantee and Applicant Information	
Name of Grantee(s)	San Luis Valley Water Conservancy District
Mailing Address	623 Fourth Street, Alamosa, CO 81101
FEIN	84-6027307



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Grantee and Applicant Information	
<b>Grantee's Organization Contact<sup>1</sup></b>	Matt Hildner
Position/Title	Administrative Assistant
Email	<a href="mailto:Matt@slvwcd.org">Matt@slvwcd.org</a>
Phone	(719) 589-2230
<b>Grant Management Contact<sup>2</sup></b>	Matt Hildner
Position/Title	Administrative Assistant
Email	<a href="mailto:Matt@slvwcd.org">Matt@slvwcd.org</a>
Phone	(719) 589-2230
<b>Name of Applicant (if different than grantee)</b>	
Mailing Address	
Position/Title	
Email	
Phone	

<sup>1</sup> Person with signatory authority

<sup>2</sup> Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee
Provide a brief description of the grantee's organization (100 words or less).
<p>The San Luis Valley Water Conservancy District (SLVWCD) was formed in 1949 to operate a reservoir at Wagon Wheel Gap, which was never built. The SLVWCD now operates an augmentation program within five San Luis Valley counties. Through the program, the SLVWCD replaces depletions to the Rio Grande and Closed Basin caused by domestic, commercial, municipal, and agricultural wells. This program ensures senior water rights are protected while allowing for economic growth in the San Luis Valley. The SLVWCD also works with partners to address issues such as groundwater sustainability, compliance with the Rio Grande Compact, water supply protection, and river health.</p>

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.
X	<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, homeowner's associations, corporations



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Type of Eligible Entity (check one)	
<input type="checkbox"/>	<b>Private Individuals, Partnerships, and Sole Proprietors:</b> are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
<input type="checkbox"/>	<b>Non-governmental organizations:</b> broadly, any organization that is not part of the government
<input type="checkbox"/>	<b>Covered Entity:</b> as defined in <a href="#">Section 37-60-126 Colorado Revised Statutes</a>

Type of Water Activity (check one)	
<input type="checkbox"/>	Study
<input checked="" type="checkbox"/>	Implementation

Category of Water Activity (check all that apply)		
<input checked="" type="checkbox"/>	Nonconsumptive (Environmental)	
<input checked="" type="checkbox"/>	Nonconsumptive (Recreational)	
<input type="checkbox"/>	Agricultural	
<input checked="" type="checkbox"/>	Municipal/Industrial	
<input type="checkbox"/>	Needs Assessment	
<input type="checkbox"/>	Education & Outreach	
<input type="checkbox"/>	Other	Explain:

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in <b>decimal degrees</b> . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Countries	Mineral County
Latitude	37°33'34.3"N
Longitude	106°47'51.8"W

Water Activity Overview
Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. 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, area of habitat improvements. 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, and Schedule.



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Water Activity Overview
<p>The project includes rehabilitation of the Shaw Reservoir feeder ditch and headgate, which were damaged in the West Fork Complex Fire, upgrading the reservoir outlet works, lining the outlet pipe, and adding automated measurement and controls. This will protect the ability for this pre-compact reservoir and extremely popular recreation asset remain full a majority of the time and operate safely with greater flexibility. The project is a partnership with SLVWCD, Bureau of Land Management, Mineral County, and Trout Unlimited. The WSRF funds will be used in Task 3 to upgrade the reservoir outlet works and line the outlet pipe.</p>

Measurable Results		
To catalog measurable results achieved with WSRF funds please provide any of the following values.		
	New Storage Created (acre-feet)	
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive	
680.1 AF	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)	
500 feet	Length of Pipe/Canal Built or Improved (linear feet)	
	Other	Explain:

Water Activity Justification
<p>Provide a description of how this water activity supports the goals of <a href="#">Colorado's Water Plan</a>, the most recent <a href="#">Statewide Water Supply Initiative</a>, and the respective <a href="#">roundtable Basin Implementation Plan and Education Action Plan</a> <sup>(1)</sup>. 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).</p> <p>For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in <a href="#">2020 WSRF Criteria and Guidelines</a>).</p>



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### Water Activity Justification

Chapter 10 of the **Colorado Water Plan** outlines measurable objectives and implementation actions. The following actions are addressed by this project:

**Supply-Demand Gap:** While growth in the Rio Grande Basin represents a small portion of Colorado’s municipal and industrial gap, the San Luis Valley Water Conservancy District provides the critical service of augmenting new and existing non-exempt municipal, domestic, commercial, and small capacity agricultural wells. This ensures the basin’s water users are not injured by well pumping. Therefore, obtaining and rehabilitating Shaw Reservoir is a critical step to secure the future of the District’s augmentation program and meeting the Basin’s supply-demand gap.

**Agriculture:** In addition to having the ability to augment agriculture wells, the District’s augmentation program ensures injury from well pumping is mitigated. This protects senior water rights holders and the Basin’s critical agriculture economy.

**Storage:** The Water Plan highlights the importance of maintaining capacity of existing reservoirs, involving more partners with diverse needs, and utilizing storage to meet growing needs in the face of climate change. The Shaw Reservoir Rehabilitation Project addresses each of these themes as it involves the rehabilitation of a pre-compact reservoir so a diverse set of partners can fully realize the benefits of this storage facility and provide augmentation, recreation, and environmental benefits to their stakeholders and the public users.

**Watershed Health Environment and Recreation:** By protecting the long-term viability of the Shaw Reservoir Infrastructure, the project partners will ensure the ability for the reservoir to be managed as a recreation fishery. The accessibility of this site and outstanding vistas and fish habitat make it a very desirable spot for fishing, boating, and wildlife viewing. Further, constructing the diversion and headgate structure as a barrier to downstream non-native fish will facilitate the re-introduction of native Rio Grande Cutthroat Trout to Kitty Creek.

The **Rio Grande Basin Roundtable’s Basin Implementation Plan** highlights the necessity for projects to include multiple benefits and utilize water management that makes water work harder. The project addresses the following Basin goals:

**Healthy Watersheds:** The Project directly addresses this goal by providing an opportunity for Rio Grande Cutthroat reintroduction above the headgate as well as providing a stable, healthy fishery at Shaw Reservoir. Indirectly, the reservoir will provide long-term augmentation security for both the District and the Bureau of Land Management. Both entities are working proactively to time augmentation releases to also benefit in-stream habitat. Further, the BLM’s augmentation water allows well pumping to maintain wetlands at Blanca Wetlands.

**Vibrant Economies:** The Project directly addresses this goal by providing rich recreation opportunities at Shaw Reservoir and ensuring the longevity of this resource through proactive infrastructure improvements. Indirectly, the communities of the San Luis Valley benefit from the District’s augmentation program, which allows for new wells and economic growth while mitigating injury to existing water rights. The Valley also enjoys a robust recreation economy that is supported by the fish and wildlife habitat protection supported by the efforts of both the District and BLM.

**Water Administration:** Maintaining and rehabilitating pre-compact reservoirs is a tool to allow for adaptive, flexible, and creative water management.

<sup>1</sup> Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.

### Matching Requirements: Basin Account Requests

**Basin (only) Account** grant requests require a 25% match (cash and/or in-kind) from the Applicant or 3<sup>rd</sup> party and shall be accompanied by a **letter of commitment** as described in the [2020 WSRF Criteria and Guidelines](#) (submitted on the contributing entity’s letterhead). Attach additional sheet if necessary.

Contributing Entity	Amount and Form of Match (note cash or in-kind)





Last Update: September 18, 2020

Matching Requirements: Basin Account Requests	
Total Match	\$
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.	

Matching Requirements: Statewide Account Requests	
<p><b>Statewide Account</b> grant requests require a 50% match as described in the <a href="#">2020 WSRF Criteria and Guidelines</a>. At least of 10% of the required Statewide Account Grant request match shall be cash from Basin Account funds whether that is from one or multiple basins; and the remaining 40% of the required match may be provided from any source, including other grants, cash from the Basin Account, or any combination of cash, in-kind services, or in-kind materials.and shall be accompanied by a <b>letter of commitment</b>. Attach additional sheet if necessary.</p>	
Contributing Entity	Amount and Form of Match (note cash or in-kind):
SLVWCD	\$ 309,600.00 (cash)
Mineral County	\$ 33,000.00. (cash)
Total Match	\$ 342,600.00 (cash)
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	

Related Studies
Please provide a list of any related studies, including if the water activity is complimentary to or assists in the implementation of other CWCB programs.



Last Update: September 18, 2020

#### Related Studies

As detailed in the Water Activity Justification, the project is complimentary to the implementation of the Colorado Water Plan and the Rio Grande Basin Implementation Plan.

#### Previous CWCB Grants

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

SLVWCD, Rio Grande Basin Soil Moisture Pilot Project, Colorado Water Plan Grant, May 2018, Purchase Order 201900000003.

SLVWCD, Rio Grande Headwaters Restoration Project, 1999, Contract No. C150042

SLVWCD, Ground Water Recharge and Management Project, 1991, Contract No. C153626

#### Tax Payer Bill of Rights

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

The SLVWCD will receive the grant funds through its Augmentation Enterprise. Therefore, TABOR restrictions will not apply.



November 30, 2021

Becky Mitchell and CWCB Board of Directors  
Colorado Water Conservation Board  
1313 Sherman St., Rm. 721  
Denver, CO 80203

Re: SLVWCD WSRF Application for the Shaw Reservoir Rehabilitation Project

Dear Ms. Mitchell,

On behalf of the Rio Grande Basin Roundtable, please accept this letter of support for the Shaw Reservoir Rehabilitation Project, sponsored by the San Luis Valley Water Conservancy District. The Roundtable voted to support this application during the November 9, 2021 Roundtable meeting.

The Roundtable recognizes that the Project addresses multiple water administration, environmental, and recreation needs facing the Rio Grande and the entire Rio Grande Basin. The project will result in rehabilitation of the Shaw Reservoir diversion and ditch, as well as proactive maintenance and installation of automated measurement of the reservoir. Project activities will address concerns from DWR regarding outlet condition, improve operations, allow the SLVWCD and BLM to manage the reservoir for greater public recreation opportunity, and enhance aquatic habitat. Further, the project will assist the partners in water administration and support efforts to retime reservoir releases to improve in-stream habitat while utilizing water for its decreed use, such as augmentation.

These project activities meet the following Rio Grande Basin Implementation Plan Goals:

- Healthy watersheds that provide critical ecosystem services, are resilient to disturbances, and benefit from ongoing efforts to protect water sources, improve water quality, enhance aquatic, riparian, wetland, and upland habitat, and maintain connected ecosystems.
- Vibrant and resilient agriculture, recreation, municipal, and industrial economies that support thriving communities.
- Water administration that is adaptive, flexible, and creative while complying with state statutes and the doctrine of prior appropriation, and fully utilizing Colorado's compact entitlements under the Rio Grande and Costilla Creek compacts.

In addition to meeting many of the BIP goals, the Project aligns with the Colorado Water Plan's Goals and Criteria by balancing the needs of the environment and recreation. Thank you for your consideration of this application.

Sincerely,

Nathan Coombs  
Chair, Rio Grande Basin Roundtable

623 Fourth Street  
Alamosa, CO 81101  
(719) 589-2230  
[Heather@slvwcd.org](mailto:Heather@slvwcd.org)



December 1, 2021

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

Re: Shaw Reservoir Rehabilitation Project

Dear CWCB Board of Directors,

The San Luis Valley Water Conservancy District (SLVWCD) is pleased to submit an application to the Water Supply Reserve Fund grant program for the Shaw Reservoir Rehabilitation Project. The SLVWCD operates an augmentation program within five counties in the San Luis Valley. Through our operations, we replace injurious depletions to the Rio Grande caused by pumping of domestic, commercial, and municipal wells. Additionally, the SLVWCD is a leader in the local and state water communities, working with partners to address timely issues such as groundwater sustainability, compliance with the Rio Grande Compact, and water supply protection.

The project includes rehabilitation of the Shaw Reservoir feeder ditch and headgate, which were damaged in the West Fork Complex Fire, upgrading the reservoir outlet works, lining the outlet pipe, and adding automated measurement and controls. This will protect the ability for this pre-compact reservoir and extremely popular recreation asset remain full a majority of the time and operate safely with greater flexibility.

The SLVWCD has committed \$309,600 of cash match to the project. I appreciate CWCB's continued support of water projects in the Rio Grande Basin. Thank you for the opportunity to apply for funding.

Sincerely,

A handwritten signature in blue ink that reads "Heather R. Dutton".

Heather R. Dutton



Last Update: March 17, 2020

<https://cwcb.colorado.gov/>

<b>Colorado Water Conservation Board</b>	
<b>Water Supply Reserve Fund</b>	
<b><u>Exhibit A - Statement of Work</u></b>	
<b>Date:</b>	November 1, 2021
<b>Water Activity Name:</b>	Shaw Reservoir Rehabilitation Project
<b>Grant Recipient:</b>	San Luis Valley Water Conservancy District
<b>Funding Source:</b>	WSRF: Rio Grande Basin and Statewide Accounts
<b>Water Activity Overview:</b> (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for. (PLEASE DEFINE ALL ACRONYMS).)	
<p>The project includes rehabilitation of the Shaw Reservoir feeder ditch and headgate, which were damaged in the West Fork Complex Fire, upgrading the reservoir outlet works, lining the outlet pipe, and adding automated measurement and controls. This will protect the ability for this pre-compact reservoir and extremely popular recreation asset to fill and operate safely, with greater flexibility. The project is a partnership with SLVWCD, Bureau of Land Management, Mineral County, and Trout Unlimited. The WSRF funds will be used to upgrade the reservoir outlet works and line the outlet pipe.</p>	
<b>Objectives:</b> (List the objectives of the project. (PLEASE DEFINE ACRONYMS).)	
<p>Rehabilitate the outlet works of the Shaw Reservoir to allow for sustained recreation use, fishery enhancement, augmentation supply security, and flexible management.</p> <p>Replace the headgate and feeder ditch for Shaw Reservoir, an off-channel reservoir, with a fish barrier to allow for improved water diversion and upstream native Rio Grande Cutthroat Trout reintroduction.</p> <p>Add automated measurement and reservoir controls to allow for more precise monitoring and water management.</p>	

<b>Tasks</b>
Provide a detailed description of each task using the following format:
<b><u>Task 1 – Final Engineering</u></b>
Description of Task:



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Tasks
The Project Engineer has prepared cost estimates and draft engineering designs. Through Task 1, the Project Engineer will finalize designs and quantities.
Method/Procedure:
The Project Engineer will prepare final designs and project quantities to be used for project implementation.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Final project designs and quantities, to be used in construction.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
Final project designs and quantities, to be used in construction, and engineering invoices.

Tasks
Provide a detailed description of each task using the following format:
<b><u>Task 2 – Headgate and Feeder Ditch Repair</u></b>
Description of Task:
<p>The original headgate was burned in West Fork Complex Fire and the current headgate was rebuilt by hand with wood and sandbags. The existing headgate will be replaced with a more robust, stable structure, which will act as a barrier to downstream non-native trout. This will allow for improved diversion efficiency as well as facilitate the reintroduction of native Rio Grande Cutthroat trout upstream of the headgate.</p> <p>The feeder ditch was burned over during West Fork Complex Fire. The ditch crosses steep slopes, two of which are eroding. The repairs will include installing and securing a pipeline, to avoid the ditch washing off the hillside.</p>
Method/Procedure:
A contractor will remove the current hand-built sandbag and wooden headgate and install a new engineered headgate with a measurement flume. The headgate will be built as a barrier to upstream movement of downstream fish. The contractor will install and secure a pipeline (approximately 500 feet) to convey water from Kitty Creek, across the eroding slopes, to the stable portion of the ditch.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
A new headgate, measurement flume, and piped portion of the feeder ditch.





Last Update: March 17, 2020

<https://cwcb.colorado.gov/>

Tasks
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
Photos of and invoices tracking the removal of the existing headgate structure and the installation of a new headgate, measurement flume, and pipeline.

Tasks
Provide a detailed description of each task using the following format:
<b><u>Task 3 – Outlet Works Repairs</u></b>
Description of Task:
The outlet pipe is the original pipe and is in stable condition, but at risk for rust and deterioration. Further, the outlet does not have positive drainage and water pools below the outlet pipe. The measurement flume below the outlet is sunken and needs to be replaced. Finally, the gate has become jammed with woody debris and wouldn't close tightly on occasion in recent years. The repairs will address these issues.
Method/Procedure:
A contractor will complete the following tasks: Line the outlet tunnel with cure in place liner, which will protect structural integrity; Install a new staff gage and flume, shape and rip-rap downstream ditch; Install a new outlet gate, valve stem, and trash rack on upstream side of outlet tunnel.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
A lined outlet pipe, new measurement flume and cleaned outlet ditch, and new gate with trash rack.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
Photos of and invoices tracking installation of the outlet pipe liner, new measurement flume and cleaned outlet ditch, and new gate with trash rack.

Tasks
Provide a detailed description of each task using the following format:
<b><u>Task 4 - Automation</u></b>
Description of Task:
Shaw Reservoir is currently only measured by driving or snowmobiling to the site and reading the staff gage. Releases only occur when the gate is opened or closed by hand. The project will include adding automated measurement and operations controls.



Last Update: March 17, 2020

<https://cwcb.colorado.gov/>

Tasks
Method/Procedure:
Install automated controls that allow for remote water measurement and remote reservoir operations.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Automated controls in place.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
Pictures and invoices tracking the installation of automated reservoir measurement and operations controls.

Budget and Schedule
<b>Exhibit B - Budget and Schedule:</b> This Statement of Work shall be accompanied by a combined <a href="#">Budget and Schedule</a> that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in <a href="#">excel format</a> . A separate <a href="#">excel formatted</a> Budget is required for engineering costs to include rate and unit costs.

Reporting Requirements
<b>Progress Reports:</b> The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.
<b>Final Report:</b> At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee's letterhead that: <ul style="list-style-type: none"><li>• Summarizes the project and how the project was completed.</li><li>• Describes any obstacles encountered, and how these obstacles were overcome.</li><li>• Confirms that all matching commitments have been fulfilled.</li><li>• Includes photographs, summaries of meetings and engineering reports/designs.</li></ul>

Payments
Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. 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.
The CWCB will pay the last 10% of the entire water activity 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 water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

Performance Requirements
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 Grant Guidelines, the CWCB will pay out



Last Update: March 17, 2020

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### Performance Requirements

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

(b) Accountability: Per the 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 the 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 Update: 7/20/2021



**COLORADO**

Colorado Water  
Conservation Board

Department of Natural Resources

**Colorado Water Conservation Board**

**Water Supply Reserve Fund**

**EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs**

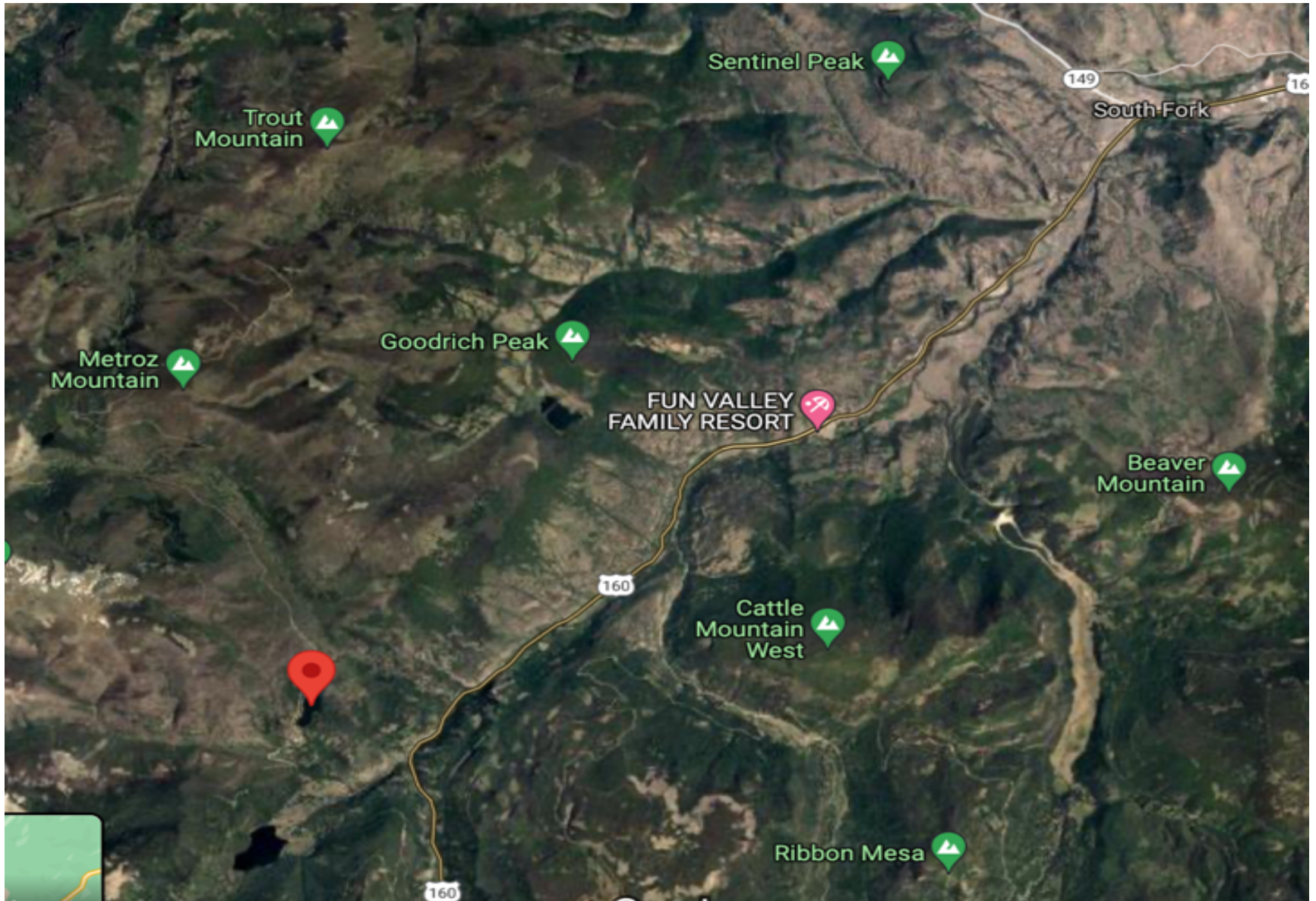
**Date: December 1, 2021**

**Water Activity Name: Shaw Reservoir Rehabilitation Project**

**Grantee Name: San Luis Valley Water Conservancy District**

<u>Task No.</u> <sup>(1)</sup>	<u>Description</u>	<u>Start Date</u> <sup>(2)</sup>	<u>End Date</u>	<u>Matching Funds</u> (cash & in-kind) <sup>(3)</sup>	<u>WSRF Funds</u> (Basin & Statewide combined) <sup>(3)</sup>	<u>Total</u>
1	Final Engineering	5/1/22	12/31/22	\$ 72,000.00	\$ -	\$72,000
2	Headgate and Feeder Ditch Repair	7/1/22	12/1/23	\$ 140,400.00	\$ -	\$140,400
3	Outlet Works Repairs	7/1/22	12/1/23	\$ 70,200.00	\$ 342,600.00	\$412,800
4	Automation	4/1/23	12/1/23	\$ 60,000.00	\$ -	\$60,000
<b>Total</b>				\$342,600	\$342,600	\$685,200

# Shaw Reservoir Location



Shaw Reservoir is located on USFS Road 430, 4 miles from US Hwy 160 in Mineral County.

Map Source: google

**Water Supply Reserve Fund  
Water Activity Summary Sheet  
March 15-16, 2022  
Agenda Item 25(k)**

**Applicant & Grantee:** Pagosa Area Water and Sanitation District  
**Water Activity Name:** Snowball Water Treatment Plant Replacement  
**Water Activity Purpose:** Municipal/Industrial - Implementation  
**County:** Archuleta  
**Drainage Basin:** San Juan River Basin  
**Water Source:** San Juan River  
**Amount Requested:** \$18,680 Southwest Basin Account  
\$168,120 Statewide Account  
\$186,800 Total Request

**Matching Funds:** **Basin Account Match = \$18,680**  
• 11% of statewide request (meets 10% min)  
**Applicant & 3rd Party Match = \$1,956,200 (cash)**  
• 1,163% of the statewide request (meets 40% min)  
**Total Match (Basin request & Applicant Match) = \$1,974,880**  
• 1,174% of the statewide request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$18,680 from the Southwest Basin Account and \$168,120 from the Statewide Account to help fund the project: Snowball Water Treatment Plant Replacement

**Water Activity Summary:** The applicant was recently inspected under the Colorado Department of Public Health and Environment's (CDPHE) Disinfection Outreach and Verification Effort (DOVE). While CDPHE has not yet issued a formal DOVE determination letter, the existing Snowball Water Treatment Plant was identified as non-compliant with Colorado's Surface Water Treatment Rule (SWTR) during this effort. Per Regulation 11, Section 11.8(3)(b)(i)(A), the water provider must maintain disinfection treatment sufficient to ensure that the total treatment processes, including filtration and disinfection, achieve 99.9% treatment of Giardia lamblia cysts and 99.99% treatment of viruses, as determined by the department.

The existing design utilizing Microfloc Trident units offers limited removal credit for Giardia lamblia under this calculation and hinders the applicant's ability to comply with current and projected disinfection requirements. A Sanitary Survey, was conducted in June 2021 by CDPHE in which the department inspector concurred with the DOVE findings and informed PAWSD the DOVE team will be



providing additional information regarding the department's evaluation process under separate letter.

PAWSD is proactively seeking to address the limitations of the existing Snowball Water Treatment Plant in meeting the current and projected SWTR requirements, as well as, expand the treatment capacity to best utilize the 5 cfs pre-Compact water right by proposing a multiphase project to design and construct a new Snowball WTP. If approved, WSRF funds would be used to fund the final phase (91-100%) of engineering and design of the Water Treatment Plant.

**Discussion:** According to the Southwest Basin Roundtable approval letter, the proposed project helps meet the Southwest Basin Implementation Plan Measurable Goals or Outcomes by providing safe drinking water to Southwest Colorado's citizens and visitors.

**Issues/Additional Needs:** No issues or additional needs have been identified.

**Eligibility Requirements:** The application meets requirements of all eligibility components.

**Evaluation Criteria:** Staff has determined this activity satisfies the Evaluation Criteria.

<b>Funding Sources/Match</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Status</b>
Pagosa Area Water & Sanitation District	\$1,956,200	\$0	\$1,956,200	Secured
<b>Sub Total Matching Funds</b>	\$1,956,200	\$0	\$1,956,200	
WSRF Southwest Basin Account	\$18,680	\$0	\$18,680	Secured
WSRF Statewide Account	\$168,120	\$0	\$168,120	
<b>Sub Total WSRF Funds</b>	\$186,800	\$0	\$186,800	
<b>Total Project Costs</b>	<b>\$2,143,000</b>	<b>\$0</b>	<b>\$2,143,000</b>	

**CWCB Project Manager:** Matt Stearns



Last Update: July 20, 2021

<b>Colorado Water Conservation Board</b>
<b>Water Supply Reserve Fund Grant Application</b>

Instructions
<p>All WSRF grant applications shall conform to the current <a href="#">2020 WSRF Criteria and Guidelines</a>.</p> <p>To receive funding from the WSRF, a proposed water activity must be recommended for approval by a Roundtable(s) <b>AND</b> the approved by the Colorado Water Conservation Board (CWCB). The process for roundtable consideration and recommendation is outlined in the 2020 WSRF Criteria and Guidelines. The CWCB meets bimonthly.</p> <p>If you have questions, please contact the WSRF Grant Program Manager (for all Roundtables) or your Roundtable Liaison:</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>Ben Wade  <a href="mailto:ben.wade@state.co.us">ben.wade@state.co.us</a>  303-866-3441 x3238 (office)</p> </div> <div style="text-align: center;"> <p>Sam Stein  <a href="mailto:Sam.stein@state.co.us">Sam.stein@state.co.us</a>  303-866-3441 (office)</p> </div> </div>

WSRF Submittal Checklist (Required)
<p>YES <input type="checkbox"/> NO <input type="checkbox"/> This request was recommended for CWCB approval by the sponsoring roundtable.</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> I have read and understand the <a href="#">2020 WSRF Criteria and Guidelines</a>.</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Grantee will be able to contract with CWCB using the <a href="#">Standard Contract</a>.<sup>1</sup></p> <p style="text-align: center; margin-top: 20px;"><b>Application Documents included:</b></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Exhibit A: Statement of Work<sup>2</sup> (<i>Word – see Template</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Exhibit B: Budget (including Detailed Budget) &amp; Schedule<sup>2</sup> (<i>Excel Spreadsheet – see Template</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Letters of Matching and/or Pending 3<sup>rd</sup> Party Commitments<sup>2</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Map<sup>2</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Photos/Drawings/Reports</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Letters of Support</p> <p style="text-align: center; margin-top: 20px;"><b>Contracting Documents<sup>3</sup></b></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Detailed/Itemized Budget<sup>3</sup> (<i>Excel Spreadsheet – see Template</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Certificate of Insurance<sup>4</sup> (<i>General, Auto, &amp; Workers' Comp.</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Certificate of Good Standing<sup>(4)</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> W-9 Form<sup>4</sup></p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Independent Contractor Form<sup>4</sup> (<i>If applicant is individual, not company/organization</i>)</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/> Electronic Funds Transfer (ETF) Form<sup>4</sup></p>

<sup>1</sup>Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

<sup>2</sup> Required with application if applicable.

<sup>3</sup> Additional documentation providing a Detailed/Itemized Budget maybe required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

<sup>4</sup> Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.



Last Update: July 20, 2021

Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	October 1	Basin Account
March	December 1	Basin/Statewide Account/Water Plan Grant Match <sup>1</sup>
May	February 1	Basin Account
July	April 1	Basin Account
September	June 1	Basin/Statewide Account
November	August 1	Basin Account

<sup>1</sup> If either the basin or statewide match includes matching funds from a pending Water Plant Grant, both must be submitted by December 1st deadline for March Board meeting review.

Water Activity Summary	
Name of Applicant	Pagosa Area Water and Sanitation District
Name of Water Activity	Snowball Water Treatment Plant Replacement
Approving Roundtable(s)	Basin Account Request(s) <sup>1</sup>
Southwest Basin Roundtable	\$18,680
Basin Account Request Subtotal	\$18,680
Basin Account Request Subtotal Approved by Roundtable	\$18,680
Statewide Account Request <sup>(1)</sup>	\$168,120
Total WSRF Funds Requested (Basin & Statewide)	\$186,800
Total Project Costs	\$2,143,000

<sup>1</sup> Please indicate the amount recommended for approval by the Roundtable(s)



Last Update: July 20, 2021

Grantee and Applicant Information	
Name of Grantee(s)	Pagosa Area Water and Sanitation District
Mailing Address	100 Lyn Ave Pagosa Springs, CO 81147
FEIN	84-6094944
<b>Grantee's Organization Contact<sup>1</sup></b>	Jim Smith
Position/Title	PAWSD President/Chairman
Email	jim.smith@pawsd.org
Phone	970-590-5747
<b>Grant Management Contact<sup>2</sup></b>	Justin Ramsey
Position/Title	District Engineer/General Manager
Email	justin@pawsd.org
Phone	970-731-7641
<b>Name of Applicant (if different than grantee)</b>	
Mailing Address	
Position/Title	
Email	
Phone	

<sup>1</sup> Person with signatory authority

<sup>2</sup> Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee
Provide a brief description of the grantee's organization (100 words or less).
<p>The Pagosa Area Water and Sanitation District (PAWSD or District) is a quasi-municipal corporation and political subdivision of the State of Colorado and is organized and operated pursuant to Title 32, Colorado Revised Statutes. PAWSD provides water supply and distribution and wastewater collection and treatment services within its jurisdictional boundaries.</p> <p>The District encompasses approximately 70 square miles within Archuleta County in southwestern Colorado. It includes within its boundaries the Town of Pagosa Springs and unincorporated portions of Archuleta County, including the Pagosa Lakes resort community. PAWSD currently operates three water treatment plants, one wastewater treatment plant, over 300 miles of distribution lines, and approximately 100 miles of collection lines.</p>

Type of Eligible Entity (check one)
<input type="checkbox"/> <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.



Last Update: July 20, 2021

Type of Eligible Entity (check one)	
X	<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> are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
	<b>Non-governmental organizations:</b> broadly, any organization that is not part of the government
	<b>Covered Entity:</b> as defined in <a href="#">Section 37-60-126 Colorado Revised Statutes</a>

Type of Water Activity (check one)	
	Study
X	Implementation

Category of Water Activity (check all that apply)		
	Nonconsumptive (Environmental)	
	Nonconsumptive (Recreational)	
	Agricultural	
X	Municipal/Industrial	
	Needs Assessment	
	Education & Outreach	
	Other	Explain:

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in <b>decimal degrees</b> . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Countries	Archuleta
Latitude	37.3076056
Longitude	-106.989075

Water Activity Overview
<p>Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. 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, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain.</p> <p>The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.</p>



Last Update: July 20, 2021

Water Activity Overview
<p>PAWSD was recently inspected under the Colorado Department of Public Health and Environment's (CDPHE) Disinfection Outreach and Verification Effort (DOVE). While CDPHE has not yet issued a formal DOVE determination letter, the existing Snowball Water Treatment Plant (Snowball WTP) was identified as non-compliant with Colorado's Surface Water Treatment Rule (SWTR) during this effort. Per Regulation 11, Section 11.8(3)(b)(i)(A), the water provider must maintain disinfection treatment sufficient to ensure that the total treatment processes, including filtration and disinfection, achieve 99.9 percent (3-log) treatment of Giardia lamblia cysts and 99.99 percent (4-log) treatment of viruses, as determined by the department.</p> <p>The existing design utilizing Microfloc Trident units offers limited removal credit for Giardia lamblia under this calculation; thus, hindering PAWSD ability to comply with current and projected disinfection requirements. A Sanitary Survey, was conducted on June 15, 2021 by CDPHE (attached) in which the department inspector concurred with the DOVE findings and informed PAWSD the DOVE team will be providing additional information regarding the department's evaluation process under separate letter. PAWSD is proactively seeking to address the limitations of the existing Snowball WTP in meeting the current and projected SWTR requirements, as well as, expand the treatment capacity to best utilize the 5 cfs pre-Compact water right by proposing a multiphase project to design and construct a new Snowball WTP. Funding for the final phase (91-100%) of engineering and design of the WTP is the current request.</p>

Measurable Results		
To catalog measurable results achieved with WSRF funds please provide any of the following values.		
	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)	
	Length of Pipe/Canal Built or Improved (linear feet)	
1,120 AF	Other	Explain: The existing Snowball Water Treatment Plant is a two million gallon per day (MGD) plant that treats water from the San Juan River. The existing plant was constructed in 1984, uses 3 cfs of a pre-Compact 5 cfs water right, and will soon not meet current regulatory requirements. The new water treatment plant will be a 3.5 +/- MGD plant, will meet all current state and federal regulations, and use the entire 5 cfs pre-Compact water right.

Water Activity Justification
<p>Provide a description of how this water activity supports the goals of <a href="#">Colorado's Water Plan</a>, the most recent <a href="#">Statewide Water Supply Initiative</a>, and the respective <a href="#">roundtable Basin Implementation Plan and Education Action Plan</a> <sup>(1)</sup>. 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).</p> <p>For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP,</p>





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### Water Activity Justification

Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in [2020 WSRF Criteria and Guidelines](#)).

**Goals of the Southwest Basin Roundtable Basin Implementation Plan (SW BIP) that are in line with the Pagosa Area Water and Sanitation District's (PAWSD or District) Snowball Water Treatment Plant Replacement project (Snowball WTP) – IPP ID# SWSJ – 2020 – 0021:**

**A. Balance All Needs and Reduce Conflict**

1. Pursue a high success rate for identified specific and unique IPPs to meet identified gaps and to address all water needs and values (p.12, SW BIP).
2. Support specific and unique new IPPs important to maintaining the quality of life in this region, and to address multiple purposes including municipal, industrial, environmental, recreational, agricultural, risk management, and compact compliance needs (p.12, SW BIP).

**B. Meet Municipal and Industrial Water Needs**

1. Pursue a high success rate for identified specific and unique IPPs to meet the municipal gap (p.14, SW BIP).
2. Provide safe drinking water to Southwest Colorado's citizens and visitors (p.14, SW BIP).
3. Promote wise and efficient water use through implementation of municipal conservation strategies to reduce overall future water needs (p.14, SW BIP).

**C. Comply with CO River Compact and Manage Risk**

1. Plan and preserve water supply options for all existing and new uses and values (p.18, SW BIP).
2. Preserve Southwest Basin's ability to develop CO River compact entitlement to meet our water supply gaps (p.18, SW BIP).

**Vision Goals identified in the Statewide Water Supply Initiative 2010 (SWSI) that are in line with the Snowball WTP – IPP ID# SWSJ – 2020 – 0021:**

1. Meet M & I demands (p.ES-28, SWSI).
2. Optimize existing and future water supplies by: maximizing use of existing and new in-basin supplies (p.ES-28, SWSI).
3. Promote cost-effectiveness by: providing viable financing mechanisms, including local, state, and federal funding/financing (p.ES-28, SWSI).
4. Minimize the net energy used to supply water, including both the energy used and/or generated with raw water delivery, and the energy used for treatment (p.ES-28, SWSI).
5. Protect cultural values by: Maintaining and improving the quality of life unique to each basin (p.ES-28, SWSI).
6. Provide operational flexibility and coordinated infrastructure (p.ES-28, SWSI).
7. Comply with all applicable laws and regulations, meet all applicable compact obligations,



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### Water Activity Justification

and protect water rights including the right of water right owners to market their water, while recognizing some institutional changes may be needed to implement certain strategies (p.ES-28, SWSI).

#### **Goals of the Colorado Water Plan (CWP) that are in line with the Snowball Water Treatment Plant Replacement Project (Snowball WTP) – IPP ID# SWSJ – 2020 – 0021:**

A. Colorado’s Water Plan considers a range of possible future conditions. Through public engagement and sound science, the plan develops a practical, adaptive, and balanced path forward for meeting Colorado’s future water needs (p.6-3, CWP).

B. 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 (p.6-15, CWP).

C. Colorado’s Water Plan upholds Colorado’s water law system, interstate water compacts and equitable apportionment decrees, and local control structures. Colorado will focus planning efforts on maintaining healthy systems and avoiding a Colorado River Compact deficit, rather than focusing on the State’s response to a compact curtailment (p.9-3, CWP).

D. Colorado’s Water Plan coordinates existing funding sources and explores additional funding opportunities (p.9-9, CWP).

E. Colorado’s Water Plan ensures that state agencies coordinate the uses of their current and future water rights and that they will uphold Colorado’s water values, as Chapter 1 discusses (p.9-25, CWP).

**The Snowball WTP project supports the goals and findings list above in the SW BIP, SWSI, and CWP in many aspects including, but not limited to, the following:**

- Is a specific and unique new IPP important to maintaining the quality of life in this region.
- Promoting cost-effectiveness by providing viable financing mechanisms, including local, state, and federal funding/financing.
- Provides safe drinking water to Southwest Colorado citizens and visitors.
- Preserves the Southwest Basin’s ability to develop CO River compact entitlement to meet our water supply gaps by increasing annual production by 1,120 AF.
- Optimizes existing and future water supplies through effectively securing a pre-Compact water right.
- Provides operational flexibility and coordinated infrastructure to support PAWSD long-term plan to develop reliable redundancy throughout the service area.



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Water Activity Justification
<ul style="list-style-type: none"> <li>• Demonstrates a commitment to collaboration by providing meaningful opportunities for input through public meetings and presentations to community groups.</li> <li>• Addressing identified water gaps as a specific and unique new IPP.</li> <li>• Demonstrates sustainability by maximizing the use of water resources through improving/modernizing aging infrastructure.</li> <li>• Establishes fiscal and technical feasibility through overall cost-effectiveness; local investment or contribution; financial capability to repay debt; an intent to leverage any state grant or loan with private, local, or federal funding; technical and legal availability of supplies for the project; and, readiness to proceed upon receipt of necessary funding and permits.</li> </ul>

<sup>1</sup> Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.

Matching Requirements: Basin Account Requests	
<b>Basin (only) Account</b> grant requests require a 25% match (cash and/or in-kind) from the Applicant or 3 <sup>rd</sup> party and shall be accompanied by a <b>letter of commitment</b> as described in the <a href="#">2020 WSRF Criteria and Guidelines</a> (submitted on the contributing entity's letterhead). Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind)
Pagosa Area Water and Sanitation District	\$1,956,200 (cash)
Total Match	\$1,956,200 (cash)
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.	N/A

Matching Requirements: Statewide Account Requests	
<b>Statewide Account</b> grant requests require a 50% match as described in the <a href="#">2020 WSRF Criteria and Guidelines</a> . At least of 10% of the required Statewide Account Grant request match shall be cash from Basin Account funds whether that is from one or multiple basins; and the remaining 40% of the required match may be provided from any source, including other grants, cash from the Basin Account, or any combination of cash, in-kind services, or in-kind materials. and shall be accompanied by a <b>letter of commitment</b> . Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind):



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Matching Requirements: Statewide Account Requests	
Pagosa Area Water and Sanitation District	\$1,956,200 (cash)
Total Match	\$1,956,200 (cash)
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	N/A

Related Studies
Please provide a list of any related studies, including if the water activity is complimentary to or assists in the implementation of other CWCB programs.
N/A

Previous CWCB Grants
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



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**Previous CWCB Grants**

N/A

**Tax Payer Bill of Rights**

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

The District's attorney has confirmed the Water Enterprise Fund is able to receive up to 10% of annual revenue in grant funding. The amount requested here is a conservative estimate in the greatest effort to avoid the possibility of prompting the circumstances of any refund.

## **SOUTHWEST BASINS ROUNDTABLE**

C/O La Plata Archuleta Water District

PO Box 1377

Ignacio, Colorado 81137

November 5, 2021

Colorado Water Conservation Board  
Water Supply Planning Section  
WSRF Application  
1313 Sherman Street, Room 718  
Denver, Colorado 80203

RE: Pagosa Area Water and Sanitation District  
WSRF Grant Request

The Southwest Basins Roundtable approved funding of \$18,680.00 from the Southwest Basins Roundtable account for the Pagosa Area Water and Sanitation District for their Snowball Water Treatment Plant Project. This application was considered fully and approved by the Southwest Basins Roundtable at the October 28, 2021 meeting. There was a quorum of members present at the meeting. We would also like to recommend approval of \$168,120.00 from the Statewide WSRF for this project.

The proposed project meets the Southwest Basins Roundtable's Measurable Goals or Outcomes of the Southwest Basins BIP C2) Provide safe drinking water to Southwest Colorado's citizens and visitors.

The completed Grant Application will be forwarded directly to you by the applicant. Please contact the applicant directly or me at 970-563-0320, [etolen@laplawd.org](mailto:etolen@laplawd.org), if you have questions or wish to discuss this application in more detail.

Sincerely,



Edward Tolen  
Southwest Basins Roundtable Chair



James Smith, President/Chairman  
Blake Brueckner, Vice President  
Gordon McIver, Secretary



Paul Hansen, Director  
Glenn Walsh, Treasurer

December 1, 2021

Ben Wade  
Colorado Water Conservation Board  
1313 Sherman St. Room 718  
Denver, CO 80203

**Via Email:** [ben.wade@state.co.us](mailto:ben.wade@state.co.us)

RE: Snowball Water Treatment Plant Replacement

To Whom It May Concern:

I am writing today to express the unconditional commitment to the Pagosa Area Water and Sanitation District's joint Southwest Basin and Statewide Water Supply Reserve Fund (WSRF) Application submitted December 1, 2021.

The goals for the Project are many and include, but are not limited to:

- Allow the District to not only meet, but also potentially exceed, current and future regulatory requirements for drinking water;
- Develop Colorado River Compact entitlement and address increased demands on the municipal water supply by adding approximately 1,120 AF in annual production utilizing a pre-Compact water right; and
- Replace aging infrastructure that has surpassed its design life.

The Board has approved the required matching funds of \$1,956,200 (cash) for the 2022 Draft Budget. Please do not hesitate to contact me with any questions at 970-590-5747 (cell) or [Jim.Smith@pawsd.org](mailto:Jim.Smith@pawsd.org).

Sincerely,

Jim Smith  
President/Chairman



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

<b>Colorado Water Conservation Board</b>	
<b>Water Supply Reserve Fund</b>	
<b>Exhibit A - Statement of Work</b>	
<b>Date:</b>	<b>December 1, 2021</b>
<b>Water Activity Name:</b>	<b>Snowball Water Treatment Plant Replacement</b>
<b>Grant Recipient:</b>	<b>Pagosa Area Water and Sanitation District</b>
<b>Funding Source:</b>	<b>CWCB Water Supply Reserve Fund</b>
<b>Water Activity Overview:</b> (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for. (PLEASE DEFINE ALL ACRONYMS).)	
<p>Pagosa Area Water and Sanitation District (PAWSD or District) was recently inspected under the Colorado Department of Public Health and Environment's (CDPHE) Disinfection Outreach and Verification Effort (DOVE). While CDPHE has not yet issued a formal DOVE determination letter, the existing Snowball Water Treatment Plant (Snowball WTP) was identified as non-compliant with Colorado's Surface Water Treatment Rule (SWTR) during this effort. Per Regulation 11, Section 11.8(3)(b)(i)(A), the water provider must maintain disinfection treatment sufficient to ensure that the total treatment processes, including filtration and disinfection, achieve 99.9 percent (3-log) treatment of Giardia lamblia cysts and 99.99 percent (4-log) treatment of viruses, as determined by the department.</p> <p>The existing design utilizing Microfloc Trident units offers limited removal credit for Giardia lamblia under this calculation; thus, hindering PAWSD ability to comply with current and projected disinfection requirements. A Sanitary Survey, was conducted on June 15, 2021 by CDPHE (attached) in which the department inspector concurred with the DOVE findings and informed PAWSD the DOVE team will be providing additional information regarding the department's evaluation process under separate letter. PAWSD is proactively seeking to address the limitations of the existing Snowball WTP in meeting the current and projected SWTR requirements, as well as, expand the treatment capacity to best utilize the 5 cfs pre-Compact water right (increased production by 1,120 AF) by proposing a multiphase project to design and construct a new Snowball WTP. Funding for the final phase (91-100%) of engineering and design of the WTP is the current request.</p>	
<b>Objectives:</b> (List the objectives of the project. (PLEASE DEFINE ACRONYMS).)	
<p>Primary objectives of the Snowball WTP project include:</p> <ul style="list-style-type: none"><li>• Allow the District to not only meet, but also potentially exceed, current and future regulatory requirements for drinking water;</li><li>• Develop Colorado River Compact entitlement and address increased demands on the municipal water supply by adding approximately 1,120 AF in annual production utilizing a pre-Compact water right; and</li><li>• Replace aging infrastructure that has surpassed its design life.</li></ul>	



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b>Task 1 – 0% - 90% Design and Environmental Services and CMAR (Construction Manager at Risk) Services</b>
Description of Task:
The proposed project is to replace the existing Snowball WTP with a new facility. The Design has several phases, Preliminary Design; 30% Design and selection of CMAR; 60% Design; 90% Design and 100% Design. Funding for the final phase of engineering and design (91% - 100%) of the WTP is the current request.
Method/Procedure:
SGM will provide all services required to manage the project effectively, including internal and external communication and coordination, conduct of meetings and workshops, management of sub consultants, and review and updating of schedules and budgets. SGM's internal quality assurance/quality control (QA/QC) processes are included in this task along with an allowance for public meetings attendance. Specific subtasks include: -Project team, financial, schedule, District (PAWSD) and contractor collaboration, and quality management by the Project Manager -Hold internal design coordination meetings and progress meetings with District staff -Manage sub consultants -Conduct internal QA/QC reviews and submit progress reports and updated schedules with invoices -Provide project update emails and misc. communications to District staff and attend public meetings -Geotechnical Services -Submit plans for Archuleta Co Building Dept. review -Submit Drainage Report and Erosion Control Plan -Obtain CDPHE Potable Water System Construction Approval -Fire Suppression System Design and Code Reviews -Prepare funding applications -Coordination with CMAR -Develop and submit 90% design package -Coordinate design with CMAR -Review of CMAR Guaranteed Maximum Price (GMP)
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
90% Design Package
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
90% Design Package

Tasks
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)
<b>Task 2 - Final Phase of Engineering and Design</b>
Description of Task:
-Perform all work required to develop and submit to the applicant a 100% final design package suitable for bid. -Perform all work required to develop and submit to the District a 100% final design for the Snowball WTP, including drawings, contract documents, and specification sets.



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<https://cwcb.colorado.gov/>

Tasks
Method/Procedure: -The 100% design package will address, as appropriate, District staff, CMAR (Construction Manager at Risk), and engineering internal review comments on the 90% design package. -Final design package shall include, but not be limited to: <ul style="list-style-type: none"><li>○ Complete architectural design services as required for code compliance, planning/zoning approval process, building permit acquisition, integration of energy efficiency enhancement features, integration with other design disciplines, etc.</li><li>○ Complete Snowball WTP electrical and SCADA system design that is compatible with the existing system(s).</li><li>○ Complete fire surveillance and suppression system design.</li></ul>
Grantee Deliverable: (Describe the deliverable the grantee expects from this task) -Provide the District with a set of the following electronic files at the conclusion of design: Adobe Acrobat PDFs for all drawings, specifications, and bidding/contract documents. -Completed permitting approvals/submittals as identified.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task) -Provide a set of the following electronic files at the conclusion of design: Adobe Acrobat PDFs for all drawings, specifications, and bidding/contract documents as needed.

Budget and Schedule
<b>Exhibit B - Budget and Schedule:</b> This Statement of Work shall be accompanied by a combined <a href="#">Budget and Schedule</a> that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in <u>excel format</u> . A separate <u>excel formatted</u> Budget is required for engineering costs to include rate and unit costs.

Reporting Requirements
<b>Progress Reports:</b> The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.
<b>Final Report:</b> At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee's letterhead that: <ul style="list-style-type: none"><li>• Summarizes the project and how the project was completed.</li><li>• Describes any obstacles encountered, and how these obstacles were overcome.</li><li>• Confirms that all matching commitments have been fulfilled.</li><li>• Includes photographs, summaries of meetings and engineering reports/designs.</li></ul>
Payments



Last Update: July 20, 2021

<https://cwcb.colorado.gov/>

### Reporting Requirements

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. 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.

The CWCB will pay the last 10% of the entire water activity 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 water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

### Performance Requirements

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 Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per the 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 the 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 Update: 7/20/2021



**COLORADO**

Colorado Water  
Conservation Board

Department of Natural Resources

**Colorado Water Conservation Board**

**Water Supply Reserve Fund**

**EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs**

**Date: December 1, 2021**

**Water Activity Name: Snowball Water Treatment Plant**

**Grantee Name: Pagosa Area Water and Sanitation District**

<u>Task No.</u> <sup>(1)</sup>	<u>Description</u>	<u>Start Date</u> <sup>(2)</sup>	<u>End Date</u>	<u>Matching Funds</u> (cash & in-kind) <sup>(3)</sup>	<u>WSRF Funds</u> (Basin & Statewide combined) <sup>(3)</sup>	<u>Total</u>
1	0% to 90% Design and Environmental Services and CMAR Services	1/1/2021	4/8/2022	\$1,956,200	\$0	\$1,956,200
2	91% to 100% Design Services	4/9/2022	11/30/2022	\$0	\$186,800	\$186,800
<b>Total</b>				\$1,956,200	\$186,800	\$2,143,000



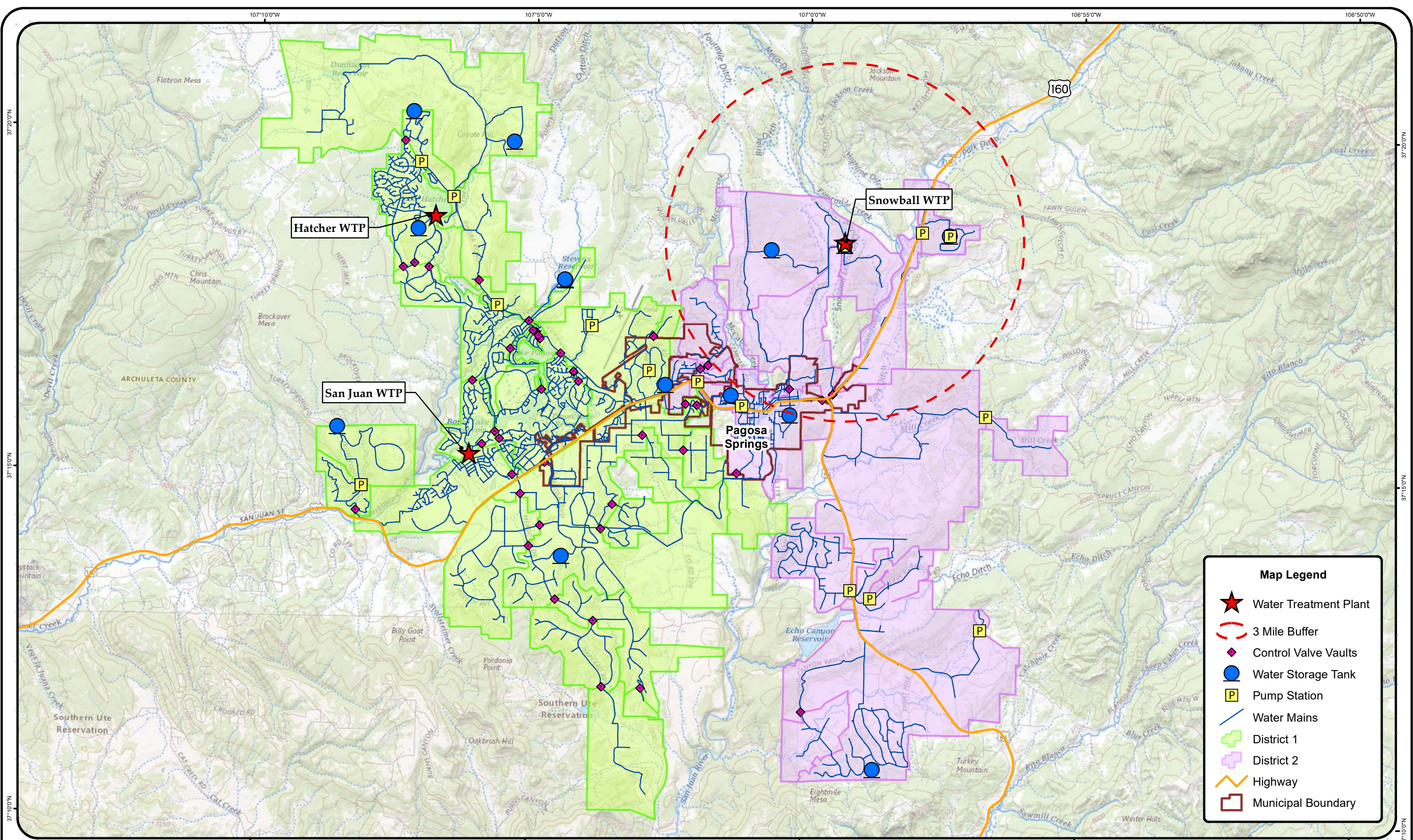
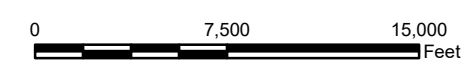


Figure 1a  
Vicinity Map

Pagosa Area WSD - Snowball WTP

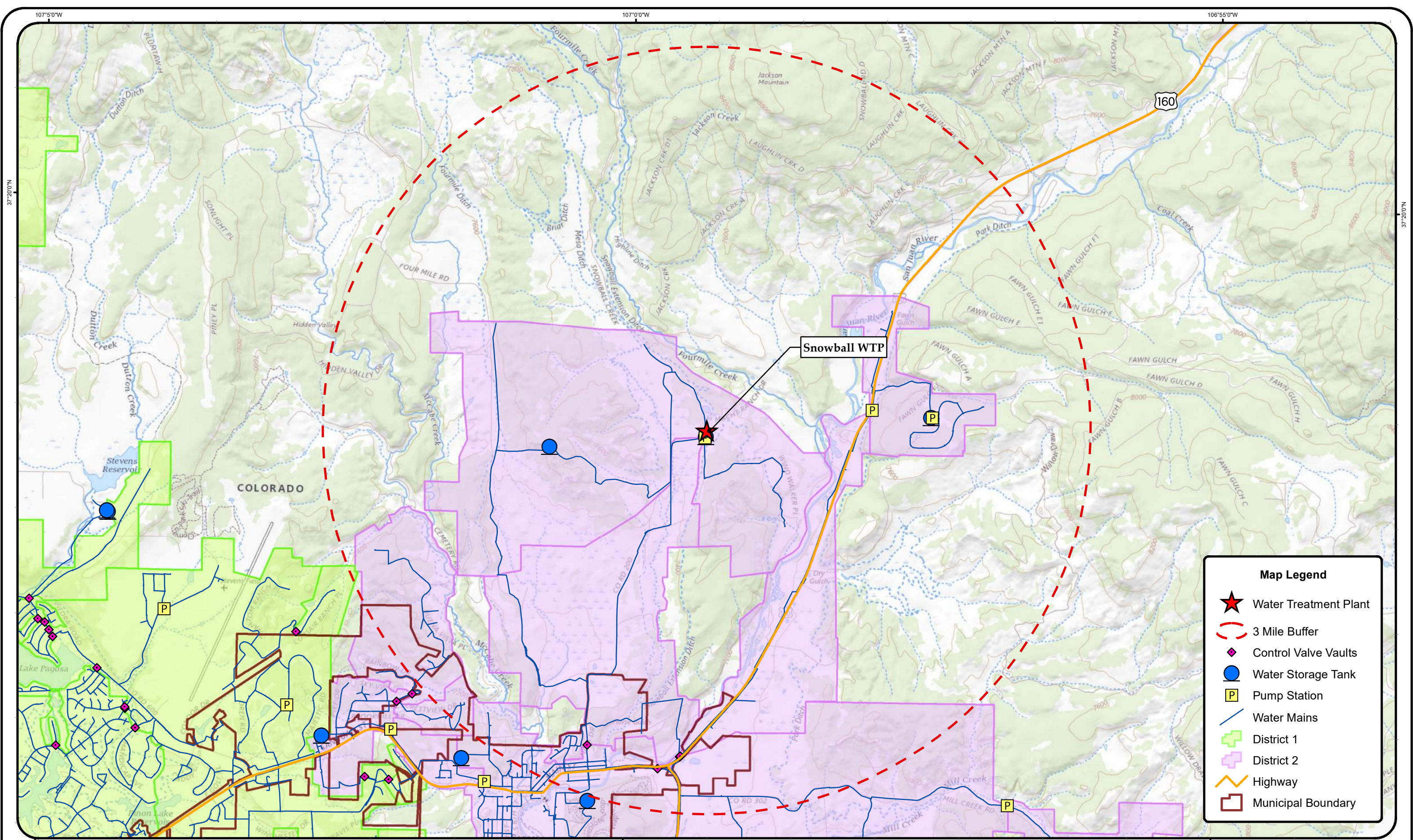
Date: 6/4/2021	Job No. 2020-468.001 Ph.8 T.03	Map by: ANW	Checked by: JK	Scale: 1:90,000
Data Sources: PAWSD, USGS Basemap, Archuleta County GIS, CDPHE Municipal Boundary				
File: C:\Users\awebl\Desktop\Temp\PAWSD\Fig1-VicinityMap.mxd				
The information displayed above is intended for general planning purposes. Refer to legal documentation/data sources for descriptions/locations.				



1 inch = 7,500 feet







**Map Legend**

- ★ Water Treatment Plant
- (---) 3 Mile Buffer
- ◆ Control Valve Vaults
- Water Storage Tank
- P Pump Station
- Water Mains
- District 1
- District 2
- Highway
- ▭ Municipal Boundary



**Water Supply Reserve Fund  
Water Activity Summary Sheet  
March 15-16, 2022  
Agenda Item 25(l)**

**Applicant & Grantee:** Town of Pagosa Springs

**Water Activity Name:** Recreational & Ecological Enhancement of the San Juan River - Yamaguchi South

**Water Activity Purpose:** Municipal/Industrial, Nonconsumptive (Environmental & Recreational) - Implementation

**County:** Archuleta

**Drainage Basin:** San Juan River Basin

**Water Source:** San Juan River

**Amount Requested:** \$16,618 Southwest Basin Account  
\$149,562 Statewide Account  
\$166,180 Total Request

**Matching Funds:** **Basin Account Match = \$16,618**

- 11% of statewide request (meets 10% min)

**Applicant & 3rd Party Match = \$476,040 (cash)**

- 318% of the statewide request (meets 40% min)

**Total Match (Basin request & Applicant Match) = \$492,658**

- 329% of the statewide request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$16,618 from the Southwest Basin Account and \$149,562 from the Statewide Account to help fund the project: Recreational & Ecological Enhancement of the San Juan River - Yamaguchi South

**Water Activity Summary:** The San Juan River forms the “foundational infrastructure” for the Town of Pagosa Springs local recreational and economic tourism-based activities including boating, fishing, trails, and bird watching. While downtown Pagosa Springs currently offers a variety of recreation opportunities, river access is restricted.

If approved, WSRF funds will be used for installing various new and/or improved river access points (graded/gravel boat ramp, wading/swimming holes), channel features (sand bars, whitewater wave, riffles and pools) along the banks of Yamaguchi South to enhance recreation options at various river flows, reduce access conflicts, create geomorphology more resilient to hydrological and sediment deposition changes, install channel and streambank shaping, create diverse aquatic habitat that support cold water trout and native fish populations in the face of drought and climate change, and will also improve the water irrigation system for Yamaguchi Park including a new in-stream rock diversion

structure with headgate and an open water delivery ditch to an adjacent wetland pond that would be used for irrigation water storage and wetland pond habitat.

**Discussion:** The proposed project helps meet the Southwest Basin Implementation Plan Measurable Goals or Outcomes by maintaining protecting and enhancing recreational values and economic values and improving the condition and natural function of streams. The project also aligns with environmental and recreation goals and objectives of the Water Plan.

**Issues/Additional Needs:** If approved, the applicant must secure match funding prior to contracting. No other issues or additional needs have been identified.

**Eligibility Requirements:** The application meets requirements of all eligibility components.

**Evaluation Criteria:** Staff has determined this activity satisfies the Evaluation Criteria.

<b>Funding Sources/Match</b>	<b>Cash</b>	<b>In-Kind</b>	<b>Total</b>	<b>Status</b>
Town of Pagosa Springs	\$96,000	\$0	\$96,000	Secured
Archuleta County	\$10,000	\$0	\$10,000	Secured
Southwest Water Conservation District	\$30,000	\$0	\$30,000	Secured
Trout Unlimited	\$3,000	\$0	\$3,000	Secured
Friends of the Upper San Juan	\$750	\$0	\$750	Secured
The Nature Conservancy	\$3,180	\$0	\$3,180	Secured
Weminuche Audobon	\$750	\$0	\$750	Secured
CWCB Water Plan Grant Env/Rec	\$332,360	\$0	\$332,360	Pending
<b>Sub Total Matching Funds</b>	<b>\$476,040</b>	<b>\$0</b>	<b>\$476,040</b>	
WSRF Southwest Basin Account	\$16,618	\$0	\$16,618	Secured
WSRF Statewide Account	\$149,562	\$0	\$149,562	
<b>Sub Total WSRF Funds</b>	<b>\$166,180</b>	<b>\$0</b>	<b>\$166,180</b>	
<b>Total Project Costs</b>	<b>\$642,220</b>	<b>\$0</b>	<b>\$642,220</b>	

**CWCB Project Manager:** Andrea Harbin-Monahan



Last Update: July 20, 2021

<b>Colorado Water Conservation Board</b>
<b>Water Supply Reserve Fund Grant Application</b>

Instructions
<p>All WSRF grant applications shall conform to the current <a href="#">2020 WSRF Criteria and Guidelines</a>.</p> <p>To receive funding from the WSRF, a proposed water activity must be recommended for approval by a Roundtable(s) <b>AND</b> the approved by the Colorado Water Conservation Board (CWCB). The process for roundtable consideration and recommendation is outlined in the 2020 WSRF Criteria and Guidelines. The CWCB meets bimonthly.</p> <p>If you have questions, please contact the WSRF Grant Program Manager (for all Roundtables) or your Roundtable Liaison:</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>Ben Wade  <a href="mailto:ben.wade@state.co.us">ben.wade@state.co.us</a>  303-866-3441 x3238 (office)</p> </div> <div style="text-align: center;"> <p>Sam Stein  <a href="mailto:Sam.stein@state.co.us">Sam.stein@state.co.us</a>  303-866-3441 (office)</p> </div> </div>

WSRF Submittal Checklist (Required)
<p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> This request was recommended for CWCB approval by the sponsoring roundtable.</p> <p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> I have read and understand the <a href="#">2020 WSRF Criteria and Guidelines</a>.</p> <p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> Grantee will be able to contract with CWCB using the <a href="#">Standard Contract</a>.<sup>1</sup></p> <p style="text-align: center; margin-top: 20px;"><b>Application Documents included:</b></p> <p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> Exhibit A: Statement of Work<sup>2</sup> (<i>Word – see Template</i>)</p> <p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> Exhibit B: Budget (including Detailed Budget) &amp; Schedule<sup>2</sup> (<i>Excel Spreadsheet – see Template</i>)</p> <p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> Letters of Matching and/or Pending 3<sup>rd</sup> Party Commitments<sup>2</sup></p> <p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> Map<sup>2</sup></p> <p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> Photos/Drawings/Reports</p> <p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> Letters of Support</p> <p style="text-align: center; margin-top: 20px;"><b>Contracting Documents<sup>3</sup></b></p> <p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> Detailed/Itemized Budget<sup>3</sup> (<i>Excel Spreadsheet – see Template</i>)</p> <p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> Certificate of Insurance<sup>4</sup> (<i>General, Auto, &amp; Workers' Comp.</i>)</p> <p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> Certificate of Good Standing<sup>(4)</sup></p> <p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> W-9 Form<sup>4</sup></p> <p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> Independent Contractor Form<sup>4</sup> (<i>If applicant is individual, not company/organization</i>)</p> <p><b>YES</b> <input type="checkbox"/> <b>NO</b> <input type="checkbox"/> Electronic Funds Transfer (ETF) Form<sup>4</sup></p>

<sup>1</sup>Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

<sup>2</sup> Required with application if applicable.

<sup>3</sup> Additional documentation providing a Detailed/Itemized Budget maybe required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.

<sup>4</sup> Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.



Last Update: July 20, 2021

Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	October 1	Basin Account
March	December 1	Basin/Statewide Account/Water Plan Grant Match <sup>1</sup>
May	February 1	Basin Account
July	April 1	Basin Account
September	June 1	Basin/Statewide Account
November	August 1	Basin Account

<sup>1</sup> If either the basin or statewide match includes matching funds from a pending Water Plant Grant, both must be submitted by December 1st deadline for March Board meeting review.

Water Activity Summary		
Name of Applicant	Town of Pagosa Springs and Upper San Juan Watershed Enhancement Partnership	
Name of Water Activity	Recreational and Ecological Enhancement of the San Juan River - Yamaguchi South	
Approving Roundtable(s)		Basin Account Request(s) <sup>1</sup>
Southwest Basin Roundtable		\$16,618
Basin Account Request Subtotal		\$16,618
Basin Account Request Subtotal Approved by Roundtable		
Statewide Account Request <sup>(1)</sup>		\$149,562
Total WSRF Funds Requested (Basin & Statewide)		\$166,180
Total Project Costs		\$664,720

<sup>1</sup> Please indicate the amount recommended for approval by the Roundtable(s)





Last Update: July 20, 2021

Grantee and Applicant Information	
Name of Grantee(s)	Town of Pagosa Springs
Mailing Address	PO Box 1859, Pagosa Springs, Co. 81147
FEIN	84-6000707
<b>Grantee's Organization Contact<sup>1</sup></b>	Andrea Phillips
Position/Title	Town Manager
Email	aphillips@pagosasprings.co.gov
Phone	970-264-4151 x236
<b>Grant Management Contact<sup>2</sup></b>	James Dickhoff
Position/Title	Planning Director
Email	jdickhoff@pagosasprings.co.gov
Phone	970-264-4151 x225
<b>Name of Co-Applicants (if different than grantee)</b>	Town of Pagosa Springs and Upper San Juan Watershed Enhancement Partnership (WEP)
Mailing Address	c/o Mountain Studies Institute, 679 East 2nd Ave, Suite 8, Durango, CO 81301
Position/Title	Mandy Eskelson, Water Programs Research Associate
Email	<a href="mailto:mandy@mountainstudies.org">mandy@mountainstudies.org</a>
Phone	970-387-5161

<sup>1</sup> Person with signatory authority

<sup>2</sup> Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee
Provide a brief description of the grantee's organization (100 words or less).
<p>The Town of Pagosa Springs (population 1,900) is the sole incorporated jurisdiction within Archuleta County. The Town provides our immediate community area (population 11,000) with most all developed park facilities, which are primarily located along the San Juan River corridor. Town Council has consistently recognized and prioritized the importance of the river corridor for public access, enhancing aquatic habitat, the importance of protecting the natural resource and the positive economic impacts of enhancing the river corridor within and beyond the Town's boundary.</p>

Type of Eligible Entity (check one)	
X	<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



Last Update: July 20, 2021

Type of Eligible Entity (check one)	
<input type="checkbox"/>	<b>Private Individuals, Partnerships, and Sole Proprietors:</b> are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
<input type="checkbox"/>	<b>Non-governmental organizations:</b> broadly, any organization that is not part of the government
<input type="checkbox"/>	<b>Covered Entity:</b> as defined in <a href="#">Section 37-60-126 Colorado Revised Statutes</a>

Type of Water Activity (check one)	
<input type="checkbox"/>	Study
<input checked="" type="checkbox"/>	Implementation

Category of Water Activity (check all that apply)		
<input checked="" type="checkbox"/>	Nonconsumptive (Environmental)	
<input checked="" type="checkbox"/>	Nonconsumptive (Recreational)	
<input type="checkbox"/>	Agricultural	
<input checked="" type="checkbox"/>	Municipal/Industrial	
<input type="checkbox"/>	Needs Assessment	
<input type="checkbox"/>	Education & Outreach	
<input type="checkbox"/>	Other	Explain:

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in <b>decimal degrees</b> . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Countries	Archuleta
Latitude	37d 15' 6.21" (37.251725)
Longitude	107d 00' 36.5" (107.010138)

Water Activity Overview
<p>Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. 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, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain.</p> <p>The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.</p>



Last Update: July 20, 2021

Water Activity Overview
<p>The San Juan River forms the “foundational infrastructure” for our local recreational and economic tourism-based activities including: boating, fishing, trails, bird watching, etc. While downtown Pagosa Springs currently offers a variety of recreation opportunities, river access is restricted.</p> <p>A CWP grant will be used for installing various new and/or improved river access points (graded/gravel boat ramp, wading/swimming holes), channel features (sand bars, whitewater wave, riffles and pools) along the banks of Yamaguchi South to enhance recreation options at various river flows, reduce access conflicts, create geomorphology more resilient to hydrological and sediment deposition changes, install channel and streambank shaping, create diverse aquatic habitat that support cold water trout and native fish populations in the face of drought and climate change, and will also improve the water irrigation system for Yamaguchi Park including a new in-stream rock diversion structure with headgate and an open water delivery ditch to an adjacent wetland pond that would be used for irrigation water storage and wetland pond habitat</p>

Measurable Results		
To catalog measurable results achieved with WSRF funds please provide any of the following values.		
	New Storage Created (acre-feet)	
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive	
	Existing Storage Preserved or Enhanced (acre-feet)	
1700	Length of Stream Restored or Protected (linear feet)	
	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
4.5	Area of Restored or Preserved Habitat (acres)	
	Length of Pipe/Canal Built or Improved (linear feet)	
1	Other	Boating access

Water Activity Justification
<p>Provide a description of how this water activity supports the goals of <a href="#">Colorado’s Water Plan</a>, the most recent <a href="#">Statewide Water Supply Initiative</a>, and the respective <a href="#">roundtable Basin Implementation Plan and Education Action Plan</a> <sup>(1)</sup>. 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).</p> <p>For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado’s Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in <a href="#">2020 WSRF Criteria and Guidelines</a>).</p>



Last Update: July 20, 2021

### Water Activity Justification

This project is supported by the Upper San Juan Enhancement Partnership (WEP), a stakeholder group formed for the purpose of developing a Stream Management Plan for the Upper San Juan River basin. WEP operates primarily through a steering committee with broad representation of water interests within the basin, including agricultural, municipal, recreation and environmental, as well as local, state and federal government. The WEP steering committee conducts regular outreach to the local community to hear ideas and receive feedback. Earlier this year, WEP completed an Environmental and Recreational Water Supply Needs Assessment (E&R Assessment). Using CWP scenarios, the E&R Assessment identified the potential for trends in historical and future, climate-change driven hydrology to produce increasingly limiting conditions for aquatic life and recreation in the Upper San Juan River, including potential for reduction in the number of days that various types of recreational floating activities can be performed above, below and through the Town of Pagosa Springs. The goal of this project is to improve recreation access and to address some of the issues identified in the E&R Assessment in the portion of the San Juan River that flows through the Town's Yamaguchi Park area.

**Recreation.** The existing takeout boat ramp at Yamaguchi South (an extension of the existing Yamaguchi Park) only allows 1-2 vehicles/trailers down to the river and is located in the same site of a municipal water filling station, creating access and parking issues, especially with increasing river use each year. In addition, while downtown Pagosa Springs currently offers a variety of recreation opportunities for residents and visitors to enjoy the San Juan River via parks, trails, wave features, and swimming/wading areas, modeled hydrological shifts could limit seasonal recreation options and economic industries. Installing various new and/or improved river access points (graded/gravel boat ramp, wading/swimming holes) and channel features (sand bars, whitewater wave, riffles and pools) along the banks of Yamaguchi South would enhance recreation options at various river flows, reduce access conflicts, and create geomorphology more resilient to hydrological and sediment deposition changes.

**Environment.** The numerous birds, fish, and other wildlife species that rely on the San Juan River require appropriate habitat and refugia to adapt to a changing climate and river systems. The potential for drought to elevate river water temperature, fragment wildlife habitat, and change riparian canopy vegetation could significantly impact wildlife populations as well as the economic and ecosystem services they provide to the community. Channel and streambank shaping, and creation of diverse aquatic habitat would support coldwater trout and native fish populations. Additionally, upland wildlife will benefit from habitat designs that maintain cottonwood groves and wetlands near the river.

**Municipal/Irrigation.** The Town has up to 3 cfs at any one time that can be diverted from the San Juan River for irrigation water rights for Yamaguchi park. The project includes improvements to the Yamaguchi Park irrigation system, including a new in-stream rock diversion structure with headgate and an open water delivery ditch to an adjacent wetland pond that would be used for irrigation water storage and wetland pond habitat.

<sup>1</sup> Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.

### Matching Requirements: Basin Account Requests

**Basin (only) Account** grant requests require a 25% match (cash and/or in-kind) from the Applicant or 3<sup>rd</sup> party and shall be accompanied by a **letter of commitment** as described in the [2020 WSRF Criteria and Guidelines](#) (submitted on the contributing entity's letterhead). Attach additional sheet if necessary.

Contributing Entity	Amount and Form of Match (note cash or in-kind)



Last Update: July 20, 2021

Matching Requirements: Basin Account Requests	
Total Match	\$
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.	

Matching Requirements: Statewide Account Requests	
<b>Statewide Account</b> grant requests require a 50% match as described in the <a href="#">2020 WSRF Criteria and Guidelines</a> . At least of 10% of the required Statewide Account Grant request match shall be cash from Basin Account funds whether that is from one or multiple basins; and the remaining 40% of the required match may be provided from any source, including other grants, cash from the Basin Account, or any combination of cash, in-kind services, or in-kind materials.and shall be accompanied by a <b>letter of commitment</b> . Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind):
Southwest Basin Roundtable	\$16,618
Town of Pagosa Springs	\$96,000 (Cash)
Pagosa Tourism Board	\$22,500 (Pending)
Archuleta County	\$30,000 (Pending)
Southwest Water Conservation District	\$10,000 (Pending)
Trout Unlimited	\$ 3,000 (Cash)
Friends of the Upper San Juan	\$750 (Cash)
The Nature Conservancy	\$ 1,500 (Cash \$3,180)
Weminuche Audobon	\$750 (Cash)
Great Outdoors Fund	\$ 1,680
Total Match	\$166,180
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	

Related Studies
Please provide a list of any related studies, including if the water activity is complimentary to or assists in the implementation of other CWCB programs.
<hr/> <p>“Yamaguchi South Master Plan” (2020)</p> <p>“Watershed Enhancement Partnership Phase II Report: Non-Consumptive Needs Assessment,” Lotic Hydrological (2020)</p>



Last Update: July 20, 2021

Previous CWCB Grants
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
N/A

Tax Payer Bill of Rights
The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.
The Town of Pagosa Springs has “debruced,” which resulted in the Town not being restricted on how much grant funding it can receive.



**SOUTHWEST BASINS ROUNDTABLE**

C/O La Plata Archuleta Water District  
PO Box 1377  
Ignacio, Colorado 81137

October 29, 2021

Colorado Water Conservation Board  
Water Supply Planning Section  
WSRF Application  
1313 Sherman Street, Room 718  
Denver, Colorado 80203

RE: Town of Pagosa Springs and Upper San Juan Watershed Enhancement Partnership  
WSRF Grant Request

The Southwest Basins Roundtable approved funding of \$16,618.00 from the Southwest Basins Roundtable account for the Town of Pagosa Springs & Upper San Juan WEP's Recreational and Ecological Enhancement Project- Yamaguchi South. This application was considered fully and approved by the Southwest Basins Roundtable at the October 28, 2021 meeting. There was a quorum of members present at the meeting. We would also like to recommend approval of \$149,562.00 from the Statewide WSRF for this project.

The proposed project meets the Colorado Water Plan's Goals & Objectives F-by enhancing environmental and recreational economic values. It also supports the Southwest Basins Roundtable's Measurable Goals or Outcomes of the BIP D1) Maintain, protect and enhance recreational values and economic values; and E2) Protect, maintain, monitor and improve the condition and natural function of streams.

The completed Grant Application will be forwarded directly to you by the applicant. Please contact the applicant directly or me at 970-563-0320, [etolen@laplawd.org](mailto:etolen@laplawd.org), if you have questions or wish to discuss this application in more detail.

Sincerely,



Edward Tolen  
Southwest Basins Roundtable Chair

October 12, 2021

SOUTHWEST BASIN ROUNDTABLE  
Edward Tolen, First Vice Chair  
c/o La Plata Archuleta Water District  
P.O. Box 1377  
Ignacio, Colorado 81137

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

Dear Southwest Basin Roundtable and Dear CWCB Board Members,

Pagosa Outside strongly supports the Upper San Juan Watershed Enhancement Partnership and Town of Pagosa Springs' proposed project to enhance the San Juan River at Yamaguchi South. A healthy river with ample public access is paramount to the economic and social wellbeing of our community.

The Yamaguchi South project has gone through a robust public planning process directed by the town. The need for recreational, ecological and access improvements within this area of the river corridor were identified by the project consultants who developed the concept plan as well as through public input. (<https://mypagosa.org/yamaguchi-south-planning-project>)

Pagosa Outside is a small family owned business that provides up to 30 well paying, seasonal, local jobs. Our business, employees and guests depend on a healthy and accessible San Juan river. The Yamaguchi South project will have significant ecological and recreational benefits to the centerpiece and lifeblood of our small community and the people who live here.

Sincerely,

A handwritten signature in cursive script that reads "Tobi Rohwer". The ink is grey and the signature is fluid and personal.

Tobi and Alison Rohwer  
Owners  
Pagosa Outside Adventures  
[tobi@pagosaoutside.com](mailto:tobi@pagosaoutside.com)  
970.946.1233

Colorado Water Conservation Board  
Water Supply Reserve Fund Grant Application

October 10, 2021

Dear Grant Reviewers:

Pagosa Wetlands Partners is pleased to support the Yamaguchi South Stream Work Grant application. Our mission is to preserve, protect and enhance the Town of Pagosa Springs public wetlands. We accomplish this in large part by advocating for wetland appreciation and conservation through Naturalist tours of our downtown wetlands and by encouraging conservation and responsible development.

Pagosa Wetland Partners currently conduct free educational wetland walking tours upstream of Yamaguchi South for town residents and visitors to raise awareness and bring attention to the importance and benefits of our wetland and riparian habitats. The proposed inclusion of a wetland with native plants offers us the opportunity to extend our Naturalist tours in both content and location. The river improvements will also make for a richer tour experience for all. We look forward to working with all stakeholders to make this project a success.

Sincerely,

A handwritten signature in black ink, appearing to read "Barry Knott". The signature is stylized with a large "B" and a long, sweeping underline.

Barry Knott  
Pagosa Wetland Partners  
63 Bennett Court  
Pagosa Springs, Colorado 81147

847.707.6431  
Barry.knott@gmail.com

## **SOUTHWEST BASINS ROUNDTABLE**

C/O La Plata Archuleta Water District

PO Box 1377

Ignacio, Colorado 81137

October 29, 2021

Colorado Water Conservation Board  
Water Supply Planning Section  
WSRF Application  
1313 Sherman Street, Room 718  
Denver, Colorado 80203

RE: Town of Pagosa Springs and Upper San Juan Watershed Enhancement Partnership  
WSRF Grant Request

The Southwest Basins Roundtable approved funding of \$16,618.00 from the Southwest Basins Roundtable account for the Town of Pagosa Springs & Upper San Juan WEP's Recreational and Ecological Enhancement Project- Yamaguchi South. This application was considered fully and approved by the Southwest Basins Roundtable at the October 28, 2021 meeting. There was a quorum of members present at the meeting. We would also like to recommend approval of \$149,562.00 from the Statewide WSRF for this project.

The proposed project meets the Colorado Water Plan's Goals & Objectives F-by enhancing environmental and recreational economic values. It also supports the Southwest Basins Roundtable's Measurable Goals or Outcomes of the BIP D1) Maintain, protect and enhance recreational values and economic values; and E2) Protect, maintain, monitor and improve the condition and natural function of streams.

The completed Grant Application will be forwarded directly to you by the applicant. Please contact the applicant directly or me at 970-563-0320, [etolen@laplawd.org](mailto:etolen@laplawd.org), if you have questions or wish to discuss this application in more detail.

Sincerely,



Edward Tolen  
Southwest Basins Roundtable Chair

October 14, 2021

SOUTHWEST BASIN ROUNDTABLE  
Edward Tolen, First Vice Chair  
c/o La Plata Archuleta Water District  
P.O. Box 1377  
Ignacio, Colorado 81137  
970-563-0320

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

Dear Southwest Basin Roundtable and Dear CWCB Board Members,

Friends of the Upper San Juan River (FUSJR) supports the Upper San Juan Watershed Enhancement Partnership (WEP) and Town of Pagosa Springs' (Town) proposed project entitled "Recreational and Ecological Enhancement of the San Juan River-Yamaguchi South."

Collaborations between the WEP and the Town have developed concept level designs for projects with recreational and ecological benefits to the San Juan River, within the Yamaguchi South area of downtown Pagosa Springs. Funding to support this project would create various new and/or improved river access points and channel features for the San Juan River; thereby enhancing recreation options at various river flows, reducing access conflicts, create diverse aquatic habitat to support fisheries, and develop a more resilient river facing changing hydrology and temperatures in the future.

FUSJR has committed to providing \$250 each year for three years (2022-2025) for a total of \$750 cash match funds to support this project. FUSJR supports this project because it mirrors our mission to promote environmentally sound, socially beneficial and economically prosperous management of the Upper San Juan River and Pagosa Springs community parks experience through; education, recreation and environmental awareness. Our community will benefit from this project funding, so our organization is 100% supportive.

Sincerely,  
Jenny Highum  
President  
Friends of the Upper San Juan River  
fusjr@outlook.com



The Nature Conservancy in Colorado  
2424 Spruce Street  
Boulder, CO 80302

tel (303) 444-2950  
fax (303) 444-2985  
[nature.org/colorado](http://nature.org/colorado)

November 30, 2021

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

Subject: Matching Funds for Recreational and Ecological Enhancement of the San Juan River-Yamaguchi South

Dear CWCB board members,

The purpose of this letter is to confirm matching contributions and support from The Nature Conservancy for the Upper San Juan Watershed Enhancement Partnership (WEP) and Town of Pagosa Springs' (Town) proposed project entitled "Recreational and Ecological Enhancement of the San Juan River-Yamaguchi South."

The Nature Conservancy will **commit \$3,180 in matching cash funds** from our 2021-2022 budget to support this project.

Please contact me should you need further information.

Sincerely,

*Diana R Lane*

Diana Lane

Director of Sustainable Food and Water Program

[diana.lane@nature.org](mailto:diana.lane@nature.org)

(720) 766-8638

[nature.org/colorado](http://nature.org/colorado)



## **TOWN OF PAGOSA SPRINGS, COLORADO**

### **RESOLUTION NO. 2021-13**

#### **A RESOLUTION SUPPORTING SUBMITTING GRANT APPLICATIONS TO THE COLORADO WATER CONSERVATION BOARD FOR RECREATIONAL AND ECOLOGICAL ENHANCEMENT OF THE SAN JUAN RIVER ADJACENT TO YAMAGUCHI SOUTH PARK**

WHEREAS, the Town of Pagosa Springs ("Town") is a home rule municipality duly organized and existing under Article XX of the Colorado Constitution and the Pagosa Springs Home Rule Charter of 2003, as amended; and

WHEREAS, the Town of Pagosa Springs supports the submission of a Colorado Water Conservation Board grant application for the enhancement of the San Juan River adjacent to Yamaguchi Park South, in the total amount of \$498,540 from the following Colorado Water Conservation Board grant programs: \$332,360 in funds from the Colorado Water Conservation Board Water Plan Grant; and \$149,562 in funds from the Colorado Water Conservation Board Water Supply Reserve Fund; and \$16,618 in funds from the Colorado Water Conservation Board Southwest Basin Roundtable Water Supply Reserve Fund; and

WHEREAS, the Town of Pagosa Springs adopted the Yamaguchi South Park Conceptual Master Plan in July of 2021, which included a thorough public engagement and comment process, with such plan indicating recreational and ecological enhancements of the San Juan River adjacent to the Park; and

WHEREAS, the Town's 2018 Comprehensive Plan recognizes *"Access to the San Juan River is important for recreation, economic development and community culture. As the natural environment is critical to the tourism industry, its protection is necessary. Balancing access with preservation of the natural system will assure the environment remains healthy and vibrant"*.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF PAGOSA SPRINGS, COLORADO as follows:


1. The Town Council of the Town of Pagosa Springs strongly supports the submission of the grant applications and will work with numerous community partners to fund the required 25% matching funds.
2. On September 23, 2021, Town Council approved a 2021 budget amendment, allocating the Town's \$96,000 cash match obligation towards the project to be expensed if awarded a grant.
3. If the grants are awarded, the Town Council of the Town of Pagosa Springs strongly supports the completion of the project in coordination with our funding partners.
4. The Town Council of the Town of Pagosa Springs authorizes the expenditure of funds necessary to meet the terms and obligations of any Grant awarded.
5. If the grants are awarded, the Town Council hereby authorizes the Town's Mayor to sign the grant agreements with each funding organization.
6. This resolution to be in full force and effect from and after its passage and approval.

7. Severability. If any part, section, subsection, sentence, clause or phrase of this Resolution is for any reason held to be invalid, such invalidity shall not affect the validity of the remaining provisions.
8. Effective Date. This Resolution shall take effect and be enforced immediately upon its approval by the Council.

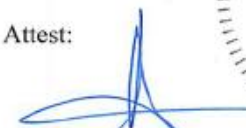
ADOPTED this 23rd day of September, 2021.

TOWN OF PAGOSA SPRINGS, COLORADO

By

  
Don Volger, Mayor

Attest:

  
April Hessman, Town Clerk





# Five Rivers Chapter

November ,23 2021

SOUTHWEST BASIN ROUNDTABLE  
Edward Tolen, First Vice Chair  
c/o La Plata Archuleta Water District  
P.O. Box 1377  
Ignacio, Colorado 81137

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

Dear CWCB Board Members,

Five Rivers Trout Unlimited fully supports the Upper San Juan Watershed Enhancement Partnership (WEP) and Town of Pagosa Springs' (Town) proposed project entitled "Recreational and Ecological Enhancement of the San Juan River-Yamaguchi South."

Collaborations between the WEP and the Town have developed concept level designs for projects with recreational and ecological benefits to the San Juan River, within the Yamaguchi South area of downtown Pagosa Springs. Funding to support this project would create various new and/or improved river access points and channel features for the San Juan River; thereby enhancing recreation options at various river flows, reducing access conflicts, create diverse aquatic habitat to support fisheries, and develop a more resilient river facing changing hydrology and temperatures in the future.

The Five Rivers Chapter of Trout Unlimited supports this project and has committed to \$3000 in cash funding toward this project.

Sincerely,

Frank (Buck) Skillen – Five Rivers Trout Unlimited, Board Member  
bskillen759@gmail.com



October 14, 2021

Southwest Basin Roundtable  
Edward Tolen, First Vice Chair  
% LaPlata Archuleta Water District  
P.O. Box 1377  
Ignacio, CO 81137

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

Dear Southwest Basin Roundtable and CWCB Board Members,

Two of the natural features which enhance the community of Pagosa Springs are dependent on water. One is the San Juan River which is a centerpoint of the town, contributing to the community water supply, providing recreational opportunities and supporting important riparian habitat for local wildlife. The other is our centrally located wetland areas, a portion of which is supported by an influx of geothermal water. These areas are critical to resident and migratory bird species, other large and small wildlife species, and an array of plants adapted to alkaline and wetland environments.

Recognizing the value of these habitats and with the desire to preserve them, our local Audubon chapter with the closely aligned Pagosa Wetland Partners group, have worked with the Town of Pagosa Springs to identify and evaluate projects to ensure projects have an overall beneficial effect on wetland and riparian fauna and flora. We have conducted tours to promote an awareness and appreciation of these natural areas, which we believe promote goals of the Colorado Water Plan in educating our communities about the importance of healthy watersheds.

Development of the area known as Yamaguchi South will present challenges in finding a balance between providing recreational needs while maintaining healthy wetland and riparian habitats. We believe that our support of this proposal with a matching fund commitment of \$250/year for a 3 year period and this letter of support is an indication of this project achieving this balance and of our desire to work with the Town of Pagosa Springs and Upper San Juan Watershed Partnership to protect these important habitats.

Yours,

Jean Zirnelt, Weminuche Audubon Society President

For the Board of Directors



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<b>Colorado Water Conservation Board</b>	
<b>Water Supply Reserve Fund</b>	
<b><u>Exhibit A - Statement of Work</u></b>	
<b>Date:</b>	10/15/2021
<b>Water Activity Name:</b>	Recreational and Ecological Enhancement of the San Juan River -Yamaguchi South
<b>Grant Recipient:</b>	Town of Pagosa Springs
<b>Funding Source:</b>	Basin and Statewide Water Supply Reserve Fund
<b>Water Activity Overview:</b> (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for. (PLEASE DEFINE ALL ACRONYMS).)	
<p>The primary purpose of the project is to enhance the recreational experience for both anglers and river enthusiasts, improve public access to recreational features, improve fish habitat quality and promote sediment movement through this section of the San Juan River.</p> <p>Using CWP scenarios, the E&amp;R Assessment identified the potential for trends in historical and future, climate-change driven hydrology to produce increasingly limiting conditions for aquatic life and recreation in the Upper San Juan River, including potential for reduction in the number of days that various types of recreational floating activities can be performed above, below and through the Town of Pagosa Springs. The proposed structures and improvements are designed to improve recreation access and to address some of the issues identified in the E&amp;R Assessment in the portion of the San Juan River that flows through the Town's Yamaguchi Park area.</p>	
<b>Objectives:</b> (List the objectives of the project. (PLEASE DEFINE ACRONYMS).)	
<ul style="list-style-type: none"><li>• Enhance the recreational experience for both anglers and river enthusiasts</li><li>• Improve public access to recreational features</li><li>• Improve fish habitat quality</li><li>• Promote sediment movement through this section of the San Juan River</li></ul>	
<b>Tasks</b>	
Provide a detailed description of each task using the following format: (PLEASE DEFINE ACRONYMS)	
<b><u>Task 1 – Design, engineering and permitting</u></b>	
Description of Task:	
Method/Procedure:	





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Design and engineering plans will be developed for each identified structure. Conduct investigations needed to obtain permits, including:

- Identify the extent of jurisdictional wetlands and other Waters of the U.S. (WUS) associated within the boundaries of the proposed project including impacts and mitigation if required.
- Conduct a biological assessment with the identification of any potential endangered species impacts,
- Determine any potential historic properties, artifacts and associated impacts and mitigation
- Obtain a section 401 water quality certification from the CDPHE
- Complete an alternative analysis for a 404 individual permit if required
- Address any public comments or other governmental agency concerns.
- Obtain a floodplain development permit from the local floodplain administrator

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

Final design plans

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

Final design plans

## **Task 2 - Construction**

Description of Task:

The following features will be constructed:

### **1. Habitat structures**

A variety of fish habitat/channel stability improvement structures are included in the proposed design. All proposed rock habitat structures will be built from existing large rocks (4'-5' average dimension). All structures will be built with adequate foundation rocks below the bed of the channel to protect against vertical scour. A description of each type of habitat structure is presented below:

- *Rock Cross Vane*-This structure is built with large angular rocks place to converge water towards the middle of the river. The objectives of the structures are to: provide cover and holding water for fish, cause a redirection of shear stress away from the bank towards the center of the river, sustain a pool form on the downstream side of the structure, provide vertical grade control, increase the width/depth ratio, improve sediment transport capacity, and provide a natural sorting of gravel on the tail out of the downstream pool. The structure is usually symmetrical in shape and ties into the ordinary high-water elevation on each side of the river.





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- *Rock J-hook/Short Vane*-The structure is similar to the rock cross vane except it ties to only one side of the river typically on the outside of a river bend. The objectives of the structures are to: create and sustain cover and holding water for fish, protect the bank from erosion, and create wide long pools that provide spawning habitat for fish. The structure is asymmetrical in shape and ties into the ordinary high-water elevation on one side of the river.
- *Rock Deflectors*-The rock deflector is a series stacked rocks placed in such a way to turn water off the outside of a bank and converge the water on the downstream face of the structure causing a deep scour pool to form. The objectives of the structures are to: provide increased bank stability in high shear stress locations, maintain a wide navigation lane in the center of the river, create cover and holding water for fish, and to create excellent spawning gravels in the downstream eddy below the structure. The structure is usually tied to and elevation equal to or above ordinary high water on one side of the river.
- *Rock Habitat Clusters*-The rock habitat cluster is a series of several rocks clustered together usually located near the center of the river channel. The objectives of these clusters are to: provide in stream holding areas for fish, to create local scour and flow diversity in the middle of the channel. These structures typically are built by placing 4-5 large rocks (50 square feet) in clusters in the exiting river channel.
- *Native Material Revetment/Root Wads*-The root wad structure are typically used in combination with a large rock structure to ensure the wood material remains stable during high water events. The objectives of these structures are to: provide shade and cover, detritus, terrestrial insect habitat, enhance the natural look of the river, and provide complexity to the subsurface fish habitat. These structures consist of 5-10 large (1'-3' diameter) cottonwood root balls with approximately 10'-20' of trunk that are partially buried in the riverbank and extend out into the river channel with the root ball to provide the desired habitat.

2. **Boat Ramp/River Access**

Access to the river will be improved through individual pedestrian trails down to the riverbank as well as a new boat ramp that will be available for commercial and private river users. The new river features will be accessed utilizing a new access road, trail system, parking area, and boat ramp. The road and parking area will be constructed by clearing the vegetation and topsoil and placing a crushed rock base and surface material. Road and parking area surface drainage will be collected with swales that flow into a vegetated detention basin and then will eventually drain into the river. The boat ramp extends down into the river with a stacked rock retaining wall on the upstream and downstream side.

3. **Wetland area/Pond improvements**

An existing pond area will be enhanced with intense riparian and wetland species planting. A strong riparian vegetation community means better cover for terrestrial species that use the river for water and for its riparian forage potential. Dense riparian vegetation encourages deposition of fine-grained sediment for soil building, and also creates backwater areas that are the genesis of obligate wetland communities. Mature



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	riparian vegetation stands, where existing, will remain intact during and after construction. This vegetation is important for streambank stability, terrestrial habitat and visual/aesthetic screening.
4.	<b>Channel shaping structures including riffles and pools</b> The channel shaping proposed involves rearranging on the existing river alluvium to create the desired channel dimensions. All of the proposed channel shaping will occur below the ordinary high-water mark. Channel shaping will encourage the compliment the appropriate spacing of pool riffle sequencing for this reach of the San Juan River.
5.	<b>New whitewater wave</b> The new whitewater structure will have a low flow center ramp constructed of large rocks with concrete grout in the gaps between the rocks. The structures will have side ramps at a slightly higher elevation than the center ramp that will be constructed of large boulders. The feature will create a standing wave desirable by recreational boating enthusiast. The structure will have a pool form immediately downstream. The pool form may be created by excavation of the bedrock. Excavated bedrock will be hauled to an upland disposal area. The low flow ramp will have an elevation drop of 18-24". A fish passage channel will be constructed at a low point adjacent to the ramp.
Method/Procedure: See description above	
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)	
Constructed features. Final report including photos and/or video of features as built	
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)	
Final report including photos and/or video of features as built	

### Budget and Schedule

**Exhibit B - Budget and Schedule:** This Statement of Work shall be accompanied by a combined [Budget and Schedule](#) that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format. A separate excel formatted Budget is required for engineering costs to include rate and unit costs.

### Reporting Requirements

**Progress Reports:** The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

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

- Summarizes the project and how the project was completed.



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<https://cwcb.colorado.gov/>**Reporting Requirements**

- 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.

**Payments**

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. 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.

The CWCB will pay the last 10% of the entire water activity 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 water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

**Performance Requirements**

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 Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per the 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 the 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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**COLORADO**

**Colorado Water  
Conservation Board**

Department of Natural Resources

**Colorado Water Conservation Board**

**Water Supply Reserve Fund**

**EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs**

**Date: 10/15/2021**

**Water Activity Name: Recreational and Ecological Enhancement of the San Juan River -Yamaguchi South**

**Grantee Name: Upper San Juan Watershed Enhancement Partnership and Town of Pagosa Springs**

<b><u>Task No.</u></b> <sup>(1)</sup>	<b><u>Description</u></b>	<b><u>Start Date</u></b> <sup>(2)</sup>	<b><u>End Date</u></b>	<b><u>Matching Funds</u></b> <b>(cash &amp; in-kind)</b> <sup>(3)</sup>	<b><u>WSRF Funds</u></b> <b>(Basin &amp; Statewide combined)</b> <sup>(3)</sup>	<b><u>Total</u></b>
1	Permitting & Design	June 2022	May 2025	\$86,250	\$28,750	\$115,000
2	Construction & Materials	June 2022	May 2025	\$412,290	\$137,430	\$549,720
<b>Total</b>				<b>\$498,540</b>	<b>\$166,180</b>	<b>\$664,720</b>