



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Ben Wade & Dori Vigil
Water Supply Planning Section

DATE: February 24, 2023

AGENDA ITEM: Consent Agenda 2a-f, Water Supply Reserve Fund, Grant Funding Recommendations

Staff Recommendation - Action Items: WSRF Grant Requests:

A summary of staff's recommendation for each WSRF application are provided in the first component of the attached table.

Favorable recommendations may be contingent on the applicants' abilities to resolve issues and additional needs in the attached Water Activity Summaries. Please refer to the Water Activity Summary Sheets contained within this agenda item to find a summary of staff's review and any conditions associated with each recommendation.

Background:

For this agenda item, the Board is provided with a brief overview of applications to the Water Supply Reserve Fund (WSRF). Attachments to this memo include:

- Summary spreadsheet detailing funding requests for the basin and statewide accounts;
- Summary spreadsheet displaying current WSRF Balance Summary of Fund Appropriations and Receipts by Fiscal Year, and Fund Distribution by Basin and Statewide Account.
- Water Activity Summary Sheets, which provide an overview, discussion, issues/additional needs, and staff recommendation regarding funding, partial funding, or not funding the applications.

Staff's review of the applications involves the following steps:

- 1) Applications are reviewed for completeness based on the information requirements, which are primarily outlined in the Grant Guidelines.
- 2) Applications are reviewed to verify that the water activity meets the eligibility requirements in Section 39-29-108 (III) C.R.S. (C&G, Part 2) and the threshold criteria, which are based on the requirements of Section 39-29-108 (III) C.R.S., and two sections of the Water for the 21st Century Act (House Bill 1177); Section 37-75-102 and Section 37-75-104(2)(c) (C&G, Part 3). Staff also verifies that the applicant was an eligible entity to receive funding (C&G, Part 2).



- 3) Staff then prepares the Water Activity Summary Sheet which documents the outcome of the review process and contains staff's recommendations.

Water Supply Reserve Fund Balance Summary and Project Status Report:

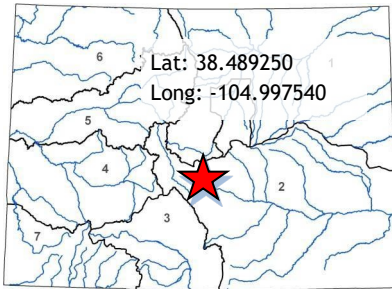
To provide the Board updates on the status of specific Water Supply Reserve Fund grant applications and projects, staff can provide a status report of the following information upon request:

- List of completed WSRF projects;
- List of WSRF projects in progress; and
- List of WSRF projects in the contracting and procurement process.





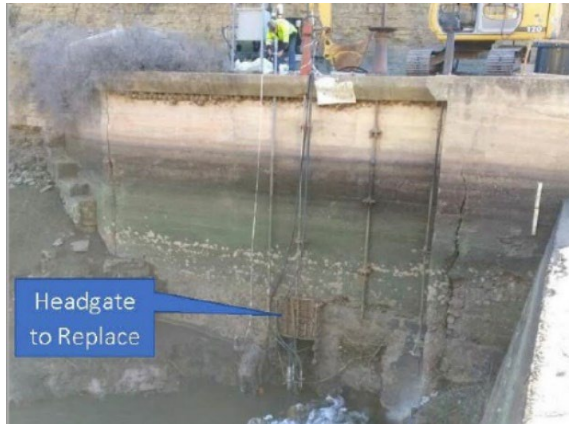
Water Supply Reserve Grant Application



LOCATION
County: Fremont
Drainage Basin: Arkansas

DETAILS	
Total Project Cost:	\$61,130
Total WSRF Grant Request:	\$52,100
Basin Account Request:	\$6,130
Statewide Account Request:	\$45,970
Recommended amount:	\$52,100
Other CWCB Funding:	\$0
Other Funding Amount:	\$3,600
Applicant Match:	\$5,600
Water Use Type:	Agricultural
Project Type:	Implementation
Statewide Category:	Aging Infrastructure
Measurable Result: \$5,000 efficiency savings/yr; 500 acre-ft efficiency savings; 575 Number of Coloradoans impacted by engagement activity	

If approved, the proposed project will consist of removing the existing manually operated steel headgate on the diversion structure of the Beaver Park Upper Canal on Beaver Creek and replacing the aged headgate with a new Rubicon automated and remotely controlled headgate. The project is located in Fremont County. WSRF funding will be used for the purchase of a new Rubicon automated headgate, removal of the existing headgate, demolition of some concrete on the existing diversion structure, dewatering of the work location, construction and placement of a temporary work platform, rental as needed of machinery to hoist the existing headgate from the diversion structure and to place the new headgate.



The applicant expects the benefits related to the proposed project to be: Maximize use efficiency of Beaver Park water supplies through this infrastructure modernization; Reduce required staff time and cost to operate the diversion structure; Provide for more timely ditch diversion rate changes; Reducing the volumes of stream flow that unnecessarily pass this diversion structure due to a lack of timely diversion adjustments; Increase staff safety; The infrastructure improvement will also have benefits internal to the ditch system by providing for a more stable and constant stream diversion rate by utilizing the control features of the proposed new headgates. A more stable ditch diversion rate allows for maximum efficiency and

greater equitable distribution of water to Beaver Park shareholders.

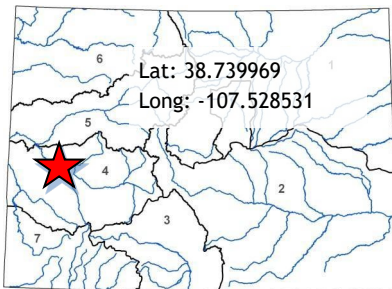
The proposed project aligns with the Colorado Vision & the Arkansas Basin Implementation Plan.

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

Funding Recommendation: Staff recommends approval of up to \$6,130 from the Arkansas Basin Account and up to \$45,970 from the Statewide Account. Project approval is contingent upon the applicants' abilities to resolve issues and additional needs identified by staff.



Water Supply Reserve Grant Application



LOCATION
County: Delta
Drainage Basin: Gunnison

DETAILS	
Total Project Cost:	\$1,059,685
Total WSRF Grant Request:	\$68,500
Basin Account Request:	\$68,500
Recommended Amount:	\$68,500
Other CWCB Funding:	\$0
Other Funding Amount:	\$100,000
Applicant Match:	\$25,000
Project Type: Construction/Implementation	
Major Water Use Type: Agricultural	
Measurable Result:	

The Pilot Rock Ditch serves ~350 acres of irrigated acreage near Crawford, CO, diverting directly from Little Coal Creek. Due to drought conditions, the ditch is increasingly in danger of failing. If approved, the applicant proposes to pipe or line the upper 8,173 feet of the Pilot Rock Ditch using 27"-24" PVC pipe. The project will include new headgate and diversion improvements, a lined settling basin and new measuring flume, 8010 LF of pipe, and a tie-in to the first split box on the system.

Design for the project is complete and the applicant wishes to begin the project in the Fall of 2023. The project has been broken into two phases. Phase 1 includes piping the middle 4,300 LF of the critical section of ditch where stabilization is necessary to run water before May 2023. WSRF funds will be used for Phase 2 which includes piping the upper and lower sections of the project as well as the headgate and diversion improvements, settling basin, flume installation, and tie-ins. The applicant wishes to begin Phase 2 after water shuts off in July and conclude before Fall. The applicant has secured additional match funding to complete Phase 1.

The project deliverable will include a new concrete diversion and headgate structure capable of passing large debris, flushing sediment, and adjusting flows into the Pilot Rock Ditch with minimal effort and maintenance. The applicant believes the 75-ft concrete lined settling basin will prevent sediment from entering the pipeline. A new concrete ramp flume will help provide accurate flow measurement and a fabricated metal trash rack will prevent debris from entering the pipeline. 8,010 LF of 27"-24" pressure-rated PVC pipe will carry the full ditch flow to the service area; reduced cleaning and maintenance, prevention of 665 tons per year of salt loading into the Colorado River, and stabilization of the ditch will result. Piping would eliminate seepage and evaporation losses amounting to an estimated 0.33cfs during the irrigation season for a total of 49 ac-ft per year. An 8" pipe will carry Gove Ditch overflow water into the Pilot Rock pipeline allowing for added efficiency and interoperability between the systems.

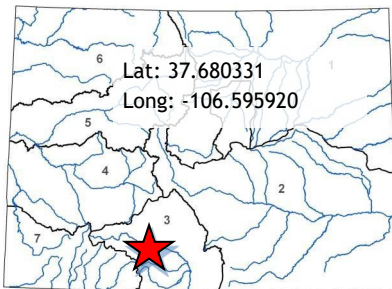
The project aligns with the Water Plan and the Gunnison Basin Implementation Plan.

Issues/Additional Needs: If approved, the applicant will need to provide matching fund commitment letters prior to contracting. No issues or additional needs have been identified.

Funding Recommendation: Staff recommends approval of \$68,500 from the Gunnison Basin Account. Project approval is contingent upon the applicants' abilities to resolve issues and additional needs identified by staff.



Water Supply Reserve Grant Application



LOCATION
County: Rio Grande
Drainage Basin: Rio Grande

DETAILS	
Total Project Cost:	\$126,150
Total WSRF Grant Request:	\$60,000
Basin Account Request:	\$60,000
Recommended Amount:	\$60,000
Other CWCB Funding:	\$0
Other Funding Amount:	\$66,150
Applicant Match:	\$0
Project Type: Construction/Implementation	
Major Water Use Type: Agricultural	
Measurable Result: Replacement of diversion infrastructure for the Anaconda Ditch to meet multiple needs.	

The applicant is proposing a multi-purpose project to improve the function and reduce maintenance for the water users of the Anaconda Ditch, as well as improve stream function and boater safety. Currently, the Anaconda Ditch headgate and diversion is in poor condition and requires significant maintenance by water users. The project will include constructing a new concrete headgate at the river, adding headgate automation, removing the existing concrete and rebar portion of the diversion structure, and rebuilding and revegetating the riverbank downstream of the new headgate.

The applicant believes the project will directly benefit water users on the Anaconda Ditch by improving diversion efficiency and reducing maintenance by relocating and replacing their aging headgate and adding automation. The project will also enhance boater safety by removing instream hazards and improve water administration by installing automation and improving headgate function. Project partners include the Anaconda Ditch Water Users, San Luis Valley Water Conservancy District, Colorado Division of Water Resources, and Rio Grande Headwaters Restoration Project.

If approved, WSRF grant funding will support project construction, which will result in improved diversion efficiency, reduced maintenance, and enhanced boater safety.

The project aligns with two of the five Rio Grande Implementation goals of supporting vibrant & resilient agriculture and adaptive, flexible, and creative water administration while complying with state statutes, compacts and the doctrine of prior appropriation.

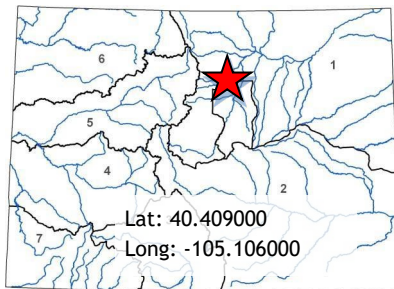
Issues/Additional Needs: The applicant must secure all matching funding prior to contracting. No other issues or additional needs have been identified.

Funding Recommendation: Staff recommends approval of \$60,000 from the Rio Grande Basin Account. Project approval is contingent upon the applicants' abilities to resolve issues and additional needs identified by staff.





Water Supply Reserve Grant Application



LOCATION
Counties: Boulder, Clear Creek, Gilpin, Jefferson, Larimer, Weld
Drainage Basins: South Platte & Metro

DETAILS	
Total Project Cost:	\$140,000
Total WSRF Grant Request:	\$70,000
Basin Account Request:	\$70,000
Recommended Amount:	\$70,000
Other CWCB Funding:	\$0
Other Funding Amount:	\$60,000
Applicant Match:	\$10,000
Project Type: Education	
Major Water Use Type: Education	
Measurable Result: 30,000 Coloradans impacted by engagement activity	

The applicant, Open Water Foundation, was previously awarded a WSRF grant to assist in developing the Poudre Basin Information website (<https://poudre.openwaterfoundation.org/>, see image below). The website is a cross-jurisdictional community information resource. The applicant created the website to be used for education, inform basin operations, and as a source of data and information to evaluate and implement projects, and to facilitate fundraising.

If approved, the proposed project will continue to enhance the features of the software to provide additional information products, including additional historical and planning information. The applicant will use WSRF grant funds to implement basin information websites for the Big Thompson River and Saint Vrain Creek basins, to support organizations and citizens in those basins. The website also offers information about wildfires and flooding, leveraging the features implemented for the Poudre in response to the 2020 wildfires. The image below illustrates that flood warning information from the Larimer County flood warning system is available for the Poudre and Big Thompson Basins.

Consistent with the applicant's mission, grant deliverables will consist of open-source software and open data to promote collaboration and efficiency.

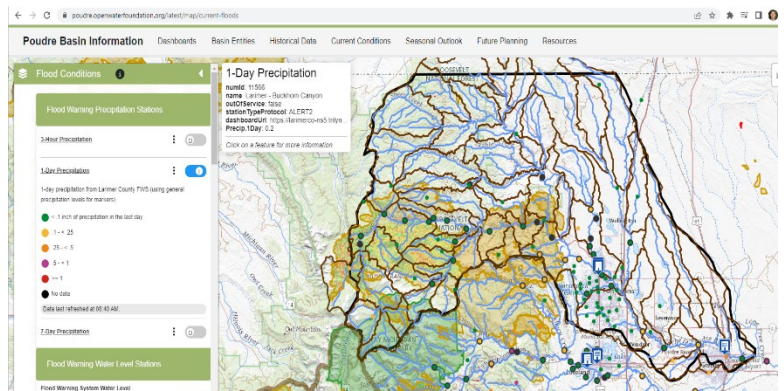
This project aligns with the Colorado Water Plan (CWP) value of "an informed public with creative, forward-thinking solutions" and aligns with the South Platte Basin Implementation Plan.

Issues/Additional Needs:

The applicant will need to secure all match funding prior to contracting. No other issues or additional needs have been identified.

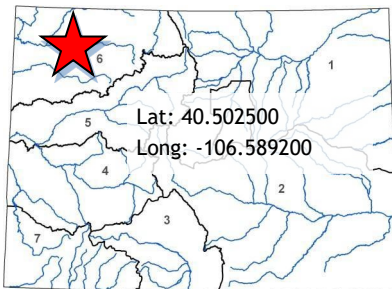
Funding Recommendation:

Staff recommends approval of \$70,000 from the South Platte Basin Account. Project approval is contingent upon the applicants' abilities to resolve issues and additional needs identified by staff.





Water Supply Reserve Grant Application



LOCATION
Counties: Garfield, Moffat, Rio Blanco, Routt
Drainage Basin: Yampa/White/Green

DETAILS	
Total Project Cost:	\$136,000
Total WSRF Grant Request:	\$95,000
Basin Account Request:	\$95,000
Recommended Amount:	\$95,000
Other CWCB Funding:	\$0
Other Funding Amount:	\$12,000
Applicant Match:	\$29,000
Project Type: Other/Planning	
Major Water Use Type: Agricultural, Education, Environmental, Municipal	
Measurable Result: 250 linear feet of stream restored or protected; 1,000 Coloradoans impacted by engagement activity	

If approved, the applicant proposes to use grant funds for online dashboard infrastructure that would provide water rights owners, water users, and for the public to access a centralized, interactive means of monitoring, measuring, analyzing, and extracting relevant information from different datasets in key areas while displaying information in an interactive, intuitive, and visual way.

The applicant states the dashboard will also be used as a foundation for or to support and inform other goals from the Yampa Integrated Water Management Plan including: education on water rights & improve diversion data reported to the State; utilizing the Yampa River Scorecard Project to centralize collection & reporting of river ecosystem data; coordinating reservoir operations to meet irrigation & environmental shortages; implementing hydrology monitoring plan; establishing basin-wide temperature monitoring; protecting flows for listed fish; and meeting existing environmental flow targets & water rights.

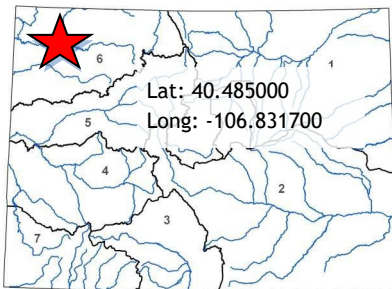
The project aligns with the Yampa White Green Basin Implementation Plan including: maintaining & considering the existing natural range of water quality that is necessary for current and anticipated water uses; providing for multiple beneficiaries; identifying M&I water shortages; quantifying and protecting non-consumptive water use; developing an integrated system of water use, storage, administration and delivery to reduce water shortages and meet environmental and recreational needs; and public water education.

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

Funding Recommendation: Staff recommends approval of \$95,000 from the Yampa/White/Green Basin Account. Project approval is contingent upon the applicants' abilities to resolve issues and additional needs identified by staff.



Water Supply Reserve Grant Application



LOCATION
Counties: Moffat, Rio Blanco, Routt
Drainage Basin: Yampa/White/Green

DETAILS	
Total Project Cost:	\$168,514.75
Total WSRF Grant Request:	\$99,552
Basin Account Request:	\$99,552
Recommended Amount:	\$99,552
Other CWCB Funding:	\$0
Other Funding Amount:	\$53,798.50
Applicant Match:	\$15,164.25
Project Type:	Education
Major Water Use Type:	Education
Measurable Result:	6,000 K-12 students impacted by engagement activity

If approved, the applicant to continue to develop, implement and grow a Pre-K-12 grade water education program for students both in-school and out of school in the Yampa/White/Green Basin over a two-year period. The program was funded through a WSRF grant awarded in November 2019.

The project will include the development of curriculum based on Colorado State standards, and a comprehensive evaluation system that measures both quantitative and qualitative success. According to the North American Association for Environmental Education "The benefits of environmental education for K-12 students include improvements in critical thinking, 21st century skills, STEM topics, standardized test scores, social and emotional growth, leadership, citizenship, and confidence." This translates to increased academic performance and engagement in environmental stewardship.

Youth water education programs will focus on increasing general water education, which includes highlighting the importance of water in the Basin to all relevant stakeholders including agriculture, municipalities, recreation, businesses, community members, and the environment. These education programs will be a valuable opportunity to highlight the updated Colorado Water Plan, the Basin Implementation Plan, and the critical role of the Yampa/White/Green Basin Roundtable to address the consumptive and non-consumptive water needs across the Basin.

Evaluation components will be created for the programs to ensure short and long-term success of water education programs. Both students and teachers will be surveyed to ensure successful implementation.

The proposed project aligns and aids in achieving Yampa/White/Green Basin Implementation Plan goals including, but not limited to: public water education; and providing for multiple beneficiaries and objectives.

Issues/Additional Needs: The applicant must provide all match funding commitment letters prior to contracting. No further issues or additional needs have been identified.

Funding Recommendation: Staff recommends approval of \$99,552 from the Yampa/White/Green Basin Account. Project approval is contingent upon the applicants' abilities to resolve issues and additional needs identified by staff.