



**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:** September 7, 2023

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

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**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, to verify that the water activity meets the eligibility requirements, and also verifies that the applicant was an eligible entity to receive funding which are primarily outlined in the Grant Guidelines.
- 2) 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:**

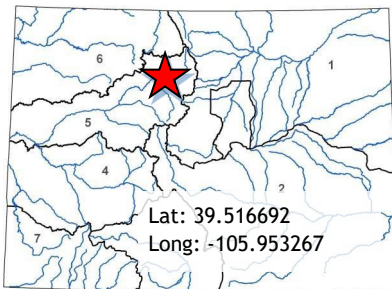
To provide the Board updates on the status of specific Water Supply Reserve Fund grant applications and projects, staff can provide a status report of the following information upon request:

- 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
<b>Counties:</b> Grand, Lake, Summit
<b>Drainage Basin:</b> Colorado

DETAILS	
<b>Total Project Cost:</b>	\$110,000
<b>Total WSRF Grant Request:</b>	\$80,000
<b>Colorado Basin Account Request:</b>	\$80,000
<b>Recommended Amount:</b>	\$80,000
<b>Other CWCB Funding:</b>	\$0
<b>Other Funding Amount:</b>	\$30,000
<b>Applicant Match:</b>	\$0
<b>Project Type:</b> Design/Engineering	
<b>Major Water Use Type:</b> Environmental	
<b>Measurable Result:</b> 2,640 linear feet of stream restored or protected	

The applicant, the Blue River Watershed Group, was founded in 2004 by a group of local community members who were interested in protecting and preserving the health of the Blue River Basin. Their mission is to promote, protect, and restore a healthy Blue River watershed covering about 680 square miles which includes all of Summit County and portions of Grand and Lake Counties through cooperative community education, stewardship, and resource management.

The proposed project is a partnership comprised of a diverse group of agencies, nonprofit organizations, and individuals working to restore the Swan River Valley from the impacts of dredge mining near the Town of Breckenridge. The impacted river stretch was segmented into four reaches for a phased approach to restoration across property boundaries. Restoration on the first two reaches (Reach A and B) was completed in fall 2022 by Summit County and the Town of Breckenridge. The applicant is currently working with the private landowners to complete the third and fourth reach (Reach C and D).

If approved, WSRF funding will be used to develop a detailed restoration design plan for Reaches C and D. The restoration plan will include a full design/build level plan that is sufficient for all project permitting and can be used to direct site restoration. An itemized construction cost will be generated based on the final restoration plans. This cost estimate will indicate quantities and unit costs for all construction related tasks for use by the applicant for project implementation.

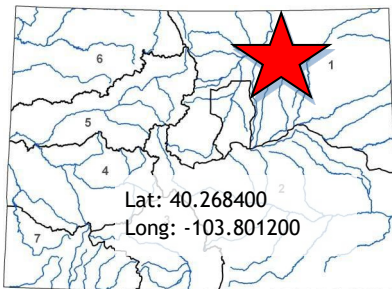
Project goals include the following: Restore stream and floodplain functions to over three miles of the Swan River and surrounding areas destroyed by early 1900 dredge mining; Reconnecting 42 miles of perennial stream on the North, Middle and South Forks of the Swan River with a natural, stable stream channel and enhance the adjacent riparian and upland areas; and restoring a self-sustaining trout fishery and create habitat for a diversity of native wildlife.

**Issues/Additional Needs:** If approved, the applicant must obtain matching commitment letters prior to contracting. No issues or additional needs have been identified.

**Funding Recommendation:** Staff recommends approval of up to \$80,000 from the Colorado 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
<b>Counties:</b> Adams, Denver, Larimer, Logan Morgan, Sedgwick, Weld
<b>Drainage Basin:</b> South Platte

DETAILS	
<b>Total Project Cost:</b>	\$106,683
<b>Total WSRF Grant Request:</b>	\$80,469
<b>Metro Basin Account Request:</b>	\$40,234.50
<b>South Platte Basin Account Request:</b>	\$40,234.50
<b>Recommended Amount:</b>	\$80,469
<b>Other CWCB Funding:</b>	\$0
<b>Other Funding Amount:</b>	\$1,500
<b>Applicant Match:</b>	\$24,714
<b>Project Type:</b> Study/Education	
<b>Major Water Use Type:</b> Environmental	
<b>Measurable Result:</b> "Salinity affects both agriculture and other water users along the South Platte and its tributaries within the South Platte basin."	

If approved, this proposal seeks to supplement as part B, the recently completed CWCB study "Geologic Salinity Sources in the South Platte Basin", which has the South Platte Salinity Stakeholder Group and Technical Advising Team components. The previous study was funded through a WSRF grant that was awarded by the CWCB Board in September 2020.

The project's Technical Team has encouraged collection of chemical composition data from the basin's geologic formations. Collected data will support identifying salts that different geologic formations are contributing to the basin's water supply. Geologic formations may be contributing different types and quantities of salts than other salinity sources. Furthermore, chemical composition in near surface weathered and deeper unweathered rock may differ. Up to 40 weathered rock samples would be analyzed from surface outcrops along the Saint Vrain, Big Thompson, Cache la Poudre, and South Platte River drainages. Up to eight unweathered rock samples from the USGS Core Library or alternate sources would be obtained and analyzed for the same items as the water samples in the prior study.

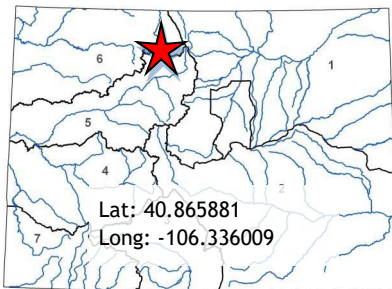
In addition, 10 "split" groundwater samples will be collected by the Colorado Department of Agriculture from existing alluvial wells near the sampled outcrops (as feasible) during their planned 2023 South Platte sampling program. Although this is important to the study, it may likely occur prior to the approval of this current proposal.

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

**Funding Recommendation:** Staff recommends approval of up to \$40,234.50 from the Metro Basin Account and up to \$40,234.50 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	
<b>County:</b>	Jackson
<b>Drainage Basin:</b>	North Platte

DETAILS	
<b>Total Project Cost:</b>	\$100,000
<b>Total WSRF Grant Request:</b>	\$75,000
<b>North Platte Basin Account Request:</b>	\$75,000
<b>Recommended Amount:</b>	\$75,000
<b>Other CWCB Funding:</b>	\$0
<b>Other Funding Amount:</b>	\$0
<b>Applicant Match:</b>	\$25,000
<b>Project Type:</b> Implementation - Education	
<b>Major Water Use Type:</b> Agricultural	
<b>Measurable Result:</b> Quantification of consumptive use and derivation of locally calibrated crop coefficients.	

The applicant is a western slope engineering firm that became the Grantee of a CWCB previously funded effort to re-establish a lysimeter system near Cowdrey, CO in September 2014 after the original applicant could not complete the project.

The project aims to quantify consumptive use of high-altitude hay meadows using weighing lysimeters. If approved, the applicant will continue this monitoring program and use WSRF funds to purchase backup lysimeter monitoring equipment and soil moisture monitoring equipment. The applicant will continue the lysimeter project and monitoring for an additional 5-years. Several years of data from the previous grant were unable to be included due to non-reference conditions following disturbance from installation as well as system issues that were remedied throughout the study period to make the system operate in flood irrigated meadows.

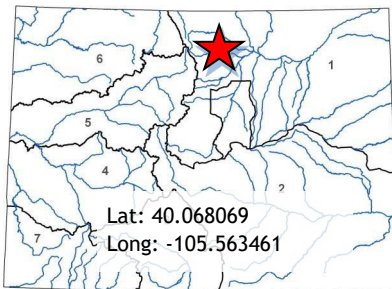
This project aligns with the North Platte Basin Implementation Plan Goal of "maintaining and maximizing the consumptive use of water permitted in the Equitable Apportionment Decree and the baseline depletion allowance in Colorado's Plan for Future Depletions".

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

Funding Recommendation: Staff recommends approval of up to \$75,000 from the North 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
<b>County:</b> Boulder
<b>Drainage Basin:</b> South Platte

DETAILS	
<b>Total Project Cost:</b>	\$135,010
<b>Total WSRF Grant Request:</b>	\$66,885
<b>South Platte Basin Account Request:</b>	\$66,885
<b>Recommended Amount:</b>	\$66,885
<b>Other CWCB Funding:</b>	\$0
<b>Other Funding Amount:</b>	\$68,125
<b>Applicant Match:</b>	\$0
<b>Project Type:</b> Construction/Implementation	
<b>Major Water Use Type:</b> Environmental	
<b>Measurable Result:</b> 1,953 acre-feet of existing storage preserved or enhanced; 179,520 linear feet of stream restored or protected; 500 Coloradans impacted by engagement activity.	

The applicant is a non-profit in Boulder County established in 2005. Their mission is to protect and restore watersheds for people and the environment using a collaborative and science-based approach to monitor, assess, and manage the watersheds.

The applicant states water efficiency is becoming increasingly important as water demand is growing in the South Platte Basin and beyond but identifies that the lack of precise flow measurement in the St. Vrain Watershed limits the ability of stakeholders to track water use efficiency and quantitatively plan for water supply reliability. The proposed project will improve flow measurement through better stream gauging, measurement devices, and telemetry. These devices record flow and provide quantitative data relative to the amount of water available in ditch and stream systems.

If approved, WSRF funds will be used to install five new flow measurement devices in two key headwater locations. Two devices will be installed at Gold Lake Reservoir and three devices at Left Hand Park Reservoir to improve tracking of water flowing into ditch canals and Left Hand Creek. The headwater location of these devices support improved water accounting downstream.

This applicant also proposes to engage community members by developing and sharing project outreach materials that describe what information is gathered and how it relates to water management. The applicant has partnered with the Left Hand Ditch Company to implement the project.

The project aligns with the South Platte Basin Implementation Plan.

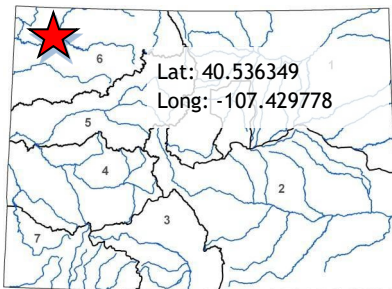
Issues/Additional Needs: No issues or additional needs have been identified.

Funding Recommendation: Staff recommends approval of up to \$66,885 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



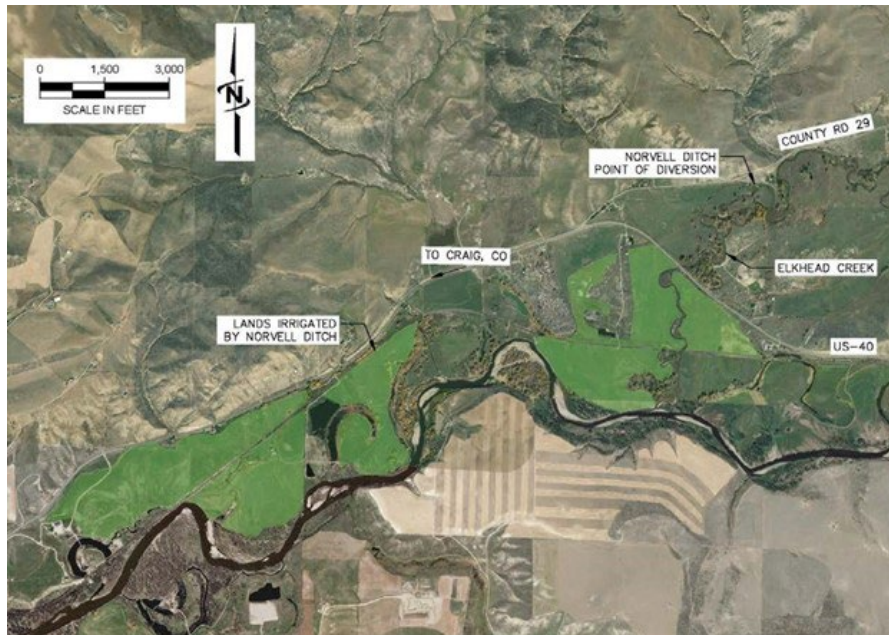
LOCATION
<b>County:</b> Moffat
<b>Drainage Basin:</b> Yampa/White/Green

DETAILS	
<b>Total Project Cost:</b>	\$133,500
<b>Total WSRF Grant Request:</b>	\$99,750
<b>YWG Basin Account Request:</b>	\$99,750
<b>Recommended Amount:</b>	\$99,750
<b>Other CWCB Funding:</b>	\$0
<b>Other Funding Amount:</b>	\$22,500
<b>Applicant Match:</b>	\$11,250
<b>Project Type:</b> Design/Construction	
<b>Major Water Use Type:</b> Agricultural	
<b>Measurable Result:</b> None listed.	

The applicant is a ditch company that has a 30 cfs water right on Elkhead Creek that sends water down a four-mile ditch where multiple owners irrigate over 600 acres of crops.

The proposed project is replacing existing headgates along with the construction of a new concrete diversion wingwall. A concrete headwall structure spanning across the ditch and connecting the two wingwalls would be required for mounting the headgates.

Due to the orientation of the diversion and the slow-moving water in Elkhead Creek at this location, a trash rack would be required to prevent debris from clogging up the main headgates and/or downstream structures. The bulk of the cost to replace the headgate structure would be in the concrete construction costs and the purchase and installation of the new headgates. The applicant is requesting WSRF funds to assist in the design and construction of the project.



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

**Funding Recommendation:** Staff recommends approval of up to \$99,750 from the Yampa/White/Green Basin Account. Project approval is contingent upon the applicants' abilities to resolve issues and additional needs identified by staff.