



## COLORADO

### Colorado Water Conservation Board

Department of Natural Resources

1313 Sherman Street, Room 718  
Denver, CO 80203

P (303) 866-3441  
F (303) 866-4474

Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

**TO:** Colorado Water Conservation Board Members

**FROM:** Ben Wade & Dori Vigil  
Water Supply Planning Section

**DATE:** February 24, 2023

**AGENDA ITEM:** Agenda 24 a-m, 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 providing the CWCB with additional information, clarifications, or modifications in the scope of work. 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.

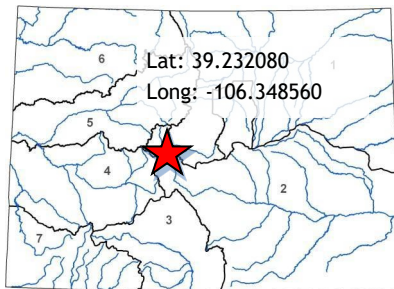
**Water Supply Reserve Fund Balance Summary and Project Status Report:**

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



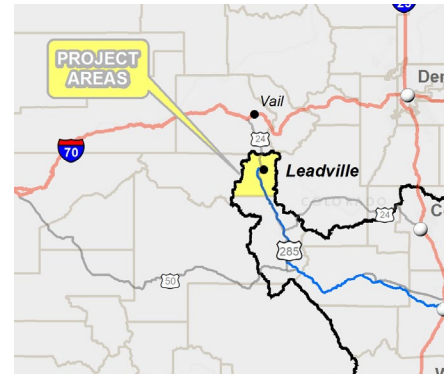
LOCATION
<b>County:</b> Lake
<b>Drainage Basin:</b> Arkansas

DETAILS	
<b>WSRF Total Project Cost:</b>	<b>\$505,900</b>
<b>Total WSRF Grant Request:</b>	<b>\$302,650</b>
<i>Basin Account Request:</i>	\$50,590
<i>Statewide Account Request:</i>	\$252,060
<b>Recommended amount:</b>	<b>\$302,650</b>
<i>Other CWCB Funding:</i>	\$0
<i>Other Funding Amount:</i>	\$203,250
<i>Applicant Match:</i>	\$0
<i>Water Use Type:</i> Environmental	
<i>Project Type:</i> Implementation	
<i>Statewide Category:</i> Drought Resiliency	
<i>Measurable Result(s): 2,000 Length of Stream Restored; 500 Number of Coloradoans Impacted by Engagement Activity</i>	

The applicant has received nearly \$4 million in funding to manage and carry out a multi-component watershed project in Lake County. The proposed project is partially funded by the California Gulch Natural Resources Damages fund. The proposal has multiple components: Overarching capacity; upland watershed protection; mines, habitat, and crossings.

The applicant believes each of these components help improve the health of the watershed and build resiliency in the Arkansas River headwaters. The project timeline spans over a five-year with multiple partners including Trout Unlimited, U.S. Forest Service, Lake County, and Colorado Springs Utilities.

Project objectives include: Addressing stream habitat through in-channel and floodplain restoration to improve aquatic resources and associated riparian habitat; Reclaiming the legacy of abandoned mines through channel stabilization, treatment, revegetation of fluvial tailings, and development of water treatment technology that will have the ultimate benefit of protection of water quality and downstream fish habitat; addressing aquatic species passage and sediment transport by implementing projects to improve existing culverts and crossings; and reducing fuel loading in uplands of critical sub-watersheds through forest restoration, which also helps reduce post-fire flooding, and its impacts on downstream values at risk, including but not limited to historic mine sites, public roads, and infrastructure, water quality, and water supplies.



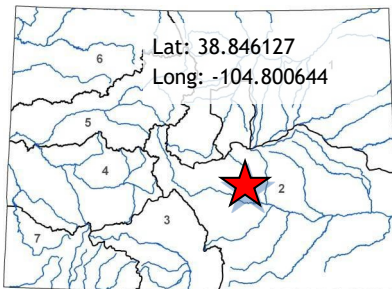
The proposal meets the Colorado Vision and meets Arkansas Basin Implementation goals to support thriving watersheds. The applicant has met the Statewide Account match requirements.

Issues/Additional Needs: If approved, the applicant will need to secure matching funds prior to contracting.

Funding Recommendation: Staff recommends approval of up to \$50,590 from the Arkansas Basin Account and up to \$252,650 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
<b>County:</b> El Paso
<b>Drainage Basin:</b> Arkansas

DETAILS	
<i>Total Project Cost:</i>	\$400,000
<i>Total WSRF Grant Request:</i>	\$500,000
<i>Basin Account Request:</i>	\$50,000
<i>Statewide Account Request:</i>	\$200,000
<i>Recommended Amount:</i>	\$250,000
<i>Other CWCB Funding:</i>	\$0
<i>Other Funding Amount:</i>	\$0
<i>Applicant Match:</i>	\$150,000
<i>Water Use Type:</i> Municipal	
<i>Project Type:</i> Implementation	
<i>Statewide Category:</i> Drought Resiliency	
<i>Measurable Result:</i> 10 acre-ft Efficiency Savings/Yr; 500,000 Coloradoans Impacted by Incorporating Water Savings Actions into Land Use Planning; 920 Coloradoans Impacted by Engagement Activity	

If approved, this project will provide a rebate to builders that install drought resilient plant material, low-water lawn alternatives, and efficient irrigation equipment to ensure landscape resiliency through water scarcity and climate change for new, single-family homes, including affordable housing in Colorado Springs Utilities' service area. The project would help demonstrate the value and attractiveness of such landscapes for customers and neighborhoods while decreasing outdoor water demands in the landscape by 60%.

Once the landscape is installed, the participant requests a post-inspection at the designated address(es). Upon approval, a final measurement of the qualifying area is identified by the applicant and a check for the rebate amount is mailed to the participant. Water use will be monitored by the applicant for one year after establishment. Communications directly to the homeowner will ensure water savings and landscape success during the establishment and water monitoring phases.

The objectives of the proposed project are to: transform 350 builder installed landscapes in new single-family homes; save 10.87 acre feet of water by minimizing new water demands from new development within the applicant's service territory; create water-wise neighborhoods that serve as community examples for resilient landscapes that thrive on one-day-per-week watering; influence and inform customers on how to efficiently water newly installed landscapes; and increase the adaptation of low-water landscaping in new construction.

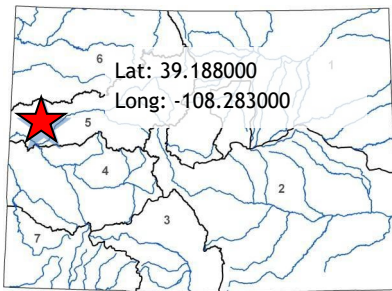
The project aligns with the Colorado Vision and the Arkansas Basin Implementation Plan.

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

Funding Recommendation: Staff recommends approval of \$50,000 from the Arkansas Basin Account and up to \$200,000 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

**Counties:** Eagle, Garfield, Grand, Mesa, Pitkin, Summit

**Drainage Basin:** Colorado

The applicant and the Orchard Mesa Irrigation District are pursuing funding for the proposed project which consists of the replacement of the existing Government Highline Canal diversion headworks, installation of supervisory control and data acquisition (SCADA) automation, and repair of the canal lining immediately downstream of the Roller Dam headworks, as needed. Total estimated cost of the overall project is approximately \$8 million. The WSRF Total Project Cost is \$2,45 million.



The project is a component of an overall plan to rehabilitate the Roller Dam, which is over 100 years old, to continue to provide reliable irrigation water supplies, more precisely control diversions and provide the ability to more effectively manage diversions which effect all Colorado River water users. The applicant and Orchard Mesa Irrigation District are in the process of seeking funding through Bureau of Reclamation's WaterSMART Environmental Water Resources Projects grant program, the Colorado River District's Community Funding Partnership, and other sources.

The project aligns with the Colorado Vision and has been a top basin wide project since the 2015 Colorado Basin Implementation Plan.

**Issues/Additional Needs:** Staff has met with the applicant to discuss the need for their future hired contractor to procure all construction materials and hold them in advance of construction. Staff also has been in discussions with the applicant about reducing the grant request to meet the Basin Account match of at least 10% of the total project cost and to lower the Statewide Account request to help extend the availability of Statewide funds for future WSRF applicants. The applicant will need to secure all match funding prior to CWCB contracting. No further issues or additional needs have been identified.

**Funding Recommendation:** Staff recommends approval of up to \$240,000 from the Colorado Basin Account and up to \$760,000 from the Statewide account for the project titled, "Grand Valley Water Users Association's Headworks Replacement Project" on the conditions that the applicant secures all unfunded project costs necessary for construction prior to contracting and any materials procured for the project in advance of construction be purchased and held by the applicant's contractor.

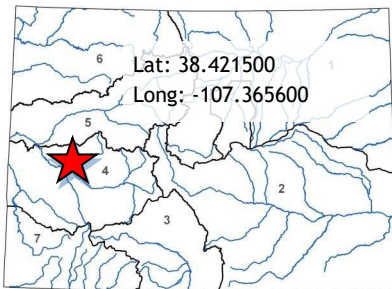
### DETAILS

<b>Total Project Cost:</b>	\$2,450,000
<b>Total WSRF Grant Request:</b>	\$2,200,000
<b>Basin Account Request:</b>	\$200,000
<b>Statewide Account Request:</b>	\$2,000,000
<b>Recommended Amount:</b>	\$1,000,000
<b>Other CWCB Funding:</b>	\$0
<b>Other Funding Amount:</b>	\$0
<b>Applicant Match:</b>	\$250,000
<b>Water Use Type:</b>	Agriculture
<b>Project Type:</b>	Implementation
<b>Statewide Category:</b>	Aging Infrastructure
<b>Measurable Result:</b>	4,200 acre-ft New Annual Supplies Conserved; \$84,000 Efficiency savings/yr; 4,200 acre feet efficiency savings/yr





## Water Supply Reserve Grant Application



LOCATION	
<b>County:</b>	Delta
<b>Drainage Basin:</b>	Gunnison

DETAILS	
<i>Total Project Cost:</i>	\$750,000
<i>Total WSRF Grant Request:</i>	\$225,000
<i>Basin Account Request:</i>	\$75,000
<i>Statewide Account Request:</i>	\$150,000
<i>Recommended Amount:</i>	\$225,000
<i>Other CWCB Funding:</i>	\$0
<i>Other Funding Amount:</i>	\$385,000
<i>Applicant Match:</i>	\$65,000
<i>Project Type(s):</i> Implementation/Construction	
<i>Statewide Category:</i> Drought Resiliency	
<i>Measurable Result:</i> 6-acre ft of new storage created; 4,900 length of stream restored; \$14,040 efficiency savings/yr; 220 acre ft efficiency savings/yr	

The applicant, the Crawford Clipper Ditch Company, is a privately owned, non-profit mutually funded irrigation company that has been operating in Delta County since 1885. The ditch company has several decreed water rights totaling 163.4 cubic feet per second (CFS) appropriated between 1884 and 1930. They also maintain a 10 cfs stock water right for use during the non-irrigation season.

If approved, the applicant will use WSRF funds to install approximately 4,900 feet of existing open earthen ditch into primarily 42" pipe. The applicant would also create a 6 ac-ft. irrigation regulating pond and expand the existing sediment basin to create cleaner water in an area that is flat in elevation. This project will connect to the larger Bureau of Reclamation funded Salinity project enclosing the entire Clipper West Lateral in hopes of creating greater water flexibility for on-farm users in irrigation water management by eliminating ditch seepage and reducing Selenium from entering Cottonwood Creek.

The applicant will also install Supervisory Control and Data Acquisition (SCADA), remote monitoring devices and automated flow gates with remote data collection on the Upper West Lateral.

Once completed, the applicant believes the project will create cleaner water, less erosion, better water management and more flexibility for the ditch company and the on-farm agricultural water users with potential for more efficient on-farm irrigation systems in the future.

Project partners contributing financially are the Colorado River District, the Bureau of Reclamation, and NRCS.

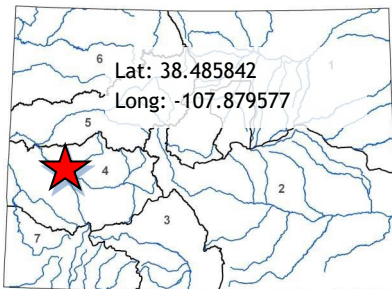
The project aligns with the Colorado Vision and the Gunnison Basin Implementation Plan.

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

**Funding Recommendation:** Staff recommends approval of \$75,000 from the Gunnison Basin Account and up to \$150,000 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
<b>Counties:</b> Delta, Montrose
<b>Drainage Basin:</b> Gunnison

DETAILS	
<b>Total Project Cost:</b>	\$439,438
<b>Total WSRF Grant Request:</b>	\$158,000
<b>Basin Account Request:</b>	\$58,000
<b>Statewide Account Request:</b>	\$100,000
<b>Recommended Amount:</b>	\$158,000
<b>Other CWCB Funding:</b>	\$0
<b>Other Funding Amount:</b>	\$200,000
<b>Applicant Match:</b>	\$81,438
<b>Project Type:</b> Planning/Other	
<b>Water Use Type:</b> Agricultural, Municipal	
<b>Statewide Category:</b> Drought Resiliency	
<b>Measurable Result:</b> No measurable results provided.	

If approved, the Drought Mitigation & Response Plan will develop monitoring and planning tools, and response and mitigation actions to effectively manage water supplies during water shortage years, while also preserving the natural environment through careful management of the water supply system.

Stakeholders within the Uncompahgre Valley Water Users Association (UVWUA) will be engaged in planning for future droughts through gaining a better understanding of historic and prehistoric droughts in the region. This will assist the applicant in providing more sustainable, drought-resistant alternative water supply solutions and better utilizing the limited water resources now and into the future.

The applicant has applied for and received US Bureau of Reclamation funding for this project. The planning process will create a task force that includes other water users within the Gunnison and Uncompahgre River basins.

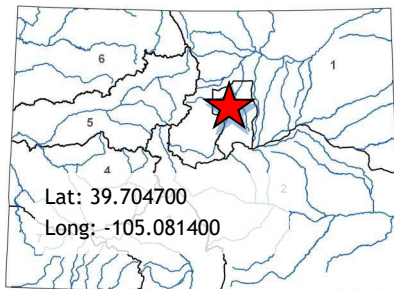
The overarching goal of the project is to: Assemble a group of stakeholders to determine actions that can be taken to understand and react to drought conditions impacting the water supply of the Uncompahgre Valley; Create a governing document prioritizing actions that can be taken in the Uncompahgre Valley before and during periods of drought including: monitoring; a vulnerability assessment; mitigation actions; and response actions.

**Issues/Additional Needs:** Staff has recommended the water activity name be changed to “Drought Mitigation & Response Plan” to avoid confusion with larger Colorado River drought contingency planning efforts. No additional issues or needs have been identified.

**Funding Recommendation:** Staff recommends approval of \$58,000 from the Gunnison Basin Account and up to \$100,000 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
<b>County:</b> Jefferson
<b>Drainage Basin:</b> Metro & Colorado

DETAILS	
<b>Total Project Cost:</b>	\$140,000
<b>Total WSRF Grant Request:</b>	\$100,000
<b>Basin Account Request:</b>	\$30,000
<b>Statewide Account Request:</b>	\$70,000
<b>Recommended Amount:</b>	\$100,000
<b>Other CWCB Funding:</b>	\$0
<b>Other Funding Amount:</b>	\$0
<b>Applicant Match:</b>	\$40,000
<b>Project Type(s):</b> Implementation/Construction	
<b>Water Use Type:</b> Municipal	
<b>Statewide Category:</b> Drought Resiliency	
<b>Measurable Result:</b> 6 acre-feet efficiency savings per year; Other: Residential participation rate for incentive programs.	

If approved, the proposed project would assist in establishing the applicant's first residential outdoor water conservation program. The project provides community-wide education and best practices to reduce outdoor water use, and a suite of incentives that encourages waterwise landscaping for all Lakewood residents, regardless of which water district they are served by.

WSRF funds will support the following items:

- A residential waterwise landscaping incentive program (the applicant states this project will not overlap with Denver Water rebate opportunities) with an estimated annual water savings of two million gallons, and includes: discounts on xeriscape plants and planting/maintenance guides, with additional incentives for income-qualified households; no-cost irrigation sprinkler assessments providing education on recommended watering schedules, potential cost and water savings, and an option to add on smart controller or rain sensor technology; discounted turf removal service, which included customized landscaping plans, removal of traditional lawn grass, and replacement with waterwise garden planting kits.
- Data analysis and reporting of annual water savings associated with incentive program measures.
- Creation of city-branded waterwise landscaping educational material for single family households and Homeowner Associations (HOAs)
- Community outreach about incentive programs and distribution of educational materials, including targeted outreach to low-income households.

The applicant's objectives for the project are to reduce water usage in their service area, encourage residents to increase irrigation efficiency, educate residents about best management practices and analyze water savings to inform the applicant on creating long term conservation programs.

The project aligns with the Water Plan vision and aligns with the South Platte Basin Implementation Plan.

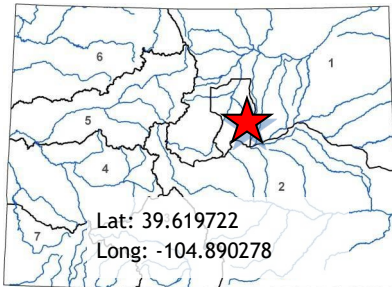
Issues/Additional Needs: No issues or additional needs have been identified.

Funding Recommendation: Staff recommends approval of \$30,000 from the Metro Basin Account and up to \$70,000 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
<b>Counties:</b> Arapahoe, Douglas
<b>Drainage Basin:</b> Metro

DETAILS	
<b>Total Project Cost:</b>	\$199,035
<b>Total WSRF Grant Request:</b>	\$153,026
<b>Basin Account Request:</b>	\$50,000
<b>Statewide Account Request:</b>	\$103,026
<b>Recommended Amount:</b>	\$103,026
<b>Other CWCB Funding:</b>	\$0
<b>Other Funding Amount:</b>	\$0
<b>Applicant Match:</b>	\$46,009
<b>Project Type:</b> Other/Planning	
<b>Water Use Type:</b> Municipal	
<b>Statewide Category:</b> Drought Resiliency	
<b>Measurable Result:</b> 350,000 Number of Coloradoans impacted by engagement activity; quantity of storage will be determined.	

The applicant is seeking grant funds to develop an Aquifer Storage Recovery (ASR) Regional Model. CWCB has awarded South Metro Water Supply Authority and its members past grants to investigate the feasibility of a regional ASR model. The applicant believes such a model will support informed decision making, particularly on the use of ASR to store WISE deliveries when the deliveries exceed demands and draw upon the stored reserves when needed.

The applicant states the model could serve as a tool to evaluate ASR operational scenarios; better understand ASR related infrastructure needs; and address geologic, operational, and accounting questions. Potential benefits include:

- Identification of legal/physical challenges
- Means to test/optimize infrastructure options and operations.
- Better understand interaction of ASR with other wells

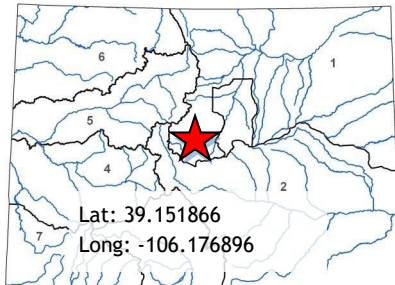
The applicant has identified three water providers as ASR “Hubs”: East Cherry Creek Valley (ECCV) Water and Sanitation District, Centennial Water and Sanitation District, and the Town of Castle Rock. ECCV received a WSRF grant in September 2021 to also conduct an ASR assessment.

This proposal is considered Phase 1 of the overall modeling effort compiling a broad spectrum of technical data. This includes groundwater levels; aquifer properties including transmissivity, hydraulic conductivity, pumping/slug tests, well yields; location of wells and neighboring wells (as feasible); operational capacity, delivery limitations, and water quality concerns. The applicant believes this data will form the technical platform necessary to develop and calibrate a numerical model which they hope to develop in Phase 2.

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

Funding Recommendation: Staff recommends approval of \$50,000 from the Metro Basin Account and up to \$103,026 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

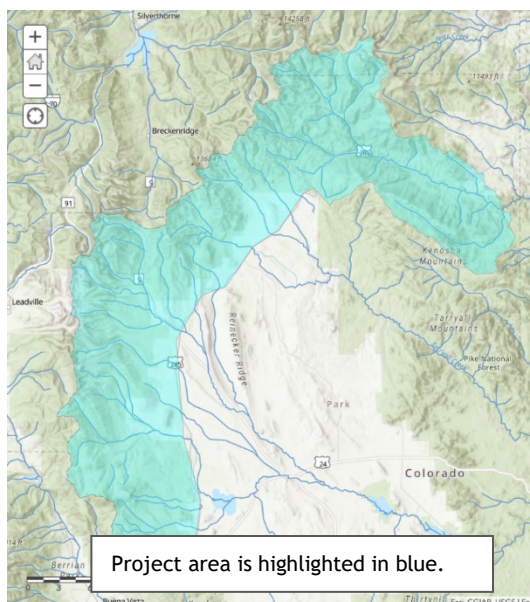


LOCATION
<b>County:</b> Park
<b>Drainage Basin:</b> South Platte

DETAILS	
<b>Total Project Cost:</b>	\$294,917.35
<b>Total WSRF Grant Request:</b>	\$141,070.35
<b>Basin Account Request:</b>	\$40,000
<b>Statewide Account Request:</b>	\$101,070.35
<b>Recommended Amount:</b>	\$141,070.35
<b>Other CWCB Funding:</b>	\$48,047.40
<b>Other Funding Amount:</b>	\$105,800
<b>Applicant Match:</b>	\$0
<b>Project Type:</b> Implementation	
<b>Water Use Type:</b> Municipal	
<b>Statewide Category:</b> Drought Resiliency	
<b>Measurable Result:</b> Accurate, full-basin SWE accounting and albedo mapping for the Upper South Platte Basin.	

If approved, the applicant would use WSRF funds to conduct two Airborne Snow Observatories (ASO) surveys in the Upper South Platte Basin in late winter 2023/spring 2024 to measure the snowpack and provide water managers with decision-making insight that has never before existed in the South Platte Basin. ASO uses airborne lidar and imaging spectrometer sensors coupled with a snow dynamics model to measure snow depth and albedo and retrieve Snow Water Equivalent (SWE) across large river basins at high spatial resolution. The applicant states ASO provides a spatially complete, accurate measurement of the volume and distribution of SWE for a watershed, thus providing decision-support value unprecedented in water management.

In 2022, the CWCB Board awarded a Water Plan Grant to the Colorado Airborne Snow Measurement (CASM) program allowed for expanded snow-free lidar coverage throughout much of Colorado, including in the Upper South Platte Basin. This provides the opportunity to conduct the inaugural snow-on ASO surveys in the Upper South Platte. In addition to the direct benefit for 2023 water operations, these surveys will contribute to the continued development of CASM and can play a key role in developing a sustainable ASO program.



The applicant has secured funding from Denver Water & Aurora Water and is also using funding from the 2022 CWCB Projects Bill.

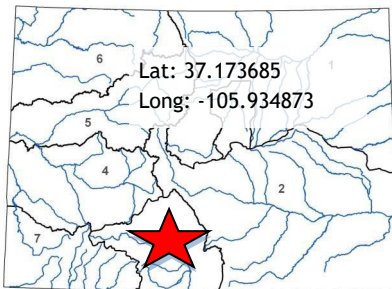
This project aligns with the Colorado Vision and helps meet the objectives of the South Platte Basin Implementation Plan.

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

Funding Recommendation: Staff recommends approval of \$40,000 from the Metro Basin Account, and \$101,070.35 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
<b>Counties:</b> Alamosa, Archuleta, Costilla, Conejos, Hinsdale, Mineral, Saguache, San Juan
<b>Drainage Basin:</b> Rio Grande

DETAILS	
<b>Total Project Cost:</b>	\$153,800
<b>Total WSRF Grant Request:</b>	\$112,800
<b>Basin Account Request:</b>	\$30,000
<b>Statewide Account Request:</b>	\$82,800
<b>Recommended Amount:</b>	\$112,800
<b>Other CWCB Funding:</b>	\$0
<b>Other Funding Amount:</b>	\$10,000
<b>Applicant Match:</b>	\$31,000
<b>Project Type:</b> Other/Planning	
<b>Water Use Type:</b> Agricultural	
<b>Statewide Category:</b> Drought Resiliency	
<b>Measurable Result:</b> "Compact obligations will be more accurately forecasted & met, and more consumable water will remain in Colorado"	

The applicant states that changes in the Rio Grande basin have led to the need for better understanding of the current water supply. Because of this, a service to provide 3D maps of snow depth and snow water equivalent is needed. With 3D mapping, the applicant's goal is to develop a weekly forecast of melt out. Phase 1 of this proposal is preparing for these services in the basin.

Phase 1 will facilitate improved water administration for compact obligations, water users, municipalities, and subdistricts. Phase I builds upon previous LiDAR, Snotel, Snowlite, and other data collected. The applicant will take data collected and begin to synthesize it.

The applicant has found a research team they believe that uses a practical method they have developed and will apply in this study. The first step is to review radar data from the Alamosa Radar, KALA. After reviewing data samples, quality control and mitigative measures will be applied to the KALA radar data as needed. A regression relationship will be developed and applied. The project plan is laid out to predict snowpack with initial regression parameters, then validate with ground-truth, LiDAR, streamflow volume, and snow gauging stations. The project objectives includes evaluating radar data quality and parameters useful for snowfall estimation; fine tuning these parameters through bias correction at watershed scales; and demonstrating that the research team's approach is feasible for operational monitoring of snowpack.

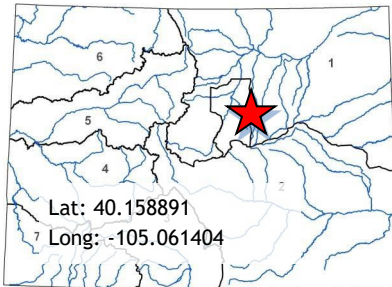
The project aligns with the Rio Grande Basin Implementation Plan by improving the ability to assist the State in fulfilling the Rio Grande Compact obligations while maximizing the Basin's use of its share.

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

**Funding Recommendation:** Staff recommends approval of \$30,000 from the Rio Grande Basin Account, and \$82,800 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

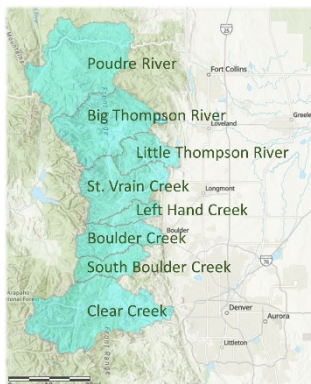


LOCATION
<b>Counties:</b> Boulder, Clear Creek, Gilpin Jefferson, Larimer, Weld
<b>Drainage Basin:</b> South Platte

DETAILS	
<b>Total Project Cost:</b>	\$698,128
<b>Total WSRF Grant Request:</b>	\$349,000
<b>Basin Account Request:</b>	\$349,000
<b>Recommended Amount:</b>	\$349,000
<b>Other CWCB Funding:</b>	\$100,000
<b>Other Funding Amount:</b>	\$199,000
<b>Applicant Match:</b>	\$50,128
<b>Project Type:</b> Other/Planning	
<b>Major Water Use Type:</b> Municipal	
<b>Measurable Result:</b> 1.32M Coloradoans impacted by engagement activity; Measuring basin-wide snow depth, SWE, & snow albedo	

If approved, the applicant will use grant funds to continue Airborne Snow Observatories (ASO) flights being done currently by the Colorado Airborne Snow Measurement Program. CWCB has provided previous funding through past WSRF and Water Plan grants and Project Bill funding. This proposal includes a collaboration of stakeholders along the Northern Front Range in the South Platte Basin made up of 10 water providers and two ditch companies who are contributing cash match to continue the snow remote sensing flights in 2023. The 2022 Water Plan grant awarded for this effort laid the groundwork for snow remote sensing flights by gathering the necessary baseline terrain data with “snow-free” flights.”

The proposed work will include snow remote sensing flights using the ASO methodology and conducting ASO-informed streamflow forecasting. The applicant is aiming for a peak snowpack flight in April and a partial melt-out flight in May are for the Clear Creek, South Boulder Creek, Boulder Creek, Left Hand, St. Vrain, Little Thompson, Big Thompson, and Cache La Poudre watersheds. Data products from this project will be freely available to all stakeholders.



This project will work with the Colorado ASO workgroup and the CWCB to facilitate flight logistics and establish an ASO-coordinating body in Colorado. The ASO processing chain is designed to deliver high-accuracy snow-on data products within 72 hours of acquisition to meet snowmelt runoff forecasting and water management needs.

The project aligns with the South Platte Basin Implementation Plan.

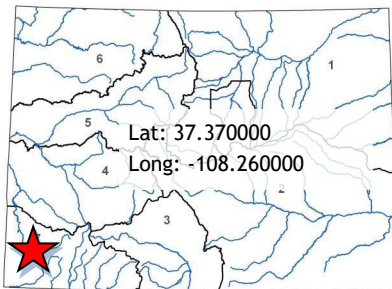
Issues/Additional Needs: No issues or additional needs have been identified.

Funding Recommendation: Staff recommends approval of \$349,000 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
<b>County:</b> Montezuma
<b>Drainage Basin:</b> Southwest

If approved, WSRF funds are being requested to build two in-stream structures, the Field Diversion and Sheek Diversion, (see photo below) that efficiently divert water while enabling fish to pass. Funds will also be used for pre- and post-monitoring strategies to assess the efficacy of this project. As climate change continues to impact southwest Colorado, the applicant believes it is important to ensure that fish species have access to tolerable habitats and climate refugia as the habitat boundaries shift, while ensuring that agricultural producers who hold rights to divert water can efficiently divert water.

The Mancos River provides habitat for a variety of aquatic organisms, including several species of warm water fish: the Bluehead Sucker, Flannelmouth Sucker, Roundtail Chub, and Mottled Sculpin. These warm water fish are vulnerable to low summer stream flows, frequency of drought, and habitat fragmentation and rely on habitat that is connected by flow and tolerable water temperatures.

The applicant's project objectives includes: removing two significant fish passage barriers to the 'three species' of warm water fish; providing stabilization to the Field and Sheek Diversions; ensure water being efficiently diverted for agricultural use, while providing fish accessible passage; assessing the efficacy of the fish passage; performing annual diversion and structure inspections to determine continued functionality; and reporting on the successes of cooperative projects for overall stream restoration and watershed health.



or additional needs have been identified.

DETAILS	
<b>Total Project Cost:</b>	\$603,319
<b>Total WSRF Grant Request:</b>	\$406,013
<b>Basin Account Request:</b>	\$100,000
<b>Statewide Account Request:</b>	\$306,013
<b>Recommended Amount:</b>	\$406,013
<b>Other CWCB Funding:</b>	\$0
<b>Other Funding Amount:</b>	\$191,538
<b>Applicant Match:</b>	\$5,768
<b>Project Type:</b> Construction/Implementation	
<b>Water Use Type:</b> Agricultural	
<b>Statewide Category:</b> Aging Infrastructure	
<b>Measurable Result:</b> 60,000 linear feet of stream restored or protected; 3 acres of restored or preserved habitat; absence/presence of 13 native and non-native fish and amphibian species.	

The project aligns with the Southwest Basin Implementation Plan and the proposed project meets the Colorado Water Plan's Partner Action for Robust Agriculture by replacing diversion structures.

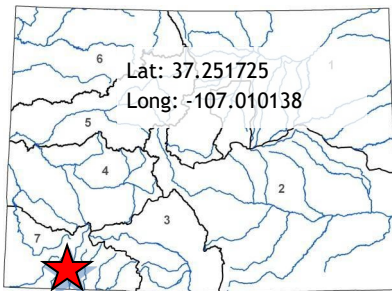
**Issues/Additional Needs:** The applicant must provide match funding commitment letters prior to contracting. No issues

**Funding Recommendation:** Staff recommends approval of \$100,000 from the Southwest Basin Account and up to \$306,013 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
<b>County:</b> Archuleta
<b>Drainage Basin:</b> Southwest

DETAILS	
<b>Total Project Cost:</b>	\$1,000,000
<b>Total WSRF Grant Request:</b>	\$775,000
<b>Basin Account Request:</b>	\$100,000
<b>Statewide Account Request:</b>	\$675,000
<b>Recommended Amount:</b>	\$775,000
<b>Other CWCB Funding:</b>	\$0
<b>Other Funding Amount:</b>	\$171,000
<b>Applicant Match:</b>	\$54,000
<b>Project Type:</b> Construction/Implementation	
<b>Water Use Type:</b> Environmental	
<b>Statewide Category:</b> Drought Resiliency	
<b>Measurable Result:</b> 13,200 linear feet of stream restored or protected; improving recreational usability; ecological viability; river resilience for 2.5 miles of the San Juan River upstream of downtown Pagosa Springs.	

If approved, the applicant proposes to use grant funds to improve approximately 2.5 miles of the San Juan River immediately upstream of the Town of Pagosa Springs to preserve aquatic habitat and recreation opportunities in the face of declining flows and warming temperatures.

The applicant states the tourism-based economy of the Town is tightly coupled to the ecological well-being of the San Juan River and the aesthetic and recreational values derived from it. A recent environmental and recreational (E&R) water supply needs assessment, commissioned by the Upper San Juan Watershed Enhancement Partnership, identifies “potentially significant changes” in hydrology and limiting conditions for aquatic life in this section of the San Juan River. Their assessment results suggest late summer and fall flows may restrict the availability and quality of aquatic habitat for fish and other aquatic species as well as the number of days in a year when recreational craft can successfully navigate this segment of the San Juan mainstem.

This proposal would help implement a series of interventions, including creation of low flow channels; promotion of bank stabilization, riparian vegetation, and fish passage; as well as removal of hazardous streambank materials to increase the resiliency of the San Juan River and its ability to support aquatic life and diverse water users.

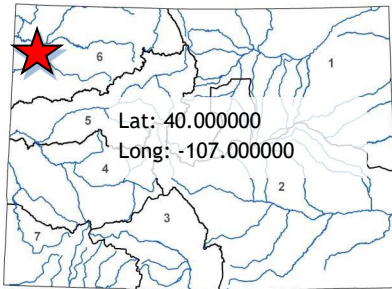
This project aligns with the Water Plan’s partner action for thriving watersheds - Rehabilitate streams to improve habitat, reduce erosion and meet needs. It also meets the Southwest Basin Implementation Plan strategies (D1 - Maintain, protect & enhance recreational values that support local & regional economies; E2 - Support efforts to protect, maintain, monitor & improve the condition & natural function of streams and F2 - support efforts to enhance and maintain watershed health).

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

Funding Recommendation: Staff recommends approval of \$100,000 from the Southwest Basin Account and up to \$675,000 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
<b>County:</b> Rio Blanco
<b>Drainage Basin:</b> White

DETAILS	
<b>Total Project Cost:</b>	\$242,700
<b>Total WSRF Grant Request:</b>	\$149,410
<b>Basin Account Request:</b>	\$149,410
<b>Recommended Amount:</b>	\$149,410
<b>Other CWCB Funding:</b>	\$0
<b>Other Funding Amount:</b>	\$87,690
<b>Applicant Match:</b>	\$5,600
<b>Project Type:</b>	Other/Planning
<b>Major Water Use Type:</b>	Agricultural
<b>Measurable Result:</b>	5,000 Number of Coloradoans impacted of engagement activity.

Phase 3 of the White River Integrated Water Initiative is a continuation of the ongoing planning process while implementing the identified priority projects and studies to help inform future management activities. WSRF funds were awarded in March 2021 for Phase 2 of this initiative.

If approved, WSRF funds will provide coordination and facilitation of the priority projects to continue with the locally led efforts of the Planning Advisory Committee (PAC). The coordinator will continue to coordinate and facilitate the advisory committee and public meetings while ensuring the implementation of the top four prioritized activities identified in Phase 2. Those activities include the Water Supply Study, ditch diversion and riparian assessments, upland vegetation management, and water measuring devise demonstration project.

In addition, funding from this request will be used to collect quality data in the middle reach of the White River to provide the needed information for the development and application of a hydrologic model for the White River Water Supply Study. The applicant will collect the data through measuring the stream discharge at the upper end of the middle reach, the tributary contributions, the ditch diversions, the groundwater head at wells with data loggers, and groundwater return flow rates to the White River.

Finally, funding will be used for the coordination of additional diversion structure and riparian health assessments which have been requested by landowners and water right holders. These assessments will be used by landowners and water right holders to help identify improvements to the river and riparian areas as well as improvements for irrigation.

This project aligns with the Yampa/White/Green Basin Implementation Plan by meeting the following goals: Maintaining and considering the existing natural range of water quality that is necessary for current and anticipated water uses; Developing an integrated system of water use, storage, administration, and delivery to reduce water shortages and meet environmental and recreational needs; providing public water education; Providing for Multiple Beneficiaries and Objectives; Protecting the Basin from compact curtailment of existing decreed water uses and some increment of future uses; Protecting and encouraging agricultural uses of water in the YWG Basin within the context of private property rights

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

Funding Recommendation: Staff recommends approval of \$149,410 from the Yampa/White/Green Basin Account. Project approval is contingent upon the applicants' abilities to resolve issues and additional needs identified by staff.

Agenda Item	Statewide Project Category	Basin	Applicant/Grantee	Name of Water Activity	Basin(s) Account Request	Statewide Account Requests	RT Requested Amount	Non-WSRF Cash Match	Non-WSRF In-Kind Match	Non-WSRF Total Match	Statewide Match (Basin & Non-WSRF)	WSRF Total Project Costs	Basin Only Request Match % (min 25%)	Statewide Match % (Basin min 10%/applicant Match min 15% vs Total Project Cost)	Staff Recommendations	PM
Agenda Item - 22a	Drought Resiliency	ARK	Arkansas River Watershed Collaborative	The Upper Arkansas Comprehensive Watershed Restoration Project	\$50,590	\$252,060.00	\$302,650	\$77,750	\$125,500	\$203,250	\$253,840.00	\$505,900	N/A	50%	Staff recommends approval of up to \$50,590 from Ark Basin Acct & up to \$252,650 from Statewide	Chris Sturm
Consent Agenda - 2a	Aging Infrastructure	ARK	Beaver Park Water Inc	Upper Canal Automated Diversion Headgate Project	\$6,130	\$45,970.00	\$52,100	\$7,200	\$2,000	\$9,200	\$15,330	\$61,300	N/A	25%	Staff recommends approval of up to \$6,130 Arkansas Basin & up to \$45,970 Statewide Acct	Ben Wade
Agenda Item - 22b	Drought Resiliency	ARK	Colorado Springs Utilities	Landscape Transformation Grant Project	\$50,000	\$200,000	\$250,000	\$114,293	\$35,707	\$150,000	\$200,000	\$400,000	N/A	50.00%	Staff recommends approval of \$50K Arkansas Basin & up to \$200K Statewide	Kevin Reidy
Agenda Item - 22c	Aging Infrastructure	CO	Grand Valley Water Users Association	Grand Valley Water Users Association's Headworks Replacement Project	\$200,000	\$2,000,000	\$2,200,000	\$250,000	\$0	\$250,000		\$2,450,000	N/A	18.37%	Staff recommends approval of up to \$245K CO Basin & up to \$755K Statewide	Joshua Godwin
Agenda Item - 22d	Drought Resiliency	GUNN	Crawford Clipper Ditch Company	Upper West Lateral Pipeline & Water Optimization Project	\$75,000	\$150,000	\$225,000	\$500,000	\$25,000	\$525,000	\$600,000	\$750,000	N/A	80.00%	Staff recommends approval of \$75K Gunn Basin & up to \$150K Statewide	Joshua Godwin
Consent Agenda - 2b	N/A	GUNN	Pilot Rock Ditch Company	Pilot Rock Piping Project	\$68,500	\$0	\$68,500	\$969,185	\$22,000	\$991,185	N/A	\$1,059,685	93.54%	N/A	Staff recommends approval of \$68,500 Gunn Basin	Joshua Godwin
Agenda Item - 22e	Drought Resiliency	GUNN	Uncompahgre Valley Water Users Association	UVVUA Drought Mitigation & Response Plan (formerly Drought Contingency Plan)	\$58,000	\$100,000	\$158,000	\$225,000	\$56,438	\$281,438	\$339,438	\$439,438	N/A	77.24%	Staff recommends approval of \$58K Gunn Basin & \$100K Statewide Acct	Emily Zmak & Nora Flynn
Director's Report	N/A	Metro	Agricultural Ditch & Reservoir Company	Water System Upgrade Planning & Implementation	\$37,500	\$0.00	\$62,500	\$25,758	\$0	\$25,758	N/A	\$88,258	29.18%	N/A	Staff recommends approval of \$37,500 Metro Basin & \$25K SP Basin	Ben Wade
		South Platte			\$25,000											
Agenda Item - 22f	Drought Resiliency	Metro	City of Lakewood	Residential Outdoor Water Conservation Program	\$30,000	\$70,000.00	\$100,000	\$21,139	\$18,861	\$40,000	\$70,000	\$140,000	N/A	50.00%	Staff recommends approval of \$30K Metro Basin & \$70K Statewide	Kevin Reidy
Director's Report	N/A	Metro	Ken Caryl West Ranch Water District	Ken Caryl West Ranch Water District Engineering & Design Phase 2 - Radionuclides	\$25,000	\$0.00	\$25,000	\$57,500	\$0	\$57,500	N/A	\$82,500	69.70%	N/A	Staff recommends approval of \$25,000 from the Metro Basin Account	Ben Wade
Director's Report	N/A	Metro	South Metro Water Supply Authority	Water Ambassador Program (SMWSA) Conservation Kits	\$12,000	\$0.00	\$12,000	\$2,000	\$2,000	\$4,000	N/A	\$16,000	25.00%	N/A	Staff recommends approval of \$12,000 from the Metro Basin Account	Ben Wade
Agenda Item - 22g	Drought Resiliency	Metro	South Metro Water Supply Authority	South Metro Water Supply Authority Regional Aquifer Storage Recovery (ASR)	\$50,000	\$103,026.00	\$153,026	\$31,009	\$15,000	\$46,009		\$199,035	N/A	48.24%	Staff recommends approval of \$50,000 from the Metro Basin Account and up to \$103,026 from the Statewide Account	Joshua Godwin
Agenda Item - 22h	Drought Resiliency	Metro	Coalition for the Upper South Platte	Inaugural Airborne Snow Observations Surveys in the Upper South Platte Basin	\$40,000	\$101,070.35	\$141,070.35	\$153,847	\$0	\$153,847	\$193,847	\$294,917.35	N/A	65.73%	Staff recommends approval of \$40K from Metro Basin Acct, and \$101,070.35 from Statewide Acct.	Erik Skeie
Consent Agenda - 2c	N/A	Rio Grande	Colorado Rio Grande Restoration Foundation	Anaconda Ditch Improvement Project	\$60,000	\$0.00	\$60,000	\$193,150	\$0	\$193,150	N/A	\$253,150	76.30%	N/A	Staff recommends approval of \$60,000 from the Rio Grande Basin Account	Andrea Harbin-Monahan
Agenda Item - 22i	Drought Resiliency	Rio Grande	Conejos Water Conservancy District	Phase 1 - Radar Based Snowpack Estimation	\$30,000	\$82,800.00	\$112,800	\$41,000	\$0	\$41,000	\$71,000	\$153,800	N/A	46.16%	Staff recommends approval of \$30,000 from the Rio Grande Basin Account, and \$82,800 from the Statewide Account.	Erik Skeie
Director's Report	N/A	South Platte	Elbert County Government	Elbert County Water Plan	\$45,000	\$0.00	\$45,000	\$45,000	\$0	\$45,000	N/A	\$90,000	50.00%	N/A	Staff recommends approval of \$45,000 from the Southwest Basin Account	Ben Wade
Agenda Item - 22j	N/A	South Platte	St Vrain & Left Hand Water Conservancy District	2023 Northern Front Range Airborne Snow Observation Flights	\$349,000	\$0.00	\$349,000	\$349,128	\$0	\$349,128	N/A	\$698,128	50.01%	N/A	Staff recommends approval of \$349,000 from the South Platte Basin Account.	Erik Skeie
Consent Agenda - 2d	N/A	South Platte	Open Water Foundation	River Basin Information Websites for Big Thompson River, Saint Vrain Creek	\$70,000	\$0.00	\$70,000	\$60,000	\$10,000	\$70,000	N/A	\$140,000	50.00%	N/A	Staff recommends approval of \$70,000 from the South Platte Basin Account	Carolyn Kemp
Director's Report	N/A	SW	Dolores Water Conservancy District	WY 2023 Dolores Basin CASM Flights	\$47,000	\$0.00	\$47,000	\$13,000	\$4,471	\$17,471	N/A	\$64,471	27.10%	N/A	Staff recommends approval of \$47,000 from the Southwest Basin Account.	Erik Skeie
Director's Report	N/A	SW	Florida Consolidated Ditch Company	FCDC West Lateral Repair	\$45,000	\$0.00	\$45,000	\$75,000	\$0	\$75,000	N/A	\$120,000	62.50%	N/A	Staff recommends approval of \$45,000 from the Southwest Basin Account	Matt Stearns
Agenda Item - 22k	Aging Infrastructure	SW	Mancos Conservation District	Diversion Improvements for Fish & Irrigators - Phase 4	\$100,000	\$306,013.00	\$406,013	\$191,538	\$5,768	\$197,306		\$603,319	N/A	49.28%	Staff recommends approval of \$100K Southwest Basin & \$306,013 Statewide	Joshua Godwin
Director's Report	N/A	SW	Montezuma Valley Irrigation Company	Goodland Ditch Piping	\$45,000	\$0.00	\$45,000	\$0	\$0	\$0	N/A	\$45,000	0.00%	N/A	Staff recommends approval of \$45,000 from the Southwest Basin Account	Ben Wade
Agenda Item - 22l	Drought Resiliency	SW	Town of Pagosa Springs	Pagosa Gateway Project	\$100,000	\$675,000.00	\$775,000	\$225,000	\$0	\$225,000	N/A	\$1,000,000	N/A	32.50%	Staff recommends approval of \$100K Southwest Basin & \$675K Statewide Account	Chris Sturm
Consent Agenda - 2e	N/A	YWG	Upper Yampa Water Conservancy District	Yampa River Dashboard	\$95,000	\$0.00	\$95,000	\$39,000	\$2,000	\$41,000	N/A	\$136,000	30.15%	N/A	Staff recommends approval of \$95,000 from the Yampa/White/Green Basin Account	Chris Sturm
Agenda Item - 22m	N/A	YWG	White River Conservation District	White River Integrated Water Initiative Phase 3	\$149,410	\$0.00	\$149,410	\$87,690	\$5,600	\$93,290	N/A	\$242,700	38.44%	N/A	Staff recommends approval of \$149,410 from the Y/W/G Basin Account	Chris Sturm
Consent Agenda - 2f	N/A	YWG	Yampatika	Youth & Community Water Education	\$99,552	\$0.00	\$99,552	\$116,463	\$21,463	\$137,926	N/A	\$237,477.75	58.08%	N/A	Staff recommends approval of \$92,552 from the Yampa/White/Green Basin Account	Elizabeth Schoder
					\$1,962,682	\$4,085,939	\$6,048,621									