



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Craig Godbout
Program Manager – Water Supply Reserve Fund Grant Program
Water Supply Planning Section

DATE: March 4, 2019

AGENDA ITEM: 24 (a-u): March 2019 WSRF Grant Requests

Staff Recommendation – Action Items: WSRF Grant Requests

A summary of staff’s recommendation for each WSRF application is provided in the first component of the attached table. If applicable, the table also includes a breakdown of match amounts for applications that include a request for Statewide Account WSRF funds.

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 Criteria and Guidelines (C&G).
- 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.



COLORADO WATER CONSERVATION BOARD
Water Supply Reserve Fund - Balance Summary
MARCH 2019

3/4/2019

Fund Appropriation and Receipts				
Fiscal Year	Legislative Appropriation	Funds Received	Statewide Account	Basin Account
2006/2007	\$10,000,000	\$10,000,000	\$5,500,000	\$4,500,000
2007/2008	\$6,000,000	\$6,000,000	\$4,200,000	\$1,800,000
2008/2009	\$10,000,000	\$7,000,000	\$4,300,000	\$2,700,000
2009/2010	\$5,775,000	\$5,775,000	\$4,215,750	\$1,559,250
2010/2011	\$6,000,000	\$6,000,000	\$4,380,000	\$1,620,000
2011/2012	\$7,000,000	\$7,000,000	\$4,732,000	\$2,268,000
2012/2013	\$10,000,000	\$7,157,724	\$4,580,943	\$2,576,781
2013/2014	\$10,000,000	\$10,091,639	\$6,458,649	\$3,632,990
2014/2015	\$10,000,000	\$10,000,000	\$6,400,000	\$3,600,000
2015/2016	\$10,000,000	\$9,103,590	\$5,826,298	\$3,277,292
2016/2017	\$0	\$0	\$0	\$0
2017/2018	\$10,000,000	\$1,455,776	\$931,697	\$524,079
2017/2018 CF	\$10,000,000	\$7,000,000	\$4,480,000	\$2,520,000
2018/2019 CF	\$0	\$2,544,884	\$1,628,726	\$916,158
Interest	N/A	\$2,857,935	\$1,829,078	\$0
Prior Years Interest Adjustment			\$1,028,856	\$0
2014/2015 Interest	N/A	\$ 240,216	\$240,216	\$0
2015/2016 Interest	N/A	\$ 219,458	\$219,458	\$0
2016/2017 Interest	N/A	\$ 223,936	\$223,936	\$0
2017/2018 Interest	N/A	\$ 376,467	\$376,467	\$0
2018/2019 Interest	N/A	\$ 264,210	\$264,210	\$0
TOTAL	\$104,775,000	\$93,310,834	\$61,816,283	\$31,494,551

Note: The WSRF is a Severance Tax "Tier II" program & CF Funding with 40% of funds distributed on July 1, 30% on January 1, and the final 30% on April 1.

In FY 2008/2009 the final 30% installment of \$3,000,000 was not received due to the State's budgetary shortfall.

In January 2012 interest for the program from its inception to date was credited directly to the Statewide Account.

Interest from January 2012 on is regularly calculated by the Treasury and credited to the Statewide Account.

Fund Distribution					
Basin	Approved Basin Grants	Total Basin Funds	Basin Account Balance	Approved State Grants	Statewide Account Balance
Arkansas	\$3,355,174	\$3,499,395	\$144,221	\$11,474,935	
Colorado*	\$3,336,979	\$3,499,395	\$162,416	\$6,283,985	
Southwest *	\$3,165,277	\$3,499,395	\$334,118	\$7,786,644	
Gunnison *	\$3,072,110	\$3,499,395	\$427,285	\$5,968,714	
Metro *	\$2,906,031	\$3,499,395	\$593,364	\$7,461,732	
North Platte	\$2,543,568	\$3,499,395	\$955,827	\$540,942	
Rio Grande*	\$3,451,433	\$3,499,395	\$47,962	\$12,209,690	
South Platte *	\$3,004,175	\$3,499,395	\$495,220	\$7,619,612	
Yampa/White	\$2,640,843	\$3,499,395	\$858,552	\$847,969	
TOTAL	\$27,475,590	\$31,494,551	\$4,018,965	\$60,194,223	\$1,622,060
TOTAL APPROVED GRANTS					\$87,669,813

Note: Only includes grants approved by CWCB

* Comments reflect adjustments to balances

Water Supply Reserve Fund Applications for Consideration at the March 2019 CWCB Board Meeting

Agenda Item	Basin	Applicant/Grantee	Name of Water Activity	Basin(s) Account Request	Statewide Account Requests	Total Request	Non-WSRF Cash Match	Non-WSRF In-Kind Match	Non-WSRF Total Match	Statewide Match (Basin & Non-WSRF)	Total Project Costs	Staff Recommendations	PM
24(a)	South Platte	Colorado Trout Unlimited	South Boulder Creek Stream Management Plan, Phase I	\$13,500	\$0	\$27,000	\$67,000	\$38,000	\$105,000	n/a	\$132,000	Staff recommends up to \$13,500 from the South Platte Basin Account, and \$13,500 from the Metro Account	Linda Bassi
	Metro			\$13,500									
24(b)	South Platte	NEIRBO Hydrogeology/Colorado Corn Administrative Committee	Historical Analysis of South Platte River Salinity to Identify Severity, Trends, and Potential Sources	\$39,000	\$0	\$39,000	\$17,500	\$0	\$17,500	n/a	\$56,500	Staff recommends approval of up to \$39,000 from the South Platte Basin Account	Craig Godbout
24(c)	South Platte	Big Thompson Watershed Coalition	Big Thompson River Envisioning Project	\$20,000	\$20,000	\$40,000	\$183,940	\$70,080	\$254,020	\$274,020	\$294,020	Staff recommends approval of up to \$20,000 from the South Platte Basin Account, and up to \$20,000 from the Statewide Account	Chris Sturm
24(d)	Gunnison	Delta Brick & Climate Company	Chemical Water Production via Methane Mitigation	\$18,000	\$0	\$18,000	\$0	\$5,000	\$5,000	n/a	\$23,000	Staff recommends approval of up to \$18,000 from the Gunnison Basin Account.	Craig Godbout
24(e)	Gunnison	Western Slope Conservation Center	Integrated Water Management in the North Fork Gunnison River: Phase 2	\$18,547	\$10,000	\$28,547	\$80,547	\$23,000	\$103,547	\$122,094	\$132,094	Staff recommends approval of up to \$18,547 from the Gunnison Basin Account, and up to \$10,000 from the Statewide Account	Chris Sturm
24(f)	Gunnison	Gunnison Angling Society (TU Chapter)	Cottonwood Pass Day Use Area Vault Toilet Project	\$10,000	\$0	\$10,000	\$23,000	\$6,000	\$29,000	n/a	\$39,000	Staff recommends approval of up to \$10,000 from the Gunnison Basin Account.	Craig Godbout
24(g)	Gunnison	Overland Ditch and Reservoir Company	Overland Reservoir, Construct Reservoir Level Gauge	\$19,000	\$19,238	\$38,238	\$4,500	\$5,060	\$9,560	\$28,560	\$47,798	Staff recommends approval of up to \$19,000 from the Gunnison Basin Account, and up to \$19,238 from the Statewide Account	Craig Godbout
24(h)	Gunnison	Trout Unlimited	Wilbur Ditch Diversion Improvement Project	\$10,500	\$10,000	\$20,500	\$10,000	\$9,200	\$19,200	\$29,700	\$39,700	Staff recommends approval of up to \$10,500 from the Gunnison Basin Account, and up to \$10,000 from the Statewide Account	Craig Godbout
24(i)	Gunnison	Leroux Creek Water Users Association	Leroux Creek Reservoir System, Dam Outlet Rehabilitation	\$50,000	\$150,000	\$200,000	\$20,000	\$35,146	\$55,146	\$105,146	\$255,146	Staff recommends approval of up to \$50,000 from the Gunnison Basin Account, and up to \$150,000 from the Statewide Account	Craig Godbout
24(j)	Gunnison	Turner Ditch Company	Turner Lone Cabin Ditch Combination Salinity Reduction Project	\$50,000	\$125,000	\$175,000	\$5,756,136	\$200,000	\$5,956,136	\$6,006,136	\$6,131,136	Staff recommends approval of up to \$50,000 from the Gunnison Basin Account, and up to \$125,000 from the Statewide Account	Alex Funk
24(k)	North Platte	Ducks Unlimited	North Park Irrigated Meadows Conservation Program - Phase 2	\$148,698	\$301,902	\$450,600	\$474,000	\$0	\$474,000	\$622,698	\$924,600	Staff recommends approval of up to \$148,698 from the North Platte Basin Account, and up to \$301,902 from the Statewide Account	Craig Godbout
24(l)	Yampa/White/Green	Yampa-White-Green Basin Roundtable/Colorado River Water Conservation District	Yampa River Basin Integrated Water Management Project	\$154,524	\$0	\$154,524	\$350,000	\$178,000	\$528,000	n/a	\$682,524	Staff recommends approval of up to \$154,524 from the Yampa/White/Green Basin Account	Chris Sturm
24(m)	Colorado	Pitkin County Board of County Commissioners	Robinson Ditch Diversion Modification	\$45,000	\$0	\$45,000	\$755,000	\$0	\$755,000	n/a	\$800,000	Staff recommends approval of up to \$45,000 from the Colorado Basin Account	Megan Holcomb

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24(n)	Southwest	Animas Consolidated Ditch Company	Water Supply/Watershed Restoration	\$25,000	\$125,000	\$150,000	\$120,000	\$30,000	\$150,000	\$175,000	\$300,000	Staff recommends approval of up to \$25,000 from the Southwest Basin Account and up to \$125,000 from the Statewide Account	Megan Holcomb
24(o)	Southwest	Valley Floor Preservation Partners	Telluride Valley Floor River Restoration Phase Two	\$25,000	\$250,000	\$275,000	\$3,059,000	\$0	\$3,059,000	\$3,084,000	\$3,333,882	Staff recommends approval of up to \$25,000 from the Southwest Basin Account and up to \$250,000 from the Statewide Account	Chris Sturm
24(p)	Southwest	Southwest Basin Roundtable/San Juan Resource Conservation and Development Council	San Miguel Stream Management Plan: Stakeholder Engagement Process	\$25,000	\$0	\$25,000	\$12,530	\$0	\$12,530	n/a	\$50,122	Staff recommends approval of up to \$25,000 from the Southwest Basin Account	Chris Sturm
24(q)	Southwest	416-Fire Aquatic Monitoring Research Group/Mountain Studies Institute	416-Fire Aquatic Monitoring	\$18,000	\$0	\$18,000	\$25,025	\$46,075	\$71,100	n/a	\$89,100	Staff recommends approval of up to \$18,000 from the Southwest Basin Account	Megan Holcomb
24(r)	Southwest	Town of Silverton	Town of Silverton Water Supply/Storage Investigation	\$25,000	\$0	\$25,000	\$25,000	\$0	\$25,000	n/a	\$50,000	Staff recommends approval of up to \$25,000 from the Southwest Basin Account	Megan Holcomb
24(s)	Southwest	Forests to Faucets/Mountain Studies Institute	Forests to Faucets (F2F): My Water Comes from the San Juan	\$17,500	\$0	\$17,500	\$36,140	\$31,686	\$67,826	n/a	\$85,326	Staff recommends approval of up to \$17,500 from the Southwest Basin Account	Megan Holcomb
24(t)	Arkansas	Catlin Canal Company	Water Delivery & Accounting Feasibility Study	\$3,000	\$30,000	\$33,000	\$16,500	\$0	\$16,500	\$19,500	\$49,500	Staff recommends approval of up to \$3,000 from the Arkansas Basin Account, and up to \$30,000 from the Statewide Account	Ben Wade
24(u)	Arkansas	Huerfano County Water Conservancy District	Cucharas Collaborative Storage E	\$4,000	\$40,000	\$44,000	\$16,045	\$0	\$16,045	\$20,045	\$60,045	Staff recommends approval of up to \$4,000 from the Arkansas Basin Account, and up to \$40,000 from the Statewide Account	Ben Wade

Subtotal

\$752,769 \$1,081,140 \$1,833,909

<u>Basin</u>	<u>Basin Account Requests</u>	<u>Statewide Account Requests</u>	<u>Total Requests</u>	<u>Current Basin Account Balances</u>	<u>Remaining Basin Account Balances (if all requests approved)</u>	<u>Current Statewide Account Balance</u>	<u>Remaining Statewide Account Balance (if all requests approved)</u>
<u>Arkansas Basin</u>	\$7,000	\$70,000	\$77,000	\$144,221	\$137,221		
<u>Colorado Basin</u>	\$45,000	\$0	\$45,000	\$162,416	\$117,416		
<u>Gunnsion Basin</u>	\$176,047	\$314,238	\$490,285	\$427,285	\$251,238		
<u>Metro</u>	\$13,500	\$0	\$13,500	\$593,364	\$579,864		
<u>North Platte</u>	\$148,698	\$301,902	\$450,600	\$955,827	\$807,129	\$1,622,060	\$540,920
<u>Rio Grande</u>	\$0	\$0	\$0	\$47,951	\$47,951		
<u>Southwest</u>	\$135,500	\$375,000	\$510,500	\$334,118	\$198,618		
<u>South Platte</u>	\$72,500	\$20,000	\$92,500	\$495,220	\$422,720		
<u>Yampa/White/Green</u>	\$154,524	\$0	\$154,524	\$858,552	\$704,028		
<u>Water Supply Reserve Fund Total Requests</u>	\$752,769	\$1,081,140	\$1,833,909	\$4,018,950	\$3,266,181		

Water Supply Reserve Fund – Grant and Loan Program
Water Activity Summary Sheet
March 20-21, 2019
Agenda Item 24(a)

Applicant & Grantee: Colorado Trout Unlimited

Water Activity Name: South Boulder Creek Stream Management Plan, Phase I

Water Activity Purpose: Multipurpose

County: Boulder

Drainage Basin: South Platte

Water Source: South Boulder Creek

Amount Requested: \$13,500 South Platte Basin Account
\$13,500 Metro Account
 \$27,000 Total request

Matching Funds: Applicant & 3rd Party Match (cash & in-kind) = \$105,000
 • 389% of the Basin Accounts (meets 10% min)

Staff Recommendation:

Staff recommends approval of up to \$13,500 from the South Platte Basin Account, and \$13,500 from the Metro Account to help fund the project titled: South Boulder Creek Stream Management Plan, Phase I.
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Water Activity Summary: WSRF grant funds, if approved, will assist Colorado Trout Unlimited conduct a Stream Management Planning (SMP) effort for South Boulder Creek in Boulder County, specifically the approximately 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 through public open space. The SMP will produce a locally-driven process and structure for (1) collaborative stakeholder action, (2) establishing an accessible repository of stream and watershed information to support consumptive and non-consumptive water use decision making, (3) reviewing and updating stream flow needs analyses based on possible changes from severe 2013 floods, and (4) identifying specific watershed improvement opportunities including conceptual designs for habitat improvement, fish passage, and flow management. Phase I will specifically include an infrastructure assessment; evaluating 20 structures along the 9 mile stretch to determine which may require modification, and developing conceptual designs for discussion and coordination with the structures' owners.

Funds will be used primarily for contractors to provide needed professional services in data management and analysis, survey and flow modeling, and engineering design (concept-level designs with infrastructure inventory). Some funds will also be used toward outreach programs and related information technology.

Discussion: This effort will assist the South Platte Basin Roundtable and the Metro Roundtable achieve several of the goals in their Basin Implementation Plan of promoting environmental and recreational attributes on a significant stream reach in the basin, supporting implementation of the Environmental Pool (part of the mitigation for the proposed expansion of Gross Reservoir), as well as

promoting successful completion of multi-purpose storage with one of the region's identified IPPs. In addition, the public outreach components of the SMP process advance the goals for community outreach and education matters within the South Platte watershed.

In addition, this effort assists the state achieve the goal of covering 80% of locally prioritized lists of river with stream management plans, as called for in Chapter 10, Section 10.2 of Colorado's Water Plan.

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

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair's Recommendation Letter and the WSRF Grant Application for applicant's detailed response.

Funding Summary/Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
Trout Unlimited	\$11,500	\$11,000	\$22,500	Secured
City of Boulder	\$0	\$2,000	\$2,000	Secured
City of Lafayette	\$0	\$2,000	\$2,000	Secured
Denver Water	\$0	\$3,000	\$3,000	Secured
Colorado School of Mines	\$0	\$20,000	\$20,000	Secured
CWCB Stream Management Plan Grant	\$55,500	\$0	\$55,500	Secured
Sub-total	\$67,000	\$38,000	\$105,000	
WSRF South Platte Basin Account	\$13,500	\$0	\$13,500	Secured
WSRF Metro Account	\$13,500	\$0	\$13,500	Secured
Total Project Costs	\$94,000	\$38,000	\$132,000	

CWCB Project Manager: Linda Bassi

Water Supply Reserve Fund – Grant and Loan Program
Water Activity Summary Sheet
March 20-21, 2019
Agenda Item 24(b)

Co-Applicants: NEIRBO Hydrogeology/Colorado Corn Administrative Committee

Grantee: Colorado Corn Administration

Water Activity Name: Historical Analysis of South Platte River Salinity to Identify Severity, Trends, and Potential Sources

Water Activity Purpose: Multipurpose/Study (Ag/M&I/Needs Assessment)

County: Multiple-South Platte Basin Counties

Drainage Basin: South Platte

Water Source: South Platte River

Amount Requested: \$39,000 South Platte Basin Account

Matching Funds: Applicant & 3rd Party Match (cash & in-kind) = \$17,500
• 45% of the Basin Account request (meets 25% min)

Staff Recommendation:

Staff recommends approval of up to \$39,000 from the South Platte Basin Account to help fund the project titled: Historical Analysis of South Platte River Salinity to Identify Severity, Trends, and Potential Sources.
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Water Activity Summary: WSRF grant funds, if approved, will assist NEIRBO Hydrogeology and the Colorado Corn Administrative Committee investigate current salinity and the historical salinity trends along the South Platte River. Total Dissolved Solids (TDS) is an indicator of salts in irrigation water that can damage soils, reduce crop yields, and negatively impact the sustainability of irrigated agriculture. South Platte River sampling in September 2018 confirmed that TDS concentrations increase dramatically through the Denver Metro area and reach levels that can damage crops. Potential salinity sources include Municipal waste water treatment facility sewage effluent, agricultural return flows, road deicing solutions, geologic formations, livestock waste, and produced water from oil and gas development.

Project objectives are to determine if salinity concentrations are a concern for irrigated agriculture, identify salinity severity and trends, evaluate the influence of historical water management practices, and to identify potential salinity sources. This project will analyze historical TDS concentrations to identify trends over time and along the South Platte River. Long-term, seasonal, and spatial trends will be used to identify potential salinity sources. Trends will be analyzed for correlations with major water-management policies.

Discussion: This project supports the goals of maintaining, enhancing and proactively manage water quality for all use classifications as called for in the South Platte Basin Implementation Plan, as well

as assisting the state to promote protection and restoration of water quality as called for in Chapter 10, Section 10.3 F. Watershed Health. Environmental, and Recreation in Colorado's Water Plan.

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

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair's Recommendation Letter and the WSRF Grant Application for applicant's detailed response.

Funding Summary/Matching Funds:

<u>Funding Sources</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
Colorado Corn Administrative Committee	\$15,000	\$0	\$15,000	Secured
Central Colorado Water Conservancy District	\$0	\$2,500	\$2,500	Secured
Subtotal	\$15,000	\$2,500	\$17,500	
WSRF South Platte Basin Account	\$39,000	n/a	\$39,000	Secured
Total Study Costs	\$54,000	\$2,500	\$56,500	

CWCB Project Manager: Craig Godbout

Water Supply Reserve Fund – Grant and Loan Program
Water Activity Summary Sheet
March 20-21, 2019
Agenda Item 24(c)

Applicant & Grantee: Big Thompson Watershed Coalition

Water Activity Name: Big Thompson River Envisioning Project

Water Activity Purpose: Multipurpose (Env/ Rec/M&I/Ag/ Ed & Outreach)/Study

County: Larimer

Drainage Basin: South Platte

Water Source: Big Thompson River

Amount Requested: \$20,000 South Platte Basin Account
\$20,000 Statewide Account
\$40,000 Total Request

Matching Funds: Applicant & 3rd Party Match (cash & in-kind) = \$254,020
• 1,270% of the Statewide Account request (meets 10% min)
Basin Account Match = \$20,000
• 100% of the Statewide Account Match (meets 10% min)
Total Match (Applicant/3rd Party & Basin Account) = \$274,020
• 1,370% of the Statewide Account request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$20,000 from the South Platte Basin Account, and \$20,000 from the Statewide Account to help fund the project titled: Big Thompson River Envisioning Project.

Water Activity Summary: WSRF grant funds, if approved, will assist the Big Thompson Watershed Coalition, along with an Advisory Committee composed of diverse interests, in the development of a Stream Management Plan along approximately 15 miles of river corridor. The overall goal of the plan is to engage citizens and stakeholders to create a shared vision for improving the Big Thompson River by identifying strategies and action plans that respect property and water rights, address water user needs, and enhance environmental conditions and recreational opportunities.

Objectives of this effort include:

- Engage citizens and stakeholders in a process to identify common values and goals related to various water uses, including agriculture, municipal, recreation, fisheries, and riparian habitat.
- Assess river function within the project area, currently identified as the reach between the mouth of the Big Thompson Canyon to I-25, by analyzing existing information and new data as needed, to identify key issues and their locations and causes.
- Assess impacts of future population growth, development, and climate and weather changes on river health and user needs and identify opportunities to mitigate these impacts.
- Identify and prioritize voluntary, multi-purpose projects and actions that will meet collective needs and values and protect or enhance the Big Thompson River corridor.

Discussion: This effort will assist the South Platte Roundtable achieve the following measurable objectives and goals as outlined in the South Platte Basin Implementation Plan: Maintain, enhance and proactively manage water quality for all use classifications, and; Fully recognize the importance of, and support the development of environmental and recreational projects and multipurpose projects that support water availability for ecologically and economically important habitats and focus areas.

In addition, this effort assists the state achieve the measurable objective of covering 80% of locally prioritized list of rivers with stream management plans as called for in Chapter 10, Section 10.3 of Colorado's Water Plan.

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

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair's Recommendation Letter and the WSRF Grant Application for applicant's detailed response.

Funding Summary/Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
CWCB Watershed Restoration Grant	\$146,440	\$0	\$146,440	Secured
New Belgium Brewing	\$2,500	\$0	\$2,500	Secured
City of Loveland – Stormwater Dept.	\$7,500	\$0	\$7,500	Secured
City of Loveland – Water Dept.	\$7,500	\$0	\$7,500	Secured
City of Greeley	\$10,000	\$0	\$10,000	Secured
Larimer County	\$5,000	\$0	\$5,000	Secured
Northern Colorado Water Conservancy District	\$5,000	\$20,280	\$25,280	Secured
Big Thompson Watershed Forum	\$0	\$49,800	\$49,800	Secured
Sub-total	\$183,940	\$70,080	\$254,020	
WSRF South Plate Basin Account	\$20,000	\$0	\$20,000	Secured
Sub-total	\$203,940	\$70,080	\$274,020	
WSRF Statewide Account	\$20,000	\$0	\$20,000	
Total Project Costs	\$223,940	\$70,080	\$294,020	

CWCB Project Manager: Chris Sturm

Water Supply Reserve Fund – Grant and Loan Program
Water Activity Summary Sheet
March 20-21, 2019
Agenda Item 24(d)

Applicant & Grantee: Delta Brick & Climate Company
Water Activity Name: Chemical Water Production via Methane Mitigation
Water Activity Purpose: Greenhouse gas mitigation and water production
County: Gunnison
Drainage Basin: Gunnison
Water Source: Paonia Reservoir
Amount Requested: \$18,000 Gunnison Basin Account
Matching Funds: Applicant Match (in-kind) = \$5,000
• 28% of the Basin Account request (meets 25% min)

Staff Recommendation:

Staff recommends approval of up to \$18,000 from the Gunnison Basin Account to help fund the project titled: Chemical Water Production via Methane Mitigation.
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Water Activity Summary: WSRF grant funds, if approved, will assist Delta Brick & Climate Company Ltd partner with Vessels Coal Gas LLC to produce a new source of water in the North Fork of the Gunnison River basin. Vessels Coal Gas produces greenhouse gas offsets and electricity from coal mine methane converting methane and oxygen into carbon dioxide, water and energy. The afore mentioned water is created chemically and would not otherwise exist. Methane is a very potent greenhouse gas, and the water can be thought of as a naturally occurring by-product of methane destruction. The water is currently vented as vapor, and only a tiny fraction returns to the watershed as precipitation. The proposed water activity is the condensation of this steam into a new water source.

Gunnison Basin Roundtable funds will be used for engineering design, purchase, and installation of a pilot condensation apparatus. Successful testing of this pilot apparatus would result in additional combusting of gas that is currently venting.

Discussion: This project supports the goals of protecting existing water uses in the Gunnison Basin as called for in the Gunnison Basin Implementation Plan, as well as assisting the state achieve the goal of maintaining or developing additional storage as indicated in Chapter 10, Section 10.3 of Colorado's Water Plan.

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

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair's Recommendation Letter and the WSRF Grant Application for applicant's detailed response.

Funding Summary/Matching Funds:

<u>Funding Sources</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
Delta Brick & Climate Company	\$0	\$5,000	\$5,000	Secured
WSRF Gunnison Basin Account	\$18,000	\$0	\$18,000	Secured
Total Study Costs	\$18,000	\$5,000	\$23,000	

CWCB Project Manager: Craig Godbout

Water Supply Reserve Fund – Grant and Loan Program
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Applicant & Grantee: Western Slope Conservation Center

Water Activity Name: Integrated Water Management in the North Fork Gunnison River: Phase 2

Water Activity Purpose: Multipurpose (Env & Rec/Ag/Ed&Outreach)

County: Gunnison & Delta

Drainage Basin: Gunnison

Water Source: North Fork Gunnison River

Amount Requested: \$18,547 Gunnison Basin Account
\$10,000 Statewide Account
\$28,547 Total Request

Matching Funds: Applicant & 3rd Party Match (cash & in-kind) = \$103,548
• 1,035% of the Statewide Account request (meets 10% min)
Basin Account Match = \$18,547
• 185% of the Statewide Account Match (meets 10% min)
Total Match (Applicant/3rd Party & Basin Account) = \$122,094
• 1,220% of the Statewide Account request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$18,547 from the Gunnison Basin Account, and \$10,000 from the Statewide Account to help fund the project titled: Integrated Water Management in the North Fork Gunnison River: Phase 2.

Water Activity Summary: WSRF grant funds, if approved, will assist the Western Slope Conservation Center (WSCC), the North Fork Water Conservancy District (NFWCD) and Trout Unlimited (TU) to build on prior river health and irrigation assessments to prioritize and plan multi-purpose projects to meet existing and future irrigation water demands and improve irrigation infrastructure, water use efficiency and reliability while improving environmental and recreational attributes in the North Fork of the Gunnison River (North Fork). In 2015, WSCC, NFWCD, and TU partnered to implement the “North Fork Integrated Water Management Plan and Assessment”. The products of that project were two comprehensive assessments that identified environmental, agricultural, and recreation needs for the North Fork. The project was successful and provided the framework for recommendations that will be implemented in this proposal.

The “IWMP: Phase 2” project will create a North Fork River Stakeholder Group (Task 1) which will gain support for multi-purpose projects recommended in the aforementioned assessments, improve boater safety through engineering design and signage (Task 2), and work with water users to increase

understanding of river operations through the development of a suite of analytical tools (Task 3), and provide an Action Plan which will outline future implementation of “IWMP: Phase 3” project.

WSRF funds will be used to implement Tasks 2 and 3 of this project

Discussion: This effort will assist the Gunnison Basin Roundtable achieve the Goals 1, 5, 8 and 9 of the Gunnison Basin Implementation Plan, as well as assisting the state achieve the goal of covering 80% of the locally prioritized lists of rivers with stream management plans as called for in Chapter 10, Section 10.2 of Colorado’s Water Plan.

Issues/Additional Needs: The applicant needs to submit several letters of matching commitment before CWCB can bring this grant under contract, otherwise no issues or additional needs have been identified.

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair’s Recommendation Letter and the WSRF Grant Application for applicant’s detailed response.

Funding Summary/Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
West Slope Conservation Center	\$10,500	\$7,667	\$18,167	Secured
North Fork Water Conservancy District	\$0	\$7,667	\$7,667	Pending
Trout Unlimited	\$0	\$7,666	\$7,666	Pending
CWCB Watershed Restoration Program Grant	\$66,047	\$0	\$66,047	Secured
West Elk Community Fund	\$1,500	\$0	\$1,500	Secured
New Belgium Brewing	\$2,500	\$0	\$2,500	Secured
Sub-total	\$80,547	\$23,000	\$103,548	
WSRF Gunnison Basin Account	\$18,547	\$0	\$18,547	Secured
Sub-total	\$99,094	\$23,000	\$122,094	
WSRF Statewide Account	\$10,000	\$0	\$10,000	
Total Project Costs	\$109,094	\$23,000	\$132,094	

CWCB Project Manager: Chris Sturm

Water Supply Reserve Fund – Grant and Loan Program
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Applicant & Grantee: Gunnison Angling Society (TU Chapter)
Water Activity Name: Cottonwood Pass Day Use Area Vault Toilet Project
Water Activity Purpose: Multipurpose (Env&Rec/M&I) Implementation
County: Gunnison
Drainage Basin: Gunnison
Water Source: Taylor Park Reservoir
Amount Requested: \$18,000 Gunnison Basin Account
Matching Funds: Applicant Match & 3rd Party (cash & in-kind) = \$29,000
• 209% of the Basin Account request (meets 25% min)

Staff Recommendation:
Staff recommends approval of up to \$10,000 from the Gunnison Basin Account to help fund the project titled: Cottonwood Pass Day Use Area Vault Toilet Project.

Water Activity Summary: WSRF grant funds, if approved, will assist the Gunnison Angling Society and the United States Forest Service will install a double vault toilet on the Taylor Park (West) side of Cottonwood Pass which will greatly reduce the impacts of human waste entering the watershed. Cottonwood Pass Road connects Taylor Reservoir area to Buena Vista. This road has been closed for 2 years for paving improvements and will re-open the summer of 2019. Part of the road improvements will include a day use pullout area near the top of Cottonwood Pass. Based on observations of use, previous to the road improvement, there will be a large number of users traveling over the pass which will result in impacts to the forest and watershed, particularly near the viewing area. These impacts will certainly include contamination of water resources from human waste containing E. coli. Without a restroom, human waste and E. coli will contaminate the watershed above Taylor Park Reservoir, creating a risk for downstream water users as well as the health of the watershed. This project will also install signs to direct traffic.

Discussion: This project supports Goals 1 and 5 in the Gunnison Basin Implementation Plan as indicated in the Gunnison Basin Roundtable Chair's recommendation letter, as well as assisting the state achieve the goal to *Promote Protection and Restoration of Water Quality* as called for in Chapter 10, Section 10.3 of Colorado's Water Plan.

Issues/Additional Needs: The applicant needs to submit several letters of matching commitment prior to being brought under contract with the state, otherwise no issues or additional needs have been identified

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair's Recommendation Letter and the WSRF Grant Application for applicant's detailed response.

Funding Summary/Matching Funds:

<u>Funding Sources</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
Gunnison Angling Society (TU)	\$0	\$1,000	\$1,000	Secured
Upper Gunnison River Water Conservancy District	\$15,000	\$0	\$15,000	Pending
CWCB Water Plan Grant	\$7,000	\$0	\$7,000	Pending
USFS	\$1,000	\$5,000	\$6,000	Pending
Sub-total	\$23,000	\$6,000	\$29,000	
WSRF Gunnison Basin Account	\$10,000	\$0	\$10,000	Secured
Total Project Costs	\$33,000	\$6,000	\$39,000	

CWCB Project Manager: Craig Godbout

Water Supply Reserve Fund – Grant and Loan Program
Water Activity Summary Sheet
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Applicant & Grantee: Overland Ditch and Reservoir Company

Water Activity Name: Overland Reservoir, Construct Reservoir Level Gauge

Water Activity Purpose: Agricultural/Implementation

County: Delta

Drainage Basin: Gunnison

Water Source: Cow Creek

Amount Requested: \$19,000 Gunnison Basin Account
\$19,238 Statewide Account
\$38,238 Total Request

Matching Funds: Applicant Match (cash & in-kind) = \$9,560

- 49% of the Statewide Account request (meets 10% min)

Basin Account Match = \$19,000

- 99% of the Statewide Account Match (meets 10% min)

Total Match (Applicant/3rd Party & Basin Account) = \$28,560

- 148% of the Statewide Account request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$19,000 from the Gunnison Basin Account, and \$19,238 from the Statewide Account to help fund the project titled: Overland Reservoir, Construct Reservoir Level Gauge.

Water Activity Summary: WSRF grant funds, if approved, will assist the Overland Ditch and Reservoir company replace an existing gauge rod in the Overland Reservoir. The existing rod is subject to movement due to ice forces and shifting movements of the existing riprap and is in poor condition which results in faulty readings. During the last few annual inspections by the Colorado Division of Water Resources, Division 4 State Dam Safety Engineer and Water Commissioner, the inadequacy of the existing reservoir level gauging system has been a checklist item requiring correction. The proposed activity consists of replacing the existing gauge rod with a reinforced, post-tensioned concrete stem wall and footing that will be marked at the required intervals and will be stable enough to resist the forces of ice and shifting rip-rap. The requested funding will be used for the construction work described above as well as permitting, bidding, final design and project administration. This reservoir can serve an area of up to 4,400 irrigated acres plus potable water systems.

Discussion: This effort will assist the Gunnison Basin Roundtable achieve the goal of protecting existing water uses in the Gunnison Basin as called for in the Gunnison Basin Implementation Plan, as well as assisting the state achieve the goal of maintaining existing storage as indicated in Chapter 10, Section 10.3 of Colorado's Water Plan.

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

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair's Recommendation Letter and the WSRF Grant Application for applicant's detailed response.

Funding Summary/Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
Overland Ditch & Reservoir Company	\$4,500	\$5,060	\$9,560	Secured
WSRF Gunnison Basin Account	\$19,000	\$0	\$19,000	Secured
Sub-total	\$23,500	\$5,060	\$28,560	
WSRF Statewide Account	\$19,238	\$0	\$19,238	
Total Project Costs	\$42,738	\$5,060	\$47,798	

CWCB Project Manager: Craig Godbout

Water Supply Reserve Fund – Grant and Loan Program
Water Activity Summary Sheet
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Agenda Item 24(h)

Applicant & Grantee: Trout Unlimited

Water Activity Name: Wilbur Ditch Diversion Improvement Project

Water Activity Purpose: Multipurpose (Ag/Env&Rec) - Implementation

County: Mesa

Drainage Basin: Gunnison

Water Source: North Fork Escalante Creek

Amount Requested: \$10,500 Gunnison Basin Account
\$10,000 Statewide Account
\$20,500 Total Request

Matching Funds: Applicant Match (cash & in-kind) = \$19,200

- 192% of the Statewide Account request (meets 10% min)

Basin Account Match = \$10,500

- 105% of the Statewide Account Match (meets 10% min)

Total Match (Applicant & Basin Account) = \$29,700

- 297% of the Statewide Account request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$10,500 from the Gunnison Basin Account, and \$10,000 from the Statewide Account to help fund the project titled: Wilbur Ditch Diversion Improvement Project.

Water Activity Summary: WSRF grant funds, if approved, will assist Trout Unlimited, Escalante Ranch and the United States Fish and Wildlife Service relocate and reconstruct an existing diversion structure and construct a barrier structure in the North Fork of Escalante Creek. The existing facilities suffered failure in 2011. The North Fork of Escalante Creek is home to Colorado River Cutthroat Trout. Construction activities will include installation of a rock weir diversion structure, a headgate and 1,000 feet of 12 diameter pipe. By completing this diversion modification project the lower several miles of this critical habitat for the Colorado River Cutthroat Trout will be accessible and irrigation water will be accessed by valuable senior water rights in a manner that mitigates impacts on native trout.

Discussion: The following goals established by the Gunnison Basin Roundtable in their Basin Implementation Plan will be met by the project:

1. Protect existing water rights in the Gunnison Basin
5. Quantify and protect environmental and recreational water uses.
7. Describe and encourage the beneficial relationship between agriculture and environmental and recreational uses.

8. Restore, maintain, and modernize critical water infrastructure including hydropower.

In addition, this project will help the State of Colorado meet the goals following goals which are listed on page 4 of Chapter 10 of the Water Plan.

1. A productive economy that supports vibrant and sustainable cities; viable and productive agriculture; and a robust skiing, recreation, and tourism industry.
2. Efficient and effective water infrastructure; and
3. A strong environment that includes healthy watersheds, river, streams and wildlife.

Issues/Additional Needs: The applicant needs to submit one additional letter demonstrating a matching commitment, otherwise no issues or additional needs have been identified.

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair's Recommendation Letter and the WSRF Grant Application for applicant's detailed response.

Funding Summary/Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
Trout Unlimited	\$0	\$2,200	\$0	Secured
USFWS	\$10,000	\$0	\$10,000	Secured
Escalante Ranch	\$0	\$7,000	\$7,000	Pending
Sub-total	\$10,000	\$9,200	\$19,200	
WSRF Gunnison Basin Account	\$10,500	\$0	\$10,500	Secured
Sub-total	\$20,500	\$9,200	\$29,700	
WSRF Statewide Account	\$10,000	\$0	\$10,000	
Total Project Costs	\$30,500	\$9,200	\$39,700	

CWCB Project Manager: Craig Godbout

Water Supply Reserve Fund – Grant and Loan Program
Water Activity Summary Sheet
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Applicant & Grantee: Leroux Creek Water User's Association

Water Activity Name: Leroux Creek Reservoir System, Dam Outlet Rehabilitation

Water Activity Purpose: Agricultural & M&I/Implementation

County: Delta

Drainage Basin: Gunnison

Water Source: Leroux Creek

Amount Requested: \$50,000 Gunnison Basin Account
\$150,000 Statewide Account
\$200,000 Total Request

Matching Funds: Applicant Match (cash & in-kind) = \$55,146
• 37% of the Statewide Account request (meets 10% min)
Basin Account Match = \$50,000
• 33% of the Statewide Account Match (meets 10% min)
Total Match (Applicant & Basin Account) = \$105,146
• 70% of the Statewide Account request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$50,000 from the Gunnison Basin Account, and \$150,000 from the Statewide Account to help fund the project titled: Leroux Creek Reservoir System, Dam Outlet Rehabilitation.

Water Activity Summary: WSRF grant funds, if approved, will assist the Leroux Creek Water User's Association (LCWUA) upgrade outlet pipes on two existing dams within the Leroux Creek Reservoir System; the Gray Reservoir and the Goodenough Reservoir, both located on the Grand Mesa within Delta County. Recent video inspections of the outlet pipe in the Gray Reservoir dam revealed numerous pipe corrosion defects which indicate that the pipe is nearing the end of its useful life. If left uncorrected, the pipe will become unsafe for storage releases in the near future. At some point (probably within the next 5 to 10 years), lining of the pipe may no longer be feasible, requiring removal and replacement, which will nearly quadruple the cost of rehabilitation. The existing Gray outlet pipe consists of 213 feet of 18" diameter corrugated steel pipe. Recent video inspections of the Goodenough Reservoir dam and other investigations have not revealed any significant defects in the pipe. However, there are a number of factors that contribute to concerns over the pipe's expected future life and have led to the decision by LCWUA to pursue outlet rehabilitation. These factors include the Significant Hazard rating by the Colorado State Engineer, the fact that the outlet pipe consists of uncoated steel pipe which is subject to corrosion, the age of the pipe (70 years) and the fact that a significant portion of the pipe retains water when the regulating gate is closed (preventing inspection of the full internal surface of the pipe). The Goodenough Dam outlet consists of 234 feet of 12" diameter smooth steel pipe.

This project is intended to extend the life expectancy of both outlet pipes by placement of an internal liner by use of the Cured-in-Place Pipe method and by installation of a filter drain surrounding the pipe at the downstream end of each outlet. The funding will be used for the construction work described above as well as permitting, bidding, final design and project administration. These two reservoirs are part of a system that can serve an area of up to 2,000 irrigated acres plus domestic water systems.

Discussion: This effort will assist the Gunnison Basin Roundtable achieve the goal of protecting existing water uses in the Gunnison Basin as called for in the Gunnison Basin Implementation Plan, as well as assisting the state achieve the goal of maintaining existing storage as indicated in Chapter 10, Section 10.3 of Colorado's Water Plan.

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

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair's Recommendation Letter and the WSRF Grant Application for applicant's detailed response.

Funding Summary/Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
Leroux Creek Water User's Association	\$20,000	\$35,146	\$55,146	Secured
WSRF Gunnison Basin Account	\$50,000	\$0	\$50,000	Secured
Sub-total	\$70,000	\$35,146	\$105,146	
WSRF Statewide Account	\$150,000	\$0	\$150,000	
Total Project Costs	\$220,000	\$35,146	\$255,146	

CWCB Project Manager: Craig Godbout

Water Supply Reserve Fund – Grant and Loan Program
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Applicant & Grantee: Turner Ditch Company

Water Activity Name: Turner Lone Cabin Ditch Combination Salinity Reduction Project

Water Activity Purpose: Agricultural/Implementation

County: Delta & Gunnison

Drainage Basin: Gunnison

Water Source: Minnesota & Reynolds Creeks

Amount Requested: \$50,000 Gunnison Basin Account
\$125,000 Statewide Account
\$175,000 Total Request

Matching Funds: Applicant Match & 3rd party (cash & in-kind) = \$5,956,136
• 4,764% of the Statewide Account request (meets 10% min)
Basin Account Match = \$50,000
• 40% of the Statewide Account Match (meets 10% min)
Total Match (Applicant & Basin Account) = \$6,006,136
• 4,805% of the Statewide Account request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$50,000 from the Gunnison Basin Account, and \$125,000 from the Statewide Account to help fund the project titled: Turner Lone Cabin Ditch Combination Salinity Reduction Project.

Water Activity Summary: WSRF grant funds, if approved, will assist the Turner Ditch Company and the Bureau of Reclamation to combine the irrigation operations of Turner Ditch, Lone Cabin Ditch and Reservoir, and Sweezy-Turner Ditch (all Ditches located in the Minnesota Creek and/or Reynolds Creek drainages) into a closed, pressurized delivery system. The project objectives are to:

- (1) Decommission the use of 9.5 miles (out of 25 miles total) of open earthen ditches and their implied easements and associated structures;
- (2) Replace the remaining 15.5 mi of existing open ditch with HDPE and/or PVC plastic pipe;
- (3) Construct a new Turner diversion structure at the existing Sweezy-Turner diversion;
- (4) Pressurize the resulting combined system in excess of 50 psig;
- (5) Allow the new Lone Cabin system to directly access their Beaver Reservoir water (300 ac-ft) without water trades via a “connection” to the new Turner system;
- (6) Clean the irrigation water of vegetable matter down to 25 mesh (about 1 mm) using wedge screen at all head-gates.

This Project will eliminate delivery system losses (approximately 40%) and encourage on-farm sprinklers via pressure as a high efficiency replacement for flood irrigation in both the Reynolds and Minnesota Creek drainages. Irrigation water will be “geologically detained” of alkalinity and selenium.

While the Bureau of Reclamation Salinity Control Project will address all of the above mentioned infrastructure components, WSRF Grant funds will be employed exclusively on the Lone Cabin portions (pipeline and reservoir transition structure) of the overall project as highlighted in the Statement of Work (Exhibit A) and the Budget and Schedule Table (both of which are attached).

Discussion: This effort will assist the Gunnison Basin Roundtable achieve the goal of protecting existing water uses in the Gunnison Basin by improving agricultural water supplies via efficiency to reduce shortages as called for in the Gunnison Basin Implementation Plan, as well as assisting the state achieve the goal of improving the local agricultural economy with increased crop production, improving the efficiency of off-farm water delivery systems and on-farm crop irrigation, promoting a healthy environment by improving water quality in the Colorado River Basin, as well as assisting the state meet water supply gaps as called for in Chapter 10 of Colorado’s Water Plan.

Issues/Additional Needs: The applicant/grantee needs to secure to additional grant awards and provide documentation of these awards prior to entering into a grant contract with the state, otherwise no issues or additional needs have been identified.

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair’s Recommendation Letter and the WSRF Grant Application for applicant’s detailed response.

Funding Summary/Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
Bureau of Reclamation Salinity Project Grant	\$5,581,136	\$0	\$5,581,136	Pending
CWCB Water Plan Grant	\$175,000	\$0	\$175,000	Pending
Turner Ditch Company	\$0	\$200,000	\$200,000	Secured
Sub-total	\$5,756,136	\$200,000	\$5,956,136	
WSRF Gunnison Basin Account	\$50,000	\$0	\$50,000	Secured
Sub-total	\$5,806,136	\$200,000	\$6,006,136	
WSRF Statewide Account	\$125,000	\$0	\$125,000	
Total Project Costs	\$5,931,136	\$200,000	\$6,131,136	

CWCB Project Manager: Alex Funk

Water Supply Reserve Fund – Grant and Loan Program
Water Activity Summary Sheet
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Applicant & Grantee: Ducks Unlimited

Water Activity Name: North Park Irrigated Meadows Conservation Program - Phase 2

Water Activity Purpose: Multipurpose (Env&Rec/Ag/Ed&Outreach) Implementation

County: Jackson

Drainage Basin: Gunnison

Water Source: North Platte River tributaries

Amount Requested: \$148,698 North Platte Basin Account
\$301,902 Statewide Account
\$450,000 Total Request

Matching Funds: Applicant Match & 3rd Party (cash & in-kind) = \$474,000

- 105% of the Statewide Account request (meets 10% min)

Basin Account Match = \$148,698

- 49% of the Statewide Account Match (meets 10% min)

Total Match (Applicant & Basin Account) = \$622,698

- 206% of the Statewide Account request (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$148,698 from the North Platte Basin Account, and \$301,902 from the Statewide Account to help fund the project titled: North Park Irrigated Meadows Conservation Program - Phase 2.

Water Activity Summary: WSRF grant funds, if approved, will assist Ducks Unlimited to restore and enhance 1,000 acres of irrigated meadows in the North Platte Basin of Jackson County, Colorado. We are requesting \$450,600 to fund the rehabilitation of four irrigation ditches in North Park and to fund the assessment of the benefits our work has on irrigated lands and waterfowl populations that depend upon them.

In the first year of this project, DU will finalize plans, specifications and permits for four irrigation system rehabilitation projects. Also, DU will partner with Colorado State University and Colorado Parks and Wildlife to perform pre-project assessments on project tracts to gather baseline data on irrigated land quality and associated bird use. This assessment work will be accomplished by monitoring of vegetation quality on the irrigated lands and tracking annual bird use of those areas. In the second and third year of the project, DU will complete construction on the headgates, conveyance systems and water-control structures on the four ditches that will allow irrigators to more efficiently use North Platte Basin water supplies and avoid abandonment of irrigation water rights. Those years will also see continued assessment of the quality of irrigated lands in the Basin and the response of vegetation and birds to the rehabilitation work.

In the final year of the project, DU will work with CSU to complete the project assessment work by performing vegetation and bird surveys on the properties. A critical component of this work will be the reporting of assessment findings to the local and statewide water-user community. Based on assessment findings, we will develop and publish a set of Best Management Practices for irrigators of hayland and pasture interested in providing habitat for wildlife.

Discussion: This effort will assist the North Platte Basin Roundtable (NPBRT) achieve several of their stated goals (#3, #4, and #5) as called for in the North Platte Basin Implementation Plan, and as indicated in the NPBRT Chair's recommendation letter, as well as assisting the state achieve several of the goals as called for in Chapter 10, Section 10.3 of Colorado's Water Plan, such as; maintaining agricultural productivity; improving watershed health, environment and recreation; and promoting education, outreach and innovation.

Issues/Additional Needs: CWCB staff will work cooperatively with the applicant/grantee to finalize the Statement of Work, otherwise no issues or additional needs have been identified.

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair's Recommendation Letter and the WSRF Grant Application for applicant's detailed response.

Funding Summary/Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
Ducks Unlimited	\$151,000	\$0	\$151,000	Secured
Colorado State University	\$71,000	\$0	\$71,000	Secured
Colorado Parks and Wildlife	\$252,000	\$0	\$252,000	Secured
Sub-total	\$474,000	\$0	\$474,000	
WSRF North Platte Basin Account	\$148,698	\$0	\$148,698	Secured
Sub-total	\$622,698	\$0	\$622,698	
WSRF Statewide Account	\$301,902	\$0	\$301,902	
Total Project Costs	\$924,600	\$0	\$924,600	

CWCB Project Manager: Craig Godbout

Water Supply Reserve Fund – Grant and Loan Program
Water Activity Summary Sheet
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Applicant & Grantee: Colorado River Water Conservation District
Water Activity Name: Yampa River Basin Integrated Water Management Project
Water Activity Purpose: Multipurpose (Ag/Env/M&I/Ed & Outreach)
County: Routt & Moffat
Drainage Basin: Yampa
Water Source: Yampa River
Amount Requested: \$154,524 Yampa/White/Green Basin Account
Matching Funds: Applicant Match & 3rd party (cash & in-kind) = \$528,000
• 341% of the Basin Account request (meets 10% min)

Staff Recommendation:
Staff recommends approval of up to \$154,524 from the Yampa/White/Green Basin Account to help fund the project titled: Yampa River Basin Integrated Water Management Project.

Water Activity Summary: WSRF grant funds, if approved, will assist the Yampa/White/Green Basin Roundtable provide a roadmap to collaboratively identify and support actions that help implement the basin goals. This process was crafted through extensive stakeholder outreach in 2018. This project charts a path forward for the BRT to progress on BIP goals while also building relationships with water users in the basin and responding to their needs; both were key needs found in the scoping process. It will combine stakeholder input with science and engineering assessments to identify actions that users can take to protect existing and future water uses in the Yampa River basin and support healthy river ecosystems in the face of growing population, changing land uses and climate uncertainty.

Discussion: This effort will assist the Yampa/White/Green Basin Roundtable achieve the goals of: Protect and encourage agricultural uses of water in the YWG Basin within the context of private property rights; Improve agricultural water supplies to increase irrigated land and reduce shortages; Quantify and protect non-consumptive water uses, and maintain and consider the existing natural range of water quality that is necessary for current and anticipated water uses; Develop an integrated system of water use, storage, administration and delivery to reduce water shortages and meet environmental and recreational needs.

In addition, this effort assists the state achieve the measurable objective of covering 80% of locally prioritized list of rivers with stream management plans as called for in Chapter 10, Section 10.3 of Colorado's Water Plan.

Issues/Additional Needs: The applicant/grantee needs to secure to additional grant awards and provide documentation of these awards prior to entering into a grant contract with the state, otherwise no issues or additional needs have been identified.

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair's Recommendation Letter and the WSRF Grant Application for applicant's detailed response.

Funding Summary/Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
The Nature Conservancy	\$60,000	\$20,000	\$80,000	Pending
Trout Unlimited	\$15,000	\$18,000	\$33,000	Secured
River Network	\$10,000	\$60,000	\$70,000	Pending
Colorado Dept. of Water Resources	\$0	\$10,000	\$10,000	Pending
Ag Alliance	\$0	\$50,000	\$50,000	Pending
Friends of the Yampa	\$0	\$20,000	\$20,000	Pending
Upper Yampa Water Conservancy District	\$30,000	\$0	\$30,000	Pending
CWCB Watershed Restoration grant	\$235,000	\$0	\$235,000	Pending
Sub-total	\$350,000	\$178,000	\$528,000	
WSRF Yampa/White/Green Basin Account	\$154,524	\$0	\$154,524	Secured
Total Project Costs	\$504,524	\$178,000	\$682,524	

CWCB Project Manager: Chris Sturm

**Water Supply Reserve Fund
Water Activity Summary Sheet
March 21, 2019
Agenda Item 24(m)**

Applicant & Grantee: Pitkin County Board of County Commissioners
Water Activity Name: Robinson Ditch Diversion Modification
Water Activity Purpose: Agricultural Implementation
County: Eagle & Pitkin
Drainage Basin: Colorado
Water Source: Roaring Fork River
Amount Requested: \$45,000 Colorado Basin Account
Matching Funds: Applicant Match (cash & in-kind) = \$755,000*
**see issues/additional needs section*

- 168% of the Basin Account request (meets 25% min)
- 94% of the total project cost of \$800,000

Staff Recommendation:

Staff recommends approval of up to \$45,000 from the Colorado Basin Account to help fund the project titled: Robinson Ditch Diversion Modification.

Water Activity Summary: The Robinson Ditch Project consists of a series of in-channel and bank improvements to the Roaring Fork River adjacent to the Robinson Ditch headgate. The improvements include modification of an existing boulder structures, construction of an engineered riffle and modifications to the Robinson Diversion inlet channel and headgate. WSRF grant funds, if approved, will help Pitkin County purchase, transport, and deliver boulders for the lower grade control structure.

The Robinson Ditch is a major supply source for agricultural and municipal irrigation in the mid-valley. It is located in the Roaring Fork River, 900 feet downstream of the lower Basalt Bypass Bridge, 2 miles east of El Jebel and 4 miles west of Basalt. The site is 140 feet wide and averages 3.5 feet deep with cobble and boulder substrate. An alluvium island exists between the inlet channel and the Roaring Fork River but has eroded over the years requiring annual maintenance. The main feature of the site is a boulder grade control structure that creates a severe hydraulic, resulting in navigational hazards for recreational boaters and a partial barrier for aquatic species. The Project consists of restoration of the alluvium island and enhancement of structures to reduce the head drop, creating a riffle habitat and allowing recreational passage while improving the quality of the riparian area.

Discussion: As described in the Colorado Basin Roundtable (BRT) chair's recommendation letter, this project was unanimously supported and recommended for approval by the roundtable on February 14, 2018. This project will meet several statewide goals and the Colorado Basin Implementation Plan Section 4 goals (Roaring Fork region) to 1) promote healthy streams, 2) support the recreational economy, 3) mitigate/protect water quality, and 4) sustain agriculture. Specifically, the project will 1) improve stream morphology for the benefit of wildlife, 2) allow recreationists to get by the diversion,

- 3) prevent deterioration from ongoing annual heavy-equipment maintenance around the diversion, and
- 4) support agricultural and municipal water needs via irrigation.

Issues/Additional Needs: A significant portion of project funds are yet to be secured. Staff will work with the applicant to ensure sufficient funds are secured prior to contracting.

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

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

Funding Summary / Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-Kind</u>	<u>Total</u>
Pitkin County	\$110,000	\$0	\$110,000
Eagle County <i>pending</i>	\$25,000	\$0	\$25,000
Fishing Is Fun <i>pending</i>	\$103,759	\$0	\$103,759
Undefined (additional requests in development from Pitkin County & Robinson Ditch Company) <i>pending</i>	\$345,025	\$0	\$345,025
CWCB Water Plan Grant <i>pending</i>	\$171,216	\$0	\$171,216
WSRF Colorado Basin Account	\$45,000	n/a	\$45,000
Totals	\$800,000	\$0	\$800,000

CWCB Project Manager: Megan Holcomb

**Water Supply Reserve Fund
Water Activity Summary Sheet
March 21, 2019
Agenda Item 24(n)**

Applicant & Grantee: Animas Consolidated Ditch Company

Water Activity Name: Water Supply/Watershed Restoration

Water Activity Purpose: Agricultural Implementation

County: La Plata

Drainage Basin: Southwest

Water Source: Animas and Hermosa

Amount Requested: \$25,000 Southwest Basin Account
\$125,000 Statewide Account

Matching Funds: Basin Account Match

- 20% of the statewide request (meets 10% min)

Applicant Match (cash & in-kind) = \$150,000

- 120% of the statewide request (meets 10% min)

Total Match (Basin & Applicant)

- 140% of the statewide request (meets 50% min)
- 58% of the total project cost of \$300,000

Staff Recommendation:
Staff recommends approval of up to \$25,000 from the Southwest Basin Account and \$125,000 from the Statewide Account to help fund the project titled: Water Supply/Watershed Restoration.

Water Activity Summary: This project encompasses a collaborative restoration and response effort among mutual ditch companies significantly affected by the 416-Fire. The 2018 fire devastated 54,000 acres with costs and property losses estimated at \$50 to \$60 million, leaving several miles of burn scars along the west sides of the Animas and Hermosa Valleys. The Animas Consolidated Ditch Company (ACDC) has been deeply affected by post-fire erosion and the resulting costs and risks to properties and residents. The 12-mile ditch provides irrigation and other water uses on roughly 3,000 acres. The 311 members provide consistent and adequate funding for the normal operation of the ditch.

In 2018 alone, the ACDC was impacted by over 50,000 cubic yards of silt and debris. About 30,000 cubic yards have been removed to date, leaving another 20,000 cubic yards still in the ditches with more to come. Without intervention, the ACDC may have to clean out almost the full length of the ditches every time it rains over the next five to ten years. The cost of installing new structures to manage future debris will ultimately be less than cleaning and repairing the ditches after each debris flow. Objectives of this project are as follows:

1. Remove debris and repair ditches from the impacts of flash floods in 2018 through 2023;
2. Manage and reduce impact of future debris flows by installing twelve projects with improved ditch design;
3. Prevent silt and debris flows by rehabilitating the burn scar in cooperation with La Plata County,

Colorado Department of Transportation, the U.S. Forest Service, Natural Resource Conservation Service, and other programs.

Discussion: As described in the Southwest Basin Roundtable chair's recommendation letter, this project was supported and recommended for approval by the roundtable on January 9, 2019. The proposed project Colorado's Water Plan *Objective D: Agriculture* to support Colorado's agricultural industry and *Object F: Watershed Health* to protect and restore water quality. The Southwest Basin Implementation Plan goals met by this project include: *Goal A2*: mitigate impacts that occur in a post-fire environment; *Goal A5*: maintain watershed health through restoration; *Goal B2*: preserve agriculture and encourage efficiency improvements, and *Goal F1*: monitor, protect and improve water quality for all classified uses.

Issues/Additional Needs: No 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.

Funding Summary / Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-Kind</u>	<u>Total</u>
Animas Consolidated Ditch Company and other ditches	\$45,000	\$30,000	\$75,000
Southwestern Conservation District	\$75,000	\$0	\$75,000
Subtotals	\$120,000	\$30,000	\$150,000
WSRF Statewide Account	\$125,000	n/a	\$125,00
WSRF Southwest Basin Account	\$25,000	n/a	\$25,000
Totals	\$270,000	\$30,000	\$300,000

CWCB Project Manager: Megan Holcomb

**Water Supply Reserve Fund
Water Activity Summary Sheet
March 21, 2019
Agenda Item 24(o)**

Applicant & Grantee: Valley Floor Preservation Partners

Water Activity Name: Telluride Valley Floor River Restoration Phase Two

Water Activity Purpose: Environmental & Recreational Implementation

County: San Miguel

Drainage Basin: Southwest

Water Source: San Miguel

Amount Requested: \$25,000 Southwest Basin Account
\$250,000 Statewide Account

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

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

Applicant Match (cash & in-kind) = \$3,059,000

- 1223% of the statewide request (meets 10% min)

Total Match (Basin & Applicant) = \$3,084,000

- 1224% of the statewide request (meets 50% min)
- 93% of the total project cost of \$3,334,000

Staff Recommendation:
Staff recommends approval of up to \$25,000 from the Southwest Basin Account and \$250,000 from the Statewide Account to fund the project titled: Telluride Valley Floor River Restoration Phase Two.

Water Activity Summary: WSRF grant funds, if approved, will assist the Valley Floor Preservation Partners restore a naturally functioning river system by removing toxic mine tailings and rerouting 3,300 feet of river away from the tailings. The project will abandon and revegetate a 900-foot channelized section of river and create a new 1,300-foot meandering channel with riffles, which will reconnect the river to its floodplain, establish critical habitat for cold-water fish, and restore additional riparian habitat.

The 566-acre Valley Floor property is located immediately west of the developed boundary of the Town of Telluride along the San Miguel River. The property, owned and managed by the Town of Telluride, is protected as public Open Space in perpetuity with a Conservation Easement. The River flows through the entire length of the property and is joined by surface and ground water flows from four headwater tributaries within the property. The River within the project area is heavily impacted by approximately 23 acres of deposited tailings and 900 feet of channelization. Currently in Reach 6, the river cuts directly through eroding tailings on both banks which contributes to water quality degradation and poor aquatic life conditions due to the presence of heavy metals. The intent of the Reach 5-6 River Restoration and Tailing Remediation is to consolidate, stabilize and cover existing tailings, remove River interaction with tailings, create a naturally functioning river system and mitigate past channelization impacts through hydrology, channel morphology and water quality improvements.

WSRF funds will be used for the River Restoration Tasks of this project, which will address improvements to environmental, recreational, flooding risk mitigation and education purposes.

Discussion: As described in the Southwest Roundtable (SWBRT) chair's recommendation letter, this project was supported and recommended for approval on January 9, 2019. Colorado Water Plan *Objective F* of promoting Watershed Health, Environment and Recreation by improving water quality, recreation opportunities, aquatic life and wetlands. This project will remediate a mining legacy Superfund site and improve riparian habitat at the headwaters of the San Miguel River Basin. It will also address *Objective H*: Education, Outreach and Innovation by improving current educational opportunities for the Watershed Education Program, San Miguel Watershed Coalition, Telluride Institute and regional schools. Colorado's Foundation for Water Education conducted a tour of the successfully complete Reach One of the Valley Floor River Restoration in 2017 for water leaders and State lawmakers and would be welcome to conduct a follow up tour. A film Meander was produced about the Reach One project that reached audiences around the world on a documentary film tour. The Valley Floor is being evaluated as a climate change mitigation opportunity for the Telluride Region to determine the amount of carbon sequestration and vegetation productivity. This project will add valuable understanding to how our natural landscapes can be managed productively to reduce our carbon footprints into the future.

Issues/Additional Needs: No 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.

Funding Summary / Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-Kind</u>	<u>Total</u>
Town of Telluride/State of Colorado (Idarado Mining Co Consent Decree)	\$2,434,000	\$0	\$2,434,000
Valley Floor Preservation Partners	\$400,000	\$0	\$400,00
CWCB Water Plan Implementation Funds	\$215,000	\$0	\$215,000
Trout Unlimited	\$10,000	\$0	\$10,000
Subtotals	\$3,059,000	\$0	\$3,059,000
WSRF Statewide Account	\$250,000	n/a	\$250,000
WSRF Southwest Basin Account	\$25,000	n/a	\$25,000
Totals	\$3,334,000	\$0	\$3,334,000

CWCB Project Manager: Chris Sturm

**Water Supply Reserve Fund
Water Activity Summary Sheet
March 21, 2019
Agenda Item 24(p)**

Applicant: Southwest Basin Roundtable

Fiscal Agent: San Juan Resource Conservation and Development Council

Water Activity Name: San Miguel Stream Management Plan: Stakeholder Engagement Process

Water Activity Purpose: Multi-use Study

County: San Miguel

Drainage Basin: Southwest

Water Source: San Miguel

Amount Requested: \$12,530 Southwest Basin Account

Matching Funds: Applicant Match (cash & in-kind) = \$12,530

- 100% of the Basin Account request (meets 25% min)
- 25% of the total project cost of \$50,122

Staff Recommendation:
Staff recommends approval of up to \$12,530 from the Southwest Basin Account to help fund the project titled: San Miguel Stream Management Plan: Stakeholder Engagement Process.

Water Activity Summary: WSRF grant funds, if approved, will support the Southwest basin roundtable's San Miguel Stream Management Plan Stakeholder Engagement Process. The objectives of the process are as to: (1) organize a stakeholder group that includes a diverse set of interests within the entire San Miguel River Basin with active participation from the West End's agricultural community; and (2) create a trusted space where potential actions for multiple purpose projects may be discussed.

Existing technical work has been done in the southwest basin under the San Miguel Pilot Project Phase 1. The Pilot Project stemmed from the Southwest Basin's Roundtable expressed need to evaluate and address environmental and/or recreation gaps. A draft report for the pilot project was completed in April 2017. Based on feedback from the public meetings presenting the draft report, it was made clear that a more thorough stakeholder engagement process with defined leadership and robust participation from agricultural water users needs to occur to achieve broader support on the San Miguel River effort. This process aims to serve as that relationship building effort and will include reviews of the draft report and outcome(s), and serve as a committee to collectively identify opportunities that will meet multiple purpose water needs within the basin.

Discussion: As described in the Southwest Basin Roundtable chair's recommendation letter, this project was supported and recommended for approval by the roundtable on January 9, 2019. The project squarely meets the Southwest Basin Plan IPP 2-MB: collaborative efforts to address environmental/recreational water gaps.

Issues/Additional Needs: Staff will work with the applicant and roundtable to secure the remaining but unidentified funds of \$25,062 to meet the full project cost of \$50,122.

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

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

Funding Summary / Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-Kind</u>	<u>Total</u>
Southwestern Water Conservation District	\$6,265	\$0	\$6,265
The Nature Conservancy	\$6,265	\$0	\$6,265
<i>Undefined</i>	\$25,062	\$0	\$25,062
WSRF Southwest Basin Account	\$12,530	n/a	\$12,530
Totals	\$25,060	\$0	\$50,122

CWCB Project Manager: Chris Sturm

**Water Supply Reserve Fund
Water Activity Summary Sheet
March 21, 2019
Agenda Item 24(q)**

Applicant & Grantee: Mountain Studies Institute on behalf of 416-Fire Aquatic Monitoring Research Group

Water Activity Name: 416-Fire Aquatic Monitoring

Water Activity Purpose: Multiuse Study & Outreach

County: La Plata

Drainage Basin: Southwest

Water Source: Hermosa Creek & Animas River

Amount Requested: \$18,000 Southwest Basin Account

Matching Funds: Applicant Match (cash & in-kind) = \$71,100

- 284% of the Basin Account request (meets 25% min)
- 80% of the total project cost of \$89,100

Staff Recommendation:
Staff recommends approval of up to \$18,000 from the Southwest Basin Account to help fund the project titled: 416-Fire Aquatic Monitoring.

Water Activity Summary: Mountain Studies Institute (MSI) is requesting research effort support on behalf of the 416-Fire Aquatic Monitoring Research Group, which formed to investigate impacts to water quality and aquatic life from the 2018 416-Fire in southwest Colorado. The research group consists of scientists from MSI, Colorado School of Mines, and the US Forest Service Rocky Mountain Research Station. WSRF grant funds, if approved will help the research team:

- 1) Evaluate water quality impacts to Hermosa Creek and the Animas River from the 416-Fire in context of the use of these waters for irrigation, water supply, recreation, and aquatic life.
- 2) Document the recovery of water quality and aquatic life following the 416-Fire to share with concerned public members and further understanding of river health recovery
- 3) Establish monitoring sites on Hermosa Creek and Junction Creek to serve as watershed comparisons of differing forest health, fire history, and forest health treatments. Water quality samples will be collected from five locations, instrumentation will be installed at two locations, and benthic macroinvertebrate samples will be collected from eight locations

During the summer of 2018, the 416 Fire burned 54,000 acres in the San Juan National Forest, primarily in the Hermosa Creek drainage north of Durango, CO. Subsequent runoff events and debris flows have occurred within the 416-burn area, creating concern in southwest Colorado communities about the resulting impacts to water quality and aquatic life. Ash and sediment delivered from the 416-burn area have been evident in changes in color, discharge, turbidity, and reports of fish kills in Hermosa Creek and the Animas River. Additionally, irrigators and ditch companies were impacted from sediment and debris flows that inhibited their ability to access their water allocations.

Discussion: As described in the Southwest Basin Roundtable chair's recommendation letter, this project was supported and recommended for approval by the roundtable on January 17, 2019. The proposed project Colorado's Water Plan *Objective H1: Education, Outreach, and Innovation* to significantly improve the level of public awareness and engagement regarding water issues statewide. One goal of the proposed project is to increase the level of public awareness regarding the impacts of wildfire on water quality and the health of aquatic life - providing valuable information to the public about how wildfire in southwest Colorado impacts water quality for users such as irrigators, livestock owners, recreationalists, and domestic water suppliers. Findings will be conveyed to the public through reports, public meetings, direct information to ditch users, Animas Valley Grange, and social media.

Issues/Additional Needs: No 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.

Funding Summary / Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-Kind</u>	<u>Total</u>
Colorado School of Mines	\$11,525	\$5,345	\$16,870
USFS Rocky Mountain Research Station	\$0	\$11,330	\$11,330
Rio Grande Watershed Emergency Action Coordination Team	\$1,500	\$21,000	\$22,500
Colorado Department of Public Health and Environment	\$0	\$8,400	\$8,400
City of Durango	\$5,000	\$0	\$5,000
Trout Unlimited	\$1,000	\$0	\$1,000
Southwestern Conservation District	\$6,000	\$0	\$6,000
Subtotals	\$25,025	\$46,075	\$71,000
WSRF Southwest Basin Account	\$18,000	n/a	\$18,000
Totals	\$43,025	\$46,075	\$89,100

CWCB Project Manager: Megan Holcomb

**Water Supply Reserve Fund
Water Activity Summary Sheet
March 21, 2019
Agenda Item 24(r)**

Applicant & Grantee: Town of Silverton
Water Activity Name: Town of Silverton Water Supply/Storage Investigation
Water Activity Purpose: Municipal Supply Study
County: San Juan
Drainage Basin: Southwest
Water Source: Bear and Boulder Creek
Amount Requested: \$25,000 Southwest Basin Account
Matching Funds: Applicant Match (cash & in-kind) = \$25,000

- 100% of the Basin Account request (meets 25% min)
- 50% of the total project cost of \$50,000

Staff Recommendation:

Staff recommends approval of up to \$25,000 from the Southwest Basin Account to help fund the project titled: Town of Silverton Water Supply/Storage Investigation.

Water Activity Summary: WSRF grant funds, if approved, will aid the Town of Silverton with an alternatives and improvements supply study. Silverton's current Bear and Boulder Creek water supplies are at risk from physical hazards (fires, mud and debris flows, avalanche slides, rock fall hazards), a changing climate (extended droughts), and legal water rights administration. Both Bear and Boulder Creek sources have legal water rights vulnerable to an administrative curtailment during an extended drought period from calls placed by senior downstream water rights holders in the Animas River valley.

This study and resultant report will identify redundant new sources of surface and groundwater supplies and feasible locations for source water storage. Storage will allow for water security from the multiple natural hazards to the town's supply. The study will identify all feasible alternatives and provide cost estimates as well as implementation schedules and strategies. The characterization will be from the source watershed to the Town's existing Water Treatment Plant. The water supply will be characterized for age, physical availability, legal water rights, compliance with CDPHE Primary Drinking Water Regulations, and Potable Water Design Criteria, and finally Colorado Municipal water system industry standards and best management practices.

Discussion: As described in the Southwest basin roundtable (BRT) chair's recommendation letter, this project was supported and recommended for approval by the roundtable on January 9, 2019. The project addresses the Basin Plan measurable goal *11-A* and *Outcome C* as well as the Colorado Water Plan goal of 400,000 acre-feet of storage to meet municipal water needs. The Town of Silverton is a statutory town that is the County seat of, and the only incorporated municipality in San Juan County, Colorado. Silverton is a former silver mining camp with a current population of 531. Silverton provides potable water and wastewater services to residential and commercial customers

within the Town limits. Silverton is a hub of recreational activities in the San Juan Mountains, and is a portal for skiing, fishing, hiking, camping and commercial services in the San Juan National Forest.

Issues/Additional Needs: No 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.

Funding Summary / Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-Kind</u>	<u>Total</u>
Town of Silverton	\$12,500	\$0	\$12,500
Southwest Water Conservation District	\$12,500	\$0	\$12,500
Sub-total	\$25,000	\$0	\$25,000
WSRF Southwest Basin Account	\$25,000	n/a	\$25,000
Totals	\$50,000	\$0	\$25,000

CWCB Project Manager: Megan Holcomb

**Water Supply Reserve Fund
Water Activity Summary Sheet
March 21, 2019
Agenda Item 24(s)**

Applicant & Grantee: Mountain Studies Institute, on behalf of Forests to Faucets team

Water Activity Name: Forests to Faucets (F2F): My Water Comes from the San Juan Mountains Teacher Training Workshop Series

Water Activity Purpose: Education & Outreach Implementation

County: La Plata, Archuleta, Dolores

Drainage Basin: Southwest

Water Source: n/a

Amount Requested: \$17,500 Southwest Basin Account

Matching Funds: Applicant Match (cash & in-kind) = \$67,826

- 387% of the Basin Account request (meets 25% min)
- 79% of the total project cost of \$85,326

Staff Recommendation:
Staff recommends approval of up to \$17,500 from the Southwest Basin Account to help fund the project titled: Forests to Faucets (F2F): My Water Comes from the San Juan Mountains Teacher Training Workshop Series.

Water Activity Summary: WSRF grant funds, if approved, will support the Forests to Faucets Teacher Training Workshop Series for three years (2019-2021) to train 15-20 teachers about the importance and interconnection of healthy watersheds to area water supplies through a two-day field-based course and educational tour. The Forests to Faucets team includes San Juan Mountains Association, Fort Lewis College, and the Water Information Program. The training empowers educators to include place-based watershed education in their lesson plans and engage 300-500 students each year to think critically about Colorado's water issues. This workshop is appropriate for teachers of K-12 classrooms and rotates each year between the Animas/San Juan River watershed (Durango and Silverton), the Upper San Juan watershed (Pagosa Springs), and the Dolores River watershed (Dolores and Cortez).

Each participating teacher will graduate with a copy of the My Water teacher guide and book and each school will receive a My Water kit which contains materials to complete activities in the teacher guide. The workshop offers graduate/continuing education credit from Adams State University, helping to grow the credentials of our local teachers. The long-term goal of regularly providing this workshop is to build teachers' capacity for teaching watershed science across the region by providing place-specific knowledge and activities that can easily be integrated in science, math, and social studies curricula.

Discussion: As described in the Southwest basin roundtable (BRT) chair's recommendation letter, this project was supported and recommended for approval by the roundtable on January 9, 2019. The training program addresses the Southwest Basin Plan *Goal A4* to promote dialogue, foster

cooperation and resolved conflict among water users in every basin by preparing teachers to educate young people on the fundamentals of water, along with direct exposure to water facilities and watersheds. The Forest-to-Faucets education partnership contributes to Southwest Conservation District's and the Southwest Basin Roundtable's Education Action Plan priority to provide water education for constituents in the region.

In addition, this project assists in satisfying Colorado's Water Plan Critical Goals and Actions as identified in *Chapter 10.3, H. Education, Outreach, and Innovation* for K-12 education. Educators that attend the Forests to Faucets program are introduced to lessons regarding municipal water use, land management implication for water quality, agricultural practices and irrigation, and impacts of drought. These lessons serve to foster an informed public for generations to come.

Issues/Additional Needs: Staff will work with the applicant to ensure all potential funding sources are secured before contracting.

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

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

Funding Summary / Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-Kind</u>	<u>Total</u>	<u>Pending</u>
Mountain Studies Institute	\$12,774	\$8,556	\$21,330	Secured
Fort Lewis College	\$1,500	\$1,500	\$3,000	Secured
Southwestern Water Conservancy District	\$5,000	\$0	\$5,000	Secured
US Forest Service, Rocky Mountain Region	\$6,000	\$0	\$6,000	Pending
Water Information Program	\$10,866	\$150	\$11,016	Secured
San Juan Mountains Association	\$0	\$4,680	\$4,680	Secured
Expert speakers, various partners	\$0	\$16,800	\$16,800	Secured
Sub-total	\$36,140	\$31,686	\$67,826	
WSRF Southwest Basin Account	\$17,500	n/a	\$17,500	
Totals	\$53,640	\$31,686	\$85,326	

CWCB Project Manager: Megan Holcomb

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
March 21, 2019
Agenda Item 24(t)

Applicant & Program Sponsor: Catlin Canal Company
Water Activity Name: Water Delivery and Accounting Feasibility Study
Water Activity Purpose: Study – Agricultural, Needs Assessment
County: Otero
Drainage Basin: Arkansas
Water Source: Catlin Canal
Amount Requested/Source of Funds: \$3,000 Arkansas Basin Account
 \$30,000 Statewide Account
 \$33,000 Total Grant Request

Matching Funds: Basin Account Match (\$3,000) = 10% of Statewide Account request (Meets 10% min);
 Applicant's In-kind Match (\$16,500) = 55% of Statewide Account request (Meets 25% min.);
 Total Match (Basin & Applicant Match of \$19,500 = 65% of Statewide Account request (meets 50% min). (refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:

Staff recommends approval of up to \$3,000 from the Arkansas Basin Account and \$30,000 from the Statewide account to help fund the project/study titled: <i>Water Delivery and Accounting Feasibility Study</i>
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Water Activity Summary:

If approved, the applicant will use grant funds to achieve their goal to completely upgrade their entire accounting system to ensure that all water users of the canal get their entitled share of water.

The Catlin Canal Company would like to install a water measurement device at every head gate and check point, complete with new flumes, pipes, telemetry, etc. The automated system will be controlled by technology in the company's office to ensure that the proper amount of water is delivered.

The canal's current system was purchased in 1965 and is outdated and inaccurate in delivery as any amount of trash, grass or other obstructions hinder the system from delivering the proper amount of water through the gate. The ditch riders have difficulty in delivering the correct amount of water in small shares and when water is transferred. The applicant states "the current thread system is not adequate for the small changes in the ditch, as a half thread turn can usually change about 10%, but anything less than that simply does not work".

With the expansion of Alternative Transfer Methods, water will have to be measured more directly and this project will help deliver water for the super ditch, Catlin Aug, and Colorado Water Protective and Development Association, as well as its local shareholders. Future contracts require Catlin Canal to deliver upwards of 2,000 ac.-ft. of water through the Super Ditch. This grant proposal would assist in funding the first of two phases, of the project with research to find the right measuring device for the canal company and their needs; cover the engineering needs for the project including design of the project; and a loan feasibility study for the implementation phase, and management of the grant itself.

Discussion: This project helps meet the Ark Basin BIP and Colorado Water Plan Objectives A, B, and C by accurately measuring water to reduce losses and promote alternative transfer methods which can be used to meet the municipal, industrial, and agriculture gaps. According to the plan, The Arkansas Basin addressed conservation by stating, “Stakeholders should take all actions required to maintain current water supplies and prevent future water supply gaps from increasing” (CWP p. 6-67).

One of the goals of the Arkansas Basin Implementation Plan, was to implement “*Master Metering for reliable water flow measurement... The efficient use of all water resources is now embedded in the approach taken by the Arkansas Basin Roundtable in promulgating projects to meet identified needs*” (BIP p. 7).

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

Eligibility Requirements: The application meets requirements of the three subsections of the Eligibility Requirements: General Eligibility, Entity Eligibility, and Water Activity Eligibility.

Eligibility Based on Funding Match Requirements:

The application meets the Statewide Account Matching requirements.

Evaluation Criteria:

This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to WSRF Application for applicant’s detailed response.

<u>Funding Source</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
Catlin Canal Company	\$16,000	\$0	\$16,000
Arkansas Basin PEPO	\$500	\$0	\$500
WSRF Arkansas Basin Account	\$3,000	n/a	\$3,000
WSRF Statewide Account	\$30,000	n/a	\$30,000
Total Project Costs	\$49,500	\$0	\$49,500

CWCB Project Manager: Ben Wade

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
March 21, 2019
Agenda Item 24(u)

Applicant & Program Sponsor: Huerfano County Water Conservancy District

Water Activity Name: Cucharas Collaborative Storage Phase 3

Water Activity Purpose: Study – Nonconsumptive, Agricultural, M/I

County: Huerfano

Drainage Basin: Arkansas

Water Source: South Baker Creek

Amount Requested/Source of Funds: \$4,000 Arkansas River Basin Account
\$40,000 Statewide Account
\$44,000 Total Request

Matching Funds: Basin Account Match (\$4,000) = 10% of Statewide Account request (Meets 10% min);
Applicant's Cash Match (\$16,045) = 40% of Statewide Account request (Meets 25% min.);
Total Match (Basin & Applicant Match of \$20,045 = 50.1% of Statewide Account request (meets 50% min).
(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:
Staff recommends approval of up to \$4,000 from the Arkansas Basin Account and \$40,000 from the Statewide account to help fund the project/study titled: Cucharas Collaborative Storage Phase 3

Water Activity Summary: This proposed project is Phase 3 of the Cucharas Collaborative Storage Study, which is listed as Project #2015-0007 on the Master Needs List of the Arkansas Basin Implementation Plan.

In Phase 2, five "preferred joint storage sites" underwent geotechnical investigation. Using that report, the Cucharas Basin Storage Collaborative group selected three sites of primary interest – South Baker Creek in the upper basin, Bruce Canyon in mid-basin, and Maria-Stevens Reservoir enlargement in the lower basin.

Of those three sites, South Baker Creek (SBC) and Bruce Canyon, had inaccessibility issues in Phase 2, which interfered with feasibility level designs of the dam abutments. The SBC site also requires engineering design for an alternative dam, most likely concrete gravity. This project will perform coring and permeability testing of foundation bedrock material at the two sites to evaluate the geologic and geotechnical properties of abutments so 30 percent design recommendations can be made. The Phase 2 geotechnical report will be supplemented with the Phase 3 results. In addition, 30 percent design work on the alternative dam will be completed on the SBC site.

Discussion: This project is consistent with the measurable objectives set forth in the Colorado Water Plan and the Arkansas Basin Implementation Plan. The Cucharas Collaborative Storage Study supports the needs of the Basin Plan through the investigation of potential new storage, meeting the supply-demand gap, and developing multi-purposed projects.

The proposed supports Objective A – Supply-Demand Gap in the Water Plan by “*Using a grassroots approached to formulate projects and methods that avoid some of the undesirable outcomes of the supply-demand gaps*”; supports Objective E – Storage by “*Assess and promote opportunities for multipurpose and multi-partner storage projects that address strategic needs.*”

Issues/Additional Needs: None.

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and staff has determined it satisfies the Evaluation Criteria outlined in Colorado’s Water Plan, Section 9.4. Please refer to Basin Roundtable Chair’s Recommendation Letter and the Application for a detailed response.

<u>Funding Summary/</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
Huerfano County Water Conservancy District	\$5,045	\$0	\$5,045
Cucharas Water & Sanitation District	\$3,000	\$0	\$3,000
Town of La Veta	\$5,000	\$0	\$5,000
Huerfano County	\$3,000	\$0	\$3,000
WSRF Arkansas Basin Account	\$4,000	n/a	\$4,000
WSRF Statewide Account	\$40,000	n/a	\$40,000
Total Project Costs	\$60,045	\$0	\$60,045

CWCB Project Manager: Ben Wade