

Water Supply Reserve Fund – Grant and Loan Program
Water Activity Summary Sheet
March 21-22, 2018
Agenda Item 25(q)

Applicant & Grantee: South Metro WISE Authority

Water Activity Name: Regional Investigation of Salinity Management Options

Water Activity Purpose: Municipal/Industrial Study

County: Adams, Arapahoe, Denver, Douglas, and Jefferson Counties

Drainage Basin: South Platte

Water Source: South Platte return flows

Amount Requested: \$30,000 Metro Account
\$97,500 Statewide Account
\$127,500 Total Grant Request

Matching Funds: Basin Account Match = \$30,000

- 31% of statewide request (meets 10% min)

Applicant Match (cash & in-kind) = \$67,500

- 69% of the statewide request (meets 10% min)

Total Match (Basin & Applicant) = \$97,500

- 100% of the statewide request (meets 50% min)
- 50% of the total project cost of \$195,000

Staff Recommendation:

Staff recommends approval of up to \$30,000 from the Metro Account and \$97,500 from the Statewide Account to fund the project: Regional Investigation of Salinity Management Options.
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Water Activity Summary: WSRF grant funds, if approved, will help the South Metro WISE Authority (SMWA) address water quality issues, including salinity management alternatives. This work is a continuation of the partnership between Aurora Water, Denver Water, and the WISE Authority to fully develop this regional water supply project. The Water Delivery Agreement between the parties addresses the need for this study, for the partners to utilize a treated, but unblended, water supply from Aurora Water's Prairie Waters system to Denver Water and the Authority through the WISE Authority distribution system.

The study will identify options to reduce salinity levels in water diverted from the South Platte River north of the Denver Region allowing for 10,000 acre-feet of reuse water to be utilized. The WISE Project includes the delivery of Aurora Water and Denver Water reusable return flows to the SMWA, allowing SMWA members to reduce dependence on non-renewable groundwater. WISE water is diverted from the South Platte River north of the Metro region, which regularly has Total Dissolved Solids concentrations exceeding the U.S. EPA secondary maximum contaminant level of 500 mg/L. Two common methods for reducing TDS concentrations are blending elevated TDS water with low TDS water or physical removal with desalination treatment technologies.

Discussion: As described in the Metro Roundtable chair's recommendation letter, this project was supported and recommended for approval on January 11, 2018. The WISE Partnership has been identified as a Metro and South Platte IPP for a number of years. This project assists in satisfying Colorado's Water Plan Critical Goals and Actions as identified in Chapter 10.3, A. Supply and Demand to help provide valuable information for water users on the South Platte River in future planning.

Through May 2030, Aurora Water and Denver Water have agreed to provide WISE with low TDS blending water. Following May 2030, Aurora Water and Denver Water may have other needs for this water and therefore may not be able to provide low TDS blend water to WISE. This investigation explores a wide array of options to mitigate high TDS reusable return flows from the South Platte. When practical, options will be configured to allow others in the region to use desalination options to combat similar salinity issues. This investigation is scheduled to start mid-June of 2018 and will be completed by June of 2019.

The WISE Authority was formed to implement the Water Infrastructure and Supply Efficiency (WISE) Project. The WISE Project membership includes: Centennial Water & Sanitation District, Cottonwood Water & Sanitation District, Dominion Water & Sanitation District, Inverness Water & Sanitation District, Meridian Metropolitan District, Parker Water & Sanitation District, Rangeview Metropolitan District, Stonegate Village Metropolitan District, and Town of Castle Rock. These municipalities serve the majority of water users in Douglas County and a small portion of water users in Arapahoe County.

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>
South Metro WISE Authority	\$22,500	\$12,000	\$34,500
Denver Water	\$11,250	\$3,500	\$14,750
Aurora Water	\$11,250	\$7,000	\$18,250
Subtotal	\$45,000	\$22,500	\$67,500
WSRF Metro Account	\$30,000	n/a	\$30,000
WSRF Statewide Account	\$97,500	n/a	\$97,500
Totals	\$172,500	\$22,500	\$195,000

CWCB Project Manager: Megan Holcomb

Metro Roundtable

January 24, 2018

Colorado Water Conservation Board
1313 Sherman Street, Suite 721
Denver, CO 80203

RE: Metro Roundtable Letter of Support

Dear Honorable Board Members,

On behalf of the Metro Roundtable, acting as its Chairwoman, I am writing to express the Roundtable's support for the Water Supply Reserve Fund (WSRF) grant program application submitted by the South Metro WISE Authority (Authority) for the Salinity Management Study project.

The next phase of the Water Infrastructure and Supply Efficiency (WISE) Partnership will address water quality issues, including salinity management alternatives. This work is a continuation of the partnership between Aurora Water, Denver Water, and the WISE Authority to fully develop this regional water supply project. The Water Delivery Agreement (WDA) between the parties addresses the need for this study, for the partners to utilize a treated, but unblended, water supply from Aurora Water's Prairie Waters system to Denver Water and the Authority through the WISE Authority distribution system. The WISE Partnership has been identified as an IPP for a number of years.

The Authority is seeking a CWCB WSRF grant to help with this investigation, which will explore a wide array of options to mitigate high TDS reusable return flows from the South Platte. When practical, options will be configured to allow others in the region to use desalination options to combat similar salinity issues. This investigation is scheduled to start mid-June of 2018 and will be completed by June 2019. The Metro Roundtable is contributing \$30,000 in cash funding, with the remaining funding and in-kind services primarily provided by the Authority, with contributions from Aurora Water and Denver Water. We believe that this study will provide invaluable information for water users on the South Platte River in their future planning. Please contact me at Barbara@roxwater.org if you have any questions regarding this Letter of Support.

Sincerely,

/s/ Barbara Biggs

Barbara Biggs, Chairwoman
Metro Roundtable



Last Update: August 3, 2017

Colorado Water Conservation Board

Water Supply Reserve Fund Grant Application

Instructions

All WSRF grant applications shall conform to the current [2016 WSRF Criteria and Guidelines](#).

To receive funding from the WSRF, a proposed water activity must be approved by a Roundtable(s) **AND** the Colorado Water Conservation Board (CWCB). The process for Roundtable consideration and recommendation is outlined in the 2016 WSRF Criteria and Guidelines. The CWCB meets bimonthly according to the schedule on page 2 of this application.

If you have questions, please contact the current CWCB staff Roundtable liaison:

Arkansas

Ben Wade
ben.wade@state.co.us
303-866-3441 x3238

Gunnison | North Platte | South Platte | Yampa/White

Craig Godbout
craig.godbout@state.co.us
303-866-3441 x3210

Colorado | Metro | Rio Grande | Southwest

Megan Holcomb
megan.holcomb@state.co.us
303-866-3441 x3222

WSRF Submittal Checklist (Required)

	I acknowledge this request for funding was recommended for CWCB approval by the sponsoring Basin Roundtable(s).
X	I acknowledge I have read and understand the 2016 WSRF Criteria and Guidelines .
X	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract . ⁽¹⁾
Exhibit A	
X	Statement of Work ⁽²⁾ (Word – see Exhibit A Template)
X	Budget & Schedule ⁽²⁾ (Excel Spreadsheet – see Exhibit A Template)
X	Letters of Matching and/or Pending 3 rd Party Commitments ⁽²⁾
Exhibit C	
NA	Map ⁽²⁾
NA	Photos/Drawings/Reports
X	Letters of Support Metro Basin Roundtable
X	Certificate of Insurance ⁽³⁾ (General, Auto, & Workers' Comp.)
Contracting Documents	
	Certificate of Good Standing ⁽³⁾
	W-9 ⁽³⁾
	Independent Contractor Form ⁽³⁾ (If applicant is individual, not company/organization)
	Electronic Funds Transfer (ETF) Form ⁽³⁾

(1) Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

(2) Required with application if applicable.

(3) Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.

Last Update: August 3, 2017

Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	December 1	Basin Account; BIP
March	February 1	Basin/Statewide Account; BIP
May	April 1	Basin Account; BIP
July	June 1	Basin Account; BIP
September	August 1	Basin/Statewide Account; BIP
November	October 1	Basin Account/BIP

Desired Timeline	
Desired CWCB Hearing Month:	March 2018
Desired Notice to Proceed Date:	June 15, 2018

Water Activity Summary	
Name of Applicant	South Metro WISE Authority
Name of Water Activity	Investigation of Salinity Management Options for the WISE Partnership with Potential Shared Benefits by Other Metro Basin Water Users
Approving Roundtable(s)	Basin Account Request(s) ⁽¹⁾
Metro Roundtable	\$30,000
Basin Account Request Subtotal	\$30,000
Statewide Account Request ⁽¹⁾	\$97,500
Total WSRF Funds Requested (Basin & Statewide)	\$127,500
Total Project Costs	\$195,000

(1) Please indicate the amount recommended for approval by the Roundtable(s)



Last Update: August 3, 2017

Grantee and Applicant Information	
Name of Grantee(s)	South Metro WISE Authority
Mailing Address	8400 East Prentice Avenue, Greenwood Village, CO 80111
FEIN	46-3061238
Grantee's Organization Contact ⁽¹⁾	Chris Muller
Position/Title	Water Resources/Design Engineer
Email	chrismuller@southmetrowater.org
Phone	(720) 216-5158
Grant Management Contact ⁽²⁾	Mikal Martinez
Position/Title	Admin / Accounting Assistant
Email	mikalmartinez@southmetrowater.org
Phone	(720) 216-5158
Name of Applicant (if different than grantee)	NA
Mailing Address	NA
Position/Title	NA
Email	NA
Phone	NA

(1) Person with signatory authority

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

Description of Grantee
Provide a brief description of the grantee's organization (100 words or less).
South Metro WISE Authority (WISE Authority) was formed to implement the Water Infrastructure and Supply Efficiency (WISE) Project. The WISE Project membership includes: Centennial Water & Sanitation District, Cottonwood Water & Sanitation District, Dominion Water & Sanitation District, Inverness Water & Sanitation District, Meridian Metropolitan District, Parker Water & Sanitation District, Rangeview Metropolitan District, Stonegate Village Metropolitan District, and Town of Castle Rock. These municipalities serve the majority of water users in Douglas County and a small portion of the water users in Arapahoe County.



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Type of Eligible Entity (check one)	
	Public (Government): municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
✓	Public (Districts): authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises
	Private Incorporated: mutual ditch companies, homeowner's associations, corporations
	Private Individuals, Partnerships, and Sole Proprietors: are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
	Non-governmental organizations: broadly, any organization that is not part of the government
	Covered Entity: as defined in Section 37-60-126 Colorado Revised Statutes

Type of Water Activity (check one)	
✓	Study
	Implementation

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

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in decimal degrees . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Countries	Adams, Arapahoe, Denver, Douglas, and Jefferson Counties
Latitude	39.623078° N
Longitude	104.663117° W

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Water Activity Overview

Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain. The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.

The WISE Project includes the delivery of Aurora Water and Denver Water reusable return flows to the SMWA, allowing SMWA members to reduce dependence on non-renewable groundwater. WISE water is diverted from the South Platte River north of the Metro region, which regularly has Total Dissolved Solids concentrations exceeding the U.S. EPA secondary maximum contaminant level of 500 mg/L. Two common methods for reducing TDS concentrations are blending elevated TDS water with low TDS water or physical removal with desalination treatment technologies.

Through May 2030, Aurora Water and Denver Water have agreed to provide WISE with low TDS blending water. Following May 2030, Aurora Water and Denver Water may have other needs for this water and therefore may not be able to provide low TDS blend water to WISE. This investigation explores a wide array of options to mitigate high TDS reusable return flows from the South Platte. When practical, options will be configured to allow others in the region to use desalination options to combat similar salinity issues. This investigation is scheduled to start mid-June of 2018 and will be completed by June of 2019.

Measurable Results

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

	New Storage Created (acre-feet)	
10,000 acre-feet	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive	
	Existing Storage Preserved or Enhanced (acre-feet)	
	Length of Stream Restored or Protected (linear feet)	
	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
	Area of Restored or Preserved Habitat (acres)	
	Length of Pipe/Canal Built or Improved	
Feasible options to reduce salinity levels identified.	Other	Explain: Study will identify options to reduce salinity levels in water diverted from the South Platte River north of the Denver Region allowing for 10,000 acre-feet of reuse water to be utilized.

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Water Activity Justification

Provide a description of how this water activity supports the goals of [Colorado's Water Plan](#), the most recent [Statewide Water Supply Initiative](#), and the respective [Roundtable Basin Implementation Plan and Education Action Plan](#) ⁽¹⁾. The Applicant is required to reference specific needs, goals, themes, or Identified Projects and Processes (IPPs), including citations (e.g. document, chapters, sections, or page numbers).

For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in [2016 WSRF Criteria and Guidelines](#)).

Demonstrating a commitment to collaboration:

This work will be a collaborative effort between the 10 WISE Authority members and Aurora Water and Denver Water. In addition, the group will collaborate with East Cherry Creek Valley Water and Sanitation District on their lessons learned on inland desalination. Also, the study will identify potential solutions that may be used by others in the region to combat similar salinity issues.

Addressing an identified water gap:

The South Plate Basin Implementation Plan (BIP) states that, to address the relatively large projected supply gaps, we need to maximize the successive use and reuse (Section S.3.2) of water in the basin. The BIP subsequently states that the primary challenge with reuse in this region is that many of the waters are salinity impaired (Section S.3.7).

As described in detail in **Exhibit A**, this project investigates new strategies and technologies to manage salinity challenges and maximize the potential for successive reuses of water. If successful, the result of this project would reduce pressure for agricultural transfers and increased climate resiliency. This project is an IP&P as shown in Table 4-10 of the BIP.

Demonstrating sustainability:

SMWA members are using WISE water to replace a significant amount of their historical pumping of non-sustainable groundwater. The source of WISE water is reusable return flows which is a reliable supply and use of this water limits the need for additional transbasin diversions, which indirectly helps sustain agriculture and meet environmental needs. The project is also consistent with the South Platte Water Related Activities Program (SPWRAP), which works toward the recovery of threatened and endangered species. The project will not increase the risk of non-compliance with any interstate compacts.

Established fiscal and technical feasibility:

The WISE Authority, Denver Water and Aurora Water have the funds to support the remaining portion of the study. The WISE Partnership will be ready to proceed with the investigation as soon as the grant funding is made available. The anticipated project start date will be mid-June of 2018. No permits will be required to complete the scope of work included in this grant application.

This investigation will provide the partners with an improved understanding of key long-term fiscal and technical considerations associated with larger scale salinity management.

(1) Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.

Matching Requirements: Basin Account Requests



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Matching Requirements: Basin Account Requests

Basin (only) Account grant requests require a 25% match (cash and/or in-kind) from the Applicant or 3rd party and shall be accompanied by a **letter of commitment** as described in the 2016 WSRF Criteria and Guidelines (submitted on the contributing entity's letterhead). Attach additional sheet if necessary.

Contributing Entity	Amount and Form of Match (note cash or in-kind)
Total Match	
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.	

Matching Requirements: Statewide Account Requests

Statewide Account grant requests require a 50% match as described in the 2016 WSRF Criteria and Guidelines. A minimum of 10% match shall be from Basin Account funds (cash only). A minimum of 10% match shall be provided by the applicant or 3rd party (cash, in-kind, or combination). The remaining 30% of the required match may be provided from any other source (Basin, applicant, or 3rd party) and shall be accompanied by a **letter of commitment**. Attach additional sheet if necessary.

Contributing Entity	Amount and Form of Match (note cash or in-kind):
Metro Basin Account	\$30,000 cash
South Metro WISE Authority	\$22,500 cash
Denver Water	\$11,250 cash
Aurora Water	\$11,250 cash
South Metro WISE Authority	\$12,000 in-kind
Denver Water	\$3,500 in-kind
Aurora Water	\$7,000 in-kind
Total Match	\$97,500 cash and in-kind
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	

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Related Studies

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

“East Cherry Creek Valley Water and Sanitation District Zero Liquid Discharge (ZLD) Pilot Study”, funded by a grant (Contract No. 150412) from the State of Colorado, Colorado Water Conservation Board (CWCB), prepared for ECCV, prepared by CDM, 2008.

“Implementation of an Inland Brackish Groundwater Supply Project from Groundwater Recharge to Reverse Osmosis Treatment Plant and Brine Disposal”, prepared for ECCV, prepared by ECCV et al., 2011.

“Regulatory and Permitting Review of a New RO Treatment Plant and Concentrate Disposal Alternatives”, prepared for South Metro Water Supply Authority, prepared by CH2M Hill, 2018.

Previous CWCB Grants

List all previous or current CWCB grants (including WSRF) awarded to both the Applicant and Grantee. Include: 1) Applicant name; 2) Water activity name; 3) Approving RT(s); 4) CWCB board meeting date; 5) Contract number or purchase order

- 1) SMWA on behalf of the Water Infrastructure and Supply Efficiency (WISE) Partnership
- 2) Western Pipeline Connection Engineering and Design
- 3) Metro Basin
- 4) September 2013
- 5) Contract # CTGG1 2015-391

- 1) SMWA on behalf of the Water Infrastructure and Supply Efficiency (WISE) Partnership
- 2) Conjunctive Use Infrastructure
- 3) Metro Basin, North Platte Basin, South Platte Basin, Colorado Basin, Arkansas Basin, Gunnison Basin, and Yampa/White Basin
- 4) September 2015
- 5) Contract # CTGG1 2016-1081

- 1) SMWA on behalf of the WISE Partnership
- 2) WISE Binney Connection
- 3) Metro Basin
- 4) November 2017
- 5) Contract # Pending

Tax Payer Bill of Rights

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

The WISE Authority does not anticipate any TABOR issues.