STATE OF COLORADO

Colorado Water Conservation Board

Department of Natural Resources

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SUBJECT:	Agenda Item 18, September 24-25, 2013 Board Meeting Water Supply Reserve Account Program
DATE:	September 13, 2013
FROM:	Rebecca Mitchell, Water Supply Planning Section
TO:	Colorado Water Conservation Board Members

Staff Recommendation

A summary of staff's recommendation for each WSRA application is provided in the attached table.

At this board meeting 4 additional WSRA applications that are seeking a WSRA grant/CWCB loan package are being considered as a separate agenda items (28(a), 29(a), 29(b), and 29(c)), but are included in the table for clarity.

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.

Due to the uncertainty of continued Tier 2 funding, a Staff review committee consisting of eight members located approximately \$1.2 million in Statewide Account request reductions to provide a carry-over into the next funding cycle. Had these reductions not been found the current Statewide Account Balance of \$6,470,698 would have been reduced to \$215,107, however the proposed recommended reductions in Statewide Account requests provide a remaining balance of \$1,394,754.

Background

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

- Summary spreadsheet detailing funding requests for the basin and statewide accounts;
- Summary spreadsheet displaying current WSRA 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.



John W. Hickenlooper Governor

Mike King DNR Executive Director

James Eklund CWCB Director 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 Part 2 of 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 verify 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 Account Balance Summary and Project Status Report

To provide the Board updates on the status of specific Water Supply Reserve Account grant applications and projects, staff provides a status report in the CWCB Director's Report. The WSRA status report includes the following information:

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

Water Supply Reserve Account Applications for Consideration at the CWCB September 2013 Board Meeting

Agenda Item	Basin	Applicant	Name of Water Activity	Basin(s) Account Request	Statewide Account Request	Total Request	Cash Match	In-Kind Match	Total Match	Staff Recommendation	Notes
		Conejos Water Conservancy	Radar Monitoring & Hydrologic Modeling in Upper							Staff recommends approval of up to \$200,000 from the Statewide	
18(a)	Rio Grande	District	Rio Grande Basin	\$37,000	\$200,000	\$237,000	\$301,300	\$0	\$301,300	Account and up to \$37,000 from the Rio Grande Basin Account	
18(b)	Southwest	Ute Mountain Ute Tribe	Ute Mountain Ute Tribe Water Conservation and Management Plan	\$30,000	\$40,000	\$70,000	\$25,000	\$30,331	\$55,331	Staff recommends approval of up to \$40,000 from the Statewide Account and up to \$30,000 from the Southwest Basin Account	
18(c)	Colorado	Mountain Meadows - Missouri Heights Irrigation Company	Mountain Meadows - Missouri Heights Irrigation Company Ditch Lining	\$50,000	\$0	\$50,000	\$500,000	\$0	\$500,000	Staff recommends approval of up to \$50,000 from the Colorado Basin Account	
18(d)	Gunnison	Town of Paonia	Paonia Water Treatment Plant Raw Water Line	\$35,000	\$350,000	\$385,000	\$35,910	\$0	\$35,910	Staff recommends approval of up to \$7,000 from the Statewide Account and up to \$35,000 from the Gunnison Basin Account	Staff recommended Statewide reduction
18(e)	Metro	South Metro Water Supply Authority	Water Infrastructure and Supply Efficiency (WISE) Partnership: Western Pipeline Connection Engineering/Design	\$157,000	\$1,413,000	\$1,570,000	\$5,285,000	\$0	\$5,285,000	Staff recommends approval of up to \$1,413,000 from the Statewide Account and up to \$157,000 from the Metro Basin Account	
18(f)	Colorado	Grand County Water and Sanitation District	Reservoir 2 Enlargement and Lining	\$41,640	\$664,960	\$706,600	\$126,200	\$0	\$126,200	Staff recommends approval of up to \$165,000 from the Statewide Account and up to \$41,640 from the Colorado Basin Account	Staff recommended Statewide reduction
18(g)	Metro	The Greenway Foundation	Grant-Frontier Park West Bank Riparian Floodplain Design and Construction Project	\$100,000	\$400,000	\$500,000	\$7,120,000	\$0	\$7,120,000	Staff recommends approval of up to \$250,000 from the Statewide Account and up to \$100,000 from the Metro Basin Account	Staff recommended Statewide reduction
18(h)	South Platte and Metro	Colorado Water Trust	Josh Ames Diversion Removal	\$100,000	\$200,000	\$300,000	\$1,075,000	\$0	\$1,075,000	Staff recommends approval of up to \$200,000 from the Statewide Account and up to \$75,000 from the South Platte Basin Account & \$25,000 from the Metro Account	
18(i)	Arkansas	Rocky Mountain Field Institute	Bear Creek Sediment Removal (Phase 1)	\$15,000	\$85,000	\$100,000	\$145,000	\$109,000	\$254,000	Staff recommends approval of up to \$85,000 from the Statewide Account and up to \$15,000 from the Arkansas Basin Account	
18(j)	Arkansas	City of Canyon City	Royal Gorge Wildland Fire Water Quality Impact and Protection Project	\$24,260	\$460,940	\$485,200	\$437,500	\$50,000	\$487,500	Staff recommends approval of up to \$460,940 from the Statewide Account and up to \$24,260 from the Arkansas Basin Account	
18(k)	Colorado	Kremmling Ranchers	Upper Colorado River Irrigation and Restoration	\$50,000	\$0	\$50,000	\$54,000	\$0	\$54,000	Staff recommends approval of up to \$50,000 from the Colorado Basin	
18(l)	Rio Grande	Lower Willow Creek Reclamation Committee	Assessment Willow Creek Floodplain Restoration - Phase II	\$55,000	\$0	\$55,000	\$22,250	\$107,750	\$130,000	Account Staff recommends approval of up to \$55,000 from the Rio Grande Basin Account	
18(m)	Metro	Rural Water Authority of Douglas County	Rural Well Level Monitoring in Douglas County	\$50,000	\$0	\$50,000	\$17,657	\$0	\$17,657	Staff recommends approval of up to \$50,000 from the Metro Account	
18(n)	Arkansas	Pikes Peak Regional Water Authority	Regional Water Supply Infrastructure Study	\$25,000	\$50,000	\$75,000	\$88,500	\$78,500	\$167,000	Staff recommends approval of up to \$50,000 from the Statewide Account and up to \$25,000 from the X Basin Account	
18(0)	Gunnison	Delta Conservation District and Somarcat Domostia Waterworks	Somerset Diversion Improvement Study - North Fork of the Gunnison River Corridor Project	\$4,800	\$43,200	\$48,000	\$0	\$10,075	\$10,075	Staff recommends approval of up to \$43,200 from the Statewide Account and up to \$4,800 from the Gunnison Basin Account	
18(p)	Metro	Plum Valley Heights Sub- district	Plum Valley Heights Water Supply Pipeline	\$50,000	\$0	\$50,000	\$511,800	\$0	\$511,800	Staff recommends approval of up to \$50,000 from the Metro Account	
18(q)	Southwest	La Plata Archuleta Water Conservancy District	La Plata River Water Resources Operations Model - Request for Addditional Funds	\$0	\$6,926	\$6,926	\$0	\$0	\$0	Staff recommends approval of up to \$6,926 from the Statewide Account	
18(r)	South Platte	Ducks Unlimited	State Land Board South Platte Recharge Study	\$33,663	\$0	\$33,663	\$34,042	\$0	\$34,042	Staff recommends approval of up to \$33,663 from the South Platte Basin Account	
18(s)	South Platte & Metro	South Metro Water Supply Authority & Northern Water	Integrated Basin Implementation Plan - Consumptive	\$82,400	\$329,000	\$411,400	\$0	\$0	\$0	Staff recommends approval of up to \$138,000 from the Statewide Account and up to \$137,00 each from the South Platte Basin & Metro Accounts	
18(t)	South Platte & Metro	South Metro Water Supply Authority & Northern Water	Integrated Basin Implementation Plan - Consumptive	\$118,000	\$58,000	\$176,000	\$0	\$0	\$0	Staff recommends approval of up to \$58,000 from the Statewide Account and up to \$59,000 each from the South Platte Basin & Metro Accounts	
18(u)	Colorado	Colorado River Water Conservation District	Basin Implementation Plan	\$166,667	\$83,333	\$250,000	\$0	\$0	\$0	Staff recommends approval of up to \$83,333 from the Statewide Account and up to \$166,667 from the X Basin Account	
18(v)	Gunnison	Upper Gunnison River Water Conservancy Distrcit	Basin Implementation Plan	\$133,333	\$66,667.00	\$200,000	\$0	\$0	\$0	Staff recommends approval of up to \$66,667 from the Statewide Account and up to \$133,333 from the GunnisonBasin Account	
18(w)	North Platte	Jackson County Water Conservancy District	North Plate Basin Implementation Plan	\$107,000	\$0	\$107,000	\$0	\$0	\$0	Staff recommends approval of up to \$107,000 from the North Platte Basin Account	
18 (x)	Rio Grande	Colorado Rio Grande Restoration Foundation	Basin Implementation Plan	\$211,000	\$100,000	\$311,000	\$0	\$0	\$0	Staff recommends approval of up to \$100,000 from the Statewide Account and up to \$211,000 from the Rio Grande Basin Account	
18(y)	Southwest	Harris Water Engineering, Inc.	Basin Implementation Plan	\$51,015	\$25,127	\$76,142	\$0	\$0	\$0	Staff recommends approval of up to \$25,127 from the Statewide Account and up to \$51,015 from the Southwest Basin Account	
28(a)	Rio Grande	Colorado Rio Grande Restoration Foundation	Plaza Project - Phase 2: McDonald Ditch Implementation Project - Supplemental Funding Request	\$22,000	\$409,000	\$431,000	\$510,000	\$140,000	\$650,000	Staff recommends approval of up to \$409,000 from the Statewide Account and up to \$22,000 from the Rio Grande Basin Account	(Grant/Loan) CWCB Loan Request: \$100,000
29 (a)	Arkansas	Lamar Water/Wastewater Department	Lamar Water Transmission Line	\$50,000	\$150,000	\$200,000	\$1,770,000	\$0	\$1,770,000	Staff recommends approval of up to \$150,000 from the Statewide Account and up to \$50,000 from the Arkansas Basin Account	(Grant/Loan) CWCB Loan Request: \$785,000
29(b)	Rio Grande	Santa Maria Reservoir Company	Santa Maria Reservoir Phase 2 - Continental Dam and Spillway Restoration	\$51,000	\$962,750	\$1,013,750	\$3,041,250	\$0	\$3,041,250	Staff recommends approval of up to \$962,750 from the Statewide Account and up to \$51,000 from the Rio Grande Basin Account	(Grant/Loan) CWCB Loan Request: \$3,041,250
29 (c)	Gunnison	Lone Cabin Ditch and Reservoir Company	Lone Cabin Dam Repair and Rehabilitation	\$38,000	\$232,687.50	\$270,688	\$250,300	\$0	\$250,300	Staff recommends approval of up to \$46,000 from the Statewide Account and up to \$38,000 from the Gunnison Basin Account	Staff recommended Statewide reduction (Grant/Loan) CWCB Loan Request: \$250,300

Water Supply Reserve Account Applications for Consideration at the CWCB September 2013 Board Meeting

Agenda				Basin(s) Account	Statewide Account	T () D (Cash	In-Kind	Total		N /
Item	Basin	Applicant	Name of Water Activity	Request	Request	Total Request	Match	Match	Match	Staff Recommendation	Notes
			Arkansas Basin Total Requests	\$114,260.00	\$745,940.00						
			Colorado Basin Total Requests	\$308,307.00	\$748,293.00						
			Gunnison Basin Total Requests	\$211,133.00	\$692,554.50						
			Metro Basin Total Requests	\$432,200.00	\$2,056,500.00						
			North Platte Basin Total Requests	\$107,000.00	\$0.00						
			Rio Grande Basin Total Requests	\$376,000.00	\$1,671,750.00						
			Southwest Basin Total Requests	\$81,015.00	\$72,053.25						
			South Platte Basin Total Requests	\$208,863.00	\$268,500.00	-					
		Water Supply Reserve A	Account Total September Requests	\$1,838,778.00	\$6,255,590.75						

COLORADO WATER CONSERVATION BOARD Water Supply Reserve Account - Balance Summary

August 1, 2013

	Fund App	propriation and R	eceipts	
	Legislative		Statewide	
Fiscal Year	Appropriation	Funds Received	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	\$4,000,000	\$2,560,000	\$1,440,000
Interest	N/A	\$2,567,118	\$1,642,956	\$924,162
TOTAL	\$44,775,000	\$55,499,842	\$36,111,649	\$19,388,193

Note: The WSRA is a Severance Tax "Tier II" program 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.

	Fur	nd Distributio			
Basin	Approved Basin Grants	Total Basin Funds	Basin Account Balance	Approved State Grants	Statewide Account Balance
Arkansas	\$1,674,613	\$2,154,244	\$479,631	\$5,230,925	
Colorado	\$1,428,830	\$2,154,244	\$725,414	\$3,741,036	
Southwest	\$1,466,346	\$2,154,244	\$687,898	\$5,038,306	
Gunnison	\$1,542,519	\$2,154,244	\$611,725	\$2,642,324	
Metro	\$1,264,929	\$2,154,244	\$889,315	\$2,225,268	
North Platte	\$1,192,017	\$2,154,244	\$962,226	\$311,027	
Rio Grande	\$1,703,237	\$2,154,244	\$451,007	\$7,389,273	
South Platte	\$1,335,476	\$2,154,244	\$818,768	\$2,595,980	
Yampa/White	\$1,238,874	\$2,154,244	\$915,369	\$466,813	
TOTAL	\$12,846,842	\$19,388,193	\$6,541,352	\$29,640,951	\$6,470,698

TOTAL APPROVED GRANTS

\$42,487,793

Note: Only includes grants approved by CWCB

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September, 24 2013 Agenda Item 18(a)

Applicant: Conejos Water Conservancy District

Water Activity Name: Radar Monitoring & Hydrologic Modeling in the Upper Rio Grande Basin to Develop Accurate Stream Flow Forecasting

Water Activity Purpose: Technology Demonstration Project

County: Conejos

Drainage Basin: Rio Grande

Water Source: Conejos River

Amount Requested: \$200,000 (Statewide Account), and \$37,000 (Rio Grande Basin Account)

Matching Funds: \$215,000 (40%) from CWCB Construction Fund Appropriation; \$86,300 (16%) awarded from USBR Water Smart Program

Staff Recommendation

Staff recommends approval of up to \$200,000 of Statewide WSRA funds and up to \$37,000 of Rio Grande Basin WSRA funds to help complete the Radar Monitoring and Hydrologic Modeling for in the Upper Rio Grande Basin to Develop Accurate Stream Flow Forecasting.

Water Activity Summary:

Streamflow in the Rio Grande and the Conejos River comes mostly from snowfall. In the Upper Rio Grande (URG) Basin, water managers must rely on the accuracy of precipitation forecasts by the Division of Water Resources (DWR) as the basis for their decisions on the storage, release, and beneficial use of water. Ideally, these forecasts should be based on accurate estimates of snowfall, careful monitoring of the water content and behavior of snowpack, and a good understanding of snowmelt, run-off, and streamflow. Inaccurate streamflow forecasts are causing unnecessary curtailment of ditches, over- or under-delivery of Colorado's compact obligations, and a disruption of the priority system. This Project will evaluate and implement new data collection, data integration and modeling methods and seeks to reduce/eliminate errors in water supply forecasts.

This Project has four major components: 1) use radars for precipitation estimation of winter storms, 2) develop additional ground instrumentation for radar calibration and to fill modeling gaps, 3) feed precipitation estimates to gridded spatial snow and hydrologic models, 4) present the results to the science advisory team and stakeholders, 5) analyze the results of different techniques and 6) write a final report. The Project tackles the age old question of "are point data and modeling better than spatial data and modeling?" Our hypothesis is that it is superior and beneficial in wet and dry years. The Project's will site a mobile X Band polarized radar for the full winter seeing most or all of the Conejos River Basin and develop 1km gridded precipitation estimates for each winter storm to feed two operational NWS snowpack models (SNODAS and Snow-17) that are coupled three hydrologic models (NWS-SACSMA, NWS-RDHM, and WRF-Hydro). The Science Team decided that due to the burn area in the Rio Grande is was best to model the Conejos as this comparison will work best in a less disturbed basin. In essence it is difficult to forecast with any models in a burned watershed. In essence there are about seven SNOTEL sites in the Rio Grande that drive the Snow-17 model that was created in 1972. With the use of mobile radars we will create about 300-400 SNOTEL sites to feed the SNODAS model which was created in 2003. In essence the ball need to move forward and we need to start using more modern and superior physics based models but the key component is to now feed them with a lot more accurate data. Another key component

to the project is what we call the "legacy component" where ground instrumentation purchased for the project will serve two purposes which are two help validate and refine the radar precipitation estimates and then fill gaps in at different elevation bands to give more data for decisions and modeling to the currently subjective analysis of snow totals at elevation bands below the current SNOTEL network.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

The application articulates how the project meets the Evaluation Criteria as summarized below:

- <u>Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs:</u> There is broad stakeholder input and collaboration in this project including the USBR, CWCB, NOAA-National Severe Storms Lab, National Center for Atmospheric Research, Conejos WCD, San Luis Valley Irrigation District, DWR, West Gulf River Basin Forecast Center, Portland-NRCS, Colorado River Basin Forecast Center, Manassa Water Users Association, etc. The single most critical water issue confronting the Rio Grande is the management of surface and ground water. Also important to note is the ground water model and Supreme Court decrees that require the April 1 streamflow forecast numbers as input to the ground water modeling and administration work. A better April 1 streamflow forecast will also benefit ground water management.
- <u>Tier 2: Facilitating Water Activity Implementation:</u> Without this funding, this Project would not be implemented. This is a demonstration of technology project that is providing new data and modeling techniques for consideration and comparison to existing technologies. This Project builds on the collective knowledge in the field of snowpack and hydrologic modeling and takes it that next step by forcing those models with quality radar derived precipitation estimates. This project has statewide and national implications to all River Basin Forecast Centers that forecast volumes of water and all administration agencies that apportion water based on forecasted volumes.
- <u>Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits:</u> This Project has values statewide and nationally and that is why it is well coordinated with federal interests. There is a large science advisory team to comment on products and reports. This Project addresses the need for better information and modeling for the number one issue in the Rio Grande which is accurate administration of surface and groundwater. It was also the highest rank proposal to the USBR Water Smart Program in its category and is matched with CWCB funds from the Construction Fund. The legacy component of additional mountain instrumentation will continue to benefit modeling and management at the project completion.

Discussion:

This Project is very unique in nature in that a local agency agreed to use their project to leverage funds in Basin fund and then the statewide account and partner with the state and federal governments to work towards the collective good which could be a 21st century data and modeling forecasting system. This is much needed all over the state and in the west for water supplies. This Project is \$37,000 local funds and \$200,000 Statewide funds that are matched with \$215,000 CWCB funds and \$86,300 USBR funds or the rations 1:1.25 WSRA funds to other funds.

Issues/Additional Needs:

CWCB staff requests that the following issues be addressed during contracting and project execution:

• It can be difficult for the State of Colorado to contract directly with the National Center for Atmospheric Research and its recommended that the Conejos WCD contract with NCAR

- The CWCB has an existing contract with NOAA-NSSL and a Scope of Work and cost estimate for the radar deployment and data processing work. The CWCB will contract with NOAA for the Radar work. The Conejos WCD will contract with NCAR for modeling and instrumentation needs.
- There are benefits to having no overhead on instrumentation purchased when funding does not go through NCAR. An equipment purchase list should be provided by NCAR but purchased locally. Some funding provided by the USBR will also purchase equipment for this project and the NCAR overhead rates are unavoidable.

Staff Recommendation:

Staff recommends approval of up to \$200,000 of Statewide WSRA funds and up to \$37,000 of Rio Grande Basin WSRA funds to help complete the Radar Monitoring and Hydrologic Modeling for in the Upper Rio Grande Basin to Develop Accurate Stream Flow Forecasting.

All products, data and information developed as a result of this grant must be provided to CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform.

In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting: The applicant shall provide the CWCB a progress report and will host regular briefing calls among the advisory committee and Science Team and summarize those discussions. The applicant will also coordinate participation and incorporating comments of the science advisory team. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project. This final report will include formal written comments in the appendix from the science advisory team and project stakeholders.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(b)

Applicant: Ute Mountain Ute Tribe (UMUT)

Water Activity Name: Ute Mountain Ute Tribe Water Conservation and Management Plan

Water Activity Purpose: Planning

County: Montezuma/La Plata

River Basin: Southwest

Water Source: San Juan River Basin

Amount Requested: \$40,000 (Statewide Account); \$30,000 (Southwest Basin Account)

Matching Funds: \$30,331 (24%) for UMUT (in-kind and Bureau of Indian Affairs) and \$25,000 (20%) from U.S. Bureau of Reclamation Water Conservation Field Services Program

Staff Recommendation:

Staff recommends approval of up to \$40,000 from the Statewide Account, and \$30,000 from the Southwest Basin Account to help complete the project titled: Ute Mountain Ute Tribe Water Conservation and Management Plan

Water Activity Summary:

Now that the Animas-La Plata Project is in the final stages of construction, the UMUT faces significant questions about the best long-term management and planning for the development and use of its Animas-La Plata Project water. The UMUT also faces significant water management and use issues with its direct diversion and storage water rights and the rights used from the Dolores Project. Because the UMUT has limited time and funds to undertake significant work maintaining and implementing important water settlement and management work, it is important for the Tribe to develop water management and development and development and that the UMUT have a clear plan supporting its management and development activities.

To meet this need, the UMUT is proposing to undertake a comprehensive water conservation and management plan (to meet, among other things, Bureau of Reclamation guidance for the development of water conservation and management plans). The overarching goal of this planning effort is to develop short-term and longterm planning goals to allow the UMUT to prudently and efficiently manage, develop, use, and protect its water resources. The specific objectives of this plan are: develop and prioritize water management goals; support basic services to UMU Tribal members; partner with non-Tribal entities to reduce costs, meet objectives and increase water efficiencies and yields; undertake short-term and long-term planning including investment partnerships; and create a final water conservation and management plan. The UMUT anticipates that this planning effort will: (i) identify areas where the UMUT can work with local, regional, state, and federal partners to develop and manage shared water infrastructure and resources; and (ii) allow the UMUT to develop prudent water management practices to implement in its own management and development of water resources.

The title indicates that this is a water conservation plan. This proposal does not intend to create a typical water conservation plan that satisfies the CWCB or Bureau of Reclamation guidelines but rather would be an inventory of water supply and rights as well as a demand study. The demand study is critical to pinpointing what water conservation measures could then be employed in a water conservation plan. This is preferred by CWCB staff as this will allow the UMUT to more efficiently and effectively use conservation measures to address their water management goals.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

The application articulates how the project meets the Evaluation Criteria as summarized below:

Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs:

- a. **Multipurpose:** The project meets many varying needs for better management of the UMUT's water supply and demand, both consumptive and non-consumptive.
- b. **Collaboration and Cooperation:** This planning effort will create a planning structure to work with interested parties to evaluate how the UMUT can undertake short-term and long-term planning efforts to ensure that the UMUT makes appropriate regulatory and water use decisions. The UMUT vies this planning process as one that will help the UMUT and local water users avoid intra-basin conflicts.
- c. **Meets Defined Needs:** The UMUT anticipates that the proposed planning effort will assist in identifying collaborative options for meeting the water supply needs identified in the Southwest Basin Roundtable's consumptive and non-consumptive needs assessment.

Tier 2: Facilitating Water Activity Implementation:

- d. While the applicant has significant matching funds and in-kind support, without WSRA funding, the scope of work will have to modified so that the project would have to modified dramatically in order to go forward.
- e. The UMUT has dedicated \$20,000 from Bureau of Indian Affairs, \$25,000 from Bureau of Reclamation and \$10,311 in-kind commitment to this project demonstrating a 138% for the statewide amount requested and a 44% match to the total project budget and thus satisfying both matches for the statewide and basin grant percentages.

Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits:

- f. The UMUT will identify environmental considerations in the San Juan River basin, including sensitive, threatened, and endangered species and including Tribal environmental principles. Additionally, the UMUT will identify short-term and long-term goals for the Tribe and for regional partners and interested parties which will address environmental considerations and the health of riparian habitats in southwestern Colorado, as well as land use planning considerations. The UMUT also anticipates that continued support for the vibrant agricultural economies in southwestern Colorado (including, for example, the UMUT's own Farm & Ranch Enterprise, which was developed with Dolores Project water) will be a central focus of the UMUT planning effort
- g. The applicant anticipates the planning effort will evaluate how UMUT water management and development impacts or assists in the interstate compact issues.
- h. The applicant anticipates that this work will look at the UMUT's participation in the San Juan River Recovery Implementation Program, the UMUT's participation in the Dolores River Dialogue and other groups involved in management of the Dolores Project, and UMUT work with the State of Colorado on sensitive fish species and tamarisk removal in the Mancos River watershed.
- i. The project provides a high level of benefit to Colorado in relationship to the amount of funds

requested through the improvement of UMUT water management and development planning activities which will improve both the State's role in management and administration of water in Southwest Colorado and the State's role in managing and developing share project water resources and associated water infrastructure.

j. The planning effort will help identify areas where the UMUT and the CWCB share water management and use priorities and where the CWCB and UMUT might have opportunities to work together to implement CWCB programs.

Discussion:

No additional discussion is needed.

Issues/Additional Needs:

No issues have been identified.

Staff Recommendation:

Staff recommends approval of up to \$40,000 from the Statewide Account, and \$30,000 from the Southwest Basin Account for project titled: Ute Mountain Ute Tribe Water Conservation and Management Plan

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24-25, 2013 Agenda Item 18c

Applicant: Missouri Heights - Mountain Meadows Irrigation Company

Water Activity Name: Ditch Lining Project

Water Activity Purpose: Predominately Agricultural

County: Garfield and Eagle

River Basin: Colorado

Water Source: Cattle Creek

Amount Requested: \$50,000 (Colorado River Basin Account)

Matching Funds: \$500,000 cash match (91%)

Staff Recommendation

Staff recommends approval of up to \$50,000 from the Colorado River Basin Account to help complete the Missouri Heights – Mountain Meadows Irrigation Company Ditch Lining Project

Water Activity Summary: WSRA funding will assist in the construction of a concrete water control structure, and the lining of 3,500 feet of existing earthen ditch with either a new plastic product called "Smart Ditch" or 60 inch plastic pipe to reduce or eliminate seepage losses approaching 30% through the course and rocky soil. The project lies in the Roaring Fork Valley in the southwestern portion of Eagle County, and the eastern portion of Garfield County. The Missouri Heights – Mountain Meadow Irrigation Company operates the Missouri Heights Mountain Meadow Ditch for the benefit of the shareholders by providing irrigation water from the Spring Park Reservoir.

Objectives:

Reduce water loss due to seepage and by hydrophytic vegetation Reduce annual maintenance work and costs Increase the efficiency of the delivery system

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

Funding Overview

The applicant is providing a total of \$500,000 in cash matching funds, contributed by:Missouri Heights – Mountain Meadows Irrigation Ditch Company\$100,000USDA/NRCS Environmental Quality Incentive Program\$250,000Colorado River Water Conservancy District – Grant Program\$100,000CWCB Loan (Previously approved for \$450,000)\$100,000\$550,000\$550,000

Discussion:

No additional discussion is needed.

Issues/Additional Needs:

No issues have been identified.

Staff Recommendation:

Staff recommends approval of up to \$50,000 from the Colorado Basin Account to help complete the project titled: Missouri Heights – Mountain Meadows Irrigation Company Ditch Lining

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(d)

Applicant: Town of Paonia

Water Activity Name: Paonia Water Treatment Plant Raw Water Line

Water Activity Purpose: Municipal and Industrial

County: Delta

River Basin: Gunnison

Water Source: Groundwater

Amount Requested: \$350,000 (Statewide Account), and \$35,000 (Gunnison Basin Account)

Matching Funds: \$35,910 cash match Town of Paonia

Staff Recommendation:

Staff recommends approval of up to \$7,000 from the Statewide Account, and \$35,000 from the Gunnison Account for the project titled: Paonia Water Treatment Plant Raw Water Line.

Water Activity Summary: WSRA funds will be expended to construct approximately 3,320 lineal feet of 6-inch raw water pipeline connecting existing sources of raw groundwater to an existing water treatment plant (Lamborn) that will be undergoing substantial improvements in order to come into compliance with the Colorado Department of Public Health and Environment requirements. The proposed pipeline is one component in a comprehensive effort (\$5.5 million total project costs) targeted at bringing the Town of Paonia's water system into compliance with CDPHE's directive. Constructing the proposed pipeline during the same time period as the other components (upgrade to existing upper water treatment plant consisting of installation of a new membrane filtration treatment technology, construction of an additional 2 million gallon treated water storage tank, and rehabilitation of an existing 500,000 gallon finished water storage tank) will realize a cost savings due to economies of scale and scope. More specifically, WSRA grant approval will provide funds for: administrative and legal, easement and right-of-way, engineering, construction, bidding, construction oversight, and contingency expenses.

The Town of Paonia's water system currently serves its 1,451 residents and approximately 1,849 residents of the surrounding rural area via 26 private water companies. Paonia's public water system can basically be described as two separate systems with only limited interfaces. Raw water is collected from multiple springs located above Town, and conveyed through a series of pipelines to one of two (2) water treatment plants. Treatment plants are separated by location and elevation, and are commonly referred to as the "upper plant" (Lamborn) and the "lower plant" by nature of relative elevations and their respective raw groundwater sources. As such, there is currently no interconnection between raw water supplies and transmission mains that convey water to one or the other treatment plant. Each plant's water supply is independent of the other, and provides treated water to their respective service area. The lack of redundancy and back-up, and the inability to divert raw water supplies to either treatment plant based on raw water quality or quantity can be problematic in flexible management and operation of the overall water system. Furthermore, the

proposed raw water pipeline satisfies CDPHE's *Design Criteria for Public Water Systems* technical and physical criteria for redundancy and back-up capacity for all critical components of a water system.

The lower treatment plant source water is classified as Ground Water Under Direct Influence of surface water, while historically the upper treatment plant source water was classified as Ground Water, prior to recent reclassification by the Colorado Department of Public Health and Environment to Ground Water Under Direct Influence of surface water. Now that all raw water supplies have the same classification and treatment requirements, it is no longer necessary to maintain separate water supplies to each plant.

The proposed raw waterline extension from the Reynolds Springs pipeline to the upper plant (in addition to the existing pipeline that provides raw water to the lower treatment plant) would have multiple benefits, since the Reynolds Spring pipeline provides a good supply of water to the lower treatment plant, and is within close proximity to the upper treatment plant.

The primary benefit would be improved flexibility and reliability in operation. It allows Operators to select the highest quality water supply or combination thereof, or to supplement the rate of flow from the springs supply(s) to match or exceed treatment capacity. This would help to satisfy seasonal water demands to maintain normal full water levels at both treatment plant storage tanks. The additional raw water supply would also optimize utilization of developed supplies to the extent possible. This additional source water at the upper plant will provide a more reliable system with additional water year round for improved flexibility in operations, system management, and fire protection capabilities. The proposed filtration upgrade at the upper plant will also include a wastewater recovery system for water conservation purposes.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

The application articulates how the project meets the Evaluation Criteria as summarized below:

<u>Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified</u> <u>Needs:</u>

- a. The water activity proposed in this application addresses water supply and water quality needs of the 3,300 residents of Town of Paonia and the 26 dependent private water companies.
- b. The water activity proposed in this application represents a significant degree of cooperation and collaboration among traditional consumptive water interests, such as the Town of Paonia and its 26 dependent private water companies, and the Colorado Department of Public Health and Environment (CDPHE).
- c. The 2010 SWSI reported that "The West Slope of Colorado will grow at the fastest rate of any area in Colorado between now and 2050. Population on the West Slope is expected to more than double in the next 40 years, and growth rates in some areas on the West Slope could be as high as 240 percent." By addressing residential water needs, the Town of Paonia helps to close the gap between available water supplies and future needs.

Tier 2: Facilitating Water Activity Implementation:

- d. Funding from this account will reduce the uncertainty that the water activity will be implemented due to: time constraints imposed by the CDPHE; the exhaustion of available funding sources; and the Town of Paonia's classification as a disadvantaged community by the 2010 American Community Survey.
- e. Matching funds from all sources constitute \$6,630,910 (94.9%) of all monies available (\$6,980,910) to complete this comprehensive effort to bring the Town of Paonia's water system into compliance with CDPHE requirements. More specifically, the Town of Paonia's cash match of \$35,910 represents 8.5% of total costs (\$420,910) to construct the Raw Water Line.

Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits:

- f. Improvements in water system efficiencies help sustain agriculture, environmental, and recreational needs by delaying, or eliminating the need to: divert additional new water supplies; or transfer agricultural water to municipal and industrial uses to serve an expanding population and subsequent water demands.
- g. Improvements in water system efficiencies helps the State of Colorado meet compact compliance by delaying, or eliminating the need to divert additional water supplies to serve an expanding population and subsequent water demands.
- h. n/a
- i. The amount of Statewide Account funds requested represents 5% of all monies available (\$6,980,910) to complete this comprehensive effort to bring the Town of Paonia's water system into compliance with CDPHE requirements, while providing the opportunity to: meet a portion of the statewide supply gap; sustain agriculture, environmental and recreational needs.
- j. The water activity is complimentary to CWCB Finance and Administration Section's Water Project Loan Program.

Discussion:

Subsequent to review, staff considers financing of total project costs (\$420,910) to be more consistent on a 90% CWCB Loan-Match/10% WSRA Grant combination, as opposed to the proposed 91% WSRA Grant/9% Match combination.

Issues/Additional Needs:

No additional issues or needs were identified.

Staff Recommendation:

Staff recommends approval of up to \$7,000 from the Statewide Account, and \$35,000 from the Gunnison Basin Account for project titled: Paonia Water Treatment Plant Raw Water Line.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the

completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(e)

Applicant: South Metro Water Supply Authority

Water Activity Name: Water Infrastructure And Supply Efficiency (WISE) Partnership: Western Pipeline Connection Engineering/Design

Water Activity Purpose: Municipal/Industrial

County: Douglas and Arapahoe

River Basin: Metro

Water Source: South Platte

Amount Requested: \$1,413,000 (Statewide Account); \$157,000 (Metro Account)

Matching Funds: \$5,285,000 (77%)

Staff Recommendation:

Staff recommends approval of up to \$1,413,000 from the Statewide Account, and \$157,000 from the Metro Basin Account to help complete the project titled: Water Infrastructure And Supply Efficiency (WISE) Partnership: Western Pipeline Connection Engineering/Design

Water Activity Summary:

The WISE Partnership is a regional water supply project between Aurora Water, Denver Water and the South Metro Water Supply Authority (SMWSA) to combine available water supplies and system capacities to create a sustainable new water supply. Through WISE, Aurora Water and Denver Water will provide 7,000 AFY (on average) of fully treated water to SMWSA for distribution to its members on a permanent basis. Aurora's Prairie Waters system will provide the backbone for delivering water from the South Platte when Aurora and Denver Water have available water supplies and capacity. WISE will also enable Denver Water to access its supplies through Prairie Waters during periods when it needs to utilize its additional water supplies. Denver Water and Aurora Water will supply water to SMWSA at a master meter located near Aurora's Binney Water Purification Facility (Binney Facility). SMWSA will develop infrastructure within their area for distribution to their members.

To distribute WISE water to its members, SMWSA is developing the Western Pipeline system. This system will begin at a new pump station located at the Binney Facility. This pumping facility will be dedicated to pumping WISE water generally west to a high point located near the intersection of Smoky Hill Road and Highway E-470. From this location, WISE water would flow by gravity south and then west along the Highway E-470/C-470 corridor through an existing pipeline currently owned and operated by East Cherry Creek Valley Water & Sanitation District (ECCV) known as the ECCV western pipeline. Several turnouts will be constructed to deliver water directly to WISE partners with systems adjacent to this pipeline. A turnout and pump station will also be constructed near the intersection of Chambers Rd. and E-470 to deliver water to WISE

partners located south of the ECCV western pipeline. A pipeline will be constructed along the eastern side of Rueter-Hess Reservoir to allow storage of WISE water. In total, three new pump stations, 45 miles of new pipelines, 15 miles of existing pipe to be acquired from ECCV, and unique delivery points for each of the participants will be part of this system. In total this system will cost approximately \$132 million.

SMWSA is seeking a WSRA grant to help with the engineering and design of the connections necessary to connect each participant to the ECCV western pipeline. In total, there will be 10 separate connections into the ECCV western pipeline. These 10 connections are estimated to cost \$6,855,000 to design and construct. The WSRA grant is for 23% of the cost associated with the 10 connections and 1% of the total project cost.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

The application articulates how the project meets the Evaluation Criteria as summarized below:

<u>Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs:</u> a. **Multipurpose**: The WISE Partnership is broadly supported by state leaders, the western slope, the environmental community, and entities throughout the Metro area. This is demonstrated by statements of support were provided by 11individuals. In addition, in March of 2012, the CWCB adopted a resolution of support for the WISE Partnership.

b. **Collaboration & Cooperation:** The WISE Partnership is a regional collaborative project between 10 South Metro water providers, Aurora Water, and Denver Water. It is promoting an unprecedented degree of cooperation among Metro area water providers. The WISE Partnership represents the future of cooperation between water providers on the front range and collectively impacts over 2 million Coloradoans.

c. **Meets Defined Needs:** The WISE Partnership was specifically listed as an Identified Project and Process (IPP) in SWSI 2010 and the Metro Roundtable's Needs Assessment Report. This WSRA grant helps implement this important IPP and address the M&I gap in the South Metro area.

Tier 2: Facilitating Water Activity Implementation:

d. Coordinating the funding of 10 individual participants in a \$132 million project is a difficult undertaking. Grant funding will allow the SMWSA to expedite and coordinate engineering/design of the connections, thus allowing the individual participants to focus on securing funding for their share of the construction costs.

e. This WSRA grant is a small, but important part of the overall project. It represents 1% of the total project cost and 23% of the costs associated with the connections.

Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits:

f. The WISE Partnership indirectly helps sustain agriculture and meet environmental needs. It provides a renewable water supply to the South Metro area from reusable return flows. Without the ability to make use of these reusable return flows, the South Metro area would need to meet these needs either by acquiring agricultural water rights or developing new water supplies.

g. The WISE Partnership promotes maximum utilization of state waters by maximizing the use of reusable return flows from Denver Water and Aurora Water.

i. The WISE Partnership implements an important IPP, helps meet the South Metro M&I Gap, provides a renewable water supply to the South Metro area there-by reducing reliance on non-renewable groundwater, provides a backup drought supply to Denver, and uses Aurora Water's existing infrastructure benefiting over 2 million Coloradoans.

j. Individual WISE Participants are evaluating the CWCB Loan Program as a potential option for financing their portion of the \$132 million in WISE infrastructure.

Discussion:

No additional discussion is needed.

Issues/Additional Needs:

No additional issues or needs were identified.

Staff Recommendation:

Staff recommends approval of up to \$1,413,000 from the Statewide Account, and \$157,000 from the Metro Basin Account to help complete the project titled: Water Infrastructure And Supply Efficiency (WISE) Partnership: Western Pipeline Connection Engineering/Design

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(f)

Applicant: Grand County Water & Sanitary District #1

Water Activity Name: Reservoir 2 Enlargement and Lining Project

Water Activity Purpose: Consumptive & Non-consumptive

County: Grand

River Basin: Colorado

Water Source: Fraser River

Amount Requested: \$664,960 (Statewide Account), and \$41,620 (Colorado Basin Account)

Matching Funds: \$126,200 (15%) cash match by Grand County Water & Sanitation District #1

Staff Recommendation:

Staff recommends approval of up to \$165,000 from the Statewide Account and \$41,620 from the

Colorado Basin Account to fund the: Grand County Water & Sanitary District #1 - Reservoir 2

Enlargement and Lining Project.

Water Activity Summary: The project is for enlarging and lining Reservoir 2, which is a Grand County Water & Sanitation District #1 (Grand County WSD1) augmentation reservoir. By lining and enlarging the reservoir, the District will gain new storage (25-30 acre feet), reduce seepage losses (20 acre feet per 6-month period), and will improve operations. The enlargement will give the Grand County WSD1 the ability to store augmentation water allocated for fulfilling more senior water rights obligations during times of low water and/or drought. Additional advantages include water for fishing, and aesthetic considerations. This reservoir is a vital component of the overall Grand County WSD1 water system.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

The application articulates how the project meets the Evaluation Criteria as summarized below:

Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs:

- a. While the District is not a signatory to the Colorado River Cooperative Agreement (CRCA), it is a beneficiary, and as such this project provides storage that can satisfy the need for Replacement Water to Denver and to replace depletions, thus providing benefits in the overall CRCA for the East Slope and the West Slope.
- b. Grand County WSD1 and other Fraser Valley entities have water rights under CRCA, and other associated agreements. Entities supporting this activity include: Middle Park Water Conservancy District, Winter Park Water and Sanitation, Grand County Board of Commissioners, Town of Granby, and the Town of Winter Park.
- c. Grand County WSD1 has worked extensively to improve its water diversion, treatment, and distribution system to optimize the use of its water and water rights, and in order to meet its obligations it is continuing to reduce the amounts of leakage from its water distribution system.

This has the net effect of leaving more water within the natural hydrological basin which benefits downstream entities and helps to fill the gap between current and future supplies and needs.

Tier 2: Facilitating Water Activity Implementation:

- d. Grand County WSD1 has regularly increased fees to provide for upgrades to aging infrastructure, optimizing treatment and conveyance operations, auditing water system operations, and metering to lower water waste. It has also incurred debt obligations for the construction of finished water storage, water treatment upgrades, and waste water treatment. Because of costs of such projects, it has depleted its reserve funds despite the fee increases. As such these grant funds are extremely beneficial to Grand County WSD1 and supporting entities.
- e. Grand County WSD1's cash match contribution of \$126,200 represents approximately 15% of total project costs of \$832,780, while Grand County WSD1 has in addition expended between \$10,000 and \$15,000 on planning, preliminary engineering, and application phase of this project.

Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits:

- f. The water activity provides for releases to the Fraser River when senior calls are made providing water during dryer conditions. Most of the senior water rights that will be satisfied with the use of this water for augmentation purposes are agricultural.
- g. n/a
- h. n/a
- i. n/a
- j. n/a

Discussion:

Subsequent to review, staff considers financing of total project costs (\$832,800) to be more consistent on a 75% CWCB Loan-Match/25% WSRA Grant combination, as opposed to the proposed 85% WSRA Grant/15% Match combination.

Issues/Additional Needs:

No additional issues or needs were identified.

Staff Recommendation:

Staff recommends approval of up to \$165,000 from the Statewide Account, and \$41,620 from the Colorado Basin Account for project titled: Grand County Water & Sanitary District #1 - Reservoir 2 Enlargement and Lining Project.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project

and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(g)

Applicant: The Greenway Foundation

Water Activity Name: Grant-Frontier Park West Bank Floodplain Design and Construction Project

Water Activity Purpose: Non-consumptive / Needs Assessment

County: Denver

River Basin: Metro

Water Source: South Platte River

Amount Requested: \$400,000 (Statewide Account); \$100,000 (Metro Basin)

Matching Funds: \$7,120,000 (93%) (GOCO, Rocky Mountain Arsenal and Shattuck NRDS Funds, Urban Drainage and Flood Control District, CPW, et al)

Staff Recommendation:

Staff recommends approval of up to \$250,000 from the Statewide Account \$100,000 from the Metro Basin Account for the Grant-Frontier Park West Bank Floodplain Design and Construction Project.

Water Activity Summary:

Most of the riverine corridor in the project area includes a very narrow riparian zone, typically less than 50 feet wide along each bank. Herbaceous and woody species, listed on the Colorado noxious, invasive or exotic pest plant/weed list, are common within the riparian corridor. In addition to state and city recommendations and actions to remove these species from natural areas, this type of vegetation decreases ecosystem biodiversity and can block views of and access to the river. The goal of the project is to re-establish a riparian floodplain in the project reach to restore the interactions between the river and its riparian corridor by increasing the frequency of riparian inundation, resulting in of the restoration of hydrologic and ecologic functions. There is limited opportunity within this highly urbanized watershed to re-establish a riparian floodplain along the banks of the South Platte River. The existing land in the proposed project area is a gravel surface used as a parking area, owned by the City and County of Denver. Planned improvements are currently being designed within the river and along the eastern bank of the South Platte as part of the River Vision Program. This location is ideal for establishment of a riparian floodplain because the land is available (owned by the City) and construction cost efficiencies can be realized because a Contractor will be mobilized on-site to construct adjacent improvements.

Re-establishing a riparian floodplain will not only improve the river environment but also increase the benefits derived from recreational and educational improvements within Grant-Frontier Park and Pasquinel's Landing Park to the east. Implementing these improvements in conjunction with the proposed park improvements will provide both schedule and financial benefits. For instance, construction cost efficiencies can be realized by using the same contractor under a single contract. Combining the design, permitting and construction of the riparian floodplain, in-channel and Grant-Frontier/Pasquinel's Park improvements means the work can be accomplished within the next two years. In addition to benefits associated with a new riparian floodplain, aquatic and riparian corridor improvements in this reach of the river will increase the synergy created by the extensive in-channel habitat and recreation improvements that are currently being designed at Grant-Frontier Park, Pasquinel's Landing and

Overland Pond, resulting in a longer continuous reach of high quality native species habitat in a reach of the river that has suffered urban impacts for many generations.

Funding this project will result in final design drawings (ready for bidding) and construction of the riparian floodplain and non-native and invasive species removal. Specifically, WSRA funding will be used to develop bid documents (final design drawings and specifications), secure required permits for improvements targeting non-consumptive needs including non-native and invasive vegetation removal, providing additional river access, establishment of a riparian floodplain to promote native wildlife in this urban environment, and provide funding for construction of the proposed improvements.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

The application articulates how the project meets the Evaluation Criteria as summarized below:

Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs:

Metro Basin Roundtable at their June 11, 2013 meeting. A portion of the River Vision Program planning and design funding was provided by the South Platte and Metro Basin Roundtables as a previous WSRA grant applications. Although no funding is requested of the South Platte Basin Roundtable for this grant application, implementation of this project will continue to promote collaboration between the Metro and South Platte Basin Roundtables through the stakeholder outreach process. In addition, this project will progress implementation of an identified project and process in the Metro Basin Needs Assessment Report (March 2011), addressing nonconsumptive needs, specifically targeting habitat restoration and recreation improvements.

The proposed improvements will integrate recreation and habitat enhancements that will benefit the Front Range community and one of the most densely-populated areas in the State of Colorado. This water activity will best leverage existing funding commitments, use of public and private resources and will result in constructed improvements by June of 2015. Because of the schedule opportunities and economy of scale, this project is an ideal candidate for implementing non-consumptive improvements in the South Platte River through Denver.

Tier 2: Facilitating Water Activity Implementation:

WSRA funds are necessary for successful completion of the project and further leveraging of local monies. A significant investment has been expended to date to develop this South Platte River Vision, as portrayed in the RINO, RISO and RVIP plans. Project stakeholders (The Greenway Foundation, the City and County of Denver and the Urban Drainage and Flood Control District) have already secured over \$15 million in construction funding, but the current scope does not included establishment of a riparian floodplain within this area or non-native and invasive vegetation removal along the west bank of the South Platte River. Improvements within this reach will amplify the benefit of recreation and habitat improvements that are included in the River Vision Program scope by expanding the reach of South Platte River with continuous in-channel habitat diversity.

Community support for this effort is strong. The former Mayor of Denver, now Governor Hickenlooper, officially endorsed this three-plus year planning and visioning effort. In addition, Denver City Council issued a proclamation in November 2010 applauding the RINO, RISO and RVIP documents. TGF has an excellent track record of delivering improvements to the South Platte River and tributaries for over 37 years.

<u>Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits:</u> The water activity helps meet identified environmental and recreational needs, as identified in the Metro Basin Needs Assessment Report and provides a high level of benefit to Colorado in relationship to the amount of funds requested. CWCB participated in the development of the RISO plan and design of recreation and habitat improvements (at Grant-Frontier and Overland Pond). This project will maximize benefits by providing more continuous habitat diversity within the South Platte River in Denver and build on the work CWCB has funded associated with this project over the last three years.

Discussion:

Staff considers the Greenway Foundation's River Vision Implementation Plan (RVIP) a well planned and well executed multi-phase project along the South Platte corridor in Denver. The project is designed to make the best use of the available flows. It will improve channel/floodplain connections, riparian species diversity & abundance, and recreational experiences. The effort is well funded, and so far the Water Supply Reserve Account has contributed \$900,000 for planning and design work. Staff believes that the current funding recommendation will allow The Greenway Foundation to complete the necessary final design work. There will be funds remaining for construction, and there should be adequate time to acquire the additional funds needed to complete construction.

Issues/Additional Needs:

- The applicant should provide staff with a detailed monitoring plan that describes geomorphic and biologic monitoring methodologies.
- The monitoring plan should conform to the CWCB Measurable Results Program's <u>Standard Operating Procedures for Topographic Survey of Stream Channels</u>.
- All proposed river channel work should conform to the CWCB <u>Rules and Regulations for</u> <u>Regulatory Floodplains in Colorado</u>

Staff Recommendation:

Staff recommends approval of up to \$250,000 from the Statewide Account \$100,000 from the Metro Basin Account for the Grant-Frontier Park West Bank Floodplain Design and Construction Project.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(h)

Applicant: Colorado Water Trust

Water Activity Name: Josh Ames Diversion Removal on Poudre River

Water Activity Purpose: Nonconsumptive

County: Larimer

River Basin: South Platte

Water Source: Poudre River

Amount Requested: \$200,000 (Statewide Account); \$100,000 (\$75,000 South Platte Basin

Account, & \$25,000 Metro Account)

Matching Funds: \$1,075,000 (78%, cash: Colorado Water Trust & City of Fort Collins)

Staff Recommendation:

Staff recommends approval of up to \$200,000 from the Statewide Account, \$75,000 from the South Platte Basin Account, and \$25,000 from the Metro Account for the project titled: Josh Ames Diversion Removal on the Poudre River.

Water Activity Summary: WSRA Funds will be used to implement the Sterling/Josh Ames Project which includes the removal of the Josh Ames Diversion and check structure on the Cache la Poudre River located just upstream of the North Shields Avenue Bridge in Fort Collins, Colorado. The structure has been unused since 1971, when the point of diversion was moved. The check structure stretches from bank to bank, creating a dam approximately six feet high. This dam collects sediment and backs up water, increasing water temperatures and evaporative water loss, and creating a barrier to fish passage. Multiple benefits of the restoration and removal of the diversion and check structure include lower water temperatures and minimize evaporative loss because of shallower ponding of water. The Sterling/Josh Ames project includes the restoration of the North Shields Ponds Natural Areas (The Sterling property), consisting of the restoration of ¹/₂ mile of the riparian corridor, restoration of 5.7 acres of wetlands and riparian habitat as well as reconnection of the floodplain to the river. Removal of this barrier--one of many barriers planned for removal as part of the larger project--will cumulatively improve the transitional habitat that may be used by several threatened and endangered plains fish species (cutthroat trout, minnow & darter species). Public safety will be enhanced by removing the dam which presents a hazardous obstacle for float-boaters.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

The application articulates how the project meets the Evaluation Criteria as summarized below:

Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs:

- a. The project meets both environmental and recreational needs in the area. The project has the potential to increase base flows during low flow time periods.
- b. Significant cooperation and collaboration is demonstrated in this project, including working with the City of Fort Collins, water providers, and other interested stakeholders and members of the community. The broad process for the Poudre River Projects involves traditional consumptive water interests, ditch companies, local beer industry, CSU, UniverCity Connections, and Larimer County, and joint funding from both the Metro and South Platte Roundtables.
- c. The reach of the project was identified in the nonconsumptive needs assessment as being an environmental and recreational focus area.

Tier 2: Facilitating Water Activity Implementation:

- d. The applicant indicated that this is the only project element that is not yet fully funded, and Larimer County and the City of Fort Collins are able to remove the Josh Ames diversion structure unless additional funds are secured by the Colorado Water Trust from other sources. WSRA funding will provide the opportunity to proceed with multiple projects simultaneously, reducing overall costs and thereby increasing the likelihood of success.
- e. CWT/City of Fort Collins funds represent 77% (\$1,000,000) of total project costs (\$1,300,000), demonstrating a significant and appropriate commitment to the project by the applicant.

Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits:

- f. The applicant indicates that this project complements the open space and environmental goals of the Fort Collins Natural Areas Department by expanding wetlands, and improving riparian, aquatic and terrestrial habitat by reconnecting the river to the floodplain.
- g. n/a
- h. The applicant indicates that the Poudre River corridor through Fort Collins provides transitional habitat for the plains fish species that are listed as state endangered, threatened and species of concern.
- i. The relative amount of WSRA funds request in relationship to the amount contributed for this project provides a benefit to Colorado in relationship to the amount of funds requested.
- j. The applicant points out the complimentary objectives of Colorado Parks and Wildlife to protect and restore terrestrial and aquatic habitat across the state. The project also compliments CWCB's Watershed Protection and Restoration efforts to stabilize and restore stream channels, reduce flood hazards, and provide habitat.

Issues/Additional Needs:

- The applicant should provide staff with a detailed monitoring plan that describes geomorphic and biologic monitoring methodologies.
- The monitoring plan should conform to the CWCB Measurable Results Program's <u>Standard Operating Procedures for Topographic Survey of Stream Channels</u>.

• All proposed river channel work should conform to the CWCB <u>Rules and Regulations for</u> <u>Regulatory Floodplains in Colorado</u>

Staff Recommendation:

Staff recommends approval of up to \$200,000 from the Statewide Account, and \$75,000 from the South Platte Basin Account, and \$25,000 from the Metro Basin Account for project titled: Josh Ames Diversion Removal on the Poudre River.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(i)

Applicant: Rocky Mountain Field Institute
Water Activity Name: Bear Creek Sedimentation Mitigation Project (Phase I)
Water Activity Purpose: Nonconsumptive
County: El Paso County
River Basin: Arkansas
Water Source: Bear Creek
Amount Requested: \$85,000 (Statewide Account); \$15,000 (Arkansas Basin Account)
Matching Funds: \$140,000 cash (40% - US Fish and Wildlife Service, Western Native Trout Initiative, Trout

Matching Funds: \$140,000 cash (40% - US Fish and Wildlife Service, Western Native Trout Initiative, Trout Unlimited), \$109,000 in-kind (31% - Co Parks & Wildlife, CH2MHill, et al)

Staff Recommendation

Staff recommends approval of up to \$15,000 from the Arkansas Basin Account and \$85,000 from the Statewide Account to fund the Bear Creek Sedimentation Mitigation Project (Phase I). This approval is contingent upon the applicant addressing the issues identified in the Issues/Additional Needs of this summary sheet.

Water Activity Summary:

Just west of Colorado Springs, Bear Creek holds the only remaining population of greenback cutthroat trout (Metcalf 2012). As the highest priority site for conservation of the greenback, project partners have been working to better manage activities within this high-value watershed and minimize impacts to the fish and its habitat. Our goal is to ensure a thriving population of greenbacks in a watershed that will be resilient to changing climate conditions. One of the key issues in the watershed is sedimentation and its potential impact on stream conditions. An unpaved, gravel road adjacent to the stream is a known source of sediment. The Bear Creek Sediment Mitigation Project (Phase I) will restore in-stream fish habitat and concurrently begin to address the sources of sediment from the road system. Phase I of the project will accomplish these tasks:

1) Restore .75 mile of in-stream fish habitat and restore channel function

2) Stabilize one ephemeral draw that contributes excessive sediment into Bear Creek

3) Address the cause of degradation: Prioritize, design and implement highest priority sediment control features on High Drive to reduce sediment delivery into Bear Creek

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

The application articulates how the project meets the Evaluation Criteria as summarized below:

<u>Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs:</u> Bear Creek Sediment Mitigation Project (Phase I) is a largescale collaborative effort between governmental entities, nonprofit organizations, and advocacy groups that have been working in partnership since 2009. The project not only includes three government landowners including the US Forest Service, City of Colorado Springs, Colorado Springs Utilities, Colorado Parks and Wildlife, and the US Fish & Wildlife Service. Nonprofit partners include Rocky Mountain Field Institute and Trout Unlimited. Advocacy groups representing recreational interests include the Colorado Motorcycle Trail Riders Association and numerous other partners that have participated in a stakeholder roundtable process.

Tier 2: Facilitating Water Activity Implementation:

Funding from WSRA ensures the completion of project objectives. Significant cash and in-kind matching funds are being contributed to this project, displaying a high degree of commitment from partners. Project partners have contributed the fullest extent of funding they have available, and as such, WSRA funds are requisite for completing project objectives.

Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits:

The project meets the need of assisting in the recovery of a federal and state-listed species – the greenback cutthroat trout. A recent genetic study identified the cutthroat trout in Bear Creek as the only remaining population of greenbacks. This cutthroat subspecies was originally native to the South Platte basin, however currently no known populations of this subspecies exist in that basin. The population in Bear Creek was apparently transplanted from the South Platte basin to Bear Creek (Arkansas basin) around 1880 by a private individual.

The greenback cutthroat trout are found in a mere 4 miles of habitat within Bear Creek which creates a very vulnerable situation for this population. The lower mile of this important habitat, where the stream parallels High Drive, is particularly at risk. Sediment from High Drive has reduced trout habitat to unacceptable levels and this portion of the population has been drastically limited. This highly degraded reach is the focus of this project. Recovery efforts for this subspecies will be directed at the South Platte basin. Although a formal recovery plan for this subspecies has not been completed, translocation of the fish to the South Platte drainage will begin in 2013. Land and water management in the South Platte basin will need to be considered in the recovery of this species. As such, this subspecies will, in the long run, be more critical to native cutthroat management in South Platte basin, and an important component of the entire Colorado native cutthroat trout conservation/recovery program.

The stabilization of the creek and drainage is complimentary to the CWCB Watershed Restoration Program.

Issues/Additional Needs:

- The applicant should provide staff with a detailed monitoring plan that describes geomorphic and biologic monitoring methodologies.
- The monitoring plan should conform to the CWCB Measurable Results Program's <u>Standard</u> <u>Operating Procedures for Topographic Survey of Stream Channels.</u>
- All proposed river channel work should conform to the CWCB <u>Rules and Regulations for Regulatory</u> <u>Floodplains in Colorado</u>

Staff Recommendation:

Staff recommends approval of up to \$15.000 from the Arkansas Basin Account and \$85,000 from the Statewide Account to fund the Bear Creek Sedimentation Mitigation Project (Phase I). This approval is contingent upon the applicant addressing the issues identified in the Issues/Additional Needs of this summary sheet.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(j)

Applicant: City of Canon City, Colorado

Water Activity Name: Royal Gorge Wildfire Water Quality Impact and Protection Project – Emergency

Mitigation, Stabilization, and Reclamation

Water Activity Purpose: Nonconsumptive

County: Fremont County

River Basin: Arkansas

Water Source: Arkansas River

Amount Requested: \$460,940 (Statewide Account); \$24,260 (Arkansas Basin Account)

Matching Funds: \$437,500 cash (45%), \$50,000 in-kind (5%)

Staff Recommendation

Staff recommends approval of up to \$24,260 from the Arkansas Basin Account and \$460,940 from the Statewide Account to fund the Royal Gorge Wildfire Water Quality Impact and Protection Project.

Water Activity Summary:

This project will mitigate potential impacts to Arkansas River water quality caused by the Royal Gorge Fire. The Arkansas River below the fire affected watershed is the main source of water for the City of Cañon City, multiple providers of potable water, and various irrigation ditch companies.

The July 11, 2013 Royal Gorge fire in the Pinion/Juniper covered hills surrounding the Royal Gorge immediately west of Cañon City resulted in extremely rapid fire growth and large areas of high vegetation mortality, eventually burning 3,218 acres of the City's Royal Gorge Park. The Royal Gorge Bridge attraction, which had substantial infrastructure, is included within the 715 acres to be addressed in this project. Mitigation, reclamation, and stabilization activities will take place only on the 715 acres that directly impact water quality draining to the river. Modeling indicates that runoff from the burned areas can be expected to increase 4-fold, and sediment yield at the mouth of the burned area is predicted to change from 0-.45 tons/acre/year (pre-fire) to 2.5 tons/acre/year (post-fire).

The Cañon City Water Treatment Plant raw water intakes (along with three major irrigation ditches) are located approximately 2 miles downstream from the burned area. The City's water treatment plant pumps directly from the river and has no raw water storage. The City has three days of summer water storage available if intakes are shut down. It is likely that diversions downstream of the fire will need to shut down during storm events. Emergency stabilization of severely burned drainages is necessary to eliminate the threat to water supply.

The objectives of this project are to arrest the threats to water quality within the Arkansas River by conducting mitigation, stabilization, and reclamation efforts in the fire affected area. WSRA funds will be used for seeding, hydro-mulching, and seedling planting.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

The application articulates how the project meets the Evaluation Criteria as summarized below:

<u>Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs:</u> This activity addresses multiple needs of multiple entities (City of Cañon City, four agricultural ditch companies, and impacts to water providers from the burn area downstream to Pueblo Reservoir). Entities represented within this application include providers of potable water (including the City of Cañon City, the Florence Regional Water Authority (serving not only Florence and the surrounding area, but the towns of Rockvale, Coal Creek, and Williamsburg), the Board of Waterworks Pueblo, Pueblo West, Colorado Springs Utilities and the Fountain Valley Authority. Other stakeholders include agricultural ditch companies, recreational users (rafting companies, fishermen, the Arkansas Headwaters Recreational Area, etc.), and communities downstream that rely on the river as their water source. Implementation of this project will preserve water quality and maintain existing water supplies in the Arkansas River. Runoff containing debris and sediment will be reduced.

Tier 2: Facilitating Water Activity Implementation:

Without the benefit of this grant funding, it will be impossible for the City to leverage enough funds through partners to accomplish the breadth of work that must be accomplished to protect the water resources of the Arkansas River.

The amount of matching funds garnered both through revenues of the City and the pledges/contributions received by multitudinous agencies, as well as the demonstrable in-kind contributions for this project, well exceed the minimum match and reflect the dedication and importance of this project.

Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits:

The increase in sediment and debris to the river has the potential to impair aquatic habitat, displace storage space in downstream reservoirs (Pueblo Reservoir), and damage agricultural water delivery infrastructure. Stabilizing the burn area and reducing sediment inputs is of benefit to the State of Colorado. The project compliments the CWCB's Watershed Protection and Restoration Program.

Issues/Additional Needs:

There are no additional needs or issues.

Staff Recommendation:

Staff recommends approval of up to \$24,260 from the Arkansas Basin Account and \$460,940 from the Statewide Account to fund the Royal Gorge Wildfire Water Quality Impact and Protection Project.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(k)

Applicant: Irrigators of Lands in the Vicinity of Kremmling

Water Activity Name: Upper Colorado River Irrigation and Restoration Assessment -Phase 1

Water Activity Purpose: Agricultural

County: Grand

River Basin: Colorado

Water Source: Colorado River

Amount Requested: \$50,000 (Colorado Basin Account)

Matching Funds: \$54,000 (52%) cash match by applicants

Staff Recommendation

Staff recommends approval of up to \$50,000 from the Colorado Basin Account to help complete the project titled: Upper Colorado River Irrigation and Restoration Assessment - Phase 1.

Water Activity Summary:

In this reach of the Colorado River there is evidence of channel headcutting, bank erosion, and channel aggradation. Historically this reach of river has experienced hydromodifications in the way of trans-basin diversions, in-channel and off-channel dams, channelization, and the loss of riparian vegetation. The applicant landowners have been experiencing issues with the elevation of the intakes and pump operations. The issues with the elevations of the pump intakes are directly related to the historic hydromodification of the Colorado River and its associated geomorphic response. The solution(s) to the irrigation problems need(s) to work within the overall river system to be sustainable, cost effective and reduce long-term operations and maintenance. A systems-based approach to resolving the irrigation issues will directly impact other functions of the river such as flood conveyance, riparian and aquatic habitat, and sediment transport.

The goal of this project is to identify location specific and reach wide projects that solve the irrigation diversion issues and improve multiple river functions including aquatic habitat and river recreation. This will be achieved through research of existing studies, field data collection, base mapping, and hydrologic/hydraulic data analysis. Restoration methods will be proposed to mitigate erosion, and a conceptual level (30% design) plan will be produced.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

Discussion:

Local stream instabilities are often caused by multiple impacts to the greater stream system. Upstream modifications to hydrograph can cause impacts to downstream diversions. Local grazing management practices can cause instabilities on site and downstream. Improperly designed stabilization and diversion structures can also perpetuate channel erosion. The applicant proposes to investigate various causes of

channel instability. The conceptual design should reflect a thoughtful and thorough analysis of the local river system.

Issues/Additional Needs:

No issues have been identified.

Staff Recommendation:

Staff recommends approval of up to \$50,000 from the Colorado Basin Account to help complete the project titled: Upper Colorado River Irrigation and Restoration Assessment - Phase 1.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(l)

Applicant: The Lower Willow Creek Restoration Company (LWCRCO)

Water Activity Name: Lower Willow Creek Restoration Project: Phase 2

Water Activity Purpose: Nonconsumptive

County: Mineral

River Basin: Rio Grande

Water Source: Willow Creek

Amount Requested: \$55,000 (Rio Grande Basin Account)

Matching Funds: \$22,250 (12%) cash match (CDPHE, Creede Resouces, Inc.), \$107,750 (58%) in-kind

Staff Recommendation

Staff recommends approval of up to \$55,000 from the Rio Grande Basin Account to help complete the project titled: Lower Willow Creek Restoration Project: Phase 2

Water Activity Summary:

The proposed project will begin Phase 2 of the Lower Willow Creek Restoration Project. Work conducted during the first phase of this project included the identification of contaminated soils, construction of the new creek channel and installation of in-stream structures to stabilize the banks. The project will also increase the delivery of water to the Rio Grande by reducing surface area of the channel and thereby reducing evaporative loss. The goal of Phase 2 is to restore and enhance riparian and upland vegetation along the Lower Willow Creek corridor. This phase will address non-consumptive environmental issues, namely water quality and riparian health. To achieve this goal the LWCRCO will oversee the installation of erosion control fabric and wattles along the new channel. Soil will be imported to provide a growing medium for the tree, shrub, graminoid, and forb plantings that will occur to return the project site to a more natural state. Soil excavation, erosion control installation and vegetation enhancement activities will be conducted as part of Phase 2 of the Lower Willow Creek Restoration Project.

The Water Supply Reserve Account will fund Phase 2 activities include importing soil and planting/seeding to specified areas, legal fees associated with the topsoil donation, and administration time. Topsoil will be excavated from 'Airport Corner', less than one mile from the project site and stockpiled on the floodplain until vegetation activities are implemented. To obtain this soil, the LWCRCO has received a donation of 10,000 cubic yards of soil from John Parker. The permits associated with the mining of this soil expire in March 2014 and make this activity urgent. Vegetation activities will include spreading topsoil, planting woody riparian species, and seeding sites along the newly created riparian corridor of Lower Willow Creek. Because planting riparian species increases the uptake of metals, the input of organic matter to soil and water, as well as stabilization of creek bank, these proposed activities enhance Phase 1 work and increase water quality to the Rio Grande and enhance/create vegetation along lower Willow Creek. The immediate benefit is to the community of Creede and its visitors, and further to the quality of water in the Rio Grande and downstream users. The \$55,000 requested from the Rio Grande WSRA fund will be spent on the following: \$43,500 for excavation/hauling, \$3,000 for revegetation activities, \$2,500 for administration and \$6,000 for legal fees.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

Issues/Additional Needs:

- The applicant should provide staff with a detailed monitoring plan that describes geomorphic and biologic monitoring methodologies.
- The monitoring plan should conform to the CWCB Measurable Results Program's <u>Standard</u> <u>Operating Procedures for Topographic Survey of Stream Channels</u>.

Staff Recommendation:

Staff recommends approval of up to \$55,000 from the Rio Grande Basin Account to help complete the project titled: Lower Willow Creek Restoration Project: Phase 2

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(m)

Applicant: Rural Water Authority of Douglas County

Water Activity Name: Rural Well Level Monitoring in Douglas County

Water Activity Purpose: Needs Assessment

County: Douglas

River Basin: Metro

Water Source: Denver Basin aquifer

Amount Requested: \$50,000 (Metro Basin Account)

Matching Funds: \$17,657 (USGS \$16,914 (25%); RWADC \$743 (1%))

Staff Recommendation:

Staff recommends approval of up to \$50,000 from the Metro Roundtable Basin Account to help complete the project titled: Rural Well Monitoring in Douglas County

Water Activity Summary: WSRA funding will provide the opportunity for the applicant to continue monitoring the county wide groundwater-level network established during an earlier phase (2011-2013) of this multi-year project. Approximately 8,021self-supplied private household or domestic wells in this rural portion of Douglas County pump groundwater from the Denver Basin aquifer, which is administratively known as nonrenewable. Therefore groundwater availability in this area may be insufficient for long-term demand. The existing county-wide groundwater-level monitoring network consists36 domestic wells throughout the county. Water levels are measured bi-monthly in all wells and 15 of these are equipped with pressure transducers for continuous (hourly) water-level monitoring. The creation of this network and the data collected from the study has added to the current network of wells currently being used to monitor water levels in the Denver Basin. Water levels measured from wells in this network over a long period of time provide a better assessment of current water resource and provide the basis from which to monitor long-term changes of the hydrologic system. This project will help document rural areas of the county that should be considered a priority in infrastructure planning efforts.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Funding/Match Summary:

WSRA Metro Account	\$50,000	73.9%
U.S. Geological Survey (match)	\$16,914	25.0%
Rural Water Authority of Douglas County (match)	<u>\$743</u>	<u>1.1%</u>
Total Project Costs	\$67,657	100%

Discussion:

Staff endorses continuing efforts to monitor long-term groundwater levels in this hydrologic system.

Issues/Additional Needs:

No issues have been identified.

Staff Recommendation:

Staff recommends approval of up to \$50,000 from the Metro Roundtable Account to help complete the project titled: Rural Well Level Monitoring in Douglas County

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(n)

Applicant: Pikes Peak Regional Water Authority

Water Activity Name: Regional Water Infrastructure Feasibility Study

Water Activity Purpose: Needs Assessment

County: El Paso

River Basin: Arkansas

Water Source: n/a

Amount Requested: \$50,000 (Statewide Account) & \$25,000 (Arkansas Basin Account)

Matching Funds: \$167,000 Total Match: \$88,500 cash (37% - PPRWA Members) and \$78,500 in-kind (32% - PPRWA Members, Colorado Springs Utilities, and El Paso County)

Staff Recommendation:

Staff recommends approval of up to \$50,000 from the Statewide Account and \$25,000 from the Arkansas Basin Account to fund the Pikes Peak Regional Water Authority - Regional Water Infrastructure Feasibility Study.

Water Activity Summary: The water providers involved are heavily dependent on nonrenewable Denver Basin groundwater in an area which represents the largest M&I gap in the Arkansas Basin, which is expected to worsen in the future. The intent of this cooperative effort is to identify the critical water supply objectives of each participant, identify and analyze possible joint water projects to meet those objectives, and plan for the necessary actions to develop the more promising projects. The study will proceed in the following order:

- 1. Refining project objective and establishing study protocols
- 2. Literature review of existing studies; preliminary analysis and summary of participants projected water demands and available supplies; development of a partnering matrix exhibiting existing infrastructure, common priorities, and infrastructure needs; drafting of Summary Report for review that explores possible cooperative project opportunities and constraints; detailed analysis of selected projects based on participant feedback that includes conceptual cost estimates, timelines, and a closer examination of benefits and potential obstacles; mapping will be developed to assist in the study and to communicate findings to participants and other stakeholders.
- 3. Organization of Preliminary Development of Alternatives based on the following geographical areas and operational considerations:
 - a. Area 1 Pueblo Reservoir to South Fountain
 - b. Area 2 South Fountain to Black Forest
 - c. Area 3 Black Forest to Palmer Divide
 - d. Reuse
 - e. Other Exchange or Trade Opportunities
 - f. Other Proposed Regional and State Water Projects

- 4. Project work session to clarify objectives, preferences, goals to focus on promising alternatives for further detailed analysis
- 5. Perform Feasibility Studies on remaining projects resulting in project implementation recommendations.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Funding/Match Summary:

	Cash	In-Kind	Total
WSRA Statewide Account	\$50,000	\$0	\$50,000
WSRA Arkansas Basin Account	\$25,000	\$0	\$25,000
Cherokee Metro District	\$30,000	\$24,000	\$54,000
Colorado Springs Utilities	\$0	\$8,400	\$8,400
Donala Water & Sanitation	\$10,000	\$3,000	\$13,000
El Paso County	\$0	\$5,100	\$5,100
City of Fountain	\$4,500	\$8,000	\$12,500
Town of Monument	\$10,000	\$9,500	\$19,500
Town of Palmer Lake	\$1,500	\$1,500	\$3,000
Triview Metro District	\$2,500	\$1,500	\$4,000
Woodmoor Water & Sanitation District	\$30,000	<u>\$17,500</u>	<u>\$47,500</u>
Total Project Costs	\$163,500	\$78,500	\$242,000

The application articulates how the project meets the Evaluation Criteria as summarized below:

Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs:

- a. Potential of utilizing shared infrastructure contributes to conservation efforts by minimizing system loses, and avoids the environmental impact of developing and operating multiple systems, thereby benefiting consumptive M&I uses and nonconsumptive environmental and recreational uses.
- b. The current study effort demonstrates a high degree of cooperation and collaboration among nine traditional consumptive water interests while also extending the possibility of expanded cooperation and collaboration in the future during project design, construction and operational phases.
- c. This water activity helps meet Colorado's future water needs by implement identified projects and process, such as reuse, maximizing existing water rights, exchanges, and active conservation by minimizing system loses through shared infrastructure.

Tier 2: Facilitating Water Activity Implementation:

- d. WSRA funding increases the level of cooperation among the participants because no other grant funding source has been found, and allows this project to be as comprehensive as it must be in order to produce a significant impact on the region's water future.
- e. Participants' cash and in-kind matching contribution of \$167,000 of total study costs of \$242,000 (representing 69% of total study costs), demonstrate a significant and appropriate commitment to the project by the applicant.

Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits:

- f. n/a
- g. n/a
- h. n/a

- i. n/a
- j. n/a

Discussion:

No additional discussion is needed.

Issues/Additional Needs:

No additional issues or needs were identified.

Staff Recommendation:

Staff recommends approval of up to \$50,000 from the Statewide Account, and \$25,000 from the Arkansas Basin Account for project titled: Peak Regional Water Authority - Regional Water Infrastructure Feasibility Study.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(0)

Applicant: Delta Conservation District and Somerset Domestic Waterworks District

Water Activity Name: Somerset Diversion Improvement Study – North Fork of the Gunnison

River Corridor Project

Water Activity Purpose: Municipal/Industrial & Non-consumptive

County: Delta

River Basin: Gunnison

Water Source: North Fork of the Gunnison

Amount Requested: \$43,200 (Statewide Account); \$4,800 Gunnison Basin Account)

Matching Funds: \$10,075 in-kind match (17% -various stakeholders)

Staff Recommendation:

Staff recommends approval of up to \$43,200 from the Statewide Account, and \$4,800 from the Gunnison Basin Account to conduct the study titled: Somerset Diversion Improvement Study – North Fork of the Gunnison River Corridor Project

Water Activity Summary: WSRA funds will be expended to conduct a study to determine long term alternatives to maintain water flows to the Town of Somerset's Domestic Waterworks District which supplies treated water to 59 water taps. In addition, this study will evaluate the potential to build drop structures in the North Fork to benefit recreational boating and fishing activities under various flow regimes. Currently the diversion structure which delivers water supplies to the Treatment Works has difficulty supplying adequate amounts of water under low flow condition. The existing system to control sediment entering the water treatment facility is a temporary approach operated by Oxbow Mining LLC and is not a viable long term solution. While the existing diversion structure, filtration system and one of two water storage tanks are owned by Oxbow Mining LLC – Elk Creek Mine, ownership of all these components will eventually be transferred to the Somerset Domestic Waterworks District upon cessation of mining operations. The proposed study will: define key stakeholder's requirements for the project; and provide a preliminary project design and cost estimate, including an evaluation to determine Oxbow's willingness to allow the potential to build drop structures in the river to benefit recreational boating and fishing activities, and the development of public access rights on the river.

Threshold and Evaluation Criteria: The application meets all four Threshold Criteria.

Funding/Match Summary:		
WSRA Statewide Account	\$43,200	74.4%
WSRA Gunnison Basin Account	\$4,800	8.2%
Delta Conservation District (in-kind)	\$2,975	5.1%
Oxbow LLC (in-kind)	\$2,500	4.3%
Co Parks and Wildlife (in-kind)	\$2,000	3.4%
Somerset Domestic Waterworks District (in-kind)	\$2,000	3.4%
Trout Unlimited (in-kind)	\$400	0.8%
Paonia Kayak Club (in-kind)	\$200	0.4%
Total Project Costs	\$58,075	100%

The application articulates how the project meets the Evaluation Criteria as summarized below:

Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs:

- a. The proposed study addresses both consumptive and non-consumptive needs (domestic water supply needs, and environmental and recreational needs, respectively), and addresses the interests of multiple interests (divestiture of un-needed facilities on behalf of Oxbow Mining; the acquisition of, and control of water infrastructure facilities on behalf of Somerset Domestic Waterworks District; and the improvement of public access and recreational opportunities on behalf of the public).
- b. The proposed study represents a high degree of cooperation and collaboration among traditional consumptive water interests and non-consumptive interests represented by private and public entities, and non-governmental organizations, as is demonstrated by the in-kind contributions on behalf of most parties involved.
- c. The proposed study and potential improvements will address needs identified in the North Fork of the Gunnison Watershed Assessment.

Tier 2: Facilitating Water Activity Implementation:

- d. Receiving funding for this study will enable the North Fork of the Gunnison River Corridor Project to proceed and addresses multiple issues affecting the health of the river corridor while promoting greater awareness and greater public recreational access to the river.
- e. The combined in-kind match \$10,075 on behalf of the participants represents approximately 17% of total project costs of \$58,075 and demonstrates an appropriate commitment to the project.

Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits:

- f. The water activity has the potential to improve environmental and recreational needs by including the possibility of the construction of drop structure that could enhance fish habitat and recreational boating opportunities, and increased river access for the public.
- g. The water activity promotes the maximum utilization of state water by improving diversion efficiencies.
- h. n/a
- i. The water activity has the potential to provide a high level of benefit to Colorado in relationship to the amounts of funds requested due to an improvement in domestic water delivery and quality, improved environmental and recreational opportunities.
- j. The water activity has the potential to compliment CWCB' Fish and Wildlife Resources Fund(ing) efforts to mitigate the impacts of existing water supply facilities and helping to preserve a balance between development of the state's resources and the protection of the state's fish and wildlife resources by including the possibility of constructing drop structures in the river that could enhance fish habitat.

Discussion:

No additional discussion is needed.

Issues/Additional Needs:

No additional issues or needs were identified.

Staff Recommendation:

Staff recommends approval of up to \$43,200 from the Statewide Account, and \$4,800 from the Gunnison Basin Account for project titled: Somerset Diversion Improvement Study – North Fork of the Gunnison River Corridor Project.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(p)

Applicant: Plum Valley Heights Sub-District
Water Activity Name: Plum Valley Heights Water Supply Pipeline
Water Activity Purpose: Municipal
County: Douglas
River Basin: Metro
Water Source: Roxborough Water and Sanitary District
Amount Requested: \$50,000 (Metro Account)
Matching Funds: \$511,800 cash match by applicants (91%)

Staff Recommendation

Staff recommends approval of up to \$50,000 from the Metro Account to help complete the project titled: Plum Valley Heights Water Supply Pipeline

Water Activity Summary: 28 rural homeowners in the Plum Valley Heights community have formed a subdistrict to acquire renewable water to replace non-tributary ground water supplies and gain service deliveries through inclusion in the Roxborough Water and Sanitation District. Currently, each property has an individual ground water well, and hence there are no existing water distribution facilities. It is estimated that these 28 rural homes will have indoor usage of an average of 5,000 gallons per month, with an average annual usage of 0,4 acre-feet annually for both indoor use and outside irrigation per property, or approximately 11.2 acre-feet for the 28 homes in the community. Service will be provided by the construction of approximately 11,000 linear feet of 4 inch water supply pipeline with each home serviced by a ¹/₄ inch residential water tap, costing each property \$19,372. Plum Valley Heights property owners will be charged monthly service fees for water delivery by Roxborough Water and Sanitation District, in addition to an annual property tax charged by the Roxborough for capital facilities such as water treatment and storage. Sub-District funding will be through a combination of property owner contributions, grants and public borrowing.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

Funding Overview:

WSRA Metro Account Grant	\$50,000	9%
Cash Match by Applicants	\$467,400	83%
Cash Match by Douglas County	\$44,400	8%
Total Project Costs	\$561,800	100%

Discussion:

No additional discussion is needed.

Issues/Additional Needs:

No issues have been identified.

Staff Recommendation:

Staff recommends approval of up to \$50,000 from the Metro Basin Account to help complete the project titled: Plum Valley Heights Water Supply Pipeline.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(q)

Applicant: La Plata Water Conservancy District

Water Activity Name: La Plata River Water Resources Operations Model - Supplemental Funding Request

Water Activity Purpose: Nonconsumptive

County: La Plata

River Basin: Southwest

Water Source: La Plata River

Amount Requested: \$6,926.25 (Statewide Account)

Matching Funds: \$0

Staff Recommendation

Staff recommends approval of up to \$6,926.25 from the Statewide Basin Account to help complete the project

titled: La Plata River Water Resources Operations Model - Supplemental Funding Request

Water Activity Summary: The La Plata Water Conservancy District received a \$148,823 WSRA grant in March 2011 from the CWCB for the purpose of developing the La Plata River Water Resources Operations Model, a baseline model and methods for determining the most efficient and effective means for La Plata River operations. To date, two Amendment requests (CMS NO. 40865, and CMS No. 52766) have been approved, each of which extended the effective end date of the contract with no increase in budget. This supplemental funding request is in response to additional project costs associated with project delays due to coding errors in the StateMod model as noted in the approved Amendment (CMS No. 52766) executed January 29, 2013.

Threshold and Evaluation Criteria The application meets all four Threshold Criteria.

Discussion:

No additional discussion is needed.

Issues/Additional Needs: No issues have been identified.

Staff Recommendation:

Staff recommends approval of up to \$6,926.25 from the Statewide Basin Account to help complete the project titled: La Plata River Water Resources Operations Model – Supplemental Funding Request.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred

and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(r)

Applicant: Ducks Unlimited
Water Activity Name: State Land Board South Platte Recharge Study
Water Activity Purpose: Municipal/Industrial
County: Adams, Weld, Morgan, Washington, Logan, and Sedgwick
River Basin: South Platte
Water Source: South Platte River
Amount Requested: \$33,663 (South Platte Basin Account)
Matching Funds: \$34,042 DU & State Land Board (50%)

Staff Recommendation

Staff recommends approval of up to \$33,663 from the South Platte Basin Account to help complete the project titled: State Land Board South Platte Recharge Study.

Water Activity Summary: Ducks Unlimited, through the Wetland Recharge Location Model, funded in part by the CWCB, has identified several properties owned by the State Land Board (SLB) that may provide high quality wetland recharge opportunities to augment the lower South Platte River from Denver to the Nebraska state line. Within the last year, the SLB launched an ecosystem services program intent on developing several new revenue streams. River augmentation through wetland recharge may prove to be a lucrative revenue stream for the SLB. The SLB additionally wishes to improve stewardship on their properties and increase recreational hunting. WSRA funds will be leveraged 1:1 against DU and SLB funds to identify several properties (5-10) with high potential for recharge. These properties will be further refined based on factors such as water availability, partnerships with water providers, access to the river, and construction and permitting issues, resulting in the top 1-3 properties undergoing field tests to confirm model assumptions. From this process a single project site will be selected for eventual development. The process should reveal: the amount of new water that can be maximized through retiming; and the amount of restored or created wildlife habitat.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

Funding Overview:	
WSRA South Platte Basin Account	\$33,633
DU & SLB match	<u>\$34,042</u>
Total Project Costs	\$67,705

Discussion:

No additional discussion is needed.

Issues/Additional Needs:

No issues have been identified.

Staff Recommendation:

Staff recommends approval of up to \$33,663 from the South Platte Basin Account to help complete the project titled: State Land Board South Platte Recharge Study.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(s)

Applicant: South Metro Water Supply Authority and Northern Colorado Water Conservancy District

Water Activity Name: South Platte and Metro Integrated Basin Implementation Plan - Consumptive

Water Activity Purpose: All inclusive

River Basin: South Platte

Water Source: South Platte River and tributaries

Amount Requested: \$329,000 Statewide, \$41,200 South Platte Basin Account, \$41,200 Metro Account

Matching Funds: none

Staff Recommendation

Staff recommends conditional approval of up to \$138,000 from the Statewide Account, \$137,000 from the South Platte Basin Account, and \$137,000 from the Metro Account to help complete the project titled: South Platte and Metro Integrated Basin Implementation Plan – Consumptive. This is conditional upon the South Platte and Metro Roundtables' approval of an additional \$95,800 from each basin account, per the discussion described below.

Water Activity Summary: WSRA funds will be expended to draft an Integrated South Platte Basin and Metro Implementation Plan that addresses consumptive needs, and conforms to the Basin Implementation Plan Guidance Document, with South Metro Water Supply Authority acting as the applicant and fiscal agent on behalf of the South Platte Basin and Metro Roundtables.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

Discussion:

The South Platte and Metro's application request includes \$41,200 from the South Platte and \$41,200 from the Metro basin accounts, which is only twenty percent of the total application. These roundtables rightly indicated that the South Platte and Metro have the largest consumptive gap and solving their water supply needs will have a large impact statewide. However, the suggested basin contribution is 33%. This would be \$137,000 from each of the South Platte and Metro basin accounts. The basin accounts for both the South Platte and Metro have sufficient funds. Given the fact that their total request between the consumptive and nonconsumptive basin implementation applications is \$588,000, staff believes that awarding this amount, which is greater than the other basin request, demonstrates significant state support. However, staff does not believe that the contribution from the state account should be greater than 33%, as it is unfair to other roundtables who's requests have been in line with the guidance document. The conditional recommendation reflects this.

Issues/Additional Needs:

No issues have been identified.

Staff Recommendation:

Staff recommends conditional approval of up to \$138,000 from the Statewide Account, \$137,000 from the South Platte Basin Account, and \$137,000 from the Metro Account to help complete the project titled: South Platte and Metro Integrated Basin Implementation Plan – Consumptive. This is conditional upon the South Platte and Metro Roundtables' approval of an additional \$95,800 from each basin account, per the discussion described above. All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin

Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(t)

Applicant: Ducks Unlimited

Water Activity Name: South Platte and Metro Integrated Basin Implementation Plan - Nonconsumptive

Water Activity Purpose: All inclusive

River Basin: South Platte

Water Source: South Platte River and tributaries

Amount Requested: \$58,000 Statewide, \$59,000 South Platte Basin Account, \$59,000 Metro Account

Matching Funds: none

Staff Recommendation

Staff recommends approval of up to \$59,000 from the Statewide Account, \$58,000 from the South Platte Basin Account, and \$58,000 from the Metro Account to help complete the project titled: South Platte and Metro Integrated Basin Implementation Plan – Nonconsumptive.

Water Activity Summary: WSRA funds will be expended to draft and South Platte Basin and Metro Integrated Basin Implementation Plan that addresses nonconsumptive needs, and conforms to the Basin Implementation Plan Guidance Document, with Ducks Unlimited acting as the applicant and fiscal agent on behalf of the South Platte Basin and Metro Roundtables.

Threshold and Evaluation Criteria The application meets all four Threshold Criteria.

Discussion: No additional discussion is needed.

Issues/Additional Needs:

No issues have been identified.

Staff Recommendation:

Staff recommends approval of up to \$58,000 from the Statewide Account, \$59,000 from the South Platte Basin Account, and \$59,00 from the Metro Account to help complete the project titled: South Platte and Metro Integrated Basin Implementation Plan – Nonconsumptive.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(u)

Applicant: Colorado River Water Conservation District

Water Activity Name: Colorado Basin Implementation Plan

Water Activity Purpose: All inclusive

River Basin: Colorado

Water Source: Colorado River and tributaries

Amount Requested: \$83,333 (Statewide Account); \$166,667 (Colorado Basin Account)

Matching Funds: none

Staff Recommendation:

Staff recommends approval of up to \$83,333 from the Statewide Account, and \$166,667 from the

Colorado Basin Account to help complete the project titled: Colorado Basin Implementation Plan

Water Activity Summary: WSRA funds will be expended to draft a Colorado Basin Implementation Plan that conforms to the Basin Implementation Plan Guidance Document to include Sections 1-6 to be authored by a team lead by SMG, Inc., with the Colorado River Water Conservation District acting as the applicant and fiscal agent on behalf of the Colorado River Basin Roundtable.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Statewide Evaluation Criteria:

The application meets all three Tiered Evaluation Criteria.

Discussion:

No additional discussion is needed.

Issues/Additional Needs:

No additional issues or needs were identified.

Staff Recommendation:

Staff recommends approval of up to \$83,333 from the Statewide Account, and \$166,667 from the Colorado Basin Account for project titled: Colorado Basin Implementation Plan.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(v)

Applicant: Upper Gunnison River Water Conservancy District

Water Activity Name: Gunnison Basin Implementation Plan

Water Activity Purpose: All inclusive

River Basin: Gunnison

Water Source: Gunnison River and tributaries

Amount Requested: \$66,667 (Statewide Account); \$133,333 (Gunnison Basin Account)

Matching Funds: none

Staff Recommendation:

Staff recommends approval of up to \$66,667 from the Statewide Account, and \$133,333 from the

Gunnison Basin Account to help complete the project titled: Gunnison Basin Implementation Plan

Water Activity Summary: WSRA funds will be expended to draft a Gunnison Basin Implementation Plan that conforms to the Basin Implementation Plan Guidance Document to include Sections 1-6 to be authored by a yet to be determine consultant, with the Upper Gunnison River Water Conservancy District acting as the applicant and fiscal agent on behalf of the Gunnison River Basin Roundtable.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Statewide Evaluation Criteria:

The application meets all three Tiered Evaluation Criteria.

Discussion:

No additional discussion is needed.

Issues/Additional Needs:

No additional issues or needs were identified.

Staff Recommendation:

Staff recommends approval of up to \$66,667 from the Statewide Account, and \$133,333 from the Gunnison Basin Account for project titled: Gunnison Basin Implementation Plan.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(w)

Applicant: Jackson County Water Conservancy District

Water Activity Name: North Platte Basin Implementation Plan

Water Activity Purpose: All inclusive

River Basin: North Platte

Water Source: North Platte River and tributaries

Amount Requested: \$107,500 (North Platte Basin Account)

Matching Funds: none

Staff Recommendation:

Staff recommends approval of up to \$107,500 from the North Platte Basin Account to help complete

the project titled: North Platte Basin Implementation Plan

Water Activity Summary: WSRA funds will be expended to draft a North Platte Basin Implementation Plan that conforms to the Basin Implementation Plan Guidance Document to include Sections 1-6 to be authored by Wilson Water Group, with the Jackson County River Water Conservancy District acting as the applicant and fiscal agent on behalf of the North Platte River Basin Roundtable.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Discussion:

No additional discussion is needed.

Issues/Additional Needs:

No additional issues or needs were identified.

Staff Recommendation:

Staff recommends approval of up to \$107,500 from the North Platte Basin Account for project titled: North Platte Basin Implementation Plan.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of

any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(x)

Applicant: Colorado Rio Grande Restoration Foundation

Water Activity Name: Rio Grande Basin Implementation Plan

Water Activity Purpose: All inclusive

River Basin: Rio Grande

Water Source: Rio Grande River and tributaries

Amount Requested: \$100,000 (Statewide Account), \$211,000 (Rio Grande Basin Account)

Matching Funds: none

Staff Recommendation:

Staff recommends approval of up to \$100,000 from the Statewide Account, and \$211,00 from the

Rio Grande Basin Account to help complete the project titled: Rio Grande Basin Implementation

Plan.

Water Activity Summary: WSRA funds will be expended to draft a Rio Grande Basin Implementation Plan that conforms to the Basin Implementation Plan Guidance Document to include Sections 1-6 to be authored by DiNatale Water Consultants, with the Colorado Rio Grande Restoration Foundation acting as the applicant and fiscal agent on behalf of the Rio Grande River Basin Roundtable.

Threshold and Evaluation Criteria: The application meets all four Threshold Criteria.

Statewide Evaluation Criteria: The application meets all three Tiered Evaluation Criteria.

Discussion:

No additional discussion is needed.

Issues/Additional Needs:

No additional issues or needs were identified.

Staff Recommendation:

Staff recommends approval of up to \$100,000 from the Statewide Account, and \$211,00 from the Rio Grande Basin Account for project titled: Rio Grande Basin Implementation Plan.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 24, 2013 Agenda Item 18(y)

Applicant: Harris Water Engineering, Inc.

Water Activity Name: Southwest Basin Implementation Plan

Water Activity Purpose: All inclusive

River Basin: Southwest

Water Source: Southwest rivers and tributaries

Amount Requested: \$25,127 (Statewide Account), \$51,015 (Southwest Basin Account)

Matching Funds: none

Staff Recommendation:

Staff recommends approval of up to \$25,127 from the Statewide Account, and \$51,127 from the

Southwest Basin Account to help complete the project titled: Southwest Basin Implementation Plan

Water Activity Summary: WSRA funds will be expended to draft a Southwest Basin Implementation Plan that conforms to the Basin Implementation Plan Guidance Document to include Sections 1-6 to be authored by Harris Water Consultants, and acting as the applicant and fiscal agent on behalf of the Southwest River Basin Roundtable.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Statewide Evaluation Criteria:

The application meets all three Tiered Evaluation Criteria.

Discussion:

No additional discussion is needed.

Issues/Additional Needs:

No additional issues or needs were identified.

Staff Recommendation:

Staff recommends approval of up to \$25,127 from the Statewide Account, and \$51,015 from the Southwest Basin Account for project titled: Southwest Basin Implementation Plan.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

Reporting and Final Deliverable: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues. At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.