STATE OF COLORADO

Colorado Water Conservation Board Department of Natural Resources

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Colorado Water Conservation Board Members

FROM:

Greg Johnson,

Water Supply Planning Section

DATE:

September 17, 2012

SUBJECT:

Agenda Item 25, September 27-28, 2012 Board Meeting

Water Supply Reserve Account Program



John W. Hickenlooper Governor

Mike King DNR Executive Director

Jennifer L. Gimbel CWCB Director

Staff Recommendation

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

At this board meeting 3 additional WSRA applications that are seeking a WSRA grant/CWCB loan package are being considered as a separate agenda items (23.a, 23.b, and 23.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.

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;
- Water Activity Summary Sheets which provide an overview, discussion, issues/additional needs, and staff recommendation regarding funding, partial funding, or not funding the applications; and
- Copies of the full applications, Basin Roundtable approval letters and any supporting documentation provided by the applicants.

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.

Agenda	Basin	Applicant	Name of Water Activity	Basin Account Request	Statewide Account Request	Total Request	Cash Match	In-Kind Match	Total Match	Staff Recommendation	Notes
25.a	Arkansas	Lower Arkansas Valley	Ag-Municipal Conservation Easement	\$54,000	\$216,000	\$270,000	\$270,000	\$100,000	\$370,000	Staff recommends approval of up to \$216,000 from the Statewide Account and up to \$54,000 from the Arkansas Basin Account	
25.b	Arkansas	Cross Creek Metropolitan		\$20,000	\$100,000	\$120,000	\$50,000	80	\$50,000	Staff recommends approval of up to \$100,000 from the Statewide Account and up to \$20,000 from the Arkansas Basin Account	
23.b	Arkansas	Catlin Canal Company	Mount Pisgah Dam/Wrights Reservoir Outlet Works Rehabilitation	\$25,000	\$136,345	\$161,345	\$40,000	25	\$40,000	Staff recommends approval of up to \$136,345 from the Statewide Account and up to \$25,000 from the Arkansas Basin Account	(Grant/Loan) CWCB Loan Request: \$161.345
25.с	Arkansas	Upper Arkansas Water Conservancy District	Build, Assess, and Document Accounting and Administration Tools for Lease Fallowing in the Artmass River Vailley	\$20,000	\$39,215	\$59,215	\$17,605	05	\$17,605	Staff recommends approval of up to \$39,215 from the Statewide Account and up to \$20,000 from the Arkansas Basin Account	
'n	Arkansas Basin Total Requests	Fotal Requests		\$119,000	\$491,560	\$610,560					
25.d	Southwest	La Plata Archuleta Water District	Construction of Municipal Water Distribution Pipeline and Related Facilities	\$25,000	\$475,000.00	\$500,000.00	\$7,750,000	80	\$7,750,000	Staff recommends approval of \$475,000 from the Statewide Account and \$25,000 from the Southwest Basin Account	
25.e	Southwest	Mancos Conservation	Mancos River Habitat and Diversion Project -	\$20,000	\$99,340	\$119,340	\$6,160	\$18,642	\$24,802	Staff recommends approval of up to \$99,340 from the Statewide Account and \$20,000 from the Southwest Basin Account	
25.f	Southwest	Montezuma Valley Irrigation Company	Interest Water Use, Conservation, Management and Operations through the Intolementation of Water Accounting Software	\$52,500	80	\$52,500	\$62,000	\$55,000	\$117,000	Staff recommends approval of up to \$52,500 from the Southwest Basin Account	
25.g	Southwest	Red Mesa Reservoir & Ditch Company	Red Mesa Dam & Reservoir - Spillway Alternatives Analysis	\$19,400	0\$	\$19,400	\$0	80	\$0	Staff recommends approval of up to \$19,400 from the Southwest Basin Account	
	Southwest Basin Total Requests	Total Requests		\$116,900	\$574,340	\$691,240					
25.h	Rio Grande	Rio Grande Headwaters	Rio Grande Initiative: Haywood Ranch Conservation Easement	\$25,000.00	\$400,000	\$425,000.00	\$300,000	\$400,000	\$700,000	Staff recommends approval of up to \$400,000 from the Statewide Account and \$25,000 from the Rio Grande Basin Account	
23.с	Rio Grande	The Sanchez Ditch and Reservoir Company	Sanchez Reservoir Phase 2 - Outlet Rehabilitation and Gate Tower Replacement	\$55,000	\$859,400	\$914,400	\$1,128,776 \$50,000	\$50,000	\$1,178,776	Staff recommends approval of up to \$859,400 from the Statewide Account and \$55,000 from the Rio Grande Basin Account	(Grant/Loan) CWCB Loan Request: \$1,128,7776
	Rio Grande Basin Total Requests	n Total Requests		\$80,000	\$1,259,400	\$1,339,400					
23.а	Gunnison	Town of Ridgway	Town of Ridgway Lake Otonowanda Renovation 60,000	000'09	540,000	\$600,000.00	\$1,169,000 \$66,000	\$66,000	\$1,235,000	Staff recommends approval of up to \$540,000 from the Statewide Account and \$60,000 from the Gunnison Basin Account	(Grant/Loan) CWCB Loan Request: \$650,000
25.i	Gunnison	Trout Unlimited	Relief Ditch Diversion Modification Construction	10,000	40,000	\$50,000.00	\$871,150	\$37,700	\$908,850	APPLICATION PULLED BY APPLICANT	Match includes \$500,000 CWCB SCTF Funds
25.j	Gunnison	City of Gunnison, Colorado Parks and Wildlife	River System Assessment and Restoration - Gunnison River near Gunnison, Colorado	20,000	200,000	\$220,000.00	\$45,000	\$27,600	\$72,600	Staff recommends approval of up to \$20,000 from the Gunnison Basin Account and \$200,000 from the Statewide Account	
	Gunnison Basin Total Requests	Total Requests		290,000	\$780,000	\$870,000					
25.k	Metro/South Platte Metro/South Plat	Metro/South The Greenway Platte Foundation Metro/South Platte Basin Total Requests	Denver South Platte River Implementation Project - Frontier/Overland Final Design	\$200,000	\$300,000	\$500,000	\$3,600,000	80	\$3,600,000	Staff recommends approval of up to \$175,000 from the Metro Basin Account, \$25,000 from the South Platte Basin Account, and \$300,000 from the Statewide Account	(Metro Basin Roundtable: \$175,000 - South Platte Basin Roundtable: \$25,000)
		Douglas County Water				6		0	000	ELICATION DESCRIPTION OF THE PROPERTY OF THE P	
25.1	Metro Rasin Total Requests	Resource Authority	Landscape/Irrigation Training Pilot Program	\$5,004.00 \$5,004	\$95,076.00 \$95,076	\$100,080 00	\$10,000	\$10,375	\$20,375	APPLICATION PULLED BY APPLICANT	
25.m	Colorado	Robinson Ditch Company	Robinson Ditch Company Robinson Ditch Piping Improvements	\$60,000.00	05	\$60,000.00	\$140,000	0\$	\$140,000	Staff recommends approval of up to \$60,000 from the Colorado Basin Account	
25.n	Colorado	Blue River Watershed Group	Tenmile Creek Restoration Project	\$17,500	\$332,500	\$350,000	\$60,000	\$210,000	\$270,000	Staff recommends approval up to \$17,500 from the Colorado Basin Account and \$332,500 from the Statewide Account	
25.0	Colorado	Eagle River Watershed Council	Colorado River Restoration and Conservation Projects	\$20,000	\$90,000	\$110,000	\$80,000	\$6,501	\$86,501	Staff recommends approval of up to \$20,000 from the Colorado Basin Account and \$90,000 from the Statewide Account	
25.p	Colorado	Grand County	Gore CanyonWhitewater Park at Pumphouse- Colorado River	\$100,000	\$400,000	\$500,000	\$40,000	80	\$40,000	Staff recommends denial of this application at this time with encouragement that the applicant pursue WSRA funding at a later date	Project partners plan to raise match of over \$600,000 from boaters and other recreation industry partners.
25.q	Colorado	Roaring Fork Water Conservancy	Crystal River Watershed – Assessment and Design of Restoration Projects	\$15,854	\$301,219	\$317,073	\$100,382	\$82,580	\$182,962	Staff recommends approval of up to \$15,854 from the Colorado Basin Account and \$317,073 from the Statewide Account	\$39,579 CWCB Watershed Restoration Grant. \$5,840 Colorado Healthy Rivers Fund (pending)
25.r	Colorado	Tamarisk Coalition	Grand Valley Riparian Restoration Collaborative (GVRRC) Project	\$42,726	\$207,274	\$250,000	\$142,980	\$34,280	\$177,260	Staff recommends approval of up to \$42,726 from the Colorado Basin Account and \$207,274 from the Statewide Account	
	Colorado Basin Total Requests	Fotal Requests		256,080	1,330,993	\$1,587,073		ļ_			
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Water Supply Reserve Account - Balance Summary **COLORADO WATER CONSERVATION BOARD** September 1, 2012

	Fund App	Fund Appropriation and Receipts	eceipts		
	Legislative		Statewide		
Fiscal Year	Appropriation	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	\$1,439,478	\$921,266	\$518,212	
Interest	N/A	\$2,232,040	\$2,232,040	\$0	
TOTAL	\$44,775,000	\$45,446,518	\$30,481,056	\$14,965,462	

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.

Interest from January 2012 on will be regularly calculated by the Treasury and credited to the Statewide Account. In January 2012 interest for the program from its inception to date was credited directly to the Statewide Account.

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Basin	Approved Basin Grants	Total Basin Funds	Basin Account Balance	Approved State Grants	d State Statewide Grants Account Balance
Arkansas	\$1,315,767	\$1,662,829	\$347,062	\$4,200,965	
Colorado	\$1,132,250	\$1,662,829	\$530,579	\$2,410,043	
Southwest	\$1,314,946	\$1,662,829	\$347,883	\$4,463,966	
Gunnison	\$1,302,322	\$1,662,829	\$360,507	\$1,691,913	
Metro	\$1,089,929	\$1,662,829	\$572,900	\$1,925,268	
North Platte	\$1,092,538	\$1,662,829	\$570,292	\$311,027	
Rio Grande	\$1,342,365	\$1,662,829	\$320,464	\$5,330,823	
South Platte	\$1,175,857	\$1,662,829	\$486,972	\$2,550,566	
Yampa/White	\$1,181,374	\$1,662,829	\$481,455	\$431,813	
TOTAL	\$10,947,348	\$14,965,462	\$4,018,114	\$23,316,383	\$7,164,673

Note: Only includes grants approved by CWCB TOTAL APPROVED GRANTS

\$34,263,731

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet Agenda Item 25.a

Applicant: Lower Arkansas Valley Water Conservancy District

Water Activity Name: Ag-Municipal Conservation Easement Demonstration

Water Activity Purpose: Non-Structural Water Project

County: Otero

Drainage Basin: Arkansas

Water Source: Arkansas River

Amount Requested: Up to \$270,000

Source of Funds: Up to \$216,000 (Statewide Account); Up to \$54,000 (Arkansas Basin Account)

Matching Funds: In addition to the Arkansas Basin account there is a total of \$370,000 of match (\$270,000 cash match and \$100,000 in-kind services match). Together with the basin account funds,

this represents \$425,000 or nearly 200% of the statewide request.

Staff Recommendation

Staff recommends approval of up to \$216,000 from the Statewide Account and up to \$54,000 from the Arkansas Basin Account to help fund the Ag-Municipal Conservation Easement Demonstration project contingent upon the applicant addresses items described in the "Issues/Additional Needs" section.

Water Activity Summary:

The purpose of this project is to demonstrate the use of conservation easements on irrigated agricultural land to both preserve long-term agricultural irrigation and provide secure long-term water supplies to a municipality. The concept would create another, new alternative to historical "buy-and-dry" of irrigation water rights for M&I uses. More specifically, an Ag-Municipal Conservation Easement would perpetually preserve the irrigated land *and* give the municipality a secure, legally enforceable permanent source of additional water supplies.

Implementation of the Ag-Municipal Conservation Easement Demonstration would demonstrate the viability of the concept, as well as provide a concrete example of the legal and technical details of such a transaction. Specifically, completion of the Easement transaction would contain example or model language for a ag-municipal conservation easement, including an enforceable municipal interest in the use of water rights under defined terms and conditions in, for example, 3 years out of 10 – leaving the water in irrigation 7 years out of 10.

The Project involves the purchase of 320 acres of land, 120 irrigated, in Otero County, Colorado, by a young farm family. Simultaneous with the closing of the purchase, the purchasers will grant a conservation easement to the Lower Arkansas Valley Water Conservancy District. The conservation easement will be funded by the CWCB, perhaps shared by a municipal water lessee. The conservation easement will restrict the use of the land and water for agricultural purposes in perpetuity, but will provide for muncipal use of the water rights in 3 in 10 years on a rolling 10-year average. The Applicant will also comply with all applicable federal, state and local laws, for example Otero County 1041 Regulations, and ditch company articles of incorporation and bylaws.

This Project is at heart a pretty straightforward real property transaction, coupled with a simultaneous grant of a conservation easement to protect the agricultural use in perpetuity while providing for municipal use of the water rights in 3 in 10 years.

The purchasers will grant the conservation easement to the Lower Arkansas Valley Water Conservancy District, which is qualified to hold conservation easements under Colorado Statute and certified by the Division of Real Estate to accept conservation easements.

The Ag-Municipal Conservation Easement Demonstration will be created as a statutory conservation easement pursuant to C.R.S. § 38-30.5-101 (et seq.). The conservation easement may be coupled with an ancillary water use agreement between the landowner and a municipal water provider, if one agrees to participate in this demonstration to secure the permanent right to use the water for muncipal purposes in the future under defined conditions on defined terms.

CWCB grant monies are requested to fund the appraised value of the conservation easement, not to exceed 50 percent of the total cash cost (up to \$270,000 of the Project). If a municipality purchases the Municipal Water Lease Option prior to closing, the purchase price will reduce the amount of the CWCB's grant for the conservation easement accordingly. If a municipality purchases the Municipal Water Lease Option after closing, the purchase price will be remitted to the CWCB to reimburse it for funding the conservation easement.

The farm and water rights purchasers will pay for the balance of the purchase price, beyond the cost of the conservation easement (up to \$270,000) in cash upon closing. The Lower Ark District will contribute the necessary appraisal, engineering, and legal in-kind services (estimated at \$100,000) to complete the Project.

Discussion:

Recognizing the importance "permanency" of water supply for the municipal water providers, staff has been supportive of the concept of coupling a conservation easement with an interruptible water supply agreement to help sustain irrigated agriculture while at the same time providing some portion of the water to be used for municipal purposes. This type of water-sharing arrangement holds promise of preserving irrigated agriculture while allowing for a defined amount of water to be transferred to M&I uses. As this is a demonstration project, the applicant will document any impediments encountered, recommendations for future agreements, basis for appraised value, basis of negations between city and farmer, and the basis for establishment of years and conditions in which the water is to be transferred (i.e. hydrologic triggers).

Staff believes the project meets several key Statewide Evaluation Criteria. This demonstration project moves the State closer to creating feasible alternative agricultural water transfers in a way that helps sustain irrigated agriculture and supplies the municipal water providers permanent water supplies.

Proposed Stipulations:

During the basin roundtable discussions, the applicant agreed to include the following stipulations in this application.

- 1. The CWCB believes that the legal and technical details of the Ag-Municipal Conservation Easement transaction are an important component of the application and anticipate that a municipal Water Lease Option will be purchased. This will allow for the submission of a complete set of transactional documents to the CWCB and assist in advancing alternative agricultural transfer methods. Until such time as the municipal component of the transaction is complete, Applicant shall file with the CWCB an annual report describing progress made to date on that component, including an identification of any impediments to such completion which may have arisen.
- 2. Within 45 days of the completion of any water use agreement between the landowner and a municipal water provider, a written supplemental report shall be filed which summarizes the nature of the municipal transaction, and all "lessons learned" during the course of the negotiation leading to such agreement. This shall be accompanied by a template of the language used in completing the water use agreement transaction.
- 3. In the development of such template, the Applicant shall specifically address:
 - a. The means employed to place a value upon the water use agreement, whether through appraisal or otherwise;
 - b. The basis of negotiation for establishing the amount of the payments made by the municipality in the years of water receipt;
 - c. The manner in which the parties addressed those concerns surrounding the use of an "in perpetuity" easement approach in a situation where changed factual circumstances could affect the continued viability of the underlying easement.
- 4. An advisory panel consisting of at least two municipal representatives and two agricultural representatives, each with an interest in Arkansas River basin water supplies, shall assist in the development of the above-referenced template.

Issues/Additional Needs:

Staff requests that the applicant submit a letter agreeing to the stipulations listed above as well as the agreement that the applicant will reimburse the CWCB of the purchase price of the Municipal Water Lease Option.

Staff Recommendation:

Staff recommends approval of up to \$216,000 from the Statewide Account and up to \$54,000 from the Arkansas Basin Account to help fund the Ag-Municipal Conservation Easement Demonstration project contingent upon the applicant addresses items described in the "Issues/Additional Needs" section.

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: 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.

Final Deliverable: 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 Agenda Item 25.b

Applicant: Cross Creek Metropolitan District

Water Activity Name: Hale Reservoir Renovation—Final Design and Permitting

Water Activity Purpose: Structural Water Project

County: El Paso

Drainage Basin: Arkansas

Water Source: Fountain Creek

Amount Requested: \$120,000

Source of Funds: \$100,000 (Statewide Account); \$20,000 (Arkansas Basin Account)

Matching Funds: \$50,000 cash (\$35,000 Cross Creek Metro District and \$15,000 Mesa Ridge

Metro District)

Staff Recommendation

Staff recommends approval of up to \$100,000 from the Statewide Account and up to \$20,000 from the Arkansas Basin Account to help fund the Hale Reservoir Renovation—Final Design and Permitting.

Water Activity Summary:

Hale Reservoir is a Low Hazard Classification Dam located in Fountain, Colorado. It is an embankment dam built around 1945 and it is in extremely poor condition. The original Hale Reservoir is decreed for 18 ac-feet of storage. The existing reservoir configuration is approximately 6 ac-ft in size with a dam height of 13.5 feet. The outlet works have been inoperable since 1985. The crest and downstream face of the dam are covered in heavy vegetation and are eroded. The dam has failed twice since CCMD took ownership of the property and there was a near-failure in 2011 as well.

Cross Creek Metropolitan District is seeking to renovate the reservoir in a way that meets multiple needs, including stormwater management, but also to serve non-consumptive aesthetic and recreational opportunities, including the environmental restoration of surrounding wetlands, providing wildlife habitat and birding opportunities.

The Hale Reservoir renovation is being designed so that it may be considered a non-potable well, serve as a supply for irrigation in the Cross Creek Regional Park, and perhaps serve surrounding landscape irrigation needs as well. This will free up funds in the District that are currently being spent on a potable source of supply, and will also free up that potable supply for future consumptive needs in El Paso County, serving municipal conservation goals. The Regional Park used 247,340 gallons of water in 2011.

In July, 2011, CCMD engaged the services of Applegate Group, Inc. in order to explore the possibility of enlarging Hale Reservoir and using it as a source of non-potable water. Applegate's work to date includes a Hazard Classification Report which has been submitted to the State. The District has paid a total of \$34,393 for preliminary design and planning, and is now prepared to engage Applegate Group for Final Design and Permitting of the renovation.

The renovated Hale Reservoir will have a capacity of 100 ac-ft with an 18 ft embankment dam. A new water right will be obtained by the District for the additional storage capacity in the enlarged reservoir. The reservoir is filled with natural groundwater and a groundwater seep located to the north of the reservoir.

The existing dam will be completely removed and a new embankment constructed. The proposed Hale Reservoir Dam will be constructed of zoned cohesive earth fill. At this point in the design process a 4:1 side slope on downstream and upstream face of the dam are proposed.

This grant application is for the funding of the Final Design and Permitting of Hale Reservoir. An updated survey will be needed, along with updated wetlands delineation. A full geotechnical investigation of the site will be made, and hydrology and geotechnical reports will be prepared. A design report will be prepared to SEO regulations. Construction drawings and specifications will be completed and submitted to the SEO. A Section 404 Permit will be obtained from the ACOE and a Section 206 Grant application will be submitted. The non-potable water system will be designed, and a well permit obtained.

Discussion:

The Hale Reservoir Final Design and Permitting project appears to be project that appears to provide multiple benefits. The applicant articulates how a renovated Hale Reservoir will serve Environmental, Recreational, and Municipal/Industrial purposes. It will be used for Stormwater Management and as a Non-Potable source of Irrigation Water, conserving Municipal potable supplies. The reservoir will be re-sized and much more aesthetic, incorporating a large, unsightly drainage channel which is currently adjacent to the lake. Environment restoration of surrounding wetlands will be included, which will provide wildlife habitat. Also, if feasible, the lake may become a warm water fishery. In addition, the applicant has indicated that the District intends to apply for a CWCB loan/WSRA grant funding to complete the construction of the project. Due to these considerations, staff believes this project meets many of the Statewide Evaluation Criteria.

Issues/Additional Needs: None

Staff Recommendation:

Staff recommends approval of up to \$100,000 from the Statewide Account and up to \$20,000 from the Arkansas Basin Account to help fund the Hale Reservoir Renovation—Final Design and Permitting.

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: 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.

Final Deliverable: 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 Agenda Item 25.c

Applicant: Upper Arkansas Water Conservancy District

Water Activity Name: Building and Assessing Accounting and Administration Tools for Lease-

Fallowing in the Arkansas River Valley

Water Activity Purpose: Nonstructural Activity

Drainage Basin: Arkansas

Water Source: Arkansas

Amount Requested: \$59,215 (\$39,215 Statewide Funds and \$20,000 Arkansas Basin Funds)

Matching Funds: \$17,605 (LAVWCD)

Staff Recommendation

Staff recommends approval of up to \$39,215 from the Statewide Account and up to \$20,000 from the Arkansas Basin Account to help complete Phase 4 of the project, Building and Assessing Accounting and Administration Tools for Lease-Fallowing in Colorado's Lower Arkansas River Valley. Phase 4 will document the accounting tool and prepare a methods reference document for the tool.

Water Activity Summary:

The project will build and assess a tool to quantify values of transferrable consumptive use and assess impacts to the stream-aquifer system. The tools built and assessed will help make available water supplies through lease fallowing by: reducing transactional costs, protecting existing water rights from injury in the least costly fashion, maintaining the area agricultural economy and preserving the institutionalized and long recognized water court process.

The main objective of this project is to develop and assess accounting and administration tools that calculate transferrable consumptive use and assess impacts to return flows pursuant to lease fallowing agreements. The result will be a common platform that can be a template to others for accurately calculating transferrable consumptive use and assess impacts. A common platform will facilitate implementation of rotational crop fallowing/leasing such as the Super Ditch.

The purpose of this project is not to transfer water via temporary leases but make possible the water transfer by: constraining costs, protecting other water rights from potential injury, maintaining agricultural economies, and preserving the institutionalized and long recognized water court process. Without a common technical and widely accepted platform to quantify consumptive use and return flow impacts the marketing through the "Super Ditch" style program may very well be futile due to the high water costs of changing the water rights through water court. In this regard this project helps advance alternative transfer methods via rotational crop fallowing/leasing forward to an actual on the ground program that can provide a reliable water supply while sustaining key elements of the agricultural area from which the water is transferred.

The objectives of the accounting and administration tools are to:

- 1. Quantify the transferrable consumptive use derived from fallowed land parcels;
- 2. Quantify the associated changes in the amount, timing, and location of:
 - (a) surface runoff to drains and to the river,
 - (b) recharge to the alluvial aquifer, and
 - (c) groundwater return flow to drains and to the river;
- 3. Support the development of plans to maintain return flows at or above historical levels and to quantify transferrable consumptive use at or below historical levels in a manner that complies with Colorado water law and the Arkansas River Compact; and
- 4. Develop data interfaces that will complement the Arkansas River Decision Support System (ArkDSS) and build a common technical platform for the transfer of data to and from Hydrobase.

Discussion:

Through the CWCB's ATM program, the IBCC Ag Subcommittee and discussions with grant recipients and other stakeholders, several key barriers have been identified to the successful implementation of alternative water transfers. These include: (1) the lack of specific methodologies to ensure non-injury of other water rights, (2) potentially high transaction costs with alternative methods, (3) water rights administration and accounting issues and (4) certainty/permanence of long-term supply for municipalities. To address these barriers, several key recommendations have been developed. Those recommendations include:

- 1. Development of special review procedures to facilitate ATM agreements;
- 2. Adoption of presumptive CU procedures;
- 3. Determination of historical CU for a canal or ditch system;
- 4. Develop specific methodologies for measuring, calculating, and monitoring CU water transferred through ATM projects;
- 5. State funding of infrastructure cost;
- 6. Pursue transfer of a portion of a water right.

If successful these tools will help address the first three barriers listed above and will address those barriers through the implementation of recommendation number four, "developing specific methodologies for measuring, calculating and monitoring CU water transferred through ATM projects." As the application indicates, this effort has been a collaborative effort from the start and includes five sponsors: the UAWCD, SECWCD, LAVWCD, Pueblo Board of Water Works and Colorado Springs Utilities. In addition, the project/technical team has put in significant effort to provide a well thought out scope of work and to ensure the incorporation and coordination of past and current related modeling efforts in the Arkansas basin such as the Division of Water Resources' Irrigation System Analysis Model (ISAM), Colorado State University's enhanced model (predicts groundwater flows and return flows) and the CWCB's Arkansas River DSS.

Staff believes that this project meets many of the Statewide Evaluation Criteria. If successful, this administration tool will allow for easier transfers of water for multiple purposes helping to address the water supply gap in the Arkansas Basin as well as statewide if adopted in other basins. Thus far

with phases 1-3, the project team has been very committed to ensuring wide participation and cooperation between water users, SEO, CWCB, CSU and others.

Issues/Additional Needs: None

Staff Recommendation:

Staff recommends approval of up to \$39,215 from the Statewide Account and up to \$20,000 from the Arkansas Basin Account to help complete Phase 4 of the project, Building and Assessing Accounting and Administration Tools for Lease-Fallowing in Colorado's Lower Arkansas River Valley. Phase 4 will document the accounting tool and prepare a methods reference document for the tool.

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 the general public and will help promote the development of a common technical platform.

In accordance with the Criteria and Guidelines of the Alternative Agricultural Water Transfer Methods Competitive Grant Program, 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 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.

Final Deliverable: 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 Agenda Item 25d

Applicant: La Plata Archuleta Water District

Water Activity Name: Construction of Municipal Water Distribution Pipeline and Related Facilities

Water Activity Purpose: Construction Activity

County: La Plata and Archuleta

Drainage Basin: Southwest

Water Source: Pine River

Amount Requested: \$500,000

Source of Funds: \$475,000 Statewide Fund, \$25,000 San Juan/Dolores Basin Fund

Matching Funds: \$8,000,000 from Applicant towards the joint expansion of the Bayfield water

treatment plant

Staff Recommendation

Staff recommends approval of \$475,000 from the Statewide Account and \$25,000 from the Southwest Basin account to help fund the Construction of Municipal Water Distribution Pipeline and Related Facilities project contingent upon resolution of the items listed in the issues/additional needs section.

Water Activity Summary:

Introduction and Background

The La Plata Archuleta Water District is a Title 32 special district formed by a majority vote in a 2008 general election. The District was created to finance, construct, operate and maintain a public water distribution system for a four hundred square mile service area across La Plata and Archuleta counties. An objective of the District is to promote joint efforts between the District and local entities to more efficiently serve customers currently dependent on well or hauled water. The District generates revenues from a five mill levy, approved in a 2010 election, on property within the District boundary. The creation of the District was identified as an IPP in the SWSI June 2006 Water Supply and Needs Report for the Dolores/San Juan Miguel Basin.

The District received a \$100,000 WSRA grant to fund a Master Plan to guide the development of the water system and outline how the piping network integrates with the two proposed treatment facilities, storage tanks, and pumps. The District also received a \$400,000 WSRA grant to develop the various agreements, plans and designs necessary to initiate the construction phase of the project, including a joint agreement with the Town of Bayfield to expand its water treatment plant and the design of the pipelines extending from the joint treatment plant to customers within the District. The Master Plan proposes over 200 miles of water line and two treatment facilities designed to serve between 1,800 and 3,600 customers by 2030. Included in the plan is a recommendation that the second treatment facility utilize a portion of the State's water from the Animas-La Plata Project through a contract with CWCB.

The WSRA grant request is to fund construction of a two mile extension of water line, in conjunction with a 5-mile segment being fully funded by the District. The water line will provide potable water

to approximately 60 customers, reducing the reliance on well/hauled water. In addition to the pipeline project, the District is contributing nearly \$3 million in cash and borrowing \$5 million for its participation in expanding the Bayfield treatment facility.

Threshold and Evaluation Criteria
The application meets the required Threshold Criteria.

The application articulates how the project satisfies the Evaluation Criteria as summarized below: Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs: By collaborating with Bayfield the project addresses the needs of both entities in the joint effort to expand the treatment plant. In addition to the partnering effort with Bayfield, the District has plans to collaborate with the CWCB to utilize the State's water allocation in ALP as the District further expands its water system. The District was identified as an IPP necessary to meet the 2050 water demand. WSRA funds have already been expended for the planning and design of the project and the construction phase is the culmination of previous these efforts.

<u>Tier 2: Facilitating Water Activity Implementation</u>: WSRA funding will increase the rate the District can implement the construction phase of the master plan. The District will provide funding in the amount of nearly \$8 million towards the expansion of the treatment facility and a portion of the pipeline installation. In addition, the mill levy will provide the District a revolving revenue source for the project.

<u>Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits</u>: This project will reduce dependence on well water; thereby reducing the impacts to the underlying water table, thus benefitting the surrounding stream levels. In addition, the project intends to collaborate with the CWCB ALP project for an alternative water supply source for serving a portion of the District.

Discussion: The requested WSRA funds would enable the District to increase the rate at which it can implement the construction phase of its master plan, providing a joint effort to bring much needed municipal water to residences throughout the San Juan/Dolores Basin.

The WSRA funding request is only a fraction of the Districts overall funding source; however it is very beneficial in delivering a reliable, non contaminated supply of water to the area in a timely fashion.

Issues/Additional Needs: CWCB staff requests that the following issues be addressed during contracting and project execution:

- The applicant secure contractor bids confirming the grant funding is sufficient to construct a minimum of 2 miles of the proposed distribution main.
- Applicant to provide a Statement of Work detailing which tasks and subtasks will be funded with the WSRA monies.

Reporting and Deliverables:

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 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.

Final Deliverable: 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 Agenda Item 25.e

Applicant: Mancos Conservation District

Water Activity Name: Mancos River Habitat and Diversion Project - Phase 2

Water Activity Purpose: Structural Consumptive and Nonconsumptive Water Project

County: Montezuma County

Drainage Basin: Mancos River

Water Source: Mancos River

Amount Requested: \$99,340 (Statewide Account); \$20,000 (Southwest Basin Account)

Matching Funds: \$1,160 (Applicant, cash); \$5,000 (Trout Unlimited, cash); \$7,501 (Applicant, in-kind); \$6,621

(NRCS, in-kind); \$1,000 (Trout Unlimited, in-kind); \$1,000 (University of New Mexico, in-

kind); \$2,520 (watershed volunteers, in-kind)

Staff Recommendation

Staff recommends approval of up to \$99,340 from the Statewide Account and \$20,000 from the Southwest Basin Account to partially fund the Mancos River Habitat and Diversion Project, Phase 2.

Water Activity Summary:

The Mancos River Habitat and Diversion Project – Phase II is a comprehensive project to refresh the Mancos Valley Watershed Group's watershed stewardship goals, to continue collaborative river condition monitoring begun in 2006, and to implement the findings and plans developed in the Mancos River Diversion Project- Phase 1 to improve the ecological and agricultural function of a 2.4 mile reach of the Mancos River. Phase 1 was partially funded with \$24,753 of WSRA Southwest Basin funds.

The objectives of the Mancos River Habitat and Diversion Project – Phase II are to:

- Reassess the condition of the Mancos River at 17 different sites and to host a training in the Rapid Stream Riparian Assessment methodology;
- Maintain the momentum of the Mancos Valley Watershed Group by convening the group to review progress and identify the next set of priorities for action to steward the health and productivity of the Mancos River;
- Implement the findings, recommendations and plans developed through the Mancos River Diversion Project Phase I, and by the 2007 Functional Assessment of the Mancos River Watershed (Stacey 2007) through design and installation of improvements to four irrigation diversions, together with measures to improve channel function and habitat condition along the 2.4 mile South Town to Exon reach of the Mancos River.

Many partners will collaborate to make this project a success, including the Mancos Conservation District, Natural Resources Conservation Service, Trout Unlimited, Dr. Peter Stacey at the University of New Mexico, the Wild Utah Project, irrigation ditch companies, private landowners along the Mancos River, and local volunteers.

WSRA funds will specifically be used to fund the contracting of project management services, and the materials and contracted services necessary to install the river channel restoration measures and the diversion 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: The project addresses non-consumptive needs including fish passage, channel bed and channel bank stability, shading, channel width to depth ratios, and aquatic habitat diversity, together with consumptive needs including efficient and measureable diversion of irrigation water rights. In addition, it involves communication and collaboration among ditch companies and irrigators, traditional consumptive water interests, and traditionally non-consumptive water interests. The project seeks to continue the implementation of several projects and processes identified in the Southwest Basins Non-Consumptive IPP list (SWSI 2010), including the efforts of the Mancos Valley Watershed Group, the Mancos River Instream Flow Study, the Mancos Watershed Plan, and the Mancos River Diversion Project.
- <u>Tier 2: Facilitating Water Activity Implementation:</u> WSRA funding will enable the purchase of materials and contracting the construction and project management services necessary to complete the project. A fairly diverse collection of matching funds (both cash and in-kind) are provided.
- Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits: The water activity not only helps meet environmental needs but also helps sustain agriculture, in part by reducing annual diversion maintenance costs by approximately \$1600/year. The project will also assist in improving fish passage and aquatic habitat along a reach of the Mancos River situated several miles upstream of a reach near the Colorado/New Mexico State line where Roundtail Chub, a Federal Candidate Species and Colorado State Species of Special Concern, Bluehead Sucker and Flannelmouth Sucker were found to be present by US Fish and Wildlife Service. Bluehead Sucker have also been sampled upstream in the reach through the town of Mancos in 2009 by Colorado Parks and Wildlife, and upstream in Chicken Creek on US Forest Service lands. Conservation of all three species is identified as a non-consumptive need by the Southwest Basins Roundtable (SWSI 2010).

Finally the project compliments other CWCB funding efforts. In 2009, the Southwest Basins Roundtable granted \$24,753 to the Mancos River Diversion Project – Phase I to map diversion structures within the Mancos River Watershed, to evaluate options for restoring flows, and to produce designs for new diversion structures. In 2011, CWCB's Watershed Restoration Program granted \$19,900 to install two of the structures designed under the Phase I project. The current project will compliment the outcomes of these previous grants by implementing the final design developed under Phase I, and by completing the design and installation of three additional diversion structures in a reach that lies immediately downstream of one of the structures, and includes the second structure, installed by the Watershed Restoration Grant.

Discussion:

This project will assist the Southwest Basin Roundtable in addressing nonconsumptive needs within the basin. The project directly addresses the basin's nonconsumptive needs as identified by SWSI 2 and the ongoing Roundtable assessment process. By completing river channel restoration measures along with diversion improvements the project also collaboratively addresses both consumptive and nonconsumptive needs in the basin. As a result this project is a good example of collaboration originally envisioned by the Colorado Water for the 21st Century Act (HB 05-1177).

Issues/Additional Needs:

No issues or additional needs remain.

Staff Recommendation:

Staff recommends approval of up to \$99,340 from the Statewide Account and \$20,000 from the Southwest Basin Account to partially fund the Mancos River Habitat and Diversion 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 Agenda Item 25.f

Applicant: Montezuma Valley Irrigation Company

Water Activity Name: Improved Water Use, Conservation, Management and Operations through the

Implementation of Water Accounting Software

Water Activity Purpose: Non-Structural Water Project

County: Montezuma

Drainage Basin: Dolores

Water Source: Dolores

Amount Requested: \$52,500

Source of Funds: Southwest Basin Account

Matching Funds: \$52,500 (Southwestern Water Conservation District grant); \$9,500 (Applicant, cash);

\$55,000 (Applicant, in-kind labor)

Staff Recommendation

Staff recommends approval of up to \$52,500 from the Southwest Basin Account to help complete the project titled: Improved Water Use, Conservation, Management and Operations through the Implementation of Water Accounting Software.

Water Activity Summary:

Montezuma Valley Irrigation Company (MVIC) owns important senior decrees on the Dolores River. MVIC has embarked on a new vision to improve water and energy conservation. Water losses via canal and lateral ditch seepage and evaporation are significant. Earthen conveyances such as these require annual maintenance at substantial cost. To date, MVIC has converted 12 miles of lateral ditches to pipeline and installed several pieces of SCADA equipment. The last project was a seven-mile pipeline with the assistance of a \$2.2 million Reclamation Stimulus funding grant. As part of system analysis and improvement, MVIC recognizes the need for improved water and business management tools.

There are good, detailed records of MVIC's historical diversion and storage, but little record of deliveries to users in the system. To know where and how water is being used is necessary to determine where improvements might be most beneficial, and consequently measure the effectiveness of those improvements. Therefore this project seeks to provide the means for developing good system delivery records.

The company plans to purchase three software packages from TruePoint Solutions, a software and services company focused on water management solutions, a critical tool to the MVIC effort to improve management and operational decisions that result in efficient use of water.

MVIC will provide the computer hardware and staff to implement and operate the software on a long-term basis. MVIC has already installed a SCADA system to monitor flow rates and operate water conservation facilities. The new computer software will complement and enhance the capabilities of the current system and greatly enhance the ability of management to attain goals of efficient water delivery and use.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

Discussion:

As identified in the SWSI findings, small agricultural water users often lack the financial ability to adequately address infrastructure needs without financial aid. This project will ultimately improve irrigation efficiency and increase water available for agricultural use. Both of these are identified in SWSI and the Southwest Basin's consumptive needs assessments. Specifically, the Basin recognizes the need to improve and maintain existing infrastructure. In addition, this project seeks to maintain the use of a pre-Colorado River Compact water right. The proposed project effectively meets the objectives of HB 1177 and the consumptive needs of the Southwest Basin by rehabilitating existing infrastructure to preserve agricultural water use.

In addition, this project builds on work completed with previous CWCB funding. As part of their greater analysis of system-wide operations and efficiencies, MVIC has completed a bathymetric survey of Groundhog Reservoir with \$35,000 of CWCB funds. A CWCB loan for engineering and construction costs related to the Lone Pine and May Pipeline Improvements Project was approved at the March 2012 board meeting for up to \$439,603 (\$435,250 for project costs and \$4,353 for the 1% Loan Service Fee). Following construction, the loan will be amended to a long-term loan in an amount not to exceed \$339,603 (\$335,250 for the remaining balance of the Project and \$4,353 for the Loan Service Fee).

Issues/Additional Needs:

No issues or additional needs remain.

Staff Recommendation:

Staff recommends approval of up to \$52,500 from the Southwest Basin Account to help complete the project titled: Improved Water Use, Conservation, Management and Operations through the Implementation of Water Accounting Software.

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: 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.

Final Deliverable: 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 Agenda Item 25.g

Applicant: Red Mesa Reservoir & Ditch Company

Water Activity Name: Red Mesa Dam & Reservoir – Spillway Alternatives Analysis

Water Activity Purpose: Study or Analysis of Structural and Nonstructural Water Project

County: La Plata County

Drainage Basin: La Plata River

Water Source: La Plata River and Hay Gulch

Amount Requested: \$19,400 (Southwest Basin Account)

Matching Funds: none

Staff Recommendation

Staff recommends approval of up to \$19,400 from the Southwest Basin Account to fund the Red Mesa Dam & Reservoir – Spillway Alternatives Analysis.

Water Activity Summary:

The Colorado State Engineer (SEO) has identified the spillway at Red Mesa Dam as seriously deficient in flood routing capacity and has directed the owners to bring the spillway into compliance with the dam safety requirements for a high hazard dam, or face significant storage restrictions or a possible breach order. A time frame of approximately three years has been established to achieve compliance. The proposed water activity will assist in the selection of an appropriate, cost-effective methodology for complying with the SEO requirement.

In 2009, Red Mesa received WSRA basin grant funding from the SW Basins Roundtable for an Incremental Damage Analysis (IDA) and Emergency Action Plan (EAP), in the amount of \$29,000. Red Mesa provided matching funds of \$3,000. While the IDA did not result in the hoped-for result of a decreased inflow design flood requirement, the study did include a new hydrologic analysis using the SEO's Extreme Precipitation Analysis Tool (EPAT) which was accepted for use by the SEO. The inflow design flood peak obtained via EPAT, while still large, is significantly smaller than that obtained by previous analyses and will serve as the basis for spillway design.

The next logical step in proceeding with spillway design, and the one proposed for funding herein, is to perform an initial evaluation of alternatives available for passing the inflow design flood through the reservoir without endangering the dam, in order to establish expected relative cost levels of the alternatives. At this point, it is clear that a "low-cost" alternative to achieving compliance with the SEO requirements is not available; therefore it is necessary to evaluate the relative cost-effectiveness of all of the alternatives. Alternatives under consideration include the following:

- Constructing a full breach of the dam to SEO requirements to eliminate reservoir storage and the hazard potential it presents (essentially the "do-nothing" alternative).
- Constructing a new, compliant spillway through the left abutment at the same overflow elevation as the current spillway, while utilizing material removed from the spillway channel excavation to raise the dam

- crest and provide more routing freeboard. This would be done as an optimization problem to achieve the best balance of spillway width and embankment crest raising.
- Hardening of the existing dam crest and downstream slope with roller-compacted concrete (RCC), to allow it to withstand the overtopping of the dam by the inflow design flood, combined with a much smaller SEO compliant spillway of approximately 100-year capacity.

Because each of these alternatives is likely to present significant costs, Red Mesa would also like to include two reservoir enlargement scenarios for evaluation, to determine if the value of the additional storage would be sufficient to offset some of the cost of spillway and dam modification construction; both enlargement scenarios include spillway size optimization, as described above:

- Raising the normal storage level by 4 feet (approximately 250 AF of increased storage)
- Raising the normal storage level by 8 feet (approximately 550 AF of increased storage)

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria. No Statewide funds are being requested, therefore the evaluation criteria does not apply.

Discussion:

The need for continued and/or improved water supply and storage within the La Plata River drainage, commonly referred to locally as "the dry side," was identified by the Southwest Basin Water Supply and Needs Report. This conclusion was reinforced by the SWSI 2010 Report, where Water District 33 (the La Plata River Basin) was identified as having a clear and significant deficiency of agricultural water supply, often amounting to more than half of the annual irrigation water requirement for that basin. The La Plata basin is, in fact, identified by SWSI 2010 as one of the most seriously water-deficient basins in the state.

The Animas - La Plata Project, as originally conceived and developed by the U. S. Department of Interior, would have resolved much of the water supply problem on the La Plata River drainage. However, the irrigation water supply component for the La Plata side was ultimately removed from the project as a condition of gaining approval. Thus, irrigation and storage needs on the La Plata drainage were never addressed, and irrigation water remains in short supply, frequently affected by flow delivery requirements of the La Plata River Compact with New Mexico.

The analysis activity currently proposed by this application will assist in the decision-making process for assuring continued usage of the decreed storage within the reservoir, thereby maintaining the existing water supply within the La Plata River drainage, without requiring the need for developing new water sources. A favorable outcome regarding the economics of reservoir enlargement as a component of spillway improvement activities could be expected to ultimately help relieve some of the water supply shortages which currently exist in the La Plata River drainage. The proposed project effectively meets the objectives of HB 1177 and the consumptive needs of the Southwest Basin by rehabilitating existing infrastructure to achieve significant savings of agricultural water.

Issues/Additional Needs:

No issues or additional needs remain.

Staff Recommendation:

Staff recommends approval of up to \$19,400 from the Southwest Basin Account to fund the Red Mesa Dam & Reservoir – Spillway Alternatives Analysis.

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: 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.

Final Deliverable: 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 Agenda Item 25.h

Applicant: Rio Grande Headwaters Land Trust (RiGHT)

Water Activity Name: Rio Grande Initiative: Haywood Ranch Conservation Easement

Water Activity Purpose: Nonstructural Consumptive and Nonconsumptive Water Project

County: Rio Grande County

Drainage Basin: Rio Grande River **Water Source:** Rio Grande River

Amount Requested: \$400,000 (Statewide Account); \$25,000 (Rio Grande Basin Account)

Matching Funds: \$300,000 (cash, NAWCA grant); \$400,000 (in-kind, landowner donation)

Staff Recommendation

Staff recommends approval of up to \$400,000 from the Statewide Account and \$25,000 from the Rio Grande Basin Account to partially fund the Rio Grande Initiative: Haywood Ranch Conservation Easement.

Water Activity Summary:

The Rio Grande Initiative of the Rio Grande Headwaters Land Trust (RiGHT) is a collaborative, community-based, landscape-scale effort to protect the land and water along the Rio Grande river corridor through voluntary, incentive-based, permanent conservation easements, with over 22,000 acres and 39 miles protected to date. The requested funds will be used by the Rio Grande Headwaters Land Trust for the acquisition of a conservation easement on an important, 400-acre Rio Grande river corridor working ranch and its 30% share of the #1 senior water right on the Rio Grande, the Silva Ditch.

This conservation opportunity will directly protect senior surface water rights in order to help sustain the historic water use patterns along the Rio Grande, while securing the agricultural productivity as part of the economic base of the San Luis Valley, important wildlife habitat, the flood plain function of the river corridor, and beauty of the scenic landscape. This is accomplished through a willing-seller/willing-buyer process for a voluntary conservation easement, which is purchased through a bargain sale and includes a substantial charitable donation of value (approximately 35%) by the landowner. The Rio Grande Initiative provides vital benefits to both consumptive and non-consumptive water needs in the Rio Grande Basin and contributes to the overall goal of the roundtable to achieve water sustainability.

WSRA funds will be used solely toward the acquisition of the conservation easement, serving as important matching funds for the project. All other related costs for personnel, due diligence, etc. will be borne by RiGHT, the landowner and/or other funders. The WSRA funds would be expended at closing on the conservation easement through a Title Company and only when all the due diligence is finalized, in a similar process to the prior WSRA awards.

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: The project and RiGHT's overall Rio Grande Initiative achieve direct protection of river corridor land and senior surface water rights, which addresses both non-consumptive and consumptive needs and benefits multiple entities and interests in the Rio Grande Basin and on behalf of the State, specifically for the wildlife benefits and for the sustainable administration of the Rio Grande Compact. The project has received diverse support, including: RGWCD, RGWUA, City of Monte Vista, Rio Grande County, DWR, CPW, USFWS, USFS, BLM, NRCS, TNC, DU, and others. The Haywood Ranch lies within an area of key attributes as identified through the non-

consumptive needs process conducted by the Rio Grande Basin Round Table, including its wetlands and riparian zone wildlife habitat. In addition, it is a working ranch with consumptive use of senior water rights. Both of these needs are served and sustained by conserving the land and water as proposed. The application does an excellent and thorough job of articulating how the project meets numerous SWSI objectives.

- Tier 2: Facilitating Water Activity Implementation: Without WSRA funding, this project could be pushed back for a year or more while other sources of funding are secured, during which time the price of land conservation could rise and with stalled momentum, the landowner might lose interest. In addition, historic water use patterns, riparian wetlands, water quality, scenic landscapes, wildlife corridors and habitat are all threatened by accelerating development, the demands for augmentation water for wells, and increased demands on the river. The requested WSRA funds will be matched with funds of \$300,000 from NAWCA (application submitted July 2012) and a contribution of approximately 35% of the conservation easement value from the landowners, totaling approximately \$700,000 in match for this project. (Note that the actual amount of the landowner donation is determined by the final appraisal.)
- Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits: The 400-acre project parcel targeted for protection is within the Rio Grande river's floodplain and includes approximately 2/10ths of a mile of the river and over 160 acres of important wetlands along with a substantial portion of the #1 senior water right on the Rio Grande that sustains them. Riparian areas and wetlands along the river corridor provide highly important wildlife habitat for all of the area's wildlife, and for several endangered species. By enacting the easement the project ensures that agriculture and open space are sustained. Preserving historical use patterns is also important to the ongoing administration of the Rio Grande Compact. Finally the project compliments past support from a \$1.5 million WSRA grant in 2008 and another \$70,000 grant in 2011. These funds matched \$7.4 million from a Great Outdoors Colorado (GOCO) Legacy Grant award and numerous other private and public funding sources to achieve six successful conservation easements.

Discussion:

The Rio Grande Initiative's direct protection of lands within the floodplain and senior surface water rights addresses both consumptive and non-consumptive needs, and benefits multiple entities and interests in the Rio Grande. The project will help sustain agricultural productivity in the basin. It will also preserve lands within the floodplain that directly contribute to healthy wildlife populations and flood mitigation. Preserving floodplains in an undeveloped state is a sound strategy for avoiding property damage and loss of life from large flood events. This project will preserve open space in the floodplain upstream of the Town of Monte Vista. Floodplains are attractive to developers because of the amenities and unique natural features they offer. Alternatively, floodplain preservation continues to provide wildlife habitat, flood attenuation, water quality benefits, ground water storage, and agricultural resources.

Issues/Additional Needs:

No issues or additional needs remain.

Staff Recommendation:

Staff recommends approval of up to \$400,000 from the Statewide Account and \$25,000 from the Rio Grande Basin Account to partially fund the Rio Grande Initiative: Haywood Ranch Conservation Easement.

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 Agenda Item 25.j

Applicant: City of Gunnison

Water Activity Name: River System Assessment and Restoration - Gunnison River near Gunnison

Water Activity Purpose: Structural Water Project

County: Gunnison

Drainage Basin: Gunnison

Water Source: Gunnison River Amount Requested: \$220,000

Source of Funds: \$200,000 (Statewide Account); \$20,000 (Gunnison Basin Account)

Matching Funds: \$45,000 (cash); \$27,600 (in-kind match)

Staff Recommendation

Staff recommends approval of up to \$20,000 from the Gunnison Basin Account and \$200,000 from the Statewide account to help fund the Gunnison River System Assessment and Restoration, with the condition of providing additional documentation specified in the Issues/Additional Needs Section.

Water Activity Summary:

The NOAA Habitat Restoration Center recommends that river restoration programs follow a three-step approach: planning and permitting; design and cost estimate; and construction. This grant application follows this recommended process.

According to the CPW geomorphology study, "Local flooding along the reach has historically been contained by large, concrete-rubble levees constructed on one or both sides of the river. The levees have been extended downstream in response to continued flooding."

Colorado Parks and Wildlife and the City of Gunnison recognize that floodplain and channel functions have been significantly altered and agree that improving these functions will be beneficial. Because no development will occur on this reach of the river's floodplain a holistic resource management approach is possible to implement. However, the City requires that a detailed assessment of the alternatives be in order to make an informed decision for using the floodplain located in the City owned open space.

River management alternatives will be developed through a comprehensive review and implementation program using a four-step approach: 1) stream reach survey data collection; 2) definition and assessment of alternative action options to develop preferred alternative(s); 3) development of project designs and detailed cost estimates; and, 4) implementation. The grant details the following tasks and sub-tasks.

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

The application meets the Evaluation Criteria in the following way:

- Tier 1: Promoting Collaboration/Cooperation and Meeting Water Management Goals and Identified Water Needs
 - a. Multipurpose: The project meets both environmental and recreational needs in the area.
 - **b.** Collaboration & Cooperation: Significant cooperation and collaboration is demonstrated in this project, including the partnership Between the City of Gunnison and Colorado Parks and Wildlife.

c. Meets Defined Needs: The reach of the project was identified in the nonconsumptive needs assessment as being a recreational segment.

Tier 2: Facilitating Water Activity Implementation

According to the application, "Investments by CPW and the City to protect and enhance the VanTuyl Ranch and river corridor over the last 20 years have exceeded two million dollars. Significant funds were allocated for the acquisition of the Ranch and river corridor. Colorado Parks and Wildlife and the City expended over \$50,000 combined to develop the VanTuyl Ranch Management Plan, and as previously noted, GOCO provided \$50,000 for the plan's development. The adaptive resource management framework of the Management Plan is the primary impetus for proposing this grant. Furthermore, during the past four years the City and CPW have worked together to establish easements for public access and have spent approximately \$200,000 for a trail system which now allows easy non-motorized public access to this unique river corridor system." Furthermore, the applicants indicate that they have exhausted their resources for this grant.

Tier 3: The Water Activity Addresses Other Issues of Statewide Value and Maximizes Benefits. The projects will help meet identified recreational needs associated with boating and fishing. In addition, the project aims to focus recreational activities close to the town and away from Gunnison Sage Grouse habitat. This bird species is identified as a species of concern by CPW.

Discussion:

This reach is adjacent to the City of Gunnison, and will have significant recreational use.

Issues/Additional Needs:

Please provide the following additional detail:

- Please identify which fish species the project plans to assist.
- Please include detail on monitoring efforts for the success of any improved aquatic and riparian habitat, and for the revegetated areas.

Staff Recommendation:

Staff recommends approval of up to \$20,000 from the Gunnison Basin Account and \$200,000 from the Statewide account to help fund the Gunnison River System Assessment and Restoration, with the condition of providing additional documentation specified in the Issues/Additional Needs Section.

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: 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.

Final Deliverable: 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 Agenda Item 25.k

Applicant: Greenway Foundation

Water Activity Name: Denver South Platte River Implementation Project –

Frontier/Overland Final Design

Water Activity Purpose: Structural Water Project

County: Denver

Drainage Basin: South Platte River **Water Source:** South Platte River

Amount Requested: \$500,000

Source of Funds: \$300,000 (Statewide Account), \$175,000 (Metro Basin Account), and

\$25,000 (South Platte Basin Account)

Matching Funds: \$3,600,000 specifically for the Frontier/Overland Park Project (\$1.9M of a \$4.6M GOCO Grant to the City and County of Denver, \$1.7M Shattuck Natural Resource Damages Funds)

Staff Recommendation

Staff recommends approval of up to \$175,000 from the Metro Basin Account, \$25,000 from the South Platte Basin Account, and \$300,000 from the Statewide Account to help fund the final design of the Frontier/Overland Park project upon the condition of providing the additional documentation specified in the Issues/Additional Needs section.

Water Activity Summary:

This Water Supply Reserve Account (WSRA) grant will progress the South Platte River Recreation and Habitat Improvements Preliminary Design effort through final design. A previous WSRA Grant funded \$250,000 for the South Platte River Recreation and Habitat Improvement Preliminary Design. This grant focuses on one priority area and supports the final design of a project and secure required permits that has already secured funds to build it.

The project will support river improvements targeting non-consumptive needs including boating, tubing, fishing and wildlife enhancements in this urban environment. Within the Project Area, non-native and invasive vegetation species will be removed and replaced with representative native vegetation within the South Platte River watershed. The vegetation will be monitored and maintained for a minimum of three years.

This project will result in significantly improved access for recreation, including boat launch ramps and jetties, access trails and trailheads (within the immediate vicinity of the south Platte River) and new trail segments affected by grading and re-vegetation work as well as bank re-grading/wetlands/native vegetation restoration to allow users to engage in a variety of recreational activities.

Proposed improvements at *Grant Frontier Park and Pasquinel's Landing* include laying back a portion of the east bank of the River, establishing emergent benches, and design of in-channel habitat structures for native fish species and macroinvertabrates. The drop structure near West Evans Avenue will be modified to promote fish movement (upstream and downstream) and develop additional foraging and spawning areas in addition to providing enhanced boating opportunity.

Proposed improvements at *Overland Park* include establishing a series of pools and riffles to provide aquatic habitat (resting, foraging and spawning). This will also improve boating, because the existing drop structure is dangerous to navigate.

A concept plan figure and map are provided at the end of this summary sheet.

As stated in the scope of work, the grant will complete the following tasks:

- Task 1 Project Management and Meetings
- Task 2 Data Acquisition and Field Investigations
- Tasks 3 through 5 Final Design Development (60-, 90-, and 100-percent design documents)
- Task 6 Floodplain Analysis and Hydraulic Modeling
- Task 7 Permitting

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

The application meets the Evaluation Criteria in the following way:

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

- a. Multipurpose: The project meets both environmental and recreational needs in the area.
- b. Collaboration & Cooperation: Significant cooperation and collaboration is demonstrated in this project, including working with GOCO, the City and County of Denver, Urban Drainage and Flood Control District, and joint funding from both the Metro and South Platte Roundtables.
- c. Meets Defined Needs: The reach of the project was identified in the nonconsumptive needs assessment as being a recreational focus area.

Tier 2: Facilitating Water Activity Implementation

The applicant indicated that finding funding for final design is difficult compared to funding construction of a project. Therefore, this grant helps the project's success. There are significant matching funds demonstrated for this project.

Tier 3: The Water Activity Addresses Other Issues of Statewide Value and Maximizes Benefits. The projects will help meet recreational needs.

Discussion:

Along with the Gore Canyon Whitewater Park project, this grant would be the first time significant statewide resources would be spent on final design or construction of river recreation structures.

Issues/Additional Needs:

Please provide the following additional detail:

- Please identify which fish species the project plans to assist.
- Please provide the full scope of work for construction as a separate attachment
- Please include detail on monitoring efforts for success of improved aquatic habitat for fish and macroinvertebrate species once the project is complete.

Staff Recommendation:

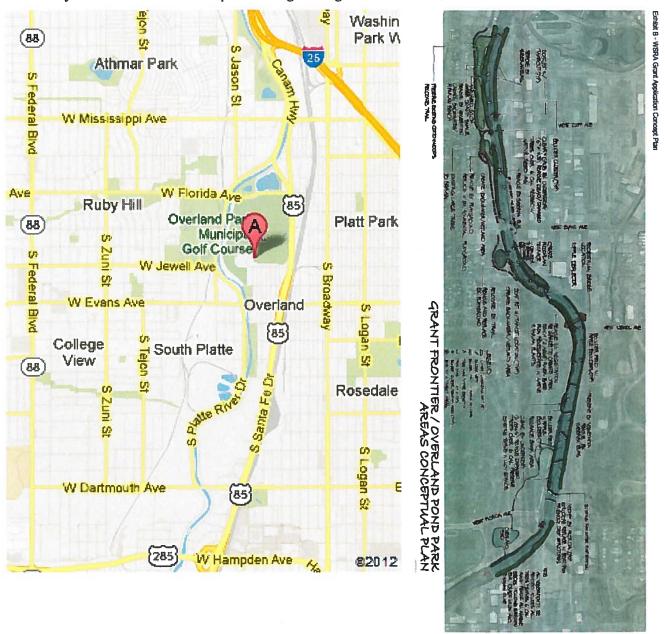
Staff recommends approval of up to \$175,000 from the Metro Basin Account, \$25,000 from the South Platte Basin Account, and \$300,000 from the Statewide Account to help fund the final design of the Frontier/ Overland Park project upon the condition of providing the additional documentation specified in the Issues/Additional Needs section.

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: 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.

Final Deliverable: 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 Agenda Item 25.m

Applicant: Robinson Ditch Company

Water Activity Name: Robinson Ditch Piping Improvements

Water Activity Purpose: Structural Water Project

County: Eagle County

Drainage Basin: Colorado River **Water Source:** Roaring Fork River

Amount Requested: \$120,000

Source of Funds: Colorado Basin Account

Matching Funds: \$140,000 (applicant)

Staff Recommendation

Staff recommends approval of up to \$60,000 from the Colorado Basin Account to help complete the project titled: Robinson Ditch Piping Improvements, on the condition that the issues and additional needs are met.

Water Activity Summary:

The Robinson Ditch Company provides irrigation water to its shareholders who include many agricultural ranches and two tree nurseries. The Robinson Ditch is decreed for 40.26 cubic feet per second (cfs) and diverts off the north bank of the Roaring Fork River.

Since the mid-1950's, homeowners and business have encroached above and below the ditch. Cottonwood trees and willows that have grown into the side banks of the ditch are near the end of their life span. As the trees die, the roots of the tree that have penetrated the ditch banks decay and potentially provide a conduit for leaks. In turn, the leaks have a strong potential to increase the breach risk which in turn creates an unsafe condition for those homes and business now located below the ditch.

To address this issue, the Robinson Ditch Company has been piping high risk and unsafe portions of the Ditch over the last several years. Piping of the ditch significantly increases safety for the homeowners and business below the ditch. Piping of the ditch also has the additional benefits of conveying water more efficiently and conserving water by stopping leakage and evaporation (ditch loss). Funding will be used to pipe approximately 1,000 lineal feet of the Robinson Ditch over a four year period.

The grant lists the following objectives:

- Increase safety for the homes and business located below the ditch;
- Increase the efficiency of the ditch; and
- Water conservation due to increased ditch efficiency.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

Discussion:

There was significant discussion at the roundtable about this project. Many roundtable members believed that the project had potential to be a multi-purpose project by using the efficiency savings for other needs. Other members believed that the project could be expedited through a combination of grants and loans. Some members believed this project was primarily a safety project and not appropriate for WSRA funding. There was also concern raised about the cottonwoods along the ditch dying and there not being a vegetation management plan or outreach to the

community about how the plans of the ditch could affect the cottonwoods. In the end, the roundtable voted to approve funds of \$60,000 to the applicant and encouraged them to seek loan funding for the remaining amount. There was one dissenting opinion due to the fact that there was no community outreach or revegetation plan.

Issues/Additional Needs:

Please provide the following:

- A revised scope of work and schedule for how the project will be successful with only \$60,000 in funds, since the applicant has indicated that they do not need loan funding.
- Confirmation that neighboring property owners will be notified of construction adjacent to their property.

Staff Recommendation:

Staff recommends approval, on the condition that the issues and additional needs are met, of up to \$60,000 from the Colorado Basin Account to help complete the project titled: Robinson Ditch Piping Improvements.

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: 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.

Final Deliverable: 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 Agenda Item 25.n

Applicant: Blue River Watershed Group (BRWG)

Water Activity Name: Tenmile Creek Restoration Project

Water Activity Purpose: Non-consumptive Structural Water Project

County: Summit

Drainage Basin: Colorado

Water Source: Tenmile Creek
Amount Requested: \$350,000

Source of Funds: \$332,500 (Statewide Account) and \$17,500 (Colorado Basin Account)

Matching Funds: 270,000 (\$60,000 cash and \$210,000 material in-kind). Match is 44% of total

project cost. Match is 86% of statewide request (including basin funds).

Staff Recommendation

Staff recommends approval upon the condition of addressing concerns specified below in the Issues/Additional Needs section of up to \$17,500 from the Colorado Basin Account and \$332,500 from the Statewide account to help fund the Tenmile Creek Restoration Project.

Water Activity Summary:

This project includes stream and floodplain restoration, soil amendment, wetlands creation, and revegetation in a heavily impacted reach of Tenmile Creek near the Copper Mountain ski area. Funding will be used for: 1) securing materials for restoration work such as soil amendment products and native plants; 2) producing construction drawings from a design that has already been completed; 3) excavation and earthmoving; 4) instream habitat improvements; 5) incorporating soil amendments; 6) planting native vegetation; 7) wetlands creation; 8) documentation of the project for outreach and monitoring; and 9) supporting project management and oversight by the Blue River Watershed Group.

The restoration area has been impacted by historic mining, timber harvest, ski area development, and railroad and highway construction. Development along Tenmile Creek has altered its course and narrowed its floodplain. Tenmile Creek has been altered by widespread deposition of sediments, including sediments from mining activity. The resulting morphology is a braided stream channel flowing over poorly vegetated alluvium. Additionally, direct inputs of storm water, traction sand, and petroleum products from State Highway 91 affect water quality in Tenmile Creek.

Discussion:

This project will enhance floodplain connectivity, fish habitat quality, scenery, and wetlands function by recreating the stream morphology and floodplain characteristics that existed before mining and development. The project will increase sinuosity and length in the stream channel, increase pool habitat and cover for fish, and increase the total area of vegetated wetlands. The project will improve recreational opportunities and public access to Tenmile Creek. The project will create a vegetated buffer between the stream and State Highway 91, reducing stream sedimentation and flood damage to the highway. The project also incorporates an education and outreach component by using volunteers to plant riparian plant species.

Issues/Additional Needs:

• Staff requests that BRWG make a good faith effort to secure other funding for this project. This can be accomplished by applying to grant programs outside of that which CWCB offers. Staff

recommends that BRWG seek an additional \$100,000 to offset the total amount needed from the Water Supply Reserve Account. Staff recommends that BRWG seek this funding from its partners.

- Staff will work with BRWG to incorporate appropriate signage at public access location(s)
- BRWG should work with CWCB Staff to ensure that geomorphic monitoring conforms to CWCB Measurable Results Program criteria.
- All proposed river channel work shall conform to the CWCB <u>Rules and Regulations for Regulatory Floodplains in Colorado</u>.

Staff Recommendation:

Staff recommends approval upon the condition of addressing concerns specified above in the Issues/Additional Needs section of up to \$17,500 from the Colorado Basin Account and \$332,500 from the Statewide account to help fund the Tenmile Creek Restoration 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: 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.

Final Deliverable: 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 Agenda Item 25.0

Applicant: Eagle River Watershed Council (ERWC)

Water Activity Name: Colorado River Restoration and Conservation Projects

Water Activity Purpose: Non-consumptive Non-Structural Water Project

County: Eagle

Drainage Basin: Colorado

Water Source: Colorado River Amount Requested: \$110,000

Source of Funds: \$90,000 (Statewide Account) and \$20,000 (Colorado Basin Account)

Matching Funds: 86,501 (\$56,501 outside sources and \$55,000 other CWCB sources). \$30,000 provided through prior Colorado Basin application and \$25,000 provided through CWCB Multi-Objective Watershed Protection Program. Match is 39% of total project cost. Match is 41% of statewide request (including basin and other CWCB funds). Non-CWCB match is 26% of total project cost.

Staff Recommendation

Staff recommends approval upon the condition of addressing concerns specified below in the Issues/Additional Needs section of up to \$20,000 from the Colorado Basin Account and \$90,000 from the Statewide account to help fund the Colorado River Restoration and Conservation Projects.

Water Activity Summary:

The objective of ERWC's planning effort is to develop several restoration and conservation projects on the Colorado River in Eagle County. The science based evaluation of the river will result in an inventory and assessment that prioritizes future implementation projects. The assessment will:

- Inventory channel, riparian, and upland characteristics that influence the ecologic function, recreational opportunities, aesthetic values of the Colorado River and its major tributaries in Eagle County
- Analyze existing monitoring data and information to assess the present status of the river corridor
- Conduct field surveys of biologic, geomorphic, and chemical attributes to supplement exiting information
- Identify and describe potential rehabilitation projects and explain likely outcomes if implemented
- Assess the current and potential impact that recreation has on the river
- Prioritize rehabilitation projects in a decision matrix based on likelihood of success, potential benefits, cost estimates, and stakeholder input
- Produce a report describing the results of the inventory that includes prioritized recommendations for rehabilitation projects.

Discussion:

The proposed project is designed to identify projects which may be both consumptive and non-consumptive. The inventory and assessment will prioritize projects through a science based evaluation. ERWC has

identified funding sources for implementation projects identified through this effort. CWCB staff supports watershed assessment and prioritization phases prior to project implementation. This approach allows for a watershed wide comparison of projects that improve ecologic function and support the goals of the resident stakeholders. CWCB staff will be attending stakeholder meetings to provide technical assistance. Other stakeholders include Eagle County, NRCS, Eagle County Soil Conservation District, CPW, CRWCD, BLM, USFS, USGS, USACE, Trout Unlimited, The Nature Conservancy, CSU, landowners, and major water rights owners.

Issues/Additional Needs:

• ERWC will be working with Colorado State University to develop the report. The CSU indirect cost should not exceed 15%.

Staff Recommendation:

Staff recommends approval upon the condition of addressing concerns specified above in the Issues/Additional Needs section of up to \$20,000 from the Colorado Basin Account and \$90,000 from the Statewide account to help fund the Colorado River Restoration and Conservation Projects.

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: 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.

Final Deliverable: 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 Agenda Item 25.p

Applicant: Grand County

Water Activity Name: Gore Canyon Whitewater Park at Pumphouse - Colorado River

Water Activity Purpose: Structural Water Project

County: Grand

Drainage Basin: Colorado River

Water Source: Colorado River Amount Requested: \$500,000

Source of Funds: \$400,000 (Statewide Account) and \$100,000 (Basin Account)

Matching Funds: The required project match for this grant application is exceeded. Grand County has committed about \$600,000, or 35% to the total project cost of \$1,686,114, of which \$1,190,700 is for construction. Grand County has already invested \$495,414 in the project although only about \$40,000 of those funds have been spent in the last 9 months as is required to be eligible for sponsor match. An additional \$60,000 of Grand County funds is committed to complete the construction, making the eligible match from the project sponsor a total of \$100,000. Grand County is currently implementing plans to raise \$600,000, or 35% from boaters and other recreation industry partners. 6% of the total project cost is sought from the Colorado Basin Fund and 23% of the total project cost is sought from the Statewide Fund."

Staff Recommendation

Staff recommends denial of this application at this time with encouragement that the applicant pursue WSRA funding at a later date.

Water Activity Summary:

The CWCB Board recently made findings of fact related to the RICD through Gore Canyon as required pursuant to the CWCB's statutory authority. This RICD water right application is currently going through water court. The purpose of this project is to construct a Gore Canyon Whitewater Park at Pumphouse on the Upper Colorado River in Grand County. This includes heavy construction in the river, bank work and revegetation associated with the development of the structures that create the waves and other hydraulic features of the park. This "park and play" Whitewater Park is in an existing BLM recreational site and will provide safe and easy access for play boating between the challenging Class IV section of Gore Canyon and the family friendly Class II/III section from the Pumphouse to the State Bridge.

One of the benefits of the project is that it creates a niche for Grand County in the fall, where there are few boating opportunities statewide. The many letters submitted to CWCB during the RICD hearing indicate an interest across the state for using this amenity.

The main objective of the project is to take all steps necessary to complete the construction of the structures in accordance with the designs submitted as part of the RICD so that the Gore Canyon Whitewater Park at Pumphouse will perform as described and fill the nonconsumptive recreational needs of the Upper Colorado River.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria. The application meets the Evaluation Criteria in the following way:

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

a. Multipurpose: The applicant indicates that this application supports the Colorado River Cooperative Agreement (CRCA). The agreement states: "Support for RICD. If information made available on the locations being considered, the impacts to the Wild and Scenic River issues, and the purpose and amount of the filing demonstrate the lack of an impact on Denver Water's operations, Denver Water agrees not to oppose a Recreational In-Channel Diversion ("RICD") filing for the Colorado River below Gore Canyon in the Pumphouse reach above the Grand/Eagle County line." Denver Water has submitted a letter supporting the project.

Viewed in this context, the project does have multi-purpose benefits. Furthermore, the cooperative agreement involving Grand County and Northern Water Conservancy District regarding Windy Gap firming may have similar language, but that agreement has not yet been finalized.

The grant itself is narrowly focused on meeting recreational needs. However, some concern was expressed during discussions with the Metro Roundtable that the RICD itself could foreclose Green Mountain Pumpback as a potential future transbasin project. The CRCA discusses the potential for an Upper Colorado Cooperative Project, defined as "A water supply project located on the West Slope, agreed to by Denver Water and the West Slope Signatories to this Agreement, and designed to produce water for use on the East and West Slopes, including at least 20,000 acre-feet of average annual diversions for use on the East Slope."

It is not clear how this clause and the RICD clause relate. However, according to analysis conducted as part of the RICD hearing, the RICD could impact the ability to divert 20,400 acre feet or more of future upstream diversions between April 5th and Oct 15th. The Green Mountain Pumpback studied as part of SWSI would yield 68,000 acre feet. A full analysis regarding Green Mountain Pumpback and associated infrastructure, such as Wolcott has not been conducted. However, the RICD would likely have a significant impact on the ability for such a project to produce sufficient yield, meet environmental requirements, and be junior to the RICD.

Note that the construction of the project itself would not impact water availability. Only the RICD water right does, and these two issues should be distinguished from each other.

- b. Collaboration & Cooperation: There are a large array of support letters and funders for this project.
- c. Meets Defined Needs: This project has been identified as an important part of the area's recreational needs by a number of parties, and this reach is included in the Colorado Basin's nonconsumptive needs assessment and as part of Grand County's Stream Management Plan, which was partially funded through WSRA grants.

Tier 2: Facilitating Water Activity Implementation

Funding will likely reduce the uncertainty that the project will be implemented. According to the budget, there will be \$690,700 of matching funds spent on this project during construction and for operation and maintenance, representing 138% of grant requests. The applicants have spent \$495,414 since 2004 to bring the project to the point of implementation but the applicants have only spend <\$40,000 within the last nine months, which counts towards the match requirement. This demonstrates a significant and appropriate commitment. However, the majority of the match has not been secured, though funding the application may help the applicant raise the remaining funds.

Tier 3: The Water Activity Addresses Other Issues of Statewide Value and Maximizes Benefits. The project will help meet recreational needs. However, this would be the first application for statewide dollars for funding the construction of a whitewater park for recreational purposes.

Discussion:

After careful review by several staff, there have been several points of discussion. These include:

- 1) The timing of the grant is prior to the issuance of a RICD decree by the water court and prior to the agreement with Northern Colorado Water Conservancy district being finalized.
- 2) The agreement that West Slope entities, including Grand County have with Denver Water, and potentially Northern, do not necessarily extend to other East Slope entities that could need the water.
- 3) A significant portion of the match has not been secured.
- 4) Staff agrees that the protections the RICD affords for recreational uses are valuable to the local economy and for meeting recreational needs in the state, and that the whitewater park would further enhance this value. However, given the uncertainty of issues noted above, this project may not currently be a good candidate for WSRA funding.

Staff Recommendation:

Staff recommends denial of this application at this time with encouragement that the applicant pursue WSRA funding at a later date. Staff believes that this project is not a good fit for WSRA funding at this time due to the following issues:

- A significant portion of the project costs have yet to be raised. Acquiring the necessary funds from boaters and other recreation industry partners as planned may take a significant amount of time and effort.
- The RICD decree has not yet been issued by the water court.
- The cooperative agreement involving Grand County and Northern Water Conservancy District with regard to Windy Gap firming is currently unresolved.
- Despite language regarding Denver Water in the CRCA, there may be unresolved concerns among other members of the water community (such as those expressed at the Metro Roundtable) that the RICD could potentially foreclose the Green Mountain Pumpback as a potential future transbasin project.
- Since this project would set a precedent for WSRA funding of RICD's it is important that all potential issues be resolved.

Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet Agenda Item 25.q

Applicant: Roaring Fork Conservancy (RFC)

Water Activity Name: Crystal River Watershed - Assessment and Design of Restoration Projects

Water Activity Purpose: Non-consumptive Non-Structural and Structural Water Project

County: Pitkin

Drainage Basin: Colorado

Water Source: Crystal River & Coal Creek

Amount Requested: \$317,073

Source of Funds: \$301,219 (Statewide Account) and \$15,854 (Colorado Basin Account)

Matching Funds: 194,961 (\$106,541 cash match and \$88,420 in-kind match). \$39,578 provided through CWCB Colorado Watershed Restoration Program. Match is 38% of total project cost. Match is 65% of statewide request (including basin and other CWCB funds). Non-CWCB match is 30% of

total project cost.

Staff Recommendation

Staff recommends approval upon the condition of addressing concerns specified below in the Issues/Additional Needs section of up to \$15,854 from the Colorado Basin Account and \$317,073 from the Statewide account to help fund the Crystal River Watershed – Assessment and Design of Restoration Projects.

Water Activity Summary:

Funding is being sought to engage private consultants and a USFS-Rocky Mountain Research Station research geomorphologist to work on high-level, sub-watershed and site-specific land use and geomorphic assessments (Tasks #1 and #2) to provide the data necessary to design a comprehensive restoration plan for Coal Basin, the Coal Creek road corridor, and the highly-altered Coal Creek/Crystal River confluence area. The restoration plan will include the design and prioritization of site- and process-specific projects to achieve multiple non-consumptive objectives: (1) attenuate the Crystal River hydrograph, (2) contribute to the restoration of floodplain function at the Coal Creek/Crystal River confluence area, (3) improve overall riparian and in-stream habitat, and (4) reduce sediment and total iron delivery to the Crystal River from Coal Creek. This part of the project will use the Watershed Assessment of River Stability and Sediment Supply (WARSSS) as a guide.

WSRA funding will also be used to cover the cost of equipment and the labor associated with installing a permanent stream gage and companion meteorological station in Coal Basin to collect basic hydrologic/meteorologic information. One year of operation and maintenance (O&M) costs for the stream gage, suspended sediment sample processing and sampler maintenance, as well as coarse sample processing will also be covered by WSRA funds. (Task #3)

In Task #4 of the project, RFC will be collecting, analyzing and reporting water quality and macroinvertebrate data in Coal Basin and the Crystal River. These efforts are necessary to support the design of site- and process specific mitigation measures, and to determine the effectiveness of restoration efforts in the Coal Creek watershed. WSRA funds primarily will be used to cover a portion of the costs associated with macroinvertebrate analysis and water quality data analysis and interpretation.

RFC will be completing a 10.88 decommissioned mining road reclamation effort in Coal Basin (Task #5). The reclamation project will use biochar mixed with compost applied to constructed alluvial fans in some areas.

The upper portion of the old mining haul road at the project site will be reclaimed by recontouring the land surface to restore a more natural drainage pattern, applying compost. Erosion control materials (waddles, silt fencing, logs, and geotextile fabric) will be used on some of the fill slopes and treated with compost tea. Reclaimed areas will be re-vegetated with native grasses and trees, and fenced to prevent cattle grazing. WSRA funding is being sought to cover the cost of fencing, labor and materials costs associated with tree planting, some of the heavy equipment costs, and some of the personnel costs for a biogeochemist to monitor and report on soil conditions. RFC received \$39,578 from the CWCB Colorado Watershed Restoration Program to help fund Task #5.

Discussion:

The proposed project is designed to protect and enhance environmental and recreational values that benefit local and statewide economies. It is planned to improve channel/floodplain connections that have the potential to mitigate flood hazards while also improving habitat for aquatic and terrestrial species. Tasks 1 & 2 include a pragmatic approach to identify stream instabilities and areas of high sediment mobility. A similar assessment was implemented in the Horse Creek Watershed, tributary to the South Platte River, in the Hayman burn area. This strategy is also being considered for the Waldo Canyon burn area.

Tasks 3 & 4 will gather the baseline pre-implementation monitoring data that RFC will use later to demonstrate the effectiveness of its stabilization efforts. Task 5 is an implementation project proposed to demonstrate the effectiveness of biochar as a stabilizing soil amendment in Coal Basin.

Issues/Additional Needs:

- Staff requests that RFC make a good faith effort to secure other funding for this project. This can be accomplished by applying to grant programs outside of that which CWCB offers. Staff recommends that RFC seek an additional \$100,000 to offset the total amount needed from the Water Supply Reserve Account.
- RFC should work with CWCB Staff to ensure that geomorphic monitoring conforms to CWCB Measurable Results Program criteria.
- All proposed project designs for the Crystal River/Coal Creek confluence shall conform to the CWCB Rules and Regulations for Regulatory Floodplains in Colorado.

Staff Recommendation:

Staff recommends approval upon the condition of addressing concerns specified above in the Issues/Additional Needs section of up to \$15,854 from the Colorado Basin Account and \$317,073 from the Statewide account to help fund the Crystal River Watershed – Assessment and Design of Restoration Projects.

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: 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.

Final Deliverable: 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 Agenda Item 25.r

Applicant: Tamarisk Coalition (TC)

Water Activity Name: Grand Valley Riparian Restoration Collaborative (GVRRC) Project

Water Activity Purpose: Non-consumptive Structural Water Project

County: Mesa

Drainage Basin: Colorado

Water Source: Colorado River Amount Requested: \$250,000

Source of Funds: \$207,274(Statewide Account) and \$42,726 (Colorado Basin Account)

Matching Funds: 177,260 (\$142,980 cash match and \$34,280 in-kind match). 41% of total project

cost. 106% match of statewide request (including basin funds).

Staff Recommendation

Staff recommends approval upon the condition of addressing concerns specified below in the Issues/Additional Needs section of up to \$42,726 from the Colorado Basin Account and \$207,274 from the Statewide account to help fund the Grand Valley Riparian Restoration Collaborative Project.

Water Activity Summary:

The GVRRC strategizes a comprehensive approach to river restoration that includes invasive phreatophyte removal, secondary weed control, riparian re-vegetation with indigenous species, and post-implementation monitoring. The Tamarisk Coalition will coordinate many stakeholders on contiguous river parcels to improve ecologic function of the river and floodplain. Five parcels have been selected for this phase of the GVRRC. Some funding will be used for pre-project site assessments for soil analysis, groundwater monitoring well installation, and other baseline data collection. Physical implementation will be undertaken by specific land managers. TC will coordinate the planning and implementation amongst the many partners while also providing technical assistance. Project coordination amounts to 34% of the total Water Supply Reserve Account request.

Discussion:

The proposed project is designed to protect and enhance environmental and recreational values that benefit local and statewide economies. It is designed to improve channel/floodplain connections that have the potential to mitigate flood hazards while also improving habitat for aquatic and terrestrial species. TC is a technical partner for the CWCB Invasive Phreatophyte Control Program (IPCP). They agree that submitting an application to IPCP would be a conflict of interest.

Issues/Additional Needs:

- TC should work with CWCB Staff to ensure that geomorphic monitoring conforms to CWCB Measurable Results Program criteria.
- TC should work with CWCB Staff to ensure that this phase of GVRRC meets criteria outlined in IPCP.

Staff Recommendation:

Staff recommends approval upon the condition of addressing concerns specified below in the Issues/Additional Needs section of up to \$42,726 from the Colorado Basin Account and \$207,274 from the Statewide account to help fund the Grand Valley Riparian Restoration Collaborative 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: 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.

Final Deliverable: 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.