



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Craig Godbout
Program Manager
Water Supply Planning Section

DATE: September 3, 2015

AGENDA ITEM: 18 (a-o) WSRA Grant Requests

Staff Recommendation - Action Items: WSRA Grant Requests

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

Note #1: As of this date, September 3, 2015, the WSRA July 1, 2015 allocations have not posted to their respective accounts (Basin and Statewide), therefore given the current total ask of the Statewide Account of \$4,191,383 against the current Statewide Account balance of \$3,220,481, the Statewide Account will be negative (-\$970,902). However after the July 1, 2015 WSRA Statewide Account allocation has posted (\$2,560,000), the Statewide Account will return to a positive value (\$1,589,098).

Note #2: Pending a recommendation by the Yampa/White/Green (Y/W/G) Basin Roundtable for the South Metro WISE Authority grant request of \$10,000 from the Y/W/G Basin Roundtable for the *WISE Partnership: Conjunctive Use Infrastructure* which is expected to occur on September 9, 2015 (subsequent to CWCB Board packet preparation and distribution), and if this grant request is recommended for approval by the Y/W/G Basin Roundtable, the Y/W/G Basin Roundtable Chair Approval Letter will be distributed to the CWCB Board as a "red flag" item.

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;
- Summary spreadsheet displaying current WSRA Balance Summary of Fund Appropriations and Receipts by Fiscal Year, and Fund Distribution by Basin and Statewide Account.
- Water Activity Summary Sheets which provide an overview, discussion, issues/additional needs, and staff recommendation regarding funding, partial funding, or not funding the applications.

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 verifies that the applicant was an eligible entity to receive funding (C&G, Part 2).
- 3) Staff then prepares the Water Activity Summary Sheet which documents the outcome of the review process and contains staff's recommendations.

Water Supply Reserve Account Balance Summary and Project Status Report:

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

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



Water Supply Reserve Account Applications for Consideration at the CWCB September 2015 Board Meeting											
Agenda Item	Basin	Applicant	Name of Water Activity	Basin(s) Account Request	Statewide Account Request	Total Request	Applicant's Cash Match	Applicant's In-Kind Match	Applicant's Total Match	Staff Recommendations	PM
18(a)	Arkansas	South Metro Wise Authority	WISE Partnership: Conjunctive Use Infrastructure	\$10,000	\$800,000	\$905,000	\$5,498,022	\$0	\$5,498,022	Staff recommends approval of: \$10,000 from the Arkansas Basin Account; \$10,000 from the Colorado Basin Account; \$10,000 from the Gunnison Basin Account; \$40,000 from the Metro Account; \$10,000 from the North Platte Basin Account; \$15,000 from the South Platte Basin Account; \$10,000 from the Yampa/White/Green Basin Account; and \$800,000 from the Statewide Account.	Derek Johnson
	Colorado			\$10,000							
	Gunnison			\$10,000							
	Metro			\$40,000							
	North Platte			\$10,000							
	South Platte			\$15,000							
	YWG			\$10,000							
18(b)	Arkansas	Huerfano County Water Conservancy District	Cucharas Basin Collaborative Storage Study	\$25,000	\$195,000	\$220,000	\$30,000	\$0	\$30,000	Staff recommends approval of \$25,000 from the Arkansas Basin Account, and \$195,000 from the Statewide Account	Andy Moore
18(c)	Arkansas	Box Springs Canal & Reservoir Company	Agricultural Improvements and Sustainable Water Supply using Horizontal Wells	\$50,000	\$150,000	\$200,000	\$100,000	\$0	\$100,000	Staff recommends approval of \$50,000 from the Arkansas Basin Account, and \$150,000 from the Statewide Account	Brent Newman
18(d)	Arkansas	Lower Arkansas Valley Water Conservancy District	Arkansas Roundtable BIP Coordinator	\$27,880	\$70,000	\$97,880	\$0	\$4,400	\$4,400	Staff recommends approval of \$27,880 from the Arkansas Basin Account, and \$70,000 from the Statewide Account	Brent Newman
18(e)	Colorado	Grand Valley Water Users Association	Grand Valley Roller Dam Rehabilitation Phase I: Development of the Dam and Canyon Facilities Master Plan	\$42,700	\$0	\$42,700	\$5,000	\$25,600	\$30,600	Staff recommends approval of \$42,700 from the Colorado Basin Account	Anna Mauss
18(f)	Gunnison	Ouray County	Upper Uncompahgre Basin Water Supply Protection & Enhancement Project	\$25,000	\$25,000	\$50,000	\$25,000	\$0	\$25,000	Staff recommends approval of \$25,000 from the Gunnison Basin Account, and \$25,000 from the Statewide Account	Brent Newman
18(g)	Metro	Bluff Lake Nature Center	Bluff Lake Nature Center Aquatic Habitat Improvement Project	\$10,000	\$200,000	\$210,000	\$1,350,000	\$1,500,000	\$2,850,000	Staff recommends approval of \$10,000 from the Metro Account, and \$200,000 from the Statewide Account	Craig Godbout
18(h)	North Platte	Ducks Unlimited	MacFarlane Dam Rehabilitation	\$500,000	\$100,000	\$600,000	\$100,000	\$986,465	\$1,086,465	Staff recommends conditional approval of \$500,000 from the North Platte Basin Account, and \$100,000 from the Statewide Account	Jonathan Hernandez
18(i)	North Platte	Jackson County Water Conservancy District	Jackson County Basin-Wide Augmentation Plan	\$161,000	\$0	\$161,000	\$0	\$0	\$0	Staff recommends approval of \$161,000 from the North Platte Basin Account	Craig Godbout
18(j)	Southwest	County of Montrose	West Montrose County Reservoir	\$50,000	\$250,000	\$300,000	\$966,000	\$0	\$966,000	Staff recommends conditional approval of \$50,000 from the Southwest Basin Account, and \$250,000 from the Statewide Account	Kirk Russell
18(k)	Southwest	Florida Consolidated Ditch Company	Hess Lateral Improvement	\$38,750	\$736,250	\$775,000	\$1,725,000	\$0	\$1,725,000	Staff recommends conditional approval of \$38,750 from the North Platte Basin Account, and \$736,250 from the Statewide Account	Anna Mauss
18(l)	Southwest	La Plata West Water Authority	Raw Water Pipeline Upgrade & Operations Funding	\$50,000	\$500,000	\$550,000	\$4,800,000	\$0	\$4,800,000	Staff recommends approval of \$50,000 from the Southwest Basin Account, and \$500,000 from the Statewide Account	Craig Godbout
18(m)	South Platte	Upper Platte and Beaver Canal Company	Upper Platte and Beaver/Deuel and Snyder Feasibility Study	\$46,875	\$46,875	\$93,750	\$31,250	\$0	\$31,250	Staff recommends approval of \$46,875 from the South Platte Basin Account, and \$46,875 from the Statewide Account	Brent Newman
18(n)	South Platte	Boulder County Parks and Open Space	Swede Lake Dam and Reservoir Rehabilitation	\$40,000	\$160,000	\$200,000	\$605,000	\$0	\$605,000	Staff recommends approval of \$40,000 from the South Platte Basin Account, and \$160,000 from the Statewide Account	Brent Newman
18(o)	South Platte	Ducks Unlimited	Water Development of BOR Property (Narrows Tract) Feasibility Study	\$15,554	\$121,633	\$137,187	\$25,000	\$0	\$25,000	Staff recommends approval of \$15,555 from the South Platte Basin Account, and \$121,634 from the Statewide Account	Brent Newman
Loan/Grant Combos											
23(a)	Arkansas	Fort Lyon Canal Company	Horse Creek Flume Replacement	\$50,000	\$450,000	\$500,000	\$1,688,000	\$0	\$1,688,000	Staff recommends approval of \$50,000 from the Arkansas Basin Account, and \$450,000 from the Statewide Account	Derek Johnson
23(b)	Arkansas	Lamar Water and Wastewater Department	Repurposing of Lamar Wells 12 and 13	\$25,000	\$136,625	\$161,625	\$151,675	\$86,700	\$238,375	Staff recommends approval of \$25,000 from the Arkansas Basin Account, and \$136,625 from the Statewide Account	Derek Johnson
23(c)	Arkansas	Parkville Water District	Evans Reservoir Bypass Flume Replacement	\$50,000	\$250,000	\$300,000	\$233,430	\$0	\$233,430	Staff recommends approval of \$50,000 from the Arkansas Basin Account, and \$250,000 from the Statewide Account	Derek Johnson
				\$1,312,759	\$4,191,383	\$5,504,142					

Basin	Basin Account Requests	Statewide Account Requests	Total	Current Basin Account Balances	Remaining Basin Account Balances (if all requests approved)	Current Statewide Account Balance	Remaining Statewide Account Balance (if all requests approved)	Projected Basin Account Balances (post July 2015 FY15-16 Allocation)	Remaining Basin Account Balances (if all requests approved)	Projected Statewide Account Balance (post July 2015 FY15-16 Allocation)	Remaining Statewide Account Balance (if all requests approved)
Arkansas Basin	\$237,880	\$1,251,625	\$1,489,505	\$246,646	\$8,766	\$3,220,481	-\$970,902	\$406,646	\$168,766	\$5,780,481	\$1,589,098
Colorado Basin	\$52,700	\$0	\$52,700	\$362,588	\$309,888			\$522,588	\$469,888		
Gunnison Basin	\$35,000	\$25,000	\$60,000	\$425,961	\$390,961			\$585,961	\$550,961		
Metro	\$50,000	\$1,000,000	\$1,050,000	\$128,494	\$78,494			\$288,494	\$238,494		
North Platte	\$671,000	\$100,000	\$771,000	\$1,263,256	\$592,256			\$1,423,256	\$752,256		
Rio Grande	\$0	\$0	\$0	\$158,013	\$158,013			\$318,013	\$318,013		
Southwest	\$138,750	\$1,486,250	\$1,625,000	\$736,599	\$597,849			\$896,599	\$757,849		
South Platte	\$117,429	\$328,508	\$445,937	\$263,642	\$146,213			\$423,642	\$306,213		
Yampa/White/Green	\$10,000	\$0	\$10,000	\$880,785	\$870,785			\$1,040,785	\$1,030,785		
Water Supply Reserve Account Total Requests	\$1,312,759	\$4,191,383	\$5,504,142	\$4,465,984	\$3,153,225			\$5,905,984	\$4,593,225		

COLORADO WATER CONSERVATION BOARD
Water Supply Reserve Account - Balance Summary
August 2015

Updated 08/01/15

FY16 July 1 Appropriation
has not been posted

Fund Appropriation and Receipts				
Fiscal Year	Legislative Appropriation	Funds Received	Statewide Account	Basin Account
2006/2007	\$10,000,000	\$10,000,000	\$5,500,000	\$4,500,000
2007/2008	\$6,000,000	\$6,000,000	\$4,200,000	\$1,800,000
2008/2009	\$10,000,000	\$7,000,000	\$4,300,000	\$2,700,000
2009/2010	\$5,775,000	\$5,775,000	\$4,215,750	\$1,559,250
2010/2011	\$6,000,000	\$6,000,000	\$4,380,000	\$1,620,000
2011/2012	\$7,000,000	\$7,000,000	\$4,732,000	\$2,268,000
2012/2013	\$10,000,000	\$7,157,724	\$4,580,943	\$2,576,781
2013/2014	\$10,000,000	\$10,091,639	\$6,458,649	\$3,632,990
2014/2015	\$10,000,000	\$10,000,000	\$6,400,000	\$3,600,000
Interest	N/A	\$2,857,935	\$1,829,078	\$0
Prior Years Interest Adjustment			\$1,028,856	\$0
2014/2015 Interest	N/A	\$ 219,536	\$219,536	\$0
2015/2016 Interest	N/A	\$ -	\$0	\$0
TOTAL	\$74,775,000	\$72,101,834	\$47,844,812	\$24,257,021

Interest diverted to SW per DNR reconciliation

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

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

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

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

Fund Distribution					
Basin	Approved Basin Grants	Total Basin Funds	Basin Account Balance	Approved State Grants	Statewide Account Balance
Arkansas	\$2,448,579	\$2,695,225	\$246,646	\$7,113,535	
Colorado	\$2,332,637	\$2,695,225	\$362,588	\$5,164,260	
Southwest	\$1,958,626	\$2,695,225	\$736,599	\$5,270,859	
Gunnison	\$2,269,264	\$2,695,225	\$425,961	\$4,037,791	
Metro	\$2,566,731	\$2,695,225	\$128,494	\$5,713,284	
North Platte	\$1,431,968	\$2,695,225	\$1,263,256	\$408,078	
Rio Grande	\$2,537,212	\$2,695,225	\$158,013	\$10,260,323	
South Platte	\$2,431,583	\$2,695,225	\$263,642	\$6,044,138	
Yampa/White	\$1,814,440	\$2,695,225	\$880,785	\$612,063	
TOTAL	\$19,791,040	\$24,257,021	\$4,465,980	\$44,624,331	\$3,220,481
TOTAL APPROVED GRANTS					\$64,415,371

Note: Only includes grants approved by CWCB

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
September 15-17, 2015
Agenda Item 18(a)

Applicant & Fiscal Agent: South Metro WISE Authority
Water Activity Name: WISE Partnership: Conjunctive Use Infrastructure
Water Activity Purpose: Municipal/Industrial
County: Douglas & Arapahoe
Drainage Basin: Metro
Water Source: Denver Basin Aquifer (Willows Wells)
Amount Requested/Source of Funds: \$105,000 Multiple Basin Accounts
\$800,000 Statewide Account
\$905,000 Total Grant Request

Matching Funds: Basin Accounts Match: \$105,000 = 11.6% of total grant request (meets 5% min);
Basin Accounts & Applicant Match: \$5,603,022 = 619% of total grant request
(meets 25% min);
Applicant Match: \$5,498,022 = 85.9% of total project costs (\$6,403,022)
(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:

Staff recommends approval of up to \$19,000 from the following Basin Accounts:

- Metro Account: \$40,000
- North Platte Basin Account: \$10,000
- South Platte Basin Account: \$15,000
- Colorado Basin Account: \$10,000
- Arkansas Basin Account: \$10,000
- Gunnison Basin Account: \$10,000
- Yampa/White/Green Basin Account: \$10,000 (pending Sept. 9 RT approval)

and \$800,000 from the Statewide Account to help fund the implementation of the water project titled:
WISE Partnership: Conjunctive Use Infrastructure

Water Activity Summary: The Water Infrastructure and Supply Efficiency (WISE) Partnership is a regional water supply project between Aurora Water, Denver Water and the South Metro WISE Authority (WISE Authority) to combine available water supplies and system capacities to create a sustainable new water supply. Through WISE, Aurora Water and Denver Water will provide up to 10,000 AF annually (on average) of fully treated water to the WISE Authority for distribution to its members on a permanent basis. Aurora's Prairie Waters system will provide the infrastructure for delivering water from the South Platte River when Aurora and Denver Water have available water supplies and Aurora's Prairie Waters system has available capacity. WISE will also enable Denver Water to access its supplies as a new emergency and backup supply. Denver Water and Aurora Water will supply water to the WISE Authority at a master meter to be located near Aurora's Binney Water

Purification Facility (BWPF). The WISE Authority will develop infrastructure within their area for further distribution to their members.

To distribute WISE water to its members, the WISE Authority is developing the Western Pipeline system (see attachment #1 WISE Project Conveyance Alignments). The backbone of this system is the Western Pipeline recently purchased by the WISE Authority and Denver Water from ECCV. However, ECCV retained 8 MGD of capacity in the pipeline to move Denver Basin Aquifer water from the Willows Wells to their service area. In order maximize the use of this existing piece of infrastructure and conjunctively use nonrenewable groundwater and renewable WISE water, treatment and additional pipeline infrastructure needs to be constructed. A treatment facility providing chloramine disinfection and iron and manganese removal for the groundwater is needed in order to comingling this water with WISE water in the Western Pipeline.

The WISE Authority is seeking a WSRA grant to help with the construction of the infrastructure needed to allow conjunctive use of the Willows Wells and WISE water within the Western Pipeline system. This infrastructure includes a treatment plant and piping needed to by-pass an existing pump station. This infrastructure is estimated to cost \$6.4 million. The WSRA grant is for 14% of the construction cost.

Construction of this infrastructure will allow full implementation of the WISE Partnership, maximize the use of the existing Western Pipeline, and allow the conjunctive use of Denver Basin Aquifer water with renewable surface water. Ultimately this will allow South Metro entities to change the way they use the Denver Basin Aquifer going from an unsustainable base supply, to a sustainable and conjunctively used drought supply.

Objectives:

- Allow conjunctive use of Willows Wells supplies in the Western Pipeline system
- Construct necessary treatment plant and piping for connection to the Western Pipeline system
- Help to reduce the M&I Gap
- Support implementation of identified projects and processes (IPPs).

Discussion: The proposed effort complies with the stated Goals and Measurable Outcomes as indicated in the South Platte/Metro Basin Implementation Plan (Section 1.9.2, MO#3, page 1-26), assists the South Platte Basin and Metro Roundtables meet their M&I gap and is identified as a Reuse IPP (Section 4.3.2.1, Table 4-10, page 4-25).

A previous WSRA Grant totaling \$1,570,000 was awarded to the South Metro WISE Authority for the *Western Pipeline Connection Engineering/Design* project; in addition, a total of 16 loans were approved by the Board, four each for four individual WISE Authority members in May of 2014.

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

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Tier 1-3 Evaluation Criteria:

Staff has reviewed and evaluated the applicant's response to the Statewide Account Supplemental Scoring Matrix and has determined that it satisfies the Evaluation Criteria. Please refer to the WSRA Application for the applicant's detailed response.

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
WISE Authority	\$5,498,022	\$0	\$5,498,022
Metro Basin Account	\$40,000	n/a	\$40,000
North Platte Basin Account	\$10,000	n/a	\$10,000
South Platte Basin Account	\$15,000	n/a	\$15,000
Colorado Basin Account	\$10,000	n/a	\$10,000
Arkansas Basin Account	\$10,000	n/a	\$10,000
Gunnison Basin Account	\$10,000	n/a	\$10,000
Yampa/White Basin Account ⁽¹⁾	\$10,000	n/a	\$10,000
WSRA Statewide Account	\$800,000	n/a	\$800,000
Total	\$6,403,022		\$6,403,022

Notes:

(1) approval pending

CWCB Project Manager: Derek Johnson

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 must contain photographs, summaries of meetings, and engineering reports/designs.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

- confirm whether each Collaborator's storage needs exceed the yield of its current storage rights and facilities
- determine whether a shortfall in storage yield can be offset by conservation measures
- or, that shortfall requires an increased storage yield from the expansion or repair of existing storage or the development of new facilities

The reconnaissance-level study will:

- identify feasible options to meet the Collaborators' storage needs (including completion of a water budget for the Cucharas basin, development of water resources modeling, and a climate change analysis)
- each recommendation will address necessary permitting and likely sources of funding

Discussion: The proposed needs assessment aligns with concerns identified in the Arkansas BIP as inadequate storage contributes to the gap in all consumptive and non-consumptive water needs.

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

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Tier 1-3 Evaluation Criteria:

Staff has reviewed and evaluated the applicant's response to the Statewide Account Supplemental Scoring Matrix and has determined that it satisfies the Evaluation Criteria. Please refer to WSRA Application for applicant's detailed response.

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>Total</u>
Cucharas Sanitation and Water District	\$5,000	\$5,000
Town of La Veta	\$5,000	\$5,000
City of Walsenburg	\$5,000	\$5,000
Huerfano Board of County Commissioners	\$5,000	\$5,000
<u>Huerfano County Water Conservancy District</u>	<u>\$10,000</u>	<u>\$5,000</u>
Sub-total matching funds	\$30,000	\$30,000
WSRA Arkansas Basin Account	\$25,000	\$25,000
<u>WSRA Statewide Account</u>	<u>\$195,000</u>	<u>\$195,000</u>
Total	\$250,000	\$250,000

CWCB Project Manager: Andy Moore

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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Applicant & Fiscal Agent:	Box Springs Canal and Reservoir Company						
Water Activity Name:	Agricultural Improvements and Sustainable Water Supply Using Horizontal Wells						
Water Activity Purpose:	Structural Project						
County:	Crowley						
Drainage Basin:	Arkansas						
Water Source:	Horse Creek						
Amount Requested/Source of Funds:	<table border="0"> <tr> <td>\$50,000</td> <td>Arkansas Basin Account</td> </tr> <tr> <td><u>\$150,000</u></td> <td><u>Statewide Account</u></td> </tr> <tr> <td>\$200,000</td> <td>Total Grant Request</td> </tr> </table>	\$50,000	Arkansas Basin Account	<u>\$150,000</u>	<u>Statewide Account</u>	\$200,000	Total Grant Request
\$50,000	Arkansas Basin Account						
<u>\$150,000</u>	<u>Statewide Account</u>						
\$200,000	Total Grant Request						
Matching Funds:	Basin Account Match (\$50,000) = 25% of total grant request (meets 5% min); Basin Account & Applicant Match (\$150,000) = 75% of total grant request (meets 25% min); Applicant/3 rd Party Match (\$100,000) = 33.3% of total project costs (\$300,000) (refer to <i>Funding Summary/Matching Funds</i> section)						

Staff recommends approval of up to \$50,000 from the Arkansas Basin Account and \$150,000 from the Statewide Account to help fund the project titled: Box Springs Canal and Reservoir Company: Agricultural Improvements and Sustainable Water Supply Using Horizontal Wells.

Water Activity Summary: WSRA funds will be expended to complete agricultural improvements, as well as securing a sustainable water supply for farming practices in the Box Springs Canal and Reservoir Company (BSCRC) area. BSCRC will install horizontal wells to cover the period of irrigation between underground spring flows and flood events to minimize crop stress, maximize yield, and allow for consisting cropping management. This horizontal well technology is relatively new, and has proven successful in other states. This type of well drilling maximizes the ability to extract water from the alluvium with only one point of withdrawal for an entire bank of wells. If pumped at full decree, the wells could produce approximately 900 AF of water per year.

Discussion: These installations will allow for efficient farming practices, increasing production from 240 acres to 350 acres. The BSCRC began these improvements in 2013 and this grant will assist in the final stages of well rehabilitation and the implementation of this horizontal well drilling technology. This project demonstrates new technology associated with irrigation and groundwater management, which could be transferable across the state. Additionally, the project provides environmental benefits for the land as well as wildlife.

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

Tier 1-3 Evaluation Criteria:

This project has undergone review and evaluation per the Supplemental Scoring Matrix and staff has determined that this request satisfies the Evaluation Criteria. Further analysis of the project, and how the project will meet Tiered Evaluation Criteria, is provided by the applicant in the WSRA Application.

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
WSRA Arkansas Basin Account	\$50,000	n/a	\$50,000
WSRA Statewide Account	\$150,000	n/a	\$150,000
Box Springs Canal and Reservoir Co	<u>\$100,000</u>	<u>n/a</u>	<u>\$100,000</u>
Total Project Costs	\$300,000	n/a	\$300,000

CWCB Project Manager: Brent Newman

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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
September 15-17, 2015
Agenda Item 18(d)

Applicant & Fiscal Agent: Lower Arkansas Valley Water Conservancy District

Water Activity Name: Arkansas Roundtable Basin Implementation Plan Coordinator

Water Activity Purpose: BIP Implementation

County: All Arkansas Basin Counties

Drainage Basin: Arkansas

Water Source: n/a

Amount Requested/Source of Funds: \$27,880 Arkansas Basin Account
\$70,000 Statewide Account
\$97,880 Total grant request

Matching Funds: Basin Account Match (\$27,880) = 28% of total grant request (meets 5% min);
Basin Account & Applicant Match (\$32,280) = 33% of total grant request (meets 25% min); (refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:

Staff recommends approval of up to \$27,880 from the Arkansas Basin Account and \$70,000 from the Statewide Account to help fund the project titled: Lower Arkansas Valley Water Conservancy District: Arkansas Roundtable Basin Implementation Plan Coordinator.

Water Activity Summary: WSRA funds will be expended to implement solutions to basin needs, as identified in the 2015 Arkansas Basin Implementation Plan, to educate basin citizens and water users on the information and processes included in the Arkansas BIP, and to expand the potential for funding of projects. As further explained in the Arkansas BIP, this grant will assist in implementing Identified Projects and Processes identified in the BIP Preliminary Needs List, through the basin's cyclic planning process. The end goal is to move 3-6 subregional projects forward to funding and implementation.

The grant request is intended to foster greater cooperation by and between the Arkansas Basin Roundtable and the public bodies, non-governmental organizations, state and federal agencies in implementing specific projects to meet the needs of the basin. Processes identified in the BIP (Convene & Educate) will be initiated to result in project identification and implementation. Specific tasks also include maintaining and updating the Arkansas Basin Projects Database, and coordinating activities with the Arkansas River Watershed Collaborative process.

Discussion:

This grant is consistent with the next steps for implementation identified by the roundtables, the IBCC, and the CWCB, as well as in Colorado's Water Plan. The coordinator will be focused on small entities within the basin which are unable to develop strategies to address local water resources issues without assistance. The grant will also sustain and increase momentum for meeting the needs of the

Arkansas Basin through the roundtable through specific tasks, such as keeping the Needs Database current on the Roundtable website.

Issues/Additional Needs: None identified.

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

Tier 1-3 Evaluation Criteria:

This project has undergone review and evaluation per the Supplemental Scoring Matrix and staff has determined that this request satisfies the Evaluation Criteria. Further analysis of the project, and how the project will meet Tiered Evaluation Criteria, is provided by the applicant in the WSRA Application.

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
Lower Arkansas Valley Water Conservancy District	\$0	\$4,400	\$4,400
WSRA Arkansas Basin Account	\$27,880	n/a	\$27,880
WSRA Statewide Account	\$70,000	n/a	\$70,000
Total Project Costs	\$97,880	n/a	\$102,280

CWCB Project Manager: Brent Newman

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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
September 15-17, 2015
Agenda Item 18(e)

Applicant & Fiscal Agent: Grand Valley Water Users Association

Water Activity Name: Grand Valley Roller Dam Rehabilitation Phase I;
Development of the Dam and Canyon Facilities Master Plan

Water Activity Purpose: Master Planning

County: Mesa

Drainage Basin: Colorado

Water Source: Colorado River

Amount Requested/Source of Funds: \$42,700 Colorado Basin Account (total grant request)

Matching Funds: Applicant Match: \$30,600 (cash & in kind) = 42% of the
total project cost of \$73,300
(refer to *Funding Summary/Matching Funds* section below)

Staff Recommendation:

Staff recommends approval of up to \$42,700 from the Colorado Basin Account to help fund the project titled: Grand Valley Water Users Association; Grand Valley Roller Dam Rehabilitation Phase I, Development of the Dam and Canyon Facilities Master Plan

Water Activity Summary: WSRA funds, if approved, will be expended to fund the Grand Valley Roller Dam Rehabilitation Phase I (the Project). The proposed Roller Dam Rehabilitation project addresses the need for rehabilitating and upgrading the Roller Dam and the portion of the Government Highline Canal immediately below the Roller Dam while maintaining the Cameo Call, improving water delivery system operations, capacity and reliability, sustaining the ecological health of the river and preserving the agricultural economy of the Grand Valley. The Roller Dam diverts water into the Highline Canal for irrigation and hydropower purposes under very senior water that collectively make up the “Cameo Call.” These water rights control administration of the Colorado River basin within Colorado. The flows generated by the Cameo Call help support the agricultural economy of the Grand Valley and provide water for recreational activities on the Colorado River and for riparian habitat and aesthetic values along the entire Colorado River corridor. Flows generated by the Cameo Call also assist the state in complying with its obligations under the Colorado River Compact and in maintaining acceptable lake levels in Lake Powell.

Irrigation water is provided to four irrigation entities: Grand Valley Water Users Association (GVWUA) and the Orchard Mesa, Palisade and Mesa County Irrigation Districts, which provide irrigation water to approximately 41,000 acres of land in the Grand Valley. Hydropower water is used to produce hydropower at the Grand Valley Power Plant. Return flows from the power plant return to the Colorado River at the head of the 15-Mile Reach, helping maintain flows in that reach for the endangered fish.

The Roller Dam, constructed in the early 1900's, is in need of extensive upgrading and rehabilitation. In addition, repairs and upgrades to the upper portion of the Highline Canal immediately below the Roller Dam are needed to allow the canal to reliably carry all of the water diverted at the Roller Dam.

Objectives:

The Dam and Canyon Facilities Master Plan is the first step in defining the rehabilitation needs. It will:

- identify and prioritize the rehabilitation needs (structural, cosmetic, environmental, etc.),
- develop implementation plans for each prioritized need, specifically addressing the costs, funding opportunities, timeline, and list of potential teaming partners and sponsors.

Discussion: The proposed needs assessment aligns with concerns identified in the Colorado BIP with strong links between agriculture and recreation. Additionally, the Colorado BIP presents Theme 2: Agriculture – Sustain, Protect and Promote Agriculture as an important attribute with “the overarching goal to protect and sustain the existing agricultural practices.” The Grand Valley Roller Dam is identified in the Colorado BIP as one of eight Top Projects in the Colorado Basin. Recently the Association received grants from both the CWCB (2015, \$45,000 WSRA Colorado Basin Account Grant) and the Bureau of Reclamation to match the in-kind and cash contributions of the Association to completely update its Water Management Plan (WMP). The objective of the WMP is to prepare a conditional assessment and operational analysis of 50 miles of canal, identify and document water losses, identify priority projects, conduct a benefits analysis, ascertain environmental concerns, determine cost associated with the projects and create a strategic funding plan to implement the priority projects. This will also allow the association to honor commitments made in the Colorado River Cooperative Agreement (CRCA, Section 7, specific to conservation and avoidance of Compact issues). The WMP project will begin by fall 2015 and conclude in early 2017.

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

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

Tier 1-3 Evaluation Criteria: n/a

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
GVWUA; Orchard Mesa Irrigation District;			
Mesa County Irrigation District: &			
Palisade Irrigation District	\$5,000	\$25,600 ⁽¹⁾	\$30,600
WSRA Colorado Basin Account	\$42,700	n/a	\$42,700
Total	\$47,700	\$25,600	\$73,300

(1) Estimated based upon 32 hours per month for 8 months @ \$50/hour for 1 Association staff member and 1 Orchard Mesa Irrigation District staff member.

CWCB Project Manager: Anna Mauss

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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
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Applicant & Fiscal Agent: Ouray County

Water Activity Name: Upper Uncompahgre Basin Water Supply Protection and Enhancement Project

Water Activity Purpose: Planning study

County: Ouray

Drainage Basin: Gunnison

Water Source: Uncompahgre River and tributaries

Amount Requested/Source of Funds: \$25,000 Gunnison Basin Account
\$25,000 Statewide Account
\$50,000 Total grant request

Matching Funds: Basin Account Match (\$25,000) = 50% of total grant request (meets 5% min);
Basin Account and Applicant Match (\$50,000) = 100% of total grant request (meets 25% min);
Applicant & 3rd Party Match (\$25,000) = 33% of total project costs (\$75,000)
(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:

Staff recommends approval of up to \$25,000 from the Gunnison Basin Account and \$25,000 from the Statewide Account to help fund the project titled: Ouray County: Upper Uncompahgre Basin Water Supply Protection and Enhancement Project.

Water Activity Summary:

WSRA funds will be expended to assess water needs of existing and future agricultural water users, domestic water supplies, recreational and environmental water uses, as well as options for stabilizing and augmenting existing and future water uses. The solution options may include additional storage, exchanges, substitutions, and new appropriations. The coalition will then pursue those options determined to be the most advantageous and cost-effective. The goal is to assure a thriving agricultural economy including the protection and enhancement of pre-compact water rights, stabilize and help assure future municipal/domestic supplies, and enhance recreational and environmental uses. The diverse make-up of the coalition assures that solutions will provide multi-user benefits.

The analysis will include a review of existing water shortages, available water sources and water rights, a review of existing data and prior studies by the various participants, an analysis of available storage in Ridgway Reservoir, and an analysis of exchange potential on various segments of the main-stem and tributaries of the Upper Uncompahgre River. The goal of the study is to provide solution options to achieve the goal of assuring a full current and future water supply to the various water users in the basin.

Ouray County is the lead agency for purposes of this application, representing a coalition of all major water users in the region, including the City of Ouray, Town of Ridgway, Ouray County Water Users' Association, Log Hill homeowners, Tri-County Water Conservancy District, and Trout Unlimited. The Colorado River Water Conservation District is also providing financial and technical support for this effort.

Discussion:

This project was identified as a Tier 1 project in the Gunnison Basin Implementation Plan, and conforms to the priorities expressed within the BIP. This cooperative effort is advanced for the varied and mutual beneficial interests of the residents and visitors to Ouray County. Participating entities include the County of Ouray, the City of Ouray, the Town of Ridgway, the Ouray County Water Users Association, homeowners groups from Log Hill Mesa, Tri-County Water Conservancy District, and Trout Unlimited. This cooperative effort is unprecedented in Ouray County.

With the information from the Gunnison River Basin Implementation Plan (BIP) as a starting point, the engineering analysis will focus on the "gap" between existing water supplies and water uses and those contemplated through 2050 to ensure a stable water supply, including an analysis of both physical and legal supplies, and options for augmenting current supplies through additional storage, exchanges and substitutions, new appropriations, conservation, demand management and efficiencies of operations and water management. The BIP included documentation of existing gaps in Upper Uncompahgre (Ouray County) water supplies, and this analysis will both more completely assess the gaps and solutions, which will be cooperatively pursued.

Issues/Additional Needs: None identified.

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

Tier 1-3 Evaluation Criteria:

This project has undergone review and evaluation per the Supplemental Scoring Matrix and staff has determined that this request satisfies the Evaluation Criteria. Further analysis of the project, and how the project will meet Tiered Evaluation Criteria, is provided by the applicant in the WSRA Application.

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
WSRA Gunnison Basin Account	\$25,000	n/a	\$25,000
WSRA Statewide Account	\$25,000	n/a	\$25,000
Participating Entities	<u>\$25,000</u>	<u>n/a</u>	<u>\$25,000</u>
Total Project Costs	\$75,000	n/a	\$75,000

CWCB Project Manager: Brent Newman

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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

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

Tier 1-3 Evaluation Criteria:

This project has undergone review and evaluation per the Supplemental Scoring Matrix and staff has determined that this request satisfies the Evaluation Criteria. Further analysis of the project, and how the project will meet Tiered Evaluation Criteria, is provided by the applicant in the WSRA Application.

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
WSRA Metro Account	\$50,000	n/a	\$50,000
WSRA Statewide Account	\$150,000	n/a	\$150,000
Box Springs Canal and Reservoir Co	<u>\$100,000</u>	<u>n/a</u>	<u>\$100,000</u>
Total Project Costs	\$300,000	n/a	\$300,000

CWCB Project Manager: Craig Godbout

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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
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Applicant & Fiscal Agent: Ducks Unlimited, Inc. (DU)

Water Activity Name: MacFarlane Dam Rehabilitation

Water Activity Purpose: Reservoir Rehabilitation

County: Jackson

Drainage Basin: North Platte Basin

Water Source: Soap Creek

Amount Requested/Source of Funds: \$500,000 North Platte Basin Account
\$100,000 Statewide Account
\$600,000 Total Grant Request

Matching Funds: Basin Account Match: \$500,000 = 83% of total grant request (meets 5% min);
Basin Account & Applicant Match: \$1,586,465 = 264% of total grant request
(meets 25% min);
Applicant & 3rd Party Match: \$1,086,465 = 64% of total project costs
(refer to *Funding Summary/Matching Funds*)

Staff Recommendation:
Staff recommends conditional approval (refer to <i>Issues/Additional Need</i> section below) of up to \$500,000 from the North Platte Basin Account, and \$100,000 from the Statewide Account to help fund the project titled: Ducks Unlimited: MacFarlane Dam Rehabilitation.

Water Activity Summary: Built in 1915, and reconstructed in 1962, MacFarlane Dam impounds at least 6,500 AF of water. This water is decreed for irrigation, recreation, wildlife habitat, and piscatorial purposes, and is used to irrigate more than 1,600 acres of pasture and wet meadow in North Park. Thousands of acres of wetlands and wet meadow are associated with the water stored and delivered from the reservoir. DU believes that this area contains some of the highest quality waterfowl and sage grouse production areas in the state. The MacFarlane Reservoir is owned by the Evans Land and Cattle, Inc (ELC) (50%) and the Department of the Interior (DOI) (50%) including United States Fish and Wildlife Service (USFWS), and the Bureau of Land Management (BLM).

WSRA funds, if approved, will be expended to fund this collaborative effort for the MacFarlane Dam Rehabilitation Project (the Project), which will repair the outlet pipe and toe drains as necessary to avoid a State Engineer's Office, Dam Safety storage restriction order. MacFarlane Dam has a history of seepage and slope stability problems, including a slope failure near the left abutment of the dam which was repaired in 1975. A 2014 field investigation noted several dam safety deficiencies including: (1) Wave erosion damage along the upstream slope of the north embankment; (2) Inadequate seepage control along both embankments; (3) Localized slope instability in the downstream slope of both embankments; (4) A severely deteriorated outlet works terminal structure; and, (5) No emergency spillway control section to minimize scour during large spillway discharges.

The Project goal is to address the identified dam safety deficiencies. The following are objectives to meet that goal: (1) Ensure dam safety by repairing the existing embankment and associated outlet structures; (2) Ensure longevity of the dam by reconstructing the emergency spillway; (3) Provide adequate storage volumes matching existing water rights; and, (4) Provide reliable access to the site.

Discussion: Repair of the dam and maintenance of its storage capacity is a high-priority project for the North Platte Basin. In its Basin Implementation Plan (BIP), the North Platte Basin has identified eight basic goals to establish priorities for water development and maintain important historical water uses in the basin. This Project directly addresses four of those needs and is identified in the BIP as a potential project meeting BIP goals. Specifically the Draft BIP states *“This Project excels at meeting the basin goals 1, 3, 4, and 5. The preserved storage helps to maintain and maximize the consumptive use of water in the basin (Goal 1), while helping to maintain important existing infrastructure (Goal 3). In addition, the multiple purpose uses of the reservoir help to directly maintain healthy wetlands (Goal 4), while showcasing the beneficial relationship between agricultural and environmental and recreational water use (Goal 5).”* Additionally, this project is identified as “Planned Project” in the North Platte BIP (Section 4.2: Updated Project List, Table 3. Planned Consumptive Project List, page 63). While this project is classified under “Planned Consumptive Projects” a footnote to the above mentioned table indicates that this project is a *“mutli-purpose project(s) with consumptive, environmental, and recreational benefits”*.

Issues/Additional Needs: This Project cannot go forward until ELC is able to raise its remaining share of Project cost, currently an amount of \$100,000. ELC has indicated they will seek a CWCB Loan for this amount at the November 2015 Board meeting, or a Board meeting soon thereafter. Therefore staff recommends **conditional** approval based upon ELC successfully securing the \$100,000 needed to fully fund this Project from a CWCB loan or through another source of funds.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Tier 1-3 Evaluation Criteria:

Staff has reviewed and evaluated the applicant’s response to the Statewide Account Supplemental Scoring Matrix and has determined that it satisfies the Evaluation Criteria. Please refer to WSRA Application for applicant’s detailed response.

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
Ducks Unlimited, Inc	\$0	\$69,540	\$69,540
Evans Land & Cattle, Inc	\$100,000	\$0	\$100,000
Department of the Interior	\$916,925	\$0	\$916,925
Sub-total matching funds	\$1,016,925	\$69,540	\$1,086,465
WSRA North Platte Basin Account	\$500,000	\$0	\$500,000
WSRA Statewide Account	\$100,000	\$0	\$100,000
Total	\$1,616,925	\$69,540	\$1,686,465

CWCB Project Manager: Jonathan Hernandez

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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
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Applicants & Fiscal Agent: Jackson County Water Conservancy District

Water Activity Name: Jackson County Basin-Wide Augmentation Plan

Water Activity Purpose: Multi-Purpose

County: Jackson

River Basin: North Platte

Water Sources (potential): North Fork North Platte, Little Grizzly Creek, Grizzly Creek, Illinois River, Michigan River, Canadian River, North Platte Mainstem

Amount Requested/Source of Funds: \$161,000 North Platte Basin Account (total grant request)

Matching Funds: n/a
(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:

Staff recommends approval of up to \$161,000 from the North Platte Basin Account to help fund the study titled: Jackson County Water Conservancy District: Jackson County Basin-Wide Augmentation Plan.

Water Activity Summary: WSRA funds, if approved, would be expended to fund the necessary tasks to assist Jackson County Water Conservancy District (JCWCD) with the development of a basin-wide augmentation plan. Efforts include the following undertakings:

- Quantify augmentation needs;
- Identify potential augmentation supplies;
- Address potential concerns of water users in the basin;
- Develop an accounting framework for JCWCD and reporting to the Division of Water Resources;
- Prepare various analyses and materials to assist with the application, finalization, and operation of an augmentation plan acceptable to the JCWCD Board.

The applicant intends to pursue this effort in a phased approach. Tasks 1-3 (refer to Statement of Work – attached) will provide the necessary technical information to determine whether to move forward with developing an augmentation plan. After completion of these tasks, the Consultant will meet with JCWCD to discuss findings and provide a recommendation on how to move forward with the remaining tasks. Tasks 4-10 will not be initiated until the decision to pursue an augmentation plan has been made and written authorization from JCWCD is given.

Discussion: No further discussion is required.

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

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria

Tier 1-3 Evaluation Criteria: n/a**Funding Summary/Matching Funds:**

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
WSRA North Platte Basin Account	\$161,000	\$0	\$161,000

CWCB Project Manager: Craig Godbout

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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
September 15-17, 2015
Agenda Item 18(j)

Applicant & Fiscal Agent: Montrose County

Water Activity Name: West End of Montrose County Reservoir Project

Water Activity Purpose: Needs Assessment

County: Montrose

Drainage Basin: Southwest Basin

Water Source: Tributaries to the San Miguel River

Amount Requested/Source of Funds: \$50,000 Southwest Basin Account
\$250,000 Statewide Account
\$300,000 Total Grant Request

Matching Funds: Basin Account Match: \$50,000 = 16.7% of total grant request (meets 5% min);
Basin Account & Applicant Match: \$1,016,000 = 338.7% of total grant request
(meets 25% min)
Applicant Match: \$966,000 = 76.3% of total project costs (\$1,266,000)
(refer to *Funding Summary/Matching Funds*)

Staff Recommendation:

Staff recommends **conditional** approval of up to \$50,000 from the Southwest Basin Account, and \$250,000 from the Statewide Account to help fund the needs assessment titled: West End of Montrose County Reservoir Project. Approval shall be contingent upon an acceptable scope of work which will include up to \$10,000 for an analysis of the impact to recreational uses of the San Miguel River.

Water Activity Summary: WSRA funds, if approved, will be used to pay for a portion the feasibility study work as part of the conditional water right held by Montrose County. The conditional water right decree requires the County to determine if a project can be built and at what cost by Oct. 31, 2018. The County has contracted with Deere and Ault Consultants, Inc., Longmont, and began the work of determine what type of dam structure should be built in the various sites listed in the conditional water right. The reservoir, to be used for municipal and industrial use, is necessary to meet the future needs of the west end of Montrose County.

This project will benefit the communities of Nucla and Naturita in western Montrose County. This project will have piscatorial water that can be released into the San Miguel River.

The conditional water right was granted in 2012. There are four reservoir sites listed in the conditional water right. The County will decide which site or combination of two sites will be the best to build a reservoir. This application is for funding of geotechnical investigations, feasibility studies work, and cost analysis of building a reservoir in the San Miguel River basin.

Objectives:

Montrose County must select one of the following alternative reservoirs, in addition to the Nucla Town Reservoir Enlargement, or combinations of reservoirs:

- 1.) Big Bucktail Reservoir, with a capacity of no more than 5,000 acre-feet;
- 2.) Big Bucktail Reservoir and Tuttle Draw Reservoir, with a combined capacity of no more than 6,200 acre-feet;
- 3.) Maverick Draw Reservoir No. 1 with a capacity of no more than 8,400acre-feet;
- 4.) Maverick Draw Reservoir No. 2 with a capacity of no more than 9,100acre-feet; or
- 5.) A total of two reservoirs, comprising (1) Maverick Draw No. 1 or Maverick Draw No. 2; and (2) Big Bucktail or Tuttle Draw; with a combined capacity of no more than 11,100 acre-feet.

Following the County's selection of one of the alternatives above, the County must abandon all conditional storage rights for the reservoirs not selected and shall also abandon the related rights of exchange decreed in the Consolidated Cases to the structures that are not selected.

Discussion:

This is an application for funding for the feasibility study of a potential dam site. There were opponents to the filing of the conditional rights application. Montrose County agreed to a stipulation regarding volumetric reductions if population did not meet specific thresholds.

Montrose County has met with Colorado Parks and Wildlife regarding this project. It is not clear if the piscatorial water mentioned in the conditional water right will be helpful to trout but it may be helpful to the species of special concern in the San Miguel River. A letter was provided from the Colorado Parks and Wildlife office in Montrose.

Montrose County also contacted Trout Unlimited and informed them that the reservoir's water would most likely not be of benefit to trout species because of its location in the San Miguel basin.

This project aligns with the several of the Goals and Measurable Outcomes as described in the Southwest Basin Implementation Plan (Section 1; Table 1: Goals and Measurable Outcomes A1, A2, A3, A4, C1, C2, & D1; pages 12 15), and is specified as a Proposed San Miguel River Basin IPP, *Montrose County Firming Project Phase I*; (Appendix A; San Miguel River Basin Draft IPP List; IPP ID no. 3-SM; page 17 of 18).

An analysis of the non-consumptive impacts of the proposed project will be beneficial to the future permitting effort, therefore funding should be set aside in this request to identify those impacts.

Issues/Additional Needs: A Grant Scope of Work will need to be finalized and it must identify specific tasks associated with the Feasibility Study Effort. The Scope of Work will include up to \$10,000 to identify the impact of each reservoir site on non-consumptive uses and in particular the impact on rafting.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Tier 1-3 Evaluation Criteria:

Staff has reviewed and evaluated the applicant's response to the Statewide Account Supplemental Scoring Matrix and has determined that it satisfies the Evaluation Criteria. Please refer to WSRA Application for applicant's detailed response.

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
Montrose County	\$966,000	\$0	\$966,000
WSRA Southwest Basin Account	\$50,000	n/a	\$50,000
WSRA Statewide Account	\$250,000	\$0	\$250,000
Total	\$1,266,000	\$0	\$1,266,000

CWCB Project Manager: Kirk Russell

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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
September 15-17, 2015
Agenda Item 18(k)

Applicant & Fiscal Agent: Florida Consolidated Ditch Company
Water Activity Name: Hess Lateral Improvement Project
Water Activity Purpose: Agricultural
County: La Plata
Drainage Basin: Southwest
Water Source: Florida River
Amount Requested/Source of Funds: \$38,750 Southwest Basin Account
\$736,250 Statewide Account
\$775,000 Total Grant Request

Matching Funds: Basin Account Match: \$38,750 = 5% of total grant request (meets 5% min);
Basin Account & Applicant Match (including CWCB loan): \$1,763,750 =
227.6% of total grant request (meets 25% min);
Applicant & 3rd Party Match (CDOT): \$1,725,000 = 69% of total project costs
(\$2,500,000)
(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:

Staff recommends conditional approval (refer to <i>Issues/Additional Needs</i> section below) of up to \$38,750 from the Southwest Basin Account, and \$736,250 from the Statewide Account to help fund the agricultural project titled: Florida Consolidated Ditch Company; Hess Lateral Improvement Project.

Water Activity Summary: WSRA funds, if approved, will be expended to fund the Hess Lateral Improvement Project (the Project). The purposes of this project are to 1) improve the efficiency of the canal conveyance system and reduce ditch loss through seepage and evaporation, 2) provide irrigation water at reduced operational expense to promote continued commercial agricultural uses, 3) firm the agricultural pre-Compact water supplies through increased efficiency as opposed to developing additional water supplies (i.e. enlarging Lemon Reservoir), 4) develop additional sources of water for other beneficial uses in the basin, and 5) increase water quality by reducing the salt load into the Animas River.

The Hess Lateral, part of the Florida Consolidated Ditch Company (Company) water conveyance system, is located 7 miles south of Durango, CO on the Florida Mesa. The Hess Lateral serves approximately 75 water users irrigating over 1,500 acres of primarily hay and pasture lands through a 3.3 mile-long open ditch that delivers up to 17.5 cfs of irrigation water. This project entails replacing open earth-lined ditch with buried gravity-pressurized pipeline. This will reduce seepage losses and will provide pressurized water to existing sprinkler systems on the lateral. The pressurized pipeline will eliminate most of the energy currently used for pumping and will provide the opportunity for pressurized systems to be installed on fields that are currently flood irrigated, further increasing water

efficiency and reducing salt leaching. The Natural Resources Conservation Service (NRCS) estimates a load reduction of total dissolved solids from this project of 136.8 tons per year.

The Colorado Department of Transportation (CDOT) plans on expanding Colorado Highway 550 in the near future. This expansion requires relocating approximately 10,000 feet of the Hess Lateral to outside of the Highway Right-of-Way. CDOT is cooperating with the Company on the relocation and has committed \$950,000 to the project.

Objectives:

Phase I will complete preliminary engineering including an alternative analysis. This will allow the company to get a clear idea of the scope and cost of the project. The grant funds will also be used to complete a CWCB Water Project Loan Program feasibility study.

Phase II will complete:

- final engineering design,
- project plans and specifications,
- environmental permitting,
- construction of the canal and ditch lining project, and
- engineering services during construction.

Discussion: This project aligns with the several of the Goals and Measurable Outcomes as described in the Southwest Basin Implementation Plan (Section 1; Table 1: Goals and Measurable Outcomes A1, A2, B2, B3, E2; pages 12 16), and is incorporated in several IPPs, such as: Multi-Basin IPPs, Ditch Company Efficiency and Improvement Projects (Appendix A, IPP ID 4-MB, page 1 of 18); Animas River Basin Draft IPP List, Florida Water Conservancy District (Appendix A, IPP ID 4-A, page 6 of 18); Animas Watershed Partnership (Appendix A, IPP ID 22-A, page 8 of 18); and Hess Lateral Replacement (Appendix A, IPP ID 28-A, page 8 of 18).

The applicant has completed two similar lining projects, totaling 2.23 miles of ditch using \$1M in WSRA grant funds. According to a USBR ditch loss study, the total water savings are nearly 3,000 acre-feet annually.

Issues/Additional Needs: Two issues need addressing regarding this grant. The first being the applicant's intent to phase the project and funding; the second concerns easements and right-of-ways. The applicant intends to pursue this effort in a phased approach. Task 1 (refer to Statement of Work – attached) will provide the necessary technical information to determine whether to move forward with the project. After completion of this task, the Company will decide whether or not it will proceed with Tasks 2 and 3. Tasks 2 and 3 will not be initiated until the Company secures a CWCB loan or funding from another acceptable source. Staff recommends **conditional** approval of this grant request subject to CDOT acquiring the necessary right-of-ways and easements required to complete the project.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Tier 1-3 Evaluation Criteria:

Staff has reviewed and evaluated the applicant's response to the Statewide Account Supplemental Scoring Matrix and has determined that it satisfies the Evaluation Criteria. Please refer to WSRA Application for applicant's detailed response.

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
CDOT	\$950,000	\$0	\$950,000
CWCB Loan	\$775,000	\$0	\$775,000
Sub-total matching funds	\$1,725,000	\$0	\$1,725,000
WSRA Southwest Basin Account	\$38,750	n/a	\$38,750
WSRA Statewide Account	\$736,250	n/a	\$736,250
Total	\$2,500,000	\$0	\$2,500,000

CWCB Project Manager: Anna Mauss

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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
September 15-17, 2015
Agenda Item 18(l)

Applicant & Fiscal Agent: La Plata West Water Authority

Water Activity Name: Raw Water Pipeline Upgrade & Operations Funding

Water Activity Purpose: M&I & Agricultural/Implementation

Counties: La Plata

River Basin: Southwest

Water Source: Lake Nighthorse (Animas River)

Amount Requested/Source of Funds:

\$50,000	Southwest Basin Account
\$500,000	Statewide Account
\$550,000	Total grant request

Matching Funds:

- Basin Account Match (\$50,000) = 9.1% of total grant request (meets 5% min)
- Basin Account & Applicant Match (\$4,850,000) = 881.8% of total grant request (meets 25% min)
- Applicant and 3rd Party Match (\$4,800,000) = 89.7% of total project costs (\$5,350,000)

(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:

Staff recommends approval of up to \$50,000 from the Southwest Basin Account, and \$500,000 from the Statewide Account to help fund the project titled: La Plata West Water Authority Raw Water Pipeline Upgrade & Operations Funding.
--

Water Activity Summary: If approved, WSRA funds will be expended to increase the diameter of 2.33 miles of pipeline from 8” to 16” pipe to leverage current project costs and minimize ongoing operating costs and future construction costs. The 16” pipeline would provide adequate capacity for the long term needs of both Lake Durango Water Authority and La Plata West Water Authority, as well as providing some capacity for use by other entities with ALP project water allocation rights for the potential delivery to Western La Plata County. It is anticipated that additional pipeline would extend from the end of the proposed pipeline at the intersection of CR 125 and CR 141 to the west when LPWWA pursues construction of a water treatment plant at a future date. Other entities involved in this effort are the Southern Ute Indian Tribe, the Ute Mountain Indian Tribe, and the Lake Durango Water Authority.

Discussion: Two previous WSRA Grants have been awarded by CWCB for ALP related activities; In 2008 the CWCB awarded \$1,100,000 (\$100,00 Southwest Basin Account, & \$1,000,000 Statewide Account) to La Plata West Water Authority for the construction of the Intake Structure at Lake Nighthorse; and in 2011 the CWCB awarded \$500,000 (\$50,000 Southwest Basin Account, & \$450,000 Statewide Account) to La Plata West Water Authority for the construction of a pump

station, access road and 4.6 miles of pipeline to convey water from Lake Nighthorse to Lake Durango.

In addition, this activity has been identified in the Southwest Basin Implementation Plan as an Identified Project and Process in the La Plata River Basin (Appendix A, La Plata River Basin Draft IPP List, IPP ID no. 1-LaP, page 10 of 18).

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

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Tier 1-3 Evaluation Criteria:

The application has undergone detailed review and evaluation subject to the Supplemental Scoring Matrix and satisfies the Tier 1-3 Evaluation Criteria.

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
Southern Ute Indian Tribe	\$1,000,000	\$0	\$1,000,000
Ute Mountain Indian Tribe	\$1,000,000	\$0	\$1,000,000
Lake Durango Water Authority	\$2,800,000	\$0	\$2,800,000
Subtotal matching funds	\$4,800,000	\$0	\$4,800,000
WSRA Southwest Basin Account	\$50,000	n/a	\$50,000
WSRA Statewide Account	\$500,000	n/a	\$500,000
Total Project Costs	\$5,350,000	\$0	\$5,350,000

CWCB Project Manager: Craig Godbout

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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
September 15-17, 2015
Agenda Item 18(m)

Applicant & Fiscal Agent: Upper Platte and Beaver Canal Company

Water Activity Name: Upper Platte and Beaver / Deuel & Snyder Feasibility Study

Water Activity Purpose: Agricultural Planning study

County: Morgan

Drainage Basin: South Platte

Water Source: South Platte River

Amount Requested/Source of Funds: \$46,875 South Platte Basin Account
\$46,875 Statewide Account
\$93,750 Total grant request

Matching Funds: Basin Account Match (\$46,875) = 50% of total grant request (meets 5% min);
Basin Account and Applicant Match (\$78,125) = 83% of total grant request (meets 25% min);
Applicant Match (\$31,250) = 25% of total project costs (\$125,000)
(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:

Staff recommends approval of up to \$46,875 from the South Platte Basin Account and \$46,875 from the Statewide Account to help fund the study titled: Upper Platte and Beaver / Deuel & Snyder Feasibility Study

Water Activity Summary: WSRA funds will be expended to prepare an engineering report and recommendations, evaluating the existing diversion structure across the South Platte River and associated diversion components that are owned by the Upper Platte and Beaver Canal Company (UP&B) and the Deuel & Snyder Improvement Company (D&S). Both of these entities rely on the same diversion structure to deliver water to their ditch systems. Water from this structure is diverted for direct irrigation, delivered to recharge sites, and used for augmentation of irrigation wells, municipal wells, and recreational use wells. Additionally the City of Brush augments well use with water that is diverted through the UP&B. The applicants have had preliminary discussions with Colorado Parks and Wildlife, and they are interested in collaborating and evaluating the feasibility of installing fish passage structures.

The existing diversion dam is over 80 years old, and recent investigations have found problem areas where the shale bedrock has been undermined resulting in structural damage that must be addressed so that the diversion structure does not catastrophically fail. The work to be performed in this feasibility study will consist of a thorough evaluation of the existing diversion structure and associated diversion components that are owned and operated by both UP&B and D&S. The feasibility study will be designed to evaluate options to repair and/or upgrade the existing structures as well as provide options to replace the existing structure with a new diversion dam across the South

Platte River. The goal of this feasibility study is to evaluate the existing structures and determine if it is best to repair/modify the existing structure or if it is best to replace the dam. The design and construction phase that will follow will be designed to provide an efficient, safe, diversion structure that will provide benefits for the next 80+ years.

Discussion:

The deliverable result of the feasibility study will be an engineering report and recommendations. The study will evaluate alternatives and provides cost estimates for various alternates. Each alternate evaluated will take into account system reliability, infrastructure longevity, efficiency and operational safety of the dam. Feasibility study work activities will include the following items:

1. Visual inspection and structural evaluation of existing infrastructure;
2. Geotechnical evaluation and mapping of bedrock surfaces;
3. Hydraulic modeling;
4. Evaluation of fish passages.
5. Develop options for construction, cost estimates and professional opinions associates with options
6. Provide recommendations and budget estimates for recommended construction activities

Additional benefits that have been identified for evaluation at this time include, but are not limited to the following:

- Fish passage structure(s) designed to provide a detour route for migrating native Colorado fish.
 - Brassy Minnow
 - Sucker Mouth Minnow
- Channelization of the South Platte River to minimize flood impacts and ongoing erosion on the north and south banks of the South Platte River at and near the diversion structure
- Bank stabilization
- Protection of existing downstream infrastructure (Morgan County Quality Water, Morgan Heights, etc.)
- Safe operations

Issues/Additional Needs: None identified.

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

Tier 1-3 Evaluation Criteria:

This project has undergone review and evaluation per the Supplemental Scoring Matrix and staff has determined that this request satisfies the Evaluation Criteria. Further analysis of the project, and how the project will meet Tiered Evaluation Criteria, is provided by the applicant in the WSRA Application.

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
Upper Platte & Beaver Canal Company	\$26,786	\$0	\$26,786
Deuel & Snyder Improvement Company	\$4,464	\$0	\$4,464
Subtotal matching funds	\$31,250	\$0	\$31,250
WSRA South Platte Basin Account	\$46,875	n/a	\$46,875
WSRA Statewide Account	\$46,875	n/a	\$46,875
Total Project Costs	\$125,000	n/a	\$125,000

CWCB Project Manager: Brent Newman

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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

July 29, 2015

Craig Godbout - WSRA Application
Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203
Craig.godbout@state.co.us

Dear Mr. Godbout:

The South Platte Roundtable voted at its June 9, 2015 meeting to approve a grant application from Upper Platte and Beaver Canal Company for the Upper Plate & Beaver / Duel & Snyder Feasibility Study project. The Roundtable unanimously approved \$46,875 from the South Platte Basin WSRA.

The Roundtable underwent an evaluation and approval process, believes the application fully meets the Threshold and Evaluation Criteria for the WSRA Grant Program, and is supportive of the project. During the evaluation and approval process, there were no dissenting votes or opinions expressed and there was a quorum present.

This letter is intended to fulfill Threshold Criteria B (Part III 1.b. in the WSRA Application). The full WSRA Application will be provided separately by the applicant. Please let me know if you need any additional information.

Sincerely,

A handwritten signature in blue ink that reads "Joe Frank". The signature is written in a cursive, flowing style.

Joe Frank, Chair
South Platte Basin Roundtable



COLORADO WATER CONSERVATION BOARD



WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

Today's Date: May 1, 2015

Upper Platte & Beaver / Deuel & Snyder Feasibility Study

Name of Water Activity/Project

Upper Platte and Beaver Canal Company

Name of Applicant

Amount from Statewide Account: \$46,875

Amount from Basin Account(s): \$46,875

Total WSRA Funds Requested: \$93,750

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

FEIN: 84-0405195

Application Content

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Part I – Description of the Applicant	page 3
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Part III – Threshold and Evaluation Criteria	page 7
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Water Rights, Availability, and Sustainability	page 10
Related Studies	page 10
Signature Page	page 12

Required Exhibits

- A. Statement of Work, Budget, and Schedule
- B. Project Map
- C. As Needed (i.e. letters of support, photos, maps, etc.)

Appendices – Reference Material

- 1. Program Information
- 2. Insurance Requirements
- 3. WSRA Standard Contract Information (Required for Projects Over \$100,000)
- 4. W-9 Form (Required for All Projects Prior to Contracting)

Water Supply Reserve Account – Application Form

Revised October 2013

Instructions

To receive funding from the Water Supply Reserve Account (WSRA), a proposed water activity must be approved by the local Basin Roundtable **AND** the Colorado Water Conservation Board (CWCB). The process for Basin Roundtable consideration and approval is outlined in materials in Appendix 1.

Once approved by the local Basin Roundtable, the applicant should submit this application **with a detailed statement of work including budget and schedule as Exhibit A** to CWCB staff by the application deadline.

WSRA applications are due with the roundtable letter of support 60 calendar days prior to the bi-monthly Board meeting at which it will be considered. Board meetings are held in January, March, May, July, September, and November. Meeting details, including scheduled dates, agendas, etc. are posted on the CWCB website at: <http://cwcb.state.co.us> Applications to the WSRA Basin Account are considered at every board meeting, while applications to the WSRA Statewide Account are only considered at the March and September board meetings.

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf>. In addition, the applicant should also refer to the [Supplemental Scoring Matrix](#) applied to Evaluation Criteria Tiers 1-3 for Statewide Account requests .

The application, statement of work, budget, and schedule **must be submitted in electronic format** (Microsoft Word or text-enabled PDF are preferred) and can be emailed or mailed on a disk to:

Craig Godbout - WSRA Application
Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203
Craig.godbout@state.co.us

If you have questions or need additional assistance, please contact Craig Godbout at: 303-866-3441 x3210 or craig.godbout@state.co.us.

Water Supply Reserve Account – Application Form

Revised October 2013

Part I. - Description of the Applicant (Project Sponsor or Owner);

1.	Applicant Name(s):	Upper Platte and Beaver Canal Company			
	Mailing address:	P.O. Box 69 Fort Morgan, CO 80701			
	FEIN #:	84-0405195			
	Primary Contact:	Steve Griffiths	Position/Title:	President	
	Email:	upbccompany@gmail.com			
	Phone Numbers:	Cell:	(970) 380-9346	Office:	(970) 842-2552
	Alternate Contact:	Tom Dea	Position/Title:	Consulting Engineer	
	Email:	tdea@tza4water.com			
	Phone Numbers:	Cell:	(303) 882-3749	Office:	(303) 971-0030

2. Eligible entities for WSRA funds include the following. What type of entity is the Applicant?

- ☐ Public (Government) – municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities and the local entity should be the grant recipient. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
- ☐ Public (Districts) – authorities, Title 32/special districts, (conservancy, conservation, and irrigation districts), and water activity enterprises.
- ☒ Private Incorporated – mutual ditch companies, homeowners associations, corporations.
- ☐ Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
- ☐ Non-governmental organizations – broadly defined as any organization that is not part of the government.

Water Supply Reserve Account – Application Form

Revised October 2013

3. Provide a brief description of your organization

The Upper Platte and Beaver Canal Company (UP&B) is an irrigation company with 96 shareholders and a total of 1,187 shares. UP&B diverts approximately 30,000 – 35,000 acre feet of water off of the South Platte River on an annual basis. The decreed diversion rate is 234 CFS. Water is diverted for direct irrigation and water is also delivered to recharge sites and used for augmentation of irrigation wells, municipal wells and recreational use wells. UP&B irrigates approximately 9,500 acres of land. UP&B currently has four recharge ponds and additional recharge sites are being planned.

The Deuel & Snyder Improvement Company (D&S) is effectively a co-applicant for this project because UP&B and D&S both rely on the same diversion structure to deliver water to their ditch systems. D&S is an irrigation company with 15 shareholders and a total of 161 shares. The company diverts approximately 5,000 – 6,000 acre feet of water off of the South Platte River on an annual basis. Water is diverted for direct irrigation and water is also delivered to recharge sites and used for augmentation of irrigation wells, and feedlot wells. D&S irrigates approximately 1,650 acres of land, and currently has six operating recharge ponds and nineteen additional recharge sites are planned.

Since UP&B and D&S rely on the same diversion structure across the South Platte River, both companies share the cost on a 6/7 to 1/7 basis. UP&B is the applicant for this project, but both UP&B and D&S will participate on a 6/7 to 1/7 basis, respectively.

4. If the Contracting Entity is different then the Applicant (Project Sponsor or Owner) please describe the Contracting Entity here.

The Upper Platte and Beaver Canal Company will be the Contracting Entity.

5. Successful applicants will have to execute a contract with the CWCB prior to beginning work on the portion of the project funded by the WSRA grant. In order to expedite the contracting process the CWCB has established a standard contract with provisions the applicant must adhere to. A link to this standard contract is included in Appendix 3. Please review this contract and check the appropriate box.

☒ The Applicant will be able to contract with the CWCB using the Standard Contract

☐ The Applicant has reviewed the standard contract and has some questions/issues/concerns. Please be aware that any deviation from the standard contract could result in a significant delay between grant approval and the funds being available.

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

N/A

Water Supply Reserve Account – Application Form

Revised October 2013

Part II. - Description of the Water Activity/Project

1. What is the primary purpose of this grant application? (Please check only one)

<input type="checkbox"/>	Nonconsumptive (Environmental or Recreational)
<input checked="" type="checkbox"/>	Agricultural
<input type="checkbox"/>	Municipal/Industrial
<input type="checkbox"/>	Needs Assessment
<input type="checkbox"/>	Education
<input type="checkbox"/>	Other

Explain:

2. If you feel this project addresses multiple purposes please explain.

The final project will also benefit all municipal, industrial, agricultural and recreational water users downstream of the existing diversion structure. Improvements to the existing diversion structure will reduce the potential for a diversion dam breach. Morgan County Quality Water has critical water system infrastructure that could be damaged due to flooding. The nearby downstream developments of Morgan Heights, Blue Sky, and Country Club Estates will also benefit by minimizing flood potential at their wastewater treatment plant facility. A municipal benefit is that the City of Brush augments well use with water that is diverted through the UP&B. We have had preliminary discussions with the Colorado Parks and Wildlife Engineering section and they are interested in collaborating and evaluating the feasibility of installing fish passage structures.

3. Is this project primarily a study or implementation of a water activity/project? (Please check only one)

<input checked="" type="checkbox"/>	Study	<input type="checkbox"/>	Implementation
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4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

<input type="text" value="TBD"/>	New Storage Created (acre-feet)
<input type="text" value="TBD"/>	New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)
<input type="text" value="TBD"/>	Existing Storage Preserved or Enhanced (acre-feet)
<input type="text" value=">9,500'"/>	Length of Stream Restored or Protected (linear feet)
<input type="text" value="TBD"/>	Length of Pipe/Canal Built or Improved (linear feet)
<input type="text" value="TBD"/>	Efficiency Savings (acre-feet/year OR dollars/year – circle one)

Water Supply Reserve Account – Application Form

Revised October 2013

4. To help us map WSRA projects please include a map (Exhibit B) and provide the general coordinates below:

Latitude: 40°16'31.17"N

Longitude: 103°50'2.71"W

5. Please provide an overview/summary of the proposed water activity (no more than one page). Include a description of the overall water activity and specifically what the WSRA funding will be used for. A full **Statement of Work** with a detailed budget and schedule is required as **Exhibit A** of this application.

The existing diversion dam spans the South Platte River and allows UP&B and D&S to divert water into their intake structures. The original structure was constructed over 80 years ago and UP&B and D&S have modified and repaired the structure throughout its history to make it useable for both companies. Recent investigations have found problem areas where the shale bedrock has been undermined resulting in structural damage that must be addressed so that the diversion structure does not catastrophically fail, and so that UP&B and D&S can insure efficient operation of their irrigation systems. The work to be performed in this feasibility study will consist of a thorough evaluation of the existing diversion structure and associated diversion components that are owned and operated by both UP&B and D&S. The feasibility study will be designed to evaluate options to repair and/or upgrade the existing structures as well as provide options to replace the existing structure with a new diversion dam across the South Platte River. The goal of this feasibility study is to evaluate the existing structures and determine if it is best to repair/modify the existing structure or if it is best to replace the dam. The design and construction phase that will follow will be designed to provide an efficient, safe, diversion structure that will provide benefits for the next 80+ years. Additional benefits that have been identified for evaluation at this time include, but are not limited to the following:

- Fish passage structure(s) designed to provide a detour route for migrating native Colorado fish.
 - Brassy Minnow
 - Sucker Mouth Minnow
- Channelization of the South Platte River to minimize flood impacts and ongoing erosion on the north and south banks of the South Platte River at and near the diversion structure
- Bank stabilization
- Protection of existing downstream infrastructure (Morgan County Quality Water, Morgan Heights, etc...)
- Safe operations

The deliverable result of the feasibility study will be an engineering report and recommendations. The study will evaluate alternatives and provides cost estimates for various alternates. Each alternate evaluated will take into account system reliability, infrastructure longevity, efficiency and operational safety of the dam.

Feasibility study work activities will include the following items:

1. Visual inspection and structural evaluation of existing infrastructure;
2. Geotechnical evaluation and mapping of bedrock surfaces;
3. Hydraulic modeling;
4. Evaluation of fish passages.
5. Develop options for construction, cost estimates and professional opinions associates with options
6. Provide recommendations and budget estimates for recommended construction activities

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Part III. – Threshold and Evaluation Criteria

1. Describe how the water activity meets these **Threshold Criteria**. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines.)

a) The water activity is consistent with Section 37-75-102 Colorado Revised Statutes.¹

The proposed activities do not impair, limit or otherwise affect existing decrees or other water rights. No new diversions or allocation of existing diversions is proposed. This project shall conform to the requirements/language of the above Statute. We affirm the prior appropriation doctrine and water rights adjudication system as presented in C.R.S. 37-75-102.

b) The water activity underwent an evaluation and approval process and was approved by the Basin Roundtable (BRT) and the application includes a description of the results of the BRT's evaluation and approval of the activity. At a minimum, the description must include the level of agreement reached by the roundtable, including any minority opinion(s) if there was not general agreement for the activity. The description must also include reasons why general agreement was not reached (if it was not), including who opposed the activity and why they opposed it. Note- If this information is included in the letter from the roundtable chair simply reference that letter.

To be performed

¹ 37-75-102. Water rights - protections. (1) It is the policy of the General Assembly that the current system of allocating water within Colorado shall not be superseded, abrogated, or otherwise impaired by this article. Nothing in this article shall be interpreted to repeal or in any manner amend the existing water rights adjudication system. The General Assembly affirms the state constitution's recognition of water rights as a private usufructuary property right, and this article is not intended to restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under Colorado law. (2) The General Assembly affirms the protections for contractual and property rights recognized by the contract and takings protections under the state constitution and related statutes. This article shall not be implemented in any way that would diminish, impair, or cause injury to any property or contractual right created by intergovernmental agreements, contracts, stipulations among parties to water cases, terms and conditions in water decrees, or any other similar document related to the allocation or use of water. This article shall not be construed to supersede, abrogate, or cause injury to vested water rights or decreed conditional water rights. The General Assembly affirms that this article does not impair, limit, or otherwise affect the rights of persons or entities to enter into agreements, contracts, or memoranda of understanding with other persons or entities relating to the appropriation, movement, or use of water under other provisions of law.

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- c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.² The Basin Roundtable Chairs shall include in their approval letters for particular WSRA grant applications a description of how the water activity will assist in meeting the water supply needs identified in the basin roundtable's consumptive and/or non-consumptive needs assessments.

To be performed

- d) Matching Requirement: For requests from the **Statewide Fund**, the applicants will be required to demonstrate a **25 percent** (or greater) match of the total grant request from the other sources, including but not limited to Basin Funds. A minimum match of 5% of the total grant amount shall be from Basin funds. A minimum match of 5% of the total grant amount must come from the applicant or 3rd party sources. Sources of matching funds include but are not limited to Basin Funds, in-kind services, funding from other sources, and/or direct cash match. Past expenditures directly related to the project may be considered as matching funds if the expenditures occurred within 9 months of the date the contract or purchase order between the applicant and the State of Colorado is executed. Please describe the source(s) of matching funds. (NOTE: These matching funds should also be reflected in your Detailed Budget in **Exhibit A** of this application)

This application is based on a total feasibility study project cost of \$125,000. Upper Platte and Beaver is seeking \$46,875.00 from the statewide account and \$46,875.00 from the basin roundtable account. Matching funds totaling 25% of the total project cost (\$31,250) have been secured and will be provided by UP&B (\$26,786.00) and D&S (\$4,464.00). Additional funds and or funds to perform feasibility analysis for fish passages may be available from Colorado Parks and Wildlife, but this is still being evaluated.

² 37-75-104 (2)(c). Using data and information from the Statewide Water Supply Initiative and other appropriate sources and in cooperation with the on-going Statewide Water Supply Initiative, develop a basin-wide consumptive and nonconsumptive water supply needs assessment, conduct an analysis of available unappropriated waters within the basin, and propose projects or methods, both structural and nonstructural, for meeting those needs and utilizing those unappropriated waters where appropriate. Basin Roundtables shall actively seek the input and advice of affected local governments, water providers, and other interested stakeholders and persons in establishing its needs assessment, and shall propose projects or methods for meeting those needs. Recommendations from this assessment shall be forwarded to the Interbasin Compact Committee and other basin roundtables for analysis and consideration after the General Assembly has approved the Interbasin Compact Charter.

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2. For Applications that include a request for funds from the **Statewide Account**, describe how the water activity/project meets all applicable **Evaluation Criteria**. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines and repeated below.) Projects will be assessed on how well they meet the Evaluation Criteria. **Please attach additional pages as necessary.**

To be provided

Evaluation Criteria – the following criteria will be utilized to further evaluate the merits of the water activity proposed for funding from the Statewide Account. In evaluation of proposed water activities, preference will be given to projects that meet one or more criteria from each of the three “tiers” or categories. Each “tier” is grouped in level of importance. For instance, projects that meet Tier 1 criteria will outweigh projects that only meet Tier 3 criteria. The applicant should also refer to the Supplemental Scoring Matrix applied to Evaluation Criteria Tiers 1-3 for Statewide Account requests. WSRA grant requests for projects that may qualify for loans through the CWCB loan program will receive preference in the Statewide Evaluation Criteria if the grant request is part of a CWCB loan/WSRA grant package. For these CWCB loan/WSRA grant packages, the applicant must have a CWCB loan/WSRA grant ratio of 1:1 or higher. Preference will be given to those with a higher loan/grant ratio.

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

- a. The water activity addresses multiple needs or issues, including consumptive and/or non-consumptive needs, or the needs and issues of multiple interests or multiple basins. This can be demonstrated by obtaining letters of support from other basin roundtables (in addition to an approval letter from the sponsoring basin).
- b. The number and types of entities represented in the application and the degree to which the activity will promote cooperation and collaboration among traditional consumptive water interests and/or non-consumptive interests, and if applicable, the degree to which the water activity is effective in addressing intrabasin or interbasin needs or issues.

This project is an example of long term collaboration and partnership between UP&B and D&S. We have also had preliminary discussions with and plan to work in collaboration with Colorado Parks and Wildlife, Morgan County Quality Water, the City of Brush, Morgan Heights, Blue Sky, and Country Club Estates. This project will not only benefit the UP&B and D&S Irrigation users, but we envision that it will also benefit all water users located downstream of this structure. Wildlife dependent upon these areas and the people of Colorado who use the South Platte River for recreation and wildlife resources will also benefit from this project. Public benefit will also be bolstered by increasing the safety, efficiency, and reliability of the diversion structure.

Improvements in efficiency of the diversion and headgate structures will allow both UP&B and D&S the opportunity to divert and recharge more water than what is currently feasible to divert during “free river” conditions. Any and all additional water that can be placed into recharge sites will bolster irrigation supplies and this will increase return flows to the South Platte River. Increased return flows will benefit downstream users (Municipal, Irrigation, and Industrial users) and increased return flows can benefit others by minimizing direct diversions needed during times of drought. Additional water placed into recharge structures may also benefit upstream water users in the South Platte basin as well as water users in other basins.

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- c. The water activity helps implement projects and processes identified as helping meet Colorado's future water needs, and/or addresses the gap areas between available water supply and future need as identified in SWSI or a roundtable's basin-wide water needs assessment.

UP&B and D&S combine to irrigate more than 11,000 acres in Morgan County, Colorado. Improving the efficiency and effectiveness of the diversion structure will insure that irrigators have reliable infrastructure that is needed to meet current and future demands. Improvements to the diversion dam structure will also result in reliable long term safe operations. A well designed and maintained efficient structure will decrease maintenance costs and increase the volume of water that may be placed into recharge sites during free river conditions, effectively improving the overall health of the South Platte River system.

UP&B and D&S view this project as phase one of a two phase project. Once the feasibility study is completed UP&B and D&S will plan to begin phase 2, which will consist of final design and completion of construction improvements. UP &B and D&S plan to apply for a CWCB loan to fund part or all of the construction project.

As discussed above, UP &B and D&S are actively developing recharge sites. While these recharge site are not lined storage, they do create effective storage (timed return flows) that in turn allows wells pumping that would not be feasible without a well-managed augmentation plan. While this does not specifically address the gap areas between available water supply and future need, there is no doubt that it will improve the reliability of the irrigation demands and allow storage of additional supplies during free river conditions.

Tier 2: Facilitating Water Activity Implementation

- d. Funding from this Account will reduce the uncertainty that the water activity will be implemented. For this criterion the applicant should discuss how receiving funding from the Account will make a significant difference in the implementation of the water activity (i.e., how will receiving funding enable the water activity to move forward or the inability obtaining funding elsewhere).
- e. The amount of matching funds provided by the applicant via direct contributions, demonstrable in-kind contributions, and/or other sources demonstrates a significant & appropriate commitment to the project.

Funding provided by this WSRA grant will allow the applicant to complete a much needed feasibility study. The existing structure has reached its useful lifetime and is in need of major repairs and/or total replacement. The results of the feasibility study will and then the applicant will

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

- f. The water activity helps sustain agriculture & open space, or meets environmental or recreational needs.

This water activity is critical to sustaining agriculture and open space. This project will also be designed to benefit both environmental and recreational needs. If the existing diversion structure fails, it would be most likely fail during spring runoff (highest historical flows). A failure of the diversion structure would result in:

- A safety issue;
- Would cause environmental damage to the area;
- Would likely destroy downstream infrastructure;
- Could result in the loss of production from over 11,000 acres of irrigated farmland;
- Would negatively impact the agricultural community in Morgan County and the State of Colorado.

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- g. The water activity assists in the administration of compact-entitled waters or addresses problems related to compact entitled waters and compact compliance and the degree to which the activity promotes maximum utilization of state waters.

As stated above, increased recharge creates effective storage (timed return flows) that in turn allows wells pumping that would not be feasible without a well-managed augmentation plan. While this does not specifically address administration of compact-entitled waters, an increase in recharge will improve the reliability of the irrigation demands and effectively allow for storage of additional supplies during free river conditions. Construction of a more efficient diversion structure will allow the applicant to maximize utilization of state waters.

- h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.

As discussed above, we have had preliminary discussions with the engineering department of Colorado Parks and Wildlife and we will evaluate fish passage structure(s) designed to provide a detour route for migrating native Colorado fish. Colorado Parks and Wildlife have identified these species of concern in the area as:

1. Brassy Minnow
2. Sucker Mouth Minnow

- i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.

j.

The impact from agriculture alone provides a high level of benefit to Colorado in relationship to the amount of funds requested.

- k. The water activity is complimentary to or assists in the implementation of other CWCB programs.
Continued: Explanation of how the water activity/project meets all applicable **Evaluation Criteria**.

This feasibility study will be complimentary and will likely result in a CWCB loan request to fund final design and construction improvements that will be necessary to complete this project.

Water Supply Reserve Account – Application Form

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Part IV. – Required Supporting Material

1. **Water Rights, Availability, and Sustainability** – This information is needed to assess the viability of the water project or activity. Please provide a description of the water supply source to be utilized, or the water body to be affected by, the water activity. This should include a description of applicable water rights, and water rights issues, and the name/location of water bodies affected by the water activity.

To be provided upon request

2. Please provide a brief narrative of any related studies or permitting issues.

See attached PowerPoint presentation

3. Statement of Work, Detailed Budget, and Project Schedule

To be provided upon request

The statement of work will form the basis for the contract between the Applicant and the State of Colorado. In short, the Applicant is agreeing to undertake the work for the compensation outlined in the statement of work and budget, and in return, the State of Colorado is receiving the deliverables/products specified. **Please note that costs incurred prior to execution of a contract or purchase order are not subject to reimbursement.** All WSRA funds are disbursed on a reimbursement basis after review invoices and appropriate backup material.

Please provide a detailed statement of work using the template in Exhibit A. Additional sections or modifications may be included as necessary. Please define all acronyms and include page numbers.

REPORTING AND FINAL DELIVERABLE

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 statement 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.

PAYMENT

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 10 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed. 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 help promote the development of a common technical platform.

Water Supply Reserve Account – Application Form
Revised October 2013

The above statements are true to the best of my knowledge:

Signature of Applicant:

Print Applicant's Name:

Project Title: Upper Platte & Beaver / Deuel & Snyder Feasibility Study

Return an electronic version (hardcopy may also be submitted) of this application to:

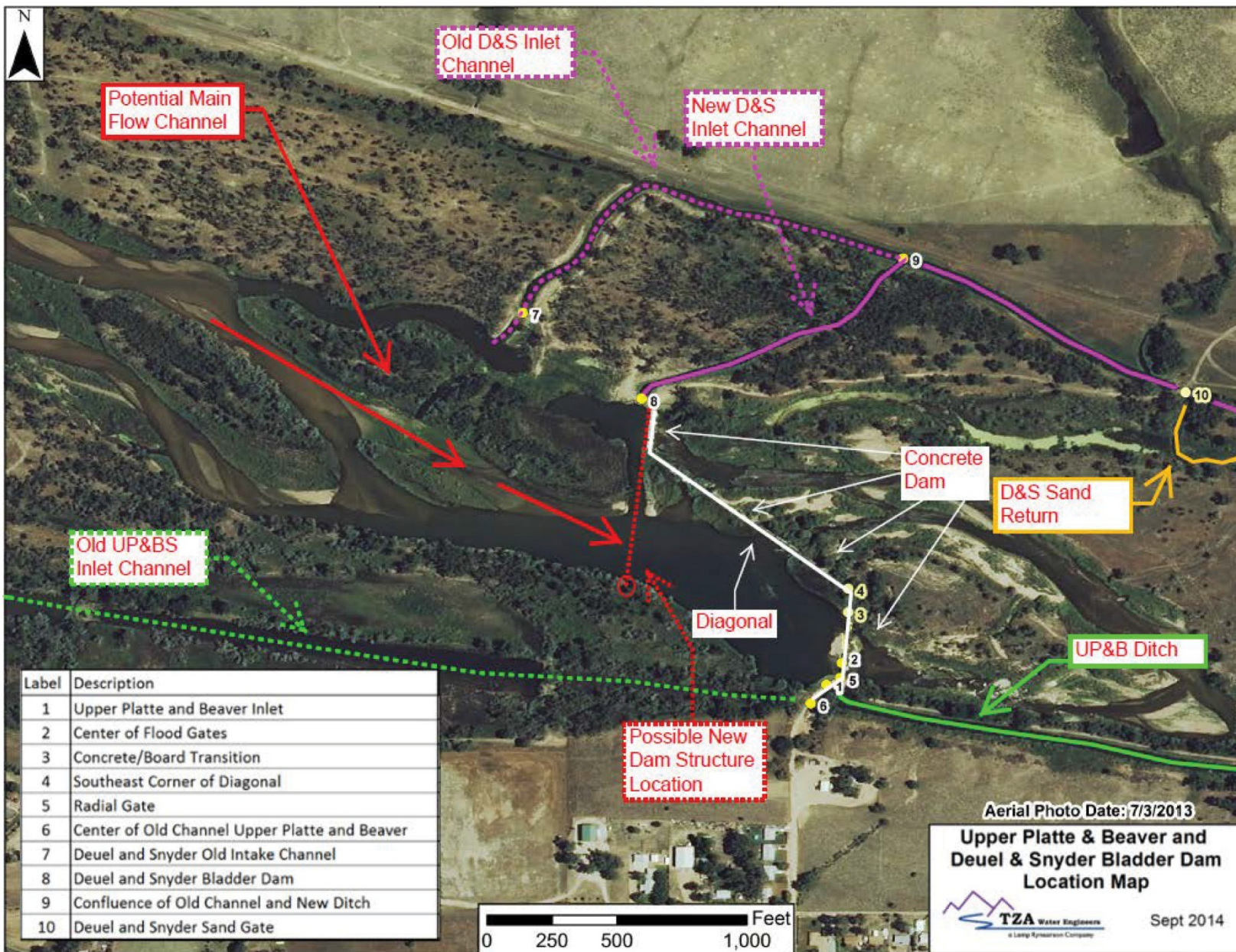
Craig Godbout – WSRA Application
Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203
303-866-3441, ext. 3210 (office)
303-547-8061 (cell)
craig.godbout@state.co.us

UP&B Feasibility Study Schedule

Item	Start	Completion
Site Survey	30 days from NTP	45 days from NTP
Inspection (Existing)	10 days from NTP	60 days from NTP
Geotechnical Analysis	45 days from NTP	90 days from NTP
Environmental	30 days from NTP	90 days from NTP
Hydraulic Analysis	90 days from NTP	140 days from NP
Preliminary Design/Recommendations	140 days from NTP	180 days from NTP

UP&B Feasibility Study Budget

Site Survey	\$18,500
Inspection (Existing)	\$14,500
Geotechnical Analysis	\$40,000
Environmental	\$7,000
Hydraulic Analysis	\$24,500
Preliminary Design/Recommendations	\$20,500
Total Budget	\$125,000



June 8, 2015





Aerial Photo: Oct 13, 1948



0 2,000 4,000 Feet

Upper Platte and Beaver & Deuel and Snyder Diversions Structure



March 2015



Aerial Photo: July 3, 2013



Upper Platte and Beaver & Deuel and Snyder Diversions Structure



March 2015



Aerial Photo: Oct 13, 1948



0 325 650
Feet

Upper Platte and Beaver & Deuel and Snyder Diversions Structure



March 2015



Aerial Photo: July 3, 2013



0 325 650
Feet

Upper Platte and Beaver & Deuel and Snyder Diversions Structure



March 2015















Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
September 15-17, 2015
Agenda Item 18(n)

Applicant & Fiscal Agent: Boulder County (Boulder County Parks and Open Space Department - BCPOS)

Water Activity Name: Swede Lake Dam and Reservoir Rehabilitation Project

Water Activity Purpose: Structural

County: Boulder

Drainage Basin: South Platte

Water Source: South Platte River

Amount Requested/Source of Funds: \$40,000 South Platte Basin Account
\$160,000 Statewide Account
\$200,000 Total grant request

Matching Funds: Basin Account Match (\$40,000) = 20% of total grant request (meets 5% min);
Basin Account and Applicant Match (\$645,000) = 322% of total grant request (meets 25% min);
Applicant Match (\$605,000) = 75% of total project costs (\$805,000)
(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:

Staff recommends approval of up to \$40,000 from the South Platte Basin Account and \$160,000 from the Statewide Account to help fund the project titled: Boulder County: Swede Lake Dam and Reservoir Rehabilitation Project.
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Water Activity Summary: WSRA funds will be expended to restore storage capacity to the AHI property (223 acre feet preserved) that is currently owned by Boulder County and is managed as a producing farm, under a farmer/tenant lease. With this storage the property will be able to retain farm production of the total 230 acres, with the potential of 47 additional acres. This property is in the process of transitioning to organic production. Without this storage a significant amount of surface water will need to be purchased in a basin that is already very over appropriated. In addition to its use as agricultural open space, this property provides beneficial habitat opportunities directly on the reservoir as well as the multiple areas of fringe agricultural fields and riparian corridors that are directly and indirectly supported by water from this reservoir.

This reservoir was acquired in April 2011 in conjunction with the purchase of the 757-acre AHI property. In 2010, the Division of Water Resources inspected the reservoir dam, as the reservoir is a jurisdictional dam under the State of Colorado Rules and Regulations for Dam Safety and Construction, and any work done to the dam beyond general maintenance needs to have the approval of the State Engineers Office (SEO). Due to the condition of the dam, the storage was restricted in 1987; the 2010 report noted that the condition of the structure appeared to be in a satisfactory condition at the restricted level; this report also noted that the owner was completing all required maintenance and that the condition of the dam was improving. When Boulder County acquired the

property, the condition of the reservoir was functional, however the reservoir failed in June 2013 when the outlet pipe collapsed.

Discussion:

An engineering study and report has been completed for Boulder County that more completely identifies the items requiring repair and provided a conceptual level cost estimate. Geotechnical field and office investigation of the dam embankment and prospective earth borrow sources was conducted (Engineering Analytics 2015) to determine the soils and bedrock characteristics of the site and the extent of embankment rehabilitation that would be needed. This investigation resulted in a report that concluded it was technically feasible from a geotechnical standpoint to rehabilitate the dam and that adequate local borrow sources exist. A design was completed to a preliminary design level that describes/illustrates the geotechnical components that will need to be included in the final design of the project rehabilitation. The main components are tree removal; filling, surface grading, and compaction; and construction of a drain/filter embankment zone along the toe of the dam. This geotechnical documentation can also be provided upon request. The dam and reservoir are currently existing and located off-stream. Their modification will have a minimal impact on the surrounding environment and minimal impact on riparian and wetland areas. Likewise, the dam and reservoir purpose is 100% for irrigated agriculture. This simplifies the overall project by requiring less evaluation and documentation and allowing it to proceed relatively promptly to construction.

Issues/Additional Needs: None identified.

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

Tier 1-3 Evaluation Criteria:

This project has undergone review and evaluation per the Supplemental Scoring Matrix and staff has determined that this request satisfies the Evaluation Criteria. Further analysis of the project, and how the project will meet Tiered Evaluation Criteria, is provided by the applicant in the WSRA Application.

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
Boulder County	\$605,000	\$0	\$605,000
WSRA South Platte Basin Account	\$40,000	n/a	\$40,000
WSRA Statewide Account	\$160,000	n/a	\$160,000
Total Project Costs	\$805,000	n/a	\$805,000

CWCB Project Manager: Brent Newman

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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
September 15-17, 2015
Agenda Item 18(o)

Applicant & Fiscal Agent: Ducks Unlimited, Inc.

Water Activity Name: Water Development of the Bureau of Reclamation properties, known as the Narrows Tract, along the South Platte River

Water Activity Purpose Study

County: Morgan

Drainage Basin: South Platte

Water Source: South Platte River

Amount Requested/Source of Funds: \$15,554 South Platte Basin Account
\$121,633 Statewide Account
\$137,187 Total grant request

Matching Funds: Basin Account Match (\$15,554) = 11% of total grant request (meets 5% min(;
Basin Account and Applicant Match (\$40,554) = 30% of total grant request (meets 25% min);
Applicant Match (\$25,000) = 15% of total project costs (\$162,187)
(refer to *Funding Summary/Matching Funds* section)

Staff Recommendation:

Staff recommends approval of up to \$15,554 from the South Platte Basin Account and \$121,633 from the Statewide Account to help fund the project titled: Ducks Unlimited: Water Development of the Bureau of Reclamation properties, known as the Narrows Tract, along the South Platte River.

Water Activity Summary: WSRA funds will be expended to complete the first of a three-phase project for water and wetland development on four Bureau of Reclamation (BOR) properties, known as the Narrows tract in Morgan County, CO. Within the Narrows tract, the four properties are individually referred to as the Akers, Cook, Kinnaman, and Lantz tracts. The Cook and Lantz tracts will be developed for South Platte River streamflow augmentation and the Akers and Kinnaman tracts will be developed for shallow water wetland habitat. All four properties will combine to form a multi-beneficial wetland complex that serves to retine streamflow, restore and create new wildlife habitat, and provide public recreational hunting opportunities. Specifically this project will include:

- 1.) Securing special use permitting from BOR to develop the properties for program goals;
- 2.) Meeting with water providers, municipalities, agricultural producers, and industrial users to secure site specific agreements for retiming South Platte River streamflow on the Lantz and Cook tracts;
- 3.) Establishing the framework between BOR, Colorado Parks and Wildlife (CPW), and DU for long-term management and monitoring of the site; and

- 4.) Performing a feasibility study on all four properties (2,288 acres) which includes drilling and installing monitoring wells, performing cadastral and geotechnical surveys, aquifer testing, surface infiltration testing, and final project design.

Discussion: This is a multi-beneficial project to develop streamflow augmentation and wetlands on four Bureau of Reclamation properties that will generate river augmentation credits for use by municipal, industrial, and agricultural partners, restore and create wildlife habitat, and expand recreational hunting opportunities for the public.

Issues/Additional Needs: None identified.

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

Tier 1-3 Evaluation Criteria:

This project has undergone review and evaluation per the Supplemental Scoring Matrix and staff has determined that this request satisfies the Evaluation Criteria. Further analysis of the project, and how the project will meet Tiered Evaluation Criteria, is provided by the applicant in the WSRA Application.

Funding Summary/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
WSRA South Platte Basin Account	\$15,554	n/a	\$15,554
WSRA Statewide Account	\$121,633	n/a	\$121,633
Ducks Unlimited	<u>\$25,000</u>	<u>n/a</u>	<u>\$25,000</u>
Total Project Costs	\$162,187	n/a	\$162,187

CWCB Project Manager: Brent Newman

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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.