

STATE OF COLORADO

Colorado Water Conservation Board Department of Natural Resources

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TO: Colorado Water Conservation Board Members

John W. Hickenlooper
Governor

FROM: Greg Johnson,
Water Supply Planning Section

Mike King
DNR Executive Director

DATE: March 8, 2013

Jennifer L. Gimbel
CWCB Director

SUBJECT: **Agenda Item 14, March 19-20, 2013 Board Meeting
WSRA Applications for Statewide and Basin Funds**

Staff Recommendation

A summary of staff's recommendation for each WSRA application is provided in the attached table. The table also includes a breakdown down of match amounts for applications that include a request for statewide WSRA funds. For clarity, the table includes all WSRA requests to be considered at this meeting:

- Agenda Item 13 – WSRA Applications for Basin Funds
- Agenda Item 14 – WSRA Applications for Statewide and Basin Funds
- Agenda Item 17 – CWCB Loan and WSRA Applications

Favorable recommendations may be contingent on providing the CWCB with additional information, clarifications, or modifications in the scope of work. Please refer to the Water Activity Summary Sheets contained within this agenda item to find a summary of staff's review and any conditions associated with each recommendation.

Background

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

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

Staff's review of the applications involves the following steps:

- 1) Applications are reviewed for completeness based on the information requirements, which are primarily outlined in Part 2 of the Criteria and Guidelines (C&G).
- 2) Applications are reviewed to verify that the water activity meets the **eligibility requirements** in Section 39-29-108 (III) C.R.S. (C&G, Part 2) and the **threshold criteria**, which are based

on the requirements of Section 39-29-108 (III) C.R.S., and two sections of the Water for the 21st Century Act (House Bill 1177); Section 37-75-102 and Section 37-75-104(2)(c) (C&G, Part 3). Staff also verify that the applicant was an **eligible entity** to receive funding (C&G, Part 2).

- 3) Staff then prepares the Water Activity Summary Sheet which documents the outcome of the review process and contains staff's recommendations.

Water Supply Reserve Account Balance Summary and Project Status Report

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

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

Water Supply Reserve Account Applications for Consideration at the CWCB March 2013 Board Meeting												
Agenda Item 13 - WSRA Applications for Basin Funds												
Agenda Item	Basin	Applicant	Name of Water Activity	Basin Account Request	Statewide Account Request	Total Request	Cash Match	In-Kind Match	Total Match	Staff Project Manager	Summary of Staff Recommendation	Notes
13.a	Arkansas	Colorado Water Institute	Agricultural Economics and Water Resources: Methods, Metrics and Models – A Specialty Workshop	\$9,746	\$0	\$9,746	N/A	N/A	N/A	Todd	Full Funding	
13.b	Colorado	Grace and Shehi Ditch Owners Mr. William Grange	Grace and Shehi Diversion Rehabilitation Project (Phase I & II - Alternatives Evaluation & Detailed Design)	\$40,500	\$0	\$40,500	N/A	N/A	N/A	Jacob	Full Funding	
13.c	Rio Grande	Rio Grande Watershed Conservation & Education Initiative	Value of Water: The Rio Grande Basin "Narrowing the Gap" for Colorado's Water Future	\$23,500	\$0	\$23,500	N/A	N/A	N/A	Jacob	Full Funding	
13.d	South Platte	Colorado Division of Water Resources	Data Logger Installation Project	\$89,205	\$0	\$89,205	N/A	N/A	N/A	Greg	Full Funding	
13.e	Southwest	Animas Consolidated Ditch Company	Animas River Diversion Headgate Monitoring Study	\$14,500	\$0	\$14,500	N/A	N/A	N/A	Jacob	Full Funding	
13.f	Arkansas	Arkansas Groundwater Users Association	A Multi-Media Program for Reporting Crop and Turf Water Use Estimates from the Colorado Agricultural Meteorological Network (CoAgMet)	\$46,971	\$0	\$46,971				Todd	Approval of Requested Change of Fiscal Agent	CHANGE OF FISCAL AGENT TO EXISTING PROJECT (former fiscal agent: Arkansas Groundwater Users Association)
				\$177,451	\$0	\$177,451						
Agenda Item 14 - WSRA Applications for Statewide and Basin Funds												
14.a	Arkansas	Southeastern Colorado Water Conservancy District	Arkansas River Basin Study	\$59,600	\$238,400	\$298,000	\$0	\$0	\$0	Todd	Full Funding	
14.b	Arkansas	Fountain Creek Watershed Flood Control and Greenway District	Fountain Creek Bank Restoration at the Frost Ranch	\$30,000	\$75,000	\$105,000	\$45,300	\$38,800	\$84,100	Chris	Full Funding	Match from Colorado Springs Utilities, Fountain Creek Watershed Flood Control and Greenway District, and Frost Livestock Company
14.c	Gunnison	Lake Fork Water Conservancy District	Henson Creek and Lake Fork Confluence Channel Improvement	\$28,975	\$260,111	\$289,086	\$244,741	\$51,210	\$295,951	Chris	Full Funding	Match from CWCB Watershed Restoration, NPS 319, GOCO, LFVC, and LFVC In-Kind
14.d	Gunnison	Colorado Open Lands	Lake San Cristobal Inlet Preservation and Fishing Access	\$16,700	\$150,300	\$167,000	\$873,000	\$810,800	\$1,683,800	Todd	Full Funding	Match from GOCO, CPW, donated conservation easement, and other In-Kind
14.e	Rio Grande	The Mogote-Northeastern	Quantifying Mogote/Romero Flows & Effects on the Conejos System	\$16,700	\$268,300	\$285,000	\$67,850	\$27,500	\$95,350	Greg	Full Funding	Match from CWCD, water users, and NRCS (In-Kind)
14.f	Rio Grande	La Acequia del Cerro (The Cerro Ditch Company)	Rehabilitation and Ditch Lining	\$25,000	\$425,000	\$450,000	\$60,000	\$223,105	\$283,105	Greg	Approval of Basin Fund Request, Denial of Statewide Request	Match from Costilla Cty Conservation District, NRCS (In-Kind), Costilla Cty, and Applicant
14.g	Rio Grande	Sangre de Cristo Acequia Association	Culebra Watershed Vallejos Ditch Headgate Replacement	\$10,000	\$90,000	\$100,000	\$3,600	\$12,500	\$16,100	Greg	Full Funding	Match from Applicant, Costilla Conservancy District, NRCS, & Vallejos
14.h	South Platte	Ducks Unlimited, Inc.	Prewitt Reservoir Wetland Partnership	\$45,414	\$45,414	\$90,828	\$292,928	\$0	\$292,928	Todd	Full Funding	Match from CPW, NWCA, Playa Lakes Joint Venture, and Prewitt Ranch
14.i	Yampa/White	Routt County Conservation District	Armstrong Creek Restoration	\$15,000	\$35,000	\$50,000	\$30,000	\$72,000	\$102,000	Chris	Full Funding	Match from Applicant, CPW, TU, and USFS
				\$247,389	\$1,587,525	\$1,834,914						
Agenda Item 17 - CWCB Loan and WSRA Applications												
17.a	Arkansas	Ordway Cattle Feeders	Ordway Cattle Feeders Water Line Extension, Phase II	\$50,000	\$225,000	\$275,000	\$606,404	\$0	\$606,404	Anna	Full Funding	Match from Applicant, LAVWCD, and Crowley Cty. CWCB Loan = \$2,500,000
17.b	Rio Grande	Santa Maria Reservoir Company	Santa Maria Reservoir Siphon & Canal System Rehabilitation	\$23,000	\$440,750	\$463,750	\$139,125	\$0	\$139,125	Anna	Full Funding	CWCB Loan = \$1,405,163
17.c	Gunnison	Town of Ridgway	Town of Ridgway Lake Otonowanda Renovation Project	\$60,000	\$540,000.00	\$600,000				Kirk	Approval of Requested Change to Scope	CHANGE OF SCOPE TO EXISTING PROJECT (land acquisition for larger reservoir enlargement)
				\$73,000	\$665,750	\$738,750						
Water Supply Reserve Account Total March Requests				\$497,840	\$2,253,275	\$2,751,115						

COLORADO WATER CONSERVATION BOARD
Water Supply Reserve Account - Balance Summary
February 1, 2013

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	\$3,606,275	\$2,308,016	\$1,298,259
Interest	N/A	\$2,334,459	\$2,334,459	\$0
TOTAL	\$44,775,000	\$47,715,734	\$31,970,225	\$15,745,509

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	\$1,460,967	\$1,749,501	\$288,534	\$4,692,525	
Colorado	\$1,388,330	\$1,749,501	\$361,171	\$3,741,036	
Southwest	\$1,451,846	\$1,749,501	\$297,655	\$5,038,306	
Gunnison	\$1,362,322	\$1,749,501	\$387,179	\$2,231,913	
Metro	\$1,264,929	\$1,749,501	\$484,572	\$2,225,268	
North Platte	\$1,150,077	\$1,749,501	\$599,424	\$311,027	
Rio Grande	\$1,555,166	\$1,749,501	\$194,335	\$6,590,223	
South Platte	\$1,200,857	\$1,749,501	\$548,644	\$2,550,566	
Yampa/White	\$1,193,874	\$1,749,501	\$555,627	\$431,813	
TOTAL	\$12,028,369	\$15,745,509	\$3,717,140	\$27,812,676	\$4,157,549
TOTAL APPROVED GRANTS					\$39,841,045

Note: Only includes grants approved by CWCB

**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 14.a**

Applicant: Southeastern Colorado WCD

Water Activity Name: Arkansas River Basin Study

Water Activity Purpose: Study, Provide Basin Management Options

County: All

River Basin: Arkansas

Water Source: Arkansas

Amount Requested: \$238,400 (Statewide Account); \$59,600 (Arkansas Basin Account)

Matching Funds: Basin Funds

Staff Recommendation
Staff recommends approval of up to \$59,600 from the Arkansas Basin Account and \$238,400 from the Statewide Account to fund the Arkansas River Basin Study. This approval is contingent upon the applicant addressing the issues identified in the Issues/Additional Needs of this summary sheet.

Water Activity Summary:

The Arkansas Basin Roundtable recognizes the need for an Arkansas River Basin analysis plan that addresses the entire Arkansas River basin region in Colorado. The plan will provide a mechanism for stakeholders to work together to overcome potential project implementation constraints and effectively implement water projects that achieve designated regional water management objectives. The plan would be developed using a phased approach with the first phase focusing on the technical aspects of the study including data analyses and engineering studies to provide a solid technical platform to support the second phase of the study. The second phase would be an integrated planning approach for the entire Arkansas basin.

In the proposed activity, Phase 1 will include an analysis of historical water use in the basin, development of an Arkansas Basin Water Operations report showing how water is diverted and used under dry, average and wet conditions, a summary of water administration policies and procedures impacting water use in the basin, and the development of a hydrologic model that will be used to assess the water supply availability and uses for current and future (2050) conditions under varying hydrology.

Phase 2 will involve the development of a Plan presenting an integrated basin approach for addressing water management within the Arkansas basin (region). The Plan would present the vision and goals, establish water objectives and measurable targets for the region, identify water challenges and issues, identify opportunities for integrating proposed water supplies and water strategies, establish a system for prioritizing the strategies, present a plan for implementing the water strategies and identify the framework for integrated basin planning in the region.

OBJECTIVES

The objectives of Phase 1 of the study are to:

- Obtain historical water use data for the 1982 to 2012 study period from various sources that would show how water was used in the basin.

- Develop an Arkansas Basin Water Operations report that shows how water was diverted and used in three selected years in the study period reflecting dry, average, and wet hydrology.
- Describe water rights administration and compact administration policies and procedures and discuss how they impact water use in the basin.
-
- Develop a hydrologic model and visualization tool to support this study with the understanding that this model would operate under simplified assumptions.
- Use the hydrologic model to support the analysis of water use in the basin under three hydrologic scenarios and two water demand scenarios: current and 2050.
- Use the hydrologic model to evaluate water management issues and options identified in Phase 2 of the study.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

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

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

The proposed water activity's goal are to address multiple needs and issues relating to consumptive and nonconsumptive water needs in the Arkansas Basin. The proposed water activity will assist the Arkansas Basin understand water use in the basin under varying hydrology, gain knowledge about the administration of water rights, and allow the evaluation of management options to meet future demands could be met under varying hydrology. This information gathered and model developed under this proposed activity will help the Arkansas Basin meet their and Colorado's future water needs.

Tier 2: Facilitating Water Activity Implementation:

The applicant did not address how it meets Tier 2 evaluation criteria.

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

The applicant did not address how it meets Tier 3 evaluation criteria.

Discussion:

Staff is supportive of this project and believes that the development of a basin plan that utilizes an integrated basin approach for addressing water management within the Arkansas basin will provide significant strides in solving water supply problems in the Arkansas Basin. While SWSI 2010 provided a basin report for each basin in the state with overall a description of available water supplies, present and future consumptive demands and basin goals/objectives, this effort is significantly more detailed as it will examine varied hydrology (i.e. wet, dry and average), detailed description on the river administration, existing and potential future infrastructure and an evaluation of management options to meet future demands. In addition, Water Supply Planning staff believes that integrated basin planning is an important endeavor as it relates to the SWSI 2016 update.

Issues/Additional Needs:

The applicant and the Arkansas Basin Roundtable "Project Screening Committee" recently convened a conference call to discuss this project and potential redundancies or areas where this effort could compliment the efforts of the Arkansas DSS. During this call, the team decided that if approved, they would establish an advisory team including CWCB staff (Water Supply Planning and DSS) established to provide guidance to the project and to ensure that work does not duplicate work previous performed in the Arkansas DSS Feasibility Study or other work and that the work is complimentary to the Arkansas DSS work.

Related to the Arkansas DSS feasibility study, there appear to be some parts of Task 1 (Water Data Review) and 3 (Water Rights Administration Policies and Procedures) performed in the feasibility study. If approved, staff proposes to work with the applicant to identify these areas and reduce the level of effort and associated costs accordingly.

Under, “Objectives” at the beginning of the scope, delete the second bullet on page 2 of Exhibit A (Evaluate all existing hydrologic models...), as this task has been revised.

The purpose of task 6 is to create a draft and final report summarizing the results of Phase 1, provide meeting summaries and provide a presentation for use at the Arkansas Basin Roundtable meetings. Considering that tasks 1-5 have either a memo or report as a deliverable, it seems there should be some cost savings for task 6. Staff recommends that after tasks 1-6 are completed that the CWCB staff and advisory committee review the scope of work for Phase 2 (task 7) and make appropriate modifications based on the work/findings of Phase 1.

Task purpose of task 7 is to develop an Integrated Basin Plan (Plan) using a Basin approach with stakeholder involvement to address water management issues within the Arkansas basin. The nature of this task limits amount of specificity in the scope of work. Due to this limitation, staff requests that the task include the language, “not to exceed \$91,777” and work with the advisory committee and CWCB staff to determine if there are opportunities for cost savings in this task.

The applicant proposes the development of a hydrologic model that will be used to assess the water supply availability and uses for current and future (2050) conditions under varying hydrology. To be consistent with the SWSI 2016 update, staff suggests that future demands should be projected to the year 2060 rather than 2050.

Considering that basin planning will be a significant component of the SWSI 2016 update and it will be critical for the basin plans in other basins to be consistent in methodology and reporting, staff requests that the applicant be flexible in their approach to ensure consistency.

Staff Recommendation:

Staff recommends approval of up to \$59,600 from the Arkansas Basin Account and \$238,400 from the Statewide Account to fund the Arkansas River Basin Study. This approval is contingent upon the applicant addressing the issues identified in the Issues/Additional Needs of this summary sheet.

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

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

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
Agenda Item 14.b**

Applicant: Fountain Creek Watershed Flood Control and Greenway District

Water Activity Name: Fountain Creek Bank Restoration at the Frost Ranch

Water Activity Purpose: Non-consumptive

County: El Paso

River Basin: Arkansas

Water Source: Fountain Creek

Amount Requested: \$75,000 (Statewide Account); \$30,000 (Arkansas Basin Account)

Matching Funds: \$84,100 (\$45,300 cash, \$38,800 in-kind)

Staff Recommendation
Staff recommends approval, upon the condition of addressing concerns specified below in the Issues/Additional Needs section, of up to \$30,000 from the Arkansas Basin Account and \$75,000 from the Statewide Account to help fund the Fountain Creek Bank Restoration at the Frost Ranch.

Water Activity Summary:

The water project is proposed to restore an eroding stream bank of Fountain Creek at the Frost Ranch in southern El Paso County. The project bank lies along an eroding meander where Fountain Creek has migrated into a bank with no riparian vegetation. The lack of vegetation along 400 feet of the river left bank allows the soil to be readily removed during high flow events. The landowner has experienced flood damage and bank erosion that has caused loss of property, damage to fences, loss of productivity, and loss of habitat and vegetation. Since 2010, the bank has migrated as much as 70 feet.

The Bank Assessment for Non-point source Consequences of Sediment (BANCS) model was used to evaluate bank characteristics and flow distribution along the Frost Ranch reach to provide an estimation of bank erosion rates. The eroded eastern bank adjacent to the Frost property likely yields between 0.4 and 1.0 tons of sediment per foot of streambank per year. Most stable streambank features in this reach of Fountain Creek yield approximately 0.1 tons of sediment per foot of streambank per year. The scoured sediment from this reach is depositing downstream where it has the potential to destabilize a well functioning stream segment.

The objective of the project is to stabilize 400 feet of Fountain Creek so that downstream sediment contributions are similar to vegetated reference reaches. The applicant proposes to design and construct features to protect the bank and prevent erosion in this reach.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

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

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

Fountain Creek is identified as a environmental and recreational water needs focus area in the Arkansas Basin Water Needs Assessment Report. The project is support by the Lower Arkansas Conservancy District, Colorado Open Lands, Central Colorado Conservation District, El Paso County and the private landowner. It will re-establish native vegetation and improve riparian and in-stream habitat. Reduce sediment loading will protect downstream reaches from flooding as well as protect the physical integrity of irrigation diversions.

Tier 2: Facilitating Water Activity Implementation:

WSRA are necessary to complete the design and construction of this project. The funds will be used to leverage local cash and in-kind support. The project will serve as a demonstration of habitat-sensitive restoration techniques that will be proposed throughout the Fountain Creek Watershed. The Fountain Creek Watershed, Flood Control and Greenway District will be initiating a series of sediment transport studies to identify priority sites along the main stem of Fountain Creek, similar to Frost Ranch that can benefit from the demonstrated habitat-sensitive restoration techniques to reduce erosion.

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

The water activity includes bank and channel improvements that assist in the recovery of the Arkansas Darter, a threatened and endangered wildlife species and the Flathead Chub, a Colorado state species of concern. The project compliments the efforts of the CWCB Watershed Restoration Program by implementing a design to improve ecological function while protecting life and property from flood damage.

Discussion:

With the exception of the project bank, this reach of Fountain Creek is an exemplary healthy reach. The creek in this vicinity is relatively stable, well-vegetated and neither aggrading or degrading. It is bordered by dense riparian and wetland buffer and associated high-value habitat. The vegetation buffer provides roughness that slows velocities and root mass that holds the stream banks together during floods. Restoring the project bank in this reach would prevent further impacts to the otherwise well functioning reach at much lower cost than repairing it after further damage. In addition, this healthy reach was recently used as a reference reach to collect stable geomorphic and survey data to guide another channel restoration project on a site upstream. As such, considerable data for that study has already been collected for this site.

The project bank has a relatively low height compared to other severely eroding banks on Fountain Creek. That will allow the project to proceed with available WSRA funds to demonstrate effective habitat-sensitive restoration techniques at a reasonable cost. The concept for restoration will utilize the construction of a bankfull bench against the toe of the eroding bank. The bench width will restore the creek to a reference width and improve sediment transport capacity. The bench will be stabilized with appropriate toe protection and augmented with willow and other riparian plantings to increase habitat and provide sustainable flood velocity mitigation and soil protection.

The project bank is readily accessible and will be an excellent location to demonstrate techniques that can be used to systematically address larger erosion and sedimentation issues along Fountain Creek. Addressing these issues will begin to reduce the sediment supply that is contributing to irrigation, flooding, and stream stability problems downstream on Fountain Creek and the Arkansas River.

Issues/Additional Needs:

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

Staff Recommendation:

Staff recommends approval, upon the condition of addressing concerns specified below in the Issues/Additional Needs section, of up to \$30,000 from the Arkansas Basin Account and \$75,000 from the Statewide Account to help fund the Fountain Creek Bank Restoration at the Frost Ranch.

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

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

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

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.

Location Map:



**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 14.c**

Applicant: Lake Fork Valley Conservancy (LFVC)

Water Activity Name: Henson Creek and Lake Fork Confluence Channel Improvement Project

Water Activity Purpose: Non-consumptive and Agricultural

County: Hinsdale

River Basin: Gunnison

Water Source: Henson Creek and Lake Fork of the Gunnison River

Amount Requested: \$260,111 (Statewide Account); \$28,975 (Gunnison Basin Account)

Matching Funds: \$295,951 (\$51,941 existing cash - \$39,201 from CWCB Watershed Restoration Program, \$51,210 in-kind, \$192,800 pending cash from GOCO grant application)

Staff Recommendation
Staff recommends approval, upon the condition of addressing concerns specified below in the Issues/Additional Needs section, of up to \$28,975 from the Gunnison Basin Account and \$260,111 from the Statewide Account to help fund the Henson Creek and Lake Fork Confluence Channel Improvement Project.

Water Activity Summary:

The Lake Fork Valley Conservancy is proposing river improvements along a half mile stretch of lower Henson Creek and its confluence with the Lake Fork of the Gunnison, in and near the Town of Lake City. This is Phase I of a three phase project to improve the river through Town. In the Phase I project area, 2040 feet of the project reach along Henson flows through the Town and 560 feet of river is under BLM jurisdiction, but the Town leases the property along the river from the BLM for their trail system. The lower Henson has been impacted from historic mine tailing impoundment failures, creating a braided and unstable channel with high sediment bed load movement.

The purpose of this project is to realign areas of the channel where the river is threatening the Town irrigation head-gate and ditch, stabilize banks to reduce erosion that are undermining public trails, repair riparian areas, enhance fisheries and increase public access to the river. The project involves construction of 6 cross vanes, 19 vanes, 16 sills and one rock wall terrace extended out into the river channel at the confluence. Surrounding riparian areas will be re-vegetated. A trail extension will be built on the terrace.

The overall goal of the Project is to enhance and protect the utilization, ecological health and recreational quality of the Lake Fork of the Gunnison and its main tributary, Henson Creek, in the vicinity of Lake City.

There are 5 main objectives of the project:

- 1) Improve bank stability along the lower Henson and at the confluence with the Lake Fork of the Gunnison;
- 2) Enhance fisheries by increasing over-wintering and drought habitat;
- 3) Improve public recreation opportunities through safer access, better fisheries and boating, and extension of usable space at Memorial Park.
- 4) Facilitate full utilization of the Town of Lake City's Irrigation Ditch water right;
- 5) Improve organizational performance and accountability to manage restoration projects.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

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

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

The project has a committed and diverse stakeholder group. The design phase of this project was financially supported by the CWCB Watershed Restoration Program, the Water Quality Control Division – EPA 319 Program, the Lake Fork Valley Conservancy, Hinsdale County, the Town of Lake City, the BLM, and many other organizations and agencies. These stakeholders continue to support the implementation phase of the project. The project will benefit non-consumptive and consumptive needs. The Gunnison Basin's Environmental and Recreational Non-Consumptive Needs Assessment mapped many attributes for Henson Creek and the town reach of the Lake Fork of the Gunnison. The attributes include flannemouth sucker, bluehead sucker, significant riparian and wetland plant communities, CWCB in-stream flows, rafting/kayaking, waterfowl hunting, and fishing. The project will improve habitat by structuring a channel that makes the best use of the available flows, which include CWCB in-stream flow rights. The design will effectively transport sediment through what is now an aggrading reach, which has caused flood concerns. The project addresses consumptive needs by improving diversions at the Town of Lake City's irrigation head-gate.

Tier 2: Facilitating Water Activity Implementation:

Funding this project will make a significant difference for facilitating an important resource management action as identified in the LFVC's Ten Year Strategic Watershed Plan. This stretch of river has degraded steadily since tailing dam impoundment breaks in the 60's and 70's. This action, combined with LFVC's work to improved water quality in this impaired stream through abandoned mine cleanup, effectively addresses both the chemical and physical fisheries habitat.

WSRA funds will support the initial phase of the overall river project, and help the LFVC to demonstrate that river enhancement is of great value to the Lake City community. This in turn will leverage future fundraising efforts for subsequent phases of restoration work downstream on the Lake Fork.

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

The project compliments the efforts of the CWCB Watershed Restoration Program by implementing a design to improve ecological function while protecting life and property from flood damage. The project also compliments the CWCB in-stream flow rights for this reach by constructing a channel that makes the best use, i.e. pool habitat, of the available flows. Fishing and boating opportunities will be improved, which will benefit the local economy. The Town's water rights will also be maximized through implementation of the project.

Discussion:

The project supports varied needs which include channel stabilization, fishery enhancement, improve recreational access, and improved consumptive water supply delivery. The project represents a unique opportunity to bring together several CWCB program areas. The initial design was supported by the CWCB Watershed Restoration Program. The design focuses on creating habitat and transporting sediment with the flows available, which include in-stream flow water rights. Finally, the project implements the protection and enhancement of attributes identified in the basin non-consumptive needs assessment while preserving and improving the diversion of irrigation water rights.

Issues/Additional Needs:

- The applicant should provide staff with a detailed monitoring plan that describes geomorphic and vegetation monitoring methodologies.
- The monitoring plan should conform to the CWCB Measurable Results Program's Standard Operating Procedures for Topographic Survey of Stream Channels.
- Macroinvertebrate sampling should conform to State Water Quality Control Division protocols.
- All proposed river channel work should conform to the CWCB Rules and Regulations for Regulatory Floodplains in Colorado
- The applicant should provide a strategy for re-vegetation if the GOCO grant application does not get funded.

Staff Recommendation:

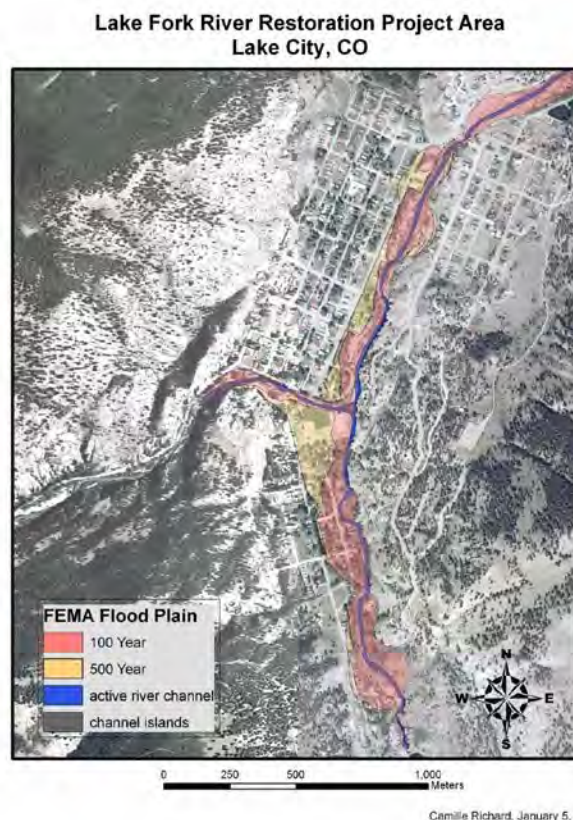
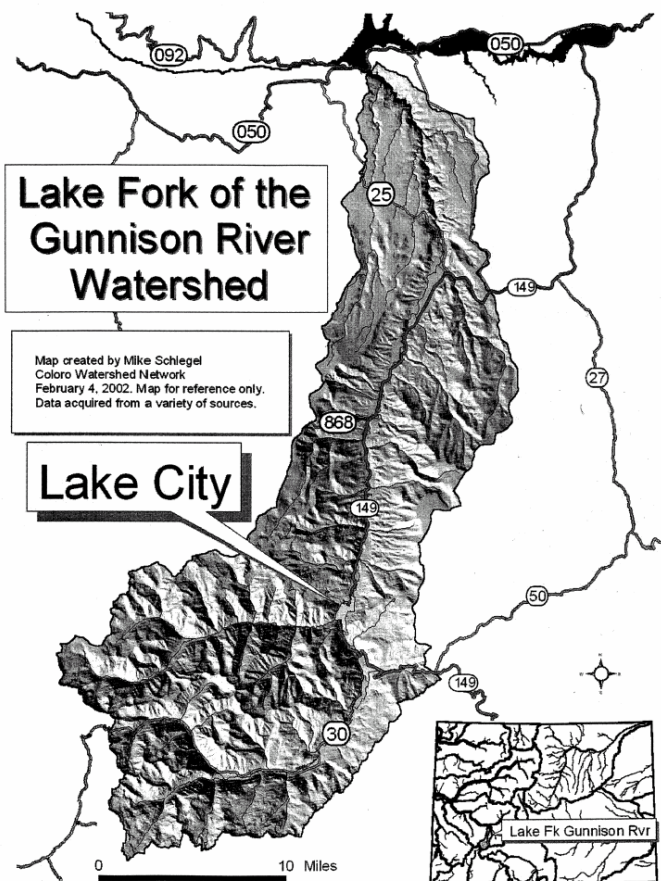
Staff recommends approval, upon the condition of addressing concerns specified below in the Issues/Additional Needs section, of up to \$28,975 from the Gunnison Basin Account and \$260,111 from the Statewide Account to help fund the Henson Creek and Lake Fork Confluence Channel Improvement Project.

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

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

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.

Location Map:



**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 14.d**

Applicant: Colorado Open Lands

Water Activity Name: Lake San Cristobal Inlet Preservation and Fishing Access Project

Water Activity Purpose: Implementation of Nonconsumptive Project

County: Hinsdale

River Basin: Gunnison

Water Source: Lake Fork Gunnison River

Amount Requested: \$150,300 (Statewide Account); \$16,700 (Gunnison Basin Account)

Matching Funds: Significant cash match. Total project costs exceed \$1,800,000 and this WSRA request comprises less than 10% of total costs.

Staff Recommendation
Staff recommends approval of up to \$16,700 from the Gunnison Basin Account and \$150,300 from the Statewide Account to fund the Arkansas River Basin Study.

Water Activity Summary:

Located approximately three miles south of Lake City in Hinsdale County, Lake San Cristobal is the second largest natural lake in the state of Colorado. The 320-acre lake and the majority of the surrounding lands are owned by Hinsdale County and the Bureau of Land Management, and Lake San Cristobal is a popular destination for fishing, boating, and camping. Hinsdale County manages several public sites on the Lake including a campground, a day-use picnic area, and a boat launch.

At the southern end of Lake San Cristobal is an expansive wetland delta formed by the Lake Fork of the Gunnison River as it empties into the lake. The delta is comprised of a complex of historic channels, remnant beaver dams, patches of open water, and diverse and largely intact montane wetlands, which all provide important habitat for a diverse array of wildlife species and provide critical water quality functions such as flood control and sediment filtration. The majority of this delta is privately owned (referred to herein as the Lake San Cristobal Inlet property).

The 116-acre Lake San Cristobal Inlet property contains approximately 79 acres of wetlands and 0.65 miles of the Lake Fork of the Gunnison River. The Inlet property is completely surrounded by County and BLM land and is the only significant piece of private property at the south end of the Lake. The landowners have historically allowed the public to access the Lake Fork of the Gunnison River on the property for fishing through a handshake agreement with the Colorado Parks and Wildlife's District Wildlife Manager. The property is minimally signed and is not marked as open to the public, but still receives significant use.

The objective of the project is to protect the property from future development and inappropriate land management that could jeopardize its recreational, wildlife, and scenic characteristics, and to guarantee permanent public access to the Lake Fork of the Gunnison River for fly fishing. Many of the characteristics that make the property a high priority for conservation also align closely with the Gunnison Basin Roundtable's Non-consumptive Needs Assessment. The Needs Assessment identifies Lake San Cristobal a "Major Recreational Segment" due to its "Highest Recreation and Fishery" attributes. This project ensures the protection of or directly enhances nearly all of the attributes identified in the Needs Assessment for Lake

San Cristobal. In addition, the project meets the Gunnison Basin Roundtable objective of “Preserving Open Space” in a highly sensitive scenic landscape. Using funding from Great Outdoors Colorado, Colorado Parks and Wildlife’s “Fishing is Fun” program, and the Gunnison Basin Roundtable, Colorado Open Lands will negotiate and bargain purchase a conservation easement and permanent access agreement from the landowners to ensure that the property’s conservation values are preserved and protected in perpetuity.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

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

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

The project has a direct tie to the nonconsumptive needs identified in the Gunnison Basin Roundtable’s needs assessment. The project is a result of collaboration among numerous and diverse entities: the private landowners, Colorado Open Lands, the Lake Fork Valley Conservancy, and Trout Unlimited. Written support for the project has been provided by the Hinsdale Board of County Commissioners, the Trustees of the Town of Lake City, The Lake City/ Hinsdale County Chamber of Commerce, the Hinsdale County School District Re-1, the Bureau of Land Management, and the Lake City Downtown Improvement and Rehabilitation Team. As explained elsewhere, both the Board of the Great Outdoors Colorado Trust Fund and Colorado Parks and Wildlife have made substantial financial commitments to the project.

Tier 2: Facilitating Water Activity Implementation:

This WSRA grant will help provide the necessary funding to implement this project. As mentioned prior, this request is only 10% of total costs. The applicant has described the urgency of providing the protection to this important parcel and the risks associated with not protecting this property in the near future.

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

The property is situated in a matrix of public lands owned by Hinsdale County and the Bureau of Land Management, both of which are under special conservation and management status. The project will protect scenic views from two Colorado Scenic Byways, the Alpine Loop Scenic Byway and the Silver Thread Scenic Byway as it traverses Slumgullion Pass. The property provides prime wildlife viewing opportunities for travelers on the Alpine Loop Scenic Byway. Moose, deer, elk, waterfowl, and bald eagle are commonly spotted on the property.

The property is the visual centerpiece for the general public recreating on and around Lake San Cristobal, which is a popular destination for fishing, camping and boating. This project will protect 2,175 linear feet of the shoreline of Lake San Cristobal from inappropriate uses and management, and will secure permanent public access to 0.65 miles of the Lake Fork of the Gunnison River that flows through the property for fly fishing. Colorado Parks and Wildlife staff estimate that as a result of the public access, the property will be used by 150 anglers per month (375 angler hours) during the summer months. The conservation easement and permanent public access agreement will ensure the protection of these critical natural and recreational resources.

The delta is comprised of a complex of historic channels, remnant beaver dams, patches of open water, and diverse and largely intact montane wetlands, with extremely high functional values and that support a diverse array of wildlife species. The Colorado Natural Areas Program has documented the presence of a thriving population of Northern Leopard Frog at this site, which is designated as a Species of Special Concern by the Colorado Division of Parks and Wildlife. The Colorado Natural Areas Program has also nominated the site for recognition as a Colorado Natural Area.

Discussion:

Staff believes this project is an collaborative project that helps meet an important identified need(s) in the Gunnison Basin. The applicant did a great job detailing how this project meets the evaluation criteria and how it meets the numerous criteria. Considering that this request is only 10% of total costs, staff believes this project is an excellent example of effective leveraging of other resources and collaborating with other partners.

Issues/Additional Needs:

None identified.

Staff Recommendation:

Staff recommends approval of up to \$16,700 from the Gunnison Basin Account and \$150,300 from the Statewide Account to fund the Arkansas River Basin Study.

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

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

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.

Location Map:

(next page)

Lake San Cristobal Inlet Preservation and Fishing Access Project

Hinsdale County, Colorado

Area Map



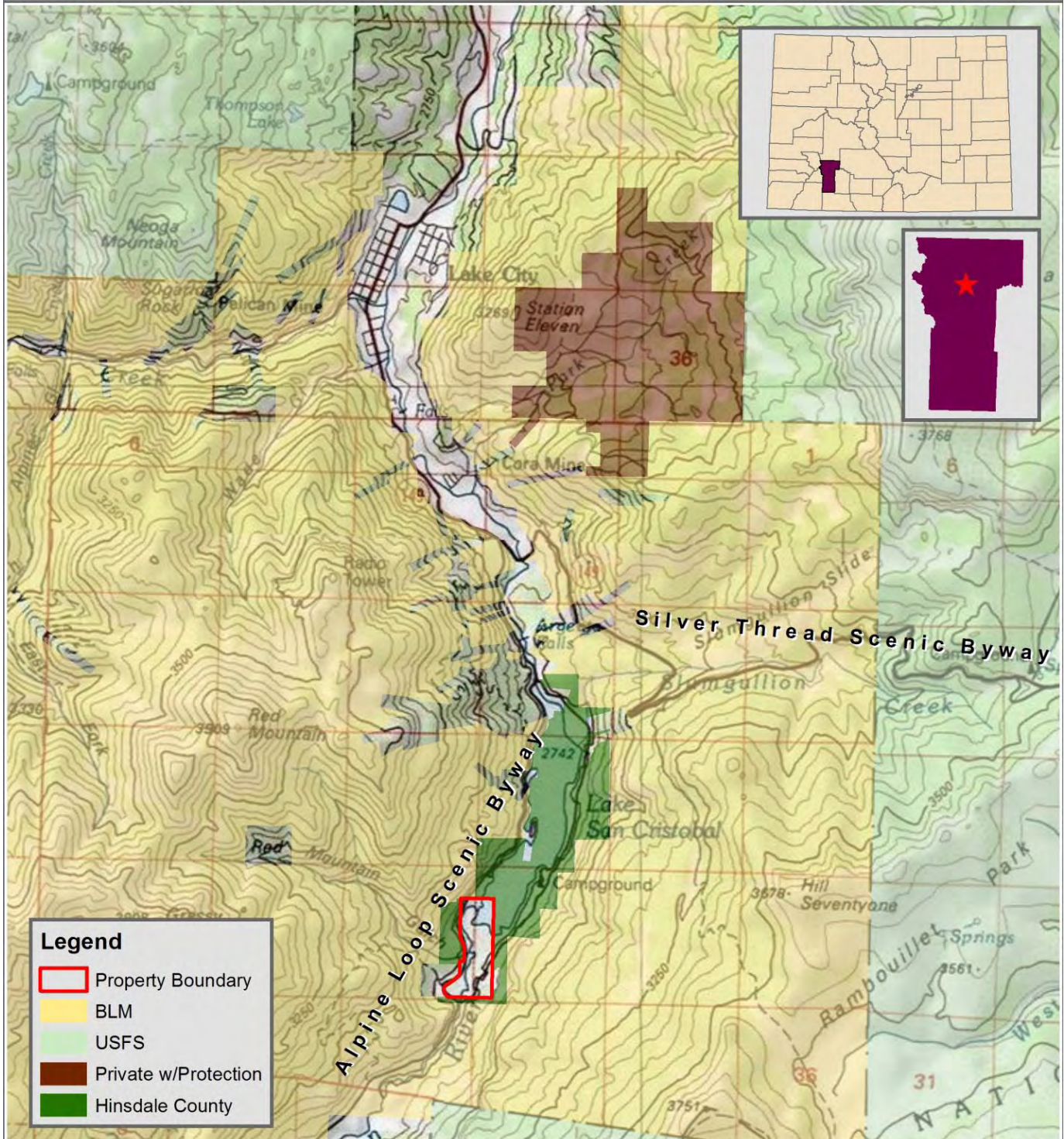
Created by Colorado Open Lands, March 2012

Data Sources: Colorado Open Lands,
Colorado Ownership Management and Protection (COMaPv8)
USA Topo Maps - USGS

This map is not a survey and must not be construed as one.



0 0.4 0.8 1.6 Miles



**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 14.e**

Applicant: Mogote-Northeastern Consolidated Ditch Company in collaboration with the Romero Irrigation Company

Water Activity Name: Quantifying Mogote/Romero Flows & Effects on the Conejos System

Water Activity Purpose: Non-structural and structural consumptive project

County: Conejos

River Basin: Rio Grande

Water Source: Conejos

Amount Requested: \$268,300 (Statewide Account); \$16,700 (Rio Grande Basin Account)

Matching Funds: \$60,350 (Conejos Water Conservancy District), \$27,500 (NRCS), \$7,500 (shareholders)

Staff Recommendation
Staff recommends approval of up to \$16,700 from the Rio Grande Basin Account and \$268,300 from the Statewide Account to help complete the project titled: Quantifying Mogote/Romero Flows & Effects on the Conejos System.

Water Activity Summary:

This is a joint project of the Mogote-Northeastern Consolidated Ditch Company (Mogote NE) and the Romero Irrigation Company (Romero), together referred to as RMNE. Mogote NE is the Applicant, taking fiscal and administrative responsibility.

This large and complex combined system represents two of the oldest ditch companies with some of the most senior rights on the Conejos River that collectively irrigate over 15,000 acres. The Romero Ditch diverts about 25% of the Conejos River flow (667 cfs), and carries the water through about 80 miles of earthen canals and ditches. Since it is one of the larger diversions on the river, with multiple decreed water rights, the diurnal effect has significant impact on the actual water diverted throughout the day, requiring significant monitoring and adjustment in an attempt to meet decreed flows. Due to the diversion volume a 10% error in the flow can have a significant impact on irrigators and the Conejos River Compact flows.

Therefore, this project seeks WSRA funds to implement combined technologies of measuring weirs, automation, and telemetry to enhance measurement and operational accuracy of the RMNE system and optimize beneficial use of the Conejos River Compact water. In order to quantify flows/losses and more accurately identify return flows, the project includes the installation of sixteen measuring weirs combined with a recently installed gauging and telemetry system on major laterals in the RMNE system. In addition, the project includes the replacement of the Romero diversion gate with a new 12-foot automated radial gate.

Through this project, RMNE seeks to: (1) Equalize the distribution of irrigation water based on empirical real-time data; (2) maximize sustainable beneficial use of existing water supplies; (3) provide data of RMNE's role in the Conejos River system; (4) help minimize forecasting errors and their effects; and (5) help streamline Colorado's compliance with its Compact obligations.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

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

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

This project seeks to meet multiple consumptive needs through efficiencies gained on the subject ditches, as well as providing important data to DWR to assist in the complexities of compact compliance on the Conejos River. Data generated from the project could also assist in better understanding effects of the complicated stratigraphy and implications for groundwater management via future subdistrict efforts. The application represents two of the major entities on the Conejos. In addition, the application is supported financially by the Conejos Water Conservancy District (CWCD) as well as being incorporated with similar gauging technologies that CWCD and other neighboring systems have recently installed, which will all ultimately assist DWR with Compact Administration. The main objective of maximizing beneficial agricultural use on the Conejos River meets important identified needs in the Rio Grande Basin.

Tier 2: Facilitating Water Activity Implementation:

The applicant has stated that this project could not proceed without WSRA funding and the leveraging opportunities that it provides. The Conejos Water Conservancy District is contributing \$60,350, including \$36,000 for the new Romero Diversion radial gate, and \$24,350 for automation and telemetry equipment at the new Romero gate. The NRCS has also contributed \$27,000 in technical assistance with the gauging equipment and engineering services.

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

The proposed project seeks to sustain agriculture on the Conejos River by optimizing irrigation efficiencies, and therefore minimizing previously substantial operational losses. Due to the large volume of water on the Conejos used by the RMNE system (up to 25%) better management could greatly benefit Compact administration to help maximize the beneficial use of Colorado's waters. As such, the project could have a large long-term benefit to Colorado in relationship to the amount of funds request. This project would be complimentary to other WSRA-funded projects on the Conejos River, including CWCD's Gauging Stations Project and the Manassa Land and Irrigation Company's Conejos North Branch Water Conservation and Management Project.

Discussion:

The requested WSRA funds would help implement an innovative and collaborative project to more efficiently meet identified consumptive needs in the Rio Grande Basin. Resulting efficiencies would serve to sustain agriculture while assisting DWR to more effectively meet Colorado's obligations under the Rio Grande Compact. Other benefits include: reducing the uncertainty of curtailments to water users; more equitably distributing available water; improving drought protection through more efficient management; increasing augmentation and restoration of the Basin's aquifers; and enhancing the function of the Conejos flood plain. As such, the proposed project does an excellent job of meeting criteria established for the WSRA program.

Issues/Additional Needs:

No issues or additional needs have been identified.

Staff Recommendation:

Staff recommends approval of up to \$16,700 from the Rio Grande Basin Account and \$268,300 from the Statewide Account to help complete the project titled: Quantifying Mogote/Romero Flows & Effects on the Conejos System.

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

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

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
Agenda Item 14.f**

Applicant: La Acequia del Cerro (The Cerro Ditch Company)

Water Activity Name: Rehabilitation and Ditch Lining

Water Activity Purpose: Structural Consumptive Water Project

County: Costilla

River Basin: Rio Grande

Water Source: Culebra Creek

Amount Requested: \$425,000 (Statewide Account); \$25,000 (Rio Grande Basin Account)

Matching Funds: \$60,000 (Costilla County Conservancy District), \$195,000 (NRCS), \$23,105 (Acequia del Cerro, In-Kind), \$5,000 (Costilla County, In-Kind)

Staff Recommendation
Staff recommends approval of up to \$25,000 from the Rio Grande Basin Account for the Acequia del Cerro Rehabilitation and Ditch Lining Project. Due to insufficiencies in adequately meeting the WSRA statewide evaluation criteria staff recommends denial of the requested \$425,000 from the Statewide Account. However, recognizing the important needs of the project, staff recommends the applicant work with CWCB staff to identify and pursue other funding options.

Water Activity Summary:

The Acequia del Cerro seeks to rehabilitate approximately 10,000 feet of the northern Cerro ditch by removing extensive overgrowth of willows/trees, repairing the bank, widening, and replacing 1,900 linear feet of cement lining and 7,350 linear feet with high-density plastic pipe.

The Acequia del Cerro's proposed project will remove an old concrete lining in the northern ditch installed in the 1960's. The concrete lining has deteriorated beyond repair and has out lived its life expectancy. In some areas the landowners have completely removed the cement lining to bring better water flow. In addition, excess water from cloud bursts and run off in areas between the Ditch and the arroyos from the mesa, flows into the Ditch. This brings large rocks, sand, and debris into the Ditch which clogs diversion structures, slows flow, and has destabilized the cement lining, causing buckling in the bottom of the channel. The Ditch has historically acted as an area catchment and drain, with corresponding high sediment loads.

According to NRCS designs, the ditch would be lined with cement over approximately 1,900 linear ft. The ditch company has been advised by NRCS to keep the old concrete lined ditch intact to catch sediment, and excavate a new earthen structure to hold a high density pipe for approximately 7,300 linear ft. This would eliminate high maintenance costs, allow water to reach the landowners at the end of the ditch, conserve water for other ditch companies that take their water from the Culebra Creek, and return tail water to the aquifers and back into the Culebra Creek.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

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

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

The proposed project provides the applicants an opportunity to continue viable farming operations and participation in the Rio Culebra Agricultural Cooperative. It could also provide the incentive to join the Co-op's "initiative" in

planting and sowing products grown from heirloom seeds and organic vegetables. In addition to better fulfilling consumptive agricultural needs, the proposed project could also assist in the protection of wildlife along the ditch. The descendants and current heirs of the Acequia del Cerro are historically a self sustaining community due to their skills in irrigation, hunting, and farming within an "Acequia System". The Acequia del Cerro, as with all ditch companies taking water from the Culebra Water shed, does not participate in the Rio Grande Compact.

Tier 2: Facilitating Water Activity Implementation:

The landowners along the Acequia del Cerro have shown a significant and appropriate commitment by cleaning major overgrowth of willow, removing concrete that obstructed water flow, and removing tree roots along the ditch in preparation of the Project. This has cost the landowners \$13,105. The landowners would also contribute an additional \$10,000 in-kind contribution for a total of \$23,105.30. In addition the Acequia del Cerro has received a commitment of \$60,000 cash match from the Costilla County Conservancy District. The NRCS would also contribute a total of \$45,000 in technical assistance and \$150,000 from EQUIP to complete project costs. The Acequia del Cerro will surpass the match required by the CWCB.

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

The proposed project would help sustain agriculture along the Acequia del Cerro. In the past two years landowners along the Cerro Ditch have experienced substantial crop loss due to water shortage. The use of the HPDE pipe and maintenance of the original cement ditch will ultimately leave the environment and ecosystem intact. In fact, this will protect the habitat of the endangered South West Willow Flycatcher and other federally protected species. The water activity will provide benefit to Colorado in the amount of water that will be better utilized and put to beneficial use with the implementation of this project. There are 82 landowners along the Acequia del Cerro. The better utilization of water and consumptive water use not only brings benefit to the landowners but to all Culebra Watershed landowners. There are approximately 300 families that own adjudicated water rights from the Culebra Watershed. The oldest "Acequia" system and first adjudicated water rights in Colorado hail from the Culebra watershed.

Discussion:

This is a good and important project to meet historic identified agricultural needs in the Culebra Watershed. However, given the lack of multi-purpose objectives, multiple entity involvement, compact compliance applicability, and other factors, it does not score well for the WSRA statewide evaluation criteria, as currently structured. The CWCB has discussed other funding options with the applicant and recommends that the WSRA statewide account is not an appropriate fit for the project at this time.

Issues/Additional Needs:

No other issues or additional needs have been identified.

Staff Recommendation:

Staff recommends approval of up to \$25,000 from the Rio Grande Basin Account for the Acequia del Cerro Rehabilitation and Ditch Lining Project. Due to insufficiencies in adequately meeting the WSRA statewide evaluation criteria staff recommends denial of the requested \$425,000 from the Statewide Account. However, recognizing the important needs of the project, staff recommends the applicant work with CWCB staff to identify and pursue other funding options.

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

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

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

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.

Location Map:



Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 14.g

Applicant: Sangre de Cristo Acequia Association

Water Activity Name: Culebra Watershed Vallejos Ditch Headgate Replacement

Water Activity Purpose: Structural consumptive project

County: Costilla

River Basin: Rio Grande

Water Source: Vallejos Creek

Amount Requested: \$90,000 (Statewide Account); \$10,000 (Rio Grande Basin Account)

Matching Funds: \$1,200 (Applicant), \$2,400 (Costilla County Conservancy District), \$10,600 (NRCS), \$1,900 In-Kind (Vallejos Ditch)

Staff Recommendation
Staff recommends approval of up to \$10,000 from the Rio Grande Basin Account and \$90,000 from the Statewide Account to help complete Culebra Watershed Vallejos Ditch Headgate Replacement Project.

Water Activity Summary:

The Sangre de Cristo Acequia Association (SCAA), previously known as the Colorado Acequia Association, was established by the Costilla County Conservancy District (CCCD) to serve the needs of historic acequias in the Culebra River watershed of the southern San Luis Valley. The SCAA seeks to preserve the acequia agricultural lifestyle; improve the quality of the environment; keep water tied to the land, and serve as an umbrella organization for local irrigators. The SCAA includes a community of 228 families, most of whom are fifth and sixth generation landowners, organized into 64 separate acequia groups that irrigate about 23,000 acres. It also provides fiscal, organizational, legal, and technical resources which are otherwise not available to many of the watershed's independent ditch associations and acequias.

Of the 83 acequias currently in operation in Water District 24 of Division 3, the Vallejos Ditch Association is one of the earliest, established in 1854 with priority #5. The current structure has suffered from high maintenance costs, reduced functionality, and repeated flood events, thus making it a very high priority project.

The proposed project seeks to replace the existing headgate and diversion structure on Vallejos Creek, which feeds both the north and south irrigation laterals of the Vallejos system. The South lateral is supplied through a drop structure and corrugated metal pipe located under the main structure. The concrete structure has deteriorated, with the walls cracked and crumbling. In high flows the headgate fails to divert excess water back to the natural stream channel, causing flooding of the neighboring residential areas. The crumbled structure leaks and the water control gates are almost inoperable. At almost 50 years old, the diversion structure has surpassed its effective service life. The Natural Resource and Conservation Service (NRCS) has determined that this diversion is beyond repair and must be replaced.

In addition to the diversion structure, there are associated riparian and water quality issues. The banks of Vallejos Creek upstream and downstream of the diversion are deteriorated due to continual seepage and vegetative overgrowth, exacerbating the sedimentation and erosion problems identified throughout the Culebra watershed. Loss of stability has also caused the targeted section of the Vallejos Ditch to lose 70% of its carrying capacity.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

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

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

The SCAA is an organization built on uniting and supporting the interests of acequia irrigators in the Culebra watershed. This project implements some of the consumptive and nonconsumptive needs identified in SCAA's Culebra watershed plan. The Vallejos Ditch Association and SCAA have collaborated to collect data, maps, and numerous historical documents from the Division of Water Resources, Costilla County's Land Use Planner, and County Commissioners. Key guidance and preliminary plans were also provided by the San Luis field office of NRCS, with several of their staff attending numerous meetings. The watershed plan was a collaboration of The Rural Community Assistance Corporation, the Colorado Watershed Network, Riverwatch, the Costilla County Commission, and the SLV GIS/GPS Authority, and was funded in part with two EPA grants (\$10,000 and \$50,000) and \$3,500 from the Costilla County Water Conservancy District. Technical support toward implementation was provided over almost two years by CDPHE. The proposed project seeks to address important identified needs in the Rio Grande Basin.

Tier 2: Facilitating Water Activity Implementation:

The Vallejos Ditch Association has insufficient funds to undertake the replacement of the diversion structure, and also lacks the organizational requirements to qualify for a loan or to apply for grant funds directly, because it is not incorporated, does not have a Tax ID number, and does not have the required insurance to apply. For this reason the SCAA has stepped forward, in keeping with its mission, to satisfy the eligibility requirements and to provide the needed infrastructure and administration to fulfill the terms of this proposal. The SCAA has contributed what it can and has requested assistance from the Costilla Water Conservancy District, but, needs additional funding as requested. This grant is essential to replace the headgate on Vallejos Creek.

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

With 1,316 acres irrigated by the Vallejos Ditch Association, the replacement of the diversion structure restores important existing infrastructure to optimize the beneficial use of important senior agricultural water rights. SCAA's sponsorship, fiscal agency, and administration brings a much larger perspective to this project. The involvement of NRCS brings the benefit of past studies and watershed analyses along with a watershed-wide perspective. SCAA's administration and collaborative involvement with multiple acequias and ditches fosters a united approach to solving problems. In July 2008, the CWCB supported the SCAA watershed plan, providing \$5,000 to construct and install trash racks on major acequias to reduce sediment buildup. The SCAA anticipates fulfilling similar proposals for other unincorporated ditches and acequias in the future, with the assistance of NRCS, as much work remains to be done throughout the Culebra Watershed.

Discussion:

As identified in the SWSI findings, small agricultural water users often lack the financial ability to adequately address infrastructure needs without financial aid. The proposed project does not possess the financial resources to make the required improvements to fully utilize its existing water rights. In addition, the SWSI Management Objectives, of the SWSI Phase II Report: Addressing the Water Supply Gap Technical Roundtable, include to "sustainably meet agricultural demands." That management objective is directly met through this activity. The proposed project effectively meets the objectives of HB 1177 and the consumptive needs of the Rio Grande Basin by rehabilitating existing infrastructure to preserve agricultural water use through a collaborative and regional approach.

Issues/Additional Needs:

No issues or additional needs have been identified.

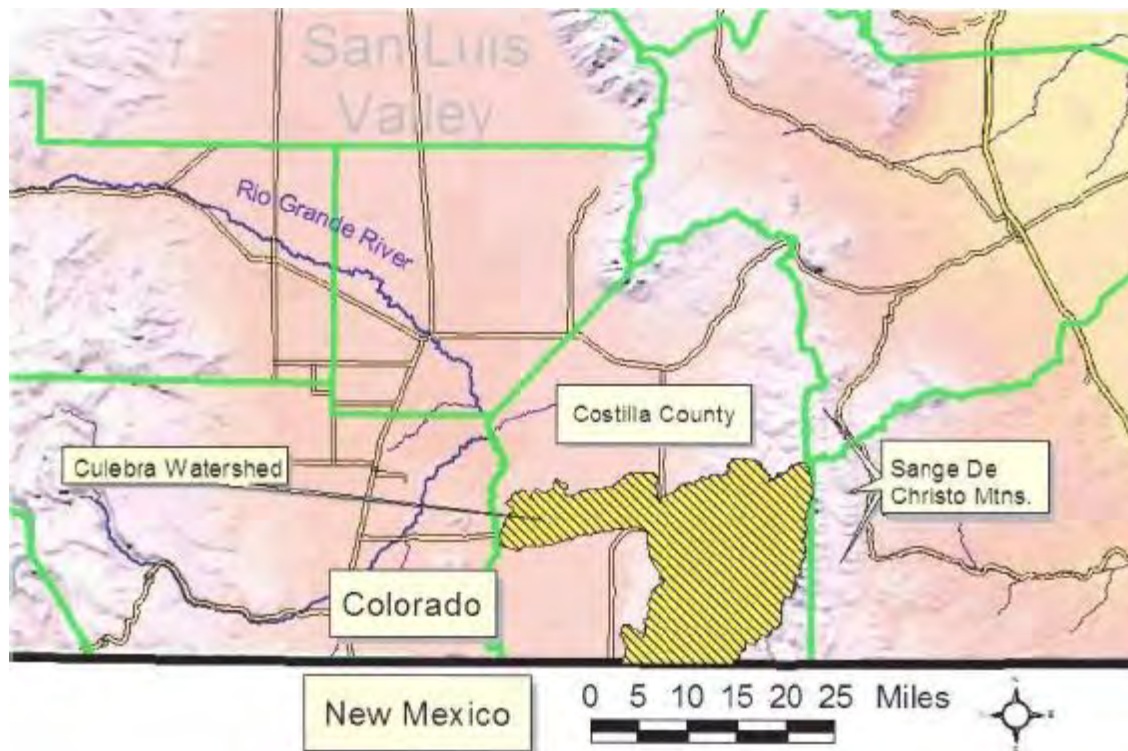
Staff Recommendation:

Staff recommends approval of up to \$10,000 from the Rio Grande Basin Account and \$90,000 from the Statewide Account to help complete Culebra Watershed Vallejos Ditch Headgate Replacement Project.

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

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

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.

Location Map:

**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 14.h**

Applicant: Ducks Unlimited

Water Activity Name: Prewitt Reservoir Wetland Partnership

Water Activity Purpose: Non-consumptive project

County: All

River Basin: South Platte

Water Source: South Platte

Amount Requested: \$45,414 (Statewide Account); \$45,414 (South Platte Basin Account)

Matching Funds: \$292,928

Staff Recommendation
Staff recommends approval of up to \$45,414 from the South Platte Basin Account and \$45,414 from the Statewide Account to fund the Prewitt Reservoir Wetland Partnership project.

Water Activity Summary:

The goal of the Prewitt Reservoir Wetland Partnership is the enhancement of over 450 acres of wetland habitat immediately associated with Prewitt Reservoir. The marshes and pools provided along the margins of the reservoir provide some of the highest-quality foraging and roosting sites for populations of migratory birds in the state. These wetlands also provide recreational opportunities for many Coloradans, ranging from bird-watching to fishing to waterfowl hunting. The proposed activities will address habitat and recreational opportunities through the development of passive and active water management on both public and private properties surrounding the reservoir. Many of the area's wetlands are flooded through the normal operation of the reservoir.

With the installation of water-control structures and suitable excavations, the quality of these areas (or, at least, their persistence) can be increased even under normal water management provided by reservoir operators. Other wetlands in the scope of work can be developed such that active water management improves habitat quality and recreational opportunities. Provision of water for wetland wildlife habitat and waterfowl hunting recreation are two important nonconsumptive needs identified by the South Platte Basin Roundtable. These important goals will be accomplished without any additional diversions on the South Platte River.

This project provides for the attainment of these nonconsumptive water supply goals by achieving the following objectives:

- 1.) The enhancement of existing shallow-water basins associated with Prewitt whose disrupted hydrology has resulted in a shift in plant communities and degradation in habitat quality for wildlife;
- 2.) The identification of areas marginal to the reservoir that may be enhanced through the careful excavation of material impeding the natural back-flooding of shallow basins providing the best habitats to birds, other wetland wildlife, as well as fish;

3.) The design and installation of small levees placed (sometimes temporarily) on the margins of the reservoir that would serve both to protect existing infrastructure as well as provide additional flooded shallows.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

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

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

This project demonstrates a high degree of collaboration including the partnership between Ducks Unlimited with two landowners, one of which is a traditional ranching/farming operation, the State of Colorado, the Playa Lakes Joint Venture (a multi-state bird conservation group) and the federal US Fish and Wildlife Service in consultation with the managers of Prewitt Reservoir. Public access and programs are benefits derived from this project. The South Platte Basin Roundtables nonconsumptive needs assessment recognizes wetland habitat and waterfowl-based recreation as important resources within the basin. Maintenance and/or expansion of these benefits without expanding water use in the basin is a key strategy to achieving nonconsumptive goals in light of the high demand for water supplies in the basin.

Tier 2: Facilitating Water Activity Implementation:

The WSRA funds will allow Ducks Unlimited to fully survey and develop any suitable site within the project boundaries. Absent this funding, DU would have to reduce the scope of work presented here, thus losing out on a significant amount of public benefit arising from the work. WSRA funds are critical for DU to achieve matching requirements for the other funding sources now pending. Without these funds our ability to mobilize those funds on the properties will be severely restricted, further diminishing the impact of the proposed work.

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

Aside from the acknowledged importance of reservoirs to migratory bird populations generally, the three properties targeted represent three important land uses associated with water resources in the Platte River Basin. The DPG parcel represents a privately-held tract, conserved in perpetuity, managed for high-quality waterfowl hunting. Prewitt Ranch represents agricultural land, with crop production and cattle ranching adding to the economic base of the county. This property, also protected in perpetuity, sits between I-76 and Prewitt Reservoir. Conservation of its water resources will sustain all of the mentioned needs. Finally, Prewitt Reservoir SWA represents publicly-accessible recreation ground. Both consumptive (sportsmen and women, anglers) and nonconsumptive (birders and campers) enjoy the water body and the abundant fish and wildlife it attracts. DU's proposed work will maintain and enhance these qualities for a long period of time (30+ years). DU's request represents a rate of \$200 of WSRA funds per wetland acre conserved. The Playa Lakes Joint Venture's HABS database estimates that the habitats enhanced under this proposal could support more than 250,000 Duck Use Day Equivalents.

Discussion:

Staff believes this project is an excellent example of Duck Unlimited's ability to bring partners together to collaborate on the implementation of projects. DU did a good job in the application describing how this meets the nonconsumptive needs in the South Platte Basin.

Issues/Additional Needs:

None identified.

Staff Recommendation:

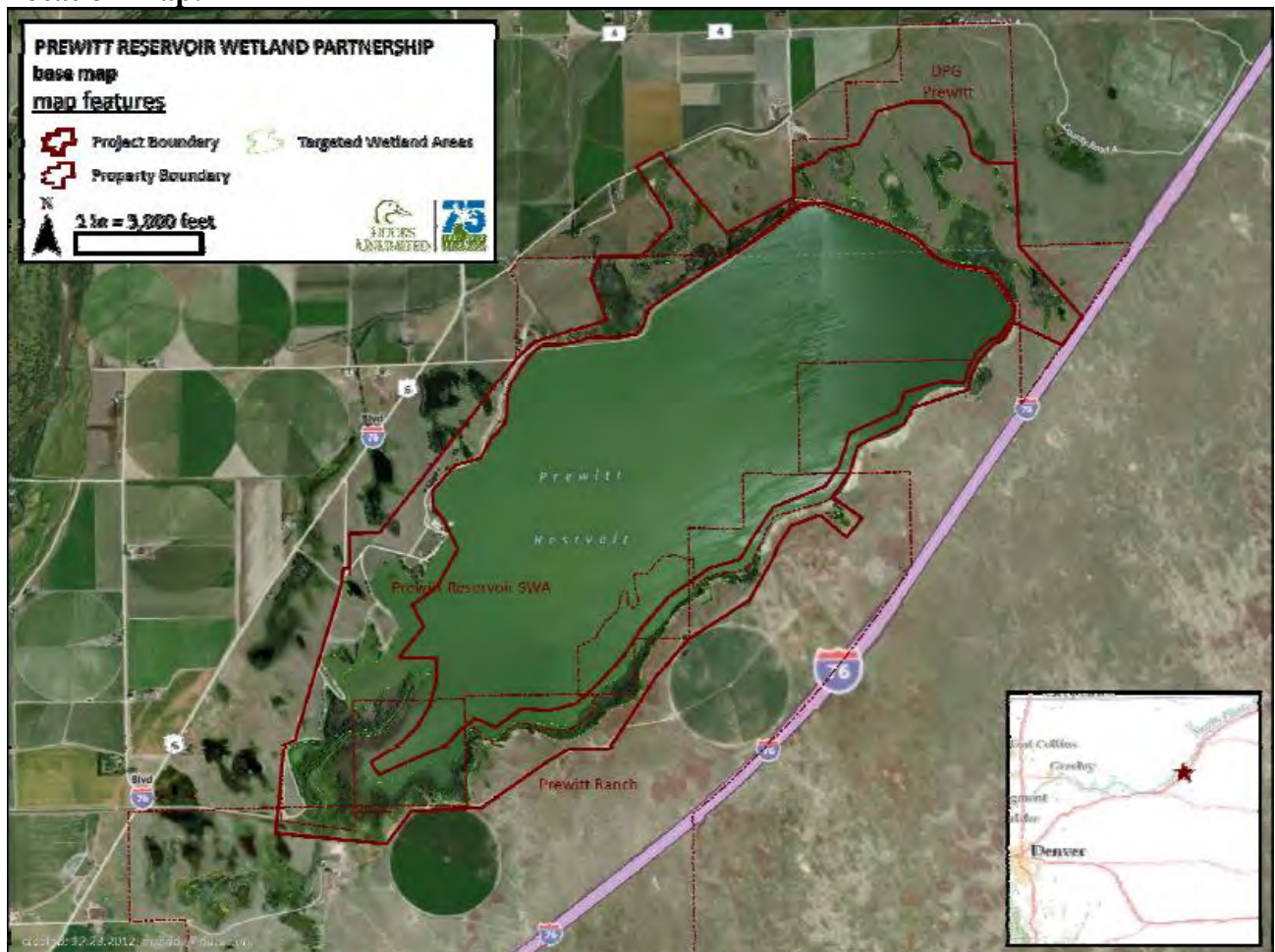
Staff recommends approval of up to \$45,414 from the South Platte Basin Account and \$45,414 from the Statewide Account to fund the Prewitt Reservoir Wetland Partnership project.

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

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

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.

Location Map:



**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 14.i**

Applicant: Routt County Conservation District

Water Activity Name: Armstrong Creek Restoration Project

Water Activity Purpose: Non-consumptive

County: Routt

River Basin: Yampa/White

Water Source: Armstrong Creek, tributary to Elkhead Creek and Elkhead Reservoir

Amount Requested: \$35,000 (Statewide Account); \$15,000 (Yampa/White Basin Account)

Matching Funds: \$277,000 (\$145,000 existing cash, \$72,000 in-kind, \$60,000 pending cash)

Staff Recommendation
Staff recommends approval, upon the condition of addressing concerns specified below in the Issues/Additional Needs section, of up to \$15,000 from the Yampa/White Basin Account and \$35,000 from the Statewide Account to help fund the Armstrong Creek Restoration Project.

Water Activity Summary:

The Armstrong Creek Restoration Project is a stream restoration project designed to improve stream and riparian function. WSRA funding will be used to implement a design for a lower stream reach and design and construct a project for an upper reach of Armstrong Creek. Restoration methods focus on redirecting stream channels away from eroding hillslopes, constructing geomorphic floodplains, and realigning exiting channels into old channel meanders. Riparian areas in the project area will be re-vegetated to insure channel stability and limit colonization by invasive species. The applicant will monitor the new channel alignments and re-vegetation areas. The restoration methods are designed to reduce sediment loading from streambanks, reduce stream temperatures, and improve cutthroat trout habitat.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

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

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

The project has a committed (financially and in-kind) and diverse stakeholder group (see discussion below). Implementation of the project will benefit non-consumptive and consumptive needs. Cutthroat trout habitat will be improved, as well as the habitat for animals lower on the food chain. Recreation fishing opportunities will be improved. Water quality is likely to be improved through the reduction of sediment and temperature. Sediment loading in Elkhead Reservoir will also be reduced.

Tier 2: Facilitating Water Activity Implementation:

The applicant has raised \$217,000 in cash and in-kind investments for this project. The WSRA funds will be used to complete designs and implement construction. The WSRA funds will also be used as non-federal match critical to leverage \$60,000 from the National Fish and Wildlife Foundation and National Fish Habitat Action Plan grant programs.

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

The project will benefit recreational fishing by improving habitat for cutthroat trout and the species trout depend on for food. Colorado River cutthroat trout are a Colorado State Species of Concern. Other Species of Concern that will benefit include the mountain sucker, northern leopard frog, and the boreal toad, the latter being state endangered.

Discussion:

The project supports varied needs which include channel/floodplain reconnection, habitat improvement, and sediment load reduction. Stabilizing the channel will reduce the amount of sediment depositing in Elkhead Reservoir. The project stakeholders are also varied. The CWCB supports restoration projects committed to collaborative approaches that involve diverse interests in the watershed. The Armstrong Creek Restoration Project stakeholders include the City of Craig, CPW, Colorado River Water Conservation District, Routt County Conservation District, Tri-State Electric, Trout Unlimited, and the USFS.

Issues/Additional Needs:

- The applicant should provide staff with a detailed monitoring plan that describes geomorphic and vegetation monitoring methodologies.
- The monitoring plan should conform to the CWCB Measurable Results Program's Standard Operating Procedures for Topographic Survey of Stream Channels.
- All proposed river channel work should conform to the CWCB Rules and Regulations for Regulatory Floodplains in Colorado
- The applicant should provide more detail for fencing and long term grazing management strategies.

Staff Recommendation:

Staff recommends approval, upon the condition of addressing concerns specified below in the Issues/Additional Needs section, of up to \$15,000 from the Yampa/White Basin Account and \$35,000 from the Statewide Account to help fund the Armstrong Creek Restoration Project.

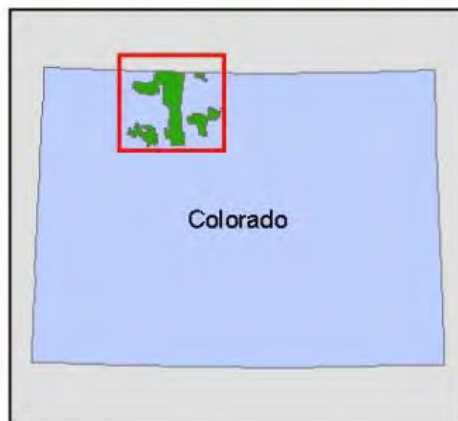
All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development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

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

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.

Location Map:

Vicinity Map





Arkansas Basin Roundtable
P.O. Box 1976
Colorado Springs, CO 80901

February 19, 2013

Greg Johnson

Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 600
Denver, Colorado 80203

Re: Arkansas River Basin Study

Dear Greg:

Under separate cover you will receive a WSRA grant application for the Arkansas River Basin Study. At the January 9, 2013, Arkansas Basin Roundtable meeting, the Roundtable agreed by consensus to approve the concept of a basin wide study. This application for \$59,600 in Basin Funds and \$238,000 in Statewide Funds will be re-affirmed at the March meeting of the Arkansas Basin Roundtable.

My expectation is that this grant request will be heard at the March, 2013 CWCB meeting. Please do not hesitate to contact me if you have any questions.

Sincerely,

Gary Barber
Chair

c: Executive Committee, Ark Roundtable
Todd Doherty, CWCB staff



COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM



Arkansas River Basin Study

Name of Water Activity/Project

Southeastern Colorado Water Conservancy District

Name of Applicant

Arkansas Basin
Roundtable

Amount from Statewide Account:

\$238,400

Amount from Basin Account(s):

\$59,600

Total WSRA Funds Requested:

\$298,000

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

Application Content

Application Instructions	page 2
Part I – Description of the Applicant	page 3
Part II – Description of the Water Activity	page 5
Part III – Threshold and Evaluation Criteria	page 7
Part IV – Required Supporting Material	
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 December 2011

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>

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:

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

If you have questions or need additional assistance, please contact Greg Johnson at: 303-866-3441 x3249 or gregory.johnson@state.co.us.

Water Supply Reserve Account – Application Form
Revised December 2011

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

1.	Applicant Name(s):	Southeastern Colorado Water Conservancy District		
	Mailing address:	31717 United Avenue Pueblo, CO 81001		
	Taxpayer ID#:	846012143		
	Primary Contact:	Jean Van Pelt	Position/Title:	Conservation
	Email:	jean@secwcd.com		
	Phone Numbers:	Cell:	Office:	(719)948-2400
	Alternate Contact:	James Broderick	Position/Title:	Exec. Director
	Email:	jwb@secwcd.com		
	Phone Numbers:	Cell:	Office:	(719)948-2400

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 December 2011

3. Provide a brief description of your organization

The Southeastern Colorado Water Conservancy District was created under the Colorado State Statutes on April 29, 1958, by the District Court of Pueblo, Colorado, for the purpose of developing and administering the Fryingpan-Arkansas Project. The District extends along the Arkansas River from Buena Vista to Lamar, and along Fountain Creek from Colorado Springs to Pueblo, Colorado. The District consists of parts of nine counties deriving benefits from the project.

The District is the legal agency responsible for repayment of the reimbursable costs of the project. In addition to administering this repayment responsibility, the District allocates supplemental water from the Fryingpan-Arkansas Project for use by approximately 280,660 acres of irrigated land under various private and mutual ditch companies, and for the use by the many municipal and domestic water suppliers who directly serve the District's approximately 600,000 constituents. The District is governed by a fifteen member board of directors representing the nine counties within the District. Each board member is appointed by the state's district court system. Director positions may also be elected if citizens petition the court for such an election. Members serve for four-year terms and are then subject to re-appointment.

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

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.

Water Supply Reserve Account – Application Form

Revised December 2011

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.

The Southeastern Colorado Water Conservancy District does have a TABOR limitation with regard to grant money received from the State of Colorado. This contract will be phased over 2 years to accommodate this limitation.

Water Supply Reserve Account – Application Form

Revised December 2011

Part II. - Description of the Water Activity/Project

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

☐ Nonconsumptive (Environmental or Recreational)

☐ Agricultural

☐ Municipal/Industrial

☐ Needs Assessment

☐ Education

☒ Other

Explain: Understanding of water use and operations in basin

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

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

☒ Study

☐ Implementation

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

☐ New Storage Created (acre-feet)

☐ New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)

☐ Existing Storage Preserved or Enhanced (acre-feet)

☐ Length of Stream Restored or Protected (linear feet)

☐ Length of Pipe/Canal Built or Improved (linear feet)

☐ Efficiency Savings (acre-feet/year OR dollars/year – **circle one**)

☐ Area of Restored or Preserved Habitat (acres)

☒ Other -- Explain: Technical Memoranda describing data, operations administration water use and a

Water Supply Reserve Account – Application Form

Revised December 2011

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

Latitude:

Longitude:

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.

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

This water activity meets the eligibility requirements outlined in Part 2 of the Water Supply Reserve Account Criteria and Guidelines.

This water activity has undergone an evaluation and was approved by the Arkansas Basin Roundtable.

Attached is a letter of support for the proposed water activity from the Arkansas Basin Roundtable Chair.

- 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.

The Arkansas Basin Roundtable has reviewed and approved the proposed water activity at the Arkansas Basin Roundtable meeting on January 9, 2013. Letter of support from the Arkansas Basin Roundtable Chair is attached.

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.

Water Supply Reserve Account – Application Form
Revised December 2011

- 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.

Letter from the Arkansas Basin Roundtable Chair is attached.

- d) Matching Requirement: For requests from the Statewide Fund, the applicants is required to demonstrate a **20 percent** (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of **5 percent** of the total grant amount from Basin Funds. 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 application was submitted to the CWCB. 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)

The matching funds for the proposed water activity are being provided by the Arkansas Basin Roundtable Basin Account (20% or \$59,600).

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.

Water Supply Reserve Account – Application Form

Revised December 2011

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.**

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. 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.
- 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.

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.

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.
- 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.
- h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.
- i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.
- j. The water activity is complimentary to or assists in the implementation of other CWCB programs.

Water Supply Reserve Account – Application Form

Revised December 2011

Continued: Explanation of how the water activity/project meets all applicable **Evaluation Criteria**.

Please attach additional pages as necessary.

The proposed water activity meets the Tier 1 criteria. The proposed water activity will address multiple needs and issues relating to consumptive and nonconsumptive water needs in the Arkansas Basin. The proposed water activity will assist the Arkansas Basin understand water use in the basin under varying hydrology, gain knowledge about the administration of water rights, and allow the evaluation of management options to meet demands projected in 2050 from SWSI could be met under varying hydrology. This information gathered and model developed under this proposed activity will help the Arkansas Basin meet their and Colorado's future water needs.

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.

This water activity will analyze historical water use, develop a water operations report, and summarize water rights administration in the Arkansas Basin. In addition, a hydrologic model(s) of the basin will be developed to evaluate the water management and use in the basin for current and projected 2050 demands from SWSI under a range of hydrologic conditions (dry, average and wet). The model(s) will be used to evaluate operations of key reservoirs for revised operations that would improve the usability or reliability of the reservoirs. This would be undertaken using a basin approach which would provide a mechanism for stakeholders to work together to identify and address changes and conflicts that exist among multiple planning efforts.

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

The CWCB has initiated the Arkansas Basin Decision Support System (DSS) and has completed a Feasibility Study (December 2011) but has not authorized the development of the DSS. This project will utilize data collected via the Arkansas Basin DSS and coordinate to avoid duplication of efforts.

Water Supply Reserve Account – Application Form
Revised December 2011

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

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 5 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 December 2011

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

Signature of Applicant:

Print Applicant's Name:

Project Title: Arkansas River Basin Study

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

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

Exhibit A
Statement of Work

WATER ACTIVITY NAME – Arkansas River Basin Study

GRANT RECIPIENT – Southeastern Colorado Water Conservancy District

FUNDING SOURCE - Statewide Account / Basin Account

INTRODUCTION AND BACKGROUND

The Arkansas Basin Roundtable (ABRT) has recognizes a need for an Arkansas River Basin Analysis Plan (Plan) that could address an area that includes the entire Arkansas River basin region in Colorado. The plan will provide a mechanism for stakeholders to work together to overcome potential project implementation constraints and effectively implement water projects that achieve designated regional water management objectives.

The plan would be developed using a phased approach with the first phase focusing on the technical aspects of the study including data analyses and engineering studies to provide a solid technical platform to support the second phase of the study. The second phase would an integrated planning approach for the entire Arkansas basin.

In the proposed activity, Phase 1 will include an analysis of historical water use in the basin, development of an Arkansas Basin Water Operations report showing how water is diverted and used under dry, average and wet conditions, a summary of water administration policies and procedures impacting water use in the basin, and the development of a hydrologic model that will be used to assess the water supply availability and uses for current and future (2050) conditions under varying hydrology.

Phase 2 will involve the development of a Plan presenting an integrated basin approach for addressing water management within the Arkansas basin (region). The Plan would present the vision and goals, establish water objectives and measureable targets for the region, identify water challenges and issues, identify opportunities for integrating proposed water supplies and water strategies, establish a system for prioritizing the strategies, present a plan for implementing the water strategies and identify the framework for integrated basin planning in the region.

OBJECTIVES

The objectives of Phase 1 of the study are to:

- Obtain historical water use data for the 1982 to 2012 study period from various sources that would show how water was used in the basin.
- Develop an Arkansas Basin Water Operations report that shows how water was diverted and used in three selected years in the study period reflecting dry, average, and wet hydrology.

- Describe water rights administration and compact administration policies and procedures and discuss how they impact water use in the basin.
- Evaluate all existing hydrologic models developed for the basin to determine if they could be used to support a study of some portion of the basin.
- Develop a hydrologic model and visualization tool to support this study with the understanding that this model would operate under simplified assumptions.
- Use the hydrologic model to support the analysis of water use in the basin under three hydrologic scenarios and two water demand scenarios: current and 2050.
- Use the hydrologic model to evaluate water management issues and options identified in Phase 2 of the study.

TASKS

This project has the following phases and tasks:

Phase 1:

- Task 1 – Water Data Review
- Task 2 – Basin Water Operations Report
- Task 3 – Water Rights Administration Policies and Procedures
- Task 4 – Hydrologic Model and Tool Development
- Task 5 – Water Management and Use Analysis
- Task 6 – Reporting

Phase 2:

- Task 7 – Integrated Basin Planning

The description, method/procedure and deliverables associated with each task are described below.

Phase 1

TASK 1 – Water Data Review

Description of Task

The purpose of this task is to review and identify all water use data that is available that support this study for the selected study period.

Method/Procedure

The consultant will review the Arkansas Basin DSS Feasibility Study where water resources data (surface water and groundwater) has been inventoried and assessed. This comprehensive inventory is

expected to be very useful in identifying data sources. In addition, the consultant will use the DWR's HydroBase data where applicable. Other data bases used by the Division Engineer will be evaluated for data that may be needed. Major municipal water providers will be contacted to obtain any water resources data that will be needed if not in HydroBase. The Bureau of Reclamation will be contacted to obtain any data that is not in HydroBase that may be needed for the study.

Deliverable

- A technical memorandum containing the list and sources of data needed to complete the study.

TASK 2 – Basin Water Operations Report

Description of Task

The purpose of this task is to provide a report describing historical water operations in the basin by major water users for three years that reflect dry, average, and wet hydrology/conditions.

Method/Procedure

The consultant will identify major water users in the basin and obtain historical monthly data on water diversions, storage, exchanges, groundwater withdrawals and use for the study period. The monthly data will be obtained from the sources identified in Task 1. The monthly data will be input to Excel spreadsheets for analyses and presentation of data for the report.

Deliverable

- A report describing historical monthly water diversions, storage, exchanges and uses for major water users in the basin for three selected years that would reflect dry, average and wet hydrology/conditions. The report would use Excel spreadsheets to help depict water operations.
- Basin maps that show the location of the diversion and storage of water by major water users. The maps will show irrigated areas under the major irrigation diversions included in the study.
- A map with the amount of water diverted, stored, released, and exchanged by annual totals for the three hydrologic years for each major water user.

TASK 3 – Water Rights Administration Policies and Procedures

Description of Task

The purpose of this task is to provide a brief explanation of the water rights administration and Arkansas River Compact administration policies and procedures so that the RT understands how these policies impact water use in the basin.

Method/Procedure

The consultant will conduct meetings with the Division Engineer and his staff to obtain information on current water rights administration, compact administration, and promulgated rules implementation policies and procedures. Any reports that have been published by DWR or the Division Engineer will be reviewed for useful information that will assist in describing these policies and procedures. DWR has published official policies on water rights administration, implementation of promulgated rules, and ground water administration. These official policies will be reviewed for content that will assist in describing water rights administration.

Deliverable

- A technical memorandum describing water rights administration and compact administration policies and an explanation of how they impact water use in the basin

TASK 4 – Hydrologic Model and Tool Development

Description of Task

The purpose of this task is to develop a hydrologic model of the basin and develop a visualization tool that can be used to support this study. The hydrologic model and visualization tool will be used in subsequent tasks to meet the overriding objectives of this study in a practical and cost-effective manner.

Method/Procedure

The consultant will develop a hydrologic model of the Arkansas basin for use in this study. This model will include the key operational water resources elements in the basin such as:

- Major rivers and streams
- Major reservoirs
- Major diversions

The consultant will develop the hydrologic model using CDM Smith's Simplified Water Allocation Model (SWAM) to support the study. SWAM is a generalized water allocation modeling tool, written in Visual Basic for Applications within Microsoft Excel and developed with partial funding from the State of Colorado. It was designed as a simplified, more user-friendly alternative, or companion, to the Colorado DSS. SWAM calculates physically and legally available water, diversions, storage, consumption, and return flows at user-defined nodes in a networked river system. The software is best suited for planning applications, rather than water rights administration or detailed simulations of system operations.

In addition a visualization tool will be developed that will be dynamically linked to the SWAM model. This tool will process SWAM simulation output as they are generated to allow for quick and easy spatial visualization of projected water resources in the Arkansas Basin under varying basin operations. This tool will assist in the visualization of flows and water resources operations in the basin simulated in the hydrologic model.

Deliverables

- A technical memorandum describing the hydrologic model and visualization tool developed for this study
- A hydrologic model and visualization tool developed to assist in the spatial assessment of water resources in the Arkansas Basin under varying basin operations and hydrologic conditions.

TASK 5 – Water Management and Used Analysis

Description of Task

The purpose of this task is to analyze water supply availability and uses for current conditions and a future planning horizon (2050) in order to gain a better understanding of both. Analyses will incorporate a range of hydrologic conditions and demand projections associated with the selected planning horizon.

Method/Procedure

The model or models developed in Task 4 will be used to analyze basin water availability and uses. Models will be constructed using the best available information and data collected under Task 1. To the extent possible, historical data will be used to verify the constructed models with respect to their ability to provide realistic simulations of water resources in the basin. The constructed model(s) will simulate native flows, reservoir storage, return flows, exchange agreements, and transbasin projects across a network of key locations, or nodes, in the basin. The model(s) will also simulate a range of hydrologic conditions subject to both current and future demands. Model output will include physical availability of water (stream flows), legal availability of water (to identify legal constraints), reservoir storage levels, diversions, return flows, and water supply shortfalls. Output will be provided for locations throughout the basin and likely on a monthly timestep. Additionally, the model(s) will allow for the simulation of various “what if” scenarios associated with management options aimed at addressing quantified shortfalls.

The model(s) will be used to evaluate operations of important reservoirs for revised operations that would improve the usability or reliability of the reservoirs. The PSOP proposal for Pueblo Reservoir would be included in the analysis.

Multiple models could be used in concert for this task. For example, output from one could serve as input to another. Lastly, as noted above, model simplifications will be required to provide useful and practical simulations of basin water resources within constraints imposed by data, budget, and schedule limitations. These simplifications may include aggregation of water use nodes and/or simplified representation of legal exchange agreements or operating rules.

Deliverable

- A technical memorandum describing the constructed model(s), model simulation results, and conclusions drawn with respect to the ability to meet future water use needs in the basin

- Copies of the constructed and parameterized numerical model(s) for potential use in future Roundtable planning studies

TASK 6 – Reporting

Description of Task

The purpose of this task is to develop a summary report describing the work performed for Phase I (Tasks 1 to 5) and summarize conclusions and recommendations.

Method/Procedure

The consultant will develop draft and final reports. The draft report will be provided to the ABRT and CWCB staff for review. Upon formal review and comment, input will be incorporated into the final report.

Deliverable

Deliverables for the task will include:

- A draft and final report summarizing the results of Phase 1.
- Meeting summaries documenting actions items from coordination meetings
- Presentation for use at the ABRT Meetings

Phase 2

The objective of Phase 2 of the study is to develop a Plan which presents an integrated basin approach for addressing water management issues within the Arkansas basin (region). The Plan through a process that identifies and involves water stakeholders from the region will include the following:

- Presents the vision and goals,
- Establishes water objectives and measurable targets for the region,
- Identifies water challenges and issues,
- Identifies and evaluates water strategies applicable to the varying reaches of the basin,
- Assesses the ability of water strategies to meet the basin objectives,
- Identifies opportunities for integrating proposed basin water supplies, and watershed strategies,
- Establishes a system for prioritizing the strategies,
- Presents a plan for implementing the water strategies, and
- Identifies the framework for overall integrated basin water planning in the region, including future updating of water management strategies and plan priorities.

TASK 7 – Integrated Basin Planning

Description of Task

The purpose of this task is to develop an Integrated Basin Plan (Plan) using a Basin approach with stakeholder involvement to address water management issues within the Arkansas basin (region).

Method/Procedure

Benefits of Basin approach: The planning process provides a mechanism for stakeholders to work together to identify and address the challenges and conflicts that potentially exist among multiple planning efforts. Develop updated water objectives to address the region's water resource challenges, overcome potential water management constraints, and implement water projects and programs that help attain the plans objectives.

Existing planning environment: Within the region, a wide variety of water supply uses, recreational uses, environmental uses and habitats are present. Like many urbanized areas in Colorado and throughout the West, the region faces challenges in ensuring long-term sustainability, utilization, and enhancement of its water supply, and watershed resources.

Numerous agencies are involved in the regulation, protection, use, and management of these water resources. The governmental and nongovernmental agencies within the region have developed local water management plans that may or may not work within the framework of the basin plan. Existing local and regional plans within a basin should incorporate water management strategies such as:

- Urban water management plans
- Reservoir management plans,
- Watershed management plans,
- Waters conservation plans,
- Recreational plans,
- Flood control plans,
- Reuse water plans,
- Watershed urban runoff and stormwater management plans
- Habitat protection.

This plan will be an umbrella document that encompasses many of the above local water management plans, while addressing water issues on a regional level. This plan should incorporate water resource management findings and recommendations from many of the region's major water related planning efforts. In working towards implementation of a plan like this, however, additional effort will be needed to address short-term priorities and incorporate water resource management planning from all of the region's pertinent watersheds, recreation, habitat protection, flood control, and conservation plans.

Arkansas Basin Roundtable Planning Update: The Arkansas Basin Roundtable Planning Update will identify water management challenges within the Arkansas basin and provide a framework for meeting the challenges. Ensuring reliable water supplies is one of the key fundamental actions established by this analysis.

Each of the plans listed above serve multiple water roles within the region and are involved in a number of regional wide water cooperation efforts depending on the regional hydrologic conditions. As noted above numerous, plans have been developed by individual or multiple agencies or groups within the region to address water supply, recreation and environmental planning. Each local plan addresses portions of the region that affect them, many of the plans overlap in geography, scope, and agency jurisdiction. Challenges to addressing water issues identified within the first meeting of the Update will include:

- competing or conflicting objectives among local plans,
- conflicting means of achieving the objective among local plans, all portions of the region are not equally represented in local plans,
- jurisdictional conflicts,
- regulatory constraints,
- recreational issues and impacts,
 - rafting,
 - fishing,
 - commercial rafting,
- environmental issues and impacts,
- public acceptance,
- funding,

By identifying these challenges or constraints that the region faces in addressing water issues on a basin scale, the consultants would identify how the plan would solve those challenges. A matrix could be utilized as a process to address and resolve conflicts within the local plans through a collaborative regional effort, additionally, the plan may provide useful information in addressing recreational, environmental, regulatory and administrative issues on a basinwide basis.

In addition to the benefit of resolving existing water conflicts and prioritizing and focusing basin water management efforts, the plan may make water projects and programs in the region eligible for future state or federal funding.

More technical and stakeholder input must be achieved through an outreach effort to existing planning groups, environmental organizations, watershed groups, municipalities, water agencies, transportation agencies, flood control agencies, regulatory agencies, community groups, and other interested parties. An outreach effort like this would be a large undertaking; thankfully, ABRT can spearhead the outreach. With additional effort, all the necessary and required stakeholders in the process can be included through the Arkansas Basin Roundtable. This plan will consist of a data collection effort and planning study to enable all the Arkansas basin stakeholders and the Roundtable with an updated analysis of the Arkansas basin. Table A-1 on the next page summarizes how the

plan sections could be organized to establish Plan goals and objectives, select water management strategies, establish Arkansas Basin Roundtable priorities, and identify how the Plan is to be implemented.

Table A-1
Organization of the Plan

A.	Introduction and Arkansas Basin Analysis Group (ABAG)
B.	Description of the Arkansas Basin
C.	Objectives
D.	Water Management Strategies
E.	Integration of Strategies
F.	Regional Priorities within the Roundtable
G.	Implementation
H.	Impacts and Benefits
I.	Technical Analysis
J.	Data Management

Plan Preparation Team: The ABAG provides overall direction in the development and preparation of this plan. The ABAG will be assisted in preparing plan documents by the team of consultants utilized by CDM Smith.

Plan Development Process and Stakeholder Input: Development of the plan involves significant public /stakeholder input process that endeavors to identify as many stakeholders as possible and offer the stakeholders the opportunity to participate in the process. The ABAG and consultants will coordinate with regional groups in organizing the stakeholders input process as well as organizing preparing and reviewing the plan. The plan will follow the Arkansas Basin Roundtables guidelines that are used with grant proposals (see Figure 1, and 7 from update on strategies and initiatives).

Deliverable

Deliverables for the task will include:

- Coordination with the ABRT and any subcommittee via monthly progress reports
- Provide the ABRT and the CWCB staff a summary progress report every 6 months
- A final report that summarizes the project documenting how the project was completed containing photographs, figures, charts, tables and summaries of meetings and engineering reports/designs. In addition, the archived model (s) data and results will be provided.

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.

BUDGET

Provide a detailed budget by task including number of hours and rates for labor and unit costs for other direct costs (i.e. mileage, \$/unit of material for construction, etc.). A detailed and perfectly balanced budget that shows all costs is required for the State's contracting and purchase order processes. Sample budget tables are provided below. Please note that these budget tables are examples and will need to be adapted to fit each individual application. Tasks should correspond to the tasks described above.

Total Costs			
	Labor	Other Direct Costs	Matching Funds (If Applicable)
Total Project Costs			
Task 1 - (Specify name of task)			
Task 2 -			
In-Kind Contributions			
Total Costs:			

Example Titles

Example Project Personnel: Hourly Rate:	Project Manager	Project Engineer	Geologist	Scientist	Graphics/ Designer	Clerical		Total Costs
Task 1 -								
Task 2 -								
Total Hours:								
Cost:								

Other Direct Costs

Item:	Copies	Materials	Equipment/ Supplies	Mileage		Total
Units: Unit Cost:	No.			Miles		
Task 1 -						
Task 2 -						
Total Units:						
Total Cost:						

In-Kind Contributions (If Applicable)

Project Personnel: Hourly Rate:				Total
Task 1 -				
Task 2 -				
Total Hours:				
Total Cost:				

SCHEDULE

Provide a project schedule including key milestones for each task and the completion dates or time period from the Notice to Proceed (NTP). This dating method allows flexibility in the event of potential delays from the procurement process. Sample schedules are provided below. Please note that these schedules are examples and will need to be adapted to fit each individual application.

Example 1

Task	Start Date	Finish Date
1	Upon NTP	NTP + 90 days
2	Upon NTP	NTP + 180 days
3	Upon NTP	NTP + 180 days
4	Upon NTP	12/31/11
5	NTP + 60 days	12/31/11
6	NTP + 60 days	12/31/11
7	NTP + 60 days	12/31/11

NTP = Notice to Proceed

Example 2

Task	First 6 Months						Second 6 Months					
	1/10 – 3/10			4/10 – 6/10			7/10 – 9/10			10/10 - 12/10		
A – Economic Analysis												
B – Storage Analysis												
C – TA for Ditch Cos												
D – Injury Analysis												
Final Reports												

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 5 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 CWCW 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.

Appendix 1 Reference Information

The following information is available via the internet. The reference information provides additional detail and background information.

- Water Supply Reserve Account main webpage:
 - <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/main.aspx>
- Water Supply Reserve Account – Basin Fund Application Details:
 - <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/BasinWaterSupplyReserveAccountGrants.aspx>
- Water Supply Reserve Account – Statewide Fund Application Details:
 - <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/StatewideWaterSupplyReserveAccountGrants.aspx>
- Colorado Water Conservation Board main website:
 - <http://cwcb.state.co.us/>
- Interbasin Compact Committee and Basin Roundtables:
 - <http://cwcb.state.co.us/about-us/about-the-ibcc-brts/Pages/main.aspx/Templates/BasinHome.aspx>
- House Bill 05-1177 – (Also known as the Water for the 21st Century Act):
 - <http://cwcbweblink.state.co.us/DocView.aspx?id=105662&searchhandle=28318>
- House Bill 06-1400 – (Adopted the Interbasin Compact Committee Charter):
 - <http://cwcbweblink.state.co.us/DocView.aspx?id=21291&searchhandle=12911>
- Senate Bill 06-179 – (Created the Water Supply Reserve Account):
 - <http://cwcbweblink.state.co.us/DocView.aspx?id=21379&searchhandle=12911>
- Statewide Water Supply Initiative 2010:
 - <http://cwcb.state.co.us/water-management/water-supply-planning/Pages/SWSI2010.aspx>

Arkansas River Basin Study Budget

Total Costs				
Task	Description	Labor	Other Direct Costs	Total Project Costs
Task 1	Data Analysis, Engineering Studies and Model Development	\$ 23,500	\$ 288	\$ 23,788
Task 2	Basin Water Operations Report	\$ 50,000	\$ 401	\$ 50,401
Task 3	Water Rights Administration Policies and Procedures	\$ 21,900	\$ 288	\$ 22,188
Task 4	Hydrologic Model and Tool Development	\$ 20,000	\$ 175	\$ 20,175
Task 5	Water Management and Use Analysis	\$ 58,401	\$ 401	\$ 58,802
Task 6	Reporting	\$ 30,700	\$ 570	\$ 31,270
Task 7	Integrated Basin Planning	\$ 80,200	\$ 1,577	\$ 81,777
	Total Cost:	\$ 284,300	\$ 3,700	\$ 288,000

Task		Description		Project Director				Principal				Labor				Sr Eng/Geo.				Proj. Eng/Geo				Staff Eng/Geo				Clerical/Drafting				Total Labor		Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Other Direct Costs										Total	
Item:	Copies	Units:	Materials	Equipment/Supplies	Mileage	Miles					
Task 1	0.25	700			\$ 0.565	200				\$ 288	
Task 2		700				400				\$ 401	
Task 3		700				200				\$ 288	
Task 4		700				0				\$ 175	
Task 5		700				400				\$ 401	
Task 6		2280				0				\$ 570	
Task 7		4500				800				\$ 1,577	
Total Units:	10,280					2,000					
Total Cost:	\$ 2,570	\$ -	\$ -	\$ -	\$ -	\$ 1,130				\$ 3,700	

Arkansas River Basin Study Schedule

Task	Start Date	Finish Date
Task 1: Data Analysis, Engineering Studies and Model Development	Upon NTP	NTP + 90 days
Task 2: Basin Water Operations Report	Upon NTP	NTP + 180 days
Task 3: Water Rights Administration Policies and Procedures	Upon NTP	NTP + 180 days
Task 4: Hydrologic Model and Tool Development	Upon NTP	NTP + 180 days
Task 5: Water Management and Use Analysis	Upon NTP	NTP + 360 days
Task 6: Reporting	Upon NTP	NTP + 360 days
Task 7: Integrated Basin Planning	Upon NTP	NTP + 720 days

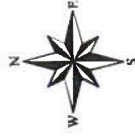
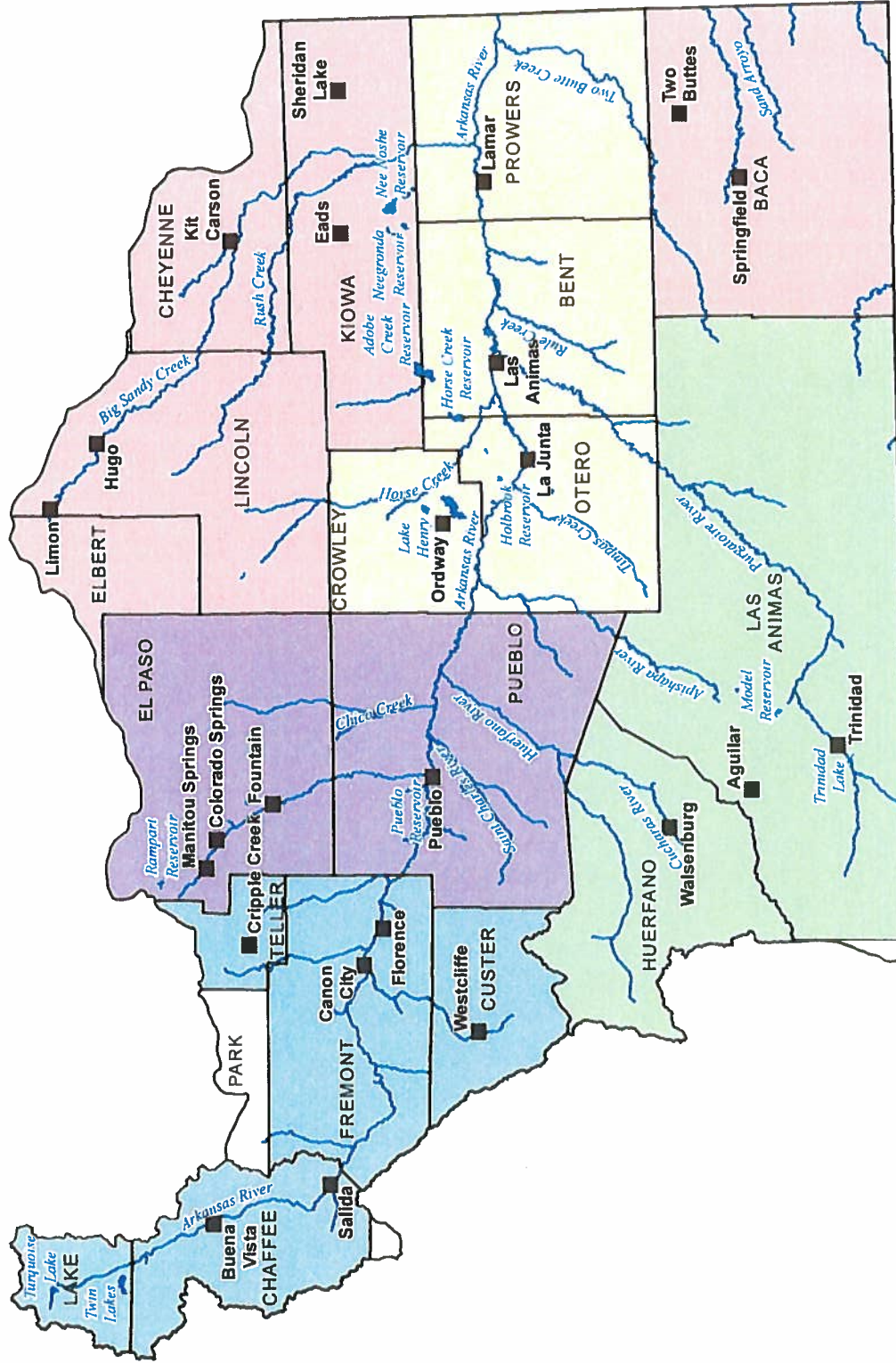


Exhibit B - Arkansas River Basin Study Project Map



Arkansas Basin Roundtable
Official Records Location
c/o Board of Water Works of Pueblo
Attention: Leslie Martinez
P.O. Box 400
Pueblo CO 81002-0400

January 16, 2013

Greg Johnson
Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 600
Denver, Colorado 80203

Re: Water Supply Reserve Account Grant Application for Fountain Creek Bank Restoration at the Frost Ranch

Dear Greg:

Under separate cover you will receive a WSRA grant application for the Fountain Creek Bank Restoration at the Frost Ranch. At the January 9, 2013, Arkansas Basin Roundtable meeting, the Roundtable agreed by consensus to approve this application for \$30,000 in Basin Funds and \$75,000 of Statewide Funds.

My expectation is that this grant request will be heard at the March, 2013 CWCB meeting since it includes Statewide Funds. Please do not hesitate to contact me if you have any questions.

Sincerely,

Gary Barber
Chair

c: Executive Committee, Ark Roundtable
Todd Doherty, CWCB staff
Graham Thompson



Pueblo County Office
200 W. 1st Street, Suite 303
Pueblo, CO 81003

719-447-5012
fountainckdist@aol.com
www.fountain-crk.org

El Paso County Office
975 S. Union Blvd, Suite 219
Colorado Springs, CO 80910

31 January 2013

Greg Johnson
Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 600
Denver, CO 80203

**Re: Water Supply Reserve Account Grant Application for Fountain Creek Bank
Restoration at the Frost Ranch**

Dear Greg,

The Fountain Creek Watershed, Flood Control and Greenway District is pleased to submit our WSRA Grant Application for the Fountain Creek Bank Restoration at the Frost Ranch. This application was presented to the Arkansas Basin Roundtable at their January 9, 2013 meeting. The Roundtable agreed by consensus to approve the application for \$30,000 of Basin Funds and \$75,000 of Statewide Funds (Copy of letter attached). The total Project budget is \$189,100.

In Support of the Project, the Fountain Creek Watershed, Flood Control and Greenway District is providing \$45,300 of District Funds, the property owner is providing \$7,500 in kind for vegetation materials, and Colorado Springs Utilities is providing \$31,300 in kind for Survey and Data Collection, Engineering Analysis and Preliminary (60%) Design.

We look forward to a favorable review of our Grant Application at the march 2013 CWCB meeting since it includes Statewide Funds.

If you need further information, please contact me at 719-447-5012 or Graham Thompson, our Engineer, at 719-575-0100.

Thank you for your assistance.

Sincerely,

Larry Small,
Executive Director

MAILING ADDRESS: P.O. Box 26373, Colorado Springs, CO 80936-6373



COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM



Fountain Creek Bank Restoration at the Frost Ranch

Name of Water Activity/Project

Fountain Creek Watershed Flood Control and Greenway District

Name of Applicant

Arkansas Basin Roundtable

Amount from Statewide Account:

\$75,000

Amount from Basin Account(s):

\$30,000

Total WSRA Funds Requested:

\$105,000

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

Application Content

Application Instructions	page 2
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Part III – Threshold and Evaluation Criteria	page 7
Part IV – Required Supporting Material	
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

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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>

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:

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

If you have questions or need additional assistance, please contact Greg Johnson at: 303-866-3441 x3249 or gregory.johnson@state.co.us.

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

1.	Applicant Name(s):	Fountain Creek Watershed Flood Control and Greenway District		
	Mailing address:	PO Box 26373 Colorado Springs, CO 80936-6373		
	Taxpayer ID#:	27-0799089		
	Primary Contact:	Mr. Larry Small	Position/Title:	Executive Director
	Email:	Fountainckdist@aol.com ; lsmall42@comcast.net		
	Phone Numbers:	Cell: 719-447-5012	Office:	
	Alternate Contact:	Wayne Vanderschuere	Position/Title:	Colorado Springs Utilities
	Email:	wvanderschuere@csu.org		
	Phone Numbers:	Cell:	Office:	719-668-3811

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.

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3. Provide a brief description of your organization

The Fountain Creek Watershed Greenway and Flood Control District was created under SB09-1441 in April of 2009 for the purpose of managing, administering and funding capital improvement projects that will lead to the mitigation of flooding, improved water quality issues, erosion and sedimentation control and improved drainage. In addition, the district will fund the protection of open space as well as develop greenway amenities.

The newly formed district encompasses El Paso and Pueblo Counties. Land use authority is limited to the 100-year floodplain between El Paso and Pueblo counties south of the City of Fountain and north to the City of Pueblo.

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

N/A

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

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Part II. - Description of the Water Activity/Project

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

☒

Nonconsumptive (Environmental or Recreational)

☐

Agricultural

☐

Municipal/Industrial

☐

Needs Assessment

☐

Education

☐

Other

Explain:

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

This project also protects productive agricultural land on the Frost Ranch.

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

☐

Study

☒

Implementation

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

New Storage Created (acre-feet)

New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)

Existing Storage Preserved or Enhanced (acre-feet)

Length of Stream Restored or Protected (linear feet)

Length of Pipe/Canal Built or Improved (linear feet)

Efficiency Savings (acre-feet/year OR dollars/year – **circle one**)

Area of Restored or Preserved Habitat (acres)

Other -- Explain:

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

Latitude: 38°34'24.21"N

Longitude: 104°38'18.27"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.

Fountain Creek Bank Restoration at the Frost Ranch Overview of Proposed Water Activity

The proposed water project is to restore an eroding stream bank of Fountain Creek at the Frost Ranch in southern El Paso County. The project is located on Fountain Creek between Interstate 25 and Hanover Road about 1 ½ miles south of the Pikes Peak International Raceway and the Old Pueblo Road exit off of Interstate 25. The project bank is on the left bank (facing downstream) of the creek near the Frost headquarters.

The project bank lies along an eroding bendway where Fountain Creek has migrated into a bank with no riparian vegetation. The lack of vegetation along about 400 feet of the left bank (looking downstream) allows the soil to be readily removed during high flow events.

Over the years at this location, the landowner has experienced flood damage and bank erosion that has caused loss of property, damage to fences, loss of productivity, and loss of habitat and vegetation. Since 2010, the bank has migrated as much as 70 feet at one point.

As a result of the bank erosion, the creek has become over widened from the stable Fountain Creek reference width of 160 feet to more than 200 feet. Near the lower end of the project, the bank has "scaloped" out and is creating severe secondary currents (eddy) that will aggravate future erosion. Using an estimate of erosion based on bank erosion hazard index and near bank stress, it is estimated that routine (non-flood) erosion has increased from about 0.1 tons/foot/year to nearly 1 tons/foot/year. Along the 400-foot project reach that equates to an increase from 40 tons/year to 400 tons/year, a ten-fold increase. The over widening and increased sediment supply has caused downstream deposition which, if allowed to continue, will in-turn aggravate bank erosion.

With the exception of the project bank, this reach of Fountain Creek is an exemplary healthy reach. The creek in this vicinity is relatively stable, well-vegetated and neither aggrading or degrading. It is bordered by dense riparian and wetland buffer and associated high-value habitat. The vegetation buffer provides roughness that slows velocities and root mass that holds the stream banks together during floods. Restoring the project bank in this reach would prevent further impacts to the otherwise health reach at much lower cost than repairing it after further damage. In addition, this healthy reach was recently used as a reference reach to collect stable geomorphic and survey data to guide another channel restoration project on a site upstream. As such, considerable data for that study has already been collected for this site.

The project bank has a relatively low height compared to other severely eroding banks on Fountain Creek. That will allow the project to proceed with available Water Reserve Account funds to demonstrate effective habitat-sensitive restoration techniques at a reasonable cost by comparison. The concept for restoration will utilize the construction of a bankfull bench against the toe of the eroding bank. The bench width will restore the creek to a reference width and improve sediment transport capacity. The bench will be stabilized with appropriate toe protection and augmented with willow and other riparian plantings to increase habitat and provide sustainable flood velocity mitigation and soil protection.

The project bank is readily accessible and will be an excellent location to demonstrate techniques that can be used to systematically address larger erosion and sedimentation issues along Fountain Creek. Addressing these issues will begin to reduce the sediment supply that is contributing to irrigation, flooding, and stream stability problems downstream on Fountain Creek and the Arkansas River.

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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

Yes. The Fountain Creek Bank Restoration Project at the Frost Ranch is a non-consumptive use project that does not restrict the ability of any holder of the water rights to use or to dispose of that water right in any manner permitted under Colorado Law and is consistent with section 37-75-102 Colorado Revised Statutes.

- 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 BRTs 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.

Pending

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.

Pending

- d) Matching Requirement: For requests from the Statewide Fund, the applicants is required to demonstrate a **20 percent** (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of **5 percent** of the total grant amount from Basin Funds. 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 application was submitted to the CWCB. 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)

See Following Table

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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TOTAL BUDGET

Lump Sum Amount

1. Frost Ranch Site Survey, base information, design and construction document preparation		
a. Colorado Springs Utilities Southern Delivery System, Fountain Creek realignment study at Clear Spring Ranch	\$31,300	In-Kind
b. Fountain Creek Watershed Flood Control and Greenway District	\$13,125	Cash
c. Basin Funds	\$30,000	Cash
2. Implementation		
a. Fountain Creek Watershed Flood Control and Greenway District	\$32,175	Cash
b. Statewide Account	\$75,000	Cash
c. Frost Livestock Company	\$7,500	In-Kind
Total Project Budget	\$189,100	

Cash Match	24.0%
Official 3 rd Party In-Kind Percentage Match	20.5%
Basin Funds Percentage Match	15.9%
Statewide Account Percentage of total project budget	39.6%

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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.**

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. 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.
- 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.

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.

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.
- 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.
- h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.
- i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.
- j. 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**.

Please attach additional pages as necessary.

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This project meets multiple objectives in the Tier 1 Evaluation Criteria.

- a) By addressing erosion and sedimentation in Fountain Creek, the project will address multiple issues in the Arkansas River basin. The bank stabilization effort will reestablish the natural riparian vegetation and improve both terrestrial and aquatic habitat, while reducing sedimentation. The vegetation will provide cover for wildlife and shade the creek bank for improved fisheries. Sedimentation in the Arkansas Basin is a major concern to water users. Sedimentation raises the grade in the Arkansas River and clogs irrigation diversions that significantly impact water users' ability to divert water. The eroded creek bank in the project area is estimated to yield 1,000% more sediment when compared to stable banks in Fountain Creek. Reduced sediment load in Fountain Creek will also result in improved water quality.
- b) This project, while led by the Fountain Creek Watershed, Flood Control and Greenway District, is supported by the Lower Arkansas Conservancy District, Colorado Open Lands, Central Colorado Conservation Districts, El Paso County and the private land owner. This project is seen as a low-cost, high return project that all project supporters intend to promote as a key strategy and demonstration project for reducing sedimentation in Fountain Creek. This is a key goal of the *Fountain Creek Corridor Restoration Master Plan* that was completed in October, 2011 by the Fountain Creek Watershed, Flood Control and Greenway District. This project will serve as a model for habitat-sensitive restoration techniques throughout the state of Colorado. It will demonstrate the effectiveness of early identification of a problem and the implementation of cost effective measures to stabilize river banks before the problem becomes much larger and much more expensive to correct. (See Exhibit C – Letter From Colorado Open Lands)
- c) The proposed improvements that are a part of this project will address three of the four priorities identified in the Arkansas Basin Water Needs Assessment Report. The three priorities are:
 - Maintain agricultural viability in the lower basins.
 - Provide for adequate water quality to meet all needs.
 - Ensure adequate water for future needs including municipal and industrial (M & I), agricultural, recreational and environmental purposes.

Also, this project is located within the Fountain Creek Watershed, one of the three non-consumptive environmental and recreational water needs focus areas that was identified in the Arkansas Basin Water Needs Assessment Report.

This project meets multiple objectives in the Tier 2 Evaluation Criteria.

- d & e) WSRA funds are necessary for successful completion of the project and future leveraging of local monies. WSRA funds will complete the construction documents and construction of the Fountain Creek Bank Restoration at Frost Ranch. This leverages money and in-kind services provided by Colorado Springs Utilities, as a part of the Southern Delivery System, Fountain Creek Realignment Study at Clear Spring Ranch. This study includes an initial site survey and engineering study of the Frost Ranch as a reference reach for the Fountain Creek realignment at Clear Spring Ranch. Design of habitat-sensitive restoration techniques developed as a part of the Clear Spring Ranch project will be applied to the Frost Ranch project.

The Fountain Creek Bank Restoration at Frost Ranch will serve as a demonstration of habitat-sensitive restoration techniques that will be proposed throughout the Fountain Creek Watershed. The Fountain Creek Watershed, Flood Control and Greenway District will be initiating a series of sediment transport studies to identify priority sites along the main stem of Fountain Creek, similar to Frost Ranch, that can benefit from the demonstrated habitat-sensitive restoration techniques to reduce erosion.

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This project meets multiple objectives in the Tier 3 Evaluation Criteria.

- f, i & j) The water activity helps meet environmental and recreational needs as identified in the Arkansas Basin Needs Assessment Report and in relationship to the amount of funds requested, provides a high level of benefit to the State of Colorado. The water activity is also complementary to, and assists in, the implementation of other programs in the CWCB, including the Fish Passage at the Ray Nixon Power Plant diversion on Clear Spring Ranch upstream from the Frost Ranch.
- h) The water activity includes bank and channel improvements that assist in the recovery of the Arkansas Darter, a threatened and endangered wildlife species and the Flathead Chub, a Colorado state species of concern.

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1. 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.

The water activity will consist of structural and non-structural improvements in Fountain Creek within El Paso County. The water activity will progress design and construction of habitat-sensitive restoration techniques that will stabilize the creek bank, reducing erosion and sediment transport while improving water quality and protecting viable agricultural land.

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

The water activity will build up the findings in the Fountain Creek Corridor Restoration Master Plan (October 2011) and the United States Army Corps of Engineers Fountain Creek Watershed Study (2009). Once constructed the water activity will assist and complement the objectives of the Southern Delivery system, Fountain Creek realignment at Clear Spring Ranch (2014) and the Fish Passage at Clear Spring Ranch (2014).

3. Statement of Work, Detailed Budget, and Project Schedule
(See Attached)

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 5 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.

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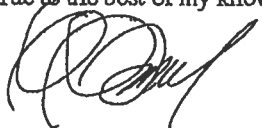
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The above statements are true to the best of my knowledge:

Signature of Applicant:



Print Applicant's Name:

Larry Small, Executive Director, Fountain Creek Flood Control and Greenway District

Project Title: Fountain Creek Bank Restoration at the Frost Ranch

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

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

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EXHIBIT A STATEMENT OF WORK

I. Water Activity Name:

Fountain Creek Bank Restoration at the Frost Ranch

II. Grant Recipient:

Fountain Creek Watershed Flood Control and Greenway District

III. Funding Source:

Water Supply Reserve Account

IV. Introduction and Background:

V. Problem Identification:

The proposed water project is to restore an eroding stream bank of Fountain Creek at the Frost Ranch in southern El Paso County. The project bank lies along an eroding bendway where Fountain Creek has migrated into a bank with no riparian vegetation. The lack of vegetation along about 400 feet of the left bank (looking downstream) allows the soil to be readily removed during high flow events. Over the years at this location, the landowner has experienced flood damage and bank erosion that has caused loss of property, damage to fences, loss of productivity, and loss of habitat and vegetation. Since 2010, the bank has migrated as much as 70 feet at one point.

The Bank Assessment for Non-point source Consequences of Sediment (BANCS) model is a method to evaluate bank characteristics and flow distribution along river reaches to provide an estimation of bank erosion rates. Based on what we know about this reach of Fountain Creek, the eroded eastern bank adjacent to the Frost property likely yields between 0.4 and 1.0 tons of sediment per foot of streambank per year. However, most stable streambank features in this reach of Fountain Creek yield approximately 0.1 tons of sediment per foot of streambank per year. Therefore, the eroded east bank adjacent to the Frost property yields between 1000% more sediment when compared to stable banks in Fountain Creek.

VI. Objectives:

The objective of this project is to stabilize 400ft of Fountain Creek bank to eliminate erosion and reduce sedimentation while protecting viable agricultural land and improving terrestrial and aquatic habitat.

VII. Tasks:

A. Task 1 –Survey & Data Collection

Matrix will provide a detailed topographic survey at the location of this project for the purposes of preparing final design plans. The survey will encompass the longitudinal and lateral extents of the eroded bank. Additional data will be obtained from:

- Available base mapping
- Relevant hydrologic, hydraulic, geomorphic, and environmental reports
- One (1) site visit to evaluate existing conditions

B. Task 2 – Engineering Analysis

Matrix will conduct engineering analyses needed to support the design of the selected bank stabilization method. Engineering analyses are expected to include:

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- Design flow selection
- Hydraulic analysis
- Scour analysis
- Geomorphic evaluation
- Vegetation assessment

C. Task 3 – Preliminary (60%) Design

Matrix will prepare preliminary (60%) design plans for the design of the selected bank stabilization method. This task will consist of:

- Bank revetment design. Potential revetment could include rock toe protection, natural log crib wall, geo grid, or other applicable methods
- Preliminary (60%) design plans, which are expected to consist of:
 - One cover sheet
 - One notes sheet
 - One plan/profile sheet
 - One grading sheet
 - One revegetation sheet
 - One detail sheet
- Preliminary (60%) specifications
- Preliminary (60%) opinions of probable construction cost
- Preliminary (60%) design review meeting

The following deliverables for this task will be submitted electronically:

1. Preliminary (60%) design plans
2. Preliminary (60%) specifications
3. Preliminary (60%) opinion of probable construction cost

D. Task 4 – Final (100%) Design

Matrix will prepare final (100%) design plans for the design of the selected bank stabilization method. It is assumed that comments received from the preliminary (60%) design submittal will not result in any major changes to the design. This task will consist of:

- Final (100%) design plans, which are expected to consist of:
 - One cover sheet
 - One notes sheet
 - One plan/profile sheet
 - One grading sheet
 - One revegetation sheet
 - One detail sheet
- Final (100%) specifications
- Final (100%) opinion of probable construction cost

The following deliverables for this task will be submitted electronically:

1. Final (100%) design plans
2. Final (100%) technical specifications

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3. Final (100%) opinions of probable construction cost

Matrix will not prepare a stormwater management plan (SWMP) as a part of this scope of services. The contractor shall be responsible for preparing the SWMP and obtaining the National Pollution Discharge Elimination System (NPDES) permit through the Colorado Department of Public Health (CDPHE). It is assumed that less than 1 acre of land will be disturbed during construction activities.

E. Task 5 – Permit Support

Matrix will provide permit support by coordinating with the El Paso County Regional Floodplain Administrator and the United States Army Corps of Engineers (USACE). We have assumed the following for this project:

- The proposed revetment design will not cause a rise in the regulatory Federal Emergency Management Agency (FEMA) 100-yr floodplain and, as a result, a conditional letter of map revision (CLOMR) and letter of map revision (LOMR) will likely not be required. Alternately, Matrix will submit a no-rise letter to El Paso County.
- A USACE Nationwide permit will likely be utilized instead of a USACE 404 permit.

F. Task 6 – Construction Bidding

Matrix will assist with the procurement and identification of a competent bidder. Services provided in this task include:

- Attending the pre-bid meeting
- Answering bidders questions
- Reviewing bids & making a recommendation

G. Task 7 – Construction Management

Minor modifications to the final design are often encountered, and required, during construction. As a result, it is recommended that all changes be verified and approved by the design engineer prior to construction. Matrix will provide on-site engineering to assist with the construction of the selected bank stabilization method. Specific tasks include:

- Attending one (1) pre-construction meeting
- Part-time construction observation, reporting, and field engineering
- Providing survey support at four (4) different times throughout the construction phase to verify that the construction is being completed according to the final (100%) design plans
- Responding to requests for information (RFI)
- Reviewing submittals
- Providing record (as-built) drawings

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,

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summaries of meetings and engineering reports/designs.

BUDGET

Provide a detailed budget by task including number of hours and rates for labor and unit costs for other direct costs (i.e. mileage, \$/unit of material for construction, etc.). A detailed and perfectly balanced budget that shows all costs is required for the State's contracting and purchase order processes. Sample budget tables are provided below.

Please note that these budget tables are examples and will need to be adapted to fit each individual application. Tasks should correspond to the tasks described above.

Budget

The budget table shown below is based on the scope of work described in this proposal.

Engineering	Lump Sum Cash Amount	In-Kind
1. Survey & Data Collection	\$3,830	\$12,300
2. Engineering Analysis	\$5,100	\$9,900
3. Preliminary (60%) Design	\$7,580	\$9,100
4. Final (100%) Design	\$7,380	
5. Permit Support	\$1,920	
6. Construction Bidding	\$1,560	
7. Construction Management	\$9,900	
Project Management	\$5,160	
Direct expenses (est.)	\$695	
Subtotal	\$43,125	\$31,300
Construction	Subtotal	\$107,175
	\$150,300	\$7,500
Total Cash Budget		\$189,100

VIII. Schedule

The schedule shown below assumes that the notice-to-proceed (NTP) is received by August 1st, 2013.

Task	Start (all dates are in 2013)	Finish (all dates are in 2013)
Survey & Data Collection	August 5 th	August 9 th
Engineering Analysis	August 12 th	August 23 rd
Preliminary (60%) Design	August 26 th	September 6 th
Preliminary (60%) Design Review	September 9 th	September 13 th
Final (100%) Design & Permit Support	September 16 th	September 27 th
Construction Bidding	September 30 th	October 25 th
Construction & Construction Management	October 28 th	November 22 nd

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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 5 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.

EXHIBIT B

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PROJECT MAP

Figure1: Context map and location of project at the Frost Ranch

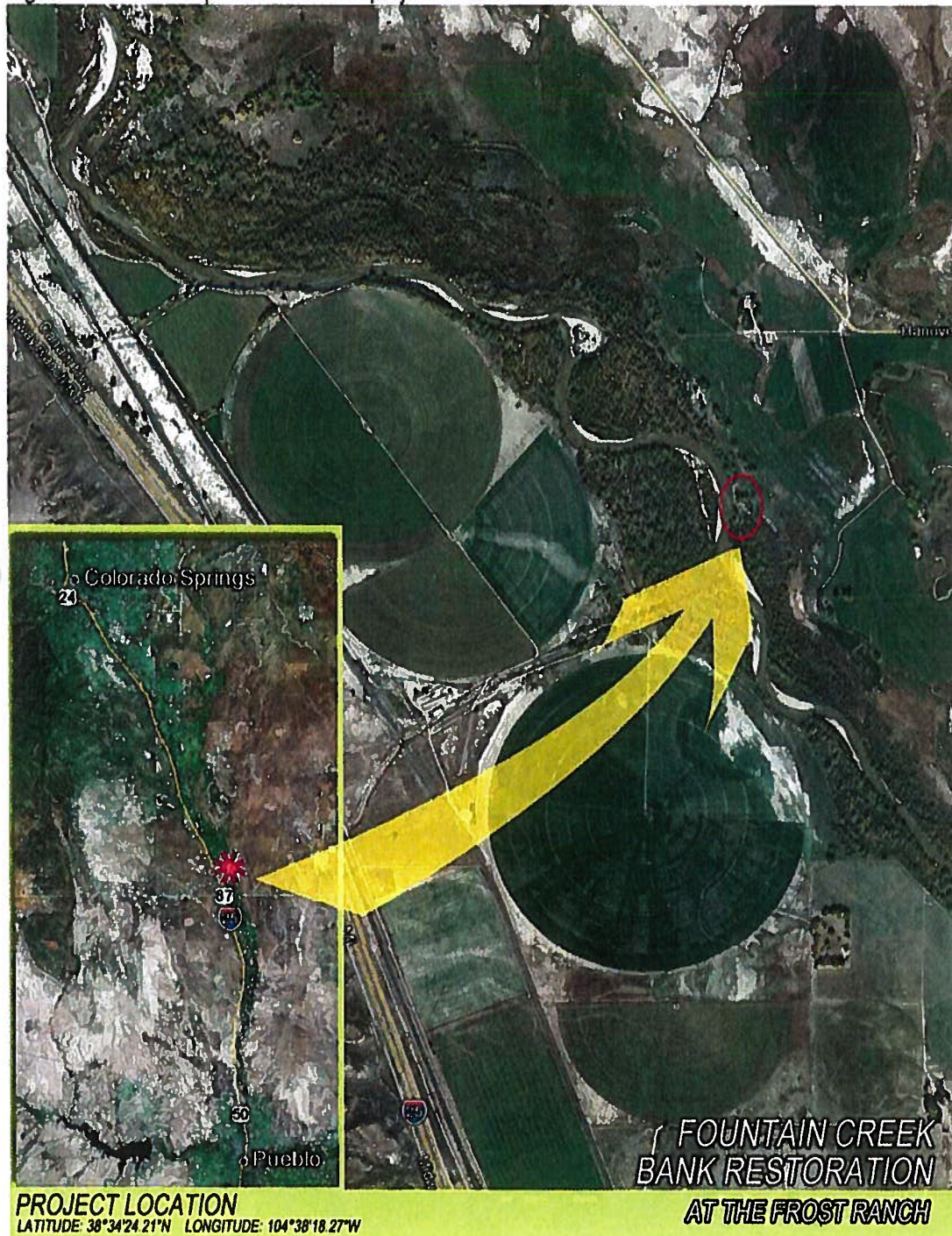


Figure 2: Lateral bank migration

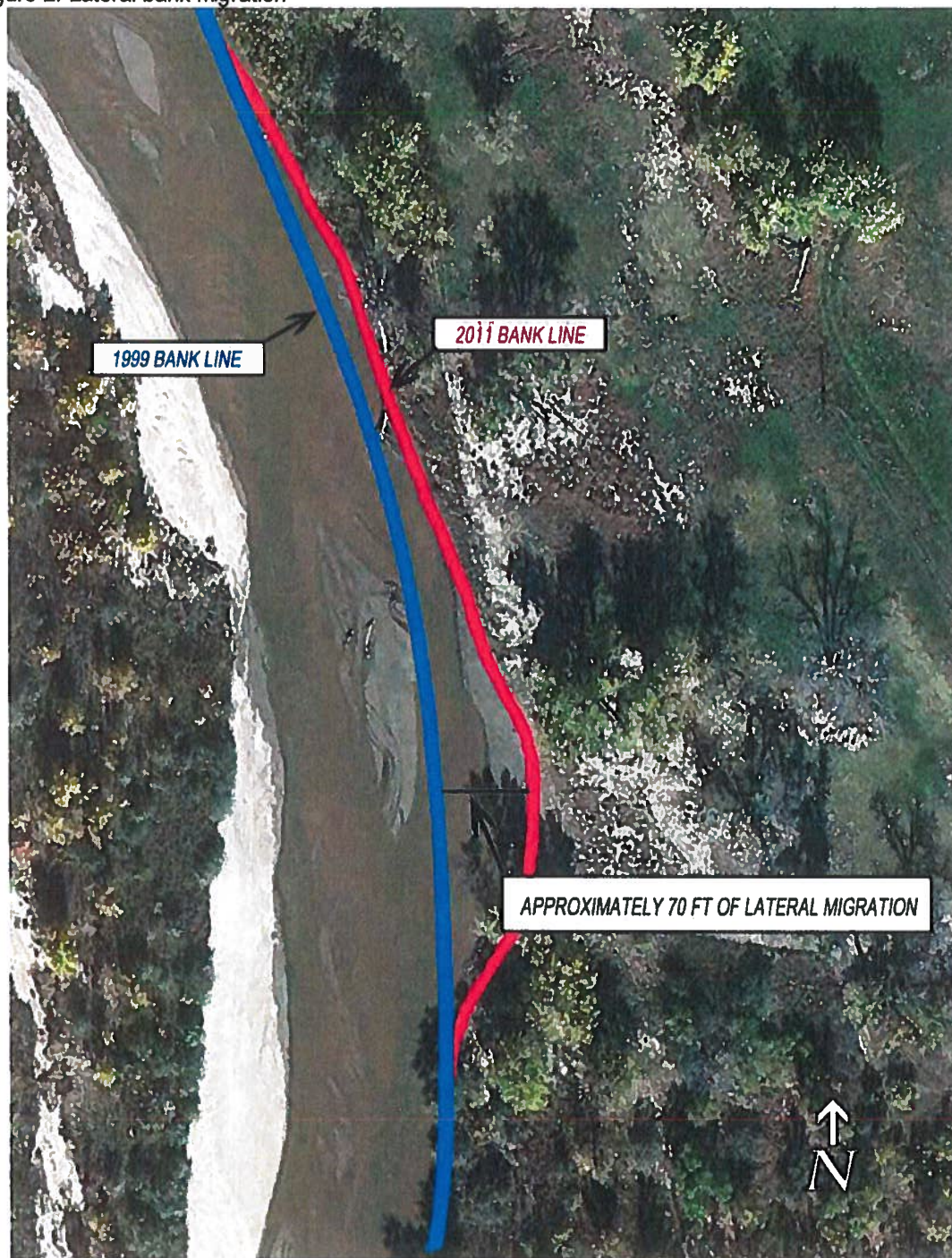


EXHIBIT C
AS NEEDED (PHOTOS, ETC.)

Figure 1: Looking downstream at the east cut bank. No riparian vegetation available to protect the floodplain.



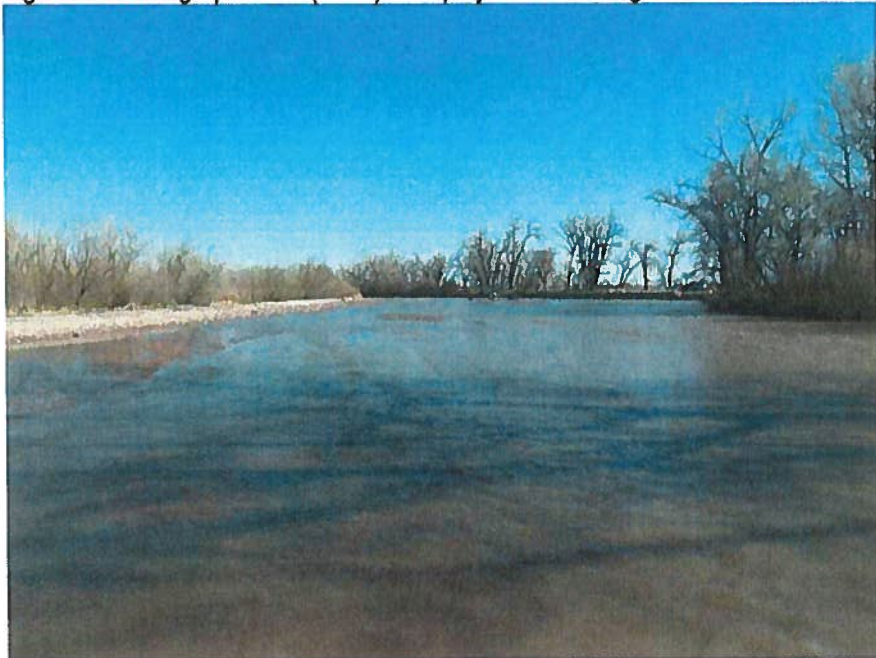
Figure 2: Looking downstream (south) at the southern limit of the project. No riparian vegetation available to protect the floodplain.



Figure 3: Looking north at the eastern cut bank at the northern limit of the project. No riparian vegetation available to protect the floodplain.



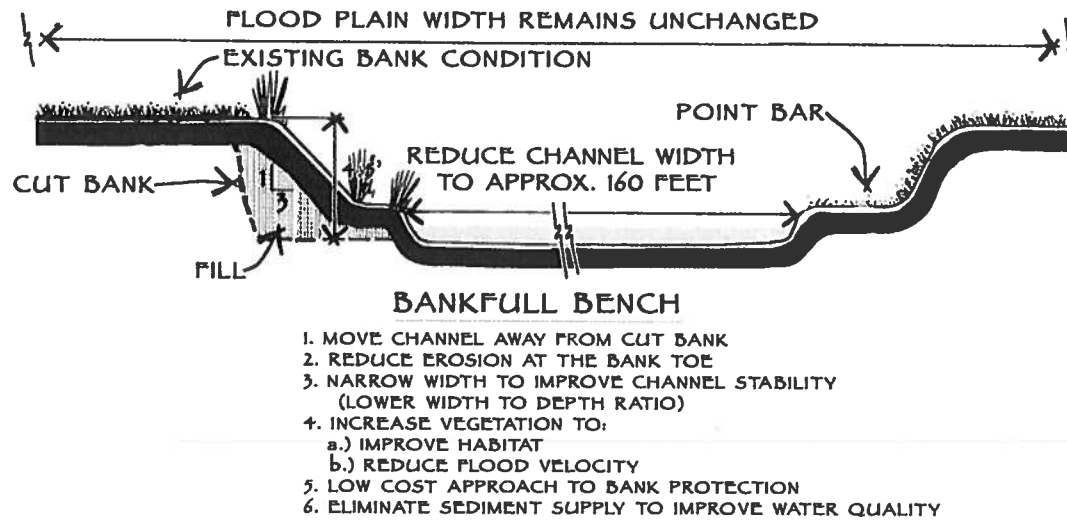
Figure 4: Looking upstream (north) with project area on right. Creek is too wide and will be reduced to 160ft width.



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Figure 5: Fountain Creek Section



PROPOSED FOUNTAIN CREEK BANK RESTORATION AT FROST RANCH

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OUR LAND. OUR WATER. OUR FUTURE.

Mr. Jay Frost
Frost Livestock Co.
18350 Hanover Road
Pueblo, CO 81008

January 29, 2013

Dear Jay,

On January 3rd, 2013, Colorado Open Lands was notified of your intent to work with the Fountain Creek Watershed Flood Control and Greenway District ("District") to implement bank stabilization on approximately 400 linear feet of the east bank of Fountain Creek.

I have reviewed the basic project concept and it appears that the activities contemplated under this project are consistent with the purpose and terms of the conservation easement held by Colorado Open Lands and recorded at reception #207074279 in the records of El Paso County. Please accept this letter as approval of the proposed project under Section 5. I. of the conservation easement.

As a member of the Districts' Citizens Advisory Group, I am pleased to see the District partnering with private landowners to mitigate impacts of flooding along Fountain Creek, and I'm even more pleased to see the Frost Livestock Co. participating in the Districts' programs to improve bank stability and riparian habitat along Fountain Creek. I'm hopeful that demonstration projects like this will increase the engagement between the District and landowners along Fountain Creek.

Good luck with the application to the Arkansas Basin Roundtable and please let me know if the plans change substantially from what I've reviewed.

All my best,

Dieter Erdmann
Director of Conservation Operations

2013 JAN 29 PM 3:00 FAXED TO: JAY FROST, FROST LIVESTOCK CO., 18350 HANOVER ROAD, PUEBLO, CO 81008

The Gunnison Basin Roundtable
501 Palmer Street
Delta, CO 81416

January 9, 2013

Mr. Todd Doherty
Intrastate Water Management and Development Section
COLORADO WATER CONSERVATION BOARD
1580 Logan Street, Suite 600
Denver, CO 80203

Re: Grant Request from the Water Supply Reserve Account
Lake Fork Valley Conservancy
Henson Creek and Lake Fork Confluence Channel Improvement Project

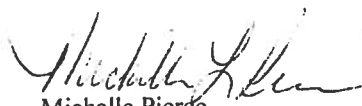
Dear Mr. Doherty:

This letter is presented to advise you that the grant application submitted by the Lake Fork Valley Conservancy for \$28,975 from Basin Account funds and \$260,111 from Statewide Account funds from the Water Supply Reserve Account for the Henson Creek and Lake Fork Confluence Channel Improvement Project was reviewed by the Gunnison Basin Roundtable and its Project Screening Committee and was approved by a majority vote of the Gunnison Basin Roundtable during our meeting on January 7, 2013.

This water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes. The requirements/language from the statute is provided in Part 3 of the Criteria and Guidelines.

This activity furthers the basin-wide consumptive needs for the Gunnison Basin in that it rehabilitates existing infrastructure (i.e. Lake City Town Ditch). This activity also furthers non-consumptive needs for the Gunnison Basin in that Henson Creek and the Lake Fork River have been identified as major recreational and environmental segments due to their recreation and fishery attributes. This project will help to improve river channel stability and riparian habitat; and will enhance the natural environment along these segments.

Sincerely,


Michelle Pierce
Chair

cc: Tom Alvey (e-mail)



COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM



Henson Creek and Lake Fork Confluence Channel Improvement Project

Name of Water Activity/Project

Lake Fork Valley Conservancy

Name of Applicant

Gunnison Basin

Amount from Statewide Account:

\$260,111

Amount from Basin Account(s):

\$28,975

Total WSRA Funds Requested:

\$289,746

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

Application Content

Application Instructions	page 2
Part I – Description of the Applicant	page 3
Part II – Description of the Water Activity	page 5
Part III – Threshold and Evaluation Criteria	page 7
Part IV – Required Supporting Material	
Water Rights, Availability, and Sustainability	page 12
Related Studies	page 13
Signature Page	page 16

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)

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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 (CWCBC). 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 CWCBC 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 CWCBC website at: <http://cwcbb.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://cwcbb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf>

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:

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

If you have questions or need additional assistance, please contact Greg Johnson at: 303-866-3441 x3249 or gregory.johnson@state.co.us.

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

1.	Applicant Name(s):	Lake Fork Valley Conservancy		
	Mailing address:	LFVC PO Box 123 Lake City, CO 81235		
	Taxpayer ID#:	LFVC: 84-1487921		
	Primary Contact:	Camille Richard	Position/Title:	Director, LFVC
	Email:	c.richard@lfvc.org		
	Phone Numbers:	Cell: 970-209-5238	Office:	
	Alternate Contact:	Nathan Henne	Position/Title:	Town Manager
	Email:	hennenathan@yahoo.com		
	Phone Numbers:	Cell: 517-819-9370	Office:	970-944-2333

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.

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3. Provide a brief description of your organization

The Lake Fork Valley Conservancy is a non-profit 501(c)3 organization with a mission to sustain and enhance the environmental and rural character of the Lake Fork of the Gunnison River valley through education, restoration, and stewardship. It is comprised of a board of directors and a technical advisory committee. The advisory committee, formerly known as the Lake Fork Watershed Stakeholders, is a partnership of citizens, private entities, local organizations, and government who came together in January of 2002 to better understand the resources and impacts within our valley and to initiate a collaborative, community effort to deal proactively with these issues. The LFVC will provide coordination for the project.

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

The Town of Lake City is a Statutory Town that is the county seat of and the only incorporated municipality in Hinsdale County, Colorado. Its mission is to protect, maintain and enhance a sense of community, historical heritage and mountain environment and provide economic, recreational and social opportunities through ethical and professional leadership. The Town is governed by a Board of Trustees composed of 6 Trustees and one mayor. The town is administered by the Town Manager, who oversees a small staff. The Town of Lake City will help coordinate project activities and serve as the fiscal agent.

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.

There are no relevant TABOR issues affecting this project.

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Part II. - Description of the Water Activity/Project

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

☒ Nonconsumptive (Environmental or Recreational)

☒ Agricultural

☐ Municipal/Industrial

☐ Needs Assessment

☐ Education

☐ Other Explain:

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

This project will help to improve river channel stability, riparian habitat, and irrigation to the Town of Lake City. Repair of the channel and stabilization of banks will protect the public trail from erosion and thereby protect the safety of recreational users and enhance the natural environment. The project also serves consumptive purposes by addressing the bank erosion occurring at the Town of Lake City's head-gate and along the river adjacent to the irrigation ditch. The project will repair the head-gate and ditch to improve intake at low flow and stabilize erosive river banks that threaten the ditch. The project also seeks to improve public river access at Memorial Park.

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

☐ Study

☒ Implementation

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

New Storage Created (acre-feet)

New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)

Existing Storage Preserved or Enhanced (acre-feet)

Length of Stream Restored or Protected (linear feet)

Length of Pipe/Canal Built or Improved (linear feet)

Efficiency Savings (acre-feet/year or 43% increase in flow)

Area of Restored or Preserved Habitat (acres)

Other -- Explain:

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

Latitude:

38.025532

Longitude:

-107.314362

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.

Over the past 130 years the Lake Fork of the Gunnison and Henson Creek running through Lake City have been significantly modified by urbanization, channelization and catastrophic failure of large upstream tailings dams. The Lake Fork Valley Conservancy and the Town of Lake City are proposing river improvements along approximately a half mile stretch of lower Henson Creek and its confluence with the Lake Fork of the Gunnison, in and near the Town of Lake City. This is Phase I of a three phase project envisioned to enhance and protect the ecological health and recreational quality of the Lake Fork of the Gunnison and its main tributary, Henson Creek, in the vicinity of Lake City (See Figure 1). In addition, Phase I will improve irrigation capabilities for the Town of Lake City during times of low flow.

In the Phase I project area, 2040 feet of the project reach along Henson and the Lake Fork flows through the Town and 560 feet of Henson Creek is under BLM jurisdiction, but the Town leases the property along the river from the BLM for their trail system. The lower Henson has been impacted from historic mine tailings and impoundment failures, which have created a braided and unstable channel with high bed load movement.

The purpose of this project is to realign areas of the channel where the river is threatening the Town irrigation head-gate and ditch, stabilize banks to reduce erosion that are undermining public trails, repair riparian areas, enhance fisheries and increase public access to the river, providing an overall quality recreational experience along this reach.

Currently the river is eroding the bank upstream of the intake channel to the Town of Lake City irrigation ditch, threatening to undermine the canal leading to the head-gate (Figure 2). In addition, the water level at base flow is not adequate to feed the ditch through the gate, eliminating the possibility to extend the irrigation channels in town for late season watering. This area needs to be reworked to protect the intake canal and head-gate and to increase beneficial use so that the Town's water right can be fully utilized.

In addition, the river is threatening a popular trail system that also runs adjacent to the town ditch. This particular stretch of bank has been propped up with rock and rip rap on a number of occasions, but each year high flows continue to undermine the bank and trail, and create dangerous conditions for trail users. The river will be moved away from the trail and the steep slope reduced to favor river access.

The construction of the new CDOT highway bridge over Henson Creek resulted in excessive aggradation of cobbles and gravels downstream of the support structures. This area will be reworked to facilitate bedload movement

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through the supports.

At the confluence of Henson and the Lake Fork, large amounts of gravel and cobble have accumulated, causing Henson Creek to aggrade behind it. This area is within the Town Memorial Park, and it is difficult to access the river here because of steep and unstable slopes (Figure 3). Also the old cross vane constructed at the handicap access fishing pier upstream of the confluence is eroding away and needs repair.

The project will involve construction of in-channel structures, new trail, and riparian revegetation, as described in the scope of work. The project involves construction of 6 cross vanes, 19 vanes, 16 sills and one rock wall terrace extended out into the river channel at the confluence. 500 feet of trail will be built on this terrace and landscaped (Figures 2 and 4).

WSRA funding will be used to cover most construction costs of all in-channel structures from the head-gate to the confluence. GOCO local government funds will cover construction of structures at Memorial Park and most revegetation and trail costs.

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 project is not anticipated to impact any existing water rights. It is intended to allow the Town of Lake City to fully utilize their already existing water right, without injury to in-stream flow requirements for the Lake Fork of the Gunnison and the priority of downstream senior water rights holders.

- b) The water activity underwent an evaluation and approval process and was approved by the Basin

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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Roundtable (BRT) and the application includes a description of the results of the BRTs 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.

This application was submitted to the Gunnison Basin Roundtable for consideration at their January 7, 2013, meeting. The Roundtable participants provided input as attached.

- 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.
- d) Matching Requirement: For requests from the Statewide Fund, the applicants is required to demonstrate a **20 percent** (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of **5 percent** of the total grant amount from Basin Funds. 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 application was submitted to the CWCB. 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)

Several funding sources exist for this project.

- 1) LFVC received grants from the CWCB Watershed Restoration Program and the Nonpoint Source 319 Program to cover costs for project feasibility and design (a total of \$133,000). Within the nine months prior to project implementation it is expected that the LFVC Project Manager will spend 60 hours on revegetation design and coordination and the contractor (Black Creek Hydrology) will spend \$31,941 to complete design and modeling work.
- 2) The LFVC is committed to raising \$20,000 in local cash contribution for the purchase of rock through their "Build a Trout a Home" fundraising initiative. LFVC also has one VISTA who will work on the project. This is an in-kind contribution of \$5,600 from OSM/VISTA program. LFVC will also provide 60 person hours of labor for sampling and planning inputs.

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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- 3) The Town of Lake City will provide equipment and labor toward revegetation and trails estimated at \$10,810. They will also serve as fiscal agent for the project.
 - 4) Webco Excavation will contribute \$10,000 of equipment time toward in-channel construction.
 - 5) The Hinsdale County Trails Commission will provide 150 man hours of labor toward construction of the 500 feet of trail at Memorial Park. This group maintains all trail systems throughout Lake City and up Henson Creek.
 - 6) The BLM and USGS will contribute \$17,100 of in-kind technical assistance for NEPA documentation and monitoring. BLM has also already contributed \$3,500 in rock to the project.
 - 7) GOCO - The Town of Lake City is generating a proposal to the Great outdoors Colorado Local Government Parks and Outdoor Recreation grants program for submission in March 2013. This funding will cover construction of river improvement structures at Memorial Park and most costs associated with revegetation along the public trail system. Total grant amount is estimated to be \$192,800.
 - 8) The Gunnison Basin Roundtable will commit 10% of the total WSRA grant amount, or \$28,975.
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.**

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. 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.

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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.

Henson Creek has been identified as a significant stream segment in the Gunnison Basin's Environmental and Recreational Non-Consumptive Needs Assessment, primarily for environmental criteria (Table 1 below). Henson is listed on the EPA's 303 (d) list of impaired streams for Cd and Zn (sculpin) and is recommended for environmental remediation, which is underway through cleanup of abandoned mines in the upper watershed. Cleanup of the Hough Mine in upper Henson is slated for summer of 2013, which will address the largest contributor of heavy metals to the watershed. To complement this work, river enhancement of lower Henson Creek as proposed addresses the physical impacts from tailings impoundment breaks in the 1960's and 1970's. The Lake Fork Valley Conservancy has prioritized both chemical and physical improvements to Henson as part of their ten year stewardship plan.

In addition, the Lake Fork of the Gunnison, which includes the segment through Lake City, is listed as significant for recreational purposes and is recommended for stream flow augmentation for fisheries (Table 1). Both rivers also offer boating opportunities. Improvement of lower Henson Creek and the confluence positively impacts the Lake Fork. While not actually augmenting flows to the Lake Fork as recommended in the needs assessment, the project will complement existing flows by improving the physical habitat for fisheries. Enhancement of the proposed segments and subsequent phases of restoration on the Lake Fork downstream will also help replace up to two miles of Gold Metal waters lost with the construction of Blue Mesa Reservoir.

Table 1. Summary of Non-consumptive Needs Assessment for Henson and the Lower Lake Fork.

	Henson Creek	Lake Fork of the Gunnison (in Town)
Attribute 2 - Aquatic-Dependent State Endangered, Threatened, and Species of Concern (Including conservation agreement species)		
c. Flannelmouth Sucker	YES	YES
d. Bluehead Sucker		YES
Attribute 3 - Rare Aquatic-Dependent Plants and Significant Riparian/Wetland Plant Communities		
b. Significant Riparian/Wetland Plant Communities (B2 ranked Blue Spruce-Poplar-Alder)	YES	YES
Attribute 4 - Special Value Waters (CWCW Instream flow waters, WQCD Outstanding Waters, Wilderness Area Waters, Eligible/Suitable Wild and Scenic)		
b. CWCW Instream Flows	YES	YES
Attribute 5 - Whitewater and Flat-water Boating		
a. Kayaking	YES	
b. Rafting and Kayaking		YES
Attribute 6 - Riparian/Wetland Wildlife Viewing and Waterfowl Hunting		
a. Wildlife Viewing and Waterfowl Hunting		YES
Attribute 7 - Significant Cold and Warm-Water Fishing		
b. River and Stream Fishing		YES

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The project also addresses consumptive needs by addressing degradation at and lack of flow in to the Town of Lake City ditch. The Town benefits through improvements to its irrigation head-gate and stabilization of banks that threaten the ditch itself.

Primary beneficiaries are the residents of Lake City and visitors who enjoy the recreational amenities of the river through town and on BLM land. BLM and the Town benefit by reducing potential liability associated with injuries from the use of the currently degraded and unsafe trail system. CWCB and EPA also benefit by protecting an investment of \$133,000 in project design.

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 this project will make a significant difference for facilitating an important resource management action as identified in the LFVC's Ten Year Strategic Watershed Plan. This stretch of river has degraded steadily since tailing dam impoundment breaks in the 60's and 70's. This action, combined with LFVC's work to improved water quality in this impaired stream through abandoned mine cleanup, effectively addresses both the chemical and physical impacts to this river, thereby improving fisheries habitat.

WSRA funds would ensure construction of most of the in-channel improvements for the lower Henson. Even if we are unable to procure GOCO funding, we will still be able to complete the project from the head-gate to the confluence, ensuring stability of the channel and providing important over-wintering habitat for fish. This translates to a 34% committed match in funding, including the GBRT, out of the total WSRA request (or 46% of the total project cost). With GOCO and GBRT funds our match is 112% of the total WSRA request (or 55% of the total project cost).

WSRA funds will support the initial phase of the overall river project, and help the LFVC to demonstrate that river enhancement is of great value to the Lake City community. This in turn will leverage future fundraising efforts for subsequent phases of restoration work downstream on the Lake Fork.

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.
- 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.

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- h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.
- i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.
- j. The water activity is complimentary to or assists in the implementation of other CWCB programs.

The project will significantly increase the environmental and recreational amenities for this stretch of river. Fisheries habitat will be improved resulting in greater fish biomass, public access to the river will be safer and of higher quality, boating opportunities will be expanded, and appreciation for our river assets will be promoted. In addition, the physical improvements of the river will complement the chemical remediation occurring in the upper reaches of the watershed by repairing a degraded stretch of river impacted by tailings impoundment breaks.

The riparian corridor of the Lower Henson Creek and the Lake Fork of the Gunnison through town has been identified as a riparian community of high global biodiversity significance by the Colorado Natural Heritage Program (narrowleaf cottonwood - blue spruce / thinleaf alder riparian woodland (*Populus angustifolia* - *Picea pungens* / *Alnus incana* woodland). Restoration of the corridor along the project reach will help to reestablish this native community vegetation type where previously it has been denuded in developed areas in and near Town.

The proposed activity promotes maximum utilization of the Town's water rights. Some could argue that this right pre-dates the 1922 Compact agreement, having first been recorded in 1872, a rather suspect value given that there was not a town at the time. Official appropriation date is May 9, 1973, decreed for irrigation, fire protection, commercial and domestic purposes.

The project also complements CWCB's in-stream flow right for the Lake Fork of the Gunnison. Construction of in-channel structures in lower Henson and the Lake Fork at the confluence will enhance pool development along the river, improving the ability for fish to overwinter and survive drought conditions. This combined with revegetation improves survivability of fish at current in-stream flow rights levels.

The project provides a high benefit to Colorado in relation to the amount of funds requested. Lake City is one of three signature tourist towns connected by the Alpine Loop, the core of the BLM's Alpine Triangle Recreational Management Zone, a 186,000 acre area that draws over 300,000 tourists per year. Consequently a significant portion of the income of local residents is derived from tourism and services to seasonal home owners. Henson Creek lies along CR20, part of the Loop. Improving the recreational value of the river through Town only enhances the visitor experience, translating into improved economic conditions for local residents and state coffers.

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

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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.

The Lake Fork of the Gunnison watershed (HUC 14020002, stream segment COGUUG29) is located in southwestern Colorado, draining 432 square miles on the northeast side of the San Juan Mountains, and is wholly contained within Hinsdale and Gunnison Counties. The Lake Fork is a subunit of the 7,930 square mile Upper Gunnison Watershed (HUC 14020001). The Lake Fork's principal tributary, Henson Creek (stream segment COGUUG30), joins at Lake City and creates a third order stream from this confluence to the river's terminus at Blue Mesa Reservoir, approximately 30 miles downstream. Stream flows in the watershed are seasonally high in May and June due to snowmelt runoff. Flows on the Lake Fork near its terminus range from less than 50 CFS in the winter months to a historic recorded high of 2,700 CFS in May 1984. Stream geomorphological types in the watershed range from A1 (Rosgen classification) in the headwater tributaries to C4 on the lower Lake Fork, with sections of braiding stream channel (D4) in relatively wide valleys. Stream stability ranges from high in entrenched reaches with a stable riparian community to low in reaches with high bed load deposition and/or active stream bank erosion. The majority of Henson Creek and the Lake Fork in the vicinity of Lake City have been channelized, but much remains undisturbed as water flows through relatively inaccessible shallow canyons in the lower watershed.

The Lake City Town Ditch has a decree for an absolute water right of 5.0 cfs with an adjudication date of May 9, 1973, later negotiated to run from 5/1 to 10/1. This equates to a total of 1,517 ac ft/yr. According to the Water Division engineer, water in the ditch was first appropriated for beneficial use on June 8, 1872, but this date is highly suspect due to the fact that Lake City and Hinsdale County were not even settled until 1874. This water right is the single largest right owned by the Town of Lake City and can serve as a source of augmentation water under certain circumstances. Currently it is not fully utilized due to restrictions at the head-gate at lower flows. In 2011 (an above average flow year) the Town used only 1,067 ac ft/yr and in 2012 (a drought year) the Town used only 863 ac ft/yr.

The CWCB has an in-stream flow right on the Lake Fork from its confluence with Henson Creek downstream to Blue Mesa Reservoir. The appropriation date is 3/17/1980 and the right ranges from 25 cfs from 10/1 to 4/30 for the winter, while the summer flow is 45 cfs from 5/1 to 9/30. The Town of Lake City's ditch right is senior to this one, but even so, it is not expected that full use of the ditch will adversely impact the CWCB in-stream right except maybe during extreme drought conditions. Channel and riparian improvements will in fact improve fisheries habitat, and thereby complement the existing in-stream flow right. The Town of Lake City is committed to controlling ditch intake during drought conditions so as not to adversely affect in-stream flow rights.

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

A detailed topographic and cross section survey has been performed of the active channels of the Lake Fork and Henson Creek project reaches to identify bankfull channel geometry, slope, thalweg, pools, riffles, bank

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height and elevations and scour and deposition features. This topographic data is being used for channel enhancement design. In addition, LIDAR 2' contour and aerial photo data was captured to assist with 100-year floodplain modeling and mapping.

The geographic setting of the project reaches in the volcanic geology of the San Juan Mountains creates conditions of high suspended and bedload sediment that substantially affect the character and behavior of the streams as well as their responses to impacts including historic channelization and proposed enhancements. In order to understand these sediment conditions and sediment transport study was performed over two runoff seasons during high flow conditions. Both suspended sediment and bedload materials were captured along with stream discharge in order to determine the size and quantity of materials that are transported through the river system at various discharges (Figures 5 and 6). This information is assisting in the enhancement design by helping to understand why certain river features have developed and in identifying the size of materials that must be transported through the system.

Bankfull and 100-year flows are being modeled for the project reaches using HEC-RAS. The current FEMA floodplain maps were created in the 1980's and there has been substantial development within the floodplain through Lake City as well as encroachment along the river. The modeling effort is assisting with enhancement design by identifying the impacts of the proposed features on flood levels as well as identifying the hydraulics of the system that affect sediment transport.

Channel and bedload surveys and HEC-RAS modeling are being done by Black Creek Hydrology out of Northglenn, CO.

Riparian surveys of Henson Creek and the Lake Fork were completed by the Colorado Natural Heritage Program in 2008 (Figure 7). The riparian corridor of lower Henson is identified as a site of high biodiversity significance, chosen for an excellent (A-ranked) occurrence of the globally vulnerable (G3/S3) thinleaf alder - Drummond's willow tall shrubland (*Alnus incana* - *Salix drummondiana* shrubland) and a good (B-ranked) occurrence of the globally vulnerable (G3/S3) narrowleaf cottonwood - blue spruce / thinleaf alder riparian woodland (*Populus angustifolia* - *Picea pungens* / *Alnus incana* woodland).

Baseline fish shock and macro-invertebrate data has also been collected but results are not yet available from the DPOW and BLM, respectively.

Several community outreach events have been held in town to educate residents about the project. One on one meetings with all land owners along the river have been held. We also completed a public survey and received over 100 responses (25% response rate). Overall opinion and support of the project is high, especially in regard to protecting banks and improving fisheries.

A NEPA will need to be completed for the project as part of the USACE permitting process. BLM staff have already committed to assisting with this over the winter, using data already collected. The wetland delineation will be completed in the early summer of 2013. We will then

apply for Corps and County permits.

Suggested Format for Scope of Work

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

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 5 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.

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

Signature of Applicant:



Print Applicant's Name: Camille Richard

Project Title: Henson Creek and Lake Fork Confluence Channel Improvement Project

Date: December 14, 2012

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

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

Exhibit A
Statement of Work

WATER ACTIVITY NAME – Henson Creek and Lake Fork Confluence Channel Improvement Project

GRANT RECIPIENT – Lake Fork Valley Conservancy

FUNDING SOURCE – CWCB Water Supply Reserve Account and Gunnison Basin Account

INTRODUCTION AND BACKGROUND

Provide a brief description of the project. (Please limit to **no more than 200 words**; this will be used to inform reviewers and the public about your proposal)

The Lake Fork Valley Conservancy is proposing river improvements along approximately a half mile stretch of lower Henson Creek and its confluence with the Lake Fork of the Gunnison, in and near the Town of Lake City. This is Phase I of a three phase project to improve the river through Town (Figure 1). In the Phase I project area, 2040 feet of the project reach along Henson flows through the Town and 560 feet of river is under BLM jurisdiction, but the Town leases the property along the river from the BLM for their trail system. The lower Henson has been impacted from historic mine tailing impoundment failures, creating a braided and unstable channel with high bed load movement.

The purpose of this project is to realign areas of the channel where the river is threatening the Town irrigation head-gate and ditch, stabilize banks to reduce erosion that are undermining public trails, repair riparian areas, enhance fisheries and increase public access to the river, providing an overall quality recreational experience along this reach. The project involves construction of 6 cross vanes, 19 vanes, 16 sills and one rock wall terrace extended out into the river channel at the confluence. Surrounding riparian areas will be revegetated. A trail extension will be built on this terrace and landscaped.

OBJECTIVES

The overall goal of the Project is to enhance and protect the utilization, ecological health and recreational quality of the Lake Fork of the Gunnison and its main tributary, Henson Creek, in the vicinity of Lake City.

There are 5 main objectives of the project:

- 1) Improve bank stability along the lower Henson and at the confluence with the Lake Fork of the Gunnison;
- 2) Enhance fisheries by increasing over-wintering and drought habitat;

- 3) Improve public recreation opportunities through safer access, better fisheries and boating, and extension of usable space at Memorial Park.
- 4) Facilitate full utilization of the Town of Lake City's Irrigation Ditch water right;
- 5) Improve organizational performance and accountability to manage restoration projects.

TASKS

TASK 1 - Project Design and HECRAS Flood Plain Analysis

Description of Task

A 30% design plan for river channel and riparian improvement will be completed for Phase I of the river project, utilizing survey data already collected during the feasibility and planning phase. This is currently being done by Black Creek Hydrology out of Northglenn, CO.

Method/Procedure

- 1) In-channel Schematic Design (30% Design), to include:
 - a. Review of topographic, channel and bedload survey data
 - b. Hydraulic Analysis modeling throughout the Project Area
 - c. Preliminary Design Report and Drawings
- 2) Provide design and cost estimates for revegetation and trails construction.

Deliverables

Deliverables will include submittal of two hard copies of schematic report and drawings as well as an electronic copy, with maps delivered in AutoCAD format. Report includes initial estimate of construction costs.

TASK 2 - Construction Preparation

Description of Task

Prior to construction, we require land owner approval, completion of NEPA, and US Army Corps of Engineers permits to proceed with construction bidding. Other than the Town and BLM, there are four private land owners along this river segment, three of whom are willing to participate in the project.

It is recommended that final design details, construction drawings and construction work be combined into a design-build program for Henson Creek. The base components for a design-build effort that include topographic survey, proposed project design and hydraulic modeling for existing and proposed conditions have already been prepared. The design-build option will use these components to implement project construction. Design-build is preferable over the preparation of detailed

bid documents and construction-only bidding since it will reduce the amount of effort and cost required to produce documents, but will require more on-site supervision by the design consultant and Project Manager.

Method/Procedure

- 1) Land owner access agreements will be acquired prior to construction bidding document preparation.
- 2) A NEPA document will be completed during the winter and spring of 2013, using already collected data. BLM has already budgeted this work in their 2013 work plan.
- 3) A wetland delineation will be completed in early summer of 2013, followed by submission of the USACE permit application. USACE staff have twice visited the site during the planning phase and are supportive of the project.
- 4) A Hinsdale County Floodplain Development permits will be obtained upon completion of USACE permitting.
- 5) Construction Documents for Design/Build Approach will be prepared for earth moving contractors, including 60% design and material requirements and specifications for each river structure or bank stabilization feature to be placed on the river.
 - a. Complete major design elements and construction drawings.
 - b. Estimate volume of materials per in-channel structure that will be sized based upon actual flow and bedload conditions.
 - c. Estimate cost of the rock and/or other materials to be used for each structure.
 - d. Estimate the detailed costs for construction (hauling, placement, shaping, etc).

Deliverables

Deliverables will include: three private land owner access agreements; NEPA document, wetland delineation report, USACE and County Floodplain Development permits. Two hard copies of schematic report and drawings as well as an electronic copy, with maps delivered in AutoCAD format. Detailed cost estimate sheets will also be included in the package.

TASK 3 - Public outreach, monitoring and maintenance plan

Description of Task

As part of the current NPS 319 and CWCB planning grants, a monitoring and maintenance plan will be prepared for the project. This will detail post-construction monitoring methods to be used to measure project success.

Public outreach will be done to get feedback on final design. One on one meetings will be conducted with land owners to assess their interests for out of channel improvements such as type and placement of vegetation and perhaps signage, if trespass is an issue.

Method/Procedure

- 1) Meetings will be held with the Town of Lake City Town Manager and Public Works Director to work out long-term maintenance and liability issues.
- 2) A collaborative monitoring plan will be prepared partnering with BLM, USGS, and the Town to measure post-construction success.
- 3) A community meeting will be held early summer 2013 to discuss the design and get feedback.
- 4) Meetings with the three cooperative private land owners will be held and input incorporated into the design.

Deliverables

Deliverables include: one monitoring and maintenance plan, one community meeting held (meeting minutes), community input incorporated into design.

TASK 4 - In-Channel Construction

Description of Task

Figures 2 and 4 show proposed locations of in-channel structures along Henson Creek. Each segment is discussed separately.

- 1) Repair of irrigation ditch intake channel and replacement of head-gate.

This area needs to be reworked to protect the head-gate and ditch and to increase beneficial use so that the Town's water right can be fully utilized. The rock structure at the irrigation diversion will be rebuilt to narrow-up the channel and to control bank erosion. The head-gate intake will be lowered and replaced, allowing full utilization of the Town of Lake City's water right.

- 2) Bank Stabilization along Henson Creek Trail

The river will be moved away from the trail and the steep slope reduced to favor river access. The channel will be narrowed and moved toward the cliff, with vanes added to the existing riprap bank. The bank slope will be lowered to reduce hazards near the trail. A cross vane will be installed for pool development at the trail parking area.

- 3) Repair of channel from Silver Street to pedestrian bridge

A cross vane will be added for pool and vanes for bank protection at Silver Street. A cross vane will also be constructed below the Highway bridge for pool development and to narrow-up the bankfull channel and create a low floodplain to facilitate bedload movement through the supports. The channel above and below the pedestrian bridge will be narrowed along with vanes, sills and a lowered floodplain.

4) Confluence Channel Improvements

At the confluence where much accumulation of cobble and gravel has occurred, a large boulder terrace (approximately 500 feet) will be constructed into the channel (Figures 3 and 4) This will effectively increase usable public space and provide safe access to the river. It also reduces channel width and gravel deposition, and enhances aesthetics at Memorial Park.

The eroded cross vane that is located at the fishing pier upstream of the confluence on the Lake Fork will be reconstructed to ensure good tie-in with banks and prevent future erosion.

Method/Procedure

- 1) Put project out to bid.
- 2) Mobilize equipment and labor.
- 3) Procure all materials for construction.
- 4) Oversee construction of channel structures.

Deliverables

Deliverables are 6 cross vanes, 19 vanes and 16 sills constructed. One 500 foot boulder terrace constructed at the confluence.

TASK 5 - Riparian Habitat Restoration and Trails

Description of Task

Areas previously denuded and those impacted from construction will be revegetated with native willows, poplars, alder and spruce, to bring back the natural riparian community that previously existed here and that is of high biodiversity significance in the state. Where appropriate we will work with the land owners to manage vegetation so that it provides bank stabilization without compromising their river front views.

In addition to revegetation, a 500 foot trail extension will be built on the extended rock terrace to facilitate visitor's enjoyment of the river front (Figure 4). This area will be landscaped with native riparian vegetation as well, using larger trees.

- 1) Plant native riparian vegetation in areas previously denuded by bank erosion and those impacted by channel construction.
- 2) Construct approximately 500 feet of trail at the confluence to increase public access to the river.

Method/Procedure

- 1) Consult with Colorado State Forest Service on type and source of seedlings and planting methods.
- 2) Mobilize Town equipment and volunteer labor.
- 3) Procure all materials for construction.
- 4) Oversee revegetation and trail construction.

Deliverables

Deliverables will be 500 feet of new trail, 200 saplings planted along the river, 5 large trees planted at the confluence, localized areas seeded and mulched.

TASK 6 - Post construction Monitoring

Description of Task

The project area will be monitored late summer following construction. Channel configuration will again be surveyed, sapling survival rate will be assessed, and fish and macro-invertebrate sampling will be conducted.

Method/Procedure

- 1) Channel survey will be conducted by the USGS (contingent on funding in 2014) using their methodology developed as part of their Reconfigured Channel Monitoring and Assessment Program. USGS has already surveyed the reach prior to construction in addition to the channel surveys done by LFVC.
- 2) Sapling survival rate will simply be confirmed by checking sample locations and counting number of live saplings.
- 3) Fish shock data will be collected by the Department of Parks and Wildlife staff to compare to data collected in 2012 prior to construction.
- 4) Macro-invertebrate samples will be collected using the BLM/Utah State University Bug Lab protocols.

Deliverables

Deliverable will be: USGS publication, macro-invertebrate analysis report from USU; sapling survival update, and fish shock data results from CPW, which will all be summarized in the final CWCB project report.

TASK 7 - Project oversight and administration

Description of Task

This task involves the coordination of project activities and administration of grants. It includes fulfillment of reporting requirements and efficient

and timely financial reports.

Method/Procedure

- 1) Project Manager and Town Manager will familiarize themselves with all CWCB contracting requirements.
- 2) Completion of Project Implementation Plan and contract.
- 3) Project reports submitted semi-annually and one final project report.
- 4) Prepare quarterly reimbursement requests (or more frequent as needed)

Deliverables

Deliverables include: timely and effective reports and financials, which include two semi-annual reports and one final report. Reimbursement requests will be made quarterly, and more frequently during times of high expenditures.

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.

BUDGET

Provide a detailed budget by task including number of hours and rates for labor and unit costs for other direct costs (i.e. mileage, \$/unit of material for construction, etc.). A detailed and perfectly balanced budget that shows all costs is required for the State's contracting and purchase order processes. Sample budget tables are provided below. Please note that these budget tables are examples and will need to be adapted to fit each individual application. Tasks should correspond to the tasks described above.

TOTAL PROJECT COSTS

	<i>Task Description</i>	<i>Labor</i>	<i>Other Direct Costs</i>	<i>Total Cost</i>	<i>Consumptive Costs*</i>	<i>WSRA funds</i>	<i>Cash Match (CWC, NPS 319)</i>	<i>Cash Match (GOCO)</i>	<i>Cash Match (LFVC)</i>	<i>In-kind Match</i>
<u>Task 1</u>	Project Design and HECRAS flood plain modelling	\$28,741	\$0	\$28,741	\$5,748	\$0	\$27,941	\$0	\$0	\$800
<u>Task 2</u>	Construction Preparation	\$32,350	\$2,500	\$34,850	\$6,970	\$21,600	\$400	\$7,500	\$0	\$5,350
<u>Task 3</u>	Public outreach, monitoring and maintenance plan	\$12,300	\$750	\$13,050	\$2,610	\$2,750	\$2,000	\$2,000	\$0	\$6,300
<u>Task 4</u>	In-Channel Construction	\$40,800	\$416,976	\$457,776	\$93,751	\$248,476	\$0	\$175,000	\$20,000	\$14,300
<u>Task 5</u>	Riparian Habitat Restoration and Trails	\$7,500	\$13,020	\$20,520	\$4,104	\$4,920	\$0	\$5,300	\$0	\$10,300
<u>Task 6</u>	Post construction Monitoring	\$15,200	\$50	\$15,250	\$3,050	\$2,250	\$0	\$1,000	\$0	\$12,000
<u>Task 7</u>	Project oversight and administration	\$15,260	\$250	\$15,510	\$3,102	\$9,750	\$1,600	\$2,000	\$0	\$2,160
	TOTAL COST	\$152,151	\$433,546	\$585,697	\$119,335	\$289,746	\$31,941	\$192,800	\$20,000	\$51,210

*Consumptive portion of project includes construction of the head gate/pipe, two cross vanes, 5 vanes and 3 sills (approximately 1/5 of total project cost). See below for detailed construction costs.

PERSONNEL

Project Personnel:	Project Manager	Design Consultant	VISTA volunteer	Administrative Assistance	Town Manager	Town Public Works	volunteers	BLM Hydrologist	Other BLM staff*	USGS	Total Costs
<i>Hourly Rate:</i>	\$40	\$75	\$20	\$15	\$30	\$25	\$20	\$50	\$50	\$50	
Task 1 - 30% Design and HECRAS flood plain modelling	\$1,600	\$26,341	\$0	\$0	\$300	\$0	\$0	\$500	\$0	\$0	\$28,741
Task 2 - Construction Preparation (60% Design Build)	\$2,800	\$24,000	\$200	\$0	\$600	\$250	\$0	\$1,500	\$3,000	\$0	\$30,350
Task 3 - Project outreach	\$2,000	\$0	\$9,600	\$0	\$300	\$0	\$400	\$0	\$0	\$0	\$12,300
Task 4 - Channel construction	\$4,000	\$36,000	\$0	\$0	\$300	\$0	\$0	\$500	\$0	\$0	\$40,800
Task 5 - Revegetation and Trail Construction	\$2,000	\$0	\$800	\$0	\$300	\$1,000	\$3,000	\$0	\$400	\$0	\$7,600
Task 6 - Post Project Monitoring	\$2,400	\$0	\$800	\$0	\$0	\$0	\$800	\$1,200	\$0	\$10,000	\$18,400
Task 7 - Project oversight and administration	\$11,200	\$0	\$400	\$1,500	\$2,160	\$0	\$0	\$0	\$0	\$0	\$15,260
<i>Total Hours:</i>	650	1,151	590	100	132	50	355	90	68	200	
TOTAL	\$26,000	\$86,341	\$11,800	\$1,500	\$3,960	\$1,250	\$4,200	\$3,700	\$3,400	\$10,000	\$152,151

* Archeology (16 hrs), Riparian/Fisheries (16), Lands (4), Wildlife (8), Recreation (8)

OTHER DIRECT COSTS

Task Description	mileage	lodging and per diem	office support*	permitting fees	rock and gravel	construction	trees, saplings, seed, mulch	TOTAL
# Units:	1000	60	lump sum	lump sum	see table below	equipment	see table below	
Unit Cost:	\$0.444	\$100			see table below	see table below	see table below	
<u>Task 1</u> Project Design and HECRAS flood plain modeling	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<u>Task 2</u> Construction Preparation	\$250	\$1,500	\$500	\$250	\$0	\$0	\$0	\$2,500
<u>Task 3</u> Public outreach, monitoring and maintenance plan	\$0	\$0	\$750	\$0	\$0	\$0	\$0	\$750
<u>Task 4</u> In-Channel Construction	\$750	\$4,500	\$750	\$0	\$174,976	\$236,000	\$0	\$416,976
<u>Task 5</u> Riparian Habitat Restoration and Trails	\$0	\$0	\$0	\$0	\$500	\$5,600	\$6,920	\$13,020
<u>Task 6</u> Post construction Monitoring	\$0	\$0	\$50	\$0	\$0	\$0	\$0	\$50
<u>Task 7</u> Project oversight and administration	\$0	\$0	\$250	\$0	\$0	\$0	\$0	\$250
TOTAL	\$1,000	\$6,000	\$2,300	\$250	\$175,476	\$241,600	\$6,920	\$433,546

* office support includes copies, map printing, publications, phone, supplies

CONSTRUCTION COSTS

Item	Unit	Quantity	Cost/unit	Total
Rock and gravel				\$174,976
new headgate/pipe	pc	1	\$5,000	\$5,000
Excavator (40 ton)	days	60	\$1,400	\$84,000
Loader (2 yard)	days	60	\$1,320	\$79,200
Articulated Truck	days	40	\$1,320	\$52,800
River Shaping	cu.yd.	1500	\$10	\$15,000
TOTAL				\$410,976

Revegetation and Trails Construction

trail and planting labor	hour	150	\$20	\$3,000
gravel	ton	50	\$10	\$500
backhoe	hour	40	\$140	\$5,600
large trees	pc	5	\$200	\$1,000
200 saplings	pc	200	\$10	\$2,000
Weed barrier	ft	1000	\$0.2	\$200
seed and mulch				\$1,000
fencing for saplings	pc	200		\$2,720
TOTAL				\$16,020

ROCK COSTS	total number	total cu yd	total T*	cost (\$35/T)
cross vanes (100 cu yd/structure)	6	550	1248.5	\$43,698
vanes (30 cu yd/structure)	19	570	1293.9	\$45,287
chinking rock - cross vanes (10 cu yd/structure)	6	60	83.4	\$2,919
chinking rock - vanes (3 cu yd/structure)	19	57	79.23	\$2,773
sills (3 cu yd/structure)	16	160	363.2	\$12,712
rock terrace at confluence	1	750	1702.5	\$59,588
excess gravel (\$10/ton)		800		\$8,000
TOTAL rock			4770.73	\$174,976

*Solid Granite 2.27 T/cu yd; Broken Granite 1.39T/cu yd

Channel Construction Costs - Consumptive Portion (this covers headgate/pipe replacement and 500 feet of channel work to protect river bank adjacent to ditch)

Construction Costs	Unit	Quantity	Cost/unit	Total
Rock and gravel				\$42,551
new headgate and pipe	pc	1	\$5,000	\$5,000
Excavator (40 ton)	days	12	\$1,400	\$16,800
Loader (2 yard)	days	12	\$1,320	\$15,840
Articulated Truck	days	8	\$1,320	\$10,560
River Shaping	cu.yd.	300	\$10	\$3,000
TOTAL				\$93,751

ROCK	total number	total cu yd	total T*	cost (\$35/T)
cross vanes (100 cu yd/structure)	2	184	417.68	\$14,619
vanes (30 cu yd/structure)	5	150	340.5	\$11,918
chinking rock - cross vanes (10 cu yd/structure)	2	20	27.8	\$973
chinking rock - vanes (3 cu yd/structure)	5	15	20.85	\$730
sills (3 cu yd/structure)	3	160	363.2	\$12,712
excess gravel (\$10/ton)		160		\$1,600
TOTAL rock			1170.03	\$42,551

IN-KIND CONTRIBUTION

		Town Manager	Town Public Works	OSM/ VISTA	volunteers	BLM Hydrologist	BLM NEPA specialist	USGS	Equipment	BLM rock	TOTAL
	unit cost:	\$30	\$25	\$20	\$20	\$50	\$50	\$50	See table above	\$35/T	
<u>Task 1</u>	Project Design and HECRAS flood plain modelling	\$300	\$0	\$0	\$0	\$500	\$0	\$0	\$0	\$0	\$800
<u>Task 2</u>	Construction Preparation	\$600	\$250	\$0	\$0	\$1,500	\$3,000	\$0	\$0	\$0	\$5,350
<u>Task 3</u>	Public outreach, monitoring and maintenance plan	\$300	\$0	\$5,600	\$400	\$0	\$0	\$0	\$0	\$0	\$6,300
<u>Task 4</u>	In-Channel Construction	\$300	\$0	\$0	\$0	\$500	\$0	\$0	\$10,000	\$3,500	\$14,300
<u>Task 5</u>	Riparian Habitat Restoration and Trails	\$300	\$1,000	\$0	\$3,000	\$0	\$400	\$0	\$5,600	\$0	\$10,300
<u>Task 6</u>	Post construction Monitoring	\$0	\$0	\$0	\$800	\$1,200	\$0	\$10,000	\$0	\$0	\$12,000
<u>Task 7</u>	Project oversight and administration	\$2,160	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,160
	TOTAL	\$3,960	\$1,250	\$5,600	\$4,200	\$3,700	\$3,400	\$10,000	\$15,600	\$3,500	\$51,210

SCHEDULE

Provide a project schedule including key milestones for each task and the completion dates or time period from the Notice to Proceed (NTP). This dating method allows flexibility in the event of potential delays from the procurement process. Sample schedules are provided below. Please note that these schedules are examples and will need to be adapted to fit each individual application.

Notice to Proceed is expected to begin May 1, 2013.

TASK DESCRIPTION	TIMEFRAME
Task 1: Project Design and HECRAS flood plain modeling	
a) 30% design	Sept 2012 - March 2013
b) revegetation and trails design	Feb - Apr 2013
Task 2: Construction Preparation:	
a) land owner agreements	Dec 2012 - Mar 2013
b) NEPA	Dec 2012 - June 2013
c) wetland delineation	June 2013
d) USACE and County permits	June - July 2013
e) 60% Design	May - July 2013
f) Project bid documents	July 2013
Task 3: Public outreach, monitoring and maintenance plan	
a) plan completed	Mar - May 2013
b) community meetings	June - July 2013
Task 4: In-Channel Construction	
a) Bid project	Aug 2013
b) acquire materials	Sept 2013
c) in-channel construction	Oct - Nov 2013
Task 5: Riparian Habitat Restoration and Trails	
a) ground preparation	Nov 2013
b) seeding and mulching	Nov 2013
c) sapling and tree plantings	May 2014
d) trail construction	May - June 2014
Task 6: Post construction Monitoring	
a) channel survey	Jul - Aug 2014
b) sapling survival count	Sept 2014
c) fish shock/macros	Sept 2014
Task 7: Project oversight and administration	
a) project coordination	Throughout Project
b) reimbursement requests	after end of every quarter
c) semi-annual reports	every 6 months
d) final report	end of project

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 5 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.

Appendix 1

Reference Information

The following information is available via the internet. The reference information provides additional detail and background information.

- Water Supply Reserve Account main webpage:
 - <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/main.aspx>
- Water Supply Reserve Account – Basin Fund Application Details:
 - <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/BasinWaterSupplyReserveAccountGrants.aspx>
- Water Supply Reserve Account – Statewide Fund Application Details:
 - <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/StatewideWaterSupplyReserveAccountGrants.aspx>
- Colorado Water Conservation Board main website:
 - <http://cwcb.state.co.us/>
- Interbasin Compact Committee and Basin Roundtables:
 - <http://cwcb.state.co.us/about-us/about-the-ibcc-brts/Pages/main.aspx/Templates/BasinHome.aspx>
- House Bill 05-1177 – (Also known as the Water for the 21st Century Act):
 - <http://cwcbweblink.state.co.us/DocView.aspx?id=105662&searchhandle=28318>
- House Bill 06-1400 – (Adopted the Interbasin Compact Committee Charter):
 - <http://cwcbweblink.state.co.us/DocView.aspx?id=21291&searchhandle=12911>
- Senate Bill 06-179 – (Created the Water Supply Reserve Account):
 - <http://cwcbweblink.state.co.us/DocView.aspx?id=21379&searchhandle=12911>
- Statewide Water Supply Initiative 2010:
 - <http://cwcb.state.co.us/water-management/water-supply-planning/Pages/SWSI2010.aspx>

Appendix 2

Insurance Requirements

NOTE: The following insurance requirements taken from the standard contract apply to WSRA projects that exceed \$25,000 in accordance with the policies of the State Controller's Office. Proof of insurance as stated below is necessary prior to the execution of a contract.

13. INSURANCE

Grantee and its Sub-grantees shall obtain and maintain insurance as specified in this section at all times during the term of this Grant: All policies evidencing the insurance coverage required hereunder shall be issued by insurance companies satisfactory to Grantee and the State.

A. Grantee

i. Public Entities

If Grantee is a "public entity" within the meaning of the Colorado Governmental Immunity Act, CRS §24-10-101, et seq., as amended (the "GIA"), then Grantee shall maintain at all times during the term of this Grant such liability insurance, by commercial policy or self-insurance, as is necessary to meet its liabilities under the GIA. Grantee shall show proof of such insurance satisfactory to the State, if requested by the State. Grantee shall require each Grant with Sub-grantees that are public entities, providing Goods or Services hereunder, to include the insurance requirements necessary to meet Sub-grantee's liabilities under the GIA.

ii. Non-Public Entities

If Grantee is not a "public entity" within the meaning of the GIA, Grantee shall obtain and maintain during the term of this Grant insurance coverage and policies meeting the same requirements set forth in §13(B) with respect to sub-Grantees that are not "public entities".

B. Sub-Grantees

Grantee shall require each Grant with Sub-grantees, other than those that are public entities, providing Goods or Services in connection with this Grant, to include insurance requirements substantially similar to the following:

i. Worker's Compensation

Worker's Compensation Insurance as required by State statute, and Employer's Liability Insurance covering all of Grantee and Sub-grantee employees acting within the course and scope of their employment.

ii. General Liability

Commercial General Liability Insurance written on ISO occurrence form CG 00 01 10/93 or equivalent, covering premises operations, fire damage, independent Grantees, products and completed operations, blanket Grantual liability, personal injury, and advertising liability with minimum limits as follows: (a) \$1,000,000 each occurrence; (b) \$1,000,000 general aggregate; (c) \$1,000,000 products and completed operations aggregate; and (d) \$50,000 any one fire. If any aggregate limit is reduced below \$1,000,000 because of claims made or paid, Sub-grantee shall immediately obtain additional insurance to restore the full aggregate limit and furnish to Grantee a certificate or other document satisfactory to Grantee showing compliance with this provision.

iii. Automobile Liability

Automobile Liability Insurance covering any auto (including owned, hired and non-owned autos) with a minimum limit of \$1,000,000 each accident combined single limit.

iv. Additional Insured

Grantee and the State shall be named as additional insured on the Commercial General Liability and Automobile Liability Insurance policies (leases and construction Grants require additional insured coverage for completed operations on endorsements CG 2010 11/85, CG 2037, or equivalent).

v. Primacy of Coverage

Coverage required of Grantee and Sub-grantees shall be primary over any insurance or self-insurance program carried by Grantee or the State.

vi. Cancellation

The above insurance policies shall include provisions preventing cancellation or non-renewal without at least 45 days prior notice to the Grantee and the State by certified mail.

vii. Subrogation Waiver

All insurance policies in any way related to this Grant and secured and maintained by Grantee or its Sub-grantees as required herein shall include clauses stating that each carrier shall waive all rights of recovery, under subrogation or otherwise, against Grantee or the State, its agencies, institutions, organizations, officers, agents, employees, and volunteers.

C. Certificates

Grantee and all Sub-grantees shall provide certificates showing insurance coverage required hereunder to the State within seven business days of the Effective Date of this Grant. No later than 15 days prior to the expiration date of any such coverage, Grantee and each Sub-grantee shall deliver to the State or Grantee certificates of insurance evidencing renewals thereof. In addition, upon request by the State at any other time during the term of this Grant or any sub-grant, Grantee and each Sub-grantee shall, within 10 days of such request, supply to the State evidence satisfactory to the State of compliance with the provisions of this §13.

Appendix 3

Water Supply Reserve Account Standard Contract Information

NOTE: The standard contract is required for WSRA projects that exceed \$100,000. (Projects under this amount will normally be funded through a purchase order process.) Applicants are encouraged to review the standard contract to understand the terms and conditions required by the State in the event a WSRA grant is awarded. Significant changes to the standard contract require approval of the State Controller's Office and often prolong the contracting process.

It should also be noted that grant funds to be used for the purchase of real property (e.g. water rights, land, conservation easements, etc.) will require additional review and approval. In such cases applicants should expect the grant contracting process to take approximately 3 to 6 months from the date of CWCB approval.

The standard contract is available here under the header "Additional Resources" on the right side:
<http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/BasinWaterSupplyReserveAccountGrants.aspx>

Appendix 4

W-9 Form

NOTE: A completed W-9 form is required for all WSRA projects prior execution of a contract or purchase order. Please submit this form with the completed application.

**Lake Fork River Restoration Project Area
Lake City, CO**

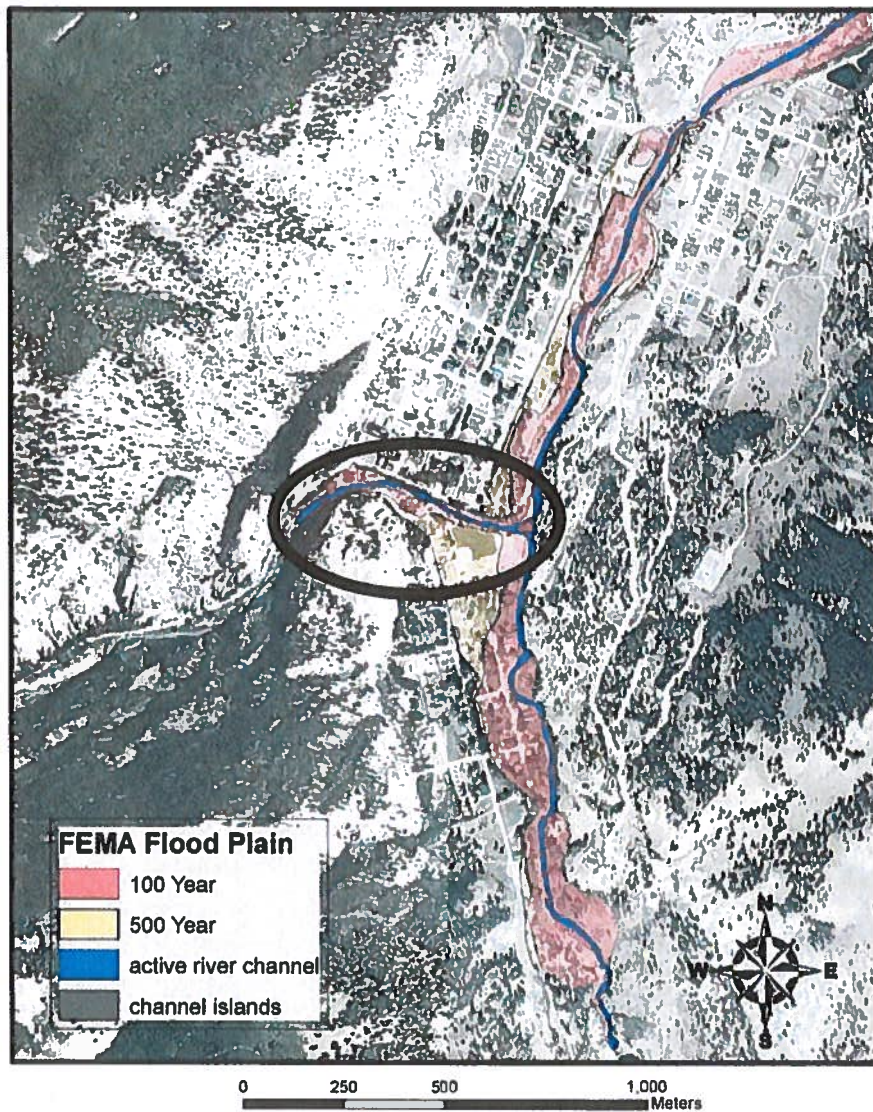


Figure 1. Comprehensive Project Area. Phase I is lower Henson Creek in oval.

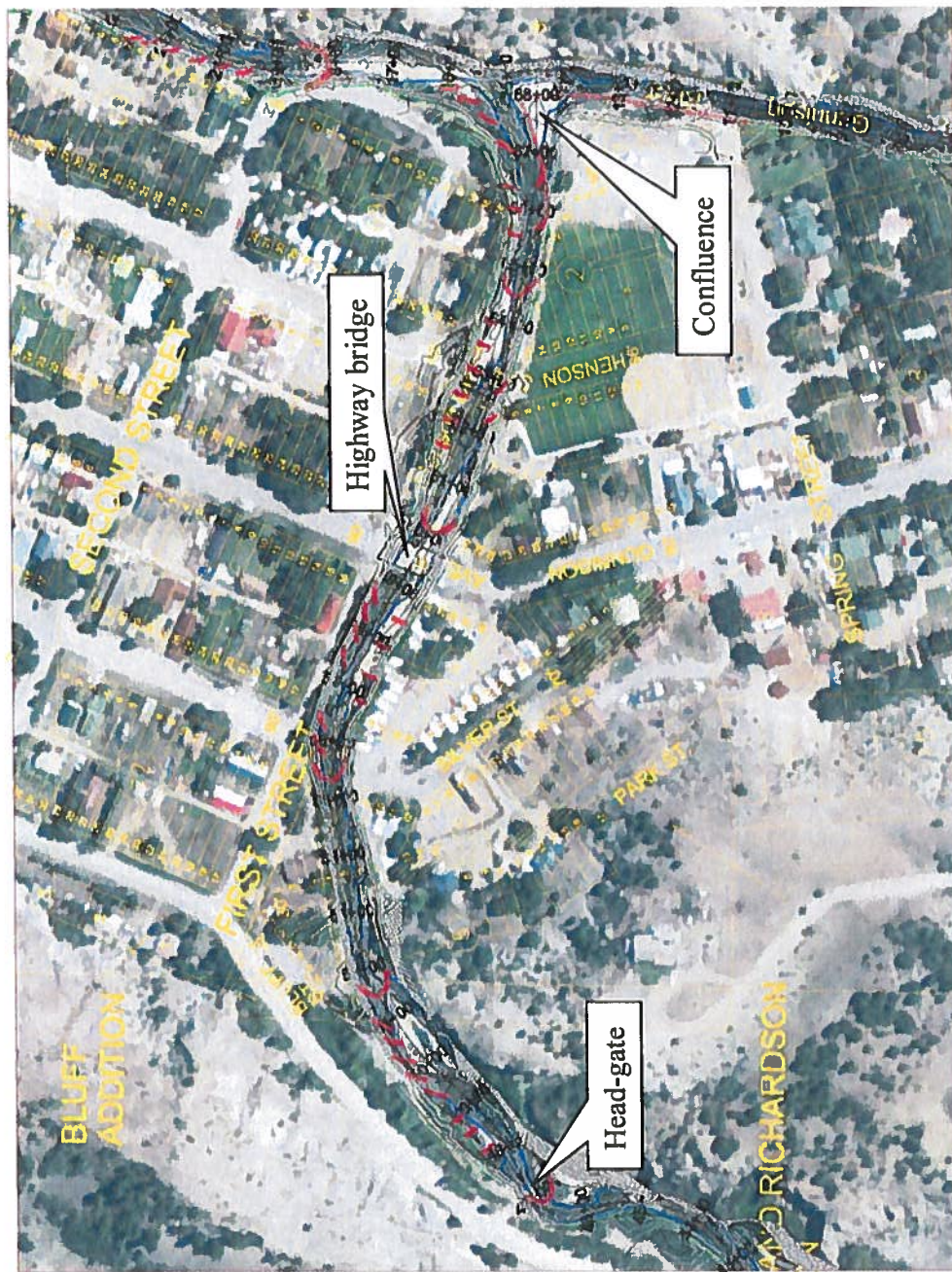


Figure 2. Locations of cross vanes (semi-circles), vanes (angular lines in channel) and sills (perpendicular lines on flood terraces).

Figure 3. Photo of existing condition at confluence. Note large amount of gravel and cobble deposition.

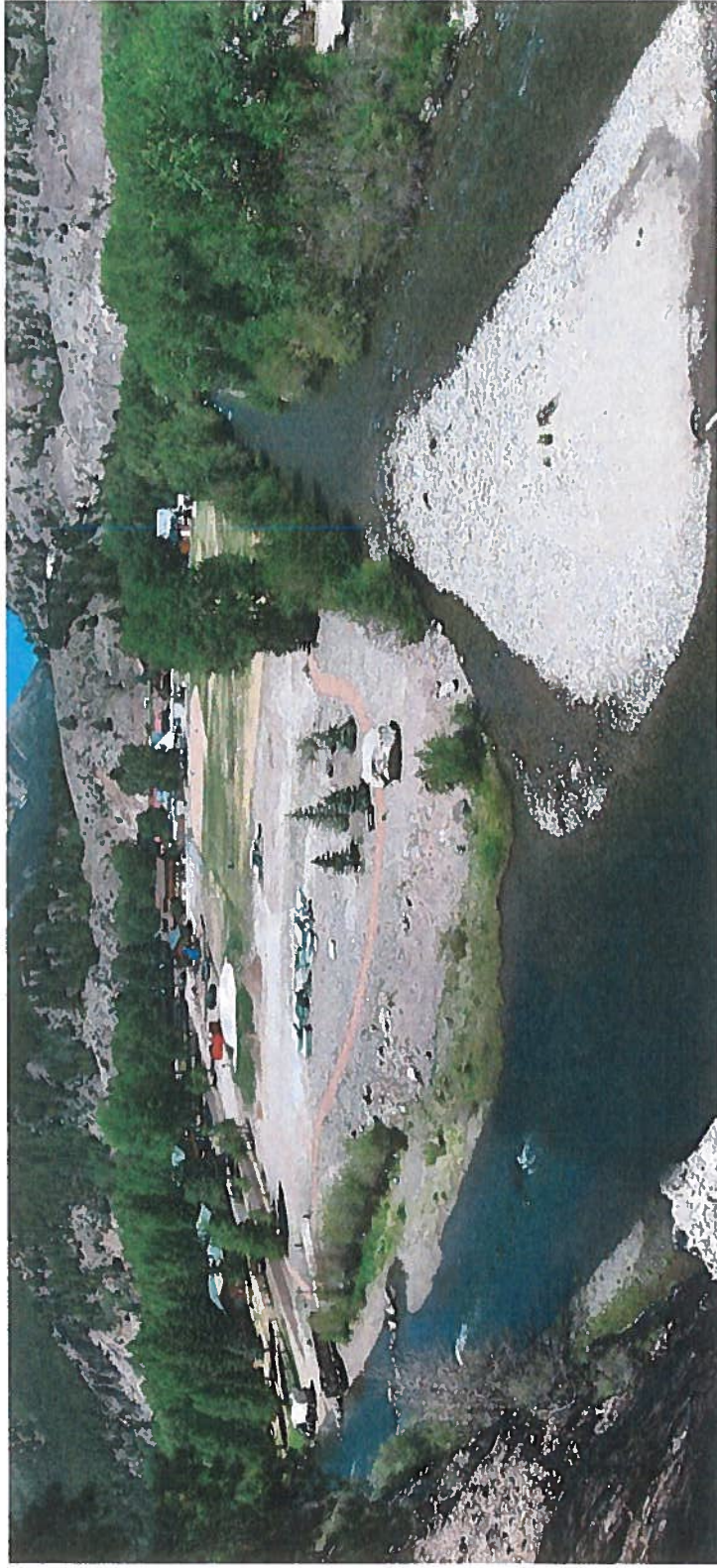
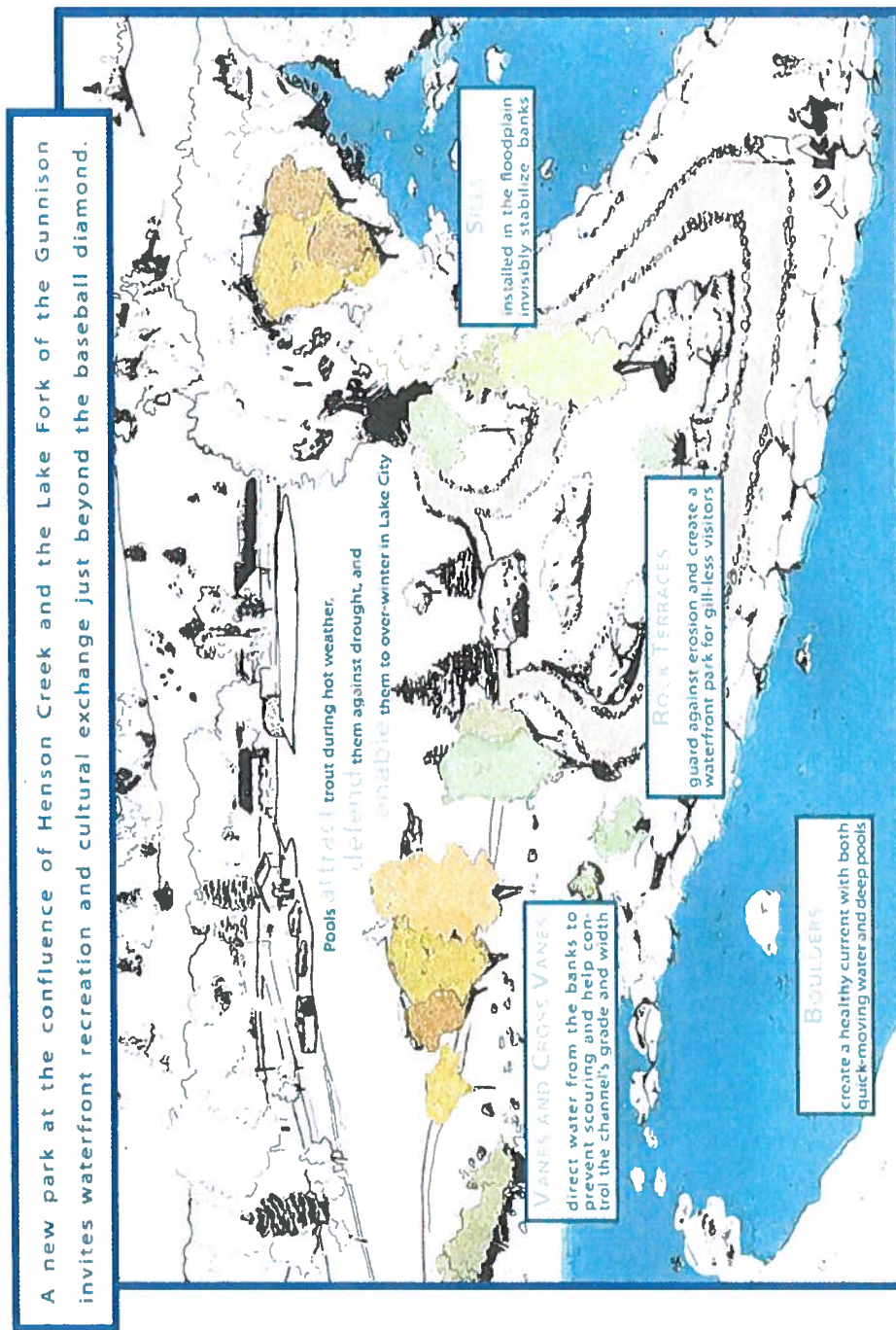


Figure 4. Graphical rendition of improvements at confluence.



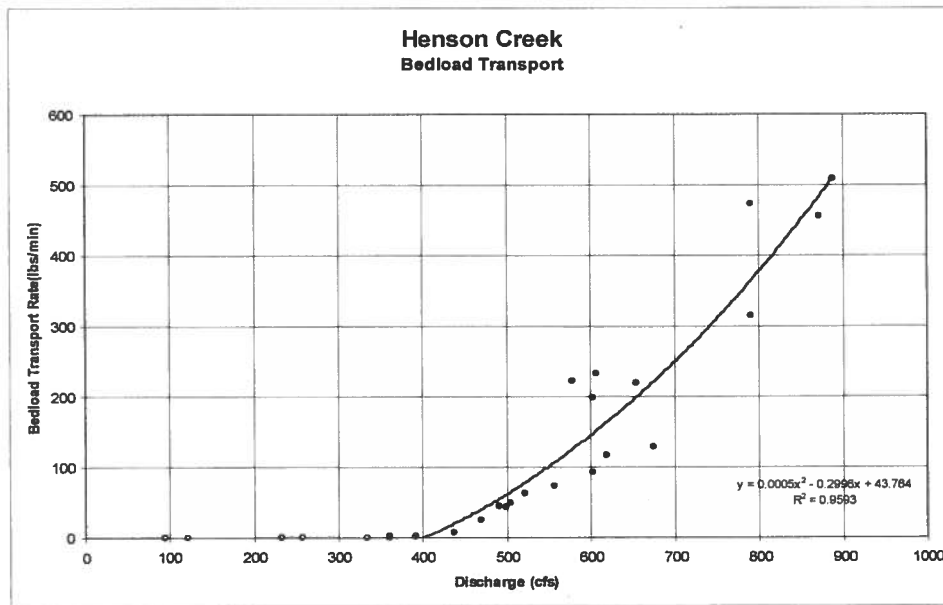


Figure 5. Bedload transport rate.

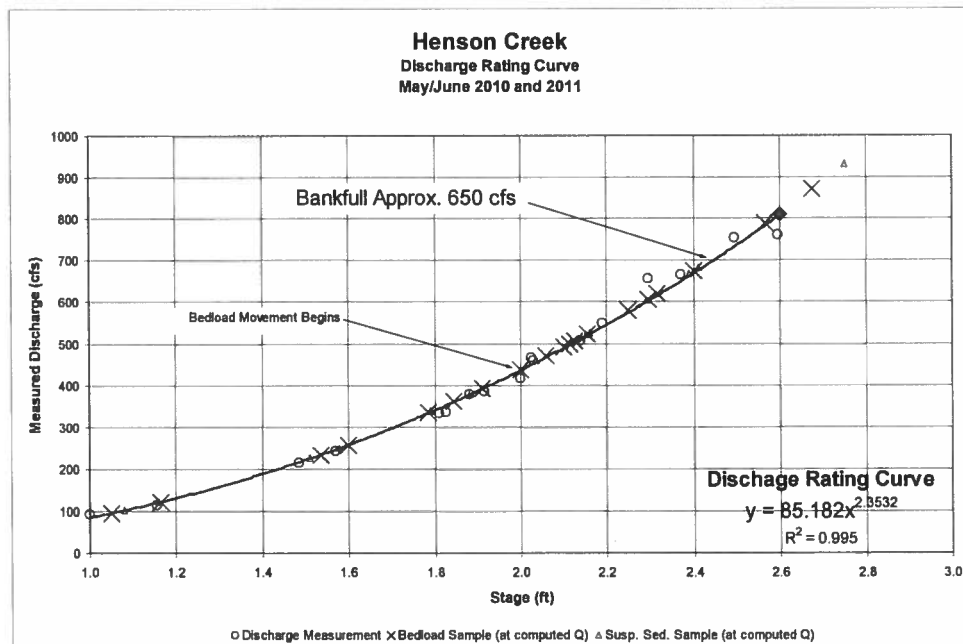


Figure 6. Discharge Rating Curve for Lower Henson.

Potential Conservation Sites Lake Fork Watershed

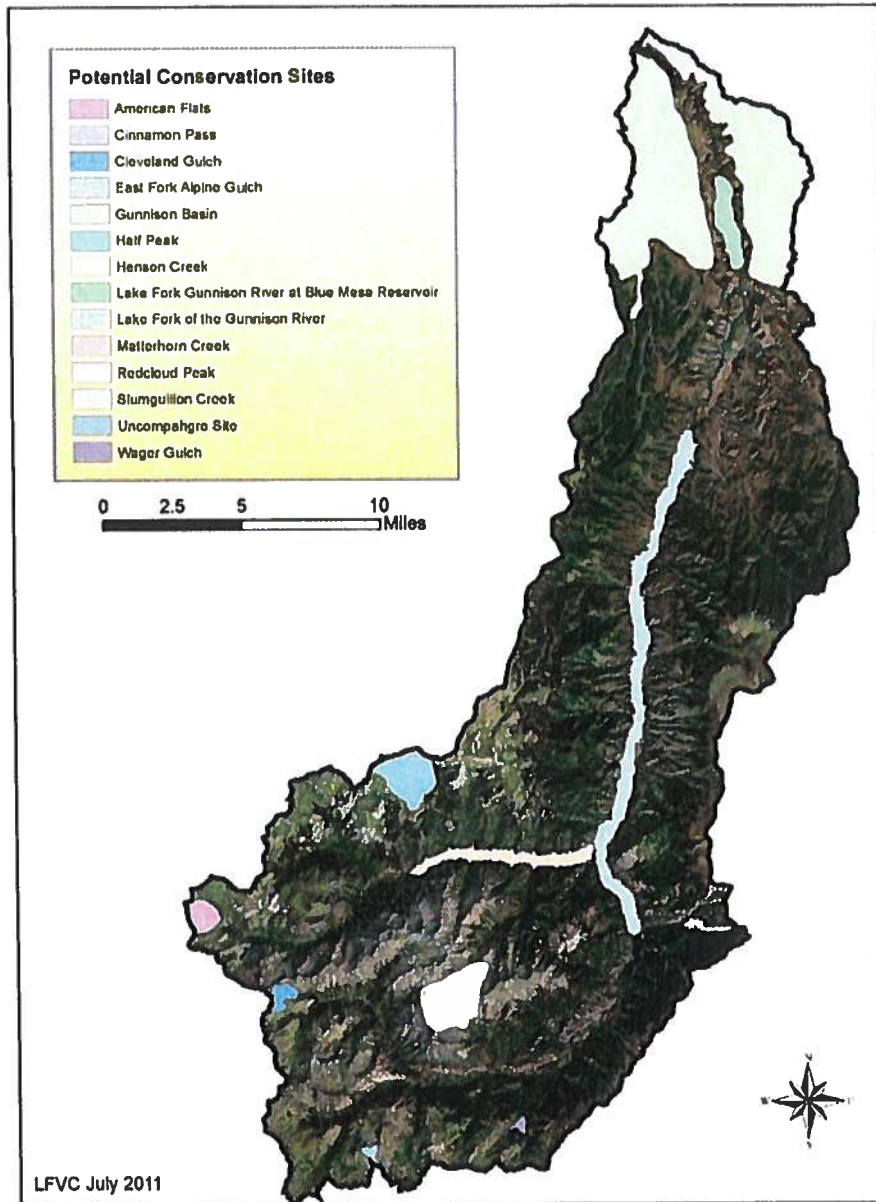


Figure 7. Potential Conservation Areas for the Lake Fork. Lower Henson Creek and the Lake Fork are noted for their riparian communities with high biodiversity significance (Source of data: Colorado Natural Heritage Program).

230 N. Bluff Street
PO Box 544 Lake City, CO 81235
970-944-2333
www.townoflakecity.us

TOWN OF LAKE CITY

January 23, 2013

Greg Johnson
Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 200
Denver, CO 80203

Dear Mr. Johnson,

On behalf of the Board of Trustees of the Town of Lake City, I am very pleased to express our strong support for the application by the Lake Fork Valley Conservancy (LFVC) for the Henson Creek and Lake Fork Confluence Channel Improvement Project. In the past, several local residents have requested the Town to initiate such a project. When LFVC approached us four years ago to discuss areas for collaboration, we suggested they explore the potential for river improvements to enhance recreation and water supply. Since then the Town and its community have participated in planning and design of this project and we are happy to serve as an integral partner.

We are committed to the following roles in the project:

1. Serve as fiscal agent to the LFVC for the implementation of the CWCB grant.
2. Work with the LFVC to develop a long term maintenance plan for restoration structures and recreation sites.
3. Provide the public access points for river restoration work and recreational site development.
4. Provide in-kind support for project and grant management and equipment time for construction, as described in the proposal.

We see great value in a project that both improves our Town's natural resources and also increases public recreational opportunities. We hope that with CWCB financial assistance we can achieve the goals set forth through an engaged and supportive public process.

Sincerely,



Nathan Henne
Town Manager



UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management

Gunnison Field Office
650 S 11th St.
Gunnison, CO 81230
970-642-4940



January 23, 2013

Town of Lake City
PO Box 544
Lake City, CO 81235

Dear Trustees:

The Bureau of Land Management (BLM) supports the Henson Creek and Lake Fork Confluence Channel Improvement Project that is being proposed by Lake Fork Valley Conservancy and its partners. The BLM manages lands along the Alpine Loop for multiple uses, including hunting, camping, ice climbing, fishing, and mining to name a few. Given the lack of resources available to manage these lands, the BLM depends on its partners. The BLM has an outstanding partnership with Lake Fork Valley Conservancy, whereby both entities along with Colorado Division of Reclamation Safety have been very successful at cleaning abandoned mine lands in the Henson Creek watershed within Hinsdale County. Approximately 540 feet of this project lies along a portion of Henson Creek, managed by the BLM on the outskirts of Lake City. This project will improve water quality; maintain and restore hydrologic function; and enhance riparian and fishery ecosystems of Henson Creek. Already, the BLM has donated approximately \$3,500 in boulders and provided assistance to Black Creek Hydrology, the primary consultant on this project. In addition, the BLM will provide NEPA support and assist in monitoring.

The BLM looks forward to working with the Town of Lake City and the Lake Fork Valley Conservancy on this project and will be providing assistance to the project as our staffing and budget allow. If you have any questions, please contact me at 970-642-4940.

Sincerely,

Brian St. George
Field Office Manager

Hinsdale County
311 N. Henson Street
P.O. Box 277 • Lake City • Co 81235

Fax: (970) 944-2630
Email: hcadministrator@centurytel.net
www.hinsdalecountycolorado.us



January 30, 2013

Greg Johnson
Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 200
Denver, CO 80203

Subject: Trails Commission Support for Henson Creek and Lake Fork Confluence Project

Dear Mr. Johnson,

The Hinsdale County Trails Commission (HCTC) fully supports the Town of Lake City and Lake Fork Valley Conservancy's proposal to improve Henson Creek and the Lake Fork Confluence channel area for the recreational use of our full-time and seasonal residents and visitors.

HCTC is the county commission charged with facilitating and coordinating the planning, promotion, implementation, and oversight of an integrated trails system in Hinsdale County, including the Town of Lake City. Each year the HCTC coordinates a large group of active volunteers to build and maintain trails in Lake City and Hinsdale County. An important part of our mission is to develop trails which are accessible to a broad range of users. The proposed trail that would be part of the project at Memorial Park certainly meets our criteria.

Once the project is underway, we plan to assist the Town of Lake City and the Lake Fork Valley Conservancy in a voluntary capacity (via volunteer hours) with the construction of the new 500 foot trail at Memorial Park at the confluence.

In summary, the Trails Commission enthusiastically supports the river improvement proposal. We hope that the proposal will be given favorable consideration by the Colorado Water Conservation Board.

Sincerely,

Karen McClatchie
Hinsdale County Trails Commission
Telephone: 970-944-0303
E-mail: kg4hiw@gmail.com

LAKE CITY/HINSDALE COUNTY
CHAMBER OF COMMERCE



800 Gunnison Avenue
Lake City, Colorado 81235

970-944-2527
800-569-1874

chamber@lakecity.com
www.lakecity.com

The Mission of the LC/HC
Chamber of Commerce is to
promote tourism and economic
development by assisting area
businesses as well as serving as
an information center.

January 29, 2013

Town Trustees
Town of Lake City
PO Box 277
Lake City, CO 81235

Dear Trustees:

The Lake City/Hinsdale County Chamber of Commerce enthusiastically endorses the grant applications submitted by the Town of Lake City and the Lake Fork Valley Conservancy to fund the construction of river improvements on lower Henson Creek and the Lake Fork of the Gunnison at Memorial Park. We have been an active partner in the planning phase for this project and see valuable outcomes for our community with its completion. The river through town is underappreciated and underutilized, yet such a valuable asset for our Town and County. This project will help increase public access to the river and improve recreational opportunities in town for its residents and visitors alike.

The Lake City/Hinsdale County Chamber of Commerce sees the river enhancement project as an excellent opportunity to draw more river enthusiasts to our Town and is smart development that improves and stabilizes a natural resource asset that we already have. As a side benefit to the habitat improvement of the river, the Town's irrigation system will benefit as well, which can ultimately result in more lawn irrigation from Town ditches instead of the potable water system.

It is our hope that this project will receive full funding. This river enhancement project supports our economy and showcases our river as one of Lake City's finest assets.

Thank you,

Jud Hollingsworth, President
Lake City/Hinsdale County Chamber of Commerce



HINSDALE COUNTY SCHOOL DISTRICT RE-1

P. O. Box 39 - 614 N. Silver Street
Lake City, Colorado 81235

Phone (970) 944-2314
Fax (970) 944-2662

January 29, 2013

Town Trustees
Town of Lake City
PO Box 277
Lake City, CO 81235

Dear Trustees,

The Lake City Community School strongly supports the grant applications submitted by the Town of Lake City and the Lake Fork Valley Conservancy to fund the construction of river improvements on lower Henson and the Lake Fork of the Gunnison at Memorial Park. The river through town is an underutilized asset due to restricted access and limited visibility in the community. This project will help improve the quality of the river for fisheries, recreation, and water supply in town. As the primary organization for learning in this community, we also see great opportunity to increase our students' knowledge of riverine systems and water conservation issues.

The school currently partners with the Lake Fork Valley Conservancy to monitor water quality on the Lake Fork. We have worked on various environmental education initiatives with the LFVC, and plan to develop more water focused curricula for our students once the project is completed.

I strongly encourage CWCB to consider this proposal favorably. Please feel free to contact me if you have further questions.

Sincerely,

Karen Thormalen, Ph.D.
Superintendent
Hinsdale County School District RE-1

Colorado River Watch



PO BOX 211729
Denver CO 80221



Real people doing real science, for a real purpose.

January 29, 2013

Greg Johnson
Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 200
Denver, CO 80203

Dear Mr. Johnson,

The Lake City branch of Colorado River Watch proudly supports the Henson Creek and Lake Fork Confluence Channel Improvement Project proposed by Lake Fork Valley Conservancy (LFVC) and the Town of Lake City. Our chapter of Colorado River Watch, a state-wide non-profit organization that trains and empowers citizen scientists to collect water quality data, has a long-standing partnership with the Conservancy that continues to grow.

Recently, our group updated its sampling sites to evaluate the health of Henson Creek (a 303(d) impaired water) and the Lake Fork, both of which flow through the Town of Lake City. These sites are within the reach of the proposed enhancements; we look forward to tracking and evaluating the projects effects. We expect a positive outcome, given the detrimental effects of channelization and sediment loading on riverine systems. Our monthly water samples will help to identify potential changes in dissolved oxygen, as well as changes in pH, hardness, alkalinity, temperature, and the presence of heavy metals resulting from improved water quality and hydrologic function. Collection of benthic macroinvertebrates will contribute to our knowledge of changes in substrate, and illustrate benefits to trout populations and the wider food web of the river system resultant from an increase in habitat and decrease in sediment loading.

River Watch looks forward to diligently monitoring and reporting on this project, and testing our hypothesis that these improvements will greatly benefit Henson Creek and the Lake Fork.

Sincerely,

Dan Scroggins
Lake City Community School Teacher

Forrest Swift
River Watch Student

Kate Nichols
River Watch Student

Brandon Nichols
River Watch



2/4/2013

Greg Johnson
Program Manager
Colorado Water Conservation Board
gregory.johnson@state.co.us

RE: Lake Fork Restoration Project Funding Request

Mr. Johnson,

On behalf of Trout Unlimited and its 10,000 members across the State of Colorado I am writing you to express our support of the Lake Fork Valley Conservancy District's Lake Fork Restoration Project. This project is a great example of how CWCB Watershed Supply Reserve Account monies can be used to address consumptive and non-consumptive needs identified by the Gunnison Basin Roundtable process.

The Lake Fork Valley, particularly in the project area near the beautiful town of Lake City, has suffered considerable impacts from development and the historic mining practices in the River and upstream on Henson Creek. This project will address not only the in-channel habitat, water quality, aesthetic and structural concerns but will also assist the town with correcting issues with the structural deficiencies of an irrigation water diversion.

The river downstream of Lake City is marvelous combination of healthy riparian zone, outstanding trout fishery and ranch lands. Public access on this stretch of river, unfortunately, is limited. Completion of the restoration project described in the funding request will be the first step toward restoring the parts of this important river to its potential state for the public to enjoy.

The Lake Fork of the Gunnison is a true treasure of western Colorado that should be treasured, protected, and restored. For this reason Trout Unlimited supports the effort of the Lake Fork Valley Conservancy District and encourages the CWCB board to provide the requested funding for this important project. Thank you for the consideration.

Sincerely,

Cary Denison
Trout Unlimited
Gunnison Basin Project Coordinator
Ouray County Representative -GBRT

The Gunnison Basin Roundtable
501 Palmer Street
Delta, CO 81416

January 9, 2013

Mr. Todd Doherty
Intrastate Water Management and Development Section
COLORADO WATER CONSERVATION BOARD
1580 Logan Street, Suite 600
Denver, CO 80203

Re: Grant Request from the Water Supply Reserve Account
Colorado Open Lands
Lake San Cristobal Inlet Preservation and Fishing Access Project

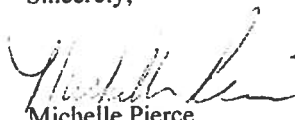
Dear Mr. Doherty:

This letter is presented to advise you that the grant application submitted by Colorado Open Lands for \$16,700 from Basin Account funds and \$167,000 from Statewide Account funds from the Water Supply Reserve Account for the Lake San Cristobal Inlet Preservation and Fishing Access project was reviewed by the Gunnison Basin Roundtable and its Project Screening Committee and was approved by a unanimous vote of the Gunnison Basin Roundtable during our meeting on January 7, 2013.

This water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes. The requirements/language from the statute is provided in Part 3 of the Criteria and Guidelines.

This activity furthers the basin-wide non-consumptive needs for the Gunnison Basin in that Lake San Cristobal has been identified as a 'Major Recreational Segment' due to its highest recreation and fishery attributes; and this project ensures the protection of, or directly enhances, nearly all of the environmental and recreational attributes identified for this segment in the needs assessment.

Sincerely,


Michelle Pierce
Chair

cc: Tom Alvey (e-mail)



COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM



Lake San Cristobal Inlet Preservation and Fishing Access
Project

Name of Water Activity/Project

Colorado Open Lands

Name of Applicant

Gunnison

Amount from Statewide Account:

\$150,300

Amount from Basin Account(s):

\$16,700

Total WSRA Funds Requested:

\$167,000

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

Application Content

Application Instructions	page 2
Part I – Description of the Applicant	page 3
Part II – Description of the Water Activity	page 5
Part III – Threshold and Evaluation Criteria	page 8
Part IV – Required Supporting Material	
Water Rights, Availability, and Sustainability	page 14
Related Studies	page 14
Signature Page	page 17

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 December 2011

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>

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:

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

If you have questions or need additional assistance, please contact Greg Johnson at: 303-866-3441 x3249 or gregory.johnson@state.co.us.

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

1.	Applicant Name(s):	Colorado Open Lands	
	Mailing address:	274 Union Boulevard, Suite 320 Lakewood, CO 80228	
	Taxpayer ID#:	84-0866211	
	Primary Contact:	Dieter Erdmann	Position/Title: Conservation Director
	Email:	derdmann@coloradoopenlands.org	
	Phone Numbers:	Cell: 303-638-9465	Office: 303-988-2373 x 217
	Alternate Contact:	Camille Richard	Position/Title: Project Director
	Email:	c.richard@lfvc.org	
	Phone Numbers:	Cell:	Office: 970-209-5238

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.

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3. Provide a brief description of your organization

Colorado Open Lands is a statewide, 501 (c) 3 non-profit land trust that helps families achieve their dream of permanently protecting their land. Together we have protected more than 256,000 acres in 40 counties around Colorado. Our work permanently secures Colorado's farms, ranches, wildlife habitat, rivers, and irreplaceable scenic lands.

Founded in 1981 by a team of business leaders known as the Colorado Forum, our creative, landowner-friendly approach to land conservation has been instrumental to our success. The landowners we work with are as diverse as the population of Colorado, including ranchers, farmers, long-time local residents, and second homeowners. We collaborate with government agencies, including local city and county governments, as well as state and federal agencies. In addition, Colorado Open Lands frequently collaborates with other non-government organizations, such as The Conservation Fund and Ducks Unlimited, and local land trusts around the state.

With a full-time staff of seven, Colorado Open Lands is both effective and agile. Our skilled team protects between 10,000-12,000 acres annually, and our reputation for leadership and excellence in the conservation community is backed by a track record of pragmatism and project success.

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

Not applicable.

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.

Not applicable. Colorado Open Lands is a 501 (c) 3 non-profit organization.

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Part II. - Description of the Water Activity/Project

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

☒ Nonconsumptive (Environmental or Recreational)

☐ Agricultural

☐ Municipal/Industrial

☐ Needs Assessment

☐ Education

☐ Other

Explain:

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

Not applicable.

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

☐ Study

☒ Implementation

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

New Storage Created (acre-feet)

New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)

Existing Storage Preserved or Enhanced (acre-feet)

3,430 Length of Stream Restored or Protected (linear feet)

Length of Pipe/Canal Built or Improved (linear feet)

Efficiency Savings (acre-feet/year OR dollars/year – **circle one**)

116 Area of Restored or Preserved Habitat (acres)

2,175 Other -- Explain: Shoreline protected (linear feet)

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

Latitude:

37°57' 31.56" N

Longitude:

107°17' 51.23" 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 purpose of the **Lake San Cristobal Inlet Preservation and Fishing Access Project** is to acquire a conservation easement to preserve approximately 116 acres of prime lake-shore real estate containing 37 acres of grasslands, mixed conifer, and cottonwood forest, and 79 acres of delta wetland created by the Lake Fork of the Gunnison River as it enters Lake San Cristobal. The project will also provide permanent public access to 0.65 miles of the Lake Fork of the Gunnison River for fly fishing. This project represents a unique conservation opportunity because the property contains numerous and diverse conservation values that will be protected in perpetuity by the conservation and fishing access easements. Protection of these unique wetlands also compliments on-going storage augmentation at the Lake San Cristobal outlet.

Non-Consumptive Needs/Benefits

The Gunnison Basin Non-Consumptive Needs Assessment identifies Lake San Cristobal a “Major Recreational Segment” due to its “Highest Recreation and Fishery” attributes. This project ensures the protection of or directly enhances nearly all of the environmental and recreational attributes identified in the Needs Assessment for Lake San Cristobal. In addition, the project meets the Gunnison Basin Roundtable objective of “Preserving Open Space” in a highly sensitive scenic landscape. The following project needs and benefits are organized by attributes identified in the Non-Consumptive Needs Assessment.

Environmental Attributes

Significant Wetland/Riparian Plant Communities: The delta is comprised of a complex of historic channels, remnant beaver dams, patches of open water, and diverse and largely intact montane wetlands, with extremely high functional values and that support a diverse array of wildlife species. The Colorado Natural Areas Program has nominated the site for recognition as a Colorado Natural Area.

Aquatic Dependent State Species of Concern: The Colorado Natural Areas Program has documented the presence of a thriving population of Northern Leopard Frog, a State Species of Special Concern, at the site. This attribute was evaluated in the Non-Consumptive Needs Assessment, but was concluded not to occur in the area.

Special Value Waters, Natural Lake Levels: While water levels at Lake San Cristobal are seasonally manipulated to augment municipal water needs of Lake City and for agricultural uses downstream, conditions resemble natural levels closely enough to be designated Special Value Waters by CWCB. While this project will not directly impact water levels, the hydrology of Lake San Cristobal and the delta are inseparable, with wetlands present on the property providing sediment filtration and flood control, ultimately contributing to better water quality in the Lake Fork of the Gunnison River, as well as maintaining the storage capacity of Lake San Cristobal.

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Recreational Attributes

Riparian/Wetland Wildlife Viewing: The Alpine Loop Scenic Byway is a rugged but well-travelled back country byway, offering year-round opportunities for access to the remote, rugged heart of the San Juan Mountain region. The Alpine Loop skirts the property's western boundary. Approximately 300,000 visitors per year travel the Alpine Loop, with more than 90% of this use occurring during the short, but busy, summer season. The property provides prime wildlife viewing opportunities for travelers on the Alpine Loop. Moose, deer, elk, waterfowl, and bald eagle are commonly spotted on the property (the moose photograph included with this application was taken from the Alpine Loop in September 2012).

Flat Water Boating, Significant Cold Water Fishing, High Recreation Lakes and Reservoirs: The property is the visual centerpiece for the general public recreating on and around Lake San Cristobal, which is a popular destination for fishing, camping and boating. Hinsdale County owns and operates a public boat launch, a public campground, and a day-use picnic area on Lake San Cristobal adjacent to or within sight of the property. As an indication of public use, the 31-site public campground registers an average of 2,500 user nights per summer season. This project will protect 2,175 linear feet of the shoreline of Lake San Cristobal from inappropriate uses and management, and will secure permanent public access to 0.65 miles of the Lake Fork of the Gunnison River that flows through the property for fly fishing. Colorado Parks and Wildlife staff estimate that as a result of the public access, the property will be used by 150 anglers per month (375 angler hours) during the summer months. Protection of this property will preserve the last significant undeveloped piece of private property located within this important public recreation area.

Open Space

The property is situated in a matrix of public lands owned by Hinsdale County and the Bureau of Land Management, both of which are under special conservation and management status. The project will protect scenic views from two Colorado Scenic Byways, the Alpine Loop Scenic Byway (as mentioned above) and the Silver Thread Scenic Byway as it traverses Slumgullion Pass. Given its location close to nearby Lake City, residents and visitors alike will benefit from protecting the property in its natural, undeveloped state. Visitors drawn to the scenic and recreational resources of Lake San Cristobal and the Loop are a major economic driver for Lake City and Hinsdale County as a whole, as nearly 40% of year-round residents are employed in tourism-related businesses.

The property to be conserved is extremely economically valuable due to its location along the lake shore with several highly visible and accessible building sites. The owner of the property is very motivated to complete the easement transactions given her age (96 years old) and her desire to protect the inherent conservation values of the property that first attracted her and her family to the area. The total project value is expected to be at least \$1,800,000. The purchase price for the conservation and access easement will be \$1,000,000. The landowner will donate at least \$800,000 in project value. To date, Colorado Open Lands has raised \$833,000 from Great Outdoors Colorado and from Colorado Parks and Wildlife's Fishing is Fun Grant Program. A Gunnison Basin Roundtable and Statewide Account investment of \$167,000 would be leveraged in excess of 9:1.

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

This activity is consistent with the above referenced Statute and the additional Statutes and Constitutional Article referenced in Part III 1. c), below. A conservation easement is a voluntary legal agreement between a landowner and a charitable organization or government entity that permanently protects scenic or agricultural open space, natural habitat, or recreational areas. Numerous federal, state and local entities promote and utilize conservation easements including the Colorado Water Conservation Board (CWCB), Great Outdoors Colorado (GOCO), Colorado Parks and Wildlife (CPW), the US Department of Agriculture's Natural Resources Conservation Service (NRCS), the US Department of Interior's Fish and Wildlife Service, among others. This project will not be implemented in any way that would diminish, impair, or cause injury to any existing water right.

- 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.

Please see the attached letter from Gunnison Basin Roundtable in support of this application.

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.

See Part III 1. a), above.

- d) Matching Requirement: For requests from the Statewide Fund, the applicants is required to demonstrate a **20 percent** (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of **5 percent** of the total grant amount from Basin Funds. 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 application was submitted to the CWCB. 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)

As indicated in the budget included in the Statement of Work, this request is for \$167,000. As proposed, \$16,700 (10%) would come from the Gunnison Basin Roundtable WSRA and \$150,300 from the Statewide WSRA. The award would be matched by \$700,000 in funding from the Great Outdoors Colorado Trust Fund (awarded June 2012) and \$133,000 from Colorado Parks and Wildlife (awarded August 2012). Furthermore, the landowner will donate an additional \$800,000 in conservation easement value (the actual donation amount will be determined by a final appraisal) and over \$40,000 in project costs. The Lake Fork Valley Conservancy will provide an estimated \$3,800 in in-kind services through the preparation of a baseline report for the property, and Colorado Open Lands will contribute \$7,000 in legal fees. This request far exceeds the minimum match requirements detailed above, with an estimated project value of \$1,800,000 and with WSRA funds comprising less than 10% of the overall project, a ratio of 9:1, match to grant.

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.**

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. 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).**

The Gunnison Basin Non-Consumptive Needs Assessment identifies Lake San Cristobal a “Major Recreational Segment” due to its “Highest Recreation and Fishery” attributes. This project ensures the protection of or directly enhances nearly all of the environmental and recreational attributes identified in the Needs Assessment for Lake San Cristobal including:

- Protection of Significant Riparian/Wetland Plant Communities
- Aquatic Dependent State Species of Concern
- Special Value Waters, Natural Lake Levels
- Riparian/Wetland Wildlife Viewing
- Flat Water Boating, Significant Cold Water Fishing, High Recreation Lakes and Reservoirs

In addition, the project meets the **Gunnison Basin Roundtable objective** of “Preserving Open Space” in a highly sensitive scenic landscape.

Although the project does not directly address consumptive needs, protection of the wetlands at Lake San Cristobal directly benefit water augmentation efforts underway at the Lake San Cristobal outlet. Protection of these wetlands will ensure their continuing ability to trap sediment during periods of high flow, translating to improved water quality and maintenance of the storage capacity of Lake San Cristobal.

- 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.**

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The project is a result of collaboration among numerous and diverse entities: the private landowners, Colorado Open Lands, the Lake Fork Valley Conservancy, and Trout Unlimited. Written support for the project has been provided by the Hinsdale Board of County Commissioners, the Trustees of the Town of Lake City, The Lake City/ Hinsdale County Chamber of Commerce, the Hinsdale County School District Re-1, the Bureau of Land Management, and the Lake City Downtown Improvement and Rehabilitation Team. As explained elsewhere, both the Board of the Great Outdoors Colorado Trust Fund and Colorado Parks and Wildlife have made substantial financial commitments to the project.

Protection of the Lake San Cristobal Inlet property directly benefits the thousands of recreationists who travel the Alpine Loop and Silver Thread Byways and that recreate on and around Lake San Cristobal by protecting scenic vistas and wildlife and ensuring public access in perpetuity. Approximately 300,000 visitors per year travel the Alpine Loop, with more than 90% of this use occurring during the short, but busy, summer season. Visitors drawn to the scenic and recreational resources of Lake San Cristobal and the scenic byways are a major economic driver for Lake City and Hinsdale County as a whole, as nearly 40% of year-round residents are employed in tourism-related businesses.

- 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.**

As discussed in a., above, the project addresses a suite of attributes associated with Lake San Cristobal's value as a "Major Recreational Segment" as outlined in the Gunnison Basin's Non-Consumptive Needs Assessment. In addition, the project addresses the following SWSI 2010 recommendations:

Recommendation #2. Identify and utilize existing and new funding opportunities to assist in implementing projects and methods to meet Colorado's consumptive and nonconsumptive water supply needs.

One of the primary findings of SWSI 2004 was that "solutions for addressing recreational and environmental water needs are less well-defined and less certain in their implementation due to a number of factors, such as funding constraints, or an inability or mechanism for the beneficiary to contribute financially." In this situation, the project partners have been able to raise approximately 90% of the funding needed to complete a project with substantial non-consumptive impacts, demonstrating that it is possible to leverage WSRA funding for projects of this purpose.

Recommendation #5. Support Colorado's nonconsumptive water needs by working with Colorado's water stakeholders to help:

- *Protect or enhance environmental and recreational values that benefit local and statewide economies.*

The project will protect recreational values associated with the use of Lake San Cristobal, and the Alpine Loop and Silver Thread Scenic Byways. It will also ensure permanent public access to .65 miles of the Lake Fork of the Gunnison River for fly fishing.

- *Encourage multi-purpose projects that benefit both water users and native species.*

Protected wetlands will both benefit native species and continue to filter sediment during high flows, maintaining water quality and the storage capacity of Lake San Cristobal.

- *Pursue projects and other strategies, including CWCB's Instream Flow Program, that benefit consumptive water users, the riparian and aquatic environments, and stream recreation.*

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See above.

Additionally, SWSI 2004 states that “One concept for environmental and recreational flow management brought forth by environmental and recreational interest group representatives in SWSI was the “Conserve, Protect, and Restore” (CPR) approach. The “Conserve” component is centered on keeping currently healthy rivers healthy, both in terms of quality and quantity. The “Protect” component suggested by the interest groups includes keeping threatened but currently healthy reaches whole, or as close to whole as possible.”

The protection of the Lake San Cristobal Inlet property will preserve a keystone located in a matrix that is composed primarily of protected public land. Hinsdale County owns 453 acres in the vicinity of the property that comprises the majority of the 350-acre Lake San Cristobal and its shoreline.

Hinsdale County’s ownership is protected by a Conservation Covenant that was enacted by the Board of County Commissioners in 1997 following a successful recall election of the previous Board over a proposal to site a casino on county-owned land on the shores of Lake San Cristobal. The Conservation Covenant (which does not restrict the Lake San Cristobal Inlet property) was enacted to ensure that “Lake San Cristobal’s natural elements and its ecological and aesthetic values be preserved...” and that “...unnecessary and irreversible conversion of recreational lands and lakes to non-recreational, non-conservational, and private commercial uses...” be minimized. The Conservation Covenant restricts acts and uses of Hinsdale County’s property. Termination of the Conservation Covenant must be approved by a majority of Hinsdale County residents.

Hinsdale County’s ownership is encircled in large part by public lands managed by the Bureau of Land Management. The BLM land is part of the Alpine Triangle, a Special Recreation Management Area comprising over 186,000 acres. A Special Recreation Management Area is recognized as a landscape with outstanding natural values and recreational opportunities and where the BLM will spend extra time, effort and funding on managing these outstanding resources.

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).**

The urgency of this project is two-fold, and funding from the WSRA account will be the final piece of the puzzle that will allow the acquisition of the conservation easement and access agreement to move forward.

First, the landowner has had ongoing conversations with Lake Fork Valley Conservancy since 1998 regarding the permanent protection of the property, which have recently increased in urgency. The 96 year-old owner of the property desires to maintain this property in its natural condition. With her passing, her three children will inherit the property, one of whom is not interested in maintaining ownership. The high market value of the property presents a challenge to the two beneficiaries that wish to continue the family ownership, because they will be forced to buy out the third. The owner of the property has the authority to execute the conservation easement and bequeath the compensation to the

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beneficiary who wants out. This outcome is guaranteed only if the conservation easement is completed prior to her death.

Second, the under the restrictions of the awards made by GOCO and CPW this project must be completed by Dec 13, 2013. If we are not able to secure the remaining funding for the project, the partnership will lose both the Great Outdoors Colorado and Colorado Parks and Wildlife grants.

- 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.**

As previously mentioned, out of a total project estimate of \$1,800,000, the landowner will donate at least \$800,000 in land value. The purchase price for the conservation and access easement will be \$1,000,000 of which GOCO has awarded \$700,000 and CPW's Fishing is Fun Grant Program has awarded \$133,000. A WSRA investment of \$167,000 would be leveraged in excess of 9:1.

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.

The property is situated in a matrix of public lands owned by Hinsdale County and the Bureau of Land Management, both of which are under special conservation and management status. The project will protect scenic views from two Colorado Scenic Byways, the Alpine Loop Scenic Byway and the Silver Thread Scenic Byway as it traverses Slumgullion Pass. The property provides prime wildlife viewing opportunities for travelers on the Alpine Loop Scenic Byway. Moose, deer, elk, waterfowl, and bald eagle are commonly spotted on the property.

The property is the visual centerpiece for the general public recreating on and around Lake San Cristobal, which is a popular destination for fishing, camping and boating. This project will protect 2,175 linear feet of the shoreline of Lake San Cristobal from inappropriate uses and management, and will secure permanent public access to 0.65 miles of the Lake Fork of the Gunnison River that flows through the property for fly fishing. Colorado Parks and Wildlife staff estimate that as a result of the public access, the property will be used by 150 anglers per month (375 angler hours) during the summer months.

The conservation easement and permanent public access agreement will ensure the protection of these critical natural and recreational resources.

- 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.

Does not apply.

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

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The delta is comprised of a complex of historic channels, remnant beaver dams, patches of open water, and diverse and largely intact montane wetlands, with extremely high functional values and that support a diverse array of wildlife species. The Colorado Natural Areas Program has documented the presence of a thriving population of Northern Leopard Frog at this site, which is designated as a Species of Special Concern by the Colorado Division of Parks and Wildlife. The Colorado Natural Areas Program has also nominated the site for recognition as a Colorado Natural Area.

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

Project partners are providing 9:1 match to requested WSRA funds. The benefits of the project are explained in detail throughout this application.

- j. The water activity is complimentary to or assists in the implementation of other CWCB programs.

The purpose of this project is consistent with other CWCB programs that seek to maintain or improve environmental and water quality, including the Colorado Healthy Rivers Fund grant program and the Colorado Healthy Watershed grant program.

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.

The conservation easement proposed here contains 0.65 miles of the upper Lake Fork of the Gunnison River, and 2,175 linear feet of the shoreline of Lake San Cristobal, surrounded by 79 acres of diverse riparian and wetland communities. This vegetation mosaic is of high functional value and provides important habitat to a variety of non-game wildlife species. It is home to a thriving population of Northern Leopard Frog, which is designated as a Species of Special Concern by CPW. The wetlands are sustained by natural stream flows and by management of lake surface elevation levels, and therefore no additional source of water is needed for the success of this project.

CWCB has a natural lake level water right for Lake San Cristobal, but has relinquished the upper 3 feet to the Lake San Cristobal Water Enterprise Committee to be controlled by a water retention structure at the outlet for purposes of augmentation, which is currently under construction. This project is not expected to impact these water rights. In fact, it is expected to compliment them by protecting wetland hydrological values at the inlet.

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

A water control structure at the outlet of Lake San Cristobal is currently under construction. The purpose of the structure is to retain and regulate discharges from Lake San Cristobal to augment municipal wells for the Town of Lake City, whose wells are subject to curtailment by senior downstream water users. This project aims to control the top three feet of water currently in the lake, from 8,992 to 8,995 feet above sea level, without raising existing lake levels.

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Revised December 2011

Lake levels have been managed off and on since the early 1900's. A wood retention structure was built in the 1950's but all that remained was the cribbing prior to the construction of the above dam, which regulated base elevation of the lake at 8,992 feet above sea level. For the past 20 to 30 years, Hinsdale County has annually placed rocks in the outlet on top of this cribbing after high flow to maintain a maximum lake level of approximately 8,995 feet, and has removed the rocks prior to winter snow fall. As a result, any changes to the inlet wetlands have already occurred, compared to periods in the past when lake levels were historically lower. According to the project documents and the wetland delineation report, the outlet retention structure will have minimal impact on the inlet wetlands as they currently are, maintaining the same lake levels that have been seen for the past few decades and that reflect the natural lake level water right held by the Colorado Water Conservation Board.

Conversations with CPW staff indicate that the wetlands as they are today have adapted to these new water levels and are functioning well. Lake San Cristobal will still function ecologically as a lake rather than a reservoir, despite the presence of the structure. To ensure this, the US Army Corps of Engineers permit requires baseline and continuous post construction wetland monitoring at the inlet. Pre-construction assessments were required to document the functional condition of several wetlands around the shoreline of Lake San Cristobal. The wetlands to be protected by this project scored a 5.8 on a scale of 6 for wetlands function (between High and Very High), a higher rating than any other wetlands surveyed in the area.

In addition, the Colorado Natural Areas Program has conducted site surveys, both in the late 1990's and in the summer of 2011, to determine suitability for inclusion of this site in their Natural Areas network. It is now recommended for designation.

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

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.

(See Attached)

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 5 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.

ATTACHMENTS

Project Maps

Project Photographs

Statement of Work (including project budget and timeline)

Water Supply Reserve Account – Application Form
Revised December 2011

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

Signature of Applicant:



Print Applicant's Name: Dieter Erdmann

Project Title: Lake San Cristobal Inlet Preservation and Fishing Access Project

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

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

Lake San Cristobal Inlet Preservation and Fishing Access Project

Hinsdale County, Colorado

Area Map



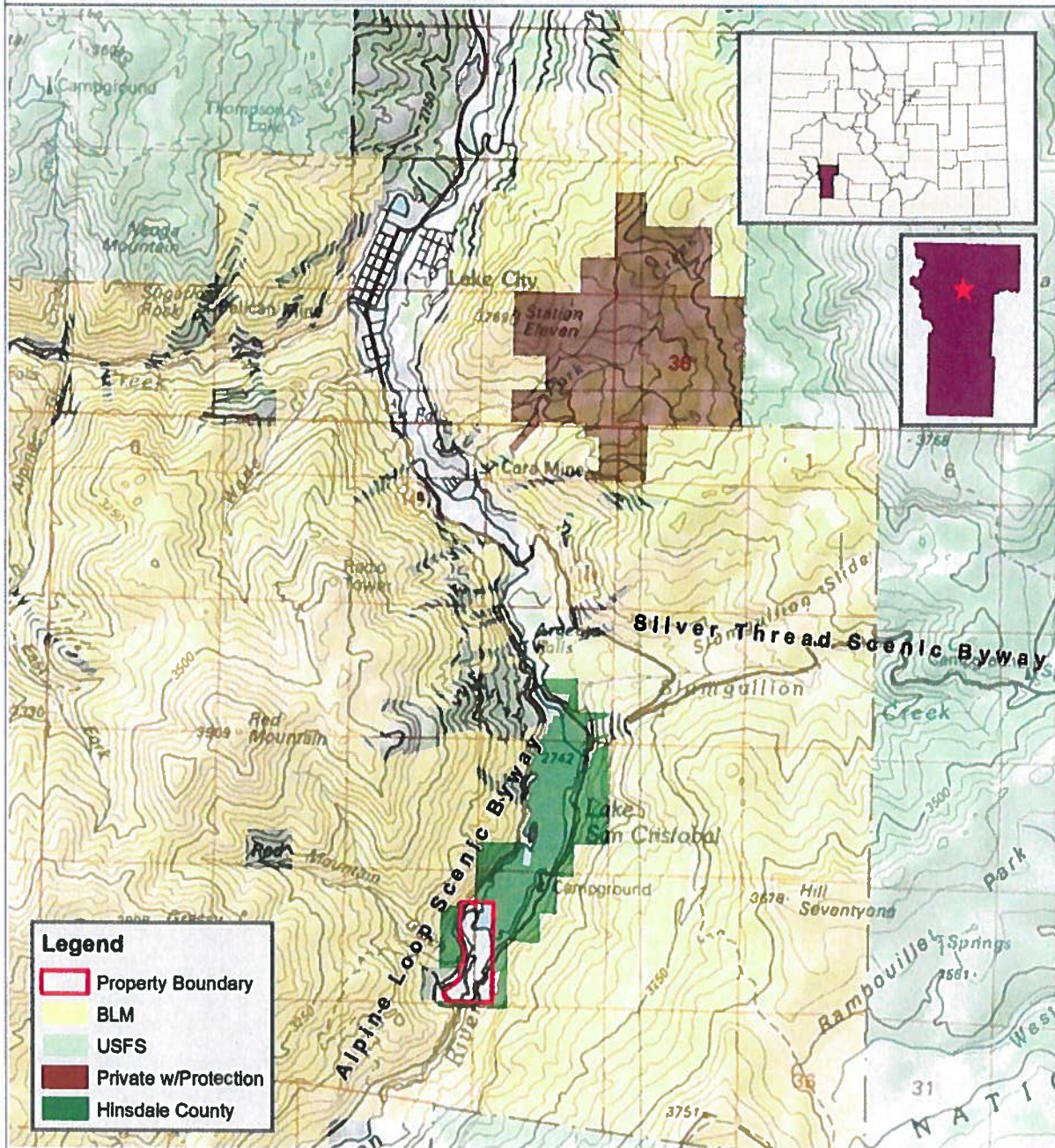
Created by Colorado Open Lands, March 2012

Data Sources: Colorado Open Lands,
Colorado Ownership Management and Protection (COMAPv8)
USA Topo Maps - USGS

This map is not a survey and must not be construed as one.



0 0.4 0.8 1.6 Miles



Lake San Cristobal Inlet Preservation and Fishing Access Project

Hinsdale County, Colorado

Site Map

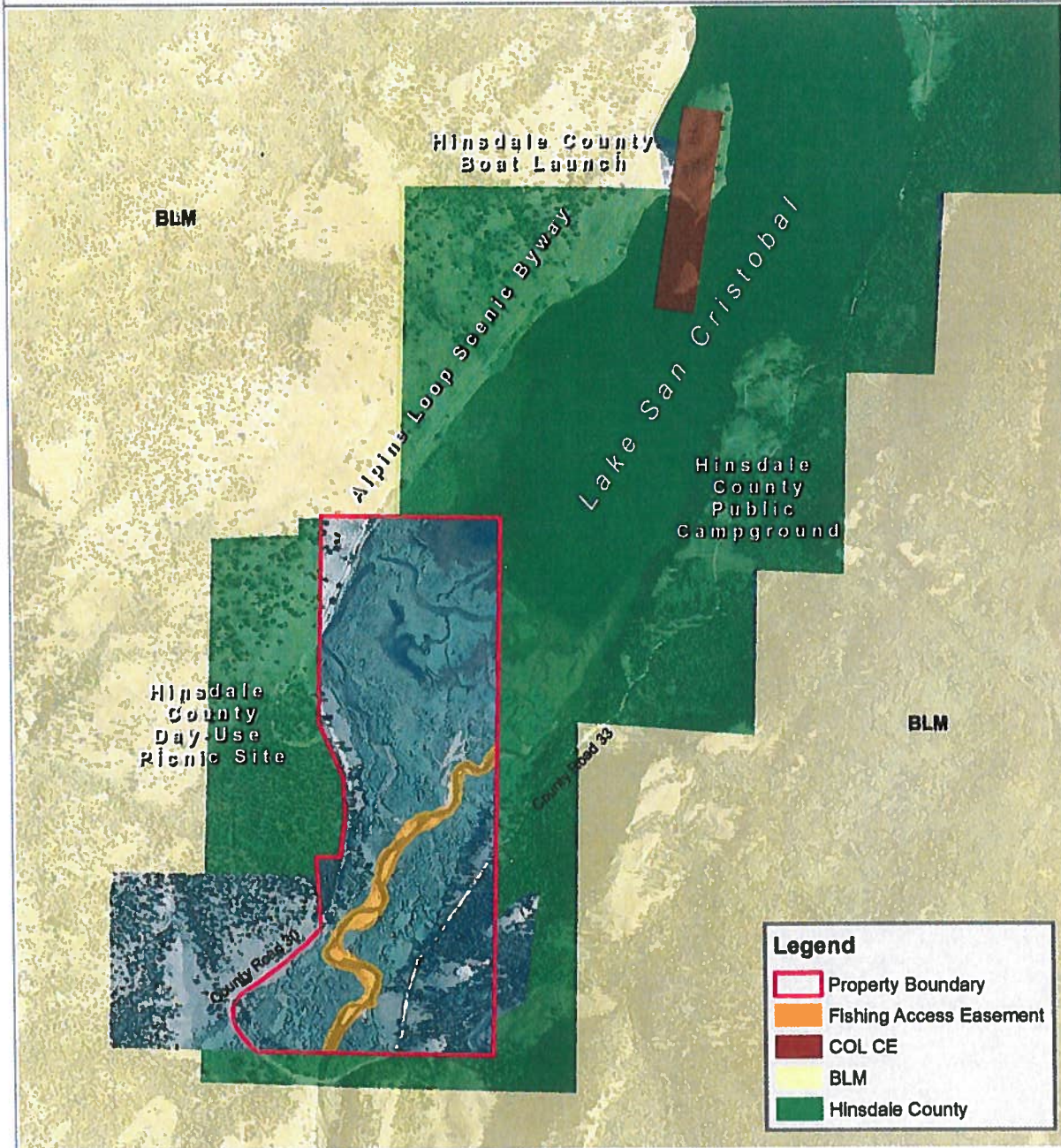


Created by Colorado Open Lands, March 2012

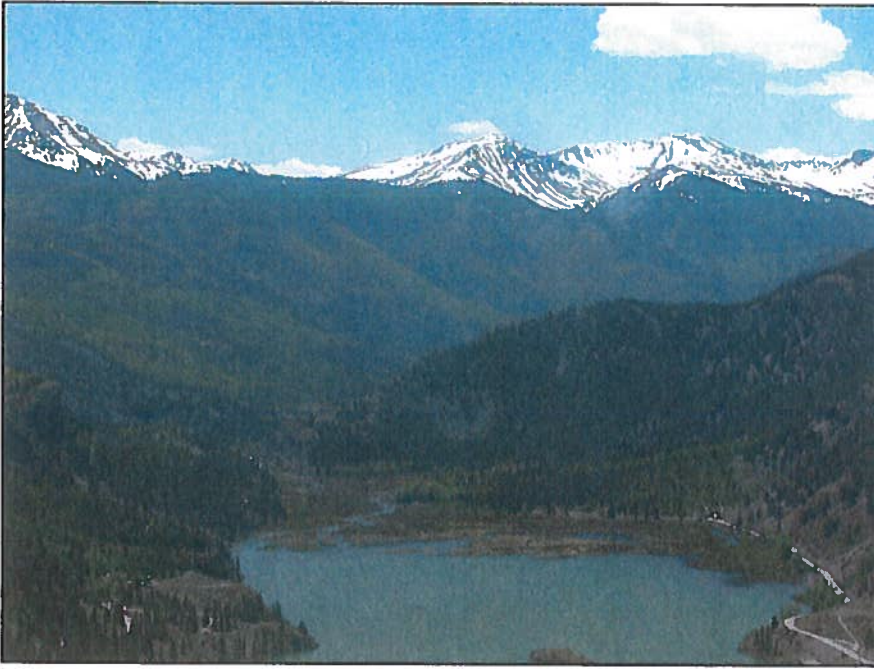
Data Sources: Colorado Open Lands,
Colorado Ownership Management and Protection (COMaPv8)
This map is not a survey and must not be construed as one.



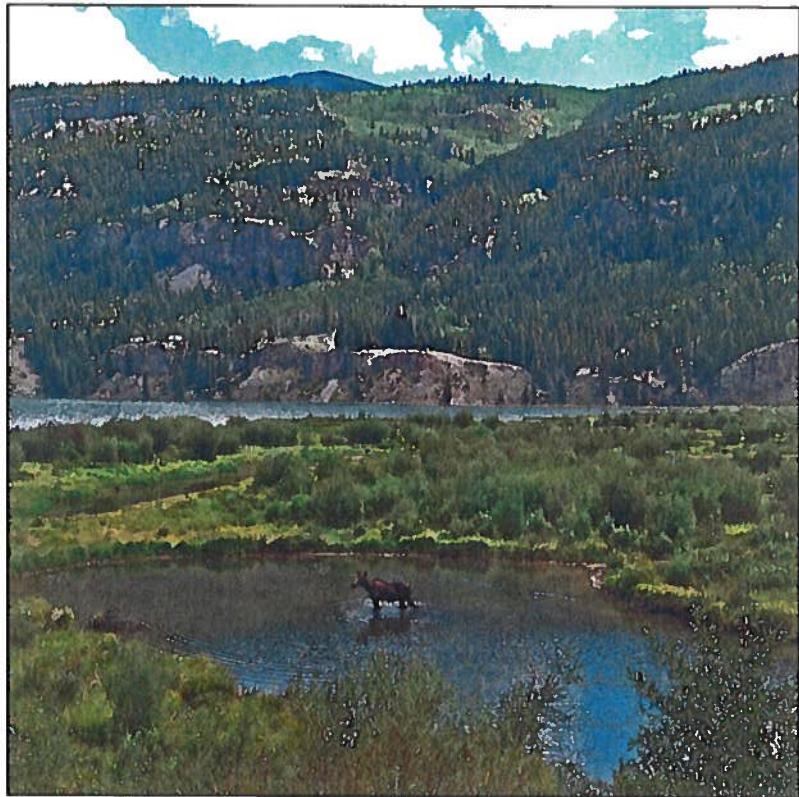
0 0.05 0.1 0.2 Miles



Project Photos



View of the Lake San Cristobal Inlet property from Slumgullion Pass.

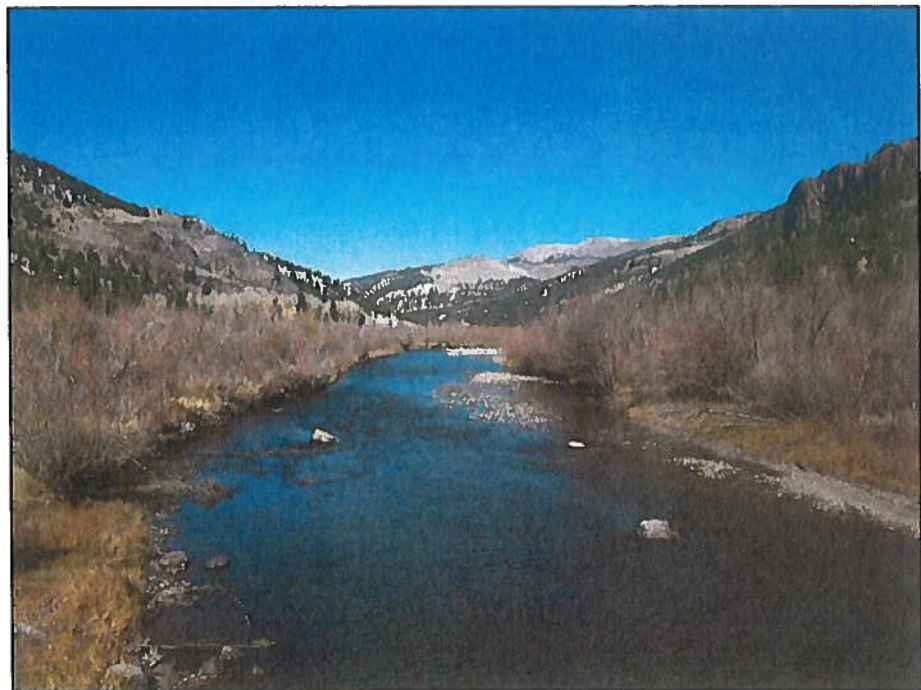


An immature moose basks in the wetlands on the Lake San Cristobal Inlet property.

Project Photos



A view of the Lake San Cristobal Inlet property from the Hinsdale County public campground.



More than $\frac{1}{2}$ of a mile of the Lake Fork of the Gunnison will be permanently accessible for public angling.

Statement of Work

GRANTEE and FISCAL AGENT - Colorado Open Lands

PROJECT NAME – Lake San Cristobal Inlet

GRANT AMOUNT – \$167,000

INTRODUCTION AND BACKGROUND

Located approximately three miles south of Lake City in Hinsdale County, Lake San Cristobal is the second largest natural lake in the state of Colorado. The 320-acre lake and the majority of the surrounding lands are owned by Hinsdale County and the Bureau of Land Management, and Lake San Cristobal is a popular destination for fishing, boating, and camping. Hinsdale County manages several public sites on the Lake including a campground, a day-use picnic area, and a boat launch.

At the southern end of Lake San Cristobal is an expansive wetland delta formed by the Lake Fork of the Gunnison River as it empties into the lake. The delta is comprised of a complex of historic channels, remnant beaver dams, patches of open water, and diverse and largely intact montane wetlands, which all provide important habitat for a diverse array of wildlife species and provide critical water quality functions such as flood control and sediment filtration. The majority of this delta is privately owned (referred to herein as the Lake San Cristobal Inlet property).

The 116-acre Lake San Cristobal Inlet property contains approximately 79 acres of wetlands and 0.65 miles of the Lake Fork of the Gunnison River. The Inlet property is completely surrounded by County and BLM land and is the only significant piece of private property at the south end of the Lake. The landowners have historically allowed the public to access the Lake Fork of the Gunnison River on the property for fishing through a handshake agreement with the Colorado Parks and Wildlife's District Wildlife Manager. The property is minimally signed and is not marked as open to the public, but still receives significant use.

OBJECTIVES

The objective of the project is to protect the property from future development and inappropriate land management that could jeopardize its recreational, wildlife, and scenic characteristics, and to guarantee permanent public access to the Lake Fork of the Gunnison River for fly fishing. Many of the characteristics that make the property a high priority for conservation also align closely with the Gunnison Basin Roundtable's Non-consumptive Needs Assessment. The Needs Assessment identifies Lake San Cristobal a "Major Recreational Segment" due to its "Highest Recreation and Fishery" attributes. This project ensures the protection of or directly enhances nearly all of the attributes identified in the Needs Assessment for Lake San Cristobal. In addition, the project meets the Gunnison Basin Roundtable objective of "Preserving Open Space" in a highly sensitive scenic landscape. Using funding from Great Outdoors Colorado, Colorado Parks and Wildlife's "Fishing is Fun" program, and the Gunnison Basin Roundtable, Colorado Open Lands will negotiate and bargain purchase a conservation easement and

permanent access agreement from the landowners to ensure that the property's conservation values are preserved and protected in perpetuity.

TASKS

TASK 1 – Prepare Conservation Easement and Access Agreement

Description of Task

Colorado Open Lands (COL) will work with the landowner, Great Outdoors Colorado (GOCO), the Colorado Water Conservation Board (CWCB), and the Division of Parks and Wildlife (DPW) to negotiate two separate agreements, a perpetual conservation easement and a perpetual access agreement. Most, if not all, of the general parameters of these agreements have been pre-negotiated with the landowner as a result of multiple grant applications, however, these documents will need to be reviewed by agency staff, the landowner's attorney, and COL's attorney.

Method/Procedure

Iterative process beginning with standard forms including required language from all funding agencies involved.

Deliverable

A nearly final conservation easement document and access agreement in a form such that these can be included in purchase contracts. These documents will need to be reviewed by agency staff, the landowner's attorney, and COL's attorney

TASK 2 – Enter into Purchase Contracts

Description of Task

COL will work with the landowner and the DPW to negotiate purchase contracts for the conservation easement and the access agreement.

Method/Procedure

Iterative process beginning with standard forms including required language from all funding agencies involved.

Deliverable

Executed purchase contracts that establish a purchase amount, dictate a due diligence and inspection period, closing date, and form of documents to be executed at closing.

TASK 3 – Due Diligence Review and Funder Approval

Description of Task

COL will work with landowner to prepare and review due diligence to ensure a sound transaction. COL will submit due diligence to GOCO, CWCB, and CPW within required timelines to gain approval for closing.

Method/Procedure

Minerals assessment and phase I environmental assessment have been completed. COL and landowner will update title commitment and contract with appraiser to complete valuation of property interests. Lake Fork Valley Conservancy will complete baseline report.

Deliverable

Project documentation consistent with IRS guidelines, industry standards, and funder guidelines. Approval for closing from funders.

TASK 4 – Closing

Description of Task

Once funders have reviewed due diligence, funding will be wired to title company escrow account and closing can proceed. Limited signage will be developed to acknowledge project partners and help manage public access.

Method/Procedure

Closing will be conducted by title company as a typical real estate transaction.

Deliverable

Recorded documents, installation of limited signage.

PROJECT TIMELINE

<i>Task</i> ↓	<i>Date</i> →	Jan – March 2013	March – May 2013	May - July 2013	July – Sept 2014	Already Complete (Completion Date)
Prepare Conservation Easement, Access Easement						
Obtain Environmental Assessment						February, 2012
Obtain Geologist's Mineral Assessment						February, 2012
Enter into Purchase Contract						
Obtain updated Title Commitment and referenced documents						
Complete Final Appraisal						
Complete Baseline Inventory Report						
Conduct Closing						

PROJECT BUDGET

Lake San Cristobal Inlet Preservation and Fishing Access Project Proposed Budget

PROJECT COST								
	GOCO	Fishing is Fun	Gunnison Basin WSRA	Statewide WSRA	Lake Fork Valley Cons.	COL	Landowner	Total
Cash								
Easement and Access Acquisition	700,000	133,000	16,700	150,300				1,000,000
Appraisal							11,000	11,000
Closing Costs							4,500	4,500
Environmental Assessment							2,750	2,750
Geologist's Remoteness Letter							1,800	1,800
Legal Services (COL)						7,000		7,000
Stewardship Endowment							20,000	20,000
In-Kind								
Baseline Documentation					3,800			3,800
TOTALS	700,000	133,000	16,700	150,300	3,800	7,000	40,050	1,050,850

PROJECT VALUE			
Total Uses of Funds			1,050,850
Donated Land Value			800,000
Project Value			1,850,850

230 N. Bluff Street
PO Box 544 Lake City, CO 81235
970-944-2333
www.townoflakecity.us
hennenathan@yahoo.com

TOWN OF LAKE CITY

January 25, 2013

Greg Johnson
Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 200
Denver, CO 80203

Dear Mr. Johnson,

The Town of Lake City strongly supports the application submitted to Colorado Water Conservation Board's Water Supply Reserve Account by Colorado Open Lands (COL) for a grant to fund the purchase of conservation and fishing access easements on the Plauche property at Lake San Cristobal to protect the conservation values of the property in perpetuity. The conservation easement combined with formal limited public access will ensure the enjoyment of the property by our residents and visitors alike and ensure protection of valuable wetland habitats on one of the most pristine accessible lakes in the State.

Lake San Cristobal and the larger Alpine Triangle region draw thousands of visitors annually to our town. We welcome efforts to protect the region's natural resources and scenic vistas, as this is what attracts our visitors and supports our local economy.

We hope you consider this application favorably. Please feel free to contact us if you require further information.

Sincerely,



Nathan Henne
Town Manager

LAKE CITY/HINSDALE COUNTY
CHAMBER OF COMMERCE



800 Gunnison Avenue
Lake City, Colorado 81235

970-944-2527
800-569-1874

chamber@lakecity.com
www.lakecity.com

The Mission of the LC/HC
Chamber of Commerce is to
promote tourism and economic
development by assisting area
businesses as well as serving as
an information center.

January 29, 2013

Greg Johnson
Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 200
Denver, CO 80203

Dear Mr. Johnson,

The Lake City/Hinsdale County Chamber of Commerce enthusiastically endorses the application submitted to the Colorado Water Conservation Board by Colorado Open Lands (COL) for a grant to fund the purchase of a conservation easement on the Plauche property at Lake San Cristobal. We understand that this conservation easement will help protect the entire southern end of the lake, thereby preserving the vistas from both the Alpine Loop and the Silver Thread Scenic Byway and protecting important wildlife habitat.

The natural landscapes of the Alpine Triangle are what support our County, by attracting thousands of visitors per year. The Lake City/Hinsdale County Chamber of Commerce sees this as an excellent opportunity to draw more nature-minded tourists to our region, those who enjoy natural landscapes and the valuable fisheries and wildlife habitat they support. Most visitors to our area value these attributes and conservation of the Plauche property merely enhances their visitor experience by ensuring that scenic landscapes and habitat are preserved in perpetuity.

The Chamber is an active member of the Silver Thread Byway Committee and has a strong vested interest to protect the Byway's inherent scenic values. The view from the Lake San Cristobal Overlook is one of the signature scenic sites along the Byway. The property in question is highly visible and we wish to see this landscape protected. We also understand that a limited public fishing easement is proposed to ensure access in perpetuity. Fisheries and wildlife habitat at the south end of the lake offer a high quality recreational experience for our visitors. This access allows fisherman and wildlife enthusiasts to access more of our lake shoreline.

It is our hope that you will strongly consider this proposal for full funding. The project supports our economy and protects a valuable landscape in our region.

With thanks,

Jud Hollingsworth, President
Lake City/Hinsdale County Chamber of Commerce



HINSDALE COUNTY SCHOOL DISTRICT RE-1

P. O. Box 39 - 614 N. Silver Street
Lake City, Colorado 81235

Phone (970) 944-2314
Fax (970) 944-2662

January 29, 2013

Greg Johnson
Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 200
Denver, CO 80203

Dear Mr. Johnson,

The Lake City Community School is excited to learn of the application submitted to the Colorado Water Conservation Board by Colorado Open Lands (COL) for a grant to fund the purchase of a conservation easement on the Plauche property at Lake San Cristobal. Lake San Cristobal is such a treasure for our community and offers our visitors and residents an exceptional recreational experience. Protection of this property helps keep our lake pristine, a rare opportunity given its accessibility.

The school currently partners with the Lake Fork Valley Conservancy (LFVC), a local conservation organization, to monitor water quality at the inlet and outlet of the lake. We are happy to learn that the family who owns the property is willing to let our students access the site and learn about wetland wildlife and habitat. We will work with Colorado Open Lands and the LFVC to develop appropriate curricula that builds our student's appreciation of this valuable asset for our community.

I strongly encourage CWCB to consider this proposal favorably. Please feel free to contact me if you have further questions.

Sincerely,

Karen Thormalen, Ph.D.
Superintendent
Hinsdale County School District RE-1

Colorado River Watch



PO BOX 211729
Denver CO 80221



Real people doing real science, for a real purpose.

January 30, 2013

Greg Johnson
Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 200
Denver, CO 80203

Dear Mr. Johnson,

The Lake City branch of Colorado River Watch would like to voice its enthusiastic support of the Lake San Cristobal Inlet Preservation and Fishing Access Project, which we understand is nearing completion. Our chapter of Colorado River Watch, a state-wide non-profit organization that trains and empowers citizen scientists to collect water quality data, has a long-standing partnership with the Lake Fork Valley Conservancy. They have communicated to us that, through collaboration with Colorado Open Lands, they have made strides to protect the beautiful inlet of Lake San Cristobal.

This area is important to us because our team has spent many hours at the Lake's inlet and spillway, taking water samples and collecting macroinvertebrates. It is a beautiful place. The lush delta at the inlet harbors many rare animals, including two Colorado Species of Special Concern. Moreover, it would be an ideal living laboratory where we could get our hands dirty investigating the vital, complex role of wetlands. The property owners support access for education (and fly fishing), so our excursions would be in line with their wishes. Finally, studying wetlands compliments our active study of riverine systems through sampling. This would lead to a richer picture of how water works in our watershed.

The River Watch team looks forward to growing its understanding of how wetlands function in our watershed, while serving as active stewards of this unique, fragile environment. We also look forward to spotting some moose in the process.

Sincerely,

Dan Scroggins
Lake City Community School Teacher

Forrest Swift
River Watch Student

Kate Nichols
River Watch Student

Brandon Nichols
River Watch Student



January 30, 2013

Greg Johnson
Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 200
Denver, CO 80203

Dear Mr. Johnson,

The Lake Fork Valley Conservancy (LFVC) is committed to supporting the application submitted to the Colorado Water Conservation Board's Water Supply Reserve Account by Colorado Open Lands (COL) for a grant to fund the purchase of a conservation easement and a limited public access easement on the Plauche property located near Lake San Cristobal in Hinsdale County.

The mission of the LFVC is to sustain and enhance the environmental and rural character of the Lake Fork of the Gunnison River valley through education, restoration, and stewardship. Conservation of the Plauche property has been one of our top priorities for years. LFVC has been engaged with the Plauche family since 1998 to conserve this critical piece of property. We are delighted to partner with Colorado Open Lands to see this come to fruition. Given the mission of our organization, we are also very supportive of the limited public access component of the proposed conservation easement as a means to reduce recreational use impacts on the conservation values of the property.

We commit to providing the following in-kind support to the project: 1) conduct the baseline documentation of the property (we estimate the value of this in-kind commitment to be \$3,800); 2) work with Colorado Parks and Wildlife, landowners and COL to design access points and signage; and, 3) organize all local educational events on the property, with landowner permission.

We thank CWCB for the opportunity to submit this application and hope for a favorable decision. This property is the last large parcel on the Upper Lake Fork River and its protection meets our strategic goals to conserve open space, protect wetlands and riparian habitats, and improve water quality.

Please do not hesitate to contact us if you require further information.

Very truly yours,

Lyn Lampert
President, Board of Directors LFVC



January 30, 2013

Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203

Ladies and Gentlemen of the Board,

I am writing in support of the Colorado Open Lands application for the Plauche Project located south of Lake City in Hinsdale County. This project is important to Trout Unlimited (TU) at the local and National levels. A grant from CWCB will leverage significant funding from other sources to ensure that the property is preserved in perpetuity, protecting its water resources for future generations and ensuring a quality fishing experience forever.

Locally, TU members and other anglers value the voluntary public access the Plauche family has provided to fish the Lake Fork of the Gunnison. The tract is near a public campground and the fishing is easily accessible for families and others from the county road. Insuring that public access to this tract is perpetual is a priority for TU. Additionally, protecting this headwaters area of the Lake Fork is important to the water quality throughout the watershed.

Nationally, the project lies adjacent to the proposed Alpine Triangle National Conservation Area, a campaign TU staff is actively spearheading. Additionally, the entire Gunnison Basin is a priority for TU with multiple projects underway to protect, reconnect, restore and sustain the world-class coldwater fisheries present in the watershed.

The valley floor and wetlands on the Plauche property provide important winter habitat for elk, summer habitat for migratory birds, year-round habitat for a stable moose population and habitat for many other wildlife species. Protecting the wetlands and riparian corridor will benefit the entire Lake Fork system and its associated coldwater fishery resources.

Trout Unlimited is actively raising funds for this project and engaging the angling community to support the project. The partnership between Colorado Open Lands, the Lake Fork Valley Conservancy and TU presents an opportunity to engage the public in the protection of land and water resources and heighten their

understanding of the interconnected relationship between these resources. This project presents an opportunity to build this partnership to ensure the success of the Plauche Project and establish the foundation for future projects to benefit the Lake Fork and the angling public.

Please feel free to contact me if I can answer any questions about this important project.

Sincerely,



Chris Herrman
Land Protection Coordinator
970-640-2359
cherrman@tu.org

Rio Grande Inter-Basin Roundtable
c/o San Luis Valley Water Conservancy District
623 Fourth Street
Alamosa, CO 81101
Telephone: (719) 589 – 2230
Email: slvwcdco1@qwestoffice.net

January 17, 2013

Mr. Michael King, Executive Director
Colorado Department of Natural Resources

Mr. Todd Doherty, Intrastate Water Management & Development
Colorado Water Conservation Board

**Reference: Quantifying Mogote / Romero Flows and
Effects on the Conejos System**

Gentlemen:

The Rio Grande Inter-Basin Roundtable (R.G.R.T) has determined that the single, most critical water issue confronting the Rio Grande Basin (Basin) is the current unsustainable management of surface and ground water. The R.G.R.T. has made the decision that water activities that address this issue be favorably considered for funding from the Water Supply Reserve Account, SB 2005 -179 (WSRA Funds), providing the proposed water activities meet the SWSI findings for the Basin and the CWCB & IBCC Criteria and Guidelines for funding.

This is a joint project of the Mogote-Northeastern Consolidated Ditch Company (Mogote NE) and the Romero Irrigation Company (Romero), together referred to as RMNE. The Mogote-Northeastern Consolidated Ditch Company is the Applicant, taking fiscal and administrative responsibility for this Project. This large and complex combined system represents two of the oldest ditch companies, holding many of the most senior water rights on the Conejos River.

Physically and administratively, the Mogote NE and the Romero overlap, with both ditch systems taking their water from the Conejos River and both having the same governing Board of Directors. The primary water right for the Mogote NE is for 4,120 acres and the Romero Irrigation System's water right is for 10,872 acres.

The Board consists of 5 members, with two elected from the Mogote NE and three elected from the Romero system. Annual meetings are held on the same day, 30 minutes apart. This allows the Mogote NE assessments to be set first, because Romero Irrigation Company must pay 60% of the assessments in the Mogote NE. Since the two systems overlap and operate so closely, they are served by one ditch rider, whose knowledge of the RMNE and of the Conejos Water Conservancy District goes back many years.

The Mogote-Northeastern Consolidated Ditch Company, with 2,080 irrigated acres, was incorporated on April 18, 1910, acquiring the 15-mile Mogote Ditch and the 9-mile Northeastern Ditch. With 44 shareholders, the Mogote Ditch (No. 98) has priority No. 115, dating from June 2, 1887, with 2040 irrigated acres. The Northeastern Ditch (No. 62) includes priorities 66, 119,

and 127. The appropriation for 66 dates from April 21, 1883 and the 119 and 127 appropriations occurred in 1890.

The Romero Irrigation Company, which irrigates 10,872 acres, was incorporated as a mutual ditch company in 1900. The 51 shareholders have 389.9 shares of outstanding stock, with assessments at \$75 per share.

RMNE represents 2778.119 shares, with Romero Irrigation Company holding 1166.059 of those shares, or 60%.

The Problem: When water is available in the Conejos River, 667 cfs, or about 25% of the Conejos River flow, is diverted into the Romero Ditch, Conejos County, Colorado. As these flows enter the RMNE system, they run through about 80 miles of earthen canals and ditches along the Mogote foothills. Because the Romero gate is one of the larger diversions off the river channel, handling multiple decreed water rights, the diurnal effect has significant impact on the actual water diverted throughout the day, requiring significant monitoring and adjustment in the attempt to meet decreed flows. Since the Romero gate at the diversion has such a large flow a 10% error in the flow can have a significant impact on irrigators and the Conejos River Compact flows. Although losses throughout this combined and complex ditch system are substantial, RMNE has had no way to quantify or to know the timing of the return flows or to equitably distribute and manage water for its water users.

These issues can be addressed in the following manner:

Improving Water Management Efficiency: Through the combined technologies of measuring weirs, automation, and telemetry, RMNE can now extend the success experienced in similar previously funded WSRA projects in south-central Colorado. With the pressures of drought, a critically diminished aquifer, and the Rio Grande Basin's priority to improve the efficiency of surface and ground water management, RMNE needs to find out where the irrigation water is flowing in its system. A major element of this Project is to replace the Romero diversion gate with a new 12 foot automated radial gate to provide consistent flows to meet the applicable decreed water rights. In addition, the installation of measuring weirs and telemetry on major laterals in the system will allow irrigation flows to be monitored allowing flows to be quantified, water losses and return flows to be determined.

Knowing the Location of Irrigation Water in the System: The RMNE system irrigates about 15,000 acres. A small discrepancy in water management in such a large area has the potential to hugely affect the flows associated with Conejos River Compact between Colorado, New Mexico and Texas. When there are 2,500 cfs in the Conejos River, about 650 cfs of that Compact-entitled water, or about 22% to 26%, is available to the RMNE ditch system. Year after year, water users on the Romero and Mogote have coped with significant, but as yet un-quantified, irrigation water losses. For example, the Romero Ditch, with priority #1 of native water, travels twelve miles from the Conejos to the last stockholder on the RMNE system. For example, the Ditch Rider can take out of the river 27 cfs for delivery to an irrigator at the bottom of the system, but when the water arrives at the irrigator's location, there are only about 6 cfs to deliver. The question is what happened to those 21 cfs? If the Ditch Rider knew where the "losses" occurred he could correct the situation.

RMNE needs to quantify these losses to determine if this loss is consistent and irrelevant of the amount of water in a ditch, or is it a percentage of the total amount which grows in relation to the volume of water in the system. With the amount of water that this company diverts, it's Ditch Rider must manage 20-30 different irrigation streams, this makes it virtually impossible to accurately quantify these numbers without this type of project. For native water

the ditch company is required to deliver the irrigator's full entitlement at the irrigator's headgate, with the ditch company paying for any decreases in water flow in the system. These "losses" significantly impact the timing of the irrigator's turn to take the water and volumes available. By quantifying these impacts RMNE can take corrective measures to more accurately manage the native water such as: Does any volume of this water significantly return to other laterals within RMNE, and if so can the Ditch Rider adequately take steps to adjust the respective flows?

On this system, irrigators can have a portion of their water rights stored in Platora Reservoir. If they call for this water then any losses incurred during the delivery process are deducted from the quantity of water called for. With an accurate measurement of losses the individual irrigator can order the correct amount of reservoir water and the native water is not in jeopardy of being the transportation means which further exacerbates the already growing turn-around time and diminished volumes of water. At the present time these losses have not been quantified and reasonable assumptions have been made. This Project will install the infrastructure of measuring weirs and telemetry, enabling RMNE to quantify losses within the system; show where the return flows are; and greatly increase the management efficiency of a system which diverts a lot of Conejos River Compact water.

Forecasting River Flows: Water users in this part of Colorado represent the last line of defense for the Colorado Department of Water Resources (DWR), which administers the Conejos River Compact. In a recent report to the Rio Grande Interbasin Roundtable, the Division Engineer stated that despite DWR's best efforts, there are often large volume discrepancies between the forecasts and actual river flows, particularly on the Conejos system. Costs of these errors to the District, the Basin, and to Colorado are high. For example, if flows in the river are under projected, then it is possible irrigators will be curtailed to have sufficient water to meet the Conejos River Compact; thus causing the irrigators to receive less than their legal quantity of irrigation water, with corresponding loss in crop yield. Improved water management in the RMNE irrigation system will help to quantify and better understand the flows on the Conejos River and its tributaries; ensure that sufficient quantities of water are available to meet agricultural needs; and help Colorado more accurately predict Conejos River flows and meet its Compact obligations.

The Project: A major element of this Project is to replace the Romero diversion gate with a new 12 foot automated radial gate to provide consistent flows to meet the applicable decreed water rights. In addition, sixteen measuring weirs will be installed on major irrigation laterals on the RMNE system. This new system, when combined with a recently installed similar gauging and telemetry system serving the Conejos Water Conservancy District, will allow RMNE to identify and quantify gains and losses in flows throughout this large combined system and to more effectively manage existing water supplies.

The Project meets the Threshold and Evaluation Criteria and addresses Tier 1, Tier 2 and Tier 3 of the WSRA Application.

Extended Benefits: Through this Project, RMNE will (1) equalize the distribution of irrigation water based on empirical real-time data; (2) maximize sustainable beneficial use of existing water supplies; (3) gain a better understanding of its role in the Conejos River system; (4) support DWR's efforts to minimize forecasting errors and the effect of those errors on water users; and (5) help streamline Colorado's compliance with its obligations under the Rio Grande Compact.

Project Costs: The costs of the major elements of this Project are as follows:

- Romero 12 foot Automated Radial Gate and associated telemetry system \$102,850
- Installation of 16 measuring weirs, with flows ranging from 10 cfs to 340 cfs, and associated telemetry systems \$210,000
- Engineering and Design – NRCS In-Kind \$ 27,500
- Hydrogeological Support – Third-Party \$ 40,000
- PROJECT TOTAL COST \$380,350

Sources of Funding:

- NRCS \$ 27,500
- Conejos Water Conservancy District \$ 60,350
- Mogote-Northeastern Consolidated Ditch Company and the Romero Irrigation Company \$ 7,500
- WSRA - Basin Account \$ 16,700
- Statewide Account \$268,300
- TOTAL FUNDING \$380,350

Recommendation: At the regular R.G.R.T meeting on January 8, 2013, RGRT Members voted unanimously to request funding from SB 2005 - 179 for a total of \$285,000.

The R.G.R.T urges the CWCB to approve this request for funding of \$285,000 from the WSRA Rio Grande Basin and Statewide Accounts for a the Quantifying Mogote / Romero Flows and Effects on the Conjeos System Project that has multiple benefits to local stakeholders, the region and statewide.

The R.G.R.T. appreciates the support of the Department of Natural Resources, the Colorado Water Conservation Board and the Interbasin Compact Commission in assisting in meeting the needs of all users of Colorado's water and in fostering intrabasin and interbasin communications and discussions. We believe that the above project will assist in this effort.

Sincerely,



Mike Gibson
Chair, Rio Grande Interbasin Roundtable

Attachment (1)

cc: The Mogote- Northeastern Consolidated Ditch Company



COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM



QUANTIFYING MOGOTE/ROMERO FLOWS & EFFECTS ON THE CONEJOS SYSTEM

Name of Water Activity/Project

The Mogote-Northeastern Consolidated Ditch Company
in collaboration with the Romero Irrigation Company

Name of Applicant

RIO GRANDE BASIN

Amount from Statewide Account:

\$268,300.00

Amount from Basin Account(s):

16,700.00

Total WSRA Funds Requested:

\$285,000.00

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

Application Content

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Required Exhibits

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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)

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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 (CWCBC). 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 CWCBC 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 CWCBC website at: <http://cwcbb.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://cwcbb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf>

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:

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

If you have questions or need additional assistance, please contact Greg Johnson at: 303-866-3441 x3249 or gregory.johnson@state.co.us.

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

1.	Project Sponsor	Mogote-Northeastern Consolidated Ditch Company and Romero Irrigation Company -- "RMNE"		
	Mailing address:	P.O. Box 491 Manassa, CO 81141		
	Taxpayer ID#:	84-043134		
	Primary Contact:	Grace Bagwell	Position/Title:	Secretary
	Email:	gmbagwell@yahoo.com		
	Phone Numbers:	Cell: 719-580-7894	Office:	719-843-0639
	Alternate Contact:	Sam Vance	Position/Title:	President
	Email:	vancesd55@yahoo.com		
	Phone Numbers:	Cell: 719-580-6722	Office:	

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.

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3. Provide a brief description of your organization

This is a joint project of the **Mogote-Northeastern Consolidated Ditch Company** (Mogote NE) and the **Romero Irrigation Company** (Romero), together referred to as RMNE. The Mogote-Northeastern Consolidated Ditch Company is the Applicant, taking fiscal and administrative responsibility for this Project, “**QUANTIFYING MOGOTE/ROMERO FLOWS & EFFECTS ON THE CONEJOS SYSTEM.**” This large and complex combined system represents two of the oldest ditch companies, holding many of the most senior water rights on the Conejos River.

Physically and administratively, the Mogote NE and the Romero overlap, with both ditch systems taking their water from the Conejos River and both having the same governing Board of Directors. The primary water right for the Mogote NE is for 4,120 acres and the Romero Irrigation System’s water right is for 10,872 acres.

The Board consists of 5 members, with two elected from the Mogote NE and three elected from the Romero system. Annual meetings are held on the same day, 30 minutes apart. This allows the Mogote NE assessments to be set first, because Romero Irrigation Company must pay 60% of the assessments in the Mogote NE. Since the two systems overlap and operate so closely, they are served by one ditch rider, whose knowledge of the RMNE and of the Conejos Water Conservancy District goes back many years.

The Mogote-Northeastern Consolidated Ditch Company, with 2,080 irrigated acres, was incorporated on April 18, 1910, acquiring the 15-mile Mogote Ditch and the 9-mile Northeastern Ditch. With 44 shareholders, the Mogote Ditch (No. 98) has priority No. 115, dating from June 2, 1887, with 2040 irrigated acres. The Northeastern Ditch (No. 62) includes priorities 66, 119, and 127. The appropriation for 66 dates from April 21, 1883 and the 119 and 127 appropriations occurred in 1890.

The Romero Irrigation Company, which irrigates 10,872 acres, was incorporated as a mutual ditch company in 1900. The 51 shareholders have 389.9 shares of outstanding stock, with assessments at \$75 per share.

RMNE represents 2778.119 shares, with Romero Irrigation Company holding 1166.059 of those shares, or 60%.

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

(the same)

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.

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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. **None.**

Part II. - Description of the Water Activity/Project

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

☐ Nonconsumptive (Environmental or Recreational)

☒ Agricultural

☐ Municipal/Industrial

☐ Needs Assessment

☐ Education

☐ Other

Explain:

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

This is primarily an agricultural Project, yet, when the river is high, RMNE diverts about 25% of the flows on the Conejos River. With 15,000 acres and about 80 miles of ditches and canals, RMNE will install measuring weirs and telemetry throughout its system. This will accurately quantify gains and losses within the irrigation system; greatly increase the beneficial use of the same water; and identify the extent and timing of return flows. By enabling a more equitable distribution of water within the RMNE system, this Project directly improves Colorado's ability to more correctly predict, anticipate, and meet its obligations to the Rio Grande Compact.

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

☐ Study

☒ Implementation

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4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

	New Storage Created (acre-feet)
	New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)
	Existing Storage Preserved or Enhanced (acre-feet)
	Length of Stream Restored or Protected (linear feet)
80 miles	Length of Pipe/Canal Built or Improved (linear feet)
	Efficiency Savings (acre-feet/year OR dollars/year – circle one)
	Area of Restored or Preserved Habitat (acres)
	Other -- Explain:

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

Latitude:

Longitude:

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.

(next page)

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The Problem: When water is high, 667 cfs, or about 25% of the Conejos River flow, is diverted into the Romero Ditch. As these flows enter the RMNE system, they run through about 80 miles of earthen canals and ditches along the Mogote foothills. Although losses throughout this combined and complex ditch system are substantial, RMNE has had no way to quantify or to know the timing of the return flows or to equitably distribute water for its water users.

Improving Water Management Efficiency: Through the combined technologies of measuring weirs, automation, and telemetry, RMNE can now extend the success experienced in similar previously funded WSRA projects in south-central Colorado. With the pressures of drought, a critically diminished aquifer, and the Rio Grande Basin's priority to improve the efficiency of surface and ground water management, RMNE needs to find out where its water is. This Project will install measuring weirs and telemetry in order to quantify flows and losses and to more accurately identify return flows.

Knowing the Location of Irrigation Water in the System: The RMNE system irrigates about 15,000 acres. A small discrepancy in water management in such a large area has the potential to hugely affect the flows associated with Conejos River Compact between Colorado, New Mexico and Texas. When there are 2,500 cfs in the Conejos River, about 650 cfs of that Compact-entitled water, or about 22% to 26%, is available to the RMNE ditch system. Year after year, water users on the Romero and Mogote have coped with significant, but as yet un-quantified, irrigation water losses. For example, the Romero Ditch, with priority #1 of native water, travels twelve miles from the Conejos to the last stockholder on the RMNE system. The ditch rider can take out of the river 27 cfs for delivery to an irrigator at the bottom of the system, but when the water arrives at the irrigator's location, there are only about 6 cfs to deliver. The question is what happened to those 21 cfs? If the ditch rider could know where the "losses" occurred he could correct the situation.

RMNE needs to quantify these losses to determine if this loss is consistent and irrelevant of the amount of water in a ditch, or a percentage of the total amount which grows in relation to the volume of water in the system. With the amount of water that this company diverts, its ditch rider must manage 20-30 different irrigation streams, this makes it virtually impossible to accurately quantify these numbers without this type of project. For native water the ditch company is required to deliver the irrigators full entitlement at the irrigator's headgate, with the ditch company paying for any decreases in water flow in the system. These "losses" significantly impact the timing of irrigator's turns and volumes available. By quantifying these impacts RMNE can take corrective measures to more accurately manage the native water such as ; Does any volume of this water significantly return to other laterals within RMNE, and if so can the ditch rider adequately take steps to adjust?

Forecasting River Flows: Water users in this part of Colorado represent the last line of defense for the Colorado Department of Water Resources (DWR), which administers the Rio Grande Compact. The Division Engineer has stated that despite DWR's best efforts, there are often large volume discrepancies between the forecasts and actual river flows, particularly on the Conejos system. Costs of these errors to the District, the Basin, and to Colorado are high. Improved water management in the RMNE irrigation system will help to quantify and better understand the flows on the Conejos and its tributaries; ensure that sufficient quantities of water are available to meet agricultural needs; and help Colorado more accurately predict Conejos flows and meet its Compact obligations.

The Project: Grant funds for this project will be used to install sixteen measuring weirs on the RMNE system (see aerial map/photo), combined with a recently installed gauging and telemetry system similar to the one currently serving the District. This will allow RMNE to identify and quantify gains and losses in flows throughout this large combined system and to more effectively manage existing water supplies.

Benefits: (1) Equalize the distribution of irrigation water based on empirical real-time data; (2) maximize sustainable beneficial use of existing water supplies; (3) provide data of RMNE's role in the Conejos River system; (4) help minimize forecasting errors and their effects; and (5) help streamline Colorado's compliance with its Compact obligations.

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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
 - **This project is consistent with Section 37-75-102 C.R.S. because it only provides tools – measuring weirs and a telemetry monitoring system – so that RMNE can more fairly distribute water to the stockholders. This Project, as explained above, helps to preserve the value of each stockholder’s shares by assessing and reducing the losses inherent in the current system. This water activity does not supersede, abrogate, or otherwise impair the State’s current system of allocating water within Colorado or in any manner repeal or amend the existing water rights adjudication system. It does not affect the State Constitution’s recognition of water rights as a private usufructuary property right, nor is it intended to restrict the ability of the holder of a water right to use or dispose of that water right in any manner permitted under Colorado law.**
 - 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.
 - **This information is included in the cover letter to CWCB from the Chairman of the Rio Grande Basin Roundtable.**

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.
- **A goal of highest priority for the Rio Grande Basin is to improve the management of surface and ground water and to return the levels of the aquifer to a “sustainable level.” This project meets the provisions of Section 37-75-104(2) because it enables the collection and communication of data, with the goal of maximizing beneficial use of existing water supplies. This project thus addresses and responds to Basin and State goals of meeting future water supply needs.**
- d) Matching Requirement: For requests from the Statewide Fund, the applicants is required to demonstrate a **20 percent** (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of **5 percent** of the total grant amount from Basin Funds. 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 application was submitted to the CWCB. 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).
- **The Conejos Water Conservancy District is paying \$36,000 to replace the 12 foot radial gate at the Romero Diversion, plus another \$24,350 for automation and telemetry at the new Romero gate, for a total of \$60,350 toward this Project from the District. Technical assistance for automaton and telemetry at the Romero diversion plus engineering services represent a \$27,500 contribution from NRCS. RMNE land owners are assisting with \$7,500 for automation and telemetry at the diversion, for total matching funds of \$95,350, or 33.4% of the requested WSRA funds.**

SHARED FUNDING	GRANT FUNDS	MATCHING	TOTAL COST
Water Users		7,500	7,500
CWCD		60,350	60,350
NRCS Engr.		27,500	27,500
BASIN Acct.	16,700		16,700
Statewide Acct	268,300		268,300
TOTAL	\$285,000	\$95,350	\$380,350

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.**

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. WSR 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 & 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).
- **Potentially Reducing Dependence on Pumping:** By establishing the infrastructure to improve surface-water delivery, this project has the potential to reduce dependence on the use of wells.
- **By installing measuring weirs and a web-based telemetry system, this Project allow RMNE to collect and analyze data in a way that was never possible before. This greatly assists the Rio Grande Basin as it strives to meet its water management efficiency goals.**
- **Although SB 222 does not specify what constitutes a “sustainable” aquifer level, it is up to the subdistricts to develop justifiable criteria as to what constitutes a sustainable level. Every subdistrict must prove to the State Engineer and to the water court that it has developed sufficient criteria to establish what constitutes a reasonable sustainability goal. This is no easy task. This Project enables RMNE to gather flow/loss data within its 80 miles of earthen canals and ditches. By sharing this data with the District and with DWR Division 3, this Project helps subdistricts and the Rio Grande Basin to more accurately define and meet the legislative requirements for sustainability.**
- 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.

In collaboration with water users, sixteen measuring weirs will be installed and equipped with telemetry. An automated gate will be installed at the Romero diversion, integrating the RMNE system, through telemetry, with the District’s Gauging Stations Project and with other automated gates at the Headsmill, North Branch, and Manassa diversions. These diversions are the most used gates, serving the most acres and the greatest number of water users on the Conejos, thus representing numerous entities and promoting cooperation and collaboration throughout the entire Conejos system.

- 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.

At the Romero gate, which is one of the bigger gates off of the river channel, the diurnal effect has significant impact as it is adjusted each day by the ditch rider to meet DWR regulations. Since there are multiple priorities that come to the Romero and to each of the other large gates off the Conejos, regulation of the different systems will not affect the decreed amount that goes through each gate. Collaboration with the District and with DWR's commissioners means that RMNE will be able to verify at a glance that the flows are correct. Collectively and cooperatively, all irrigators in this part of southern Colorado are beginning to work more closely together to save time, reduce transportation costs, and assist in the efficient management of return flows. The effect is to optimize beneficial water use and to support Colorado in meeting its obligations to the Rio Grande Compact.

This Project helps eliminate waste. Since water must be put to beneficial use, and since no appropriator, no matter how senior, can divert water in a wasteful manner, RMNE is obligated to use the latest technology to improve its efficiency. This past year some senior rights on the RMNE system, through no fault of their own, never received the water which was diverted for them. If the design and structure of a ditch, or an irrigator's physical location on that ditch, causes water to be diverted and the irrigator can't put that water to beneficial use, the ditch company must make every effort to remedy that situation. Over the years, by not having the means to quantify flows and despite its best efforts, RMNE has been aware that significant amounts of water were being diverted without ever being put to beneficial use. The technology is available now to cure that problem. This project installs the tools needed to quantify, assess, and greatly reduce this waste.

This Project can potentially reduce well pumping within the RMNE system. As RMNE gains the means to assess and quantify flows and losses within its system, it can adjust its water management efforts accordingly. The Romero and the Motoge ditch companies both recognize that whenever the Mogote runs, which currently is late in the season, the entire system is wetter. When the Mogote runs, the same water goes twice or three times further than when the Mogote is not running. By reducing inefficiencies in distribution, this project can reduce dependence on well pumping and lessen depletions to the river in the RMNE system.

An important inter-basin priority is to restore and preserve the Rio Grande Basin's underground aquifers. This Project allows RMNE to quantify and locate pathways where groundwater recharge is strongest, which recent studies indicate to be along the shelf of the Mogote foothills. The underground basaltic layer in this area declines from west to east, mirroring known surface realities. This explains why, when the Mogote is running, Sanford, far to the east, and all lands between, get wetter. This Project will enable RMNE to locate and quantify those flows, optimizing aquifer recharge by making adjustments in

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the quantity and timing of water releases. All the fields to the east will benefit, making limited water resources go twice, and perhaps three times, as far. Everyone wins.

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).

The Conejos Water Conservancy District is contributing \$60,350 to this project. This is possible due to the dovetailing of this Project with the District's current activities in the Conejos Gauging Stations Project. By integrating the cost of automating the Romero headgate, funding from this WSRA grant is met with an excellent matching amount. This project could not proceed without the funds requested in this proposal, so receiving these funds, especially when some of the costs can be shared, will make a significant difference in the implementation of this water activity.

- 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.

The above contribution from the District, plus technical assistance from NRCS, plus the portion of WSRA funds contributed by the Rio Grande Basin constitute a significant and appropriate commitment to this Project, far exceeding the grant guidelines' formula for matching funds.

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 project helps sustain agriculture by enabling RMNE to minimize inefficiencies in its system, improving water management for surface irrigators along 80 miles of earthen canals and ditches. In the neighboring Manassa system, which runs parallel to the Romero, data is now coming in from the recently installed measuring and telemetry system. The ditch rider can now quantify and compare losses from one weir to the next as he moves westward. The further west he goes, the losses from weir to weir increase, with each one having considerably more loss than the previous one. This Project allows RMNE to duplicate those advantages, helping to locate and quantify these flow patterns for optimum efficiency.

- 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.

Although the RMNE system does not directly participate in meeting Colorado's obligations to the Rio Grande Compact, this project provides the infrastructure and technology (weirs and telemetry) to greatly improve water management efficiencies for up to 25% of the flows on the

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Conejos. This directly and positively assists the District's and the Division's administration of compact-entitled waters and promotes maximum beneficial use of state waters.

With the aquifer system having lost 1.2 Million AF since records were first kept, there is no issue more critical to the Rio Grande Basin than restoring the aquifer to a sustainable level. As data is gathered and assessed, and as RMNE improves the efficiency of its operations, irrigators will tend to reduce their dependence on wells, thus potentially decreasing draws on the aquifer. As improved irrigation efficiencies are achieved, RMNE irrigators may lessen their dependence on pumping, thus contributing to the Basin's efforts to restore the aquifer to a sustainable level.

- h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern. (RMNE does not have sufficient information to address this question.)**
- i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.**

This grant request for \$285,000 is a small price to pay for such a huge benefit to irrigators, to emerging subdistricts, and to the multiple stakeholders in the Rio Grande Basin. This Project will ultimately have a significant long term positive effect, greatly improving Colorado's ability to predict and manage the flows of Compact-entitled waters of the Conejos system.

- j. The water activity is complimentary to or assists in the implementation of other CWCB programs.**

Since 2007, CWCB has funded numerous projects in the Conejos watershed, with the most recent being the District's Gauging Stations Project. By granting this funding request, CWCB expands the accomplishments of those projects, helping the Rio Grande Basin to achieve major breakthroughs in water management efficiency, collaboration, and connectivity in this region of the San Luis Valley.

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.**

The RMNE combined system diverts from the Conejos River. The Conejos rises at the Continental Divide in the San Juan Mountains and flows through Platoro Reservoir, continuing through Conejos County until it reaches the Rio Grande, 2 miles north of the settlement of Los Sauces. The Conejos River has an annual average flow of 200,000 acre feet. Nearly 40% of Colorado's Rio Grande Compact obligation is met by the Conejos River, a tributary to the upper Rio Grande. The Rio Grande Compact requires an average of 45% of the Conejos' upper index, including transportation losses in getting the flow to Los Sauces and to the Conejos' lower gauge.

There are 42 ditch companies on the main and north channels of the Conejos, with the RMNE system comprised by the Mogote Northeastern Consolidated Ditch Company and the Romero Ditch Company. Total system length is approximately 80 miles of canals and laterals.

The Mogote Ditch (frequently misspelled as “Magote”) is the biggest ditch in the Conejos River system, with priority #115 for 342 cfs. The North Eastern is priority #66 for 34cfs. It has an enlargement with priority #119 for 100 cfs.. The Servietta is priority #5 with 23 cfs.. The Mogote Ditch only gets to keep 13 of the 23 feet, dividing 7 cfs which goes to the east. The remainder is divided into two other stockholders before the Romero comes in.

The Romero Ditch has some of the most senior water rights on the Conejos system, with all or a portion of the following priorities: #1, #5, #23, #34, #66, #115, #119, #136, and #168, for a total of 667 cfs. Organizationally, Romero has a five member board composed entirely of stockholders. All assessments are used for the salary of one full time employee and one part-time employee, with the remainder used for system maintenance.

Water supply sources involved in or affected by this water activity include the storage facility of Platoro Reservoir and the Conejos River tributary to the Rio Grande. Water bodies affected by the water activity include surface water rights in priority on the RMNE system, recharge to the aquifers, return flows, and water-use efficiency issues for irrigators on the Motote and Romero ditches.

This project does not directly impact downstream Rio Grande Compact water users. However, benefits of this project will extend to the Conejos Water Conservancy District and its management of Compact water flows. This project enables RMNE to improve water management efficiencies, establishing the infrastructure to identify and quantify flows and losses within the system, providing valuable data to the District, to DWR, and to support the establishment of Subdistrict #3.

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

There are no permitting issues of any significance, and no related studies pertain to this Project. This Project is strongly influenced, however, by the tremendous progress achieved by the use of measuring weirs and telemetry by the District.

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

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.

Water Supply Reserve Account – Application Form

Revised December 2011

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 5 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.

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

Signature of Applicant:

Print Applicant's Name:

Project Title:

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

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

EXHIBIT A

Scope of Work

Budget

Timeline

Statement of Work

WATER ACTIVITY NAME –

QUANTIFYING MOGOTE/ROMERO FLOWS & EFFECTS ON THE CONEJOS SYSTEM

GRANT RECIPIENT –

The Mogote-Northeastern Consolidated Ditch Company and Romero Irrigation Company (RMNE)

FUNDING SOURCE – Basin Funds \$16,700 - Statewide funds \$268,300 - Matching funds \$95,350

INTRODUCTION AND BACKGROUND

This proposal seeks funding to install sixteen measuring weirs, which, combined with automation and telemetry, will enable RMNE to quantify and better understand the gains, losses, and return flows on the complex irrigation systems of the Romero Irrigation Company and the Mogote-Northeastern Consolidated Ditch Company (RMNE). In high water, this system diverts about 25% of the flows of the Conejos River. This Project will enable RMNE to accurately track, manage, and document its delivery of water on any portion of its 80-mile system of ditches and canals, in approximately 15,000 irrigated acres. Collection, assessment, and communication of this data will help to significantly reduce the losses inherent in the current system; improve the timing and control of return flows; reduce dependence on well pumping; and help streamline Colorado's compliance with the Rio Grande Compact. Flow data from the remote gauges will be transmitted every minute to two Gateway pods, where average stage height and measured flow will be computed every 15 minutes and transmitted to RMNE's host site. By developing and sharing this data, RMNE will be supporting the District's water management functions, improving the sustainability of available water supplies, reducing dependence on well pumping, and providing DWR with data on this system at a level of accuracy previously not available. This Project installs the infrastructure to accomplish all of these objectives.

TASKS 1 through 4 -- FOR ALL 16 GAUGING STATIONS:

Description of Task – Install 16 gauging stations in 4 groups of four, per the attached Schedule.

Method – Contractor will install pre-assembled stilling wells according to Dynotek/AMCI's mapping for the nodes, following specifications and adjusting for water levels at each site. Dynotek/AMCI ("D/A") will install remote node water stage measurement systems at each gauging station site. D/A will install standalone float measurement box and relaying data radio transceiver with antenna at each site, mount the hardware for the float box and radio, and calibrate to acceptable accuracy at each site.

Deliverable – Individual nodes will come online as they are completed, with entire networked system being solar powered.

Water Supply Reserve Account – Application Form

Revised December 2011

The measuring weirs, stilling wells, and gauging stations will be installed as follows:

Task 1	Parshall Measuring Structure 1	90	7.0'	2.5'
	Parshall Measuring Structure 2	90	7.0'	2.5'
	Parshall Measuring Structure 3	340	15.0'	4.0'
	Parshall Measuring Structure 4	140	10.0'	4.0'
Task 2	Parshall Measuring Structure 5	180	12.0'	3.0'
	Parshall Measuring Structure 6	160	10.0'	4.0'
	Parshall Measuring Structure 7	160	12.0'	3.5'
	Parshall Measuring Structure 8	100	7.0'	3.0'
Task 3	Parshall Measuring Structure 9	75	6.0'	2.5'
	Parshall Measuring Structure 10	30	5.0'	2.0'
	Parshall Measuring Structure 11	100	7.0'	3.0'
	Parshall Measuring Structure 12	35	6.0'	2.5'
Task 4	Parshall Measuring Structure 13	20	4.0'	3.0'
	Parshall Measuring Structure 14	20	4.0'	2.5'
	Parshall Measuring Structure 15	10	2.5'	2.5'
	Parshall Measuring Structure 16	30	4.0'	2.5'

TASK 5 – ROMERO 12' RADIAL GATE

TASK 5	ROMERO 12' RADIAL GATE
	Remove old structure
	Place forms & Rebar
	Concrete & Labor
	New Gate and Mechanism
	Automation & Telemetry
	ENGINEERING NRCS
	HYDROGEOLOGY CONSULTANT

Description of Task: Replace old headgate, install operators, and prepare for automation and telemetry.

Method: Conejos Water Conservancy District, working with RMNE, will contribute matching funds of \$36,000 to remove the old structure, place the forms and rebar, and complete the concrete headgate structure. This task must be done as soon as possible.

With grant funds of \$35,000, the new gate and operators will be installed. New hoist assembly, lift cables and Rotork IQ lift assembly will be connected to the standalone cell-based communication and control unit.

Water Supply Reserve Account – Application Form

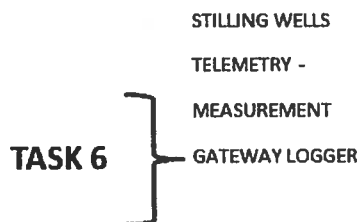
Revised December 2011

Following NRCS engineering and guidelines, and with \$24,350 additional matching funds from the District and \$27,500 from RMNE, AMCI/Dynotek (D/A) will install radio/cell phone telemetry, with electric actuators and solar power.

A hydrogeology consultant will be hired, with WSRA grant funds of \$40,000, to advise and to coordinate all elements of this Project.

Deliverable: Romero headgate will be automated and ready to connect via the gateway logger for telemetry. RMNE's Romero Gate will be able to control flows as needed for optimum water management efficiency and in accordance with seasonal and river conditions.

TASK 6 – GATEWAY LOGGERS



Description of Task: Install two gateway loggers.

Method: – D/A will coordinate this task with Tasks 1 through 4, connecting each gauging station to its respective standalone float measurement box, PLC, Gateway radio, and cellular terminal, using mounting hardware for the float box and radio.

Deliverable – The two Romero gateway loggers will compute and transmit data from each of the 16 gauging stations to the RMNE host site. RMNE will work with the District to ensure security and system-wide coordination.

TASK 7 – TOTAL SYSTEM BETA TEST

Description of Task: Test entire system for operation and accuracy.

Method: D/A will test all components and systems as they come online, ensuring operational parameters are met to the satisfaction of RMNE, NRCS, the District, and DWR. Measurement and control functions of all components will be assessed, calibrating for optimum performance.

Deliverable: Completion of this Project. RMNE will now be able to accurately track and deliver ordered reservoir water and native water to irrigators on any reach of the 80-mile system of ditches and canals. Return flows to the Conejos, if present, will be identified. This will reduce uncertainty and thus tend to discourage unnecessary well pumping. RMNE will prove to be a key player in supporting Colorado's efficient management of Compact-entitled waters.

TASK 8 -- Reporting and Final Deliverable

Description of Task: RMNE shall provide CWCB a progress report no less frequently than every 6 months, beginning from the date of the executed contract.

Method: The progress reports 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.

Deliverable: At completion of the project, RMNE 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.

BUDGET

Provide a detailed budget by task including number of hours and rates for labor and unit costs for other direct costs (i.e. mileage, \$/unit of material for construction, etc.). A detailed and perfectly balanced budget that shows all costs is required for the State's contracting and purchase order processes. Sample budget tables are provided below. Please note that these budget tables are examples and will need to be adapted to fit each individual application. Tasks should correspond to the tasks described above.

(next page)

ROMERO / MOGOTE NORTHEASTERN GAUGING STATIONS BUDGET

[illegible]

ROMERO / MOGOTE NORTHEASTERN GAUGING STATIONS SCHEDULE

SCHEDULE – Tasks will be timed for optimal seasonal and river conditions.

The cost of automating each gate is different. Since the timing for each gate will depend on many variables, final scheduling will be determined accordingly. This schedule for installing operators anticipates the fact that other similar projects are taking place within the Conejos system, such as on the Headsmill, Northbranch, and Manassa systems, and this Project may need to adjust its schedule accordingly. This Schedule, however, is a close approximation of the order in which these Tasks will be done, allowing a generous amount of extra time, in case that might be required.

QUANTIFYING ROMERO/MOGOTE FLOWS									
MONTHS		Pre-Contract/Matching	NTP	1-2	3-4	5-6	7-8	9-10	11-12
Task #1	Gauging Stations Nos. 1-4								
Task #2	Gauging Stations Nos. 5-8								
Task #3	Gauging Stations Nos. 9-12								
Task #4	Gauging Stations Nos. 13-16								
Task #5	Romero Radial Gate								
Task #6	Gateway Logger								
Task #7	Total System Beta Test								
Task #8	Reporting & Final Deliverable								

EXHIBIT B

Project Maps

Revised December 2011

CONSERVATION PLAN MAP

Date: 8/14/2012

Customer(s): ROMERO IRRIGATION CO

Approximate Acres: 0

District: CONEJOS COUNTY CONSERVATION DISTRICT



Field Office: ALAMOSA SERVICE CENTER

Agency: USDA-NRCS

Assisted By: PETE GALLEGOS, DV

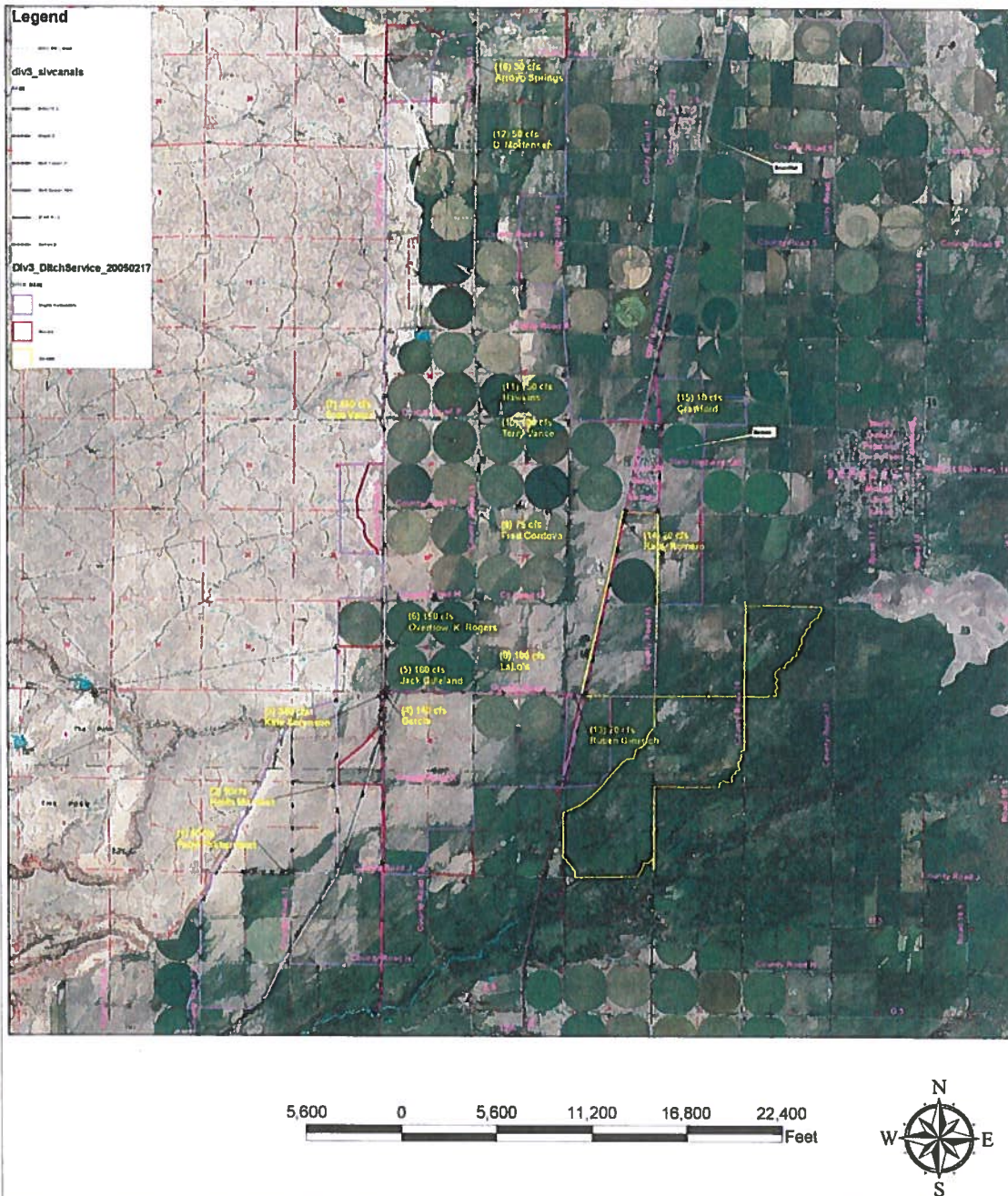


EXHIBIT C

Telecommunications Data & Documentation

Letters of Support

**Conejos Water Conservancy District
P. O. Box 550
Manassa, CO 81141**

Phone 719-843-5261 fax 5452

Mike Gibson, Chairman
Rio Grande Basin Roundtable
623 Fourth Street
Alamosa, CO 81133

Dear Mike,

The Conejos Water Conservancy District would like to support the RMNE gauging stations project. In this time of diminishing water supplies and increasing demands it is imperative that we know to the best of our ability what we really do have. This project will accomplish two distinct goals; The RMNE will be able to internally manage their water and have no ill effects on Colorado's ability to pay the compact, and it will be an integral component to the CWCD's gauging and measuring project that is already underway.

We ask that the Rio Grande Basin Roundtable give this project its support and recommendation to the CWCB.

Thank you for all that the RGBRT does on behalf of the valley's water users.

Sincerely,

Nathan Coombs

Nathan Coombs-Manager CWCD

Water Supply Reserve Account – Application Form

Revised December 2011

Dec 24 12:12:14p

Gilleland Farms

719-843-9701

p.1

Manassa Land & Irrigation Company
PO Box 310
Manassa, CO 81141
719-843-5440

December 21, 2012

Mr. Mike Gibson
Rio Grande Interbasin Roundtable
415 San Juan Avenue
Alamosa, CO 81101

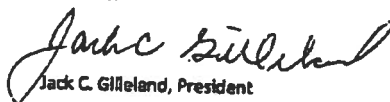
Dear Mr. Gibson:

This letter is in support of the Romero Mogote Northeastern Ditch Companies in their request for funds from the CWCB Water Supply Reserve Account for the measuring weirs. The Directors of the Manassa Land & Irrigation Company believe that the weirs will have a positive effect on the water administration practices on the Conejos River. With the support of CWCB, we were able to install measuring weirs within the Manassa Land & Irrigation boundaries. With other ditch companies, on the Conejos, having the same technology, we will have functional system.

With the ability to quantify flows at various locations, we believe that the water users will be able to maximize their diversions and minimize losses. This technology will enable RMNE to administer our water accurately and effortlessly. In addition, administrators of the Conejos River will quickly be able to locate losses, and as a result keep the priority system and the Rio Grande Compact fulfilled.

We strongly support this project and request that you give the RMNE proposal your positive recommendation for funding.

Sincerely,


Jack C. Gilleland, President

Rio Grande Inter-Basin Roundtable
c/o San Luis Valley Water Conservancy District
623 Fourth Street
Alamosa, CO 81101
Telephone: (719) 589 – 2230
Email: slvwcdco1@qwestoffice.net

January 17, 2013

Mr. Michael King, Executive Director
Colorado Department of Natural Resources

Mr. Todd Doherty, Intrastate Water Management & Development
Colorado Water Conservation Board

Reference: La Acequia del Cerro – Rehabilitation and Ditch Lining

Gentlemen:

The Rio Grande Inter-Basin Roundtable (R.G.R.T) has determined that the single, most critical water issue confronting the Rio Grande Basin (Basin) is the current unsustainable management of surface and ground water. The R.G.R.T. has made the decision that water activities that address this issue be favorably considered for funding from the Water Supply Reserve Account, SB 2005 -179 (WSRA Funds), providing the proposed water activities meet the SWSI findings for the Basin and the CWCB & IBCC Criteria and Guidelines for funding.

La Acequia del Cerro or The Cerro Ditch Company:

The Applicant for WSRA Funding is the La Acequia del Cerro, or The Cerro Ditch Company. The Cerro Ditch was established November 30, 1857 and holds 44 adjudicated water rights granted by a court decree in Colorado, dating June 14, 1889. The Acequia del Cerro serves 82 landowners and irrigates approximately 1,880 acres that are considered primary acres of hay, grass, other row crops and vegetable gardens. The majority of landholders are descendants of the original founders of the "acequia" system dating back to the mid-1800's. The Acequia del Cerro was first incorporated in 1968 and the company's 82 landowners' assessments are currently \$4.25 per acre. Assessments are used to pay the salary of one fulltime ditch-rider with the remainder used for maintenance and operation. La Acequia del Cerro Board seats are held by the landowners. La Acequia del Cerro Board of Directors will be taking fiscal responsibility and administrative lead of this project.

The Acequia del Cerro is approximately 5 miles of earthen ditch and 5 miles of concreted ditch, going from Chama, Colorado to La Vega Commons in San Luis, Colorado. It is the longest and most complex irrigation system in southern Costilla County, Colorado. The Acequia del Cerro has two main channels, the Northern Cerro and the Southern Cerro. The Northern Cerro starts at the main head gate off the Culebra Creek and runs approximately 1,900 linear feet where it separates into the second channel that runs southwest. It has approximately 60 lateral ditches with diversion gates. It is entitled to priority No. 7 in Colorado, operating under Water District 24 of Division 3.

The Acequia del Cerro plans to rehabilitate approximately 10,000 linear feet of the Northern Cerro ditch by removing extensive overgrowth of willows/trees and repair the bank, widen and replace 1,900 linear feet of concrete lining and 7,350 linear feet with high-density plastic

pipe. The Acequia or Ditch takes water from the Culebra Creek into the concrete canal. The existing concrete lining of the ditch was constructed in the mid 1960's. The Culebra Creek diversion is in good condition and is not planned for replacement. The rehabilitation will begin at the measuring flume approximately 20 feet from the main head gate and replace 1,900 linear feet of concrete lining. In some areas the landowners have completely removed the concrete lining to bring better water flow. In addition, excess water from cloud bursts and run off in areas between the Ditch and the arroyos from the mesa, flows into the Ditch. This brings large rocks, sand and debris into the Ditch which clogs diversion structures slows down water flow and has destabilized the concrete lining, causing buckling in the bottom of the channel. The Ditch has historically acted as an area catchment and drain, with the corresponding high sediment loads.

Issues with Existing Irrigation System:

The existing ditch system requires high maintenance, which by its nature is costly, time consuming and repetitive because of clearing of the sediment and debris carried by precipitation events down the arroyos from the mesas. This cleaning process is compounded by the poor condition of the concrete lined ditch, which continues to deteriorate due to its age and the cleaning activities. Because the concrete lining of the ditch is in bad condition there is substantial leakage from the ditch to lands that are not legally entitled to this irrigation water. In addition, there are areas where the stream banks have deteriorated due to age and the influx of vegetation such that water overtops the banks, flooding lands not entitled to the irrigation water. The effect of these conditions is that some members of the Ditch are not getting their full entitlement of irrigation water and for landowners at the ends of the ditch maybe not getting any irrigation water. The latter condition has resulted in a past law suit and a current possibility of additional legal action being taken.

The lack of irrigation water, as a result of drought conditions, has been compounded by the inequitable distribution of available irrigation water causing families to see reduce production of hay and crops and even in some cases temporarily abandoning their efforts to farm the land. These reduced crop yields have resulted in reduced income for these small farmers. Historically landowners that were making 1,000 one ton bales of hay per cutting only made 300 tons in 2012. This reduction in production is very significant to the small farmer, as with hay selling for \$200.00 per ton this is a reduction in income of some \$1,400.00. The farmers have moved to organic farming methods and they use the local El Culebra Agricultural Coop to market their produce in an attempt to maximize their income. The ability of farmers in the area to marginally increase their income is significant when considered that this will occur in an area designated as one of Colorado's lowest incomes per capita.

Rehabilitation and Ditch Lining Project:

The Acequia del Cerro plans to resolve the above noted issues by digging a new structure or channel alongside the existing ditch and placing 7,350 linear feet of high-density pipe into the new structure. The old concrete lined ditch will be cleaned and maintained and will be used to catch the sediment loads from the runoff from the adjacent mesas, this will be done without affecting the water flow, ecosystem or riparian habitat. The use of the old ditch for this purpose will solve the long term issue of the sediment and debris interfering with the water conveyance and irrigation operation, and while it will have to be cleaned periodically it will not be as time critical to do so. The proposed activities will not affect the southern ditch which is the original heritage ditch of the Cerro system.

In 2012 a study was done by the Natural Resource Conservation Service (NRCS), San Luis,

Colorado. The study identified the following to mitigate the extreme deterioration of concrete lining and overflow of water over ditch banks and flooding in non-agricultural areas resulting in loss of irrigation water:

- Remove excessive willow, and tree growth along ditch banks.
- Replacement of failed lateral water control structures.
- Replacement 1,900 feet of failed concrete ditch lining with new concrete
- Replace 7,300 feet of failed concrete lining with high density pipe.

It should be noted that there are no permitting issues associated with in this project.

The Project meets the Threshold and Evaluation Criteria and addresses Tier 1, Tier 2 and Tier 3 of the WSRA Application.

The Tasks associated with the Project and their costs are as follows:

Task 1: Mobilization/Demobilize - \$ 5,000: Remove all excess willows and debris along the ditch banks to allow easement access to the contractor for trucks, equipment and all things necessary to begin construction of the new ditch structure(s).

Task 2: Remove Existing Concrete Lining - \$13,105: Remove all remaining old concrete and drag the ditch beginning at the measuring flume and ending at the north and south head gates, approximately 1,900 feet.

Task 2a: Form Ditch - \$5,000: Prepare ditch for concrete lining measurements of 4' bottom 2.5' depth, 1.25:1 side slopes.

Task 2b: Pour Concrete Lining - \$185,000: Concrete line approximately 1,900 feet of ditch using 4' bottom, 2.5' depth, 1.25:1 side slopes with 3" thickness. Estimated amount of concrete, 248 cu.yds.

Task 3: Inlet and Diversion Structures - \$30,000: Build the inlet and Diversion structure for the HPDE pipeline.

Task 3a: High Density Pipeline Installation - \$500,000: Trench and lay a 32" HDPE pipeline to accommodate 22.5cfs of water.\

Engineering / Design / Technical Assistance – NRCS (In-Kind) - \$45,000.

Project Administration – La Acequia del Cerro (In-Kind) - \$20,000.

The Total Project cost, including In-Kind contributions is \$733,105.

Project Funding:

The breakdown of the proposed funding and its sources are as follows:

Costilla County Conservancy Dist. (Cash Match)	\$ 60,000
NRCS (In-kind & EQUIP Payments)	\$195,000
Acequia del Cerro (In-Kind)	\$ 23,105
Costilla County (In-Kind)	\$ 5,000
Total In-Kind & Cash Match	\$283,105
 Total Project Cost	 \$733,105
Less – In-Kind and Cash Match	\$283,105
WSRA Requested	\$450, 000

\$ 25,000 from the Rio Grande Basin Account and
\$425,000 from the Statewide Account

Benefits:

The proposed water activity is somewhat unique in its relationship to statewide benefits. As the distribution of the irrigation water is to small fields or varas that are owned and farmed by individual families. The ability of the farmers to use their decreed amount of irrigation water on their the land will allow hay and crop production to increase at a time of reduced agricultural production in the San Luis Valley and Colorado, In 2012, and into the foreseeable future, the San Luis Valley saw some 40,000 acres taken out of production through the activities of Groundwater Management Subdistrict # 1.

The proposed rehabilitation of the Acequia del Cerro will help in sustaining agriculture along the Acequia del Cerro, and consequently in Colorado at a time when there are significant pressures to reduce agricultural production. The landowners feel that crop production will increase even in years of drought after the completion of this rehabilitation and ditch lining project. The farmers will continue to maximize their income through marketing their produce at the local El Culebra Agricultural Coop which in turn is making this produce available in southern Colorado and northern New Mexico. The concept of the small farming methods and marketing through a Coop may serve as a model for other parts of the state where irrigation water is either insufficient due to the drought conditions or to low efficiency water use

The area associated with the Project will essentially remain as it is now, providing wildlife habitat and a scenic landscape for visitors to this historic area of Colorado that demonstrates how the early Hispanic settlers of the area farmed and irrigated their lands.

The ability of farmers in the area to marginally increase their income is significant when considered that this will occur in an area designated as one of Colorado's lowest incomes per capita.

Recommendation:

At the regular R.G.R.T meeting on January 8, 2013, RGRT Members voted unanimously to request funding from SB 2005 - 179 for a total of \$450,000.

The R.G.R.T urges the CWCB to approve this request for funding of \$450,000 from the WRSA Rio Grande Basin and Statewide Accounts for a the La Acequia del Cerro Rehabilitation and Ditch Lining Project that has with multiple benefits to local stakeholders, the region and statewide The R.G.R.T. appreciates the support of the Department of Natural Resources, the Colorado Water Conservation Board and the Interbasin Compact Commission in assisting in meeting the needs of all users of Colorado's water and in fostering intrabasin and interbasin communications and discussions. We believe that the above project will assist in this effort.

Sincerely,

Mike Gibson
Chair, Rio Grande Interbasin Roundtable

Attachment (1)
cc: La Acequia del Cerro



COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM



Rehabilitation and Ditch Lining

Name of Water Activity/Project

La Acequia del Cerro (The Cerro Ditch Company)

Name of Applicant

Rio Grande Basin

Amount from Statewide Account:

\$425,000

Amount from Basin Account(s):

\$25,000

Total WSRA Funds Requested:

\$450,000

Approving Basin Roundtable(s)
(If multiple basins specify amounts in parentheses.)

Application Content

Application Instructions	page 2
Part I – Description of the Applicant	page 3
Part II – Description of the Water Activity	page 5
Part III – Threshold and Evaluation Criteria	page 7
Part IV – Required Supporting Material	
Water Rights, Availability, and Sustainability	page 13
Related Studies	page 15
Signature Page	page 16

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 December 2011

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>

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:

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

If you have questions or need additional assistance, please contact Greg Johnson at: 303-866-3441 x3249 or gregory.johnson@state.co.us.

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

1.	Applicant Name(s):	La Acequia del Cerro		
	Mailing address:	P. O. 67 Chama, Colorado 81126		
	Taxpayer ID#:	84-1441160		
	Primary Contact:	Joseph Lobato	Position/Title:	President
	Email:	Joseph-lobato@yahoo.com		
	Phone Numbers:	Cell: 719-588-9443	Office:	
	Alternate Contact:	Diana R. Cortez	Position/Title:	Consultant
	Email:	dcortez36@gmail.com		
	Phone Numbers:	Cell: 719-588-2916	Office:	

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.

3. Provide a brief description of your organization.

The Acequia del Cerro is approximately 5 miles of earthen ditch and 5 miles of concreted ditch, going from Chama, Colorado to La Vega Commons in San Luis, Colorado.(see Exhibit C-1) It is the longest and most complex irrigation system in southern Costilla County. The Acequia del Cerro has two main channels, the northern Cerro and the southern Cerro. The northern Cerro starts at the main head gate off the Culebra Creek and runs approximately 1,900 linear ft where it separates into the second channel that runs southwest. It has approximately 60 lateral ditches with diversion gates. It is entitled to priority No. 7 in Colorado, operating under Water District 24 of Division 3. The Cerro Ditch was established November 30, 1857 and holds 44 adjudicated water rights granted by a court decree in Colorado, dating June 14, 1889. The Acequia del Cerro serves 82 landowners and irrigates approximately 1,880 acres that are considered primary acres of hay, grass, other row crops and vegetable gardens. The majority of landholders are descendants of the original founders of the "acequia" system dating back to the mid-1800. The Acequia del Cerro was first incorporated in 1968 and the company's 82 landowners' assessments are currently \$4.25 per acre. Assessments are used to pay the salary of one fulltime ditch-rider with the remainder used for maintenance and operation. La Acequia del Cerro Board seats are held by the landowners. La Acequia del Cerro Board of Directors will be taking fiscal responsibility and administrative lead of this project.

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

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.

4. 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. **Tabor does not apply**

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Part II. - Description of the Water Activity/Project

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

☐ Nonconsumptive (Environmental or Recreational)

☒ Agricultural

☐ Municipal/Industrial

☐ Needs Assessment

☐ Education

☐ Other Explain:

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

By replacing the old deteriorated lining of the ditch, it will help meet the consumptive irrigation needs of all landowners. This will also avoid any further threats of legal actions that the Acequia del Cerro has faced in the past. The rehabilitation along the ditch will also remedy and improve water quality and water flow by reducing sediment and erosion of the banks that has historically been a major problem for the landowners along the Acequia del Cerro. Furthermore, the historical loss of water overflowing the banks of the ditch into none productive lands will be mitigated.

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

☐ Study

☒ Implementation

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

New Storage Created (acre-feet)

New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)

Existing Storage Preserved or Enhanced (acre-feet)

Length of Stream Restored or Protected (linear feet)

Length of Pipe/Canal Built or Improved (linear feet)

Efficiency Savings (acre-feet/year OR dollars/year – circle one)

Area of Restored or Preserved Habitat (acres)

Other -- Explain:

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

Latitude:

37,196

Longitude:

105,403

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 Acequia del Cerro plans to rehabilitate approximately 10,000 linear feet of the northern Cerro ditch by removing extensive overgrowth of willows/trees and repair the bank, widen and replace 1,900 linear feet of cement lining and 7,350 linear feet with high-density plastic pipe. In the following description of the Acequia del Cerro, references will be made to the items planned for rehabilitation.

The Ditch takes water from the Culebra Creek into the cement canal. The existing cement lining of the ditch was constructed in the mid 1960's. The Culebra Creek diversion is in good condition and is not planned for replacement. The rehabilitation will begin at the measuring flume approximately 20 ft from the main head gate and replace 1,900 linear feet of cement lining. In some areas the landowners have completely removed the cement lining to bring better water flow. In addition, excess water from cloud bursts and run off in areas between the Ditch and the arroyos from the mesa, flows into the Ditch. This brings large rocks, sand and debris into the Ditch which clogs diversion structures slows down water flow and has destabilized the cement lining, causing buckling in the bottom of the channel. The Ditch has historically acted as an area catchment and drain, with the corresponding high sediment loads. The Acequia del Cerro plans to resolve this problem by digging a new structure or channel alongside the existing ditch and placing 7,350 linear feet of high-density pipe into the new structure. The old cement ditch will be cleaned and maintained and will be used to catch the sediment loads from the runoff, this will be done without affecting the water flow, ecosystem or riparian habitat. This will also not affect the southern ditch which is the original heritage ditch of the Cerro system. (See Exhibit B & C-2)

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.)

- The Acequia del Cerro (Cerro Ditch Co.) proposes an eligible water activity as identified in Senate Bill 06-179 involving stabilization and structural replacement of La Acequia del Cerro
- The Acequia del Cerro is an eligible entity that is a mutual nonprofit ditch company classified under the U.S. tax code, section 501(c)(12)
- The Acequia del Cerro is requesting funds from the SB 179 Rio Grande Basin Account and is complying with all application, submission, review, and approval deadlines and procedures.

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

- The proposal is eligible for funding under Senate Bill 06-179 because: (1) it is being submitted for approval to the Rio Grande Interbasin Roundtable pursuant to article 75 of title 37, C.R.S. (2) it meets the eligibility categories described below; and (3) this proposal is submitted for approval by the Rio Grande Interbasin Roundtable in conformity to criteria and guidelines jointly developed by the IBCC and CWCBC.
- The water activity is consistent with Section 37-75-102 C.R.S. because this project repairs and upgrades existing channel courses that have actively been in use for 200 years. This project does not supersede, abrogate, or otherwise impair the State's current system of allocating water within Colorado nor does it in any manner repeal or amend the existing water rights adjudication system. This project does not affect the State Constitution's recognition of water rights as a private usufructuary property right nor is it 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.
- By repairing, restoring, replacing and stabilizing the Acequia del Cerro, the possibility of further flood damage is mitigated and water is conserved for the farmers along the Acequia del Cerro. This in turn addresses its shortfall in water need for consumptive use for irrigation in the Rio Grande Basin.

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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- b) The water activity underwent an evaluation and approval process and was approved by the Basin Roundtable (BRT). 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.

See the letter from the Rio Grande Basin Round table

- a) 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.

See the letter from the Rio Grande Basin Round table

- b) 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.
- The activities proposed for by the Acequia del Cerro meets provisions of Section 37-75-104(2), C.R.S. by actively seeking the input and advise of all affected county, and municipal governments which include the Costilla County Commissioners, the Costilla Conservancy District, the Sangre de Cristo Acequia Association, the Office of Natural Resource Conservation Services and the local Water Commissioner. All landowners and priority shares on the acequia system are aware of the problems along the Acequia del Cerro and are anticipating that with this funding the rehabilitation and repair project can be completed in the summer of 2013. Due to the age of the ditch in question, there is no other resolution but to rehabilitate the ditch banks and line the ditch itself. The Cerro Ditch landowners are committed to taking the lead in removing the old concrete and installing new core and diversion structures and technologies which combined will solve flooding into non-productive areas, control water loss and provide water to all farmers taking water from the Culebra watershed.

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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c) Matching Requirement: For requests from the Statewide Fund, the applicants is required to demonstrate a **20 percent** (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of **5 percent** of the total grant amount from Basin Funds. 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 application was submitted to the CWCB. 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)

The Costilla Conservancy District has committed to matching funds for the project in the amount of \$60,000. (See Attachments, Letters of Support). In addition the Acequia del Cerro landowners have contracted services and have begun cleaning the banks and removing the old ditch concrete lining. To date, they have contributed \$13,105. The Acequia will commit to an additional \$10,000 to prepare the easement for the construction of the new structures.

Total Project Cost	\$733,105	
Less – In-Kind and Cash Match	<u>\$283,105</u>	
Grant Amount Requested	\$450,000	(Rio Grande Basin - \$25,000) (Statewide Account - \$425,000)

Required Match (25%) \$ 106,000 (on state account)

Costilla County Conservancy Dist. (Cash Match)	\$ 60,000
NRCS (In-kind & EQUIP Payments)	\$195,000
Acequia del Cerro (In-Kind)	\$ 23,105
Costilla County (In-Kind)	<u>\$ 5,000</u>
Total In-Kind & Cash Match	\$283,105

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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.**

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. 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).**
Traditionally, the Acequia del Cerro landowners have done farming and irrigation as their forefathers have done for 200 years in this area. This Application has provided them with the opportunity to request funding from a third party. This is helping them overcome their reluctance in asking for assistance. It also provides them with an opportunity in farming marketable products that will help supplement their income by selling their products through the Rio Culebra Agricultural Cooperative. It will provide the incentive to join the Co-op's" initiative" in planting and sowing products grown from heirloom seeds and organic vegetables.
- 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.**
The Application process has brought landowners together to make important decisions as a group with a common interest. The meetings held for this purpose have been attended by approximately 60% of the Acequia del Cerro's membership. The interests shared are not only for the right to have their water right decrees fulfilled but also for the protection of wildlife that inhabit areas along the ditch. As stated earlier, the Acequia del Cerro has two channels used for irrigation. The HDPE pipeline will be replacing the northern ditch to assure proper water control, eliminate water loss and provide water to **all** landowners. The existing ditch will continue to be maintained by the landowners as a catchment for runoff and sediment from the foothills that have historically filled the ditch with large rocks and debris. With this plan, the ecosystem and habitat remain intact. The descendants and current heirs of the Acequia del Cerro are historically a self sustaining community due to their skills in irrigation, hunting and farming within an "Acequia System". The Acequia del Cerro, as with all ditch companies taking water from the Culebra Water shed, does not participate in the Rio Grande Compact.
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.

Tier 2: Facilitating Water Activity Implementation

- c. **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).**

Funding from this Account will make a significant difference in implementing all water activities. Costilla County, is experiencing drought and in many cases, significant crop loss due to insufficient water from the Culebra watershed. In addition to the drought, the landowners along the Acequia del Cerro are operating with a malfunctioning irrigation water system. With the implementation of this rehabilitation project, the Acequia del Cerro landowners will have a fully functioning irrigation system that will greatly reduce high sediment loads, promote cost effectiveness by minimizing maintenance, and improve operational flexibility. With the HPDE pipeline, the landowners will experience high flow capacity, elimination of ditch bank erosion and improved water quality, optimizing existing and future water supply needs for all landowners on the Culebra watershed.

- d. **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.**

The landowners along the Acequia del Cerro have within the past 12 months shown a significant and appropriate commitment by cleaning major overgrowth of willow, removal of concrete where water flow obstruction was serious and tree root removal along the ditch in preparation of the Project. This has cost the landowners a total of **\$13,105.30** to date. The landowners will contribute an additional **\$10,000** in-kind contribution for a total of **\$23,105.30**. In addition the Acequia del Cerro has received a commitment of **\$60,000** cash match from the Costilla County Conservancy District. (See Letter from Conservancy District). The NRCS will also contributed a total of \$45,000 in technical assistance and **\$150,000** from EQUIP to complete project costs. The Acequia del Cerro will surpassed any cash match or in-kind contribution required by the CWCB.

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

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

The water activity will help in sustaining agriculture along the Acequia del Cerro. In the past two years landowners along the Cerro Ditch have experienced substantial crop loss due to water shortage. With the Culebra Watershed not delivering the amount of water to meet all decreed water rights and poor to non-functioning irrigation systems, landowners that were making 1,000 one ton bales of hay per cutting only made 300 in 2012. This reduction in production is very significant to the small farmer. With the rehabilitation of the Acequia del Cerro, which will provide a controlled water and irrigation system, the landowners feel that crop production will increase even in years of drought.

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

The use of the HPDE line and continuing the maintenance of the original cement ditch and the earthen heritage ditch will ultimately leave the environment and ecosystem intact. In fact, this will protect the habitat of the endangered South West Willow Flycatcher and other federally protected species. The system will continue to provide trees, willows and water to all wildlife in the area.

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

The water activity will provide benefit to Colorado in the amount of water that will be better utilized and put to beneficial use with the implementation of this project. There are 82 landowners along the Acequia del Cerro. The better utilization of water and consumptive water use not only brings benefit to the

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landowners but to all Culebra Watershed landowners. There are approximately 300 families that own adjudicated water rights from the Culebra Watershed. The oldest "Acequia" system and first adjudicated water rights in Colorado hail from the Culebra watershed. Historically, the "acequia irrigation systems" in southern Colorado have been self-sustaining systems.

The water activity is complimentary to or assists in the implementation of other CWCB programs.

The water activity being proposed provides maximum benefit for all farmers that get water from the Culebra Watershed by providing improved irrigation water control and distribution to irrigators and improving the allocation of water from the decreed water rights. The Culebra Watershed is also the source of water for the Sanchez Reservoir which will be implementing a \$2,000,000 rehabilitation project partially funded by WSRA funds through the Rio Grande Basin Roundtable. The Acequia del Cerro project will compliment the Sanchez Reservoir project by improved allocation of decreed water rights.

Continued: Explanation of how the water activity/project meets all applicable **Evaluation Criteria**.

Please attach additional pages as necessary.

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Part IV. – Required Supporting Material

Suggested Format for Scope of Work

- 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 right issues and the name/location of water bodies affected by the water activity.**

The water source used by the Applicant comes directly from the Culebra Watershed and Culebra Creek. It is the most complex acequia system on the Culebra Watershed. Below are the landowners, acreage they own and assessments. It has approximately 60 lateral ditches with diversion gates. It is entitled to priority No.7 in Colorado, operating under Water District 24 of Division 3. The Cerro Ditch was established November 30, 1857 and holds 44 adjudicated water rights and is Priority #7, granted by a Court Decree in Colorado, dating June 14, 1889. The Cerro serves 82 landowners and irrigates approximately 1880 acres.

Name	Acres	Assessments
1. Aguliar, Lee	11	\$46.75
2. Albert, Conrad	103	\$437.75
3. Albert, Larry	10	\$42.50
4. Alirid, Dominic	23	\$97.75
5. Aragon, Bernabe, Garza, Marcella	33	\$140.25
6. Aragon, Patricio	12	\$51.00
7. Aragon, Phil, Jesse	17	\$72.25
8. Arellano, Richard	1	\$4.25
9. Arellano, Joseph	2	\$8.50
10. Atencio, Anastacio/Joe Garcia	5	\$21.25
11. Atkins, Larry	20	\$85.00
12. Barela, Moses, Ernest	30	\$127.50
13. Barela, Ronnie, Elmer	73	\$310.25
14. Bennett, Ramirez Berlinda	7	\$29.75
15. Carpenter, Vigil, Costilla County	422	\$1,793.50
16. Casas, Antonio	12	\$51.00
17. Cordova, Theresa	1	\$4.25
18. DeHerrera, Rocky	4	\$17.00
19. Dominguez, Juanita	8	\$42.50
20. Espinoza, Elmer/Manuel	11	\$46.75
21. Gallegos, Maclovio	20	\$85.00
22. Gemoya, Fredrick/Lourdes	22	\$93.50
23. Jacquez, Eugene	8	\$34.00
24. Kaber, Charlie	60	\$255.00
25. Lobato, Joseph/Bonifacio Jr.	150	\$637.50
26. Lobato, Emelio	17	\$72.25
27. Lobato, Eugene/Buddy	6	\$25.50
28. Lobato, Marcos	17	\$72.25
29. Lucero, Maria Elena	4	\$17.00
30. Lucero, Ron	1	\$4.25
31. Madrid, Julio	17	\$72.75
32. Madrid, John (Chico)	2	\$8.50
33. Madrid, Raymond	5	\$21.75
34. Maestas, Norman	19	\$80.75
35. Martinez, Fernando	58	\$259.25

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Name	Acres	Assessments
36. Martinez, Sherman/Eric	7	\$29.75
37. Martinez, Derwin	1	\$4.25
38. Martinez, Susie	7	\$29.75
39. Martinez, Roy	20	\$85.00
40. Mascareñas, Jamie	7	\$29.75
41. Medina, Felix	1	\$4.25
42. Montano, Elva	8	\$34.00
43. Morell, George/Connie	1	\$4.25
44. Ortega, Prax Jr.	5	\$21.75
45. Payne, Alonzo	4	\$17.00
46. Quintana, Lori	1	\$4.25
47. Quintana, Mark	11	\$46.75
48. Rodriguez, Fidel	1	\$4.25
49. Romero, John/Cletice	2	\$8.50
50. Roybal, Teodoro/Alvaro, Maestas	10	\$42.50
51. Sanchez, Adriano/Josie, Quintana	30	\$127.50
52. Sanchez, Anthony	8	\$21.25
53. Sanchez, Gene	12	\$97.75
54. Sanchez, Fidel	5	\$21.25
55. Sanchez, Joe/Danny	12	\$51.00
56. Sanchez, Larry	2	\$8.50
57. Sanchez, Levi/Marianita	23	\$97.75
58. Sanchez, Manuel	38	\$161.50
59. Sanchez, Teresa/Julia	20	\$85.00
60. Sanchez, Michael	14	\$59.50
61. Sanchez, Robert	22	\$93.50
62. Sanchez, Virgil	5	\$21.25
63. Sandoval, Frank	13	\$55.00
64. Segura, Ramon	25	\$106.25
65. Trujillo, Augustine	8	\$34.00
66. Valdez, Abie Jr.	36	\$153.00
67. Valdez, Dean	12	\$51.00
68. Valdez, Earl/Eric	8	\$34.00
69. Valdez, Ernesto	20	\$85.00
70. Valdez, Evan	24	\$102.00
71. Valdez, Gail Shannahan	12	\$51.00
72. Valdez, Mark	111	\$471.75
73. Valdez, Jean	12	\$51.00
74. Valdez, Pamela	12	\$51.00
75. Vialpando, Kenneth	17	\$85.00
76. Vialpando, Leroy	17	\$72.75
77. Vialpando, Marvi	17	\$85.00
78. Vialpando, Nelson	4	\$17.00
79. Vialpando, Ray	1	\$4.25
80. Vialpando, Sylvian	6	\$25.50
81. Vigil, Ernesto/Dennis	20	\$85.00
82. Vigil, Serafin	2	\$8.50
	1872	\$8,034.50

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

In 2012 a study was done by the Natural Resource Conservation Service (NRCS). San Luis, Colorado. The study identified the following to mitigate the extreme deterioration of concrete lining and overflow of water over ditch banks and flooding in non-agricultural areas resulting in loss of irrigation water.

- Remove excessive willow, and tree growth along ditch banks.
- Replacement of failed lateral water control structures.
- Replacement 1,900 ft of failed concrete ditch lining with new concrete
- Replace 7,300 ft of failed concrete lining with high density pipe.

The request for WSRA funding is to implement the findings of the NRCS Study

There are no permitting issues in this project.

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

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 5 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.

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

Signature of Applicant:

Print Applicant's Name:

Project Title:

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

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

Water Supply Reserve Account – Application Form
Revised December 2011

Exhibit A

Statement of Work

WATER ACTIVITY NAME - The Acequia del Cerro
Ditch Rehabilitation

GRANT RECIPIENT - The Acequia del Cerro

FUNDING SOURCE - Water Supply Reserve Account

INTRODUCTION AND BACKGROUND

Provide a brief description of the project. (Please limit to no more than 200 words; this will be used to inform reviewers and the public about your proposal)

The Acequia del Cerro's proposed water activity will remove an old concrete lining in the northern ditch installed in the 1960's. The concrete lining has deteriorated beyond repair and has out lived its life expectancy by approximately 27 years. A design supported and approved by the Natural Resource Conservation Service (NRCS) is to reline the ditch beginning at the sluice approximately 20 ft from the head gate off the Culebra Creek to the road in Chama Canon. The ditch will be lined with cement approximately 1,900 linear ft. The Ditch company has been advised by NRCS to keep the old concrete lined ditch to catch sediment, and excavate a new earthen structure for a high density pipe in for approximately 7,300 linear ft. or from the northern and southern diversion structures to Cheyenne Road. This will eliminate high maintenance costs, allow water to reach the landowners at the end of the ditch, conserve water for other ditch companies that take their water from the Culebra Creek and return tail water to the aquifers and back into the Culebra Creek.

List the objectives of the project

OBJECTIVES:

List the objectives of the project

1. Replace the first 1,900 ft of old concrete lining in the ditch with new concrete lining.
2. Replace 7,300 ft of concrete lining with high density pipe (HDPE) in the northern ditch.
3. Allow for improved water control so landowners can receive their appropriate water from the water decrees.
4. Greatly reduce maintenance problems.
5. Eliminate any threat of litigation against the Ditch Company because of water decrees not being fulfilled.
6. Conserve water for others on acequia's that take their water from the Culebra watershed and downstream.
7. Significantly reduce sediment and debris in the ditch conveyance system.

TASKS

Provide a detailed description of each task using the following format

TASKS

Task 1 Mobilization/Demobilize

Description of Task: Remove all excess willows and debris along the ditch banks to allow easement access to the contractor for trucks, equipment and all things necessary to begin construction of the new ditch structure(s).

Method/Procedures: Hire a small track-hoe operator to remove willows. Request from landowners to clean their particular segment of the ditch along their properties that does not require heavy equipment work and can be done with hand tools.

Deliverables: All easement access and equipment will be available.

Task 2 Remove existing concrete

Description of Task: Remove all remaining old concrete and drag the ditch beginning at the measuring flume and ending at the north and south head gates, approximately 1,900 ft.

Method/Procedure: Using a backhoe and a dump truck to remove concrete and dispose of debris in County approved landfill area.

Deliverables: The ditch structure ready to form.

Task 2a Form Ditch

Description of Task: Prepare ditch for concrete lining measurements of 4' bottom, 2.5' depth, 1.25:1 side slopes.

Method/Procedure: Using a trencher or track hoe with the proper bucket, to dig existing ditch to the proper measurements (design provided by the NRCS).

Deliverables: Ditch is ready for concrete pouring

Task 2b Concrete

Description of Task: Concrete line approximately 1,900 ft of ditch using 4' bottom, 2.5' depth, 1.25:1 side slopes with 3" thickness. Estimated amount of concrete, 248 cu.yds.

Method/Procedure: A slip form will be used to lay the concrete in the ditch.

Deliverables: Improved water and irrigation control which will conserve water.

Task 3 Inlet and Diversion Structures

Description of Task: Build the inlet and Diversion structure for the HPDE pipeline.

Method/ Procedure: Using equipment provided by the contractor.

Deliverables: This will be done without interrupting irrigation for landowners

Task 3a High Density Pipeline

Description of Task: Trench and insert a 32" HDPE pipeline to accommodate 22.5 cfs of water.

Method/Procedure: Using the proper equipment, lay 7,300 ft of HDPE line into the ditch. Haul in enough dirt to cover the pipeline no less than 12" over the pipe. (Design provided by the NRCS)

Deliverables: The task is done without interfering with irrigation. Leaving and maintaining the old structure to catch foothill sediment, meet agricultural water needs, overcoming difficulties in diverting water and avoiding damage to diversion and irrigation structures. Promotes cost effectiveness by minimizing maintenance and operational flexibility, optimizing existing and future water supply.

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.

Water Supply Reserve Account - Application Form

Revised December 2011

BUDGET

Provide a detailed budget by task including number of hours and rates for labor and unit costs for other direct costs (i.e. mileage, \$/unit of material for construction, etc.). A detailed and perfectly balanced budget that shows all costs is required for the State's contracting and purchase order processes. Sample budget tables are provided below. Please note that these budget tables are examples and will need to be adapted to fit each individual application. Tasks should correspond to the tasks described above.

Total Costs				
Rehabilitation and Replacement of Ditch lining	Matching Funds	In-kind Contribution	Direct Costs	Total Project Costs
Task 1 - Mobilize/demobilizing				\$5,000
Task 2 - Removal of old concrete and dredge ditch				\$13,105
Task 2a - Form Ditch				\$5,000
Task 2b - Pour Concrete				\$185,000
Task 3 - Inlet and diversion structures for HDPE pipeline				\$30,000
Task 3a - Trenching and positioning HDPE pipeline				\$500,000
Engineering/design/technical assistance (NRCS)		\$45,000		
Acequia del Cerro		\$18,105		
Costilla County		\$5,000		
Administration		\$5,000		\$20,000
Costilla County Conservancy Dist.	\$60,000			
(WRSA) Basin Account	\$25,000			
State Account	\$425,000			
NRCS (EQUIP)	\$150,000			
Totals	\$660,000	\$73,105		\$733,105

SCHEDULE

Provide a project schedule including key milestones for each task and the completion dates or time period from the Notice to Proceed (NTP). This dating method allows flexibility in the event of potential delays from the procurement process. Sample schedules are provided below. Please note that these schedules are examples and will need to be adapted to fit each individual application.

Task	Start Date	Finish Date
1. Mobilize/demobilizing	Upon NTP	NTP + 5 days
2. Removal of old concrete/ dredge ditch	April 8, 2013	April 26, 2013
2a. Form Ditch	May 6, 2013	May 24, 2013
3. Inlet and diversion structures for HDPE	May 27, 2013	May 31, 2013
3a. Trenching and positioning HDPE pipeline.	June 3, 2013	July 5, 2013

NTP = Notice to Proceed

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 5 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.

Appendix 1

Reference Information

The following information is available via the internet. The reference information provides additional detail and background information.

- Water Supply Reserve Account main webpage:
 - <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/main.aspx>
- Water Supply Reserve Account – Basin Fund Application Details:
 - <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/BasinWaterSupplyReserveAccountGrants.aspx>
- Water Supply Reserve Account – Statewide Fund Application Details:
 - <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Pages/StatewideWaterSupplyReserveAccountGrants.aspx>
- Colorado Water Conservation Board main website:
 - <http://cwcb.state.co.us/>
- Interbasin Compact Committee and Basin Roundtables:
 - <http://cwcb.state.co.us/about-us/about-the-ibcc-brts/Pages/main.aspx/Templates/BasinHome.aspx>
- House Bill 05-1177 – (Also known as the Water for the 21st Century Act):
 - <http://cwcbweblink.state.co.us/DocView.aspx?id=105662&searchhandle=28318>
- House Bill 06-1400 – (Adopted the Interbasin Compact Committee Charter):
 - <http://cwcbweblink.state.co.us/DocView.aspx?id=21291&searchhandle=12911>
- Senate Bill 06-179 – (Created the Water Supply Reserve Account):
 - <http://cwcbweblink.state.co.us/DocView.aspx?id=21379&searchhandle=12911>
- Statewide Water Supply Initiative 2010:
 - <http://cwcb.state.co.us/water-management/water-supply-planning/Pages/SWSI2010.aspx>

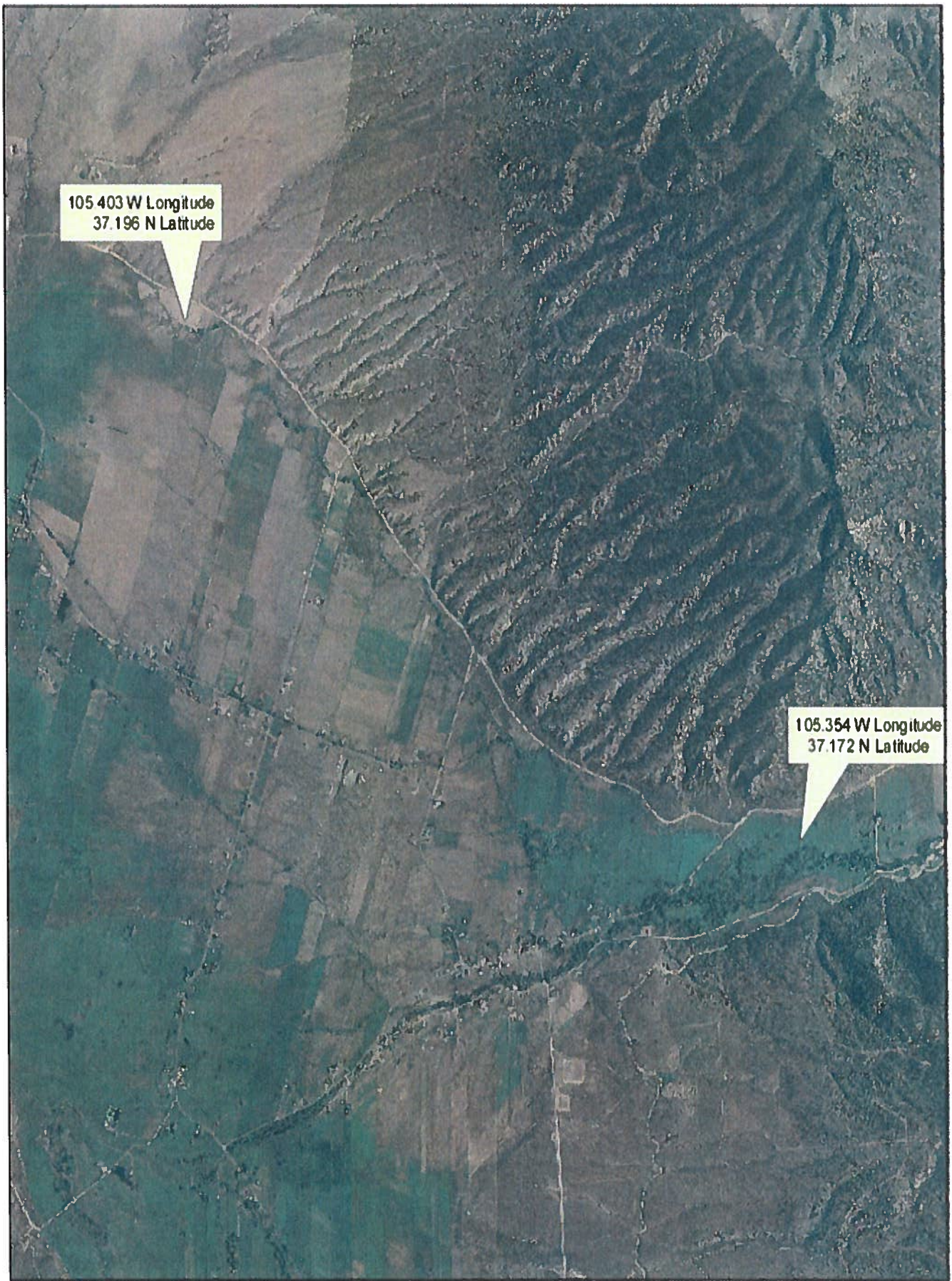
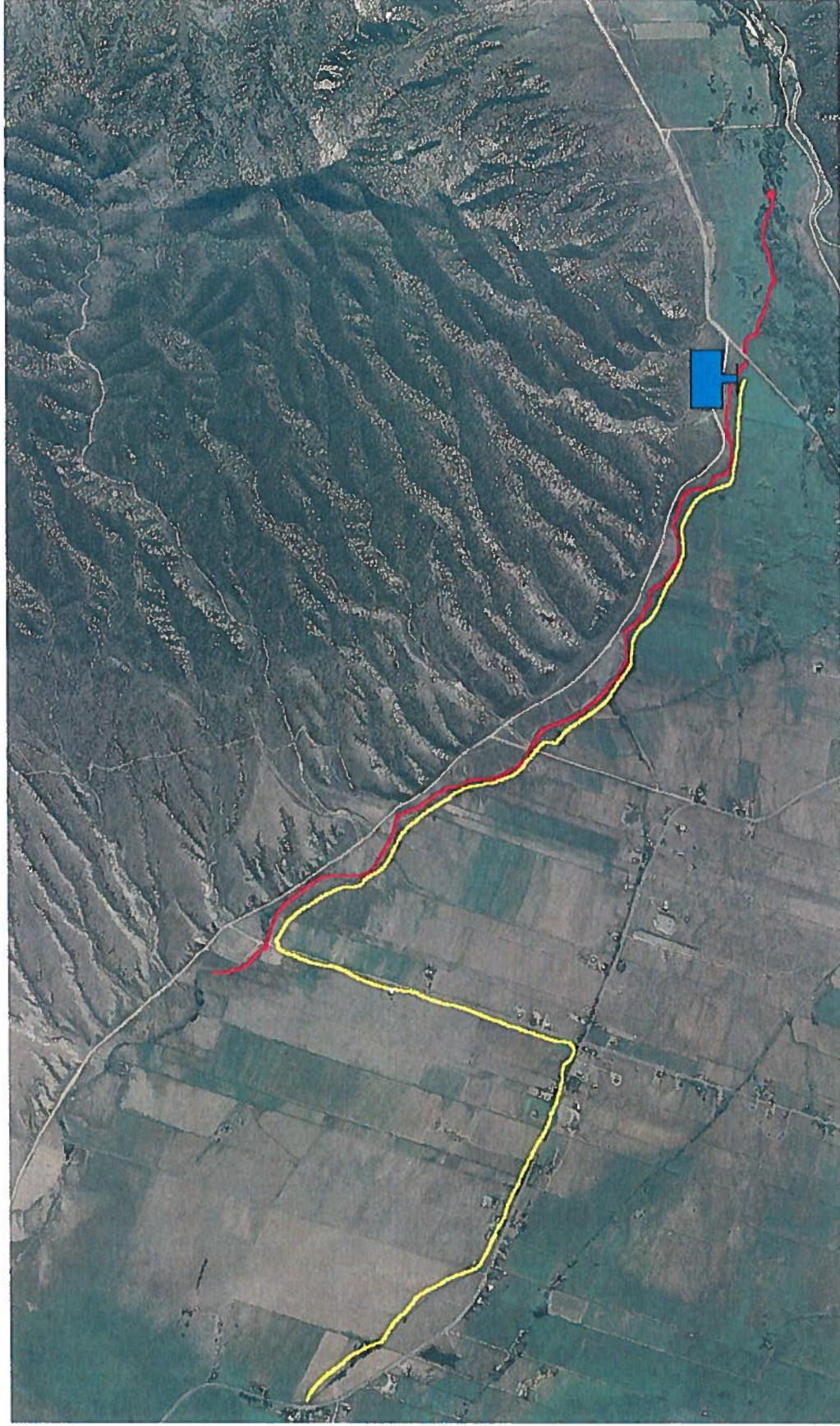




Exhibit C-1



Northern Cerro

Southern Cerro

North and South
Cerro diversion gates



Exhibit C-2



HDPE

Cement lining

Rio Grande Inter-Basin Roundtable
c/o San Luis Valley Water Conservancy District
623 Fourth Street
Alamosa, CO 81101
Telephone: (719) 589 – 2230
Email: slvwcdco1@qwestoffice.net

September 26, 2012

Mr. Michael King, Executive Director
Colorado Department of Natural Resources

Mr. Todd Doherty, Intrastate Water Management & Development
Colorado Water Conservation Board

Reference: CULEBRA WATERSHED – VALLEJOS DITCH HEADGATE REPLACEMENT

Gentlemen:

The Rio Grande Inter-Basin Roundtable (R.G.R.T) has determined that the single, most critical water issue confronting the Rio Grande Basin (Basin) is the current unsustainable management of surface and ground water. The R.G.R.T. has made the decision that water activities that address this issue be favorably considered for funding from the Water Supply Reserve Account, SB 2005 -179 (WSRA Funds), providing the proposed water activities meet the SWSI findings for the Basin and the CWCB & IBCC Criteria and Guidelines for funding.

This letter is to express the strong support of the Rio Grande Inter-Basin Round Table for the accompanying application for funding from the Water Supply Reserve Account's (WSRA) Basin and State-wide funds for the Sangre de Cristo Acequia Association's application for the Culebra Watershed – Vallejos Ditch Headgate Replacement, subsequently referred to as the Project.

The applicant organization, previously known as the Colorado Acequia Association, is the Sangre de Cristo Acequia Association (SCAA), formed on November 18, 1998 and is a 501-c-3 organization. It was established by the Costilla County Conservancy District (CCCD) when local family farmers requested an organization to serve the needs of the historic acequias, or communal irrigation ditches, in the Culebra River watershed in southern Colorado's San Luis Valley.

The main goals of the SCAA are to preserve the acequia agricultural lifestyle; to improve the quality of the environment; to keep all water with the land on which it is located, and to serve as an umbrella membership organization serving irrigators and water users in the Culebra Creek watershed who depend upon the acequia system of irrigation. This includes a community of 228 families, most of whom are fifth and sixth generation

landowners, organized into 64 separate acequia groups.

The Culebra watershed acequias irrigate 23,000 acres in approximately 360 square miles on the eastern edge of the San Luis Valley. Headwaters of the Culebra watershed are on the western slopes of the Sangre de Cristo Mountains. This network of acequias diverts from streams in the watershed and transports and distributes water to irrigate agricultural lands, with return flows from this irrigation then reentering the natural streams in the watershed. Although part of the Rio Grande Basin's complex network of surface and underground aquifers, the waters of the Culebra watershed do not reach the Rio Grande or the Conejos River and are not subject to the Rio Grande Compact.

In the past 15 years the residents of Costilla County, with the assistance of multiple organizations, have initiated a series of investigations with the goal of protecting the Culebra Watershed. This resulted in efforts to prepare the Culebra Watershed Assessment and Management Plan (Plan) to help the Costilla County community evaluate, prioritize, and manage problems affecting their ground and surface waters. The Plan's approach entailed a thorough watershed investigation to help identify water quality impairments, sources of the impairments, and critical areas to protect or restore. This watershed assessment was partially completed, developing some valuable data, but was not completed due to a lack of funding. SCAA has acted as a facilitator and coordinator of these efforts.

The SCAA provides fiscal, organizational, legal, and technical resources which are otherwise not available to many of the watershed's independent ditch associations and acequias. This watershed - based approach, combined with SCAA's positive social and cultural outreach, provide a high level of integration in assessing, planning, and implementing ditch and water projects, giving the projects a high likelihood of success.

The SCAA is requesting funds of \$100,000 on behalf of the Vallejos Ditch Association in order to replace a diversion on Vallejos Creek.

Of the 83 acequias currently in operation in Water District 24, Division 3, the Vallejos Ditch Association is one of the earliest, established in 1854 with priority # 5. The Vallejos Ditch is approximately 4 miles long, located within the Sangre de Cristo Land Grant near San Pablo in the San Luis Valley of Costilla County. The two branches of Vallejos Creek, the North Vallejos and the South Vallejos are each about 2 miles in length. With 13 cfs, historically irrigated acreage has been computed at 1316 acres, serving 64 farmers. Associated with the current structure are repeated flood events, high maintenance activities and costs, and reduced water management capabilities, thus making this a high priority project.

The proposed Project will replace the existing headgate which also serves as a diversion structure on Vallejos Creek. The turnout on the north side of the creek feeds both the North and South irrigation laterals. The South lateral is supplied water through a drop

structure and corrugated metal pipe located under the main structure. The concrete structure has deteriorated, with the walls cracked and crumbling. In high flows the headgate fails to divert excess water back to the natural stream channel, causing flooding of the neighboring residential areas. The crumbled structure leaks and the water control gates are almost inoperable. Built around 1965, the headgate / diversion has surpassed its effective service life. The Natural Resource and Conservation Service (NRCS) has determined that this headgate / diversion are beyond repair and must be replaced.

In addition to the current problems with the headgate/diversion structure there are associated riparian and water quality issues. The banks of Vallejos Creek upstream and downstream of the headgate/diversion are deteriorated due to continual seepage and vegetative overgrowth, exacerbating the already serious sedimentation and erosion problems which have been identified throughout the Culebra watershed. Loss of stability and control has caused the targeted section of the Vallejos Ditch to lose 70% of its carrying capacity.

The attached Exhibit A, from the Application, outlines the Tasks and the associated WSRA funding that will be performed to complete the Project, which will address the issues above.

At the regular September 18, 2012 meeting of the Rio Grande Inter-Basin Roundtable members unanimously voted to recommend for approval by the Colorado Water Conservation Board the allocation of \$10,000.00 of the Rio Grande Basin Funds and \$100,000.00 of Statewide funds for the Project.

The total cost of the Project is \$116,100.00 with the NRCS providing Technical and Engineering services valued at \$10,600.00, the Costilla Conservancy District providing \$2,400.00, the SCCA providing \$1,200.00, and the Vallejos Ditch Association providing in-kind and cash of \$1,900.00 value. The non-WSRA funding represents 13.9 % of the total cost of the Project.

The R.G.R.T. appreciates the support of the Department of Natural Resources, the Colorado Water Conservation Board and the Interbasin Compact Commission in assisting in meeting the needs of all users of Colorado's water and in fostering intrabasin and interbasin communications and discussions. We believe that the above project will assist in this effort.

Sincerely,



Mike Gibson

Chair, Rio Grande Interbasin Roundtable

Attachment (1) and Enclosures (2)

cc: Sangre de Cristo Acequia Association / Vallejos Ditch Association

Exhibit A
Statement of Work

WATER ACTIVITY NAME - **Culebra Watershed,
Vallejos Ditch Headgate Replacement**

GRANT RECIPIENT – **The Sangre de Cristo Acequia Association**

FUNDING SOURCE – **Water Supply Reserve Account**
 Rio Grande Basin \$10,000
 Statewide fund \$90,000

This water activity will replace the existing headgate/diversion structure on Vallejos Creek in the Culebra Watershed of the Rio Grande Basin. Built around 1965, the headgate has surpassed its effective service life. The concrete structure has deteriorated, with the walls cracked and crumbling. In high flows the headgate fails to divert excess water, causing flooding of the neighboring residential areas. The crumbled structure leaks and the water gates are almost inoperable. The Natural Resources Conservation Service (NRCS) has determined that this headgate is beyond repair and must be replaced. Division 3 Engineer has approved the NRCS preliminary proposed structural alternative, which would pull water from both the North and South, thus eliminating higher construction costs, reducing maintenance, and greatly reducing or eliminating the threat of flood.

OBJECTIVES

List the objectives of the project

1. Replace the deteriorated Vallejos Ditch Headgate with a new structure
2. Allow irrigators to obtain their decreed irrigation water when in priority
3. Improve downstream water quality
4. Significantly reduce risk of flood
5. Eliminate or greatly reduce maintenance problems
6. Upgrade water control efficiency for the Vallejos Ditch
7. Set an example for future SCAA implementation projects which combine WSRA funding and NRCS technical support for projects in the Culebra Watershed

TASKS TASK 1 Mobilization, Demobilization – WSRA Funds \$417.00

Description of Task: This task includes all costs to mobilize equipment, tools, safety and sanitary equipment, and consumable supplies to the site. At the end of the project all Contractor owned equipment, tools, safety and sanitary equipment, and supplies will be removed from the site.

Method/Procedure: As stated above

Deliverables: All equipment and supplies required to conduct the work set

forth in the contract will be available to the worksite.

TASK 2 Demolish Existing Headgate – WSRA Funds \$15,000.00

Description of Task: This task will include all work required to demolish and remove the current headgate structure.

Method/Procedure: Trackhoe jack hammer with some torch cutting. Haul debris with dump trucks to approved disposal location.

Deliverables: The removal of the former headgate and diversion structure.

TASK 3 De-Watering -WSRA Funds \$2,000.00

Description of Task: Remove all water from work site, diverting Vallejos Creek if necessary.

Method/Procedure: Isolate work area and remove water from work area with pump. Depending on the season, on conditions, and on consent of water users, it may be possible to divert water upstream from the site. Continue to pump seepage out of the work site for the duration of the project as needed.

Deliverables: The work area is sufficiently dry to perform the work.

TASK 4 Earth Work –WSRA Funds \$5,000.00

Description of Task: Prepare the site to construct the diversion structure.

Method/Procedure: Deliver soils and gravels to work site, per NRCS specifications. Re-route the creek as needed to have a clean and dry work site. Shape banks to accommodate new structure. At end of project, re-shape creek to final configuration of the new structure. Reseed per NRCS specs.

Deliverables: Natural shape of creek restored to ensure stability of new structure, seeded with native vegetation, meeting specifications of NRCS engineers and regulatory authorities.

TASK 5a Forms

Description of Task: Set concrete forms for new diversion structure.

Method/Procedure: Set concrete forms and re-bar reinforcement per structural design and in compliance with NRCS specifications.

Deliverables: Completed form, ready for pour, in accordance with structural design and in compliance with NRCS specifications.

TASK 5b Concrete – (Forms & Concrete) - WSRA Funds \$66,000.00

Description of Task: Pour concrete; remove forms; seal and finish off new concrete structure.

Method/Procedure: Utilize concrete trucks to deliver and to pour concrete in compliance with NRCS specifications. Remove forms. Repair any blemishes remaining from pour. Seal concrete with NRCS-approved sealant.

Deliverables: Concrete structure is complete, ready for installation of gates.

TASK 6 Gate & Rails – WSRA Funds \$6,483.00

Task Description: Install 2 sluice gates and 2 turnout gates, and install catwalk rails.

Method/Procedure: Purchase and install hardware into concrete structure according to manufacturer's guidelines and in compliance with all NRCS and regulatory requirements.

Deliverables: Greatly improved control of irrigation releases; protective rails on catwalk reduce risk of accident or injury.

TASK 7 Reporting and Final Deliverable – WSRA Funds N/A

Description of Task: Report at completion of project.

Method/Procedure: SCAA submits final report, describing the completion (or partial completion) of the tasks identified in the statement of work, including any major issues that have occurred and any corrective action taken to address these issues.

Deliverables: SCAA shall provide CWCB a final report summarizing the project and documenting how the project was completed. The report may contain photographs, summaries of meetings and engineering reports and designs.



COLORADO WATER CONSERVATION BOARD
WATER SUPPLY RESERVE ACCOUNT
APPLICATION FORM



CULEBRA WATERSHED VALLEJOS DITCH HEADGATE REPLACEMENT

Name of Water Activity/Project

SANGRE DE CRISTO ACEQUIA ASSOCIATION

Name of Applicant

RIO GRANDE BASIN

Amount from Statewide Account:

90,000.00

Amount from Basin Account(s):

10,000.00

Total WSRA Funds Requested:

100,000.00

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

Application Content

Application Instructions	page 2
Part I – Description of the Applicant	page 3
Part II – Description of the Water Activity	page 5
Part III – Threshold and Evaluation Criteria	page 7
Part IV – Required Supporting Material	
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 December 2011

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 (CWCBC). 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 CWCBC 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 CWCBC 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>

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:

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

If you have questions or need additional assistance, please contact Greg Johnson at: 303-866-3441 x3249 or gregory.johnson@state.co.us.

Water Supply Reserve Account – Application Form

Revised December 2011

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

1.	Applicant Name(s):	SANGRE DE CRISTO ACEQUIA ASSOCIATION		
	Mailing address:	P.O. Box 721 San Luis, CO 81152		
	Taxpayer ID#:	EIN #37-1551174		
	Primary Contact:	Delmer Vialpando	Position/Title:	President
	Email:	none		
	Phone Numbers:	Cell: 719-672-0944	Office:	719-672-1019
	Alternate Contact:	Joseph Gallegos	Position/Title:	Vice President
	Email:	centranch0@gmail.com		
	Phone Numbers:	Cell: 719-298-7278	Office:	

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 December 2011

I. Provide a brief description of your organization

The Applicant organization, previously known as the Colorado Acequia Association, is the Sangre de Cristo Acequia Association (SCAA), formed on 11/18/1998. It was established by the Costilla County Conservancy District (CCCD) when local family farmers requested an organization to serve the needs of the historic acequias, or communal irrigation ditches, in the Culebra River watershed in southern Colorado's San Luis Valley.

The Project organization, or beneficiary of this grant proposal, is the Vallejos Ditch, with boundaries shown in the attached map, serving 1,316 irrigated acres.

The main goals of the SCAA are to preserve the acequia agricultural lifestyle; to improve the quality of the environment; to keep all water with the land on which it is located, and to serve as an umbrella membership organization serving irrigators and water users in the Culebra Creek watershed who depend upon the acequia system of irrigation. This includes a community of 228 families, most of whom are fifth and sixth generation landowners, organized into 64 separate acequia groups.

The Culebra watershed acequias irrigate 23,000 acres in approximately 360 square miles of South Central Colorado on the eastern edge of the San Luis Valley. Headwaters of the Culebra watershed are on the western slope of the Sangre de Cristo Mountains. This network of acequias (see maps) diverts from streams in the watershed and transports and distributes water to irrigate agricultural lands, with return flows from this irrigation then reentering the natural streams in the watershed. Although part of the Rio Grande Basin's complex network of underground aquifers, the waters of the Culebra watershed do not reach the Rio Grande or the Conejos River and are not subject to the Rio Grande Compact.

In the past 15 years the residents of Costilla County have initiated a series of investigations, with the assistance of the Natural Resources Conservation Service (NRCS) and multiple other entities to protect the Culebra Watershed. These efforts included: 1) the Land Rights Council (LRC) management plan for the former Taylor Ranch, 2) the Vega Board grazing plan for the Vega, and (3) the Culebra Watershed Management Plan. SCAA played a leading role in these developments.

The Sangre de Cristo Acequia Association hosted a public meeting in May 2008 to coordinate planning efforts between all identified active projects in the watershed. The purpose of the Culebra Watershed Assessment and Management Plan was to help the Costilla County community evaluate, prioritize, and manage problems affecting their ground and surface waters. The Plan's approach entailed a thorough watershed investigation to help identify water quality impairments, sources of the impairments, and critical areas to protect or restore. This watershed assessment was partially completed, developing some valuable data, however, due to lack of funding, it was not completed. Today the SCAA provides fiscal, organizational, legal, and technical resources which are otherwise not available to many of the watershed's independent ditch associations and acequias. This watershed-based approach, combined with SCAA's positive social and cultural outreach, provide a high level of integration in assessing, planning, and implementing ditch and water projects, giving them a high likelihood of success. The SCAA provides assistance on issues of water conservation; offers referral for legal assistance; collaborates and assists with physical improvements and upgrades; provides guidance for members seeking to file for corporation status; and, as in this case, provides technical assistance and administration in obtaining grant funds.

The SCAA is requesting funds of \$100,000 on behalf of the Vallejos Ditch Association in order to replace a diversion on Vallejos Creek.

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

The Contracting Entity and the Applicant are the same -- the SCAA.

4. 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.

5. 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.

There are no TABOR issues involved.

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Part II. - Description of the Water Activity/Project

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

☐

Nonconsumptive (Environmental or Recreational)

☒

Agricultural

☐

Municipal/Industrial

☐

Needs Assessment

☐

Education

☐

Other

Explain:

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

The replacement of the Vallejos Ditch headgate will help meet the consumptive needs of irrigators by enabling timely distribution and management of their decreed water. The project will also improve water quality by reducing downstream erosion and facilitating the redirection of surface and flood flows back into the Culebra Creek for downstream irrigators. This first implementation project of the SCAA will also help to remedy significant flooding problems in the Town of San Luis and surrounding communities. By improving irrigation efficiency it will conserve water, protect water resources, reduce the propagation of maintenance issues, and restore full operational capacity to a system which has reached the end of its useful life.

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

☐

Study

☒

Implementation

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

New Storage Created (acre-feet)

New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)

Existing Storage Preserved or Enhanced (acre-feet)

Length of Stream Restored or Protected (linear feet)

Length of Pipe/Canal Built or Improved (linear feet)

Efficiency Savings (acre-feet/year OR dollars/year – **circle one**)

Area of Restored or Preserved Habitat (acres)

Other -- Explain:

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

Latitude: E 466644

Longitude: N 4109643

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.

(next page please)

PROJECT OVERVIEW/SUMMARY

The Structural Problem: This water activity will replace the existing diversion structure on Vallejos Creek. The turnout on the north side of the creek feeds both the North and South laterals. The south lateral is supplied water with a drop structure and corrugated metal pipe located under the main structure. The concrete structure has deteriorated, with the walls cracked and crumbling. In high flows the headgate fails to divert excess water, causing flooding of the neighboring residential areas. The crumbled structure leaks and the water gates are almost inoperable. Built around 1965, the headgate has surpassed its effective service life. NRCS has determined that this headgate is beyond repair and must be replaced. The new structure will pull water from both the north and south, thus simplifying the original design, eliminating higher construction costs, and reducing requirements for maintenance.

Related Problems: Riparian and water quality issues are also involved. The banks of Vallejos Creek upstream and downstream of the headgate are deteriorated due to continual seepage and vegetative overgrowth, exacerbating the already serious sedimentation and erosion problems which have been identified throughout the Culebra watershed. Loss of stability and control have caused the targeted section of Vallejos Ditch to lose 70% of its carrying capacity.

High Priority: Of the 83 acequias currently in operation in Water District 24, Division 3, the Vallejos Ditch is one of the earliest, established in 1854 with priority #5. Vallejos Ditch is approximately 4 miles long, located within the Sangre de Cristo Land Grant lands near San Pablo in the San Luis Valley of Costilla County. The two branches of Vallejos Creek, the North Vallejos and the South Vallejos, are each about 2 miles in length. With 13 cfs, historically irrigated acreage has been computed at 1316 acres, serving 64 operators. Repeated flooding, high maintenance, and reduced water management capabilities make this a high priority project.

A larger strategy: In 2005 the Sangre de Cristo Acequia Association (SCAA) initiated the Culebra Watershed Plan to study and begin addressing numerous water quality issues throughout the Culebra system. Many entities were involved; some funding was obtained; several valuable studies were completed over the next few years; but ultimately the project was not completed due to lack of funding from Colorado Department of Public Health and Environment (CDPHE). Hereafter references to this work by SCAA and others will be referred to as “the watershed plan.” This project draws on much of that work and implements some of its findings.

A Regional Approach: By working with each individual ditch or acequia project, such as the present Vallejos Ditch Project, SCAA is able to quantify identified impacts, evaluate the condition of the Culebra Watershed riparian corridor, and implement best management practices throughout the watershed to address such common concerns as water quality, sedimentation, as well as impacts to river/flood plain and larger ecosystem functions.

Long Term Stewardship: Maintenance is an expectation of every practice that NRCS designs. For example, NRCS contracts require every practice be maintained according to an Operation & Maintenance agreement. Failure to do so requires refund of any NRCS cost share payment. NRCS Standards and Specifications also set a high standard for quality and durability—demanding the proper materials, type of construction, and attention to detail that guarantee the practice will deliver expected results under all circumstances and contingencies. Based on these Standards & Specifications, NRCS establishes an expected Practice Lifespans (see Conservation Practices and Practice Service Life Table, attached). An “Irrigation Water Conveyance, Ditch & Canal Lining, Plain Concrete (#428)” and a “Structure for Water Control (#587)” each have a 20-year lifespan. Vallejos Ditch Association (VDA) has voted to approve a Resolution to guarantee this maintenance for a period of 25 years.

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

1) This proposal is eligible for funding under Senate Bill 06-179 because 1) it is being submitted for approval to the Rio Grande Interbasin Roundtable pursuant to article 75 of title 37, C.R.S.. This water activity will take place in the Rio Grande Basin; 2) it meets the eligibility categories described below; and 3) this proposal is submitted for approved by the Rio Grande Basin Roundtable and conforms to criteria and guidelines developed by the IBCC and CWCB.

2) This water activity meets the eligibility requirements as required in Part 2 of the criteria and guidelines as detailed above.

3) The water activity is consistent with Section 37-75-102 C.R.S., because it restores, repairs, and upgrades existing irrigation structures within the Vallejos Ditch system. This Project therefore does not supersede, abrogate, or otherwise impair the State's current system of allocating water within Colorado nor does it in any manner repeal or amend the existing water rights adjudication system. This Project does not affect the State Constitution's recognition of water rights as a private usufructuary property right nor is it 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. By improving surface water management on the Vallejos Creek, and by being the first such project to be implemented under the Culebra Watershed Plan, this water activity is consistent with Section 37-75-102 C.R.S..

- 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.

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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Chairman of the RGBRT has included this information in the letter accompanying this proposal.

- 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.

This water activity promotes better management of surface water in the Culebra Watershed, thereby assisting in the Rio Grande Basin's goal of achieving sustainable aquifers. Replacement of the Vallejos Ditch headgate greatly reduces or eliminates current flooding problems and the excessive maintenance and water management issues caused by deteriorated structures, leakage, bank instability, and loss of carrying capacity. This project thereby conforms to the Basin's emphasis on improving surface water management. This project leads the way, combining WSRA funding, NRCS technical support, and SCAA stewardship for future projects in the Culebra Watershed.

The accompanying approval letter from the Chairman of the RGBRT describes how this water activity assists in meeting the water supply needs identified in the Rio Grande Basin Roundtable's consumptive and/or non-consumptive needs assessments.

- d) **Matching Requirement:** For requests from the **Statewide Fund**, the applicants is required to demonstrate a **20 percent** (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of **5 percent** of the total grant amount from Basin Funds. 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 application was submitted to the CWCB. 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).

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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Total Project Cost	=	\$116,100	
Grant Amount Requested	=	\$100,000	\$10,000 Basin; \$90,000 Statewide
20% match of Statewide funds =			Required Match \$18,000.00

Rio Grande Basin Funds	\$10,000.00	WSRA Account
Costilla Conservancy District	\$ 2,400.00	Cash – Research & Cash Match
SCAA (applicant)	\$ 1,200.00	Cash – Landowner Coordination
NRCS	\$10,600.00	Technical Assistance
Vallejos Ditch	\$ 1,900.00	In-kind Services
	\$26,100.00	TOTAL MATCH
TOTAL MATCHING FUNDS	\$26,100.00	or 22.5 % of Total Project
		29.0% of Statewide WSRA funds

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.**

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. 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).
- **Promoting Collaboration/Cooperation:** By its very nature the SCAA is an organization built on uniting, consolidating, bringing together, and supporting the interests of acequia irrigators and landowners in the Culebra watershed. This project responds to the mission of SCAA and begins to implement some of the consumptive and nonconsumptive needs identified in the Culebra watershed plan. In preparation for this proposal the Vallejos Ditch Association and SCAA collaborated to collect data, maps, and numerous historical documents from the Division of Water Resources; jointly consulting with Costilla County’s Land Use Planner, and the County Commissioners. Key guidance and preliminary plans were provided by the San Luis field office of NRCS, with several of their staff attending numerous meetings. Since VDA had very little documentation, The Costilla Water Conservancy District provided \$2,400 to conduct research and recover documents, assisted in great part by staff at the Alamosa office

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of the Division of Natural Resources. Additional research was required to recover documentation from various sources involved in the watershed plan,

- 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.
- **Including Multiple Entities** -- Referenced frequently in this proposal, the watershed plan was a collaboration of The Rural Community Assistance Corporation, the Colorado Watershed Network, Riverwatch, the Costilla County Commission, and the SLV GIS/GPS Authority, and was funded in part with two EPA grants (\$10,000 and \$50,000) and \$3,500 from the Costilla County Water Conservancy District. Technical support toward implementation was provided over almost two years by CDPHE. Although the Nonpoint Source Project grant was not awarded by CDPHE, many community meetings were held with local land owners, commissioners, and state agencies. NRCS assisted VDA with project assessments, document recovery and analysis, and gave many hours of technical assistance from their lead conservationist, planner, engineering staff, and technician.
- 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.
- **Meeting Rio Grande Basin needs assessment** - By replacing the Vallejos Ditch irrigation head gates and stabilizing the banks above and below the headgate, this Project helps address the single most critical water issue confronting the Rio Grande Basin, which is the current unsustainable management of surface and ground water.

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).
- **Funds Make Implementation Possible** – The Vallejos Ditch Association has insufficient funds to undertake the replacement of the diversion structure, and it also lacks the organizational requirements to qualify for a loan or to apply for grant funds directly, because it is not incorporated, does not have a Tax ID number, and does not have the required insurance to apply. For this reason the SCAA has stepped forward, in keeping with its mission, to satisfy the eligibility requirements and to provide the needed infrastructure and administration to fulfill the terms of this proposal. The SCAA has contributed what it can and has requested assistance from the Costilla Water Conservancy District, but, as a collaborative water user organization involving many entities, it does not have the ability to solicit or raise the required funds. This grant is essential in order to replace the headgate on Vallejos Creek.
- 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.

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- **A Significant and Appropriate Commitment** – Total matching funds of \$26,100 includes \$5,500 from the Applicant, from Vallejos Ditch Association, and from local stakeholders, with total match exceeding the guideline's requirements.

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.
- **Agriculture** – With 1316 acres irrigated by the Vallejos Ditch Association, the replacement of the diversion structure and the inclusion of new design elements by NRCS enables the timely distribution and management of decreed water rights in priority.
- 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.
- **Keeping Water in the Basin** - Although this project is not related to the Rio Grande Compact, SCAA's sponsorship, fiscal agency, and administration brings a much larger perspective to this project. Thanks to NRCS' strong participation, this project has the benefit of past studies and watershed analyses and anticipates a watershed-wide perspective. SCAA's administration and its collaborative involvement with multiple acequias and ditches fosters a united approach to solving problems that goes back many generations, thus promoting maximum utilization of state waters.
- h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.
- We do not have information for this element.
- i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.
- j. The water activity is complimentary to or assists in the implementation of other CWCB programs.
- **CWCB's continuing support** – In July 2008 CWCB supported the studies in SCAA's watershed plan, providing \$5,000 to construct and install trash racks on the main acequias to reduce sediment buildup. The SCAA is now stepping up to provide the much needed administrative support to back up this proposal. SCAA anticipates fulfilling similar proposals for other unincorporated ditches and acequias in the future, with the assistance of NRCS, as much work remains to be done throughout the Culebra Watershed.

Part IV. – Required Supporting Material

- k. **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.

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Location: The Culebra watershed is located in the southeastern quadrant of the San Luis Valley, a high altitude alpine desert with an average elevation of 7,800 feet above sea level, enclosed between the Sangre de Cristo Range to the east and the San Juan Range to the west. The headwaters of the 360-square mile Culebra watershed are in the southernmost segment of the Sangre de Cristo Range. (See maps)

The Culebra Watershed is located within the Rio Grande Basin, but is not subject to the Rio Grande Compact. The historic town of San Luis, the seat of Costilla County, has a population of 739. Officially established in 1851 by Hispanic settlers, San Luis is the oldest town in the state of Colorado. San Luis is home to the San Luis People's Ditch, the oldest water right in Colorado, established in 1852. The Culebra watershed also hosts the only remaining true common grazing area left in the country, a 633 acre plot of land called La Vega. The primary water source in the Culebra Watershed is snowmelt from the Sangre de Cristo range. This water is primarily used for storage in the Sanchez Reservoir and is released for irrigation.

Domestic drinking water comes primarily from groundwater sources. The San Luis Water and Sanitation District provides water from underground aquifers to water tanks and has a sewer system with a treatment plant in town. Most other landowners outside the town of San Luis are on individual wells or water tanks supplied by pumps from the aquifer and use septic tank leach fields to treat waste water.

The watershed is bound by 14,000 ft mountain peaks of the Sangre De Cristo Range to the east and the flat, arid San Luis Valley bottomlands to the west. The San Luis Valley is characterized as a high mountain desert with cool summers and cold winters. Precipitation in the Culebra Watershed ranges between 10 to 14 inches/year in the lowlands and up to 20 inches/year in the mountains. Over 98 percent of the watershed is privately owned. There are a few large private holdings higher up in the watershed, but most land ownership consists of small family farms ranging from 11 to 40 acres.

Soils range from sandy loam to loamy clay and the primary vegetation is rangeland sagebrush and western wheatgrass. The Culebra Watershed geology is part of the Rio Grande Rift. The Rift is filled by sedimentary and volcanic rock. The basin has a series of geologically young faults which could potentially cause earthquakes. Large arroyos on the surficial sedimentary deposits of the Santa Fe group present in the basin are highly erosive.

Historical water use: Historically, an average of six to seven hundred farming families irrigated with acequias in this watershed, but after 1960, after the enclosure of the Sangre de Cristo land grant, the number of family farms declined. Today fewer than 300 families, descendants of the original nineteenth century settlers, are using acequia water delivery systems to irrigate some 24,000 acres of crop and pasture lands.

The acequia system and the network of community ties they have created constitute structures that are reliable, well understood, governed by accepted rules, and that depend on technologies within the economic reach of the communities. The physical and social landscape of the [acequia neighborhood] has continuing value to the community of users because it promotes their common flourishing. It has wider public value for the stability of settlement and the suite of natural resource assets it has created.

Devon Peña, Ph.D. – Secretary, Sangre de Cristo Acequia Association

Peña, Devon G., and Hicks, Gregory A., Community Acequias in Colorado's Rio Culebra Watershed: A Customary Commons in the

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Acequia Communities: These small holders are bound together in informal networks for the exchange of labor, resources, and mutual support to clean and maintain the acequias. They irrigate and work their croplands and grazing lands in ways that are based on the capacities and water delivery methods of the acequia. A co-founder of SCAA and its current Secretary is Dr. Devon Peña, scholar and authority on acequias, University of New Mexico.

Vallejos Creek: Mike Sullivan, formerly State Water Engineer for Division 3, identified three decrees awarded to the Vallejos ditch (email to Virginia Sanchez 2/12/04). The Hayt Decree of June 14, 1889 allowed the ditch to have 17 cfs as priority 5 based on an appropriation date of March 31, 1854. Sullivan: "This decree is really the best water right for the Vallejos ditch and reflects the San Luis/San Pablo area in 1854." The Holbrook Decree of December 14, 1905 was an enlargement decree for an additional 1.5 cfs as priority 58 (appropriation date March 1, 1898). On November 23, 1917, water users requested an additional 8cfs for domestic purposes, but this was never granted, until finally, in the Roxton Decree in 1935, the additional decree was reduced to 0.52 cfs for domestic purposes, and it could only be diverted during the non-irrigation season.

Sullivan: *"While all the 'decreeing' was occurring there was a tremendous fight between many of the ditches (including the Vallejos) and the Freehold Land and Emigration Company. It is a rather complicated affair.... But really it looks to be a 'water grab' [against] the poor rural folks.... It looks like it went back and forth as to who owned the water before the court gave it back (I think) to the original owners."* Sullivan encouraged further research.

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

SCAA initiated a watershed plan in 2002, primarily to address the sedimentation issues related to logging on what was then known as The Taylor Ranch. Some portions of that study were completed, but the entire study was not completed, due to lack of funding. Despite this, SCAA played, and continues to play, a guiding role in addressing issues of concern to water users in the Culebra watershed.

NRCS has advised that there are no permitting requirements expected in this project.

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

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.

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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 5 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.

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

Signature of Applicant:

Print Applicant's Name:

Project Title: CULEBRA WATERSHED VALLEJOS DITCH HEADGATE REPLACEMENT

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

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

Exhibit A-1
Statement of Work

WATER ACTIVITY NAME - **Culebra Watershed,
Vallejos Ditch Headgate Replacement**

GRANT RECIPIENT – **The Sangre de Cristo Acequia Association**

FUNDING SOURCE – **Water Supply Reserve Account
Rio Grande Basin \$10,000
Statewide fund \$90,000**

INTRODUCTION AND BACKGROUND

Provide a brief description of the project. (Please limit to **no more than 200 words**; this will be used to inform reviewers and the public about your proposal).

This water activity will replace the existing diversion structure on Vallejos Creek in the Culebra Watershed of the Rio Grande Basin. Built around 1965, the headgate has surpassed its effective service life. The concrete structure has deteriorated, with the walls cracked and crumbling. In high flows the headgate fails to divert excess water, causing flooding of the neighboring residential areas. The crumbled structure leaks and the water gates are almost inoperable. The Natural Resources Conservation Service (NRCS) has determined that this headgate is beyond repair and must be replaced. Division 3 Engineer has approved the NRCS preliminary proposed structural alternative, which would pull water from both the North and South, thus eliminating higher construction costs, reducing maintenance, and greatly reducing or eliminating the threat of flood.

OBJECTIVES

List the objectives of the project

1. Replace the deteriorated Vallejos Ditch Headgate with a new structure
2. Allow irrigators to obtain their decreed irrigation water when in priority
3. Improve downstream water quality
4. Significantly reduce risk of flood
5. Eliminate or greatly reduce maintenance problems
6. Upgrade water control efficiency for the Vallejos Ditch
7. Set an example for future SCAA implementation projects which combine WSRA funding and NRCS technical support for projects in the Culebra Watershed

TASKS

TASK 1 Mobilization, Demobilization

Description of Task: This task includes all costs to mobilize equipment, tools, safety and sanitary equipment, and consumable supplies to the site. At the end of the project all Contractor owned equipment, tools, safety and sanitary equipment, and supplies will be removed from the site.

Method/Procedure: As stated above

Deliverables: All equipment and supplies required to conduct the work set forth in the contract will be available to the worksite.

TASK 2 Demolish Existing Headgate

Description of Task: This task will include all work required to demolish and remove the current headgate structure.

Method/Procedure: Trackhoe jack hammer with some torch cutting. Haul debris with dump trucks to approved disposal location.

Deliverables: The removal of the former headgate and diversion structure.

TASK 3 De-Watering

Description of Task: Remove all water from work site, diverting Vallejos Creek if necessary.

Method/Procedure: Isolate work area and remove water from work area with pump. Depending on the season, on conditions, and on consent of water users, it may be possible to divert water upstream from the site. Continue to pump seepage out of the work site for the duration of the project as needed.

Deliverables: The work area is sufficiently dry to perform the work.

TASK 4 Earth Work

Description of Task: Prepare the site to construct the diversion structure.

Method/Procedure: Deliver soils and gravels to work site, per NRCS specifications. Re-route the creek as needed to have a clean and dry work site. Shape banks to accommodate new structure. At end of project, re-

shape creek to final configuration of the new structure. Reseed per NRCS specs.

Deliverables: Natural shape of creek restored to ensure stability of new structure, seeded with native vegetation, meeting specifications of NRCS engineers and regulatory authorities.

TASK 5a Forms

Description of Task: Set concrete forms for new diversion structure.

Method/Procedure: Set concrete forms and re-bar reinforcement per structural design and in compliance with NRCS specifications.

Deliverables: Completed form, ready for pour, in accordance with structural design and in compliance with NRCS specifications.

TASK 5b Concrete

Description of Task: Pour concrete; remove forms; seal and finish off new concrete structure.

Method/Procedure: Utilize concrete trucks to deliver and to pour concrete in compliance with NRCS specifications. Remove forms. Repair any blemishes remaining from pour. Seal concrete with NRCS-approved sealant.

Deliverables: Concrete structure is complete, ready for installation of gates.

TASK 6 Gate & Rails

Task Description: Install 2 sluice gates and 2 turnout gates, and install catwalk rails.

Method/Procedure: Purchase and install hardware into concrete structure according to manufacturer's guidelines and in compliance with all NRCS and regulatory requirements.

Deliverables: Greatly improved control of irrigation releases; protective rails on catwalk reduce risk of accident or injury.

TASK 7 Reporting and Final Deliverable

Description of Task: Report at completion of project.

Method/Procedure: SCAA submits final report, describing the completion (or partial completion) of the tasks identified in the statement of work, including any major issues that have occurred and any corrective action taken to address these issues.

Deliverables: SCAA shall provide CWCB a final report summarizing the project and documenting how the project was completed. The report may contain photographs, summaries of meetings and engineering reports and designs.

Exhibit A-2

BUDGET

Provide a detailed budget by task including number of hours and rates for labor and unit costs for other direct costs (i.e. mileage, \$/unit of material for construction, etc.). A detailed and perfectly balanced budget that shows all costs is required for the State's contracting and purchase order processes. Sample budget tables are provided below. Please note that these budget tables are examples and will need to be adapted to fit each individual application. Tasks should correspond to the tasks described above.

(next page)

TASK NO.	TASK DESCRIPTION	Units	Cost	Labor	SUBTOTAL	WSRA GRANT	MATCHING FUNDS	TOTAL PROJECT
1	Mobilize - Demobilize				\$ 417			
2	Demolition & Removal				\$ 15,000			
3	Dewatering				\$ 2,000			
4	Earthwork				\$ 5,000			
5a	Forms							
5b	Concrete - yards (including labor)	60	\$ 1,100		\$ 66,000			
6a	Gates	4	\$ 953		\$ 3,811			
6b	Hand rails & bar grating (including labor)	1	\$ 2,672		\$ 2,672			
7a	Bookkeeper Contract - 3 months	3		300	\$ 900			
7b	Administration Contract - 3 months	3		1400	\$ 4,200			
7c	Final Report				nc			
	WSRA GRANT REQUEST (rounded to dollar)					\$ 100,000		\$ 100,000
	NRCS - Matching - Technical Assistance							
	Lead Conservationist	40	\$ 65	\$ 2,600	2600			
	Planner	40	\$ 30	\$ 1,200	1200			
	Engineering	40	\$ 65	\$ 2,600	2600			
	Technician	140	\$ 30	\$ 4,200	4200			
	TOTAL NRCS Match					\$ 10,600	\$ 10,600	
	Costilla Conservancy Dist. Landowner Research	2	\$ 1,200		\$ 2,400			
	SCAA - Landowner Coordination	24	\$ 50		\$ 1,200			
	Vallejos Ditch - Direct Project Oversight	30	\$ 20		\$ 600			
	Vallejos Ditch - Truck & Site Assistance	1	\$ 1,300		\$ 1,300			
	TOTAL APPLICANT MATCH					\$ 5,500	\$ 5,500	
	TOTALS					\$ 100,000	\$ 16,100	\$ 116,100

Exhibit A-3

SCHEDULE

Provide a project schedule including key milestones for each task and the completion dates or time period from the Notice to Proceed (NTP). This dating method allows flexibility in the event of potential delays from the procurement process. Sample schedules are provided below. Please note that these schedules are examples and will need to be adapted to fit each individual application.

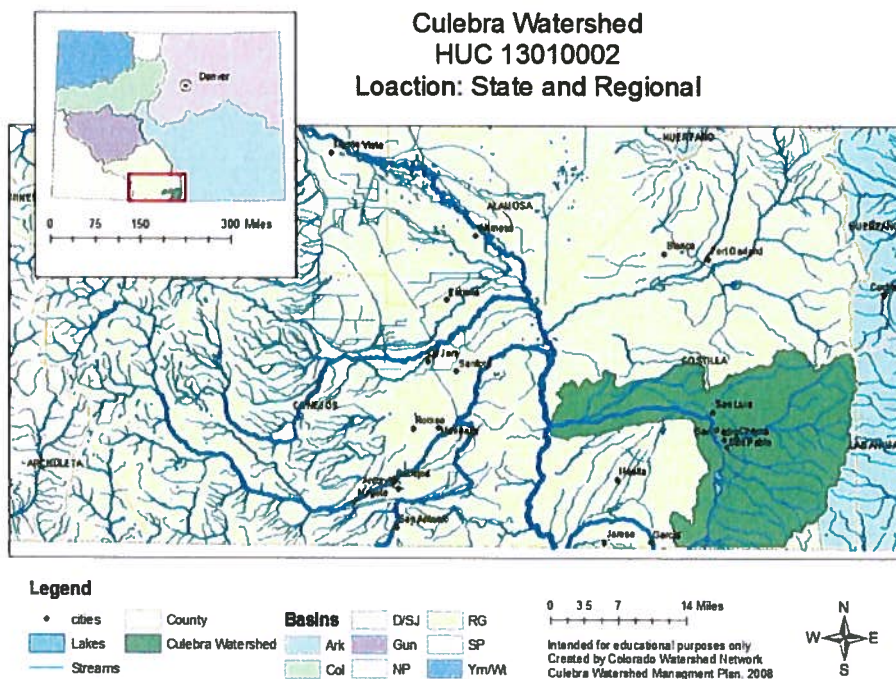
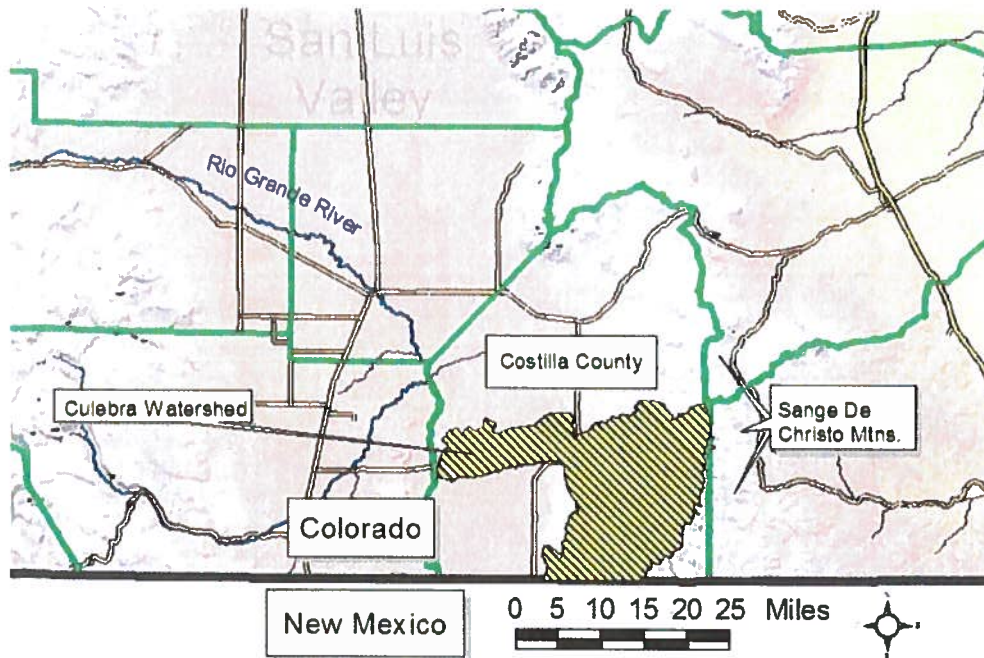
Project Completion – Less than Three Months

Task	1st 6 Weeks						2 nd 6 Weeks					
#1 Mobilize/Demobilize	■											
#2 Demolish		■										
#3 Dewater			■	■	■	■	■	■	■	■	■	
#4 Earth work			■									
#5 Forms & Concrete				■	■	■	■	■	■	■	■	
#6 Gates & Rails		■									■	
#7 Final Report												■

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 5 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.

Exhibit B – Project Maps



Culebra Watershed NWI Wetlands

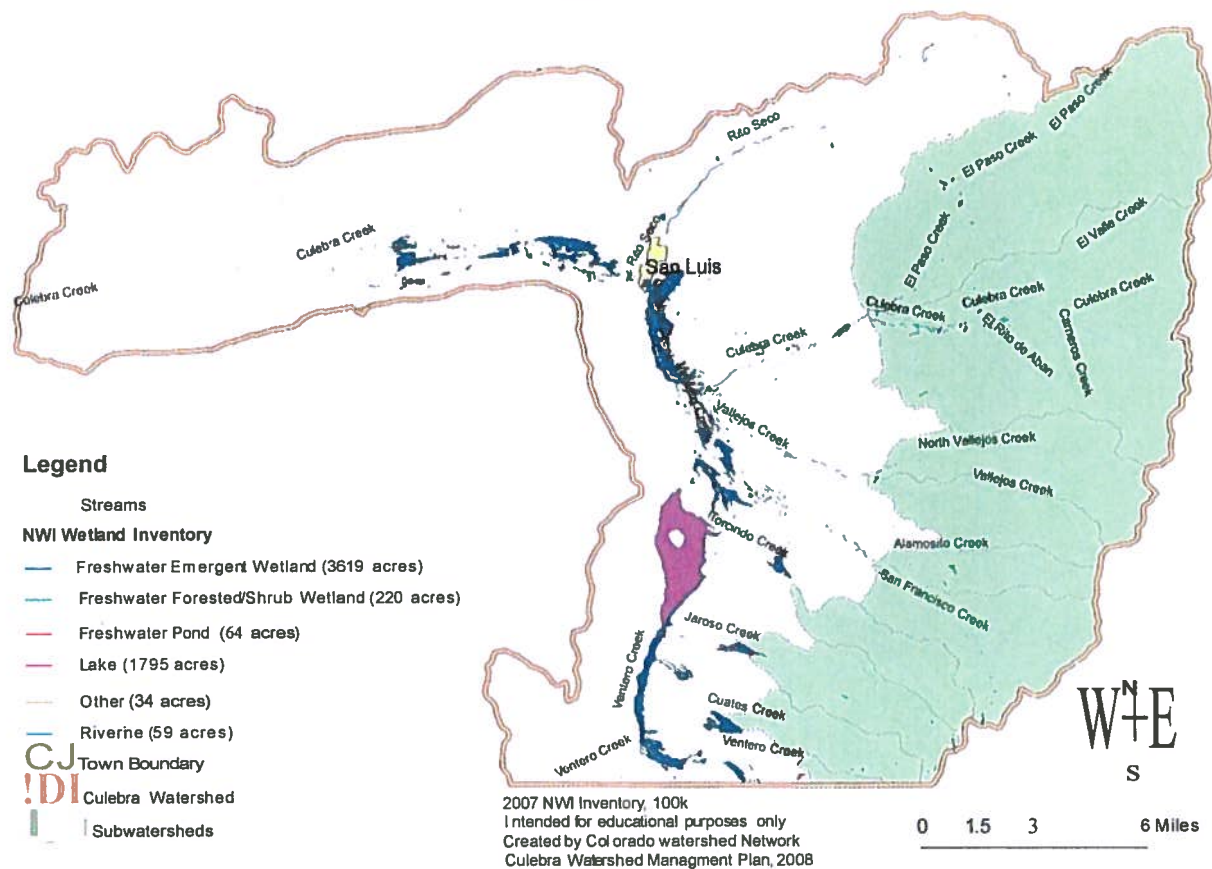
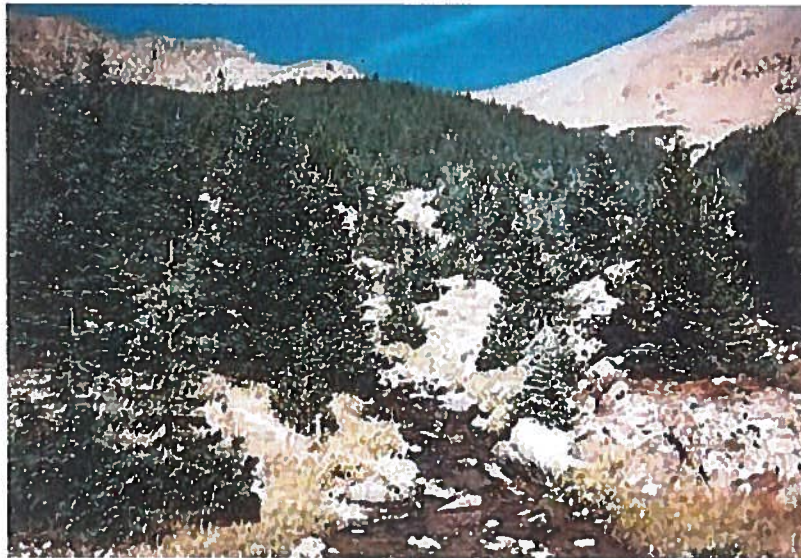


Exhibit C-1
Photoaraphs



SOUTH PLATTE BASIN ROUNDTABLE

January 16, 2013

Colorado Water Conservation Board
1313 Sherman Street. Room 721
Denver, Colorado 80203

RE: Prewitt Reservoir Wetland Partnership

Dear Sirs:

The South Platte Basin Roundtable has received, reviewed and approved a Water Supply Reserve Account Application from the Ducks Unlimited, Inc. for Prewitt Reservoir Wetland Partnership. The Roundtable unanimously approved, on January 8, 2013, \$45,414 from the Basin Account for this project and recommends \$45,414 in funding from the Statewide Account. The evaluation of the South Platte Basin Roundtable was that this project meets all the criteria for approval and recommends the project to the Board for approval. The Roundtable also requested that any water rights or other concerns that the Prewitt Reservoir might have be resolved and agreed to before final funding.

If additional information is needed please contact the undersigned.

Sincerely,

Harold G. Evans

Harold G. Evans, Chairman
South Platte Basin Roundtable



COLORADO WATER CONSERVATION BOARD
WATER SUPPLY RESERVE ACCOUNT
APPLICATION FORM



Prewitt Reservoir Wetland Partnership

Name of Water Activity/Project

Ducks Unlimited, Inc.

Name of Applicant

South Platte River Basin
Roundtable

Amount from Statewide Account:

\$ 45,414

Amount from Basin Account(s):

\$ 45,414

Total WSRA Funds Requested:

\$ 90,828

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

Application Content

Application Instructions	page 2
Part I – Description of the Applicant	page 3
Part II – Description of the Water Activity	page 5
Part III – Threshold and Evaluation Criteria	page 7
Part IV – Required Supporting Material	
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
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Part I. - Description of the Applicant (Project Sponsor or Owner);

1.	Applicant Name(s):	Ducks Unlimited, Inc.		
	Mailing address:	Great Plains Regional Office 2525 River Road Bismarck, North Dakota 58503		
	Taxpayer ID#:	FIN 13-5643799		
	Primary Contact:	Matthew Reddy	Position/Title:	Regional Biologist
	Email:	mreddy@ducks.org		
	Phone Numbers:	Cell: (970)381-2876	Office:	(970)221-9862
	Alternate Contact:	Kevin Warner	Position/Title:	Engineer
	Email:	kwarner@ducks.org		
	Phone Numbers:	Cell: (970)590-1545	Office:	(970)221-9865

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.

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3. Provide a brief description of your organization

Ducks Unlimited, Inc. (DU) is a private not for profit (501(c)3) organization whose mission is to “conserve, restore and manage wetlands and associated habitats for North America’s waterfowl. These habitats also benefit other wildlife and people.” Established in 1937, DU was founded by a group of men who realized the climatic impact of the “Dust Bowl” was having a devastating effect on waterfowl populations. They set about to form an organization which has become the preeminent conservator of North American wetland habitats. Wetlands are one of the most dynamic natural systems on earth, providing flood irrigation, recharge of aquifers, contaminant removal, wildlife habitat, and they provide the basis for the livelihoods and recreation of millions of people. Over our 75 year history, DU has conserved more than 11 million acres of wetlands and associated habitats. DU is a science-based organization and it pursues its mission continent-wide, focusing on priority areas with the biggest impact on North American waterfowl populations.

In Colorado, DU has worked with several organizations focused on both wildlife conservation and water resources conservation. Since 1997, we have conserved, restored and managed more than 75,000 acres of wetlands and associated habitats in Colorado, including 16,000 acres in the South Platte River watershed (SPR). To deliver wetland conservation projects in the state, DU maintains a staff including a full-time program manager, a regional biologist, a certified engineer, and a regional director of grassroots membership. We also maintain a registered membership of over 10,000 members in the state of Colorado.

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

N/A

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

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Part II. - Description of the Water Activity/Project

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

☒ Nonconsumptive (Environmental or Recreational)

☐ Agricultural

☐ Municipal/Industrial

☐ Needs Assessment

☐ Education

☐ Other

Explain:

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

The principal goal of the proposed work is to enhance migratory bird habitat associated with Prewitt Reservoir, a nonconsumptive purpose. However, certain elements of the work will allow managers of Prewitt Reservoir more flexibility in managing water levels in the reservoir. Proposed levees will protect existing infrastructure found along the shoreline of the reservoir. Reservoir levels can, therefore, be increased without damage to these structures.

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

☐ Study

☒ Implementation

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

New Storage Created (acre-feet)

New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)

Existing Storage Preserved or Enhanced (acre-feet)

Length of Stream Restored or Protected (linear feet)

Length of Pipe/Canal Built or Improved (linear feet)

Efficiency Savings (acre-feet/year OR dollars/year – circle one)

452 Area of Restored or Preserved Habitat (acres)

Other -- Explain:

Water Supply Reserve Account – Application Form
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4. To help us map WSRA projects please include a map (Exhibit B) and provide the general coordinates below:

Latitude:

40.421

Longitude:

-103.366

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 goal of the Prewitt Reservoir Wetland Partnership is the enhancement of over 450 acres of wetland habitat immediately associated with Prewitt Reservoir (See attached map). The marshes and pools provided along the margins of the reservoir provide some of the highest-quality foraging and roosting sites for populations of migratory birds in the state. These wetlands also provide recreational opportunities for many Coloradoans, ranging from bird-watching to fishing to waterfowl hunting. The proposed activities will address habitat and recreational opportunities through the development of passive and active water management on both public and private properties surrounding the reservoir. Many of the area's wetlands are flooded through the normal operation of the reservoir. With the installation of water-control structures and suitable excavations, the quality of these areas (or, at least, their persistence) can be increased even under normal water management provided by reservoir operators. Other wetlands in the scope of work can be developed such that active water management improves habitat quality and recreational opportunities. Provision of water for wetland wildlife habitat and waterfowl hunting recreation are two important nonconsumptive needs identified by the South Platte Basin Roundtable. These important goals will be accomplished without any additional diversions on the South Platte River.

This project provides for the attainment of these nonconsumptive water supply goals by achieving the following objectives:

- 1.) The enhancement of existing shallow-water basins associated with Prewitt whose disrupted hydrology has resulted in a shift in plant communities and degradation in habitat quality for wildlife;
- 2.) The identification of areas marginal to the reservoir that may be enhanced through the careful excavation of material impeding the natural back-flooding of shallow basins providing the best habitats to birds, other wetland wildlife, as well as fish;
- 3.) The design and installation of small levees placed (sometimes temporarily) on the margins of the reservoir that would serve both to protect existing infrastructure as well as provide additional flooded shallows.

WSRA funds will fund Ducks Unlimited staff and/or their assignees in the development, permitting, contracting and delivery of wetland conservation activities on three properties associated with Prewitt Reservoir. We estimate nearly 1,200 hours of work will be spent on the three tasks. We anticipate the rehabilitation of up to 10,000 linear feet of ditch, the excavation (and fill) of nearly 20,000 cubic yards of fill, the installation of 12 water-control structures, and other activities necessary to secure high-quality

habitat and recreational opportunity along the reservoir's boundaries.

This work represents a continuation of DU's efforts to conserve the wetland habitats associated with one of the most important reservoir/wetland complexes found within the South Platte Basin. Since 2010, DU has, in association with its conservation partners, has expended nearly a half a million dollars protecting the water resources and wetland habitats found on two private properties associated with the southern and eastern boundaries of the reservoir. The work proposed here will extend those efforts, enhancing the wetland resources to the benefit of the migratory birds, fish, wildlife and to the public utilizing the reservoir. This project includes public access components on all three of the tracts where work is proposed. Prewitt Reservoir State Wildlife Area already allows public access to the reservoir and portions of its shores. DPG Prewitt will allow limited access to youth waterfowl hunters. Prewitt Ranch will allow limited public tours to its shores for birders and those interested in the interaction of agricultural water suppliers and wildlife conservation interests.

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.

Please refer to attached letter from SPBRT Chair, Mr. Harold Evans.

- c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.² The Basin

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.

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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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.

Please refer to attached letter from SPBRT Chair, Mr. Harold Evans.

- d) **Matching Requirement:** For requests from the Statewide Fund, the applicants is required to demonstrate a **20 percent** (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of **5 percent** of the total grant amount from Basin Funds. 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 application was submitted to the CWCB. 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)

The following tables present the matching contribution amounts for the Prewitt Reservoir Wetland Partnership. It shows that we have already secured 41% of the cash match required to deliver the proposed projects. The request to the Water Supply Reserve Account represents 24% of the total project cost, 12% from the basin and statewide accounts respectively.

Funding Source		Status	\$	%
1	a WSRA - Statewide Account	Request	45,414	12%
1	b WSRA - Basin Account	Request	45,414	12%
2	Colorado Parks and Wildlife	Pending	112,552	29%
3	NA Wetlands Conservation Act	Secured	140,461	37%
4	Playa Lakes Joint Venture	Secured	25,000	7%
5	Prewitt Ranch	Secured	14,915	4%
TOTAL			383,755	

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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.**

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. 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 partnership represents the collaboration of Ducks Unlimited with two landowners, one of which is a traditional ranching/farming operation, the State of Colorado, the Playa Lakes Joint Venture (a multi-state bird conservation group) and the federal US Fish and Wildlife Service in consultation with the managers of Prewitt Reservoir. We all share the goal of maximizing the quality and availability of wetland habitats within the immediate area of Prewitt Reservoir. This will not only benefit the wildlife dependent upon these areas, but it will also benefit the people of Colorado who visit the reservoir to enjoy those wildlife resources. Public benefit is also bolstered by the allowance by the two private landowners of some degree of public access to the resources developed under this proposal. DPG Farms has agreed to limited youth waterfowl hunting on the property and Prewitt Ranch has agreed to allow limited birding tours of the property. All activities will be performed in consultation with the managers of Prewitt Reservoir and work within the restrictions generated by their management of water supplies within the water body.

- 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.

The South Platte Basin Roundtables nonconsumptive needs assessment recognizes wetland habitat and waterfowl-based recreation as important resources within the basin. Maintenance and/or expansion of these benefits without expanding water use in the basin is a key strategy to achieving nonconsumptive goals in light of the high demand for water supplies in the basin.

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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).

The area of concern for this proposal is large, being marginal to the shores of Prewitt Reservoir. Our initial work there has indicated a good deal more work than was originally anticipated. The allocation of WSRA funds to the project will allow us to fully survey and develop any suitable site within the project boundaries. Absent this funding we will have to reduce the scope of work presented here, thus losing out on a significant amount of public benefit arising from the work. WSRA funds are critical for us to achieve matching requirements for the other funding sources now pending. Without these funds our ability to mobilize those funds on the properties will be severely restricted, further diminishing the impact of the proposed work.

- 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.

Our request to the WSRA accounts for less than a ¼ of the total project cost securing the nonconsumptive benefits targeted here. This share does not account for the hundreds of thousands of dollars recently spent acquiring conservation easements on the two privately-held tracts. Most of the funding proposed for the project arises from state and federal-level wildlife conservation agencies. Nearly half of the funding has already been secured.

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.

Aside from the acknowledged importance of reservoirs to migratory bird populations generally, the three properties targeted here represent three important land uses associated with water resources in the Platte River Basin. The DPG parcel represents a privately-held tract, conserved in perpetuity, managed for high-quality waterfowl hunting. Prewitt Ranch represents agricultural land, with crop production and cattle ranching adding to the economic base of the county. This property, also protected in perpetuity, sits between I-76 and Prewitt Reservoir. Conservation of its water resources will sustain all of the mentioned needs. Finally, Prewitt Reservoir SWA represents publicly-accessible recreation ground. Both consumptive (sportsmen and women, anglers) and nonconsumptive (birders and campers) enjoy the water body and the abundant fish and wildlife it attracts. Our proposed work will maintain and enhance these qualities for a long period of time (30+ years).

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

The activities proposed here will benefit Piping Plover, a state and federally threatened species. Prewitt Reservoir is a known site for these birds and the wetland enhancements proposed here will increase habitat suitability for the birds by providing more suitable foraging areas.

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According to Colorado's Wildlife Action Plan, Tier 1 and Tier 2 Species of Greatest Conservation Need that will benefit from the proposed activities include American Pelican, Forster's Tern, Marbled Godwit, Northern Harrier, Northern Pintail, Snowy Egret, White-faced Ibis, Wilson's Phalarope and leopard frog spp.

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

Our request represents a rate of \$200 of WSRA funds per wetland acre conserved. The Playa Lakes Joint Venture's HABS database estimates that the habitats enhanced under this proposal could support more than 250,000 Duck Use Day Equivalents. This represents a significant proportion of the migratory population goal in this stretch of the Platte River as espoused by North American waterfowl managers.

- j. The water activity is complimentary to or assists in the implementation of other CWCB programs.

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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.

Water supplies for the proposed projects originate from groundwater flows or from the normal operation of Prewitt Reservoir. This project does not propose the development of any new water right or diversion nor does it propose the re-allocation of any existing diversion. Water supplies to wetlands marginal to the reservoir will be passively received as Prewitt undergoes its normal ebb and flow. We will not expand the use of water in the wetland basins surrounding the reservoir; indeed, our management of the basins should return flows to historic conditions.

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

Within the last nine months, one of the properties, DPG Prewitt, already has achieved feasibility, permitting, and we have completed some of the planned enhancement work. The request here will fund ongoing construction activities there. The Prewitt Ranch project site has been surveyed and mapped with a preliminary construction plan forthcoming for review. The proposed activities need be permitted by the Corps of Engineers under a Nationwide Permit 27. Prewitt Reservoir SWA will need to be surveyed, a new design set developed and construction activities permitted. Again, this permission will be advanced under a Nationwide Permit 27.

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

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.

Water Supply Reserve Account – Application Form
Revised December 2011

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

Signature of Applicant:

S. E. Adair

Print Applicant's Name:

Stephen E. Adair

Project Title: Prewitt Reservoir Wetlands Partnership

Date:

2/6/13

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

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

Exhibit A
Statement of Work

WATER ACTIVITY NAME – Prewitt Reservoir Wetland Partnership

GRANT RECIPIENT – Ducks Unlimited, Inc.

FUNDING SOURCE -	Statewide Account --	\$ 45,414	Basin Account --	\$ 45,414
	Total WSRA --	\$ 90,828		
	Matching Funds --	\$ 292,927		
	TOTAL FUNDS --	\$ 383,755		

INTRODUCTION AND BACKGROUND

The goal of the Prewitt Reservoir Wetland Partnership is the enhancement of over 450 acres of wetland habitat immediately associated with Prewitt Reservoir. The marshes and ponds provided along the margins of the reservoir provide some of the highest-quality foraging and roosting sites for populations of waterfowl and other migratory birds. These wetlands also provide recreational opportunities for many Coloradoans, ranging from bird-watching to fishing to waterfowl hunting. The proposed activities will address habitat and recreational opportunities through the development of passive and active water management on both public and private properties surrounding the reservoir. Many of the area's wetlands are flooded through the normal operation of the reservoir. With the installation of water-control structures and suitable excavations, the quality of these areas (or, at least, their persistence) can be increased even under normal water management provided by reservoir operators. Other wetlands in the scope of work can be developed such that active water management improves habitat quality and recreational opportunities. Provision of water for wetland wildlife habitat and waterfowl hunting recreation are two important nonconsumptive needs identified by the South Platte Basin Roundtable. These important goals will be accomplished without any additional diversions on the South Platte River.

OBJECTIVES

This project provides for the attainment of these nonconsumptive water supply goals by achieving the following objectives:

- 1.) The enhancement of existing shallow-water basins associated with Prewitt whose disrupted hydrology has resulted in a shift in plant communities and degradation in habitat quality for wildlife;
- 2.) The identification of areas marginal to the reservoir that may be enhanced through the careful excavation of material impeding the natural back-flooding of shallow basins providing the best habitats to birds, other wetland wildlife, as well as fish;

3.) The design and installation of small levees placed (sometimes temporarily) on the margins of the reservoir that would serve both to protect existing infrastructure as well as provide additional flooded shallows.

TASKS

TASK 1 – DPG Farms Wetland Enhancements

Description of Task

At least twenty-five years of static water levels in the shallow-water wetlands found on DPG Farms property immediately below Prewitt Reservoir have resulted in monotypic stands of cattail. These stands provide very little benefit to most species of wildlife using wetlands in the Platte basin. Our work will allow managers on the property to manage water levels such that the ponds are dry during the growing season. This will allow treatment of the undesirable stands of vegetation, resulting in higher quality habitat and increased opportunity for waterfowl hunting, including limited public youth access.

Method/Procedure

Three techniques will be used to restore vegetation communities to those preferred by migrating waterfowl and other wetland wildlife. First, drainage ditches that have degraded over a century of use will be rehabilitated such that they can again transport water off of the targeted basins during the growing season. Increasing the capacity and flow of these ditches will allow managers to more fully drain basins, allowing better control of vegetation stands there. Second, water-control structures will be installed at key points along the drainage ditches. Finally, select areas of the basins will be treated to set back plant community succession to conditions preferred by the targeted wildlife species.

Deliverable

- 1.) As-built electronic file of project design;
- 2.) Enhancement of 107 acres of wetland habitat;
- 3.) Photo-documentation of project impacts; and,
- 4.) A public access agreement with CPW to allow limited public youth waterfowl hunting.

TASK 2 – Prewitt Ranch Wetland Enhancements

Description of Task

Prewitt Ranch controls over four miles of the southern shore of Prewitt Reservoir. Most of this length maintains shallow-water wetlands used by thousands of waterfowl and other waterbirds during the spring and fall migration. Our proposed work will identify areas that could provide additional shallow flooded areas under passive water level management as Prewitt fills and drains. Some of these areas are cut-off by sand dams created by ice flows, others by the natural topography of the reservoir edge. Our work will ensure that these areas function better and longer in providing habitat. Additionally, we will identify areas where the installation of low-level berms or levees will protect existing high-quality habitats or other important infrastructure such that high water levels in the reservoir will not negatively impact existing habitats.

Method/Procedure

DU has already performed a survey of the site and, through investigation of its topography, identified a series of areas that could receive the treatments described above. We will continue to work with the landowners and with Prewitt Reservoir to develop a final set of construction plans identifying the areas to be excavated and the areas to be filled such that we increase the availability of high-quality flooded areas without impacting the operation of either the reservoir or the ranch. Construction of at least two improved areas is now being contemplated, in addition to breaching sand dams in other strands of the ranch's shore. Levees will be constructed with two-way valves that will allow some degree of water management as the reservoir is filled and drained. This work will benefit the ranch, the owners of the reservoir, and wildlife populations utilizing the shore. Prewitt Ranch, a privately-owned operation, will allow limited public tours of the project area.

Deliverable

- 5.) As-built electronic file of project design;
- 6.) Enhancement of 210 acres of wetland habitat;
- 7.) Photo-documentation of project impacts; and,
- 8.) Two annual public tours of the project area.

TASK 3 – Prewitt State Wildlife Area Enhancements

Description of Task

Most of the north shore of Prewitt Reservoir is managed for wildlife and public recreation by Colorado Parks and Wildlife as Prewitt Reservoir State Wildlife Area. This 3,000-acre property maintains both shallow-water wetlands and marginal, flooded areas that provide habitat and bird-based recreational opportunities (hunting and bird-watching are both extremely popular on the property). In this task, we will perform the same activities identified above (drainage of monotypic wetland basins and enhancement of flooded shallows). Thus wetland habitat quality will be improved in extent and in time to the benefit of the wetland-associated species and the public using the property.

Method/Procedure

Unlike the other two properties identified here, Prewitt SWA has not been surveyed and mapped. We will accomplish this and, in consultation with CPW and Prewitt Reservoir, will identify areas that can be enhanced using the methods identified above. These areas passively receive water under normal reservoir operations and through the appropriate application of (sometimes temporary) embankments and water-control structures achievement of better habitat conditions and more satisfactory recreational opportunities will be achieved.

Deliverable

- 9.) Property survey and topographic map;
- 10.) As-built electronic file of project design;
- 11.) Enhancement of 135 acres of wetland habitat; and,
- 12.) Photo-documentation of project impacts.

BUDGET

TOTAL COSTS

Task	Labor	Other Direct Costs	Matching Funds	Total Project Costs
1.) DPG Prewitt	7,880	7,500	117,767	133,147
2.) Prewitt Ranch	18,449	9,783	97,663	125,895
3.) Prewitt SWA	17,756	22,244	58,012	98,012
Total Direct Costs	44,085	39,527	273,442	357,054
Indirect (<10%)	3,805	3,411	19,485	26,701
Total Request:		90,828		383,755

PROJECT PERSONNEL COSTS

Personnel:	DU Engineer Hourly Rate	Regional Engineer Hourly Rate	Regional Biologist Hourly Rate	DU HRC to Date	Total
Tasks	92.00	105.00	105.00	75.00	
1.) DPG Prewitt	80	0	80	246	406
2.) Prewitt Ranch	104	16	80	230	430
3.) Prewitt SWA	176	24	160	0	360
1.) DPG Prewitt	7,360	-	8,400	18,450	34,210
2.) Prewitt Ranch	9,568	1,680	8,400	17,250	36,898
3.) Prewitt SWA	16,192	2,520	16,800	-	35,512
Total Hours	360	40	320	476	1,196
Personnel Costs	33,120	4,200	33,600	35,700	106,620

OTHER DIRECT EXPENSES

Tasks	Items & Description	Est. Quant.	Unit	Unit Price	Total
1.) DPG Prewitt	a. Mobilization/Preparation	1	LS	8,865.00	8,865
	b. Ditch rehabilitation	3277	LF	4.60	15,083
	c. Embankment construction	1085	CY	7.05	7,649
	d. Water-control structures	4	EA	3,552.50	14,210
	e. HDPE storm drain	143	LF	50.21	7,180
	f. Rip-rap	16	CY	106.00	1,696
	g. Travel	1	LS	3,642.00	3,642
	h. Other payables	1	LS	611.68	612
	i. New ditch rehabilitation	2810	LF	5.00	14,050
	j. New embankment construction	696	CY	5.00	3,480
	k. New water-control structures	2	EA	2,300.00	4,600
	l. New HDPE storm drain	60	LF	50.00	3,000
	m. New rip-rap	8	CY	100.00	800
	n. New travel	20	DAYS	200.00	4,000
	o. New other payables	1	LS	570.00	570
	p. New basin treatments	80	HR	118.75	9,500
2.) Prewitt Ranch	a. Mobilization/Preparation	1	LS	18,813.00	18,813
	b. Excavation/Embankment const.	13851	CY	4.00	55,404
	c. Water-control structures	4	EA	1,000.00	4,000

3.) Prewitt SWA	d. Culvert and pipe installation	136	LF	30.00	4,080
	e. Rip-rap supply and placement	16	CY	100.00	1,600
	f. Travel	23	DAYS	200.00	4,600
	g. Other payables	1	LS	500.00	500
	a. Mobilization/Preparation	1	LS	8,000.00	8,000
	b. Ditch rehabilitation	4300	LF	5.00	21,500
	c. Embankment construction	5000	CY	4.00	20,000
	d. Water-control structures	4	EA	1,000.00	4,000
	e. Travel	40	DAYS	200.00	8,000
	f. Other payables	1	LS	1,000.00	1,000
TOTAL DIRECT EXPENSE					250,434

MATCH CONTRIBUTIONS

Project Task	Sources	Grant	Match	In-kind	Total
1.) DPG Prewitt	WSRA	15,380			15,380
	CPW		17,366		17,366
	NAWCA		77,387		77,387
	PLJV		23,014		23,014
					133,147
2.) Prewitt Ranch	WSRA	28,232			28,232
	CPW		28,232		28,232
	NAWCA		55,701		55,701
	PRR		13,730		13,730
					125,895
3.) Prewitt SWA	WSRA	40,000			40,000
	CPW		58,012		58,012
					98,012
Indirect (<10%)	WSRA	7,216			7,216
	CPW		8,942		8,942
	NAWCA		7,373		7,373
	PLJV		1,986		1,986
	PRR		1,185		1,185
					26,701
Total		90,828	292,927	-	383,755

SCHEDULE

Provide a project schedule including key milestones for each task and the completion dates or time period from the Notice to Proceed (NTP). This dating method allows flexibility in the event of potential delays from the procurement process. Sample schedules are provided below. Please note that these schedules are examples and will need to be adapted to fit each individual application.

TASK			Start Date	End Date
1	a	Design, Permitting and Bid	On-going	Upon NTP
	b	Project Construction	Upon NTP	NTP +600 days
	c	Final Inspection	NTP +600 days	NTP + 720 days
2	a	Design, Permitting and Bid	On-going	Upon NTP
	b	Project Construction	Upon NTP	NTP + 600 days
	c	Final Inspection	NTP +600 days	NTP + 720 days
3	a	Survey & Mapping	Upon NTP	NTP +60 days
	b	Design, Permitting and Bid	NTP + 60 days	NTP +180 days
	c	Project Construction	NTP + 180 days	NTP + 600 days
	d	Final Inspection	NTP +600 days	NTP +720 days

NOTE: Project construction schedule is dependent upon reservoir levels and operations.

PREWITT RESERVOIR WETLAND PARTNERSHIP

base map

map features



Project Boundary



Property Boundary

N

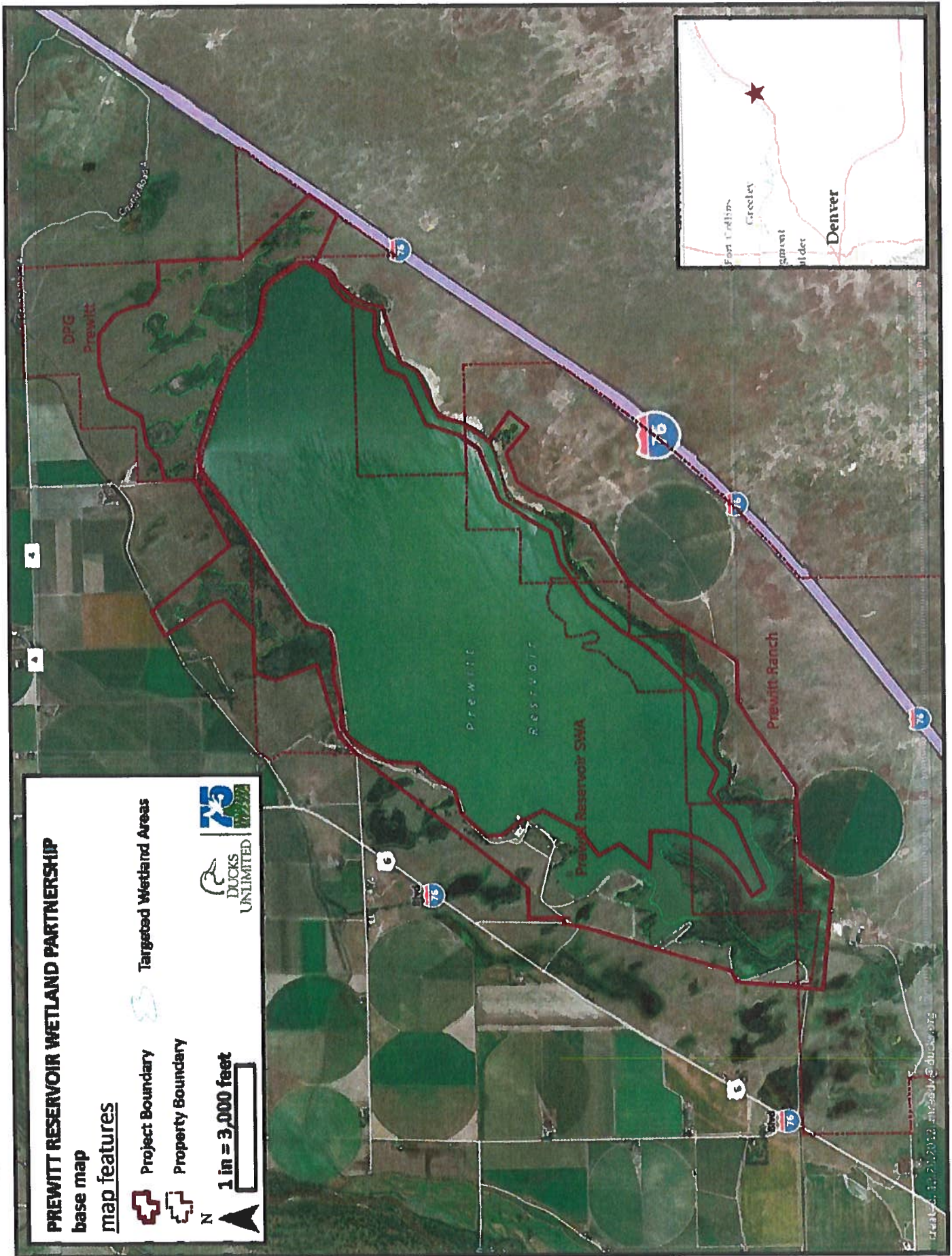


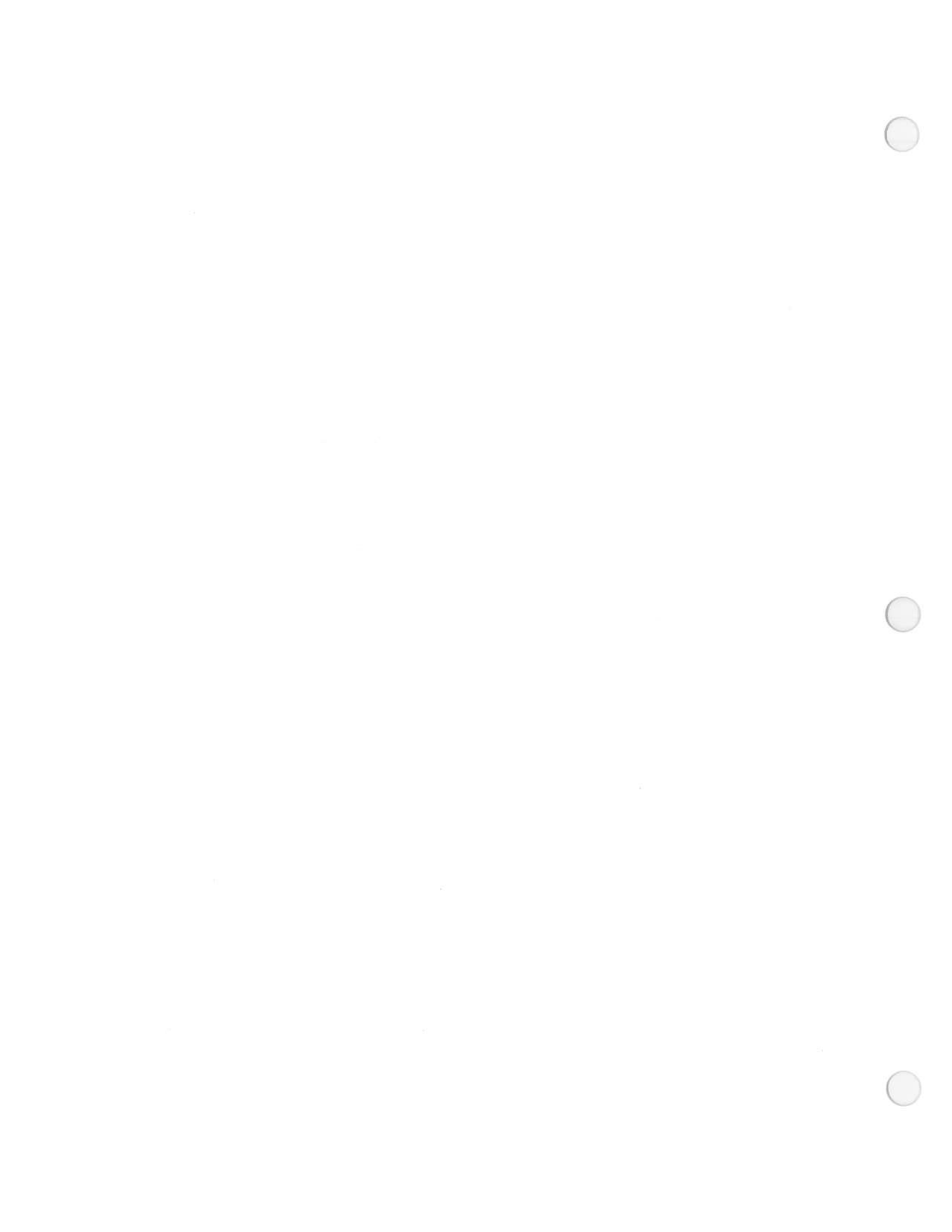
1 in = 3,000 feet



DUCKS
UNLIMITED

Targeted Wetland Areas





The Yampa, White, Green Basin Roundtable

C/O 221 West Victory Way, Suite 120

Craig, CO 81625

January 23, 2013

Greg Johnston

Colorado Water Conservation Board

1580 Logan Street, Suite 600

Denver, CO 80203

Dear Greg:

The Yampa, White, Green Basin Roundtable voted 12-3 at its January 16, 2013 meeting to approve one grant request and forward it to the CWCB staff and board for consideration for Water Supply Reserve Account potential funding. The dissenting three votes are opposed to using state funding to finance projects on federal lands. The project is located in the headwaters of the Elkhead Creek sub-basin on the USFS area of special interest referred to as "California Park."

The request is from the Routt County Conservation District for \$15,000 in Basin Funds and \$35,000 in Statewide funds for the Armstrong Creek Restoration Project in Routt County. The project itself is non-consumptive in that it will restore habitat and improve resource conditions, but reduction of sediment resulting from these practices will have a consumptive benefit for Elkhead Reservoir, which is a major water supply for the City of Craig. The project meets the Basin's Phase I Non-Consumptive Needs Assessment for protection and habitat improvement of the Colorado River cutthroat trout population in this priority area. Furthermore, the 2010 SWSI recommendations cite the importance of multi-use (consumptive and non-consumptive) projects.

The requested funding from the Statewide account will be used on the upper reach of Armstrong Creek to design and construct a floodplain within the existing channel, reconnect old channel meanders, and create a new, stable stream and floodplain at the same or slightly higher elevation with the appropriate entrenchment ratio and riparian vegetation community.

Sincerely,



Tom Gray

Chair, Yampa, White, Green Basin Roundtable



COLORADO WATER CONSERVATION BOARD
WATER SUPPLY RESERVE ACCOUNT
APPLICATION FORM



Armstrong Creek Restoration Project

Name of Water Activity/Project

Routt County Conservation District

Name of Applicant

Yampa/White

Amount from Statewide Account:

35,000.00

Amount from Basin Account(s):

15,000.00

Total WSRA Funds Requested:

50,000.00

Approving Basin Roundtable(s)

Yampa-White Basin

Application Content

Application Instructions	page 2
Part I – Description of the Applicant	page 3
Part II – Description of the Water Activity	page 5
Part III – Threshold and Evaluation Criteria	page 7
Part IV – Required Supporting Material	
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

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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 (CWCBC). 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 CWCBC 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 CWCBC 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>

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:

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

If you have questions or need additional assistance, please contact Greg Johnson at: 303-866-3441 x3249 or gregory.johnson@state.co.us.

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

1.	Applicant Name(s):	Routt County Conservation District		
	Mailing address:	1475 Pine Grove Road Suite 201a Steamboat Springs, CO 80487		
	Taxpayer ID#:	84-0658095		
	Primary Contact:	Jackie Brown	Position/Title:	District Manager
	Email:	Jackie.brown@routtcountycd.com		
	Phone Numbers:	Cell: (970) 819-2484	Office:	(970) 879-3225
	Alternate Contact:	Rick Henderson	Position/Title:	USFS Fisheries Biologist
	Email:	rhenderson01@fs.fed.us		
	Phone Numbers:	Cell: (970) 846-3348	Office:	(970) 870-2219

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.

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3. Provide a brief description of your organization

The Routt County Conservation District (RCCD) has over a 50 year history of working with local landowners, ranchers, and community groups, as well as local, State, and Federal agencies. RCCD has recently begun working as the Upper Yampa Watershed coordinating group. Other major RCCD accomplishments include implementation of erosion control best management practices (BMPs) and water quality control projects, as well as public education. RCCD distributes newsletters; provides educational scholarships; holds workshops and meeting; and conducts individual consultation to work with, and educate, the public on the protection of watershed resources. RCCD has a demonstration "River Trailer", which it uses to educate Routt County students, conservation groups, and interested parties on the importance of natural resource conservation and water quality preservation. RCCD partners with NRCS on numerous natural resource, stream channel restoration, wetland protection, and watershed conservation programs.

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

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.

There are no relevant TABOR issues.

Water Supply Reserve Account – Application Form
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Part II. - Description of the Water Activity/Project

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

☒ Nonconsumptive (Environmental or Recreational)

☐ Agricultural

☐ Municipal/Industrial

☐ Needs Assessment

☐ Education

☐ Other

Explain:

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

By reducing erosion along Armstrong Creek (a headwater tributary to Elkhead Creek), this project will reduce the rate at which Elkhead Reservoir fills with sediment (i.e., loses water storage capacity). The three primary water rights owners in Elkhead Reservoir support the project and are providing funding (Tri-State Electric and City of Craig) or a letter of support (Colorado River Water Conservancy District).

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

☐ Study

☒ Implementation

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

New Storage Created (acre-feet)

New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)

Existing Storage Preserved or Enhanced (acre-feet)

Length of Stream Restored or Protected (linear feet)

Length of Pipe/Canal Built or Improved (linear feet)

Efficiency Savings (acre-feet/year OR dollars/year – **circle one**)

Area of Restored or Preserved Habitat (acres)

Other -- Explain:

Water Supply Reserve Account – Application Form

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

Latitude: 40.950863

Longitude: -106.825562

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.

6.

Restoration is intended to 1) improve resource conditions in reaches with poor stream health, 2) reduce inputs of sediment from eroding hillslopes and streambanks, 3) reduce stream temperatures, and 4) improve cutthroat trout habitat. Restoration actions are proposed for a 0.61-mile segment of stream within the 2.1 mile long project area. Following are key elements of the project:

- *Lower reach - redirect the stream channel away from eroding hillslopes through channel relocation or floodplain development against the hillslope.*
- *Upper reach - construct a floodplain within the existing channel, reconnect old channel meanders, and/or create a new, stable stream and floodplain at the same or slightly higher elevation with the appropriate entrenchment ratio and riparian vegetation community.*
- *Aggressively re-vegetate disturbed soils with appropriate species to insure channel stability and minimize colonization by invasive species.*
- *Monitor channel stability and riparian vegetation to determine restoration success.*

WSRA funds from the Yampa-White Basin Roundtable will be used to cover equipment and labor costs associated with restoration of the lower reach in 2013. The WSRA State funds will be used to hire a consultant to develop the restoration design for the upper reach.

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*

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,

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This restoration project will not cause injury to vested water rights or decreed conditional water rights.

- 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.

See letter from the Yampa-White Basin Roundtable Chair.

- 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.

This project meets the 2010 Statewide Water Supply Initiative recommendations in that it is a multi-purpose (consumptive and non-consumptive) project. Please see the attached letter from the Yampa-White Basin Roundtable Chair.

- d) Matching Requirement: For requests from the Statewide Fund, the applicants is required to demonstrate a **20 percent** (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of **5 percent** of the total grant amount from Basin Funds. 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 application was submitted to the CWCB. 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)

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.

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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<i>Description</i>	<i>Existing Funds</i>	<i>WSRA Funds</i>	<i>Additional Funds Needed</i>	<i>Year Spent</i>
<i>Conceptual Design/NEPA</i>	<i>\$25,000</i>			<i>2011</i>
<i>Phase 1 – Lower Reach</i>	<i>\$30,000</i>			<i>2012</i>
<i>Phase 2 – Lower Reach</i>	<i>\$25,000</i>	<i>\$15,000 (BRT)</i>		<i>2013</i>
<i>Phase 3 – Upper Reach</i>	<i>\$30,000</i>	<i>\$17,500 (State)*</i>		<i>2013</i>
<i>Design</i>				
<i>Phase 3 – Upper Reach</i>	<i>\$45,000</i>	<i>\$17,500 (State)*</i>	<i>\$60,000</i>	<i>2014</i>
<i>Construction</i>				
<i>Monitoring</i>	<i>\$15,000</i>			<i>2012 - 2020</i>
Total	\$170,000	\$50,000	\$60,000	
<i>Existing Funding Sources</i>	<i>In-Kind</i>	<i>Year(s) Spent</i>		
<i>City of Craig</i>		<i>2013</i>		
<i>Colorado Parks and Wildlife</i>	<i>\$15,000</i>	<i>2012 - 2014</i>		
<i>Colorado River Water C. D.</i>		<i>2013</i>		
<i>Routt County Conserv. District</i>	<i>\$10,000</i>	<i>2012 - 2014</i>		
<i>Tri-State Electric</i>		<i>2013</i>		
<i>Trout Unlimited</i>	<i>\$12,000</i>	<i>2011 – 2014</i>		
<i>U.S. Forest Service</i>	<i>\$35,000</i>	<i>2011 - 2014</i>		
<i>Yampa-White Basin Roundtable</i>		<i>2013</i>		

* Funds to be allocated towards design and construction; exact proportions TBD.

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.**

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. 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).

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The restoration project has both a consumptive and non-consumptive benefit. The restoration project will 1) improve habitat for a number of sensitive species, including Colorado River cutthroat trout, 2) restore recreational fishing opportunities in Armstrong Creek, and 3) improve water quality (e.g., temperature, sediment), and 4) reduce sediment loading in Elkhead Reservoir.

- 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 address both non-consumptive and consumptive needs, as demonstrated by the eight diverse partners representing County, State, and Federal agencies; an NGO; and three water rights holders which include municipal and industrial uses. This project is located in a priority area identified by fifteen participants of a Local Working Group and the NRCS is in the planning phase for a similar project in the same watershed. As these two projects move forward, collaboration between agencies and NGOs will continue. In addition, existing partners will seek opportunities to involve other stakeholders. Because this project influences water storage capacity in an important reservoir of the Yampa Basin, it is effective in addressing intrabasin needs; it has no influence on interbasin issues.

- 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.

The project will reduce the rate at which Elkhead Reservoir fills with sediment and will thereby maintain waters storage capacity (i.e., increase capacity relative to the current trend in loss of capacity).

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).

Through partnerships and cooperative funding we have acquired the funding necessary to complete restoration actions for the lower reach (in 2013 (\$70,000)). In addition, we have acquired \$75,000 of the estimated \$170,000 needed to design and complete restoration actions on the upper reach.

The \$35,000 in State WSRA funds would be paired with \$30,000 in existing funds to pay a consultant to complete the restoration design for the upper reach in 2013. This money would also be leveraged as a non-federal match in funding proposals to the National Fish and Wildlife Foundation and National Fish Habitat Action Plan for the remaining \$60,000 needed to complete restoration actions in the upper reach. The total of Basin and Statewide funds are equal to 18% of the total project cost.

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.

See Part III. 1)d)

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

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

The project will improve the quality of fishing opportunities and will address the following three environmental objectives:

- *Improve stream and riparian ecosystem health. This includes improving water quality, decreasing stream temperatures, decreasing sediment inputs, restoring riparian vegetation, and re-connecting the stream and floodplain.*
- *Improve habitat for, and expand the range and long-term viability of, Sensitive species (e.g. Colorado River cutthroat trout).*
- *Increase the resilience and resistance of native aquatic organisms and their habitats to effects of climate change.*

- f. 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.

The project will reduce the rate at which Elkhead Reservoir fills with sediment and will thereby maintain available water storage (relative to the current trend).

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

The project will improve habitat conditions for the following Colorado State Species of Concern: Colorado River cutthroat trout, mountain sucker, northern leopard frog and boreal toad (State Endangered). In addition, because bluehead sucker are negatively impacted by siltation and sedimentation, the project may provide indirect, downstream benefits to this Tier 2 species of "greatest conservation need".

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

Total project cost is estimated at \$280,000. We are asking for \$50,000 in WSRA fund; only 18% of the total cost. The benefits include: improving habitat for five State Species of Concern, improving 2.1 miles of stream habitat and associated riparian wetlands, increasing watershed resilience and resistance to climate change, and reducing sedimentation in Elkhead Reservoir.

- i. 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. Please attach additional pages as necessary.

Part IV. – Required Supporting Material

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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.

This project will restore Armstrong Creek, a headwater tributary to Elkhead Creek. The only water rights within or upstream of the project area are Forest Service stock water developments which would not be affected by the project. The project will improve riparian conditions, and thus should increase storage in the spring and increase flows later in the summer. These changes would be small and are not expected to measurably affect downstream water rights.

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

The conceptual restoration plan for the upper Elkhead Creek watershed was funded by Trout Unlimited and completed in 2011. The Forest Service completed an Environmental Assessment for the Armstrong Creek Restoration project in June of 2012. A 404 permit was attained from the U.S. Army Corps of Engineers for work completed in the lower reach in 2012. Wetland delineations have been completed for the rest of the lower reach and a 404 permit will be secured prior to construction in 2013. If deemed necessary, a 402 stormwater discharge permit will be secured as well.

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

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.

See Appendix A – Statement of Work

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

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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 5 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.

PROJECT LEADS

Bill Atkinson is an aquatic biologist with Colorado Parks and Wildlife. Bill has worked for the CPW for 14 years having worked on a wide variety of CRCT and native species restoration projects.

Brian Hodge is a restoration biologist with Trout Unlimited and has been working in the field of fisheries and aquatic resources for 10 years, during which time his work has focused on the study and conservation of inland and anadromous fishes. Brian holds a B.S. in Hydrobiology from the University of California at Davis and a M.S. in Natural Resources-Fisheries from Humboldt State University.

Jackie Brown is the Watershed Coordinator for the Upper Yampa River Watershed Group and is currently finishing a Masters Certificate in Water Resources at Colorado State University. She has a background in business development and has combined this with natural resource conservation in Routt County for the past five years.

Liz Schnackenberg has 20 years of experience working as a hydrologist for the US Forest Service. Her work focuses on the effects of land management activities on watershed hydrology and riparian areas, post fire rehabilitation, and watershed restoration. Liz has a bachelor degree in geology, and a M.S. in Watershed Science from Colorado State University.

Rick Henderson is a fish biologist with the U.S. Forest Service. Rick has 18 years of fisheries experience having worked throughout the west on monitoring the effects of land management activities and native species restoration.

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

Signature of Applicant:



Print Applicant's Name:

Jackie Brown

Project Title:

Coordinator

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

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

Exhibit A
Statement of Work

WATER ACTIVITY NAME – Armstrong Creek Restoration Project

GRANT RECIPIENT – Routt County Conservation District

FUNDING SOURCE – Water Supply Reserve Account

INTRODUCTION AND BACKGROUND

In 2010, Trout Unlimited funded a conceptual plan for restoration of aquatic resources in the upper Elkhead Creek watershed. The Restoration Plan analyzed 30 miles of perennial fish-bearing streams and provided recommendation for restoration of approximately 10 stream miles (estimated cost \$3.8M). An interagency team decided to begin restoration activities in the Armstrong Creek sub-watershed. An environmental assessment was completed in 2011. The restoration actions are intended to improve resource conditions in reaches with poor stream health, reduce inputs of sediment from eroding hillslopes and streambanks, and reduce stream temperatures. Five native fish and amphibian species of concern will benefit from the project.

Restoration actions will be completed in three phases. The first phase of work (restoration of 200 feet of stream channel) was completed in 2012. Phase 2—restoration of 1,400 feet of stream channel—will be completed in 2013 using Yampa White Basin Roundtable funds. Phase 3 requires the completion of a project design by a consultant in 2013 and construction of 1,800 feet of stream channel in 2014. Water Supply Reserve Account funds would help to fund Phase 3. The project is funded by eight diverse partners representing County, State, and Federal agencies; Trout Unlimited; and three water rights holders.

OBJECTIVES

Project objectives are to:

- Improve stream and riparian health. This includes improving water quality, decreasing stream temperatures, decreasing sediment inputs, restoring riparian vegetation, and re-connecting the stream and floodplain.*
- Improve habitat for, and expand the range and long-term viability of, Species of Concern (e.g., CRCT).*
- Increase the resilience and resistance of native aquatic organisms and their habitats to effects of climate change.*
- Reduce the amount of sediment entering Elkhead Reservoir.*
- Determine which stream and riparian restoration techniques are most effective in the Elkhead Creek watershed.*

TASKS

Provide a detailed description of each task using the following format

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PHASE 1 – [Restoration Actions on Sites 1 and 5; Lower Reach]

Description of Task

During Phase 1, we restored two sites where the stream was eroding into County Road 80. Wetland delineation, 404 permit, and project designs were completed in-kind by the Forest Service and Trout Unlimited. This work was completed in September 2012.

Method/Procedure

At Site 1, we constructed a new stream channel on the opposite side of the existing floodplain from the road (100 feet). This involved 1) plugging the existing channel with rootwads, fill, and sedge mats; 2) digging the new channel; 3) creating pools and riffles similar to those surveyed in reference reaches, and excavating a flood plain; 4) replacing sedge mats on the new streambanks and channel; 5) planting willows; and 6) placing excavated material at existing scarp to stabilize the road prism.

At Site 5, we constructed a hardened streambank and floodplain using a toe-wood sod mat design (100 feet). This involved 1) using logs and rootwads to create a streambank 30 feet from the road, 2) using excavated material and willow branches to create a floodplain between the new streambank and road, 3) placing sedge mats on the new streambank and floodplain, 4) planting willows, 5) constructing a stable slope between the road and floodplain to stabilize the road prism.

Restoration actions were completed using an excavator. Funding, project oversight, and revegetation were conducted by the Forest Service and Trout Unlimited.

Deliverable:

Restoration actions completed.



Figure 1 – Site 1 (left) with new channel construction and Site 5 (right) with hardened streambank and floodplain. The blue line represents the old (i.e., pre-restoration) channel.

PHASE 2 – [Restoration Actions on Sites 2, 3, and 4; Lower Reach]

Description of Task

Planned restoration actions at these sites include a combination of new channel construction and hardened floodplains similar to those constructed at Sites 1 and 5. Wetland delineations are complete and the project design is at 50%. Final design and the 404 permit will be completed by August 1 using in-kind contributions from various partners. Restoration actions will be completed in August and September 2013.

Method/Procedure

Restoration of Sites 2 and 3 will involve the construction of a new stream channel (600 feet and 200 feet, respectively). Currently the stream runs along an actively slumping hillslope resulting in extensive sediment moving into the channel. The new channels will be constructed on the opposite side of the valley from the eroding hillslopes. Construction methods will be similar to those described for Site 1. See Exhibit B for photograph of Site 2.

At Site 4, the stream currently runs along three slumping and eroding hillslope, and consequently introduces sediment erosion into the channel (400 feet). Restoration actions will involve the construction of a hardened streambank and floodplain using a toe-wood sod mat design similar to Site 5.

Temporary fencing will be constructed around Sites 1 – 5.

Deliverable

Restoration actions completed and fences constructed.

PHASE 3 – [Upper Reach]

Description of Task

The upper reach is characterized by an incised channel (3 to 6 feet) and actively eroding streambanks. The design and implementation of Phase 3 will be more involved and complex than Phases 1 & 2. Therefore an aquatic restoration consultant will be hired to handle design. The conceptual restoration plan estimated that the design would cost \$60,000. The WSRA State funds would be paired with existing funds to complete the project design in 2013.

Method/Procedure

Restoration actions within the 1,800 foot long site will consist of a combination of constructing a floodplain within the existing channel, reconnecting old channel meanders, and/or creating a new, stable stream and floodplain at the same or slightly higher elevation. See Exhibit B for photograph of Reach.

In 2013, we will apply for \$60,000 in additional grant funding, and will pair these funds with the existing \$45,000 to fund the construction element of Phase 3. Construction will be completed by an experienced restoration contractor. Fencing will be completed with existing funds.

Deliverable

Completed project design in 2013, and restoration actions completed and fence constructed in 2014.

BUDGET

Provide a detailed budget by task including number of hours and rates for labor and unit costs for other direct costs (i.e. mileage, \$/unit of material for construction, etc.). A detailed and perfectly balanced budget that shows all costs is

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required for the State's contracting and purchase order processes. Sample budget tables are provided below. Please note that these budget tables are examples and will need to be adapted to fit each individual application. Tasks should correspond to the tasks described above.

We secured the funding necessary to complete restoration of the lower reach in 2013 (\$70,000). In addition, we have acquired \$75,000 of the estimated \$170,000 needed to design and complete restoration actions on the upper reach. The \$35,000 in State WSRF funds (this proposal) would be paired with \$30,000 in existing funds to pay a consultant to complete the restoration design for the upper reach in 201; any remaining WSRF funds would go towards construction on the upper reach as per the design. This money would also be leveraged as a non-federal match in funding proposals to the National Fish and Wildlife Foundation and National Fish Habitat Action Plan for the remaining \$60,000 needed to complete restoration actions in the upper reach.

The template budget tables were not used as all of the funds from this proposal would be used to hire a consultant to complete the design. Part III 1) d) of this proposal outlines the overall project budget in more detail.

SCHEDULE

Provide a project schedule including key milestones for each task and the completion dates or time period from the Notice to Proceed (NTP). This dating method allows flexibility in the event of potential delays from the procurement process. Sample schedules are provided below. Please note that these schedules are examples and will need to be adapted to fit each individual application.

A request for proposals for the phase 3 project design will be solicited in May, 2013. Final proposals will be due by July and a selection made by August 1st. The final project design will be due from the consultant by February 1st, 2014. This will allow time to develop a contract package for project construction in summer 2014.

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Exhibit B – Proposed Action from the Environmental Assessment.

Proposed actions are intended to 1) improve resource conditions in reaches with poor stream health, 2) reduce inputs of sediment from eroding hillslopes and streambanks, and 3) reduce stream temperatures. Restoration actions are proposed for a 0.61-mile reach of a 2.1-mile project area (Figures 1 and 2) and consist of the following key elements:

- Lower reach - redirect the stream channel away from eroding hillslopes through channel relocation and/or floodplain development against the hillslope.
- Upper reach - construct a floodplain within the existing channel, reconnect old channel meanders, and/or create a new, stable stream and floodplain at the same or slightly higher elevation with the appropriate entrenchment ratio and riparian vegetation community.
- Aggressively re-vegetate disturbed soils with appropriate species to insure channel stability and minimize colonization by invasive species.
- Monitor channel stability and riparian vegetation to determine restoration success.

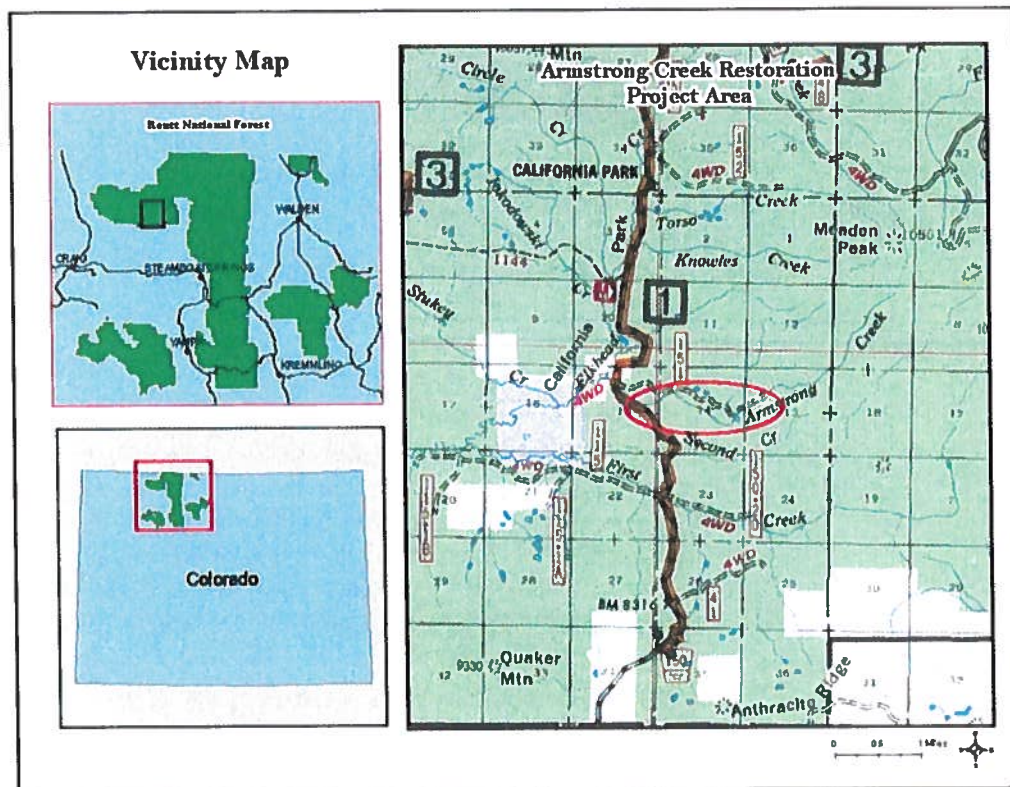


Figure 1. Site Map for the Armstrong Creek Restoration Project.

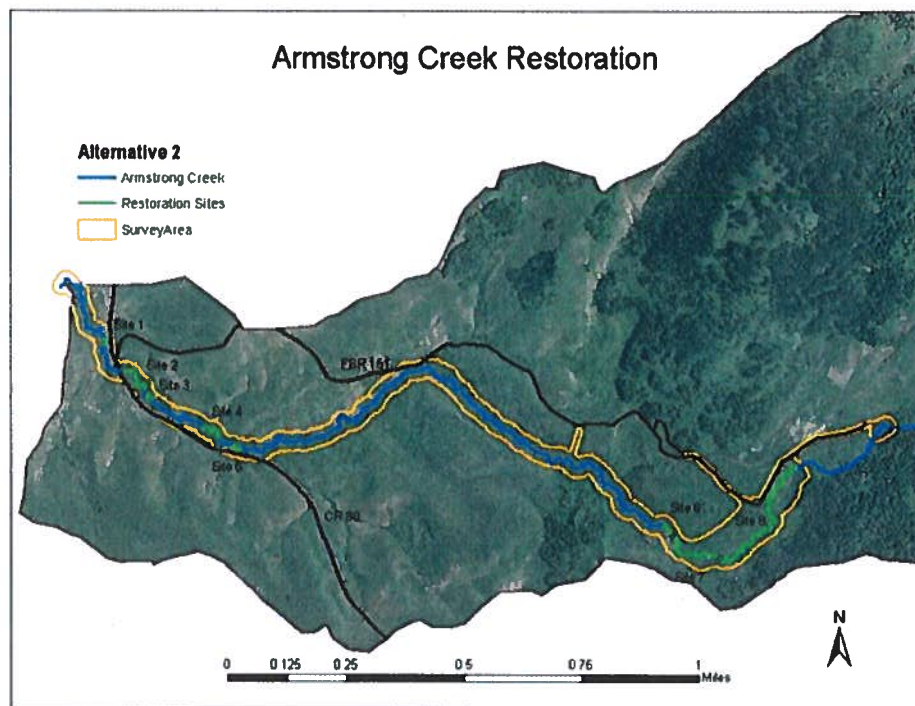


Figure 2: Map of restoration sites along Armstrong Creek.

Description of Restoration Actions

Lower Reach:

The lower reach is 0.75 miles in length and includes three proposed restoration locations (sites 2 to 4) comprising a total of 0.23 miles of stream. This reach is generally characterized by healthy riparian vegetation, access to the floodplain during bankfull flows, and robust stream health. Conversely, the width of the riparian area is restricted by CR 80 near the road crossing, summer water temperatures are near the upper limit for native aquatic organisms, and the stream flows along numerous hillslopes resulting in sediment input. To remove the stream from eroding hillslopes, we will relocate the channel or develop a hardened floodplain. (Table 1; Figure 3).

Restoration will:

- Relocate the stream channel away from eroding hillslopes to reduce sedimentation.
- Construct a stable, vegetated floodplain against eroding hillslopes to filter sediment coming off of hillslopes.
- Create wetland/riparian habitat in the original channel.

The new channel will be designed with the appropriate dimension, pattern, and profile based on reference reach data and recommendation in the literature. Construction will occur within or immediately adjacent to the existing floodplain. Logs, rootwads, and/or rock may be used during construction to armor critical locations against erosion. Vegetation mats, soil, and streambed material removed during excavation will be used to fill in the existing channel, stabilize the toe of eroding hillslopes, and revegetate disturbed areas. The existing stream channel will be converted to riparian/wetland habitat. An excavator and loader will be used for construction.

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Table 1. Description of restoration need and proposed actions for each site.

Reach	Site	Location by River Mile (RM)	Length (Feet)	Restoration Need/Actions
Lower Reach	Site 1 (completed 2012)	RM 0.2	150	At this location a stream meander was eroding into the road prism (CR 80) resulting in sediment input and threatening the integrity of road. The stream channel was moved away from the hillslope and a floodplain was constructed between the channel and hillslope.
	Site 2	RM 0.35 to RM 0.45	600	The hillslope on the North side of the stream is highly mobile resulting in small annual inputs and large periodic inputs of sediment into the stream. A new stream channel will be constructed through the existing floodplain opposite the eroding hillslopes.
	Site 3	RM 0.5	225	At this location there are two meanders where the stream is adjacent to eroding hillslopes. The stream channel will be moved away from the hillslope and a floodplain constructed between the channel and the hillslope.
	Site 4	RM 0.65	375	At this location there are three meanders where the stream is adjacent to eroding hillslopes. A combination of constructing a new stream channel and building a floodplain against the hillslope will occur.
	Site 5 (completed 2012)	RM 0.75	225	At this location a stream meander was eroding into the road prism (CR 80) resulting in sediment input and threatening the integrity of road. The stream channel was be moved away from the hillslope and a floodplain was constructed between the channel and the hillslope.
Upper Reach	Site 6	RM 1.70	150	At this location the stream is incised, streambanks are partially stable and a narrow floodplain has developed in some locations. Restoration actions will be conducted at specific locations within the site and would focus on widening the floodplain and moving the channel away from the hillslopes.
	Site 7	RM 1.8 to RM 1.9	900	At this location the stream has incised from 3 to 6 feet. There is no access to the floodplain and streambanks are bare, vertical and actively eroding. Restoration actions within the 300 yard long site

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				will consist of a combination of constructing a floodplain within the existing channel, reconnecting old channel meanders, and/or creating a new, stable stream and floodplain at the same or slightly higher elevation.
	Site 8	RM 1.9 to RM 2.1	600	At this location the stream is incised, streambanks are partially stable and a narrow floodplain has developed in some locations. Restoration actions will be conducted at specific locations within the site and would focus on widening the floodplain and moving the channel away from the hillslopes.

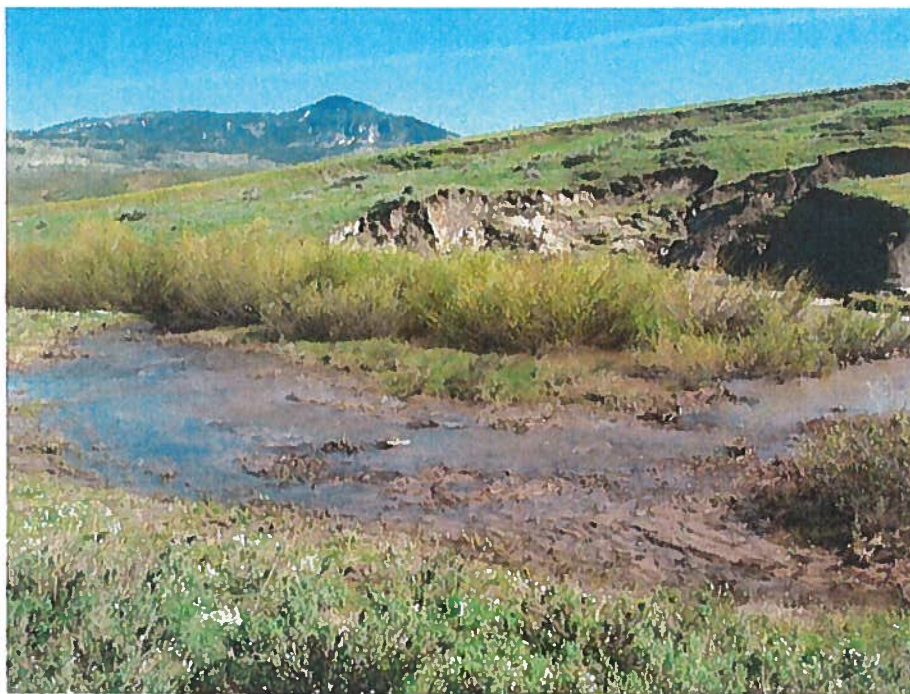


Figure 3: Site 2, where restoration actions will construct a new stream channel away from the eroding hillslope (where flooding is occurring on the left side).

Upper Reach:

The upper reach is 0.63 miles in length and is characterized as At Risk or of Diminished stream health due to channel incision (three to six feet), little to no access to a floodplain, extensive streambank erosion, poor fish habitat, few riparian shrubs, and movement of upland vegetation into the historic floodplain. These conditions are most pronounced in a 900 foot long site near the middle/downstream end of the reach (Figure 4).

Restoration actions within the 900 foot long site will consist of a combination of constructing a floodplain within the existing channel, reconnecting old channel meanders, and/or creating a new, stable stream and floodplain

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(Figure 5). These activities will occur at the same or slightly higher streambed elevation with the appropriate channel dimensions (Table 1).

Restoration will:

- Restore a healthy riparian community within the new and historic floodplain.
- Increase floodprone area both to better accommodate flood flows and to reduce streambank erosion.
- Increase streambank stability from less than 10% to greater than 80%.
- Decrease average channel slope from 3.1 % to less than 2.7% which reduces the energy available for streambank erosion.
- Where old channel meanders are reconnected, create wetland/riparian habitat in the abandoned channel.



Figure 4: Photo of Site 7, showing channel incision, unstable streambanks, lack of a floodplain, and lack of riparian vegetation. Restoration actions will include a combination of constructing a floodplain within the existing channel and constructing a new stream channel at a similar elevation.

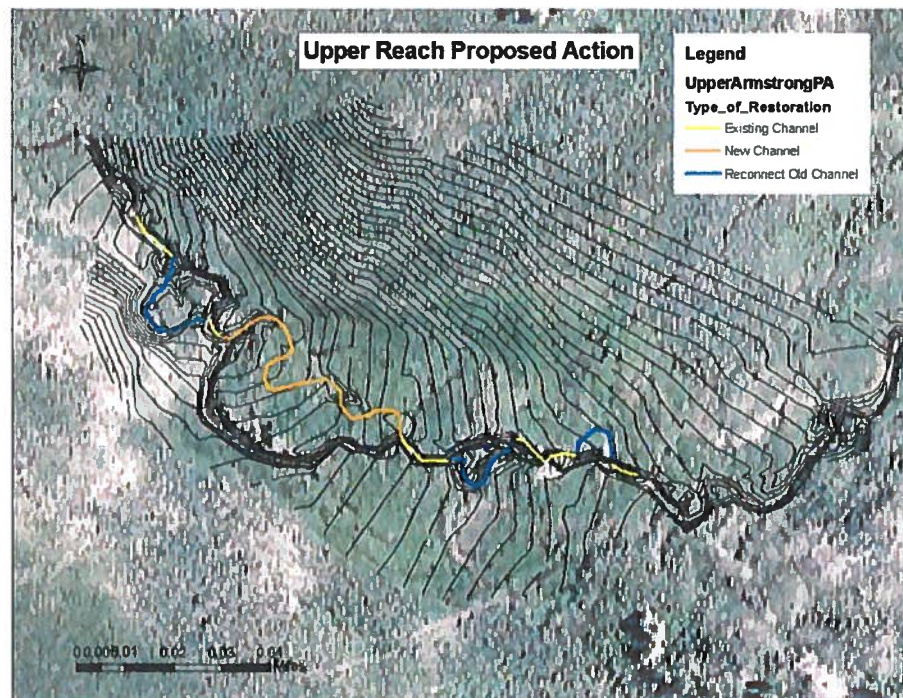


Figure 5: Map of proposed actions for Alternative 2 in the upper reach. Channel locations are approximate and may change with the final design.

Restoration actions elsewhere in the upper reach will focus on widening the floodplain in incised, but more stable locations and moving the channel away from eroding banks (similar to actions in the lower reach). These actions will occur at specific locations where restoration actions can occur without destabilizing existing streambanks. Small check dams or other grade control structures may be installed to match the channel elevation in the newly constructed channel in the degraded reach.

A new channel will be designed with the appropriate dimension, pattern, and profile based on reference reach data and recommendations in the literature to fit the valley gradient and width. Vegetation mats, soil, and streambed material removed during excavation would be used to fill in the existing channel, stabilize the toe of eroding hillslopes, and re-vegetate disturbed areas. Logs, rootwads, and/or rock may be used during construction to armor critical locations from erosion. An excavator and loader will be used for construction.

Bioengineering

Bioengineering refers to the integration of living woody and herbaceous materials with organic and inorganic materials to increase the strength and structure of the soil and in this project would be applied to streambank stabilization. Increased soil strength, soil structure, and bank stabilization is accomplished by establishing a dense matrix of roots and vegetation that hold the soil together, increasing resistance to flow, reducing flow velocities by dissipating energy and allowing sediment deposition due to low shear stress near the bank.

Bioengineering techniques include: brush layering, brush mattresses, brush or tree revetments, brush trenches, erosion control fabric, pole plantings, post planting, vertical willow bundles, willow wattles (or fascines) and vegetation plug plantings. Most of these techniques use dormant woody native species that develop roots and shoots to achieve the stabilization objectives. This project will apply a range of bioengineering techniques based on site-by-site needs.

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Revegetation

Past experience in the project area suggests that revegetation can be difficult due to soil properties and grazing by livestock and elk. Therefore, increased attention will be given to revegetation, which will include a combination of the following techniques:

1. Riparian vegetation and grass mats removed during channel excavation will be used to stabilize the new streambanks and revegetate the old channel or other disturbed areas.
2. Sedge, willow, and alder will be used to further revegetate disturbed areas. These plants will either be propagated in a nursery or collected nearby.

Fencing

Fencing will be constructed and maintained around all restoration sites until disturbed areas have been successfully re-vegetated and stabilized. At a minimum, fencing will be used while elk and livestock are present (May to October). If necessary, other types and/or operational periods of fencing will be implemented to protect restoration areas during recovery.

Two additional sections will be fenced from July to October. The fencing will exclude livestock from riparian areas to promote riparian shrub growth and streambank stabilization. The first section will extend from the lower reach upstream 0.5 miles. The second section will extend from the upper reach downstream 0.5 miles. Gaps in the fencing will exist to allow for livestock movement. The effectiveness and need for these fences will be evaluated as warranted.

Staging Areas and Transportation

Sites 2 - 4 are adjacent to CR 80 and will be accessed from the road. Staging will occur adjacent to the road at existing compacted areas. All supplies for the project (logs, rootwads, rock, etc.) will be moved to the worksites with an excavator or loader. The staging area for the upper reach will be at the end of NFSR 151 and is approximately 900 feet from Sites 6 to 8. Equipment will access the sites along the decommissioned portion of FSR 151 or along a 50 foot wide overland corridor to Site 6. No temporary or permanent roads will be constructed and all disturbed soils along the access routes will be reclaimed if necessary. Temporary delays on CR 80 are anticipated.

Monitoring

Monitoring will focus on evaluating the effectiveness of restoration actions as measured by:

- Stability of the new channel, channel-bed, and structures.
- Amount of erosion from disturbed sites and success of revegetation.
- Physical and biological integrity including stream channel dimensions, temperature, riparian vegetation, fish, and aquatic invertebrates.

Results will inform managers as to which restoration techniques are most effective and efficient in producing desired effects, and will thereby guide future efforts within the watershed.

Information and Education

A public information and education component will be integrated into the project. Precautionary signage will be placed along CR 80 during construction to inform the public of activities and restrictions. Staging areas along CR 80 and temporary closures will be coordinated with Routt County. Permanent, educational signage regarding the project and other educational information related to California Park is currently being discussed.

The Yampa, White, Green Basin Roundtable

C/O 221 West Victory Way, Suite 120

Craig, CO 81625

January 23, 2013

Greg Johnston
Colorado Water Conservation Board
1580 Logan Street, Suite 600
Denver, CO 80203

Dear Greg:

The Yampa, White, Green Basin Roundtable voted 12-3 at its January 16, 2013 meeting to approve one grant request and forward it to the CWCB staff and board for consideration for Water Supply Reserve Account potential funding. The dissenting three votes are opposed to using state funding to finance projects on federal lands. The project is located in the headwaters of the Elkhead Creek sub-basin on the USFS area of special interest referred to as "California Park."

The request is from the Routt County Conservation District for \$15,000 in Basin Funds and \$35,000 in Statewide funds for the Armstrong Creek Restoration Project in Routt County. The project itself is non-consumptive in that it will restore habitat and improve resource conditions, but reduction of sediment resulting from these practices will have a consumptive benefit for Elkhead Reservoir, which is a major water supply for the City of Craig. The project meets the Basin's Phase I Non-Consumptive Needs Assessment for protection and habitat improvement of the Colorado River cutthroat trout population in this priority area. Furthermore, the 2010 SWSI recommendations cite the importance of multi-use (consumptive and non-consumptive) projects.

The requested funding from the Statewide account will be used on the upper reach of Armstrong Creek to design and construct a floodplain within the existing channel, reconnect old channel meanders, and create a new, stable stream and floodplain at the same or slightly higher elevation with the appropriate entrenchment ratio and riparian vegetation community.

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Gray". The signature is stylized with a large, flowing "T" and a cursive "Gray".

Tom Gray
Chair, Yampa, White, Green Basin Roundtable