

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
September 21-22, 2016
Agenda Item 19(o)

Applicant & Fiscal Agent: La Plata Water Conservancy District

Water Activity Name: Joseph Freed & Red Mesa Headgate and Ditch Improvement Project

Water Activity Purpose: Agricultural Project Implementation

County: La Plata

Drainage Basin: Southwest

Water Source: Unknown

Amount Requested/Source of Funds: \$55,000 Southwest Basin Account

Matching Funds: Applicant Match: \$16,552 = 23% of the total project cost of \$71,552
(refer to *Funding Summary/Matching Funds* section below)

Staff Recommendation:

Staff recommends approval of up to \$55,000 from the Southwest Basin Account to help fund the project titled: Joseph Freed & Red Mesa Headgate and Ditch Improvement Project.

Water Activity Summary: If approved, WSRF grant funding will be employed to assist in the lining of the Joseph Freed Ditch. The Joseph Freed and Red Mesa Supply Ditches are two ditches within the La Plata River Basin. These earthen ditches have been estimated to lose as much as 40 percent of conveyed water due to seepage through the cobble and gravel soils. The La Plata Water Conservation District proposes lining one section in each of these ditches where seepage losses are particularly high. The ditches will be lined with soil amendments (bentonite and lime) that will be mixed with the existing clay soils on the ditch bottom and sides.

Discussion: The proposed work is on the list of identified projects and processes (IPP) for the La Plata River (LPR) Basin, outlined in the Southwest Basin Roundtable Basin Implementation Plan (IPP ID 15-LaP and ID 4-LaP). The IPPs include La Plata River ditch lining projects that would increase efficiency of Compact deliveries and work that will complement the existing infrastructure to conserve water used for irrigation and domestic augmentation needs.

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

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

Tier 1-3 Evaluation Criteria: n/a

Funding Summary/Matching Funds:

<u>Funding Source</u>	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
La Plata Water Conservancy District	\$16,552	\$0	\$16,552
WSRA Southwest Basin Account	\$55,000	n/a	\$55,000
Total Project Costs	\$71,552	\$0	\$71,552

CWCB Project Manager: Finance Section

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

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

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

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.

SOUTHWEST BASINS ROUNDTABLE

Michael Preston, Chair

c/o Dolores Water Conservancy District

P.O. Box 1150

Cortez, Colorado 81321

970-565-7562

July 25, 2016

Mr. Craig Godbout
Water Supply Management Section
Colorado Water Conservation Board
1580 Logan Street, Suite 600
Denver, Colorado 80203

SUBJECT: Joseph Freed and Red Mesa Supply Ditch Lining Project and Headgate Automation, La Plata Water Conservancy District, \$55,000 from Basin Account

Dear Mr. Godbout:

The Southwest Basin Roundtable approved funding of \$55,000 from the Basin Account for the Joseph Freed and Red Mesa Supply Ditch Lining Project and Headgate Automation submitted by the La Plata Water Conservancy District. The application was considered in detail and approved at the July 13, 2016 meeting of the Southwest Basin Roundtable. There was a quorum of Roundtable members present.

The proposed project addresses IPP 15-LP with ditch lining that will increase the efficiency of La Plata Compact deliveries and IPP 4-LP which involves conserving water used for irrigation.

The completed Grant Application will be forwarded directly to you by the applicant. Please contact the applicant directly or me at 970-565-7562, mpreston@frontier.net, if you have questions or wish to discuss this application in more detail.

Sincerely,



Michael Preston
Southwest Basin Roundtable Chair



COLORADO WATER CONSERVATION BOARD



WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

Today's Date: July 5, 2016

Joseph Freed and Red Mesa Supply Ditch Lining Project and
Red Mesa Supply Ditch Headgate Automation

Name of Water Activity/Project

La Plata Water Conservancy District

Name of Applicant

Southwest Basin Roundtable

Amount from Statewide Account:

0

Amount from Basin Account(s):

\$55,000

Total WSRA Funds Requested:

\$55,000

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

FEIN:84-1191941

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Required Exhibits

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

Appendices – Reference Material

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

Water Supply Reserve Account – Application Form

Revised October 2013

Instructions

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

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

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

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

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

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

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

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

1.	Applicant Name(s):	La Plata Water Conservancy District		
	Mailing address:	555 RiverGate Lane, Suite B4-82 Durango, Co 81301		
	FEIN #:	84-1191941		
	Primary Contact:	Eric Bikis	Position/Title:	Project Manager
	Email:	EricB@sgm-inc.com		
	Phone Numbers:	Cell: 970-769-0997	Office:	970-385-2340
	Alternate Contact:	Brice Lee	Position/Title:	President
	Email:	brice@obii.net		
	Phone Numbers:	Cell: 970-946-2646	Office:	970-588-3369

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

La Plata Water Conservancy District (LPWCD), located in southwest La Plata County, was formed in 1944 by area irrigators and continues to be run by a volunteer board. The purpose of the District is to improve water supply in the La Plata River basin, including the construction and operation of facilities necessary to meet this goal.

LPWCD contracts with a consultant and water rights attorney. The contact for LPWCD's President, Brice Lee, is 970-588-3369 or brice@obii.net. LPWCD's Project Manager is Eric Bikis at Bikis Water Consultants, a division of SGM: 970-385-2340 or EricB@sgm-inc.com.

LPWCD has been active in promoting the beneficial use of surface water rights in the La Plata River basin for decades by working with irrigators, ditch companies and the Office of the State Engineer (SEO) to monitor and to help to solve water shortage and allocation issues.

The La Plata River originates in the La Plata Mountains, 15 miles northwest of the City of Durango, in La Plata County, Colorado. The river flows from its headwaters in the mountains, approximately 40 river miles south to New Mexico where it eventually becomes tributary to the San Juan River. LPWCD covers approximately 21,600 acres of irrigated land served by 16 main ditches and other smaller diversions.

LPWCD works with a range of water users to achieve large goals such as water conservation, development of the Bobby K. Taylor (BKT) Reservoir, and protection of irrigation water rights. LPWCD also manages Marvel Spring, an important, non-potable, water supply source and hauling station for local residents that do not have domestic water supply.

The LPWCD area is primarily rural and agricultural use. The most common agricultural crop in the region is hay and cattle ranching according to the 2013 USDA Agricultural Census. LPWCD's annual budget, obtained through a mill levy, is approximately \$13,333. The funds are spent on existing District operations and management commitments. This budget does not include the BKT Reservoir grant allocations.

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

Not Applicable

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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.

LPWCD held a vote amongst its members on November 6, 2001 addressing budget issues related to TABOR. The result was an approval of the following referred issue:

WITHOUT AUTHORIZING ANY PROPERTY TAXES, SHALL THE LA PLATA WATER CONSERVANCY DISTRICT OF LA PLATA COUNTY, COLORADO, BE AUTHORIZED TO COLLECT, AND EXPEND OR RETAIN THE FULL AMOUNT OF ANY REVENUE RECEIVED AFTER NOVEMBER 6, 2001 FROM ANY SOURCE, INCLUDING NON-FEDERAL GRANTS, NOT WITHSTANDING ANY RESTRICTION ON REVENUE OR SPENDING, INCLUDING THE REVENUE GROWTH LIMITATIONS CONTAINED IN C.R.S. SECTION 29-1-301, et seq., AND IN ARTICLE X, SECTION 20, OF THE COLORADO CONSTITUTION, SUCH AUTHORIZATION TO CONSTITUTE A VOTER-APPROVED REVENUE AND SPENDING CHANGE?

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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:

Water management to help meet the requirements of the La Plata River Compact and improve irrigation supplies.

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

The proposed work is on the list of identified projects and processes (IPP) for the La Plata River (LPR) Basin, outlined in the Southwest Basin Roundtable Basin Implementation Plan (BIP), dated 04/17/2015: Proposed IPP ID 15-LaP and ID 4-LaP. 15-LaP includes La Plata River ditch lining projects that would increase efficiency of Compact deliveries and 4-LaP includes work that will complement the existing infrastructure to conserve water used for irrigation and domestic augmentation needs.

The proposed work will benefit individual irrigators and the state by increasing water conservation and water-use efficiency. Seepage loss reductions will improve Compact operations and deliveries to Colorado ditches. Capturing the diurnal fluctuations will help to more uniformly meet the 1922 Compact obligations to New Mexico. Storage and exchange water for Colorado ditches in BKT Reservoir will increase with non-irrigation season deliveries. BKT Reservoir provides water during low flows to support the native fisheries in the LPR, per the 2007 Memorandum of Understanding with the LPWCD, Colorado Department of Natural Resources, Colorado Parks and Wildlife and CDWR. This work will also help with the reduction (a small amount) of sodium being conveyed through the LPR prior to reaching the Colorado River.

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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° 10' 4.656"

Longitude: -108° 7' 31.8216"

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 proposed work includes lining sections of the Joseph Freed and Red Mesa Supply Ditch to provide water savings and increase operational efficiency. These delivery systems experience significant losses (up to 40% per mile) due to seepage. Work also includes installation of an automated headgate at the Red Mesa Headgate to store and release diurnal fluctuations in the La Plata River to better measure and account for water.

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 project does not conflict with State water law and appropriation system.

- 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

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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letter from the roundtable chair simply reference that letter.

The proposed project was presented as a concept project at the BRT meeting held on April 13, 2016. It was received with support by the majority of the Board members because the work meets four of the seven goals outlined in the BIP: balance all needs and reduce conflict; meet agricultural needs; meet environmental needs (BKT Reservoir bypass inflows during low flows to support native fisheries per agreement with Colorado Parks and Wildlife); and comply with the La Plata River Compact and manage risk.

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

To be determined at the July 13, 2016 BRT meeting.

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

LPWCD and Bureau of Reclamation will be providing a total of \$14,000 of in-kind services. The Southwestern Water Conservation District has agreed to fund \$60,000. If the \$55,000 BRT Grant is awarded, the LPWCD will match the remaining funds, up to \$82,000.

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. The applicant should also refer to the Supplemental Scoring Matrix applied to Evaluation Criteria Tiers 1-3 for Statewide Account requests. WSRA grant requests for projects that may qualify for loans through the CWCB loan program will receive preference in the Statewide Evaluation Criteria if the grant request is part of a CWCB loan/WSRA grant package. For these CWCB loan/WSRA grant packages, the applicant must have a CWCB loan/WSRA grant ratio of 1:1 or higher. Preference will be given to those with a higher loan/grant ratio.

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

- a. The water activity addresses multiple needs or issues, including consumptive and/or non-consumptive needs, or the needs and issues of multiple interests or multiple basins. This can be demonstrated by obtaining letters of support from other basin roundtables (in addition to an approval letter from the sponsoring basin).

The proposed work will help conserve water which, in turn, maintains the quality of life in the LPR Basin: agricultural, Compact compliance, and environmental needs. The proposed work will complement the existing infrastructure to conserve water used for irrigation. It will benefit individual irrigators and the state by increasing water conservation and water-use efficiency through a reduction of seepage losses. The work will also support and promote native fish species (roundtail chub, bluemouth sucker, and flannelmouth sucker) in the LPR below Long Hollow. The Joseph Freed Ditch will be used to help to fill the BKT Reservoir and, with increased water savings, will supplement water available for identified sensitive species and Compact deliveries.

- 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 LPWCD will be working collaboratively with the BOR to install the Red Mesa Supply Ditch headgate automation system to increase operational efficiency. The LPWCD will be collaborating with the reservoir ditch companies to ensure all stakeholders are involved in the process to have a successful outcome. Finally, the SWCD has also approved funding of \$60,000 for the proposed work.

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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[

The proposed work is on the list of IPPs for the LPR Basin, outlined in the BIP: Proposed IPP ID 15-LaP and ID 4-LaP. 15-LaP includes LPR ditch lining projects that would increase efficiency of Compact deliveries and 4-LaP includes work that will complement the existing infrastructure to conserve water used for irrigation and domestic augmentation needs.

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).

LPWCD's annual budget, obtained by mill levy, is approximately \$13,333. The funds are spent on existing District operations and management commitments. Funding will assist the LPWCD to perform this 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.

LPWCD and Bureau of Reclamation will be providing a total of \$14,000 of in-kind services. The Southwestern Water Conservation District has agreed to fund \$60,000. The LPWCD will match the remaining funds, up to \$82,000.

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 proposed work will complement the existing infrastructure to conserve water used for irrigation. It will benefit individual irrigators and the state by increasing water conservation and water-use efficiency through a reduction of seepage losses. The work will also support and promote native fish species (roundtail chub, bluemouth sucker, and flannemouth sucker) in the LPR below Long Hollow. The Joseph Freed Ditch will be used as an alternate conveyance to the BKT Reservoir; with increased water savings, will ensure that the LPWCD and CPW to maintain the required bypass flows downstream of the reservoir for these identified sensitive species.

- 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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The LPWCD constructed the BKT Reservoir and Long Hollow Dam in order to help administer the La Plata River Compact. BKT Reservoir releases water to the Compact through all with irrigation ditches. In order to increase water efficiency and water conservation in the LPR Basin, improvements to the delivery systems and infrastructure updates are essential. The work will also improve overall water management of the LPR by capturing the diurnal fluctuations to more uniformly meet the 1922 Compact obligations to New Mexico and improve predictability of Compact deliveries.

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

The LPWCD is required to release bypass flows below the BKT Reservoir for the purpose of supporting the LPR native fish species roundtail chub, bluehead sucker, and flannelmouth sucker. Lining the Joseph Freed Ditch will increase reservoir recharge to be used for this purpose.

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

The proposed work:

- Improves LPR Compact deliveries
- Improves water management
- Increases irrigation supplies to Colorado ditches
- Helps to sustain native species

- 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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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 rights associated with this work:

- BKT Reservoir (aka Long Hollow Reservoir), Case No. 00CW49, 12,600 acre-feet (AF) for multiple fills, and 21,598 by exchange.
- Joseph Freed Ditch, Case Nos. CA0807-B, CA6708, and CA0807, 30.88 cubic feet per second (cfs)
- Red Mesa Reservoir (aka Red Mesa Ward Reservoir), Case No. CA0807, 1,176 AF
- Red Mesa Supply Ditch, Case No. CA0807, 120 cfs

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

The LPWCD measured transit losses of 26 percent per mile along the section of the Joseph Freed Ditch to be lined. LPWCD also conducted interviews with local stakeholders who reported losses of 40 percent along the Red Mesa Supply Ditch.

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

Final Deliverable: Completion of ditch lining work and headgate automation.

PAYMENT

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 10 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed. All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and help promote the development of a common technical platform.

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

Signature of Applicant:



Print Applicant's Name: Brice Lee

Project Title: Joseph Freed and Red Mesa Supply Ditch Lining Project and Red Mesa Supply Ditch Headgate

Date: July 5, 2016

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

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

Exhibit A

Statement of Work

WATER ACTIVITY NAME

Joseph Freed and Red Mesa Ditch Lining Project and Red Mesa Supply Ditch Headgate Automation

GRANT RECIPIENT

La Plata Water Conservancy District

FUNDING SOURCE

Basin Water Supply Reserve Account

INTRODUCTION AND BACKGROUND

The 1922 La Plata River Compact, approved by Congress in 1925, requires the State of Colorado to deliver one-half of the daily mean flow of the La Plata River measured at the Hesperus stream gage to the La Plata River State Line gage the following day from February 15th to December 1st (Compact period), not to exceed 100 cubic feet per second. Each state has an unrestricted right of use to La Plata River water between December 1st and February 15th. Historically, Colorado has not always been able to satisfy the Compact due to a variety of factors, including low stream flows, surface flow loss to groundwater, evapotranspiration and increasing water demands. Moreover, attempting to deliver water to meet the Compact from Hesperus results in significant delivery losses to the system.

In order to help meet Compact requirements and limit delivery losses, the LPWCD has completed the construction of the Bobby K. Taylor (BKT) Reservoir to provide a more efficient delivery mechanism. This efficiency will allow Colorado water users to divert water that would otherwise be curtailed by Compact delivery obligations. To increase water efficiency and water conservation in the La Plata River Basin, improvements to the delivery systems and infrastructure updates are essential. Several of the ditches in the La Plata River Basin are old, open ditches and experience significant losses due to seepage.

The proposed work is on the list of identified projects and processes (IPP) for the La Plata River (LPR) Basin, outlined in the Southwest Basin Roundtable Basin Implementation Plan (BIP), dated 04/17/2015. These IPPs include:

- ID 15-LaP. Includes LPR ditch lining projects that would increase efficiency of Compact

deliveries.

- ID 4-LaP. Includes work that will complement existing infrastructures to conserve water used for irrigation and domestic augmentation. See Figure 1.

Ditch Lining to Reduce Seepage (ID 15-LaP)

The Joseph Freed and Red Mesa Supply Ditches are two ditches within the La Plata River Basin. These earthen ditches have been estimated to lose as much as 40 percent of conveyed water due to seepage through the cobble and gravel soils. The LPWCD proposes lining one section in each of these ditches where seepage losses are several. The ditches will be lined with soil amendments (bentonite and lime) that will be mixed with the existing clay soils on the ditch bottom and sides. Additional soil will need to be imported for the Red Mesa Supply Ditch. Bentonite is commonly used during construction of wells to seal casing and is a cost effective solution to lining ditches to reduce seepage. This work will benefit individual irrigators and the state by increasing water conservation and water-use efficiency. The Joseph Freed Ditch work will increase non-irrigation season deliveries to the BKT Reservoir thereby increasing irrigation exchange supplies and improving efficiency of Compact deliveries. Increasing flows to BKT Reservoir will, in turn, improve water availability for the required bypass flows below the reservoir for the support of the native fish species (roundtail chub, bluemouth sucker, and flannelmouth sucker).

Automate Supply Ditch Headgate (ID 4-LaP)

This task will upgrade the existing Red Mesa Supply Ditch headgate by installing automation and telemetry equipment. Management of the LPR will improve by diverting and releasing diurnal fluctuations in the river flows. Compact deliveries to New Mexico will thereby be more uniform and predictable, as will deliveries to Colorado ditches. Automated headgates provide more accurate measurements and accounting of water, as well as providing water savings and increased operational efficiency.

OBJECTIVES

It is expected that the proposed work will:

- 1) Increase efficiency of water delivery.
- 2) Conserve water.
- 3) Help to support native fish species.

- 4) Help to administer Compact compliance.

TASKS

Task 1: Line approximately 5,000 feet of the Joseph Freed Ditch.

Description:

- Use soil amendments of bentonite, lime, and clay to line 5,000 feet of the Joseph Freed Ditch, which will be used to provide inflow and recharge to the BKT Reservoir.

Method:

- LPWCD contractor will use a dozer, backhoe, and excavator to grade and shape area of ditch that will be lined.
- The heavy equipment will be used to loosen the soils to incorporate a ratio of two to one of bentonite and lime.

Deliverables:

- Complete 5,000 feet of ditch lining.

Task 2: Line approximately 2,160 feet of the Red Mesa Supply Ditch.

Description:

- Line 2,160 feet of the Red Mesa Supply Ditch with soil amendments of bentonite, lime, and clay.

Method:

- Provide and haul approximately 200 truckloads clayey material to site.
- LPWCD contractor will use a dozer, backhoe, and excavator to grade and shape area of ditch that will be lined.
- The heavy equipment will be used to loosen the soils to incorporate a ratio of two to one of bentonite and lime.

Deliverables:

- Complete 2,160 feet of ditch lining.

Task 3: Install automation and telemetry controls at the Red Mesa headgate.

Description:

- Work collaboratively with the U.S. Bureau of Reclamation (USBR) to upgrade the existing Red Mesa Supply Ditch headgate by installing telemetric and automated equipment. The USBR has already contributed an unspecified amount of in-kind services (time) to research this task and specify materials.

Method:

- Existing gate will be removed by the LPWCD and sent to machinist in Salt Lake City to fit for new gear.
- LPWCD contractor will install transmission line between diversion and flume stilling well.
- USBR will install automation system and telemetry controls.

Deliverables:

- Complete automation of headgate.

BUDGET

The proposed ditch lining projects will be completed by an LPWCD contractor. The LPWCD Project Manager will oversee the work. The USBR will install Red Mesa headgate automation and telemetry system. In-kind contributions include the LPWCD and USBR. Qualifications of key personnel are available upon request.

Table 1. Total Costs

Task	Labor Cost	Materials & Labor Cost	Total Costs	In-Kind
	(1)	(2)		
1. Line 5,000 feet of Joseph Freed Ditch	\$400.00/hour	\$71,552	\$71,552	-
2. Line 2,160 feet of Red Mesa Supply Ditch	\$400.00/hour	\$68,347	\$68,347	-
3. Mobilize and haul clayey material for soil amendment ⁽¹⁾	-	\$30,000	\$30,000	-
4. Red Mesa headgate automation	\$11,339	\$19,000	\$19,000	-
5. Project Management	-	-	\$8,000	-
Total Costs			\$196,899	-
Basin Grant			\$ 55,000	-
SWCD Grant			\$ 60,000	-
Bureau of Reclamation			-	\$6,000
LPWCD			\$ 81,899	\$8,000
LPWCD Matching Funds			-	\$14,000

Footnote:

1) Total cost includes mobilization and hauling 200 truckloads of clayey material.

Notes:

In-Kind contributions consist of time from LPWCD and BOR. These contributions are not quantified or counted as matching funds.

Joseph Freed & Red Mesa Headgate and Ditch Improvement Project**Budget Table 1b**

Item	Description	WSRF Funding	SWCD Funding	Matching Funds	Total Costs
Task 1	Line 5,000 feet of Joseph Freed Ditch including labor, materials, and equipment.	\$ 55,000	\$ -	\$ 16,552	\$ 71,552
Task 2	Line 2,160 feet of Red Mesa Supply Ditch including labor, material, and equipment.	\$ -	\$ 60,000	\$ 37,347	\$ 98,347
Task 4	Red Mesa headgate automation including labor, materials, and equipment.	\$ -	\$ -	\$ 19,000	\$ 19,000
Task 5	Project Management	\$ -	\$ -	\$ 23,000	\$ 8,000
Total Costs		\$ 55,000	\$ 60,000	\$ 95,899	\$ 196,899

Note:

Matching funds include \$6,000 in-kind from BOR, \$8,000 in-kind from LPWCD, and \$81,899 in cash from LPWCD.

Table 1a. Budget per Personnel

Task	Prof Staff	Tech & Admin	Total
	(1)	(2)	(3)
1. Joseph Freed Ditch lining	-	-	\$71,552
2. Red Mesa Supply Ditch lining	-	-	\$68,347
3. Mobilize and haul clayey material ⁽¹⁾	-	-	\$30,000
4. Red Mesa headgate automation	-	-	\$19,000
5. Project Management	-	-	\$8,000
Total Costs			\$196,899

Footnotes:

1) Contractor costs are lump sum for mobilization, materials and labor for \$71,552, \$68,347 of lining, \$30,000 for clayey soils, and \$19,000 for materials and labor for automation and telemetry equipment.

Notes:

1) Professional staff includes project manager and support staff. Rates range from \$66/hr to \$179/hr.

2) Technicians and Administrative Assistant rates range from \$51/hr to \$66/hr.

3) Equals sum of columns 1 through 3.

Schedule

Task	Start Date	Finish Date
Line 5,000 feet Joseph Freed Ditch	Upon NTP	June 30, 2017
Line 2,162 feet Red Mesa Supply Ditch	Upon NTP	June 30, 2017
Install automation and telemetry equipment Red Mesa Supply Ditch headgate	Upon NTP	NTP + 6 months
Project management and documentation	Upon NTP	June 30, 2017
Total Project	NTP	June 30, 2017

NTP= Notice to Proceed

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