



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

1313 Sherman Street, Room 718
Denver, CO 80203

October 5, 2016

La Plata Water Conservancy District
P.O. Box 71
Marvel, CO 81329

Mr. Eric Bikis, Project Manager
555 River Gage Lane, Suite Br-82
Durango, CO 81301

RE: Official Notice to Proceed – WSRF Grant – **POGG1 2017-460** –
**Joseph Freed & Red Mesa Headgate and Ditch Improvement Project in the Southwest
River Basin**

Dear Eric,

This letter is to inform you that the purchase order to assist in the above WSRF grant project has been approved. The documents attached to the email serve as your original contracting documents.

With the executed purchase order you are now able to proceed with the project and invoice the State of Colorado for costs incurred through your expiration date. Please reference the project name, contract number, and basin when corresponding with or invoicing for your project. Upon receipt of your invoice(s), the State of Colorado will provide payment no later than 30 days after review and signed approval of the project manager.

If an extension to this project is necessary, a formal letter of request must be submitted to the project manager with a proposed completion date **30 days** prior to the current expiration date.

If you have any questions or concerns regarding the project, please contact Anna Mauss, Project Manager at 303-866-3441 x3224 or at anna.mauss@state.co.us. You can also contact me at 303-866-3441 ext. 3250 for invoicing and payment disbursement questions.

Thank you.

Sincerely,

Doriann Vigil
Program Assistant II
O 303-866-3441 ext. 3250
1313 Sherman Street, Rm. 719, Denver, CO 80203
Dori.vigil@state.co.us / cwcb.state.co.com

Attachments





STATE OF COLORADO
Department of Natural Resources

ORDER		** IMPORTANT **				
Number: POGG1 PDAA 201700000460		The order number and line number must appear on all invoices, packing slips, cartons and correspondence				
Date: 09/29/16						
Description: PDAA 2500 WSRF LPWCD_JOESPH FREED 8 RED MESA IMPROVE PROJECT		BILL TO COLORADO WATER BOARD CONSERVATION 1313 SHERMAN STREET, ROOM 718 DENVER, CO 80203				
Effective Date: 10/03/16 Expiration Date: 08/31/18						
BUYER		SHIP TO				
Buyer:		COLORADO WATER BOARD CONSERVATION				
Email:		1313 SHERMAN STREET, ROOM 718 DENVER, CO 80203				
VENDOR		SHIPPING INSTRUCTIONS				
LA PLATA WATER CONSERVANCY DIST PO BOX 71 MARVEL, CO 81329		Delivery/Install Date: F.O.B: FOB Dest, Freight Allowed				
Contact: .		VENDOR INSTRUCTIONS:				
Phone: .						
Line Item	Commodity/Item Code	UOM	QTY	Unit Cost	Total Cost	MSDS Req.
1	G1000		0	0.00	\$55,000.00	<input type="checkbox"/>
Description: PDAA 2500 WSRF LPWCD_JOESPH FREED 8 RED MESA IMPROVE PROJECT						
Service From: 10/03/16		Service To: 08/31/18				
TERMS AND CONDITIONS						
https://www.colorado.gov/osc/purchase-order-terms-conditions						
DOCUMENT TOTAL = \$55,000.00						

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. **(This is the only WSRF funded task of this project)**

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. : 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.

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	Materials & Labor Cost	Total Costs	In-Kind
	(2)		
1. Line 5,000 feet of Joseph Freed Ditch	\$71,552	\$71,552	-
2. Line 2,160 feet of Red Mesa Supply Ditch	\$68,347	\$68,347	
3. Mobilize and haul clayey	\$30,000	\$30,000	
4. Red Mesa headgate automation	\$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

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 ⁽¹⁾
Task 2	Line 2,160 feet of Red Mesa Supply Ditch including labor, material, and equipment.	\$-	\$60,000	\$37,347	\$98,347
Task 3	Red Mesa headgate automation including labor, materials,	\$-	\$-	\$19,000	\$19,000
	Project Management	\$-	\$-	\$23,000	\$8,000
Total		\$55,000	\$60,000	\$95,899	\$196,899

Note:

(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.

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, 2018
Total Project	NTP	AUGUST 31, 2018

NTP= Notice to Proceed