

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
July 20-21, 2016
Agenda Item 16(d)

Applicant & Fiscal Agent: Marcot Park Ditch and Reservoir Company
Water Activity Name: Marcot Dam Outlet Repair
Water Activity Purpose: Agricultural
County: Delta
Drainage Basin: Gunnison
Water Source: Marcot Creek
Amount Requested/Source of Funds: \$49,649 Gunnison Basin Account
\$49,649 Total Basin Account request

Matching Funds: Applicant Match: \$37,461 = 43% of the total project cost of \$87,110
(refer to *Funding Summary/Matching Funds* section below)

Staff Recommendation:

Staff recommends approval of up to \$49,649 from the Gunnison Basin Account to help fund the project titled: Marcot Dam Outlet Repair.
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Water Activity Summary: WSRA funds, if approved, will help fund the project titled: Marcot Dam Outlet Repair. Marcot Park Ditch and Reservoir Company (MPDRC) has embarked on a long-term effort to upgrade the aging earth-compacted Marcot Dam located on the Grand Mesa. In addition to the maintenance requirements indicated by periodic inspection by Colorado Dam Safety, MPDRC is aggressively working to minimize seepage from the reservoir, improve the dam crest, and improve placement or rip-rap. Photo and video examination of the outlet piping during dam inspections revealed however, that the priority should be shifted to rehabilitation of the outlet piping.

The dam's outlet, installed in 1955, is a 20-inch OD steel with ¼ inch wall thickness, bituminous coating within and on the pipe's outer surface. MPDRC, in cooperation with Colorado Dam Safety, has monitored the condition of the pipe via videos and photographic means. Concerns were cited in an inspection report by the Colorado Dam Safety Engineer dated July 16th, 2012, after a video inspection of the outlet pipe. In the summer of 2015, MPDRC engaged an engineering firm (DOWL, LLC) to examine the outlet, the historical data, and determine the best course of action for repair.

The conclusion of the DOWL investigation was that the Marcot outlet is a very good candidate for Cured- in-Place-Pipe (CIPP), a composite liner permanently emplaced by a thermo-curing process inside the host pipe. The report was accompanied by engineering calculations intended for submission to the Colorado Dam Safety Dept. In addition, DOWL submitted an Engineer's Estimate of Probable Cost. All these were delivered to MPDRC on September 15, 2015 for a cost of \$5240.00. This amount was paid from a previous WSRA study grant in the amount of \$ 10,000.00.

Following receipt of the engineering findings, MPDRC met with personnel from Colorado Dam Safety on September 18, 2015 and submitted plans, calculations, the Engineering report and an application to apply a CIPP repair to the Marcot Reservoir outlet. MPDRC then contacted qualified contractors for bids to perform the CIPP repair, a copy of which is included in the appendix.

Discussion: This project meets the measurable objectives and action items in the Gunnison Basin Implementation Plan, including the rehabilitation of existing reservoirs on the Grand Mesa.

This project also meets additional critical actions identified in the Critical Action Plan (Chapter 10) of Colorado's Water Plan:

- **D3:** Provide grants, loans, and technical support to update and improve Colorado's aging agricultural infrastructure, especially where improvements provide multiple benefits.
- **E2:** Prioritize grants and loans to support the implementation of BIP-identified multipurpose projects and methods, taking into consideration locally identified geographic and seasonal gaps.

Issues/Additional Needs: No additional issues or needs were 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>
MPDRC	\$37,461	n/a	\$37,461
Subtotal Matching Funds	\$37,461	\$0	\$37,461
WSRA Gunnison Basin Account	\$49,649	n/a	\$49,649
Total Project Costs	\$87,110		\$87,110

CWCB Project Manager: Brent Newman

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

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

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

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