

**Water Supply Reserve Account – Grant and Loan Program**  
**Water Activity Summary Sheet**  
**January 25-26, 2016**  
**Agenda Item 24(e)**

**Applicant & Fiscal Agent:** Town of Mancos  
**Water Activity Name:** Mancos Raw Water System Improvements  
**Water Activity Purpose:** M&I  
**County:** Montezuma  
**Drainage Basin:** Southwest/Mancos River Basin  
**Water Source:** West Fork of the Mancos River & Jackson Gulch Reservoir  
**Amount Requested/Source of Funds:** \$81,765 Southwest Basin Account (total grant request)  
**Matching Funds:** Applicant Match: \$81,766 (cash) = 50% of the total project cost of \$163,531  
(refer to *Funding Summary/Matching Funds* section below)

<b>Staff Recommendation:</b>
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Staff recommends approval of up to \$81,765 from the Southwest Basin Account to help fund the project titled: Mancos Raw Water System Improvements.
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**Water Activity Summary:** WSRA funds, if approved, will be expended to fund replacement of the existing Raw Water Intake System for the Town of Mancos. The current system has very limited means to measure and control water flow from the river and the Water Treatment Plant Operator has to continually monitor the system to ensure that water is flowing to the WTP. Because the flow cannot be accurately metered, water at multiple locations ends up overflowing onto the ground. Additionally, the pipes conveying water to and from the ponds are subject to debris blockage causing more water to be wasted. When the pipe plugs up there is concern with interruption of flow to the treatment plant. More specifically, components of the Raw Water Intake System replacement will consist of:

1. Replace water lines between Pond 1 and Pond 2, and Pond 2 to the Parshall Flume and Control Box;
2. Provide decanter devices at the outlet of Pond 1 and Pond 2 to prevent debris from plugging pipes and causing ponds to overflow;
3. Provide a baffle (curtain) across each of the ponds to reduce short circuiting and improve settling of suspended solids;
4. Provide new Parshall Flume and Control Box and relocate them closer to the raw water pond to allow the Operator to dial in proper flow rates at the river head gate using the new 3" Parshall Flume;
5. Relocation of the Parshall Flume and Control Box further upstream will also provide additional pressure head of the raw water entering the water treatment plant. This will help treatment plant operations;
6. Provide return pipes back to the river to keep water off the ground. Return pipes will be from Pond 1, Pond 2, the control box, and the raw water manhole. These return pipes will provide

the operator with assurance that any excess water flowing through the raw water intake system will quickly be routed back into the River without any of the water spilling onto the ground.

The objectives of these improvements are as follows:

1. Provide accurate metering and control of water entering the pond system;
2. Eliminating extensive water spilling onto the ground and providing return pipes back to the river;
3. Provide better quality raw water going to the water treatment plant by reducing the short circuiting that is happening in the ponds.

**Discussion:** The proposed project aligns well with several Goals and Measurable Outcomes in the Southwest Basin Implementation Plan, such as “Meet Municipal and Industrial Water Needs” Goal C1: *Pursue a high success rate for identified specific and unique IPPs to meet the municipal gap*; and Goal C2: *Provide safe drinking water to Southwest Colorado’s citizens and visitors* (Section 1 - Basin Goals and Measurable Outcomes, Table 1, page 14), while also supporting the achievement of Measurable Outcomes #1: *Complete 40\* IPPs aimed at meeting municipal water needs*; #2: *Consistently meet 100% of residential, commercial and industrial water system demands identified in SWSI 2010 in each sub-basin, while also encouraging education and conservation to reduce demand*; and #3: *Implement at least 1\* IPP that protects or enhances the ability of public water supply systems to access and deliver safe drinking water that meets all health-based standards* (Section 1 - Basin Goals and Measurable Outcomes, Table 1, page 14). This proposal assists the Southwest Basin achieve these Goals and Measurable Outcomes by implementing a Mancos River Basin IPP – *Town of Mancos*, ID No. 14-M, Appendix A, page 13 of 18.

It is CWCB staff’s opinion that this proposal advances the Goals and Measurable Outcomes of Colorado’s Water Plan by reflecting the intent of the Programmatic *Critical Actions to Meet Water Gaps* #1 (Support and assist the basin roundtables in moving forward priority municipal, industrial, environmental, and agricultural projects and methods identified in their BIPs through technical, financial and facilitation support when requested by a project proponent and the pertinent BRT.), as exhibited in Chapter 10: *Critical Action Plan*, Section 10.3, A. Supply-Demand Gap, page 10-9.

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

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

**Tier 1-3 Evaluation Criteria:** n/a

**Funding Summary/Matching Funds:**

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
Southwest RT WSRA Basin Account	\$81,765	n/a	\$81,765
Town of Mancos	\$81,766	\$0	\$81,766
<b>Total</b>	<b>\$163,531</b>	<b>\$0</b>	<b>\$163,531</b>

**CWCB Project Manager:** Craig Godbout

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn

be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

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

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

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