

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
May 21-22, 2014
Agenda Item 24(e)

Applicant: Trinchera Irrigation Company

Water Activity Name: Mountain Home Reservoir Outlet Study – Phase I

Water Activity Purpose: Agriculture/Study

County: Costilla

Drainage Basin: Rio Grande

Water Source: Ute Creek and Sangre de Cristo Creek

Amount Requested: \$25,000

Source of Funds: Rio Grande Basin Account

Matching Funds: \$12,650 in-kind match by applicant and third parties: 33.6% of total study costs of \$37,650 (refer to *Funding Overview/Match Summary* below)

Staff Recommendation
Staff recommends approval of up to \$25,000 from the Rio Grande Basin Account to assist in the funding of the study titled: Mountain Home Reservoir Outlet Study – Phase I.

Water Activity Summary: Trinchera Irrigation Company seeks \$25,000 in WSRA Rio Grande Basin Account funds for a feasibility study which will conduct an underwater inspection, capture and analyze video data, and determine the best method to repair, upgrade and/or replace the gates and outlet works. Engineers will evaluate the condition of three 30” diameter gate valves, conduits and operators at Mountain Home Reservoir and develop alternative plans to rehabilitate the outlet works.

The objective of this Project is to determine the Scope of Work, Budget and Timeline for the Phase II implementation of this dam restoration project without affecting the CPW conservation pool or requiring the emptying of the reservoir.

This project addresses three main issues:

- 1) Dam safety with reliable water level elevation management of the reservoir:
- 2) Improved water storage management and reduced storage loss:
- 3) Protection of the CPW conservation pool and enhancement of environmental, recreational and wildlife habitat assets:

The existing gates don't operate correctly and all three of the gates leak. For many decades gate number one is the only one that has been used and it is not known whether gates two and three would open properly or, more importantly, whether they would close properly once opened. Depending on the storage elevation (i.e. head pressure) the gate leakage results in the loss of 150 to 250 AF per month, or from 1350 to 2250 AF annually. The State is now requiring TIC to repair or upgrade the gates and to restore full operating capability at Mountain Home Reservoir.

CPW and TU are conducting parallel feasibility studies, in conjunction with this project, to determine how best to expand and enhance wildlife habitat, improve recreational fishing opportunities, and create additional options for hiking, wildlife viewing and public appreciation of the very popular Mountain Home Reservoir State Wildlife Area.

By restoring full designed operating capacity to the outlet works at Mountain Home Reservoir, this Phase I feasibility study addresses several Measurable Goals and Objectives in the Rio Grande Basin Implementation Plan: Rehabilitate an important Basin reservoir, significantly improve water management efficiency, reduce reliance on groundwater pumping, protect fishery and wildlife habitat assets, and explore ways to improve the outdoor recreational enjoyment of folks who come to Mountain Home.

Discussion:

No additional discussion is required.

Issues/Additional Needs:

No issues or additional needs have been identified.

Funding Overview/Matching Funds

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
WSRA Rio Grande Basin Account.	\$25,000	n/a	\$25,000
Trinchera Irrigation Company	\$0	\$2,250	\$2,250
Trout Unlimited	\$0	\$400	\$400
Colorado Parks and Wildlife	\$0	\$10,000	\$10,000
Totals	\$25,000	\$12,650	\$37,650

Staff Recommendation:

Staff recommends approval of up to \$25,000 from the Rio Grande Basin Account to assist in the funding of the study: Mountain Home Reservoir Outlet Study – Phase I.

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.

Project Map:

