

**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 12.e**

Applicant: Manassa Land and Irrigation Company

Water Activity Name: Conejos North Branch Water Conservation and Management

Water Activity Purpose: Structural Water Project

County: Conejos

Drainage Basin: Rio Grande

Water Source: Conejos River

Amount Requested: \$75,000

Source of Funds: Rio Grande Basin Account

Matching Funds: \$48,000 (MLI), \$61,000 (NRCS plus in-kind engineering valued at \$10,000)

Staff Recommendation
Staff recommends approval of up to \$75,000 from the Rio Grande Basin Account to help complete Conejos North Branch Water Conservation and Management.

Water Activity Summary:

In 2008, Manassa Land and Irrigation Company (MLI) was granted \$383,700 of WSRA funds (basin and statewide) for the eleven ditch companies constituting the North Branch Water Users. That project, the Conejos River & North Branch Diversion & Stabilization Project (the stabilization project), consisted of installing J-hooks and constructing and installing a new core and headgates in the main channel of the Conejos River. Completed in the spring of 2010, this work repaired the bifurcation, balanced the flows between the main channel and the North Branch of the Conejos, and replaced the 100-year-old concrete “core” diversion structure and the system’s 5 large diversion gates. The stabilization project met multiple consumptive and nonconsumptive needs while improving the Conejos River’s ability to fulfill its Compact obligation to downstream states.

Although the Stabilization Project cured deficiencies in the main channel of the Conejos at the point of the North Branch Diversion and eliminated many delivery problems for North Branch Water Users, it did not address other major water management issues in the MLI irrigation system, where decades of channel and diversion instability have taken a heavy toll on the condition of headgates. Deterioration of the two principal 100-year-old headgates requires weekly and sometimes daily maintenance (shown in Exhibit E). In high flow regimes these headgates are clogged with debris and sediment, requiring a backhoe to frequently clear out the ditches. In low flows, MLI must construct an earthen dam to get its decreed rights, but this temporary patch washes out when levels return, creating a constant maintenance problem. In addition, MLI has no measuring flumes, so it distributes water on a time-per-share basis rather than using a quantified distribution system.

Matching funds from MLI and NRCS will be used immediately, taking seasonal advantages to replace the #3 Headgate and Core, with WSRA funds applied after Notice to Proceed in the spring of 2011 to replace Headgate #98 and to install Parshall flumes on the five laterals in the system, enabling MLI to quantify flows within its system. (See Exhibit B).

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

Funding Overview

MLI is contributing \$48,000 and the NRCS is contributing \$61,000 in cash, plus engineering services and site supervision valued at \$10,000. The full match is \$119,000 or 61% of the total project cost of \$194,000.

Discussion:

Rio Grande Basin objectives included increasing irrigation efficiency, and with sub-district imperatives to measure irrigation flows and groundwater recharge. Therefore, it is imperative for MLI to modernize its water distribution system and improve operational efficiency in order to meet the irrigation needs of 18,000 acres.

These measures will ensure a more uniform and efficient distribution of water, restore optimal performance of the irrigation system, help conserve and protect water resources, and improve MLI's ability to respond to current and future changing needs for water. This project will complement and support recent improvements in the North Branch Diversion by reducing escalating maintenance issues for multiple ditch companies. By preventing further deterioration, MLI will eliminate long-standing difficulties in obtaining decreed water rights and meeting priority calls, thus helping to meet Colorado's agricultural demands with a sustainable water supply. After more than five generations, these repairs and upgrades will greatly improve irrigation efficiency, restoring full operational capacity to a system which is integral to the delivery of Colorado's compact obligations.

Issues/Additional Needs:

No issues or additional needs remain.

Staff Recommendation:

Staff recommends approval of up to \$75,000 from the Rio Grande Basin Account to help complete Conejos North Branch Water Conservation and Management.

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.