

**Water Supply Reserve Account – Grant and Loan Program  
Water Activity Summary Sheet  
Consent Agenda Item 6.e**

**Applicant:** Conejos Water Conservancy District

**Water Activity Name:** Platoro Reservoir Crest of Dam Repair

**Water Activity Purpose:** Study or Analysis of a Structural Water Project

**County:** Hinsdale

**Drainage Basin:** Rio Grande

**Water Source:** Rio Grande

**Amount Requested:** \$150,000

**Source of Funds:** \$15,000 from Rio Grande Basin Account, \$135,000 from the Statewide Account (for consideration in September 2011)

**Matching Funds:** \$10,000 (applicant), \$25,000 Bureau of Reclamation

<b>Staff Recommendation</b>
Staff recommends approval of up to \$15,000 from the Rio Grande Basin Account to help complete the Platoro Reservoir Crest of Dam Repair. The request for \$135,000 of Statewide funds will be considered at the September 2011 board meeting.

**Water Activity Summary:**

The Platoro Reservoir dam crest is in need of restoration due to a gradual slumping from the original designed grade. The depressed area runs the full length of the crest, approximately 1,475 feet, tapering from 0 feet to as much as 2' feet below the original dam crest elevation. This top portion of the dam has deteriorated over time, requiring pre-emptive action in order to meet Colorado dam safety requirements in the event of high inflows to the reservoir.

In the 2008 Comprehensive Facility Review, the Bureau's Technical Response Team studied static, seismic, and hydrologic potential dam failure modes. The hydrologic analysis found that the core is 4 feet below the dam crest, indicating the potential for "[e]rosion through the upper portion of the embankment during an extreme flood that causes the reservoir to rise above the top of the core." In order to prevent further deterioration and to protect the structural integrity of the semi-permeable area at the top of the dam, the District will restore the crest by placing additional rock along its full length.

Funding for this project will restore the crest of the dam to its designed grade and enable the District to meet the road access requirements of the U.S. Forest Service. Deliverables include meeting dam safety requirements, reducing the risk of flood, and maintaining Platoro's excellent record of never having had any operational restrictions.

*Threshold and Evaluation Criteria*

The application meets all four Threshold Criteria.

**Discussion:**

Platoro Reservoir regulates the water supply for 88,000 acres of land irrigated by the District. The Reservoir is used for flood control and for re-regulating the flows of the Conejos River for irrigation in the San Luis Valley Project of the Bureau of Reclamation. These flows are crucial to the Rio Grande Compact with Texas and New Mexico. The reservoir is used by the Colorado Division of Water Resources and is a valuable resource to a large

number of hunters, fishermen and recreational enthusiasts. Releases made in anticipation of flood conditions are coordinated between the District and the Colorado Division of Water Resources to avoid interference with irrigation operations and to meet Rio Grande Compact delivery obligations. By repairing and restoring the designed grade of the crest of the dam, this project maintains Platoro Reservoir's storage and release capabilities, protecting from flood, ensuring timely releases for irrigation, protecting a valuable resource for recreation and wildlife, and ensuring Colorado's continuing ability to meet its obligations under the Rio Grande Compact.

**Issues/Additional Needs:**

No issues or additional needs remain.

**Staff Recommendation:**

Staff recommends approval of up to \$15,000 from the Rio Grande Basin Account to help complete the Platoro Reservoir Crest of Dam Repair. The request for \$135,000 of Statewide funds will be considered at the September 2011 board meeting.

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.