

**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Consent Agenda Item 14.i**

Applicant: Sanchez Ditch & Reservoir Company

Water Activity Name: Sanchez Reservoir Rehabilitation - Phase I Assessment & Upgrade

Water Activity Purpose: Study of a Structural and Nonstructural Water Project

County: Costilla

Drainage Basin: Rio Grande

Water Source: Culebra Creek and its tributaries

Amount Requested: \$95,000 (\$10,000 Rio Grande Basin Account, \$85,000 Statewide Account)

Matching Funds: \$33,160 (applicant)

Staff Recommendation
Staff recommends approval of up to \$10,000 from the Rio Grande Basin Account and \$85,000 from the Statewide Account to help complete the Sanchez Reservoir Rehabilitation - Phase I Assessment & Upgrade.

Water Activity Summary:

The Sanchez Ditch and Reservoir Company (SDRC) seeks to complete Phase 1 of a 4-phase project. Phase 1 addresses human safety, deteriorating infrastructure, along with efficiency and operational improvements that are critical in operating and maintaining the reservoir.

As its matching contribution, SDRC is rebuilding and replacing one of the cylinders in the lower part of the Gate Tower. SDRC is also conducting an engineering evaluation of the Gondola system, which is used daily by SDRC employees in the irrigation season. In addition, SDRC is repairing, upgrading, and incorporating the safety features which are identified in the Gondola study. SDRC will evaluate the current configuration of Gate Tower and Gondola in terms of current, continued, and long term operational viability. This feasibility study will determine the best means of upgrading or replacing the existing system along with a preliminary assessment of hydropower potential.

To adequately meet irrigation needs at high levels of storage, the State has recommended that SDRC accommodate a reservoir drawdown of 1 foot per day over 5 days. SDRC will install a new hydraulic operating system with solar power, enabling remote electronic observation and operation of the reservoir from the SDRC office in San Acacio. This fully automated system will greatly reduce labor and maintenance costs, increase accuracy and control, reduce water loss, and virtually eliminate dependence on the dangerous Gondola system for access to the Gate Tower. Because of the remote location of the project, SDRC will install security systems to protect these new installations.

In the future, Phase 2 will implement the recommendations made in Phase 1 relating to the configuration of the system, or, if major changes are advised, will factor those recommendations into future planned upgrades. Phase 3 will repair the concrete exterior of the Gate Tower and deteriorated concrete on the outlet structure. Finally, Phase 4 will conduct a much more comprehensive feasibility study of the potential for hydropower generation.

Funding Overview

SDRC is providing matching funds of \$33,160 for cylinder replacement, inspection and upgrades to the gondola and cableway system, and security systems. Total grant funds of \$95,000 will be applied to (a) a feasibility study of the existing Gondola-and-Tower configuration; (b) the new electrical system and automated hydraulic system and remote controls; (c) security system; and (d) project management.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria.

The application articulates how the project meets the Evaluation Criteria as summarized below:

Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs: Sanchez

Reservoir is managed for recreational use as a Colorado State Wildlife Area and popular fishing and boating destination providing economic benefits to Costilla County. The project has the support of the county and local communities in addressing both consumptive and non-consumptive needs, including irrigation and maintenance of a fish and wildlife conservation pool of 2,500 AF. Sanchez Reservoir also provides flood protection for a number of these historic communities, including San Luis. The Rio Grande Basin Roundtable has prioritized reservoir rehabilitation as important IPP's to preserve critical storage in the basin.

Tier 2: Facilitating Water Activity Implementation: Costs of operation and maintenance continue to rise, but the

proposed project would greatly reduce these costs. SDRC has added an additional assessment to serve both of its current CWCBC loans. The SDRC Board and Shareholders have determined that prudent management requires the company not take on any additional debt. SDRC has identified highly qualified contractors to complete the tasks in the Scope of Work. SDRC is contributing \$33,160 to the project, or 35% of requested grant funds and 26% of total project costs.

Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits: This project sustains

agriculture by improving SDRC's ability to store and distribute water. It serves an area of 22,414 acres, with approximately 227 contracts to supply water. The service area includes 13,424 acres of irrigated crop land and 18,392 acres of farm land which, due to lack of water, are either not irrigated or irrigated in rotation. Sanchez Reservoir irrigates crops including: potatoes, wheat, barley, oats, alfalfa, and hay mixtures. This project helps meet environmental needs by ensuring the continued viability of the Sanchez Reservoir. Tourism, boating and fishing bring needed funds into one of the poorest communities of Colorado. This project also leverages decisions which will govern the next three phases, rehabilitating this large reservoir, reducing the risk of flood, and ensuring the continued recreational enjoyment of visitors and residents. The flood control aspects of the Sanchez Reservoir are important in maintaining the integrity of the acequia system on San Luis Peoples Ditch, which was recently rehabilitated with WSRA funds.

Discussion:

As identified in the SWSI findings, small agricultural water users often lack the financial ability to adequately address infrastructure needs without financial aid. SDRC does not possess the financial resources to make the required improvements to fully utilize its existing water rights. In addition, the SWSI Management Objectives, of the SWSI Phase II Report: Addressing the Water Supply Gap Technical Roundtable, include to "sustainably meet agricultural demands." That management objective is directly met through this activity. The proposed project effectively meets the objectives of HB 1177 and the consumptive needs of the Rio Grande Basin by rehabilitating existing infrastructure to preserve agricultural water use.

Issues/Additional Needs:

No issues or additional needs remain.

Staff Recommendation:

Staff recommends approval of up to \$10,000 from the Rio Grande Basin Account and \$85,000 from the Statewide Account to help complete the Sanchez Reservoir Rehabilitation - Phase I Assessment & Upgrade.

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.