

**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 7b**

Applicant: Florida Mesa Canal Companies (Florida Canal, Florida Farmers Ditch, Florida Enlargement Ditch, and the Florida Co-operative Ditch Company)

Water Activity Name: Ditch Loss, Hydropower, and Monitoring Improvement Program

Water Activity Purpose: Technical Assistance for Feasibility Studies; Study and Implementation of a Structural, Consumptive Water Project

County: La Plata County

Drainage Basin: Animas River

Water Source: Florida River

Amount Requested: \$100,000 (Southwest Basin Account)

Matching Funds: \$120,895

Staff Recommendation
The proposed project meets a consumptive water supply need in the Southwest Basin. Staff recommends approval of up to \$100,000 from the Southwest Basin Account to partially fund the Ditch Loss, Hydropower, and Monitoring Improvement Program for the Florida Mesa Canal Companies contingent on resolution of the items in the issues/additional needs section.

Water Activity Summary:

This is one of two projects for which the Florida Mesa Canal Companies are seeking WSRA funds. The current project for Southwest Basin account funds involves: ditch loss studies; the installation of gauging station telemetry, water measuring devices, and automated gates; and a hydropower feasibility study. The second application for Statewide funds to be considered at the September 2009 board meeting involves the design and installation of canal lining in strategic sections of the system identified by the current ditch loss studies.

The conveyance system of the Florida Mesa Canal Companies suffers from heavy seepage and administrative waste. A 1988 U.S. Bureau of Reclamation (USBR) Study calculated this waste to be 8,400 acre-feet per year. Florida Water Conservancy District (FWCD) water monitoring program records indicate that over the last seven years system losses have averaged 24 percent, or 11,600 AF per year. In 2006, the FWCD and the Florida Mesa Canal Companies undertook a Water Conservation and Management Plan. During the planning process, the increase in efficiency of the Canal Conveyance System was identified as a goal of both the FWCD and the Florida Canal Companies. For 2009, the Canal Companies have doubled their assessments in order to begin to improve the efficiency of the canal conveyance system.

The proposed seepage loss studies would determine locations of losses below the main inlet canal structures to identify and target high seepage areas for future lining and piping project prioritization and guidance. The ditch and canal companies seek to use the seepage studies to help prioritize lining projects identified in the FWCD Water Conservation and Management Plan and USBR Study.

The second task involves the installation of three water measuring devices, seven real-time telemetry sites, and three automated gates. The new equipment will reduce administrative waste, help identify areas with

water losses, and assist with canal and ditch operations during changing water conditions. Previous water budgets of the Florida Mesa canal system have indicated up to 10 percent administrative losses. These administrative losses are caused by the delays between orders and delivery of irrigation water to agricultural water users, where irrigation tailwater may be wasted into the river rather than diverted down the canal to areas where it is needed. The ditch riders will be able to monitor flows in the canal system, and adjustments can be made in a timely manner to deliver water to where it is needed.

The third task involves a feasibility study to examine the development of hydropower resources for additional revenue generation to the companies. Though the companies have recently doubled assessments to help fund improvements of the water conveyance system additional sources of revenue will be needed to help fund the improvements and ultimate replacement of conveyance system components. The study will further examine potential sites identified in the FWCD Water Conservation and Management Plan and USBR Study. The study will also identify additional hydropower sites based on water yield, hydraulic elevation, location of existing electrical infrastructure, site access, water rights, and environmental constraints. Revenue generation potential from current utility rates will be assessed.

Threshold and Evaluation Criteria

The application meets all four Threshold Criteria. No Statewide funds are being requested, therefore the evaluation criteria does not apply.

Funding Overview

Grant funding in the amount of \$100,000 is requested from the Southwest Basin Account. Funding from the WSRA constitutes roughly 45% of the overall project cost (\$220,895). The balance of the project's funding is provided by the USBR (\$94,495), FWCD (\$4,000), and the applicants (\$22,400).

Discussion:

As identified in the SWSI findings, agricultural water users often lack sufficient funding to adequately address infrastructure needs without financial aid. The SWSI findings for the Southwest Basin also recommend improved agricultural conservation (efficiency) including ditch lining programs to increase delivery to users and provide agricultural firming.

The proposed project effectively meets the objectives of HB 1177 and the consumptive needs of the Southwest Basin by rehabilitating existing infrastructure to achieve significant savings of agricultural water. As identified in the FWCD Water Conservation and Management Plan, the proposed project would increase conveyance efficiencies and firm up agricultural water deliveries through canal lining, conservation, and more efficient administration. In addition, the development of sustainable hydropower would create additional revenue sources for the irrigators to promote the continued existence of the canal companies and their associated irrigated acreage.

Issues/Additional Needs:

- Please include a more detailed budget and scope of work.
- Please include an updated project schedule that includes completion dates for key project milestones.

Staff Recommendation:

The proposed project meets a consumptive water supply need in the Southwest Basin. Staff recommends approval of up to \$100,000 from the Southwest Basin Account to partially fund the Ditch Loss, Hydropower, and Monitoring Improvement Program for the Florida Mesa Canal Companies contingent on resolution of the items in the issues/additional needs section.

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.