

**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 28a**

Applicant: Colorado Rio Grande Restoration Foundation

Water Activity Name: Plaza Project – Phase 2: McDonald Ditch Implementation Project

Water Activity Purpose: Structural Water Project

County: Rio Grande

Drainage Basin: Rio Grande

Water Source: Rio Grande

Amount Requested: Increase of \$431,000
(\$22,000 Rio Grande Basin Account, \$409,000 Statewide Account)

Matching Funds: \$150,000 (NRCS Environmental Quality Incentives Program), \$50,000 (Colorado Partnership Program), \$200,000 (Cooperative Conservation Partnership Initiative Program), \$100,000 (Landowners – pending concurrent CWCBC loan increase application), \$10,000 (Rio Grande County), \$140,000 (in-kind services).

Staff Recommendation
Staff recommends approval of the grant increase for a total grant of up to \$42,000 from the Rio Grande Basin Account and \$684,000 from the Statewide Account to help complete the Plaza Project – Phase 2: McDonald Ditch Implementation Project.

Water Activity Summary:

The Plaza Project – Phase 2: McDonald Ditch Implementation Project (Phase 2) will implement the findings of the Plaza Plan. The Plaza Plan, finalized in August 2011, was completed in the Plaza Project – Phase 1: Plaza Planning Project, (Phase 1). Phase 1 was funded with a \$40,000 grant from the Rio Grande Basin WSRA Account. Phase 1 was a 5-month collaborative scoping and feasibility study of potential biological and structural approaches to rehabilitate the stream banks, diversion and headgate structures, and a wetland within the approximately 2.8 mile reach of the Rio Grande near the Sevenmile Plaza. Alternatives for rehabilitation included different diversion types, micro-hydropower generation, automated headgates, and multiple stream bank stabilization, riparian rehabilitation, and wetland reclamation techniques.

The “Plaza Stakeholders” a diverse group of 30 individuals, analyzed the costs and benefits of each alternative to select the desired alternative for each project element. This collaborative approach ensures future implementation aligns with the multiple objectives of stakeholders and interests of landowners in Sevenmile Plaza, one of Colorado’s oldest communities.

The project area is located within the Sevenmile Plaza in Rio Grande County. This reach was ranked “poorest” in channel stability and condition of the floodplain, and was identified as a high priority for restoration. The channel at Sevenmile Plaza is greatly impacted by piers and concrete rubble from the old Sevenmile Plaza Bridge, which were left in place to form part of the McDonald Ditch diversion. This diversion obstructs flood flows, causes channel movement and instability, and negatively impacts downstream reaches. Phase 2 will specifically address these issues.

The objectives of Phase 2 are to: (1) Improve diversion efficiency and reduce maintenance by replacing the aging McDonald Ditch headgate, installing a solar-powered automated water gate, and replacing the McDonald Ditch diversion structure with the alternative chosen by the Plaza Stakeholders during Phase 1; (2) Enhance water quality by reducing erosion and sediment input; (3) Improve riparian and wetland condition by reclaiming a 2-acre wetland and stabilizing up to 2,000 linear feet of stream banks in the project area; (4) Increase the capacity of

the Rio Grande to transport sediment; (5) Improve aquatic and wildlife habitat; (6) Encourage local recreation by including fish and boat passage in the new diversion structure; (7) Promote public involvement in water improvement activities through public outreach and education.

Preliminary designs for the McDonald Ditch headgate and diversion, stream banks, and wetland were developed by the NRCS in Phase 1. In Phase 2, project engineers will finalize the design for each of the project elements. Phase 2 will be a three-year project with execution of designs in years 1 and 2, and monitoring in years 2 and 3. Phase 2 integrates the rehabilitation of the McDonald Ditch diversion with the multiple objectives of the 2001 Study, with the anticipated future rehabilitation of the neighboring Silva, Atencio, and Prairie diversions, and with the stabilization of the surrounding riparian areas and wetland.

Project Modification Requiring Grant Increase

During the final engineering design of the McDonald Ditch diversion structure, analysis showed that rebuilding the diversion structure at the existing location would cause flooding in the local community including the upstream bridge of W CR 5 N (Sevenmile Plaza Bridge). The solution is to build the new dam and headgate upstream of the bridge, in a more stable channel reach, and pipe the water to the ditch, and replace the existing dam with a rock weir to maintain channel grade at the bridge. This diversion structure will be equipped with a sluice gate as well as a fish and boat passage. With this change, the Project has increased by \$468,000 for an estimated total cost of \$1,376,000. The landowner (McDonald Ditch Company) is seeking an increase to its CWCB loan to cover its portion of the cost and the NRCS has increased their in-kind design services due to this design change.

Funding Overview

The Foundation is requesting a total of \$42,000 from Rio Grande Basin WSRA funds and \$684,000 from Statewide WSRA funds, or 53% of the total project cost of \$1,376,000. Matching funds are as follows: \$150,000 (11%) from the NRCS Environmental Quality Incentives Program (EQIP); \$50,000 (4%) from the Colorado Partnership Program (CPP); \$200,000 (15%) from the Cooperative Conservation Partnership Initiative (CCPI) Program; \$100,000 (7%) from Landowners; \$10,000 (1%) from Rio Grande County; and \$140,000 (12%) from in-kind services.

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: More than 30 Plaza Stakeholders jointly developed The Plaza Plan and selected the most favorable alternatives to be implemented in Phase 2. Stakeholders met in five formal working sessions, participated in numerous tours and site visits, gathered data, and determined the best design developed by the NRCS for the McDonald Ditch headgate and diversion replacement, stream bank stabilization, and wetland rehabilitation. The following interests and organizations were represented in the Plaza Stakeholders: Rio Grande Headwaters Restoration Project (RGHRP), Natural Resources Conservation Service (NRCS), McDonald Ditch Company, Prairie Ditch Company, Silva Ditch Company, Atencio Ditch Company, US Fish and Wildlife Service (USFWS) Partners for Wildlife Program, Colorado Division of Wildlife (CDOW), Rio Grande Headwaters Land Trust (RiGHT), Colorado Division of Water Resources, San Luis Valley Water Conservancy District (SLVWCD), Rio Grande County, US Army Corps of Engineers (USACE), the Rio Grande Water Commissioner, Rio Grande County, San Luis Valley Rural Electric Cooperative (SLVREC), and area landowners, farmers, and ranchers. Objectives and goals to be implemented in Phase 2 closely mirror the multiple consumptive and non-consumptive needs and issues identified in the Rio Grande Basin Needs Assessment Report. Specifically, an emphasis has been placed on improving diversion efficiency, reducing diversion and headgate maintenance, enhancing upland and aquatic habitat, and improving recreation opportunities. Phase 2 contributes significantly to the administration of the Rio Grande Compact and to the protection of Colorado's earliest water rights.

Tier 2: Facilitating Water Activity Implementation: Phase 2 is funded in part by \$150,000 obtained by the NRCS Monte Vista field office through the Environmental Quality Incentive Program (EQIP), \$50,000 obtained by

the RGHRP from the NRCS Colorado Partnership Program (CPP) and \$200,000 obtained by the RGHRP from the NRCS Cooperative Conservation Partnership Initiative (CCPI) Program. These funds and require a nonfederal cash match. Landowners on the McDonald Ditch are contributing \$100,000, Rio Grande County is assisting with \$10,000, and in-kind services total \$140,000. Total funds requested (\$726,000) are essential to meet the required match to the above NRCS funding and implement Phase 2. Additionally, without the requested increase the Project would stall causing the loss of the NRCS funds (\$400,000) as those contracts have already been pushed to the last possible date.

Tier 3: The Water Activity Addresses Issues of Statewide Value and Maximizes Benefits: Phase 2 is a structural project that will improve the ability of the Rio Grande to meet both consumptive and non-consumptive needs of the area by replacing a poorly functioning diversion and headgate, stabilizing stream banks, reclaiming a damaged wetland, and increasing the ability of the river to transport water. As such, Phase 2 allows for agriculture demands to be met by increasing the ability of irrigators to divert their appropriated water right when they are in priority. Additionally, Phase 2 sustains multiple non-consumptive uses by improving riparian conditions, repairing river channel problems, and reducing sediment load. Finally, Phase 2 supports the preservation of the long-term cultural values inherent in this rural area's historical and current agricultural lifestyle. It complies with all applicable laws, regulations, and water rights.

Discussion:

As identified in the SWSI findings, small agricultural water users often lack the financial ability to adequately address infrastructure needs without financial aid. The multiple entities involved in the Plaza Project – Phase 2 need additional financial resources to make the required improvements to fully utilize its existing water rights. As such, this collaborative group has worked to carefully leverage local, state, and federal funds to execute this project. 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 consumptive and non-consumptive needs of the Rio Grande Basin by rehabilitating existing infrastructure to preserve agricultural water use while restoring critical habitat and reducing sediment load.

Issues/Additional Needs:

No issues or additional needs remain.

Staff Recommendation:

Staff recommends approval of the grant increase for a total grant of up to \$42,000 from the Rio Grande Basin Account and \$684,000 from the Statewide Account to help complete the Plaza Project – Phase 2: McDonald Ditch Implementation Project.

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.