Exhibit A
Scope of Work

WATER ACTIVITY NAME – Plaza Project - Phase 2: McDonald Ditch Implementation Project

GRANT RECIPIENT – Colorado Rio Grande Restoration Foundation

FUNDING SOURCE – Watershed Supply Reserve Account and Rio Grande Inter-Basin Roundtable

INTRODUCTION AND BACKGROUND

The Colorado Rio Grande Restoration Foundation (Foundation) is the fiscal agent for the Rio Grande Headwaters Restoration Project (RGHRP). The RGHRP was formed to implement the recommendations of a study completed in 2001, the 2001 Study. The 2001 Study was prompted by a group of citizens who were concerned that the river had been impaired. The 2001 Study, sponsored by the San Luis Valley Water Conservancy District and funded by the Colorado Water Conservation Board, analyzed 91 miles of the Rio Grande from South Fork to the Alamosa/Costilla County line. This reach was identified as the portion of the Rio Grande in Colorado that has been most impacted by human intervention in the past 100 years. The 2001 Study analyzed the vegetation, human impact, agricultural disturbance, geomorphology, hydrology, wildlife habitat, condition of structures, and aquatic habitat within the 91-mile study reach.

Since 2001, the RGHRP has accrued a successful record of working with landowners, local, state, and federal entities to improve the condition and function of the Rio Grande. To date the RGHRP has successfully completed some 48 individual projects and managed approximately $2.2 million that funded the projects. These projects reduce sediment loading by stabilizing the streambanks, improve the riparian and upland habitat by increasing willow and riparian vegetation cover, enhance the fishery, increase the capacity of the Rio Grande to transport sediment, and recover the condition of wetlands located throughout the riparian area within the project boundaries. In 2010, the RGHRP began working with ditch companies to address concerns surrounding aging and inefficient diversion and headgate structures. The first of these projects was the Plaza Planning Project – Phase 1 (Phase 1) in the Sevenmile Plaza area of Rio Grande County. Phase 1 was administered by a partnership between the McDonald Ditch Company and the Foundation. The RGHRP worked with stakeholders to determine the primary issues in the area, identify remediation methods, and develop an implementation plan (The Plaza Plan) to improve the health and function of the Rio Grande in the Sevenmile Plaza area. The identified issues include streambank instability in the 2.8-mile project reach, a degraded wetland, and aging, hazardous, and inefficient diversion structures.

The Plaza Project - Phase 2: McDonald Ditch Implementation Project (Phase 2) is the first phase of implementation of the Plaza Plan. The project area is located within the Sevenmile Plaza in Rio Grande County. As designated by the 2001 Study, the project area is located within Subreach C1 of Reach C, which 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. Phase 2 integrates the rehabilitation of the McDonald Ditch diversion with the multiple objectives of the 2001 Study, the anticipated future rehabilitation of the neighboring Silva, Atencio, and Prairie diversions, and the stabilization and restoration of the surrounding riparian areas and wetland.

Preliminary designs for the McDonald Ditch headgate and diversion, streambanks, 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 and one quarter year project with execution of designs in years 1 and 2, monitoring in years 2 and 3, and final reporting in year 4. The project duration will be from January 1, 2012 to March 31, 2015.

Phase 2 will be funded with $295,000.00 from the Colorado Water Conservation Board (CWCB) Water Supply Reserve Account (WSRA), $150,000 from the NRCS Environmental Quality Incentives Program (EQIP), $50,000 from the Colorado Partnership Program (CPP), $200,000 from the Cooperative Conservation Partnership Initiative (CCPI) Program, $70,000 from Landowners, $10,000 from Rio Grande County, $133,000 from in-kind services. Total estimated project cost is $908,000.00 (see attached budget).

OBJECTIVES, TASKS, and DELVERABLES

OBJECTIVES

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 streambanks 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.

TASKS

TASK 1 – Finalize Design for Project Elements

Description of Task: Finalize the design for the Project Elements, which include the McDonald Ditch headgate and diversion replacement, the Sevenmile Plaza Bridge streambank stabilization, and the Rio Grande County wetland reclamation.

Method/Procedure: Using preliminary designs developed by the NRCS in Phase 1, district, area, and state engineers will complete the designs for the Project Elements. This includes consulting with geology, hydraulic, and vegetation specialists, completing hydraulic modeling, and performing a load analysis for the diversion and headgate structures. Additionally, a bridge expert will be hired to analyze the relationship, if any, between the Sevenmile Plaza Bridge and the current and proposed McDonald Ditch Diversion. If a relationship is observed, actions will be suggested to mitigate any negative impacts of structure replacement.

Deliverable: Final designs for the McDonald Ditch headgate and diversion, the streambanks near the Sevenmile Plaza Bridge, and the Rio Grande County wetland.

TASK 2 – McDonald Ditch Diversion Replacement

Description of Task: Replace the McDonald Ditch Diversion with a diversion that is concrete and rock and allows for fish and boat passage.

Method/Procedure: The landowners and the Foundation will hire contractors to remove the current diversion structure, clear and shape the channel, and enact pollution control. Contractors will then complete the foundation work, earthwork, concrete and reinforcement for the diversion, and rock installation and grouting for the fish passage. The San Luis Valley Rural Electric Cooperative (SLVREC) will replace two power poles within the project area.

Deliverable: Improved water diversion efficiency, aquatic habitat and passage, and recreation from boat passage. Reduced maintenance and sediment input from the current earthen diversion and streambank erosion.

TASK 3 – McDonald Ditch Headgate Replacement

Description of Task: Replace the McDonald Ditch headgate with a headgate that is concrete and includes solar-powered automated gates.

Method/Procedure: The landowners and RGHRP will hire contractors to remove the current headgate structure, clear and shape the channel, and enact pollution control. Contractors will then complete the foundation work, earthwork, and concrete and reinforcement for the headgate. Additionally, pipe conduits, structural work including trash racks and catwalks, and gate installation will be completed. Automated gates will be installed and will be powered by on-site solar panels.

Deliverable: Improved water diversion efficiency due to improved gate precision and reduced headgate maintenance.

TASK 4 – Channel Shaping and Streambank Stabilization

Description of Task: Implement channel and streambank stabilization techniques upstream and downstream of the Sevenmile Plaza Bridge and upstream and downstream of the McDonald Ditch diversion and headgate structure.

Method/Procedure: NRCS will design channel and streambank stabilization measures. A contractor will implement the design, which may include bank shaping, channel reconfiguration, rock or log structure installation, and bioengineering. Bioengineering techniques include, but are not limited to willow clump plantings, bareroot shrub plantings, and grass and forb seeding. Upland areas disturbed during onsite activities will be reseeded with appropriate species.

Deliverable: Stabilized streambanks, reduced sediment loading, reconfigured stream channel, reestablished riparian vegetation, increased streambank stability, and reduced erosion.

TASK 5 – Wetland Reclamation

Description of Task: Reclaim a two acre wetland located within the Project boundary.

Method/Procedure: NRCS will complete the design for the wetland reclamation. Rio Grande County and a contractor will complete the earthwork, topsoiling, seeding, and bioengineering at the site. Bioengineering techniques include, but are not limited to willow clump plantings, bareroot shrub plantings, and grass and forb seeding.

Deliverable: Improved vegetation condition, function of the wetland, and aquatic habitat.

TASK 6 – Monitoring

Description of Task: Monitor the site for two years using the RGHRP Sampling and Analysis Plan (SAP).

Method/Procedure: Monitoring will consist of several assessments that include changes in streambank locations and hence erosion rates, photographic documentation, visual stream assessments, and structure assessment. Pre-construction, post-construction, and long-term surveys will map locations and features of the streambanks, diversion and headgate, and wetland over time. Photographic documentation will be used to track conditions of the riparian and shoreline plant communities, bank stabilization, and overall visual condition of the Project area. The United States Department of Agriculture's Stream Visual Assessment Protocol II (SVAP II) will be used to assess the sites. Project engineers will complete an annual check sheet that classifies the condition and function of the headgate and diversion structure. This monitoring strategy is used in other RGHRP projects. The RGHRP will be responsible for conducting monitoring.

Deliverable: Annual Reports will compare current data to prior data in order to demonstrate the relative stability of the stream bank and to evaluate the degree of improvement in the riparian condition.

TASK 7 – Outreach and Education

Description of Task: Conduct a public outreach and education program to raise awareness of Phase 2 activities and the RGHRP, and encourage other landowners to participate in future projects.

Method/Procedure: Develop visual aids and written materials showing the specific sites and proposed work. Make presentations at the SLV Wetlands Area Focus Committee; Rio Grande Interbasin Roundtable; quarterly Board Meetings of the Rio Grande Water Conservancy District; Board Meetings of the San Luis Valley Water Conservancy District, and to specific public meetings. In addition, give interviews and status reports on local radio stations. Conduct tours to demonstrate the applied techniques. RGHRP staff and volunteers will complete this task.

Deliverable: A public that is better informed and more aware of river related issues, especially regarding the work of the RGHRP, the role of the Foundation, and the restoration program in general, including site-specific methodologies used to achieve Project objectives. Outreach and education efforts will impress upon the public the importance of improving the condition of the Rio Grande and will raise awareness, gain support and increase participation in this and future projects administered by the RGHRP.

TASK 8 – Project Administration

Description of Task: Complete all necessary contracts, status reports, and internal and external documents. Ensure Tasks are completed within approved costs and timelines.

Method/Procedure: The RGHRP will administer Phase 2. This includes completing contracts with the CWCB, NRCS, Project partners, landowners, and contractors; obtaining the necessary environmental permits; managing budgets and reimbursement requests; and completing semi-annual and final reports. Additionally, the RGHRP will perform Project oversight; making certain project design and implementation are timely and accurate. The RGHRP will organize outreach and education efforts and complete site monitoring in accordance the SAP, once approved.

Deliverable: All appropriate contracts, external and internal reports, and on-site Project activities completed within planned period and anticipated costs.

REPORTING AND FINAL DELIVERABLE

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.

Budget for the Plaza Project - Phase II: McDonald Ditch Implementation Project													
Project Tasks	Total	Sources of Funds											Total
		EQIP (NRCS)	CPP (RGHRP)	CCPI (RGHRP)	WSRA (CWCB/RGHRP)	Landowners	Rio Grande County	In-Kind					
								NRCS	Rio Grande County	SLVREC	RGHRP		
Task 1: Finalize Design	101,500	-	-	-	8,000	-	-	93,500	-	-	-		101,500
Task 2: Diversion Replacement *	427,500	-	50,000	200,000	117,500	40,000	-	-	-	20,000	-		427,500
Task 3: Headgate Replacement *	222,500	150,000	-	-	42,500	30,000	-	-	-	-	-		222,500
Task 4: Channel Shaping and Streambank Stabilization*	40,000	-	-	-	25,000	-	-	-	15,000	-	-		40,000
Task 5: Wetland Reclamation *	65,000	-	-	-	55,000	-	10,000	-	-	-	-		65,000
Task 6: Monitoring	3,700	-	-	-	3,500	-	-	-	-	-	200		3,700
Task 7: Outreach and Education	3,500	-	-	-	3,500	-	-	-	-	-	-		3,500
Task 8: Administration	44,300	-	-	-	40,000	-	-	-	-	-	4,300		44,300
TOTAL	$ 908,000	$ 150,000	$ 50,000	$ 200,000	$ 295,000	$ 70,000	$ 10,000	$ 93,500	$ 15,000	$ 20,000	$ 4,500		$ 908,000
Percent of Project Cost		17%	6%	22%	32%	8%	1%	10%	2%	2%	1%		100%

**** Denotes costs based on "Means Heavy Construction Cost Data" utilized by NRCS.***

Milestone Table for the Plaza Project - Phase 2: McDonald Ditch Implementation Project																
Project Tasks	**Year 1 - 2012**				**Year 2 - 2013**				**Year 3 - 2014**				**Year 4 - 2015**			
	Quarter 1	**Quarter 2**	**Quarter 3**	**Quarter 4**	**Quarter 1**	**Quarter 2**	**Quarter 3**	**Quarter 4**	**Quarter 1**	**Quarter 2**	**Quarter 3**	**Quarter 4**	**Quarter 1**	**Quarter 2**	**Quarter 3**	**Quarter 4**
Task 1: Finalize Design																
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Task 8: Administration																