Rio Grande Inter-Basin Roundtable
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Mr. Michael King, Executive Director
Colorado Department of Natural Resources

Mr. Todd Doherty, Intrastate Water Management & Development
Colorado Water Conservation Board

Reference: CULEBRA WATERSHED – VALLEJOS DITCH HEADGATE REPLACEMENT

Gentlemen:

The Rio Grande Inter-Basin Roundtable (R.G.R.T) has determined that the single, most critical water issue confronting the Rio Grande Basin (Basin) is the current unsustainable management of surface and ground water. The R.G.R.T. has made the decision that water activities that address this issue be favorably considered for funding from the Water Supply Reserve Account, SB 2005 -179 (WSRA Funds), providing the proposed water activities meet the SWSI findings for the Basin and the CWCB & IBCC Criteria and Guidelines for funding.

This letter is to express the strong support of the Rio Grande Inter-Basin Round Table for the accompanying application for funding from the Water Supply Reserve Account's (WSRA) Basin and State-wide funds for the Sangre de Cristo Acequia Association's application for the Culebra Watershed – Vallejos Ditch Headgate Replacement, subsequently referred to as the Project.

The applicant organization, previously known as the Colorado Acequia Association, is the Sangre de Cristo Acequia Association (SCAA), formed on November 18, 1998 and is a 501-c-3 organization. It was established by the Costilla County Conservancy District (CCCD) when local family farmers requested an organization to serve the needs of the historic acequias, or communal irrigation ditches, in the Culebra River watershed in southern Colorado's San Luis Valley.

The main goals of the SCAA are to preserve the acequia agricultural lifestyle; to improve the quality of the environment; to keep all water with the land on which it is located, and to serve as an umbrella membership organization serving irrigators and water users in the Culebra Creek watershed who depend upon the acequia system of irrigation. This includes a community of 228 families, most of whom are fifth and sixth generation

landowners, organized into 64 separate acequia groups.

The Culebra watershed acequias irrigate 23,000 acres in approximately 360 square miles on the eastern edge of the San Luis Valley. Headwaters of the Culebra watershed are on the western slopes of the Sangre de Cristo Mountains. This network of acequias diverts from streams in the watershed and transports and distributes water to irrigate agricultural lands, with return flows from this irrigation then reentering the natural streams in the watershed. Although part of the Rio Grande Basin's complex network of surface and underground aquifers, the waters of the Culebra watershed do not reach the Rio Grande or the Conejos River and are not subject to the Rio Grande Compact.

In the past 15 years the residents of Costilla County, with the assistance of multiple organizations, have initiated a series of investigations with the goal of protecting the Culebra Watershed. This resulted in efforts to prepare the Culebra Watershed Assessment and Management Plan (Plan) to help the Costilla County community evaluate, prioritize, and manage problems affecting their ground and surface waters. The Plan's approach entailed a thorough watershed investigation to help identify water quality impairments, sources of the impairments, and critical areas to protect or restore. This watershed assessment was partially completed, developing some valuable data, but was not completed due to a lack of funding. SCAA has acted as a facilitator and coordinator of these efforts.

The SCAA provides fiscal, organizational, legal, and technical resources which are otherwise not available to many of the watershed's independent ditch associations and acequias. This watershed - based approach, combined with SCAA's positive social and cultural outreach, provide a high level of integration in assessing, planning, and implementing ditch and water projects, giving the projects a high likelihood of success.

The SCAA is requesting funds of $100,000 on behalf of the Vallejos Ditch Association in order to replace a diversion on Vallejos Creek.

Of the 83 acequias currently in operation in Water District 24, Division 3, the Vallejos Ditch Association is one of the earliest, established in 1854 with priority # 5. The Vallejos Ditch is approximately 4 miles long, located within the Sangre de Cristo Land Grant near San Pablo in the San Luis Valley of Costilla County. The two branches of Vallejos Creek, the North Vallejos and the South Vallejos are each about 2 miles in length. With 13 cfs, historically irrigated acreage has been computed at 1316 acres, serving 64 farmers. Associated with the current structure are repeated flood events, high maintenance activities and costs, and reduced water management capabilities, thus making this a high priority project.

The proposed Project will replace the existing headgate which also serves as a diversion structure on Vallejos Creek. The turnout on the north side of the creek feeds both the North and South irrigation laterals. The South lateral is supplied water through a drop

structure and corrugated metal pipe located under the main structure. The concrete structure has deteriorated, with the walls cracked and crumbling. In high flows the headgate fails to divert excess water back to the natural stream channel, causing flooding of the neighboring residential areas. The crumbled structure leaks and the water control gates are almost inoperable. Built around 1965, the headgate / diversion has surpassed its effective service life. Th e Natural Resource and Conservation Service (NRCS) has determined that this headgate / diversion are beyond repair and must be replaced.

In addition to the current problems with the haedgate/diversion structure there are associated riparian and water quality issues. The banks of Vallejos Creek upstream and downstream of the headgate/diversion are deteriorated due to continual seepage and vegetative overgrowth, exacerbating the already serious sedimentation and erosion problems which have been identified throughout the Culebra watershed. Loss of stability and control has caused the targeted section of the Vallejos Ditch to lose 70% of its carrying capacity.

The attached Exhibit A, from the Application, outlines the Tasks and the associated WSRA funding that will be performed to complete the Project, which will address the issues above.

At the regular September 18, 2012 meeting of the Rio Grande Inter-Basin Roundtable members unanimously voted to recommend for approval by the Colorado Water Conservation Board the allocation of $10,000.00 of the Rio Grande Basin Funds and $100,000.00 of Statewide funds for the Project.

The total cost of the Project is $116,100.00 with the NRCS providing Technical and Engineering services valued at $10,600.00, the Costilla Conservancy District providing $2,400.00, the SCCA providing $1,200.00, and the Vallejos Ditch Association providing in–kind and cash of $1,900.00 value. The non-WSRA funding represents 13.9 % of the total cost of the Project.

The R.G.R.T. appreciates the support of the Department of Natural Resources, the Colorado Water Conservation Board and the Interbasin Compact Commission in assisting in meeting the needs of all users of Colorado's water and in fostering intrabasin and interbasin communications and discussions. We believe that the above project will assist in this effort.

Sincerely,

Mike Gibson
Chair, Rio Grande Interbasin Roundtable

Attachment (1) and Enclosures (2)

cc: Sangre de Cristo Acequia Association / Vallegos Ditch Association

Exhibit A
Statement of Work

WATER ACTIVITY NAME - **Culebra Watershed,**
Vallejos Ditch Headgate Replacement

GRANT RECIPIENT – **The Sangre de Cristo Acequia Association**

FUNDING SOURCE – **Water Supply Reserve Account**
Rio Grande Basin $10,000
Statewide fund $90,000

This water activity will replace the existing headgate/diversion structure on Vallejos Creek in the Culebra Watershed of the Rio Grande Basin. Built around 1965, the headgate has surpassed its effective service life. The concrete structure has deteriorated, with the walls cracked and crumbling. In high flows the headgate fails to divert excess water, causing flooding of the neighboring residential areas. The crumbled structure leaks and the water gates are almost inoperable. The Natural Resources Conservation Service (NRCS) has determined that this headgate is beyond repair and must be replaced. Division 3 Engineer has approved the NRCS preliminary proposed structural alternative, which would pull water from both the North and South, thus eliminating higher construction costs, reducing maintenance, and greatly reducing or eliminating the threat of flood.

OBJECTIVES
List the objectives of the project

1. Replace the deteriorated Vallejos Ditch Headgate with a new structure
2. Allow irrigators to obtain their decreed irrigation water when in priority
3. Improve downstream water quality
4. Significantly reduce risk of flood
5. Eliminate or greatly reduce maintenance problems
6. Upgrade water control efficiency for the Vallejos Ditch
7. Set an example for future SCAA implementation projects which combine WSRA funding and NRCS technical support for projects in the Culebra Watershed

TASKS TASK 1 Mobilization, Demobilization – WSRA Funds $417.00

Description of Task: This task includes all costs to mobilize equipment, tools, safety and sanitary equipment, and consumable supplies to the site. At the end of the project all Contractor owned equipment, tools, safety and sanitary equipment, and supplies will be removed from the site.

Method/Procedure: As stated above

Deliverables: All equipment and supplies required to conduct the work set

forth in the contract will be available to the worksite.

TASK 2 **Demolish Existing Headgate – WSRA Funds $15,000.00**

Description of Task: This task will include all work required to demolish and remove the current headgate structure.

Method/Procedure: Trackhoe jack hammer with some torch cutting. Haul debris with dump trucks to approved disposal location.

Deliverables: The removal of the former headgate and diversion structure.

TASK 3 **De-Watering -WSRA Funds $2,000.00**

Description of Task: Remove all water from work site, diverting Vallejos Creek if necessary.

Method/Procedure: Isolate work area and remove water from work area with pump. Depending on the season, on conditions, and on consent of water users, it may be possible to divert water upstream from the site. Continue to pump seepage out of the work site for the duration of the project as needed.

Deliverables: The work area is sufficiently dry to perform the work.

TASK 4 **Earth Work –WSRA Funds $5,000.00**

Description of Task: Prepare the site to construct the diversion structure.

Method/Procedure: Deliver soils and gravels to work site, per NRCS specifications. Re-route the creek as needed to have a clean and dry work site. Shape banks to accommodate new structure. At end of project, re-shape creek to final configuration of the new structure. Reseed per NRCS specs.

Deliverables: Natural shape of creek restored to ensure stability of new structure, seeded with native vegetation, meeting specifications of NRCS engineers and regulatory authorities.

TASK 5a **Forms**

Description of Task: Set concrete forms for new diversion structure.

Method/Procedure: Set concrete forms and re-bar reinforcement per structural design and in compliance with NRCS specifications.

Deliverables: Completed form, ready for pour, in accordance with structural design and in compliance with NRCS specifications.

TASK 5b **Concrete – (Forms & Concrete) - WSRA Funds $66,000.00**

Description of Task: Pour concrete; remove forms; seal and finish off new concrete structure.

Method/Procedure: Utilize concrete trucks to deliver and to pour concrete in compliance with NRCS specifications. Remove forms. Repair any blemishes remaining from pour. Seal concrete with NRCS-approved sealant.

Deliverables: Concrete structure is complete, ready for installation of gates.

TASK 6 **Gate & Rails – WSRA Funds $6,483.00**

Task Description: Install 2 sluice gates and 2 turnout gates, and install catwalk rails.

Method/Procedure: Purchase and install hardware into concrete structure according to manufacturer's guidelines and in compliance with all NRCS and regulatory requirements.

Deliverables: Greatly improved control of irrigation releases; protective rails on catwalk reduce risk of accident or injury.

TASK 7 **Reporting and Final Deliverable – WSRA Funds N/A**

Description of Task: Report at completion of project.

Method/Procedure: SCAA submits final report, describing the completion (or partial completion) of the tasks identified in the statement of work, including any major issues that have occurred and any corrective action taken to address these issues.

Deliverables: SCAA shall provide CWCB a final report summarizing the project and documenting how the project was completed. The report may contain photographs, summaries of meetings and engineering reports and designs.