

Rio Grande Inter-Basin Roundtable
c/o San Luis Valley Water Conservancy District
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January 23, 2014

Mr. Michael King, Executive Director
Colorado Department of Natural Resources

Mr. Craig Godbout, Program Manager, Water Supply Planning Section
Colorado Water Conservation Board

**Reference: Hydrologic Recharge Feasibility Study for
Rio Grande Basin Augmentation – Phase 1**

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.

The San Luis Valley Irrigation Well Owners, Inc.

The Applicant for the WSRA Funding of \$142,000 from the Statewide Account and \$8,000 from Rio Grande Basin Account is the San Luis Valley Irrigation Well Owners, Inc. This is to fund a feasibility study or Phase 1 of what is anticipated to be a three phase program to develop an augmentation plan to offset a portion of the stream and river depletions caused by pumping in the San Luis Valley of southern Colorado.

San Luis Valley Irrigation Well Owners, Inc. (SLVIWO) was formed December 19, 1973 as a 501 (c)(12) 501 (c)(12) nonprofit Colorado corporation of the Internal Revenue Code. The SLVIWO is the owner of water rights more specifically described in a Decree issued by District Court, Water Division 3, State of Colorado, on June 23, 1976, in Case No. W-3394. This Decree approves the use of the Taos Valley No. 3 water rights for an augmentation plan, which is known by SLVIWO as Augmentation Plan # 1.

The SLVIWO has issued non-assessable units of ownership of the Augmentation Plan # 1 to its owners. Ownership of these non-assessable units is represented by certificates, which have been and may be issued to members of good standing of this corporation. These certificates entitle the holder to share pro rata in the augmentation of waters under Augmentation Plan # 1. A member of this corporation need not own non-assessable units of ownership of the

Augmentation Plan # 1. The SLVIWO is also the owner of other water rights, which are assigned to Augmentation Plan # 2.

Active shares in SLVIWO demonstrate broad representation from the various cities and areas of future ground water management subdistricts, as follows:

City / Subdistrict	Ownership %
Conejos Subdistrict	21.6%
Trinchera Subdistrict	8.4%
Carmel/Waverly/Alamosa Subdistrict	20.9%
Closed Basin Subdistrict	20.6%
Saguache Subdistrict	1.6%
San Luis Creek Subdistrict	0.2%
Outside the San Luis Valley	9.0%
Unknown	17.8%
TOTAL	100%

At the time of the 1976 Decree and the formation of the SLVIWO, the State of Colorado was contemplating promulgating ground water rules that would have required well owners to augment their depletions; however, that never happened, primarily because the Closed Basin Project began producing new water that benefited the Rio Grande and Conejos river systems, and it was agreed that this would offset the depletions resulting from additional well development. Since then, for about 38 years, SLVIWO has allowed their water to run into the San Antonio River in accordance with their augmentation decree. However, the State is now in the process of developing "Rules Governing the Withdrawal of Ground Water in Division 3" which will require that injurious stream depletions resulting from well pumping be replaced.

Farmers in the San Luis Valley did not start drilling well until the 1920s, and by the 50s and 60s all the way until today, ground water pumping has increased and intensified. The result of over-pumping since the mid-70s has severely stressed available water supplies, causing the Rio Grande Basin Roundtable to identify restoring the aquifer to a sustainable level as its top priority.

Until now, well owners have had a legal right to pump, and they still do, but the new Well Rules and Regulations are anticipated to require that if an individual well owner wishes to continue pumping they will have to participate in a Subdistrict's Ground Water Management Plan or have their own augmentation plan which replaces the injurious stream depletions resulting from their ground water withdrawal.

The SLVIWO's overall objective is to help solve the dilemma faced by subdistricts as they urgently seek new augmentation resources which can get augmentation water back into the Rio Grande / Conejos River systems. SLVIWO is initiating the process of considering what steps need to be accomplished in order for the organization to lease augmentation water to Ground Water Management Subdistricts. The proposed feasibility study is the first in a three-phase process, the intention being to provide the SLVIWO with options with which they can make a decision on how to structure leasing of augmentation water or an augmentation plan

under the new the Well Rules and Regulations. Implementation will depend on the outcome of Phase I and will follow in Phase II and Phase III.

The **Phase I** feasibility study will provide the majority of the engineering work needed to support and to implement the subsequent leasing / augmentation plan that uses the Taos Valley No. 3 water rights. The end goal is to have a leasing / augmentation plan whereby Taos Valley No. 3 water can be stored and then subsequently released to augment stream flows in a way that offsets injurious depletions resulting from well pumping. Another possible outcome is that Taos Valley No. 3 water can be recharged into the aquifer system at strategic locations where the resulting ground water that is recharged results in quantifiable time-lagged accretions to stream reaches, thus offsetting injurious depletions from well pumping.

Future phases cannot be known in advance, as they will depend on the decisions formed from the outcome of this initial study; however, SLVIWO envisions the following:

- **Phase 2** will develop the physical infrastructure to accomplish the new leasing / augmentation plan. This phase will potentially require investing in the development of an augmentation station, recharge basins, perhaps pipelines or ditch linings, or perhaps a change in point of diversion, so that SLVIWO can physically get the Taos Valley No. 3 water to the locations where it needs to be stored or recharged.
- **Phase 3** will involve submitting an application for an augmentation plan to Water Court and working through the subsequent proceedings required to adjudicate the plan.

SLVIWO will work with the CDWR Division # 3 Engineer, with the Conejos Water Conservancy District, the Rio Grande Water Conservation District, the San Luis Valley Conservancy District, and with water managers throughout the San Luis Valley to better understand the hydrology of aquifer recharge. At the conclusion of this study, SLVIWO will seek the appropriate Water Court Decree for its future actions regarding using Taos Valley No. 3 water.

The following multiple benefits are anticipated from the overall completion of Phases 1, 2 and 3:

- Updates an augmentation decree to assist Colorado in meeting its Rio Grande Compact obligations by replacing injurious depletions in affected rivers and streams.
- Studies augmentation options under "Rules Governing Withdrawal of Ground Water in Water Division No. 3".
- Promotes optimum use of water consistent with preservation of the priority system of water rights.
- Expands augmentation options for well owners who are seeking a court approved augmentation plan.
- Assists the Rio Grande Basin and Colorado Division of Water Resources to create a plan for sustainability by reducing/replacing injurious stream depletions.
- Seeks an additional augmentation water supply to offset roughly 1/3 of the total estimated basin-wide injurious depletions.
- Assists subdistricts to replace injurious depletions on the San Antonio, Conejos, La Jara, and Alamosa Rivers, and the Rio Grande.
- Supports local agriculture and economies by helping to regulate and balance the use of limited surface and groundwater resources.
- Allows historically ground water irrigated lands in the San Antonio / Conejos watershed to remain in production that otherwise may be fallowed or taken out of production entirely, while concurrently providing augmentation to protect senior water users.

- Provides enhanced technical understanding of the complex nature of the ground water and surface water systems in the region, to the benefit of all users and water managers.
- Promotes conjunctive use, and enhances the use of the available porosity in the subsurface as a storage / recharge vessel, thereby reducing the burden on pre-Compact storage reservoirs and exchanges in the basin. This, in turn, promotes the "whole river strategy".
- Assists in maintaining a sustainable water supply in the Confined and Unconfined Aquifers of the San Luis Valley.

Project Funding and Costs:

The following tables provide details of the sources of project funding and costs:

Total Project Cost	\$180,000
Statewide WSRA Account	\$142,000
Basin WSRA Account	\$ 8,000
Total Grant Request	\$150,000
SLVIWO Match	\$ 30,000
Total Funds	\$ 180,000

Details of the composition of each of the line items in the table below and their associated Notes can be found in the attached Exhibit A, Statement of Work.

SAN LUIS VALLEY IRRIGATION WELL OWNERS HYDROLOGIC RECHARGE FEASIBILITY STUDY FOR RIO GRANDE BASIN AUGMENTATION --Phase I					
T A S K	COST	Well Owners Match	WSRA BASIN	WSRA STATEW	WSRA TOTAL
1. Piezometers	\$ 47,630				
2. W/Table Gradient	\$ 3,150				
3. Test Aquifer	\$ 42,080				
4. Pilot Recharge Test	\$ 39,580				
5. Documentation & Admin	\$ 25,420				
Engineering & Technical sub.	\$ 20,000				
Equipment Rental	\$ 2,140				
TOTAL PROJECT COST	\$ 180,000				
MATCHING FUNDS		\$ 30,000			
BASIN ACCOUNT			\$ 8,000		
STATEWIDE ACCOUNT				\$ 142,000	
TOTALS	\$ 180,000	\$ 30,000	\$ 8,000	\$ 142,000	\$ 150,000

Recommendation:

At the regular R.G.R.T meeting on January 14, 2014, RGRT Members voted unanimously to request funding from SB 2005 - 179 for \$142,000 from the Statewide Account and \$8,000 from Rio Grande Basin Account, for a total of \$150,000, to fund the Hydrologic Recharge Feasibility Study for Rio Grande Basin Augmentation – Phase 1.

The R.G.R.T urges the CWCB to approve this request for funding of a project with multiple benefits to local stakeholders, the region and statewide.

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)

Cc w/att: the San Luis Valley Irrigation Well Owners, Inc.