

Rio Grande Inter-Basin Roundtable
c/o San Luis Valley Water Conservancy District
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January 11, 2012

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

Mr. Eric Hecox, Manager, Office of Interbasin Compact Negotiations
Colorado Department of Natural Resources

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

**Reference: Conejos River System Gauging Stations Project –
Rio Grande Basin**

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 **Conejos River System Gauging Stations Project (Project)**, by the Conejos Water Conservancy District (CWCD), is the first in a series of initiatives the CWCD is conducting to assist the Colorado Division of Water Resources (CDWR) and local irrigators to gain a better understanding of the complex Conejos River and its associated irrigation systems and to streamline CWCD's efforts to administer the Conejos River to meet Rio Grande Compact requirements. The Project will assist CDWR in minimizing river flow forecasting errors and reduce the effect of those errors on water users. The Project will assist in the overall distribution of river flows to water users based on empirical data; and will facilitate and assist the CDWR 's compliance with the Compact.

The CWCD is a public, quasi governmental entity, eligible under SB -179 to apply for Water Supply Reserve Account Funds for this structural water project. The District's boundaries include about 100,000 acres of which 86,000 acres can be irrigated. Another 8,000 acres that are not in the CWCD's boundaries can also be irrigated by the Conejos and its tributaries. To meet the Conejos Compact's requirements, the District implements

curtailments and manages storage in Platoro Reservoir according to CDWR's best estimates of river flows and on its forecasts of expected flows.

Funds requested will be used to install 72 new electronic gauging stations and four new control gates on the Conejos River system. Flow data from the remote gauges will be transmitted to eight pods, or group measurement sites, each consisting of a Gateway receiver and cell modem. Data will be transmitted every minute to the pod sites for averaging, with average stage height and measured flow computed for each 15 minute period. This data will then be transmitted to the system's host site and made available to the District and to DWR on the internet.

In collaboration with water users, four hydraulic aluminum slip gates will be installed, with control and telemetry integrated into the system. The sites chosen for automatic gates are at the Headsmill, North Branch, Manassa, and Romero diversions. These diversions are the most used gates, serving the most acres and the greatest number of water users, thus representing the best investment. These bigger gates off of the river channel will logically be where the diurnal effect has the most impact. Each gate will be adjusted each day by the respective ditch riders, as the CDWR dictates. Having this type of measurement and control will assist in ensuring irrigators are only taking their decreed amounts, rather than fluctuating amounts due to diurnal effects on the river, or to inaccurate setting of the headgate. Since there are multiple priorities that come to each gate there will be changes made, but the fluctuations of the river will not affect the decreed amount that should be going through the gates. The DWR's commissioners will be able to verify at-a-glance that the flows are correct, saving time and transportation costs.

The entire system will be solar powered, providing near-real-time data for flow management and allowing the District to check out and correct situations as they occur. This project will vastly improve the effectiveness of the District's water management functions. The system will also provides CDWR with data on the Conejos River system at a level of accuracy which has not previously been available in the Rio Grande Basin.

The R.G.R.T. is now requesting authorization to distribute \$20,000.00 of Rio Grande Basin Funds, and \$363,500.00 of Statewide Funds, for a total WSRA request of \$383,500.00. At the regular R.G.R.T meeting on January 10, 2012, RGRT Members voted unanimously to request funding from SB 2005 – 179:

PROJECT AND AMOUNT REQUESTED	SOURCE SB 179
Conejos River System Gauging Stations Project	BASIN \$20,000.00
Conejos River System Gauging Stations Project	STATEWIDE \$387,280.00

The overall Project cost is \$499,780, with the water users contributing \$48,750.00 and the CWCD contributing \$ 38,750.00. The total match to the WSRA funds is \$87,500.00 or 21% of the WSRA funds and 17.5 % of the total Project's costs.

CWCD has had extensive discussions with four potential contractors and vendors who have experience in the necessary type of measurements, data transmission and retrieval at remote locations. Similarly, CWCD has reviewed the technology available regarding the automation of headgates, and their control.

The overall cost breakdown for the Project elements include:

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| • Gauging Stations (72) | \$342,160.00 |
| • Automated Gates (4) incl. ancillary concrete | \$155,120.00 |
| • System Commissioning & Testing | \$ 2,500.00 |


Total Project Cost	\$499,780.00
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The cost estimates are based on figures provided by third party contractors and equipment suppliers.

On behalf of the R.G.R.T. members, we appreciate the Board's consideration of this request and urge your support to the fullest extent possible. Enclosed are the application and supporting materials for the Project. If you require additional information, please notify me accordingly.

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

Enclosures (2)

cc: Conejos Water Conservancy District