

Rio Grande Inter-Basin Roundtable  
c/o San Luis Valley Water Conservancy District  
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December 30, 2013

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

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

**Reference: Conejos River System – Confluence Management Project**

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 Applicant for the WSRA Funding of \$15,000.00 from the Rio Grande Basin Account and \$280,000.00 from the Statewide Account is the Conejos Water Conservancy District (District). This water project combines the rehabilitation of three different diversions owned by three small ditch companies within the District. This Application was unanimously approved by the R.G.R.T. on August 13, 2013 to go to the CWCB Board for approval, subject to the applicants addressing the following concern.

Although the R.G.R.T. membership voted unanimously to approve the application for funding at the August meeting, members felt that two of the three beneficiaries, i.e. the Sanford Canal Company and the Ephraim Ditch Company, needed to demonstrate a larger financial commitment to the project. The third beneficiary, the East Bend Ditch, had made a significant matching commitment, so it was felt that the other two, having greater numbers of stockholders, should step forward as well.

The initial request included \$480,000.00 from the Statewide WSRA Account. Although there was no issue with the cost of the 3-diversion project, members felt there should be a loan component to reduce the size of the grant request, so they voted to approve the proposal subject to each of the two Companies subsequently seeking approval for CWCB loans of \$100,000.00 each. At the R.G.R.T. meeting of December 10, 2013, the District provided an update, stating that stockholders of both companies have loan applications for \$100,000.00 in process at CWCB, as reflected in the reduced request for Statewide funds to \$280,000.00. Members were satisfied that their conditions had been met.



The District plays a critical role in the management of flows on the Conejos River and its tributaries, ensuring that sufficient quantities of water are available to meet agricultural needs within the District's boundaries and to satisfy Colorado's obligation to the Rio Grande Compact. For the past few years, driven by water scarcity in an already arid area and by the impacts and the consequences of rising temperatures and extended drought, the District has taken a proactive approach to water management. A major focus has been to reduce dependence on groundwater pumping by implementing measures that directly improve the management and delivery of surface water. Through a number of projects the District has worked to gain a better understanding of the natural flow of the Conejos River; improved the efficiency and stability of its diversions for irrigation; developed real-time water management data through automation and telemetry; and studied the effects of ground-water withdrawals on return flows from irrigated areas.

Within the District's approximately 86,000 acres of land capable of irrigation, many water users are just north of the Colorado - New Mexico border in an area known as The Confluence, where the Main Stem and the North Branch of the Conejos converge with the San Antonio River. In this complex region, irrigators in and below The Confluence hold the last line of defense for the Colorado Department of Water Resources (DWR), which administers the Rio Grande Compact. To meet the Compact's requirements, the DWR, in collaboration with the District, implements curtailments and manages storage in Platoro Reservoir according to DWR's best estimates of river flows and on its forecasts of expected flows. Errors in those forecasts often trigger premature or excessive curtailment of irrigators on the Conejos, at great cost to the economy, the environment, and agriculture. By developing real-time data through automation and telemetry, the District is establishing the technical infrastructure to bring some of the oldest water rights in Colorado into the 21<sup>st</sup> Century, using what it calls its "Whole River System."

In response to requests from the Ephraim Ditch Company, the Sanford Canal Company, and the East Bend Ditch Company, this project extends the District's whole-river strategy to (1) improve, replace, or install new diversion structures on critical reaches of the Conejos River; (2) extend the growing network of electronic gauging stations and automated control gates within the District, and (3) gain precise knowledge about water flows in this complex region by installing additional web-based telemetry to these three ditch systems.

Grant and loan funds will be used to construct concrete core and diversion structures at the Sanford, Ephraim, and East Bend canal diversions; to equip the three diversions with weirs and automated control gates; and to quantify and communicate those flows to the District through a web-based system of telemetry. Flow data from the remote gauges will be transmitted every minute to pods, or group measurement sites, each having a Gateway receiver and cell modem. The pods calculate average stage height and measured flow every 15 minutes and transmit that data to the District and, by internet password, to DWR. This project adds another three ditches and almost 10,000 acres of irrigated land to the system, following similar work recently completed at the Headsmill, North Branch, Manassa, and Romero diversions. Since the Sanford, Ephraim, and East Bend canal diversions are the biggest and most highly used gates off the river, serving the most acres and the greatest number of water users, the reduction of the diurnal effect will have the most impact, both for the irrigators and the management of Compact flows. The three diversions have multiple priorities and once diversions are set the fluctuations of the river flow will not affect the

decreed amount that should be going through the diversion gates. In locations of the District where the proposed methods have been implemented the systems provide near-real-time data, allowing the District to check out situations as they occur and to make diversion flow adjustments. With these systems DWR commissioners can verify at a glance that the flows are correct, saving time and cutting down on transportation; and irrigators will more reliably get their water when in priority. For the irrigators, this will allow them to better manage both their surface and groundwater usage resulting in significantly reducing their dependence on groundwater pumping. Curtailment decisions by DWR will henceforth be based on data from this part of the Rio Grande Basin watershed at a level of accuracy which has never been possible before.

The Project will address non-consumptive needs through consultation with Trout Unlimited by including in the designs and facilities fish ladders, fish screens, and other measures to protect fish, riparian habitat and water quality.

Considering the current CWCB loans which the Conejos Water Conservancy District has in place, the Board of the District is not willing to increase its own debt load on behalf of any individual ditch nor would it do so for this three-ditch project. For this reason, the District's assistance is practical and administrative, providing much-needed organizational expertise and technology, but relying entirely on each ditch company to meet its own matching commitments and financial obligations.

By combining these projects into a single project, the District achieves major financial savings for each project and is able to extend its Whole River Strategy to the Ephraim, Sanford, and East Bend ditches – adding the benefits of efficient water management to another 10,000 acres. By providing 21<sup>st</sup> century technology to 19<sup>th</sup> century structures, this project significantly reduces actual and potential overpayment to the Rio Grande Compact.

Without the funds requested in this proposal, this project would not be possible because none of the three ditches has the financial capability to implement this project on their own. Loan Feasibility studies for the Sanford and Ephraim projects establish very manageable loan terms, with a very favorable cost/benefit component in each case. The WSRA grant funds requested in this proposal are essential, presenting the only viable solution for the Ephraim Ditch Company, the Sanford Canal Company, and the East Bend Ditch.

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The following table details the source of funds for the total project cost of \$584,043, and the proposed use of those funds:

| THREE DIVERSIONS - CONFLUENCE MANAGEMENT BUDGET |                        |                          |                                     |           |           |           |           |            |            |
|---|------------------------|--------------------------|-------------------------------------|-----------|-----------|-----------|-----------|------------|------------|
| APPLICANT                                       |                        | POTENTIAL                | IN KIND                             |           |           | MATCHING  |           | TOTAL      | TOTAL      |
| LOAN  |                        | WSRA GRANT               | NRCS                                |           |           | DISTRICT  | APPLICANT | COSTS      | PROJECT    |
| Admin Ephraim                                   |                        | \$ 10,000                |                                     |           |           |           | \$ 2,000  | \$ 12,000  |            |
| Admin Sanford                                   |                        | \$ 10,000                |                                     |           |           |           | \$ 2,000  | \$ 12,000  |            |
| Admin East Bend                                 |                        | \$ 10,000                |                                     |           |           |           | \$ 2,000  | \$ 12,000  |            |
| \$ 100,000                                      | Construction Ephraim   | \$ 64,000                |                                     |           |           |           |           | \$ 164,000 |            |
| \$ 100,000                                      | Construction Sanford   | \$ 76,000                |                                     |           |           |           |           | \$ 176,000 |            |
|   | Construction East Bend | \$ 125,000               |                                     |           |           |           | \$ 15,000 | \$ 140,000 |            |
|   | Engineering Ephraim    |                          | \$ 15,000                           |           |           |           |           | \$ 15,000  |            |
|   | Engineering Sanford    |                          | \$ 15,000                           |           |           |           |           | \$ 15,000  |            |
|   | Engineering East Bend  |                          | \$ 15,000                           |           |           |           |           | \$ 15,000  |            |
| \$ 2,000  | CWCB Loan Fees X 2     |                          |                                     |           |           |           |           | \$ 2,000   |            |
|   | Feasibility Studies X2 |                          |                                     |           |           | \$ 10,000 |           | \$ 10,000  |            |
|   | Telecom Ephraim        |                          |                                     |           |           | \$ 5,478  |           | \$ 5,478   |            |
|   | Telecom Sanford        |                          |                                     |           |           | \$ 4,565  |           | \$ 4,565   |            |
|   | Telecom East Bend      |                          |                                     |           |           | \$ 1,000  |           | \$ 1,000   |            |
| \$ 202,000                                      | TOTALS                 | \$ 295,000               | \$ 45,000                           | \$ 21,043 | \$ 21,000 |           |           | \$ 584,043 |            |
| TOTAL PROJECT COSTS                             |                        | Grant & Loan = \$497,000 | Total Matching & In-Kind = \$87,043 |           |           |           |           |            | \$ 584,043 |
|   |                        |                          |                                     |           |           |           |           |            |            |
| WSRA Basin Funds                                |                        | \$ 15,000                |                                     |           |           |           |           |            |            |
| WSRA Statewide Funds                            |                        | \$ 280,000               |                                     |           |           |           |           |            |            |

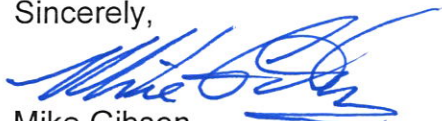
Matching funds from all three ditch companies equals \$21,000, together with NRCS engineering of \$45,000 and a contribution of \$10,000 by the District to assist Ephraim and Sanford complete their respective loan feasibility studies and an additional \$11,043 to establish the telecommunications infrastructure which brings an additional 10,000 acres into the District's Whole River Strategy. The total of \$87,043 matching funds over the two year timeline of this project represents a unified and appropriate commitment to this project, as described above, thus satisfying CWCB's grant/loan funding objectives and meeting WSRA guidelines.

The R.G.R.T urges the CWCB to approve this request for funding of \$295,000.00 from the WSRA for this project which extends the District's whole-river strategy to (1) improve, replace, or install new diversion structures on critical reaches of the Conejos River; (2) extend the growing network of electronic gauging stations and automated control gates within the District, and (3) gain precise knowledge about water flows in this complex region by installing additional web-based telemetry to these three ditch systems. This project has multiple benefits to local stakeholders, addresses non-consumptive needs and water management needs in the region, and meets statewide priorities because of the benefits to Rio Grande Compact compliance.

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,

A handwritten signature in blue ink, appearing to read "Mike Gibson", with a stylized flourish at the end.

Mike Gibson  
Chair, Rio Grande Interbasin Roundtable

Attachment (1)

cc: Conejos Water Conservancy District