

Rio Grande Inter-Basin Roundtable
c/o San Luis Valley Water Conservancy District
415 San Juan Avenue
Alamosa, CO 81101
Telephone: (719) 589 – 2230
Email: slvwcdco1@qwestoffice.net

February 18, 2009

Mr. Harris D. Sherman, 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: San Antonio River – El Codo Ditch Diversion Rehabilitation –
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 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 R.G.R.T. is requesting authorization to distribute WSRA Funds pursuant to SB 2005 -179 as follows: Basin Funds of \$65,000.00. The applicant is the El Codo Ditch Company (ECDC), 3292 Road 12.5, Antonio, CO 81120, a 501(c) 12 organization.

ECDC, with priority #3, is the highest priority ditch that is still intact from its creation more than 150 years ago. Tracing its ancestry to the *acequia* irrigation system of the Spanish land grant era, El Codo Ditch (the Ditch) is one of Colorado's oldest man-made open channels. It runs south to north just west of State Highway 285, providing water for the flood irrigation of more than 1,500 acres in Conejos County.

The El Codo Ditch originates on the San Antonio River less than a mile north of the New Mexico border. As its Spanish name implies, the main section of the Ditch diverts from the San Antonio and then rejoins it after about 7 miles, forming "the elbow" of surface water, which irrigates staple crops of hay and alfalfa for 43 individual farms. The largest shareholder owns 250 acres; several farms are over 100 acres; and the smallest is

roughly 2 acres. There are no irrigation wells along the Ditch, as the entire water supply comes from surface flows.

Most of the Ditch has not been surveyed, although Natural Resources Conservation Service (NRCS) has performed some soil analyses over the years. Two portions of the Ditch branch off from the main "elbow" forming a total of about 15 miles of laterals. The decreed water right (1855) for Priority # 3 in the Ditch is for 25cfs and 72.77 cfs for Priority #178, which was added in 1870.

ECDC is subject to the Rio Grande Compact. The San Antonio River and the Conejos River are considered a single system for Compact purposes, with Priority # 1 and # 2 on the Conejos system, and # 3 on the San Antonio system. In this region of southern Colorado, the San Antonio and the Ortiz area, all agriculture is totally dependent on surface water. Flood irrigation of meadows in this region provides generous recharge of the Rio Grande Basin aquifer, as it has for five generations.

Matching monies of 27% of the total project costs will come from the following sources:

• NRCS Engineering Assistance and Oversight	\$11,000.00	
• ECDC Matching Cash	<u>\$12,445.00</u>	
TOTAL MATCHING FUNDS	\$23,445.00	27%
• WSRA – Rio Grande Basin Funds	<u>\$65,000.00</u>	<u>63%</u>
TOTAL PROJECT COST	\$88,445.00	100%

PROJECT AND AMOUNT REQUESTED	SOURCE SB 179
San Antonio River – El Codo Ditch Diversion Rehabilitation – \$65,000.00	BASIN

At the regular R.G.R.T meeting on February 10, 2009, there was a quorum of the appointed members of the R.G.R.T. The project proponents were provided time to make a presentation and time was allowed for questions from the R.G.R.T. Members and members of the public. After discussion, a voice vote was taken of all R.G.R.T. Members that were present.

The By-Laws of the R.G.R.T. require a simple majority vote of those Members present for any action to be taken by the Roundtable. **The vote to approve the request for funding from SB 2005 – 179 San Antonio River – El Codo Ditch Diversion Rehabilitation was unanimous.**

Agricultural productivity along the El Codo Ditch has been declining due to the effects of the deterioration, improper placement and poor design of the existing rock structure at this point of diversion. This has caused land owners many problems; has created difficulties for ECDC in diverting water in a timely manner; has severely eroded the main channel; has caused repeated flooding in nearby farms and communities, as described in the attached letter from the Conejos Board of County commissioners. In addition, the current structure has necessitated ongoing maintenance efforts which are expensive and dangerous and which have proven, for two generations, to be ineffective in curing the problem.

There is now an urgent need to address the deficiencies at the El Codo Ditch diversion, as they have been exacerbated by drought conditions and by repeated washouts and flooding. Flows on the Ditch range from as high as 87 cfs in full flood to less than 10 cfs in the middle of summer. Little has been done, for a century and a half, to alter the physical characteristics of El Codo Ditch and its diversion, and almost all records of the Ditch, including original drawings and topographic maps, were destroyed in a courthouse fire in 1980.

Phase I of this two-phase water activity (the Project) begins by using ECDC funds in early spring of 2009 to address the severe stream bank erosion, which has occurred at a point immediately upriver from the diversion. The stream bank will be stabilized about 300' upstream of the diversion using J-hooks and other proven methods, in order to contain the flows and redirect them toward the center of the main channel.

The Rio Grande Basin WSRA funds requested in this proposal will fund Phase II, in which the root cause of this long-standing problem will be eliminated. The problematic rock diversion structure in the main channel of the San Antonio will be replaced with an NRCS-engineered concrete Core. This structure will be positioned at a different angle from the current rock structure, directing flows more effectively toward the Ditch Head Gate and toward the Bypass Head Gate. This will greatly improve control of irrigation uses and stabilize river flows at the El Codo diversion. The existing bypass gate, with its inadequate system of manually inserting or removing boards, will be replaced with a gear/screw-controlled metal Bypass Head Gate, providing optimal diversion effectiveness. The lower elevation of the new Core will allow passage of water in both normal and high water regimes, stabilizing flows, preventing the back-up of water, facilitating sediment transport, reducing the accumulation of woody debris, and facilitating the passage of fish in both directions.

The above measures will provide mechanisms to better control Rio Grande Compact flows, as stated in the attached letter from the Division 3, Acting Division Engineer, and to ensure the legal allocation of water to the ECDC and downstream water right holders.


As stated above, the R.G.R.T. has determined that the single, most critical water issue confronting the Rio Grande Basin is the current unsustainable management of surface and ground water. This Project supports the broader efforts of the Rio Grande Water Conservancy District and other parties in the San Luis Valley in addressing this critical

issue by ECDC more efficiently meeting its historical obligations to the irrigators it serves, thus ensuring the legal allocation of water to irrigators. It will also serve the non-consumptive uses by improving stream bank stabilization, and hence riparian habitat. In addition, fisheries will be enhanced because the new Core will permit the passage of fish at all river flows, both upstream and downstream. The operation of the new structures will facilitate meeting Colorado's Rio Grande Compact obligations.

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,

A handwritten signature in black ink, appearing to read "Mike Gibson", with a long horizontal flourish extending to the right.

Mike Gibson
Chair, Rio Grande Inter-Basin Roundtable

Enclosures (1)

cc: El Codo Ditch Company



Board of County Commissioners

John Sandoval
Chairman

J. Steven McCarroll
Vice Chairman

Joe Mestas
Vice Chairman

February 2, 2009

Mr. Mike Gibson, Chairman
Rio Grande Interbasin Roundtable
415 San Juan Avenue
Alamosa, CO 81101

Dear Mr. Gibson:

It has been brought to our attention that the El Codo Ditch Company from Conejos County has submitted a request for funding, for a diversion structure, from the Rio Grande Basin Roundtable.

The El Codo Ditch is a senior surface water right that holds a number 3 priority on the San Antonio River system. It is our opinion that water conservation and efficient water management is essential to best utilize our valuable water resource.

We as Conejos County Commissioners are constantly challenged by early spring flooding, much flooding due to many insufficient circumstances along our river systems. By improving diversion dams, culverts and refurbishing river and ditch banks, water is best utilized to its maximum use.

We as Conejos County Commissioners are in support of this project and ask that you look favorably upon their request.

Sincerely,

Steve McCarroll
Chairman

*File: RT - El Codo Ditch
Req. for Funding*



DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RESOURCES

January 29, 2009

Bill Ritter, Jr.
Governor

Harris D. Sherman
Executive Director

Dick Wolfe, P.E.
Director

Craig Cotten, P.E.
Acting Division
Engineer

Mr. Mike Gibson, Chairman
Rio Grande Interbasin Roundtable
415 San Juan Avenue
Alamosa, CO 81101

Re: El Codo Ditch Company Request for Funding

Dear Mike,

This letter is in support of the funding request of the El Codo Ditch Company (ECDC) to the Rio Grande Basin Roundtable and ultimately the Colorado Water Conservation Board to replace the water diversion structure, known as the Core, which is used to divert water into the El Codo Ditch.

The El Codo Ditch is a senior ditch on the San Antonio River system, holding the number 3 water right as well as the number 178 water right. This ditch is located on the Los Pinos River near the town of Ortiz. At the present time, the ECDC facilitates getting their water into the ditch by using heavy equipment to push gravel and dirt up into a temporary diversion dam. Many times this dam washes out when high flows come down the river. If the dam washes out, the ECDC cannot get the water that they are entitled to until they can get heavy equipment back to the site to rebuild the dam.

If the dam stays in place during a high runoff event, this can also cause problems. Because there is no easy way to adjust the height of the diversion dam during a flood event, the dam itself can back the water up and cause flooding issues above the El Codo Ditch. Water rights on the San Antonio River system below the El Codo could possibly be injured if they cannot receive their water because of flooding above them. A new, engineered, concrete core at this location should solve this problem.

The diversion dam and associated structures currently at the El Codo Ditch leave much to be desired. Due to the ever-changing nature of the diversion dam, it is difficult to ensure that the El Codo Ditch is receiving its correct amount of water. A new core would help to ensure that the El Codo Ditch is getting the water that it is entitled to, while at the same time ensuring that water for downstream users is kept in the channel.

Water Division 3 • Alamosa

P. O. Box 269 (301 Murphy Drive) • Alamosa, CO 81101 • Phone: 719-589-6683 • Fax: 719-589-6685
www.water.state.co.us

The proper functioning of this diversion structure is important to both the El Codo Ditch Company and the State of Colorado to assure proper delivery of water to water rights. I recommend the Rio Grande Roundtable and the Colorado Water Conservation Board support funding to reconstruct the Core.

If you need further information regarding the impact of this proposal on Colorado's water administration please contact me at (719) 589-6683.

Sincerely,



Craig Cotten
Acting Division Engineer
Colorado Division of Water Resources, Div. 3

Cc: District 22
RG Roundtable File
Nicole Langely