## Rio Grande Inter-Basin Roundtable

c/o San Luis Valley Water Conservancy District 415 San Juan Avenue Alamosa, CO 81101

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November 8, 2010

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

## <u>Reference: Manassa Land & Irrigation – Conejos North Branch – Water Conservation and Management</u>

## 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.

Total cost of the *Manassa Land & Irrigation – Conejos North Branch – Water Conservation and Management* (the Project) is \$194,000.00. Of this amount, the R.G.R.T. is requesting authorization to distribute WSRA Funds pursuant to SB 2005 -179 of Rio Grande Basin Funds of \$75,000.00 or 39% of the total Project cost of \$194,000.00. The applicant, the Manassa Land and Irrigation Company (MLI), will provide \$48,000.00 or 25%, and the NRCS will provide \$61,000.00 of cash and \$10,000.00 for in-kind engineering assistance, for a total of 36% of the total cost of the Project.

At the regular R.G.R.T meeting on October 12, 2010, members voted unanimously to request funding from SB 2005 - 179 – Rio Grande Basin Funds, for:

PROJECT AND AMOUNT REQUESTED		SOURCE SB 179
Manassa Land & Irrigation – Conejos North Branch –		Basin
WATER CONSERVATION AND MANAGEMENT	\$75,000.00	:

The Conejos River (Conejos) is a tributary to the upper Rio Grande, accounting for nearly 40% of Colorado's Rio Grande Compact obligation. At the point where the Conejos crosses state highway 285, 1-1/4 miles north of Antonito, Colorado, there is a bifurcation, with a concrete diversion structure (locally known as "the Core") and a headgate system (Diversion Gates). The Core and Diversion Gates are owned and operated by the Manassa Land & Irrigation Company (MLI). This diversion system was replaced in 2009 / 2010, together with associated streambank stabilization, as the *Conejos River & North Branch Diversion & Stabilization Project*, for a total cost of is \$481,700.00. This was partially funded by WSRA Rio Grande Basin Funds of \$50,000.00 and Statewide Funds for \$333,700.00, for a total of \$383,700.00. This work has been completed and has met its expectations that include improved operation of the Core and Diversion Gates, the splitting of river flows to both channels of the river, and assisting in Colorado meeting its Rio Grande Compact obligations. The Core and Diversion Gates are owned and operated by the Manassa Land & Irrigation Company (MLI).

This Project, the Manassa Land & Irrigation – Conejos North Branch – Water Conservation and Management, will provide additional controls over the flows associated with the overall operation of the MLI.

Although the prior project cured deficiencies in the main channel of the Coneios at the point of the North Branch Diversion and eliminated many delivery problems for North Branch Water Users, it did not specifically addresses water management issues internal to the MLI irrigation system, where decades of channel and diversion instability have taken a heavy toll on the condition of the receiving slide headgates. Deterioration of the two principal 100-year-old headgates, Gate # 3 and Gate # 98, requires weekly and sometimes daily maintenance. In high flow regimes these slide headgates are clogged with floating debris and high sediment load. Several times a year MLI must use a backhoe to remove trash and clear out the ditches. In low flows, MLI must construct an earthen dam within its system in order to get its adjudicated water right, but this temporary patch job washes out when higher flow levels return, creating a constant maintenance problem. In addition, MLI has no measuring flumes. so it distributes water to its members on a time-per-share basis rather than using a quantified distribution system. The Rio Grande Basin's objectives include the increasing of irrigation efficiency and the measuring of irrigation flows and ground water recharge. With the prospect of future Groundwater Sub-district needs it is imperative for MLI to modernize its water distribution system and improve operational efficiency in order to meet the irrigation needs of 18,000 acres. Matching funds from MLI and NRCS will be used immediately, taking seasonal advantages to initiate the replacement of the Gate #3. In the spring of 2011 the WSRA funds will be applied after Notice to Proceed to replace Gate # 98 and to install Parshall flumes on the five laterals in the system. These efforts will allow MLI to quantify flows within its system and to its members.

These measures will ensure a more uniform and efficient distribution of water, restore optimal performance of the irrigation system, help conserve and protect water resources, and improve MLI's ability to respond to current and future changing needs for water. This project will complement and support the prior completed improvements in the North Branch Diversion by reducing the propagation of maintenance issues for multiple ditch companies. The prevention of further deterioration at the receiving head gates will eliminate long-standing difficulties in obtaining decreed water rights and meeting priority calls, thus helping to meet Colorado's agricultural demands for a sustainable water supply. After more than five

generations, these repairs and upgrades will greatly improve irrigation efficiency, restoring full operational capacity to a system which is integral to the delivery of Colorado's compact obligations.

In Summary the Project will provide:

- Quantify flows within the MLI system for more uniform/efficient water distribution
- Conserve water and protect water resources, greatly improving irrigation efficiency
- Restore optimal performance of the irrigation system.
- Improve MLI's ability to respond to changing needs for water for 18,000 irrigated acres
- Reduce the burden of repeated and ineffective maintenance efforts and the propagation of these issues
- Restore full operational capacity to a system which has reached the end of its useful life
- Enable MLI to obtain decreed water rights and meet priority calls
- Help meet agricultural demands for a sustainable water supply by quantifying use/recharge
- Assist in meeting Rio Grande Compact obligations by ensuring only adjudicated water rights are diverted from the Conejos River.

The overall deliverables for the Project will include the replacement of two major headgates, and the installation of ten (10) measuring devices on laterals within the irrigation system. The work is scheduled for completion by the end of 2011.

Farmers, ranchers, and landowners in the affected area are contributing \$48,000.00 or 25% toward this Project, demonstrating their support for the Project.

Letters of support for this Project have been received from Craig Cotten, Division Engineer, Colorado Division of Water Resources, and the Conejos Water Conservancy District.

By this letter, I am forwarding the application and supporting materials for the subject project. If you require additional information, please notify me accordingly.

Sincerely.

Mike Sibson

Chair, Rio Grande Inter-Basin Roundtable

Attachments (2)

cc: Manassa Land & Irrigation Company

## DIVISION OF WATER RESOURCES

November 8, 2010

Bill Ritter, Jr. Governor

Mike King Executive Director

Dick Wolfe, P.E. Director

Craig Cotten, P.E. Division Engineer

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

Re: Manassa Land and Irrigation Company Request for Funding

Dear Mike.

This letter is in support of the funding request of the Manassa Land and Irrigation Company to the Rio Grande Basin Roundtable and ultimately the Colorado Water Conservation Board to replace the two main headgates and install additional measuring devices on the Manassa Ditch system.

The Manassa Ditch is a senior ditch on the Conejos River system, holding a portion of the number 1 water right as well as other water rights. This ditch is located on the North Branch of the Conejos River near the town of Antonito. At the present time, the headgates for the Manassa System are dilapidated and in need of repair. The Manassa Ditch Company has great difficulty in receiving the water that they are entitled to at times due to the condition of their headgates. Further, the water users on the Manassa System may not currently receive their proper allotment of water because of non-existent measuring devices.

With the new headgates and measuring devices in place, the Manassa Ditch Company will be better able to quantify their water needs and to ensure that only adjudicated water rights are diverted from the river. This in turn will assist the Colorado Division of Water Resources to more efficiently administer water rights on the Conejos System, and to better administer the Rio Grande Compact.

The proper functioning of these diversion structures and the installation of additional measuring devices are important to both the Manassa Land and Irrigation Company and the State of Colorado to assure proper delivery of water to the correct water rights holders. I recommend the Rio Grande Roundtable and the Colorado Water Conservation Board support funding to conduct this work.

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 W. Cotten Division Engineer

Colorado Division of Water Resources, Div. 3