



Conejos Water Conservancy District

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Rachel,

I hope you are having a great Christmas and New Year season. I especially hope you get some time off and can enjoy family!

I wanted to send this letter as a final report on the Richfield-ConConCO project. We just recently finished all of the work pertinent to the Project! It has been an ordeal to manage!

We have had wildly fluctuating river conditions which caused timing and logistical issues and then on top of that, of course we all dealt with the Covid 19 circumstances. For our project the hardest Covid impact was for our contractors. They all struggled to maintain staff numbers sufficient to accomplish their tasks.

While the work took longer than we anticipated, We have now completed the Design, construction, and automation on three critical diversions on the Conejos River; the Salazar, the 6&10, and the Richfield. And improved measurement and control of Compact waters on the Conejos River at Conconco. Each of the three diversions have been functioning better than expected and have consequently made positive impacts on water administration to irrigators and Rio Grande Compact payment.



New sluice structure and grouted core at the Salazar (8&12)



Looking downstream at the new 6&10 sluice and grouted rock core. Just to the right of the Sluice you can see the new automation hardware.



New sluice and automation hardware for the Richfield ditch in background. Rock placement ready for grout in foreground.



Beginning of the grouting process for the sluice and crossing structure at the Richfield diversion

We have constructed 9 J-hook rock structures that are both improving river channel erosion and are also enhancing fish habitat and overall Riparian health.

Finally, we were able to install an innovative and new approach to water measurement at the bifurcation of the Conejos River near Antonito. This location known as “Conconco” (Conejos river near Conejos, Colorado) is a critical location used by DWR Div. III personnel to both administer water rights for irrigation and ensure proper Rio Grande Compact compliance. In low flow regimes, this site had a difficult time accurately accounting for flows. In low flows a majority of the water would spread out across the entire width of the riverbed. In this unconsolidated state a significant amount of water also flowed within the gravel of the riverbed and was not physically “above ground” where it could be measured. These challenging conditions made it hard for DWR staff to accurately divide the available water supply between the irrigators and the amount that is needed to be left in the Main stem of the river to pay our downstream obligation to the Compact.

To remedy this issue, the Conejos Water Conservancy District received funding within this project to help with the installation of a downward facing Radar Sensor just slightly upstream of the DWR measurement site. The new sensor is fixed on the Conejos Bifurcation’s core. Now, we can use the concrete core structure as a rectangular weir to both measure flows with greater accuracy, and also have the ability to automatically

control the diversion gates in order to ensure the correct amount of water owed to the compact does in fact pass this historically difficult point.



New downward facing radar unit for measurement at Conconco. During low water flows this unit will be swung back over the concrete core and will control the existing automatic gates to ensure compact flows pass this area of the River.

Even though this project has taken a significant amount of time to execute, it is a great step in helping Colorado accomplish its water goals as presented in the Colorado Water Plan. This work simply could not have been done without the funding and professional expertise of the CWCB and its staff.

Many, many thanks!!.

Sincerely,

Nathan Coombs, Manager CWCD