Upper Rio Grande Events & Recreation Complex
Mineral County Fairgrounds
210 Airport Rd (County Rd 806)

FINAL REPORT FOR
Colorado Water Conservation Board Grant
POGGI,PDAA, 201800000946
Date 5/17/2018
Rio Grande River Basin

Submitted by the Mineral County Fairgrounds Association
12/01/2018

SUMMARY OF ACCESSNG MINERAL PARK RANCH DITCH AND HOW IT WAS COMPLETED

Task 1 was to construct 1,165' of pipe line with associated structures to the plans and specifications designed and engineered by D. Costner and J. Hernandez of the NRCS, from the newly constructed head gate in Willow Creek, through the contaminated soils mitigated and reclaimed by the Lower Willow Creek Restoration Company, to a point where it will discharge into the existing Mineral Park Ranch Ditch. The pipeline was installed to meet all the requirements of the environmental covenant requested by CDPH&E as a condition of the Voluntary Clean-up Agreement.

Now with the completion of the pipeline the MCFA will be able to resume use of the Mineral Park Ranch Ditch and the irrigation water will be isolated from contacting any contaminated sediments still in residence under the capped and reclaimed project area.

The MCFA carefully excavated an open trench taking care to minimize disturbance in the project area. The pipeline and associated structures were installed to plans and specifications provided by NRCS. The trench was back filled taking care to place all of the material excavated back in the trench. The system was tested successfully.

The open trench was excavated to grade using a small excavator. Structures were built to plans and specifications using acceptable standard practices and qualified contractors. The pipe was installed and properly bedded with imported material (cap) using acceptable industry practices. All components were inspected and documented prior to back-fill. A front end loader placed all excavated material back in the trench taking care to create minimal disturbance.

Clean material (cap) was purchased and imported from the Soward Ranch Pit, and placed over the disturbed area to the specified depth, (min. 6"), and graded to blend with surrounding grade.

More Specific details of the project construction are as follows: a screw gate with an iron wheel is welded to the inlet structure; the upper concrete structure is approximately 5' square built with 6" walls with an iron gate over the top; the 18" inlet pipe and 10-8" pipes were grouted in the structure so that there are no leaks. 4' downstream from the structure an 8" vertical vent was placed in line; at the pipe outlet a 20' 10" corrugated metal pipe (CMP) was placed in line with a heavy duty animal flap gate. 20' downstream from the pipe outlet a 12" Parshall flume was installed to measure water volume and controlled by an 8" butter fly valve; the ditch downstream from the pipe outlet was cleaned to a 12" CMP culvert adjacent to the Fairgrounds property; A second concrete structure, 4.5' square with 6"walls, was placed in an excavated trench approximately 2' downstream from the culvert; two CMP's were placed and grouted in this structure (one being a 12" with a diversion gate, and the second being 40' 10"dia to send water to a grassland on the Fairgrounds property. The irrigation system was tested successfully without any leaks.

CAP MATERIAL (Task 2)

As previously stated in this report cap material (road base) came from the Soward Pit approximately ten miles from the project. This material was tested with the use of an XRF machine by David Phillips of Casey Resources in 2016 and was found to contain no over the limit (Colorado Dept. of Health standards) heavy metals. 130 cu.yds of cap material was hauled by dump truck from the Soward Pit and carefully placed to minimize final grading. Final grading was done with a rubber tired front end loader. Final grading will be inspected by the project manager for the Lower Willow Creek Restoration Company and approved in writing.

OBSTACLES

The biggest obstacles were dealing with all of the delays. First off, the pipe company was late in responding to MCFA'S order request. Secondly, the structure outfit was slow in responding because of family illness. The bedding material was delivered in piecemeal fashion. What MCFA did was communicate immediately with all involved parties and reset schedules. There were several shorter interruptions during the construction. NRCS engineer Jesse Hernandez was very helpful in guiding the construction team as questions arose during construction. Several volunteers made this project run smoothly, and the Mineral County Road Dept. provided the track excavator and front end loader. Once the actual construction started the process went fairly smoothly for a construction project.

PROPOSE BUDGET AND ACTUAL BUDGET (see attachment)

The proposed budget was for $9,100 but did not include the cost of the Parshall flume and the butter fly valve to adjust the flows as appropriate. An explanation for this is that neither the NRCS engineer nor the Rio Grande Roundtable ever suggested that the flume would be required by the CO Water Division Engineer. The cost of the track excavator was originally part of the grant but to the Fairgrounds advantage the Mineral County Road Dept. did this pro bono for the most part. The cost of the structures proved to be more expensive than was estimated in the grant budget. So now it should be

apparent that some of the amounts in the proposed budget will be shifted in the final budget. The total requested amount will not be changed, but the in-kind amounts have increased significantly.

PICTURES OF CONSTRUCTION ACTIVITIES
(are coming in a separate email)