HUERFANO COUNTY WATER CONSERVANCY DISTRICT

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October 8, 2018

Rachel Pittinger Project Manager, Finance Section Colorado Water Conservation Board 1313 Sherman St. #718 Denver, CO 80203

Re: HCWCD Augmentation Facility 6-month report

CWCB Contract # C150551

After a couple late spring rains, some of the seeding did germinate at the Sheep Mountain Augmentation Facility site, although coverage was less than hoped. Summer was exceedingly dry with almost no moisture, and the site remains largely unvegetated except by scattered weeds. The swale blanket is an exception and is now being held in place by vegetation. Observing the project site as a whole, a thin crust-like surface has developed on the soil, and as of an October 3 inspection (which was a windy day), very little dust is blowing from the site.



Swale blanket on 06/23/2018



Project site looking from north to south, swale blanket to the right. 06/23/2018



Project site looking from north to south, swale blanket to the right. 10/03/2018



Project site looking from west to east. 10/03/2018

The balance of phase 1 construction ran into a snag in May when Huerfano County informed HCWCD that the gravel deposit at the reservoir site was being depleted within the confines of the surveyed reservoir boundaries. Although the site was resurveyed to extend the dam 90 feet farther to the south to find more suitable embankment material, the gravel had essentially been exhausted, and the County removed its gravel mining equipment by mid-May. At that point, the reservoir was about 20% excavated. The original estimate was that the County's gravel mining would save HCWCD \$150,000 to \$190,000 in construction costs. However, that

savings will not materialize.



Reservoir excavation immediately after gravel operations. 05/09/2018



Reservoir excavation at approximately 20% with berm added. 10/03/2018

After searching for, but not finding, a local contractor interested in finishing excavation in return for the remaining gravel, the HCWCD board decided to go to bid and pay for the remaining excavation together with phase 2, estimated by TZA Water Engineers to cost about \$386,000. Soil testing was also conducted in September to determine if the fine materials at the site could be amended with clay economically and used on the embankment to avoid the need for a reservoir liner.

The request for proposals for phase 2 was published on July 26 in the local Walsenburg newspaper, the World Journal, with coverage in Huerfano and Las Animas counties in Colorado and Colfax County in New Mexico; a copy is included with this report. A pre-bid conference was held on August 1, and on August 8, one bid was received from Paul Morgan Excavation (PMC), the contractor on phase 1. The PMC bid of \$709,100 for phase 2 was nearly double the engineering estimate for the job, so the board voted at its August meeting to not accept the bid and

authorized John Faux, TZA Senior Project Engineer VII, to negotiate with PMC to lower the bid amount. Although the HCWCD board considered rebidding the job, the contractor situation in the region is dire. The massive Spring Creek fire in July damaged 108,046 acres – 82,076 of those privately owned – and earthmoving contractors are being pressed into service for property and road repairs necessitated by resultant flooding damages. After negotiations with PMC, Faux advised HCWCD that the contractor would reduce the bid to \$600,980, and the board voted on September 24 to accept that bid and proceed with PMC on phase 2 of the project.

The Spring Creek fire also severely damaged a large portion of the Pass Creek watershed, which drains into the Huerfano River just one mile upstream of HCWCD's Sheep Mountain augmentation reservoir. Severe flooding has already occurred on that stream, with more floods expected. The board is now concerned



that future flooding could adversely impact the reservoir, possibly rendering it into a sediment basin for flood waters. A copy of the Spring Creek Burned Area Report by the US Forest Service and a map are included with this progress report.

Damage from Pass Creek flooding after Spring Creek fire. 10/03/2018



Damage from Pass Creek flooding and remains of home destroyed by 2018 Spring Creek fire. 10/03/2018

Within the past week, John Faux at TZA, has provided the following advice to HCWCD:

Please find attached Spring Creek Burned Area Report. It concludes "...4 areas are at extreme risk for flooding, hyper-concentrated flows, and/or debris flows" including Paradise Acres and Pass Creek Road 572.

The attached map shows the upper third of the Pass Creek watershed that suffered moderate or high burn. It also shows Pass Creek joins the Huerfano River 1.0 mile above our planned diversion structure. Note that the Huerfano River mainstem watershed did not get burned.

The attached profile shows the slope of Pass Creek. The burn area is above Stream Mile 7 (from the mouth of Pass Creek). Flatter slopes will slow the flood flows and result in deposition of some of the suspended load. Whether that happens above our planned structure or at our planned structure, and in what quantity, is subject for debate.

We recommend the District

- postpone construction of the river diversion structure at this time.
- construct the access road and the pipeline from the pump station to the reservoir (across the pivot field) this fall.
- conduct further investigation of the hazard posed by Pass Creek. Observe the watershed condition and how it responds to rain events. Consider design changes specifically to handle sediment load at the planned diversion structure. Accomplish with the assistance of Jim Nankervis, a fluvial morphologist who worked on remediation of the Waldo Canyon and Hayman burn areas.
- proceed with diversion dam construction in the second half of 2019.
- construct the reservoir in 2019.

The board is considering these options at this time and will discuss them at the next board meeting on October 22, 2018. In the meantime, all necessary permits have been renewed, so we remain at the ready.

The plan for phase 3 of the project (in 2019) included finishing the reservoir and installing a pump station to divert water from the Huerfano River to the storage pond. That scope may change based on the recommendations by TZA Water Engineers and the fluvial morphologist.

The public has access to the HCWCD website at www.hcwcd.net, where there is a description of the regional augmentation plan, the court decree, rules and regulations (approved November 27, 2017), the resolution setting the rates and fees for augmentation water (enacted July 23, 2018), an application form, photographs and maps.

We are preparing to submit the final grant claim (\$3,361) on CWCB Contract # C150551 before December 31, 2018. When phase 2 construction commences, we will be submitting the final loan draw (\$249,134). All approved funding should be disbursed before the June 2019 deadline, therefore we are not preparing a request for an extension of the deadline at this time.

Please let us know if you have any questions or would like additional photographs and further description.

Kind regards,

Carol S Dunn

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