

ArkDSS Memorandum Final

To: Bill Tyner, John van Oort, Kelley Thompson, Division of Water Resources
From: ParsonsWater Consulting
Subject: Task 2.1 – Huerfano County Water Conservancy District
Date: April 2019

INTRODUCTION

One of the Task 2 objectives is to:

Develop and document an understanding of the operations of key water use facilities in the basin in order to facilitate consumptive use modeling and to support selected data needs for the ArkDSS effort. This understanding will be developed through interviews with DWR personnel, major water users, including operators of large canal and reservoir systems and representatives of federal facilities.

A number of components in the Huerfano County Water Conservancy District's operations have been identified as key structures for the Arkansas River Decision Support System (ArkDSS) consumptive use and surface water modeling efforts.

The information provided in this memorandum was developed from publicly accessible sources, discussions with Huerfano County Water Conservancy District personnel, TZA Water Engineers, and Division 2 personnel. Information in this memorandum is believed to be accurate. However, this information should not be relied upon in any legal proceeding.

SYSTEM OVERVIEW

The Huerfano County Water Conservancy District (HCWCD) was established in 1971 by decree of the District Court, effective September 30, 1971, pursuant to the Colorado Water Conservancy Act. The HCWCD service area includes lands within Huerfano County, excluding USFS lands and a few scattered parcels in the Northeastern portion of the basin. In 2013, the HCWCD adopted its most recent Strategic Plan addressing the Huerfano and its major tributary, the Cucharas. To facilitate its various operations, the HCWCD initially established a Water Activity Enterprise, which is now almost dormant as a result of elections in 2012 and 2013 which "de-Bruced" the HCWCD, making the enterprise unnecessary for most current purposes. More recently, the HCWCD has developed a series of administrative plans to augment non-exempt depletions in the upper Huerfano River basin.

HUERFANO RIVER OPERATIONS

As a consequence of extended drought conditions in the early- to mid-2000s, water usage by the community of Gardner and other communities in the Huerfano River basin was in danger of curtailment by the Division 2 Engineer in order protect the interests of senior water right holders. Beginning in 2009, the HCWCD utilized a series of annual Substitute Water Supply Plans and a Regional Rule 14 Replacement Plan to provide augmentation water to five separate entities who were in danger of having their water use curtailed.

To address the shortcomings to existing and future water uses in the basin, tax revenues from a mill levy increase approved by Huerfano County voters in 2012 combined with a loan and grant from CWCB are being used to develop a regional augmentation plan to benefit the water users within the HCWCD boundaries. By December 2016, the HCWCD had more than doubled the number of customers, received approval of a permanent augmentation plan from the Water Court (13CW3062), purchased the 1,000-acre Camp Ranch and its water rights (5 miles upstream of I-25), dried up a portion of its irrigated lands, and developed and operated augmentation facilities including an augmentation station, recharge pond, and piezometers necessary to provide augmentation water to its customers. In 2017, construction began on the Sheep Mountain Reservoir (2 miles upstream of Gardner) intended to store up to 50 ac-ft of consumable water for release to augment out-of-priority depletions throughout the Huerfano River basin. The reservoir was completed in 2018. The HCWCD intends to develop other water supply projects for the Cucharas River Basin in the future.

HCWCD purchased the Camp Ranch and the senior William Craig Ditch (6/7th of total right) and Jose Maria Ditch water rights. The use of the William Craig Ditch water right was changed in water court to include storage, augmentation, recharge, and replacement purposes (Case No. 13CW3062). Replacements of depletions will be made by direct use of consumptive use credits, accrual of recharged consumptive use credits to the river, and releases of consumptive use credits from storage. The HCWCD seeks to exchange the changed water rights to upstream locations for storage and replacement of plan depletions.

The HCWCD installed a recharge facility on Camp Ranch and is in negotiations and diligence efforts to develop a lined water storage reservoir(s) to provide reliable and more permanent replacement water for year-round uses. These efforts will provide the HCWCD with supply to meet replacement water needs for present and other unidentified water uses, including subdivisions, commercial, industrial, agricultural or recreational water uses.

CUCHARAS RIVER OPERATIONS

The HCWCD has identified two major threats to the maximum utilization of its water on the Cucharas River: (1) the effects of catastrophic wildfire on water flows and facilities and (2) the substantial loss of basin storage since the 1940s. The District is aggressively addressing both threats.

Wildfire Threats

In 2013, approximately 14,000 acres and numerous structures were burned by the East Peak Fire southwest of Walsenburg. The fire's immediate and consequential damage raised awareness of the necessity to anticipate wildfire and its effects on streamflows and downstream water facilities. With assistance of funding from the CWCB, the Arkansas River Watershed Collaborative (ARWC), and many local governments such as municipalities and fire districts, the HCWCD commissioned studies to identify those areas in the Upper Cucharas Basin which were at the highest risk of wildfire and, building on the previous studies, to identify and design over 30 sediment control ponds to hold debris and sediment from fires in those areas in order to avoid damage to water facilities. The sediment basin designs (and materials lists) have been turned over to the County's Office of Emergency Management for implementation in event of a fire. Those studies are available on the ARWC website.

This effort turned out to be profoundly important due to the Spring Fire, which burned much of the headwaters area of the Cucharas River and a portion of the Huerfano River headwaters (over 108,000 acres). The fire burned from June 28, 2018 until 100 percent containment on September 10, 2018, and was the third largest fire in Colorado history in terms of acres burned. The HCWCD continues efforts to work with water right owners impacted by the fire and by flooding that has, and will, occur from the burn areas.

Storage Collaborative

Since the 1940s, the Cucharas basin has lost over 70 percent of its storage capacity, primarily due to lack of maintenance during economic downturns that resulted in State Engineer restrictions. In 2015, the District formed the Cucharas River Storage Collaborative, comprised of around twenty water users, to determine the most effective way to remedy the storage shortage. Following a wide-ranging study funded by local governments and the CWCB, a reconnaissance level report was completed in 2017 identifying five potential or "preferred" reservoir structures: the enlargement of Maria-Stevens Reservoir below Walsenburg, the enlargement of La Veta Town Lakes and Britton Ponds above Cuchara, and the construction of new reservoirs in Bruce Canyon above La Veta and on South Baker Creek above Cuchara. The District began geotechnical work at each site during 2018 and sought funding from CWCB with appropriate matches from local governments. In addition, the Collaborative filed a Water Court application in 2017 (Case No. 17CW3075) for the adjudication of junior conditional storage rights in each reservoir and conditional appropriative rights of exchange between the reservoirs. Finally, the governmental entities within the Collaborative anticipate execution of one or more IGAs addressing mutual use of Walsenburg's enlargement of City Lake and the new reservoirs and exchanges described above.

Basin Infrastructure Improvements

Water right administration in the complex and water-short Huerfano and Cucharas River basins is difficult and compounded by the absence of dependable river gages and information about alluvial groundwater levels. Using state and local funding, nine river gages have been repaired or constructed, together with four monitoring wells to measure groundwater levels in alluvial aquifers. The resulting information is used by the Division 2 Engineer to administer water rights

in the Huerfano and Cucharas River basins, including the resolution of issues regarding streamflow transit losses and whether calls from the Arkansas mainstem are futile.

The contact information for the Huerfano County Water Conservancy District is:

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The boundaries of the District are shown in Figure 1. The augmentation facility to be used by the District and the ditches included in Case No. 13CW3062 are also shown in **Figure 1**.

Where to find more information

- *Additional information on ditch and reservoir operations in and around the Huerfano County Water Conservancy District is presented in the ArkDSS Task 2.1 – Notes from Water District 14 Meeting memorandum, the ArkDSS Task 2.1 – Notes from Water District 16 Meeting memorandum, and the ArkDSS Task 2.1 – Notes from Water District 79 Meeting memorandum.*

REFERENCES

- Sandy White, HCWCD Board. sandyw@white-jankowski.com
- John Faux. TZA Water Engineers. jfaux@tza4water.com
- Huerfano County Water Conservancy District Goals and Strategic Plan. May 13, 2013.
- Loan Feasibility Study for Huerfano County Regional Augmentation Project. July 2013.
- Project Completion for Huerfano County Water Conservancy District Regional Augmentation Plan, Case No. 13CW3062. TZA Water Engineers. May 27, 2016.
- Needs Analysis for Huerfano County Water Conservancy District Regional Augmentation Plan, Case No. 13CW3062. TZA Water Engineers. May 27, 2016.
- Case No. 13CW3062 Findings of Fact, Conclusions of Law, and Judgment and Decree of Water Court. November 14, 2016.

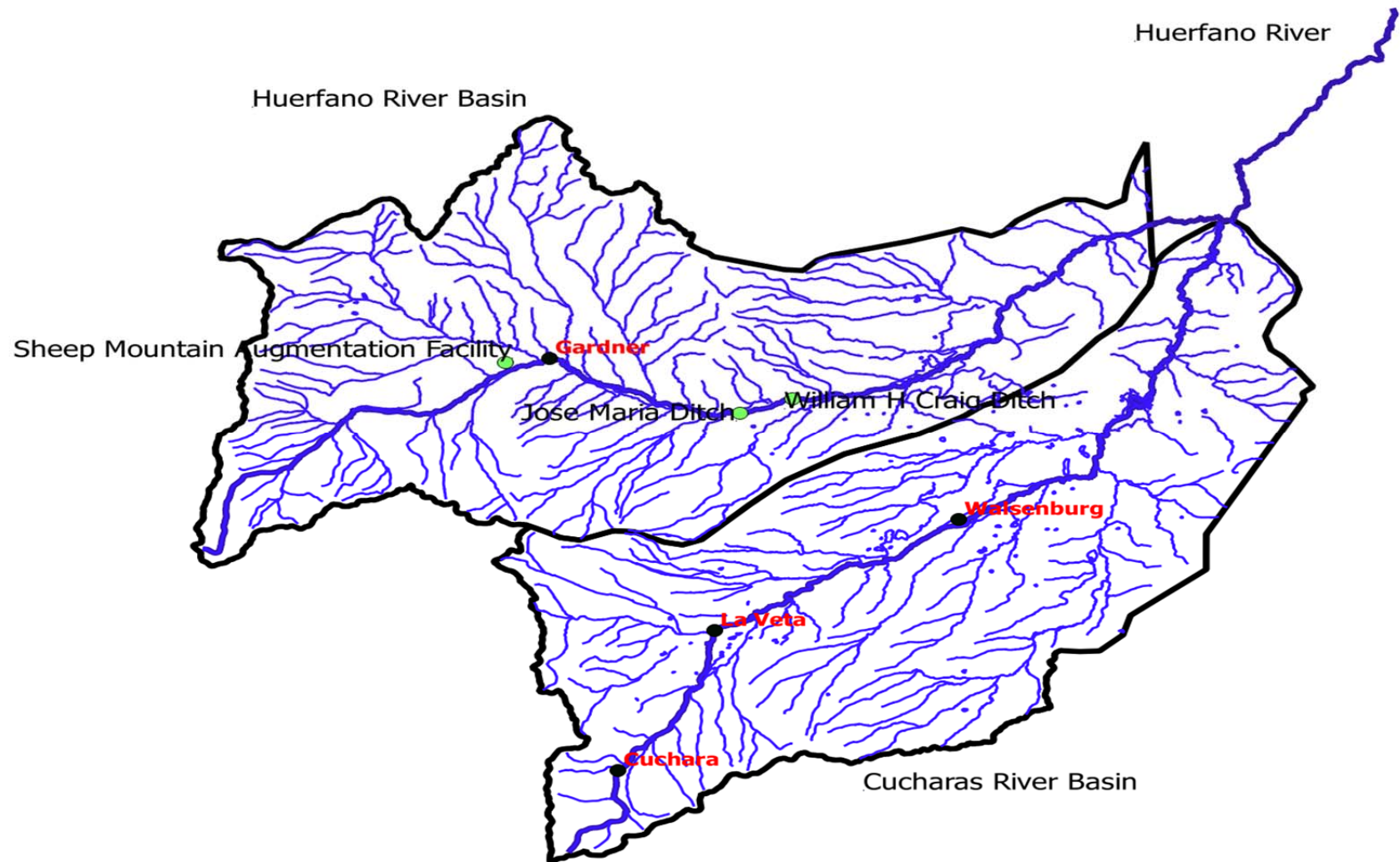


Figure 1: Huerfano County Water Conservancy District Service Area