

ArkDSS Memorandum Final

To: Bill Tyner and Kelley Thompson, Colorado Division of Water Resources
From: Wilson Water Group
Subject: Task 2.1 – Water Commissioner Interviews
Notes from Water District 10 Meeting
Date: February 2019

Introduction

This memorandum provides notes from the September 8, 2017 meeting with the Water District 10 Water Commissioner. Water District 10 includes Fountain Creek tributaries. Meetings were held with Water Commissioners in each Water District in the ArkDSS study area. The objectives of these meetings were to 1) develop an initial basin understanding; 2) determine what diversion and reservoir structures that should be included in future modeling efforts, and 3) determine which reservoirs and diversions warrant more detailed investigation and technical documentation. These objectives support Task 3 Consumptive Use Analysis and Task 4 Surface Water Modeling. Information in this memorandum is believed to be accurate for water planning and modeling purposes; however this information should not be relied upon in any legal proceeding.

Approach

In preparation for the meeting, Water District 10 data were compiled and reviewed using the following procedure outlined in the ArkDSS Scope of Work:

1. Review availability of diversion, reservoir storage, and streamflow data.
2. Review historical call data and identify how it may vary from current call reporting standards.
3. Identify net absolute water rights for structures in each water district. Review the irrigated lands master parcel set to identify ditches with water rights and/or diversions records for which irrigated areas have not been identified.
4. Develop an initial list of key structures and structures with acreage and water rights, but no diversion records to understand areas without records and how to estimate their use.

Maps were also developed displaying reservoirs, diversion headgate locations, and irrigated acreage of the Water District to facilitate the discussions.

The interview with the Water Commissioner was intended to determine structures that should be considered key based on seniority, water administration, or basin operations. Prior to the meeting, a brief description of the purpose and goals of the interview was provided to the Water Commissioner. The following is a summary of the meeting agenda:

1. Review straight-line diagrams for accuracy
2. Develop a list of major projects, reservoirs, and ditches in the water district, including names of knowledgeable contact people
3. Gather information on dry-up points in the river, calling rights, augmentation plans, and administration specific to the water district
4. Gather general information on the preliminary list of irrigation diversions selected to include in future detailed modeling efforts (key structures), and solicit input on their final inclusion
5. Develop information on reservoirs, such as owner entities, ditches that get reservoir deliveries, assigned delivery losses, etc.
6. Correct irrigated acreage information

Meeting Attendance

The meeting was held at the Division of Water Resources Office in Pueblo. The following people attended the meeting:

Bill Tyner, Assistant Division Engineer (Surface Water Operations)

John Van Oort, River Operations Coordinator

Doug Hollister, Water District 10 and Northern Region Lead Water Commissioner

Richard (Griff) Rainford, Water District 10 Deputy Water Commissioner

Kelley Thompson, DWR, Lead Modeler

Erin Wilson, Wilson Water Group

Tyler Benton, Wilson Water Group

Transbasin Diversions

Several transmountain diversions are delivered into Water District 10, through Water District 11. These are diverted from the Colorado River Basin and are largely used to provide water supplies to Colorado Springs Utilities (CS-U). Details regarding transmountain diversions are described in the Water District 11 memorandum. Information about transbasin diversions into Water District 10 are described in the Water District 11 and 12 memos. A separate memo has also been prepared describing the CS-U raw water system.

CS-U receives water from the following four transmountain water sources which are delivered to CS-U and other water users in Water District 11. Additionally, CS-U may receive Arkansas River Basin water from their owned or leased sources (e.g. native Twin Lakes share components, Colorado Canal consumptive use water, etc.), via delivery from Water District 11, in the same manner transmountain sources are delivered.

Blue River Project – CS-U owns and operates the Blue River Project, which diverts water from the upper Blue River in the Colorado River basin to the headwaters of the South Platte River via Hoosier Tunnel. Water is initially stored in Montgomery Reservoir before being conveyed by

gravity to the Arkansas River basin via the Blue River Pipeline. The Blue River Pipeline terminates at either North Catamount Reservoir or South Catamount Reservoir in CS-U North Slope Water System. From North Catamount Reservoir, Blue River water can be fed into the Mesa Water Treatment Plant or Ute Pass Treatment Plant for distribution of potable water to CS-U customers.

Though not commonly operated, CS-U has the ability to pump water from the Blue River Pipeline at the Twin Rock Pump Station to provide additional water supplies at their Northfield Water System.

On average, the Blue River project has yielded approximately 8,600 af per year since 1989 and represents about 8 percent of CS-U's raw water supply. This water is 100 percent consumable and is used to extinction by CS-U.

Homestake Project – CS-U owns a 50 percent interest in the Homestake Project, which diverts water from the upper Eagle River in the Colorado River Basin. Water is collected in Homestake Reservoir before being carried to the upper Arkansas River Basin via the Homestake Tunnel. The Homestake Tunnel terminates at Turquoise Reservoir. Homestake Project water is then typically conveyed through the Mt. Elbert Conduit to generate hydroelectric power before being stored in Twin Lakes Reservoir. At Twin Lakes Reservoir Homestake Project Water is diverted into the Otero Pipeline and gravity fed downstream to the Otero Pump Station near Buena Vista Colorado. Facilities for river diversion to the Otero Pump Station are still decreed and are in the process of reconstruction. At the Otero Pump Station Homestake Water is pumped to the Twin Rock Pump Station. From the Twin Rock Pump Station, Homestake Project water can serve either the North Slope Watershed or Northfield Watershed via the interconnection at Twin Rocks Pump station.

On average CS-U diverts about 12,100 af per year from the Homestake Project. This represents about 12 percent of CS-U's raw water supply. This water is 100 percent consumable and is used to extinction by CS-U.

Twin Lakes – CS-U owns a majority interest in the Twin Lakes Company. The Twin Lakes Company is the managing body that operates the Independence Pass Transmountain Diversion System. This project diverts from the headwaters of the Roaring Fork River in the Colorado River Basin and conveys water under the continental divide to Twin Lakes Reservoir. From Twin Lakes Reservoir water is pumped, along with Homestake Water, through the Otero Pump Station for delivery to CS-U. Twin Lakes Company also has native Arkansas Basin water rights at Twin Lakes Reservoir which are operated for in-priority storage.

Twin Lakes yields about 21 percent of CS-U's annual raw water requirements. The transmountain component of this water is 100 percent consumable and is used to extinction by

CS-U. Native Twin Lakes components are used one time in CS-U's municipal system, and generate return flows in excess of the historical return flows when the shares were used for irrigation purposes.

Fryingpan-Arkansas Project—The U.S. Bureau of Reclamation developed the Fryingpan-Arkansas (Fry-Ark) Project in the late 1970s to provide water from the Fryingpan River in the Colorado River Basin to the Arkansas River for agricultural and municipal use. The Fry-Ark Project also has a post-Compact water right for Pueblo Reservoir and several other Arkansas Basin water rights. CS-U leases shares in this system from the Southeastern Colorado Water Conservancy District and receives deliveries via the Fountain Valley Pipeline directly out of Pueblo Reservoir. More recently CS-U, in conjunction with other water providers, completed the Southern Delivery System, which provides additional capacity and Pueblo Reservoir delivery options for CS-U.

The Town of Manitou Springs also leases shares of Fry-Ark Project. When exchange potential exists, the Town uses the water supply in Pueblo Reservoir as an augmentation source to maintain storage in Manitou Reservoir.

Currently the Fry-Ark Project supplies CS-U with about 4 percent of their annual raw water demand. This water is 100 percent consumable and is used to extinction by CS-U when claiming their first right of refusal. Unclaimed return flows have been sold for well augmentation. Return flows that cannot be exchanged into Pueblo Reservoir are either stored in downstream reservoirs (Colorado Canal to Lake Meredith or Holbrook Canal to Holbrook Reservoir) or are sold for well augmentation.

Where to find more information:

- Additional information on Fry-Ark Project and operations and transmountain deliveries in the upper Arkansas River basin is included in the ArkDSS Fryingpan-Arkansas Facilities and Related Operations memorandum.

Compacts and Agreements Affecting District 10 Administration

As a tributary to the Arkansas River, Water District 10 is subject to conditions and stipulations set forth in the Arkansas River Compact between Colorado and Kansas. Depletions from post-Compact wells are required to be fully replaced to Colorado senior water rights so typically replacement of depletions is not directed to replacement of depletions to usable Stateline flows. However, when the Arkansas River mainstem call is set at the Compact call for storage in John Martin Reservoir, replacements must be made for compliance with the Compact and subsequent agreements.

The Water District 10 Water Commissioner noted that the Arkansas River Compact, with respect to the Irrigation Improvement Rules promulgated in 2011 for surface water improvements, has

not directly affected surface water use in the District. Locations upstream of the Greenview Ditch (1000750) are not required to maintain return flows under the Irrigation Improvement Rules; however they must provide notice of irrigation improvements.

Municipalities in the Fountain Creek watershed must comply with specific EPA storm water drainage regulations to ensure water quality standards are met and maintained in Fountain Creek and for areas in the Arkansas River below the Fountain Creek/Arkansas River confluence. CS-U, in conjunction with other local municipalities, is in the process of investing in water quality related infrastructure to achieve compliance in the near term.

Stream Gages

There are 26 active streamflow gages in Water District 10. In addition, there are 30 historical gages that may be used during model development. The gages, station ID, and comments regarding the use or quality of the gage are summarized below. Many of the gages in Water District 10 are located on small tributaries with little native flow; however these locations receive return flows accruing from 100 percent consumable water supplies. To track these reusable supplies and aid in the administration, the USGS created, and the District 10 Water commissioner operates the Fountain Creek Transit Loss and Accounting Program on a daily basis. Many of the gages listed below are used as inputs into this program.

Gage ID	Gage Name	Period of Record	Comment
07099400	Arkansas River above Pueblo	1965-2017	Gage located in WD 14
UPBVCRCO	Upper Beaver Creek near Monument	2004-2017	Used for administration of Beaver Creek
CRUGULCO	Cruse Gulch near Fountain	2005-2017	Augmentation gage owned by Fountain and Widefield
CASCRKCO	Cascade Creek near Cascade	2005-2009	
MONBMNCO	Monument Creek below Monument Lake near Monument	2015-2017	Previously a USGS gage 07103755
07099215	Turkey Creek near Fountain	1978-1989 1996-2012	Missing winter months
07099220	Little Turkey Creek near Fountain	1978-1988	
07099230	Turkey Creek above Teller Reservoir near Stone City	1978-2012	Missing some winter months
07099235	Turkey Creek near Stone City	1978-1983 1987-2012	Missing some winter months
07103700	Fountain Creek near Colorado Springs	1958-2017	
07103703	Camp Creek at Garden of the Gods	1992-2017	
07103747	Monument Creek at Palmer Lake	1977-1989 2005-2011	
07103750	Monument Creek at Monument	1976-1977	
07103780	Monument Creek above North Gate	1985-2017	Operated for CS-U stormwater

Gage ID	Gage Name	Period of Record	Comment
	Blvd at USAF Academy		program
07103797	West Monument Creek below Rampart Reservoir	1993-2017	
07103800	West Monument Creek at USAF Academy	1970-2017	
07103900	West Monument Creek near Pikeview	1957-1970	
07103950	Kettle Creek near Black Forest	1976-1986	
07103980	Cottonwood Creek at Woodmen Road near Colorado Springs	1992-2017	Operated for CS-U stormwater program
07103990	Cottonwood Creek at Mouth at Pikeview	1985-2017	Operated for CS-U stormwater program
07104000	Monument Creek at Pikeview	1976-2017	Operated by DWR for USGS Fountain Creek Transit Loss and Accounting Program, Location is the delineation point between the north and south zones
07104500	Templeton Gap Floodway at Colorado Springs	1951-1981	
07105000	Bear Creek near Colorado Springs	1992-2017	
07105490	Cheyenne Creek at Evans Ave at Colorado Springs	1992-2017	
07105500	Fountain Creek at Colorado Springs	1976-2017	
07105530	Fountain Creek below Janitell Rd below Colorado Springs	1989-2017	
07105920	Little Fountain Creek above Keaton Reservoir near Fort Carson	1978-1988 1995-1998	
07105928	Little Fountain Creek near Fort Carson	1978-1989 1995-1998	
07105940	Little Fountain Creek near Fountain	1978-1988 2014-2015	
07105945	Rock Creek above Fort Carson Reservation	1978-2017	
07105950	Rock Creek near Fort Carson	1978-1998	
07105960	Rock Creek near Fountain	1978-1988	
07106000	Fountain Creek near Fountain	1938-1954 1986-2017	
07106300	Fountain Creek near Pinon	1973-2017	
07106500	Fountain Creek at Pueblo	1922-1965 1971-2017	Note that this gage is operated by Division 2 as an administrative gage only
07105800	Fountain Creek at Security	1964-2017	
07105900	Jimmy Creek Camp at Fountain	1976-2017	
07103985	Cottonwood Creek Tributary above	1998-2002	Missing winter months

Gage ID	Gage Name	Period of Record	Comment
	Rangewood Drive at Colorado Springs		
07103970	Monument Creek above Woodmen Road at Colorado Springs	1996-2017	Operated for CS-U stormwater program
07103977	Cottonwood Creek at Cowpoke Road at Colorado Springs	1998-2002 2006-2008	Missing winter months
07103785	Deadmans Creek above Deadmans Lake at USAF Academy	2000-2003	
07103790	Monument Creek below Sewage Treatment Plant at USAF Academy	2000-2003	Missing winter months
07103930	West Monument Creek at Mouth at USAF Academy	2000-2003	
07103940	Monument Creek at South Boundary USAF Academy	2000-2003	
07103960	Kettle Creek above USAF Academy	2000-2003 2006-2008	Missing winter months
07099990	Fountain Creek at Green Mountain Falls	2001-2005	
07103740	North Monument Creek at Springs Street at Palmer Lake	2002-2004	Missing winter months
07105600	Sand Creek above Mouth at Colorado Springs	2003-2017	Missing winter months
07104905	Monument Creek at Bijou St at Colorado Springs	2003-2017	
07103755	Monument Creek below Monument Lake near Monument	2005-2014	Transferred to DWR gage 2015
07103702	Camp Creek above Glen Eyrie near Colorado Springs	2013-2015	
07106200	Fountain Creek above Young Hollow near Wigwam	2013-2014	
07100300	Fountain Creek at Cascade	2013-2015	
07100750	Waldo Canyon above Mouth near Manitou Springs	2013-2015	
07103100	Williams Canyon above Mouth near Manitou Springs	2014-2017	
07099225	Turkey Creek below Hwy 115 at Fort Carson	2014-2015	

Instream Flow Reaches

Twelve Colorado Water Conservation Board (CWCB) Instream Flow Program water rights are decreed in Water District 10. The instream flow reaches are junior to most other rights and do not typically affect river administration.

- Camp Creek Instream Flow (1003000) is decreed year-round for 3.0 cfs from Palmer Reservoir outlet to the Forest Service boundary (Case No. 80CW0080).
- Bear Creek Instream Flow (1003007) is decreed for 1.85 cfs (April 15-August 15); 1.3 cfs (August 16-October 31); and 0.75 cfs (November 1-April 14) from the headwaters to the Bear Creek Pipeline (Case No. 08CW0058).
- Ice Cave Creek Instream Flow (1003001) is decreed year-round for 1.0 cfs from the headwaters to the confluence with North Monument Creek (Case No. 80CW0078).
- Monument Creek Instream Flow (1003002) is decreed year-round for 1.5 cfs (Case No. 80CW0081) from the headwaters to the confluence with North Monument Creek.
- North Monument Creek Instream Flow (1003004) is decreed year-round for 1.0 cfs (Case No. 80CW0079) from the headwaters to the confluence with Monument Creek.
- North Cheyenne Creek Instream Flow (1003008) is decreed for 2.5 cfs (April 1-April 30); 3.5 cfs (May 1-October 15), and 1.0 cfs (October 15-March 31) from the outlet of Stratton Reservoir to the North Cheyenne Creek Pipeline (Case No. 08CW0055).
- East Fork Turkey Creek Instream Flow (1003006) is decreed for 1.35 cfs (May 1-August 31); 0.5 cfs (September 1-November 30); 0.3 cfs (December 1-March 31); and 0.6 cfs (April 1 to April 30) from the headwaters to the confluence with West Fork Turkey Creek (Case No. 16CW3075).
- North Beaver Creek Instream Flow (1003003) is decreed year-round for 1.5 cfs from the headwaters to the confluence with South Beaver Creek (Case No. 80CW0076).
- Severy Creek Instream Flow (1003009) is decreed for 1.54 cfs (April 1-August 14) and 0.79 cfs (August 15-March 31) from the headwaters to the confluence with Cascade Creek (Case No. 08CW0056).
- South Beaver Creek Instream Flow (1003005) is decreed year-round for 2.0 cfs from Rainbow Lake outlet to the confluence with North Beaver Creek (Case No. 80CW0077).
- Turkey Creek Instream Flow (1003010) is decreed for 3.7 cfs (May 1-August 31); 1.8 cfs (September 1, November 30); 1.0 cfs (December 1-March 31); and 2.7 cfs (April 1-April 30) from the confluence with East Fork and West Fork Turkey Creeks to the confluence with an unnamed tributary approximately 2.38 miles downstream (Case No. 16CW3085).
- West Fork Turkey Creek Instream Flow (1003011) is decreed for 2.1 cfs (May 1-August 31); 0.75 cfs (September 1-November 30); 0.5 cfs (December 1 to March 31); and 0.5 cfs (April 1 to April 30) from the headwaters to the confluence with East Fork Turkey Creek (Case No. 16CW3086).

General Administration

- Doug Hollister is the Water Commissioner in Water District 10 and has been involved in DWR Water District 10 since October of 2008 (officially assuming the lead role in 2011).

- Richard (Griff) Rainford joined Division of Water Resources in 2017 and assisted Doug Hollister in administering Water District 10 at the time of the interview, but has since taken other employment. Jacob Olson is the current Deputy Water Commissioner.
- DWR is currently in the process of updating the Water District 10 straight line diagram.
- Individual water users typically operate their own headgates. The Water Commissioner maintains daily communication with major ditches.
- The Water Commissioner has a high level of confidence in user-supplied diversion records and reservoir storage reports.
- Water deliveries from upstream reservoirs are not typically charged a transit loss as most releases occur via pipeline.
- The current Water Commissioner understands his predecessor did a relatively good job at coding diversion records and records are believed to be reliable.
- Diversion records are kept on a regular and infrequent basis. Most ditches measure diversions near the headgate and are not generally affected by transit losses at the measurement location.
- Exchanges are frequently operated on Fountain Creek during calls. Often, these exchanges operate to move reusable water supplies upstream. The Town of Manitou Springs operates an exchange from Pueblo Reservoir. Exchanges can only operate when no intervening water rights are in priority, e.g. Fountain Mutual Canal (1000736).
- Fountain Creek has relatively little native streamflow in comparison to the water demands within Water District 10. Accordingly, much of the water used is provided from transbasin water supplies or other fully consumable supplies, which are generally used to extinction, shepherded down Fountain Creek for exchange into Pueblo Reservoir, stored in downstream locations, or sold for augmentation on Fountain Creek and the Arkansas River. Daily administration and accounting of flows allows entities to attempt to achieve full reuse of these supplies.
- The transit loss program is managed by the USGS. Most reuse flows are reported by individual users to DWR and uploaded to the USGS program daily. Ditches, Alternate Points of Diversion and Changed Points of Diversion are read on Monday, Wednesday and Friday and the calculated diversions for the previous days are uploaded daily. The transit loss program operates on an August 1 through July 31 water year, allowing flow information for Municipal users of the program to generally correspond with their budgeting schedules.
- There is a two-day lag in timing from upper Monument Creek to the confluence with the Arkansas River.
- The Arkansas River mainstem call typically extends up Fountain Creek and forces curtailment of junior Fountain Creek water rights.
- The storage right for the Fountain Mutual Irrigation Company in Fountain Valley Reservoir No. 2 (aka Big Johnson Reservoir) operates pursuant to a stipulation among Pueblo Winter Water Participants, Colorado Springs, Pueblo Board of Water Works and

others regarding upstream storage under the modified Pueblo Winter Water Storage Program call of March 1, 1910. This agreement provides some limitations to storage by upstream reservoirs to avoid injury that could have occurred under the junior water right call implemented as part of the Pueblo Winter Water Storage Program.

- Futile Calls are exercised in the Fountain Creek watershed for certain locations and structures typically located on tributaries.
- No local Fountain Creek calls occur during above average water years. No local call was administered on Fountain Creek in 2013 through 2017.
- In the critically dry year of 2012 the call came on March 16th and forced curtailment of Owen & Hall Ditch (1000577), priority #8 and Burke Ditch (1000605), priority #9.

The following provides a normal year call sequence:

Normal Year River Call Sequence

December – March	Some Fountain Creek structures can divert to storage when the thePueblo Reservoir Winter Water Storage Program call is on (1910 call) including Fountain Mutual Irrigation Company, Fountain Valley Reservoir No. 2 (1003641),Chilcotte Ditch Company, and Calhan Reservoir (1003638). Wintertime operation provides benefit to other water users in the watershed, as some structures irrigate through wintertime to build soil moisture.
Runoff April – May	Runoff is limited in the Fountain Creek watershed with flows peaking in late April or early May. As flows decline, local Fountain Creek callstypically come on in late April or early May.Often times the calling right is Fountain Mutual Canal (1000736), priority No. 28.
June– November	After Runoff, native flows drop and administration for native ditch diversions are determined utilizing the Fountain Creek Transit Loss Accounting Program outputs to deliver native waters to the appropriate native diverters. The monsoonal rains influence the native diversions once they develop and contribute significant flows.

Where to find more information:

- Additional information on historical calls is presented in the ArkDSS Task 2.9 Historical Calls memorandum.

Municipal Use

Security, Fountain, and Widefield all have wells which divert from the contaminated Widefield Aquifer. Currently these municipalities are receiving raw water supplies from the Fountain Valley Pipeline, Southern Delivery System (SDS), and or via contract with CS-U; but are working on advanced treatment plant options to resume use of the Widefield Aquifer supply.

Tri-Lakes (Monument, Palmer Lake and Woodmoor) are three communities located in the northern boundary of Water District 10 near Palmer Divide.

Palmer Lake – obtains raw water from intakes at both Glen Park Reservoir and Lower Reservoir. Raw water is also supplemented from Denver Basin wells. During times of a call, Palmer Lake continues well operations as the wells are augmented via exchange from the Tri-Lakes WWP below Monument Lake.

Woodmoor–Woodmoor Water and Sanitation District is the municipal provider. Water supplies are from Denver Basin wells and alluvial wells. The District has recently purchased Chilcotte Ditch (1000593) and must develop infrastructure to deliver these supplies to Woodmoor.

Monument – Water is supplied from Denver Basin and alluvial wells. Augmentation is provided by decreed Lawn Irrigation Return Flow (LIRF) credits and rights on Beaver creek quantified by the Upper Beaver Creek gage.

U.S. Air Force Academy – Treated water is provided by CS-U. The Air Force Academy operates an independent waste water treatment plant on base. Treated effluent is re-used for irrigation on base after being purchased from CS-U. Additional irrigation water supplies are from on-site Pre-SB5 Denver Basin wells.

City of Colorado Springs –CS-U is the major water supplier in Water District 10. CS-U owns, operates, and manages a sophisticated network of reservoirs, pumps and pipelines to deliver potable water supplies. Only about 17 percent of CS-U annual water demand is from local Water District 10 supplies, while transmountain diversions from the Colorado River and converted water rights on the Arkansas River (Colorado Canal/Lake Meredith/Lake Henry) make up seventy percent of CS-U supply. A detailed description of CS-U water system is provided in an operating memorandum.

Forest Lakes Metro District – This district is in the process of development; supply will be from Denver Basin Wells, but the district has the potential to utilize surface water from Beaver Creek as an alternative to Denver Basin wells.

Cascade–The unincorporated community receives water via trade and contract delivery with CS-U.

Triview Metropolitan District– The district serves potable water supplies to their service area, however all of the Triview Metropolitan District is incorporated into the town of Monument and currently relies on Denver Basin Wells. Recently, Triview Metro District purchased shares in the Fountain Mutual Canal (1000736), but must develop infrastructure to access the water source for delivery to the district.

Donala Water and Sanitation District– The District is located north of the City of Colorado Springs and east of the U.S. Air Force Academy. The District serves the development that was later named Gleneagle and the Gleneagle Golf Course, as well as The Ridge at Fox Run, and Struthers Ranch. The District currently trades surface water rights in Lake County with potable water from CS-U. Prior to this acquisition, Donala was dependent on Denver Basin wells. Currently, Donala only uses wells to meet peak demands.

Woodland Park – The Town of Woodland Park is dependent on Division 1 wells, and has access to the Homestake Pipeline to receive water from shares of the Twin Lakes Company.

Crystola– Crystola is a community southeast of Woodland Park that receives a water supply from individual wells and treats water via individual septic systems.

Manitou Springs–Manitou Water Works supplies potable water to the Town of Manitou Springs. Water is supplied from Manitou Reservoir, located on North Fork of French Creek, and direct diversions from French Creek from the Manitou Water Works Pipeline “A” (1000869) and “B” (1000970). Manitou Reservoir is typically out of priority and evaporation is offset via exchange from Fry-Ark Project water releases out of Pueblo Reservoir. Manitou Springs has a pipeline interconnect with CS-U for direct delivery of Fry-Ark Project water. The Manitou Springs Water Treatment Plant is located north of the Manitou Incline and all water is typically one use native water, unless previously stored Fry-Ark water is delivered from either the Manitou Reservoir or the CS-U pipeline interconnect. Wastewater is treated at the CS-U Las Vegas WTP via contract. Manitou Springs park irrigation water is provided by the Schriver Park Diversion (1000897) and the Memorial Park Diversion (1000896) via an alternate point of diversion at the Harmes Ditch (1000587) or directly from the Manitou Iron Springs P/L (1000626). All other irrigation within the City is achieved using potable water supplies.

Cherokee Metro District – Raw Water is supplied from alluvial wells located in the Upper Black Squirrel Designated Groundwater Basin and from Denver Basin Exports in Division 1. Water is delivered to the district for municipal use; all waste water is pumped back to the Upper Black Squirrel basin for treatment and recharge. Cherokee operates several alluvial wells for irrigation of two golf courses and relies on Lawn Irrigation Return Flow (LIRF) credits of designated basin groundwater for augmentation. Until the WWTP was moved into the basin, Cherokee Metro treated their waste water and discharged it to the East Fork of Sand Creek where, it was leased for Rule 14 well augmentation.

Security – Raw water is supplied from the Fountain Valley Pipeline, SDS Pipeline, and Widefield Aquifer wells. Security owns shares in Fountain Mutual Canal (1000736) utilized in multiple augmentation plans. Security also owns shares of the Chilcotte Ditch (1000593) and Lock Ditch (1000857) changed to be diverted at Chilcott in case 06CW0117. These supplies are also used for augmentation. Security has recently leased water produced by the Catlin Lease-Fallow Pilot Project from the Lower Arkansas Valley Super Ditch Company and Lower Arkansas Valley Water Conservancy District.

Fort Carson–Fort Carson receives treated water from CS-U and, to the extent demand requires, Ft. Carson reuses their WWTP effluent. When excess reusable effluent exists, CS-U maintains dominion and control of the resource.

Fountain – Fountain owns shares in Fountain Mutual Canal (1000736), Chilcotte Ditch (1000593), Womack Ditch (1000709), Miller Ditch (1000585), and Crabb Ditch (1000596). Fountain also owns and uses water from Widefield Aquifer wells and Keeton Lake Reservoir (1003635), plus receives water from the Fountain Valley Pipeline and has plans to tap into the SDS Pipeline. Fountain has also recently leased water produced by the Catlin Lease-Fallow Pilot Project.

Widefield – The community of Widefield owns 0.5 cfs in the Owen and Hall Ditch (1000577) and has wells in the Widefield Aquifer and Jimmy Camp Creek alluvium. Some wells owned by Widefield remain uncontaminated in the Jimmy Creek area. Widefield also owns water decreed to Gates/Cody Land Development Company in W0307. This decree quantified “salvage” water from development that was approved to be used outside of the priority system. Widefield also owns changed water rights in District 13.

Where to find more information:

- Additional information on Colorado Springs Utilities water use is included in the ArkDSS Colorado Springs Utilities Operations memorandum.

Reservoir Specific Information

Fountain Valley Reservoir No. 2 (1003641) is owned by Fountain Mutual Irrigation Company and has a decreed capacity of 10,009 af. Physical capacity is much lower than the decreed capacity. End of month contents are relatively complete back to 1957.

Lake Moraine Reservoir (1003654) is owned by CS-U and has a capacity of 1,323 af. The reservoir is located in the South Slope Water System and filled via St. Johns Tunnel, which connects Mason Reservoir in Water District 12 to Lake Moraine Reservoir. The Ruxton Creek Pipeline (1000581) delivers water from Lake Moraine Reservoir. End of month contents are relatively complete back to 1950.

North Catamount Reservoir (1003673) is owned by CS-U and has a capacity of 13,925 af. The reservoir is located in the North Slope Water System and receives Blue River Project water from the Blue River Pipeline plus limited in-priority native water. Water stored in the reservoir can be delivered to CS-U's Mesa, Ute Pass, water treatment plants via pipeline. No bypasses are required, but seepage or other releases that occur are measured. End of month contents are relatively complete back to 1975.

South Catamount Reservoir (1003644) is owned by CS-U and has a capacity of 2,604 af. The reservoir is located in the North Slope Water System and on a tributary with a relatively large watershed area. The reservoir stores water delivered from North Catamount Reservoir and in-priority native water. Native water supplies are high in fluoride and require blending with west slope water supplies. Water stored in the reservoir can be delivered to CS-U's Mesa, Ute Pass, or Pine Valley water treatment plants via pipeline. No bypasses are required, but seepage or other releases that occur are measured. End of month contents are relatively complete back to 1977.

Crystal Reservoir (1003607) is owned by CS-U and has a capacity of 3,523 af. The reservoir is located in the North Slope Water System and may receive water from South Catamount or North Catamount Reservoirs, but is primarily filled from native supplies. Water stored in the reservoir can be delivered to Manitou Hydro Power Plant, Cascade Hydro Power Plant, Ute Pass Water Treatment Plant, Northfield Water System, or Mesa Water Treatment Plants via pipeline. No bypasses are required, but seepage or other releases that occur are measured. End of month contents are relatively complete back to 1966.

Northfield Reservoir No. 1 (1003671) is owned by CS-U and has a capacity of 276 af. The reservoir is located in the Northfield Water System and receives water from Rampart Reservoir through Nichols reservoir, which may include Homestake, Blue River, Twin Lakes, Fry-Ark Project, or Colorado Canal water and exchange water delivered from the Otero Pump Station.

Water may be delivered directly to Pine Valley and McCoullough Water Treatment Plants from Northfield Reservoir. End of month contents are relatively complete since 1967.

Rampart Reservoir (1003670) is owned by CS-U and has a capacity of 40,871 af. The reservoir is located in the Northfield Water System and receives water from the Twin Rocks Pump Station which may include Homestake, Blue River, Twin Lakes and Fry-Ark Project, Colorado Canal and exchange water delivered from the Otero Pump Station. Water may be delivered directly from the reservoir to the Tesla Hydro Plant, McCullough Water Treatment Plant or Pine Valley Treatment Plant. The USFS requires a minimum bypass from Rampart Reservoir of 4 cfs. Seepage from the embankment typically satisfies the bypass requirement. End of month contents are relatively complete since 1977.

Nichols Reservoir (1003674), aka Northfield Reservoir No 4, is owned by CS-U and has a capacity of 586af. It is located below Rampart Reservoir in the Northfield Water System and may receive water from Rampart Reservoir and deliver water to Northfield Reservoir. End of month contents are relatively complete since 1991.

Pikeview Reservoir (1003615) is owned by CS-U and has a capacity of 151 af. The reservoir is located in the Monument Creek watershed and is filled via the Monument Creek Pipeline (1000506). Water stored in the reservoir may be pumped up to the Mesa Water Treatment Plant or released to irrigate Kissing Camels Golf Course and Glen Eyrie grounds. End of month contents are relatively complete back to 1989.

Manitou Reservoir (1003657) is owned by town of Manitou Springs and has a capacity of 710 af. The reservoir is located in the North Fork French Creek watershed and is on channel. Releases from the reservoir are diverted from Fountain Creek at the Manitou Springs Intake. The reservoir is generally maintained at full capacity.

Bigtooth Reservoir (1003668) is owned by CS-U and has a capacity of 277af. The reservoir is located on South Ruxton Creek and is on channel. It is generally filled from Lake Moraine and releases are piped to the Ruxton Hydro Plant, Manitou Hydro Plant, and Mesa Water Treatment Plant. End of month contents are relatively complete back to 1966.

Tributary Specific Information

Specific water rights discussed during the Water Commissioner meeting are listed below.

Monument Creek

- Star Ditch (1000501) - Structure currently inactive and maybe candidate for 2020 abandonment list.

- Anchor Ditch No. 1 (1000818) - DWR has incorrectly plotted the location of this structure. Actual structure diverts from an upstream location. This ditch was changed to several points upstream for use by Palmer Lake.
- Monument Ditch No. 2 (1000504) – Used for irrigation.
- Welty Ditch – New Point (1000738) – Used for irrigation in Beaver Creek Drainage.
- Nevins Water (1005017 – 1005023) – Groundwater well network that provides water for irrigation and minor domestic supply near headwaters of Monument Creek.
- Mt. Herman Ditch (1000866), Monument Ditch (1000503), and Close Ditch No. 1 (1000867) – All used for irrigation and municipal purposes.
- Jakes Lake Intake (1000921) – Previously used as the augmentation intake to irrigate nearby golf course. May be utilized in the future for irrigation.
- Moonshine Ditch (1000642) – Historically used for irrigation, now used as an augmentation supply to fill nearby lake.
- Cozzens Ditch No. 1 (1000531) and Cozzens Ditch No. 2 (1000532) – Structures currently inactive and maybe candidates for 2020 abandonment list.
- Cropper Ditch (1000651) – Ditch system affected by fire. Only irrigates about 5 acres currently.
- Austin Bluffs Pipeline (1000659) – Diverts from West Monument Creek below Tesla Hydroelectric Plant. Delivers water to Pine Valley and McCullough Water Treatment Plants.
- Monument Creek Pipeline (1000506) – Diverts native water and exchanges reusable water into Pikeview Reservoir. Water is then either pumped up to Mesa Water Treatment Plant or to irrigate Kissing Camels Golf Course or released via gravity to the Non-Potable System. All non-potable uses.

Fountain Creek

- Glen Eyrie Pipeline (1000520) – Used to irrigate Kissing Camels Golf Course and Glen Eyrie grounds.
- Hays Ditch (1000788) - Structure currently inactive and maybe candidate for 2020 abandonment list.
- Cascade Creek Diversion (1000572) – CS-U diversion on Cascade Creek. Town of Cascade trades CS-U with water source on upper Fountain Creek for local water supply as mentioned above.
- Colorado Springs Pipeline (1000627)– Provides water to Ruxton Hydroelectric Plant. Diversions are previously recorded under WDID 1000874. Account 2 for this structure has a pickup on Ruxton Creek upstream of the Manitou Hydroelectric Plant and can sometimes sweep the creek.
- Dark Canyon Ditch (1000655) – Is pickup for Colorado Springs Pipeline on South Ruxton Creek. All records maintained under WDID 1000581.

- Schriver Park Diversion (1000897) – Supplies irrigation water to town of Manitou Springs.
- Memorial Park Diversion (1000896) – Supplies irrigation water to town of Manitou Springs.
- Harms Ditch (1000587) – Water right has been transferred to other locations for diversion by town of Manitou Springs and other owners for multiple purposes.
- 33rd St. Pump Station (1000883) – Operates as an alternate point of diversion to El Paso County Canal (1000601). Water maybe pumped from Fountain Creek to CS-U’s Mesa Water Treatment Plant
- Bear Creek Pipeline (1000535) – Owned by CS-U. Inactive status due to Bear Creek water quality concerns. CS-U changed point of diversion downstream in case 15CW3008 and intends to divert at new location in future.
- Fountain Mutual Canal (1000736) – Owned by Fountain Mutual Irrigation Company and is often the calling right on Fountain Creek. Diverts native Fountain Creek water. 5,792.61 shares are in transition from irrigation use to augmentation and municipal uses. Approximately 2000 shares remain in irrigation. Fountain, Security, and others all own shares in the company. Accounting for diversions is completed by the Company and provided to DWR.
- Bruening Feeder No. 2 (1000547) and Bruening Conduit No. 1 (1000549) – Divert to fill aesthetic pond at development. Out of priority depletions are augmented by Fountain Mutual Irrigation Company shares.
- Broadmoor N Spring Ditch (1000665) and Broadmoor S Spring Ditch (1000666) – These rights were abandoned in 84CW0067.
- Spring Creek Aug Station (1000968) – Is an augmentation station for changed Fountain Mutual Irrigation Company Shares.
- Dixon Ditch and Pipeline (1000542) – Owned by El Pomar Foundation and used for irrigation of housing development west of golf course.
- Broadmoor Pipeline (1004612) – Owned by CS-U. Conveys water from Rosemont Reservoir (1203820) to Penrose Reservoir (1003682) and Fisher Canyon Reservoir (1003688). Water is used for irrigation at three Broadmoor golf courses.
- North and South Cheyenne Pipelines (1000608, 1000537) – CS-U owns diversions on both North Cheyenne and South Cheyenne Creeks. The pipeline typically delivers water to Mesa Water Treatment Plant. However, water can also be delivered via gravity to Gold Camp Reservoir (1003646), and South Suburban Reservoir (1003645). Alternatively, water from the pipeline can be pumped to Penrose Reservoir or Fisher Canyon Reservoir.
- Spring Run Reservoir 2 (1003677) – Used for irrigation at the Myron Stratton Home.
- Curr Reservoir (1003649) – Owned by Cheyenne Country Club. Filled with water decreed to Gates/Cody Land Development Company in W0307. This decree quantified “salvage” water from development that was approved to be used outside of the priority system.

- Stubbs and Miller Ditch (1000567) – Structure has continued use for irrigation and also used as a component of CS-U water quality program. Structure can divert sewage spills from the river which have occurred at upstream locations. In turn, releases are made from a storage pond adjacent to structure with better quality water. River remains whole and program helps to ensure down river water quality.
- Security Water System (1000862) – is an aggregated structure owned by Security.
- Clark Ditch (1000969) – Structure does not physically exist.
- Miller Ditch (1000585) – Owned by Fountain and changed to divert at Chilcotte Ditch.
- Chilcotte Ditch (1000593) – has many owners including Woodmoor, Fountain, Security, CS-U, and El Paso County. The augmentation station is located just upstream of historic diversion point of the Crabb Ditch (1000596) and discharges back into Fountain Creek.
- Liston & Love Ditch (1000583 and 1000735) – Prior to 1975, these water rights diverted at same location under 1000583, then 1000735 was diverted at a different location between 1975 and 2006. Then 1000735 was changed to location of 1006775.
- Owen and Hall Ditch (1000577) – Senior water right on Fountain Creek. 0.5 cfs used for augmentation and remaining water right used for irrigation. CS-U owns irrigation component and Widefield owns 0.5 cfs augmentation portion.
- Tom Wanless Ditch (1000596) – now diverted at up to 8 groundwater wells as alternate points of diversion. Recorded under Mills Ranch Wells No. 1-8 (1005508-1005514) and record aggregated under structure 1005896.
- Reed Ditch No. 2 (1000704) – is abandoned.
- Bear Creek Ditch No. 1 (1000534) – Water rights need to be re-tabulated by DWR.
- Talcott & Cotton Ditch (1000568) – Cotten Slough Ditch (1000649) provides supplemental irrigation to about 5 acres at a house to the same irrigated lands irrigated by Talcott & Cotton.
- Irvine Ditch (1000589) – Changed to Irvine Ditch Well A (1005163).
- Dr Rogers Ditch (1000600) – Diversion point and acreage are being corrected in current pending water right case by City of Fountain, which will also change the right to include municipal use.
- Jackson & Burke Ditch (1000806) and Burke Ditch (1000605) – Correct headgate location and irrigated acreage treated as diversion system.
- Young & Calaway Ditch (1000764) – is recorded under Toof & Harman Ditch (1000761). A portion of the water right is diverted at Wood Valley Ditch (1000763) for irrigation. Ditch operates in winter and is used for stock water.
- Wood Valley Ditch (1000763) – Used for irrigation.
- Bannister Ditch (1000744) – Changed to divert from alternate point Bannister Sump Well (1005707). Irrigation is correct and is comingled with CWPDA wells, rule 14.
- Sutherland Ditch (1000760) – Changed to Fountain Underflow System (1000759). Any amount above 1.8 cfs is diverted and augmented under wells Frank Mass Jr Well No 1 (1005613) and Frank Mass Jr Well No 2 (1005692). Depletions are covered under Rule

14. From April 1 through July 31 diversions are allowed at 1.8 cfs with annual volumetric limit of 120 af of historical consumptive use credit based on specific use when in-priority.

- Benesch Well No 1 (1005607) and Benesch Well No 2 (1005608) –Alternate points for Benesch Ditch (1000745).
- McNeil Ditch (1000756)– Is inactive and may be included in 2020 abandonment list.
- HR Steel Ditch (1000752) – Changed to H R Steel Sump (1005453).
- McElroy Ditch (1000755) – Is inactive and may be included in 2020 abandonment list.
- Glen Cairn Ditch (1000769) – Diverts from Little Turkey Creek and irrigates some lands below Glen Cairn Reservoir (1003530).
- Schluckebier Ditch (1000882) – Decreed for same location as Glen Cairn Pipeline (1000770) on Turkey Creek. Irrigates lands north of Reservoir.
- M W Steele Ditch (1000757) – Changed to divert at M W Steele Well No. 4A (1005823) & M W Steel Well No. 6A (1005824) and used for irrigation.
- Greenview Ditch (1000750) –Surface right that is supplied via booster pump from Fountain Creek. Used for irrigation and for filling Greenview Reservoir (1003532) Reservoir may be filled via pump from ditch alignment, but not operating in recent years.
- Cactus Ditch (1000746) –Used for irrigation.

Rock Creek

This is a tributary to Fountain Creek. A call in this tributary is often determined to be futile.

- Gale Ditch (1000614) – Most upstream diversion from Rock Creek. Owned by May family, Ft. Carson and others. Structure washed out in 2014 and is currently not in use.
- Jones Ditch (1000672) – Inactive Structure on Rock Creek, owned by Schmitt Construction Company.
- Merriams Rock Creek (1000563) – Diverts off of Rock Creek and is owned by Ft. Carson and used to fill a reservoir.
- Northside Ditch (1000612) – Diverts off of Rock Creek and is owned by Ft. Carson but is not used regularly.

Little Fountain Creek

This is a tributary to Rock Creek. A call in this tributary is often determined to be futile.

- Keeton Lake Reservoir (1003635) – Diverts off of Little Fountain Creek and is owned by City of Fountain. Some rights that fill it are decreed as futile, and as such are not administered. The reservoir provides augmentation water for Red Rock Valley District. Water is delivered via pipeline across Ft. Carson and discharged into Fountain Creek for City of Fountain augmentation.
- Womack Ditch (1000709) – Diverts off of Little Fountain Creek and is owned by City of Fountain and Ft. Carson.

- Ripley Ditch (1000559) – Diverts off of Little Fountain Creek and is owned by Ft. Carson. Used to irrigate grounds for military training ops.
- Merriams Ditch (1000562) – Diverts off of Little Fountain Creek. Structure inactive after being washed out.
- King Ditch (1000565) and King Ditch No. 2 (1000566) – Diverts off of Little Fountain Creek. Structures not typically used because limited water availability.