

Colorado Division of Water Resources

2020 Annual Report

Water Division 5



Mt Sopris

“Water is the driving force of all nature”

Leonardo de Vinci

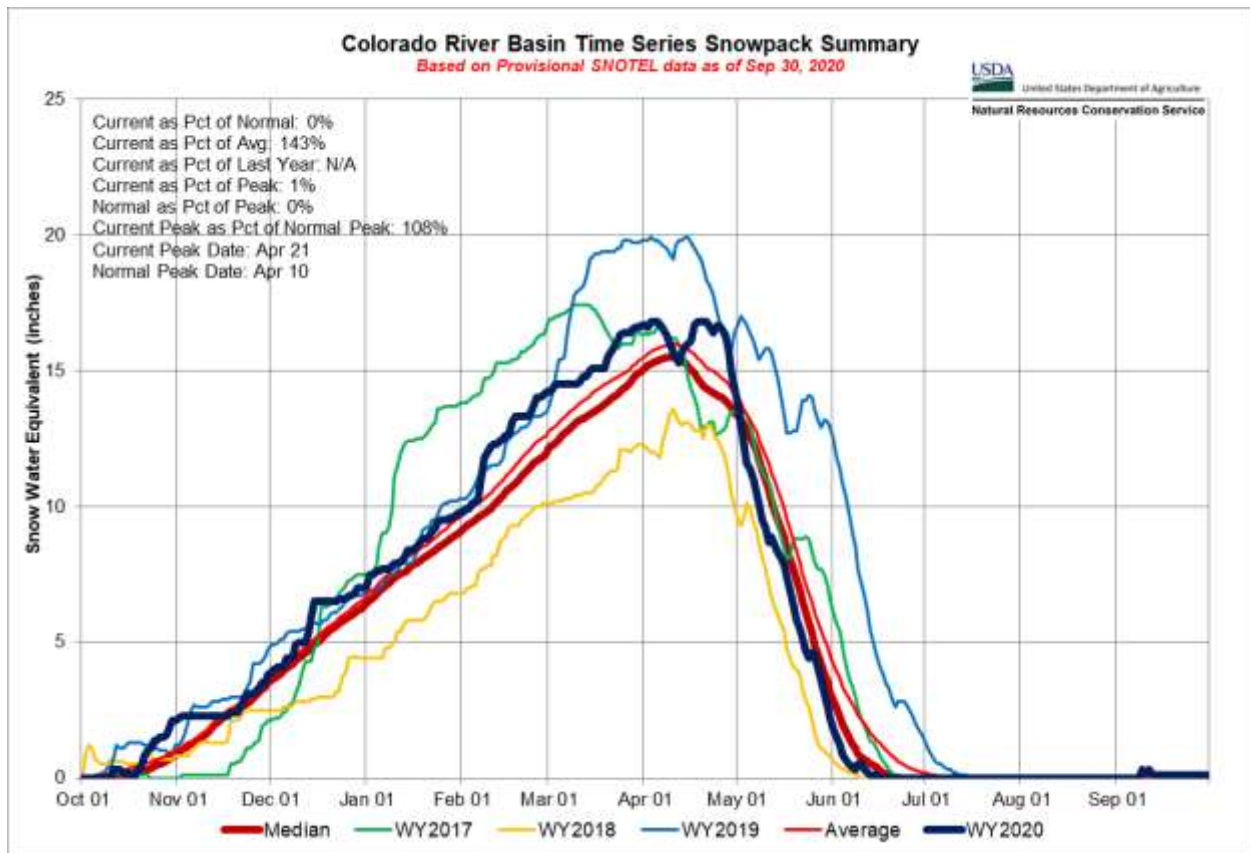
Colorado River Basin

Alan C Martellaro
Division Engineer

Surface Water Supply

“When the well is dry, we’ll know the worth of water.” Benjamin Franklin

Due to the dry summer and fall of 2019, the 2020 Irrigation Year began with below average stream flows. However, reservoir storage was in good shape at just above average. The snowpack trended near to above average until a series of storms beginning in early February improved snowpack and increased hope of overcoming the low soil moisture conditions going into winter. However, dry warm conditions in April and May eroded that hope. By June 1st forecasts at two key gaging stations dropped to well below average with the Colorado River at Dotsero expecting 88% of average and the Colorado River near Cameo 74% of average. The progression of snowpack is shown graphically in the Time Series Snowpack Summary graph below.



The progression of the runoff forecasts for the Colorado River near Dotsero and the Colorado River near Cameo are depicted in the following table.

2020 forecast (most probable undepleted runoff), April-July in KAF

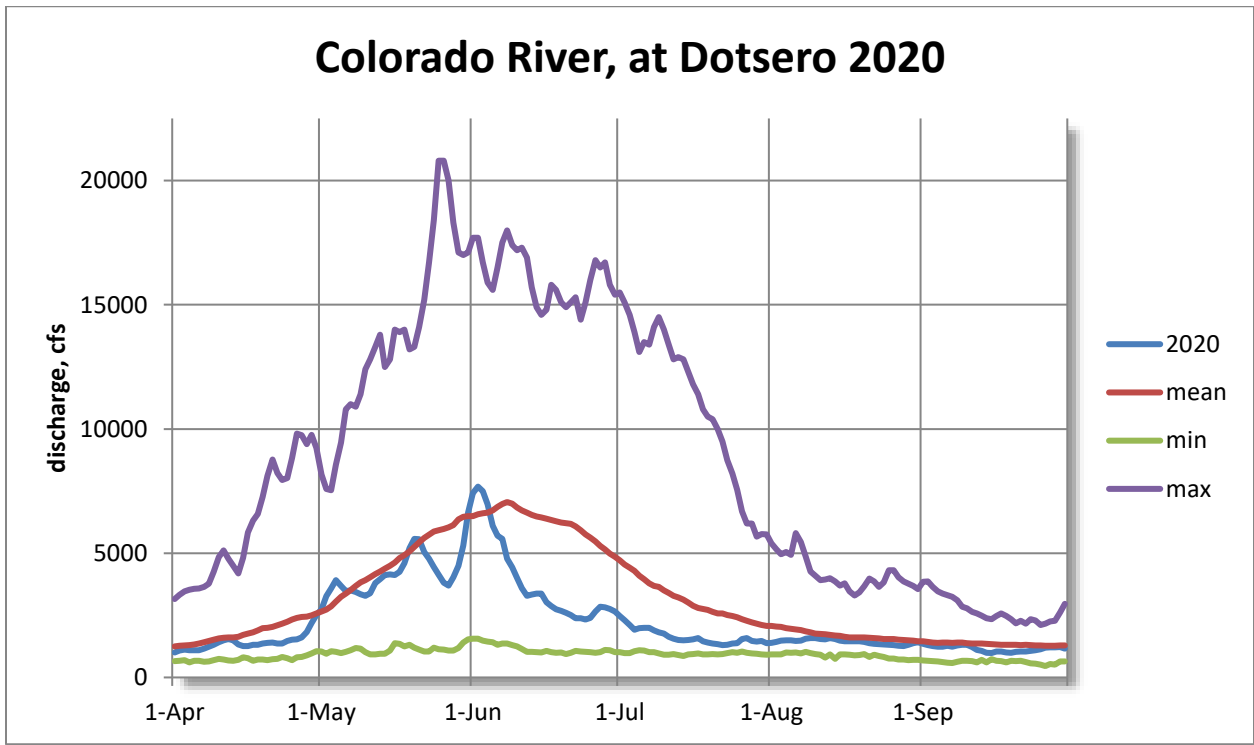
	March 1 st		April 1 st		May 1 st		June 1 st		Average Undepleted
	Flow	% avg	Flow	% avg	Flow	% avg	Flow	% avg	
Dotsero	1550	111%	1480	106%	1400	100%	1230	88%	1400
Cameo	2310	98%	2230	95%	1790	76%	1750	74%	2350

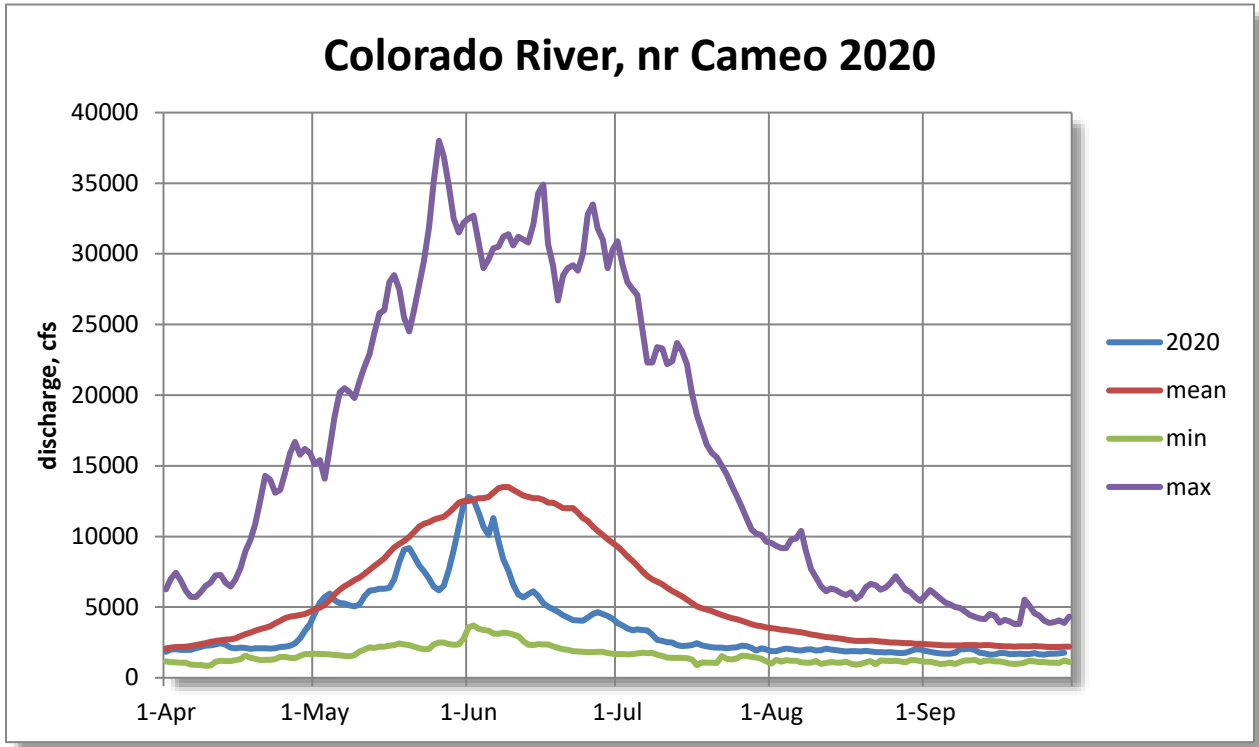
A low snowmelt runoff and well below normal summer precipitation produced low natural flows the entire summer. Once again, the low late summer natural flows were mitigated on the mainstem with releases for the endangered fish recovery program, leaving gaged flow below but much closer to average for those two months. See the table below for a comparison of actual to historic average runoff.

2020 Gaged (depleted) flows, KAF

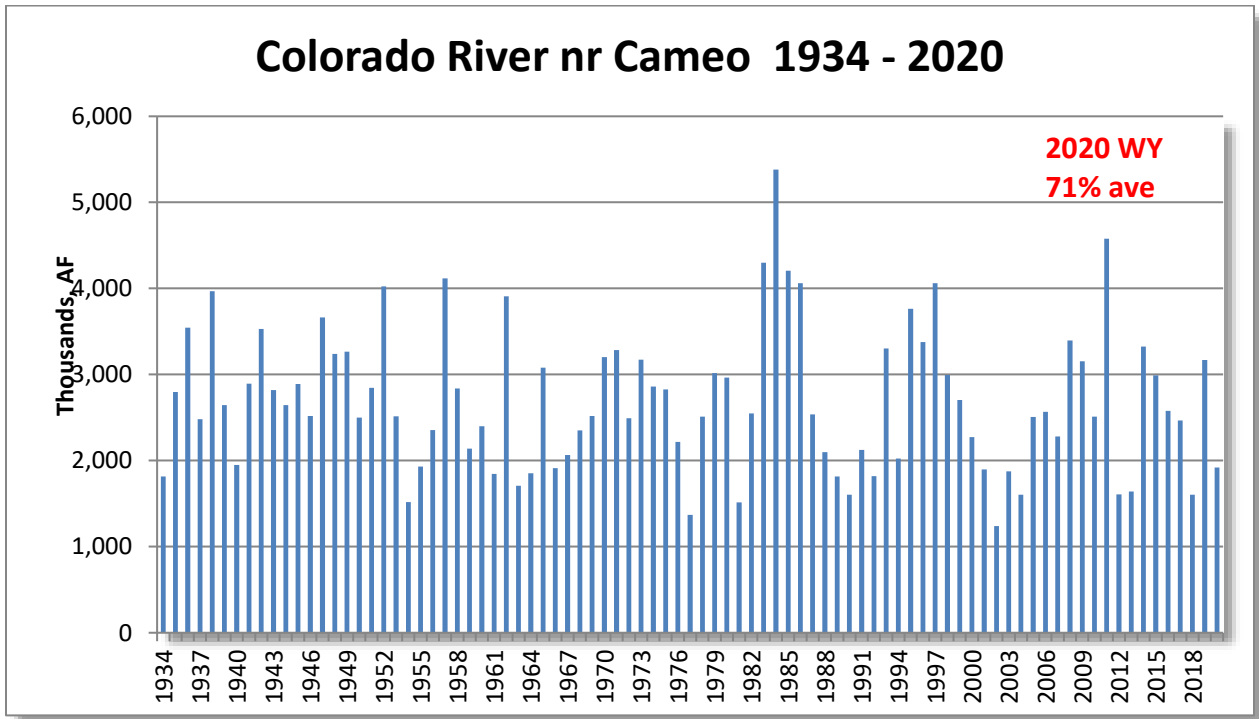
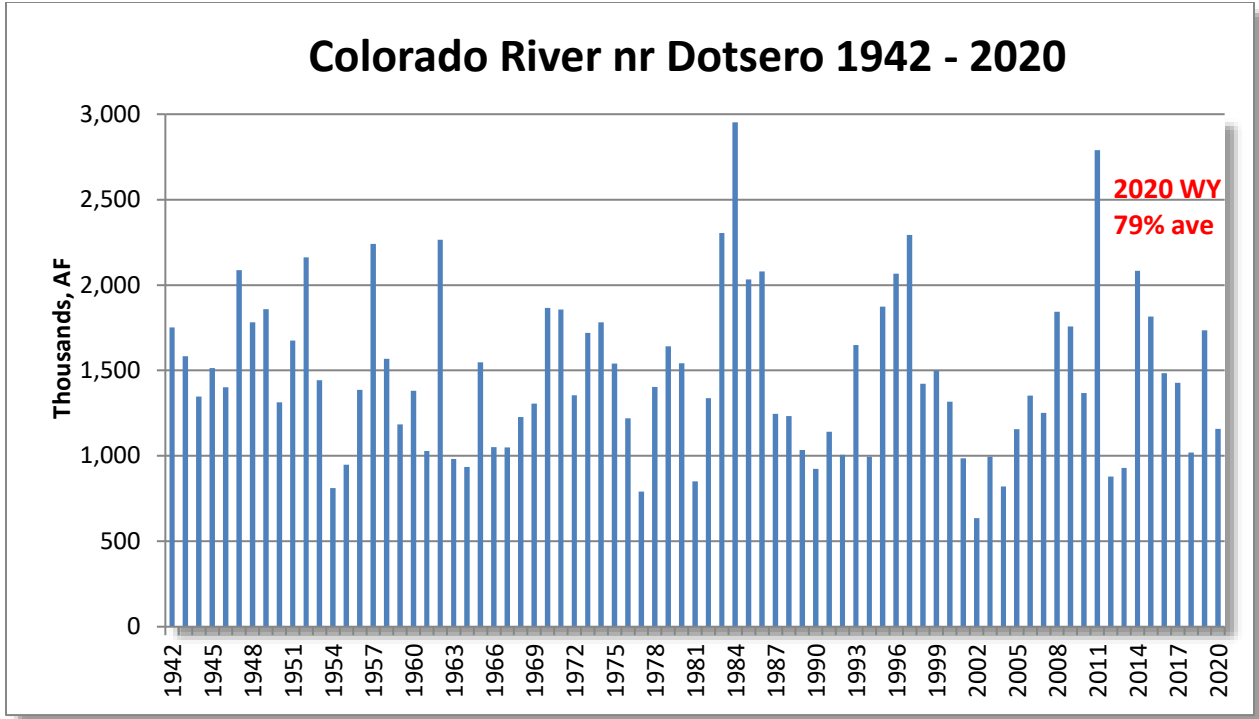
	April-July			April-September		
	Flow, KAF	% avg	Historic avg	Flow, KAF	% avg	Historic avg
Dotsero	673	70%	958	831	73%	1,143
Cameo	1108	62%	1,800	1,327	63%	2,109

The following hydrographs of daily average flows for the Colorado River near Dotsero and the Colorado River near Cameo depict the poor runoff conditions for the year, in spite of a peak flow day near average.





The 2020 irrigation season ended with gaged flow for the Colorado River near Cameo ranking as the 19th driest year in 87 years of record. The flow for the Colorado River near Dotsero ranked as the 23rd driest in 79 years of record. Below are the Colorado River near Dotsero and the Colorado River near Cameo gaged flow histograms for comparison of the 2020 irrigation year with previous years of record.



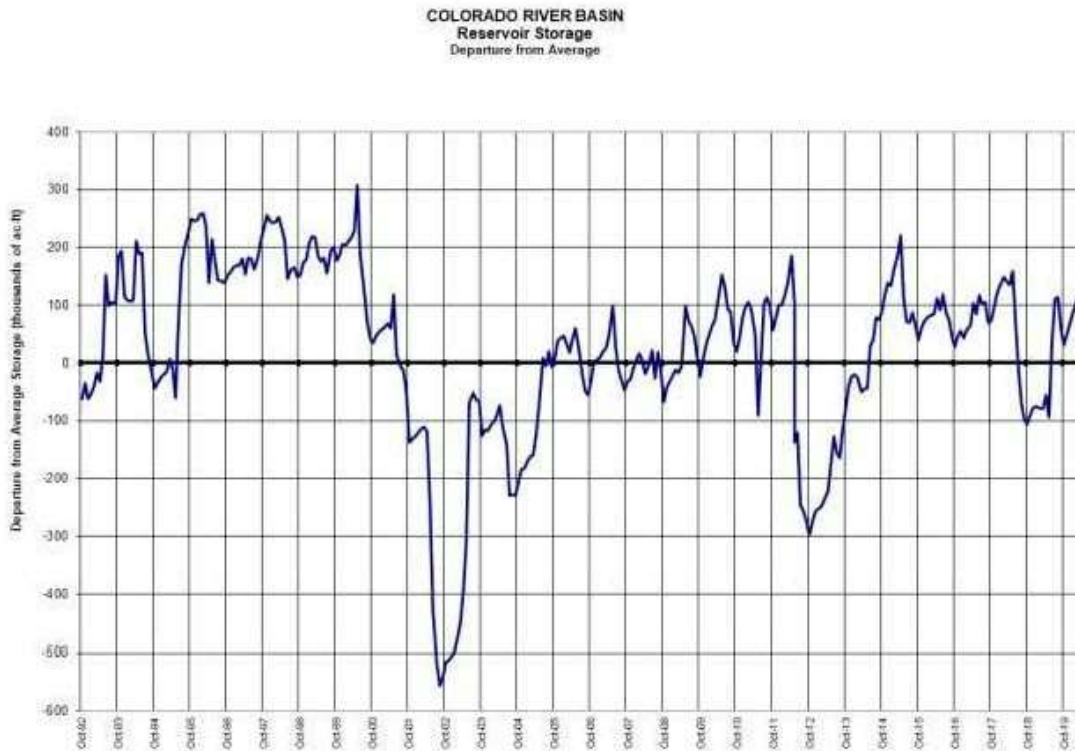
The 2020 irrigation year began with storage in the basin’s major reservoirs at 107% of average, and ended with near average storage at 101% of average. Comparison of end-of-

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year storage for each for year, beginning with the extremely dry year of 2012, is shown in the table below. The physical capacity of these reservoirs is 1,210,000 acre-feet.

Storage Comparison of Major Reservoirs										
	30-Sep 2012	30-Sep 2013	30-Sep 2014	28-Sep 2015	30-Sep 2016	30-Sep 2017	30-Sep 2018	30-Sep 2019	30-Sep 2020	
Dillon Reservoir	198,924	245,855	247,209	251,680	249,814	245,197	199,825	244,919	235,500	
Granby Reservoir	333,593	371,008	522,187	500,314	487,231	518,992	463,575	485,699	401,300	
Green Mtn Res	76,719	107,058	115,215	112,410	107,507	106,317	70,430	117,751	88,200	
Ruedi Reservoir	66,071	86,080	87,909	81,779	77,901	80,421	64,620	84,045	70,600	
Williams Fork Res	48,379	73,041	88,275	88,530	81,544	75,384	80,870	81,938	82,100	
Wolford Mtn Res	31,711	44,523	65,992	44,931	53,363	56,872	37,055	54,271	57,600	
Total	755,397	927,565	1,126,787	1,079,644	1,057,360	1,083,183	916,375	1,068,623	935,300	

Reservoir storage departure from average end of month storage since October 1992 is graphically depicted below. Data used includes Dillon, Granby, Green Mountain, Homestake, Ruedi, Vega, Williams Fork, Willow Creek, Wolford Mountain, and Shadow Mountain Reservoirs. The active capacity of these reservoirs is 1,230,000 acre-feet, and physical capacity is 1,315,000 acre-feet.



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The basin's major reservoirs reached a physical or paper fill in 2020 with the exceptions of Granby Reservoir, Rifle Gap Reservoir, Ruedi Reservoir, and Vega Reservoir.

The table below lists key reservoirs in the basin and their maximum storage for the year.

Reservoir Name	Capacity, AF	Max Storage, AF	Max Storage, Date
Dillon	257,304	260,058	6/26
Granby	543,758	531,513	7/2
Green Mountain	153,639	152,899	7/5
Homestake	42,822	42,601	7/15
Rifle Gap	13,602		
Ruedi	102,369	96,965	7/17
Williams Fork	96,822	96,790	6/24
Wolford Mountain	66,000	65,890	6/1
Vega	33,800	25,200	6/1

In summary, the well below average runoff in 2020 for Water Division 5 was the result of below average snowpack and much below average summer precipitation. Demands on reservoir storage left the basins major reservoirs with slightly less storage at the end of the irrigation season than the previous year.

Surface Water Administration

Green Mountain Reservoir

During 2020, Green Mountain Reservoir was administered pursuant to the Green Mountain Reservoir Fill Protocol. A critical principle of the protocol is a "Fill Plan" prepared by the USBR, allowing the Green Mountain Power Plant to operate where storable inflows delivered to the power plant do not account against a paper fill of the reservoir. Though conditions were not great, projections indicated undepleted inflow to Green Mountain was sufficient to fill the reservoir with some excess to operate the power plant during the fill season. The preliminary 2020 Fill Plan was issued by the Secretary of Interior on April 3, 2020 and did allocate 106KAF Green Mountain inflows to power that were projected to be in excess of the 82KAF required to complete a fill of the reservoir anticipated on July 7th. With inflow allocated to power, Denver Water and Colorado Springs Utilities diverted pursuant to their rights as interference to the Green Mountain Power right from the inflow allocated to power. As the fill season progressed, the fill plan for the 2020 fill season was modified on June 18th, where the allocation to power was reduced to 70KAF with a July 1 anticipated fill date.

By decree the Green Mountain Reservoir start of fill is declared between April 1 and May 15 of each year by the USBR. Generally, only the driest of years have an April start of fill, while most years' trend toward a May 15th start of fill. For 2020, the start of fill was declared on

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May 15, 2020. Beginning on April 24th until the May 15th declaration of the 2020 start of fill, storage of 12,670 acre-feet was accounted under the prior year refill rights. On June 27, 2020, the Green Mountain Reservoir 154,645 acre-foot storage right was declared satisfied pursuant to the Green Mountain Fill Protocol. To prevent an uncontrolled spill, as is customary, Green Mountain Reservoir did not attain the physical fill of 153,639 acre-feet. The maximum physical storage in the reservoir was 152,899 acre-feet on July 5, 2020.

Shoshone Power Plant

The Shoshone Power Plant experience two long term outages in 2020. The first began on February 14th and lasted through July 23rd. The river operated without a call by the power plant for this period, and then with the Shoshone Outage Protocol for the last two days, July 22-23. The terms of the outage protocol consider 17 days each winter as a normal planned outage. Once the 17 day period had run, the flows at the Colorado River at Dotsero gage exceeded the winter flow of 900cfs, and then on March 25th, when the outage protocol changes from the winter trigger of 900cfs flow, flow exceeded 1250cfs. A call by the power plant was implemented and administered from July 24th through July 30th, August 7th through August 9th, and September 4th through September 21st, when the second long term outage occurred. The outage continued through the end of the irrigation year with the river operated under the Shoshone Outage Protocol during this time. The total call days by the Shoshone Power Plant during the 2020 irrigation year was only 132 days.

Mainstem Administration and Operation of the OMID Check Case

The Shoshone call was placed on July 24th and 6 days later the Cameo Call was implemented on July 30th. With very little rain and relatively early demand on the Green Mountain Reservoir Historic Users Pool (HUP), the Grand Valley Entities reduced demand at the points of diversion to preserve the HUP through the end of the irrigation season.

Releases from the HUP for beneficiaries maintained HUP within the drawdown band of the stipulation in the OMID “check case” until mid-October. Total HUP releases for beneficiaries was 54,946 acre-feet. Surplus releases for the 15-mile reach totaled 4,001 acre-feet. The irrigation year ended with 8,090 acre-feet above the drawdown band and the 500 acre-feet minimum needed for winter replacement of beneficiary depletions. Late October surplus releases were limited, as in the past, to leave water in the pool to mitigate low flows in the following spring, known as the April Hole.

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SUMMARY OF COLORADO RIVER MAIN STEM CALLS 2020 IRRIGATION YEAR

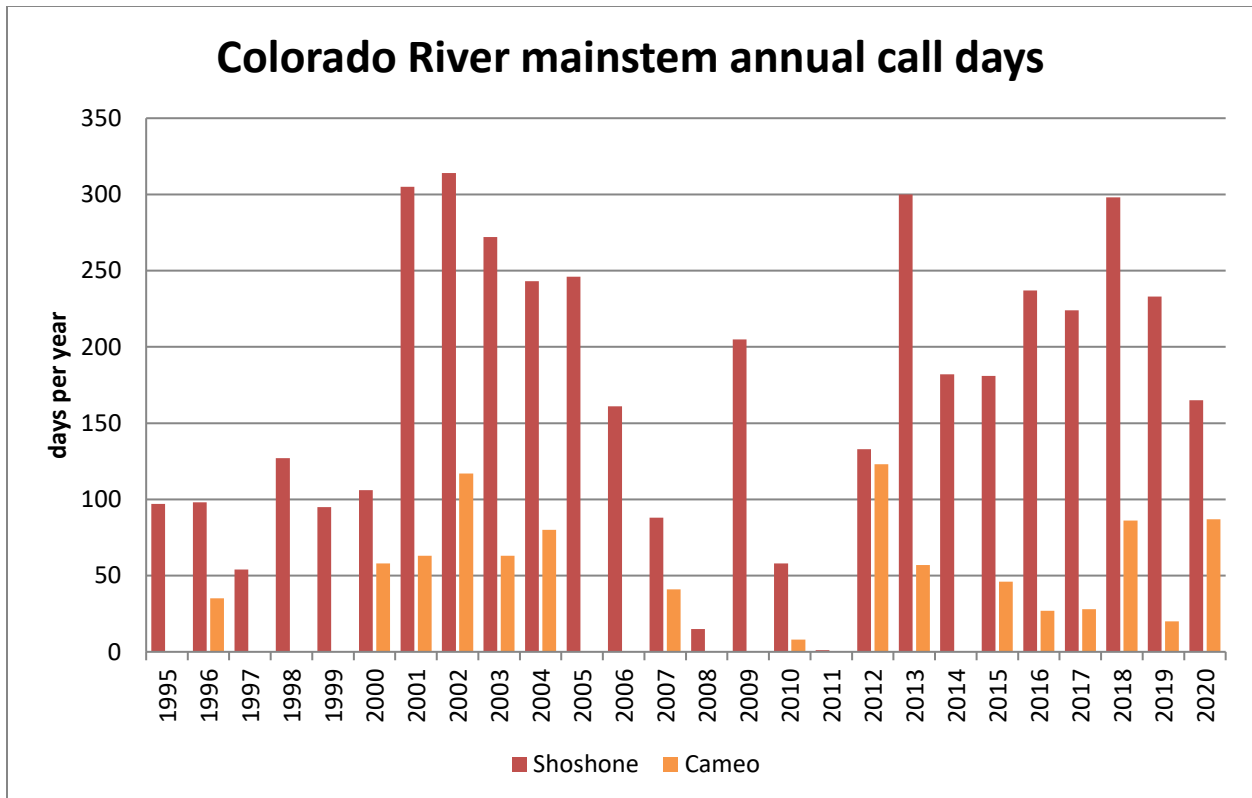
STATUS OF CALL AT THE SHOSHONE POWER PLANT (As determined using the Colorado River near Dotsero gage)

DATE ON	THRU	NO. DAYS CALL ON/OFF	CALLING RIGHT	DECREED AMT.	SWING PRIORITY	SWING PRIORITY ADMIN. NO.	COMMENTS
11-01-19	02-13-20	105	Shoshone Power Plant	1,250 cfs	---	20427.18699	
02-14-20	07-23-20	161	Free River	---	---	---	ShOP 07-22-20 thru 07-23-20
07-24-20	07-29-20	6	Shoshone Power Plant	158 cfs	Blue River Div Project	35238.00000	
07-30-20	07-30-20	1	Grand Valley Canal	119 cfs	Con-Hoosier Tunnel	35927.00000	
07-31-20	08-01-20	2	Grand Valley Canal	119 cfs	CBT Alva B Adams Tunnel	31258.00000	
08-02-20	08-05-20	4	Grand Valley Canal	119 cfs	---	30895.23491	
08-06-20	08-06-20	1	Grand Valley Canal	730 cfs	Moffat Tunnel	30870.26117	
08-07-20	08-09-20	3	Shoshone Power Plant	1,250 cfs	---	20427.18699	
08-10-20	09-03-20	25	Grand Valley Canal	730 cfs	Grand Valley Project	22729.21241	
09-04-20	09-21-20	18	Shoshone Power Plant	1,250 cfs	---	20427.18699	
09-22-20	10-20-20	29	Grand Valley Canal	730 cfs	Grand Valley Project	22729.21241	ShOP 09-22-20 thru 10-31-20
10-21-20	10-25-20	5	Grand Valley Canal	119 cfs	---	30895.23491	ShOP 09-22-20 thru 10-31-20
10-26-20	10-31-20	6	Free River	---	---	---	ShOP 09-22-20 thru 10-31-20

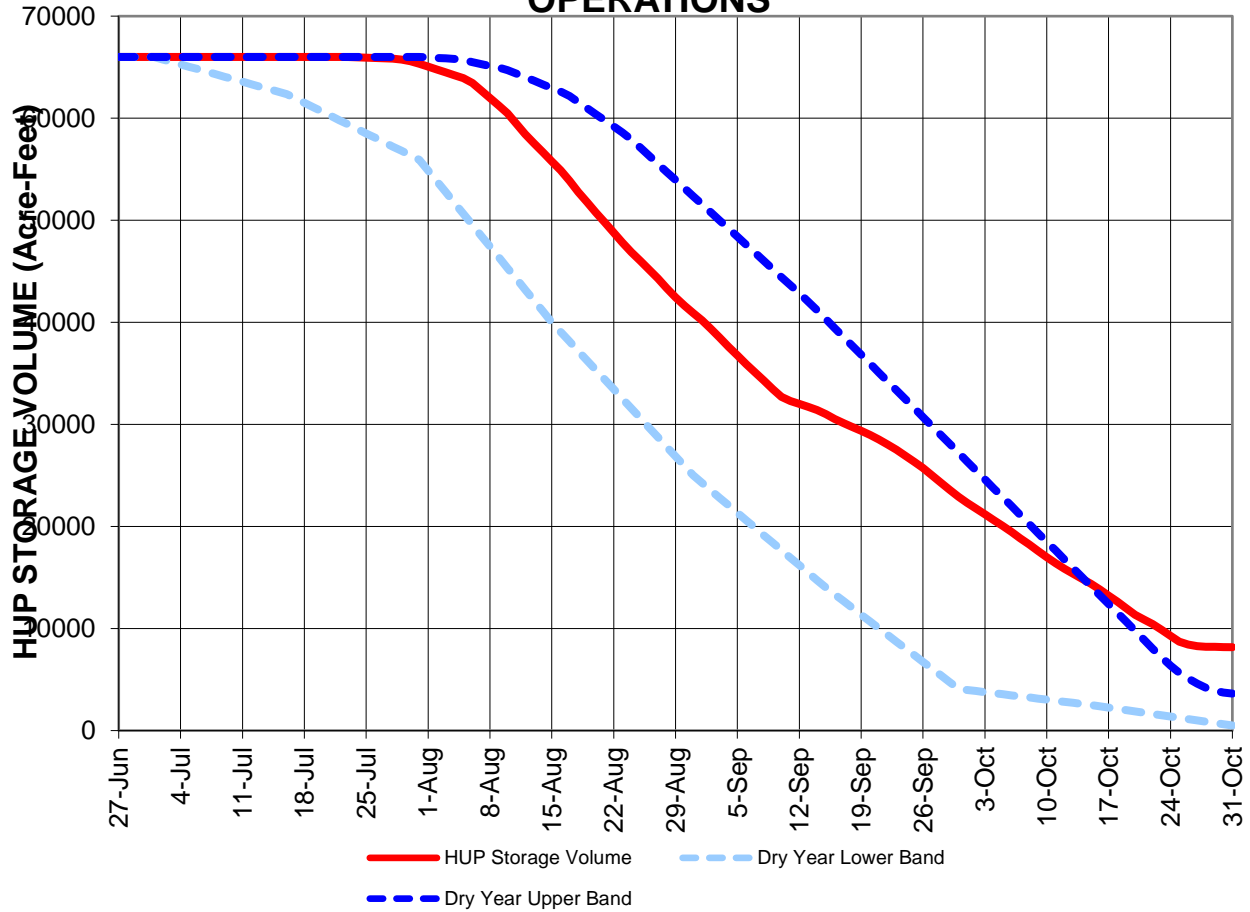
STATUS OF CALL IN THE GRAND VALLEY (As determined using the Colorado River near Cameo gage)

DATE ON	THRU	NO. DAYS CALL ON/OFF	CALLING RIGHT	DECREED AMT.	SWING PRIORITY	SWING PRIORITY ADMIN. NO.	COMMENTS
11-01-19	07-29-20	272	Free River	---	---	---	
07-30-20	07-30-20	1	Grand Valley Canal	119 cfs	Con-Hoosier Tunnel	35927.00000	
07-31-20	08-01-20	2	Grand Valley Canal	119 cfs	CBT Alva B Adams Tunnel	31258.00000	
08-02-20	08-05-20	4	Grand Valley Canal	119 cfs	---	30895.23491	
08-06-20	08-06-20	1	Grand Valley Canal	730 cfs	Moffat Tunnel	30870.26117	
08-07-20	09-10-20	35	Grand Valley Canal	730 cfs	Grand Valley Project	22729.21241	
09-11-20	09-21-20	11	Grand Valley Canal	119 cfs	---	30895.23491	
09-22-20	10-20-20	29	Grand Valley Canal	730 cfs	Grand Valley Project	22729.21241	
10-21-20	10-25-20	5	Grand Valley Canal	119 cfs	---	30895.23491	
10-26-20	10-31-20	6	Free River	---	---	---	

SWING PRIORITY = MOST JUNIOR WATER RIGHT, EITHER TOTALLY OR PARTIALLY IN PRIORITY, U/S OF THE CALLING STRUCTURE

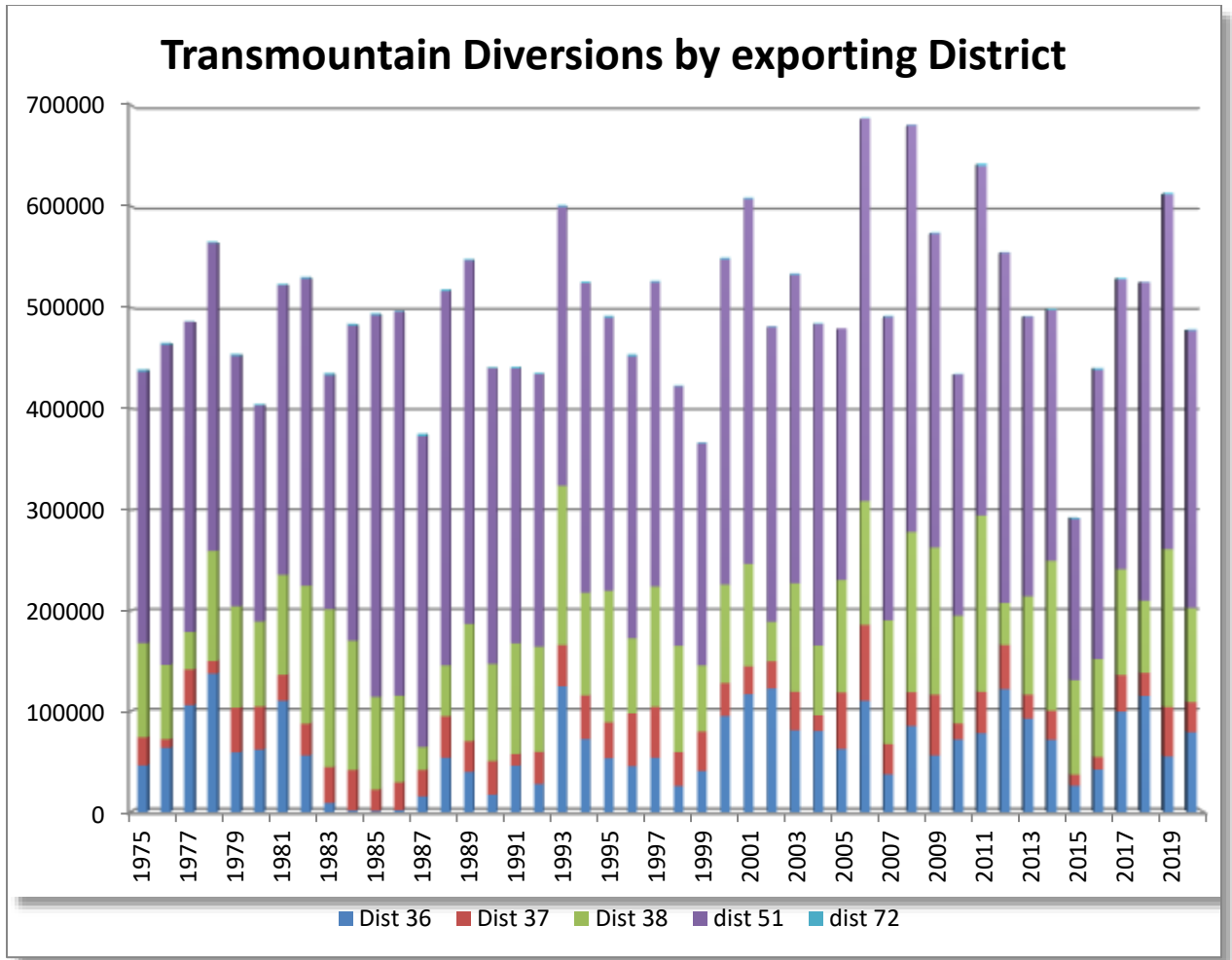


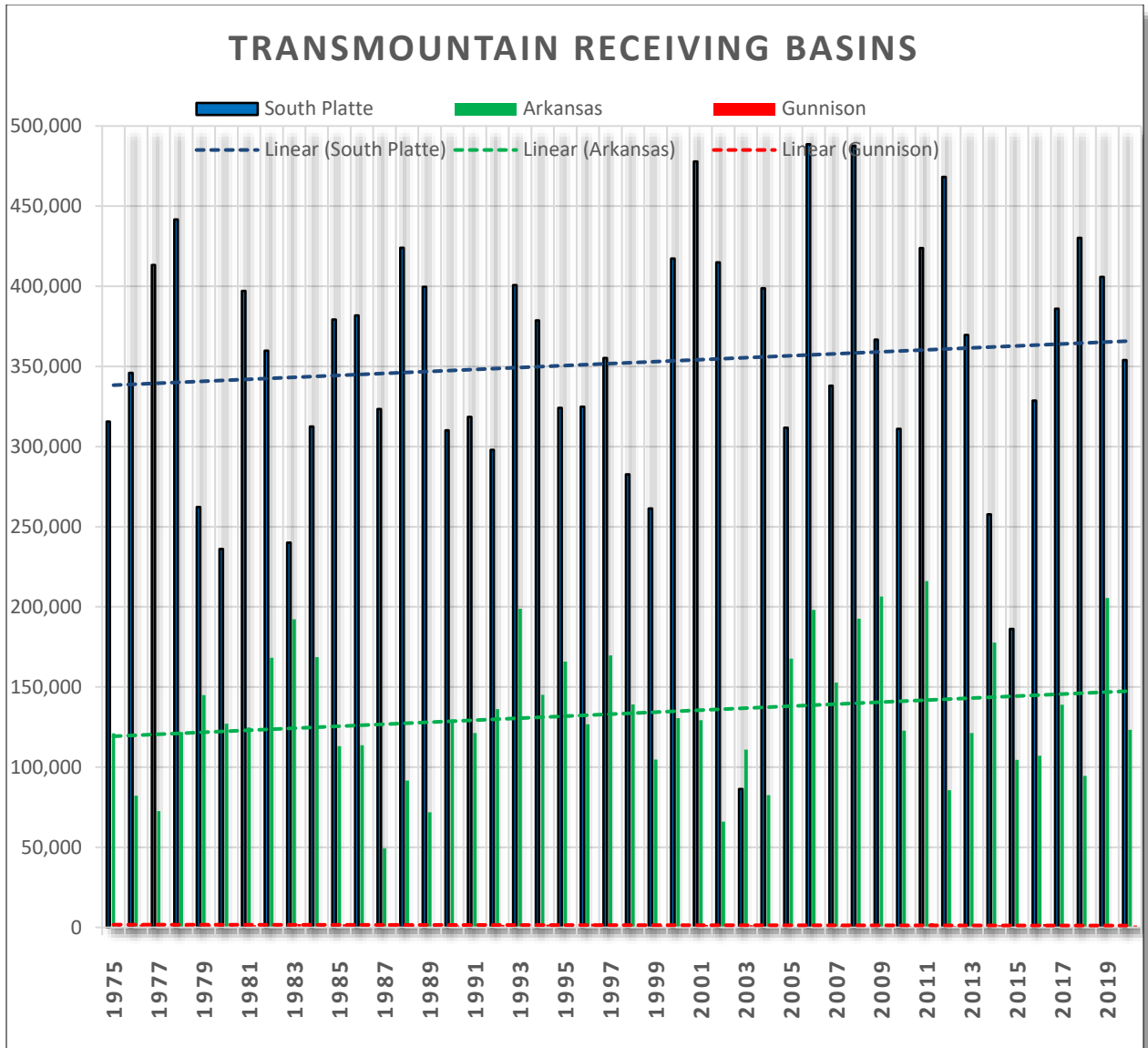
2020 GREEN MOUNTAIN RESERVOIR HUP OPERATIONS



Transmountain Diversions

Transmountain Diversions from Division 5 are primarily delivered to the South Platte and Arkansas Rivers with a minor diversion to the Gunnison River. Total exports from Division 5 for 2020 were 478,484 acre-feet. The volume is 135KAF less the 613,245 acre-feet diverted in 2019, and less than the average for the 1975-2019 period of 484,164 acre-feet, and the 30 year average of 497,801 acre-feet. The poor runoff conditions were generally the limitation on most TMDs with a few exceptions. Denver Water’s Blue River Diversion Project, where poor South Platte Basin supplies and high demand required heavy draw on Dillon Reservoir. Denver’s Moffatt Tunnel also was called upon to meet that demand and had space to store west slope diversions, and therefore bypassed very little water available at their collection systems. The Con-Hoosier System also diverted more than 2019, which was near the long term average for the system.





Surface Water Administration of Tributaries

The majority of Division 5’s surface water administration, as measured by staff hours and operating costs, will always be the curtailment of water rights to satisfy local calls on the many tributaries with rights senior to those on mainstem. The call chronology in CDSS records the administration of these tributaries. The total number of call changes recorded in CDSS on Division 5 tributaries for 2020 were 218. This is an increase over the 179 in the much wetter 2019, but far from the 2018 dry year call changes of 299. The number in all years does not fully represent the workload, as calls that are changed more than once a day during the tail end of snowmelt runoff are not recorded in the call chronology data. Further, shepherding storage releases is a major workload on these tributaries that are subject to call, as many adjustments are made during a call with no call change. Calls for junior rights upstream of a senior call, often deemed a “call within a call”, or in the CDSS

terminology “non-consumptive calls” are generally for exchanges and non-consumptive rights.

Orders pursuant to 37-92-502

Only six administrative orders issued in 2020. One for a groundwater diversion, and 5 for non-administrable reservoirs.

Augmentation Plan Administration

The Augmentation Plan Team assisted administration efforts by sending 53 written communications, attending 13 meetings/site visits, and issuing 1 Order of the Division Engineer. The type and severity of deficiencies that were addressed varied widely across the Division, but included both operational deficiencies (ie lack of adequate measurement devices, excess diversions, inadequate replacement sources, expired and/or canceled contracts for replacement water, etc.) and accounting deficiencies (ie lack of user-supplied data, inadequate accounting, calculation errors, etc.). The approach used by the Augmentation Plan Team to bring a water user into compliance with the terms and conditions of their respective decree(s) varies depending on the type, severity, and frequency of the deficiency, but generally begins with a less formal email correspondence to the water user to notify them of the first-time and/or minor deficiency. If the deficiency cannot be adequately resolved through informal communication, a formal Notice of Deficiencies is sent to the water user with a deadline to provide a response to the Division Engineer that includes a plan to address and resolve the deficiency moving forward. An Order of the Division Engineer is issued to the water user for those deficiencies where compliance cannot be achieved through a formal Notice of Deficiencies.

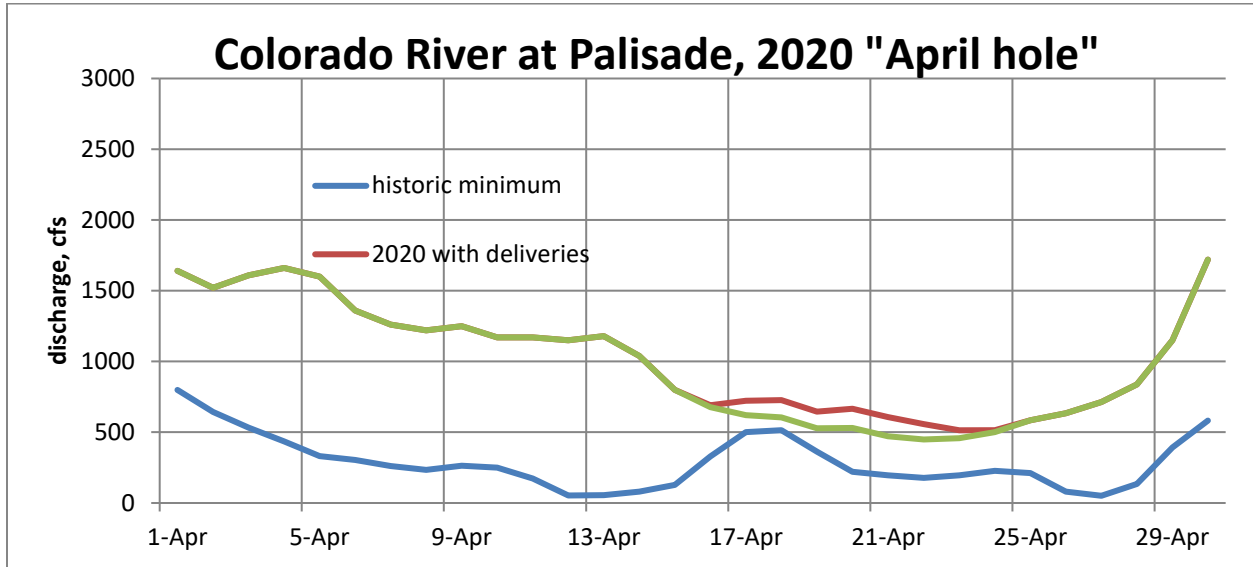
Administrative Exchanges

Formally, 11 administrative exchanges were approved pursuant to CRS §37-83-104 in Division 5 for the 2020 Irrigation Year. They include several that are annually approved for Denver Water, Winter Park additional snowmaking, Clinton Reservoir (flood control), Byers Peak snowmaking, two landscaping companies, a grow operation, and Grand County Road and Bridge. The remaining approvals were first or second time approvals for construction projects or other short-term work. One administrative exchange was approved for the City of Glenwood Springs to mitigate the potential impacts of the Grizzly Creek Fire.

Endangered Fish Recovery Program

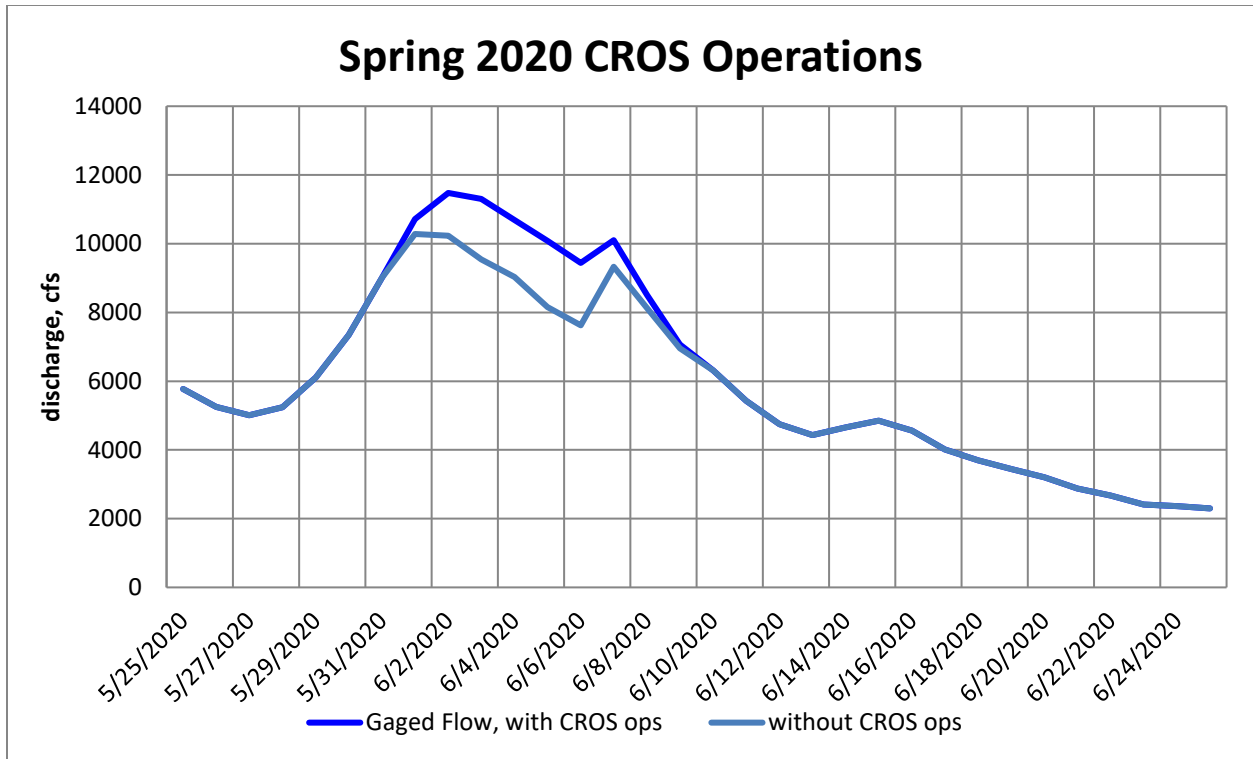
In April 2013, flows measured at the Colorado River near Palisade gage dropped as low as 55cfs. The gage is at the head of the 15-mile reach, considered critical to the recovery program. The target initially was 400cfs for 2014. The USFWS changed the absolute minimum flow to 500cfs, which then was set as the new benchmark for the “April Hole”. Note the USFWS requested in 2019 that the minimum flow be set at 810cfs. In 2020, the USFWS provided a technical basis for the beneficial use of an absolute minimum at 810cfs. Planning begins at the prior year’s HUP wrap-up meeting to mitigate the April Hole. The

graph below depicts the April 2020 flows compared to the historic minimum, where the deliveries depicted are 1,562 acre-feet of HUP surplus water.

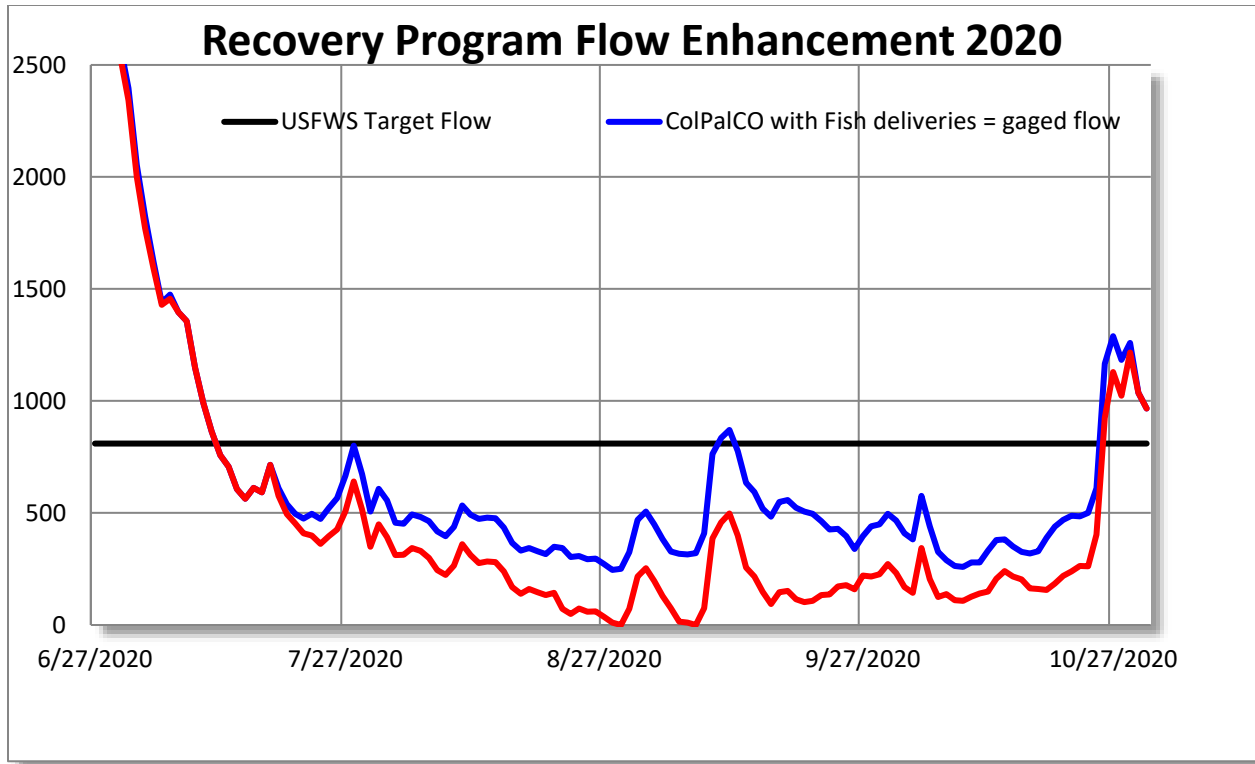


The Coordinated Reservoir Operations (CROS) program was established in 1995 as part of the Upper Colorado River Endangered Fish Recovery Program and patterned after less formal operations that Water Users and Division 5 began in the early 1990's. Preparation for CROS generally begins in March and is refined until triggered in May or June. The primary purpose of CROS is to enhance spring peak flows for a 10-day period in the 15-Mile section of the Colorado River immediately upstream of the Gunnison River. The "15-Mile Reach" is critical habitat for four endangered fish species: Humpback Chub, Razorback Sucker, Bonytail Chub, and the Colorado Pikeminnow. In years with sufficient snowpack, storage of inflows to the reservoirs can be re-timed to pass water downstream to benefit these fish without affecting reservoir yield. The goal of CROS is to time the bypass of storable inflows, release of storage, or other divertible flows at participating reservoirs and operators to enhance the peak at the Colorado River near Cameo gage, such that enhancement will result in flows that exceed 12,900cfs, the minimum deemed to benefit the habitat, and flows that will not exceed 25,000cfs, which is bank full in the Palisade-Grand Junction area. However, as found this year, the USFWS believes any amount for any time period, no matter how brief, will benefit the fish. The decision to trigger CROS operations is made after managers of participating reservoirs are confident that bypasses at their individual reservoirs could be made prior to filling without impacting the yield of their storage rights, and the group determines CROS operations will fall within the acceptable range. Meetings usually become weekly as peak snowmelt runoff approaches.

CROS operations did occur in 2020. Over a 9 day period deliveries enhanced the peak 20,025 acre-feet with greatest day 1,925cfs. The peak day for the Colorado River near Cameo was 11,477cfs. The operation of CROS is summarized graphically below.



With poor stream flow, no storage in Ruedi Reservoir’s 4 out of 5 year pool, and the unlikelihood of an HUP surplus declaration, the USFWS set the Endangered Fish Recovery Program target flow for the Colorado River at Palisade gage at the dry year minimum of 810cfs. As with the previous three years, the intent was to set the target at one level for the entire late summer base flow augmentation period. Though set at the dry year target, lack of rainfall persisted through the summer, and the 810cfs target was not met throughout the augmentation period. The Recovery Program received water from pools in Ruedi, Wolford Mountain, and Granby Reservoir, and the very late in the year releases via surplus declaration from the Green Mountain Reservoir’s HUP. Management of the Highline Canal by the Grand Valley Water Users Association Canal provided returns to the river above the 15 miles reach via the Palisade Pipeline. Considering transit losses, the total of augmented deliveries in the 15-mile reach was 38,419 acre-feet, with a maximum daily delivery of 409cfs on September 19. Without deliveries, the minimum flow would have been no flow on two days.



Homestake Pilot Reservoir Release

The release was proposed by the Front Range Water Council with the coordination of the City of Aurora, Colorado Springs Utilities, and the Pueblo Board of Water Works. The objective of the Pilot Reservoir Release was a one-time release of water from Homestake Reservoir to determine the efficacy of current administration practices as the release was shepherded in the Colorado River and its tributaries from Homestake Reservoir to the state line. The Reservoir Release allowed the State Engineer to investigate, as provided by statute, important aspects of administration practices during streamflow and hydrologic conditions that may not otherwise present themselves, as well as to record and analyze hydrologic influences that would affect the timing and amount of the arrival of the released water at the state line. The results of the Reservoir Release provided valuable information that will help plan for administration during compact administration in order to comply with the Colorado River Compact and the Upper Colorado River Compact. In addition to informing potential compact administration, experience was gained to aid administration of high elevation reservoir releases generally and within the Eagle River basin particularly.

The Reservoir Release occurred between September 23, 2020 and September 29, 2020. The release was gradually stepped up from 26cfs to 174cfs and gradually stepped down to avoid impacts to recreational users and stranding fish. A total volume of 1,666.9 acre feet was released.

Some of the findings of the study:

- Improved diversion dams, headgates and measuring devices may be needed at intervening structures for accurate administration and accounting of deliveries.
- Additional analysis of transit time for various reaches and under various hydrologic conditions may be needed to effectively convey water. DWR data processing tools may require upgrades regarding access to provisional diversion records if they are used for compact administration operations.
- Higher volume test releases in coordination with hydrographic measurements would be needed to determine transit losses for reaches of the river with higher flows.
- Under dry hydrologic conditions, transit times were slower than anticipated for the reaches of the river with higher flows.
- More frequent gage calibrations may be needed to ensure reliable accounting to the state line, including pre- and post-release calibrations at key gages.
- Water users will react to take advantage of any reservoir release.
- Early communication/outreach with water users and stakeholders enhance understanding and avoid operations that could impact, hinder, or complicate efforts.
- Coordinating with key groups as to the precise timing of compact administration operations are needed to avoid public safety issues, inadvertent environmental impacts

A full report can be found on the DWR internet site, documenting the purpose, authority, and detailed findings, including transit losses and travel times.

East Troublesome Fire Burn Area water supply

The East Troublesome Fire began on October 14, 2020 and was fully contained on November 30, 2020. The fire is the second largest in Colorado history, burning 193,812 acres. A total of 366 residences and 214 outbuildings and commercial structures were destroyed or damaged. Recovery efforts to prevent debris flow and flash flooding, and to re-establish vegetation will require construction of detention ponds, re-drilling of water wells, and diversion of water in areas where wells are permitted for household use only. Further, most properties do not have surface water rights for irrigation. Our research found 605 wells in the burn area, of which 395 were household use only. We also identified structures downstream of the burn area that would be impacted by debris flow. Solutions were needed to assist landowners in the recovery process without using wells for unpermitted purposes and/or diverting out-of-priority.

First, Division 5 worked with the State Engineer's Office and other Division Offices to draft the memorandum "Resources for Water Users and Property Owners Impacted by Wildland Fire". The document provides information and points to many resources to aid property owners in recovery efforts across the state relating to groundwater, detention ponds, water rights, SWSPs, and potential funding sources.

Division 5 convened a series of meetings to identify the scope of the problem, investigate the use of SWSPs and administrative exchanges to provide a means of legalizing potential out-of-priority diversions and associated replacement, and identify potential sources of replacement water. Entities involved in this effort are the offices of the State and Division Engineers, Northern Colorado Water Conservancy District, Grand County, Colorado River Water

Conservation District, and Middle Park Water Conservancy District. Division 5 provided all the upfront work, such as:

- Notifying landowners of the issues and surveying them for interest
- Proposing well permitting conditions to aid the process
- Provided well analysis of types and locations of wells
- Developed parameters based on distance from stream and well depth to demonstrate the number of potential well owners that could benefit from an umbrella SWSP
- Outlined components of an acceptable SWSP request
- Identified at least one potential administrative exchange

As of this writing, Middle Park Water Conservancy District will be the applicant for an umbrella SWSP pursuant to CRS37-92-308(5) with technical and financial support of all entities involved and replacement supplies from Middle Park, the River District, and Grand County. The parties are also committed to other means to support the use of the umbrella SWSP or an administrative exchange in “Area B” within the burn zone, including no call or forbearance agreements.

Water Court

For 2020, there were 196 new and 10 amended water court applications for a total of 206 applications. This is slightly less than the 208 filed in 2019. Division 5 submitted 274 Summary of Consultation Reports, including those that were amended or supplemental, to the Water Court for these applications, and submitted 2 written recommendations to the Water Court Judge. In our continued effort to help expedite court cases, nearly all consultations were filed within one week of the consultation meeting (well within the 35 day deadline), and only one extension of time (beyond the 35-day deadline) was requested for an application requiring findings on several hundred wells. Several cases were re-referred to the Water Court Judge. Only one referral occurred prior to consultation with the Referee, thus requiring a written recommendation to the Judge in lieu of a Summary of Consultation. One amended application also required written recommendations to the Judge.

General water court activities in Division 5 followed our plan to assume the role as a technical advisor to the court, and a less litigious participant. The goal is to file very few Statements of Opposition. However, we did file one Statements of Opposition in 2020. Division 5 staff did participate in trial at the request of the Water Judge in 18CW3022, Upper Midnight LLC, in Water District 38. Staff was also called in a civil matter, involving a dispute between ditch owners on St Louis Creek in Water District 51.

No Division 5 related Water Court cases were pending in front of the Supreme Court during 2020.

Groundwater

Well Permitting and Well Drilling activity in 2020 increased over the previous year. This continues a trend since the recovery from the economic down turn of 2007-08. Division 5 groundwater permit applications for exempt and non-exempt wells are reviewed and

approved by staff in both the Division 5 office and the SEO Denver office. The following reflects the efforts of both offices. Well permitting activity was steady during 2020 receiving 880 applications with 822 water well permits approved. The approvals including 541 production well permits, 176 monitoring/observation well permits, 105 monitoring/observation hole notifications, received in 2020. This compares to 787 applications received and 725 permits approved in 2019. Furthermore, drilling activity continued to increase in 2020, with 445 Well Construction and Yield Estimate Reports received in 2020, an increase over 2019 where 387 Well Construction and Yield Estimate Reports were received.

Colorado River Cooperative Agreement

Major negotiation of the Colorado River Cooperative Agreement (CRCA) concluded in 2013 with the signing of the Green Mountain Reservoir Protocol and Protocol Agreement, leaving full implementation conditioned on resolution of several agreements and water rights applications, and a federal court decree. The completed pieces to the CRCA include:

- The main CRCA agreement signed in 2011,
- Green Mountain Fill Protocol, and Protocol Agreement signed in 2013,
- Water Court Case No. 10CW298 for Grand Counties for RCID's,
- Water Court Case No 11CW152 by Denver Water, Grand County and the CWCB for a right of substitution using Fraser River diversions and Gross Reservoir in Water Division 1,
- Denver's "reverse exchange" decreed in Case No. 11CW21 allowing Dillon storage to be exchanged to the Moffatt Tunnel and Williams Fork Reservoir,
- Shoshone Outage Protocol Agreement signed June 2016,
- Water Court Case No. 06CW255, a diligence decree that also provides use of Dillon Reservoir for West Slope purposes and anywhere in the Denver Metro Area as defined in the CRCA,
- Federal Court effectively closed the case without any findings filed to recognize the Green Mountain Protocol as within the scope of the Blue River Decrees.

Remaining CRCA items:

- A ruling in 13CW3077 requesting the Water Court recognize the Green Mountain Fill Protocol is within the scope of the Blue River Decree, and
- The final piece to the CRCA will be the construction of the enlargement of Gross Reservoir. The remaining regulatory approval was issued by FERC on July 17, 2020. The project design is expected to be completed in mid-2021, which includes acceptance of dam design by our Dam Safety branch. Construction is expected to take four years.

Regarding Case No. 13CW3077, the parties have amended the case in State Water Court with a modification of the Green Mountain Fill Protocol Agreement. Initially, the Protocol Agreement required the State Water Court and the Federal Court find sections I, II and III of the Green Mountain Reservoir Fill Protocol consistent with the Blue River Decrees, while only the Federal Court consider section IV. The Federal Court closed the action without

ruling on the Protocol Agreement, and therefore the parties modified the agreement and amended 13CW3077 proposing the State Water Court rule on all four sections of Protocol. The proposal requests the Water Court find sections I, II, and III of the Fill Protocol are consistent with the Blue River Decree and administrable by DWR, and that section IV, which determines repayment of out-of-priority storage owed to Green Mountain Reservoir, is a contract among the parties to the BRD and not the administrative responsibility of DWR. In the interim, and because objectors are either in support or deemed unlikely to block a positive judicial finding, DWR continues to administer the fill pursuant to the protocol without a decree.

Division 5 Administration

COVID

In early March, the state began responding to the corona virus COVID-19. On March 13th many employees began working at home. On March 24th the City of Denver issued a stay at home order, followed on March 25th with a statewide stay at home order. Offices were closed to the public and all staff was directed to work from home. To maintain necessary equipment and pickup deliveries and mail, Division 5 limited staff in office to two people. Fortunately, many processes to allow a smooth transition into the work at home environment with no face-to-face interaction with the public had already been developed. Some of these processes and systems include; CDSS, website data acquisition, Laserfiche, AskDWR, and online well permitting and payment. The statewide stay at home order and later the varying social distancing rules were projected to have a major impact on tax revenue and thus agency budgets. To prevent lay-offs DNR froze hiring. Division 5 was caught with a high percentage of vacancies, requiring staff to take on additional work load, and also to prioritize duties.

Division 5 has provided each other support through weekly scheduled hangouts for the entire division and team meetings through google meets. Staff has done a great job of keeping calendars up-to-date, and making themselves available for impromptu meetings. We have adapted well and appear to be preparing for a new business model where more will work from home, and office hoteling will be the norm.

Abandonment List

The result of 2018-19 work in preparation for the 2020 Abandonment List left 243 water rights to be reviewed by the Division Engineer in the spring of 2020. The list was ultimately published on July 1, 2020 with 158 water rights in 154 structures proposed to be abandoned. The period for filing objections to the 2020 Abandonment List runs through June 30, 2021. To date objections have been filed on 13 structures for 14 water rights. Of these, 3 water rights will be removed from the list, one water right has been revised and the other 9 water rights will remain on the list. The Revised Abandonment List will be prepared for publication on December 31, 2021.

Awards 2020

2020 Division 5 Annual Report

Many stepped up to cover for the high number of vacancies in Division 5. All demonstrated the adaptability and innovation necessitated by the pandemic. Picking a few to honor was a challenge.

The Division 5 Water Commissioner of the Year was Rick Bumgardner. Rick's normal duties are in Districts 52 and 53. Due a retirement and the hiring freeze, Rick added District 37 to his duties, which also included the closely watched Homestake Pilot Reservoir Release.

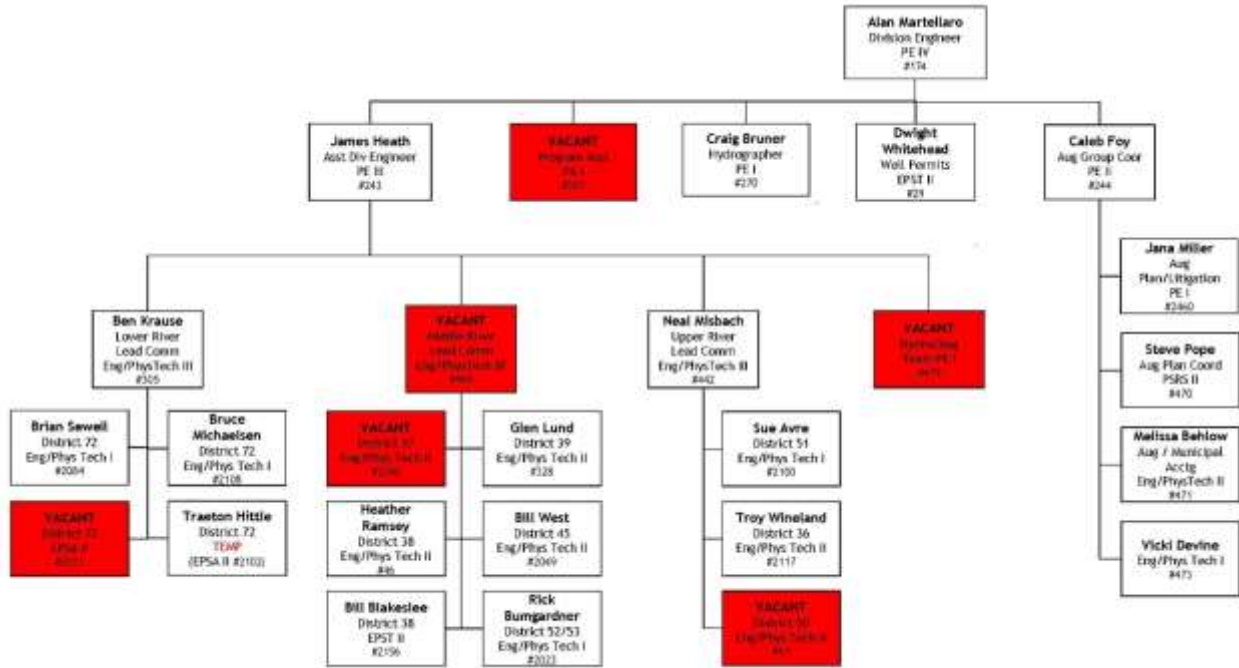
The Division 5 Rusty Shovel is awarded to someone how digs up new dirt. This year the award was given to Ben Krause. Ben is the Lead Water Commissioner for the lower river, and supervised several vacant positions, including one on the notoriously tough Bull Creek. Ben worked with the Bull Creek Reservoir Company and water users to improve an operating plan for administration of the reservoir releases.

We do not issue "Bricks and Mortar" and "Above and Beyond" awards every year, but in response to the pandemic several employees shined. Heather Ramsey not only held the office together during this work at home period, but also helped administer Four Mile Creek and the Crystal River in Water District 38. Heather is recognized for her efforts with the "Bricks and Mortar Award".

Lead Water Commissioners Jake DeWolfe and Neal Misbach were recognized with the "Above and Beyond Award" for supervising and managing their areas short staffed during this very dry year.

Organization Chart

2020 Division 5 Annual Report



I respectfully submit the 2020 Annual Report on behalf of the Staff of Water Division 5, by

Alan C Martellaro, Division Engineer
May 3, 2021