



COLORADO
Division of Water Resources
Department of Natural Resources

To: Erin Light, Division Engineer, Division 6
Sarah Brucker, Deputy State Engineer, Intrastate Water Supply and Litigation

From: Jason T. Ullmann, State Engineer/Director

Subject: Over Appropriation of the White River basin Upstream of the
Taylor Draw Power Conduit (WDID 4302571)

Date: March 5, 2025

Background

On October 23, 2024, Erin Light submitted a letter request to me on the subject of Designation of the White River as Over-Appropriated (“Report”). The Report contains climate, hydrologic, and administrative call information to support a designation of the White River and its tributaries upstream of the Taylor Draw Power Conduit as over-appropriated. In addition, the letter requests that I make a formal determination that the Division of Water Resources (“DWR”) designate that reach of the river and its tributaries as over-appropriated and treat them accordingly for the purposes of administration. For the purposes of the DWR’s administration and well permitting decisions, a stream is considered over-appropriated when “at some or all times of the year, the water supplies of said stream system are insufficient to satisfy all the decreed water rights within that system”¹ (“Over-Appropriated”). The Report is comprehensive and shows that the White River upstream of the Taylor Draw Power Conduit is Over-Appropriated. The Memorandum and supporting documents are attached.

Designation

Based on my review of the Report, I have determined that, effective May 1, 2025, the reach of the White River upstream of the Taylor Draw Power Conduit (WDID 4302571), including all of its tributaries, as more clearly shown on Attachment A (“Affected Area”), is Over-Appropriated. My determination (“Designation”) recognizes the climate, hydrologic, and administrative call conditions that are now present on the White River for the Affected Area. The Designation does not impact the legal ability to appropriate water from the White River nor does it change administration of surface water rights on the White River.

The purpose of the Designation is to provide the formal basis for the Division of Water Resources (“DWR”) to consider the injurious impacts of wells during DWR’s evaluation of new applications for well permits.

Evaluation of Well Permit Applications

¹See DWR *INTERNAL GUIDELINES FOR DESIGNATION OF STREAM SYSTEMS AS OVER-APPROPRIATED*, May 8, 2013.



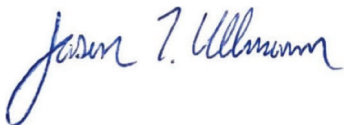
Applications for new well permits or permits to expand the use of existing wells

Beginning May 1, 2025, DWR staff will treat the Affected Area as Over-Appropriated for the purpose of evaluating applications, filed on or after May 1, 2025, for new well permits or permits to expand the use of existing wells.

Applications for new well permits for wells and uses that existed prior to May 1, 2025

To allow a reasonable period of time for the owners of existing wells to obtain a well permit, for wells where the well owner can demonstrate that the well and its uses existed prior to this Designation date of May 1, 2025, DWR will accept applications to permit those existing wells and evaluate the applications without treating their impacts as injurious through December 31, 2025. Such wells may include but are not limited to pond wells or other structures that expose groundwater to the atmosphere. For applications for such existing wells filed on or after January 1, 2026, DWR staff will consider the injurious impacts from those existing wells for the purpose of evaluating the applications.

For these two categories of well permit applications, effective on the dates shown above, DWR staff will presume that the well will materially injure the vested water rights of others and the well permit application must be denied unless the well qualifies for a statutory presumption of no injury or other provision in statute, alone or in combination with State Engineer Policy and/or Guideline, or the well permit applicant has obtained a plan for augmentation decreed by the water court or a substitute water supply plan approved by the State Engineer.

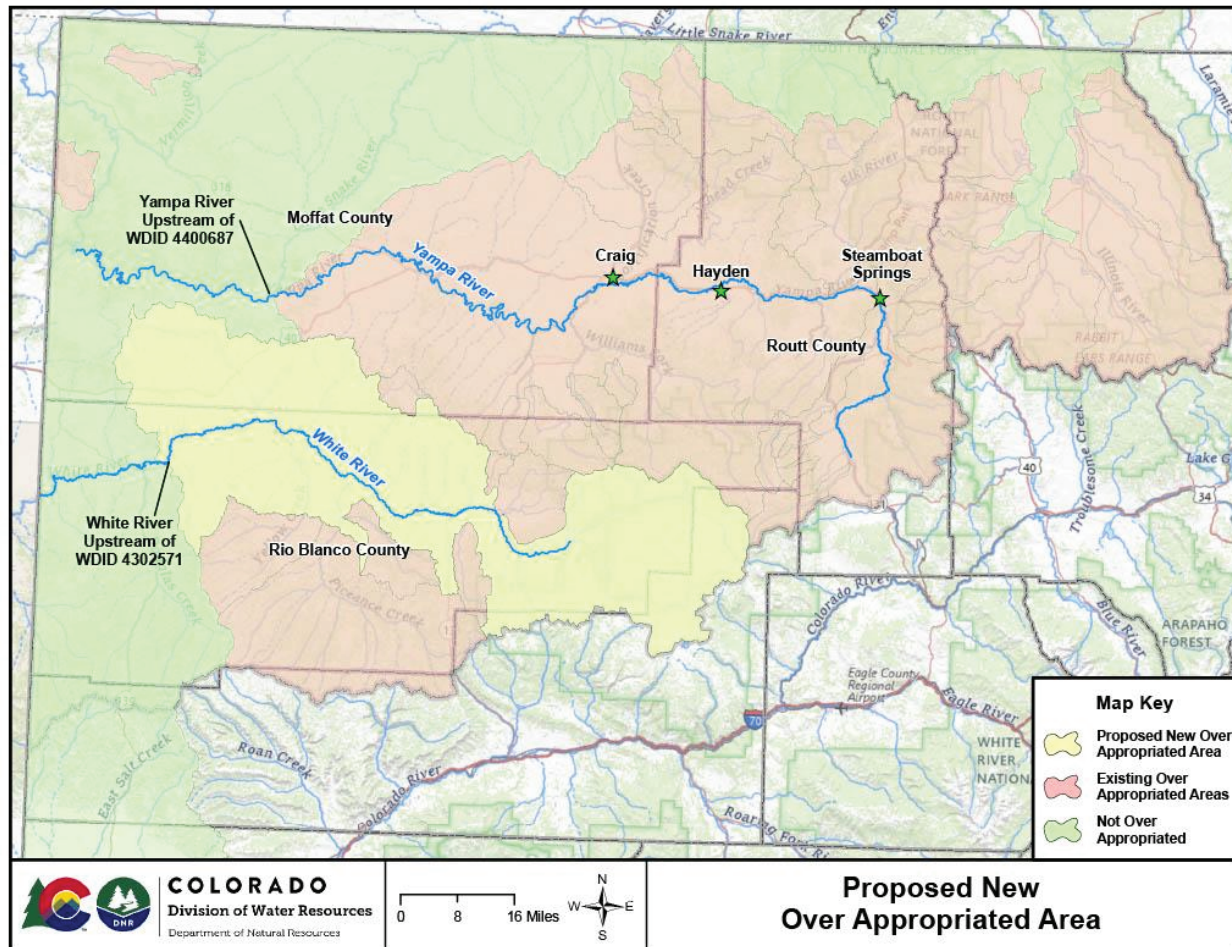


Jason T. Ullmann, P.E.
State Engineer, Director



Attachment A

Area that is newly designated as Over-Appropriated shown in yellow





MEMORANDUM

To: Jason Ullmann, State Engineer
From: Erin Light, Division Engineer Water Division 6
Date: October 23, 2024

Subject: Designation of White River as Over-Appropriated

I herein request that you designate the White River Basin and all of its tributaries upstream of Taylor Draw Reservoir (WDID 4304433) and Power Conduit (WDID 4302571) as over-appropriated. Below is a report that provides a description of the basin, hydrographic records, and the history of water administration of the White River. The information provided in the report is consistent with the Division of Water Resources' Internal Guidelines for Designation of Stream Systems as Over-Appropriated dated May 8, 2013 ("Guidelines").

The effect of this designation will be that exempt well permits will no longer be issued under section 37-92-602(3)(b)(I), C.R.S., under a finding of no material injury, and can only be issued under section 37-92-602(3)(b)(II)(A), C.R.S., the application of which is limited to certain circumstances. If a permit is sought for uses and in circumstances beyond those provided for in 37-92-602(3)(b)(II)(A), a permit may be issued pursuant to 37-90-137(2), which, based on a finding of water not being available for appropriation and the potential for material injury, triggers the need for an augmentation plan designed to replace depletions associated with the use of water from the well.

In December 2022, the owner of the Taylor Draw Power Conduit ("Power Conduit") requested that I honor a call to administer the waters of the White River basin. Pursuant to section 37-92-502(2)(a), C.R.S., I determined that it was appropriate to initiate a call since the Power Conduit senior water right was not being met and there were upstream uses of water occurring that were junior to this water right. This call was set on December 1, 2022 and ran through April 3, 2023 when the flows in the White River increased and both the senior and junior Power Conduit water rights were being met. The call was placed again on July 31, 2023 and ran through September 7, 2023 when the call was taken off the river while repairs at the Power Conduit took place. The call was then placed again, once the repairs were completed, on September 27, 2023, this call of which lasted until January 9, 2024. The call was taken off in January 2024 due to a mechanical malfunction of the power turbine. Though the Power Conduit has been functional since January 2024, the mechanical malfunction has resulted in the owner being unable to completely "sweep" the White River. The malfunction was significant and the owner recently obtained funds to complete the repairs, the repairs of which are scheduled to start this fall. Furthermore, the owner has indicated that once repaired, it is going to request administration of its water rights.

Because of the continued calls for the Power Conduit water right since 2022, during times when the



flows in the White River have dropped below the water right(s) decreed to the conduit, and because of the owners intent to continue to request administration of its water rights once turbine repairs are complete, the White River upstream of the Power Conduit satisfies the criteria for the designation of an over-appropriated stream as defined in the Guidelines. An over-appropriated stream system is one in which at some or all times of the year, the water supplies of said stream system are insufficient to satisfy all the decreed water rights within that system. It is our duty and responsibility to ensure that we protect senior water right holders from new appropriations that cannot be instantaneously curtailed to meet the needs of water right holders, most particularly through the development of wells. In the last ten years, there have been 58 non-exempt and 261 exempt well permits were issued within water districts 43. Since December 1, 2022 , there have been 5 non-exempt and 35 exempt well permits issued within this district.

Per the Guidelines, notification of a stream system being designated as over-appropriated will be provided to all subscribers to the Substitute Water Supply Plan Notification List for the division in which the stream system is located and the Division Engineer may provide notice in other manners if determined that such notice is warranted. As to providing notice “in other manners”, I recommend that we also provide notice to our water users through our email contact lists. These methods of notification are to be provided at least 30 days before the designation takes effect. Furthermore, prior to your decision and prior to notification, I recommend that we hold one in-person and one virtual meeting (or one hybrid meeting) with the public to educate them on what over-appropriation means and how it may or may not impact them. After taking into consideration any comments or concerns raised by the public in these meetings and the report below outlining the justification for such designation, you can make your final determination.



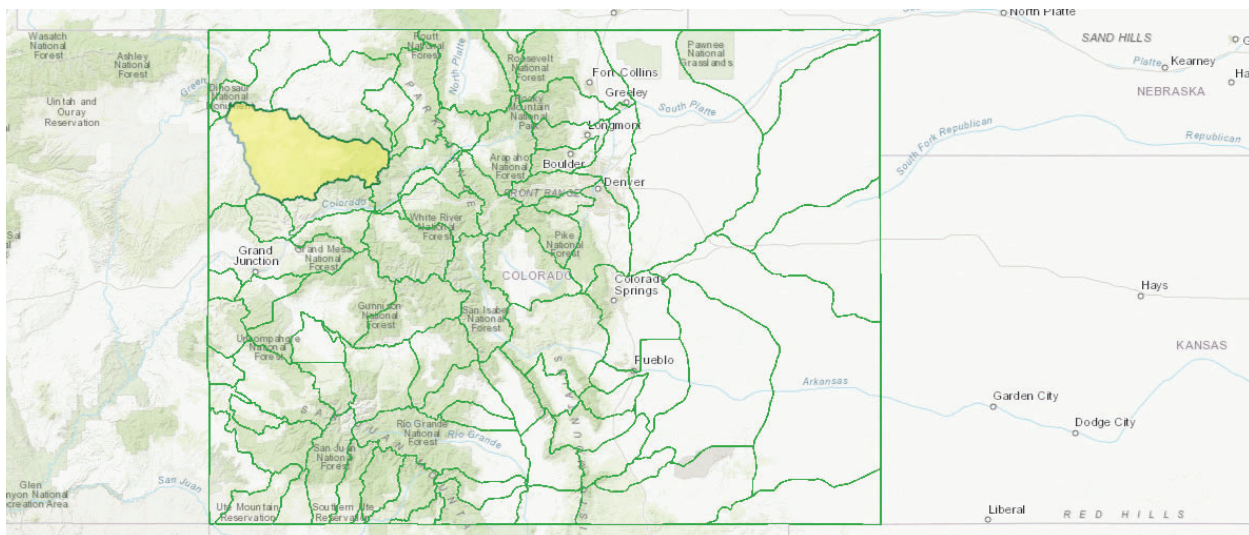
Request for designation of a stream as Over Appropriated

Stream Name **White River**

Description of Basin

The Basin for which this designation is requested is the drainage area upstream of the Taylor Draw Power Conduit, which is located at the UTM Coordinates of approximately 183630.0 mN, 4446161.0 mE, Zone 13N (NAD 83) and is 2,773 square miles in size. The basin has a very diverse topography and climate. The Eastern portion of the basin is higher in elevation with deep valleys and forests with pine and aspen trees. The Western half of the basin is described as High Desert and consists of pinyon and juniper trees with sagebrush and similar vegetation. The elevation ranges from around 5,300 feet on the West to 11,600 feet on the East. Due to this extreme difference, the precipitation also varies greatly across the basin. The White River runs the length of the basin and has numerous tributaries that flow into the river system along the length of the drainage. The Drainage basin includes land in Moffat, Rio Blanco and Garfield Counties.

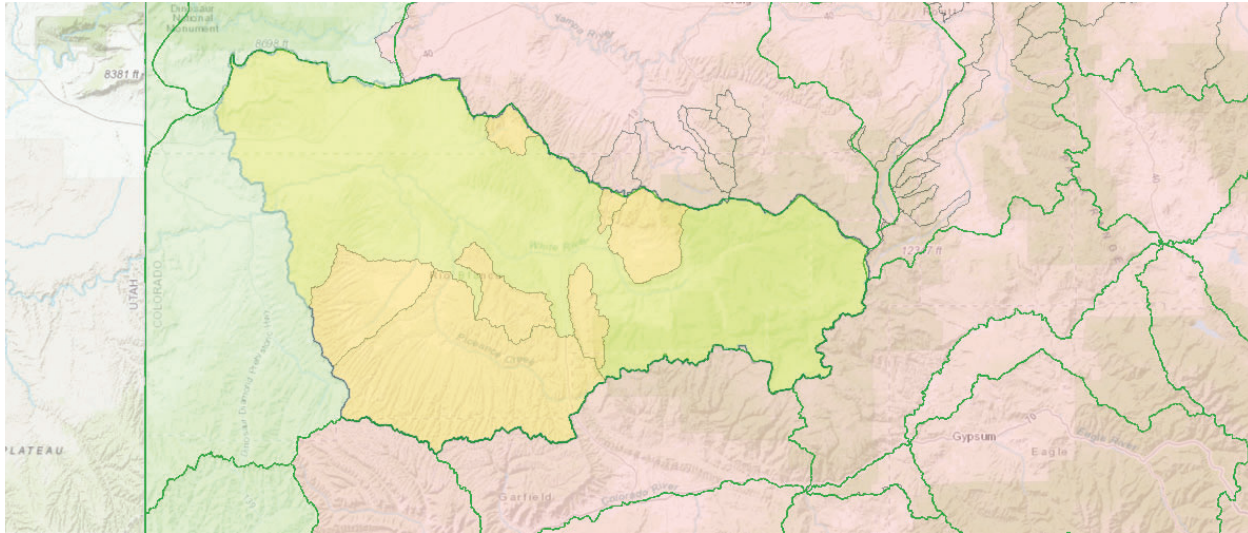
The map below shows the basin from the proposed downstream bounding location of Taylor Draw Power Conduit (WDID 4302571, referred to herein as “Power Conduit”, located at Taylor Draw Reservoir (WDID 4304433), upstream to the limits of the drainage. This vicinity map shows the entire state of Colorado for geographical reference.



Over Appropriated Areas



Portions of this drainage basin are already considered over-appropriated, as shown on the below map. The pink color represents those areas already considered over-appropriated surrounding the White River basin. The orange color represents areas already considered over-appropriated within the White River basin. The yellow color represents that area within the White River basin that would be impacted by this request for designation of over-appropriation. These previously designated areas within the basin are only on tributaries and not on the main stem of the White River.



Overview

This designation of the White River as over-appropriated is being proposed due to a call that was recently placed on the White River at the Power Conduit and due to the drainage experiencing several years of drought. The proposed basin is comprised of approximately 780 active structures, including ditches, pumps, pipelines, reservoirs, and wells, that DWR currently maintains records. The active (with Record) structures with absolute surface water rights total 3,943 cfs. The primary use of these water rights is for irrigation and does not include active structures without records, non-active structures, or conditional water rights. The majority of these rights are senior to the Power Conduit rights and the Colorado Water Conservation Board (CWCBC) Instream flow rights (ISF) on the White River¹. Prior to December 2022, no calls were placed on the mainstem of the White River for the Power Conduit. The only other call that has occurred on the mainstem of the White River was in 2002 when the River was on call from August 26 through September 16 upstream of the Old Agency Ditch.

There are three “large” reservoirs in the basin; Taylor Draw Reservoir (aka Kenney Reservoir), Johnnie Johnson Reservoir (aka Rio Blanco Lake) and Big Beaver Reservoir (aka Lake Avery). Taylor Draw Reservoir, along with the Power Conduit, is owned and operated by Rio Blanco Water

1CWCBC owns an instream flow water right on the mainstem of the White River from the confluence of the North Fork and South Fork of the White River to its confluence with Piceance Creek in the amount of 200 cfs with an adjudication date of 1977.



Conservancy District (RBWCD). This reservoir has a decreed absolute storage amount of 13,800 AF. The other two reservoirs are owned and operated by Colorado Parks and Wildlife and have decreed absolute storage amounts of 1,036 AF and 7,657 AF, respectively. The primary use of Taylor Draw Reservoir is recreation and power generation and the primary use of the other two reservoirs is recreation.

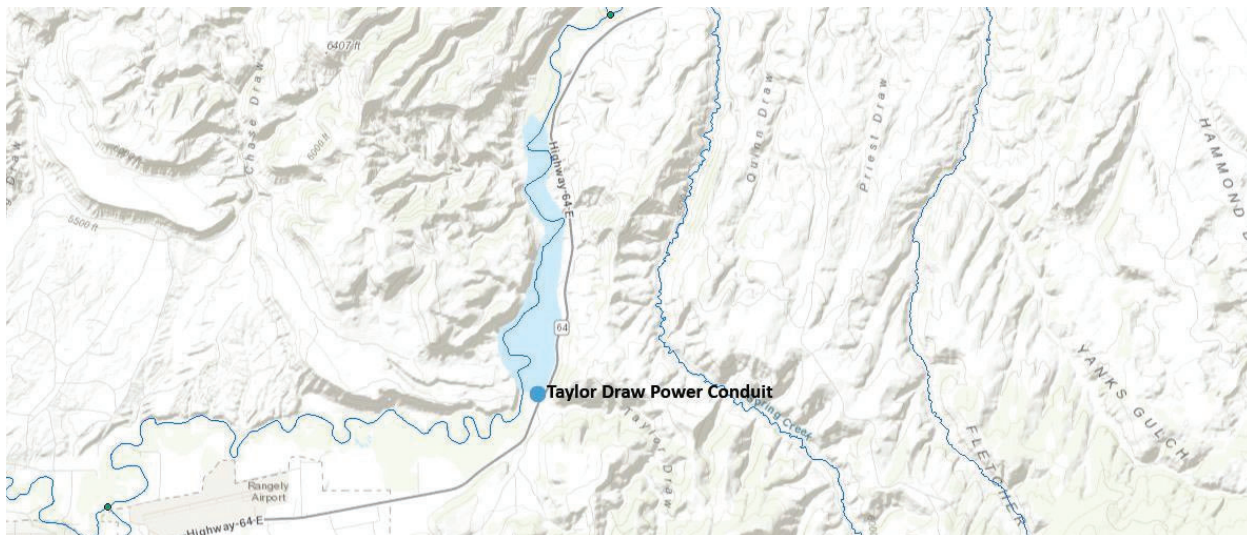
Water Rights and Administration

A call was placed on the White River on December 1, 2022 for power generation at the Power Conduit. The structure has two absolute water rights: (1) 620 cfs with an adjudication date of November 11, 1966 and an appropriation date of July 3, 1962 (Administration Number 41091.00000) and (2) 125 cfs with an adjudication date of December 31, 1982 and an appropriation date of October 22, 1982 (Administration No. 48507.00000), totaling of 745 cfs absolute at the structure. Due to the capacity of the turbine generator system, the call amount has been limited to 700 cfs, and is also the FERC permitted capacity of the turbine.

Since December 1, 2022, when the call was originally placed, it has been lifted and reinstated several times. The call was lifted on April 3, 2023 and the system remained under free river conditions while flows at the Power conduit exceeded 700 cfs. The call was then reinstated on July 31, 2023 at which time the flows had dropped to below 700 cfs. The call was also lifted for a brief period from September 7, 2023 until September 27, 2023 for maintenance on the hydropower system. The hydropower system at the Power Conduit experienced partial failure on January 9, 2024, only allowing around 300 cfs to be run through the turbine with the remaining streamflow being bypassed with no beneficial use, which resulted in the call once again being lifted.

RBWCD has stated their intent to make this a standing call when the flows at the Power Conduit drop below 700 cfs. This structure is located within the dam at Taylor Draw Reservoir and is the proposed bounding location for the basin. The figure below shows the location of the Taylor Draw Reservoir and the location of the Power Conduit.





The Calling location is the Power Conduit. The water rights decreed to the Power Conduit are as follows:

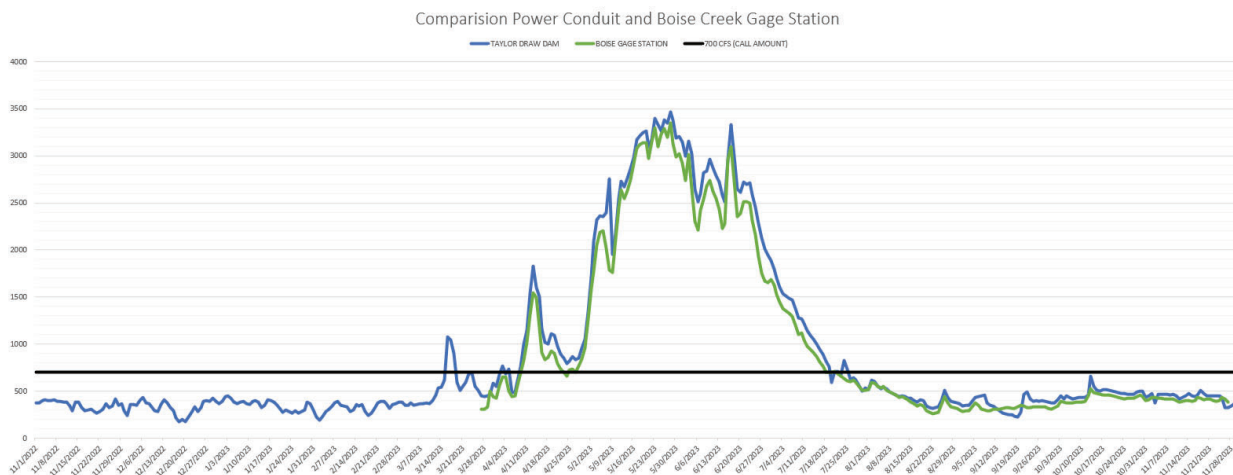
Case Number	Adjudication date	Appropriation Date	Decreed Amounts Absolute	Decreed Amounts Conditional	Decreed Uses
82CW0383	11/21/1966	07/03/1962		620 cfs	Irrigation, Municipal, Industrial, Fishery, Domestic, Stock, All Beneficial Uses
95CW0059	12/21/1966	07/03/1962	620 cfs		Power Generation
82CW0383	12/31/1982	10/22/1982		775 cfs	Power Generation
95CW0059	12/31/1982	10/22/1982	125 cfs		Power Generation



Hydrographic Records

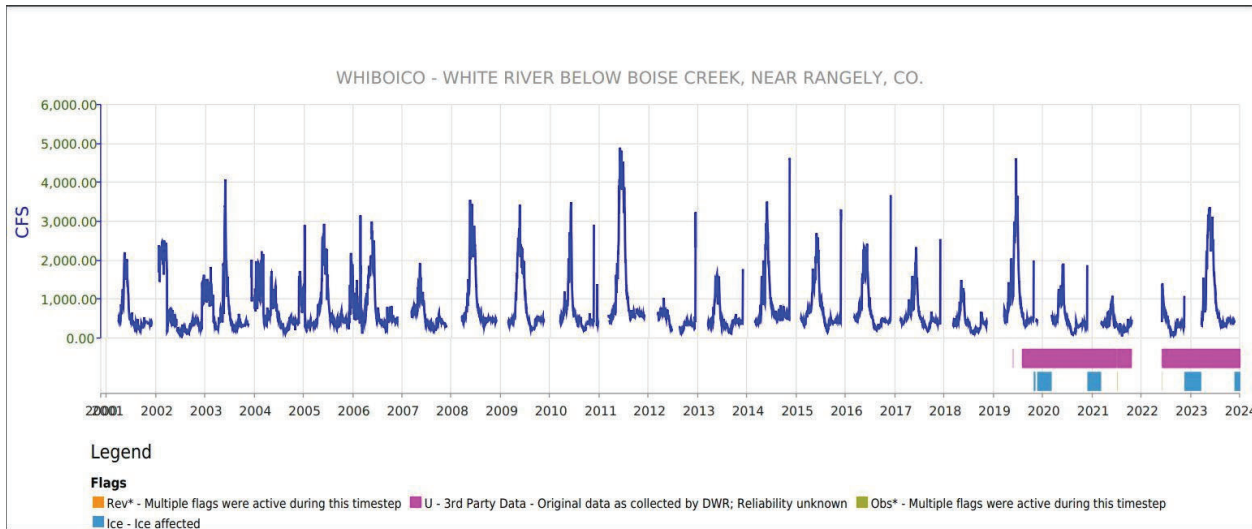
The flows in the White River near the Power Conduit are monitored at two sites: White River below Boise Creek gage station (“Boise Creek Gage”) and flows reported to DWR by RBWCD at the Taylor Draw dam. These sites offer the best overview of the flows at or near the calling location.

The graph below shows the White River flows for Irrigation Year 2023; the first year for the call on the White River upstream of the Power Conduit. The black line represents the 700 cfs turbine capacity, while the blue line represents the stream flows at the dam itself and the green line represents the flow at the Boise Creek Gage located approximately 15 miles upstream of the dam. This graph shows that for approximately 8 months throughout this irrigation year the river flows were below 700 cfs, resulting in the water rights not being met. While there are no large, flowing tributaries between the dam and the Boise Creek Gage, this graph does show that the reach between the two sites is a gaining reach with the difference in flows between the two sites in 2023 fluctuating anywhere from 32 cfs to 254 cfs.



The graph below shows the historical flows at Boise Creek Gage from March 2001 to November 2023. During the winter months, gage readings are unavailable due to ice, which is represented with the gaps shown in the graph.





The White River has large fluctuations of high and low flows during the year, as represented on the above graph. During the span of these 22 years, there have been four significant years with highest peak flow occurring in 2011 at 4880 cfs. This 22 year span also experienced several years with low flows with the lowest flow occurring in 2002 at 53.9 cfs. The flows in the White River also dropped to critically low levels in 2012, 2018, 2020 and 2021. And notably, in 2012, Colorado Parks and Wildlife (CPW) requested approval of a temporary loan of water stored in Big Beaver Creek Reservoir (AKA Lake Avery), pursuant to section 37-83-105 CRS. The loan agreement was done in conjunction with the Colorado Water Conservation Board (CWCB) for use within their instream flow reach between the confluence of Big Beaver Creek and the White River and the confluence of Piceance Creek and the White River. Releases were made in 2012, 2018 and 2020 from Big Beaver Creek Reservoir. In 2021 the flows in the White River were once again expected to drop to critically low levels and CPW requested an expedited loan for an additional release of water.

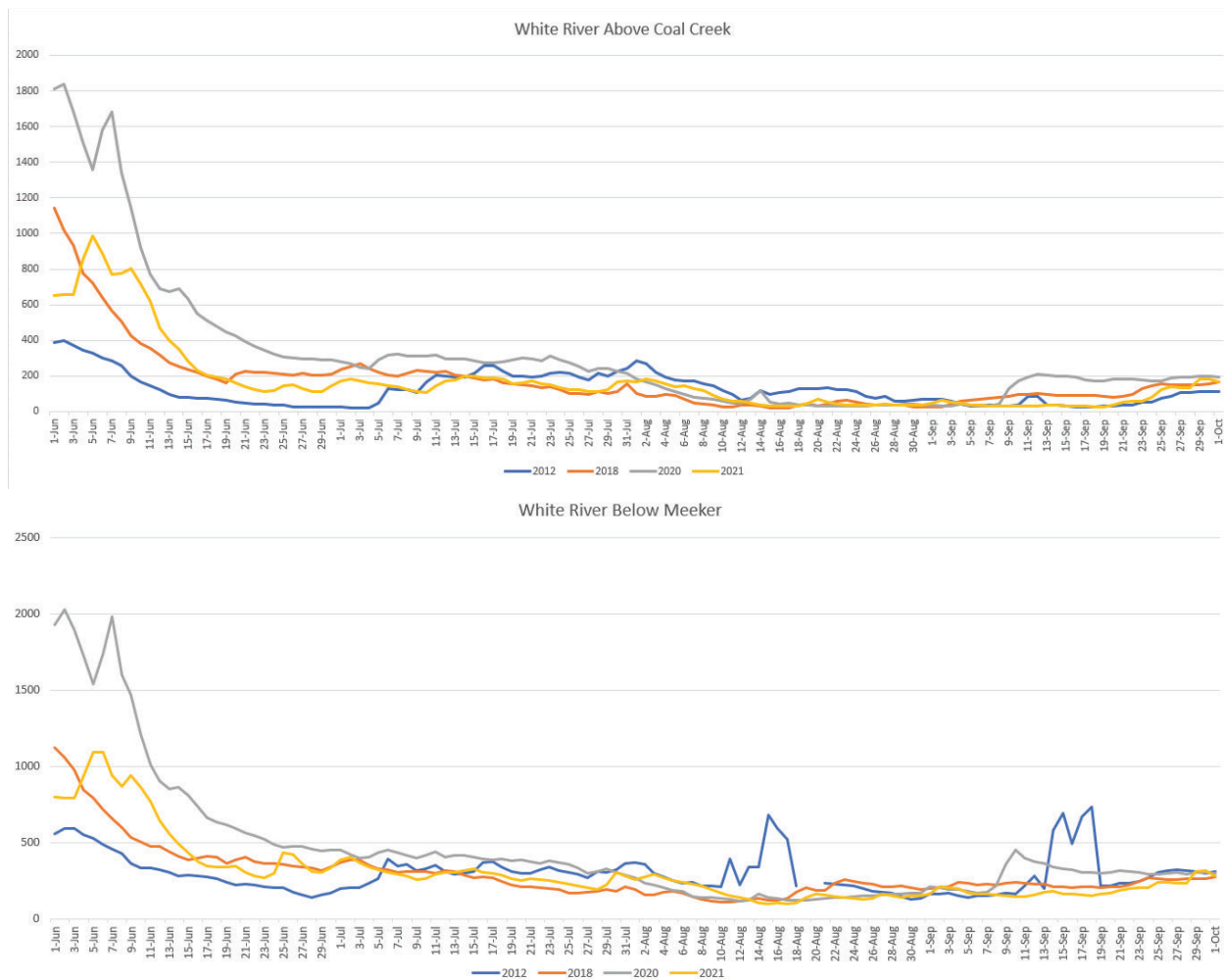
The loan agreements were to help satisfy the CWCB ISF water right on the White River as decreed in Case No. W-3652C.

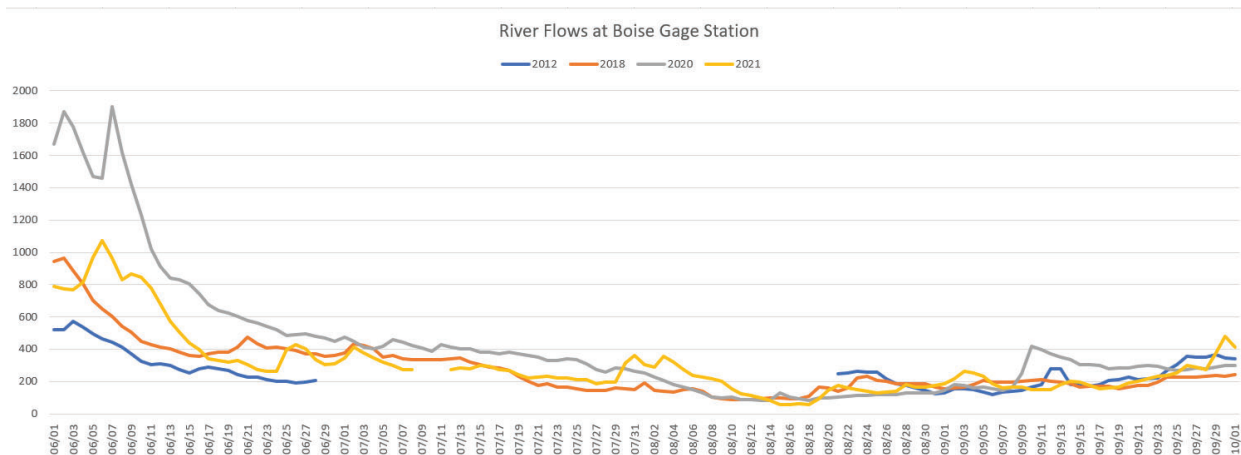
Case No.	Upstream Terminus	Downstream Terminus	ISF Decreed Amounts (cfs)	Appropriation Date
W-3652C	NE1/4NE1/4, Section 18, T1S, R91W of the 6 th P.M. (Confluence of North Fork and South Fork of the White River)	NW1/4NE1/4, Section 2, T1N, R97W of the 6 th P.M. (Confluence of Piceance Creek with the White River)	200 cfs	November 15, 1977

The below graphs show the flows from June 1 to October 1 in 2012, 2018, 2020 and 2021 at the White River above Coal Creek and White River below Meeker Gage station, both located within



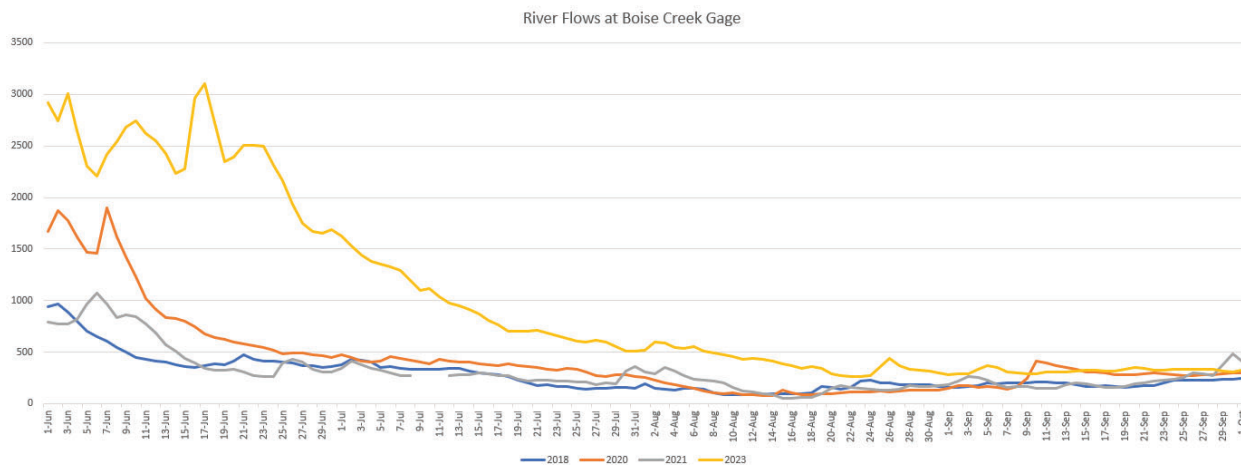
the Instream flow, and flows at the Boise Gage Station.





The first two graphs not only show how low the flows have gotten in the White River but also show that even the CWCB instream flow water right in the White River experiences times when it is not being satisfied.

For comparison with the years 2018, 2020, and 2021, the river flows from 2023, which in general was an above average water year, were added to the River Flows at Boise Creek Station graph. 2012 data was removed due to limited readings.



Even with the high snowpack in 2023, the river flows captured at the Boise Gage Station represented a close to an average year in the basin. And as evidenced by the call on the river, the flows dropped below the Power Conduit senior water right.

Basin Development



The basin is largely owned by the Bureau of Land Management and the US Forest Service. However, the private lands, outside of city limits, are primarily agricultural production with small ranchettes and single family development creeping in. While development is slowly happening, judging from the surrounding drainages and communities it is a matter of time until the White River drainage sees the same type of growth that the surrounding basins are experiencing.

Justification for Designation

Potential basin development in conjunction with many years of drought and recent calls on the White River that have been placed for up to 700 cfs at the Taylor Draw Power Conduit makes it apparent that the Power Conduit water rights cannot be met the majority of most years. In addition, the number of absolute surface water rights alone within the White River basin, make it evident that the river is, and has been, over-appropriated and should be designated as such.

