

Colorado Division of Water Resources

2011 Annual Report

Water Division 5



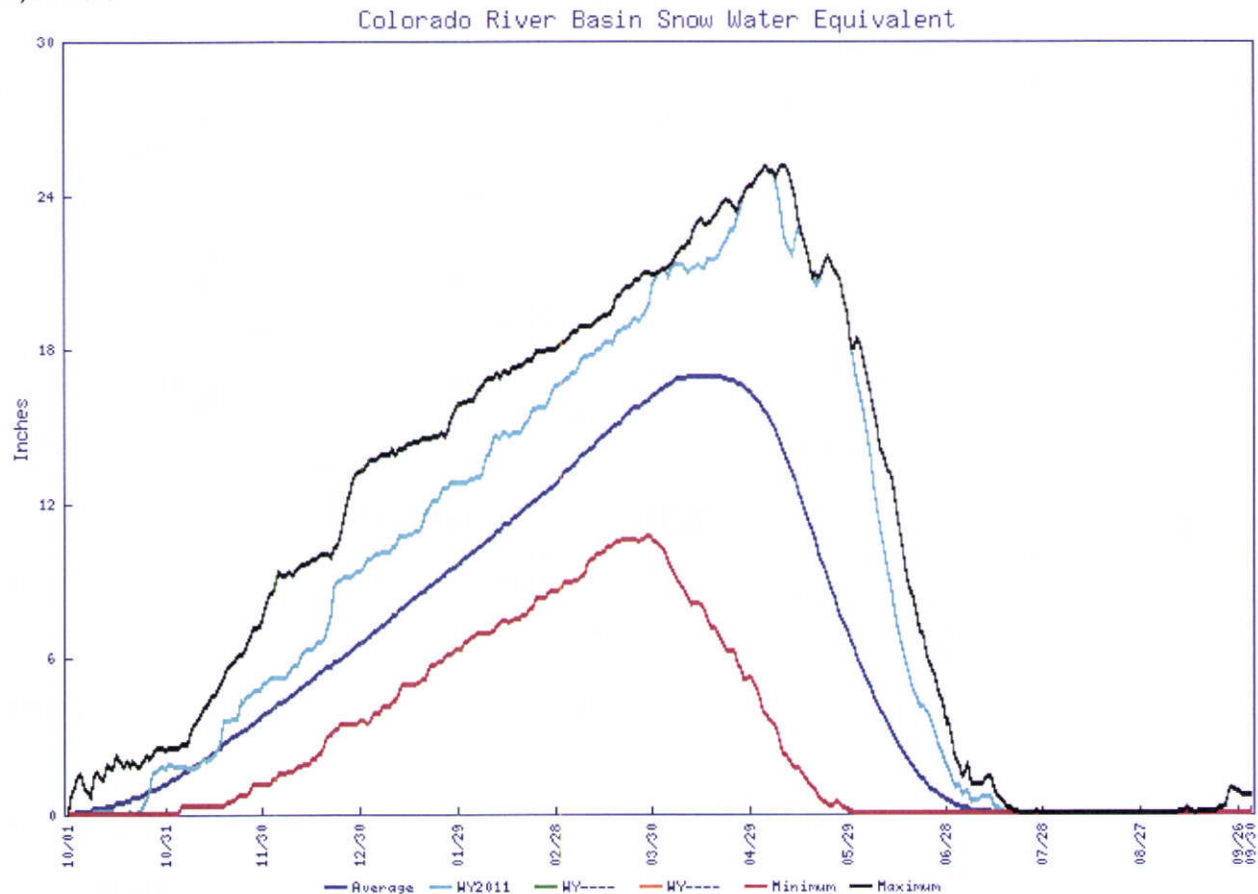
Granby Reservoir spilling June 2011

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Division Engineer

Water Division 5 (Colorado River Basin)

Surface Water

The Colorado River Basin wide precipitation for the 2011 IY was 133% of average, while April 1st snowpack was 130% of average. The April 1st basin-wide snowpack was the second highest since 1984. The peak snowpack occurred on May 3rd, approximately 3 weeks later than the average date for maximum snowpack. A cool and wet May set the stage for potential flooding with snowmelt runoff forecasts varying from 167% of average on the Roaring Fork to 313% of average on Willow Creek near Granby. The snowmelt runoff for the Colorado River near Cameo was forecasted to be 197% of average. Actual Streamflow for the Colorado River near Cameo was the second highest for the period of record from 1934 through 2011. Only the Water Year 1984 had a higher runoff total. Reservoir storage at the beginning of May 2011 was 85% of average as operators made space for an above average runoff. Willow Creek Reservoir outflow peaked at a record 1,300cfs.



- All major reservoirs in Division 5 filled in 2011, except Granby Reservoir. In spite of spilling 182,561AF, Granby Reservoir did not quite fill. Maximum storage for 2011 in Granby reached 532,521 on August 3, while full capacity is 539,800AF.
- 2011 Fryingpan Arkansas Project diversions of 98,000AF were second highest in project history, exceeded only by 110,000AF in 1984.

- The 2011 irrigation year began with below normal flows; however a call at the Shoshone Power plant was honored for one day in December 2010. The remainder of the winter the Power plant was either entirely off line or not taking all the flow available to it.
- With extremely high flows throughout the basin neither a call for the Cameo demand nor for the Shoshone Power Plant was not place for the entire irrigation season. Thus for the period from November 1, 2010 through October 31, 2011 the mainstem experienced a call for only one day.
- On May 4, 2011, the Interim Policy for the 2011 Green Mountain Reservoir fill season was issued. The policy was reissued with no substantive changes from 2010. Due to the high runoff conditions for the 2011 season, the Interim Fill Policy had no practical impact on the manner of filling the reservoir or any rights upstream and subject to a call by Green Mountain.
- The Shoshone Power Plant is one of two key calling locations on the mainstem of the Colorado River, historically controlling the priority administration eight to ten months a year. The aging facilities have left Shoshone Power Plant off line with greater frequency in recent years. These more frequent outages impact West Slope interest throughout the length of the river, including decreed water rights for agriculture, municipal and industrial uses, as well as undecreed users such as the endangered fish, the rafting industry and individual recreationists. The entire water rights system and river users depends on the demand and return of a 1,250 cfs to 1,408 cfs at the Shoshone Power Plant. Beginning with the penstock failure in 2007, major upstream water users have operated a voluntary outage protocol that is coordinated by the Division No. 5 office. Except for traditional scheduled maintenance, at time the power plant is off line or at diminished capacity the outage protocol provides for reservoir releases to mimic river flows as if the Shoshone Power Plant is operating and calling out junior water rights. Reservoir releases under the protocol must be made for decreed purposes of the reservoir, such as discretionary power at the reservoir or to the endangered fish; otherwise the reservoir will not be allowed to fill that space with its decreed rights in the following storage season. Beginning in 2011, Reservoir Operators that are negotiating the Colorado River Co-operative Agreement used the nearly final Shoshone Outage Protocol to guide release schedules.
- Coordinated Reservoir Reoperations for the Endangered Fish Recovery Program (CROS) were not conducted in 2011. Storage and forecasted inflows were available for CROS, however the forecasted peak at the Colorado River near Cameo gage were expected to exceed the 25,000cfs limit the program will operate to. Though no property damage occurs until the gage exceeds 27,000cfs, flood warnings are issued at 25,400cfs.
- With full reservoirs, the Endangered Fish Recovery Program's pools for late summer augmentation to the flows in the 15 mile reach were also full. The pools total 37,650 acre-feet in Ruedi, Wolford, and Williams Fork Reservoirs, plus any portion of the 66,000AF HUP in Green Mountain Reservoir that is declared a surplus and is not reserved for winter replacement and not used for summer HUP beneficiaries. Additional flow for the 15 mile reach is provided by returns from the Highline Canal

through the Palisade Pipeline. Due to high base flow conditions the target flow at the Colorado River at Palisade gage was set at 1,630cfs. The target remained at 1,630cfs through the end of the augmentation period on October 31, 2011. The river remained above the target without the benefit of any augmentation through August 19th. Releases from Wolford began on the 19th, followed by Ruedi on the 20th and Williams Fork on the 24th. Of the 37650AF all but 8,574 acre-feet were released in 2011. On September 2, 2011 a surplus in the Green Mountain HUP was declared and 37,132 acre-feet was released from pool as "HUP surplus" for the endangered fish. No water was made available this in Granby Reservoir from the Middle Park Water Conservancy District pool of Windy Gap water. The Grand Valley Water Management Project via the Palisade Pipeline provided 10,235 acre-feet to the 15 mile reach. With transit losses 68,665 acre-feet was delivered to the 15 mile reach. The actual flow dropped below the target flow 11 of the 74 day augmentation period with an average augmentation of 468cfs.

Groundwater

The total number of permit applications for Division No. 5 received and issued by the DWR continued to drop in 2011. The decrease has persisted since the late 1990's. Initially, the decrease was related to changes in the water court process for conditional water rights and diligence on those rights. Later, a large increase in fees for well permits, limited new applications to wells that would be drilled prior to expiration. However, the continued decrease in permits is related to fewer exempt permits for both new 35 acre tracts and lots created by exemption from subdivision. Additionally, beginning in 2008 the economic downturn has all but eliminated demand for new development and the demand for either exempt or non-exempt wells. During calendar year 2011, a total of 387 permits were approved for Division No. 5 - a decrease of 13% from 2010. This compares to over 1,200 well permits issued for Division No. 5 in 1998.

2010 Abandonment List

The 2010 Abandonment List was submitted to the court in July of 2010 with 169 water rights. It was the smallest Abandonment List ever offered by Division 5. The period for filing protests to the abandonment list ended July 1, 2011. The remainder of the summer staff investigated the protests and a revised Abandonment list was prepared with 74 water rights remaining on the list. The revised list was published with the December 2011 Water Court Resume and assigned case number 11CW1173. Protests to the Revised 2010 Abandonment List will be assigned individual water court case numbers.

Augmentation Plan and Municipal Water Rights Administration

The complexity and volume of work associated with the administration and data collection of water used by municipal water providers and water tied to augmentation plans continues to grow. A ten year effort at re-organization of Division 5 staff has occurred through shifting of duties and movement of positions either voluntarily or upon vacancies was essentially completed in 2011. The focus is to support field administration by Water Commissioners through the negotiation of good decrees, tabulation and interpretation of decrees, development of accounting specific to each, and the actual data collection. Much of 2011 focused on the new diversion record system, but also included the development of additional spreadsheets. As of the 2011, all augmentation plans have been entered into the

water rights tabulation using current standards, with the exception of approximately 40 decrees in Water District 36.

Division 5 Paperless Project

Our goal is to have all documents on Laser Fiche that can legally be made available electronically to public. This includes all water court case files, water administration files, data not in HydroBase, and other administrative documents. Through 2011 75% of the water court files and 15% of our Water Administration files have been imaged, named with a user friendly naming convention, and uploaded to Laser Fiche. The imaged files have been removed from our office and are only available electronically. We plan to complete the water court case files and the water administration files in 2012.

Colorado River Cooperative Agreement

Negotiation of the Global Settlement, re-termed the Colorado River Cooperative Agreement continued in 2011. A draft agreement was signed by several parties, including Denver Water, Grand County, Summit County, a consortium of interests in Eagle County, and various water providers in Garfield County. The remaining parties are awaiting a final agreement, which is held up by the most critical piece of the agreement—the Green Mountain Reservoir Fill Protocol. The Colorado River Cooperative Agreement includes; the over-arching agreement that provides for the Moffat Firming Project with terms and conditions, the Green Mountain Reservoir Fill Protocol, the Shoshone Outage Protocol, considerations for Summit and Grand County water supplies, and considerations for Grand County environmental flows. Progress has been made on the latter two issues with a water court application (10CW298) by Grand County for RCID's on the Colorado River, and an application by Denver Water (11CW121) for a right of substitution using Fraser River diversions and Gross Reservoir in Water Division 1. Though not final, progress has also been made with the Shoshone Outage Protocol through the “trial run” of the protocol in 2011. The issues continue to be narrowed in the Green Mountain Reservoir Fill Protocol, where the agreement has been broken into two agreements one that the State will sign and one that the other parties will sign. This has removed a large obstacle to reaching agreement and has freed the other parties to craft a portion of the agreement as a contract unobstructed by water rights law and administration.

Windy Gap Firming

DWR and the Attorney General's Office were brought into these negotiations in 2011. Our previous involvement was limited to a determination by the State Engineer that “pre-positioning” of Granby Reservoir storage in a new non-CBT east slope facility, Chimney Hollow, was within the decreed rights of the CBT. The largest is whether use of the Windy Gap rights other than the 3000AF for the 1985 Windy Gap Agreement can be used on the West Slope without a change of those water rights.