# DIVISION 6 2014 ANNUAL SUMMARY



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**COLORADO Division of Water Resources** Department of Natural Resources

# **2014 ANNUAL SUMMARY**

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# Introduction

The following report summarizes the activities of the Division 6 office of the Colorado Division of Water Resources in 2014, presents an overview of the administration activities that took place during both the calendar and irrigation year 2014 and provides statistical data for both the water and irrigation year 2014.

# Year 2014

# **Basin Hydrology**

#### Snow Pack

Table 1 below shows the snow water equivalent for the period October 2013 through May 2014. As one can see, for each month, the snow water equivalent was well above the median.

#### TABLE 1

#### End of Month Snow Water Equivalent as Percent of Median Water Year 2014

Drainage	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Laramie/North Platte River	178	117	107	119	135	139	135	194
Yampa/White River	248	122	107	117	120	126	119	157

As shown below, the above average snowpack resulted in above average stream flows, but fortunately the snow melted in such a way as to not cause any damage from flooding.

#### **Stream Flows**

With the above average snowpack, came above average stream flows (with the exception on the Little Snake River). Table 2, below, shows the January 1<sup>st</sup>, March 1<sup>st</sup> and May 1<sup>st</sup> runoff forecasts developed by the NRCS in comparison to the actual runoff between April 1 and July 31 as measured at the selected USGS gauging stations.

#### TABLE 2

#### 2014 Runoff Forecast in 1000's of Acre-Feet

Station Name	<u>1-Jan</u>		<u>1-N</u>	<u>Nar</u>	<u>1-A</u>	lay	Actual		
	Runoff	% Avg	Runoff	% Avg	Runoff	% Avg	Runoff	% Avg	
North Platte nr Northgate (Apr-Jul)	230	102	275	122	260	115	445	197	
White River nr Meeker (Apr-Jul)	260	93	250	89	200	82	303	125	
Little Snake River nr Lily (Apr-Jul)	350	101	420	122	400	116	311	90	
Yampa River nr Maybell (Apr-Jul)	965	103	1,240	133	1,220	130	1,085	114	

Provided in Table 3 below are the annual runoff values for the water year for these stations as well as the minimum flow at each station.

## Table 3

#### **Annual Runoff**

Station Name	Historic Lowest Flow (AF)	Total Flow 2014 (AF)	Historic Average (AF)	% of Average
North Platte River near Northgate	~66,240	555,200	312,000	178
White River near Meeker	198,400	470,300	447,700	105
Little Snake River at Lily	~79,600	382,400	411,500	93
Yampa River near Maybell	345,300	1,304,700	1,129,400	116

#### Lowest Daily Mean

Station Name	Minimum on Record (cfs)	Minimum in 2014 (cfs)	Date of Occurrence
North Platte River near Northgate	15	104	Nov. 18, 2013
White River below Boise Creek	53	241	Dec. 6, 2013
Little Snake River at Lily	0.0	25	Aug. 13, 2014
Yampa River near Maybell	1.8	191	Dec. 4, 2013

#### **Precipitation**

Table 3 below shows the monthly precipitation data for the towns of Walden, Meeker and Steamboat Springs.

#### Table 4

Site	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Walden (inches)		0.47	0.26	0.45	0.38	0.75	0.75	3.81	0.21	2.47	1.91	1.94	
% Avg		57	44	73	62	91	70	211	20	193	182	160	
Meeker (inches)	3.33	1.14	1.15	0	0.67	1.66	1.58	1.94	0.57	0.78	3.45	2.62	18.89
% Avg	202	104	128	0	89	123	113	129	57	60	276	218	133
Steamboat (inches)	3.16	2.29		2.87	2.18	1.55	2.04	1.32	0.77	3.69	5.05	3.15	
% Avg	165	97		111	101	76	88	57	54	253	346	183	

#### Monthly Precipitation Data for Selected Sites Water Year 2014

#### Monthly Precipitation Data for Selected Sites Calendar Year 2014

Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Walden (inches)	0.45	0.38	0.75	0.75	3.81	0.21	2.47	1.91	1.94				
% Avg	73	62	91	70	211	20	193	182	160				
Meeker (inches)	0	0.67	1.66	1.58	1.94	0.57	0.78	3.45	2.62				
% Avg	0	89	123	113	129	57	60	276	218				
Steamboat (inches)	2.87	2.18	1.55	2.04	1.32	0.77	3.69	5.05	3.15				
% Avg	111	101	76	88	57	54	253	346	183				

For all three sites, the rainfall was well above average in the months of August and September and was well above average in July at Walden and Steamboat Springs. The 5.05 inches of rain that fell in Steamboat in August was the second highest rainfall on record for the month of August. Though the rains were refreshing, they caused a tremendous amount of problems for ranchers trying to complete their haying operations for the year. For those with hay down, they had to work hard to avoid the hay molding and those that had not cut yet could not avoid the hay losing its nutritional value.

## Water Administration

Water administration in water year 2014 was minimal for Division 6 with only the typical calls occurring. In the North Platte River basin there were absolutely no calls, which is uncommon. In the Yampa River basin, administration was limited to Bear River, South Hunt Creek, Middle Hunt Creek, Smith Creek of Deep Creek of the Elk River, West Fish Creek of Trout Creek, Little Bear Creek and Fortification Creek. The Elk River did not go under administration this year; the calling

right typically being the Colorado Water Conservation Board's minimum instream flow right for 65 cfs. In the Little Snake River drainage of the Yampa River, Willow Creek went under administration for a short period of time. In the Green River basin, administration was limited to Talamantes Creek. Finally, in the White River basin, administration was limited to Piceance Creek. A complete list of the calls that occurred within Division 6 can be found on the CDSS website. Additionally, no releases were made from Elkhead Creek Reservoir in 2014 that were protected by our office.

#### Elk River Administration

As mentioned above, the Elk River did not go under administration this year due to an above normal snowpack and above average rainfalls in July, August, and September. The Elk River instream flow water right, the calling water right, is decreed in the amount of 65 cfs year round. The lowest daily mean flow that occurred in the months of July, August and September was 109 cfs as measured at the Elk River near Milner gauge.

Shown in the following graph are the flows during the summer and fall on the Elk River near Milner which typically drops below 65 cfs.



As a recap from the 2013 Annual Report, in February 2013 this office sent out notices to every water right owner within the Elk River basin requesting assurance that their diversion structures complied with CRS 37-84-112. This notice gave the owners until June 30, 2013 to come into compliance. Field investigations were then performed in July 2013 to determine which structures were still not in compliance. There were nearly 100 structures not equipped with suitable and proper headgates and/or measuring devices. This was better than the nearly 150 structures found to not be in compliance in 2012.

Then, in September 2013, 75 orders were issued to the water right owners of these 100 structures not in compliance. These orders required that no diversion occur starting in the spring of 2014 until suitable and proper headgates and measuring devices had been installed. To date, 130 headgates and measuring devices combined have been installed or repaired; 36 structures still need work but Division 6 continues to work with the owners; and 3 cease and desist orders for 3 different structures have been issued. Those structures not in compliance due to <u>no</u> headgate and/or measuring device did not divert in 2014. Those structures not in compliance due to inoperable headgates or inaccurate measuring devices were allowed to divert as long as they were working with our office to assure compliance with their orders.

#### Elkhead Creek Reservoir

Releases were made from Elkhead Creek Reservoir between July 20, 2014 and July 24, 2014 for a total of 1,578 acre-feet. During this five day period, the maximum release was 263 cfs. This release was made for the purpose of in-river fish habitat and river flow maintenance and enhancement under the Upper Colorado River Endangered Fish Recovery Implementation Program (Recovery Program). Because the flows in the Yampa River near Maybell prior to this time period were in excess of 900 cfs (well above the 134 cfs target flow), this office did not protect the releases.

Shown in the following graph are the flows during the summer and fall on the Yampa River near Maybell which typically drop below the 134 cfs target flow.



#### Yampa River RICD Flows

Though the Yampa River has never been subject to administration as a result of a call for water by the City of Steamboat Springs for their Recreational In-Channel Diversion (RICD) water right, this office tracks the flows through the diversions in the event the potential for a call were to arise. The decreed amounts for the RICD are: 400 cfs from April 15 to April 30, 650 cfs from May 1 to May 15, 1000 cfs from May 16 to May 31, 1400 cfs from June 1 to June 15, 650 cfs from June 16 to June 30, 250 cfs from July 1 to July 15, 100 cfs from July 16 to July 31 and 95 cfs from August 1 to August 15. The following graph shows the average daily flows at the Yampa River below Soda Creek never dropped below the decreed amounts between May 1 and August 15. The gauge station is not operated in April.



#### Stagecoach Reservoir Releases

In the summers of 2012 and 2013, Upper Yampa Water Conservancy District (UYWCD), the owner and operator of Stagecoach Reservoir, and the Colorado Water Trust (CWT) entered into contracts for 4,000 acre-feet of water to be delivered to the Colorado Water Conservation Board's (CWCB) instream flow reach located just downstream of Stagecoach Reservoir to the inlet of Lake Catamount. In 2014, no contract was entered into since the flows in the Yampa River appeared as though they would stay above the decreed instream flow amounts. The instream flow right is decreed in the amount of 72.5 cfs from April 1 through August 14 and 47.5 from August 15 through October 31.

Shown in the following graph are the flows during the summer and fall on the Yampa River below Stagecoach Reservoir.



## Groundwater and Well Permitting

There were no unusual groundwater administrative or well permitting issues in 2014.

## **Compacts and Inter-State Agreements**

Following is a description of the interstate compacts and agreements administered by Division 6.

#### Upper Colorado River Compact

Under Article XIII (a) of the Upper Colorado River Compact, the State of Colorado will not cause the flow of the Yampa River at the Maybell gauge to be depleted below an aggregate amount of 5,000,000 acre-feet for any period of ten consecutive years. The annual runoff for water year 2014 at this gauge was 1,304,700 acre-feet and the ten year (2004 to 2013) aggregate flow was 11,751,800 acre-feet; obviously well above that required under Article XIII (a).

The Little Snake River is administered jointly with the State of Wyoming during times of shortage pursuant to Article XI of the Upper Colorado River Compact. There were no calls made in water

year 2014 on the Little Snake River. Additionally no releases were made from High Savory Reservoir located in Wyoming for use by both Colorado and Wyoming water users.

#### Nebraska v. Wyoming, U.S. Supreme Court Decree

Under the "North Platte River Decree", Colorado is limited to a total of 145,000 acres of irrigation, no more than 17,000 acre-feet per year of storage for irrigation purposes and no more than 60,000 acre-feet of transmountain diversions in any period of ten consecutive years from the North Platte drainage of Colorado. In water year 2014, a total of 112,827 acres were irrigated and 13,984 acre-feet were stored for irrigation purposes. Transmountain diversions out of the basin totaled 3,586 acre-feet. The ten-year total transmountain diversions out of the basin were 42,270 acre-feet. None of the limits established by the Supreme Court Decree were exceeded in 2014.

A Division 6 representative attended the North Platte Decree Committee meetings held in Scottsbluff, NE in April 2014 and Torrington, WY in October 2014.

#### Pot Creek MOU

Pot Creek is a small tributary of the Green River; the headwaters of which are in Utah and enter the Green River in Colorado. Pot Creek water is apportioned among the users of Utah and Colorado under a Memorandum of Understanding (MOU) last updated and signed by the State Engineers of Utah and Colorado on March 1, 2005. There was no administration of the waters of Pot Creek in 2014. The Pot Creek Distribution System Water Users meeting held in Vernal, UT was attended by Division 6 representatives. The 2014 Annual Water Distribution Report of the Pot Creek Distribution System can be found in Laserfiche.

## **Division Highlights**

#### Lysimeter Project

The Yampa-White Lysimeter Study (Study) is a five year study that began in the summer of 2012. The purpose of the Study is to provide a quantitative assessment of irrigated hay meadow consumptive use and its relationship to local weather conditions. The Study site consists of four lysimeter plots, collectively referred to as Andy's Garden in honor of Andy Schaffner who started the lysimeter project in Division Six. Two of the plots were seeded in 2012 with an ET grass reference crop and the other two had sod from the surrounding irrigated meadow planted in them.

In 2014 the site was visited by the water commissioner or an intern of the Carpenter Ranch on regular intervals. The primary data collected at each visit are the weight of each plot upon arrival,

the amount of water added to each plot and the weight of each plot after anywhere between 1 and 2 hours of allowed saturation time.

Under the operating guidelines for the Division Six Lysimeters, "the goal is to maintain the individual lysimeter surfaces and the weather station/plot area with green active growing vegetation in and around the lysimeters mimicking the vegetation condition of the larger nearby irrigated hay field of Carpenter Ranch. For the lysimeters to represent and yield an accurate measurement of ET of the surrounding irrigated hay fields, it is important that the grass/vegetation in the lysimeter plot area be the same height, density and moisture status as the surrounding larger grass hay field area." Each year we are getting closer to accomplishing this as each year the area is becoming more fully vegetated.

The results of the project to date have not been ideal. In 2012, the plots were newly established with not much growth and there were equipment issues in collecting the data. In 2014, the water commissioner was not able to visit the plots often and relied heavily on Carpenter Ranch staffing. Unfortunately, the staffing did not collect good, reliable data.

Following are pictures of the lysimeter site in 2012, 2013 and 2014.



Lysimeter Site 2012



Lysimeter Site 2023



Lysimeter Site 2014

#### 2015 Activities

In 2015, the water commissioner will be taking over primary operations of the plots. Additionally, a more consistent and accurate way for weighing the plots will be developed.

#### Abandonment Process

The Revised Abandonment List filed with the water court on December 21, 2011, included a total, of 201 water rights either in whole or in part. Twenty-nine protests to the inclusion of 40 water rights included on the list were filed with the court, each of which was assigned a separate case number. As of April 2014, 27 of the 29 cases had been resolved. On August 1, 2014, the Judge signed the final Abandonment Order and Decree with the last two cases not having yet been resolved. In October 2014, one of the two cases went to trial. This water court case is more fully described in the following section of this report. As of March 2015, 28 of the 29 cases had been resolved.

#### Important Court Cases

#### Water Court Case No. 12CW49

A two day trial was held at the end of October 2014 to hear the arguments in Case No. 12CW49. This case involved the inclusion of the junior Mexican Reservoir water right decreed on January 10, 1958 for 146 acre-feet (junior right) on the Revised 2010 Abandonment List ("abandonment list," or "list"). A more senior water right decreed to Mexican Reservoir on June 20, 1939 in Civil Action 286 for 153.7 acre-feet (senior right) was not included on the list. Through the abandonment process it was determined that the physical capacity of Mexican Reservoir was approximately 101 acre-feet.

The Engineers claimed that the junior right was abandoned because it was never used. The court had adjudicated two priorities for the same appropriation of Mexican Reservoir. The single appropriation was for a single fill of the reservoir, so the second, junior priority had not, and could not be used because the reservoir fills under its senior priority. Any subsequent fills of the reservoir, if they occurred, were under free river conditions as unadjudicated appropriations to refill the reservoir. The court never adjudicated an appropriation for a refill or second fill of the reservoir. The nonuse of the junior priority gave rise to a presumption that the owner intended to abandon the right.

At the conclusion of the two day trial, the Judge issued an oral ruling and subsequently summarized his ruling in written form. The court concluded that the Protestant's predecessors in interest

obtained a reservoir fill water right for the Mexican Reservoir in 1939, and in 1958 a virtually identical water right was sought and decreed by that same court without making reference to the first decree or if this second right was a refill right or an enlargement of the first decree.

Evidence was presented that the person who applied for the second water right, Joseph Coyte, knew how to apply for the enlargement of an existing water right and the judge at that time knew the significance of an enlargement of a water right. Evidence was presented that Coyte knew that the reservoir had completely washed out at least two times between 1939 and 1958. Evidence was presented that Coyte had been in litigation prior to applying for the second water right where he was accused of abandoning another water right in an unrelated matter. Evidence was presented that "free river" conditions exist on the Mexican Creek flowing into Mexican Reservoir. There is also the Mexican Ditch which acquires all of its water from the outlet of Mexican Reservoir which has a water right for up to 8.5 cfs. The water rights for both the Mexican Reservoir and the Mexican Ditch are for the sole purpose of irrigating a 60 acre field.

Ultimately the court found that the two water rights concerned the exact same water and the court explained its findings about why Coyte would have applied for the second water right. Therefore, the Protestant could not assert that it is entitled to fill the reservoir on the first decree and then completely refill the reservoir on the second decree.

The court then opined that it was troubled by the notion that this second water right was treated by the State and Division Engineer's Office as a separate and usable water right up until 2009 (when they determined that the second water right should be included on the 2010 Abandonment List.) Had the State and Division Engineer made a determination years ago that the rights were duplicates, the Protestant (or its predecessors) could have filed for a separate water right to refill the reservoir. If the Protestant were to file for a refill right today, it would have a 2014 priority, allowing for other intervening water users to assert priority for many years prior.

As a result, the court ordered the parties to file any suggestion they might have as to how the court can address both the legal issue presented in this hearing and remedy what appears to be a resulting inequity of significant proportion.

Subsequently a stipulation was entered into with the Protestant. The stipulation recognized that the decrees for Mexican Reservoir entered in CA286 and CA511 do not authorize refill of the reservoir and the Protestant is currently unable to store water under the CA511 Junior Priority based on the physical capacity of the reservoir. With this in mind the stipulation gave the

Protestant 10 years (until October 31, 2024) to rehabilitate the capacity of the Mexican Reservoir structure.

For purposes of accounting and administration of water stored in an enlarged Mexican Reservoir, the first 153.7 acre-feet of capacity shall be filled by the CA286 Senior Priority. If the enlarged reservoir has the capacity to store additional water, the next 48 acre-feet of storage may be filled by the CA511 Junior Priority. Any storage of water under free river conditions to fill any additional available capacity above 201.7 acre-feet will be considered a new appropriation.

In the event the Protestant does not rehabilitate Mexican Reservoir to a capacity greater than 100.8 acre-feet on or before October 31, 2024, the following water rights are automatically abandoned: 52.9 acre feet of the CA286 Senior Priority and 48 acre feet of the CA511 Junior Priority.

Furthermore, 98 acre-feet, the remaining portion of the CA511 Junior Priority, was ordered abandoned and to be included on the final Revised 2010 Abandonment List of Water Rights in Water Division 6.

#### Water Court Case Nos. 09CW48 and 09CW50

Up through their diligence proceedings in 2008 and 2009, the Yellow Jacket Water Conservancy District (YJWCD) owned many conditional water rights which included surface water rights totaling 2,275 cfs and water storage rights totaling 278,340 acre-feet. Several parties including the State and Division Engineers filed statements of opposition in YJWCD's diligence cases. There were four diligence applications filed with the court each with different water rights involved. Two of the four cases were settled early in the process with the voluntary cancelling of the water rights involved. Specifically, all of the water rights located in the Yampa River basin and two water rights located in the White River basin were cancelled; leaving the YJWCD with 1,200 cfs and 141,533 acre-feet of conditional water rights remaining in the White River basin. These water rights are the subject of Case Nos. 09CW48 and 09CW50.

In these two cases, all of the opposers, with the exception of the State and Division Engineers, jointly filed a motion for summary judgment with the water court in April 2011 arguing that YJWCD lacked the legally required quorum to conduct District business in 2009 before the diligence applications were filed; YJWCD's secretary/attorney did not have the authority to file the diligence applications; the YJWCD board of directors lacked the intent to maintain the conditional water rights which are the subject of Case Nos. 09CW48 and 09CW50; and as such the water rights should be cancelled. Ultimately, the court agreed with these arguments and cancelled the conditional

water rights. YJWCD later appealed this decision to the Supreme Court which was assigned Case No. 11SA306. The Supreme Court heard oral arguments on the matter on November 7, 2012, and on December 23, 2013 entered a decision in the case.

The Supreme Court ruled that the holdover provision in the Water Conservancy Act allows for a holdover director to remain in office as a de jure officer and does not impose a temporal limit on a holdover director's authority to act on behalf of a district and Yellow Jacket's Board had authority to file the diligence applications, thus reversing the judgment of the water court.

In 2014, stipulations were entered into with all opposers and a decree entered in both cases. The stipulations resulted in further cancellation of some of the YJWCD's water rights leaving them with 25 cfs decreed to North Fork Feeder Conduit, 10,000 acre-feet decreed to Sawmill Reservoir, 12,500 acre-feet decreed to Ripple Creek Reservoir and 12,500 acre-feet decreed to Lost Park Reservoir. Furthermore the decree limited the total combined storage between Ripple Creek Reservoir and Lost Park Reservoir to 12,500 acre-feet. As stated above the YJWCD started out their diligence process with 2,275 cfs of surface water rights and 278,340 acre-feet of water storage rights.

## Involvement in the Water User Community

The Division 6 staff continues to assist the public in preparing water court and well permit applications, by providing water right and diversion record information, by providing information on proper selection and installation of water measuring devices, and by providing assistance to dam owners with completing Notices of Intent to Construct Non-Jurisdictional Dams, Livestock Water Tank Permits and Emergency Action Plans. The Division 6 field office in Craig continues to be a vital aspect of our public relations.

Following is a list of meetings attended by Division 6 staff in 2014. This list is not meant to be all inclusive, but rather provide an idea of the types of meetings attended.

Spring North Platte Decree Committee meeting held in Scottsbluff, NE Fall North Platte Decree Committee meeting held in Torrington WY Annual meeting of the Pot Creek Distribution System in Vernal, UT Meetings held by the Upper Yampa Water Conservancy District Michigan River Water Conservancy District annual meeting Walden Reservoir Company annual meeting Bear River Irrigators annual meeting Stillwater Ditch Company annual meeting

All roundtable meetings for the Yampa/White River and North Platte River

Division 6 also held the 2014 CWOA annual conference in Steamboat Springs. The turnout was excellent with over 100 participants.

In addition to the above, Division 6 staff held one public meeting in Meeker to discuss water administration and the requirement of control structures and measurement devices.

# **Division 6 Organization Chart**

