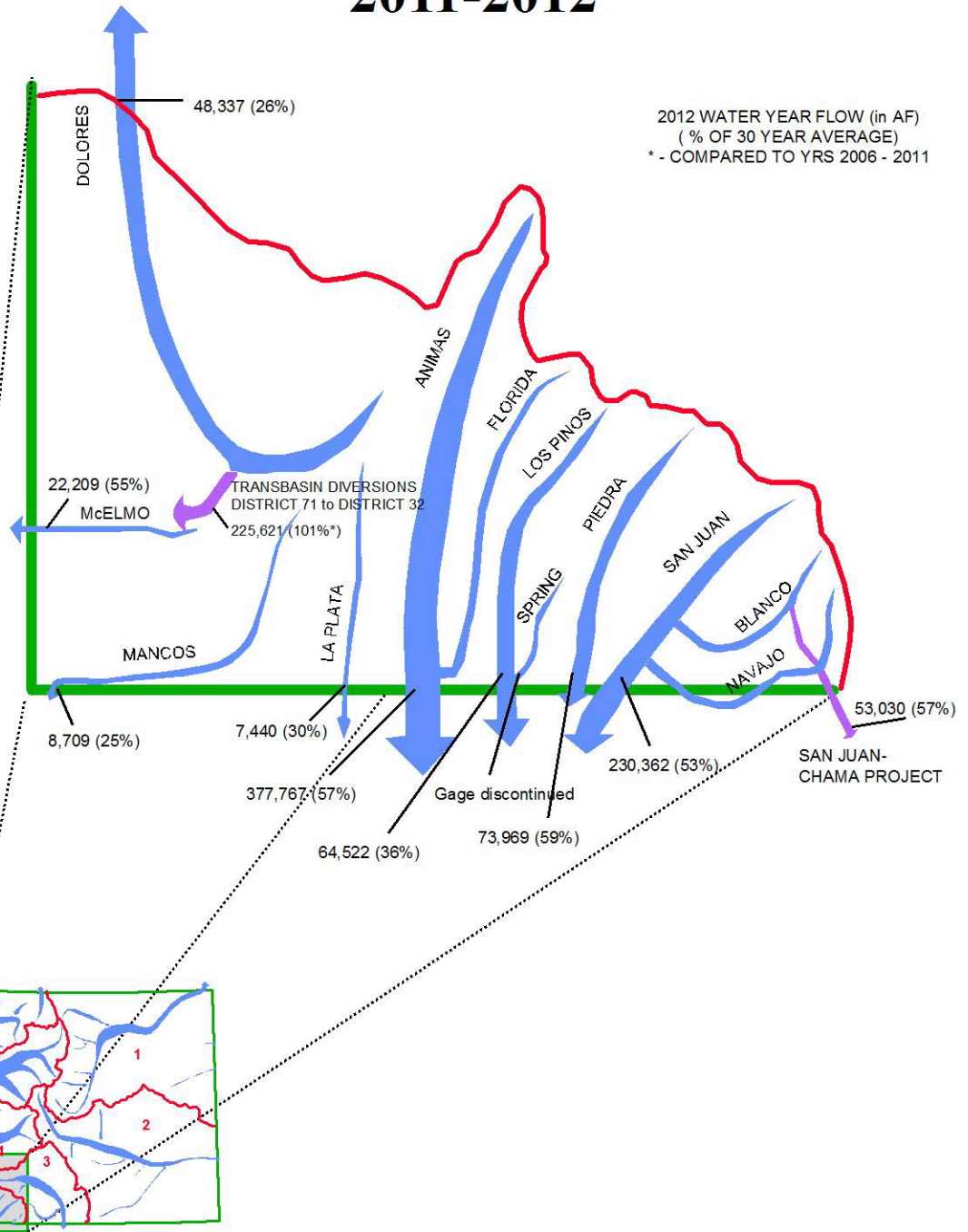




DIVISION OF WATER RESOURCES

DIVISION VII ANNUAL REPORT

2011-2012



Rege W. Leach
Division Engineer

Division 7 2012 Annual Report

Water Supply

Snowpack in San Juan and Dolores River Basins during the winter of 2011-2012 (2012 Water Year) followed the trend of the last several years with below average snowpack and earlier than normal runoff. Snowpack Division-wide peaked at only 75% of average. Snowfall in the early part of the season trended close to normal, but the lack of spring moisture and warmer than normal temperatures prevailed. Peak snowpack occurred in early April and runoff ended by late May. Both the peak snowpack and runoff occurred about one month earlier than normal.

Warm spring temperatures lead to early runoff across the Division. March temperatures ran 2° to 5° F above normal and runoff in the major river basins ran nearly twice as high as normal during the month. Higher than normal temperatures persisted throughout April and May, however the dwindling snowpack lead to only near normal river flows during those months. Melt-out occurred in most basins in the Division by the end of May and the area saw little new precipitation during the same period. Durango received less than a one-tenth of an inch of precipitation in May and no precipitation in June leading to near record low seasonal flows throughout the Division in June. The Animas River ran 27% of average and the La Plata and Dolores Rivers ran 17% of average for the month. The area saw monsoonal moisture for a short period in July 2012, however the weather pattern quickly reverted back to hot and dry conditions for the remainder of the summer and fall. River flows during August and September fell below 40% of average throughout the Division and the Animas River neared record lows in September and October. Of the 102 years of record, only September 1965 had a lower monthly total than September 2012 on the Animas River.

Surface Water Issues

Surface water administration during 2012 was somewhat challenging due to the early runoff and dry summer conditions. Basins with storage reservoirs were able to capture early spring runoff for later use while basin without were unable to take advantage of the early water. To start the water year Vallecito Reservoir contained 59,450 acre-feet compared to its average end of water year content of 57,457 acre-feet (103% of average). McPhee Reservoir contained 300,063 acre-feet (114% of average), while Lemon Reservoir had 11,460 acre-feet (59% of average). Dry conditions through most of the summer months lead to a high demand for stored water, and by the end of the water year reservoirs were significantly depleted. Ending the 2012 water year and leading into the 2013 water year, Vallecito Reservoir contained 35,770 acre-feet (62% of average), McPhee Reservoir contained 199,943 acre-feet (72% of average), and Lemon Reservoir contained only 8,800 (46% of average).

Administrative calls were placed in many of the basins in the Division during Water Year 2012. Main stem calls were placed on the La Plata River, Mancos River, McElmo Creek and Pine River. Tributary stem calls in the Animas River drainage were placed on Elbert Creek, Florida River, Junction Creek and Waterfall Creek; in the McElmo Creek drainage calls were made on Alkali Canyon, Hartman Draw and Simon Draw; in the Mancos River drainage call were made on the West Mancos River; in the Piedra River drainage calls were made on Devil Creek and Stollsteimer Creek; and in the San Juan River drainage calls were made on Coal Creek, Navajo River and Four Mile Creek.

Ground Water Issues

There were 243 well permits issued in Division 7 during the 2012 water year. Of these, 139 were exempt well permits were processed in the Durango office. There were also 91 non-exempt well permits, 10 monitoring well permits, two geothermal well permits and one dewatering well permit processed in the Denver office.

There are currently over 3,900 coal bed methane (CBM) wells in Division 7, 90% of which lie within the Southern Ute Indian Reservation boundary. Produced water from CBM produced water first became an issue and introduced into the Division 7 Water Court in 2005 in Case No. 05CW63, Vance, et al., v. Simpson (Wolfe). The Division 7 Water Court ruled that the Colorado State Engineer's Office has the authority to regulate produced water, that CBM produced water is a beneficial use, and that CBM produced water shall be considered to be tributary unless proven otherwise. In 2009 the Colorado Supreme Court tried Case No. 07SA293 and upheld the lower court's findings, and in 2010 the State Engineer promulgated rules to administer the water. The rules were challenged but were upheld by the court, except that a question remains of the State Engineer's authority to administer non-tributary groundwater within the Ute Reservation boundary. Today, tributary wells are administered under Substitute Water Supply Plans until a final ruling is made.

La Plata River Compact Issues

Spring came earlier and cooler than normal. The junior ditches started to open up with insufficient flows in the river. By design and agreement, the river was held off call to share the water, thus getting junior water rights a chance to divert.

Lake Durango Water Company also wanted water in a junior or off call situation. By taking the diurnal and delivering the high daily flows into the Pine Ridge Ditch (at night mostly), water was delivered to Lake Durango with minimal impact to senior rights because only peak daily flows were diverted. This was only available to us a total of 4 days before the river was placed on call by the State of New Mexico.

Red Mesa Reservoir was also diverting during this time as well as the Big Stick, junior rights in the H&H, Treanor, and several others in tributaries to the La Plata River.

More senior ditches like the Slade, H&H (41 & 51), Sooner Valley and Enterprise were also on. Hay Gulch Ditch was still taking winter flows of about 4 CFS.

A call was placed by New Mexico on April 6th at 10:00 AM. The priorities fell out very quickly. The La Plata & Cherry Creek Ditch was off by June 6th. The decision to use the La Plata Cherry Creek ditch to deliver compact water was made the morning of June 13th and no flows going passed the ditch heading were observed by June 15th. All the water was bypassed to the compact by June 19th and continued until August 16th when a dry section appeared in Cherry Creek. A short time later the river dried up above the ditch heading. This scenario continued passed October 31st.

Construction on Long Hollow Reservoir started with a ground breaking ceremony on July 10th. A Substitute Supply Plan for construction water was put into place and water was started to be delivered to the Red Mesa Reservoir on June 7th. Water was delivered to the construction site by ditch and pipeline, then, diverted to a pond in Government Draw for use. Later a larger pond was constructed on Long Hollow. The water was then exchanged and careful attention was paid to timing problems. Construction progress was impressive throughout the year with foundation excavation and embankment material preparation.

Problems solved (accomplishments)

For many years CDWR hydrographers have metered San Juan-Chama diversions from the Blanco, Navajo and Little Navajo Rivers for delivery to New Mexico. In 2011, CWDR began making discharge measurements at the Azotea Tunnel outlet near Chama, New Mexico. This effort was initiated to determine why there has been a significant difference in the sum flow total of the three diversions and the Azotea Tunnel. The three diversion points are located below ground and cannot be measured directly. The Azotea tunnel daylights into an open channel where it can be easily measured. The measurements made by CWDR hydrographers indicate the 10-ft concrete Parshall flume at the outlet does not follow a standard rating. A new rating was developed from the field measurements and implemented in 2012. The US Geological Survey published record for the Tunnel outlet from 1970 through 2008, and CDWR took over publication of the record in 2012.

As part of the Animas-La Plata Project, water will be released from Lake Nighthorse (aka Ridges Basin Reservoir) for use in Colorado and New Mexico. During July and August of 2012 CDWR made discharge measurements of releases from Lake Nighthorse into Basin Creek. Measurements were used to determine the accuracy of flow meter on the reservoir outlet and to assess a transit loss associated with the delivery of reservoir water.

CDWR requested the Montezuma Valley Irrigation District (MVIC) provide an updated bathymetric survey of Groundhog Reservoir. The results by the US Geological Survey, dated April 2012, indicate the reservoir capacity at the design spillway elevation

to be approximately 2,700 acre-feet more than the storage water right. It was also discovered that the spillway elevation is 3.0 feet higher than originally designed. As a result, MVIC has applied for an addition storage water right under a junior priority, and the CDWR Dam Safety Branch has order the spillway to be cut down to the design elevation.

Community involvement

Division 7 strived to be involved in the community in 2012. Division staff regularly attended meetings of the Southwestern Water Conservation District, Animas-La Plata Water Conservancy District, La Plata Water Conservancy District, Dolores Water Conservancy District, Montezuma Valley Irrigation Company, Pagosa Area Water and Sanitation District and all other water user group meetings that we are invited to attend. The Division also made efforts to keep the public at large informed of water issues by participating in interviews for articles in the local newspapers and other venues, and work closely with local city and county governments on water issues. And finally, Water Commissioners regularly attended ditch company meetings held in their Districts.

The Division Engineer presented at the yearly “Water 101” Seminar put on to help educate realtors and landowner on water law and administration. And once again Division 7 staff participated in the “Water Fair” used to educate hundreds of local school children on where their water comes from, what it is used for, and how it gets to their homes and farms.

Abandonment

The decennial abandonment list and process for Division 7 was concluded in 2012. The original list included 212 structures, 82 of which were removed before filing with the court. The water court case, 11CW76, was filed in December of 2011 and contained 130 water rights. There were no protests filed with the water court and the decree was signed by the water court Judge in September of 2012.

Important Court Cases

Co-Applicants Pagosa Area Water and Sanitation District (PAWS) and San Juan Water Conservancy District (SJWCD) filed application 04CW85 for diversions of 200 cfs off the San Juan River and Dry Gulch, and 35,300 acre-feet off channel storage in the proposed Dry Gulch Reservoir. Statements of opposition were filed by Koinonia, LLC, Trout Unlimited Park Ditch Company, and Weber Ranches.

On July 15, 2006 the District 7 Water Court issued a final decree, however Trout Unlimited filed a post-trial motion seeking modification of the final decree and appealed the decree to the Colorado Supreme Court. Their opposition was based mainly on need

and planning horizon for beneficial use of the water. After briefing and oral arguments, the Supreme Court issued an opinion further articulating the elements of proof required and remanded the case back to Water Court for further proceedings. In 2008, after briefs the Water Court issued a final decree on remand. Trout Unlimited again appealed to the Supreme Court, and again the Supreme Court issued an opinion further defining elements and proof required and remanded the case back to District Court. While preparing for additional trial, the Co-Applicants and Trout Unlimited negotiated and agreed on terms necessary for concluding litigation.

A final decree was filed by the District 7 Water Court October 31, 2011 which limited the Conditional amounts to 50 cfs and 11,000 acre-feet. These amounts were based on projected demands through 2055 and included additional terms which assure the water rights are not speculative and to allow adjustment of the size of the water rights if warranted in the future.

Administrative Protocol

The Animas-La Plata Project (A-LP Project) is a federally owned and congressionally-authorized water project. The project facilities consist of an off channel reservoir, pumping plant and pipeline which diverts water from the Animas River south of Durango. Its authorized purposes include providing water to the Colorado Ute Tribes as part of a congressionally authorized settlement, as well as serving Project Participants by delivering municipal and industrial water for use in Colorado and New Mexico. In 2010 a process commenced to develop an operating "Protocol" for water rights administration of the project. The purpose of this Protocol is to identify guidelines and provide a reference document for use by State and Division Engineers in the State of Colorado when administering the water rights in the Colorado related to the Animas-La A-LP" Project. The Bureau of Reclamation (Reclamation) holds title to the A-LP facilities and has currently contracted with the Animas-La Plata Operation, Maintenance and Replacement Association (A-LP OM&R) to operate A-LP. The Southwestern Water Conservation District (SWCD) currently holds the water rights that were appropriated for the Project.

Many meetings were held and significant progress has been made toward development of the Protocol during the 2012 water year. Development of the Protocol has been a joint effort between the Division of Water Resources (DWR), SWCD and A-LP OM&R. Among other things, the Protocol describes how the Engineers will account for uses of Project water under the A-LP Decrees to maximize beneficial use and protect the vested water rights of others. It also identifies other relevant documents that define the Project.

Pictures



Azotea Tunnel outflow near Chama, NM. The tunnel is part of the San Juan-Chama Project, a trans-mountain diversion which diverts water from the San Juan River basin in Colorado into the Chama River/Rio Grande basin in New Mexico. Division 7 hydrographers maintain the gage and produce a continuous record of the outflow.



Picture taken at Animas River at Howardsville gaging station. Construction of unmanned cableway by Division 7 hydrographers and water commissioners.



Picture looking north at Long Hollow Dam and Reservoir site. La Plata Mountains in background.



Constructed meandering channel in Basin Creek. Picture taken downstream of Lake Nighthorse (Animas-La Plata Project) during test release from reservoir.



Photo of Groundhog Reservoir located in the Delores River drainage (District 71). The spillway crosses the road between the cabins and foreground. The roadway has been build up over the years due to wet conditions, thus raising the spillway elevation and causing dam safety concerns and additional storage. The dam is located just beyond the cabins out of view.

**LA PLATA RIVER COMPACT MONTHLY ADMINISTRATIVE SUMMARY (ACRE-FEET)
2012 COMPACT YEAR**

MONTH	HESPERUS STATION	LA PLATA	PINE	30% OF	HESPERUS TOTAL	STATE	ENTERPRISE	PIONEER DITCH	DELIVERED	REQUIRED
		& CHERRY CR. DITCH	RIDGE DITCH	KELLER DITCH		LINE STATION	DITCH (NM)		STATE LINE TOTAL*	TOTAL (1/2 HESP TOTAL)
DECEMBER	--	--	--	--	--	--	--	--	--	--
JANUARY	--	--	--	--	--	--	--	--	--	--
FEBRUARY	--	--	--	--	--	--	--	--	--	--
MARCH	--	--	--	--	--	--	--	--	--	--
APRIL*	4,021.0	232.0	114.0	11.0	4,378.0	1,868.0	120.0	150.0	2,138.0	2,098.0
MAY	3,926.0	1,683.0	114.0	29.0	5,752.0	2,565.0	157.0	190.0	2,912.0	2,908.0
JUNE	1,259.0	497.0	0.0	0.0	1,756.0	591.0	110.0	118.0	819.0	926.0
JULY	454.0	347.0	0.0	0.0	801.0	164.0	1.0	1.0	166.0	402.0
AUGUST	455.0	123.0	0.0	0.0	578.0	43.0	26.0	1.0	70.0	292.0
SEPTEMBER	368.0	7.0	0.0	0.0	375.0	35.0	23.0	1.0	59.0	190.0
OCTOBER	290.0	0.0	0.0	0.0	290.0	35.0	5.0	0.0	40.0	146.0
NOVEMBER	218.0	0.0	0.0	0.0	218.0	66.0	0.0	0.0	66.0	109.0
TOTALS *	10,991.0	2,889.0	228.0	40.0	14,148.0	5,367.0	442.0	461.0	6,270.0	7,071.0

Comments:

On April 6, 2012 @ 10:00, New Mexico placed a call for one half of Hesperus to be delivered the following day.

Keller Ditch (30% compact) turned on 4/21/12.

Colorado portion of Enterprise Ditch off on 5/6/12.

Compact water delivered through La Plata & Cherry Creek Ditch for compact deliveries starting 6/13/12 @ 9:00AM.

La Plata River dry below La Plata & Cherry Creek Ditch on 6/15/12. All water diverted for compact.

La Plata River dry above Cherry Creek confluence on 6/18/12.

Cherry Creek dry above La Plata River confluence on 8/16/12.

*** TOTALS ARE FOR PERIOD OF COMPACT CALL.**

UPPER BASIN COMPACT -- SAN JUAN-CHAMA DIVERSIONS

<u>WATER</u>	<u>RIO BLANCO</u>	<u>LITTLE OSO</u>	<u>OSO</u>	<u>TOTAL COLO.</u>	<u>AZOTEA</u>	<u>TEN-YEAR</u>	<u>% DIFF CO VS.</u>
<u>YEAR</u>	<u>DIVERSION</u>	<u>DIVERSION</u>	<u>DIVERSION</u>	<u>DIVERSION</u>	<u>TUNNEL</u>	<u>TOTALS</u>	<u>AZOTEA VALUES</u>
					<u>(USGS/DWR)</u>	<u>(USGS)</u>	<u>% DIFF</u>
1971	23,510	1,340	24,980	49,830	59,980		-20.4%
1972	28,290	1,120	24,310	53,720	58,070		-8.1%
1973	70,900	9,720	79,810	160,430	153,300		4.4%
1974	25,290	1,070	18,700	45,060	47,230		-4.8%
1975	58,780	8,120	69,200	136,100	145,100		-6.6%
1976	41,000	2,420	36,950	80,370	85,230		-6.0%
1977	13,450	37	3,930	17,417	19,390		-11.3%
1978	44,010	2,820	50,310	97,140	104,200		-7.3%
1979	60,150	8,980	87,730	156,860	164,200		-4.7%
1980	57,760	6,970	72,460	137,190	143,600	980,300	-4.7%
1981	25,690	1,640	22,260	49,590	53,960	974,280	-8.8%
1982	48,340	6,860	63,810	119,010	127,100	1,043,310	-6.8%
1983	46,960	8,110	69,680	124,750	134,300	1,024,310	-7.7%
1984	45,180	6,070	55,220	106,470	113,600	1,090,680	-6.7%
1985	32,700	9,630	44,630	86,960	91,800	1,037,380	-5.6%
1986	35,520	4,720	43,620	83,860	89,180	1,041,330	-6.3%
1987	32,120	4,380	42,360	78,860	83,050	1,104,990	-5.3%
1988	29,200	972	29,780	59,952	63,530	1,064,320	-6.0%
1989	20,400	672	26,630	47,702	48,570	948,690	-1.8%
1990	37,630	1,480	32,510	71,620	71,700	876,790	-0.1%
1991	51,730	3,930	59,780	115,440	119,400	942,230	-3.4%
1992	32,910	6,340	43,990	83,240	87,080	902,210	-4.6%
1993	34,960	6,210	52,740	93,910	98,810	866,720	-5.2%
1994	28,080	5,020	44,260	77,360	82,200	835,320	-6.3%
1995	34,980	5,220	44,840	85,040	86,270	829,790	-1.4%
1996	26,780	950	27,640	55,370	57,240	797,850	-3.4%
1997	62,320	4,450	71,470	138,240	141,200	856,000	-2.1%
1998	47,910	2,110	45,370	95,390	97,280	889,750	-2.0%
1999	58,690	2,040	55,980	116,710	120,500	961,680	-3.2%
2000	20,230	1,150	19,130	40,510	42,740	932,720	-5.5%
2001	47,710	3,900	53,740	105,350	110,600	923,920	-5.0%
2002	3,967	36	1,740	5,743	6,310	843,150	-9.9%
2003	29,850	1,130	28,040	59,020	62,460	806,800	-5.8%
2004	39,940	2,100	35,130	77,170	82,070	806,670	-6.3%
2005	63,180	6,490	75,610	145,280	152,700	873,100	-5.1%
2006	38,220	1,090	29,140	68,450	71,720	887,580	-4.8%
2007	50,370	3,160	46,490	100,020	105,080	851,460	-5.1%
2008	61,050	5,000	67,620	133,670	140,000	894,180	-4.7%
2009	47,740	3,080	49,090	99,910	105,600	879,280	-5.7%
2010	40,780	2,680	42,080	85,540	90,290	926,830	-5.6%
2011	48,730	1,370	42,460	92,560	94,643	910,873	-2.3%
AVG.	40,379	3,894	45,328	89,601	93,761	925,140	-4.6%

LIMITS: 1,350,000 ACRE-FEET IN ANY TEN CONSECUTIVE YEARS, 270,000 ACRE-FEET IN ANY YEAR

**WATER COURT ACTIVITIES
CALENDAR YEAR 2012**

NUMBER OF APPLICATIONS FOR DECREES	64
NUMBER OF CONSULTATIONS WITH REFEREE	83
NUMBER OF DECREES ISSUED BY WATER COURT	86

TYPE OF DECREE:

SURFACE WATER	105
GROUND WATER	34
RESERVOIRS	21
TRANSFER	1
ALTERNATE POINT	9
CHANGE IN USE	6
PLANS FOR AUGMENTATION	2
IN-STREAM FLOW	2
OTHER	2
PROTEST TO 2010 WATER CASES	31

NUMBER OF WATER RIGHTS IN DECREES: 182

TYPE OF NEW STRUCTURES:

DITCHES	20
RESERVOIRS, PONDS	2
WELLS	7
SPRINGS	42
OTHER (PIPELINES, PUMPS, ETC.)	18

TOTAL NEW STRUCTURES: 89