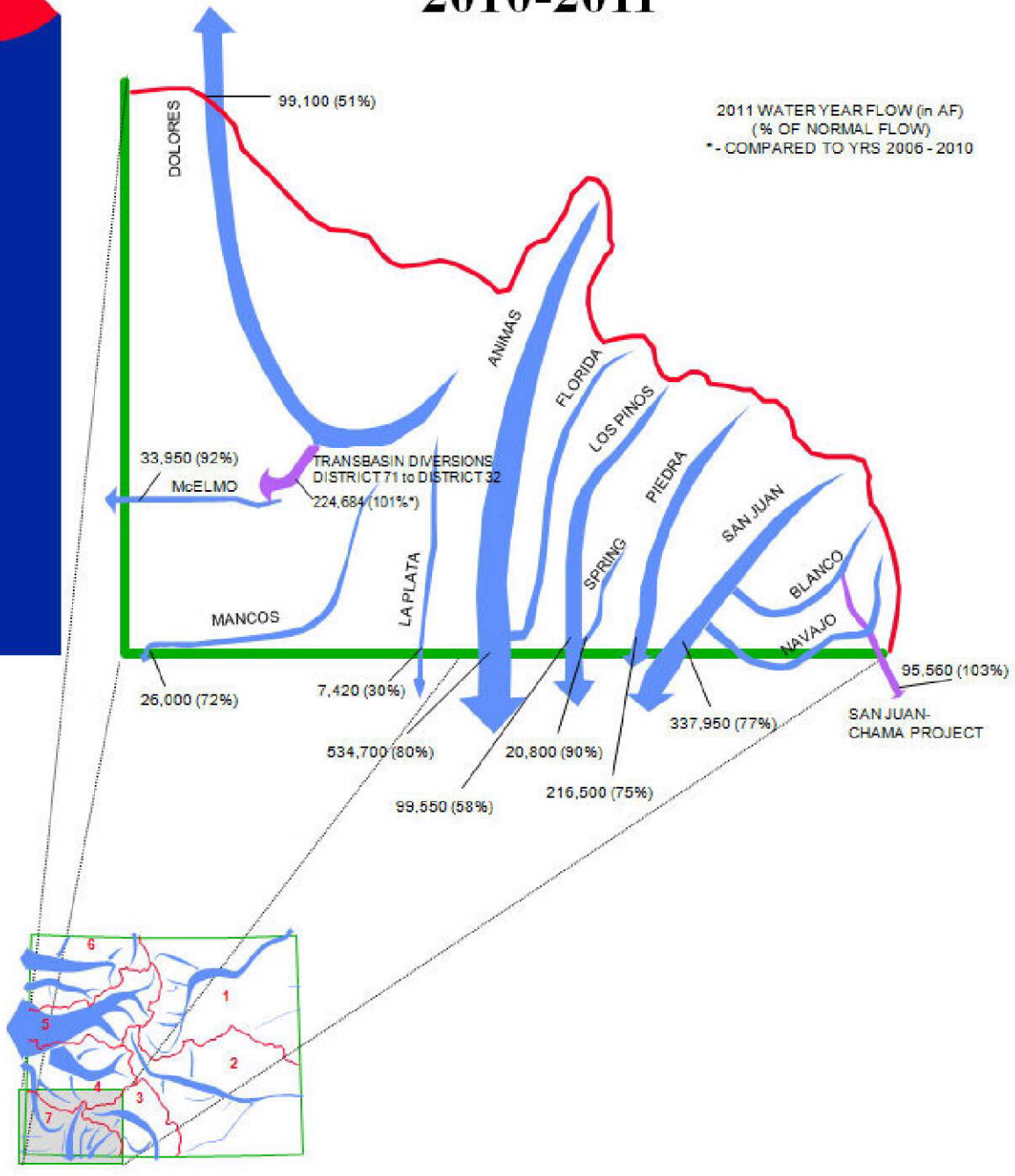
DIVISION OF WATER RESOURCES

DIVISION VII ANNUAL REPORT

2010-2011



Rege W. Leach
Division Engineer

2010-2011 WATER YEAR

The 2011 Water Year started out with near normal conditions. The previous water years' summer monsoon pattern provided much needed moisture toward the end of July 2010. Starting the last two days of July and running through August Durango saw 4.49 inches of precipitation, well above the normal of 2.56 inches for the time period. Reservoir levels starting the 2011 Water Year were at near normal levels. October and November 2010 saw average to below average precipitation Division-wide and stream flows ranged from 60% to 80% of their 30-year average. Reservoirs saw only modest gains in storage during these months. December brought welcome precipitation to the area in the form of significant valley rain and mountain snow. Precipitation in Durango during the month of December was 3.71 inches, which was 223% of the 30-year average. The average snow-water equivalent at SNOWTEL sites across the Division jumped from 66% to 141% of average from the beginning to the end of December. Optimism grew for a good snow year, however with the passing of the new calendar year precipitation events dwindled. January 2011 brought only 0.03 inches of precipitation which was the lowest recorded amount in any January out of the 117 year record. SNOWTEL sites also showed a drop in the snowpack to 107% of average for the end of January. February and March saw little additional precipitation. February brought only 0.57 inches which was the 91st lowest reading for any February, and 0.69 inches in March amounted to the 88th lowest March out of the 117 years of record. In total, the first quarter of 2011 saw the lowest amount of precipitation in the last 40 years. Snow-water equivalents Division-wide fell proportionally to 101% of average by the end of February, and to 91% of average by the end of March. April produced near normal precipitation with an accompanying slight rise in snowpack. Precipitation for the month was 1.12 inches and the snowpack rose to 97% of normal. May 2011 saw the highest precipitation in months, registering 1.85 inches or nearly 170% of the May average. This brought the Water Year precipitation to date to 83% of normal. Higher precipitation than normal in May was coupled with much cooler than normal temperatures. Durango saw high and low temperatures on average 5°F cooler than normal. The cooler temperatures lead to a delayed and prolonged runoff period. Above average precipitation and continued cooler than normal temperatures during the late spring help bolster the snowpack by the end of May to around 127% of average Division-wide.

June brought yet another very dry month with only a trace of precipitation, but precipitation rebounded again in July with 3.17 inches in Durango, 159% of the 30-year average of 1.99 inches. The balance of the Water Year saw sporadic monsoonal moisture which resulted in near normal precipitation. Overall for the 2011 Water Year, Durango received 17.65 inches of precipitation, 90% of the 30-year average of 19.79 inches.

Reservoir storage was heavily relied upon for irrigation supplies during the summer of 2010, but the 2011 Water Year stared out at near normal levels. Vallecito began the 2011 Water Year with 59,700 acre-fee which is 104% of average for the date, McPhee Reservoir had 283,029 acre-feet or 107 % of average, and Lemon started the Water Year the lowest at 12,288 acre-feet or 64% of average. Reservoir storage increased in two of the three major reservoirs in the Division compared to the to-date average due mainly to the mid-December storm event. By the end of December, Vallecito Reservoir increased by over 7,000 acre-feet and rose to 120% of average, and Lemon increased by 2,200 acre-feet and increased to 74% of average. McPhee, however, decreased by 7,600 acre-feet but remained at 107% of the year-to-date average, To begin the irrigation season in June, Vallecito and McPhee Reservoirs were approaching full, and Lemon was up to 34,670 acre-feet of storage or 104% of average.

EVENTS OF 2010-2011 WATER YEAR

ABANDONMENT LIST

The decennial (10 year) abandonment list for Division 7 contained 212 structures. The office received protests on 90 structures and removed 82 before filing with the water court. The water court case 11CW67, filed in December 2011, contained 130 water rights. The water rights that had an appropriation date pre-dating the 1922 Colorado River Compact were excluded from the filing with the water court.

DRY GULCH RESERVOIR

In 2004, Co-Applicants Pagosa Area Water and Sanitation District and the San Juan Water Conservancy District applied for water rights to fill a 35,000 AF reservoir with 80 cfs of direct flow from the San Juan River in 2004. After two appealed Division 7 water court decrees to the Colorado Supreme Court and countless hours of negotiation with Trout Unlimited a settlement and final decree were completed in October 2011. The settlement reduced the reservoir capacity to 11,000 acre feet and a fill rate of 50 cfs. The diversion is further restricted from placing a call to curtail junior water uses located upstream from the San Juan River at Pagosa Springs gage.

COALBED METHANE WELL ADMINISTRATION

The April 20, 2009, Supreme Court decision affirmed the decision of the Division 7 court that the water produced in the operation of coal-bed methane wells is a beneficial use and as such needs

to be brought into the water rights administration system. The Colorado General Assembly enacted House Bill 1303 to address implementation issues. This house bill postponed the requirement for well permits and water rights administration of oil and gas wells until March 31, 2010, authorized the State Engineer to conduct rulemaking to establish criteria for determining the tributary or non-tributary status of the water produced by the wells and allowed those CBM wells determined to be tributary until April 1, 2010 to be permitted as water wells The wells will be allowed to operate pursuant to an approved substitute water supply plans until 2013, by which time a court approved augmentation plan must be in place.

All oil and gas wells producing water were permitted and court applications for decreed water rights were filed. Substitute Water Supply Plans were approved to allow operation of the wells tributary to the Pine and Florida Rivers.

The State Engineer completed the rule-making process establishing criteria for determining the tributary/non-tributary status of the wells. The process has been legally challenged and District Court in Division 1 (Judge Hartman) ruled leaving a question on the authority of the SEO to the making of rules relating the disposition of groundwater within the Southern Ute Indian Reservation which encompasses most of the Fruitland Formation into which the CBM well have been drilled. Judge Hartman's ruling has been appealed to the Colorado Supreme Court and is awaiting a ruling anticipated later in 2012 or spring of 2013.

ANIMAS-LA PLATA PROJECT

Construction on the project continued and will be completed with the completion of the Navajo Nation Municipal Pipeline and dam and pump station punch list items in 2012 or 2013. The pumping plant started diverting water to fill Lake Nighthorse on April 17, 2009 along with water from the natural drainage (Basin Creek). The lake was deemed full with 123,541 acre-feet on June 29th 2011. A Draft ALP Water Administration Protocol was completed in 2010 and continues to be reviewed by the project participants.

DIVISION OFFICE ISSUES AND ACTIVITIES

Water Division 7 saw no changes in staff in the 2010-2011 Water Year, however two former employees were contracted to help with records development, the La Plata River survey, and train new staff. Jason Morrow, former Hydrographer in Division 7, was under contract for part of November and December 2010. Mr. Morrow, under the direction of Brian Boughton, Lead Hydrographer, developed and reviewed 2010 hydrographic records. Mr. Morrow was also under contract during August and September 2011 to collect hydrologic, geologic, vegetation, and beaver

dam information on the La Plata River and its main tributaries of Cherry Creek and Long Hollow. Scott Brinton, former Assistant Division Engineer was under contract part-time from November 2010 through January 2011 to help develop 2010 hydrographic and water commissioner records, and also train new Division 7 staff.

Division 7 Hydrographic Program

Lead Hydrographer, Brian Boughton, PE II, provided overall program leadership of the Division 7 Hydrographic Program during 2011. He was supported by Hydrographer Brian Leavesley (EIT I, half-time hydro/half-time augmentation plan coordinator), Water Commissioner Sherry Schutz (EPST II), Water Commissioner Pete Kasper (EPST II). The half-time EIT II Hydrographer position remained vacant all year.

Each Division 7 Hydrographers and water commissioner were assigned work with specific stream gage stations and geographic areas. Each Division 7 Hydrographers and water commissioners provided support for the other, outside of the assigned geographic area when needed. Sherry Schutz (Water Commissioner District 77) provided support for the stream gage as well as gage within District 29 and 77. Pete Kasper (Water Commissioner District 29) provided support for the stream gages within District 29 and 77. Brian Boughton was assigned to 31, 33, 71 and the lower end of District 30. Brian Leavesley was assigned to 29, 32, 34, 77 and the upper end of District 30. Jason Morrow worked as a temporary employee for the month of May to help with discharge measurements on Basin Creek below Ridges Basin Reservoir. Hydrographer routine work includes responsibility for regular streamflow measurements, gaging station operation and maintenance, satellite monitoring equipment operation and maintenance, support water commissioners with flow measurements on ditches and the complete development and computation of streamflow records. Water commissioner routine work includes responsibility for regular streamflow measurements and gage station operation and maintenance.

Streamflow Records and Measurements

Division 7 hydrographic staff will complete 23 streamflow records for Water Year 2011 for publication in the DWR Annual Streamflow report. Two of these streamflow records are also published by the US Geological Survey in their Annual Water Resources for Colorado Data Report.

During 2011, Division 7 Hydrographers made a total of 339 discharge measurements at stream gages. An Acoustic Doppler Current Profiler (ADCP – StreamPro) was utilized on, 43 of the 339 discharge measurements.

Stream Gage Improvements

During the water year, Division 7 Hydrographers completed the following stream gage projects:

New steam gages:

2 new stream gages were added in Division 7, Groundhog Reservoir and Groundhog Creek below Groundhog Reservoir.

High Data Rate DCPs:

Division 7 operates 58 active gage locations which amounts to 46 active satellite gages.

Other activities conducted by Div. 7 hydrographic staff during WY2011 includes:

Began making discharge measurements at Azotea Tunnel to develop a new rating table. A precipitation gage was installed at the Banded Peaks gaging station.

Installed SDR's and 8200's at several gages to help water commissioners maintain a continuous record (Turkey Creek Ditch, Lost Canyon Ditch, Lake Durango, Pine River Extension, Pine River Canal and below Summit Reservoir).

WATER COURT ACTIVITIES
CALENDAR YEAR 2011

NUMBER OF APPLICATIONS FOR DECREES	84
NUMBER OF CONSULTATIONS WITH REFEREE	37
NUMBER OF DECREES ISSUED BY WATER COURT	41

TYPE OF DECREE:

SURFACE WATER	78
GROUND WATER	37
RESERVOIRS	41
TRANSFER	0
ALTERNATE POINT	2
CHANGE IN USE	9
PLANS FOR AUGMENTATION	5
IN-STREAM FLOW	0
OTHER	1
PROTEST TO 2010 WATER CASES	29
NUMBER OF WATER RIGHTS IN DECREES:	173

TYPE OF NEW STRUCTURES:

DITCHES	7
RESERVOIRS, PONDS	22
WELLS	14
SPRINGS	20
OTHER (PIPELINES, PUMPS, ETC.)	10
TOTAL NEW STRUCTURES:	73

LA PLATA RIVER COMPACT MONTHLY ADMINISTRATIVE SUMMARY (ACRE-FEET)
2011 COMPACT YEAR

MONTH	HESPERUS STATION	LA PLATA & CHERRY CR. DITCH	PINE RIDGE DITCH	30% OF KELLER DITCH	HESPERUS TOTAL*	STATE LINE STATION	ENTERPRISE DITCH (NM)	PIONEER DITCH	DELIVERED STATE LINE TOTAL*	REQUIRED TOTAL (1/2 HESP TOTAL)*
DECEMBER	362.0	0.0	248.0	0.0	0.0	354.0	0.0	0.0	--	--
JANUARY	513.0	0.0	0.0	0.0	0.0	390.0	0.0	0.0	--	--
FEBRUARY	472.0	0.0	30.0	0.0	0.0	420.0	0.0	0.0	--	--
MARCH	1,070.0	0.0	243.0	0.0	0.0	750.0	0.0	0.0	--	--
APRIL	3,750.0	0.0	0.0	0.0	2,919.9	1,670.0	62.4	45.0	1,492.5	1,460.0
MAY	6,580.0	422.0	125.0	9.3	7,136.3	2,910.0	167.9	169.0	3,246.9	3,568.2
JUNE	9,060.0	1,840.0	214.0	11.6	11,125.6	4,710.0	150.3	202.0	5,062.3	5,562.8
JULY	1,410.0	963.0	0.1	0.0	2,373.1	906.0	149.5	150.0	1,205.5	1,186.6
AUGUST	453.0	204.0	0.0	0.0	657.0	135.0	42.7	60.0	237.7	328.5
SEPTEMBER	406.0	65.0	0.0	0.0	471.0	44.0	3.8	0.0	47.8	235.5
OCTOBER	674.0	185.0	0.0	0.0	859.0	51.3	0.0	0.0	51.3	429.5
NOVEMBER	675.0	82.0	0.0	0.0	757.0	198.0	0.0	0.0	198.0	378.5
TOTALS *	25,425.0	3,761.0	860.1	20.9	26,298.9	12,538.3	576.6	626.0	11,542.0	13,149.5

Comments:

On April 7, 2011 @ 15:30, New Mexico placed a call for one half of Hesperus to be delivered the following day.

Keller Ditch (30% compact) turned on 5/16/11.

Colorado portion of Enterprise Ditch off on 6/23/11.

Compact water delivered through Cherry Creek for compact deliveries starting 7/8/11 @ 15:00PM.

La Plata River dry above Cherry Creek confluence on 7/22/11.

Cherry Creek dry above confluence with La Plata River on 8/22/11.

Data for October and November are preliminary and subject to change.

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

UPPER BASIN COMPACT -- SAN JUAN-CHAMA DIVERSIONS

WATER YEAR	RIO BLANCO DIVERSION	LITTLE OSO DIVERSION	OSO DIVERSION	TOTAL COLO. DIVERSION	AZOTEA TUNNEL (USGS/DWR)	TEN-YEAR TOTALS (USGS)	% DIFF CO VS. AZOTEA VALUES % DIFF
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