COLORADO WATER SUPPLY CONDITIONS UPDATE

FROM THE OFFICE OF THE STATE ENGINEER: COLORADO DIVISION OF WATER RESOURCES ROOM 818, 1313 SHERMAN ST., DENVER, CO 80203 303-866-3581; <u>www.water.state.co.us</u>

September 1, 2015

The Surface Water Supply Index (SWSI) is used as an indicator of mountain-based water supply conditions in the seven major river basins of the state and in each of the 8-digit HUC basins. Colorado's original SWSI was been published beginning in the 1980s. The Colorado Water Conservation Board (CWCB) completed a major revision to the Colorado Drought Plan in 2010. At that time, Colorado adopted a new SWSI analysis based on the components shown below, which vary depending on the time of year. The new SWSI is based on a ranking of total volume in a HUC or major river basin ranked against similar volumes in historical years. The Natural Resources Conservation Service (NRCS) has been producing a version of the new SWSI for the last few years.

Time Period	SWSI Components
January 1 - June 1	Forecasted Runoff + Reservoir Storage
July 1 - September 1	Previous Month's Streamflow + Reservoir Storage
October 1 - December 1	Reservoir Storage

Recently, CWCB and the Division of Water Resources (DWR) (both Divisions of the Colorado Department of Natural Resources) completed a software project to implement a revised version of the new SWSI and to document the underlying hydrologic data. The new DNR SWSI was developed with assistance from the NRCS and several water suppliers, as well as feedback from members of Colorado's Water Availability Task Force. July 1, 2015 was the first month that the new DNR SWSI was published. We expect this report to evolve over the next year in order to better present the new information.

The statewide SWSI values for August (September 1) range from a high value of +3.0 in the South Platte River Basin to a low of -0.3 in the Colorado River basin. All of the major river basins have near normal to above normal water supply conditions. The lower SWSI in the Colorado River Basin was largely driven by August streamflows that were less than normal. The following SWSI values were computed for each of the seven major basins for September 1, 2015.

Basin	September 1 SWSI	Change from Previous Month	Change from Previous Year
Arkansas	2.6	-0.9	2.2
Colorado	-0.3	-0.6	-2.7
Gunnison	2.2	0.3	3.2
Rio Grande	1.2	-0.1	1.6
San Juan-Dolores	1.2	-1.4	1.4
South Platte	3.0	-0.6	-0.6
Yampa-White	0.3	0.1	-3.1

Additional information & data is available at: http://water.state.co.us/DWRDocs/Reports/Pages/SWSIReport.aspx

				SWSI Scale				
4	-3	-2	-1	0	1	2	3	4
Severe		Moderate		Near Normal		Above Normal	Al	oundant
Drought		Drought		Supply		Supply		Supply



SURFACE WATER SUPPLY INDEX FOR COLORADO BY MAJOR RIVER BASIN

September 1, 2015



SURFACE WATER SUPPLY INDEX FOR COLORADO BY HUC

September 1, 2015

				Res Storage	Prev Month's	Total Vol
	HUC ID	HUC Name	SWSI	NEP	Stream Flow NEP	(AF)
	11020001	Arkansas Headwaters	2.0	71	54	259,454
s 110	11020002	Upper Arkansas	2.5	82	47	262,947
nsa	11020005	Upper Arkansas-Lake Meredith	1.7	87	45	91,014
rka	11020006	Huerfano	-2.5	18*	30	2,268
Ā	11020009	Upper Arkansas-John Martin Reservoir	2.9	88	43	374,231
	11020010	Purgatoire	2.0	77	43	33,417
	14010001	Colorado Headwaters	0.5	76	13	211,449
op	14010002	Blue	-1.5	41	17	157,730
ora	14010003	Eagle	-2.1	None	25	15,528
Col	14010004	Roaring Fork	-0.2	27	52	144,677
	14010005	Colorado Headwaters-Plateau	-2.4	48	21	146,666
	14020001	East-Taylor	0.4	46	57	104,833
	14020002	Upper Gunnison	2.0	76	51	942,683
log	14020003	Tomichi	2.9	89	82	12,978
sinc	14020004	North Fork Gunnison	0.3	50	52	16,726
en	14020005	Lower Gunnison	-0.4	None	45	91,077
-	14020006	Uncompahgre	1.2	69	39	76,333
	14030003	San Miguel	0.2	None	52	12,403
0	13010001	Rio Grande Headwaters	2.3	91	49	75,365
o ph	13010002	Alamosa-Trinchera	-0.3	57	26	13,325
Gra	13010004	Saguache	2.1	None	75	4,486
0	13010005	Conejos	-2.1	32	23	24,680
	14030002	Upper Dolores	1.1	65	16	319,417
έs	14080101	Upper San Juan	-0.4	81	24	119,766
Juai	14080102	Piedra	-1.8	None	28	8,091
L San J Dolo	14080104	Animas	-0.3	65	34	54,894
	14080105	Middle San Juan	-2.4	50**	8	722
	14080107	Mancos	3.0	87	67***	8,709
1(10190001	South Platte Headwaters	-0.8	39	62	150,482
	10190002	Upper South Platte	2.1	83	72	367,450
itte	10190003	Middle South Platte-Cherry Creek	2.1	84	67	169,273
Pla	10190004	Clear	1.1	None	64	13,796
ıth	10190005	St. Vrain	1.8	71	44	91,703
Sol	10190006	Big Thompson	1.8	77	9	573,173
	10190007	Cache La Poudre	3.3	90	81	175,931
	10190012	Middle South Platte-Sterling	2.7	98	67	225,810
	10180001	North Platte Headwaters	-0.4	None	45	11,071
e -	14050001	Upper Yampa	3.0	99	29	56,474
hit	14050002	Lower Yampa	-1.6	None	30	10,948
∠ ≺	14050003	Little Snake	-3.1	None	12	447
	14050005	Upper White	-2.4	None	22	14,898

September 1, 2015 SWSI Values by HUC and Component Non Exceedance Probabilities (NEP)

NEP is non exceedance probability for total reservoir storage in HUC and total streamflow volume in HUC (if there is more than one of each type of component, their volumes are added together). Total Vol is the volume of reservoir storage plus streamflow volume in HUC combined. NEP is calculated compared to natural flow and active storage data for the period 1970-2010.

*Cucharas Reservoir is empty due to Division Engineer filling restriction

Long Hollow Reservoir is newly constructed and therefore does not have a history of storage for comparison * Previous month's stream flow calculated based on observed stream flow instead of native stream flow

September 1, 2015 SWSI Component Information By HUC

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
		ARKANSAS RIVER AT SALIDA	29,254	54
		CLEAR CREEK RESERVOIR	8,400	85
11020001	Arkansas	TURQUOISE LAKE	119,700	62
	Headwaters	TWIN LAKES RESERVOIR	59,700	61
		HOMESTAKE RESERVOIR	42,400	79
44020002	11	PUEBLO RESERVOIR INFLOW	47,247	47
11020002	Upper Arkansas	PUEBLO RESERVOIR	215,700	82
		PUEBLO RESERVOIR INFLOW	47,247	47
		HUERFANO RIVER NEAR REDWING	1,461	27
11020005	Upper Arkansas-	CUCHARAS RIVER AT BOYD RANCH NR LA VETA	806	40
	Lake Meredith	MEREDITH RESERVOIR	33,200	81
		LAKE HENRY	8,300	96
		HUERFANO RIVER NEAR REDWING	1,461	27
11020006	Huerfano	CUCHARAS RIVER AT BOYD RANCH NR LA VETA	806	40
		CUCHARAS RESERVOIR (filling restriction)	0	18
		PUEBLO RESERVOIR INFLOW	47,247	47
		HUERFANO RIVER NEAR REDWING	1,461	27
44020000	Upper Arkansas-	CUCHARAS RIVER AT BOYD RANCH NR LA VETA	806	40
11020009	John Martin	PURGATOIRE RIVER AT TRINIDAD	5,417	43
	Reservoir	ADOBE CREEK RESERVOIR	62,700	94
		JOHN MARTIN RESERVOIR	256,600	86
44020040		PURGATOIRE RIVER AT TRINIDAD	5,417	43
11020010	Purgatoire	TRINIDAD LAKE	28,000	77
	Colorado	COLORADO RIVER NEAR DOTSERO	71,749	13
14010001		WILLIAMS FORK RESERVOIR	93,500	85
	neauwalers	WOLFORD MOUNTAIN RESERVOIR	46,200	70
1 404 0000	DI .	BLUE RIVER INFLOW TO GREEN MOUNTAIN RES	22,430	17
14010002	blue	GREEN MOUNTAIN RESERVOIR	135,300	41
14010003	Eagle	EAGLE RIVER BELOW GYPSUM	15,528	25
14010004	Boaring Fork	ROARING FORK AT GLENWOOD SPRINGS	52,777	52
14010004	Roaring Fork	RUEDI RESERVOIR	91,900	27
	Colorado	COLORADO RIVER NEAR CAMEO	132,149	21
14010005	Headwaters-			
	Plateau	VEGA RESERVOIR	14,517	48
	East-Taylor	TAYLOR R INF TO TAYLOR PARK RESERVOIR	9,703	55
14020001		EAST RIVER AT ALMONT	12,530	50
		TAYLOR PARK RESERVOIR	82,600	46
		GUNNISON RIVER NEAR GUNNISON, CO	32,498	58
		LAKE FORK AT GATEVIEW, CO	11,086	55
		BLUE MESA RESERVOIR	771,900	77
14020002	Upper Gunnison	MORROW POINT RESERVOIR	112,000	18
		FRUITLAND RESERVOIR	1,000	64
		CRAWFORD RESERVOIR	8,100	69
		SILVER JACK RESERVOIR	6,100	43
14020003	Tomichi	IOMICHI CREEK AT GUNNISON, CO	12,278	82
			700	89
14020004	North Fork	NORTH FORK GUNNISON R NR SOMERSET	8,626	52
4.400.000-	Gunnison	PAONIA RESERVOIR	8,100	50
14020005	Lower Gunnison	GUNNISON RIVER NR GRAND JUNCTION	91,077	45
14020006	Uncompahgre		8,733	39
4.400.0000		RIDGEWAY RESERVOIR	67,600	69
14030003	San Miguel	SAN MIGUEL RIVER NEAR PLACERVILLE	12,403	52

HUC ID	HUC Name		Component	Component
		Component Name	Volume (AF)	NEP for Month
13010001	Rio Grande	RIO GRANDE NEAR DEL NORTE	32,065	49
		RIO GRANDE RESERVOIR	23,700	92
	Headwaters	SANTA MARIA RESERVOIR	19,600	92
		CONTINENTAL RESERVOIR (drained for repair)	0	6
			2,452	21
			720	36
		SANGRE DE CRISTO	249	21
13010002	Alamosa-Trinchera		898	33
		CULEBRA CREEK AT SAN LUIS	1,740	41
			3,700	50
			3,566	64
13010004	Saguache	SAGUACHE CREEK NEAR SAGUACHE, CO	4,486	75
13010005	Coneios	CONEJOS RIVER NEAR MOGOTE	5,980	23
		PLATORO RESERVOIR	18,700	32
		DOLORES RIVER BELOW MCPHEE RESERVOIR	7,317	16
14030002	Upper Dolores	GROUNDHOG RESERVOIR	22,400	99
		MCPHEE RESERVOIR	289,700	61
		SAN JUAN RIVER NEAR CARRACAS	11,626	23
14080101	Upper San Juan	LOS PINOS RIVER NEAR BAYFIELD	13,440	34
		VALLECITO RESERVOIR	94,700	81
14080102	Piedra	PIEDRA RIVER NEAR ARBOLES	8,091	28
	Animas	ANIMAS RIVER AT DURANGO	27,406	40
14080104		FLORIDA RIVER INFLOW TO LEMON RESERVOIR	2,089	19
		LEMON RESERVOIR	25,400	65
14080105	Middle San Juan	LA PLATA RIVER AT HESPERUS	473	8
	middle San Suan	LONG HOLLOW RESERVOIR	249	50
14080107	Mancos	MANCOS RIVER NEAR MANCOS	1,309	67
		JACKSON GULCH RESERVOIR	7,400	87
	South Platte	ELEVENMILE CANYON RESV INFLOW	8,360	62
10190001		ANTERO RESERVOIR (drained for repair)	22	4
	Headwaters	ELEVENMILE CANYON RESERVOIR	99,300	38
		SPINNEY MOUNTAIN RESERVOIR	42,800	67
	Upper South Platte	SOUTH PLATTE RIVER AT SOUTH PLATTE	33,343	72
10190002		BEAR CREEK ABV EVERGREEN	3,007	66
		CHEESMAN LAKE	76,100	61
		DILLON RESERVOIR	255,000	84
		SOUTH PLATTE RIVER AT SOUTH PLATTE	33,343	72
		BEAR CREEK ABV EVERGREEN	3,007	66
		CLEAR CREEK AT GOLDEN	13,796	64
		SAINT VRAIN CREEK AT LYONS	9,139	41
		BOULDER CREEK NEAR ORODELL	5,364	55
40400000	Middle South	SOUTH BOULDER CK NR ELDORADO SPRINGS,	4 720	24
10190003	Platte-Cherry		1,730	21
	Сгеек	BIG THOMPSON R AT MOUTH, NR DRAKE, CO	6,629	9
	Charr		19,665	81
			22,600	97
			6,400	33
			38,800	61
10100004			8,800	86
10190004	Clear		13,796	64
10190005	St. Vrain		9,139	41
10100005			5,364	55
10190005	st. vrain	SOUTH BOULDER CK NR ELDORADO SPRINGS,	1,/30	21

HUC ID	HUC Name	Component Name	Component	Component
			volume (AF)	NEP for Month
			26 900	60
			36,600	00
			14,000	13
			14,900	64
			5,770	03
			11,200	70
		BIG THOMPSON K AT MOUTH, NK DRAKE, CO	0,029	9
			31,229	00
			70,000	09
10190006	Big Thompson		2,321	19
			2,279	20
			2,015	04
			441,400	74
			7,000	30
			19,000	01
			3,980	90
			0,370	92
1010007	Cacha La Daudra		3,027	00
10190007	Cache La Poudre		19,130	80
			0,087	94
			3,393	90
			105,800	89
			5,071	80
	Middle South Platte-Sterling		33,343	12
			3,007	66
			13,796	64
			9,139	41
			5,304	22
		SOUTH BOULDER CK NR ELDORADO SPRINGS,	1 730	21
10100012		BIG THOMPSON R AT MOUTH NR DRAKE CO	6,629	0
10190012		CACHE LA POUDRE R AT CANYON MOUTH	19 665	81
			25 324	01
			20,524	82
			11 449	80
			29 182	87
		PREWITT RESERVOIR	19 778	91
			26 653	95
	North Platte		20,055	,,,
10180001	Headwaters	NORTH PLATTE R NR NORTHGATE	11,071	45
14050001		YAMPA RIVER AT STEAMBOAT SPRINGS	7,283	40
	Upper Yampa	ELK RIVER NEAR MILNER, CO	6,563	21
		ELKHEAD CREEK ABOVE LONG GULCH	128	28
		STAGECOACH RESERVOIR NR OAK CREEK	35,600	99
		YAMCOLO RESERVOIR	6,900	86
14050002	Lower Yampa	YAMPA RIVER NEAR MAYBELL	10,948	30
14050003	Little Snake	LITTLE SNAKE RIVER NEAR LILY	447	12
14050005	Upper White	WHITE RIVER NEAR MEEKER	14,898	22

The SWSI value for the month was 3.0. August 2015 "felt" a lot more like a "normal" August than the previous months of the 2015 Irrigation Year. Water supply was not great, but it was still good enough to keep the calls on the South Platte mainstem and most of the major tributaries more junior than "normal" for August. The biggest factor in "feeling normal" was that, as usually happens, there was a mainstem call for almost the entire month.

Precipitation over most of northeastern Colorado in August was below normal - though, of course, there were some areas of near to above normal precipitation. Temperatures over most of the area were slightly above normal in August, but the far northeastern corner of Colorado did see temperatures slightly cooler than normal.

As has become typical for Irrigation Year 2015, overall flows at the Kersey and Julesburg gages in August again displayed a somewhat unusual pattern. The flow at Kersey did exceed the flow at Julesburg (which is normal). However, the difference in actual numbers was small enough that it looked for a while like this could be another instance of the average monthly flow at Julesburg exceeding the flow at Kersey. The August Julesburg mean gage flow was 338 cfs or 189% of the long term August mean flow of 178 cfs. The

overall August Kersey gage mean flow was 404 cfs or 81% of the long term August mean flow of 501 cfs.

Reservoir storage continues to be very good within the South Platte basin. The end of August overall storage was at approximately 81% of capacity. This compares to an overall average end of August storage of approximately 62% of capacity.











The SWSI value for the month was 2.6. River calls above the Fort Lyon Canal varied from the Fort Lyon Canal 3/1/1887 water right to short periods of Amity Canal's Great Plains storage right of 8/1/1896. Inflows into John Martin Reservoir were still controlled by the John Martin Reservoir storage right of 5/31/1949 while Conservation storage water continued to be distributed into accounts. It is anticipated that distribution into accounts will continue at least through September thereby preventing any call from below John Martin Reservoir against upstream junior water rights.

Kansas concluded a release of their account water from John Martin Reservoir, which began in late June, on August 12, 2015. The total release over the six week period was 65,839 acre-feet from the Kansas Section II account. Ending content in John Martin Reservoir still remained at 256,250 acre-feet at the end of August.







Arkansas Basin SWSI History Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.

The SWSI value for the month was 1.2. Flow at the gaging station Rio Grande near Del Norte averaged 525 cfs (80% of normal). The Conejos River near Mogote had a mean flow of 187 cfs (87% of normal, buoyed heavily by direct flow storage releases from Platoro Reservoir). Stream flow in the northern areas of the upper Rio Grande Basin was near normal during August while the southern and eastern drainages of the Valley had only poor to fair runoff. LaGarita, Carnero, Saguache, and the northern Sangre de Cristo Mountain Creeks had enough rain to receive average or above August runoffs. Most other streams in the area flowed only 1/2 to 3/4 of normal during August.

August precipitation in Alamosa was only 0.50 inches, 0.77 inches below normal. Basinwide, the expectations for a wet August were not met.

The mean temperature at Alamosa for the month of August was 64.0 degrees, which is an average of 1.3 degrees above normal.

<u>Outlook</u>

The National Weather Service has issued a 90-day outlook that continues to predict above average precipitation for southern Colorado, Arizona, New Mexico, and Texas during September-October-November,

2015 and well beyond into the winter season. While all of the San Luis Valley would benefit from above normal snowpack this winter, the southern drainages need a break from continuing drought.

Administrative/Management Concerns

Despite the recent decline in streamflow, both the Rio Grande and Conejos Rivers produced much more water than was expected earlier in the year. The current estimate for the Rio Grande is an April-September total flow of over 560,000 acre-feet, which is about 110% of the long term average. The Conejos system annual total will be only about 77% of the historic average, but that's well above the June 1 forecast of 57%. Curtailment of native streamflow continues on the Rio Grande at 14%. There is no curtailment set on the Conejos at this time. That means all available native flow can be diverted by the ditches that are in priority.

Public Use Impact

The recent sunny and relatively dry weather has benefited those farmers and ranchers with native grass and alfalfa crops and the barley and potato crop harvest has gone very smoothly. Yields should be good, but prices have dropped some. Beaver Park Reservoir is slowly filling while Continental Reservoir remains empty for repair work.





Rio Grande-DataComposite-SWSI



The SWSI value for the month was 2.2. August in the Gunnison basin was drier than the previous months, especially in the lower basin which received as low as 50% of the average precipitation. Upper basin areas fared better with close to average precipitation in the East River and Tomichi Creek basins. Even so, seasonal precipitation hovered around average for the entire Gunnison basin. Temperatures were also right around the average over the entire basin for the month.

Streamflows finally dropped to normal levels later in the month with the decreased precipitation.

<u>Outlook</u>

The Gunnison basin falls within a large area of the southwest U.S. expected by the Climate Center to receive greater than average precipitation during the next three months. The current El Nino is one of the strongest on record for this time of year and is expected to continue. In the past this condition has produced more precipitation during the fall and spring, but not much during December through February in the Gunnison basin.

Administrative/Management Concerns

On August 18th, reservoir accounting kept by the Division of Water Resources showed that Gunnison Tunnel demand finally exceeded inflows into the Aspinall Unit, meaning that the 1,000 cfs Uncompany Valley Water Users began using some of the Taylor Park storage to fill the Tunnel. In only one other year since 2002 did we go farther into the year without using storage water. That year was 2006 where the first day of storage use was Sept. 3rd. Considering

that 2006 was an above average snowpack year above Blue Mesa with 112% of the median peak snow water equivalent (SWE), it is incredible that with only 76% of the peak SWE in 2015 we lasted until August 18th without using any storage. All areas of the Gunnison have experienced a good year with less storage used than normal. The Surface Creek valley required less water from the close to 100 reservoirs on the Grand Mesa than in an average year and will therefore roll over an above average amount into the 2016 water year. As stated last month, this year demonstrates the huge impact of the cool and wet spring and early monsoon, even if a lot of the precipitation falls as rain instead of snow.

Pubic Use Impacts

Boaters experienced great rafting, kayaking conditions this summer with the extended flows. Haying is mostly complete, especially in the upper Gunnison above Blue Mesa, where they are now taking water mostly to grow a bit of pasture grass and wet their fields prior to winter.





Gunnison-DataComposite-SWSI



<u>Basinwide Conditions Assessment</u> The SWSI value for the month was -0.3.

Outlook

Colorado River flows continue to fall to slightly above average to average with tributary flows running near or slightly below average throughout September. Average to below average precipitation with average temperature is forecast for western Colorado through September.

Administrative/Management Concerns

As of September 8, there is not a call on the Colorado River main stem, although the Shoshone Power Plant Protocol is in effect. Accordingly, Green Mountain Reservoir is releasing to meet inflow and HUP obligations. Grand Valley Irrigation diversions (Government Highline/Orchard Mesa Irrigation, Grand Valley Irrigation canals) continue at or near full capacity. Ruedi Reservoir outflow remains fairly steady as it bypasses inflows, and releases for contracts, replacement for Boustead Tunnel and fish recovery. Wolford Mountain exhausted its fish recovery pool.

Public Use Impacts

Pitkin County supported a \$35,000 Healthy Rivers and Streams grant to help keep more water in the Roaring Fork River. Denver based Colorado Water Trust is spearheading a project to provide a pathway for water rights holders to leave more of their allocation in the river without being penalized, for the maximum benefit of the river.

Colorado-DataComposite-SWSI

Colorado Basin SWSI History Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.

The SWSI value for the month was 0.3. August precipitation was well below average in the Yampa, White, and North Platte River basins. Precipitation for the month, as measured at the SNOTEL sites operated by NRCS, was reported at 65% of average for the combined Yampa, White, and North Platte River basins. Total precipitation for the water year as a percent of average to date in the combined basins at the end of August slightly decreased to 89%.

<u>Outlook</u>

As of August 31st Fish Creek Reservoir was storing approximately 3,659 AF, 87% of capacity. The capacity of Fish Creek Reservoir is 4,167 AF. Yamcolo Reservoir was storing 7,916 AF at the end of August 2015. The capacity of Yamcolo Reservoir is 8,700 AF. On August 31st Elkhead Creek Reservoir was storing 23,347 AF. The capacity of Elkhead Creek Reservoir is 24,778 AF. On August 31tst, 2015; Stagecoach Reservoir was storing 35,600 AF which is 107% of capacity.

Water stored in Fish Creek Reservoir is used primarily for municipal purposes, Yamcolo Reservoir for irrigation purposes, and Elkhead Creek Reservoir for municipal, industrial, recreational, and fish recovery releases. Stagecoach Reservoir is primarily used for recreation though a significant amount of stored water is allocated for municipal, industrial, irrigation and augmentation uses.

Public Use Impacts

At Stagecoach State Park fishing from shore has steadily increased due to cooler weather and water temperatures dropping. Anglers are still catching a fair amount of fish. Many anglers at the headwaters have been catching Rainbow trout. Fly fishing at the Tail Waters has been steady with anglers catching lots of trout

At Steamboat Lake State Park the water is warming up so shore fishing is slowing down, evening and early morning has been better, the streams have slowed down. Boat fishermen are doing well.

Yampa-White-DataComposite-SWSI

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SAN JUAN-DOLORES BASIN

Basinwide Conditions Assessment

The SWSI value for the month was 1.2. Flow at the Animas River at Durango averaged 446 cfs (78% of average). The flow at the Dolores River at Dolores averaged 132 cfs (54% of average). The La Plata River at Hesperus averaged 7.7 cfs (34% of average). Precipitation in Durango was 1.70 inches for the month, 66% of the 30-year average of 2.59 inches. Precipitation was the 76 highest amount recorded in August, in Durango, out of 121 years of record. Precipitation to date in Durango, for the water year, is 18.94 inches, 109% of the 30-year average of 17.44 inches. End of last month precipitation to date, for the water year was 114% of average. The average high and low temperatures for the month of August in Durango were 860 and 520. In comparison, the 30-year average high and low for the month is 840 and 520. At the end of the month Vallecito Reservoir contained 94,741 acre-feet compared to its average content of 70,007 acre-feet (135% of average). McPhee Reservoir was up to 287,844 acre-feet compared to its average content of 283,864 (101% of average), while Lemon Reservoir was up to 25,280 acre-feet as compared to its average content of 21,332 acre-feet (119% of average).

Outlook

Precipitation (1.70 inches) was below average for August in Durango. There were 76 years out of 121 years of record where there was more precipitation than this year. Flows in the rivers within the basin fell below average for the month. There were 64 out of 104 years of record where the total flow past the Animas River

at Durango stream gauge was more than this year. There were 85 out of 105 years of record where the total flow past the Dolores stream gauge was more than this year and 92 out of 99 years of record where the total flow past the La Plata River at Hesperus gauge was more than this year.

San Juan-Dolores-DataComposite-SWSI

HUC 13010005 (Conejos) Surface Water Supply - SEP

HUC 11020006 (Huerfano) Surface Water Supply - SEP

HUC 14080107 (Mancos) Surface Water Supply - SEP

HUC 14080104 (Animas) Surface Water Supply - SEP

HUC 14030003 (San Miguel) Surface Water Supply - SEP

HUC 14020005 (Lower Gunnison) Surface Water Supply - SEP

HUC 14020001 (East-Taylor) Surface Water Supply - SEP