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>

February 1, 2016

The Surface Water Supply Index (SWSI) is used as an indicator of water supply conditions in the seven major river basins of the state and in each of the 41 smaller watersheds, or HUCs. 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. For instance, in January, the total volume in a HUC is based on the forecasted runoff at specific locations plus the volume in storage in specific reservoirs. That total volume is ranked against similar total volumes that occurred each January between 1970 and 2010.

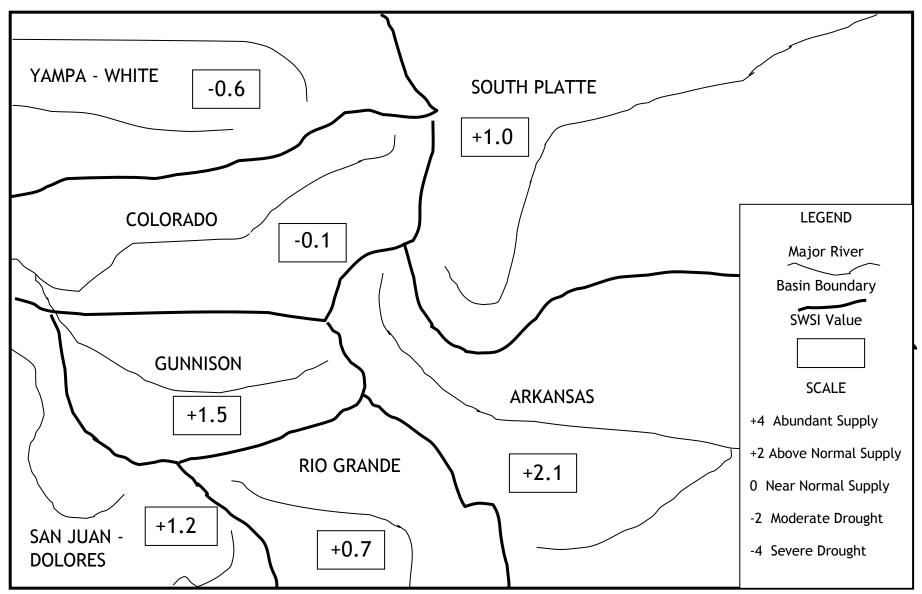
Time Period	SWSI Components
January 1 - June 1	Forecasted Runoff + Reservoir Storage
July 1 - September 1	Previous Month's Streamflow + Reservoir Storage
October 1 - December 1	Reservoir Storage

Recently, CWCB and the Division of Water Resources (DWR) (both Divisions of the Colorado Department of Natural Resources) completed a software project to implement an automated calculation of the SWSI and to document the underlying hydrologic data. July 1, 2015 was the first month that the new DNR SWSI was published. The results are summarized within this monthly report and additional information, maps & data are available at: <u>http://water.state.co.us/DWRDocs/Reports/Pages/SWSIReport.aspx</u>. This document also contains reports about regional conditions prepared by each DWR Division Office.

The SWSI calculation for the winter season is based on forecasted runoff as well as reservoir storage. The statewide SWSI values for January (February 1) range from a low of -0.6 in the Yamp-White River Basin to a high of 2.1 in the Arkansas River Basin. There was little change in water supply conditions compared to last month and water supply remains especially strong in the Arkansas River Basin. The following SWSI values were computed for each of the seven major basins for February 1, 2016.

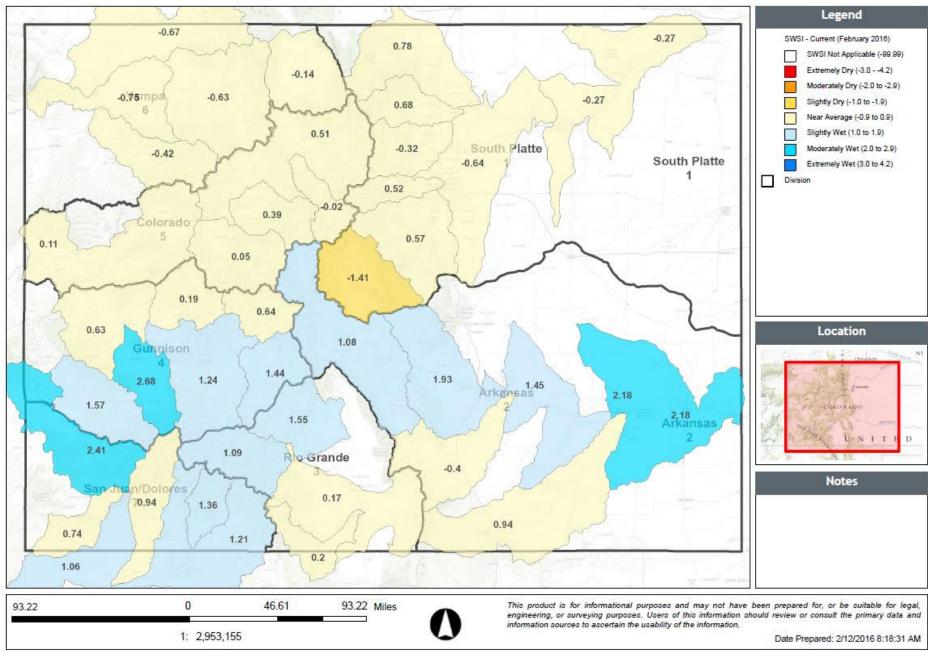
Basin	February 1 SWSI	Change from Previous Month*	Change from Previous Year
Arkansas	2.1	0.0	0.0
Colorado	-0.1	0.2	-0.8
Gunnison	1.5	0.1	0.9
Rio Grande	0.7	-0.2	0.7
San Juan-Dolores	1.2	0.0	1.5
South Platte	1.0	-0.1	-3.1
Yampa-White	-0.6	0.1	0.4

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



SURFACE WATER SUPPLY INDEX FOR COLORADO BY MAJOR RIVER BASIN

February 1, 2016



SURFACE WATER SUPPLY INDEX FOR COLORADO BY HUC

February 1, 2016

		ebruary 1, 2016 SWSI Values by HUC and		Reservoir	Forecasted	Total Vol
Basin	HUC ID	HUC Name	SWSI	Storage NEP	Runoff NEP	(AF)
	11020001	Arkansas Headwaters	1.1	56	59	416,300
se 11020002 11020005 11020006		Upper Arkansas	1.9 1.5	81	65	629,600
		Upper Arkansas-Lake Meredith		85	66	444,900
٩rk	11020006	Huerfano	-0.4	13	55	23,800
11020009		Upper Arkansas-John Martin Reservoir	2.2	78	65	745,400
	11020010	Purgatoire	0.9	78	46	69,400
_	14010001	Colorado Headwaters	0.5	81	52	1,510,700
Colorado	14010002	Blue	0.0	15	61	351,000
lor	14010003	Eagle	0.4	None	55	330,000
S	14010004	Roaring Fork	0.1	28	51	745,200
	14010005	Colorado Headwaters-Plateau	0.1	48	52	2,321,100
	14020001	East-Taylor	0.6	58	52	344,700
	14020002	Upper Gunnison	1.2	96	56	1,539,400
son	14020003	Tomichi	1.4	99	67	85,900
Gunnison	14020004	North Fork Gunnison	0.2	2	54	275,900
Gui	14020005	Lower Gunnison	0.6	None	58	1,550,000
	14020006	Uncompahgre	2.7	53	73	220,500
	14030003	San Miguel	1.6	None	69	147,000
	13010001	Rio Grande Headwaters	1.1	88	57	606,900
o nde	13010002	Alamosa-Trinchera	0.2	45	53	149,530
Rio Grande	13010004	Saguache		None	69	37,000
0	13010005	Conejos	0.2	25	53	217,981
	14030002	Upper Dolores	2.4	56	65	615,400
÷	14080101	Upper San Juan	1.2	97	61	725,100
San Juan- Dolores	14080102	Piedra	1.4	None	66	240,000
l n Jolo	14080104	Animas	0.9	54	62	536,100
Sa	14080105	Middle San Juan	1.1	50	62	26,335
	14080107	Mancos	0.7	65	59	40,200
	10190001	South Platte Headwater	-1.4	41	43	178,400
	10190002	Upper South Platte	0.6	73	54	480,700
tte	10190003	Middle South Platte-Cherry Creek	-0.6	58	42	838,300
Plat	10190004	Clear	0.5	None	56	103,000
South Platte	10190005	St. Vrain	-0.3	54	48	236,100
Sou	10190006	Big Thompson	0.7	63	46	571,100
	10190007	Cache La Poudre	0.8	78	42	370,400
	10190012	Middle South Platte-Sterling	-0.3	75	42	933,500
	10180001	North Platte Headwaters	-0.1	None	48	230,000
u b	14050001	Upper Yampa	-0.6	99	41	676,000
Yampa- White	14050002	Lower Yampa	-0.8	None	41	875,000
¥a∣	14050003	Little Snake	-0.7	None	42	285,000
	14050005	Upper White	-0.4	None	45	265,000

February 1, 2016 SWSI Values by HUC and Non Exceedance Probabilities (NEP)

NEP is non exceedance percentage for total reservoir storage in HUC and total streamflow forecast 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 forecast volume in HUC combined. NEP is calculated compared to the volume of actual natural flow and active storage historically occurring this month during the period 1970-2010.

February 1, 2016 SWSI Component Information By HUC

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
		ARKANSAS RIVER AT SALIDA	245,000	59
	A vilvo non o	CLEAR CREEK RESERVOIR	7,800	60
11020001	Arkansas Headwaters	HOMESTAKE RESERVOIR	41,300	77
	Treadwaters	TURQUOISE LAKE	74,300	51
		TWIN LAKES RESERVOIR	47,900	58
11020002		PUEBLO RESERVOIR	249,600	81
11020002	Upper Arkansas	PUEBLO RESERVOIR INFLOW	380,000	65
		CUCHARAS RIVER AT BOYD RANCH NR LA VETA	11,200	54
		HUERFANO RIVER NEAR REDWING	12,600	59
11020005	Upper Arkansas- Lake Meredith	LAKE HENRY	6,400	81
	Lake Mereditin	MEREDITH RESERVOIR	34,700	81
		PUEBLO RESERVOIR INFLOW	380,000	65
		CUCHARAS RESERVOIR ¹	0	13
11020006	Huerfano River	CUCHARAS RIVER AT BOYD RANCH NR LA VETA	11,200	54
		HUERFANO RIVER NEAR REDWING	12,600	59
		ADOBE CREEK RESERVOIR	66,600	96
		CUCHARAS RIVER AT BOYD RANCH NR LA VETA	11,200	54
	Upper Arkansas-	HUERFANO RIVER NEAR REDWING	12,600	59
11020009	John Martin Reservoir	JOHN MARTIN RESERVOIR	232,000	78
		PUEBLO RESERVOIR INFLOW	380,000	65
		PURGATOIRE RIVER AT TRINIDAD	43,000	46
	Purgatoire River	PURGATOIRE RIVER AT TRINIDAD	43,000	46
11020010		TRINIDAD LAKE	26,400	78
		COLORADO RIVER NEAR DOTSERO	1,390,000	52
14010001	Colorado	WILLIAMS FORK RESERVOIR	78,000	91
	Headwaters	WOLFORD MOUNTAIN RESERVOIR	42,700	75
		BLUE RIVER INFLOW TO GREEN MOUNTAIN RES	290,000	61
14010002	Blue River	GREEN MOUNTAIN RESERVOIR	61,000	15
14010003	Eagle River	EAGLE RIVER BELOW GYPSUM	330,000	55
		ROARING FORK AT GLENWOOD SPRINGS	675,000	51
14010004	Roaring Fork	RUEDI RESERVOIR	70,200	28
	Colorado	COLORADO RIVER NEAR CAMEO	2,310,000	52
14010005	Headwaters-			
	Plateau		11,100	48
1 4020004	Frat Trules	EAST RIVER AT ALMONT	176,000	54
14020001	East-Taylor	TAYLOR PARK RESERVOIR	69,700	58
		TAYLOR R INF TO TAYLOR PARK RESERVOIR	99,000	58
		BLUE MESA RESERVOIR	590,100	96
		CRAWFORD RESERVOIR	6,700	37
4 400 0000		FRUITLAND RESERVOIR	1,700	67
14020002	Upper Gunnison	GUNNISON R INF TO BLUE MESA RESERVOIR	690,000	56
		LAKE FORK AT GATEVIEW, CO	137,000	63
		MORROW POINT RESERVOIR	109,600	19
		SILVER JACK RESERVOIR	4,300	33
14020003	Tomichi	TOMICHI CREEK AT GUNNISON, CO	85,000	67
1020003	TOTTICTI	VOUGA RESERVOIR NEAR DOYLEVILLE	900	99

¹ Cucharas Reservoir is empty due to a filling restriction

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
14020004	North Fork	NORTH FORK GUNNISON R NR SOMERSET	275,000	54
14020004	Gunnison	PAONIA RESERVOIR	900	2
14020005	Lower Gunnison	GUNNISON RIVER NR GRAND JUNCTION	1,550,000	58
14020006	Uncompahgre	RIDGEWAY RESERVOIR	63,500	53
14020000	Uncompanyre	UNCOMPAHGRE RIVER AT COLONA	157,000	73
14030003	San Miguel	SAN MIGUEL RIVER NEAR PLACERVILLE	147,000	69
		CONTINENTAL RESERVOIR	2,200	16
13010001	Rio Grande	RIO GRANDE NEAR DEL NORTE	555,000	57
13010001	Headwaters	RIO GRANDE RESERVOIR	30,200	90
		SANTA MARIA RESERVOIR	19,500	90
		ALAMOSA CREEK ABOVE TERRACE RESERVOIR	72,000	54
		CULEBRA CREEK AT SAN LUIS	24,000	56
		MOUNTAIN HOME	2,930	51
13010002	Alamosa-Trinchera	SANGRE DE CRISTO	17,800	56
		TERRACE RESERVOIR	4,800	31
		TRINCHERA CK	13,400	62
		UTE CREEK	14,600	65
13010004	Saguache Creek	SAGUACHE CREEK NEAR SAGUACHE, CO	37,000	69
42040005		CONEJOS RIVER NEAR MOGOTE	205,000	53
13010005	Conejos River	PLATORO RESERVOIR	12,981	25
	Upper Dolores River	DOLORES RIVER BELOW MCPHEE RESERVOIR	350,000	65
14030002		GROUNDHOG RESERVOIR	19,100	99
		MCPHEE RESERVOIR	246,300	54
		LOS PINOS RIVER NEAR BAYFIELD	210,000	60
14080101	Upper San Juan	SAN JUAN RIVER NEAR CARRACAS	430,000	63
		VALLECITO RESERVOIR	85,100	97
14080102	Piedra River	PIEDRA RIVER NEAR ARBOLES	240,000	66
		ANIMAS RIVER AT DURANGO	455,000	62
14080104	Animas River	FLORIDA RIVER INFLOW TO LEMON RESERVOIR	60,000	62
		LEMON RESERVOIR	21,100	54
		LA PLATA RIVER AT HESPERUS	26,000	62
14080105	Middle San Juan	LONG HOLLOW RESERVOIR	335	50
		JACKSON GULCH RESERVOIR	5,200	65
14080107	Mancos River	MANCOS RIVER NEAR MANCOS	35,000	59
		ANTERO RESERVOIR ²	0	3
	South Platte Headwaters	ELEVENMILE CANYON RESERVOIR	99,500	77
10190001		ELEVENMILE CANYON RESV INFLOW	46,000	43
		SPINNEY MOUNTAIN RESERVOIR	32,900	77
		BEAR CREEK ABV EVERGREEN	15,600	53
		CHEESMAN LAKE	68,300	63
10190002	Upper South Platte	DILLON RESERVOIR	236,800	70
		SOUTH PLATTE RIVER AT SOUTH PLATTE	160,000	52

² Empty for repair

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
		BARR LAKE	20,700	13
		BEAR CREEK ABV EVERGREEN	15,600	53
		BIG THOMPSON R AT MOUTH, NR DRAKE, CO	85,000	46
		BOULDER CREEK NEAR ORODELL	55,000	50
		CACHE LA POUDRE R AT CANYON MOUTH	210,000	42
	Middle South Platte-Cherry	CLEAR CREEK AT GOLDEN	103,000	56
10190003	Creek	HORSECREEK RESERVOIR	8,800	21
		MILTON RESERVOIR	19,400	96
		SAINT VRAIN CREEK AT LYONS	85,000	47
		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	37,000	49
		SOUTH PLATTE RIVER AT SOUTH PLATTE	160,000	52
		STANDLEY RESERVOIR	38,800	83
10190004	Clear Creek	CLEAR CREEK AT GOLDEN	103,000	56
		BOULDER CREEK NEAR ORODELL	55,000	50
		BUTTONROCK (RALPH PRICE) RESERVOIR	6,400	1
	St. Vrain	GROSS RESERVOIR	28,500	68
		MARSHALL RESERVOIR	6,800	80
10190005		SAINT VRAIN CREEK AT LYONS	85,000	47
		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	37,000	49
		TERRY RESERVOIR	5,700	85
		UNION RESERVOIR	11,700	64
		BIG THOMPSON R AT MOUTH, NR DRAKE, CO	85,000	46
		BOYD LAKE	35,200	60
		CARTER LAKE	71,100	23
40400004	. .	LAKE GRANBY	365,400	69
10190006	Big Thompson	LAKE LOVELAND RESERVOIR	500	5
		LONE TREE RESERVOIR	6,000	41
		MARIANO RESERVOIR	1,100	14
		WILLOW CREEK RESERVOIR	6,800	56
		BLACK HOLLOW RESERVOIR	3,000	50
		CACHE LA POUDRE	8,500	85
	Cache La Poudre	CACHE LA POUDRE R AT CANYON MOUTH	210,000	42
		CHAMBERS LAKE	4,000	68
10190007		COBB LAKE	18,600	75
		FOSSIL CREEK RESERVOIR	7,900	62
		HALLIGAN RESERVOIR	6,400	96
		HORSETOOTH RESERVOIR	102,000	53
		WINDSOR RESERVOIR	10,000	72

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
		BEAR CREEK ABV EVERGREEN	15,600	53
		BIG THOMPSON R AT MOUTH, NR DRAKE, CO	85,000	46
		BOULDER CREEK NEAR ORODELL	55,000	50
		CACHE LA POUDRE R AT CANYON MOUTH	210,000	42
		CLEAR CREEK AT GOLDEN	103,000	56
		EMPIRE RESERVOIR	23,600	51
10190012	Middle South	JACKSON LAKE RESERVOIR	24,000	50
10190012	Platte-Sterling	JULESBURG RESERVOIR	16,000	21
		POINT OF ROCKS RESERVOIR	61,500	72
		PREWITT RESERVOIR	17,400	53
		RIVERSIDE RESERVOIR	40,400	58
		SAINT VRAIN CREEK AT LYONS	85,000	47
		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	37,000	49
		SOUTH PLATTE RIVER AT SOUTH PLATTE	160,000	52
10180001	North Platte Headwaters	NORTH PLATTE R NR NORTHGATE	230,000	48
	Upper Yampa	ELK RIVER NEAR MILNER, CO	310,000	36
		ELKHEAD CREEK ABOVE LONG GULCH	70,000	47
14050001		STAGECOACH RESERVOIR NR OAK CREEK	34,400	99
		YAMCOLO RESERVOIR	6,600	71
		YAMPA RIVER AT STEAMBOAT SPRINGS	255,000	49
14050002	Lower Yampa	YAMPA RIVER NEAR MAYBELL	875,000	41
14050003	Little Snake	LITTLE SNAKE RIVER NEAR LILY	285,000	42
14050005	Upper White	WHITE RIVER NEAR MEEKER	265,000	45

NEP is non exceedance percentage (percentile) for volume of the component compared to this month during the historical period 1970-2010.

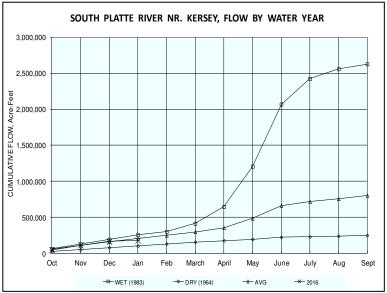
The SWSI value for the month was 1.0. Though at times it felt January 2016 was a cold, dry month, it was actually fairly close to normal for January. With the exception of the southeast corner of Water Division 1 (the Republican River basin) temperatures were near normal (temperatures were above normal in the southeast corner). Precipitation was also generally close to normal in most areas of Division 1. The exception was again the southeast corner of the Division where precipitation was significantly below normal.

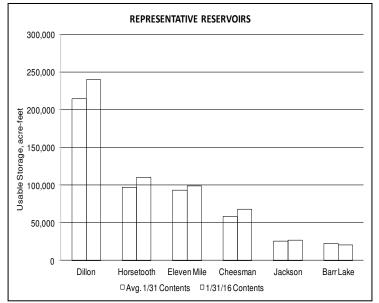
The snowpack in the South Platte Basin was near normal at the end of January. The February 1, 2016 water equivalent was 108% of normal. This indicates the spring runoff should be near normal as generally about one half of the snow water equivalent in the South Platte basin is reached by the end of January.

Once again, the exception to all the "normalness" in the South Platte basin in January 2016 is the river flow at the Kersey and Julesburg index gages. Flow at both gages was well above normal in January. The overall flow at the Julesburg gage was approximately 254 % of the long term January mean flow of 512 cfs. The actual January 2016 mean flow was approximately 1300 cfs. The overall flow at the Kersey gage was approximately 141 % of the long term December mean flow of 652 cfs. The actual January 2016 mean flow was approximately 920 cfs.

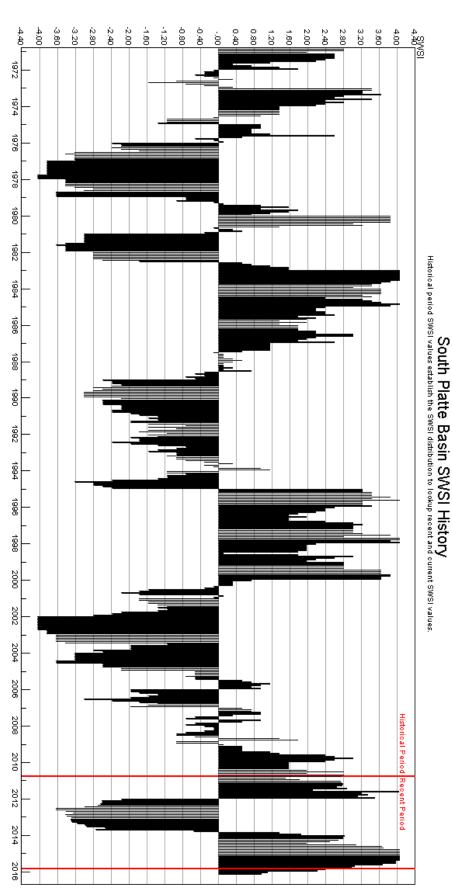
As has been the case for quite some time, calls during January 2016 in the South Platte basin were more junior than normal. The South Platte mainstem was under free river conditions the whole month, which is only somewhat unusual. The unusual thing is that the free river was caused by an abundant water supply, rather than the usual cause, very cold weather. The Big Thompson River, Boulder Creek, and Clear Creek were under call for much or all of the month.

Reservoir storage at the end of January 2016 in the South Platte basin remained good, just not quite as good as it has been. The long term average storage for the end of January is 71% of capacity. The January 2016 end of the month reservoir storage was at 74% of capacity. While this is still above average, it is less above average that has been the case for the last several months.





South Platte-DataComposite-SWSI



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The SWSI value for the month was 2.1.

Outlook

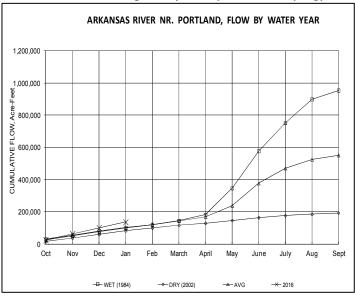
Reservoir storage in the Pueblo Winter Water Program totaled 105,593 acre-feet as of the end of January. This storage amount is significantly more than last year's storage to date of 88,867 acre-feet and represents 145% of the last twenty year average.

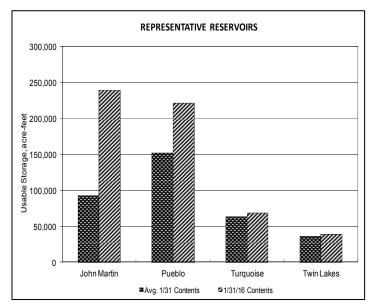
Conservation storage in John Martin Reservoir has accumulated 22,655 acre-feet versus 9,891 acre-feet as of the end of January last year.

Administrative/Management Concerns

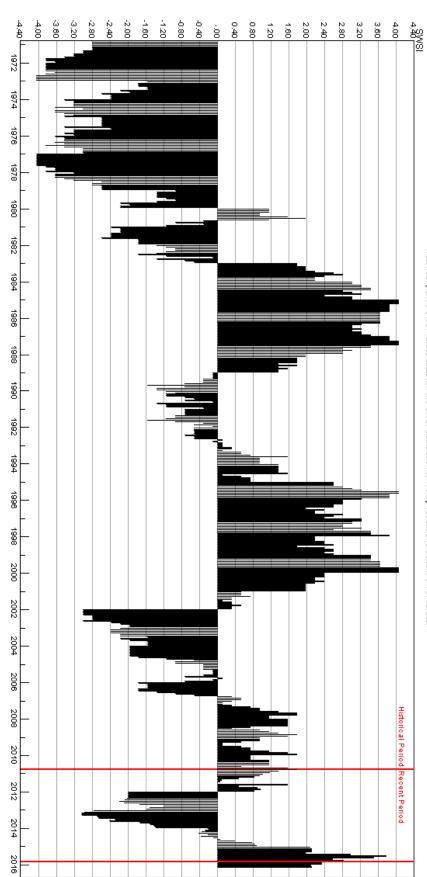
Due to the above average conditions in 2015 and a very good winter storage period, there is significant concern about a likely spill of account water from Pueblo Reservoir. The Southeastern Colorado Water Conservancy District and Bureau of Reclamation will work towards the highest priority of the Fryingpan-

Arkansas Project, which is to maximize storage of project water. To make room for 2016 west slope imports, water will continue to be moved downstream from Turguoise and Twin Lakes Reservoirs to Pueblo That additional storage, coupled with Reservoir. robust winter water storage, will place temporary storage accounts owned by some municipal interests, well associations and the Upper Arkansas Water Conservancy District and Lower Arkansas Valley Water Conservancy District, at risk of spill by April 15, 2016. The Arkansas Basin is faced with a dilemma that has not occurred for quite some time in that almost all storage vessels are likely to fill creating a situation where there simply are not good alternatives for moving the water stored in the temporary accounts.









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 0.7. Flow at the gaging station Rio Grande near Del Norte averaged 179 cfs (103% of normal). The Conejos River near Mogote had a mean flow of 48 cfs (98% of normal).

Limited snowfall in the San Juans and Sangre de Cristos during late December and all of January was offset by a heavy snowstorm the last weekend of January. Overall, the upper Rio Grande Basin has above average snowpack at start of February.

January turned bitter cold after a big snowstorm on the 8th and 9th. The layer of snow on the ground produced temperatures as low as -26 degrees in Alamosa. Other than that week-long icebox, temperatures have been warmer than normal this winter.

<u>Outlook</u>

Current Natural Resources Conservation Service stream flow forecasts are predicting runoff in area streams to be in the range of 103% (Rio San Antonio), 104% (Culebra Creek near San Luis) to 116% (Saguache Creek) of average during the 2016 irrigation season. The even spread of snowpack across the upper Rio Grande Basin is a rare treat. Typically, an area or areas of the basin are substantially better or worse than other drainages.

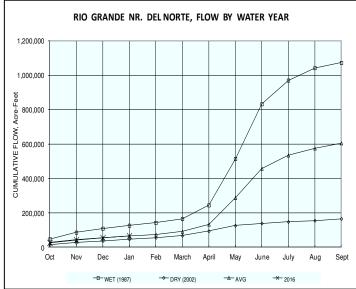
Current National Weather Service forecasts for February through April, 2016 are calling for near normal temperatures and above normal precipitation in this area of the state. The effects of El Nino should linger in southern Colorado through June.

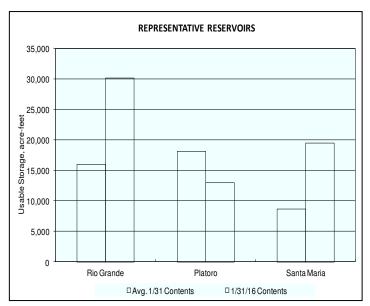
Administrative/Management Concerns

Much effort was spent during January finalizing streamflow and diversion records. The annual meetings of local districts and ditch boards are held this time of year to reflect back on the 2015 season and plan for the upcoming irrigation season.

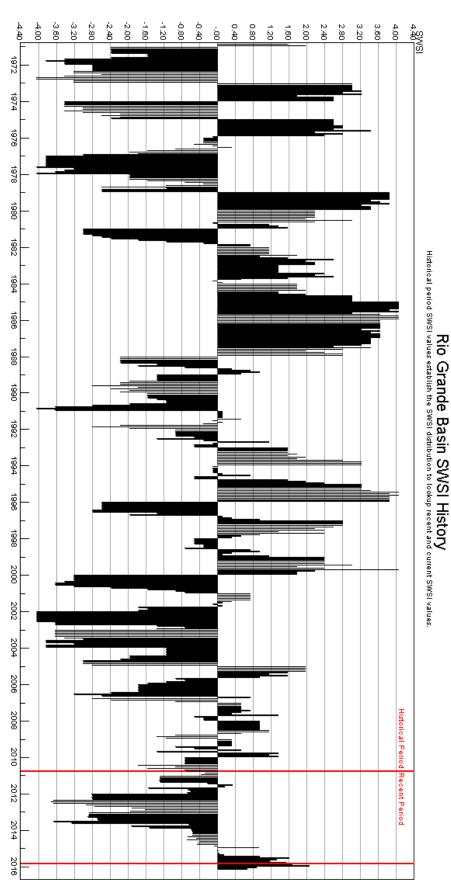
Public Use Impact

Winter sports enthusiasts are enjoying a year of above-average snow conditions. The snowpack seems to have a nice balance within the high, intermediate, and low elevations.





Rio Grande-DataComposite-SWSI



The SWSI value for the month was 1.5. January precipitation was again above average in almost all areas of the Gunnison basin. South areas of the basin were favored with locations south of the Gunnison River receiving up to 130% of the average while areas north of the River received up to 110% of average. Snow water equivalent (SWE) values for the basin, calculated from an average of Gunnison basin Snotel sites remained stable at 119% of the 30 year median for February 1st. Still leading the way are the southwestern areas, with the basin draining to Ridgway Reservoir containing 120% of the 30 year median, while the Schofield site on the East River contains only 93%. Further, it appears that there is a greater amount of lower elevation snow this year, which is apparent when viewing SWE at Columbine Pass (Uncompanding Plateau) and Idarado that contain 164% and 144% of the median. These sites are relatively low elevation when compared with other Gunnison Snotel sites.

<u>Outlook</u>

The February, March and April outlook from the National Weather Service places the Gunnison basin within an area expected to receive above average precipitation and average temperatures. The February 1st snowpack forecast from the NRCS on February 1st predicts that with average snow the rest of the season we would end up at 114% of the median peak SWE. Colorado Basin River Forecast Center (CBRFC) April to July runoff forecasts predict streamflows greater than 110% of the median for all streams in the Gunnison basin except the East River where 96% is forecast

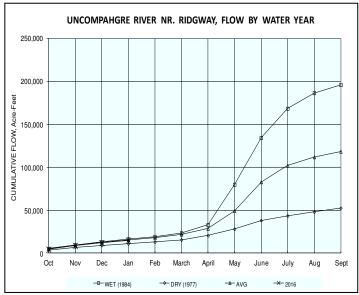
Administrative/Management Concerns

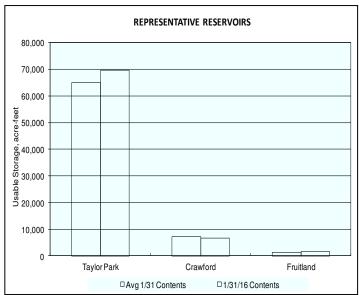
DWR, the Colorado River District (CRWCD) and the Uncompany Valley Water Users Association (UVWUA) are waiting to hear the results of a grant application that would provide funding to add satellite telemetry on six of the UVWUA's main delivery canals. DWR expects to install these systems prior to the irrigation season if the grant award is made in the next month.

Taylor Park continues to accrue second fill water and contains 16,546 acre-feet on February 1st. Crystal Dam releases stayed near 1,100 cfs during the past month, which reduced Blue Mesa to within 1 foot of the 7490.00 ft target to reduce the likelihood of icing issues upstream of Blue Mesa. If forecasted inflows to Blue Mesa remain the same until May 1st, the Black Canyon NP reserve water right one-day peak target would be 5,102 cfs, while the Aspinall Unit ROD flow target would be 8,070 cfs for 10 days.

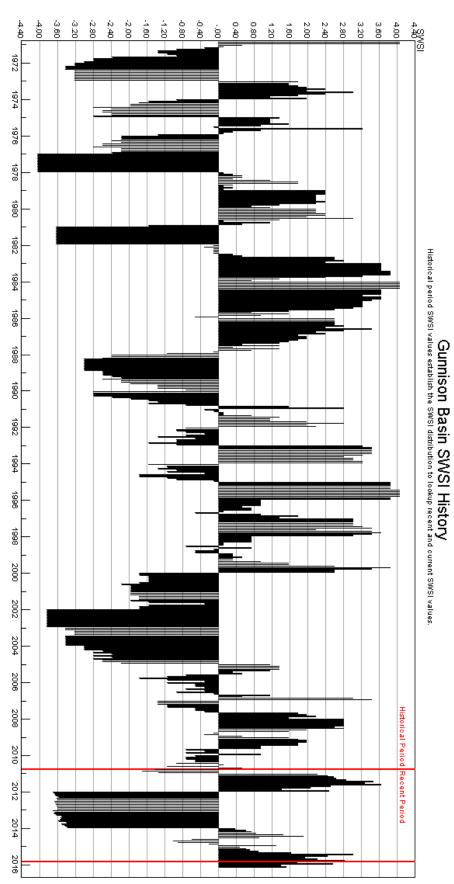
Public Use Impacts

As mentioned in the January report, very cold weather during the first two weeks of January caused significant ice accumulation on both the Taylor and Gunnison Rivers near the City of Gunnison, which resulted in ice jam flooding events on January 1st and January 12th. These ice jams were caused by the buildup of frazil ice dams and their subsequent release of impounded water. Frazil ice is generated by rivers with open water and turbulent flow during extreme cold events (-20 degrees F). Consistent with the results of studies performed on these types of ice jams that show the period immediately following the cold snap creates the most problems, we did not experience any further major ice jam flooding events on the Gunnison even though temperatures remained cold.





Gunnison-DataComposite-SWSI



<u>Basinwide Conditions Assessment</u> The SWSI value for the month was -0.1.

<u>Outlook</u>

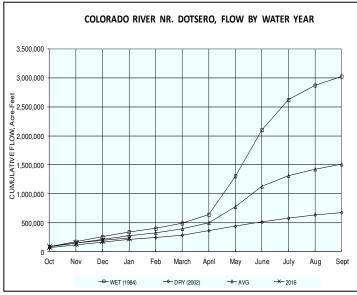
Colorado River flows continue near average or slightly below average with tributary flows running slightly below average throughout February with the exception of the Blue River, which is running above average. As of February 10, the Upper Colorado River Basin snowpack was 112 percent of median snow water equivalent and 105 percent of average precipitation. Forecasts call for average precipitation with above normal temperatures for western Colorado through February.

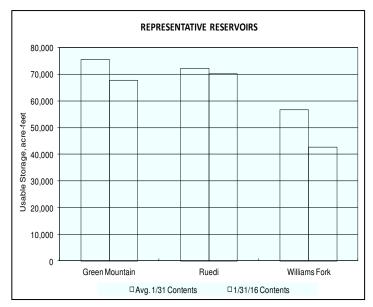
Administrative/Management Concerns

The call on the Colorado River main stem remains the Shoshone Hydro Power right for 1250 cfs. Accordingly, Green Mountain Reservoir is releasing to pass inflows, provide contract and HUP obligations and make C-BT replacements.

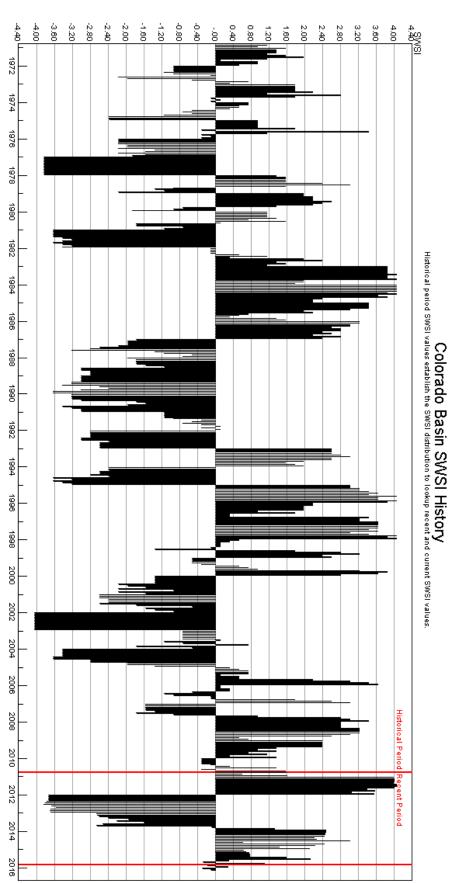
Public Use Impacts

A Basalt court case, High Valley Farms could affect the state's pot industry. The water court referee has asked High Valley Farms to answer the question of whether a water right to grow marijuana in Colorado can be 'lawfully' granted when the plant is illegal under federal law. "If this court were to determine that, contrary to the findings of the state engineer, the use of water for marijuana facilities is not a beneficial use, the entire industry, which reportedly employs almost 16,000 residents, would be shut down," wrote Rhonda J. Bazil, an attorney in Aspen for High Valley Farms.





Colorado-DataComposite-SWSI



The SWSI value for the month was -0.6. January precipitation was above 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 114% 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 January was 99%.

Snowpack for the combined basins stands at 106%. The snow water equivalent (SWE) as of January 31, 2016 was 100% of average for the North Platte River basin and 104% of average for the Yampa River basin and White River basin.

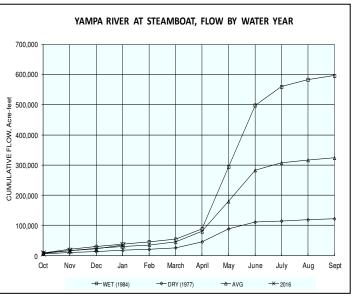
NRCS predicts slightly below average to average spring and summer streamflows in the Yampa, White, and North Platte River basins. The latest runoff forecasts from the NRCS for the April through July period are 102% of average for the North Platte River near Northgate, 96% of average for the Yampa River near Maybell, 83% of average for the Little Snake River near Lily, and 95% of average for the White River near Meeker

Due to cold temperatures and snow depth on ice, all Division 6 stream gages except the Yampa River and White River gages are either closed for the winter season or currently ice/snow-affected.

<u>Outlook</u>

As of January 31st Fish Creek Reservoir was storing approximately 2,721 AF, 65% of capacity. The capacity of Fish Creek Reservoir is 4,167 AF. Yamcolo Reservoir was storing 6,600 AF at the end of January 2016. The capacity of Yamcolo Reservoir is 8,700 AF. On January 31tst, 2016, Stagecoach Reservoir was storing 34,400 AF which is 103% of capacity. On January 31st, Elkhead Creek Reservoir was 64% full and storing 15,881 AF.

Water stored in Fish Creek Reservoir is used primarily for municipal purposes, Yamcolo Reservoir is used for irrigation purposes and Elkhead Creek Reservoir is used 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.

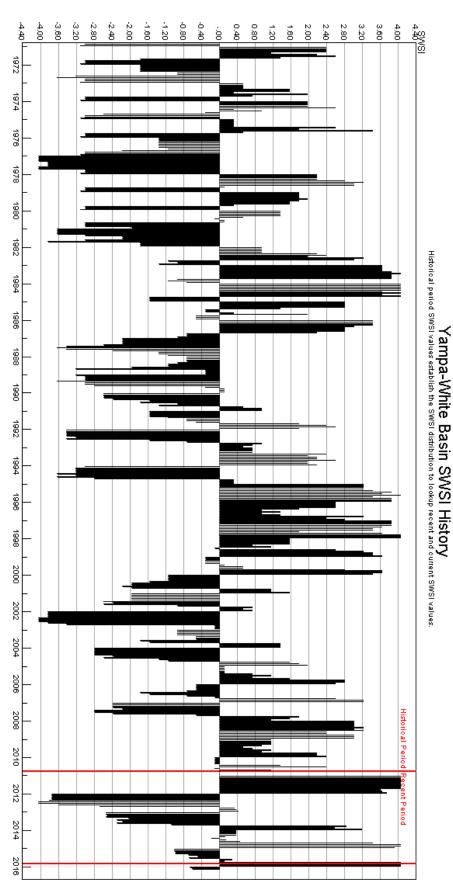
Public Use Impacts

Steamboat Ski Resort has recorded 274 inches of snow as of February 12, 2016.

At Stagecoach State Park the reservoir is completely iced over with approximately 8 - 12 inches of cover.

Steamboat Lake State Park has 6.5 to 8 inches of ice covering the lake as of 1/7/2016. Ice fishing is available during winter months. Ice conditions can vary so please use caution.

Yampa-White-DataComposite-SWSI



SAN JUAN-DOLORES BASIN

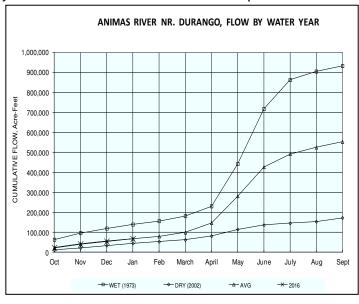
Basinwide Conditions Assessment

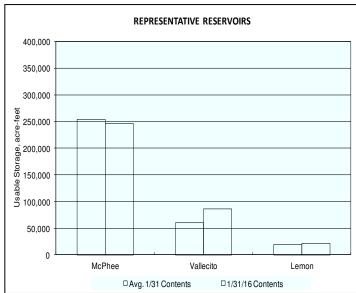
The SWSI value for the month was 1.2. Flow at the Animas River at Durango was estimated to average 191 cfs (94% of average). The flow at the Dolores River at was estimated to average 48 cfs (94% of average). The La Plata River at Hesperus was estimated to average 7.7 cfs (111% of average). Precipitation in Durango was 1.54 inches for the month, 79% of the 30-year average of 1.95 inches. Precipitation was the 56 highest amount recorded in January, in Durango, out of 122 years of record. Precipitation to date in Durango, for the water year, is 9.56 inches, 142% of the 30-year average of 6.75 inches. End of last month precipitation to date, for the water year was 159% of average. The average high and low temperatures for the month is 410 and 140. At the end of the month Vallecito Reservoir contained 85,882 acre-feet compared to its average content of 55,737 acre-feet (154% of average). McPhee Reservoir was up to 246,323 acre-feet compared to its average to its average content of 19,758 acre-feet (109% of average).

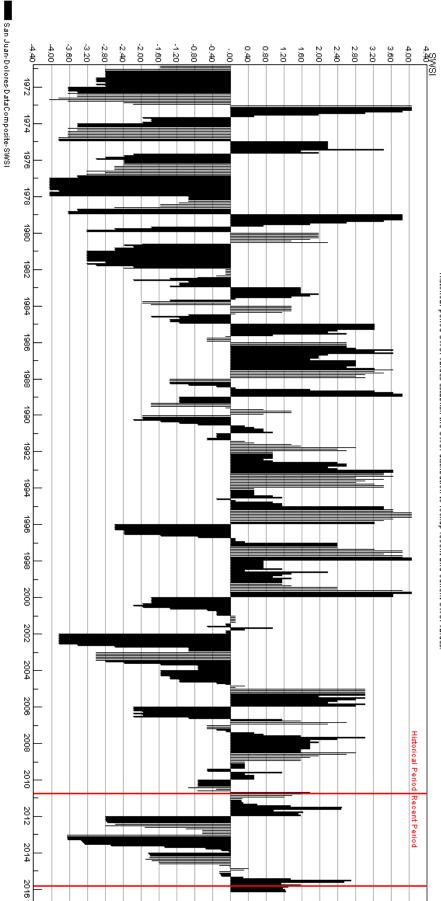
Outlook

Precipitation (1.54 inches) was below average for January in Durango. There were 56 years out of 122 years of record where there was more precipitation than this year. Flows in the rivers within the basin remained near average for the month. There were 55 out of 106 years of record where the total flow past the Animas

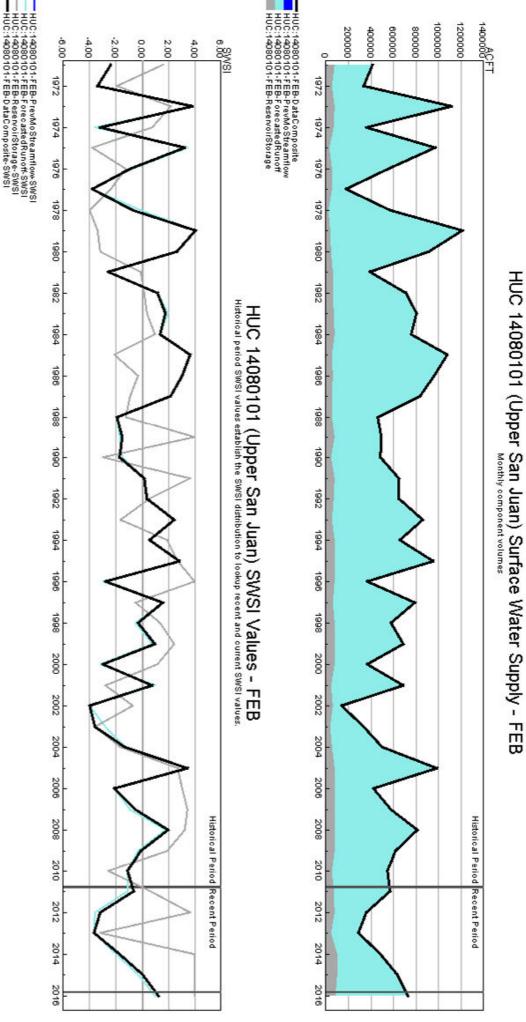
River at Durango stream gauge was more than this year. There were 48 out of 105 years of record where the total flow past the Dolores stream gauge was more than this year and 31 out of 99 years of record where the total flow past the La Plata River at Hesperus gauge was more than this year. On January 31, the NRCS SNOTEL sites reported an average snowwater equivalent within the basin at 123%. End of last month the snow-water-equivalent was 128%.



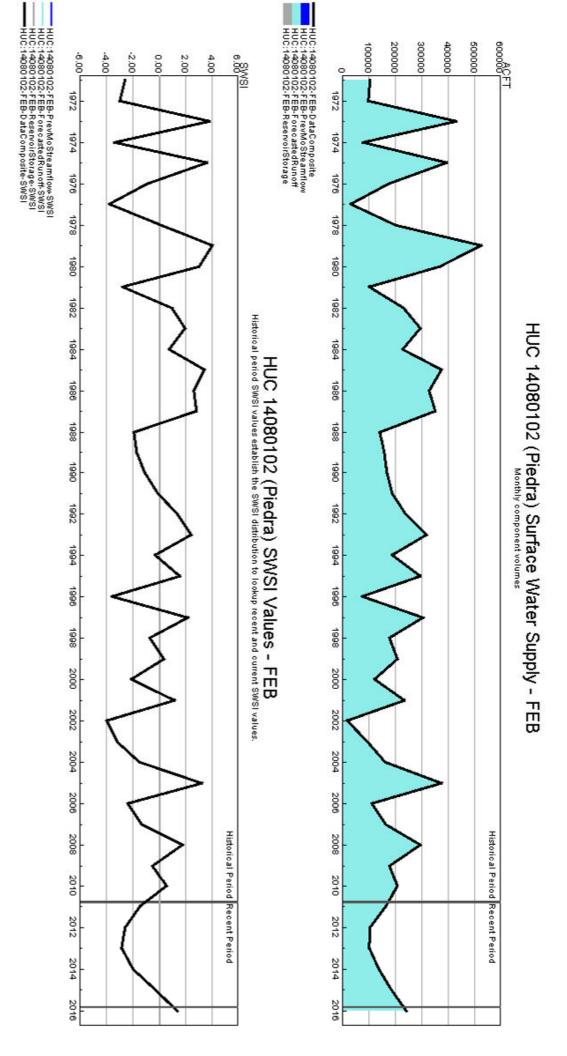


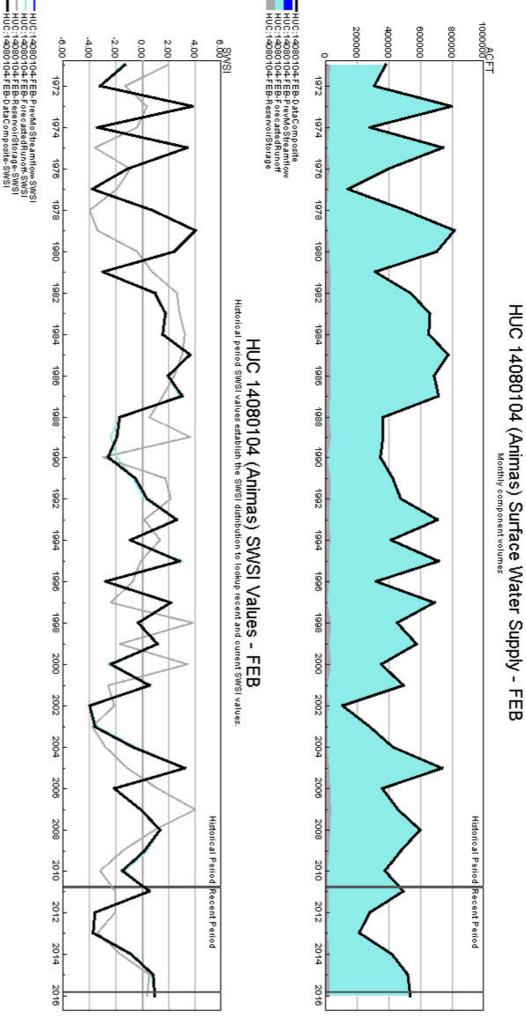


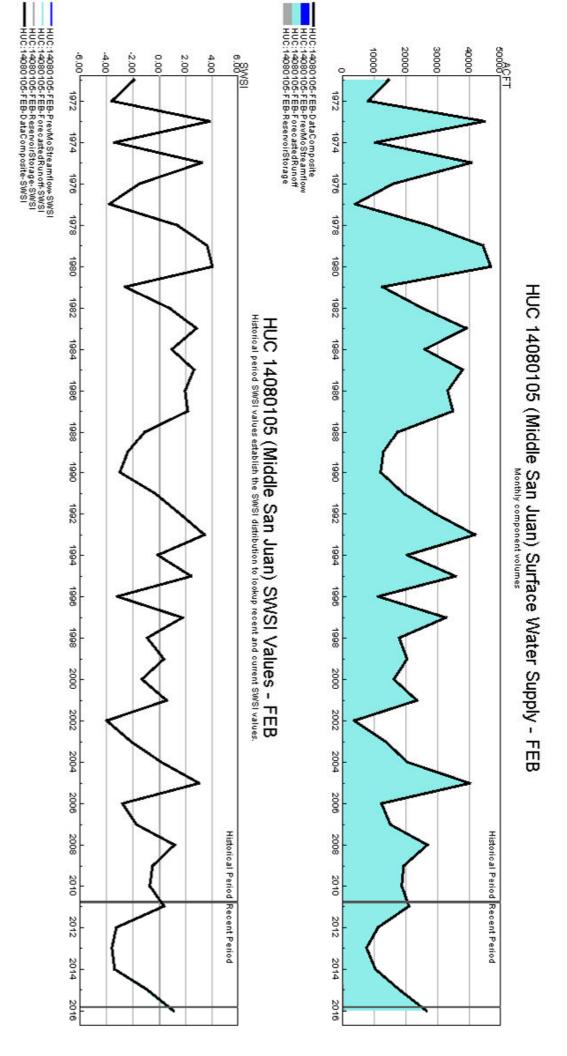


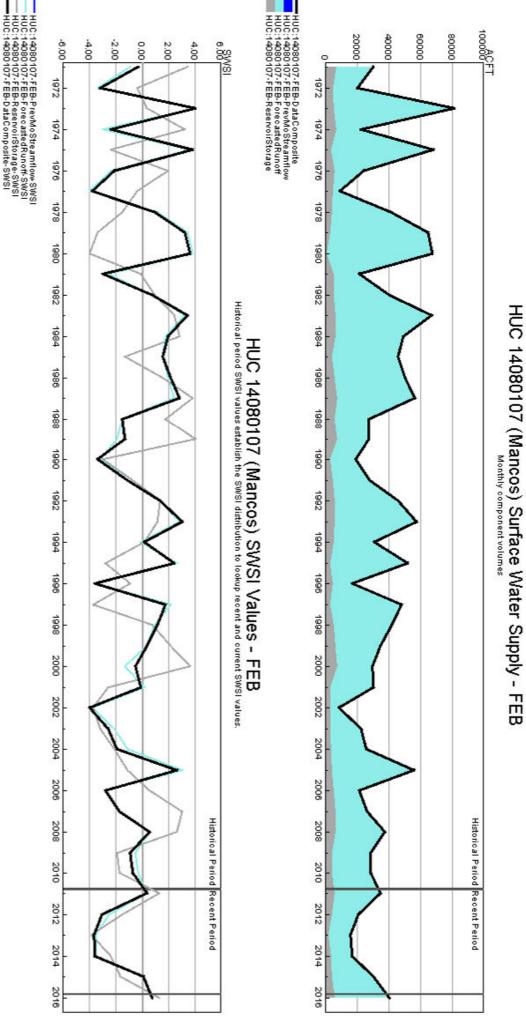


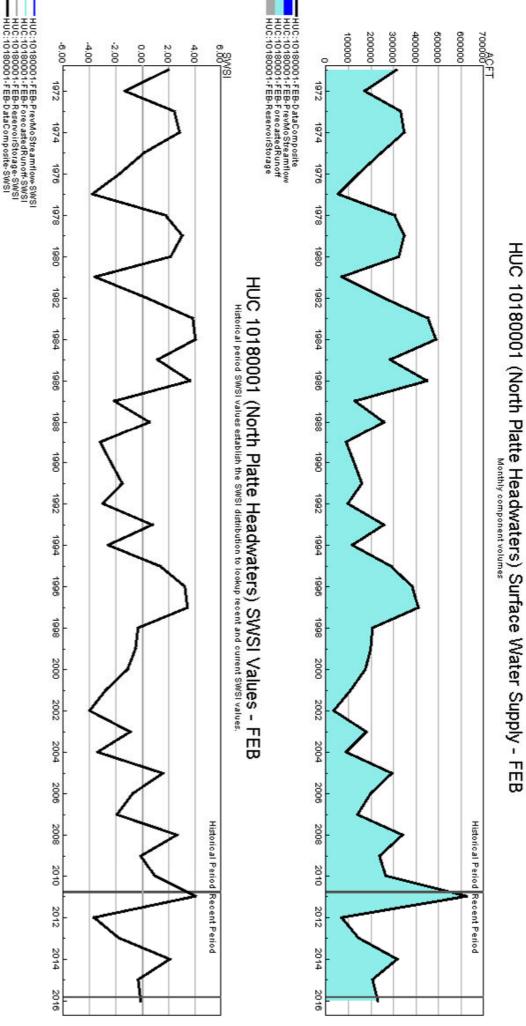




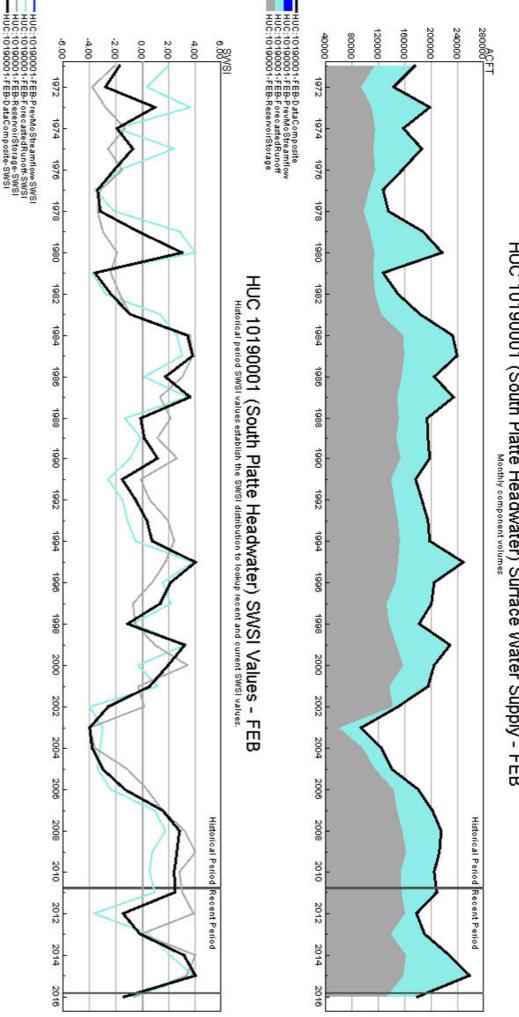












HUC 10190001 (South Platte Headwater) Surface Water Supply - FEB

