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> July 1, 2020

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 revised SWSI analysis based on the components shown below, which vary depending on the time of year. The revised 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, all within the HUC. That total volume is ranked against similar total volumes that occurred each January between 1970 and 2010.

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

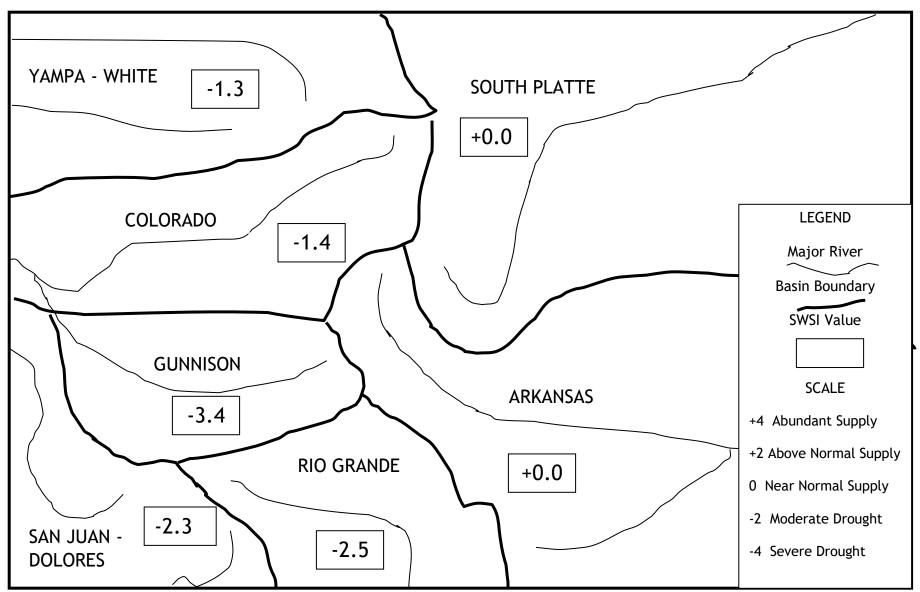
In 2015, CWCB and the Division of Water Resources (DWR) (both Divisions of the Colorado Department of Natural Resources) completed a software project to implement an automated calculation of the SWSI and to document the underlying hydrologic data. July 1, 2015 was the first month that the automated DNR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

The SWSI calculation for the summer season (July 1 to September 1) is based on the previous month's natural streamflow (the estimate of flow without the impacts of diversions and imports), combined with reservoir storage at the end of last month, in this case June 30. Water supply conditions vary across the state from normal in the South Platte and Arkansas basins to below normal in the Gunnison, Colorado, Rio Grande, San Juan-Dolores and Yampa-White basins. Storage varies statewide, from above average to below average, and snowpack melted quickly, resulting in the previous months streamflow well below normal in every basin.

Basin	July 1 SWSI	Change from Previous Month	Change from Previous Year
Arkansas	0.0	-0.1	-1.7
Colorado	-1.4	0.4	-4.5
Gunnison	-3.4	-0.5	-6.8
Rio Grande	-2.5	1.0	-6.3
San Juan-Dolores	-2.3	0.2	-6.3
South Platte	0.0	-0.6	-1.8
Yampa-White	-1.3	0.0	-4.5

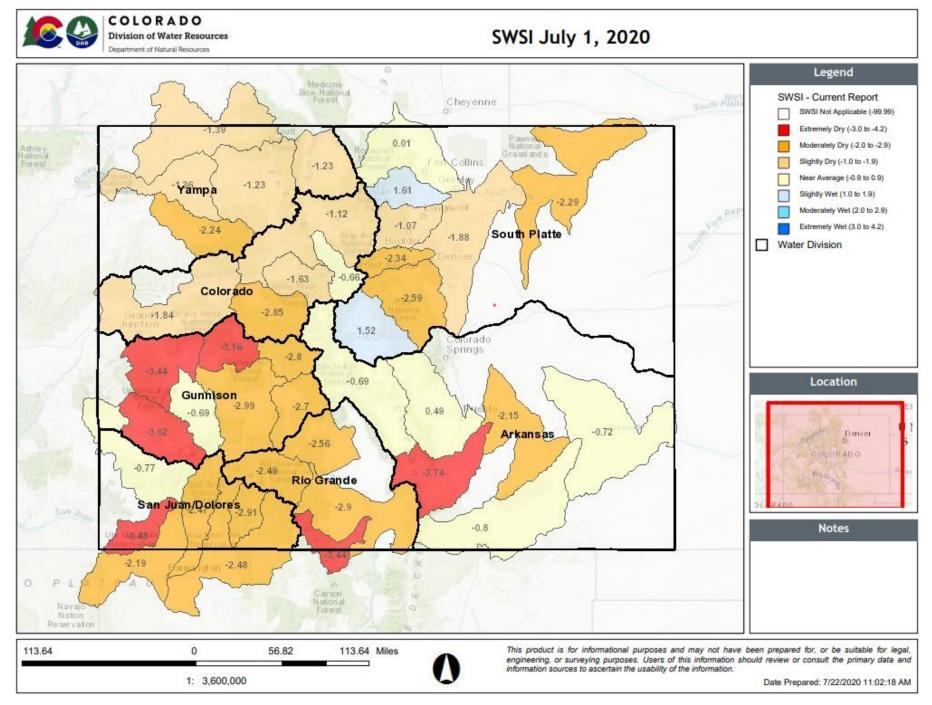
*Note that last month's SWSI was calculated using forecasted runoff and reservoir storage and this month's SWSI is based on previous month's streamflow and reservoir storage. Comparison between this month and last month should be made with caution.

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



SURFACE WATER SUPPLY INDEX FOR COLORADO BY MAJOR RIVER BASIN





Basin	HUC ID	HUC Name	SWSI	Reservoir Storage NEP	Previous Months Streamflow NEP	Total Vol (AF)
	11020006	Huerfano	-3.75	57	5	2,093
⊳	11020010	Purgatoire	-0.80	69	22	23,579
rka	11020005	Upper Arkansas-Lake Meredith	-2.15	48	25	131,027
Arkansas	11020009	Upper Arkansas-John Martin Reservoir	-0.73	14	24	206,219
S	11020001	Arkansas Headwaters	-0.70	51	26	304,226
	11020002	Upper Arkansas	0.49	47	26	326,321
	14010003	Eagle	-1.64	90	30	116,542
Co	14010002	Blue	-0.66	96	33	248,643
Colorado	14010004	Roaring Fork	-2.86	N/A	17	297,408
ado	14010001	Colorado Headwaters	-1.12	29	34	614,478
	14010005	Colorado Headwaters-Plateau	-1.84	9	29	718,380
	14020003	Tomichi	-2.71	29	18	9,507
	14030003	San Miguel	-3.62	19	7	23,758
Gu	14020004	North Fork Gunnison	-3.16	52	11	51,066
Gunnison	14020006	Uncompahgre	-0.69	11	8	97,572
son	14020001	East-Taylor	-2.81	N/A	18	159,858
	14020005	Lower Gunnison	-3.44	51	9	210,286
	14020002	Upper Gunnison	-2.99	N/A	13	842,878
尺	13010004	Saguache	-2.57	55	19	3,647
Rio G	13010002	Alamosa-Trinchera	-2.90	26	11	21,401
Grande	13010005	Conejos	-3.44	N/A	12	43,694
īde	13010001	Rio Grande Headwaters	-2.49	26	17	108,609
S	14080105	Middle San Juan	-2.19	43	22	2,876
an ,	14080107	Mancos	-3.49	34	30	9,086
San Juan-Dolores	14080102	Piedra	-2.92	N/A	15	17,634
n-D	14080104	Animas	-2.47	14	21	122,300
olor	14080101	Upper San Juan	-2.49	50	15	185,382
.es	14030002	Upper Dolores	-0.78	5	9	298,329
	10190004	Clear	-2.35	77	22	36,609
	10190005	St. Vrain	-1.08	30	34	138,742
So	10190001	South Platte Headwater	1.52	21	34	186,271
uth	10190007	Cache La Poudre	0.01	N/A	35	299,508
Pla	10190003	Middle South Platte-Cherry Creek	-1.89	97	30	338,126
South Platte	10190002	Upper South Platte	-2.60	76	17	353,967
-	10190012	Middle South Platte-Sterling	-2.29	87	30	419,526
	10190006	Big Thompson	1.62	16	32	664,306
~	14050005	Upper White	-2.25	N/A	23	55,357
am	10180001	North Platte Headwaters	-1.23	99	35	60,478
pa-	14050003	Little Snake	-1.40	N/A	33	74,420
Yampa-White	14050002	Lower Yampa	-1.36	N/A	34	224,493
ite	14050001	Upper Yampa	-1.23	N/A	32	231,341

July 1, 2020 SWSI Values by HUC and Non Exceedance Probabilities (NE
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NEP is non exceedance percentage for total reservoir storage and streamflow forecast in HUC. Some HUCs do not have any reservoirs considered in the SWSI and are shown as "N/A". Total Vol is the volume of reservoir storage in the HUC plus the streamflow forecast. NEP is calculated compared to the volume historically occurring this month during the period 1970-2010. The following table lists each component considered in each HUC.

SWSI Color Scale:

-4.0 (Severe Drought)	0.0 (Normal)	4.0 (Abundant Supply)
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HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
		CLEAR CREEK RESERVOIR	7,872	24
11020001 Arkai		HOMESTAKE RESERVOIR	42,288	79
	Arkansas Headwaters	TWIN LAKES RESERVOIR	55,589	50
		ARKANSAS RIVER AT SALIDA	86,662	26
		TURQUOISE LAKE	111,815	45
		CUCHARAS RESERVOIR*	0	14
11020006	Huerfano	CUCHARAS RIVER AT BOYD RANCH NR LA VETA	520	4
		HUERFANO RIVER NEAR REDWING	1,573	13
11020010	Dungahaina	PURGATOIRE RIVER AT TRINIDAD	3,499	22
11020010	Purgatoire	TRINIDAD LAKE	20,080	47
44020002		PUEBLO RESERVOIR INFLOW	105,950	26
11020002	Upper Arkansas	PUEBLO RESERVOIR	220,371	69
		CUCHARAS RIVER AT BOYD RANCH NR LA VETA	520	4
		HUERFANO RIVER NEAR REDWING	1,573	13
44000000	Upper Arkansas-John	PURGATOIRE RIVER AT TRINIDAD	3,499	22
11020009	Martin Reservoir	ADOBE CREEK RESERVOIR	29,257	46
		JOHN MARTIN RESERVOIR	65,420	51
		PUEBLO RESERVOIR INFLOW	105,950	26
	Upper Arkansas-Lake Meredith	CUCHARAS RIVER AT BOYD RANCH NR LA VETA	520	4
		HUERFANO RIVER NEAR REDWING	1,573	13
11020005		LAKE HENRY	3,783	27
		MEREDITH RESERVOIR	19,201	50
		PUEBLO RESERVOIR INFLOW	105,950	26
4 40 4 00 00	Blue	BLUE RIVER INFLOW TO GREEN MOUNTAIN RES	102,794	33
14010002		GREEN MOUNTAIN RESERVOIR	145,849	96
		WOLFORD MOUNTAIN RESERVOIR	65,900	86
14010001	Colorado Headwaters	WILLIAMS FORK RESERVOIR	96,500	89
		COLORADO RIVER NEAR DOTSERO	452,078	34
4 404 0005	Colorado	VEGA RESERVOIR	19,287	9
14010005	Headwaters-Plateau	COLORADO RIVER NEAR CAMEO	699,093	29
14010003	Eagle	EAGLE RIVER BELOW GYPSUM	116,542	30
4 40 4 000 4		RUEDI RESERVOIR	95,081	29
14010004	Roaring Fork	ROARING FORK AT GLENWOOD SPRINGS	202,327	17
		TAYLOR R INF TO TAYLOR PARK RESERVOIR	23,159	10
14020001	East-Taylor	EAST RIVER AT ALMONT	44,083	20
		TAYLOR PARK RESERVOIR	92,616	29
14020005	Lower Gunnison	GUNNISON RIVER NR GRAND JUNCTION	210,286	9
4 402000 4	Newth Feed Council	PAONIA RESERVOIR	15,278	11
14020004	North Fork Gunnison	NORTH FORK GUNNISON R NR SOMERSET	35,788	11
14030003	San Miguel	SAN MIGUEL RIVER NEAR PLACERVILLE	23,758	7
4 4020000	T	VOUGA RESERVOIR NEAR DOYLEVILLE	336	52
14020003	Tomichi	TOMICHI CREEK AT GUNNISON, CO	9,171	18

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
14020006	Uncompahgre	UNCOMPAHGRE RIVER AT COLONA	22,926	8
14020000	oncompangre	RIDGEWAY RESERVOIR	74,646	51
		FRUITLAND RESERVOIR	256	14
		CRAWFORD RESERVOIR	8,772	15
		SILVER JACK RESERVOIR	12,240	33
14020002	Upper Gunnison	LAKE FORK AT GATEVIEW, CO	37,436	16
		GUNNISON RIVER NEAR GUNNISON, CO	79,272	16
		MORROW POINT RESERVOIR	110,739	5
		BLUE MESA RESERVOIR	594,163	20
		SANGRE DE CRISTO	25	1
		UTE CREEK	961	13
		TRINCHERA CK	1,003	8
13010002	Alamosa-Trinchera	CULEBRA CREEK AT SAN LUIS	1,414	19
		MOUNTAIN HOME	4,321	28
		TERRACE RESERVOIR	6,318	32
		ALAMOSA CREEK ABOVE TERRACE RESERVOIR	7,359	11
	- .	PLATORO RESERVOIR	19,195	26
13010005	Conejos	CONEJOS RIVER NEAR MOGOTE	24,499	12
	Rio Grande Headwaters	CONTINENTAL RESERVOIR	6,877	64
		RIO GRANDE RESERVOIR	11,996	40
13010001		SANTA MARIA RESERVOIR	13,698	73
		RIO GRANDE NEAR DEL NORTE	76,038	17
13010004	Saguache	SAGUACHE CREEK NEAR SAGUACHE, CO	3,647	19
		FLORIDA RIVER INFLOW TO LEMON RESERVOIR	7,787	18
14080104	Animas	LEMON RESERVOIR	24,261	14
		ANIMAS RIVER AT DURANGO	90,252	21
		MANCOS RIVER NEAR MANCOS	4,200	30
14080107	Mancos	JACKSON GULCH RESERVOIR	4,886	5
		LONG HOLLOW RESERVOIR	566	50
14080105	Middle San Juan	LA PLATA RIVER AT HESPERUS	2,310	22
14080102	Piedra	PIEDRA RIVER NEAR ARBOLES	17,634	15
		DOLORES RIVER BELOW MCPHEE RESERVOIR	18,407	9
14030002	Upper Dolores	GROUNDHOG RESERVOIR	19,000	29
	opper botores	MCPHEE RESERVOIR	260,922	42
		SAN JUAN RIVER NEAR CARRACAS	33,201	12
14080101	Upper San Juan	LOS PINOS RIVER NEAR BAYFIELD	38,485	21
	opper san suan	VALLECITO RESERVOIR	113,696	34
		MARIANO RESERVOIR	5,000	49
		LONE TREE RESERVOIR	7,200	27
		WILLOW CREEK RESERVOIR	7,960	72
		LAKE LOVELAND RESERVOIR	9,200	45
10190006	Big Thompson	BIG THOMPSON R AT MOUTH, NR DRAKE, CO	29,696	32
		BOYD LAKE	43,900	54
		CARTER LAKE	104,526	71
			107,520	/ /

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
		BLACK HOLLOW RESERVOIR	5,400	99
		HALLIGAN RESERVOIR	6,400	70
		CHAMBERS LAKE	8,500	72
10190007		FOSSIL CREEK RESERVOIR	8,600	34
	Cache La Poudre	CACHE LA POUDRE	10,100	92
		WINDSOR RESERVOIR	10,700	19
		COBB LAKE	20,900	81
		CACHE LA POUDRE R AT CANYON MOUTH	82,121	35
		HORSETOOTH RESERVOIR	146,787	96
10190004	Clear Creek	CLEAR CREEK AT GOLDEN	36,609	22
		HORSECREEK RESERVOIR	6,200	1
		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	11,479	27
		MILTON RESERVOIR	19,000	58
		BARR LAKE	19,300	13
		BOULDER CREEK NEAR ORODELL	20,834	36
10190003	Middle South Platte- Cherry Creek	BIG THOMPSON R AT MOUTH, NR DRAKE, CO	29,696	32
	cherry creek	SAINT VRAIN CREEK AT LYONS	31,392	39
		CLEAR CREEK AT GOLDEN	36,609	22
		SOUTH PLATTE RIVER AT SOUTH PLATTE	39,595	17
		STANDLEY RESERVOIR	41,900	50
		CACHE LA POUDRE R AT CANYON MOUTH	82,121	35
		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	11,479	27
		JULESBURG RESERVOIR	17,400	28
		PREWITT RESERVOIR	20,200	23
	Middle South Platte- Sterling	EMPIRE RESERVOIR	20,300	15
		BOULDER CREEK NEAR ORODELL	20,834	36
		JACKSON LAKE RESERVOIR	24,700	24
10190012		BIG THOMPSON R AT MOUTH, NR DRAKE, CO	29,696	32
		SAINT VRAIN CREEK AT LYONS	31,392	39
		RIVERSIDE RESERVOIR	35,900	17
		CLEAR CREEK AT GOLDEN	36,609	22
		SOUTH PLATTE RIVER AT SOUTH PLATTE	39,595	17
		POINT OF ROCKS RESERVOIR	49,300	17
		CACHE LA POUDRE R AT CANYON MOUTH	82,121	35
		ELEVENMILE CANYON RESV INFLOW	17,671	34
10190001	South Platte	ANTERO RESERVOIR	19,800	56
10190001	Headwater	SPINNEY MOUNTAIN RESERVOIR	48,200	76
		ELEVENMILE CANYON RESERVOIR	100,600	57
		TERRY RESERVOIR	7,500	79
		MARSHALL RESERVOIR	9,100	36
		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	11,479	27
10190005	St. Vrain	UNION RESERVOIR	12,644	91
0190003	JL. VIAIII	BUTTONROCK (RALPH PRICE) RESERVOIR	16,293	92
		BOULDER CREEK NEAR ORODELL	20,834	36
		GROSS RESERVOIR	29,500	80
		SAINT VRAIN CREEK AT LYONS	31,392	39

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
		SOUTH PLATTE RIVER AT SOUTH PLATTE	39,595	17
10190002	Upper South Platte	CHEESMAN LAKE	62,872	17
		DILLON RESERVOIR	251,500	85
14050003	Little Snake	LITTLE SNAKE RIVER NEAR LILY	74,420	33
14050002	Lower Yampa	YAMPA RIVER NEAR MAYBELL	224,493	34
10180001	North Platte Headwaters	NORTH PLATTE R NR NORTHGATE	60,478	35
14050005	Upper White	WHITE RIVER NEAR MEEKER	55,357	23
		ELKHEAD CREEK ABOVE LONG GULCH	4,467	31
		YAMCOLO RESERVOIR	7,226	52
14050001	Upper Yampa	STAGECOACH RESERVOIR NR OAK CREEK	36,400	99
		YAMPA RIVER AT STEAMBOAT SPRINGS	78,186	31
		ELK RIVER NEAR MILNER, CO	105,062	34

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

50 (Normal)

*No longer exists

Water Volume NEP Color Scale:

0 (Well Below Normal)

100 (Well Above Normal)

The SWSI value for the month was +0.0.

The basin wide pattern during the month of May of below average precipitation and above average temperatures continued throughout the month of June. The entire South Platte River basin experienced below average monthly precipitation at 50 to 75-percent of average and above average temperatures on average 2 degrees Fahrenheit above the monthly average for June. Above average temperatures during most of May in the mountainous areas resulted in earlier than usual snowmelt, ending the month of May at less than 50% of the average snowpack on June 1, and all significant measured snowpack in the high mountainous areas completely melted out before the second week of June.

The results of the above average temperatures and early runoff from melting snow resulted in the Water Supply forecasts for the South Platte River Basin being lowered to below average streamflows during the remainder of 2020 throughout the basin, with Bear Creek below 40% of average and the South Platte near 65% of the long term average flows.

The USDA Drought Monitor rating for northeast Colorado continued the trend of expanding drought conditions throughout the South Platte River basin. The end of May found a distinct dividing line of the basin from west to east, with areas north of Park, Jefferson, Douglas, Teller, Elbert, central Yuma and central Washington Counties experiencing no drought conditions, while all the Counties south of that continuing to experience drought condition ratings of D0 (abnormally dry) and D1 (moderate drought). Drought conditions expanded from the southern half of the basin northerly into the majority of the eastern plains adding Phillips, Sedgwick, Logan, Morgan, Adams and all of Jefferson Counties in D0 and D1 ratings. Additionally, USDA Drought Monitor rating of D3 crept into the southern portion of the South Platte Basin in the southerly portions of Kit Carson, Lincoln, Elbert and El Paso Counties.

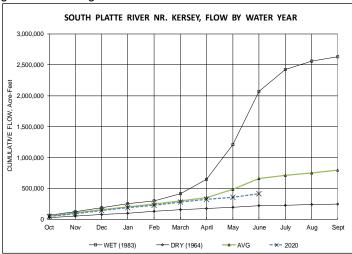
The above conditions along with high demand for irrigation and other uses, resulted in flows on the mainstem of the South Platte River basin well below normal during the month of May through all of June. Flows at the Kersey gage downstream of the City of Greeley, were well below average with average daily flows for the month of June approximately 895.5 cfs, 37% of the historic mean value of 2,405 cfs. The average daily flow at the Julesburg gage for the month of June was 106cfs, only 6.9% of the historic mean value of 1,545 cfs. The outlook for flows on the South Platte River mainstem are well below average given the low snowpack in the upper South Platte River Basin headwaters, rapid snowmelt during the month of May, with the peak occurring during the later part of May into early June, and less water available than demand by water users.

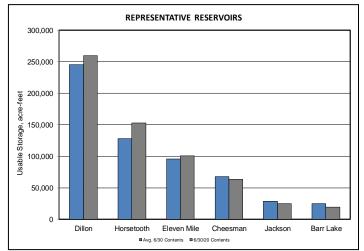
During June, the overall seniority of calls on the South Platte mainstem went senior for the month of June, due primarily to the snowmelt runoff peaking several weeks earlier than normal in mid-May to late-May depending on the tributary. There was no free river during the month of June on the mainstem, with the calls during June 1st through the 13th above Metro Denver controlled with

a Cheesman 1893 storage right; below Metro Denver starting the month with a 1909 priority date at the Burlington Ditch; and the lower portion of the mainstem river at the Harmony Ditch #1 with a 1936 calling right. The remainder of June from June 13th until the end of the month was controlled primarily by bypass calls to the Sterling Irrigation Company Ditch #1 circa 1886; a direct or bypass call at the Harmony No. 1 Ditch circa 1897 and the South Platte Compact Call controlling water district 64. The Compact Call was on 21 days during the month of June between June 2 and June 9th and again from June 16th through the end of June into July, controlling the lower portion of the River from the Washington County westerly line and the state line. The below average streamflows and high demand for water resulted in more than 27 call changes on the mainstem of the South Platte River during the month of June, which does not include the numerous internal senior calls on each tributary above their confluences with the South Platte River.

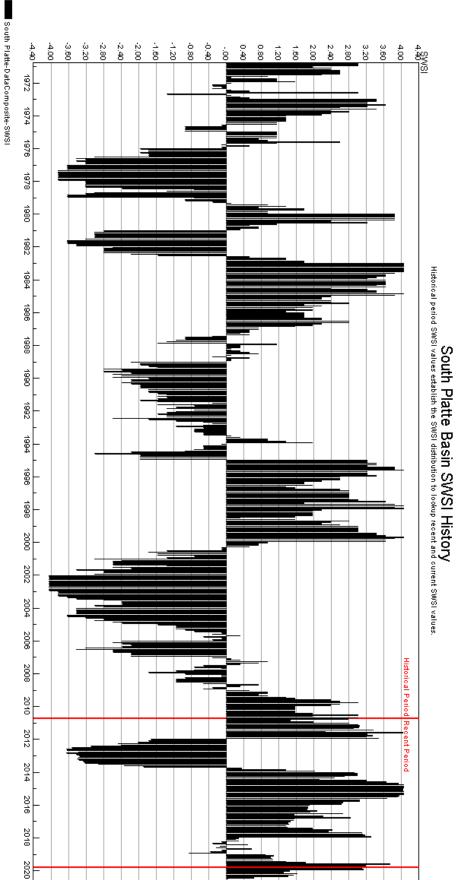
Reservoir storage levels throughout the South Platte River mainstem ended the month of June above average at the 6 SWSI Representative Reservoirs at 620,620 acre-feet volume, which is 105% of the long term average. Additionally, 32 indexed reservoirs throughout Division 1 basin at 112% of the long term average with a storage volume of 970,567 acre-feet at the end of June, representing approximately 85% of full capacity. This is ahead of the long term average of 76% full for the end of June storage in the 32 indexed reservoirs throughout Division 1. However, the need for reservoir releases throughout the basin during the later end of May through June given the low flows, senior calls, and increasing demands for irrigation water to sustain irrigated crops and other water activities have started to deplete storage levels throughout the basins.

The temperature and precipitation outlook into July, August and September prepared by the National Weather Service, in northeastern Colorado indicates a 50% chance of above average temperatures and a 33% probability of below average precipitation





in westerly mountainous and foothills and average precipitation on the eastern plains in the South Platte River Basin and Republican River Basin.



111 poste- owo1

The SWSI value for the month was +0.0.

<u>Outlook</u>

June started off with the Rocky Ford Highline call of 1/6/1890, but runoff flows allowed it to quickly go up to the 6/9/1890 call on the Colorado Canal. As the month progressed and an early and low peak flow subsided, the call went more senior with the 3/1/1887 Fort Lyon Canal call with a pass-thru to Amity Canal.

Administrative Concerns

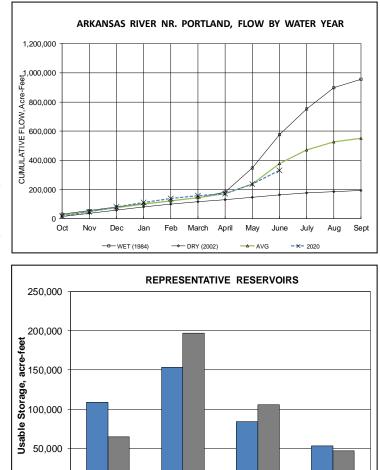
Arkansas River flows peaked early in the month and were below average. Late month precipitation didn't influence flows much.

Flows in the Cucharas Basin have continued to decrease with few significant precipitation events. Flows at the end of the month were at or near zero at gages on the lower end. Any high flows in this basin will be from summer showers and run-off from the Spring Fire Burn Scar.

The Huerfano basin saw a large bump in flow in early June which was followed by a significant precipitation event, but then has gradually dropped through the month. Flows continue to be below average, but the consistent diurnal curve indicates that there is still snow in the basin.

Flows in the Purgatoire Basin started the month off low, and largely continued the month at very low flows. There was a large precipitation event near June 20th in the basin that cased a large bump in flow, but then ended the month about where it began.

June continued the dry trend observed in May. Continued best management practices by the Division and the other agencies and organizations in the Arkansas basin will be critical for managing the water supply into the rest of the summer.



Pueblo

Ava. 6/30 Contents

Turauoise

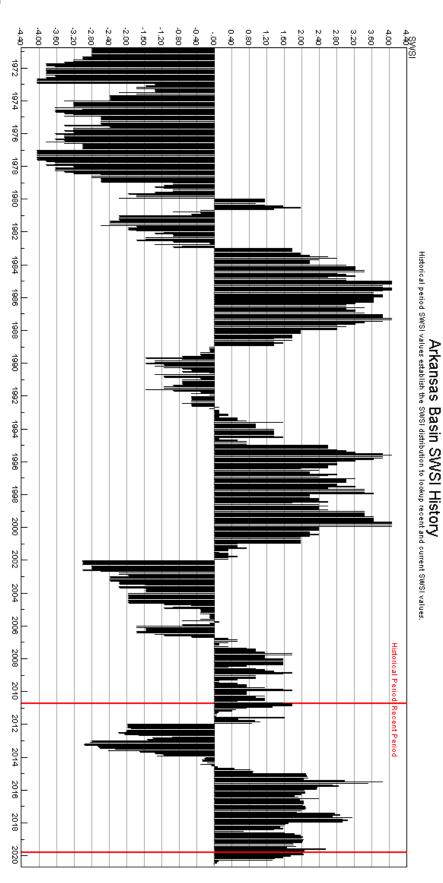
6/30/20 Contents

Twin Lakes

0

John Martin

Arkansas-DataComposite-SWSI



The SWSI value for the month was -2.5.

Flow at the gaging station Rio Grande near Del Norte averaged 1306 cfs (44% of normal). The Conejos River near Mogote had a mean flow of 360 cfs (33% of normal). June showed a nearly daily decline in streamflow for all area streams. This decline of the annual hydrograph will be very steep and quick without significant precipitation.

Streamflow throughout the upper Rio Grande basin was very low compared to long-term averages during June. Drainages such as Sangre de Cristo Creek and the Rio San Antonio went dry at the gaging stations and had less than 10% of the average monthly flow. No stream in the basin produced better than 60% of the average June flow.

The higher elevations and the Valley floor received below average precipitation during June. Precipitation has been so scarce on the Valley floor this year that Alamosa had received slightly less than one inch of accumulated precipitation January through June. For comparison, the Valley floor usually receives about seven inches of annual precipitation. There was only one significant rain event in Alamosa during June. Wide daily temperature fluctuations are common in the San Luis Valley. But the recent dry air creates days of 50 degrees between highs and lows.

Outlook

The NWS 90-day forecasts for July through September suggest higher than normal temperatures and a very good chance for below average precipitation. Any precipitation would be welcome.

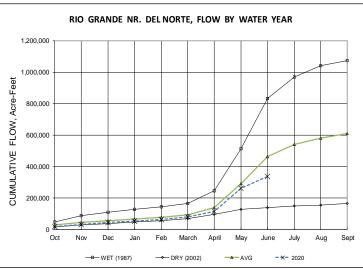
Administrative/Management Concerns

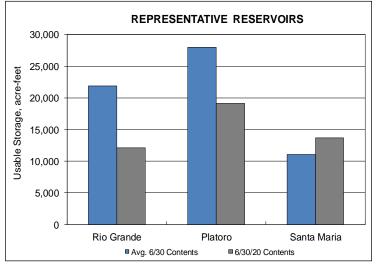
The lack of surface water has increased use of wells throughout the region. Consequently, aquifer levels have already started to decline. Recovery and stabilization of the aquifers is a major need in the basin and a focal point of the Court-approved Groundwater Use Rules. Unfortunately, the gain in the aquifers seen in 2019 may be all lost this season.

Reservoir releases, where available, have been helpful. But this basin does not have massive reservoirs to protect from drought. Sporadic rain in the basin did little to help streams as they plummeted to baseflow conditions.

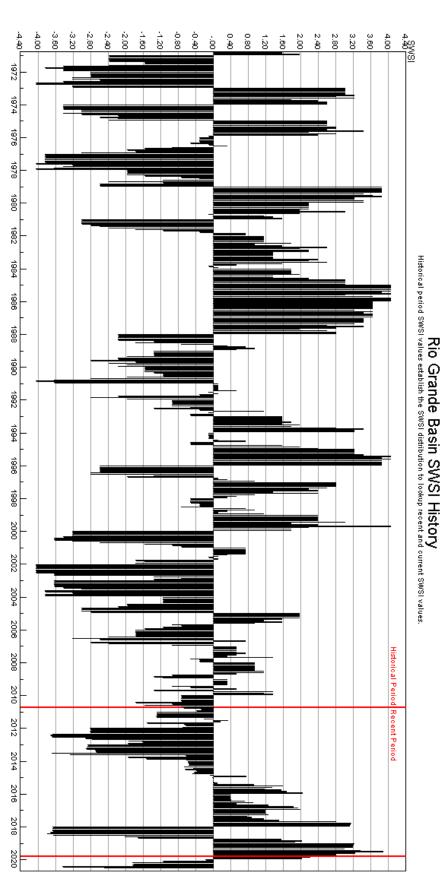
Public Use Impact

Consistently sunny conditions favored the farmers and ranchers and aided the growth of crops during June - if the farmer or rancher had sufficient irrigation supply. The first cutting of hay and alfalfa yielded well and was put up without being rained on.





Rio Grande-DataComposite-SWSI



Basin Wide Conditions Outlook

Precipitation varied widely in the Gunnison basin during June. Southern areas, such as the upper Uncompany River and Lake Fork Gunnison River, received average to greater than average precipitation; while the northwestern areas, such as the Uncompany Plateau and Grand Mesa received less than average. Gunnison basin streams reached near to above average flows the last week of May and first week of June, but then dropped to levels significantly below the average for the rest of the month.

<u>Outlook</u>

National Climate Prediction Center forecasts for the July to September period now predict lower than average precipitation combined with much above average temperatures for the August to October period.

Administrative/Management Concerns

Natural inflow remained great enough to supply the Uncompany Valley Water Users (UVWUA) diversions at the Gunnison Tunnel through the end of June. Consequently, no Taylor Park Reservoir storage was used during June. However, on July 1st, the Gunnison Tunnel began diverting water stored in the Taylor Park Reservoir second fill account that is released from Taylor Park at rates determined in concert with the Taylor Park Local Users Group (TLUG) to satisfy agricultural and recreational uses between Taylor Park and Blue Mesa Reservoirs. Additionally, on July 3rd the Gunnison

Tunnel began diverting Taylor Park first fill storage released from the account in Blue Mesa Reservoir.

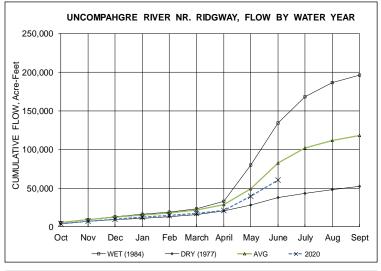
Inflows to Ridgway Reservoir dropped below releases needed to satisfy UVWUA diversions in their main canals for a second time on June 25th. At that point, the UVWUA resumed the use of stored exchange credits accrued in Ridgway based on diversions from the Gunnison Tunnel into the Project 7 water system for use by the six municipal water providers in the Uncompander Valley. The amount of exchange credits available to the UVWUA is dependent on municipal usage, which has been much higher than average, therefore, the UVWUA will likely have 1,500 acre-feet more than the average 9,000 acre-feet that accrues in this account in 2020.

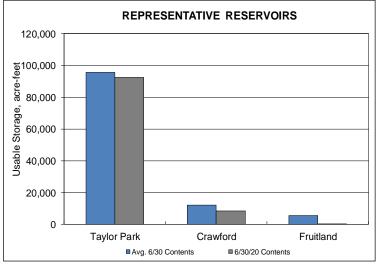
Based on the moderately dry year type, base flow targets specified in the Aspinall Record of Decision (ROD) for the Gunnison River at Whitewater are 1,050 cfs in June. Reclamation increased releases from Crystal Dam on June 19th to keep flows at the Gunnison River gauge near Grand Junction above that level.

A call was placed by the Paonia Ditch on the North Fork Gunnison River on June 29th. This is a couple weeks earlier than normal and prompts administration of numerous tributaries above the Town of Paonia. This also triggers the release of Paonia Reservoir storage to effectuate the Ragged Mountain Exchange, which allows a number of diversions above Paonia Reservoir on Muddy Creek to remain on.

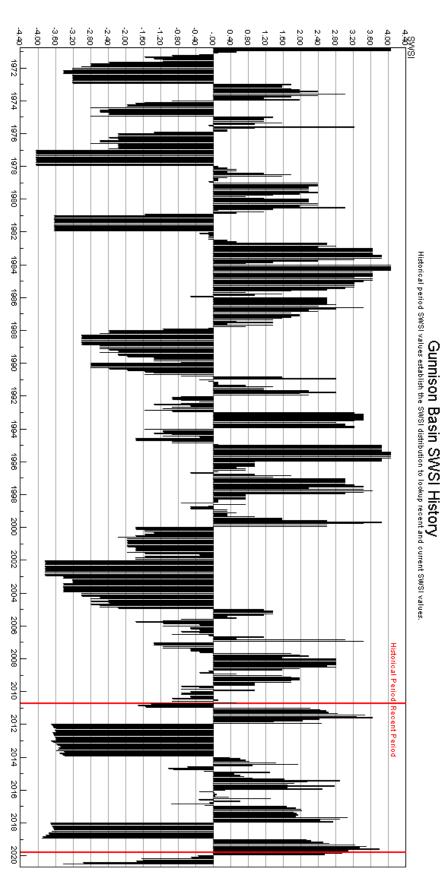
Public Use Impacts

Flows in the Gunnison Gorge increased to over 700 cfs during mid-July as the Bureau of Reclamation increased releases from Crystal Dam to keep base flows in the lower Gunnison above the 1,050 cfs target specified in the Aspinall EIS Record of Decision.





Gunnison-DataComposite-SWSI



<u>Basinwide Conditions Assessment</u> The SWSI value for the month was -1.4.

<u>Outlook</u>

Colorado River flows and tributary flows are running below average and are forecasted to continue below average through July. Above average temperatures and average precipitation are forecast for July.

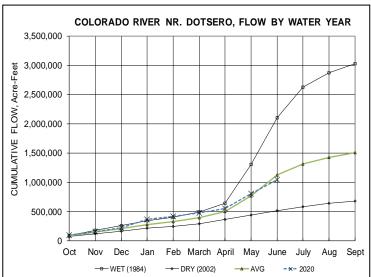
Administrative/Management Concerns

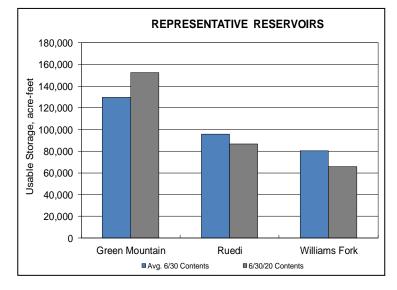
There is currently no call on the Colorado River. Grand Valley Irrigation diversions (Government Highline/Orchard Mesa Irrigation, Grand Valley Irrigation canals) continue at or near full capacity. Green Mountain Reservoir is maintaining

storage.

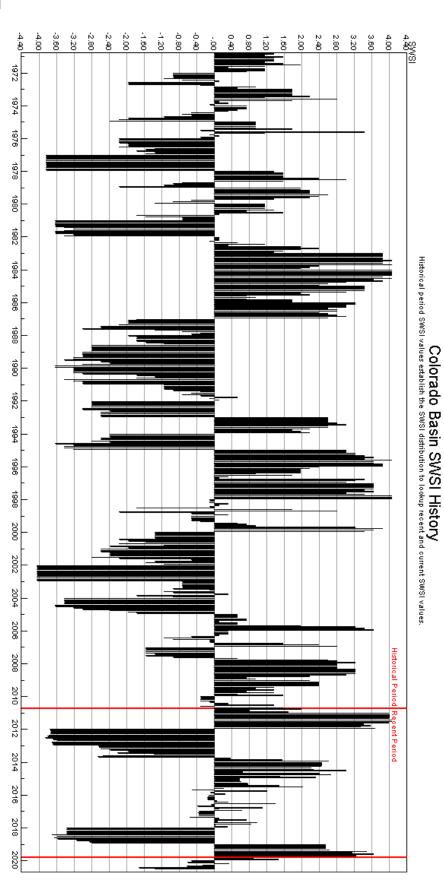
Public Use Impacts

Colorado's monsoon season runs from June 15 through September 30 each year and brings a stream of moisture from the Gulf of Mexico. As the Colorado winds shift from the West to the Northwest to the South and Southwest, it allows moisture to be picked up from the Eastern Pacific Ocean, the Gulf of California, and the Gulf of Mexico. Unfortunately, the forecast for moisture during this year's monsoon season is much dryer than normal.





Colorado-DataComposite-SWSI



The SWSI value for the month was -1.3.

Precipitation (24 sites) - Entire Yampa, White, and North Platte basins were **56%** of the monthly average, putting the basin at 91% of average for the water year to date. This is down from last year's monthly average of 215%. For the month, the lowest percent of average, at 0%, was the Sandstone RS SNOTEL station. The highest, at 125%, was the Bear River SNOTEL station. **Averages are from 1981-2010 records*

Temperatures - The average temperature for NOAA Colorado Climate Division 2: Colorado River Drainage was **60.2**° **F**. This is +2.7°F from the average of 57.5°F. This temperature ranks 101st for lowest of the previous 125 years of data. For the NOAA Colorado Climate Division 4: Platte Drainage, the average temperature was **64.9°F**, +3.9°F above the average of 61.0°F, ranking 114th. **Averages are from 1901-2000 records*

Reservoir Outlook

Elkhead Reservoir - July 1st, 2020 elevation was 79.5' and 24,420 AF of 25,550 AF - 96% capacity.

Fish Creek Reservoir - July 1st, 2020 elevation was 9,886.15' at 4,187 AF of 4,187 AF - 100% capacity.

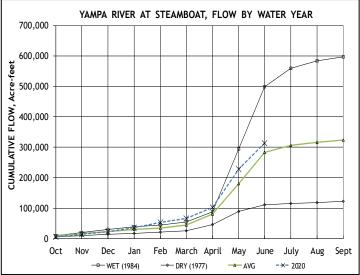
Stagecoach Reservoir - July 1st, 2020 capacity level was at 36,500 AF of 36,500 AF - 100% capacity, 114% average, 100% last year.

Yamcolo Reservoir - July 1st, 2020 capacity level was at 6740 AF of 9640 AF -70% capacity.

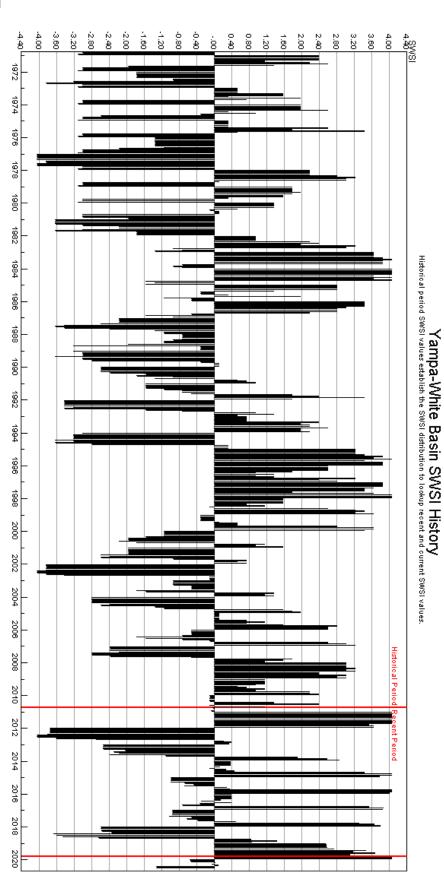
*Averages are from 1981-2010 records

Administrative Concerns

Active calls in the Yampa Basin are on the Bear, Illinois and Michigan Rivers, and the Piceance, Trout, Little Bear and Talamantes Creeks



Yampa-White-DataComposite-SWSI

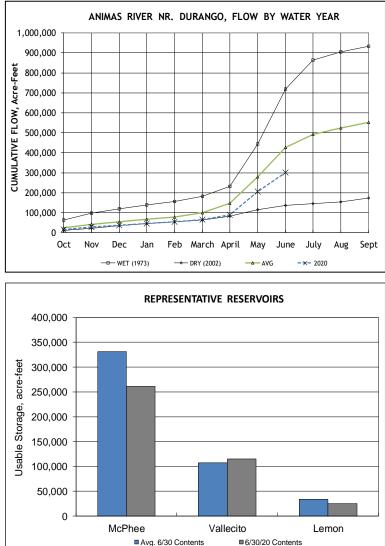


The SWSI value for the month was -2.3.

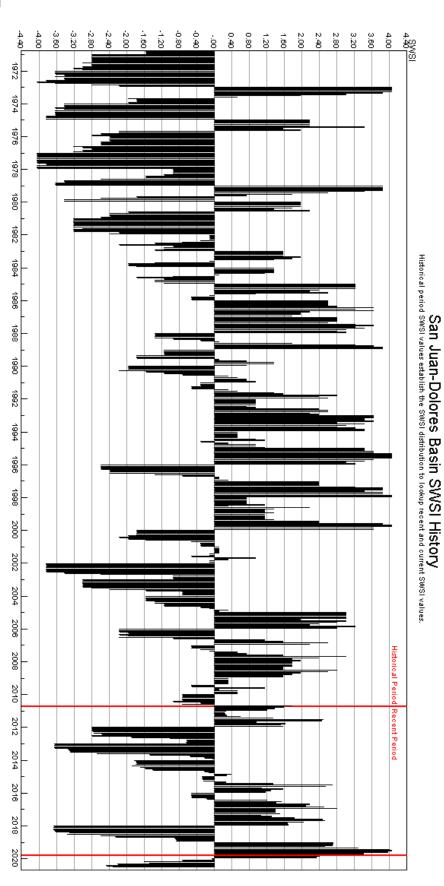
Flow at the Animas River at Durango averaged 1,521 cfs (55% of average). The flow at the Dolores River at Dolores averaged 326 cfs (25% of average). The La Plata River at Hesperus averaged 39 cfs (31% of average). Precipitation in Durango was 0.37 inches for the month, 62% of the 30-year average of 0.60 inches. Precipitation to date in Durango, for the water year is 8.16 inches, 62% of the 30-year average of 13.17 inches. The average high and low temperatures for the month of June in Durango were 85° and 46°. In comparison, the 30-year average high and low for the month is 83° and 46°. At the end of the month Vallecito Reservoir contained 114,569 acre-feet compared to its average content of 105,102 acre-feet (109% of average). McPhee Reservoir was up to 261,092 acre-feet compared to its average content of 335,778 (78% of average), while Lemon Reservoir was up to 24,620 acre-feet as compared to its average content of 32,954 acre-feet (75% of average).

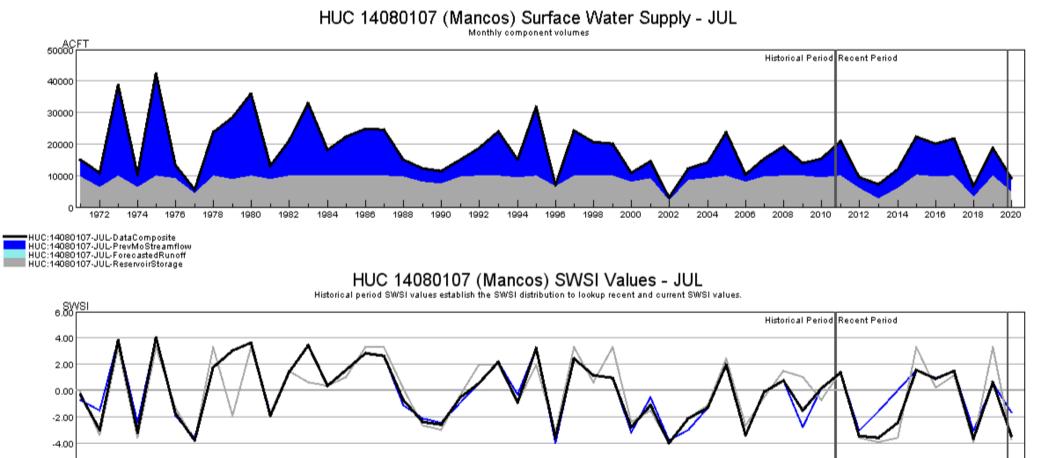
<u>Outlook</u>

Precipitation (0.37 inches) was near average for June in Durango. There were 72 years out of 125 years of record where there was more precipitation than this year. June is typically the driest month of the year for Durango and this year is no exception. The monsoon rains typically start in July, but the area has not had much of a monsoon season since 2017. The flows in the rivers remained below average for the month. There are 90 out of 109 years of record where the total flow past the Animas River at Durango stream gauge was more than this year. There were 100 out of 109 years of record where the total flow past the Dolores stream gauge was more than this year and 85 out of 103 years of record where the total flow past the La Plata River at Hesperus gauge was more than this year. Most of the reservoirs within the basin remain near average for this time of year but levels are falling quickly with the demand due to dry conditions.



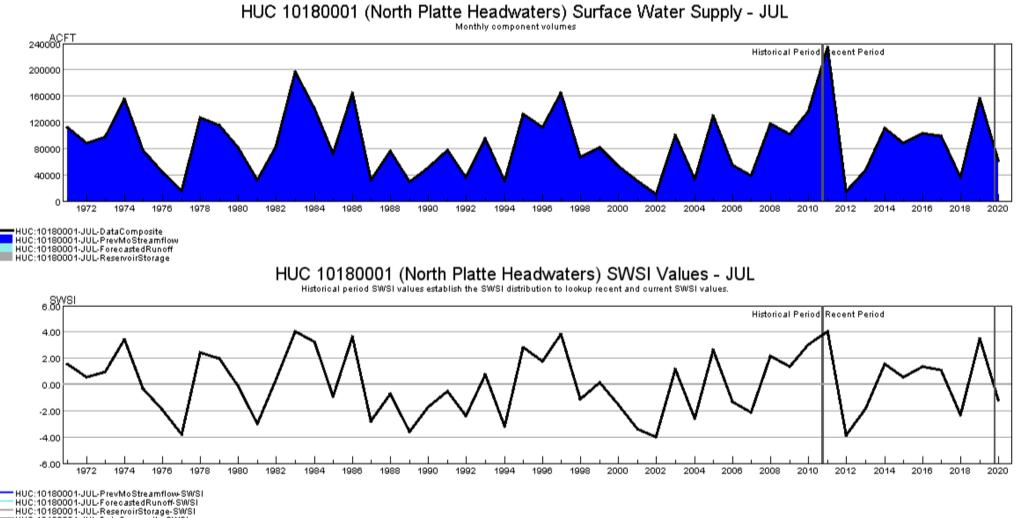
San Juan-Dolores-DataComposite-SWSI



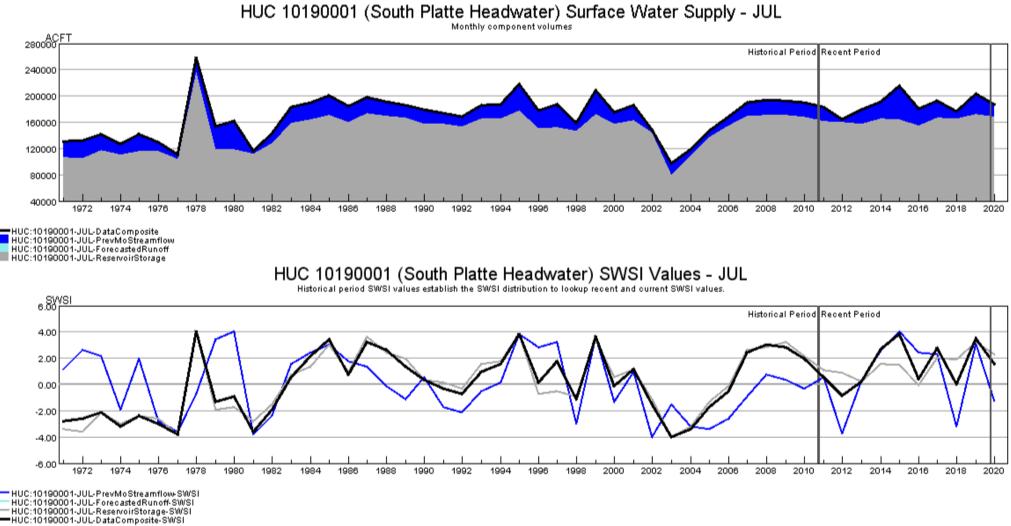


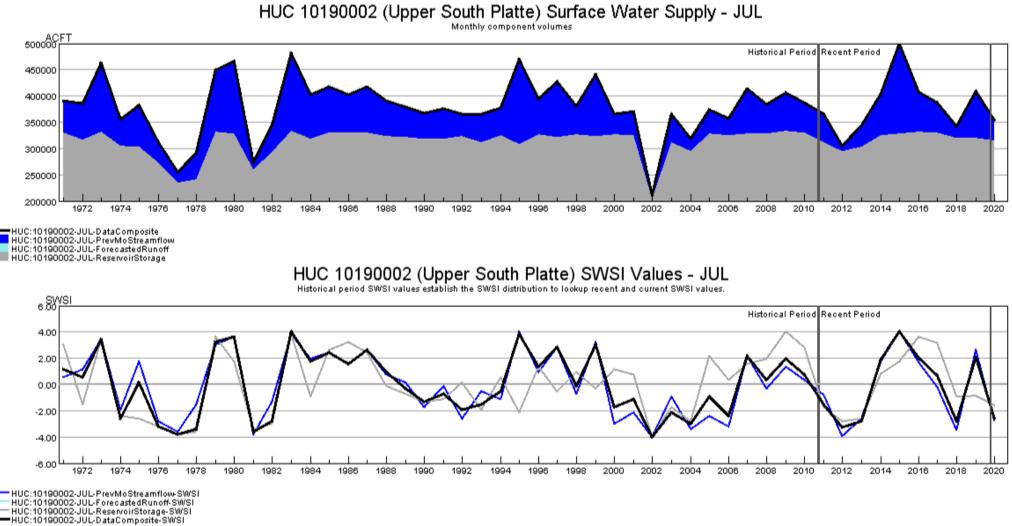
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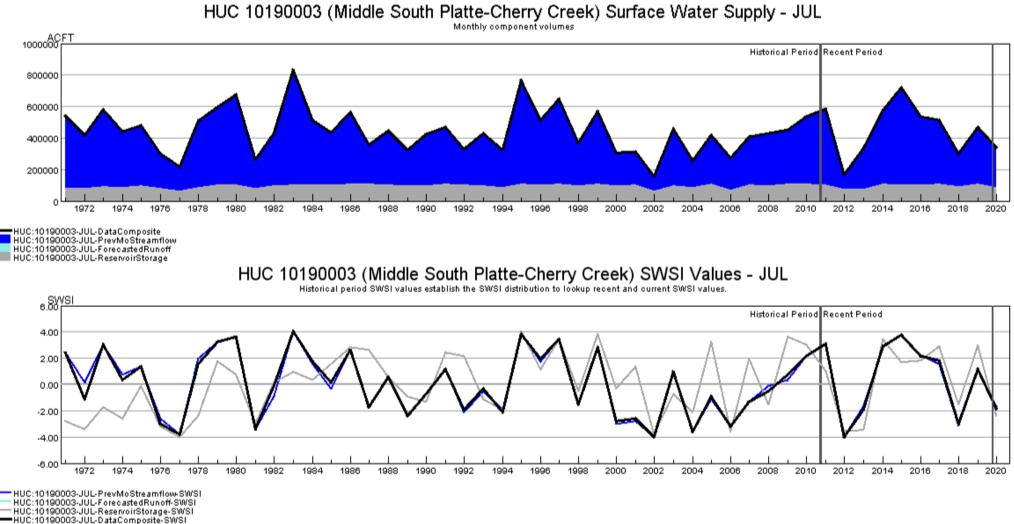
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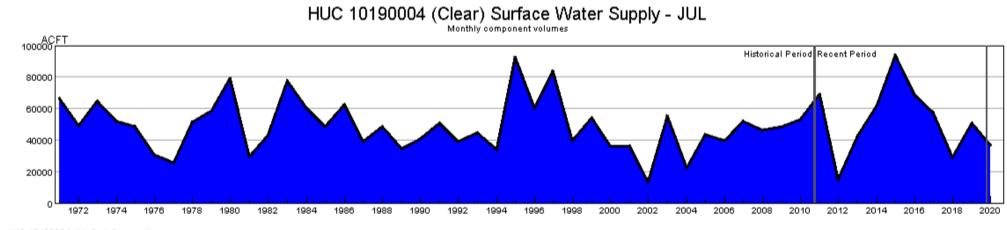


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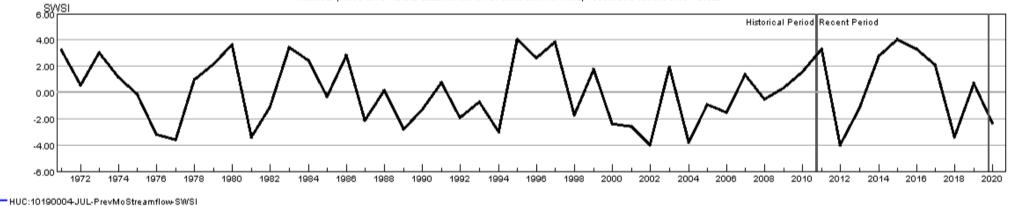




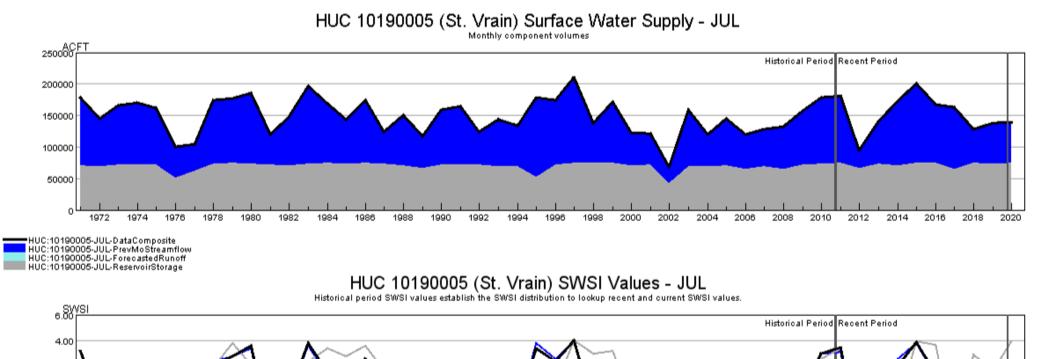


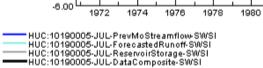
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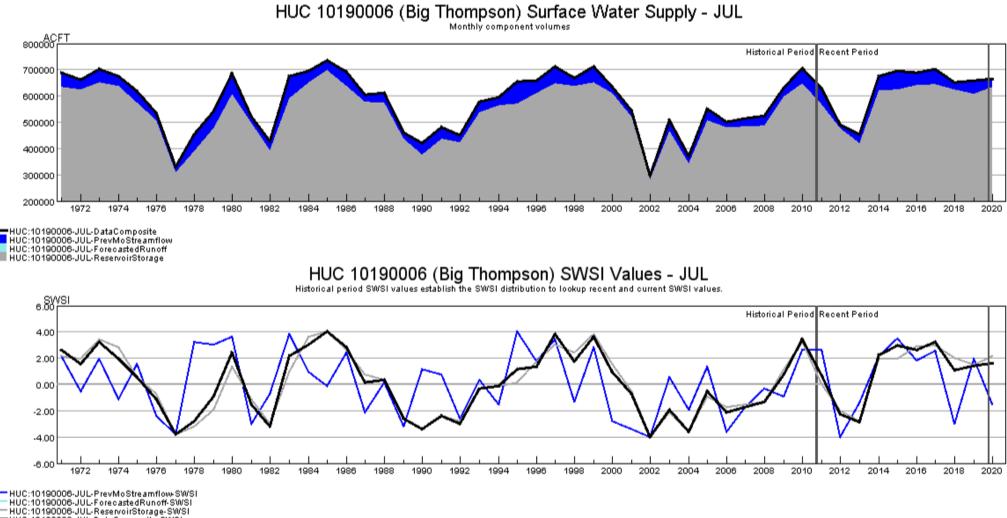


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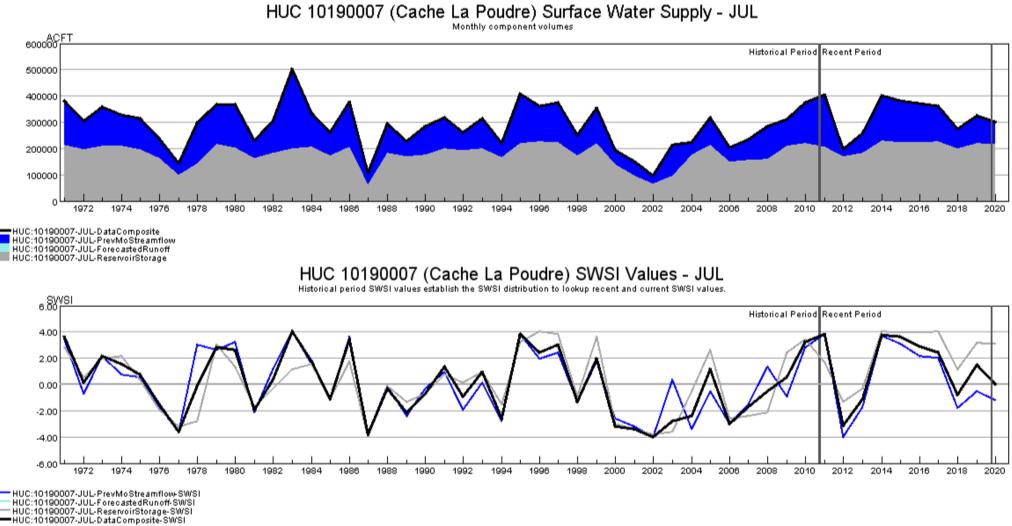


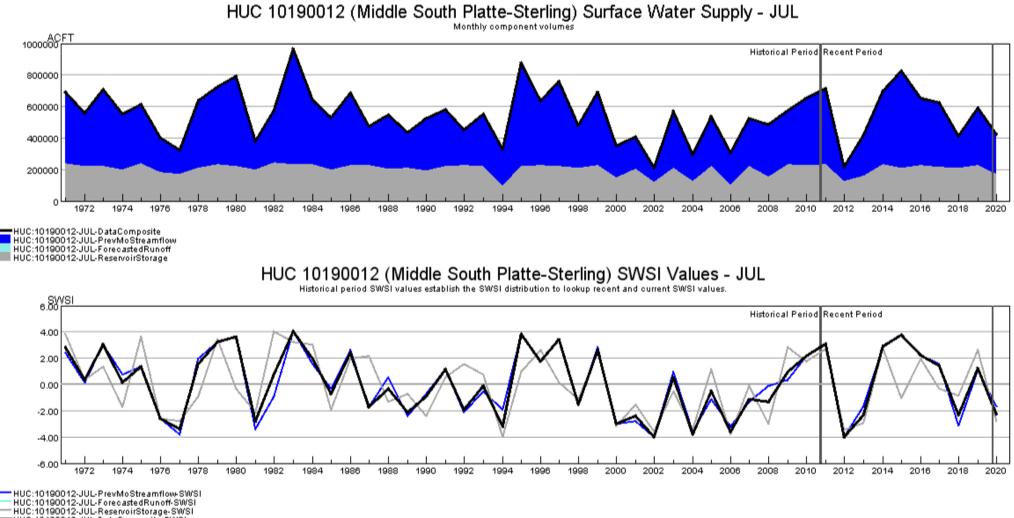


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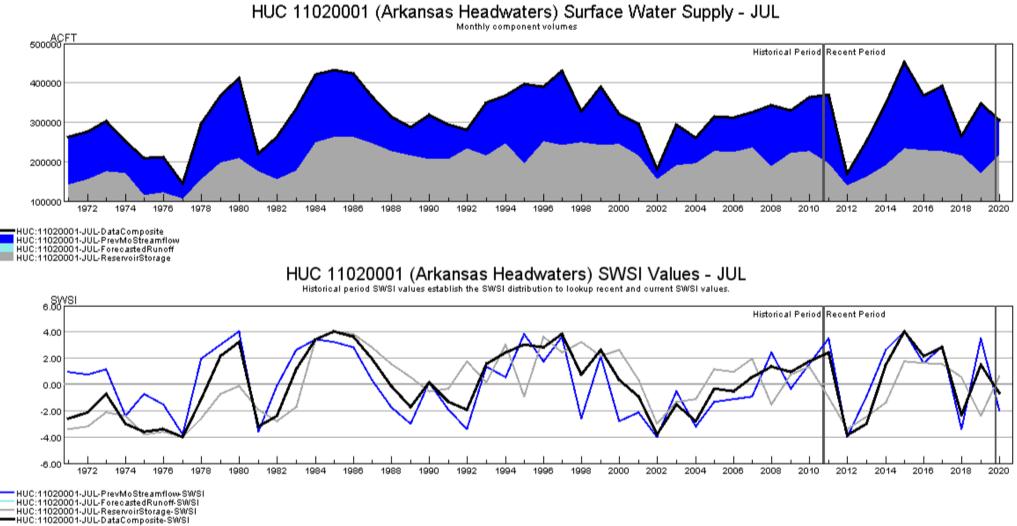


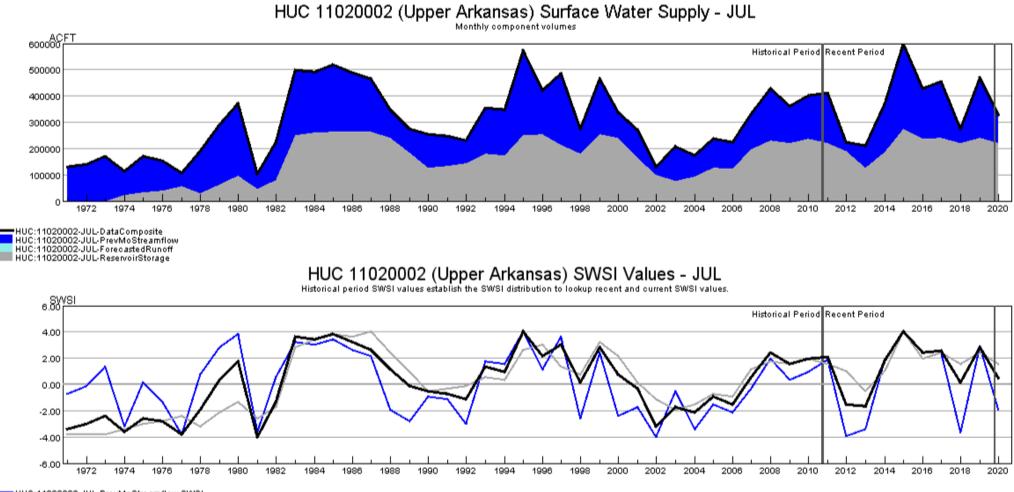
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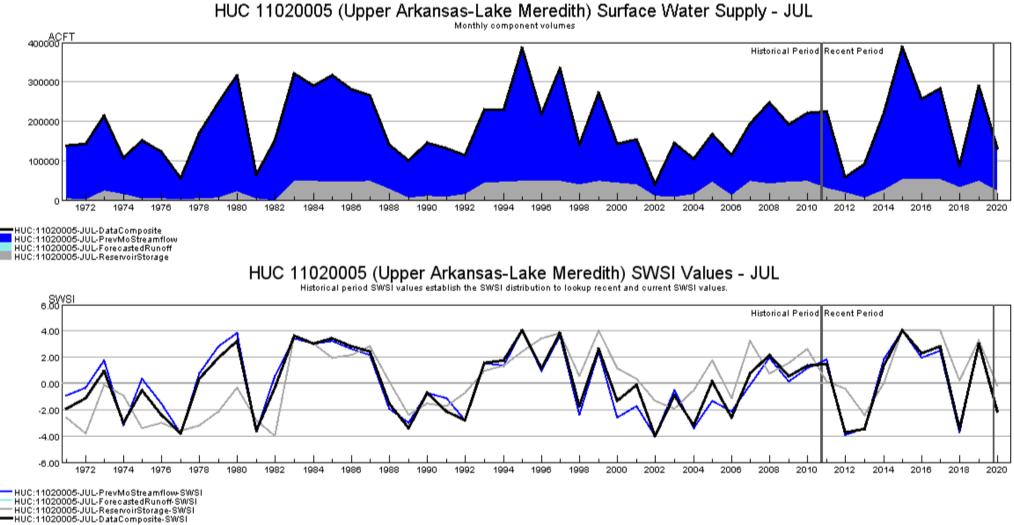


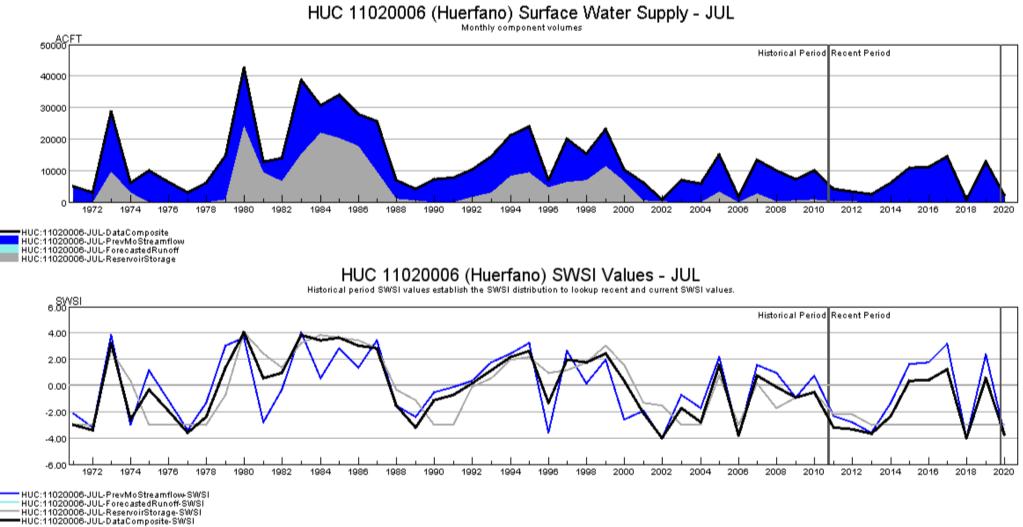
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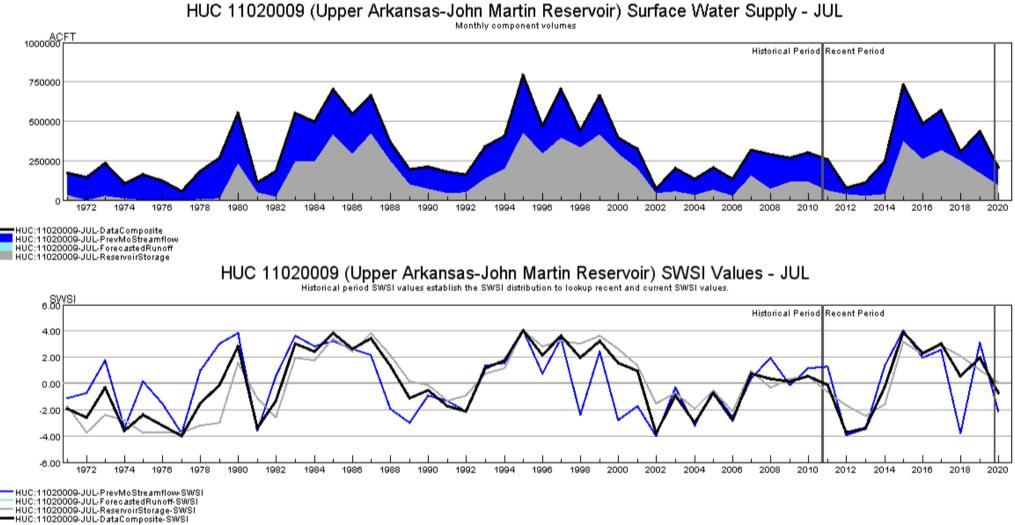


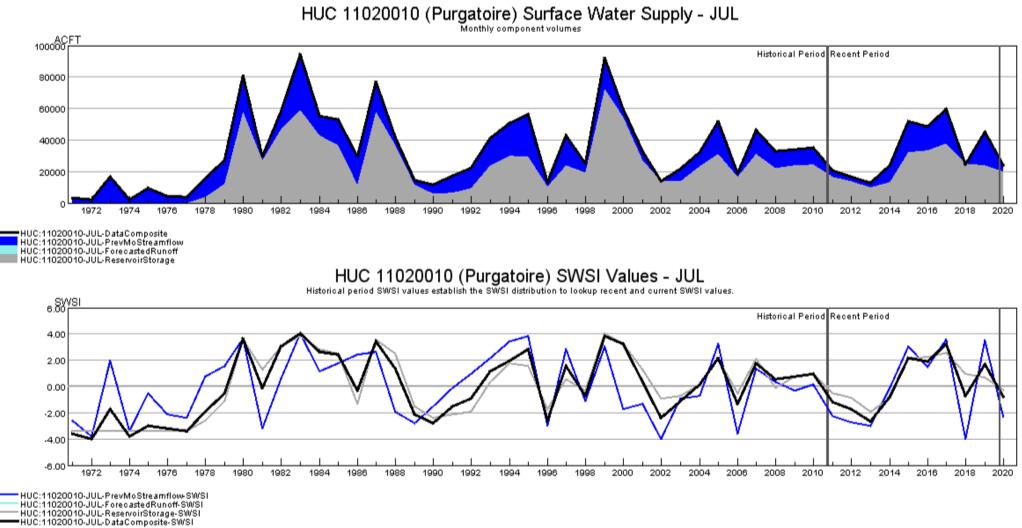


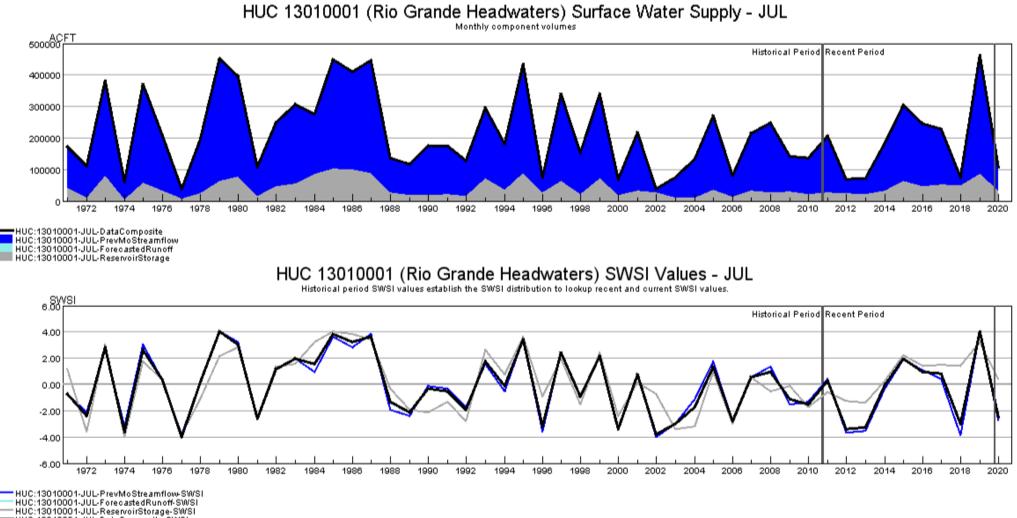
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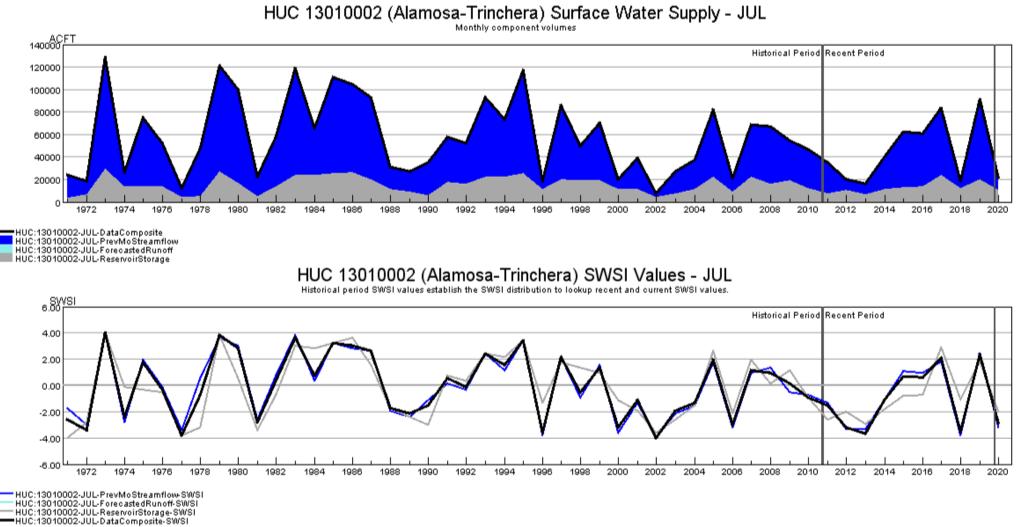


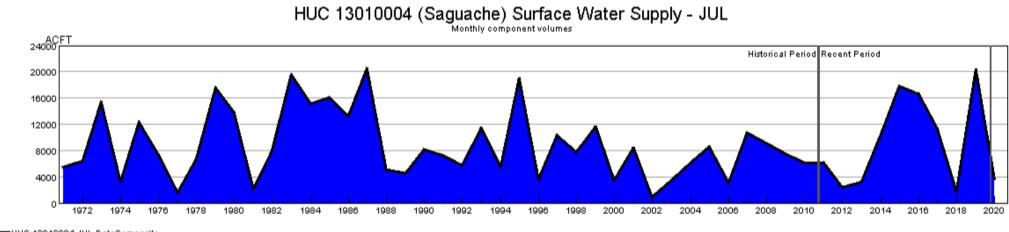






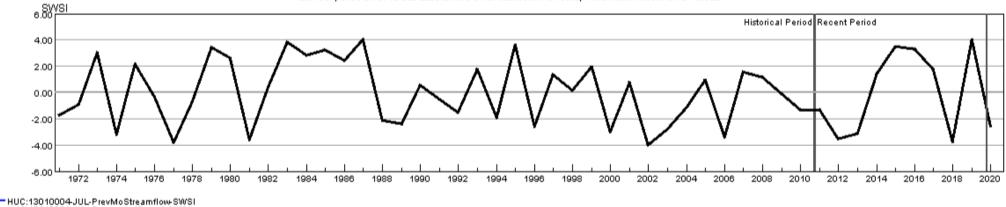
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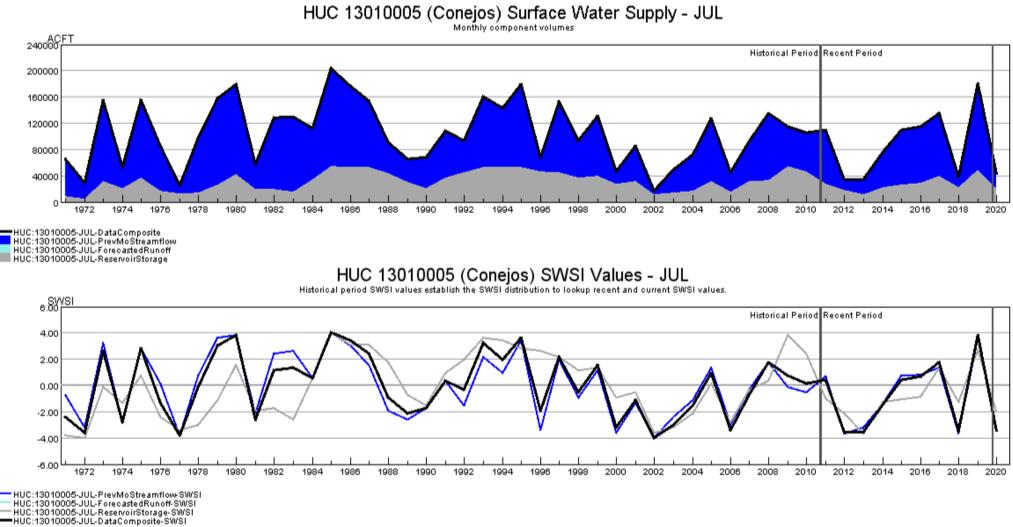


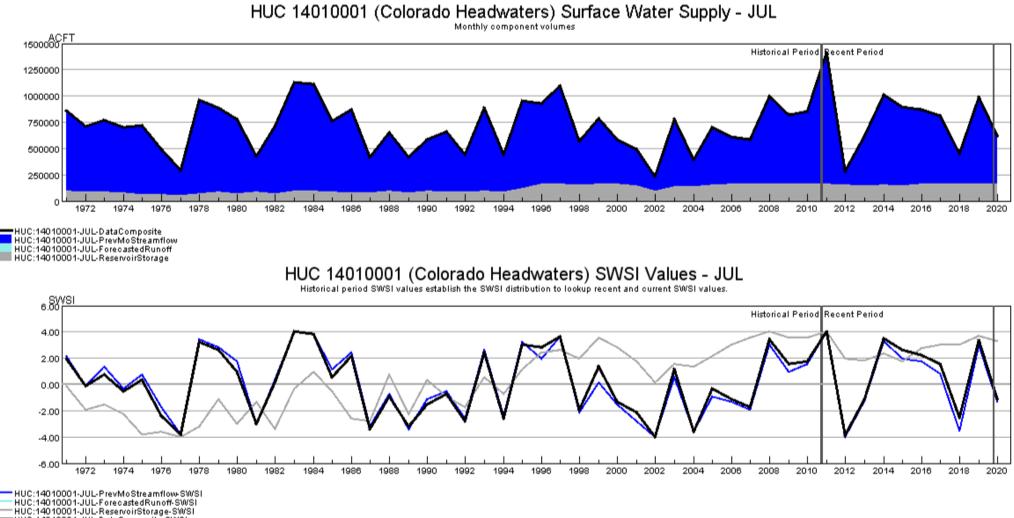
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HUC 13010004 (Saguache) SWSI Values - JUL Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.

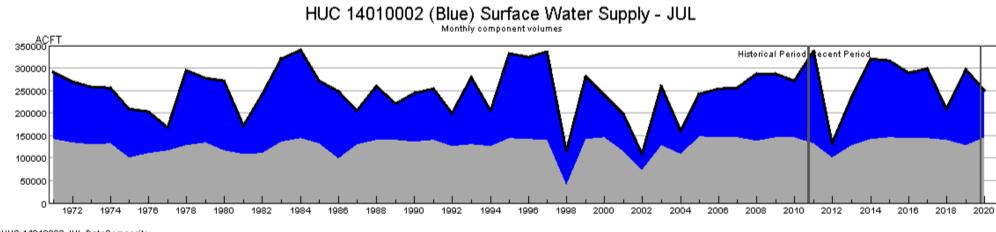


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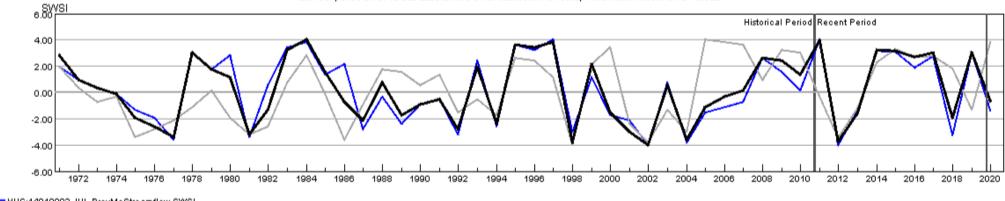
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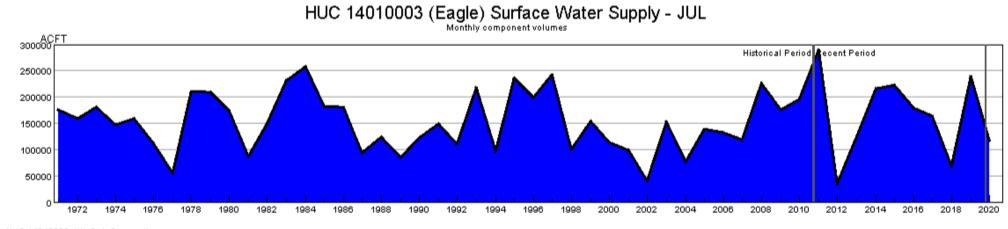
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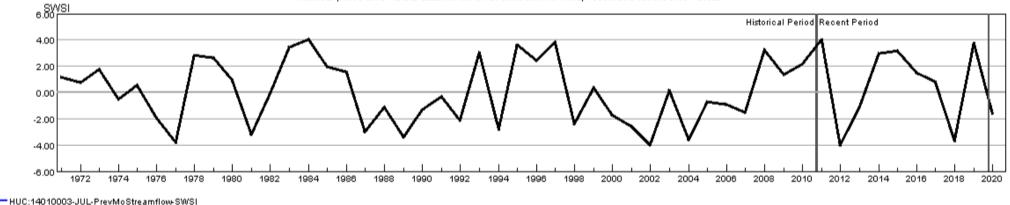


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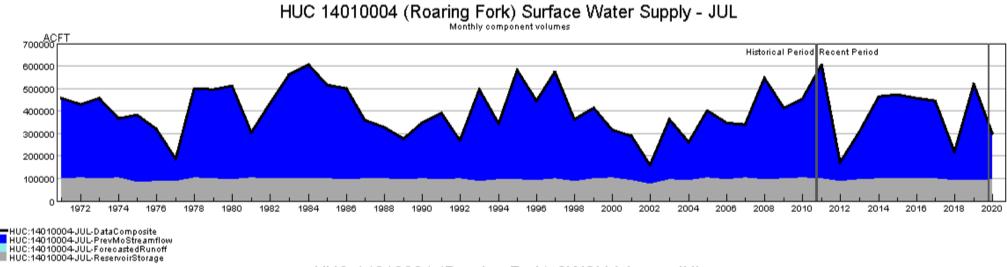


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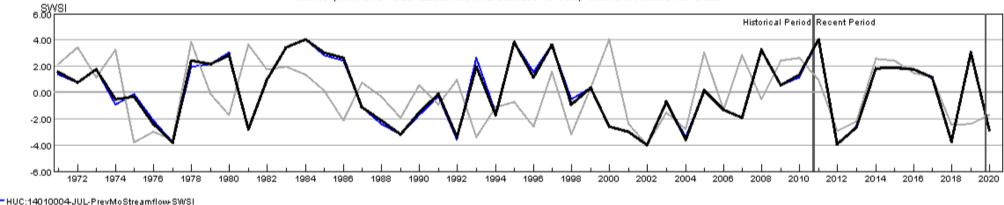


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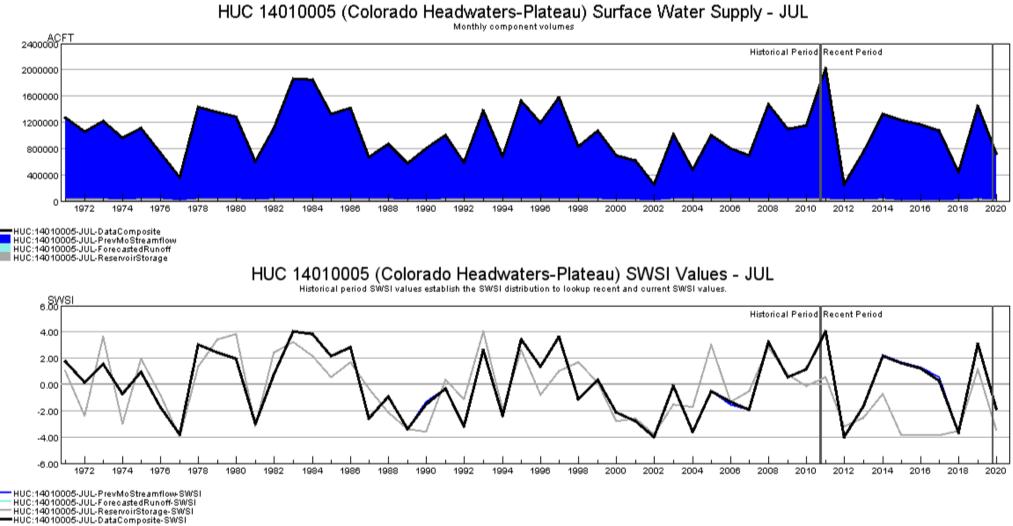


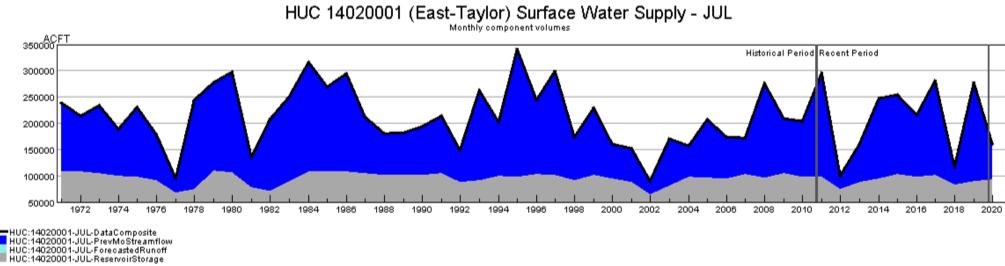
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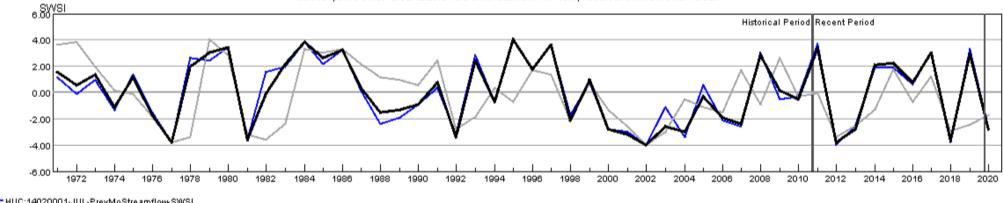
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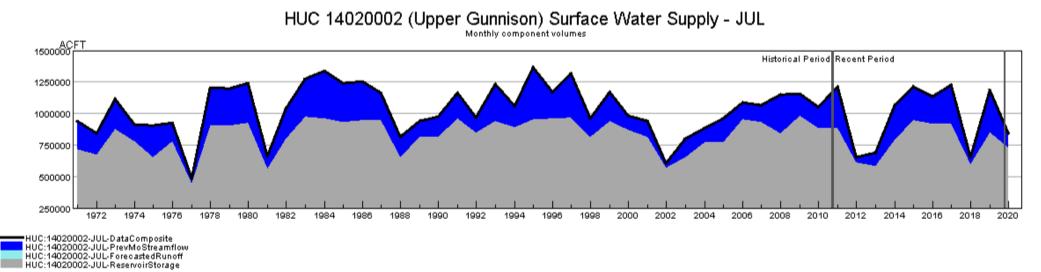


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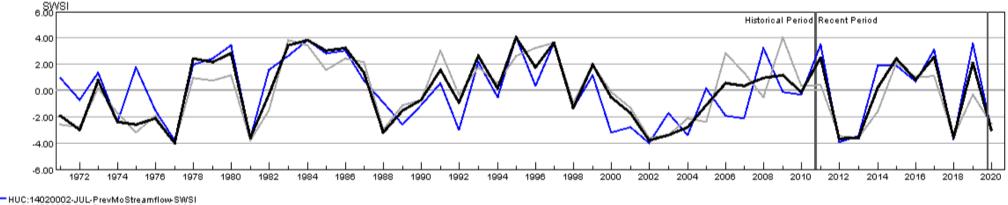




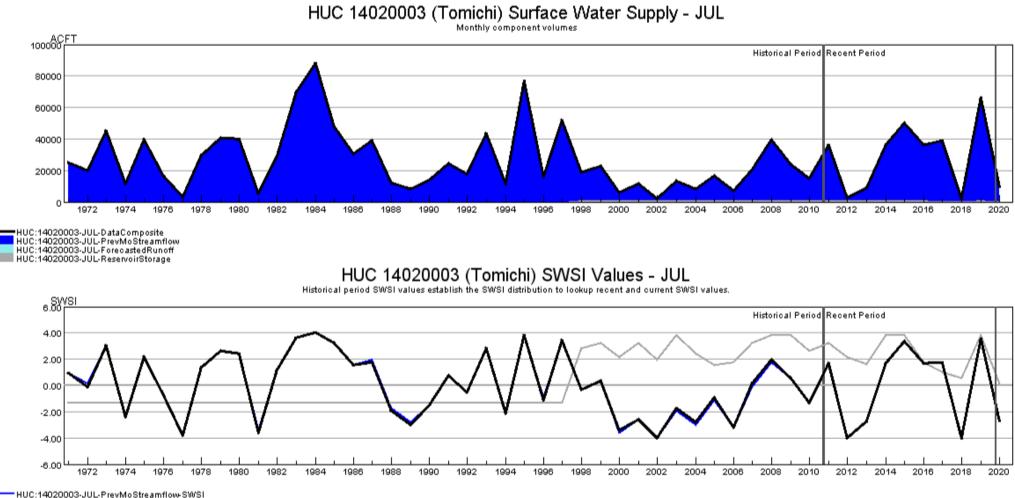
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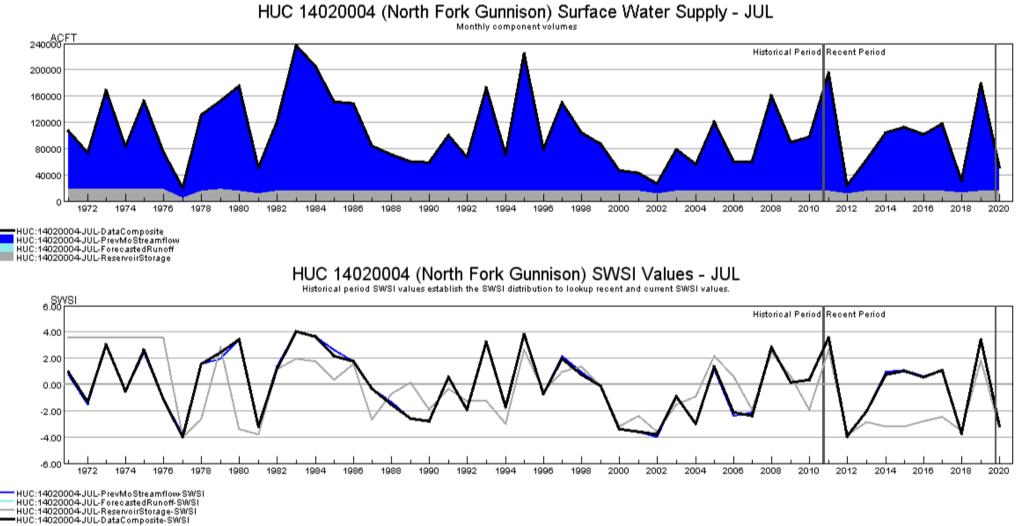
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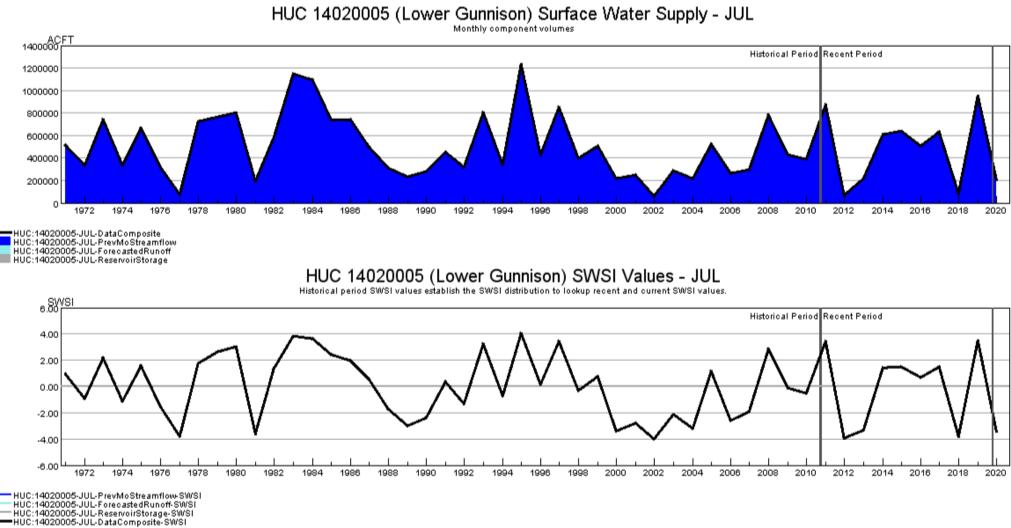


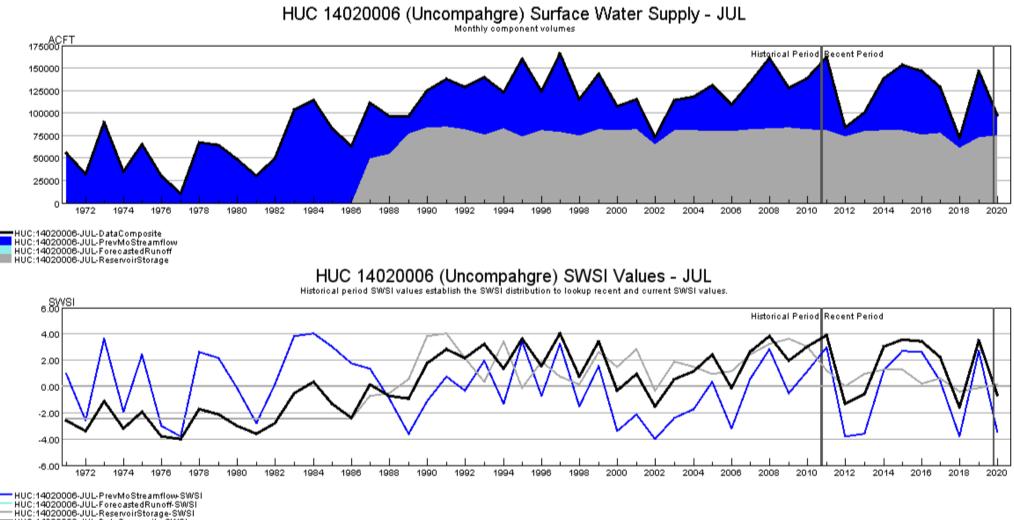
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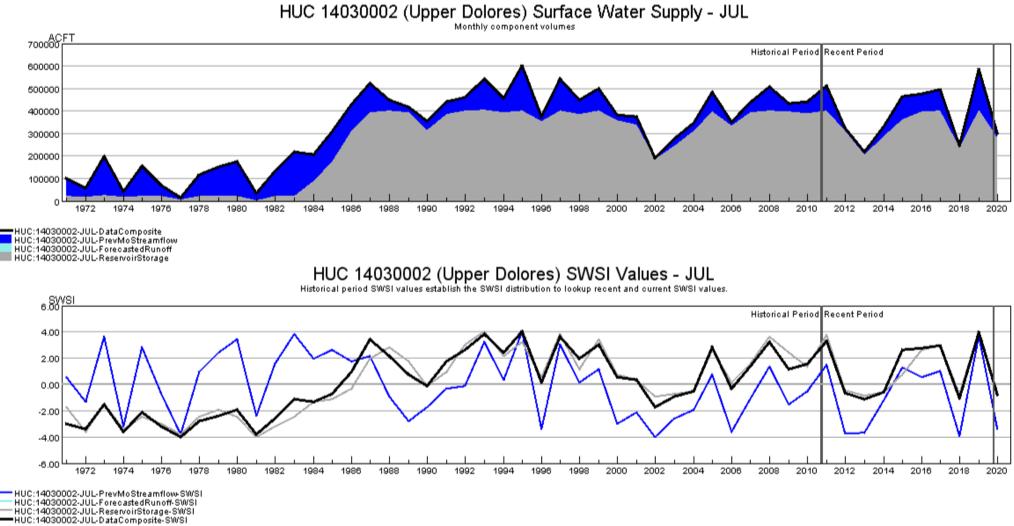
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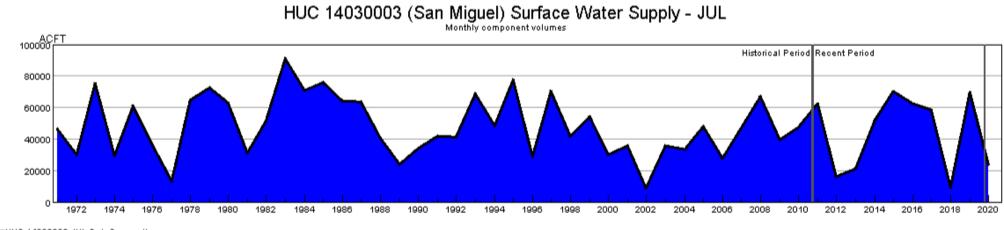






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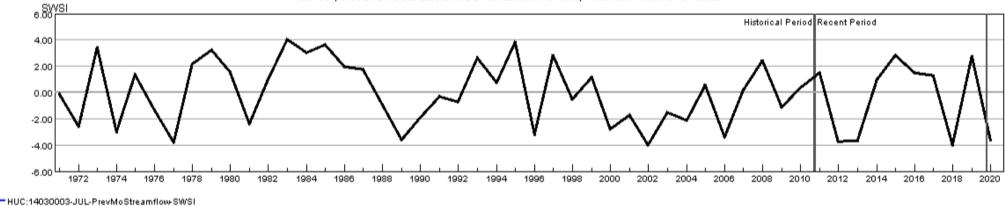




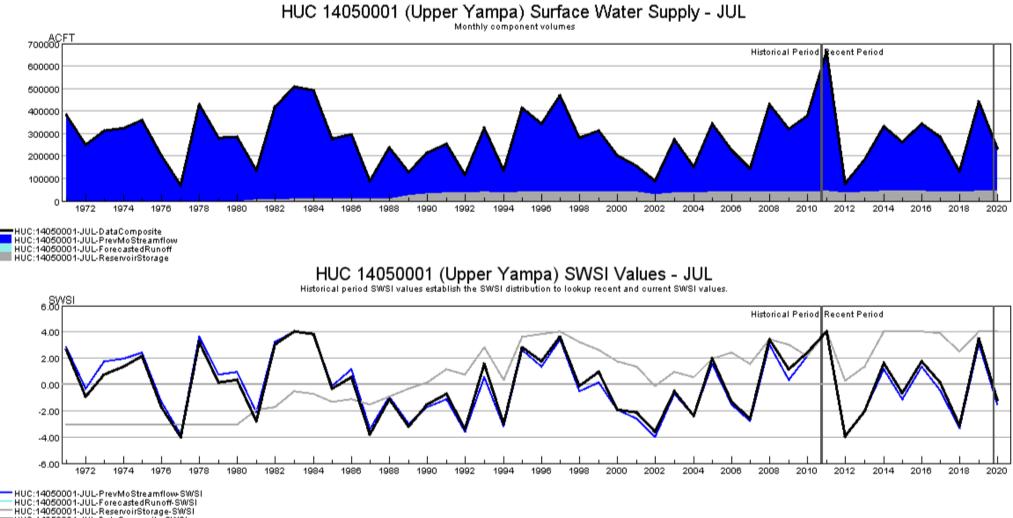
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HUC 14030003 (San Miguel) SWSI Values - JUL Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.

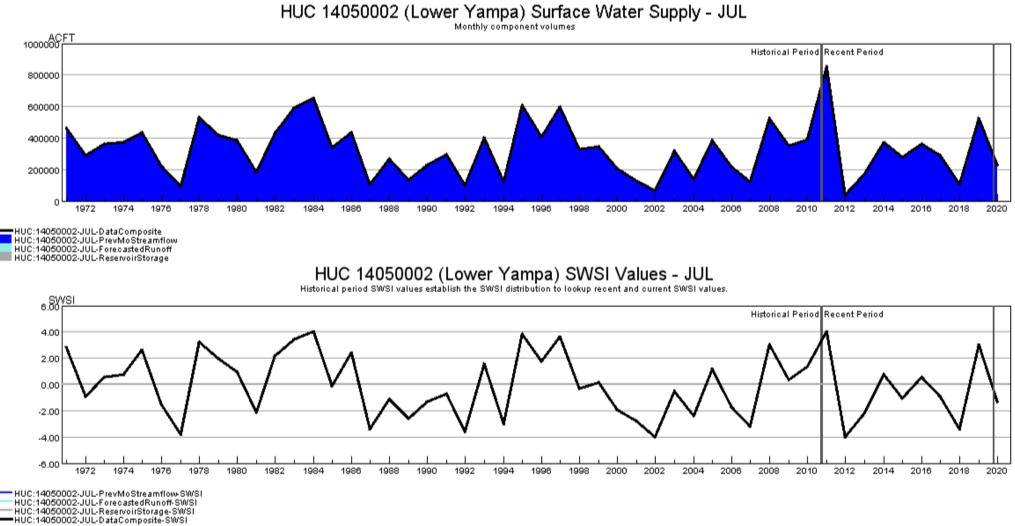


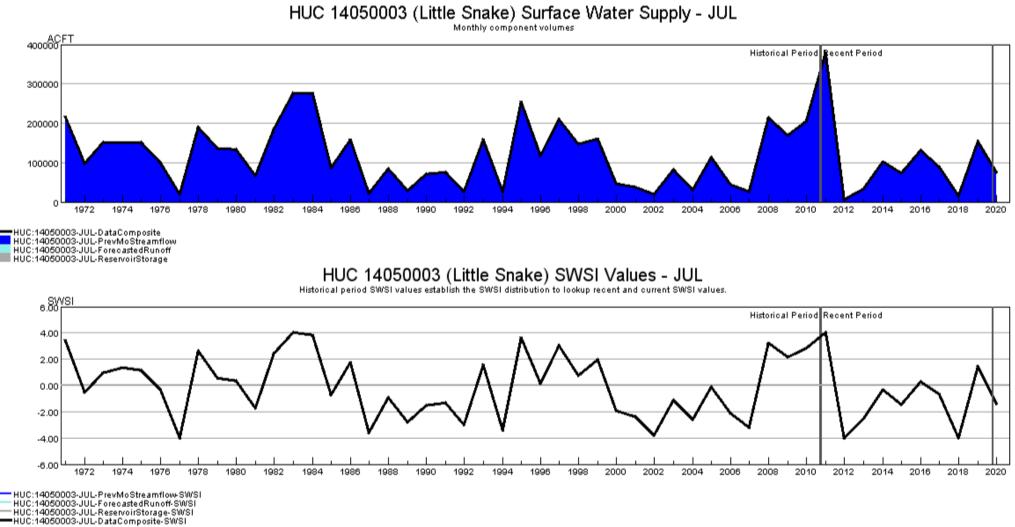


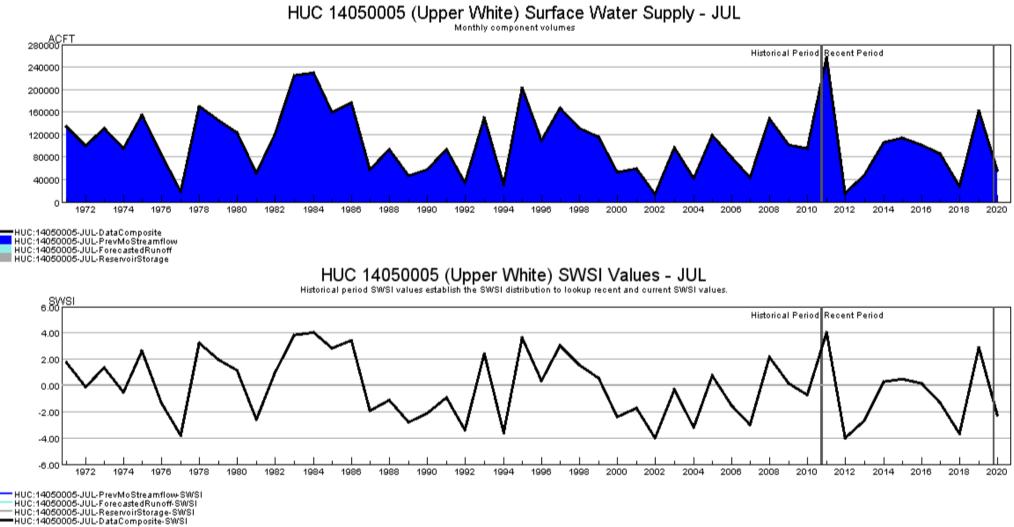
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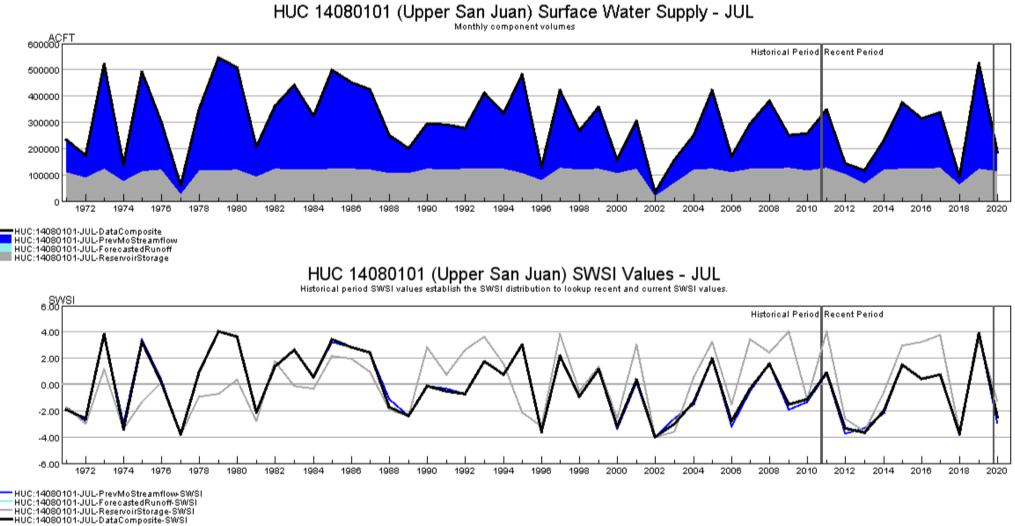


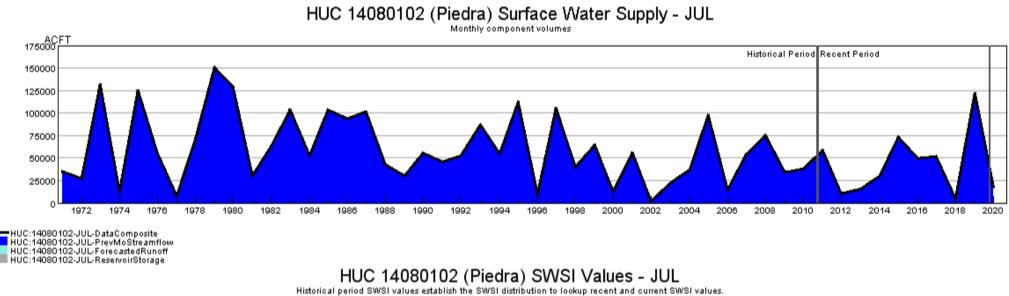
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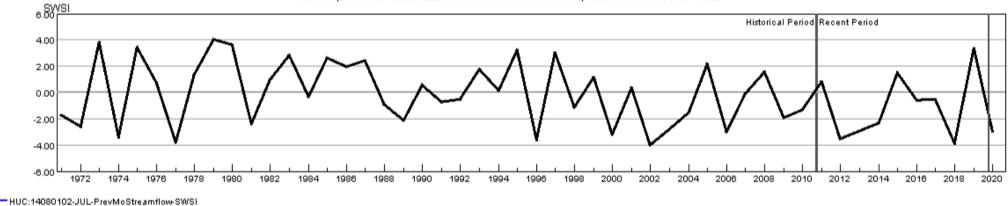




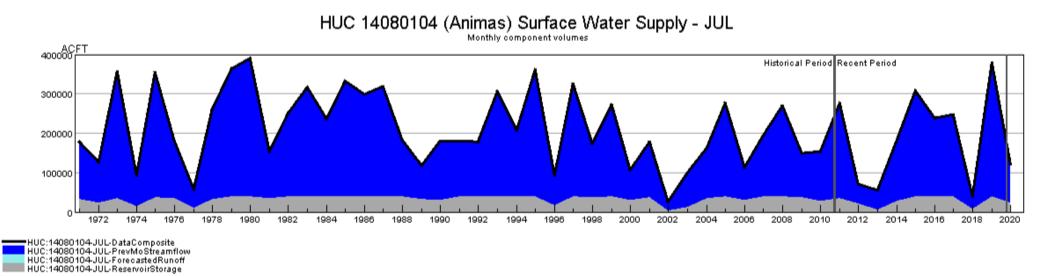








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HUC 14080104 (Animas) SWSI Values - JUL Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.

