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, 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.

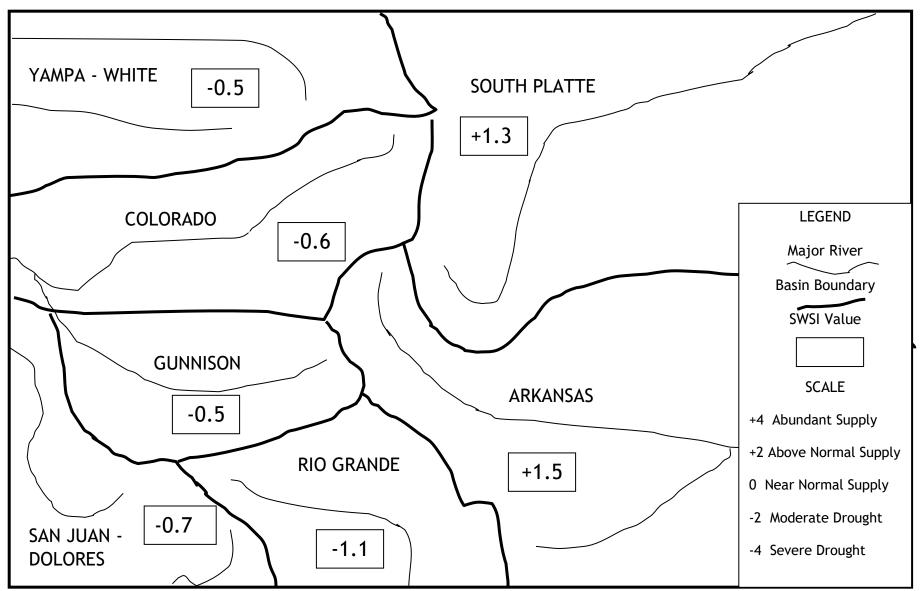
Time Period	SWSI Components
January 1 - June 1	Forecasted Runoff + Reservoir Storage
July 1 - September 1	Previous Month's Streamflow + Reservoir Storage
October 1 - December 1	Reservoir Storage

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 winter/spring season (January 1 to June 1) is based on reservoir storage at the end of last month, in this case January 31, plus the forecasted streamflow runoff volume for the runoff season (April through September in most basins). The following SWSI values were computed for each of the seven major basins for February 1, 2020. Water supply conditions are below normal in all but the South Platte and Arkansas River basins. Storage varies statewide, from above average to below average, and snowpack is average, resulting in streamflow forecasts that are normal to below normal in every basin.

Basin	February 1 SWSI	Change from Previous Month	Change from Previous Year
Arkansas	1.5	-0.2	0.2
Colorado	-0.6	-0.1	-0.4
Gunnison	-0.5	-0.2	1.3
Rio Grande	-1.1	-0.9	-0.3
San Juan-Dolores	-0.7	-0.7	0.7
South Platte	1.3	-0.1	0.9
Yampa-White	-0.5	0.0	0.0

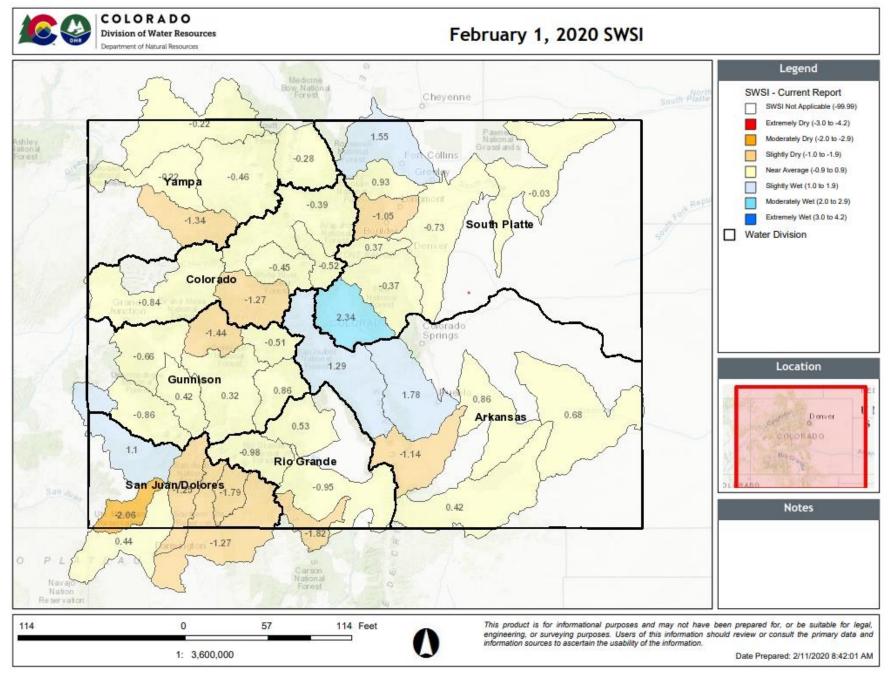
				SWSI Scale				
-4	-3	-2	-1	0	1	2	3	4
Severe		Moderate		Near Normal		Above Normal	Ab	oundant
Drought		Drought		Supply		Supply		Supply



SURFACE WATER SUPPLY INDEX FOR COLORADO BY MAJOR RIVER BASIN

February 1, 2020

SURFACE WATER SUPPLY INDEX FOR COLORADO BY HUC



HUC ID	HUC Name		xceedance Pro Reservoir Storage NEP	Forecast Flow NEP	Total Vol (AF)
11020006	Huerfano		67	47	21,200
11020010	Purgatoire		77	46	65,780
11020005	Upper Arkansas-Lake Meredith	0.87	99	55	412,066
11020001	Arkansas Headwaters	1.29	13	59	416,475
11020009	Upper Arkansas-John Martin Reservoir	0.68	69	56	546,173
11020002	Upper Arkansas	1.79	69	56	588,200
14010003	Eagle	-0.46	87	44	310,000
14010002	Blue	-0.53	27	46	330,101
14010004	Roaring Fork	-1.27	N/A	35	658,199
14010001	Colorado Headwaters	-0.39	55	43	1,437,110
14010005	Colorado Headwaters-Plateau	-0.84	63	40	2,094,217
14020003	Tomichi	0.86	80	60	70,340
14030003	San Miguel	-0.86	67	40	107,000
14020006	Uncompahgre	0.43	66	44	181,271
14020004	North Fork Gunnison	-1.44	63	31	208,673
14020001	East-Taylor	-0.51	N/A	40	311,106
14020005	Lower Gunnison	-0.67	59	42	1,160,000
14020002	Upper Gunnison		N/A	47	1,361,915
13010004	Saguache	0.54	84	56	31,000
13010002	Alamosa-Trinchera	-0.96	77	36	115,161
13010005	Conejos	-1.83	N/A	31	168,404
13010001	Rio Grande Headwaters	-0.99	48	32	431,114
14080105	Middle San Juan	0.45	75	40	22,234
14080107	Mancos	-2.06	99	30	24,725
14080102	Piedra	-1.79	N/A	28	153,000
14080104	Animas	-1.25	30	34	384,529
14080101	Upper San Juan	-1.28	50	32	513,159
14030002	Upper Dolores	1.11	31	44	539,254
10190004	Clear	0.37	94	54	101,000
10190005	St. Vrain	-1.06	45	47	211,094
10190001	South Platte Headwater	2.35	21	61	211,500
10190007	Cache La Poudre	1.56	N/A	42	409,197
10190002	Upper South Platte	-0.38	10	52	439,138
10190006	Big Thompson	0.94	69	51	576,526
10190003	Middle South Platte-Cherry Creek	-0.73	98	42	813,800
10190012	Middle South Platte-Sterling	-0.03	93	42	928,700
10180001	North Platte Headwaters	-0.28	N/A	47	210,000
14050005	Upper White	-1.35	99	34	230,000
14050003	Little Snake	-0.23	N/A	47	340,000
14050001	Upper Yampa	-0.46	N/A	44	715,213
14050002	Lower Yampa	-0.23	N/A	47	930,000

February 1, 2020 SWSI Values by HUC and Non Exceedance Probabilities (NEP)

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)

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
11020001		CLEAR CREEK RESERVOIR	7,680	58
		HOMESTAKE RESERVOIR	41,163	76
	Arkansas Headwaters	TWIN LAKES RESERVOIR	47,458	75
		TURQUOISE LAKE	75,174	52
		ARKANSAS RIVER AT SALIDA	245,000	59
		CUCHARAS RESERVOIR*	0	13
11020006	Huerfano	HUERFANO RIVER NEAR REDWING	10,600	39
		CUCHARAS RIVER AT BOYD RANCH NR LA VETA	10,600	52
11020010	Purgatoire	TRINIDAD LAKE	22,780	69
11020010	Fulgatone	PURGATOIRE RIVER AT TRINIDAD	43,000	46
11020002	Upper Arkanses	PUEBLO RESERVOIR	243,200	77
11020002	Upper Arkansas	PUEBLO RESERVOIR INFLOW	345,000	56
		HUERFANO RIVER NEAR REDWING	10,600	39
		CUCHARAS RIVER AT BOYD RANCH NR LA VETA	10,600	52
11020000	Upper Arkansas-	ADOBE CREEK RESERVOIR	38,950	64
11020009	John Martin Reservoir	PURGATOIRE RIVER AT TRINIDAD	43,000	46
	Reservon	JOHN MARTIN RESERVOIR	98,023	68
		PUEBLO RESERVOIR INFLOW	345,000	56
	Upper Arkansas- Lake Meredith	LAKE HENRY	3,980	43
		HUERFANO RIVER NEAR REDWING	10,600	39
11020005		CUCHARAS RIVER AT BOYD RANCH NR LA VETA	10,600	52
		MEREDITH RESERVOIR	41,886	99
		PUEBLO RESERVOIR INFLOW	345,000	56
4 404 0000	Blue	GREEN MOUNTAIN RESERVOIR	65,101	27
14010002		BLUE RIVER INFLOW TO GREEN MOUNTAIN RES	265,000	46
	Colorado Headwaters	WOLFORD MOUNTAIN RESERVOIR	50,810	88
14010001		WILLIAMS FORK RESERVOIR	76,300	83
		COLORADO RIVER NEAR DOTSERO	1,310,000	43
4 404 0005	Colorado	VEGA RESERVOIR	14,217	63
14010005	Headwaters-Plateau	COLORADO RIVER NEAR CAMEO	2,080,000	40
14010003	Eagle	EAGLE RIVER BELOW GYPSUM	310,000	44
4 40 4 000 4		RUEDI RESERVOIR	73,199	55
14010004	Roaring Fork	ROARING FORK AT GLENWOOD SPRINGS	585,000	35
	East-Taylor	TAYLOR PARK RESERVOIR	74,106	80
14020001		TAYLOR R INF TO TAYLOR PARK RESERVOIR	86,000	47
		EAST RIVER AT ALMONT	151,000	39
14020005	Lower Gunnison	GUNNISON RIVER NR GRAND JUNCTION	1,160,000	42
4 400 000 1	North Fork	PAONIA RESERVOIR	3,673	63
14020004	Gunnison	NORTH FORK GUNNISON R NR SOMERSET	205,000	31
14030003	San Miguel	SAN MIGUEL RIVER NEAR PLACERVILLE	107,000	40
		VOUGA RESERVOIR NEAR DOYLEVILLE	340	66
14020003	Tomichi	TOMICHI CREEK AT GUNNISON, CO	70,000	60

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
14020006	Uncompahgre	RIDGEWAY RESERVOIR	65,271	59
14020006	oncompangre	UNCOMPAHGRE RIVER AT COLONA	116,000	44
		SILVER JACK RESERVOIR	705	2
		FRUITLAND RESERVOIR	976	47
		CRAWFORD RESERVOIR	7,000	39
14020002	Upper Gunnison	MORROW POINT RESERVOIR	107,199	7
		LAKE FORK AT GATEVIEW, CO	117,000	47
		BLUE MESA RESERVOIR	554,035	74
		GUNNISON R INF TO BLUE MESA RESERVOIR	575,000	47
		MOUNTAIN HOME	4,930	85
		TERRACE RESERVOIR	7,731	75
		TRINCHERA CK	10,000	38
13010002	Alamosa-Trinchera	UTE CREEK	11,000	44
		SANGRE DE CRISTO	12,000	45
		CULEBRA CREEK AT SAN LUIS	18,500	46
		ALAMOSA CREEK ABOVE TERRACE RESERVOIR	51,000	30
	. .	PLATORO RESERVOIR	18,404	48
13010005	Conejos	CONEJOS RIVER NEAR MOGOTE	150,000	31
		RIO GRANDE RESERVOIR**	3,972	10
	Rio Grande	CONTINENTAL RESERVOIR	15,570	99
13010001	Headwaters	SANTA MARIA RESERVOIR	21,572	91
		RIO GRANDE NEAR DEL NORTE	390,000	32
13010004	Saguache	SAGUACHE CREEK NEAR SAGUACHE, CO	31,000	56
10010001		LEMON RESERVOIR	17,529	30
14080104	Animas	FLORIDA RIVER INFLOW TO LEMON RESERVOIR	42,000	30
11000101		ANIMAS RIVER AT DURANGO	325,000	34
		JACKSON GULCH RESERVOIR	3,725	31
14080107	Mancos	MANCOS RIVER NEAR MANCOS	21,000	30
		LONG HOLLOW RESERVOIR	4,234	50
14080105	Middle San Juan	LA PLATA RIVER AT HESPERUS	18,000	40
14080102	Piedra	PIEDRA RIVER NEAR ARBOLES	153,000	28
14000102	riculu	GROUNDHOG RESERVOIR	155,000	81
14030002	Upper Dolores	DOLORES RIVER BELOW MCPHEE RESERVOIR	235,000	44
14030002	opper Dotores	MCPHEE RESERVOIR		
			288,254	74 99
14090101	Upper San Juan		78,159	
14080101	opper san suan	LOS PINOS RIVER NEAR BAYFIELD	150,000	30
		SAN JUAN RIVER NEAR CARRACAS	285,000	34
			200	2
		LAKE LOVELAND RESERVOIR	2,800	8
			6,400	45
10190006	Big Thompson	WILLOW CREEK RESERVOIR	7,076	84
		BOYD LAKE	34,100	56
			75,883	26
		BIG THOMPSON R AT MOUTH, NR DRAKE, CO	87,000	51
		LAKE GRANBY	363,067	73

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
		BLACK HOLLOW RESERVOIR	3,900	99
		CHAMBERS LAKE	4,600	78
		HALLIGAN RESERVOIR	4,700	58
		CACHE LA POUDRE	8,000	77
10190007	Cache La Poudre	FOSSIL CREEK RESERVOIR	9,300	90
		WINDSOR RESERVOIR	10,200	34
		COBB LAKE	18,200	74
		HORSETOOTH RESERVOIR	140,297	98
		CACHE LA POUDRE R AT CANYON MOUTH	210,000	42
10190004	Clear Creek	CLEAR CREEK AT GOLDEN	101,000	54
		HORSECREEK RESERVOIR	900	1
		MILTON RESERVOIR	17,700	81
		BARR LAKE	22,600	22
		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	37,000	49
		STANDLEY RESERVOIR	38,600	78
10190003	Middle South Platte-Cherry Creek	BOULDER CREEK NEAR ORODELL	53,000	47
	ratte enerry creek	SAINT VRAIN CREEK AT LYONS	86,000	48
		BIG THOMPSON R AT MOUTH, NR DRAKE, CO	87,000	51
		CLEAR CREEK AT GOLDEN	101,000	54
		SOUTH PLATTE RIVER AT SOUTH PLATTE	160,000	52
		CACHE LA POUDRE R AT CANYON MOUTH	210,000	42
		JULESBURG RESERVOIR	17,400	50
		EMPIRE RESERVOIR	21,100	42
		PREWITT RESERVOIR	22,400	90
		JACKSON LAKE RESERVOIR	22,600	38
		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	37,000	49
	Middle Couth	RIVERSIDE RESERVOIR	41,500	61
10190012	Middle South Platte-Sterling	BOULDER CREEK NEAR ORODELL	53,000	47
	race sterning	POINT OF ROCKS RESERVOIR	69,700	99
		SAINT VRAIN CREEK AT LYONS	86,000	48
		BIG THOMPSON R AT MOUTH, NR DRAKE, CO	87,000	51
		CLEAR CREEK AT GOLDEN	101,000	54
		SOUTH PLATTE RIVER AT SOUTH PLATTE	160,000	52
		CACHE LA POUDRE R AT CANYON MOUTH	210,000	42
		ANTERO RESERVOIR	20,000	79
10190001	South Platte	SPINNEY MOUNTAIN RESERVOIR	38,200	89
10190001	Headwater	ELEVENMILE CANYON RESV INFLOW	53,000	61
		ELEVENMILE CANYON RESERVOIR	100,300	98
		GROSS RESERVOIR	926	1
		TERRY RESERVOIR	5,200	53
		MARSHALL RESERVOIR	5,800	55
10190005	St. Vrain	UNION RESERVOIR	9,129	25
10130003		BUTTONROCK (RALPH PRICE) RESERVOIR	14,039	70
		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	37,000	49
		BOULDER CREEK NEAR ORODELL	53,000	47
		SAINT VRAIN CREEK AT LYONS	86,000	48

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
		CHEESMAN LAKE	56,238	37
10190002	Upper South Platte	SOUTH PLATTE RIVER AT SOUTH PLATTE	160,000	52
		DILLON RESERVOIR	222,900	56
14050003	Little Snake	LITTLE SNAKE RIVER NEAR LILY	340,000	47
14050002	Lower Yampa	YAMPA RIVER NEAR MAYBELL	930,000	47
10180001	North Platte Headwaters	NORTH PLATTE R NR NORTHGATE	210,000	47
14050005	Upper White	WHITE RIVER NEAR MEEKER	230,000	34
	Upper Yampa	YAMCOLO RESERVOIR	8,013	83
		STAGECOACH RESERVOIR NR OAK CREEK	35,200	99
14050001		ELKHEAD CREEK ABOVE LONG GULCH	72,000	48
		YAMPA RIVER AT STEAMBOAT SPRINGS	250,000	45
		ELK RIVER NEAR MILNER, CO	350,000	44

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

*No longer exists **Drained for repairs

Water Volume NEP Color Scale: 0 (Well Below Normal)

50 (Normal)

100 (Well Above Normal)

Basinwide Conditions Assessment The SWSI value for the month was +1.3.

Northeast Colorado has been split between the foothills and mountains compared to the eastern plains during the month of January. The mountains and foothills have experience near average precipitation, mostly in the form of snowpack, while the eastern plains have experience below average precipitation and above average temperatures throughout the month of January. As a result, the South Platte Basin Snowpack, percent of average, remained near the monthly average ending the month of January at 119% of the historical average.

The USDA Drought Monitor rating for northeast Colorado ended the month of December and into the middle of January with a rating of DO (abnormally dry) extending into the southerly portions of the South Platte Basin plains located in Teller, El Paso, Elbert, Lincoln and the southerly half of Kit Carson Counties and the rest of the mountains, foothills and plains not in drought conditions. However, below average precipitation and above average temperatures on the plains of northeastern Colorado resulted in DO (abnormally dry) conditions extending onto the eastern plains to include Washington, Yuma, Philips, Sedgwick, Logan and the eastern half of Morgan Counties from the middle of January throughout the end of the month into February. The mountains and foothills remain in good condition with no rating of drought conditions.

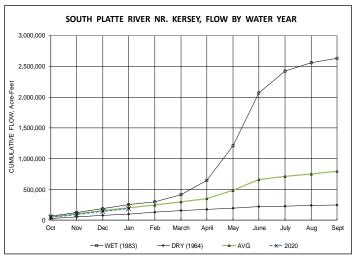
The overall basin experienced above average flows at the Kersey gage near the City of Greeley, with the average daily flows for the month of January approximately 711 cfs, 107% of the historic mean value of 662 cfs. The average daily flows at the Julesburg gage for the month of January was 835 cfs, 155% of the historic mean value of 539 cfs, partly due to good reservoir storage levels, and icing of diversion ditches to reservoirs.

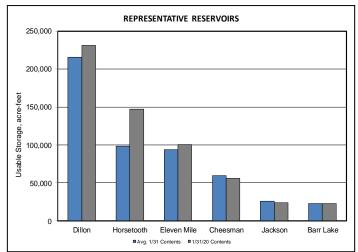
The reservoir fill season began November 1st, with reservoir calls controlled at the upper end of the

system at Chatfield Reservoir with a 1979 call from late November into early January. On January 10 and throughout the month of January the reservoir call was controlled by a 1910 Prospect Reservoir call at Burlington Canal Headgate located the iust downstream from Denver. No call has been in place below these points on the lower end of the South Platte River during the months of November through January. Many tributaries have senior reservoir calls controlling their water district working towards filling of reservoirs.

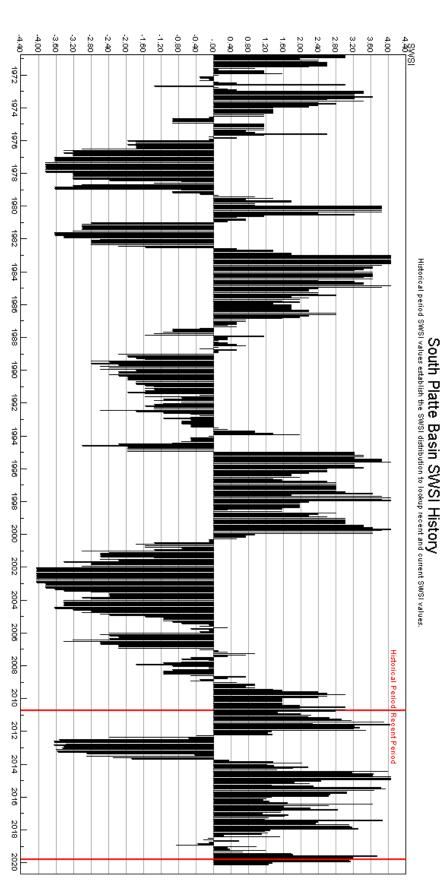
Reservoir storage levels throughout the South Platte River mainstem ended the month of January above the average at the 6 SWSI Representative Reservoirs at 581,265 acre-feet volume, which is 113% of the long term average of 515,257 acre-feet. Additionally, 32 indexed reservoirs throughout Division 1 basin at 117% of the long term average (1981 - 2010) with a storage volume of 924,697 acre-feet at the end of January, representing approximately 81% of full capacity. This is ahead of the long term average of 69% of full capacity for the end of January storage in the 32 indexed reservoirs throughout Division 1.

The temperature and precipitation outlook into February, March and April, prepared by the National Weather Service, in northeastern Colorado indicates an equal chance of near average temperatures and precipitation in the South Platte River Basin.





South Platte-DataComposite-SWSI



Basinwide Conditions Assessment

The SWSI value for the month was +1.5.

<u>Outlook</u>

Reservoir storage in the Pueblo Winter Water Program totaled 31,168 acre-feet at the end of January. This storage amount is lower than last year's storage to date of 59,421 acre-feet, and represents 35% of the last twenty-year average.

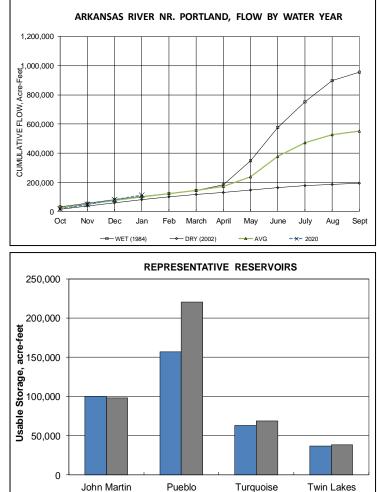
Conservation storage in John Martin Reservoir has accumulated 20,228 acre-feet versus 18,017 acre-feet as of the end of January last year.

On another positive note, while the current storage program has improved over last year, snowpack for the basin continues to be higher than average at 111% which is only down 14% from same time last year of 125% for the basin.

Administrative Concerns

Given the below average accumulation of water during the Winter Water Program, there is some concern that the major well associations may face a shortage of critical augmentation water from reservoir storage. However, the continuing above average snowpack in the Arkansas Basin water shed this winter counterbalances this.

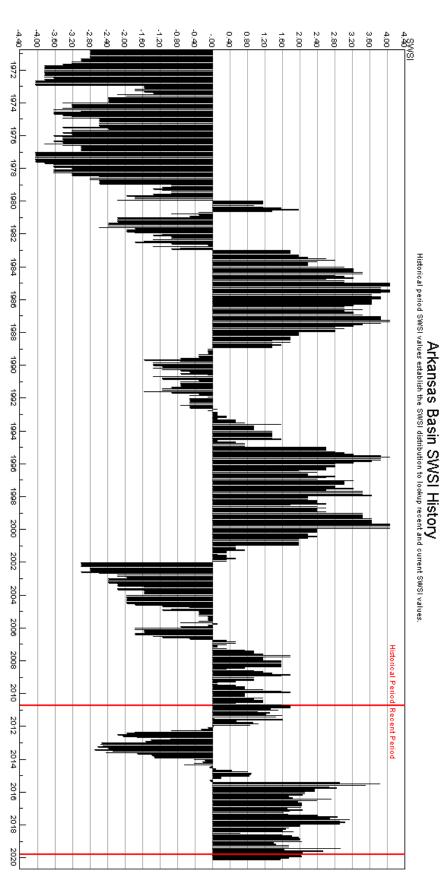
Ongoing concerns still relate to the spilling of account water from Pueblo Reservoir and the Division is working with the various water programs to help mitigate that possibility.



Avg. 1/31 Contents

1/31/20 Contents

Arkansas-DataComposite-SWSI



Basinwide Conditions Assessment

The SWSI value for the month was -1.1.

Flow at the gaging station Rio Grande near Del Norte averaged 160 cfs (92% of normal). The Conejos River near Mogote had a mean flow of 55 cfs (113% of normal).

Limited snowfall in the San Juans and Sangre de Cristos during January kept the snowpack just above the long-term averages. Basinwide snowpack accumulation stood at about 105% of normal on February 1. Early February snowstorms increased that to 108% by February 13. January precipitation in Alamosa was only 0.14 inches, 0.12 inches below normal.

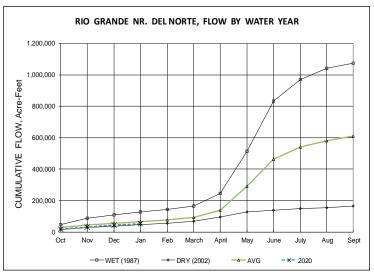
<u>Outlook</u>

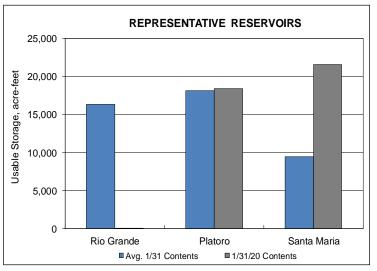
Due to the extremely dry past summer and fall, the Natural Resources Conservation Service stream flow forecasts are predicting runoff in area streams to be in the range of 64% (San Antonio River near Ortiz) to 97% (Saguache Creek) of average during the 2020 irrigation season. In general, runoff predictions are a bit disappointing considering the current near-average snowpack.

Current National Weather Service forecasts for February through April, 2020 are calling for above normal temperatures and near normal precipitation in this area of the state.

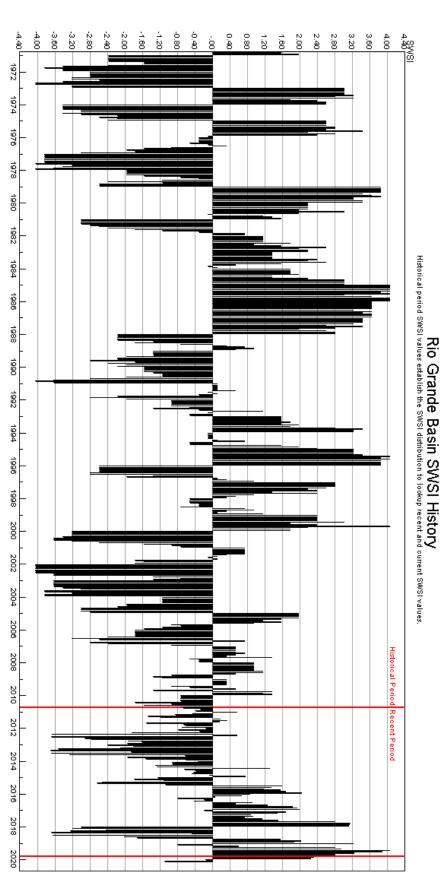
Administrative/Management Concerns

Full implementation of the Groundwater Use Rules for Water Division No. 3 is on the horizon. The phase-in period will end March 16, 2021. All nonexempt well use must be covered by a plan for augmentation or participation in one of the six groundwater management subdistricts of the Rio Grande Water Conservation District or the Trinchera Water Conservancy District. The rules will require replacement of injurious depletions from non-exempt well use and aquifer sustainability metrics. The rules also contain the confirmation of a presumptive irrigation season (April 1 - November 1) that can be adjusted by the Division Engineer based on conditions within the separate drainages.





Rio Grande-DataComposite-SWSI



Basin Wide Conditions Outlook

The weather pattern turned drier in January with the Gunnison basin receiving only 76% of average for the month. Snowpack numbers on February 1st continue to show that southern areas of the basin are in better shape than northern areas. For example, northern Snotel sites, such as Park Reservoir and Schofield Pass contain 85% of the 30-year median for the date, while southern sites in the San Juans, such as Idarado and Slumgullion contain 110% of the median, respectively.

<u>Outlook</u>

The National Weather Service continues to expect equal chances of above or below average precipitation in the Gunnison basin during February, March and April. Streamflow forecasts prepared by the Colorado Basin River Forecast Center (CBRFC) predict April to July runoff for the North Fork Gunnison River at Somerset to be 71% of the median while forecasts for the Uncompany River into Ridgway Reservoir and Gunnison River into Blue Mesa Reservoir are expected to be 83% of the median. These values are lower than the snowpack percentages for these basins because of the expected effect of low soil moisture on runoff.

Administrative/Management Concerns

An additional 5,800 acre-feet of first fill account storage was moved from Taylor Park Reservoir into the Aspinall Unit during January. As a result, on February 1st, 47,200 acre-feet were stored in the Taylor Park first fill account in Blue Mesa Reservoir. Also, 16,000 acre-feet have already accrued in Taylor Park's second fill account as of February 1st. Given what will likely be ample storage available for the 2020 irrigation season the Uncompany Valley Water Users Association (UVWUA) have indicated that they will likely start the season at 100% supply, or what they term as running on demand.

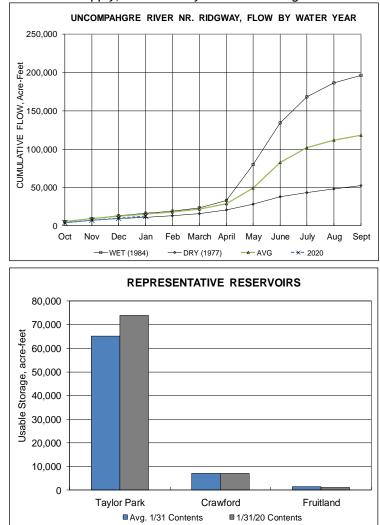
In February the UVWUA will begin constructing eight flumes that will be used to measure flow at the end of their laterals. These measuring stations will help UVWUA better manage diversions into their system and reduce mileage that their ditch riders and Division of Water Resources water commissioners drive. This project was made possible with a Bureau of Reclamation Water Smart Grant and assistance from the Division of Water Resources, who will be installing telemetry equipment that will allow flows to be reported on the DWR stream stations page in CDSS. These sites should be available in April of 2020 when the UVWUA begins diverting water.

While Blue Mesa Reservoir began January just above the icing target at 7490.79 feet, releases for power generation of an additional 32,000 acre-feet brought it down to well below that target at 7486.4 elevation on February 1st. This elevation corresponds to 553,350 acrefeet of storage, or approximately 67% of capacity.

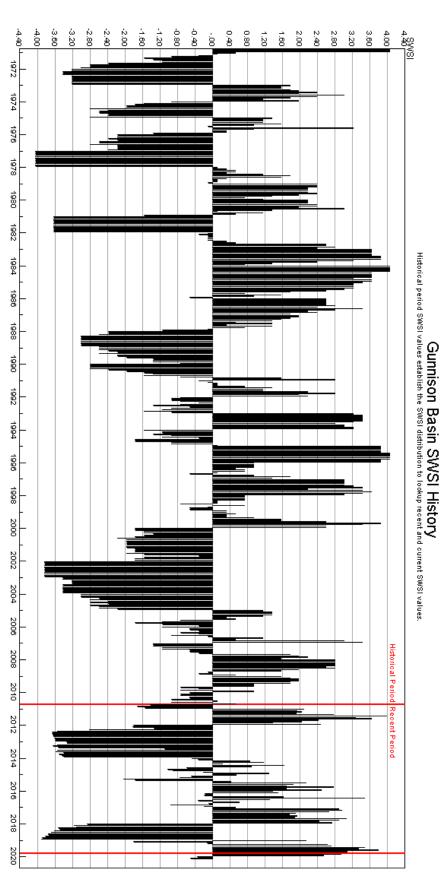
The orchardists and other irrigators in the Surface Creek valley are hoping for a pattern change that will result in increased snowfall for the remaining accumulation season, however, the climate forecast doesn't indicate that is likely. Even with the less than average runoff, however, many of the Grand Mesa reservoirs would fill since they began the season with better than average carryover.

Public Use Impacts

Skiing conditions remained good throughout January due to cool temperatures, even though basin resorts received less than average precipitation. Blue Mesa Reservoir began February completely ice covered giving ice fishing enthusiasts many locations to enjoy the great ice fishing Blue Mesa has to offer.



Gunnison-DataComposite-SWSI



Feb-20

<u>Basinwide Conditions Assessment</u> The SWSI value for the month was -0.6.

<u>Outlook</u>

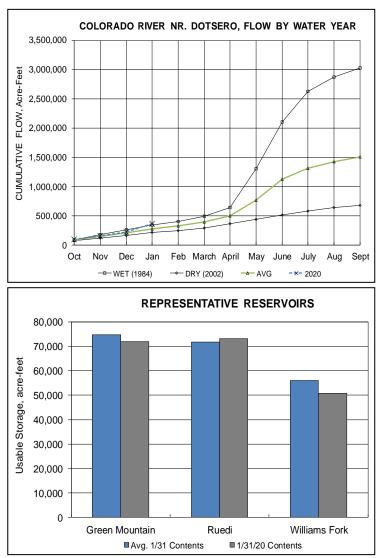
Colorado River flows are running below average with tributary flows running below average to average throughout February. As of February 13, the Upper Colorado River Basin snowpack was 114 percent of median snow water equivalent and 95 percent of average precipitation. Forecasts call for normal to below average precipitation and below average temperatures for western Colorado through February.

Administrative/Management Concerns

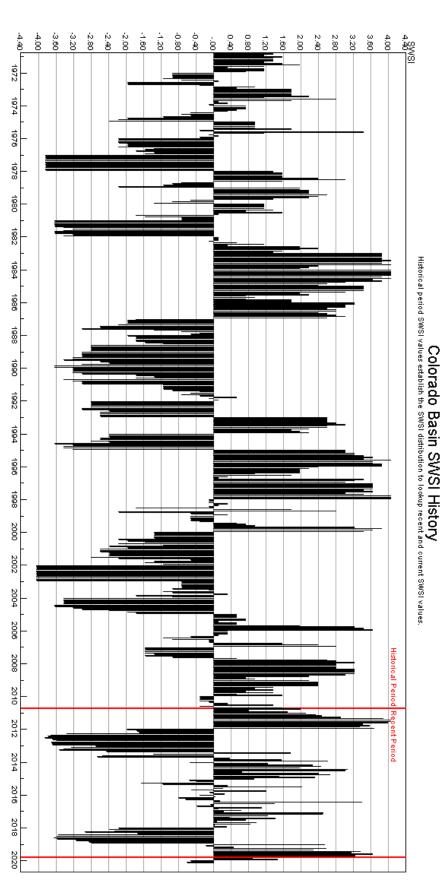
The call on the Colorado River main stem remains the Shoshone Hydro Power right for 1250 cfs. Accordingly, Green Mountain Reservoir is releasing to pass inflows, provide contract and HUP obligations and make C-BT replacements.

Public Use Impacts

Garfield County is leasing 350 acre-feet of water a year for five years from Ruedi Reservoir to help the endangered fish in the 15-mile reach of the Colorado River near Grand Junction. This will help the humpback chub, bonytail, razorback sucker and Colorado pikeminnow from July through October.



Colorado-DataComposite-SWSI



Basinwide Conditions Assessment

The SWSI value for the month was -0.5.

Precipitation (24 sites) - Entire Yampa, White, and North Platte basins were 114% of the monthly average, putting the basin at 97% of average for the water year to date. This is down from last year's monthly average of 118%. For the month, the lowest percent of average, at 72%, was the Willow Creek Pass SNOTEL station. The highest, at 126%, was the Divide Peak SNOTEL station. **Averages are from 1981-2010 records*

Snowpack (25 sites) - Yampa, White, and North Platte basins were 110% of the monthly SWE median. This is up from last year's median of 107%. For the month, the lowest percent of median, at 76%, was the Bison Lake SNOTEL station. The highest, at 146%, was the Sandstone RS SNOTEL station. The largest snow depth is at 93 inches from the Tower SNOTEL site at 10,500 ft in elevation. *Averages are from 1981-2010 records

Temperatures - The average temperature for Colorado Climate Division 2: Colorado River Drainage was **22.9**° **F**. This is +2.3°F from the average of 20.6°F or 11% above average. This temperature ranks 87th lowest of the previous 125 years of data. For the Platte Drainage, Colorado Climate Division 4, the average temperature was **28.8**°F, +4.8°F or 20% above the average of 24°F, ranking 106th.

*Averages are from 1901-2000 records

Reservoir Outlook

Elkhead Reservoir - February 1st, 2020 elevation was 72.6' and 19,790 AF of 25,550 AF - 77% capacity

Fish Creek Reservoir - February 1st, 2020 elevation was 9,871.84' at 2,452 AF of 4,170 AF - 58.8% capacity.

Stagecoach Reservoir - February 1st, 2020 elevation was 7202.17' at 35,200 AF of 36,500 AF - 96% capacity, 125% average, 111% last year

Yamcolo Reservoir - February 1st, 2020 elevation was 66.42' at 8,000 AF of 8,700 AF - 92% capacity, 138% average, 65% last year.

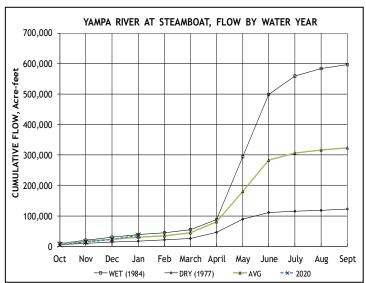
*Averages are from 1981-2010 records

Public Use Impacts

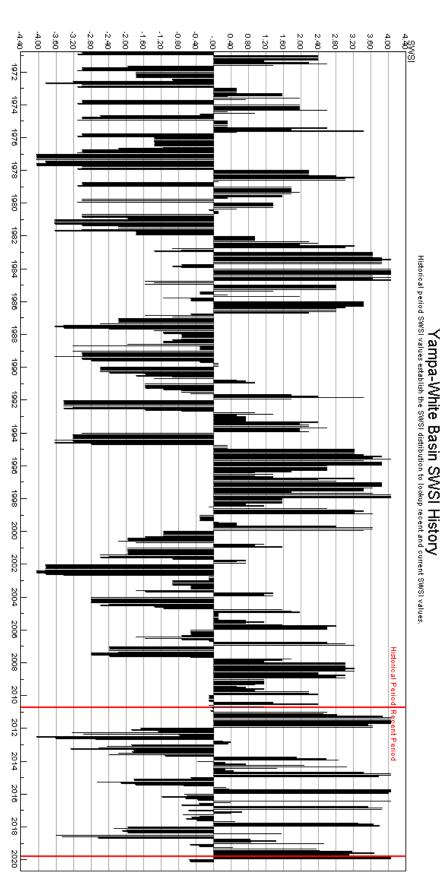
Many people continue to visit Steamboat for the amazing snow, quaint downtown area, and majestic Yampa Valley beauty.

Administrative Concerns

There have been no calls in Division 6 for January.



Yampa-White-DataComposite-SWSI



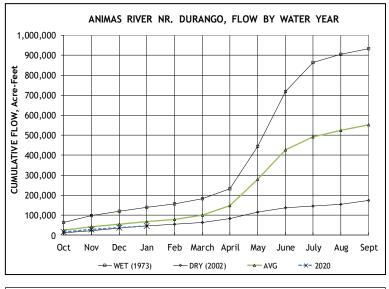
Basinwide Conditions Assessment

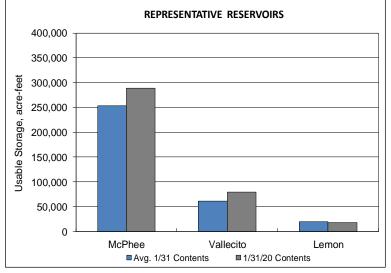
The SWSI value for the month was -0.7.

Flow at the Animas River at Durango averaged 139 cfs (69% of average). The flow at the Dolores River at Dolores was estimated to average 51 cfs (69% of average). The La Plata River at Hesperus averaged 4.4 cfs (64% of average). Precipitation in Durango was 0.72 inches for the month, 35% of the 30-year average of 2.05 inches. Precipitation to date in Durango, for the water year is 5.24 inches, 77% of the 30-year average of 7.05 inches. The average high and low temperatures for the month of January in Durango were 42° and 15°. In comparison, the 30-year average high and low for the month is 41° and 14°. At the end of the month Vallecito Reservoir contained 78,967 acre-feet compared to its average content of 56,444 acre-feet (140% of average). McPhee Reservoir was up to 288,327 acre-feet compared to its average content of 258,091 (112% of average), while Lemon Reservoir was up to 17,870 acre-feet as compared to its average content of 19,566 acre-feet (91% of average).

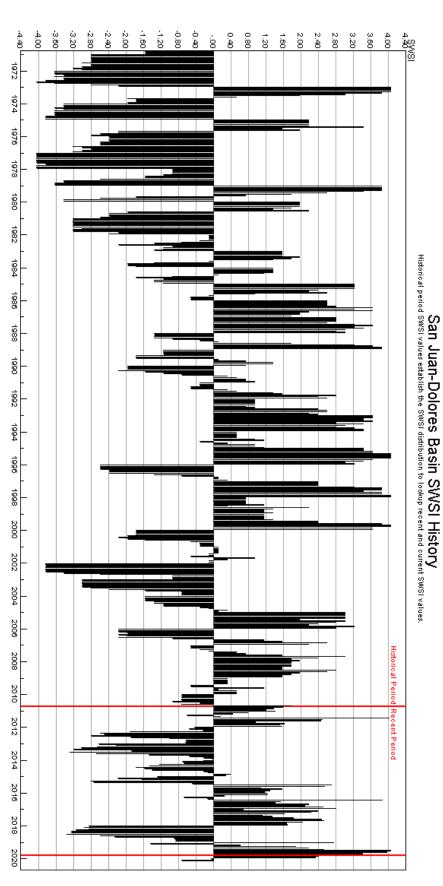
<u>Outlook</u>

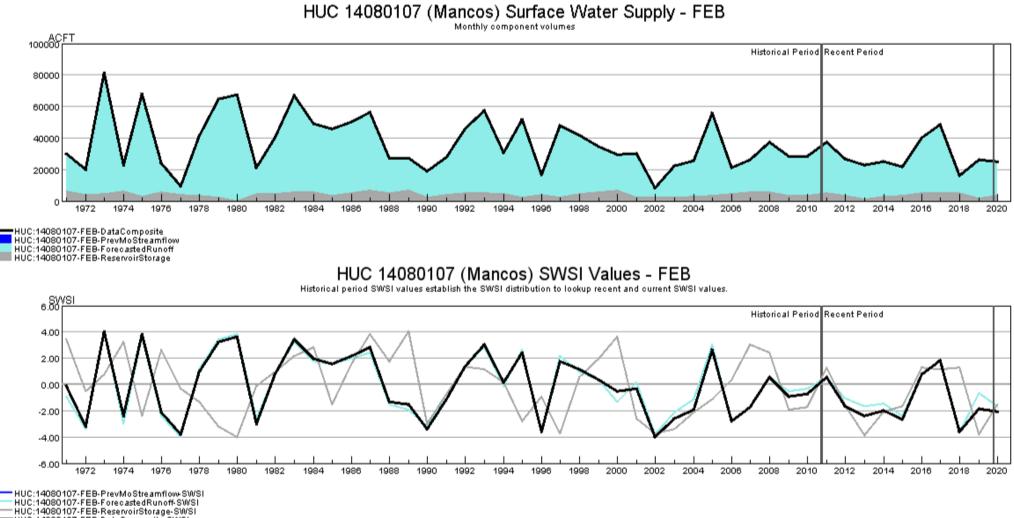
Precipitation (0.72 inches) was above average for January in Durango. There were 89 years out of 125 years of record where there was more precipitation than this year. The flows in the rivers fell off a little bit this month. There are 106 out of 110 years of record where the total flow past the Animas River at Durango stream gauge was more than this There were 91 out of 109 years of vear. record where the total flow past the Dolores stream gauge was more than this year and 87 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 are above average for this time of year. On January 31, the NRCS SNOTEL sites reported an average snowwater-equivalent within the basin at 105%. month the average Last snow-waterequivalent at the end of the month was 131%.



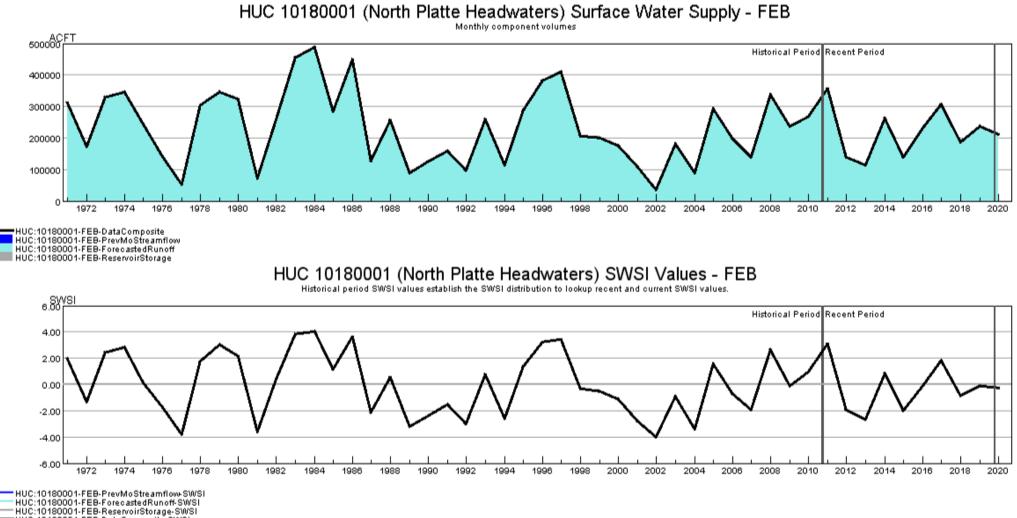


San Juan-Dolores-DataComposite-SWSI

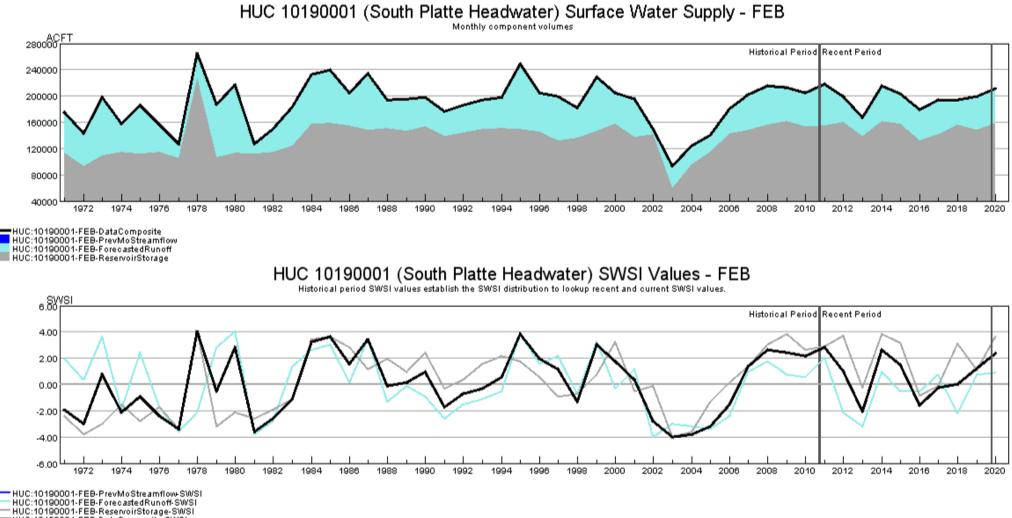




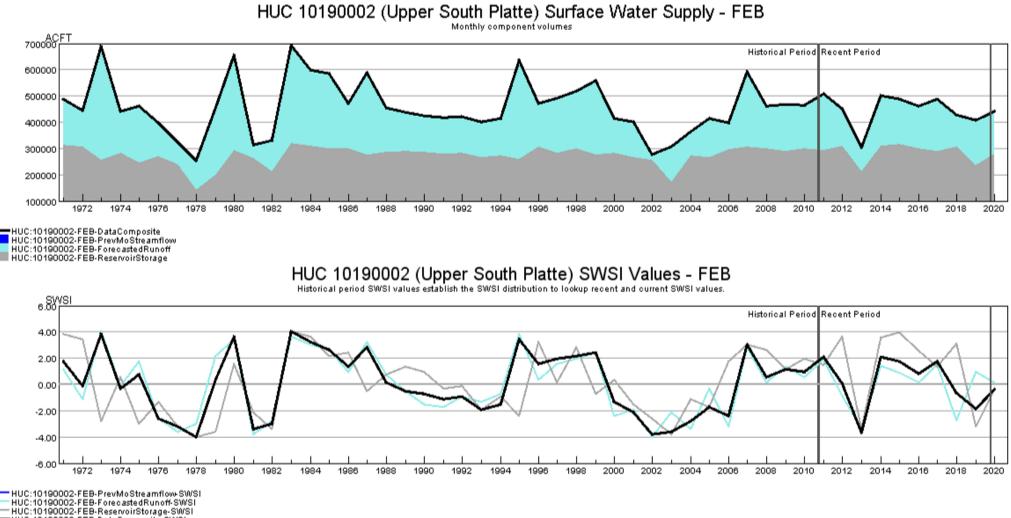
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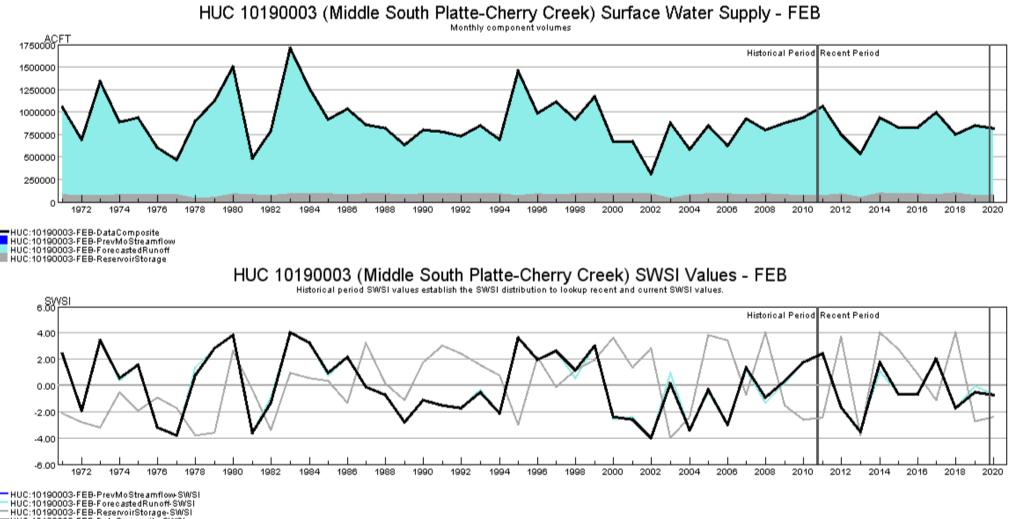
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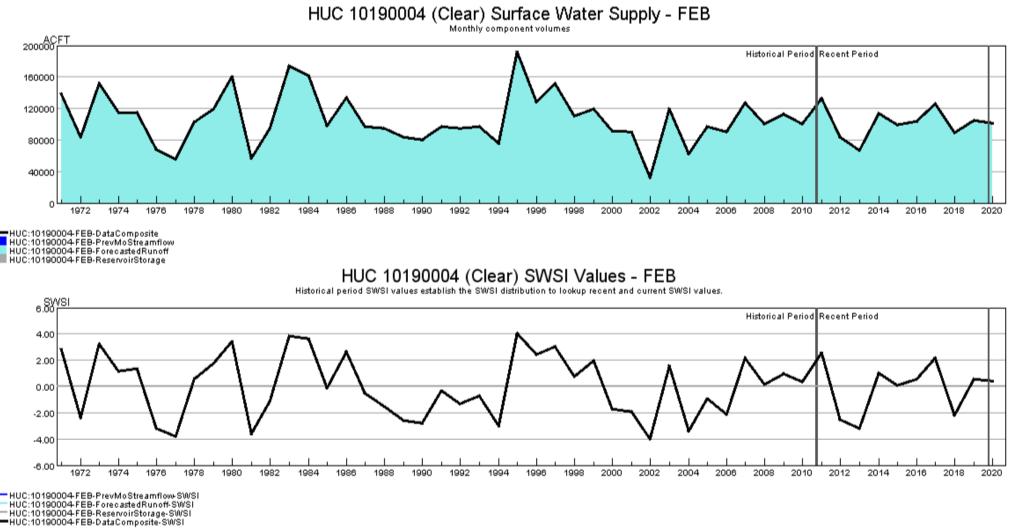
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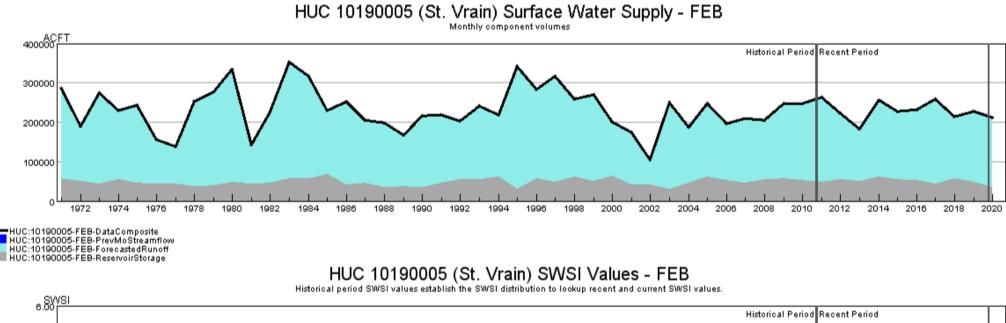


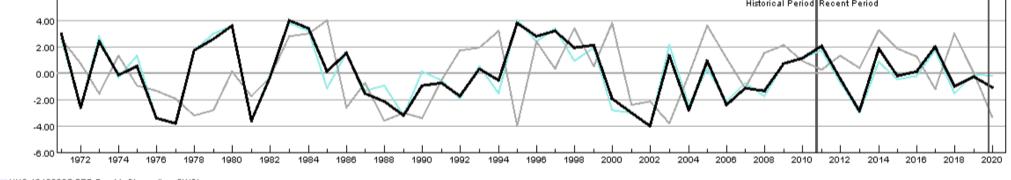
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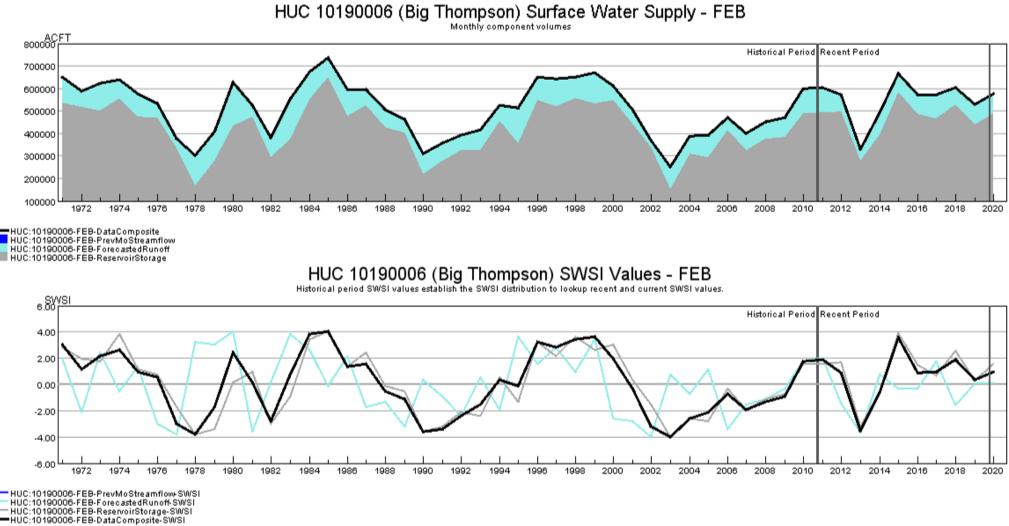
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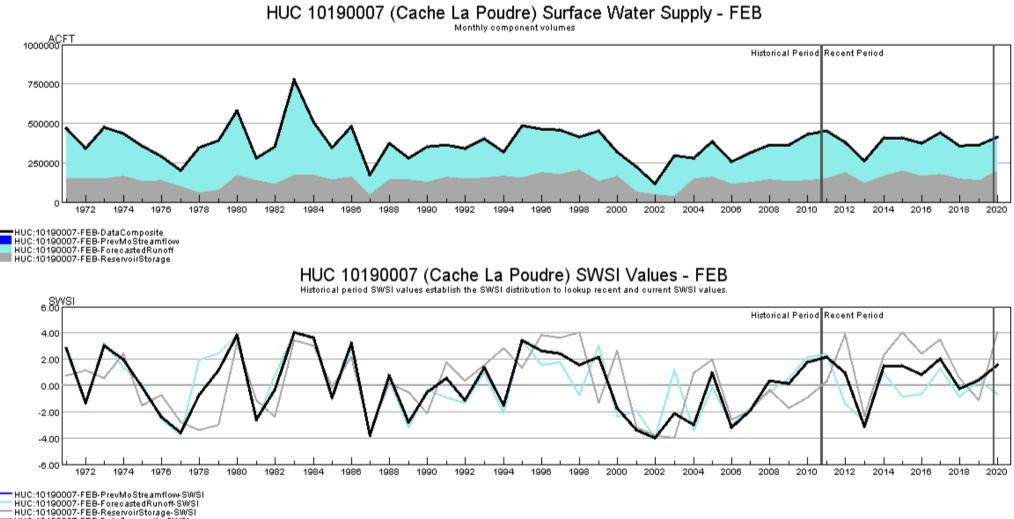




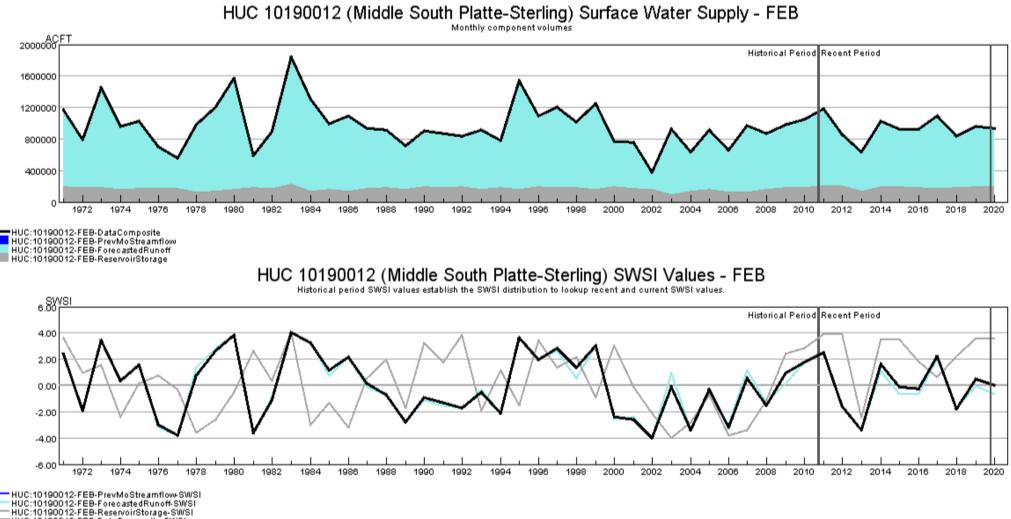


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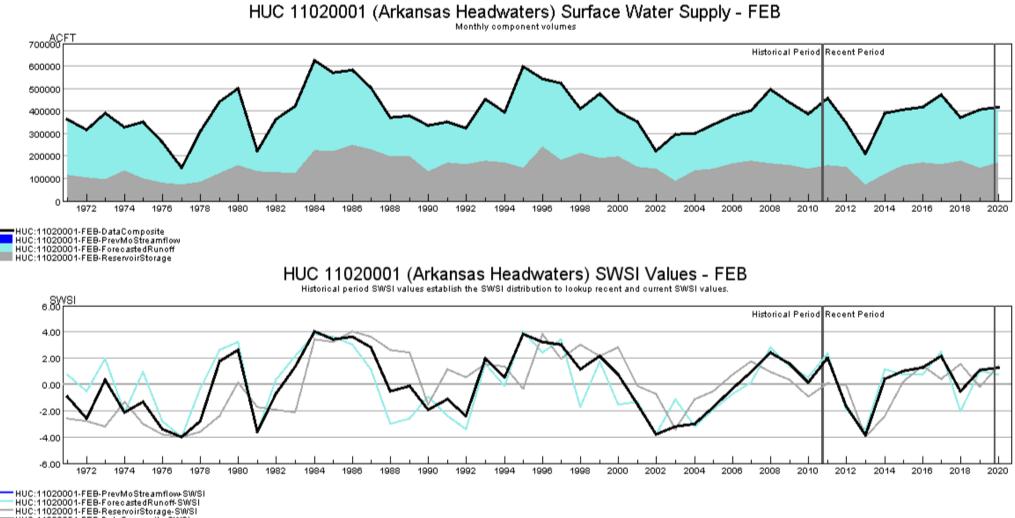




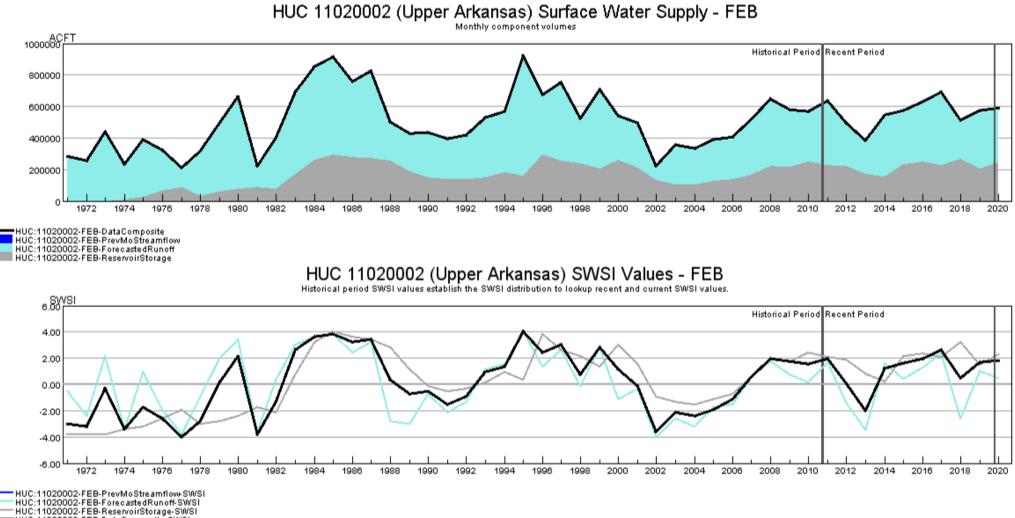
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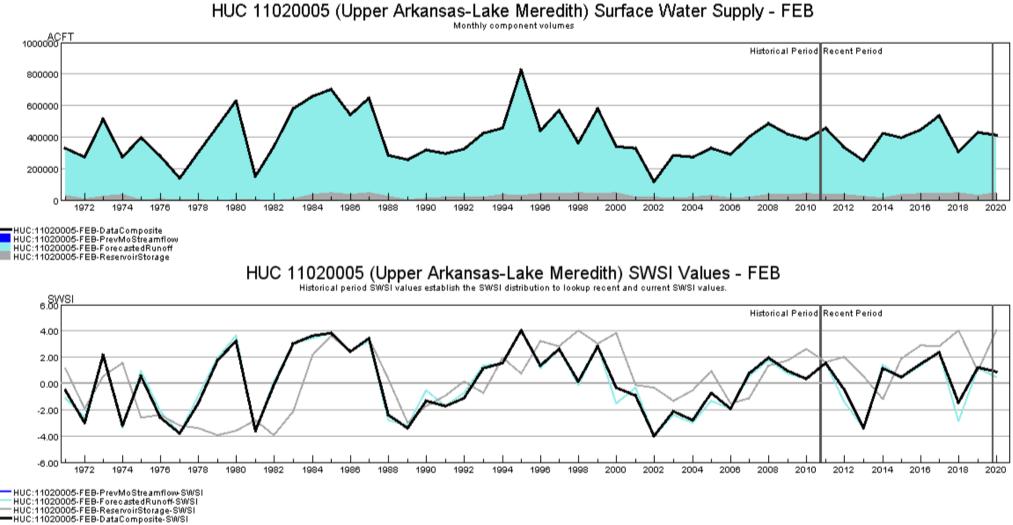
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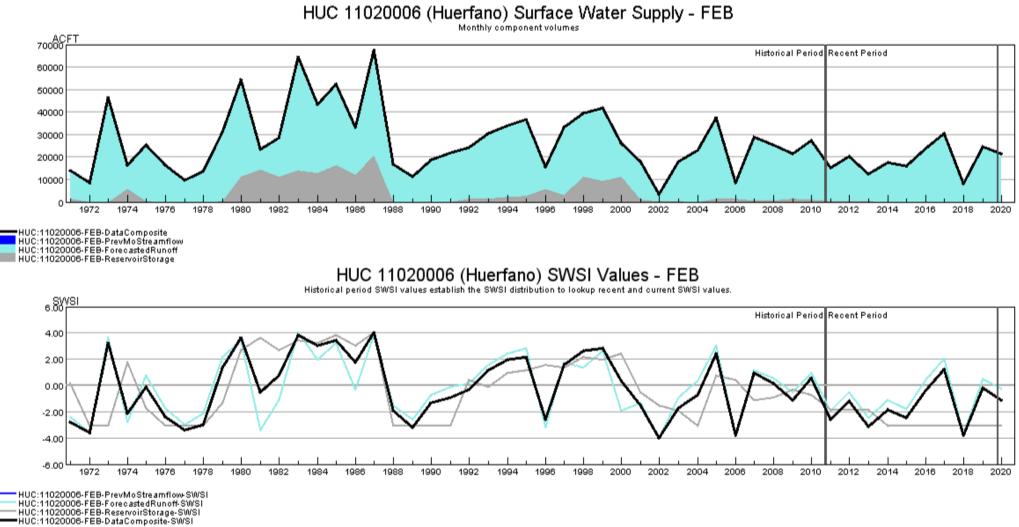


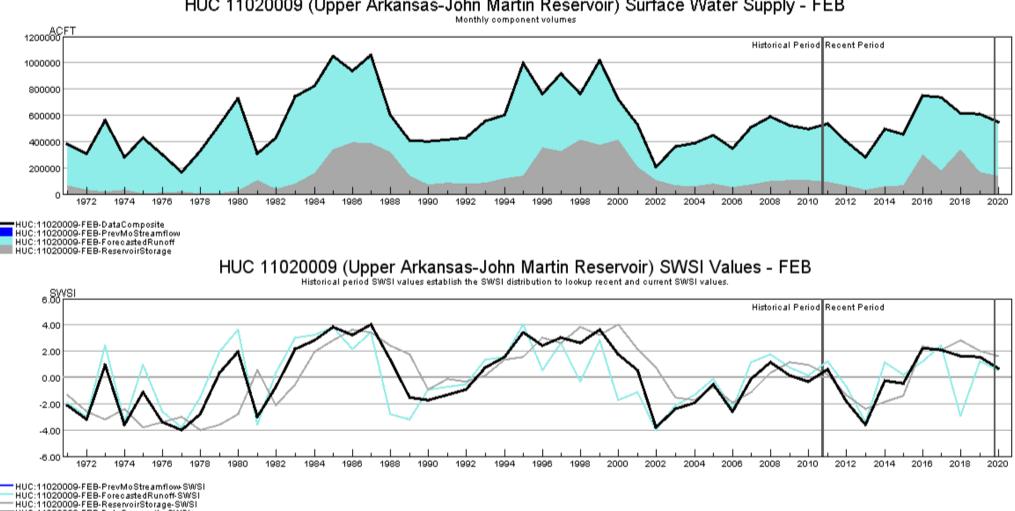
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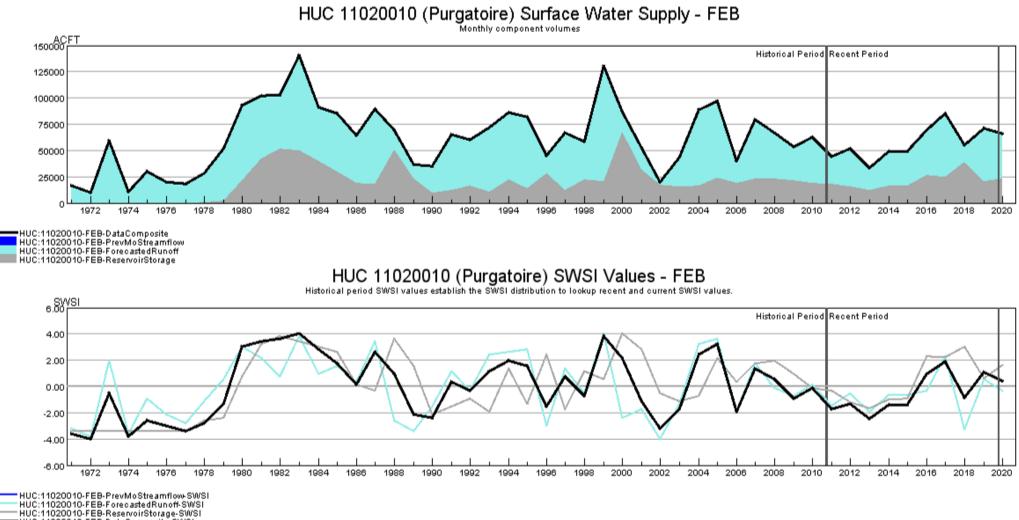




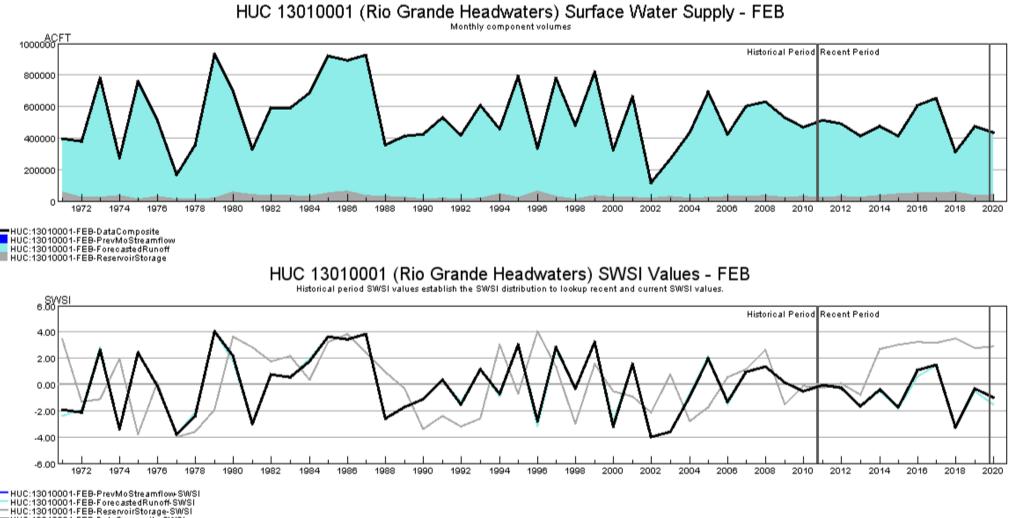


HUC 11020009 (Upper Arkansas-John Martin Reservoir) Surface Water Supply - FEB

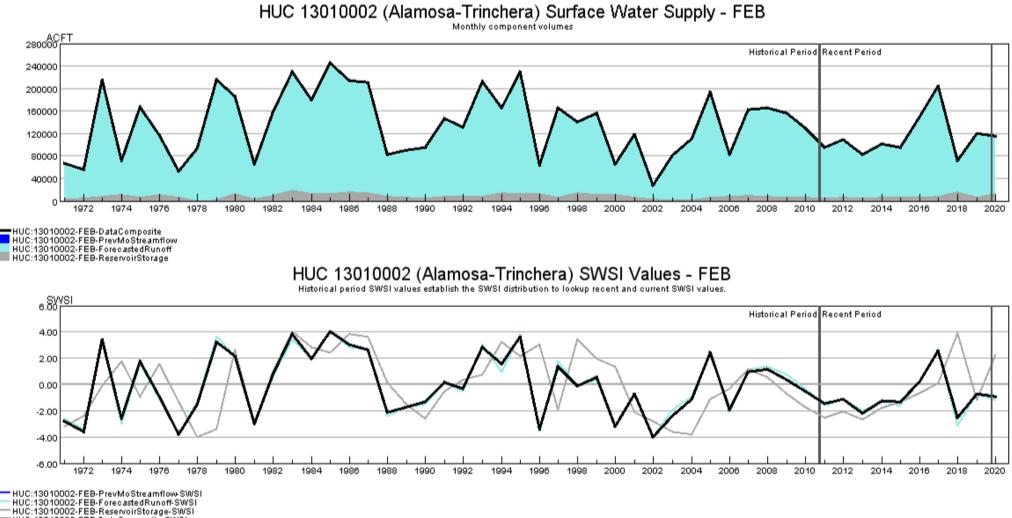
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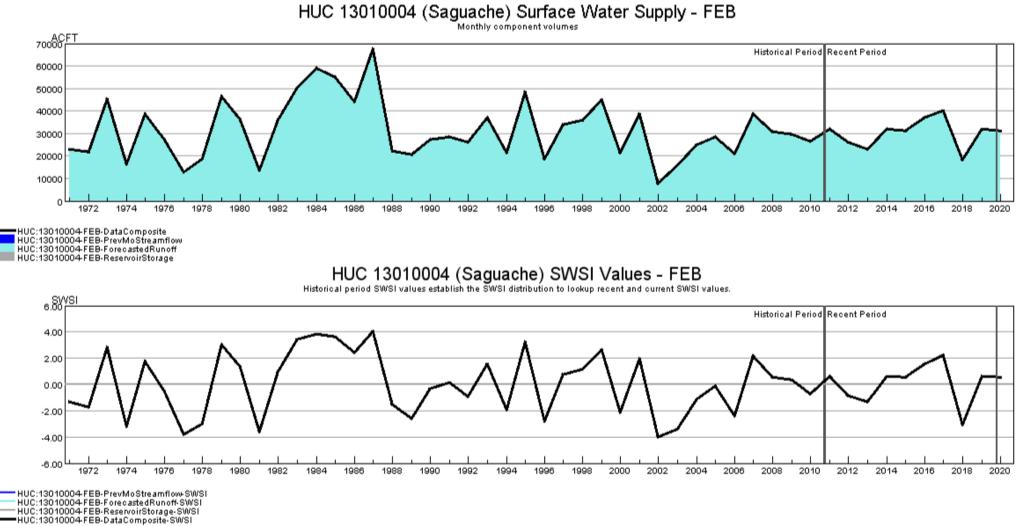
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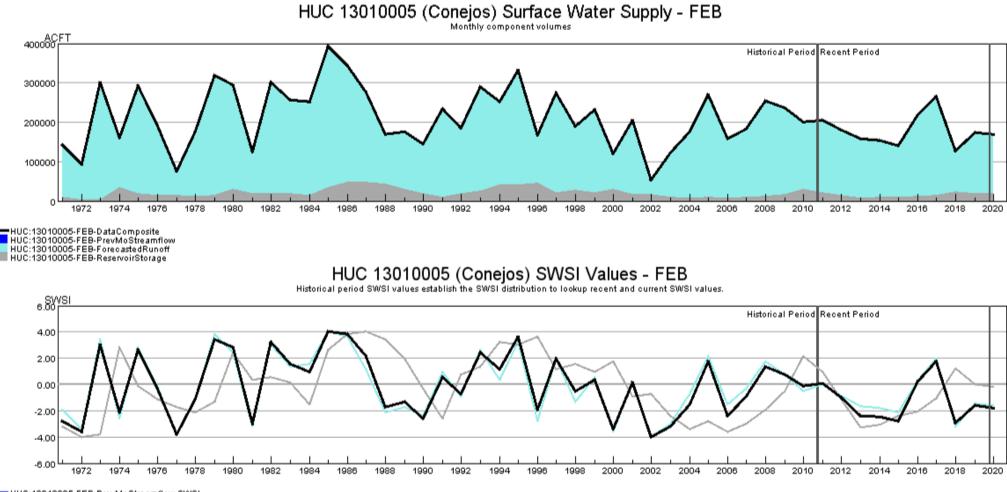


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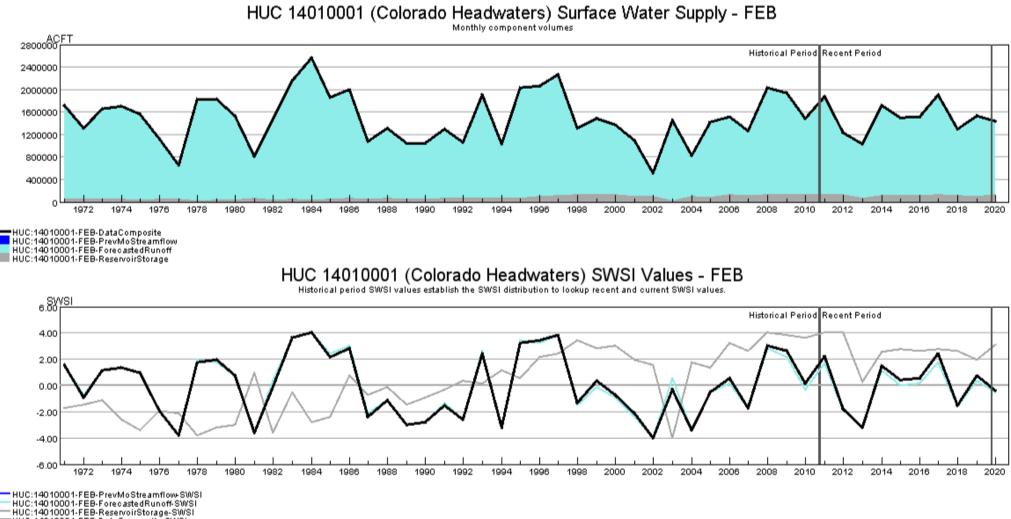


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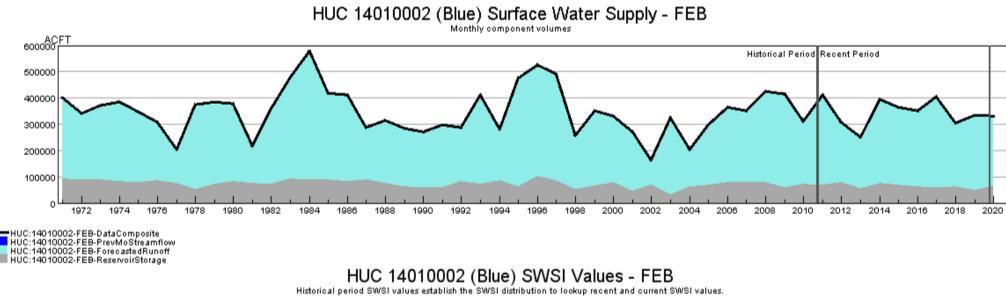




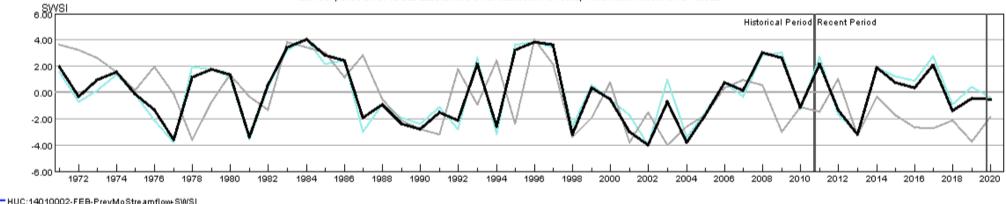
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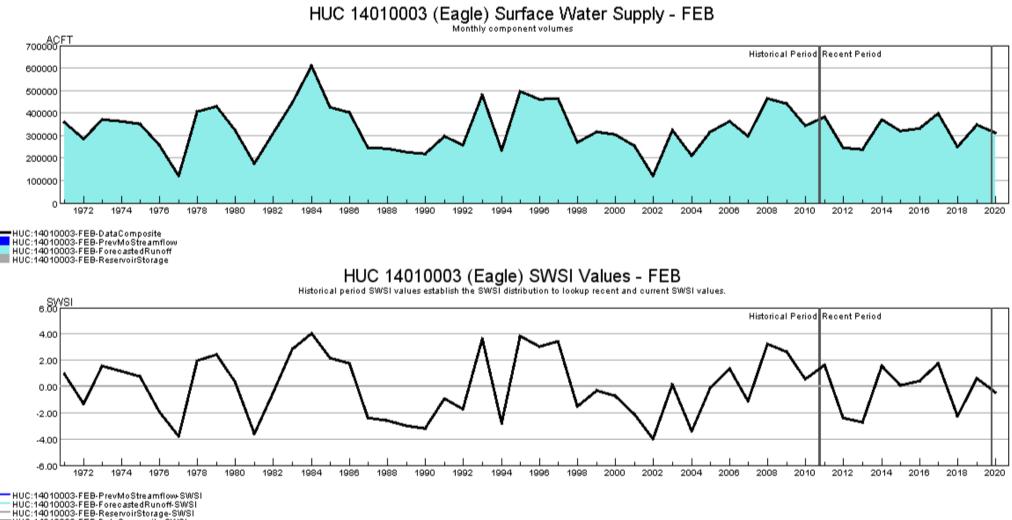




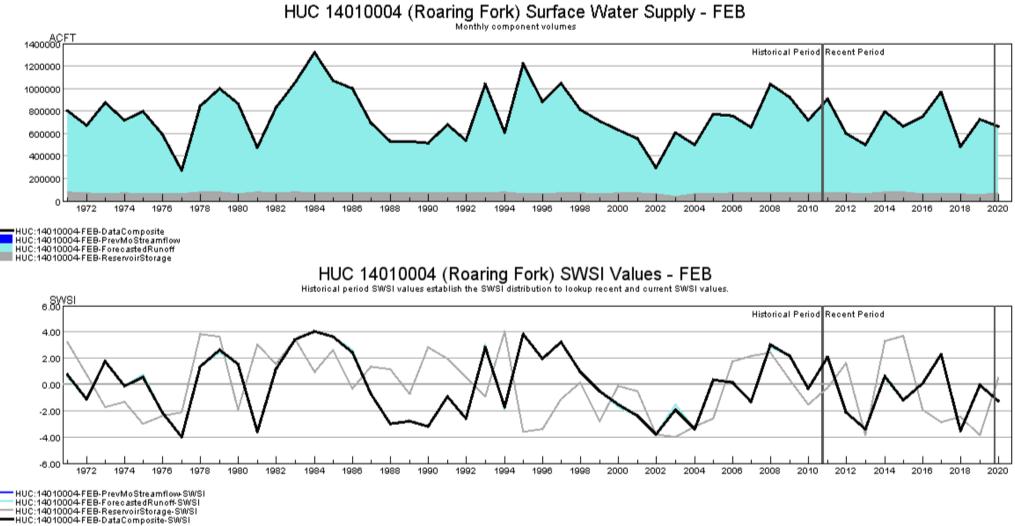


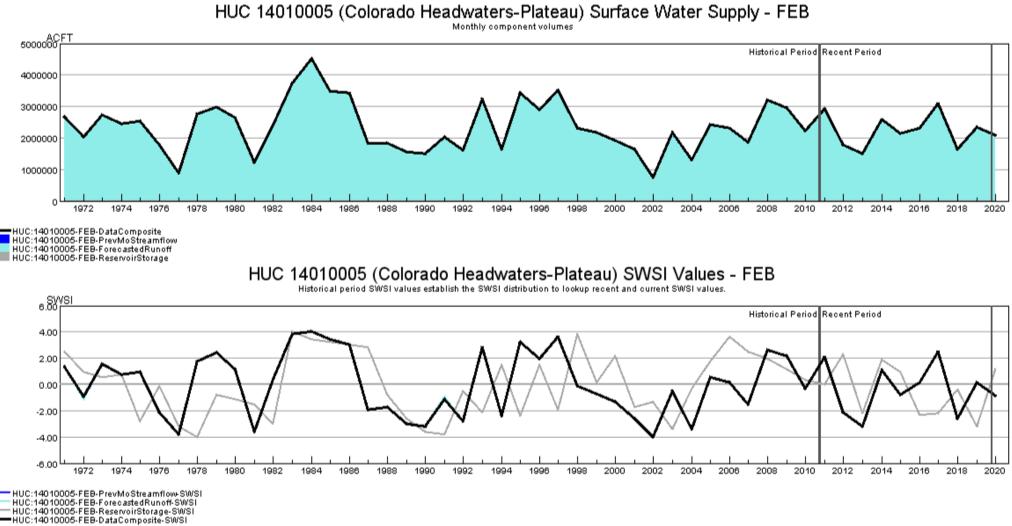
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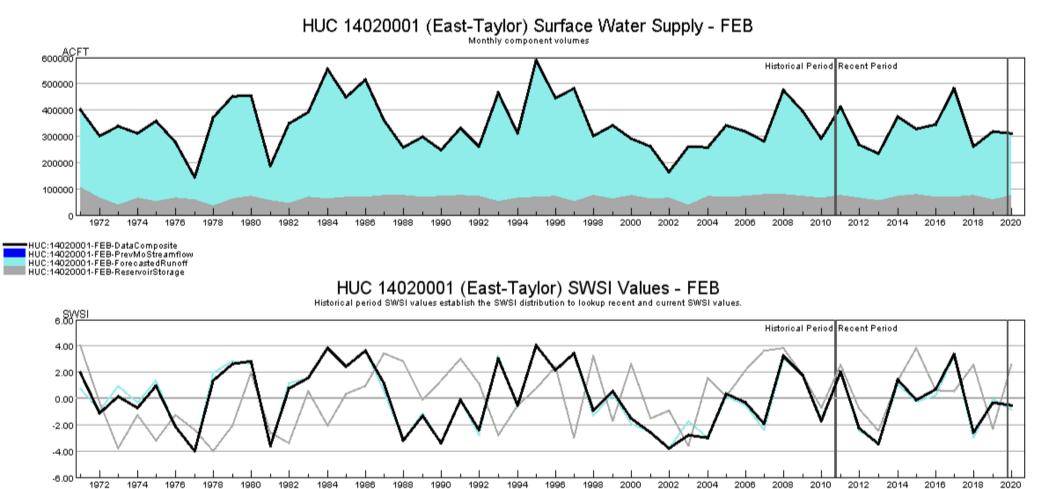
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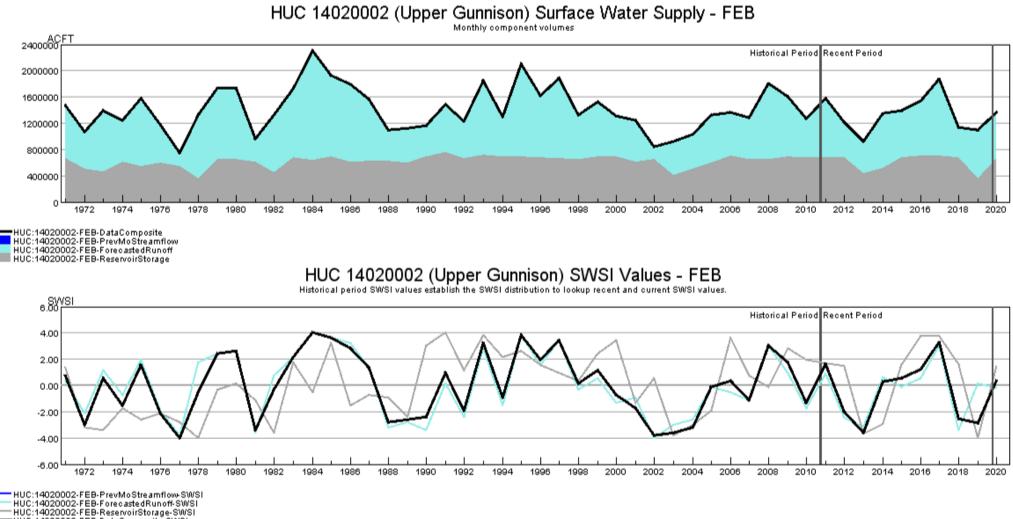




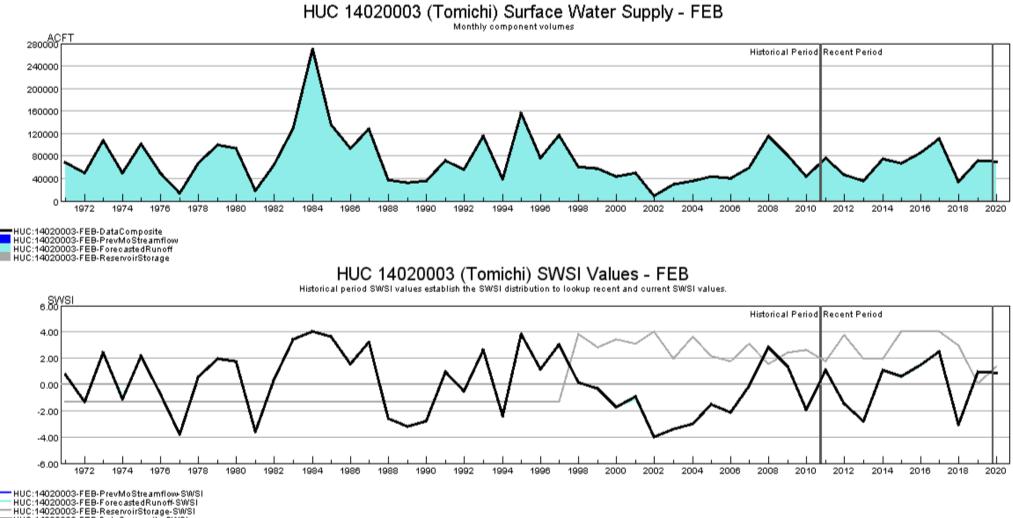


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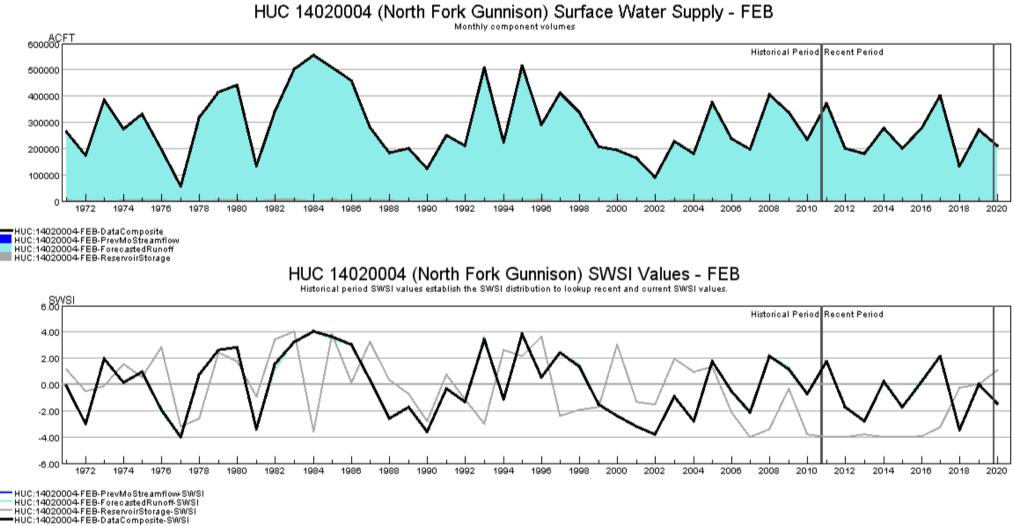
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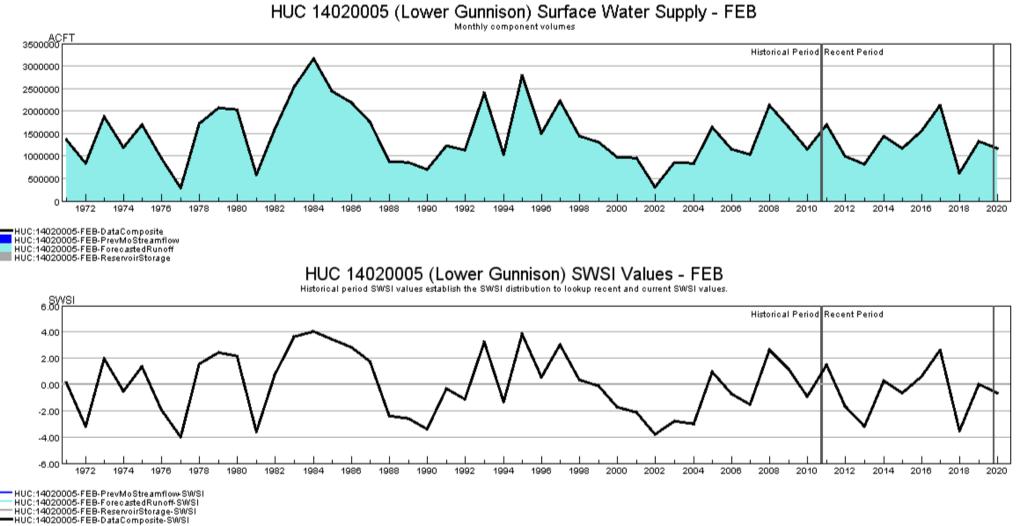


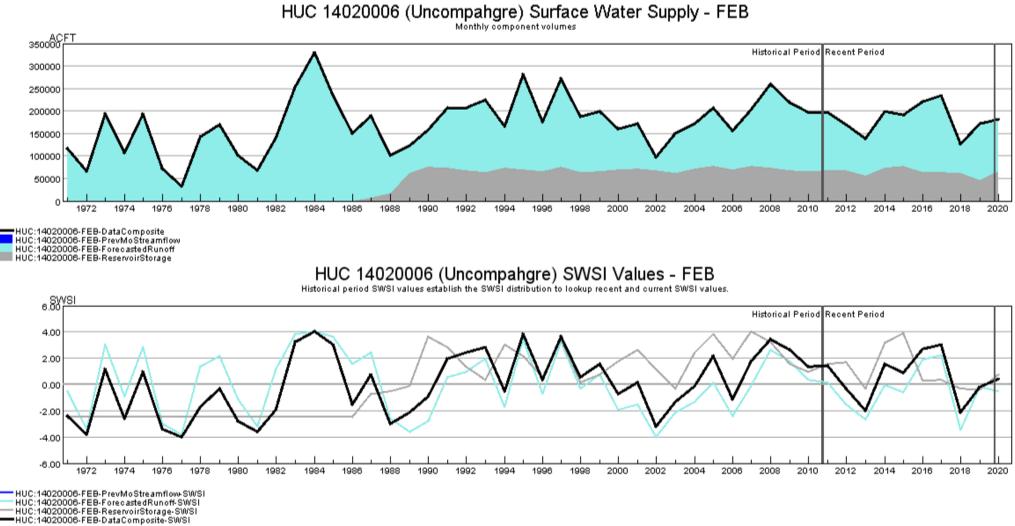
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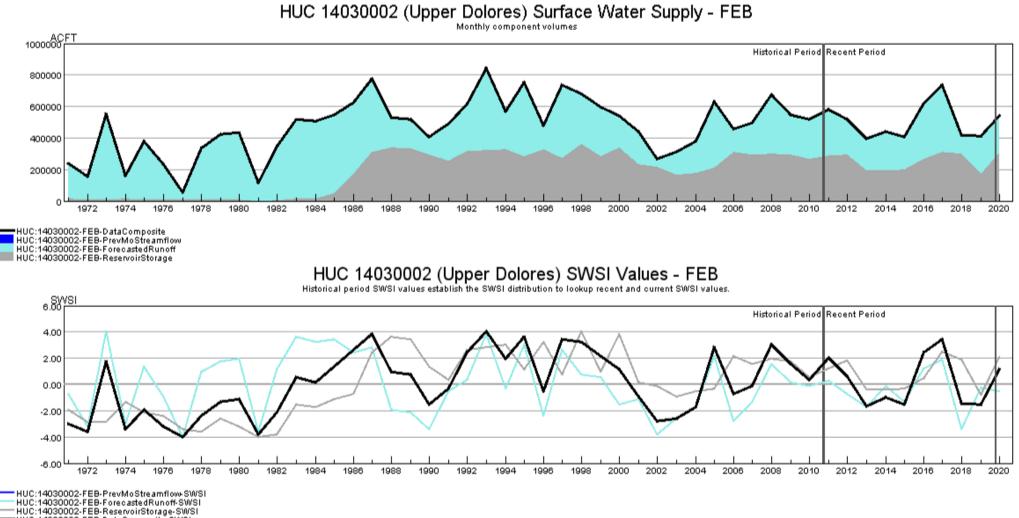


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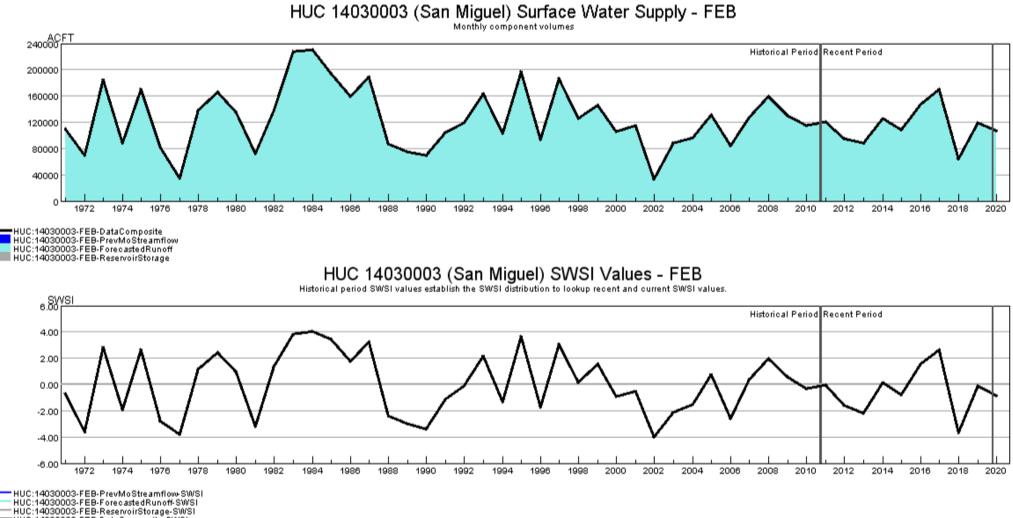




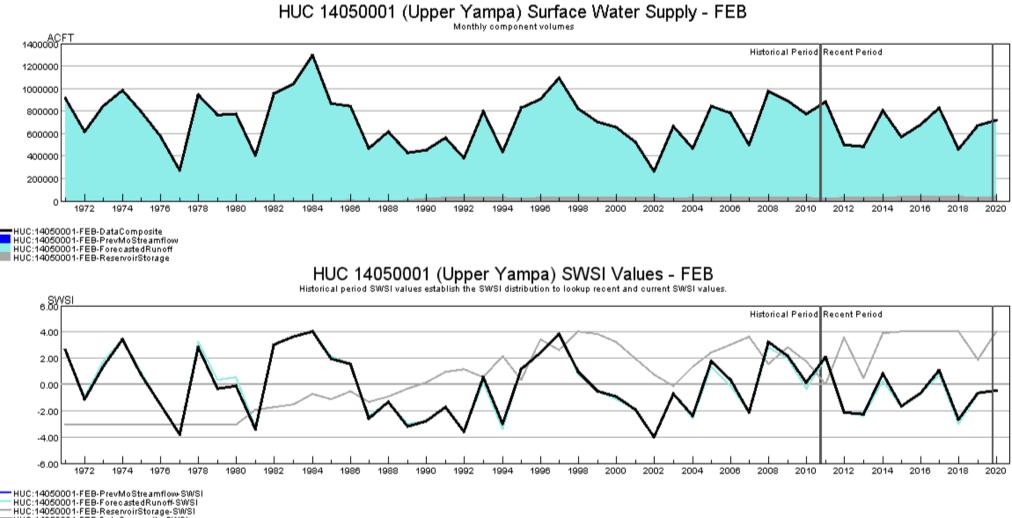




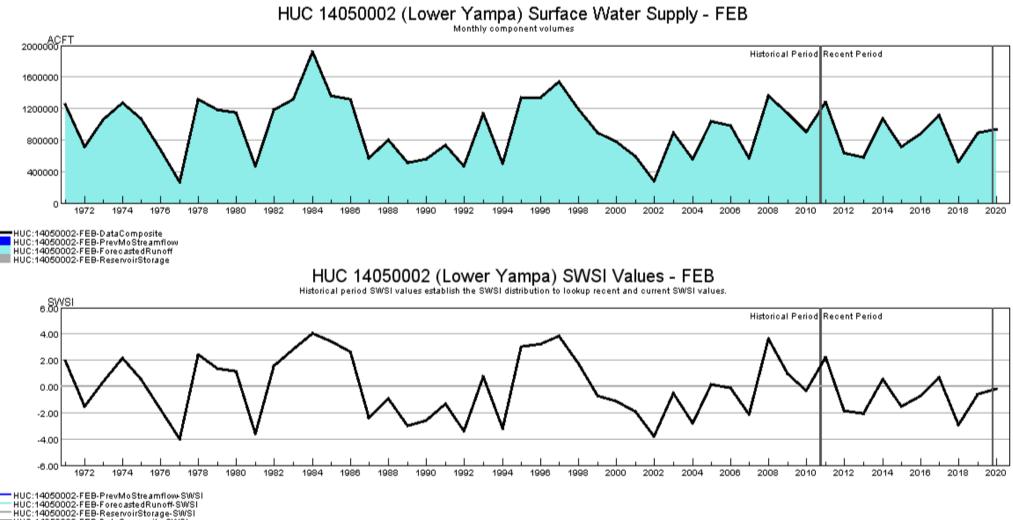
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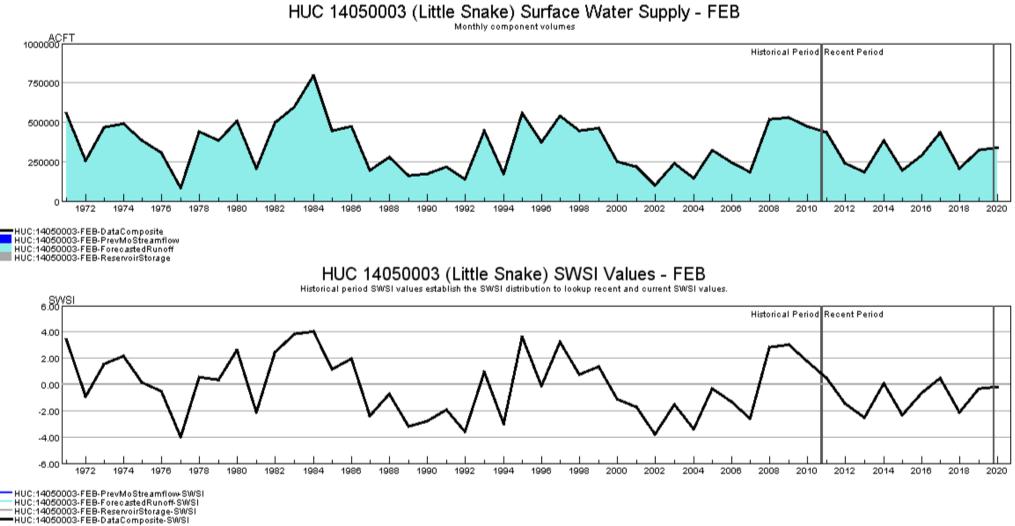
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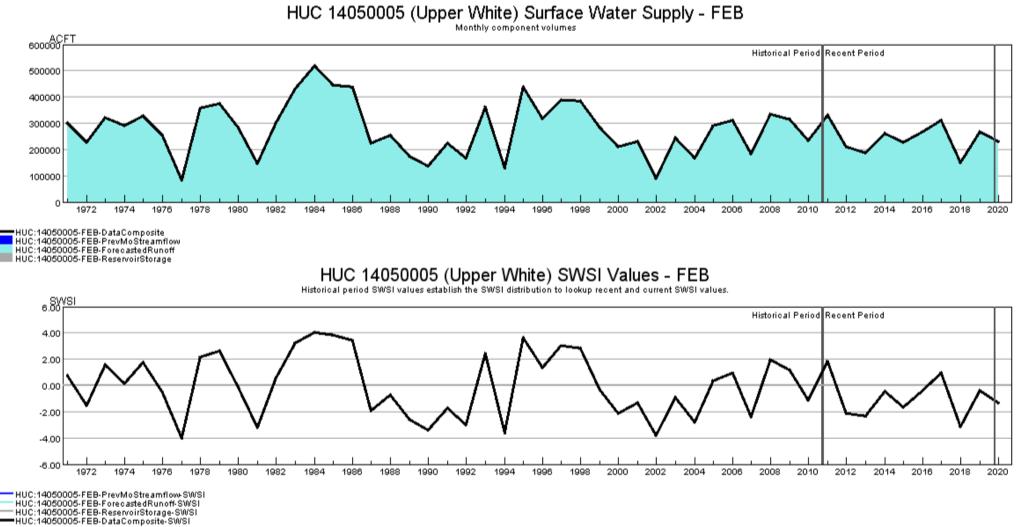


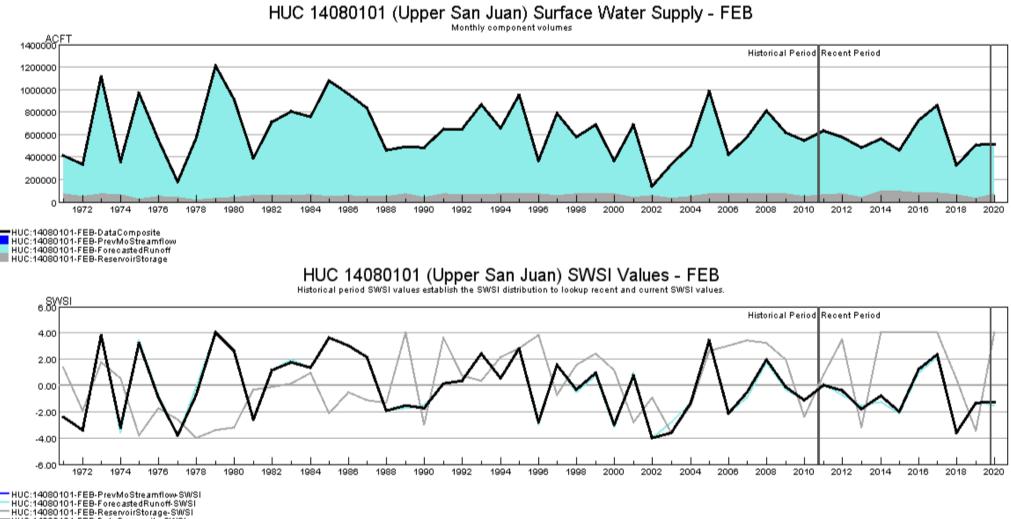
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