# 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>

January 1, 2023

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 1980 and 2020.

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

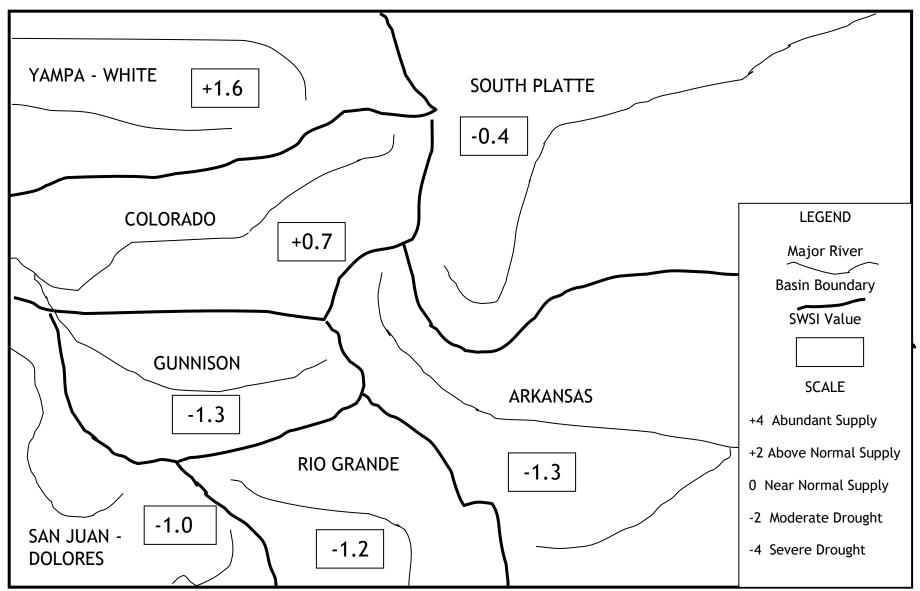
The results of each month's analysis are summarized within this report and additional information, maps & data are available at: <u>https://dwr.colorado.gov/services/water-administration/drought-and-swsi</u>. Beginning March 1, 2022, this report no longer contains text updates about current regional 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 December 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 January 1, 2023. Water supply conditions as represented by water in storage and forecasted streamflow runoff, range from normal in the Colorado, South Platte and Yampa-White Basins to well slightly below normal in the Arkansas, Rio Grande, San Juan-Dolores and Gunnison River Basins.

Basin	January 1 SWSI	Change from Previous Month	Change from Previous Year
Arkansas	-1.3	-0.2	0.0
Colorado	0.7	2.7	-0.7
Gunnison	-1.3	2.4	-0.9
Rio Grande	-1.2	-2.5	-1.3
San Juan-Dolores	-1.0	1.0	-0.2
South Platte	-0.4	-0.2	0.0
Yampa-White	1.6	2.9	0.6

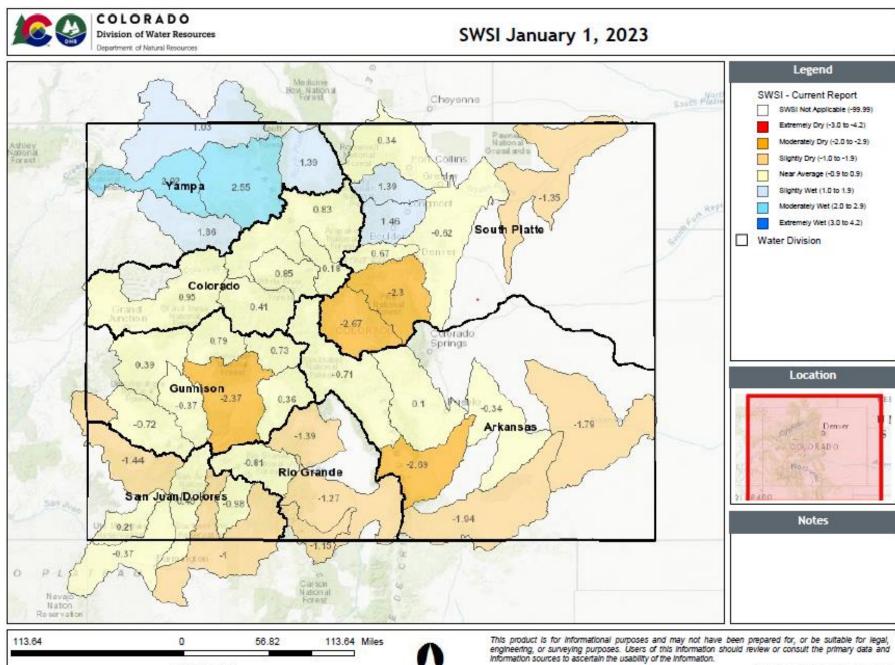
\*Last month's SWSI was based only on reservoir storage volumes, this month is based on forecasted streamflow plus reservoir storage volumes. Therefore, the change from previous month is not a comparison of two "like" indices.

				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

January 1, 2022



1: 3,600,000

#### SURFACE WATER SUPPLY INDEX FOR COLORADO BY HUC

Date Prepared: 2/3/2023 5:41:31 PM

Basin	HUC ID	January 1, 2022 SWSI Values by HUC ar HUC Name	SWSI	Reservoir Storage NEP	Forecast Flow NEP	Total Vol (AF)
	11020006	Huerfano	-2.69	18	23	12,800
▶ 110200	11020010	Purgatoire	-1.95	58	27	44,014
rka	11020005	Upper Arkansas-Lake Meredith	-0.35	30	49	358,625
Arkansas	11020001	Arkansas Headwaters	-0.71	30	53	390,498
St	11020009	Upper Arkansas-John Martin Reservoir	-1.80	1	43	392,419
	11020002	Upper Arkansas	0.10	51	50	522,296
	14010003	Eagle	0.86	N/A	60	335,000
Col	14010002	Blue	0.19	55	49	347,041
Colorado	14010004	Roaring Fork	0.41	10	58	741,654
do	14010001	Colorado Headwaters	0.84	45	64	1,535,870
	14010005	Colorado Headwaters-Plateau	0.96	29	62	2,358,093
	14020003	Tomichi	0.36	46	54	65,165
	14030003	San Miguel	-0.73	N/A	41	114,000
Gu	14020006	Uncompahgre	-0.37	65	40	181,750
Gunnison	14020004	North Fork Gunnison	0.79	10	60	280,947
son	14020001	East-Taylor	0.74	28	60	350,270
	14020002	Upper Gunnison	-2.38	4	54	1,151,749
	14020005	Lower Gunnison	0.39	N/A	55	1,370,000
Rio	13010004	Saguache	-1.39	N/A	33	22,000
	13010002	Alamosa-Trinchera	-1.28	68	33	97,985
Grande	13010005	Conejos	-1.15	28	38	173,892
	13010001 Rio Grande Headwaters		-0.82	83	34	443,025
San	14080105	Middle San Juan	-0.38	92	45	18,334
n ب	14080107	Mancos	0.21	82	49	21,527
Juan-Dolores	14080102	Piedra	-0.99	N/A	38	163,000
-D	14080104	Animas	-0.45	31	44	427,804
olor	14030002	Upper Dolores	-1.44	23	57	446,844
.es	14080101	Upper San Juan	-1.01	46	37	524,749
	10190004	Clear	0.68	N/A	58	105,000
	10190001	South Platte Headwater	-2.68	27	21	177,483
Sou	10190005	St. Vrain	1.46	78	62	251,107
th	10190007	Cache La Poudre	0.34	24	62	359,925
South Platte	10190002	Upper South Platte	-2.30	39	17	388,374
tte	10190006	Big Thompson	1.39	65	61	592,769
	10190003	Middle South Platte-Cherry Creek	-0.62	9	45	803,197
	10190012	Middle South Platte-Sterling	-1.35	10	45	850,686
Ya	10180001	North Platte Headwaters	1.40	N/A	67	270,000
mp	14050005	Upper White	1.86	N/A	72	325,000
a-v	14050003	Little Snake	1.03	N/A	62	400,000
Yampa-White	14050001	Upper Yampa	2.56	34	81	903,970
te	14050002	Lower Yampa	2.02	N/A	74	1,210,000

January 1, 2022 SWSI Values by HUC and Non Exceedance Probabilities (NEP)

NEP is non exceedance probability for total reservoir storage and forecasted streamflow runoff in each 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 is calculated compared to the volume historically occurring this month during the period 1980-2020. The following table lists each component considered in each HUC.

SWSI Color Scale:

-4.0 (Severe Drought) 0.0 (Normal)

4.0 (Abundant Supply)

January 1, 2022 S	WSI Component	Information	-Reservoir	Storage	- By HUC
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HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP by Month
		CLEAR CREEK RESERVOIR	7,443	60
11020001		HOMESTAKE RESERVOIR	29,705	40
	Arkansas Headwaters	TWIN LAKES RESERVOIR	42,186	36
	neadwaters	TURQUOISE LAKE	81,164	20
		ARKANSAS RIVER AT SALIDA	230,000	53
		CUCHARAS RESERVOIR*	0	18
11020006	Huerfano	CUCHARAS RIVER AT BOYD RANCH NR LA VETA	6,000	26
		HUERFANO RIVER NEAR REDWING	6,800	27
11020010	Purgatoire	TRINIDAD LAKE	21,014	58
11020010	Fulgatolie	PURGATOIRE RIVER AT TRINIDAD	23,000	27
11020002	Upper Arkansas	PUEBLO RESERVOIR	192,296	51
11020002	оррег Агканзаз	PUEBLO RESERVOIR INFLOW	330,000	50
		ADOBE CREEK RESERVOIR	4,359	3
		CUCHARAS RIVER AT BOYD RANCH NR LA VETA	6,000	26
11020009	Upper Arkansas-	HUERFANO RIVER NEAR REDWING	6,800	27
11020009	John Martin Reservoir	JOHN MARTIN RESERVOIR	22,260	7
		PURGATOIRE RIVER AT TRINIDAD	23,000	27
		PUEBLO RESERVOIR INFLOW	330,000	50
	Upper Arkansas- Lake Meredith	LAKE HENRY	4,920	68
		CUCHARAS RIVER AT BOYD RANCH NR LA VETA	6,000	26
11020005		HUERFANO RIVER NEAR REDWING	6,800	27
		MEREDITH RESERVOIR	10,905	28
		PUEBLO RESERVOIR INFLOW	330,000	50
14010002	Blue	GREEN MOUNTAIN RESERVOIR	77,041	55
14010002	Blue	BLUE RIVER INFLOW TO GREEN MOUNTAIN RES	270,000	49
	Colorado Headwaters	WOLFORD MOUNTAIN RESERVOIR	40,280	51
14010001		WILLIAMS FORK RESERVOIR	45,590	7
		COLORADO RIVER NEAR DOTSERO	1,450,000	64
14010005	Colorado Headwaters-Plateau	VEGA RESERVOIR	8,093	29
14010003		COLORADO RIVER NEAR CAMEO	2,350,000	62
14010003	Eagle	EAGLE RIVER BELOW GYPSUM	335,000	60
14010004	Roaring Fork	RUEDI RESERVOIR	66,654	10
14010004	Roaring Fork	ROARING FORK AT GLENWOOD SPRINGS	675,000	58
		TAYLOR PARK RESERVOIR	66,270	28
14020001	East-Taylor	TAYLOR R INF TO TAYLOR PARK RESERVOIR	99,000	55
		EAST RIVER AT ALMONT	185,000	60
14020005	Lower Gunnison	GUNNISON RIVER NR GRAND JUNCTION	1,370,000	55
14020004	North Fork	PAONIA RESERVOIR	947	10
14020004	Gunnison	NORTH FORK GUNNISON R NR SOMERSET	280,000	60
14030003	San Miguel	SAN MIGUEL RIVER NEAR PLACERVILLE	114,000	41
14020003	Tomichi	VOUGA RESERVOIR NEAR DOYLEVILLE	165	46
1020003	TOTTICIT	TOMICHI CREEK AT GUNNISON, CO	65,000	54

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP by Month
14020006	Uncompahgre	RIDGEWAY RESERVOIR	67,750	65
14020000	Uncompangre	UNCOMPAHGRE RIVER AT COLONA	114,000	40
		FRUITLAND RESERVOIR	684	57
		SILVER JACK RESERVOIR	1,165	5
		CRAWFORD RESERVOIR	1,868	6
14020002	Upper Gunnison	MORROW POINT RESERVOIR	102,860	1
		LAKE FORK AT GATEVIEW, CO	110,000	42
		BLUE MESA RESERVOIR	290,172	4
		GUNNISON R INF TO BLUE MESA RESERVOIR	645,000	55
		MOUNTAIN HOME	3,916	75
		TERRACE RESERVOIR	5,569	63
		UTE CREEK	6,200	26
13010002	Alamosa-Trinchera	TRINCHERA CK	6,800	25
		SANGRE DE CRISTO	8,000	33
		CULEBRA CREEK AT SAN LUIS	12,500	26
		ALAMOSA CREEK ABOVE TERRACE RESERVOIR	55,000	36
13010005	Conejos	PLATORO RESERVOIR	13,892	28
13010003	concjos	CONEJOS RIVER NEAR MOGOTE	160,000	38
	Rio Grande Headwaters	SANTA MARIA RESERVOIR	8,870	54
13010001		CONTINENTAL RESERVOIR	10,232	90
15010001		RIO GRANDE RESERVOIR	23,923	83
		RIO GRANDE NEAR DEL NORTE	400,000	34
13010004	Saguache	SAGUACHE CREEK NEAR SAGUACHE, CO	22,000	33
	Animas	LEMON RESERVOIR	16,804	31
14080104		FLORIDA RIVER INFLOW TO LEMON RESERVOIR	46,000	52
		ANIMAS RIVER AT DURANGO	365,000	44
14080107	Mancos	JACKSON GULCH RESERVOIR	5,527	82
11000107		MANCOS RIVER NEAR MANCOS	16,000	49
14080105	Middle San Juan	LONG HOLLOW RESERVOIR	334	92
11000105	Middle Sull Sull	LA PLATA RIVER AT HESPERUS	18,000	45
14080102	Piedra	PIEDRA RIVER NEAR ARBOLES	163,000	38
		GROUNDHOG RESERVOIR	0	3
14030002	Upper Dolores	MCPHEE RESERVOIR	186,844	28
		DOLORES RIVER BELOW MCPHEE RESERVOIR	260,000	57
		VALLECITO RESERVOIR	66,749	46
14080101	Upper San Juan	LOS PINOS RIVER NEAR BAYFIELD	163,000	40
		SAN JUAN RIVER NEAR CARRACAS	295,000	38
		LONE TREE RESERVOIR	2,831	4
		MARIANO RESERVOIR	3,907	75
		LAKE LOVELAND RESERVOIR	4,335	20
10190006	Big Thompson	WILLOW CREEK RESERVOIR	5,871	14
10170000	nothbour	BOYD LAKE	22,259	29
		CARTER LAKE	50,217	21
		BIG THOMPSON R AT MOUTH, NR DRAKE, CO	96,000	61
		LAKE GRANBY	407,349	80

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP by Month
		HALLIGAN RESERVOIR	0	1
		CACHE LA POUDRE	1,833	9
		CHAMBERS LAKE	4,487	66
		BLACK HOLLOW RESERVOIR	4,639	99
10190007	Cache La Poudre	FOSSIL CREEK RESERVOIR	6,481	37
		WINDSOR RESERVOIR	12,035	57
		COBB LAKE	14,880	51
		HORSETOOTH RESERVOIR	70,570	23
		CACHE LA POUDRE R AT CANYON MOUTH	245,000	62
10190004	Clear Creek	CLEAR CREEK AT GOLDEN	105,000	58
		HORSECREEK RESERVOIR	2,400	16
		MILTON RESERVOIR	6,499	14
		BARR LAKE	15,288	14
		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	38,000	60
	Middle South	STANDLEY RESERVOIR	39,010	74
10190003	Platte-Cherry	BOULDER CREEK NEAR ORODELL	57,000	60
	Creek	SAINT VRAIN CREEK AT LYONS	96,000	66
		BIG THOMPSON R AT MOUTH, NR DRAKE, CO	96,000	61
		SOUTH PLATTE RIVER AT SOUTH PLATTE	103,000	17
		CLEAR CREEK AT GOLDEN	105,000	58
		CACHE LA POUDRE R AT CANYON MOUTH	245,000	62
		JULESBURG RESERVOIR	8,057	1
		PREWITT RESERVOIR	8,173	13
		JACKSON LAKE RESERVOIR	18,524	16
		EMPIRE RESERVOIR	20,914	37
		RIVERSIDE RESERVOIR	25,765	20
	Middle South Platte-Sterling	POINT OF ROCKS RESERVOIR	29,253	10
10190012		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	38,000	60
		BOULDER CREEK NEAR ORODELL	57,000	60
		SAINT VRAIN CREEK AT LYONS	96,000	66
		BIG THOMPSON R AT MOUTH, NR DRAKE, CO	96,000	61
		SOUTH PLATTE RIVER AT SOUTH PLATTE	103,000	17
		CLEAR CREEK AT GOLDEN	105,000	58
		CACHE LA POUDRE R AT CANYON MOUTH	245,000	62
		ANTERO RESERVOIR	20,035	81
	South Platte	SPINNEY MOUNTAIN RESERVOIR	20,480	12
10190001	Headwater	ELEVENMILE CANYON RESV INFLOW	37,000	21
		ELEVENMILE CANYON RESERVOIR	99,968	86
		MARSHALL RESERVOIR	5,465	47
		TERRY RESERVOIR	6,359	87
		UNION RESERVOIR	10,694	51
		BUTTONROCK (RALPH PRICE) RESERVOIR	15,354	91
10190005	St. Vrain	GROSS RESERVOIR	22,235	79
		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	38,000	60
		BOULDER CREEK NEAR ORODELL	57,000	60
		SAINT VRAIN CREEK AT LYONS	96,000	66

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP by Month
		CHEESMAN LAKE	71,169	68
10190002	Upper South Platte	SOUTH PLATTE RIVER AT SOUTH PLATTE	103,000	17
		DILLON RESERVOIR	214,205	24
14050003	Little Snake	LITTLE SNAKE RIVER NEAR LILY	400,000	62
14050002	Lower Yampa	YAMPA RIVER NEAR MAYBELL	1,210,000	74
10180001	North Platte Headwaters	NORTH PLATTE R NR NORTHGATE	270,000	67
14050005	Upper White	WHITE RIVER NEAR MEEKER	325,000	72
	Upper Yampa	YAMCOLO RESERVOIR	4,887	28
		STAGECOACH RESERVOIR NR OAK CREEK	27,083	33
14050001		ELKHEAD CREEK ABOVE LONG GULCH	97,000	81
		YAMPA RIVER AT STEAMBOAT SPRINGS	335,000	78
		ELK RIVER NEAR MILNER, CO	440,000	77

NEP is non exceedance probability for volume of the component compared to this month during the historical period 1980-2020.

\*No longer exists

Water Volume NEP Color Scale:

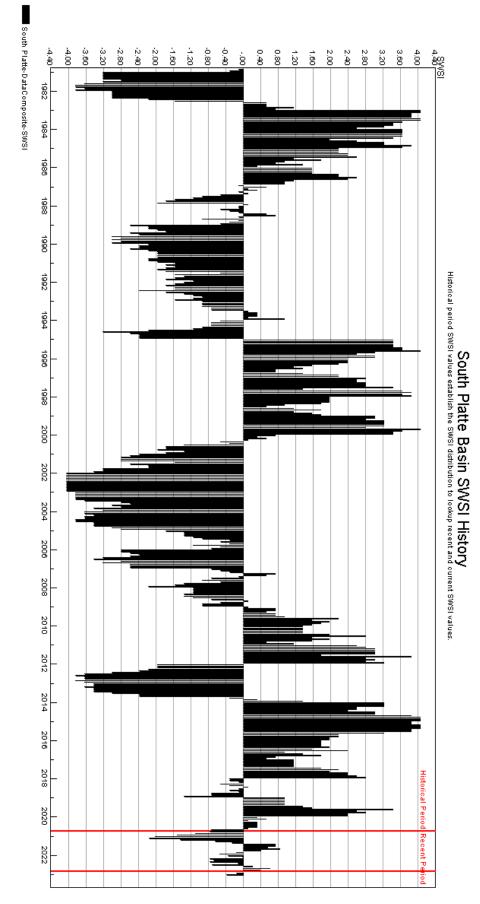
0 (Well Below Normal)

mal) 50 (Normal)

100 (Well Above Normal)

#### SOUTH PLATTE BASIN

The SWSI value for the month was -0.4.



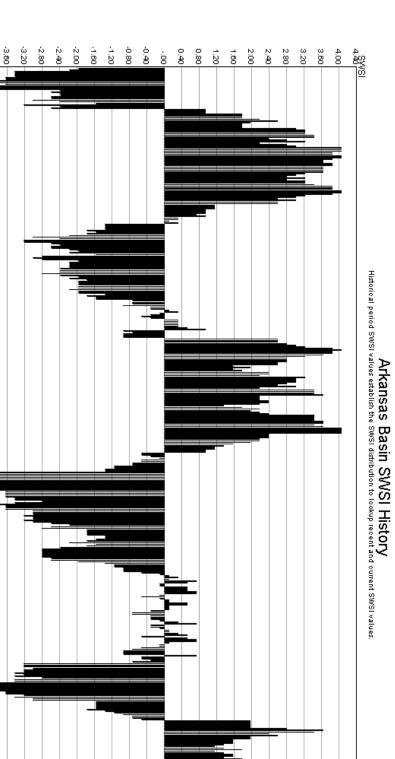
#### ARKANSAS BASIN

The SWSI value for the month was -1.3.

Arkansas-DataComposite-SWSI

.4.40

4.0



## Jan-23

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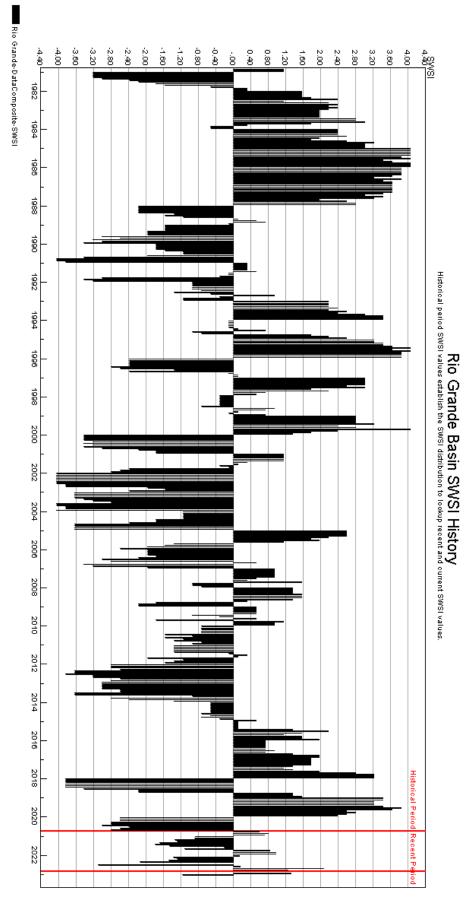
**Historical Period** 

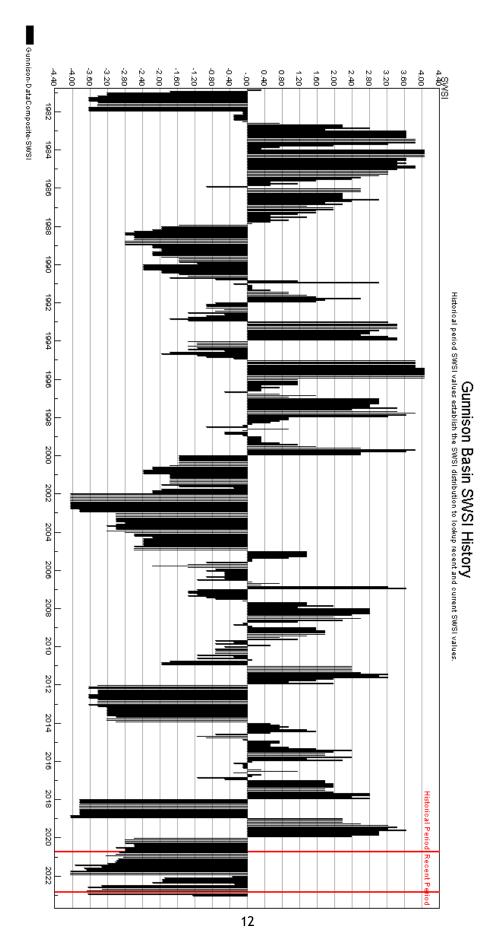
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### **RIO GRANDE BASIN**

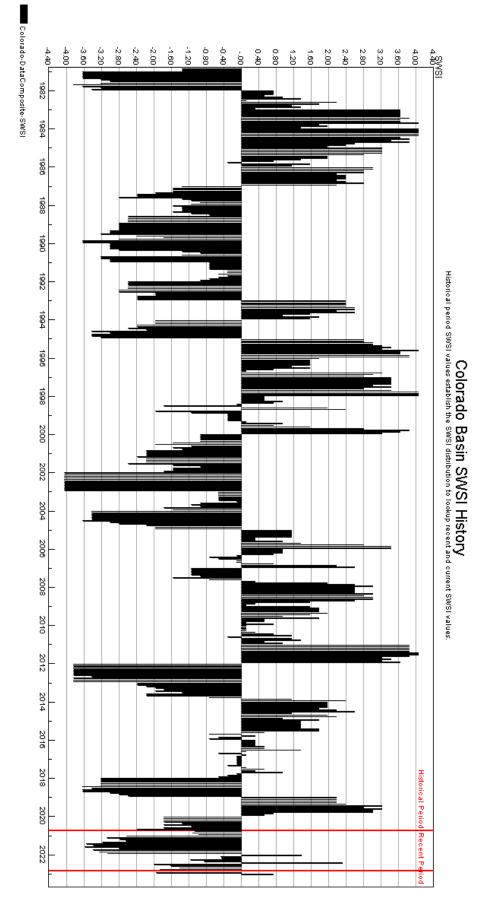
# The SWSI value for the month was -1.2.

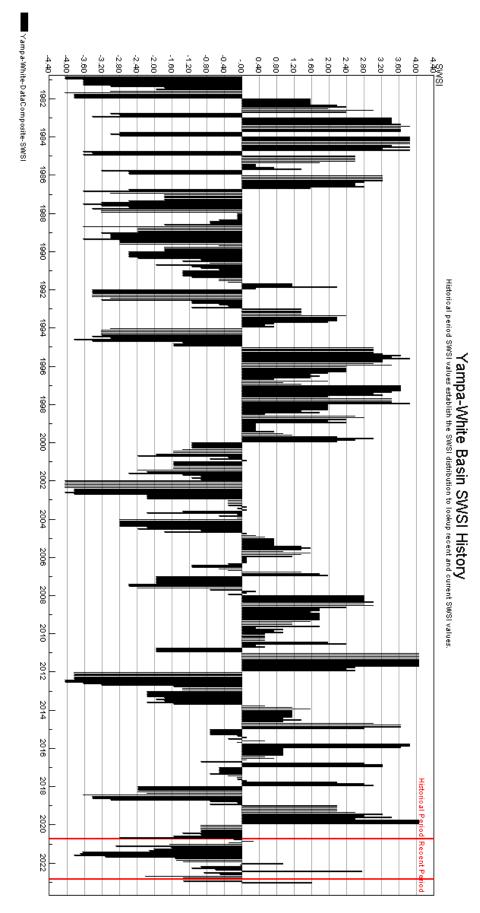




## COLORADO BASIN

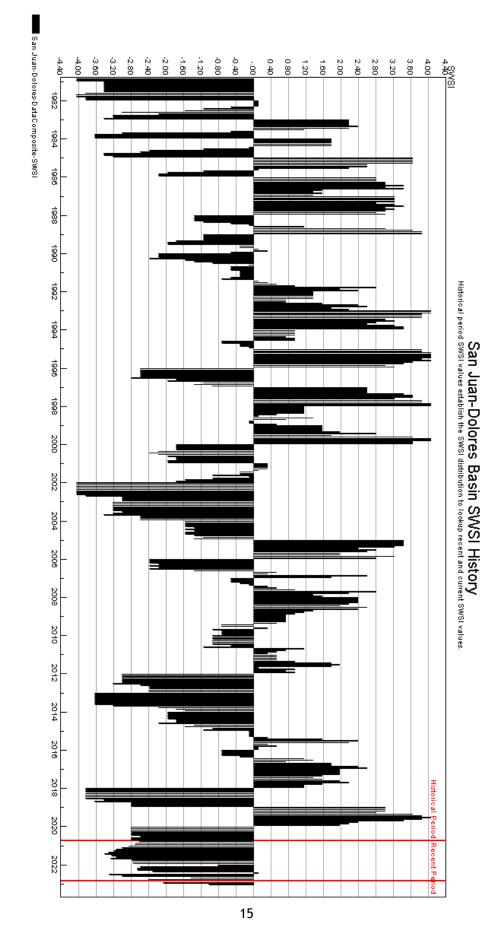
# The SWSI value for the month was +0.7.

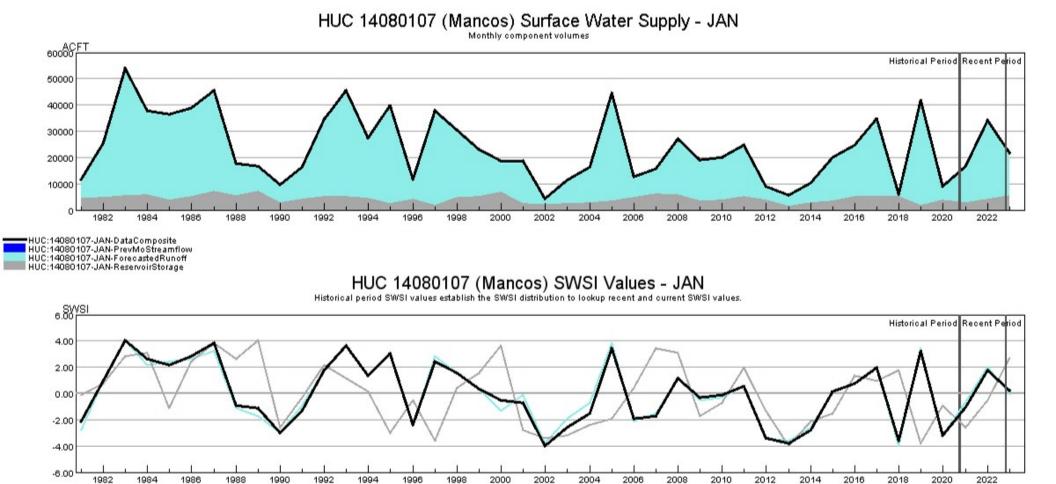




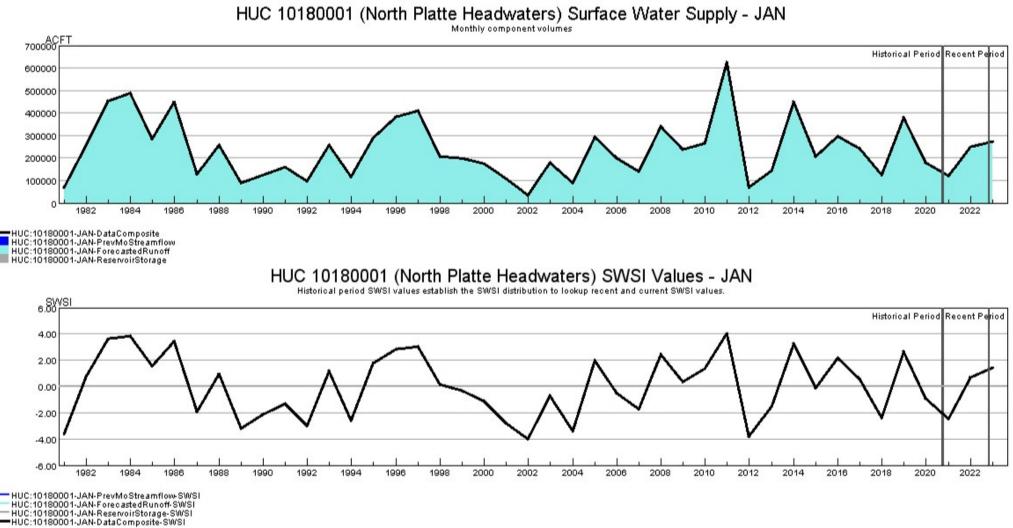
# YAMPA/WHITE BASIN

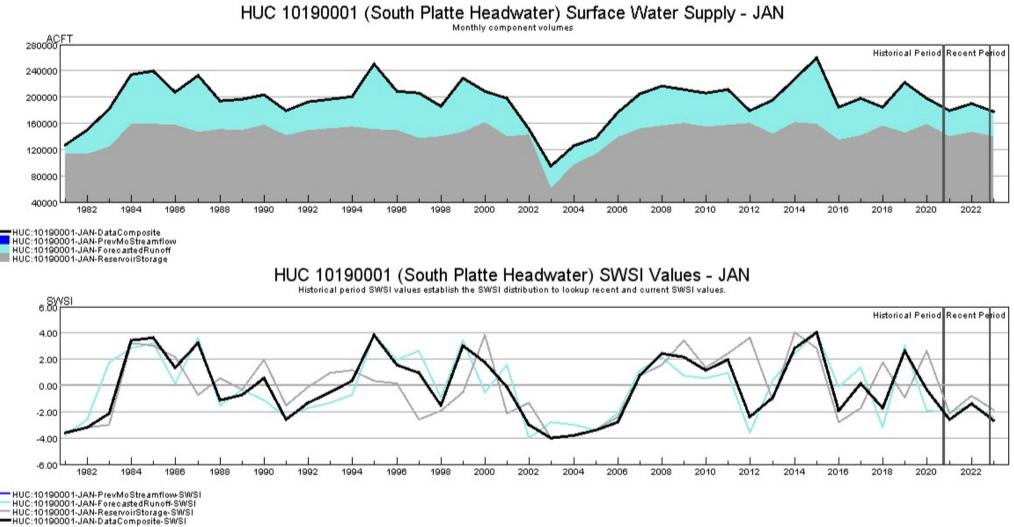
The SWSI value for the month was -1.0.

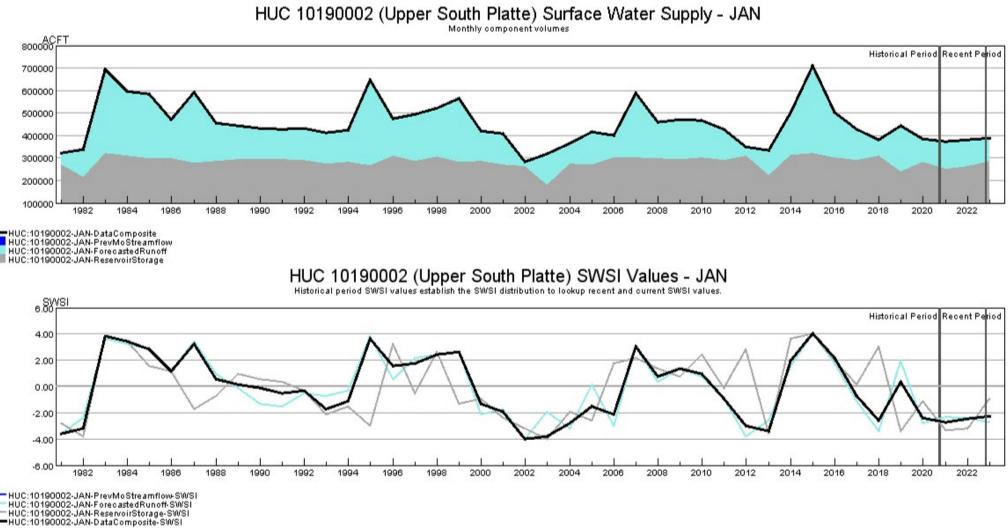


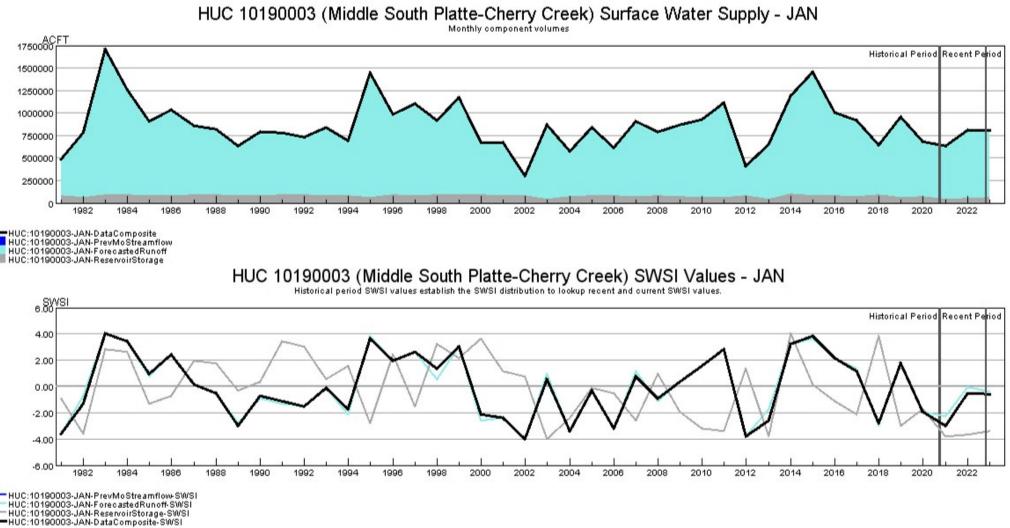


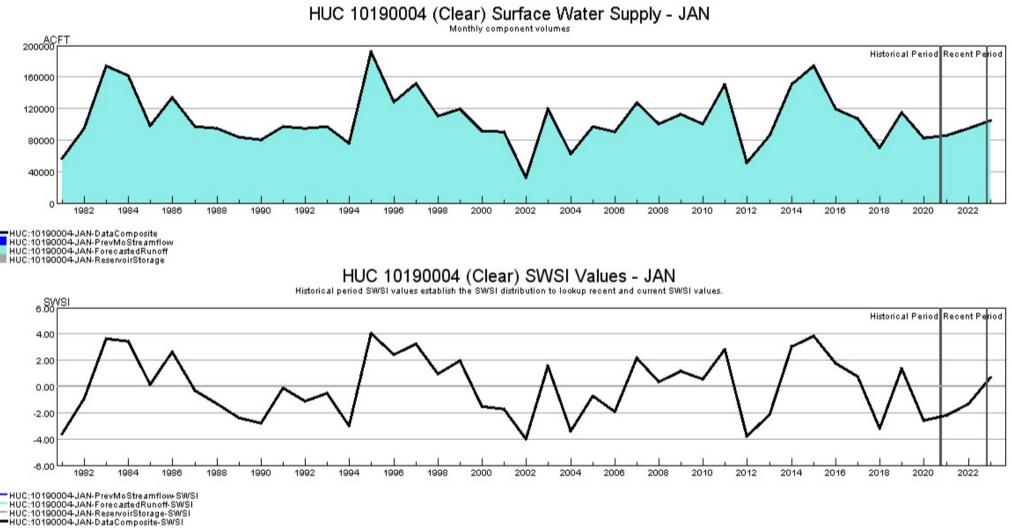
HUC:14080107-JAN-PrevMoStreamflow-SWSI HUC:14080107-JAN-ForecastedRunoff-SWSI HUC:14080107-JAN-ReservoirStorage-SWSI HUC:14080107-JAN-DataComposite-SWSI

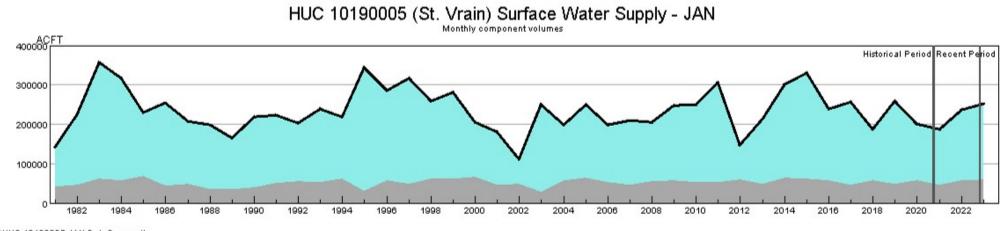






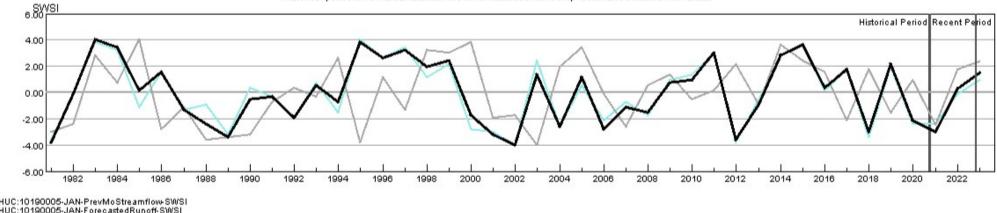




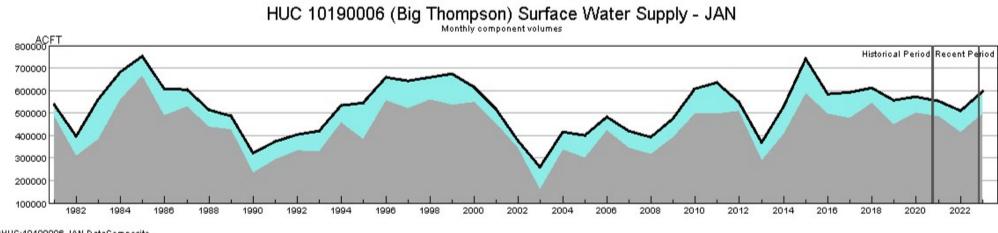


HUC:10190005-JAN-DataComposite HUC:10190005-JAN-PrevMoStreamflow HUC:10190005-JAN-ForeoastedRunoff HUC:10190005-JAN-ReservoirStorage

HUC 10190005 (St. Vrain) SWSI Values - JAN Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.



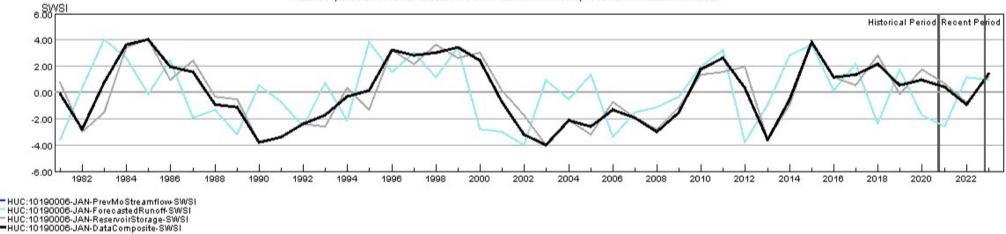
HUC:10190005-JAN-PrevMoStreamflow-SWSI HUC:10190005-JAN-ForecastedRunoff-SWSI HUC:10190005-JAN-ReservoirStorage-SWSI HUC:10190005-JAN-DataComposite-SWSI

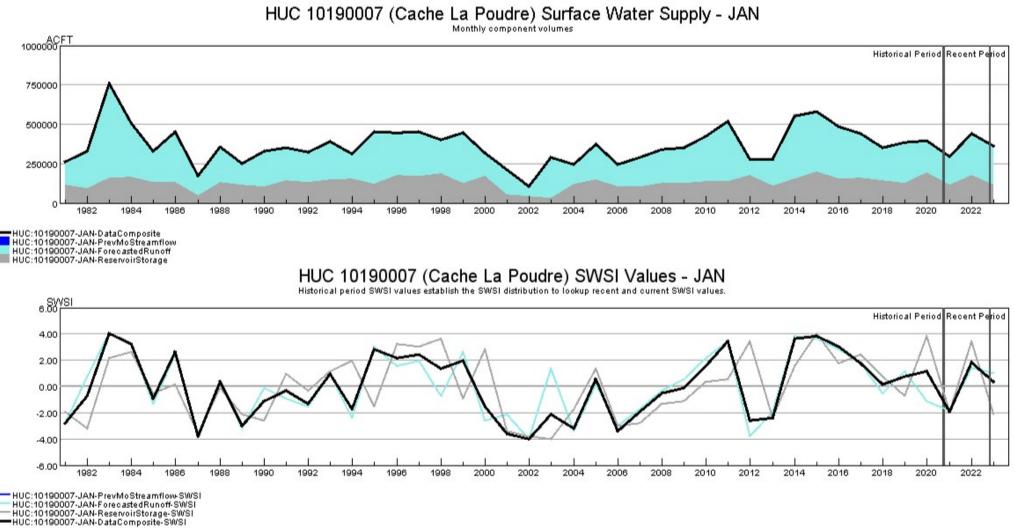


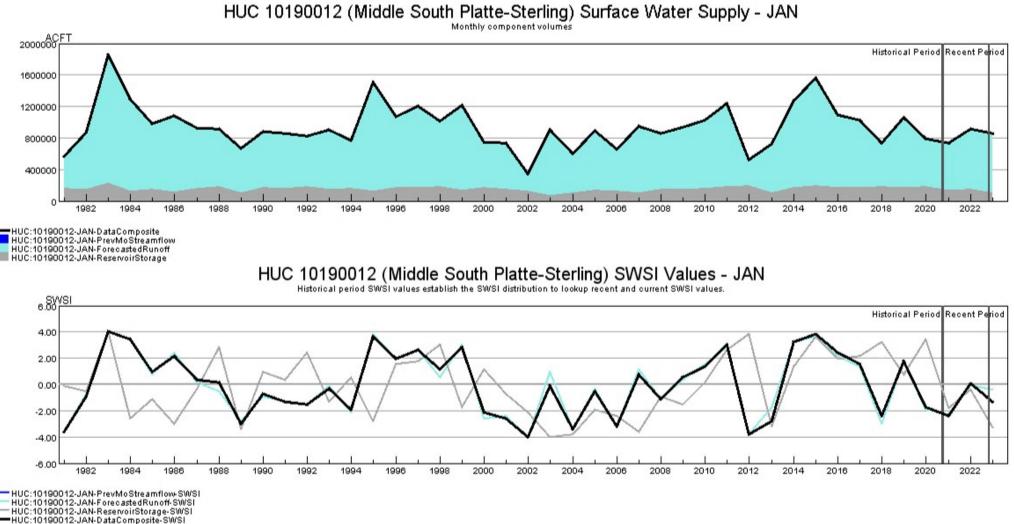
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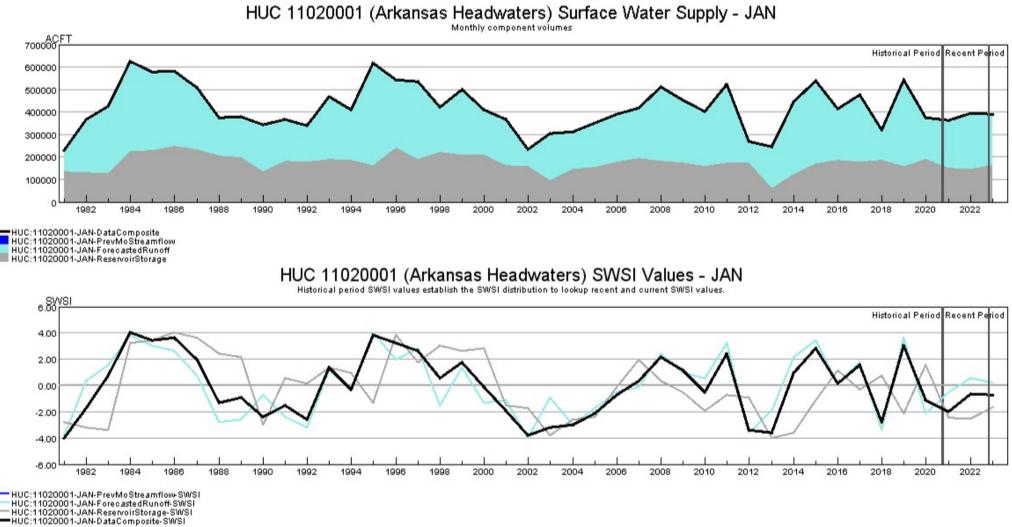
HUC 10190006 (Big Thompson) SWSI Values - JAN Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.

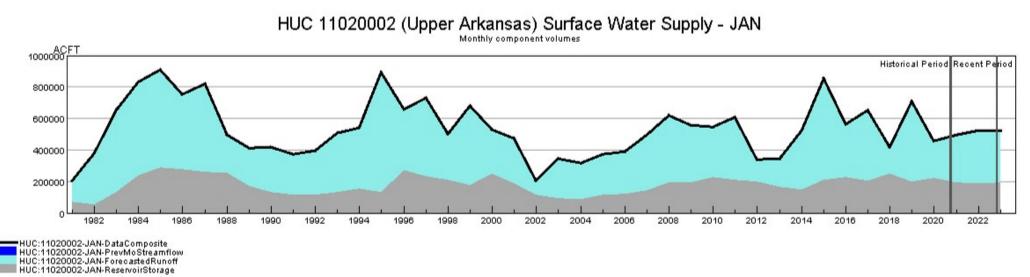




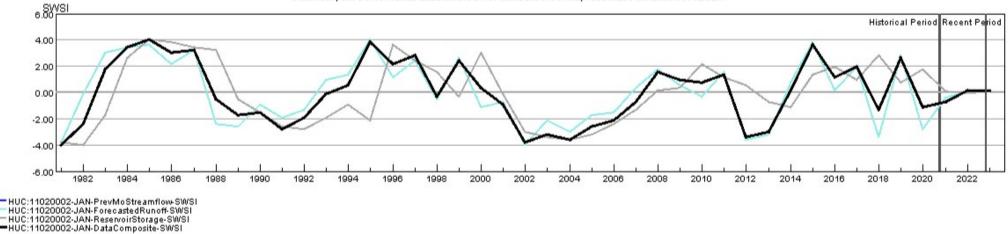


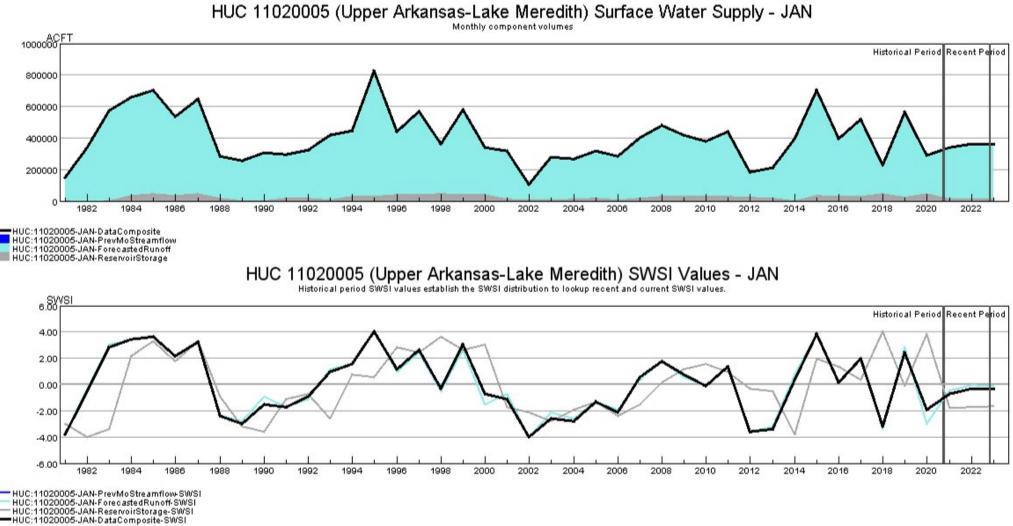


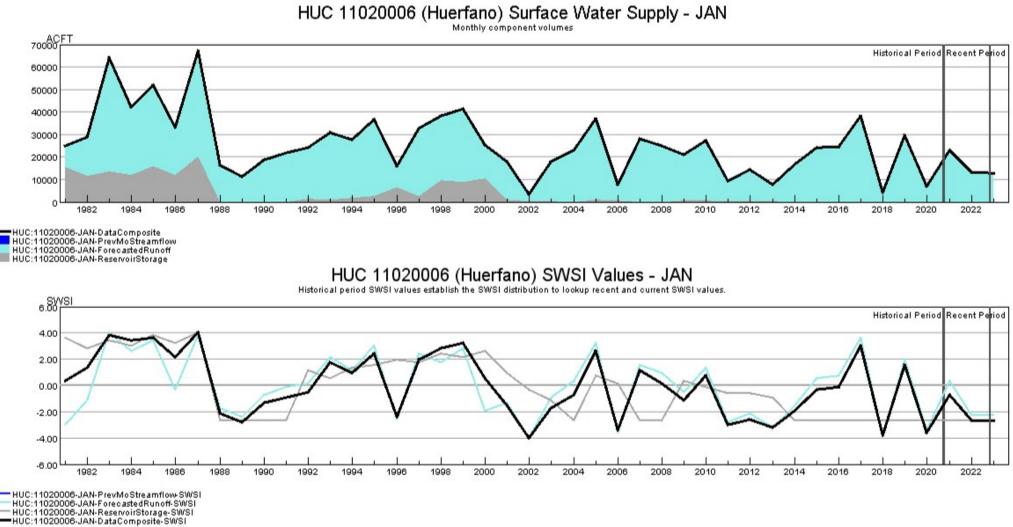


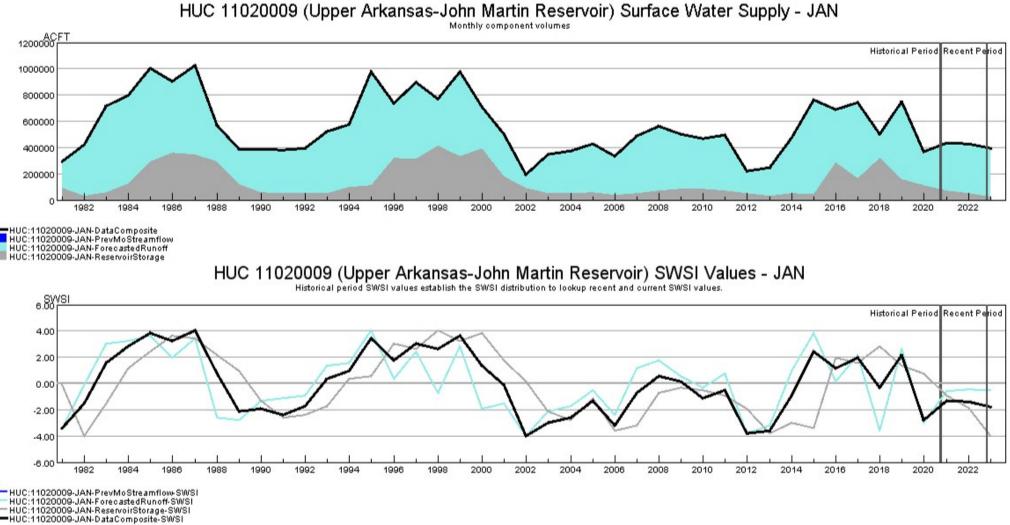


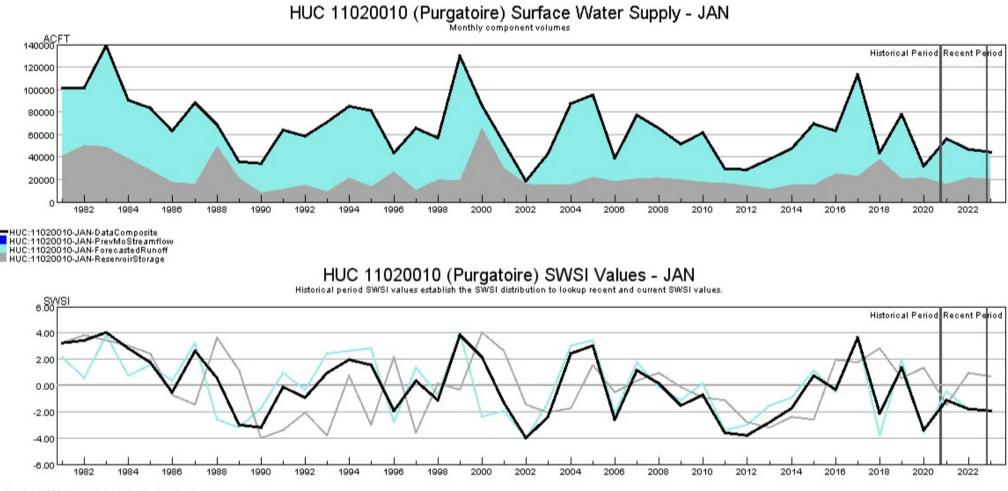
HUC 11020002 (Upper Arkansas) SWSI Values - JAN Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.



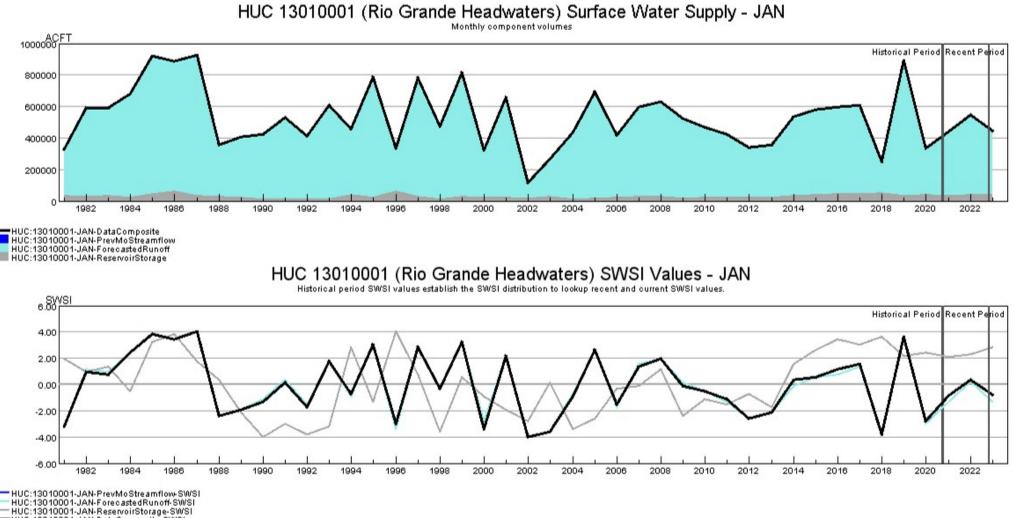




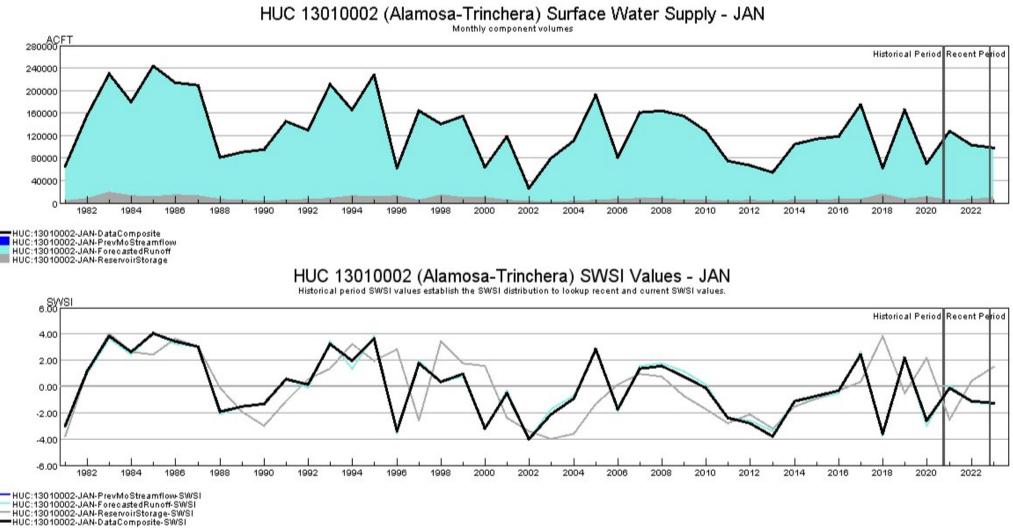


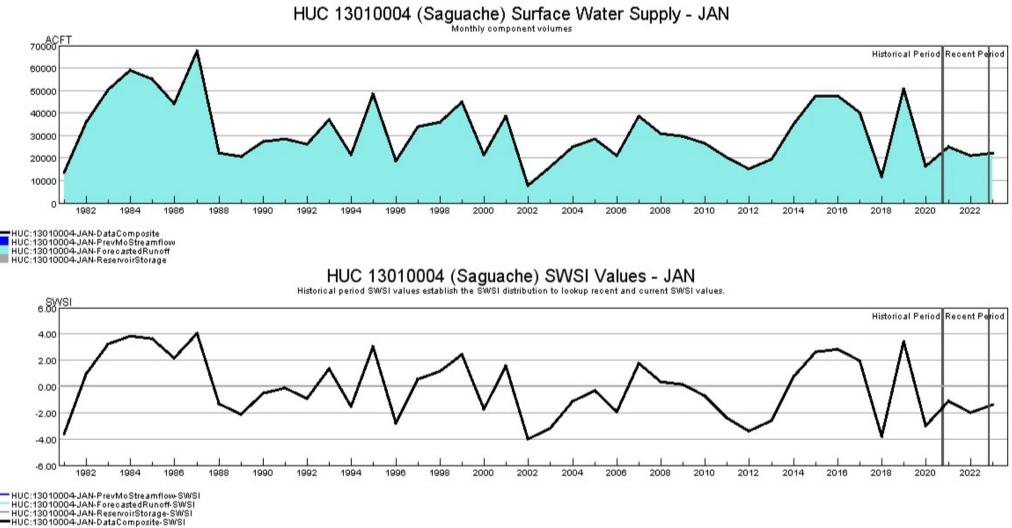


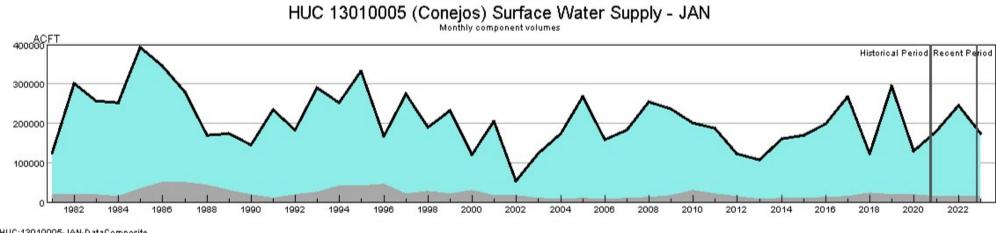
HUC:11020010-JAN-PrevMoStreamflow-SWSI HUC:11020010-JAN-ForecastedRunoff-SWS HUC:11020010-JAN-ForecastedRunoff-SWSI HUC:11020010-JAN-ReservoirStorage-SWSI



HUC:13010001-JAN-DataComposite-SWSI

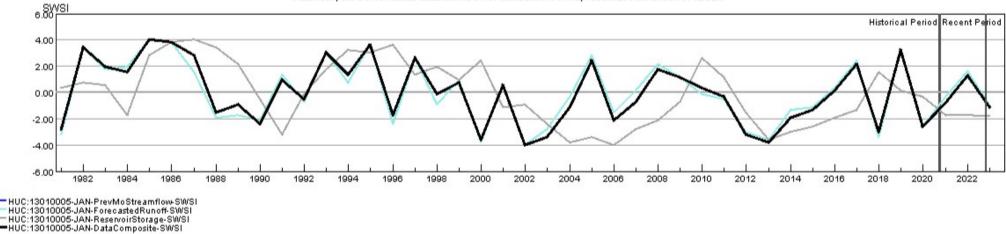


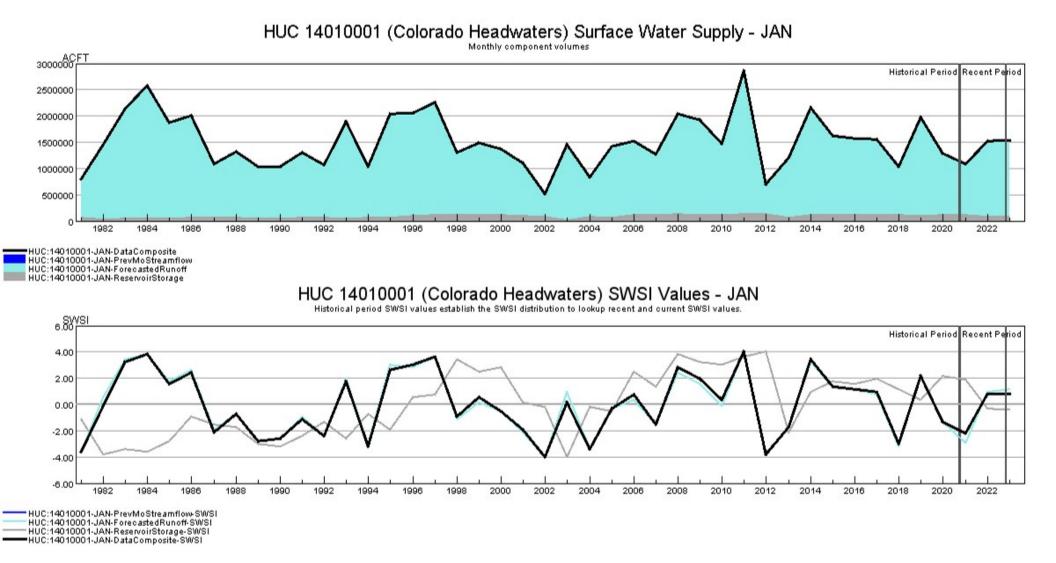


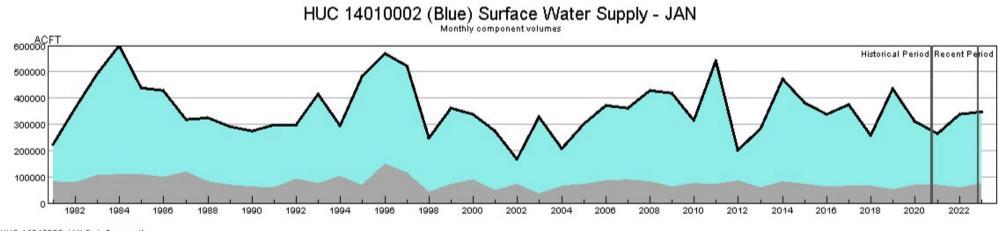


HUC:13010005-JAN-DataComposite HUC:13010005-JAN-PrevMoStreamflow HUC:13010005-JAN-ForeoastedRunoff HUC:13010005-JAN-ReservoirStorage

HUC 13010005 (Conejos) SWSI Values - JAN Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.

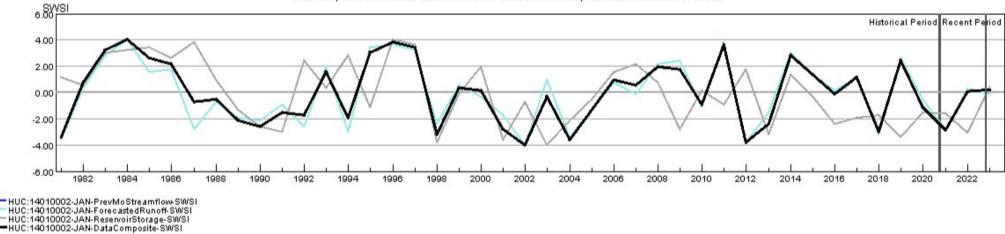


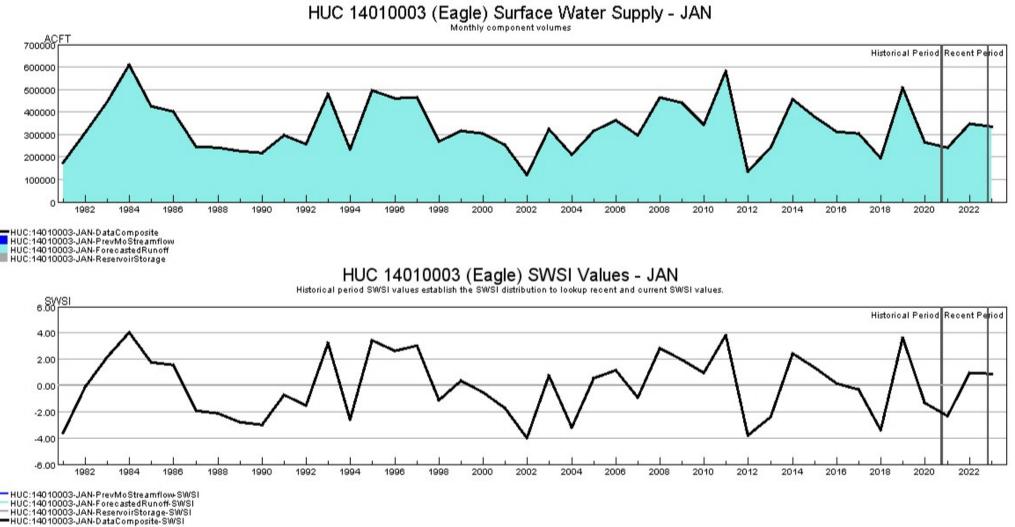


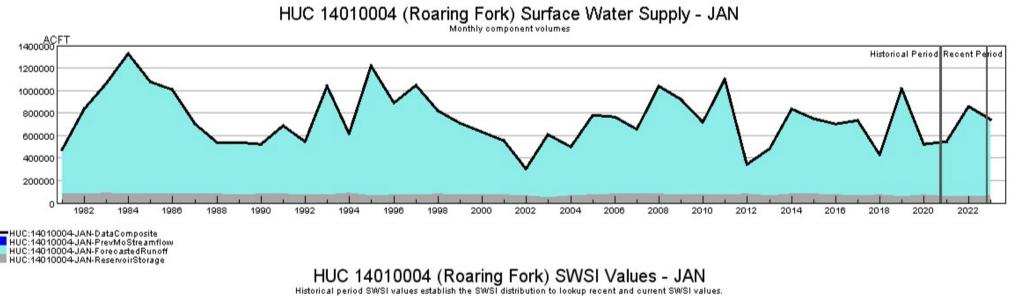


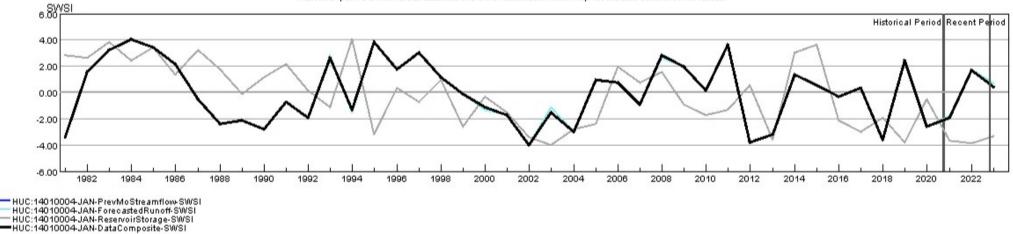
HUC:14010002-JAN-DataComposite HUC:14010002-JAN-PrevMoStreamflow HUC:14010002-JAN-ForecastedRunoff HUC:14010002-JAN-ReservoirStorage

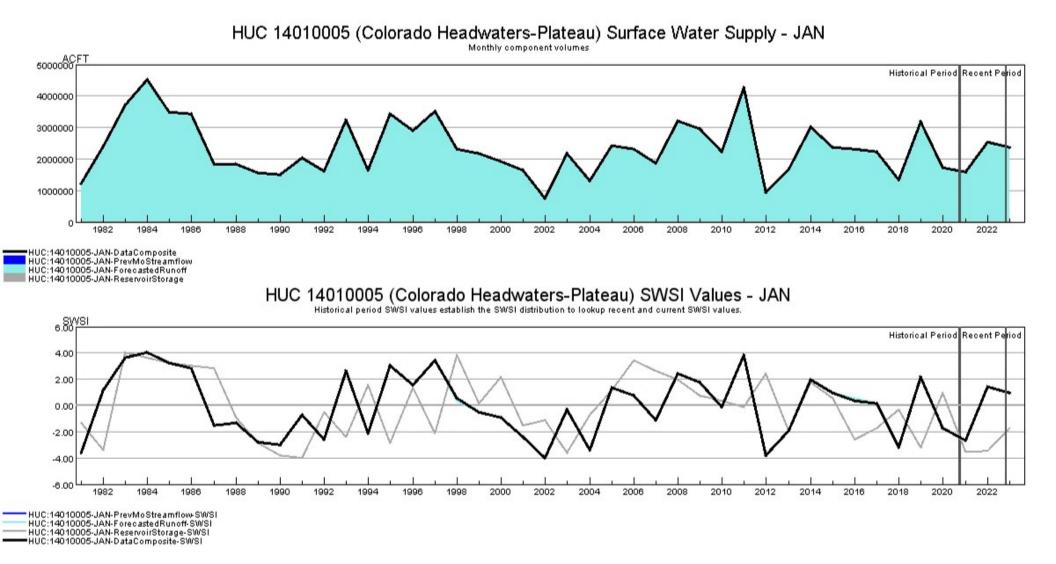
HUC 14010002 (Blue) SWSI Values - JAN Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.

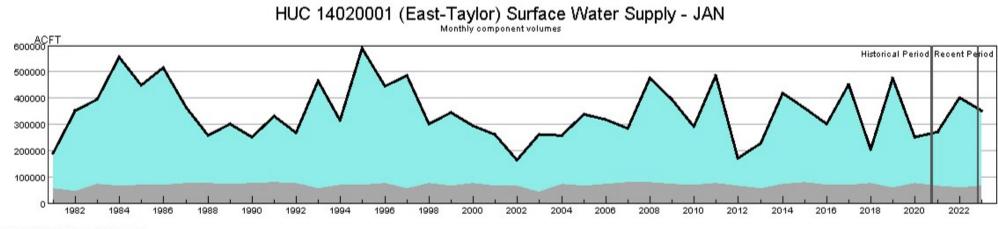










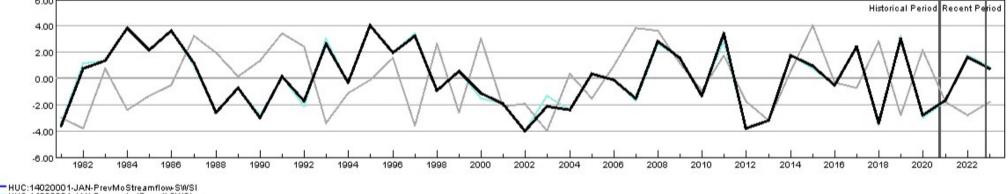


HUC:14020001-JAN-DataComposite HUC:14020001-JAN-PrevMoStreamflow HUC:14020001-JAN-ForeoastedRunoff HUC:14020001-JAN-ReservoirStorage

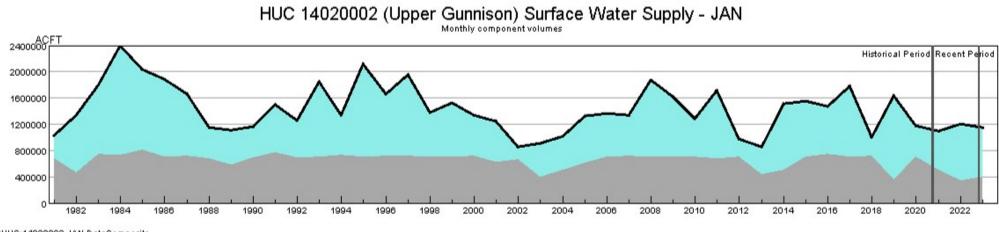
e.SVVSI

HUC 14020001 (East-Taylor) SWSI Values - JAN Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.





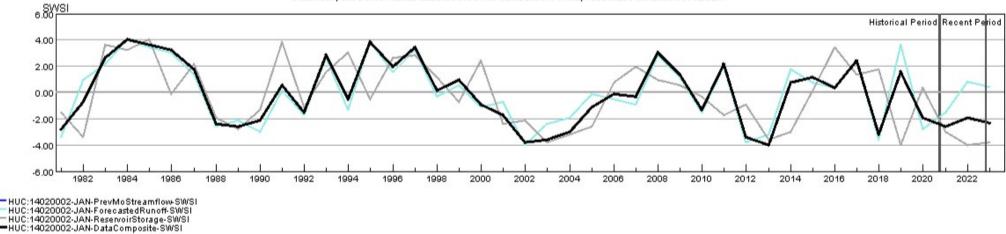
HUC:14020001-JAN-PrevMoStreamflow-SWSI HUC:14020001-JAN-ForecastedRunoff-SWSI HUC:14020001-JAN-ReservoirStorage-SWSI HUC:14020001-JAN-DataComposite-SWSI

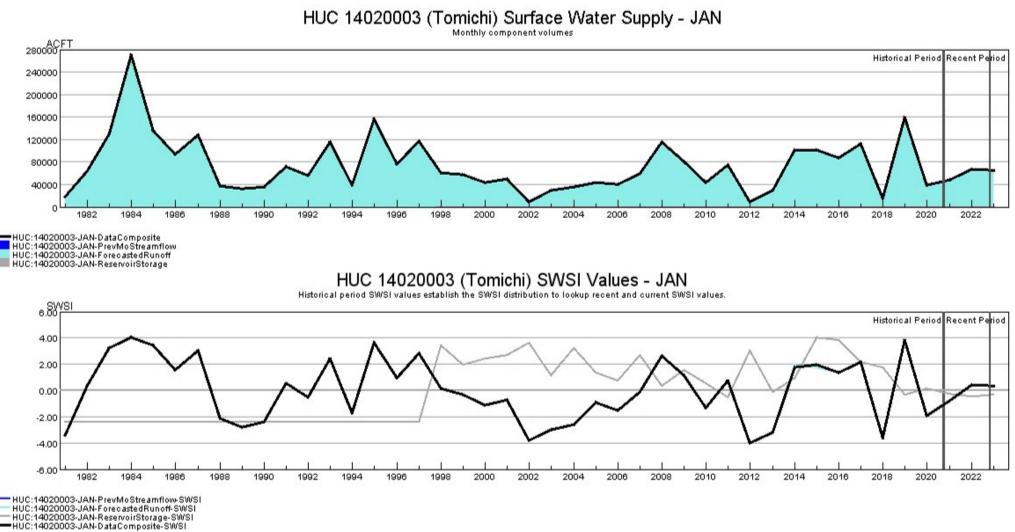


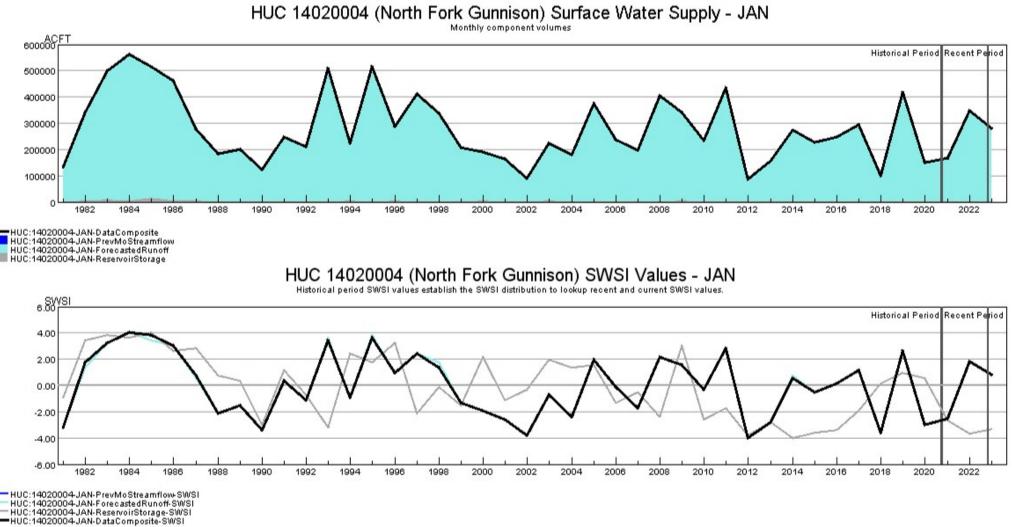
HUC:14020002-JAN-DataComposite HUC:14020002-JAN-PrevMoStreamflow HUC:14020002-JAN-ForeoastedRunoff HUC:14020002-JAN-ReservoirStorage

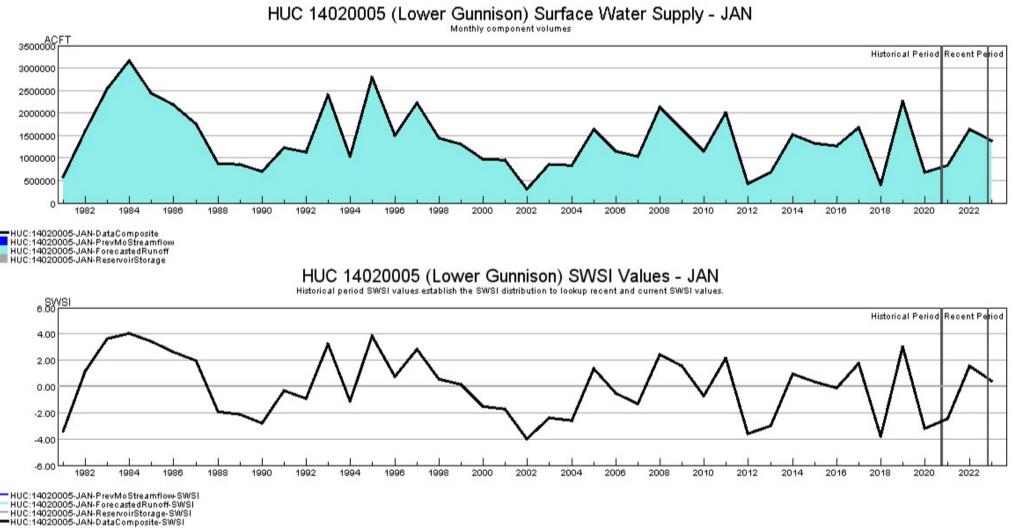
HUC 14020002 (Upper Gunnison) SWSI Values - JAN Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.

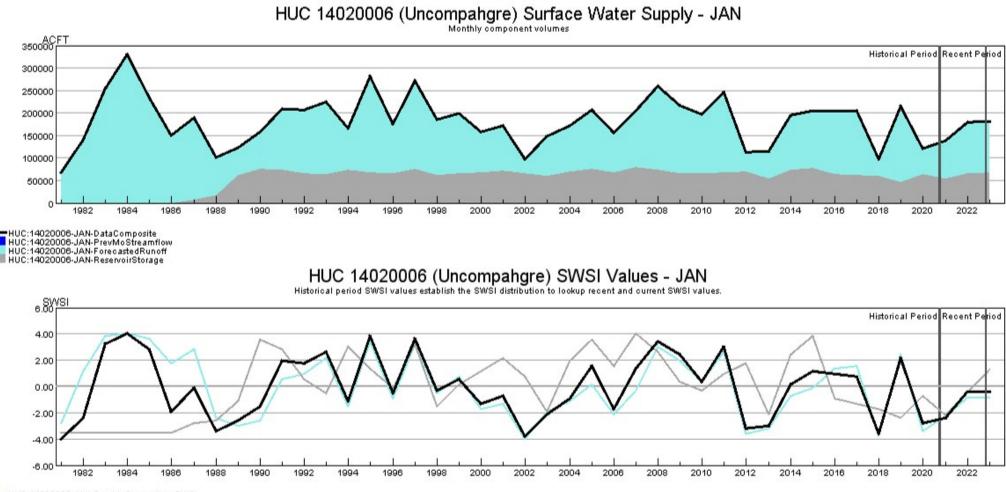












HUC:14020006-JAN-PrevMoStreamflow-SWSI HUC:14020006-JAN-ForecastedRunoff/SWSI HUC:14020006-JAN-ReservoirStorage-SWSI HUC:14020006-JAN-DataComposite-SWSI

