COLORADO
WATER SUPPLY CONDITIONS UPDATE

FROM THE OFFICE OF THE STATE ENGINEER: COLORADO DIVISION OF WATER RESOURCES
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March 1, 2019

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: http://water.state.co.us/DWRDocs/Reports/Pages/SWSIReport.aspx. This report also contains updates about current regional conditions and water matters prepared by each DWR Division Office.

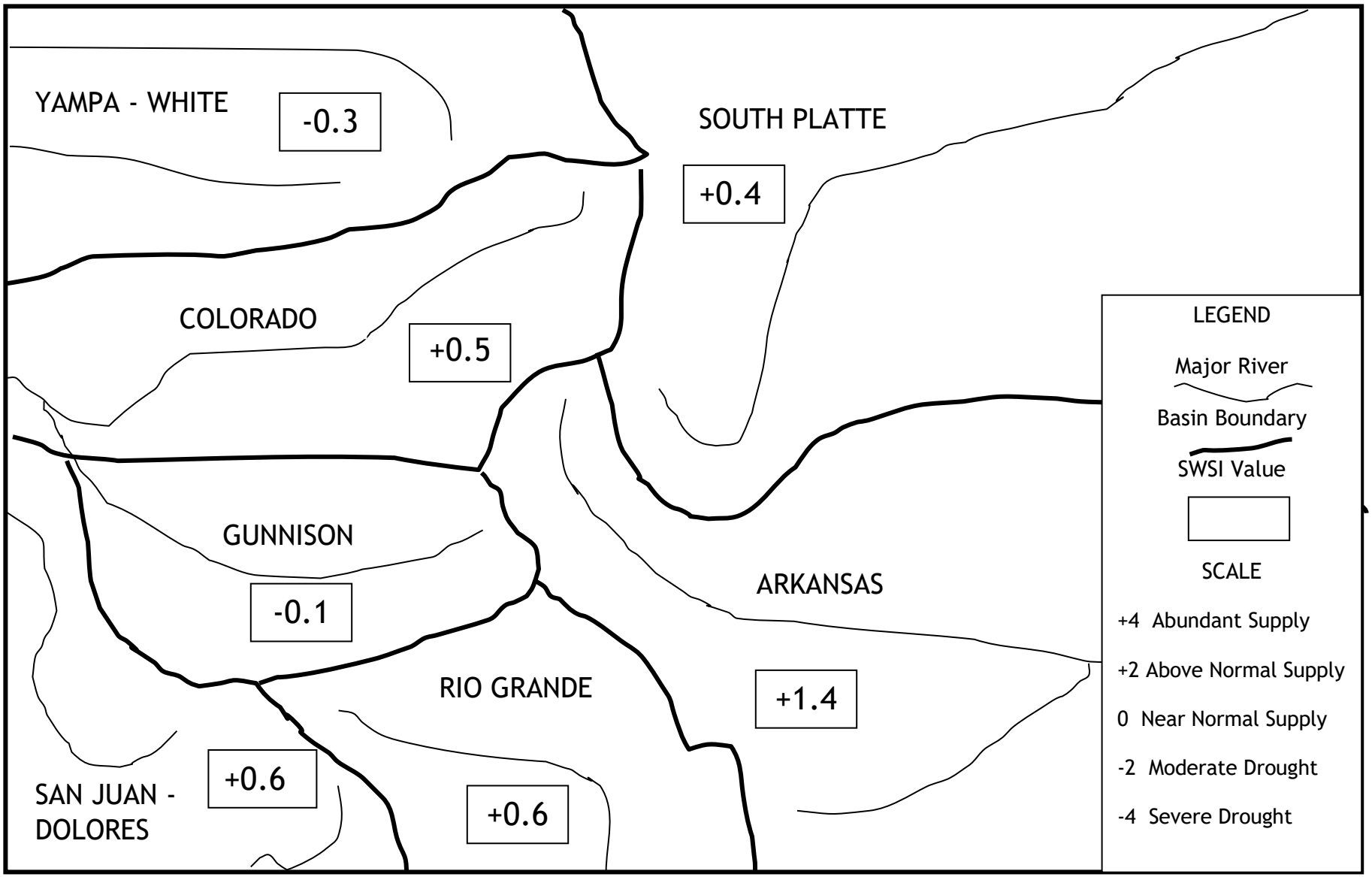
The SWSI calculation for the winter season (February 1 to June 1) is based on forecasted runoff (total volume for runoff season) combined with reservoir storage at the end of last month, in this case February 28. The statewide SWSI values for March 1 are generally close to average, but are below normal in the Gunnison and Yampa Basins. The SWSI values range from a low of -0.3 in the Yampa Basin and a high of +1.4 in the Arkansas Basin, forecasted runoff is predicated to be near average, however many reservoir levels are below normal.

Basin	March 1 SWSI	Change from Previous Month	Change from Previous Year
Arkansas	1.4	0.0	-0.3
Colorado	0.5	0.6	2.7
Gunnison	-0.1	1.7	3.0
Rio Grande	0.6	1.4	3.0
San Juan-Dolores	0.6	2.1	3.5
South Platte	0.4	0.0	-0.9
Yampa-White	-0.3	0.2	1.7

SWSI Scale

-4	-3	-2	-1	0	1	2	3	4
Severe Drought		Moderate Drought		Near Normal Supply		Above Normal Supply		Abundant Supply

SURFACE WATER SUPPLY INDEX FOR COLORADO BY MAJOR RIVER BASIN

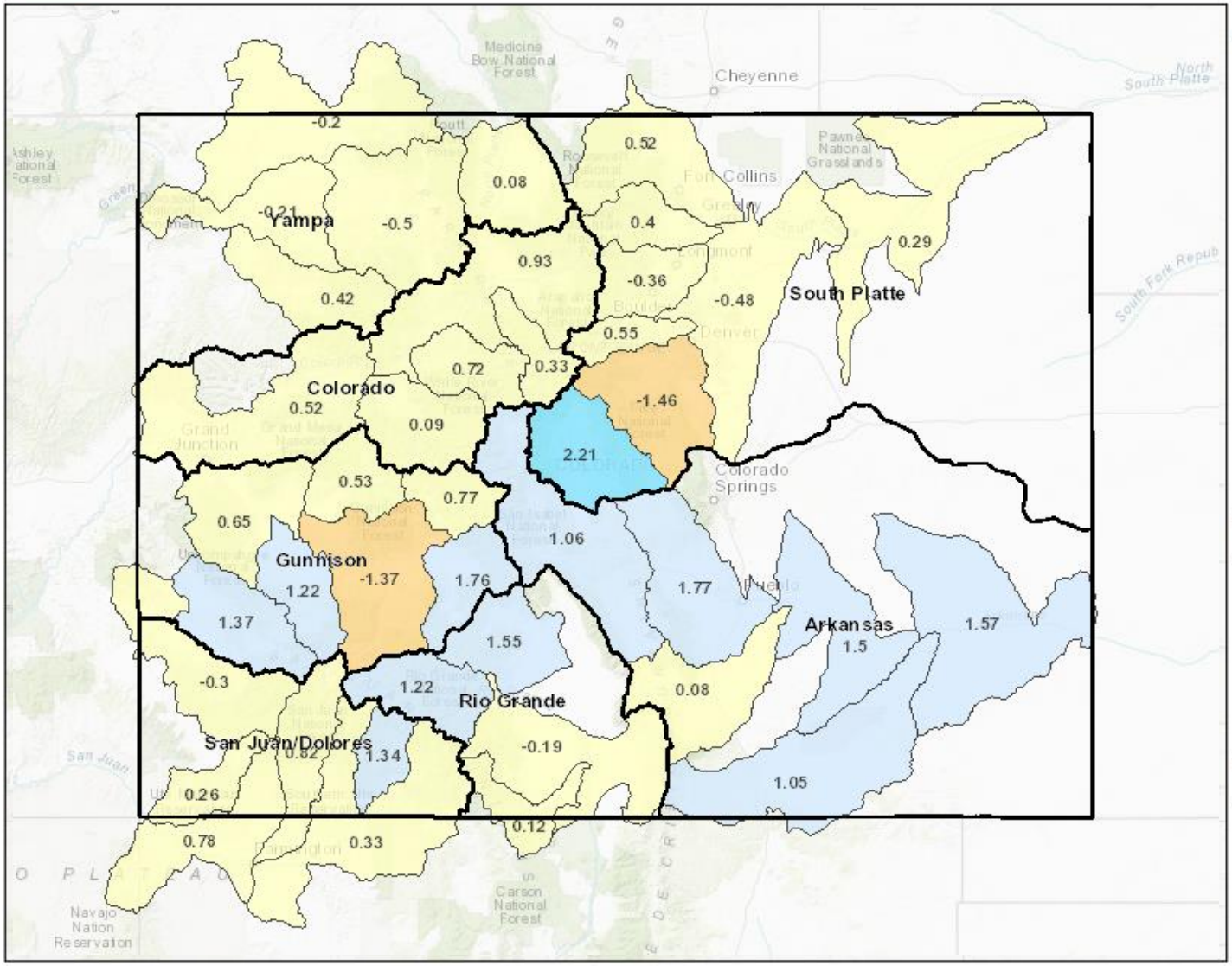


March 1, 2019

SURFACE WATER SUPPLY INDEX FOR COLORADO BY HUC

CDSS
Colorado's Decision Support Systems

SWSI March 1, 2019



Legend

SWSI - Current Report

- SWSI Not Applicable (-99.99)
- Extremely Dry (-3.0 to -4.2)
- Moderately Dry (-2.0 to -2.9)
- Slightly Dry (-1.0 to -1.9)
- Near Average (-0.9 to 0.9)
- Slightly Wet (1.0 to 1.9)
- Moderately Wet (2.0 to 2.9)
- Extremely Wet (3.0 to 4.2)

Water Division

Location

Notes

113.64 0 56.82 113.64 Miles

1: 3,600,000

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Date Prepared: 3/11/2019 8:35:29 AM

March 1, 2019 SWSI Values by HUC and Non Exceedance Probabilities (NEP)

Basin	HUC ID	HUC Name	SWSI	Reservoir Storage NEP	Forecast Flow NEP	Total Vol (AF)
Arkansas	11020006	Huerfano	-0.23	47	56	24,500
	11020010	Purgatoire	1.06	67	56	70,930
	11020001	Arkansas Headwaters	1.07	61	62	406,671
	11020005	Upper Arkansas-Lake Meredith	1.19	13	64	427,180
	11020002	Upper Arkansas	1.68	74	62	574,800
	11020009	Upper Arkansas-John Martin Reservoir	1.57	57	64	608,580
Colorado	14010002	Blue	-0.45	73	55	333,208
	14010003	Eagle	0.58	5	57	345,000
	14010004	Roaring Fork	-0.07	N/A	50	723,129
	14010001	Colorado Headwaters	0.75	3	54	1,521,390
	14010005	Colorado Headwaters-Plateau	0.13	11	52	2,325,596
Gunnison	14020003	Tomichi	0.93	22	61	71,200
	14030003	San Miguel	-0.17	1	48	118,000
	14020006	Uncompahgre	-0.21	53	48	170,381
	14020004	North Fork Gunnison	-0.01	50	50	268,323
	14020001	East-Taylor	-0.36	N/A	49	316,220
	14020002	Upper Gunnison	-2.89	45	51	1,086,377
	14020005	Lower Gunnison	-0.02	N/A	50	1,320,000
Rio Grande	13010004	Saguache	0.60	83	57	32,000
	13010002	Alamosa-Trinchera	-0.88	14	41	116,523
	13010005	Conejos	-1.61	N/A	32	173,100
	13010001	Rio Grande Headwaters	-0.36	50	43	474,028
San Juan-Dolores	14080105	Middle San Juan	-0.82	40	40	18,196
	14080107	Mancos	-1.91	8	42	25,715
	14080102	Piedra	-1.19	N/A	36	166,000
	14030002	Upper Dolores	-1.53	8	47	408,754
	14080104	Animas	-0.93	50	43	412,938
	14080101	Upper San Juan	-1.32	4	35	502,188
South Platte	10190004	Clear	0.55	63	57	104,000
	10190001	South Platte Headwater	1.18	11	59	199,300
	10190005	St. Vrain	-0.23	17	49	226,500
	10190007	Cache La Poudre	0.66	N/A	54	367,080
	10190002	Upper South Platte	-1.86	50	61	406,900
	10190006	Big Thompson	0.45	54	51	530,604
	10190003	Middle South Platte-Cherry Creek	-0.52	44	49	841,700
	10190012	Middle South Platte-Sterling	0.45	93	49	960,500
Yampa-White	10180001	North Platte Headwaters	-0.12	N/A	49	235,000
	14050005	Upper White	-0.43	71	45	265,000
	14050003	Little Snake	-0.31	N/A	46	320,000
	14050001	Upper Yampa	-0.68	N/A	41	668,790
	14050002	Lower Yampa	-0.63	N/A	42	890,000

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)

March 1, 2019 SWSI Component Information - Streamflow Forecast & Reservoir Storage - By HUC

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
11020001	Arkansas Headwaters	CLEAR CREEK RESERVOIR	7,000	52
		TWIN LAKES RESERVOIR	40,365	57
		HOMESTAKE RESERVOIR	41,300	77
		TURQUOISE LAKE	58,006	21
		ARKANSAS RIVER AT SALIDA	260,000	62
11020006	Huerfano	CUCHARAS RESERVOIR*	0	13
		HUERFANO RIVER NEAR REDWING	10,600	39
		CUCHARAS RIVER AT BOYD RANCH NR LA VETA	13,900	71
11020010	Purgatoire	TRINIDAD LAKE	20,930	57
		PURGATOIRE RIVER AT TRINIDAD	50,000	56
11020002	Upper Arkansas	PUEBLO RESERVOIR	204,800	67
		PUEBLO RESERVOIR INFLOW	370,000	62
11020009	Upper Arkansas-John Martin Reservoir	ADOBE CREEK RESERVOIR	9,080	18
		HUERFANO RIVER NEAR REDWING	10,600	39
		CUCHARAS RIVER AT BOYD RANCH NR LA VETA	13,900	71
		PURGATOIRE RIVER AT TRINIDAD	50,000	56
		JOHN MARTIN RESERVOIR	155,000	76
		PUEBLO RESERVOIR INFLOW	370,000	62
11020005	Upper Arkansas-Lake Meredith	LAKE HENRY	7,090	95
		HUERFANO RIVER NEAR REDWING	10,600	39
		CUCHARAS RIVER AT BOYD RANCH NR LA VETA	13,900	71
		MEREDITH RESERVOIR	25,590	58
		PUEBLO RESERVOIR INFLOW	370,000	62
14010002	Blue	GREEN MOUNTAIN RESERVOIR	48,208	5
		BLUE RIVER INFLOW TO GREEN MOUNTAIN RES	285,000	55
14010001	Colorado Headwaters	WOLFORD MOUNTAIN RESERVOIR	34,090	70
		WILLIAMS FORK RESERVOIR	67,300	66
		COLORADO RIVER NEAR DOTSERO	1,420,000	54
14010005	Colorado Headwaters-Plateau	VEGA RESERVOIR	5,596	11
		COLORADO RIVER NEAR CAMEO	2,320,000	52
14010003	Eagle	EAGLE RIVER BELOW GYPSUM	345,000	57
14010004	Roaring Fork	RUEDI RESERVOIR	58,129	3
		ROARING FORK AT GLENWOOD SPRINGS	665,000	50
14020001	East-Taylor	TAYLOR PARK RESERVOIR	59,220	22
		TAYLOR R INF TO TAYLOR PARK RESERVOIR	92,000	52
		EAST RIVER AT ALMONT	165,000	45
14020005	Lower Gunnison	GUNNISON RIVER NR GRAND JUNCTION	1,320,000	50
14020004	North Fork Gunnison	PAONIA RESERVOIR	3,323	50
		NORTH FORK GUNNISON R NR SOMERSET	265,000	50
14030003	San Miguel	SAN MIGUEL RIVER NEAR PLACERVILLE	118,000	48
14020003	Tomichi	VOUGA RESERVOIR NEAR DOYLEVILLE	200	53
		TOMICHI CREEK AT GUNNISON, CO	71,000	61

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
14020006	Uncompahgre	RIDGEWAY RESERVOIR	46,381	45
		UNCOMPAHGRE RIVER AT COLONA	124,000	48
14020002	Upper Gunnison	FRUITLAND RESERVOIR	400	16
		SILVER JACK RESERVOIR	1,095	3
		CRAWFORD RESERVOIR	1,468	1
		MORROW POINT RESERVOIR	106,763	6
		LAKE FORK AT GATEVIEW, CO	120,000	49
		BLUE MESA RESERVOIR	251,651	2
		GUNNISON R INF TO BLUE MESA RESERVOIR	605,000	51
13010002	Alamosa-Trinchera	MOUNTAIN HOME**	0	1
		TERRACE RESERVOIR	4,023	23
		TRINCHERA CK	11,800	54
		UTE CREEK	12,800	56
		SANGRE DE CRISTO	14,900	53
		CULEBRA CREEK AT SAN LUIS	21,000	54
		ALAMOSA CREEK ABOVE TERRACE RESERVOIR	52,000	31
13010005	Conejos	PLATORO RESERVOIR	19,100	50
		CONEJOS RIVER NEAR MOGOTE	154,000	32
13010001	Rio Grande Headwaters	RIO GRANDE RESERVOIR**	44	2
		CONTINENTAL RESERVOIR	15,165	99
		SANTA MARIA RESERVOIR	23,819	93
		RIO GRANDE NEAR DEL NORTE	435,000	43
13010004	Saguache	SAGUACHE CREEK NEAR SAGUACHE, CO	32,000	57
14080104	Animas	LEMON RESERVOIR	6,938	8
		FLORIDA RIVER INFLOW TO LEMON RESERVOIR	46,000	47
		ANIMAS RIVER AT DURANGO	360,000	43
14080107	Mancos	JACKSON GULCH RESERVOIR	1,715	4
		MANCOS RIVER NEAR MANCOS	24,000	42
14080105	Middle San Juan	LONG HOLLOW RESERVOIR	196	50
		LA PLATA RIVER AT HESPERUS	18,000	40
14080102	Piedra	PIEDRA RIVER NEAR ARBOLES	166,000	36
14030002	Upper Dolores	GROUNDHOG RESERVOIR	200	4
		MCPHEE RESERVOIR	168,554	43
		DOLORES RIVER BELOW MCPHEE RESERVOIR	240,000	47
14080101	Upper San Juan	VALLECITO RESERVOIR	37,188	8
		LOS PINOS RIVER NEAR BAYFIELD	165,000	38
		SAN JUAN RIVER NEAR CARRACAS	300,000	35
10190006	Big Thompson	LAKE LOVELAND RESERVOIR	0	6
		MARIANO RESERVOIR	1,000	11
		WILLOW CREEK RESERVOIR	6,746	60
		LONE TREE RESERVOIR	7,200	62
		BOYD LAKE	31,500	52
		CARTER LAKE	80,250	37
		BIG THOMPSON R AT MOUTH, NR DRAKE, CO	87,000	51
		LAKE GRANBY	316,908	57

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
10190007	Cache La Poudre	CHAMBERS LAKE	2,800	52
		BLACK HOLLOW RESERVOIR	4,100	99
		HALLIGAN RESERVOIR	5,100	69
		CACHE LA POUDRE	7,200	57
		WINDSOR RESERVOIR	8,500	19
		FOSSIL CREEK RESERVOIR	9,400	91
		COBB LAKE	15,100	56
		HORSETOOTH RESERVOIR	89,880	39
		CACHE LA POUDRE R AT CANYON MOUTH	225,000	54
10190004	Clear Creek	CLEAR CREEK AT GOLDEN	104,000	57
10190003	Middle South Platte-Cherry Creek	HORSECREEK RESERVOIR	0	1
		MILTON RESERVOIR	21,800	97
		BARR LAKE	24,900	57
		STANDLEY RESERVOIR	29,000	23
		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	37,000	49
		BOULDER CREEK NEAR ORODELL	54,000	48
		BIG THOMPSON R AT MOUTH, NR DRAKE, CO	87,000	51
		SAINT VRAIN CREEK AT LYONS	88,000	49
		CLEAR CREEK AT GOLDEN	104,000	57
		SOUTH PLATTE RIVER AT SOUTH PLATTE	171,000	61
		CACHE LA POUDRE R AT CANYON MOUTH	225,000	54
10190012	Middle South Platte-Sterling	JULESBURG RESERVOIR	16,000	21
		PREWITT RESERVOIR	21,500	77
		JACKSON LAKE RESERVOIR	23,700	44
		EMPIRE RESERVOIR	28,400	88
		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	37,000	49
		RIVERSIDE RESERVOIR	42,500	65
		BOULDER CREEK NEAR ORODELL	54,000	48
		POINT OF ROCKS RESERVOIR	62,400	74
		BIG THOMPSON R AT MOUTH, NR DRAKE, CO	87,000	51
		SAINT VRAIN CREEK AT LYONS	88,000	49
		CLEAR CREEK AT GOLDEN	104,000	57
		SOUTH PLATTE RIVER AT SOUTH PLATTE	171,000	61
		CACHE LA POUDRE R AT CANYON MOUTH	225,000	54
10190001	South Platte Headwater	ANTERO RESERVOIR	19,100	62
		SPINNEY MOUNTAIN RESERVOIR	28,600	55
		ELEVENMILE CANYON RESV INFLOW	52,000	59
		ELEVENMILE CANYON RESERVOIR	99,600	82
10190005	St. Vrain	MARSHALL RESERVOIR	5,400	48
		TERRY RESERVOIR	5,400	60
		UNION RESERVOIR	9,400	29
		BUTTONROCK (RALPH PRICE) RESERVOIR	11,900	21
		GROSS RESERVOIR	15,400	57
		SOUTH BOULDER CK NR ELDORADO SPRINGS, CO	37,000	49
		BOULDER CREEK NEAR ORODELL	54,000	48
		SAINT VRAIN CREEK AT LYONS	88,000	49

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
10190002	Upper South Platte	CHEESMAN LAKE	60,100	43
		SOUTH PLATTE RIVER AT SOUTH PLATTE	171,000	61
		DILLON RESERVOIR	175,800	10
14050003	Little Snake	LITTLE SNAKE RIVER NEAR LILY	320,000	46
14050002	Lower Yampa	YAMPA RIVER NEAR MAYBELL	890,000	42
10180001	North Platte Headwaters	NORTH PLATTE R NR NORTHGATE	235,000	49
14050005	Upper White	WHITE RIVER NEAR MEEKER	265,000	45
14050001	Upper Yampa	YAMCOLO RESERVOIR	3,590	29
		STAGECOACH RESERVOIR NR OAK CREEK	31,200	99
		ELKHEAD CREEK ABOVE LONG GULCH	69,000	47
		YAMPA RIVER AT STEAMBOAT SPRINGS	240,000	39
		ELK RIVER NEAR MILNER, CO	325,000	40

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

*Empty, filling restriction
**Empty for repairs

Water Volume NEP Color Scale:	0 (Well Below Normal)	50 (Normal)	100 (Well Above Normal)

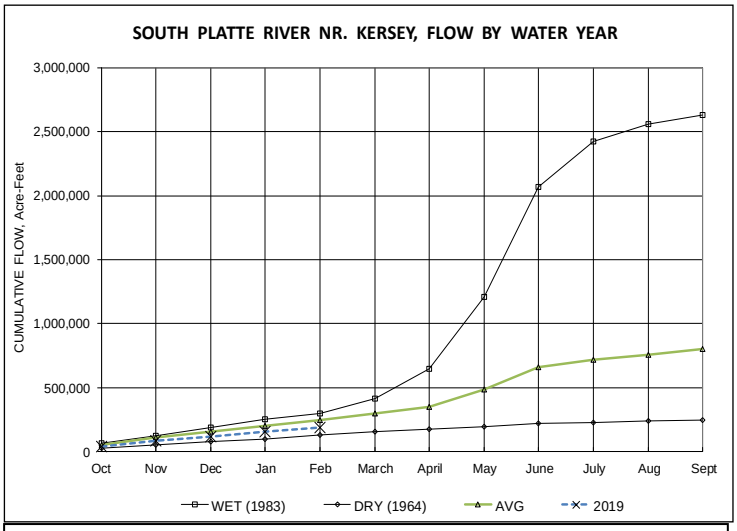
Basinwide Conditions Assessment

The SWSI value for the month was +0.4.

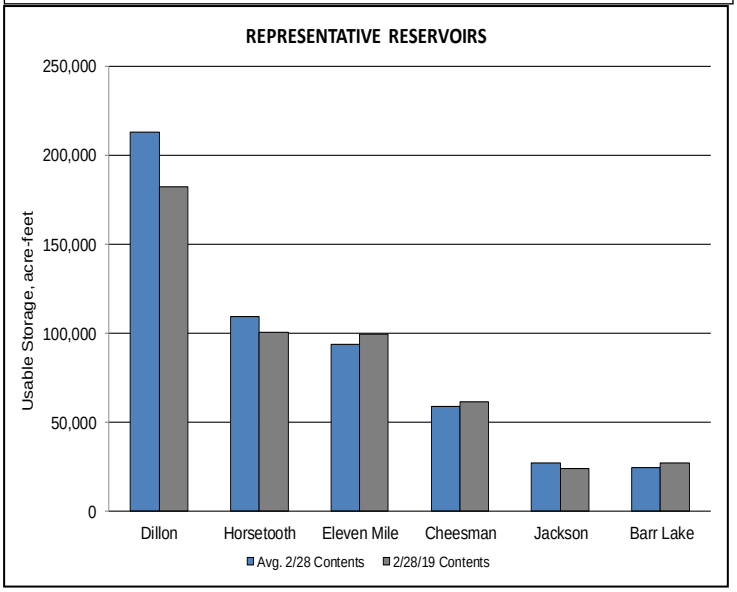
The South Platte Basin in northeastern Colorado experienced periods of average to slightly below average precipitation during the month of February. Temperatures were near normal overall for the month, however mountainous areas were slightly below average. As a result, basin wide precipitation was 95% of average during the month of February, resulting in water year to date precipitation in the South Platte River basin slightly above average at 108% of average for the year heading into March. The South Platte River basin snowpack index gages show the month of February continuing to hold slightly above average, ending the month of February at 110% of average.

The USDA Drought Monitor rating for northeast Colorado ended the month of February the same as January with the mountainous regions of Gilpin, Clear Creek and Park Counties with a rating of D2 (Severe Drought) on the westerly portions, D1 (Moderate Drought) in the central portions, and a rating of D0 (D0 Abnormally Dry) in the easterly portions of these counties. The rest of the northeastern portion of the South Platte River Basin transitioning from mountainous to foothill terrain remained fairly constant throughout the month of February, with a rating of DO (abnormally dry) encompassing all of Jefferson, Douglas, Adams, Morgan and Arapahoe Counties. Portions of Lincoln, El Paso, Teller, and Elbert Counties improved from a rating of D2 (severe drought) to D1 (moderate drought). Unfortunately the month of February ended with many counties on the eastern plains increasing from normal (no drought) to a rating of D0 (abnormally dry), including all of Logan and Washington Counties, and the westerly portions of Yuma, Phillips, and Sedgewick Counties.

The overall basin near average temperatures and precipitation and diversions to reservoir storage during the month of February resulted in near average flows at the Kersey gage near the City of Greeley, with the average daily flows for the month of February approximately 643 cfs, 94% of the historic mean value of 682 cfs. The average daily flows at the Julesburg gage for the month of February was 422 cfs, 71% of the historic mean value of 591 cfs, partly due to diversions to recharge and reservoir storage.



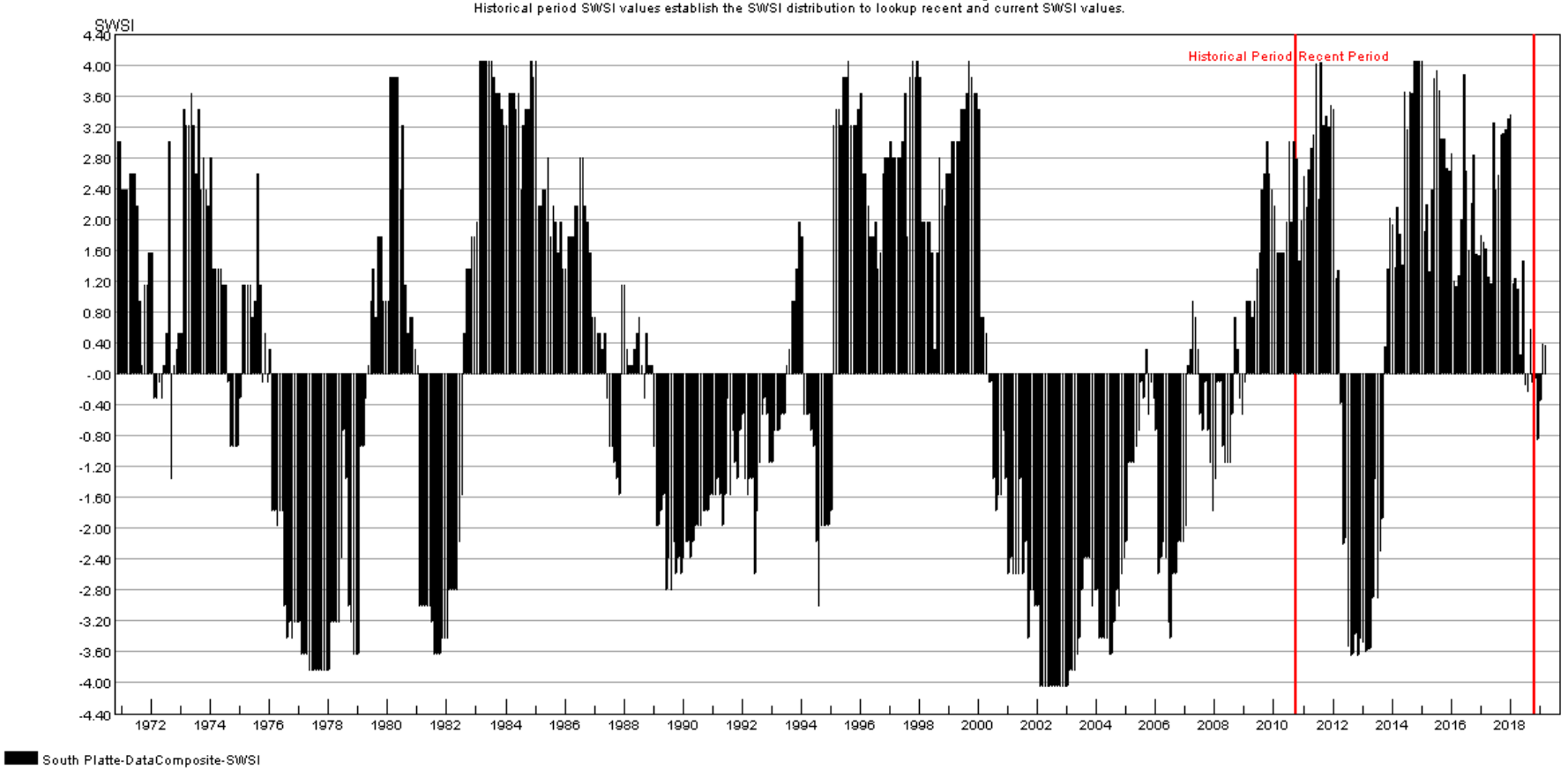
The reservoir fill season began November 1st, with reservoir storage throughout the South Platte River Basin continuing through the month of February. Reservoirs storage levels throughout the South Platte River mainstem increased from approximately 70% capacity at the end of October, to approximately 85% at the end of January, and to approximately 90% full at the end of February. Reservoir calls from January throughout the month of February have been controlled by the Burlington Canal Barr Lake 1909 and Prospect Reservoir 1910 call controlling the upper portion of the mainstem. There has been no call controlling the lower portion of the South Platte River below the Burlington Canal call.



The temperature and precipitation outlook into March, April and May 2019, prepared by the National Weather Service, in northeastern Colorado indicates a trend toward normal temperatures and slightly above or average precipitation in the South Platte River Basin.

South Platte Basin SWSI History

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



Basinwide Conditions Assessment

The SWSI value for the month was +1.4.

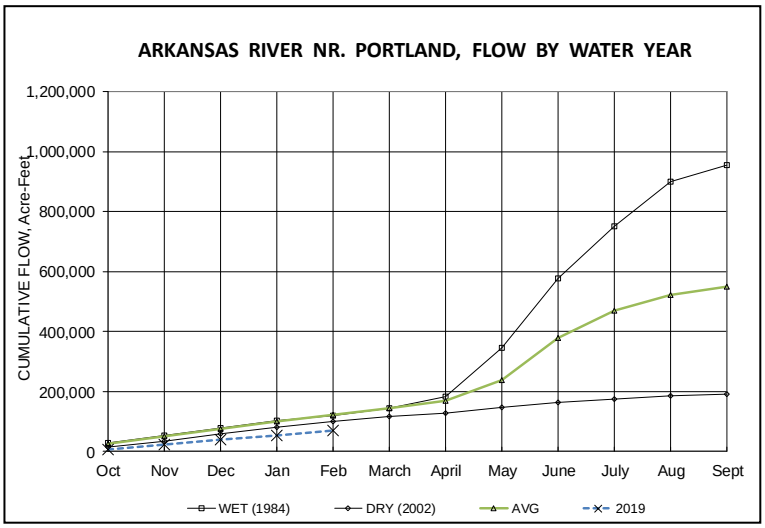
Outlook

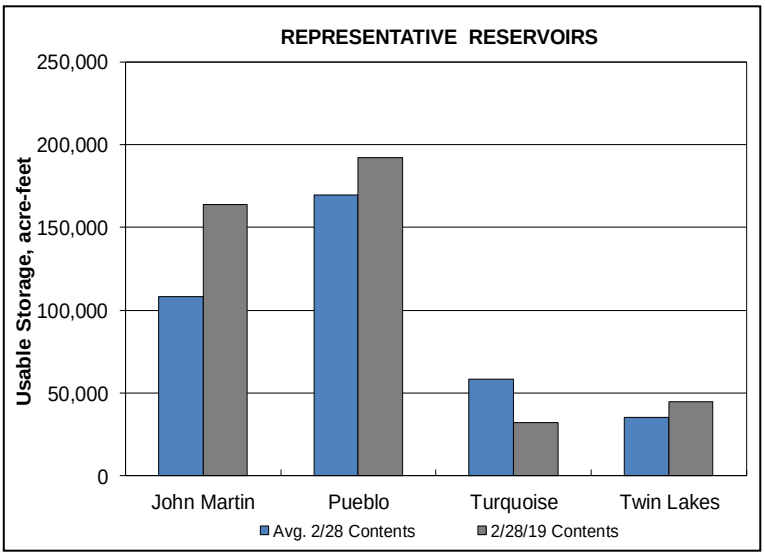
Reservoir storage in the Pueblo Winter Water Program totaled 86,120 acre-feet as of the end of February. This storage amount is lower than last year's storage to date (68% of last year) and represents 76% of the past five-year average. Conservation storage in John Martin Reservoir has accumulated 24,731 acre-feet representing a decrease from last year when storage reached 49,378 acre-feet for the same time period. Conservation storage remained significantly above the 1950 to 1975 pre-Winter Water Storage Period average of 17,810 acre-feet.

Administrative/Management Concerns

The United State Bureau of Reclamation is releasing 350 cubic feet per second from Twin Lakes and Turquoise Reservoirs to make room for an expected 80,000 acre-feet of import water from the Western Slope. This will cause a significant increase in total content in Pueblo Reservoir.

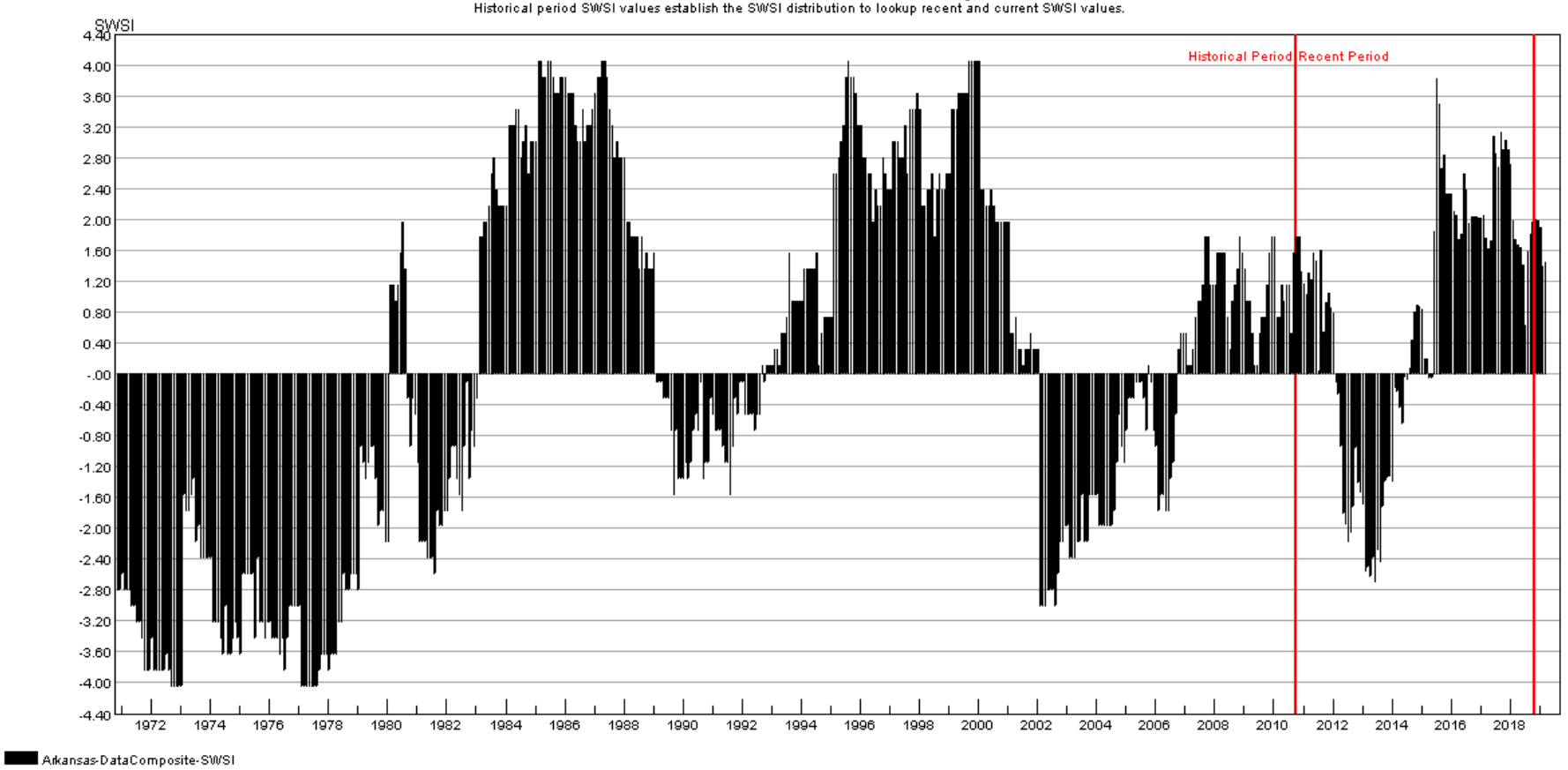
The Colorado State Engineer and Kansas Chief Engineer finalized the agreement to allow the Lower Arkansas Water Management Association (LAWMA) to transfer water from the Highland Canal on the Purgatoire River into John Martin Reservoir on behalf of the Colorado Parks and Wildlife (CPW) on February 14, 2019. The final agreement resolves a decades long attempt between the two states to agree upon a source of water for storage in the conservation pool. The agreement began as a temporary one-year pilot program in 2017 to divert 6,000 acre-feet. The final agreement will allow up to 85% of consumable water available at one of LAWMA's gages to be delivered each year from March 1 through November 15. This source of water will be used to maintain a permanent pool for fishery and recreation purposes.





Arkansas Basin SWSI History

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



Basinwide Conditions Assessment

The SWSI value for the month was +0.6.

Flow at the gaging station Rio Grande near Del Norte averaged 130 cfs (75% of normal). The Conejos River near Mogote had a mean flow of 42 cfs (86% of normal). Streams in the upper Rio Grande basin are still recovering from the poor 2018 runoff and precipitation. Cold conditions in the mountains and the Valley have prevented any early melt.

Outlook

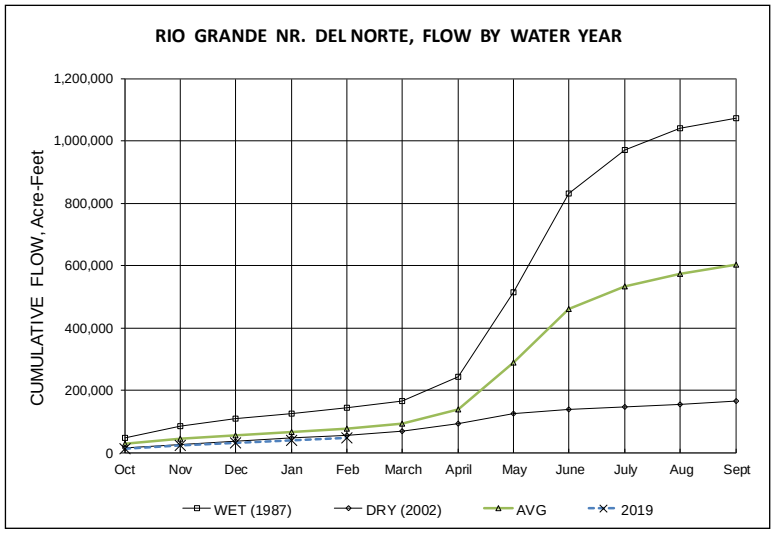
February 1, 2019 Natural Resources Conservation Service stream flow forecasts are predicting runoff in area streams to be in the range of 65% (Rio San Antonio) to 103% (inflow to Costilla Reservoir of average during the 2019 irrigation season. Most of the basin streams are forecasted to yield 80 to 90% of average runoff during 2019.

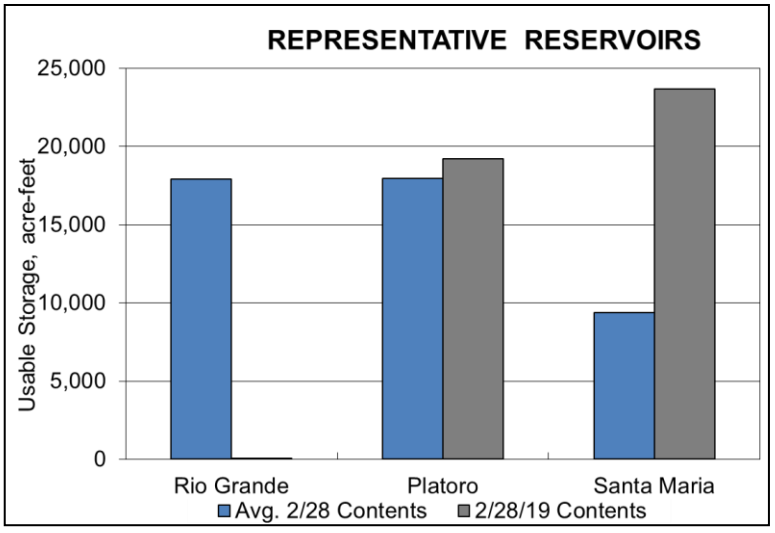
Current National Weather Service forecasts for February through June, 2019 are calling for near normal temperatures and above normal precipitation in this area of the state. This is a very welcome relief from the poor spring precipitation pattern of last year.

Administrative/Management Concerns

The very poor water supply conditions of 2018 resulted in a large draw on area reservoirs and aquifers. Diversion into ditches last year was severely limited by a runoff that resembled the droughts of 2002 for eastern side of the San Luis Valley and 2003 for the rest of the Valley. Use of the aquifers and releases from local reservoirs was needed to bridge the gap for some irrigators. Others were left to endure parched fields and reduced yields.

Current reservoir storage is only 79% of the long term average. Two reservoirs are empty for repair work: Rio Grande and Mountain Home. Sanchez Reservoir is under a 21,000 acre-feet storage restriction but currently contains only 7500 acre-feet in this 100,000 acre-feet reservoir.



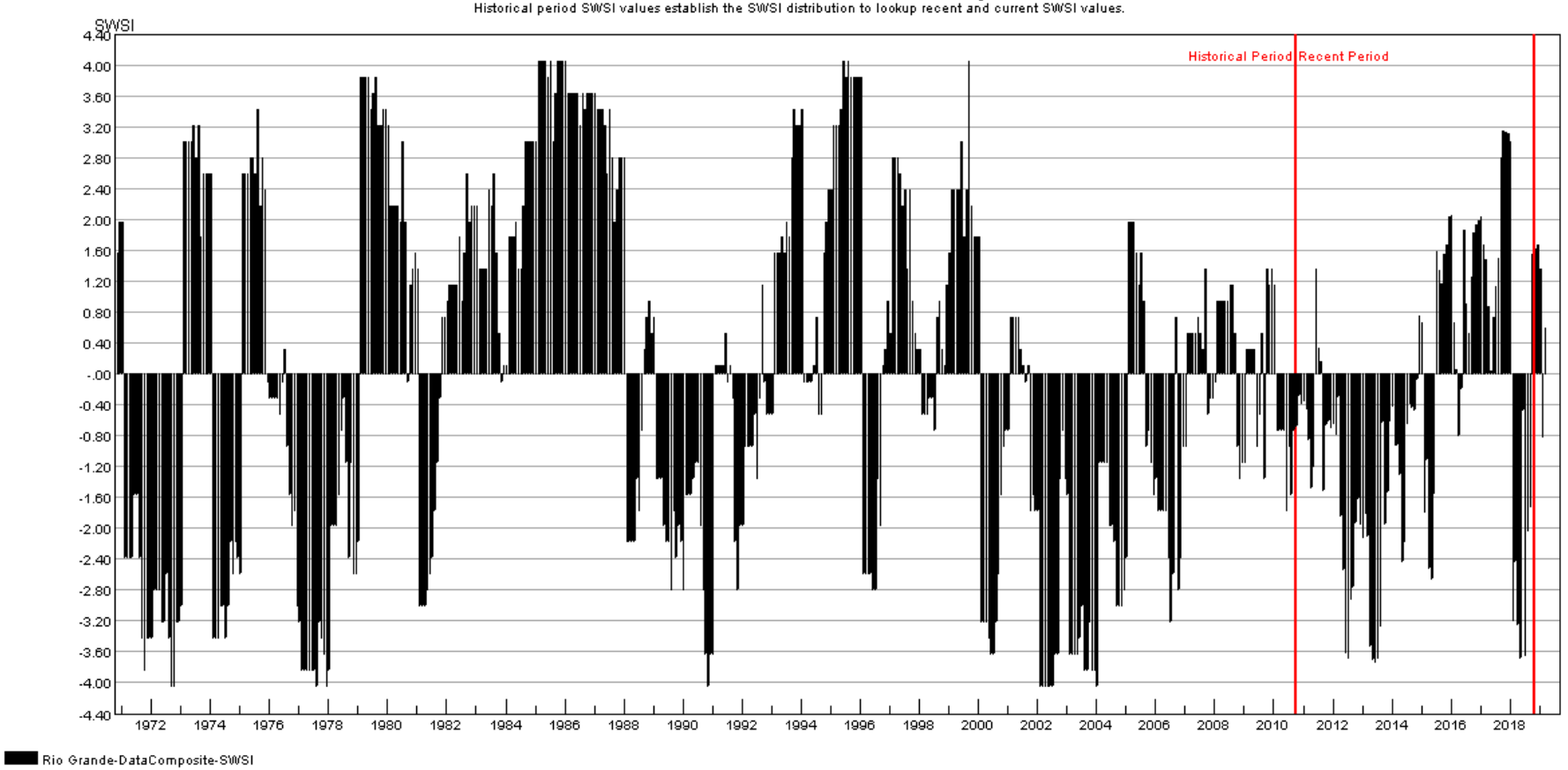


Public Use Impact

Considerable snowfall on the Valley floor during early January dropped temperatures in the lower elevations of the basin. The higher elevations don't have a banner amount of snowpack, yet, but the snowpack seems to have a nice balance within the basin.

Rio Grande Basin SWSI History

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



Basinwide Conditions Assessment

The SWSI value for the month was -0.1.

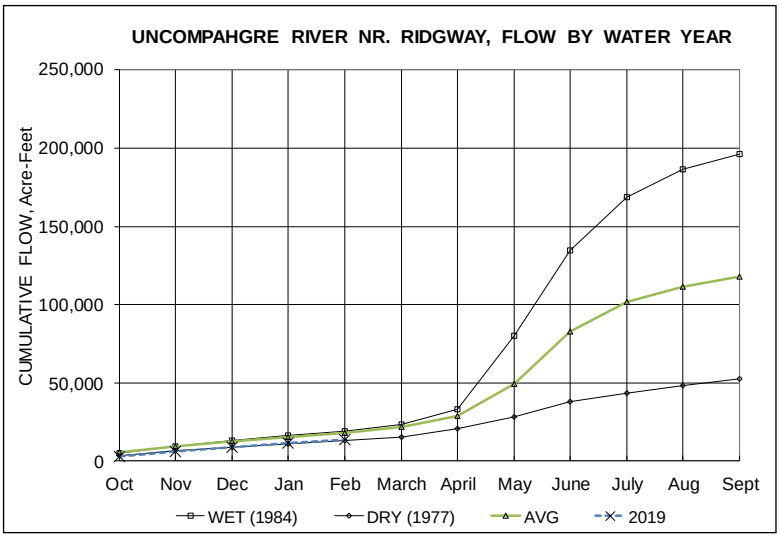
The entire Gunnison basin received 110-150% of average precipitation during January. Temperatures during January were 1 to 3 degrees below average basin-wide, which continued the trend of near or below average temperatures during the past few months. These lower temperatures have kept low elevation snowpack on the ground, which will help to wet the ground near the start of the irrigation season in March. Snow water equivalent (SWE) values around the basin continued to rise and are now near or above the 30 year median in all areas. A comparison of current conditions with 2018 continues to reveal the depth of last years drought as SWE in the basins above Blue Mesa, Ridgway and Paonia Reservoirs are 149%, 200% and 292% of last years values on February 1st. In fact, the Park Reservoir Snotel gauge, one of the worst hit during the 2018 drought, contains 20.7 inches of SWE, which has surpassed the peak of last year (12.8") by almost 8 inches.

Outlook

April to July runoff forecasts prepared by the CBRFC on February 1st have risen slightly from their first forecast on January 1st. For instance, the forecast increased to 550,000 ac-ft of runoff into Blue Mesa (81% of average, 96% of median), 81,000 ac-ft of runoff into Ridgway (80% of average, 81% of median) and 71,000 ac-ft of runoff into Paonia (74% of average, 97% of median). Runoff forecasts basin wide continue to be for a lower amount than would be expected when reviewing the SWE because a significant amount of snowmelt is expected to infiltrate into the parched soils from 2018. Last, NRCS non-exceedance projections for snowpack in the Gunnison basin indicate that if we receive average snow during the remaining accumulation season we would end with 106% of the 30-year median peak SWE.

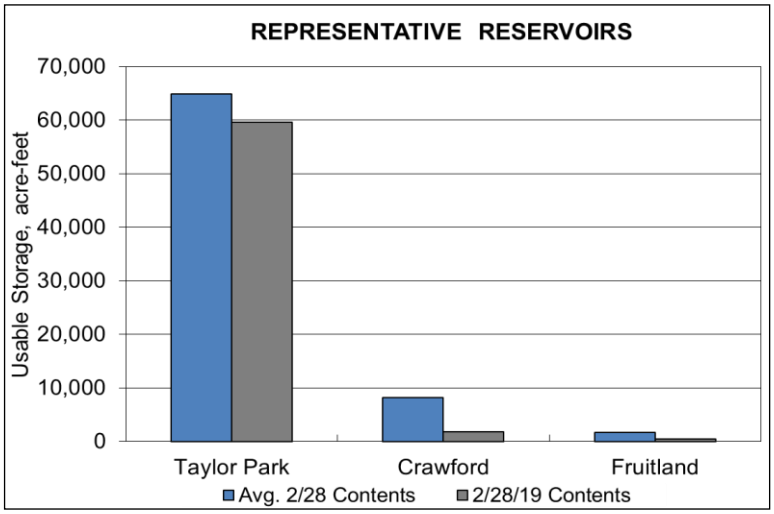
Administrative/Management Concerns

Blue Mesa Reservoir levels have stayed around 250,000 ac-ft, and likely won't change significantly until spring runoff. Current projections are that Blue Mesa will end the year at 7,450 ft, which equates to a content of only 312,000 ac-ft. While higher than last year, it would be 40 ft below the target of 7,490, which equates to 580,000 ac-ft. Releases from Crystal Dam were increased after the USGS measured the gauge at Whitewater on the Lower Gunnison and shifted the value down significantly. The Whitewater gauge is used to determine whether EIS targets are met and the shift in the rating resulted in the flow reported being over 100 cfs below the target. The additional releases reversed the trend in late January where Blue Mesa Reservoir had began to add water to storage, albeit slowly, at 50 ac-ft per day.



Taylor Park Reservoir physical content also remains stable at around 59,000 ac-ft. Storage in each account, however, continues to change as the Aspinall Unit water exchanged into Taylor Park continues to be paid back at a rate of approximately 100 ac-ft per day and the first fill account gains a similar amount each day. Total first fill account storage on February 1st stands at 42,602 acre-feet with 16,631 ac-ft of Aspinall Unit water left in Taylor Park to be repaid.

Thankfully during the first week of February the Grand Mesa continued to receive moisture and the Park Reservoir Snotel gauge now reports over 110% of the median snowpack, which will help to refill the 108 reservoirs this spring. In addition, we are cautiously optimistic that the low snow will keep early flows high enough to meet demand, which could prevent a call from being placed in April.

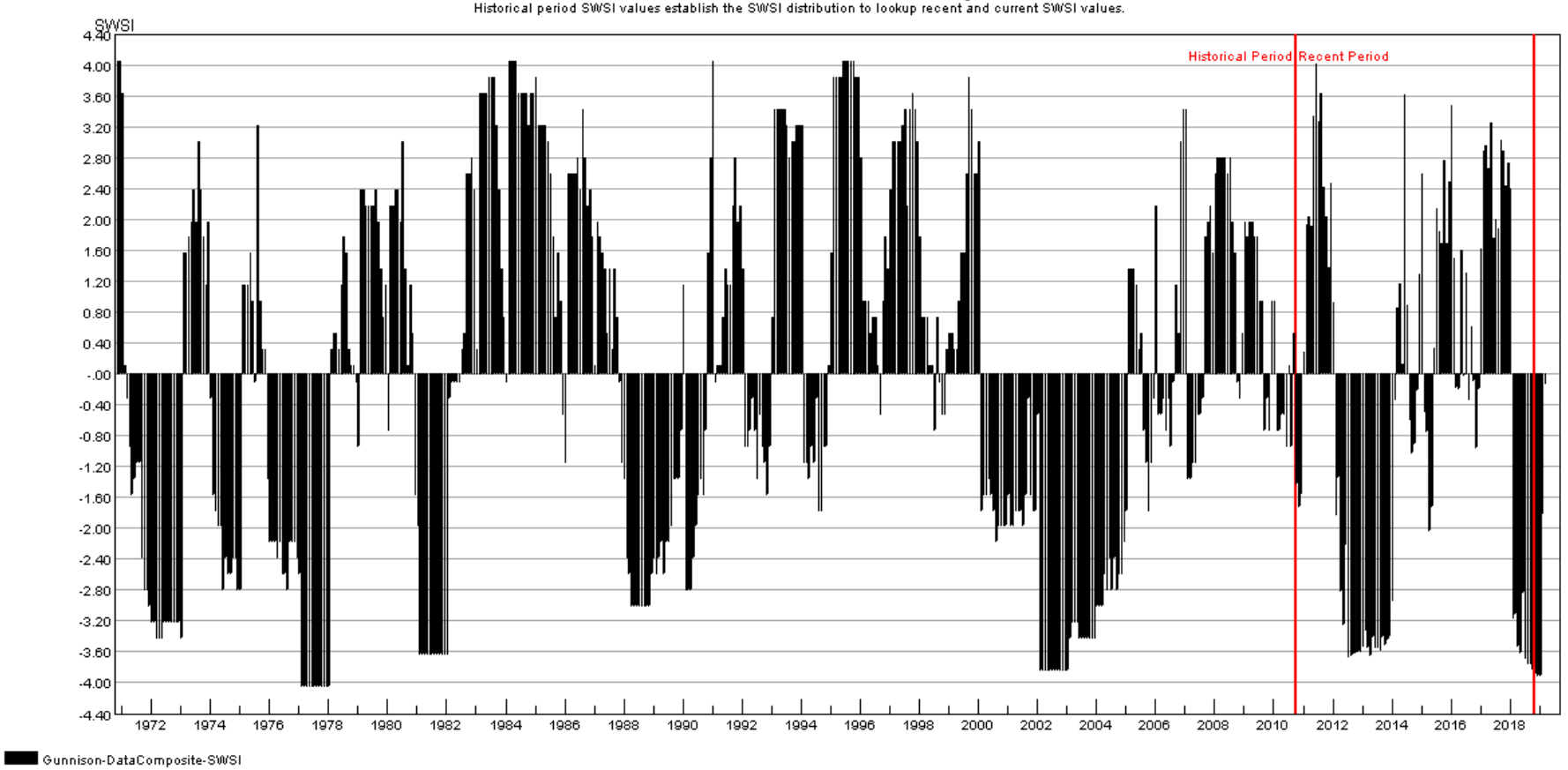


Public Use Impacts

Cold temperatures this season have allowed for a much longer ice-fishing season on basin reservoirs such as Blue Mesa. However, reports have indicated that due to the unusually low reservoir levels fisherman have had trouble locating the fish and have been catching less than normal.

Gunnison Basin SWSI History

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



Basinwide Conditions Assessment
The SWSI value for the month was +0.5.

Outlook

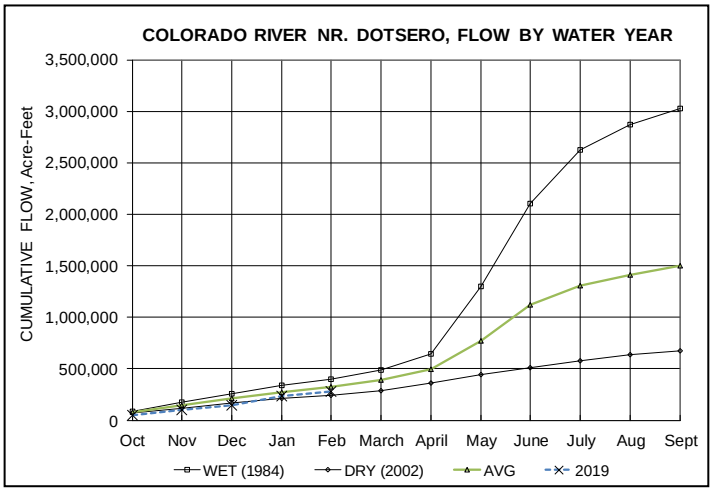
Colorado River flows are running below average with tributary flows running below average throughout March. As of March 14, the Upper Colorado River Basin snowpack was 140 percent of median snow water equivalent and 127 percent of average precipitation. Forecasts call for above average precipitation and average temperatures for western Colorado through March.

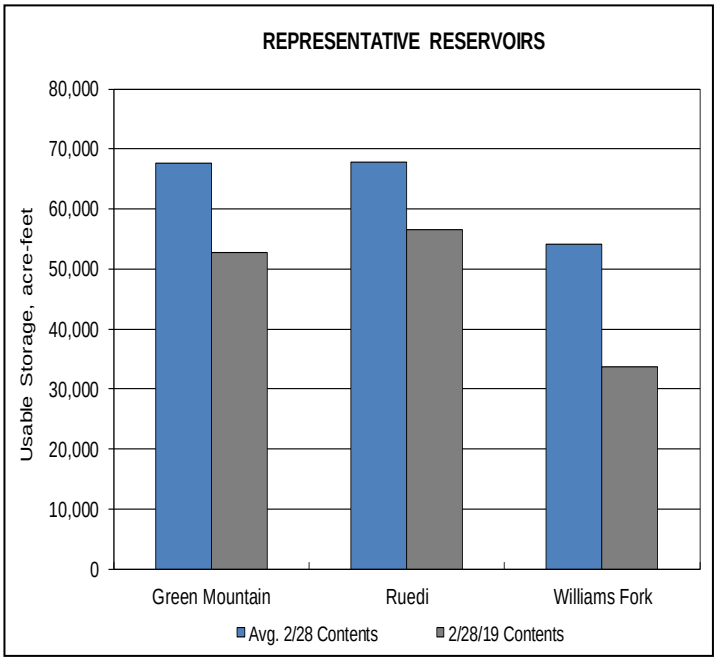
Administrative/Management Concerns

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

Public Use Impacts

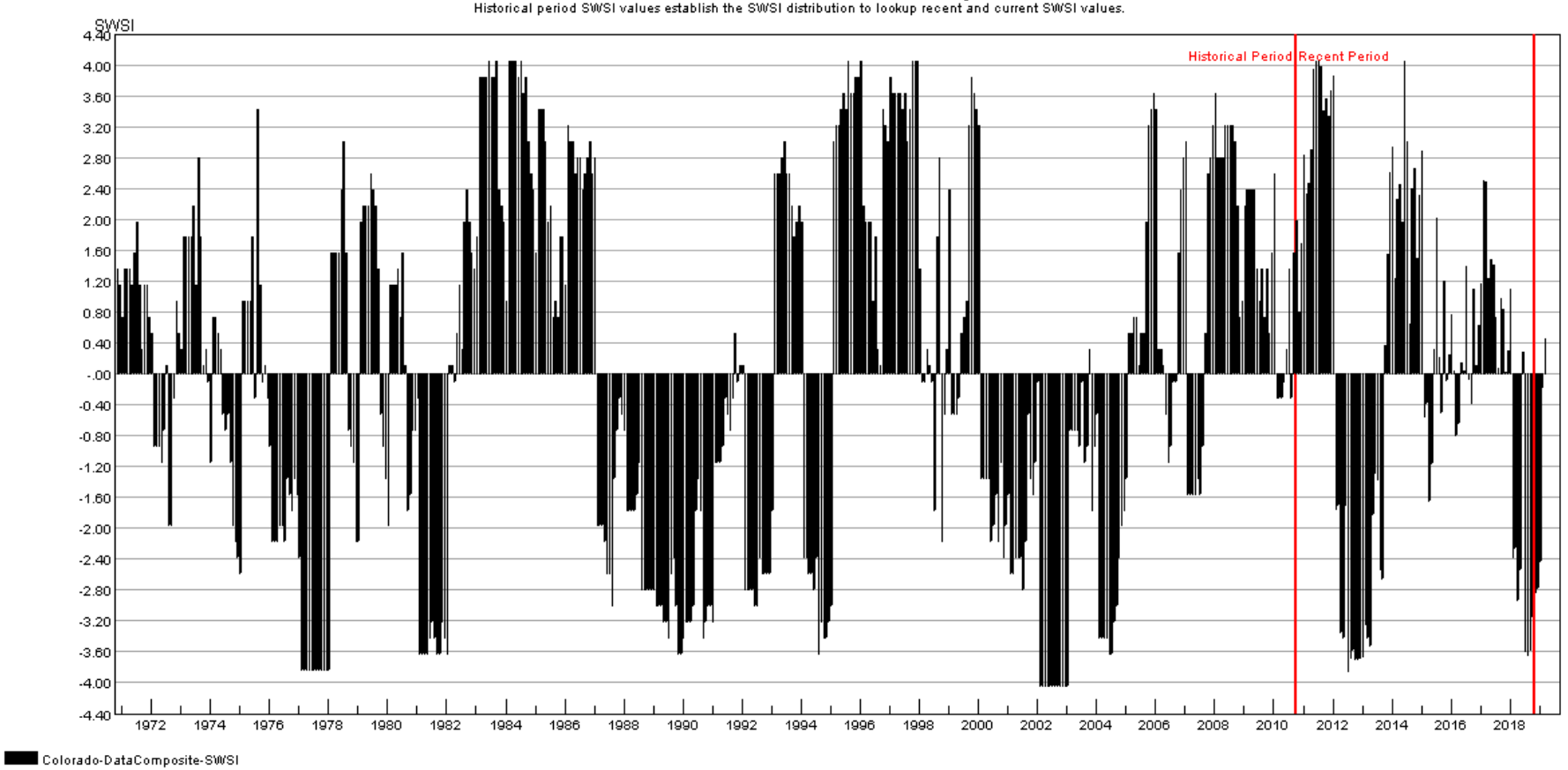
Due to the ample snowpack in the upper Colorado river basin this year, Aspen Highlands will be open two additional 'bonus' weekends in April!





Colorado Basin SWSI History

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



Basinwide Conditions Assessment

The SWSI value for the month was -0.3.

February precipitation was above average in the Yampa, White, and North Platte River basins. Precipitation year to date, as measured at the SNOTEL sites operated by NRCS, was reported at 106% of average for the Yampa and White River basins and 110% of average for the Laramie and North Platte River basins. Total precipitation for February for the combined basins as a percent of average was 120% and for the water year to date for the combined basin through the end of February was 109%.

Snowpack for the combined basins as of March 1, 2019 was at 108% of the median. The snow water equivalent (SWE) as of February 28, 2019 was 110% of median for the Yampa River basin and White River basin and 106% of average for the North Platte River basin.

NRCS predicts average spring and summer streamflows in the Yampa, White, and North Platte River basins. The latest runoff forecasts from the NRCS for the April through July period are 109% of average for the North Platte River at Northgate, 100% of average for the Yampa River near Maybell, 100% of average for the Little Snake River near Lily, and 105% of average for the White River near Meeker.

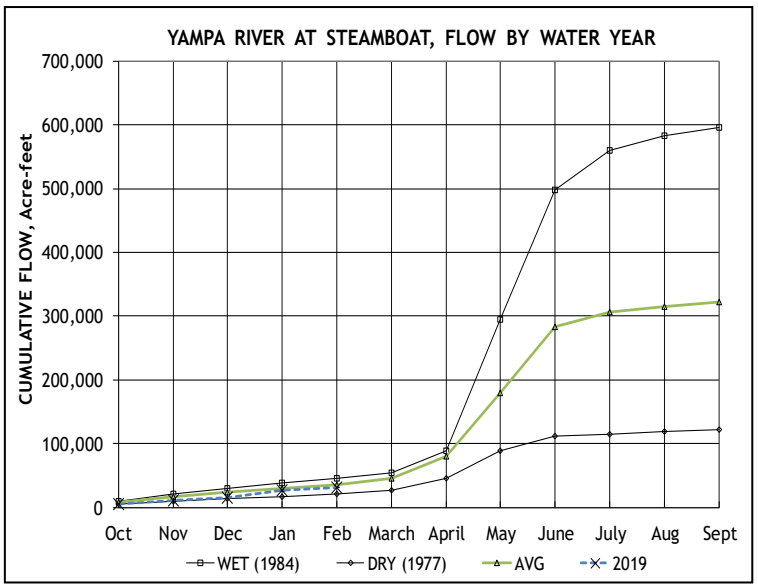
All Division 6 stream gages were either closed for the winter season or ice/snow-affected as of March 15, 2019. Gages will be opened in April weather provided.

Reservoir Outlook

As of February 28, 2019:

- Fish Creek Reservoir was storing approximately 2,109 AF, 51% of capacity. The capacity of Fish Creek Reservoir is 4,167 AF.
- Yamcolo Reservoir was storing 4,298 AF at the end of February 2019. The capacity of Yamcolo Reservoir is 9,621 AF.
- Elkhead Creek Reservoir was storing 16,245 AF at the end of February. The capacity of Elkhead Creek Reservoir is 24,778 AF.
- Stagecoach Reservoir was storing 31,274 AF, 86% of capacity. The capacity of Stagecoach Reservoir is 36,439 AF

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



Public Use Impacts

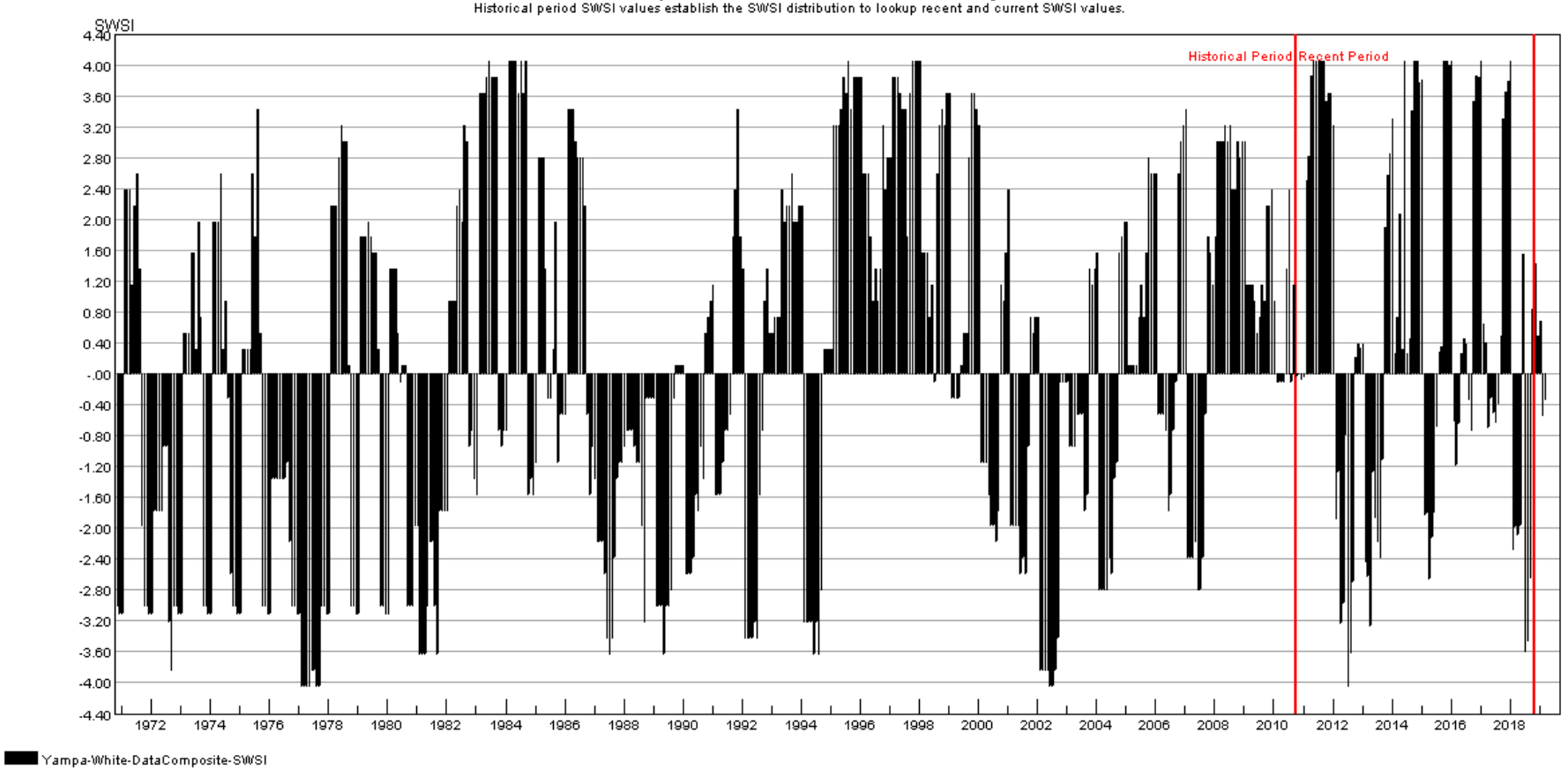
Steamboat Ski Resort has received 235 inches of snowfall since early November. The snow depth as reported on February 28, 2019 was 89 inches.

Winter trails are groomed and open for use at Stagecoach Reservoir and Steamboat Lake.

Check the park conditions website for ice fishing report.

Yampa-White Basin SWSI History

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



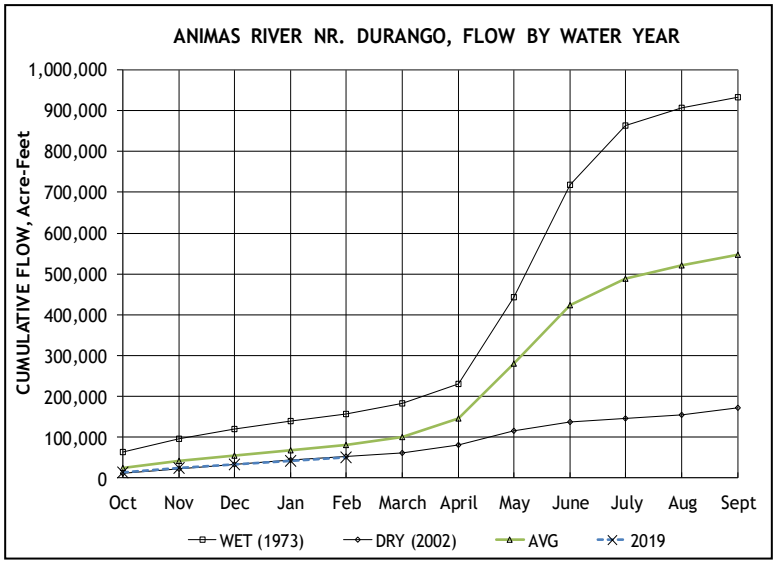
Basinwide Conditions Assessment

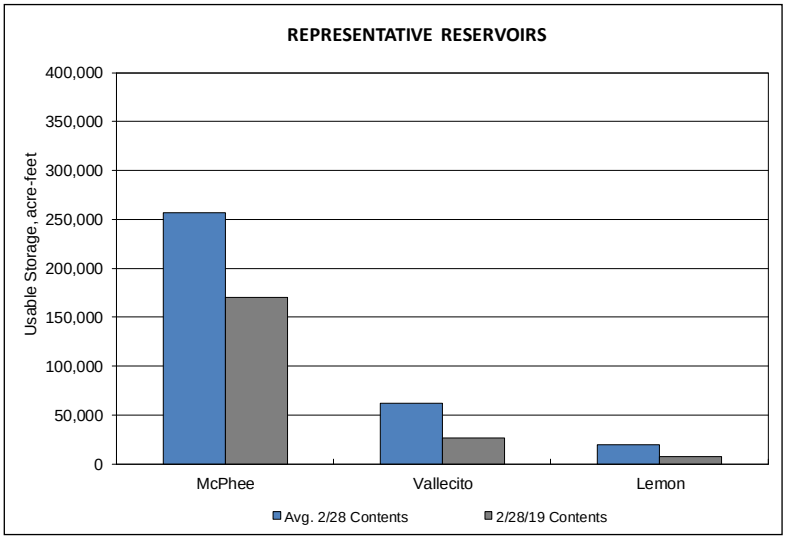
The SWSI value for the month was +0.6.

Flow at the Animas River at Durango averaged 166 cfs (81% of average). The flow at the Dolores River at Dolores estimated average is 46 cfs (82% of average). The La Plata River at Hesperus averaged 4.8 cfs (64% of average). Precipitation in Durango was 4.55 inches for the month, 289% of the 30-year average of 1.58 inches. Precipitation to date in Durango, for the water year is 12.65 inches, 153% of the 30-year average of 8.28 inches. End of last month precipitation to date, for the water year was 120% of average. The average high and low temperatures for the month of February in Durango were 40° and 14°. In comparison, the 30-year average high and low for the month is 46° and 19°. At the end of the month Vallecito Reservoir contained 41,582 acre-feet compared to its average content of 57,217 acre-feet (73% of average). McPhee Reservoir was up to 167,348 acre-feet compared to its average content of 261,998 (64% of average), while Lemon Reservoir was up to 7,400 acre-feet as compared to its average content of 19,929 acre-feet (37% of average).

Outlook

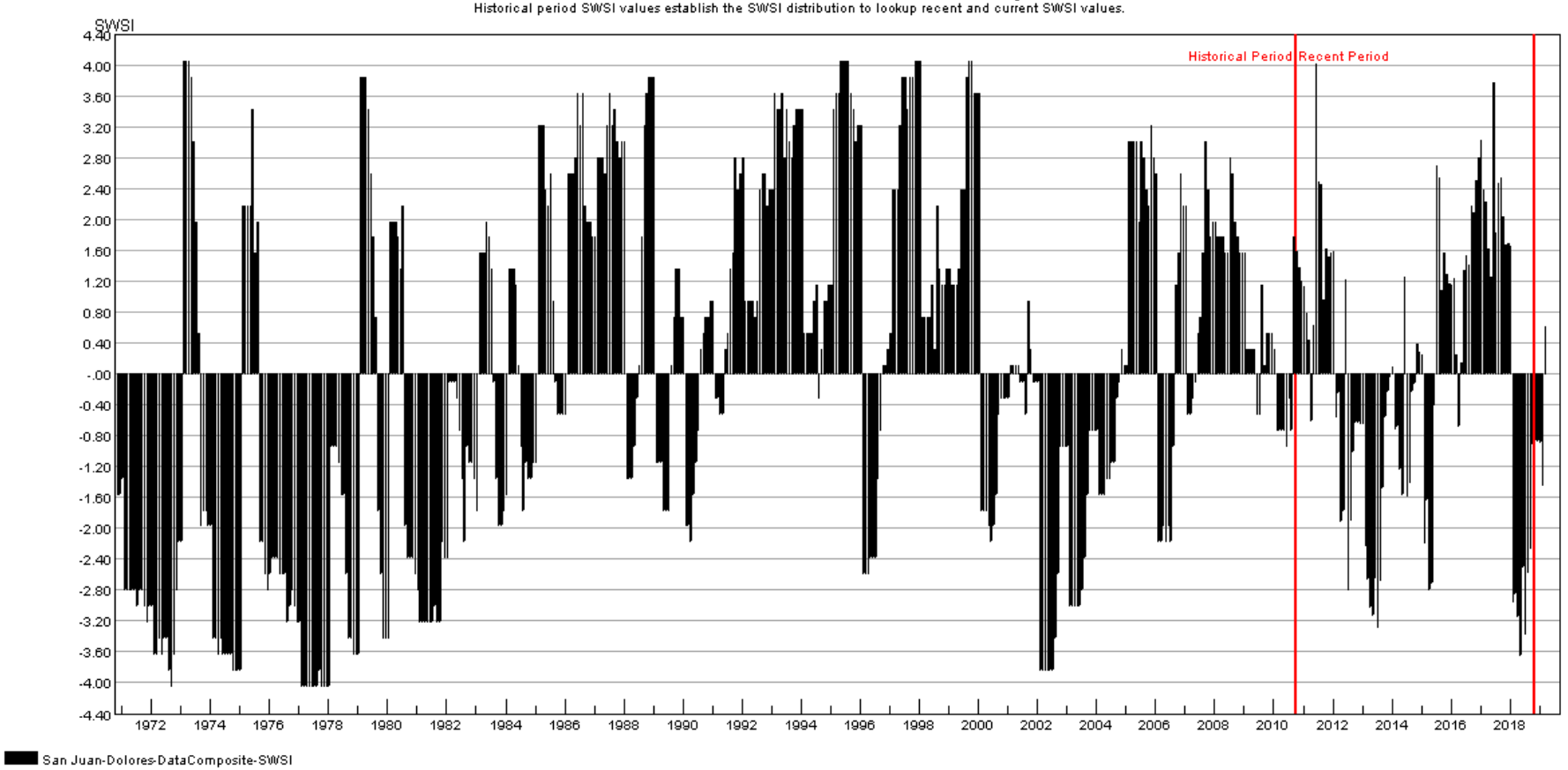
Precipitation (4.55 inches) was well above average for February in Durango. There were only 4 years out of 124 years of record where there was more precipitation than this year. The flows in the rivers within the basin remained below average for this time of year. There are 91 out of 109 years of record where the total flow past the Animas River at Durango stream gauge was more than this year. There were 70 out of 108 years of record where the total flow past the Dolores stream gauge was more than this year and 88 out of 102 years of record where the total flow past the La Plata River at Hesperus gauge was more than this year. On February 28, the NRCS SNOTEL sites reported an average snow-water-equivalent within the basin at 123%. Last month the average snow-water-equivalent at the end of the month was 89%.





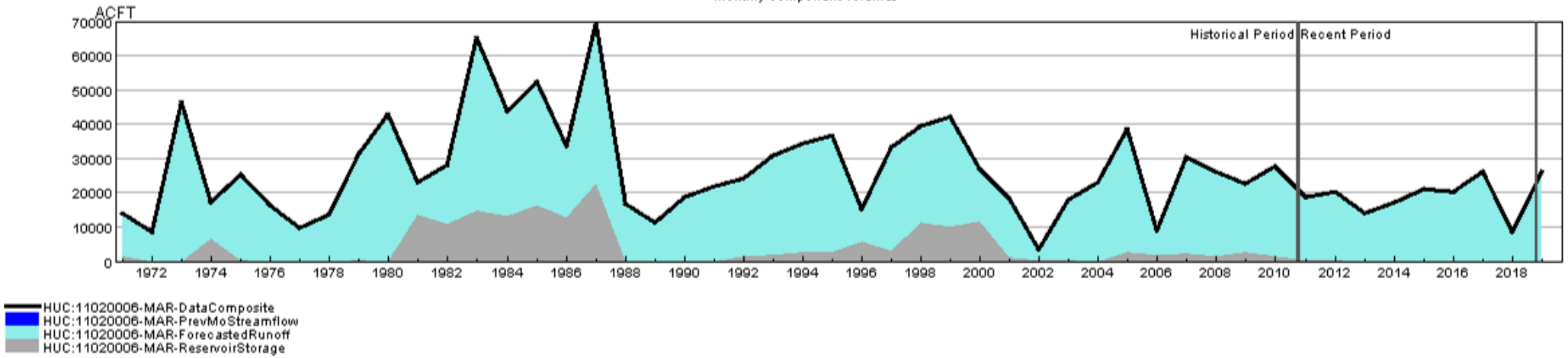
San Juan-Dolores Basin SWSI History

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



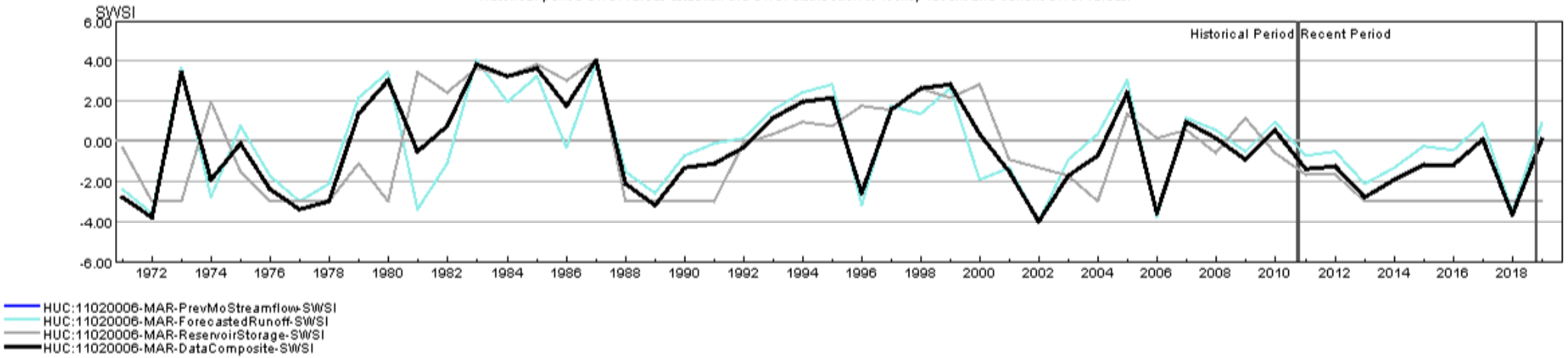
HUC 11020006 (Huerfano) Surface Water Supply - MAR

Monthly component volumes



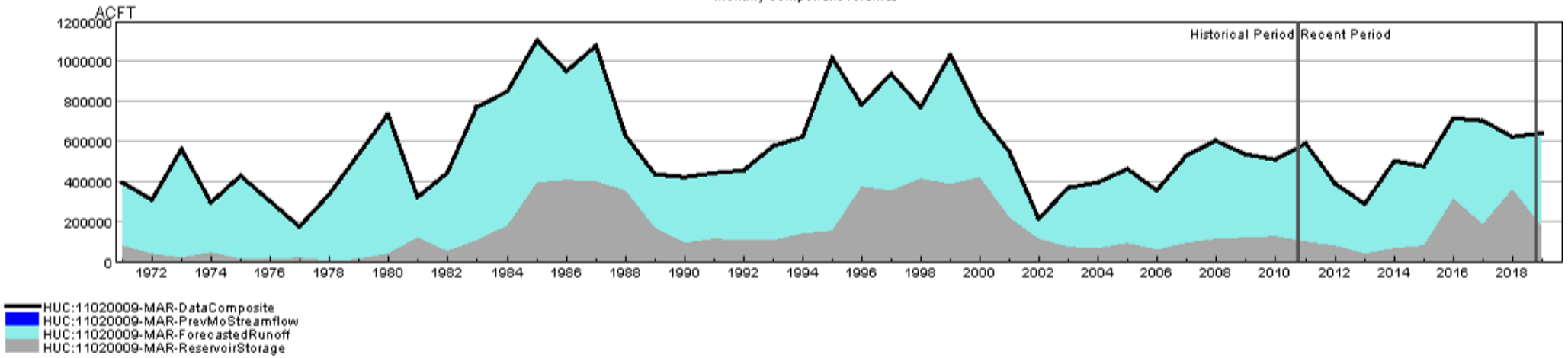
HUC 11020006 (Huerfano) SWSI Values - MAR

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



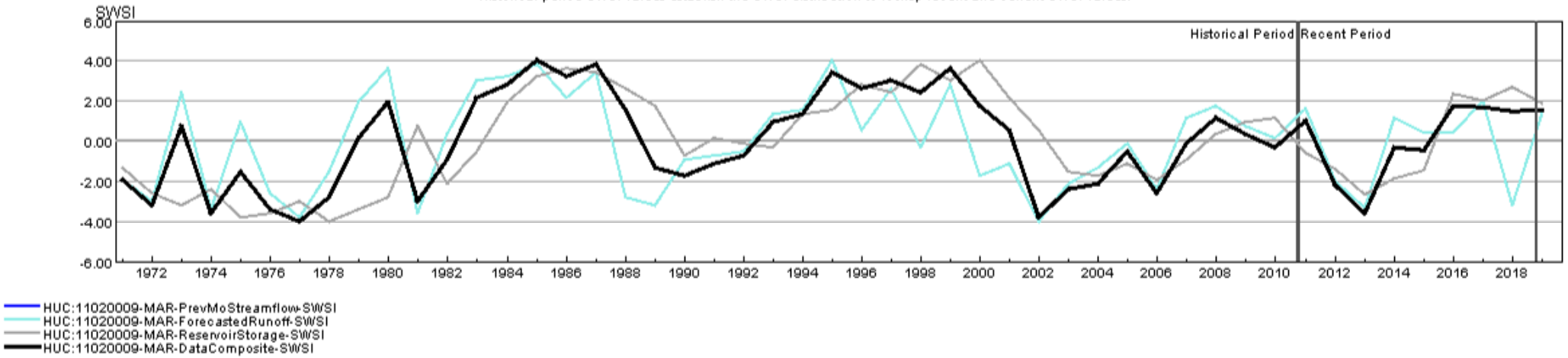
HUC 11020009 (Upper Arkansas-John Martin Reservoir) Surface Water Supply - MAR

Monthly component volumes



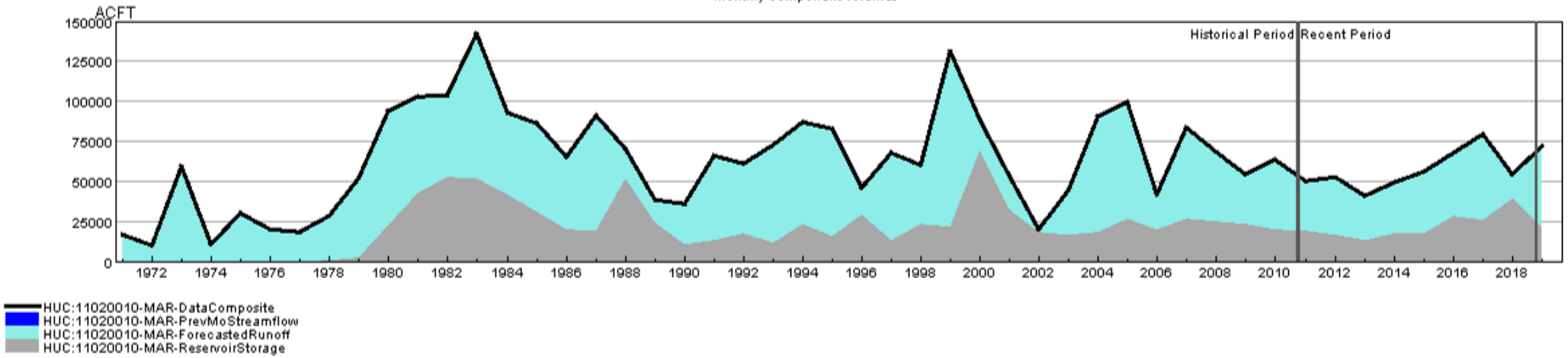
HUC 11020009 (Upper Arkansas-John Martin Reservoir) SWSI Values - MAR

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



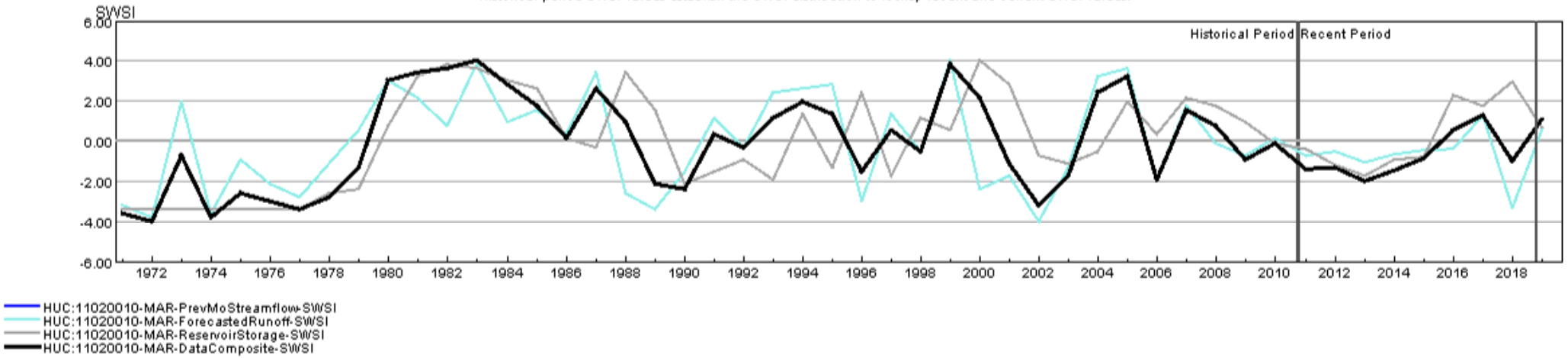
HUC 11020010 (Purgatoire) Surface Water Supply - MAR

Monthly component volumes



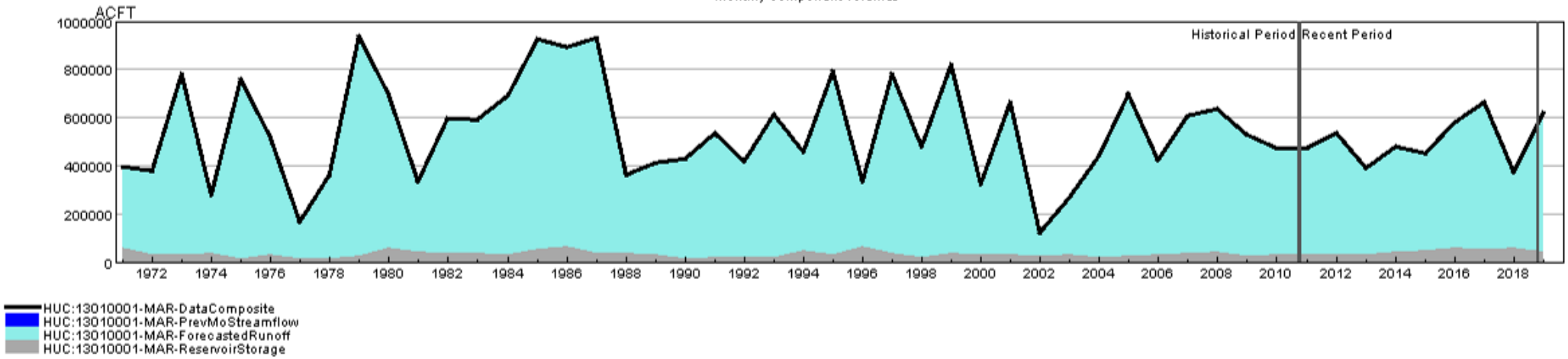
HUC 11020010 (Purgatoire) SWSI Values - MAR

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



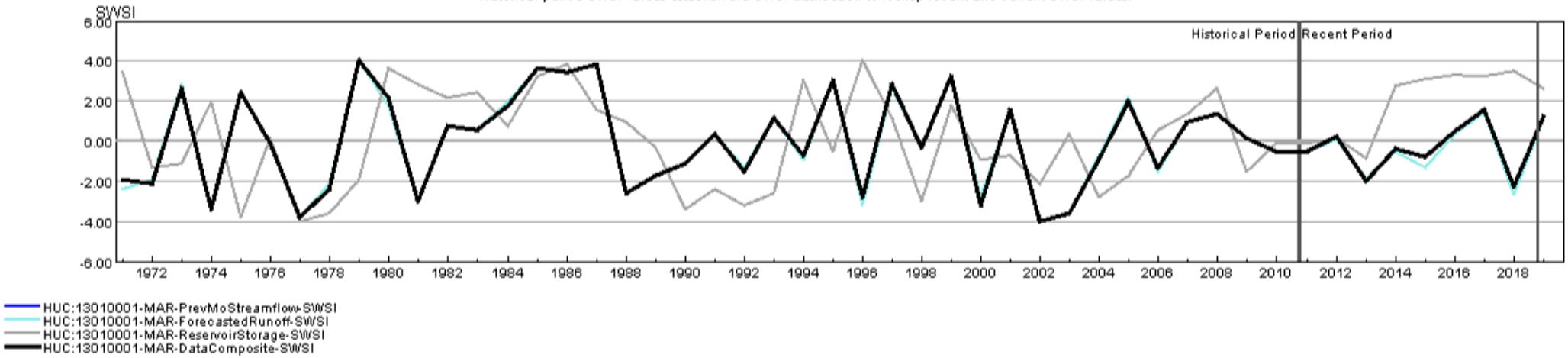
HUC 13010001 (Rio Grande Headwaters) Surface Water Supply - MAR

Monthly component volumes



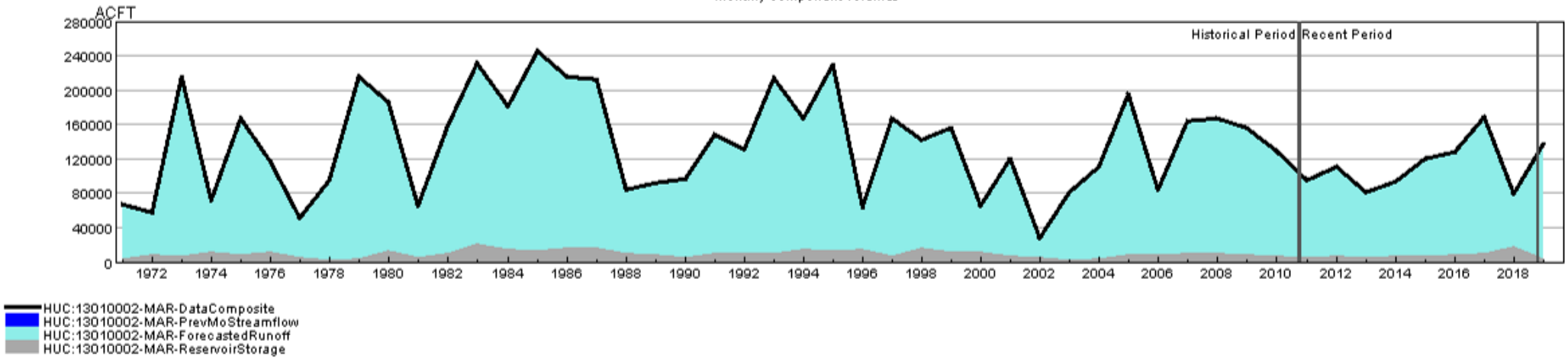
HUC 13010001 (Rio Grande Headwaters) SWSI Values - MAR

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



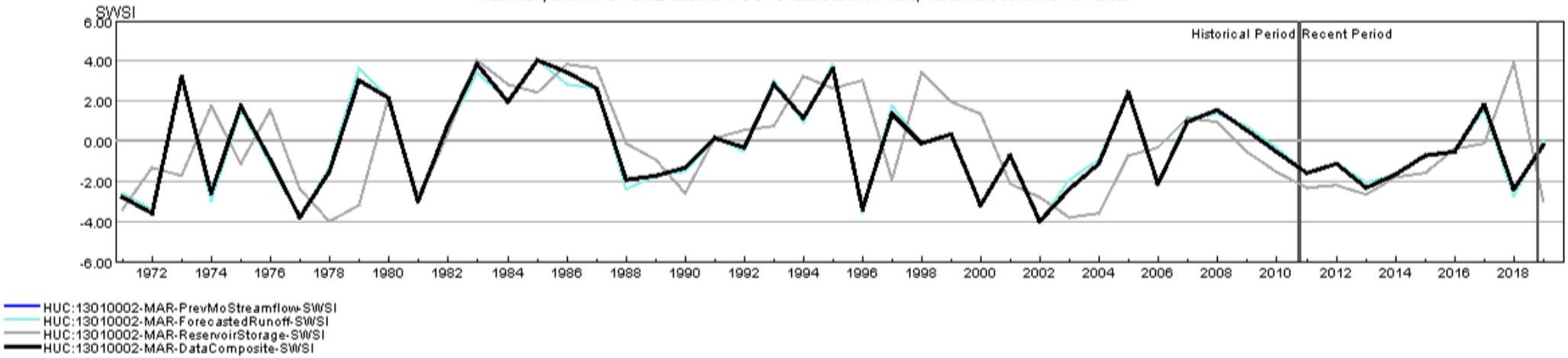
HUC 13010002 (Alamosa-Trinchera) Surface Water Supply - MAR

Monthly component volumes



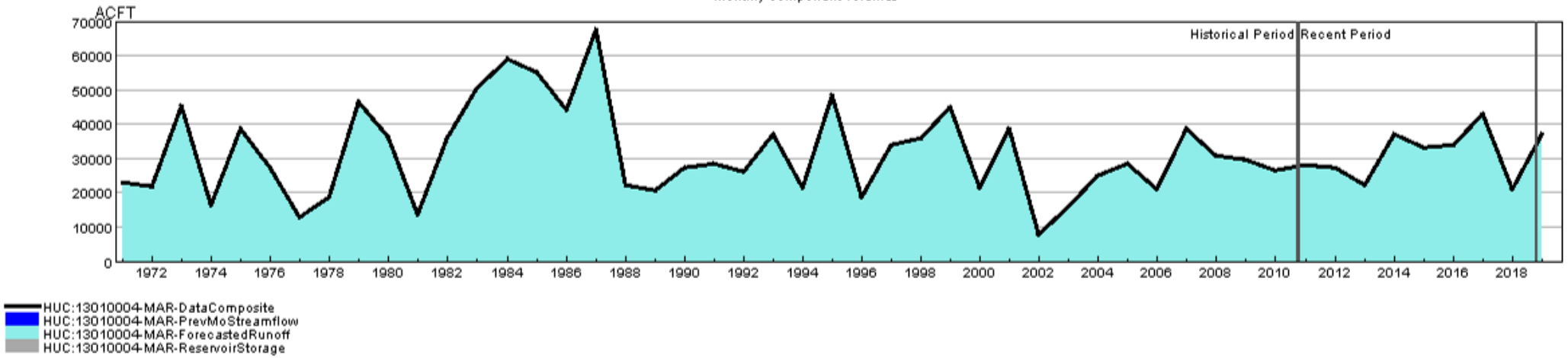
HUC 13010002 (Alamosa-Trinchera) SWSI Values - MAR

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



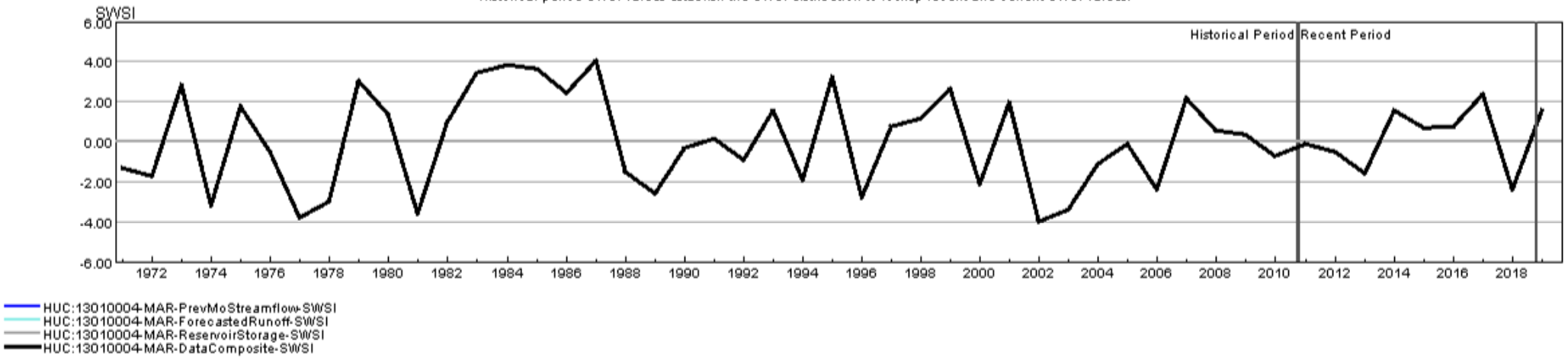
HUC 13010004 (Saguache) Surface Water Supply - MAR

Monthly component volumes



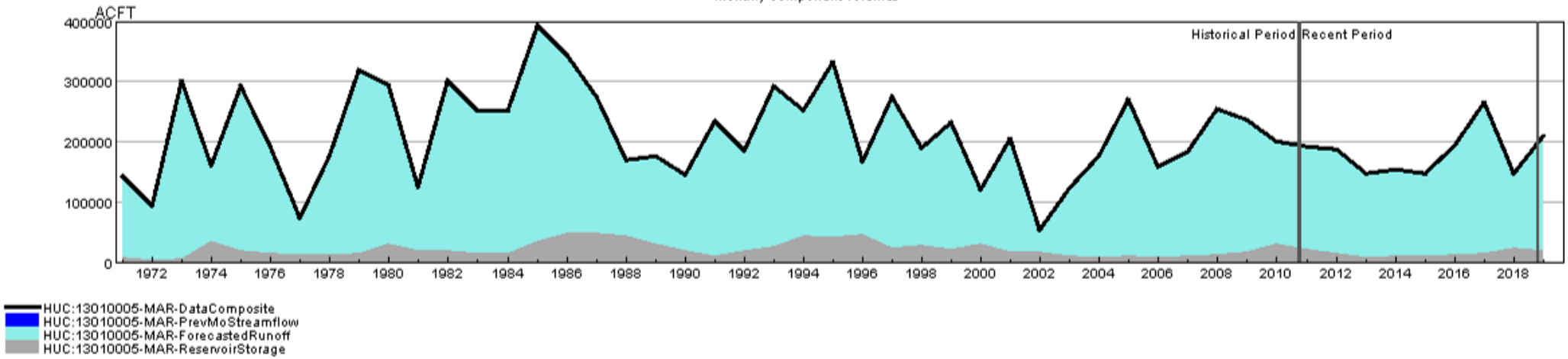
HUC 13010004 (Saguache) SWSI Values - MAR

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



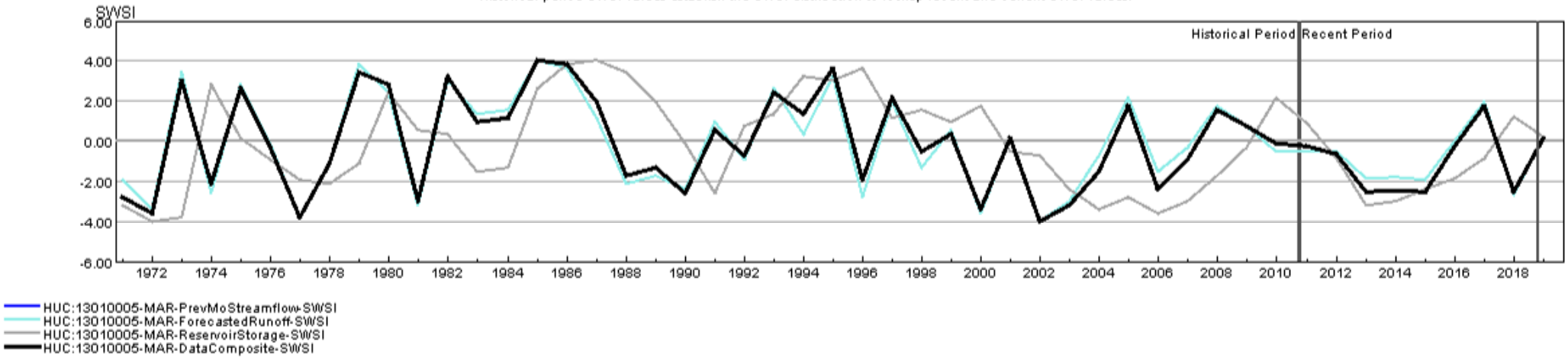
HUC 13010005 (Conejos) Surface Water Supply - MAR

Monthly component volumes



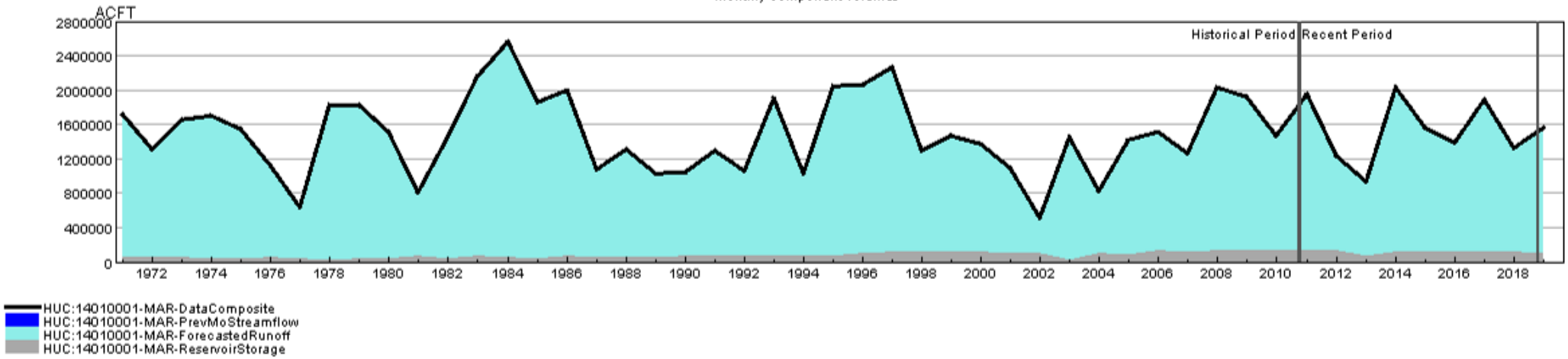
HUC 13010005 (Conejos) SWSI Values - MAR

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



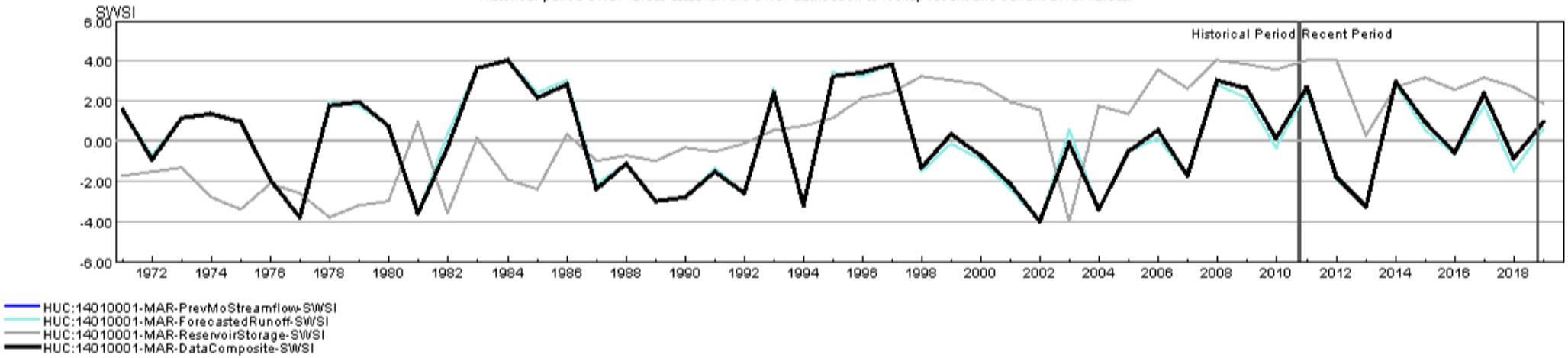
HUC 14010001 (Colorado Headwaters) Surface Water Supply - MAR

Monthly component volumes



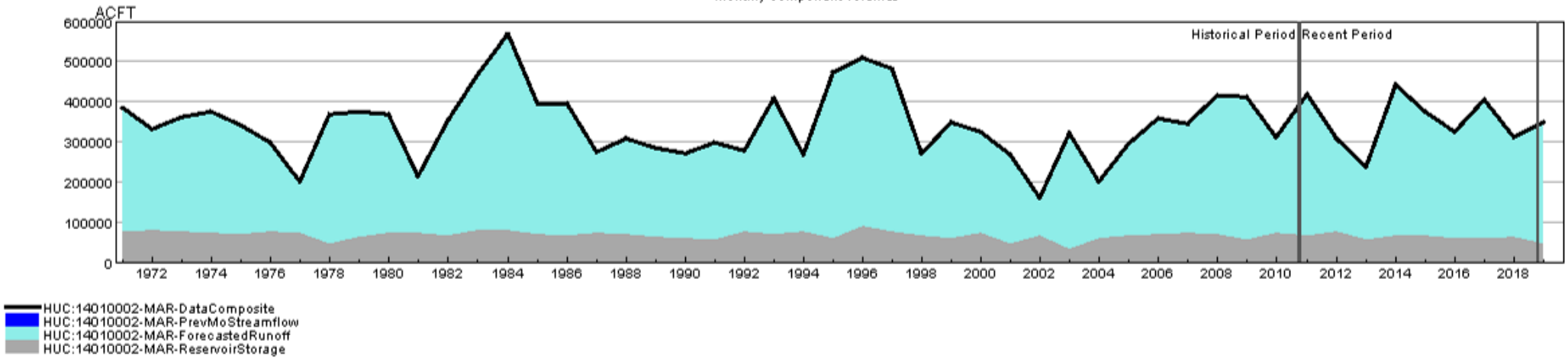
HUC 14010001 (Colorado Headwaters) SWSI Values - MAR

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



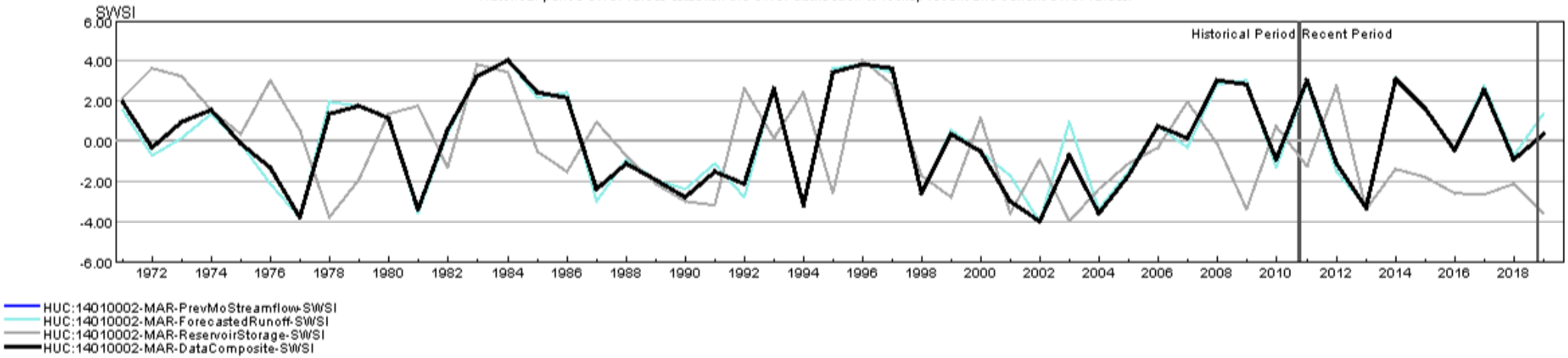
HUC 14010002 (Blue) Surface Water Supply - MAR

Monthly component volumes



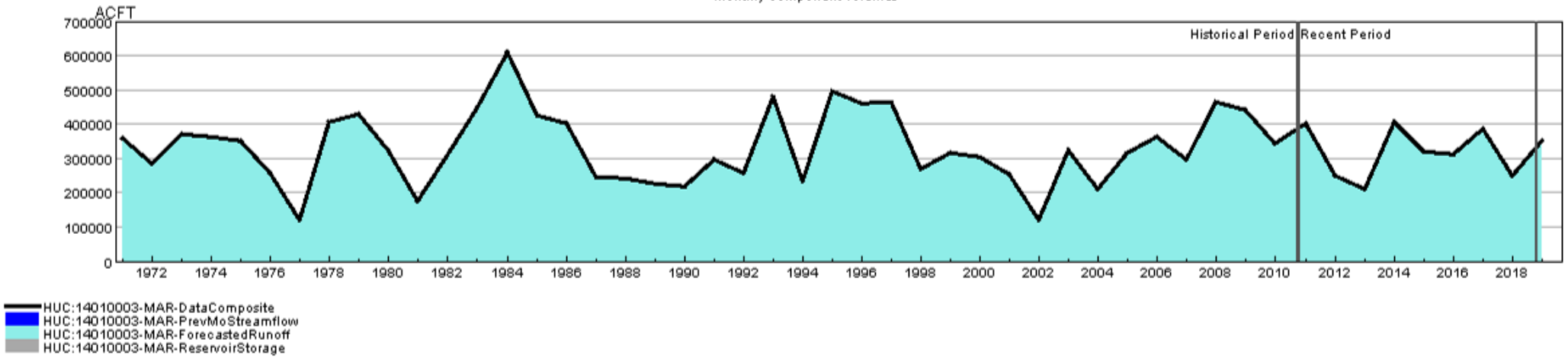
HUC 14010002 (Blue) SWSI Values - MAR

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



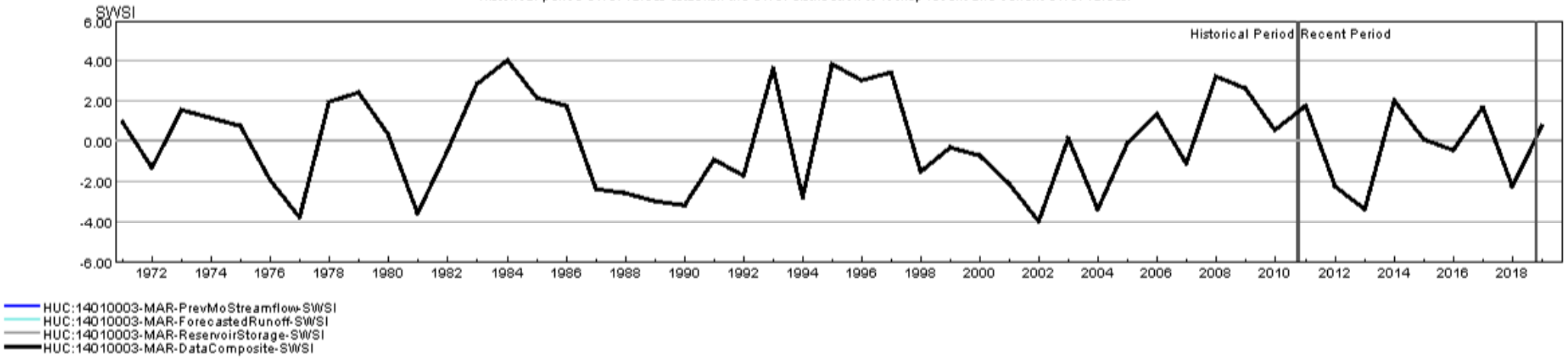
HUC 14010003 (Eagle) Surface Water Supply - MAR

Monthly component volumes



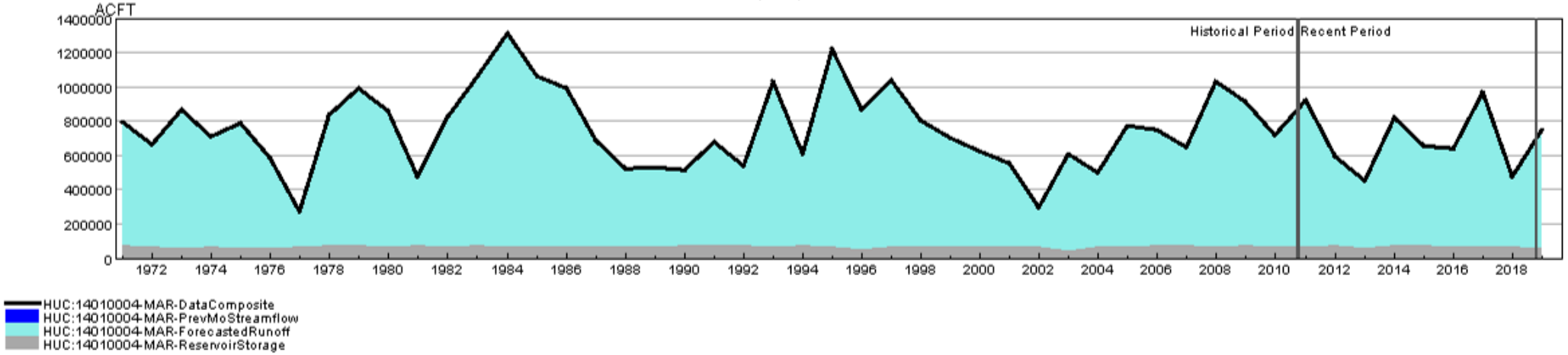
HUC 14010003 (Eagle) SWSI Values - MAR

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



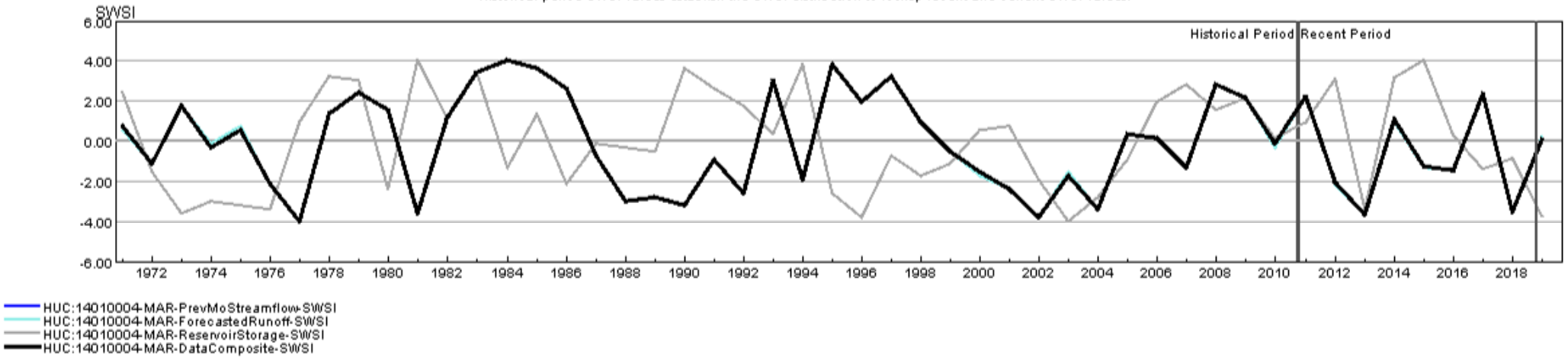
HUC 14010004 (Roaring Fork) Surface Water Supply - MAR

Monthly component volumes



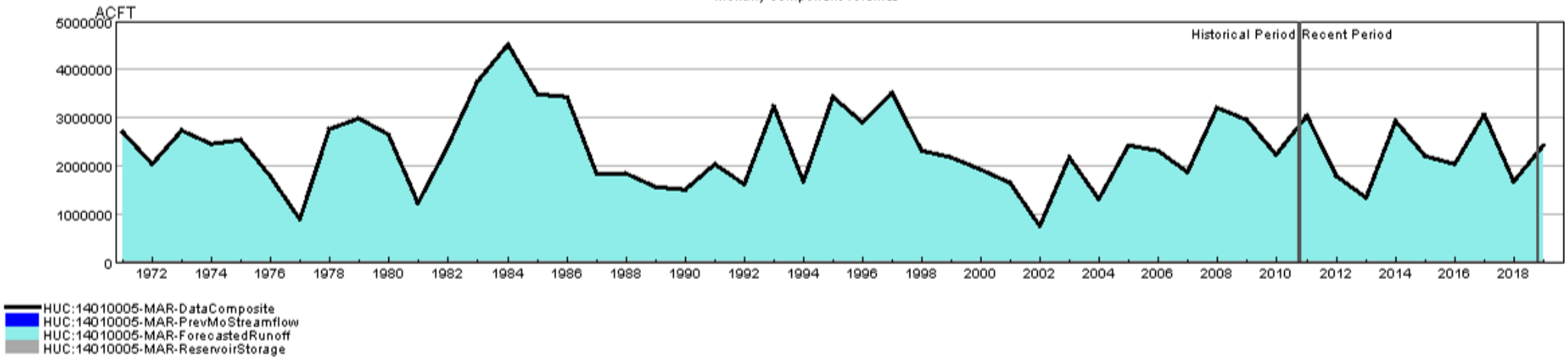
HUC 14010004 (Roaring Fork) SWSI Values - MAR

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



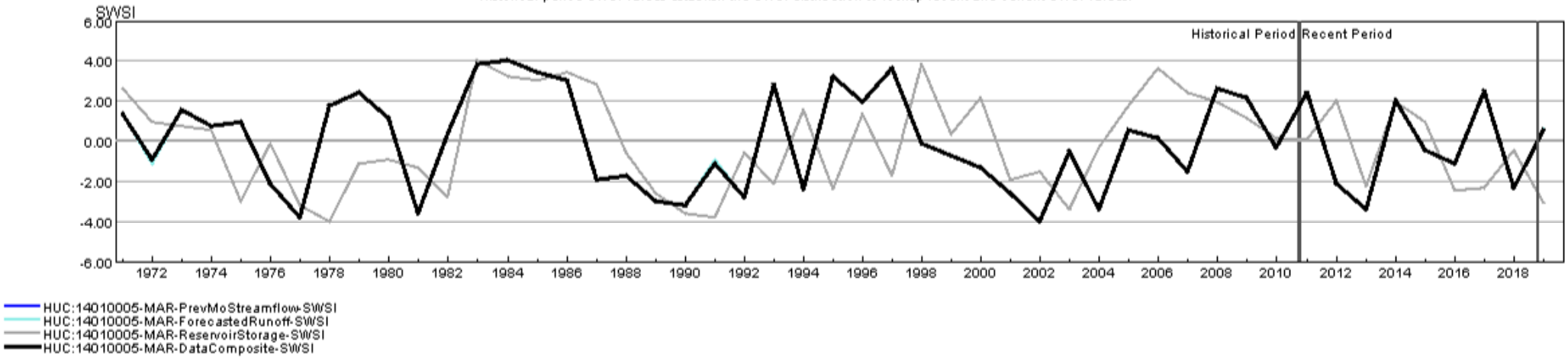
HUC 14010005 (Colorado Headwaters-Plateau) Surface Water Supply - MAR

Monthly component volumes



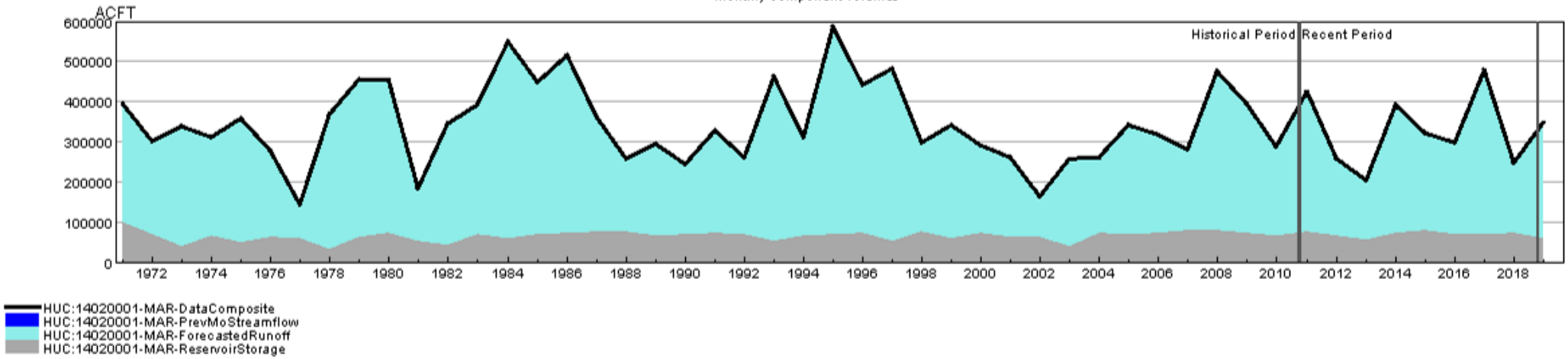
HUC 14010005 (Colorado Headwaters-Plateau) SWSI Values - MAR

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



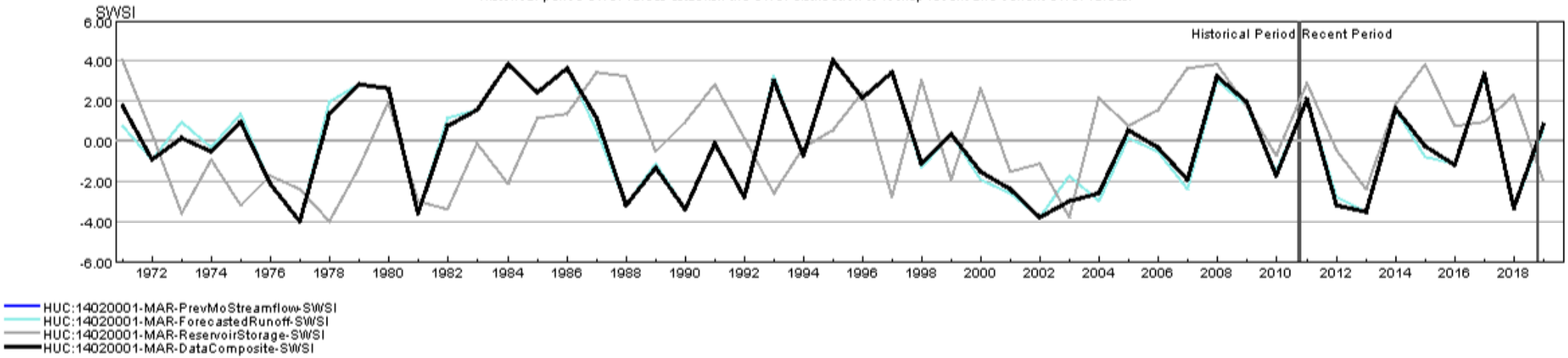
HUC 14020001 (East-Taylor) Surface Water Supply - MAR

Monthly component volumes



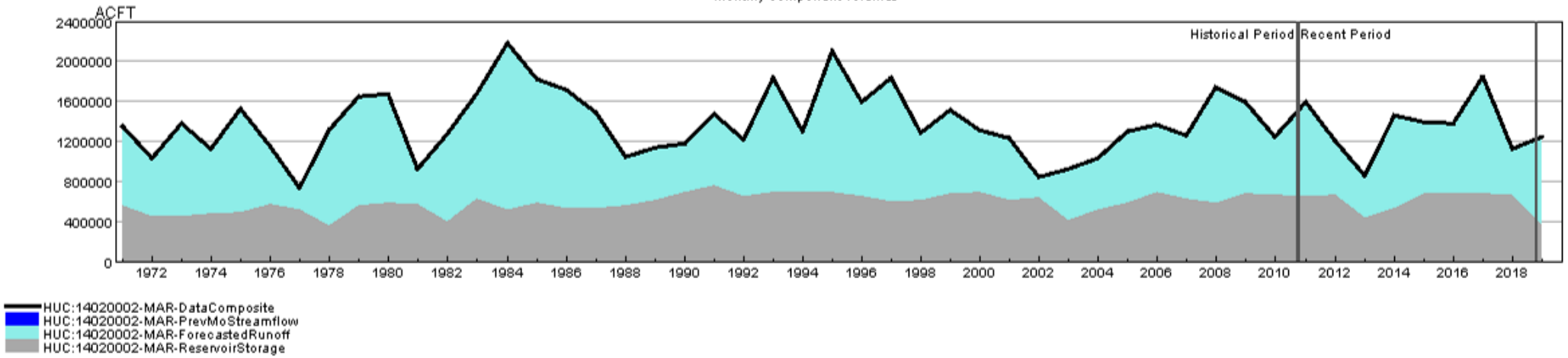
HUC 14020001 (East-Taylor) SWSI Values - MAR

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



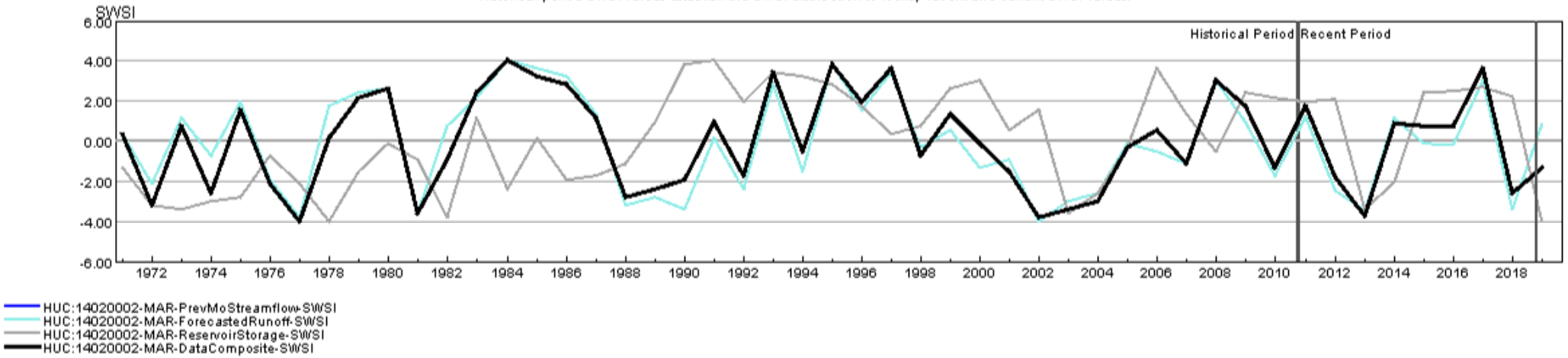
HUC 14020002 (Upper Gunnison) Surface Water Supply - MAR

Monthly component volumes



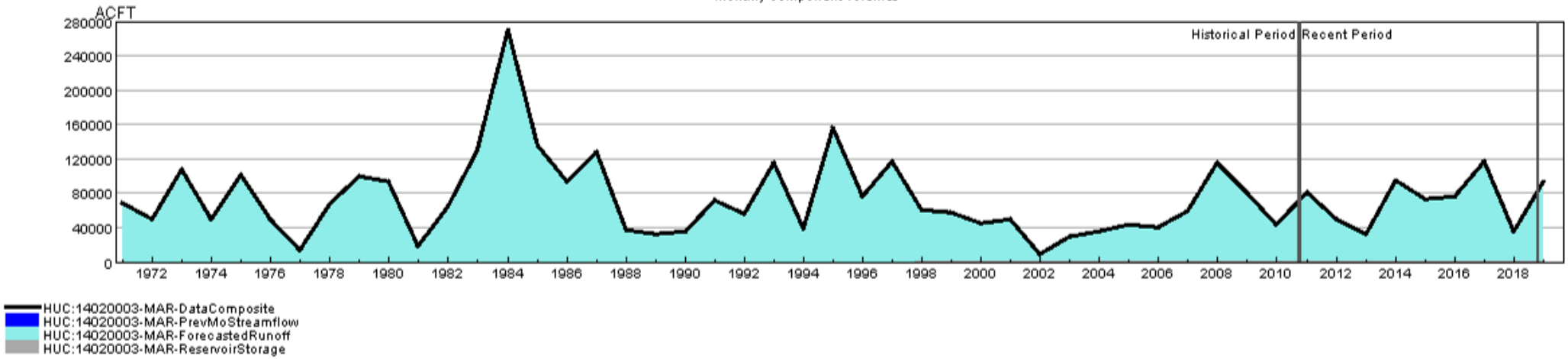
HUC 14020002 (Upper Gunnison) SWSI Values - MAR

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



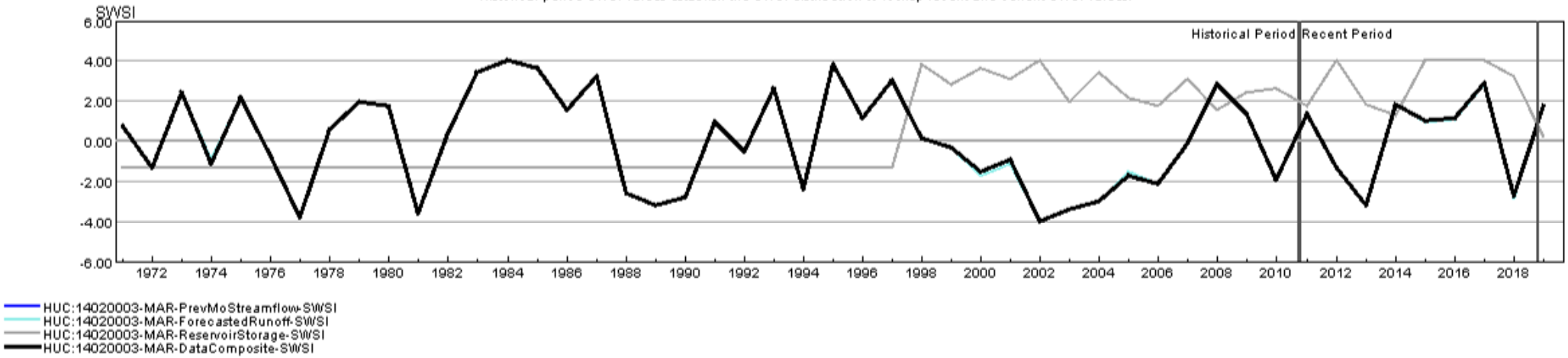
HUC 14020003 (Tomichi) Surface Water Supply - MAR

Monthly component volumes



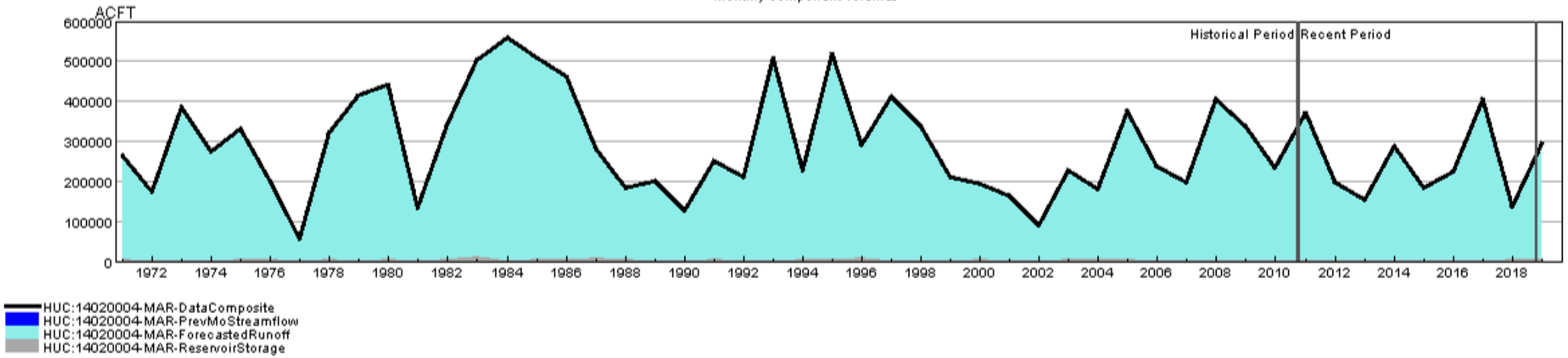
HUC 14020003 (Tomichi) SWSI Values - MAR

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



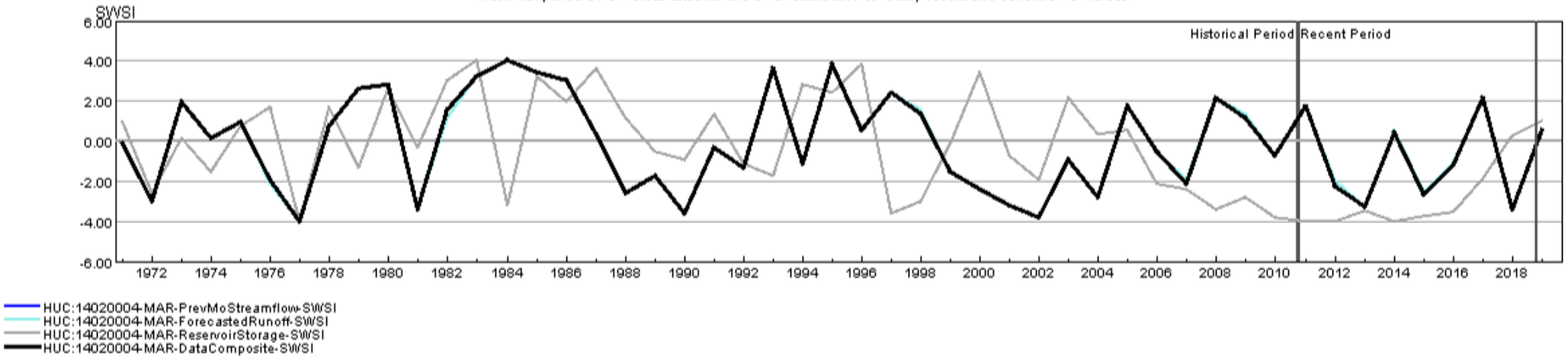
HUC 14020004 (North Fork Gunnison) Surface Water Supply - MAR

Monthly component volumes



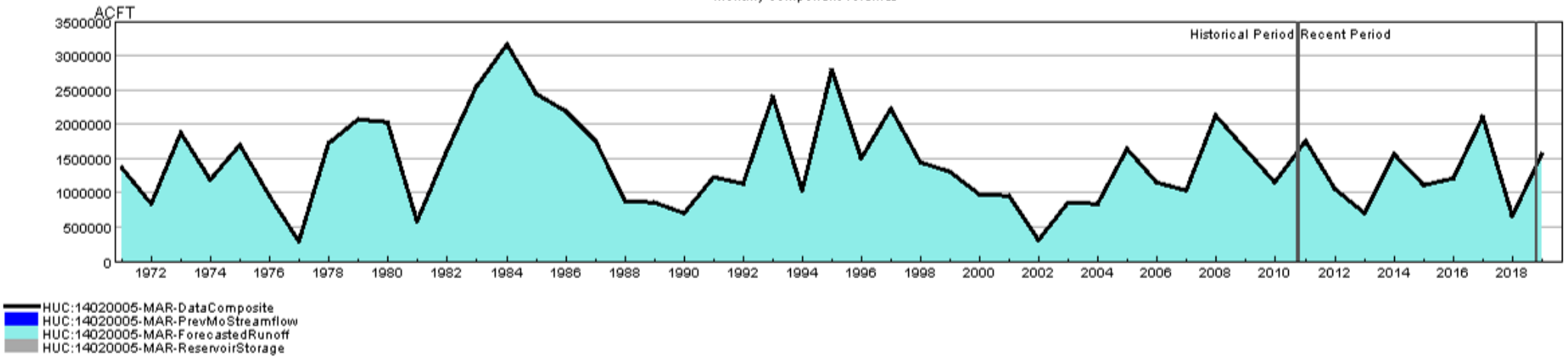
HUC 14020004 (North Fork Gunnison) SWSI Values - MAR

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



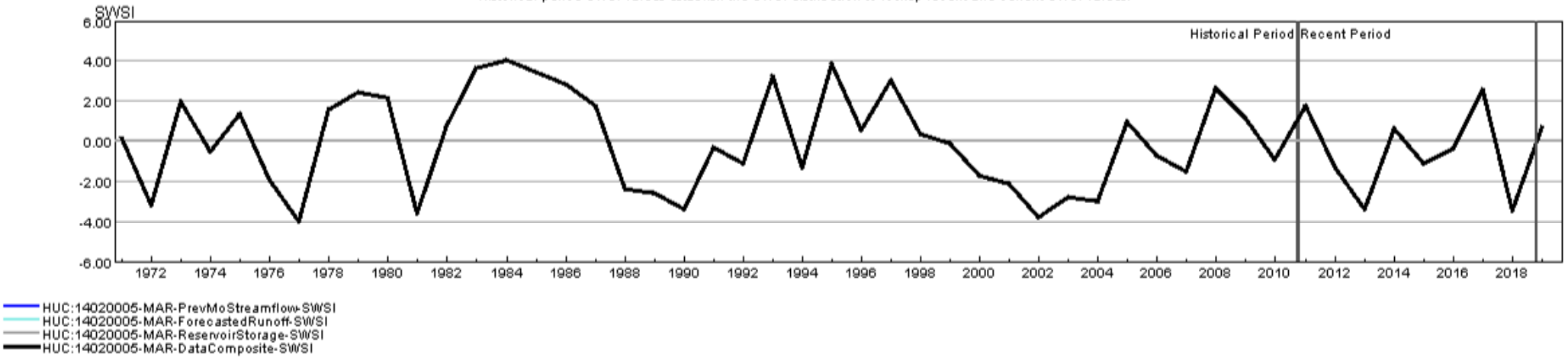
HUC 14020005 (Lower Gunnison) Surface Water Supply - MAR

Monthly component volumes



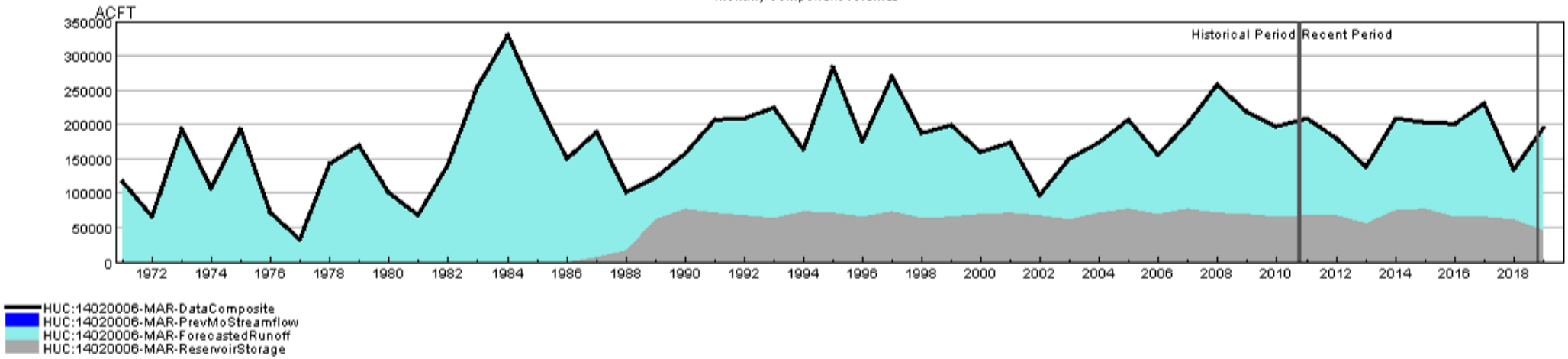
HUC 14020005 (Lower Gunnison) SWSI Values - MAR

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



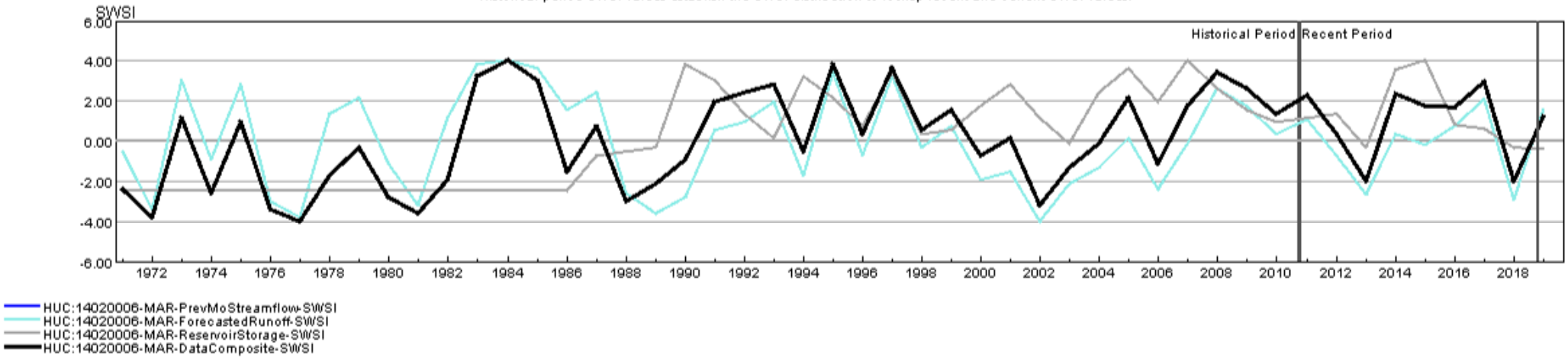
HUC 14020006 (Uncompahgre) Surface Water Supply - MAR

Monthly component volumes



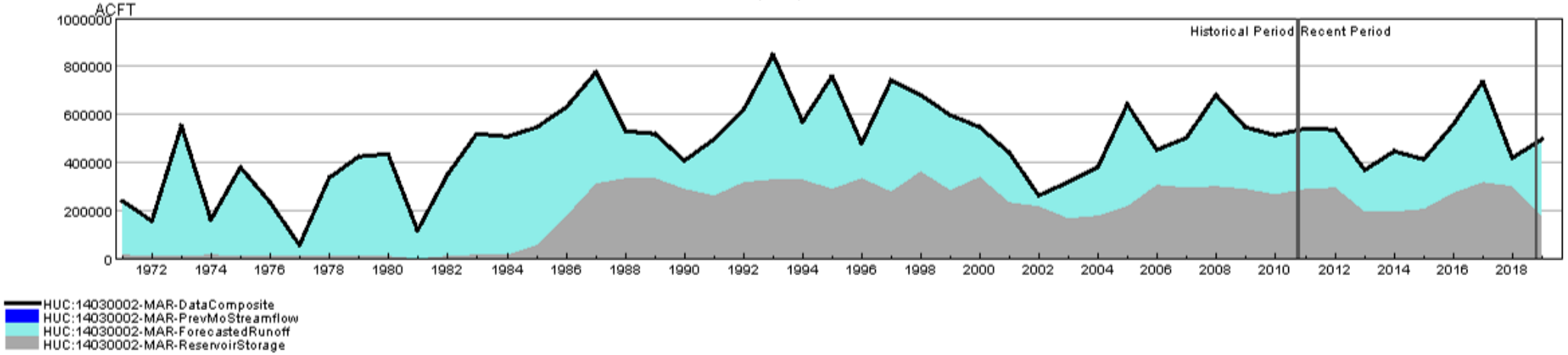
HUC 14020006 (Uncompahgre) SWSI Values - MAR

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



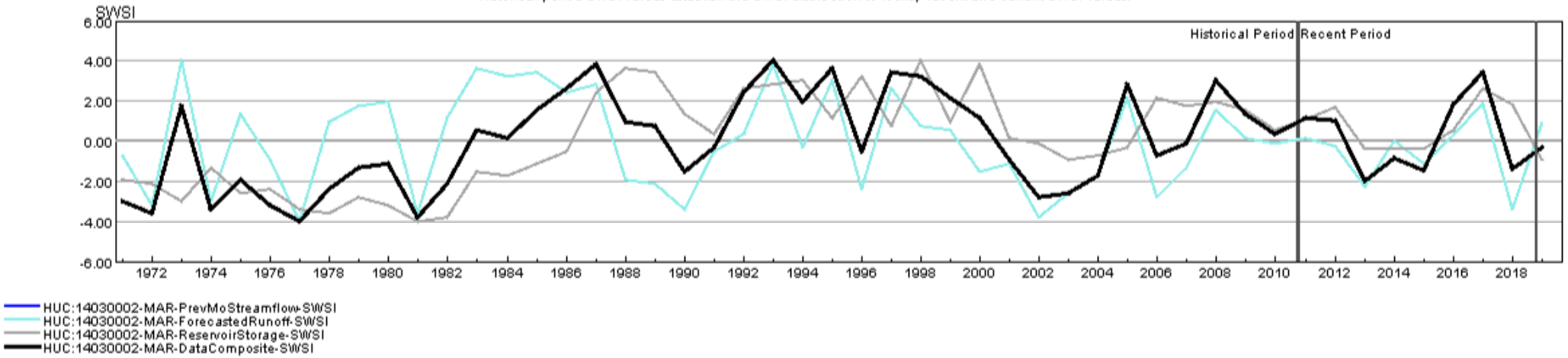
HUC 14030002 (Upper Dolores) Surface Water Supply - MAR

Monthly component volumes



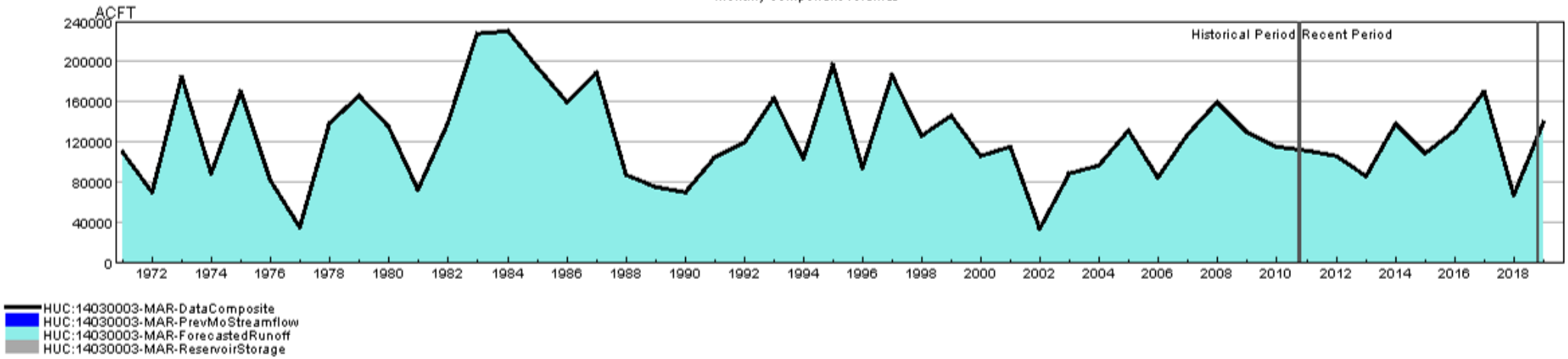
HUC 14030002 (Upper Dolores) SWSI Values - MAR

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



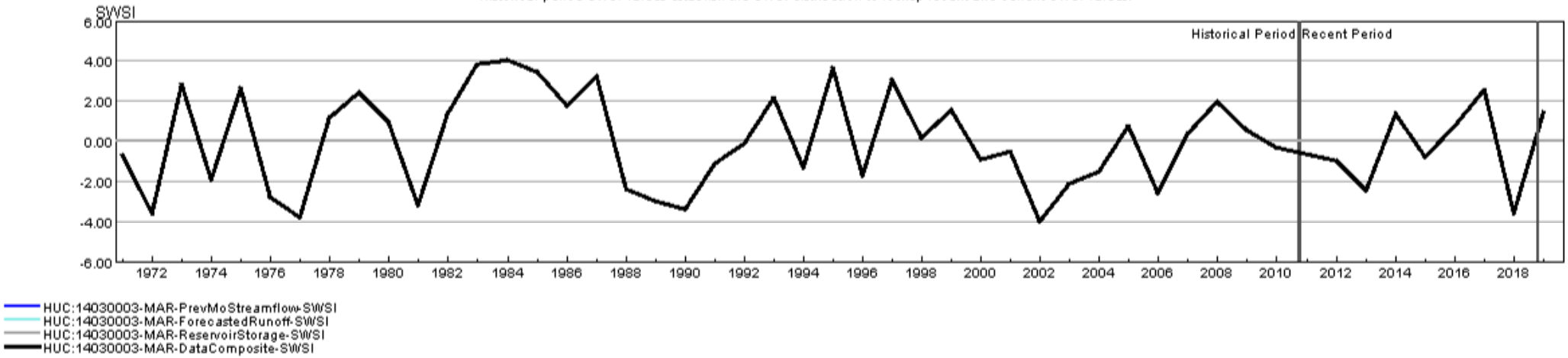
HUC 14030003 (San Miguel) Surface Water Supply - MAR

Monthly component volumes



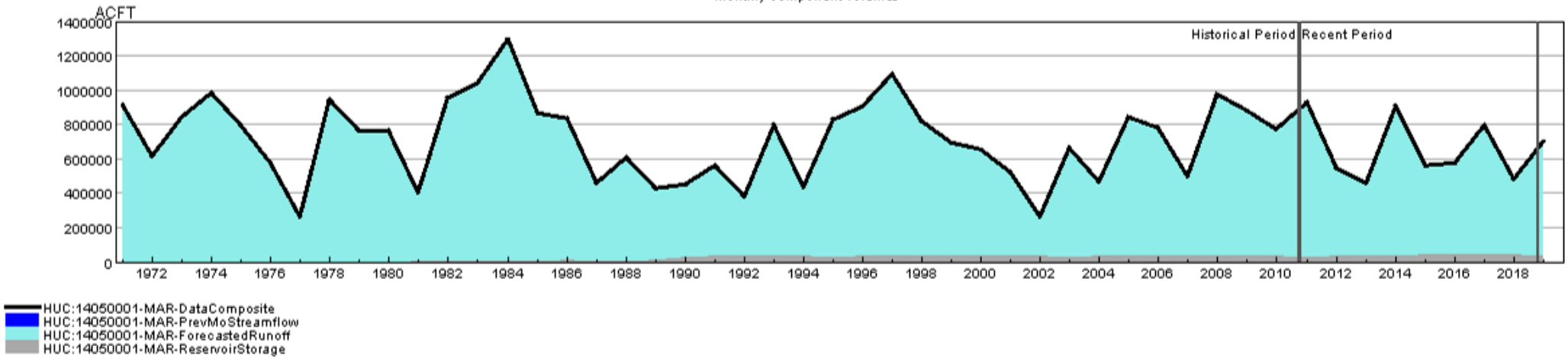
HUC 14030003 (San Miguel) SWSI Values - MAR

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



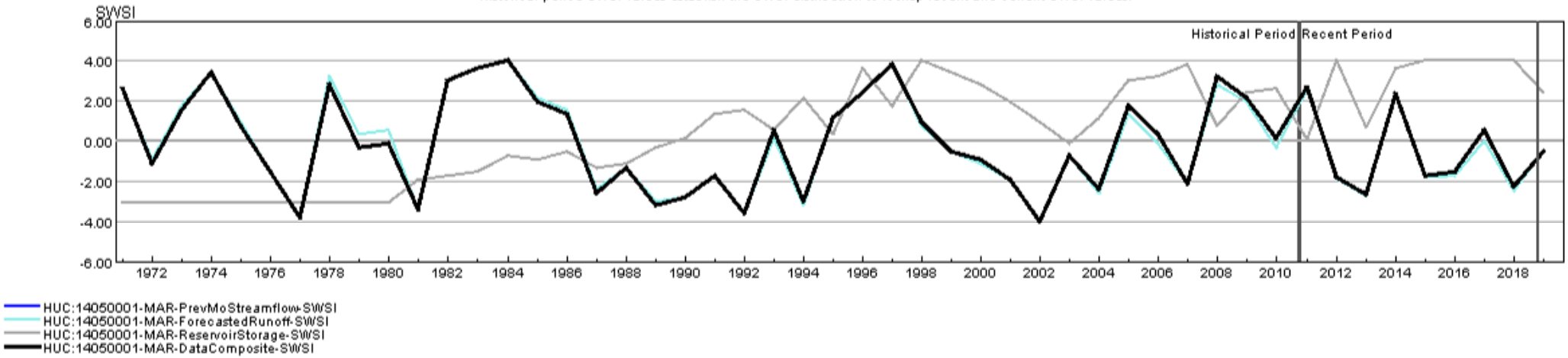
HUC 14050001 (Upper Yampa) Surface Water Supply - MAR

Monthly component volumes



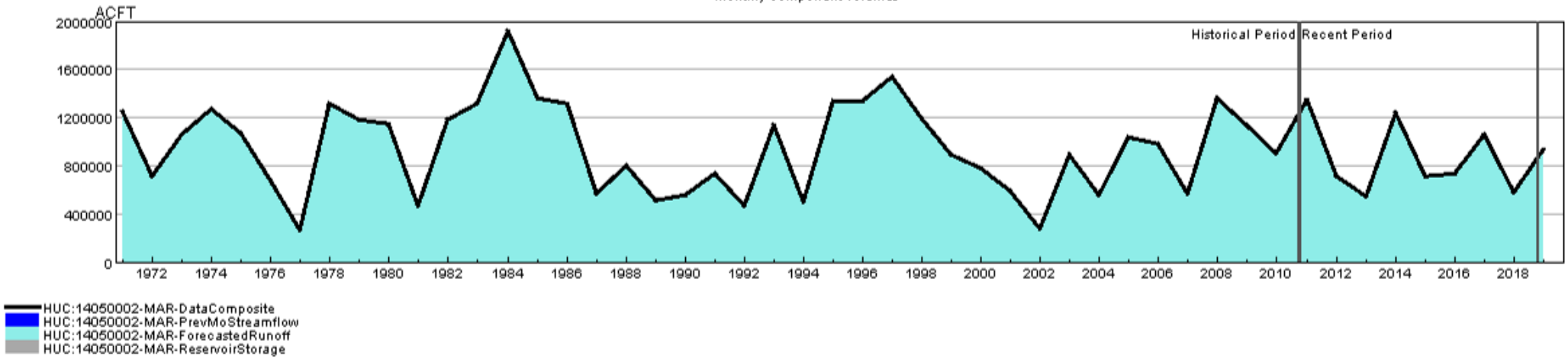
HUC 14050001 (Upper Yampa) SWSI Values - MAR

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



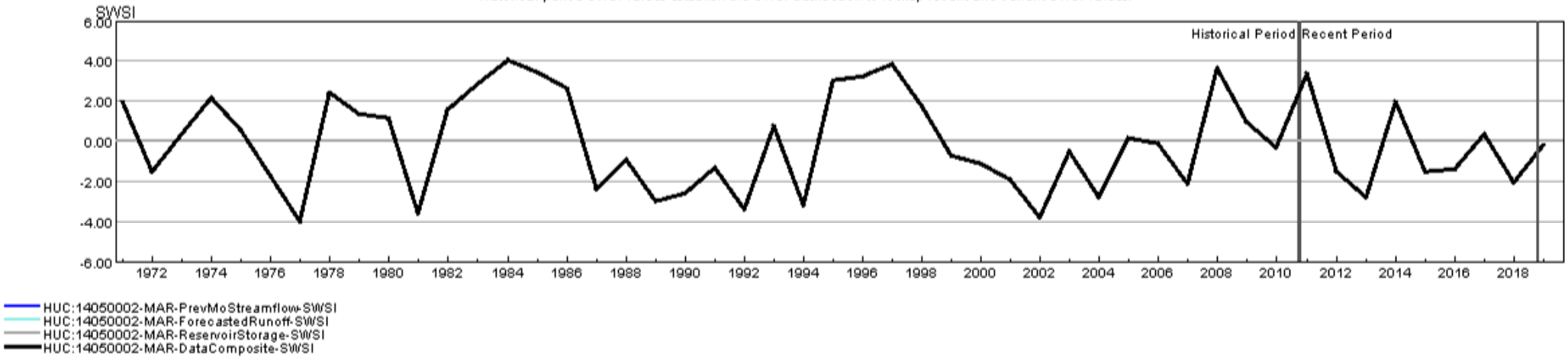
HUC 14050002 (Lower Yampa) Surface Water Supply - MAR

Monthly component volumes



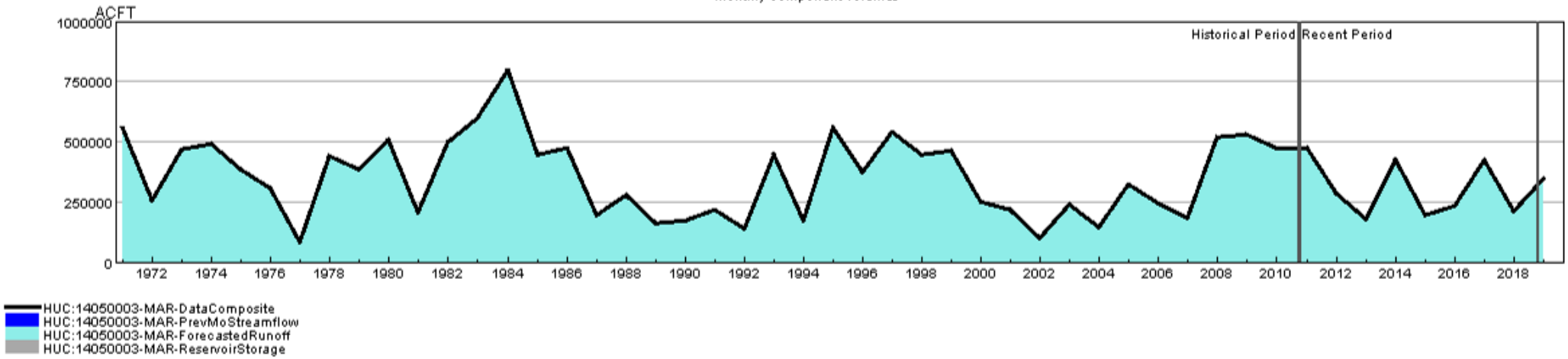
HUC 14050002 (Lower Yampa) SWSI Values - MAR

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



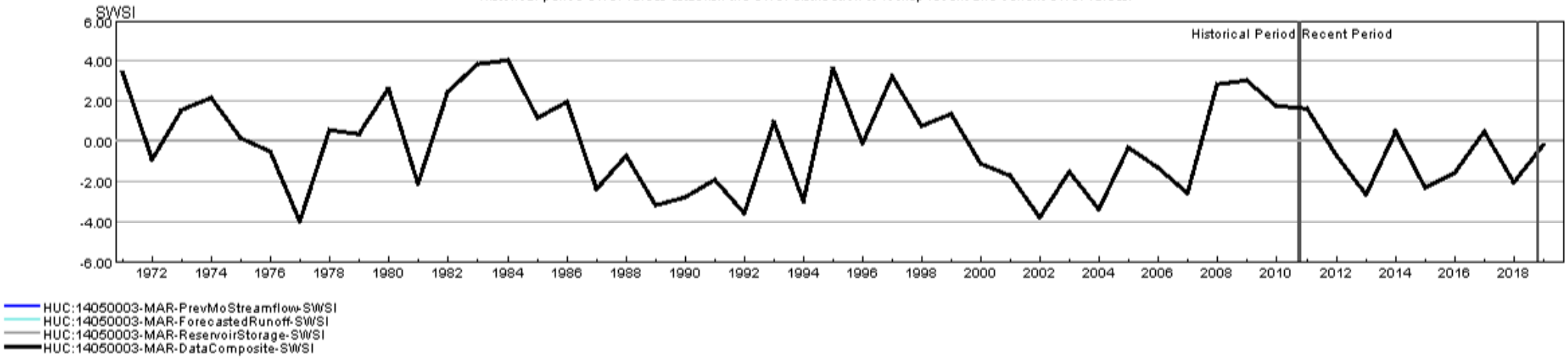
HUC 14050003 (Little Snake) Surface Water Supply - MAR

Monthly component volumes



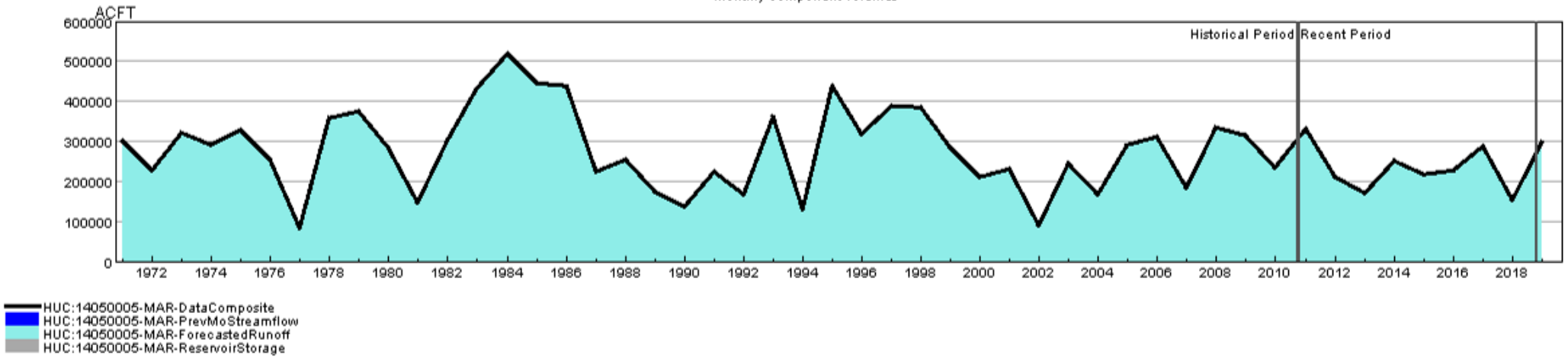
HUC 14050003 (Little Snake) SWSI Values - MAR

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



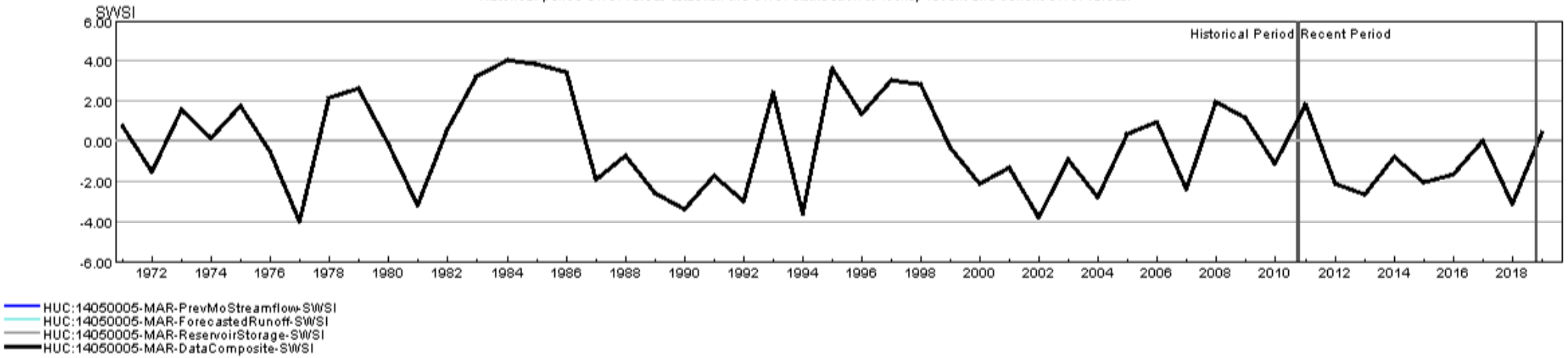
HUC 14050005 (Upper White) Surface Water Supply - MAR

Monthly component volumes



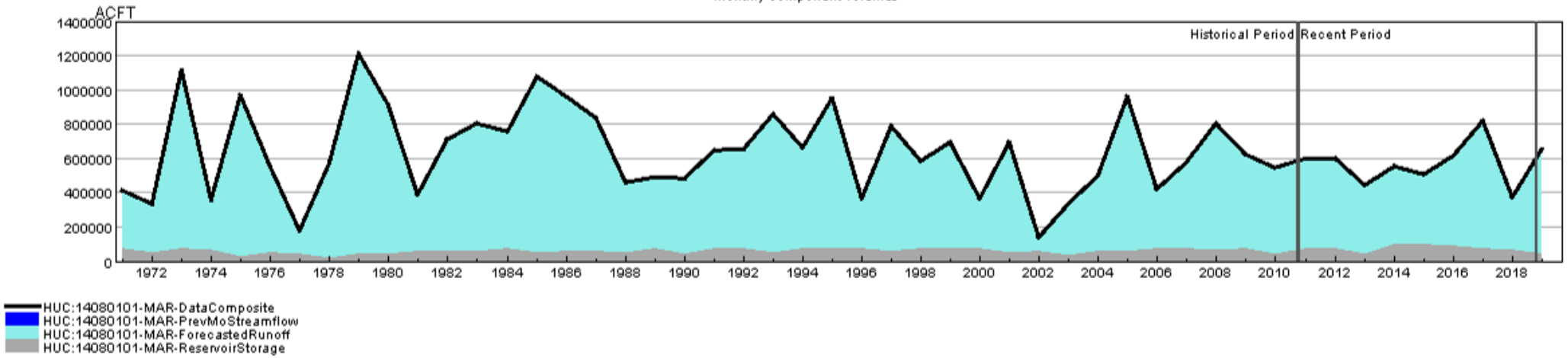
HUC 14050005 (Upper White) SWSI Values - MAR

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



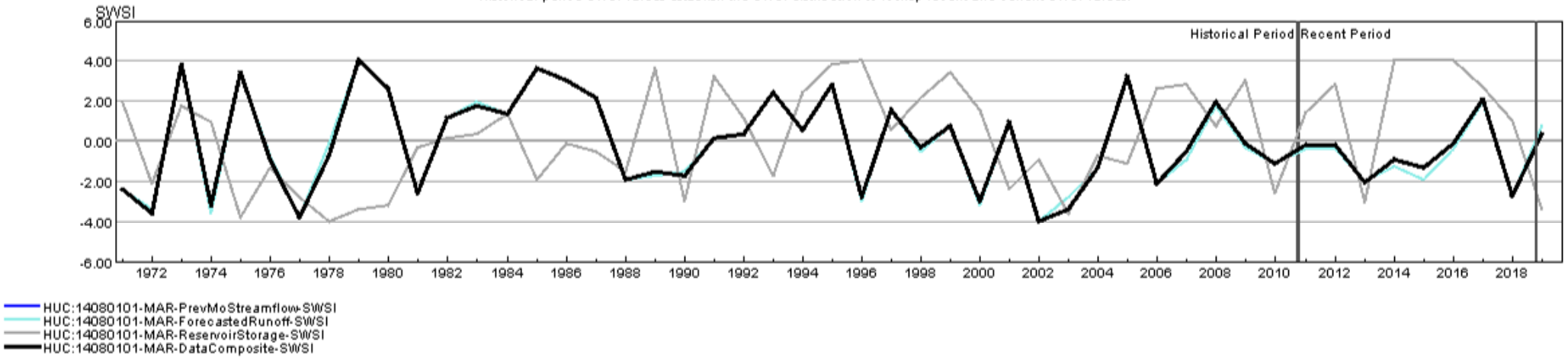
HUC 14080101 (Upper San Juan) Surface Water Supply - MAR

Monthly component volumes



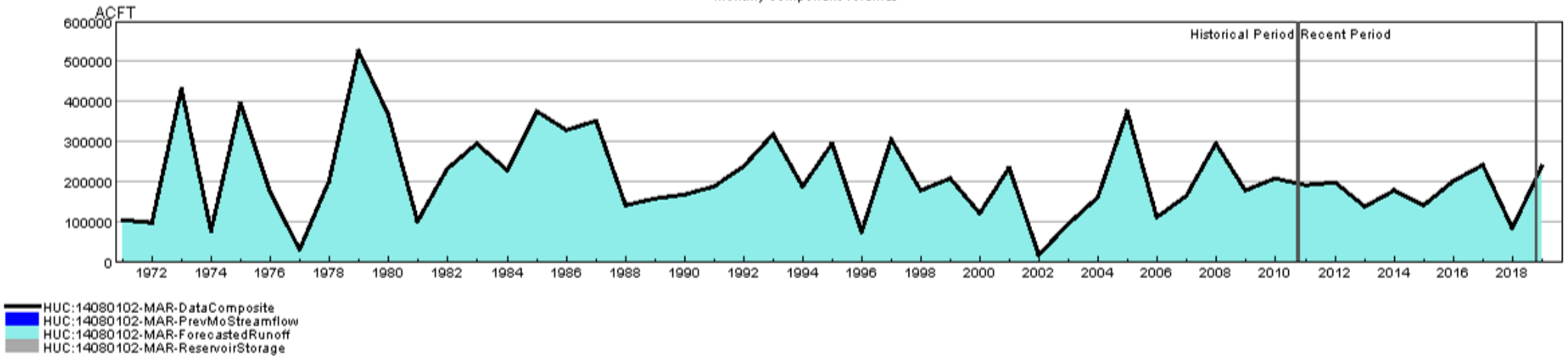
HUC 14080101 (Upper San Juan) SWSI Values - MAR

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



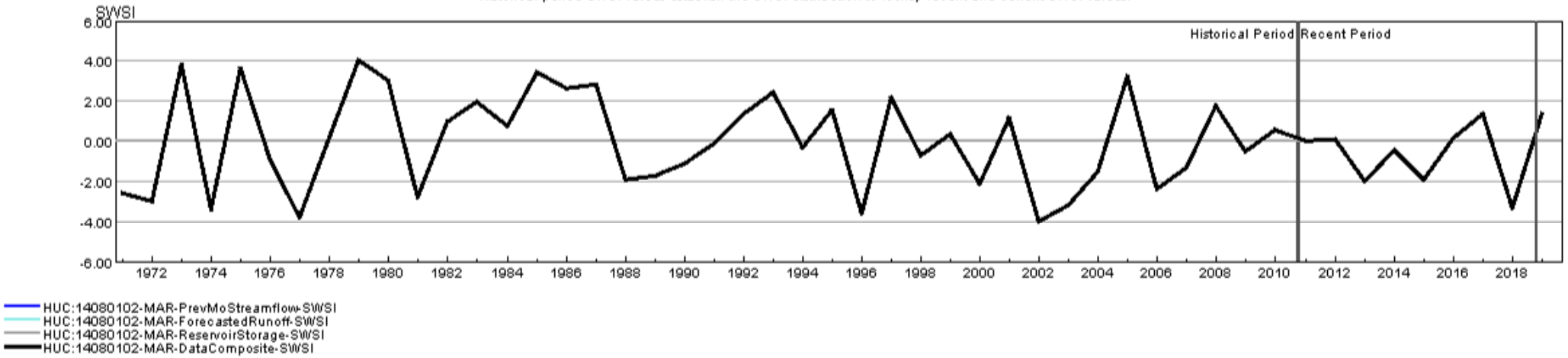
HUC 14080102 (Piedra) Surface Water Supply - MAR

Monthly component volumes



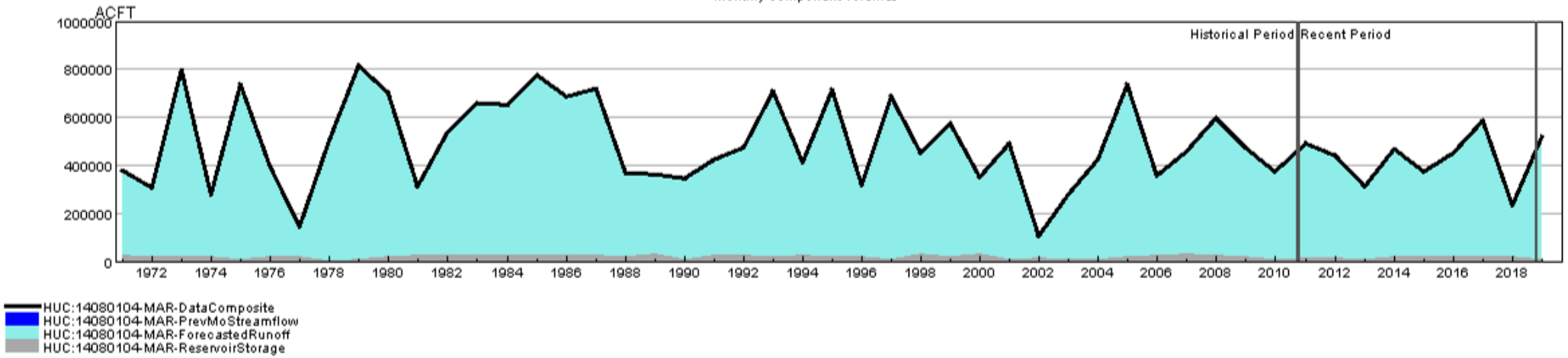
HUC 14080102 (Piedra) SWSI Values - MAR

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



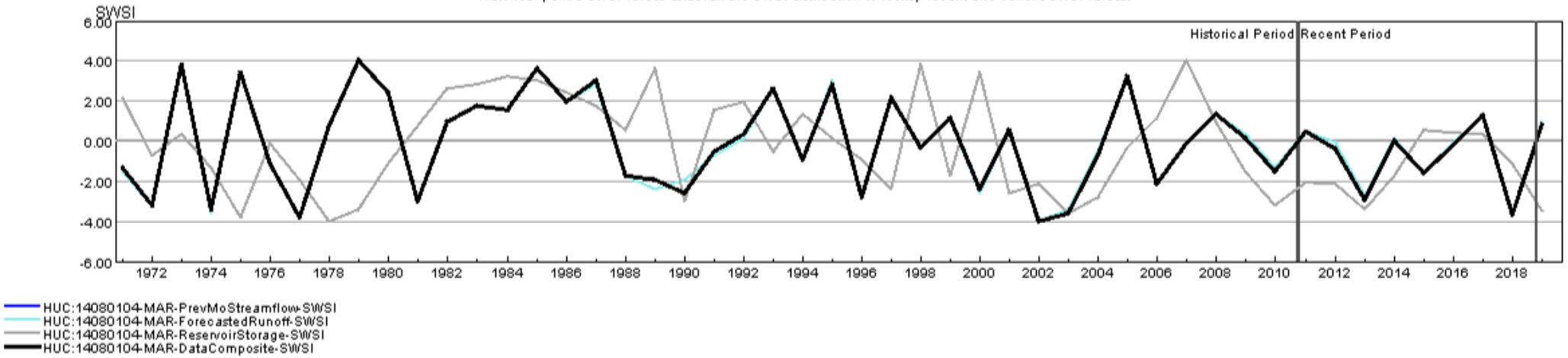
HUC 14080104 (Animas) Surface Water Supply - MAR

Monthly component volumes



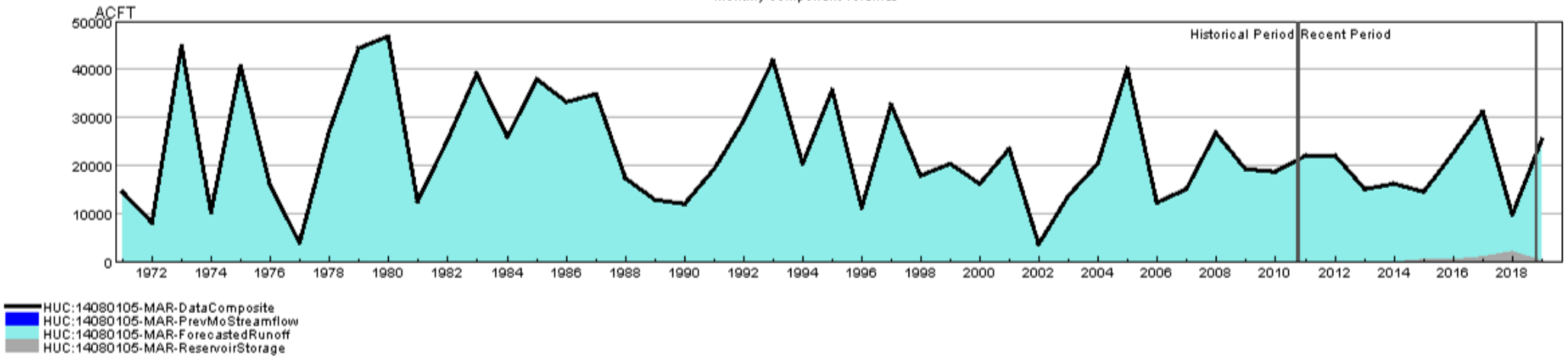
HUC 14080104 (Animas) SWSI Values - MAR

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



HUC 14080105 (Middle San Juan) Surface Water Supply - MAR

Monthly component volumes



HUC 14080105 (Middle San Juan) SWSI Values - MAR

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