COLORADO
WATER SUPPLY CONDITIONS UPDATE

FROM THE OFFICE OF THE STATE ENGINEER: COLORADO DIVISION OF WATER RESOURCES
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December 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**

* For the 2019 calendar year, the component to calculate SWSI for January 1 was reservoir storage and did not include forecasted runoff (total volume for the runoff season), as typically occurs because NRCS did not publish forecasted runoff for January 2019 for Colorado.

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.

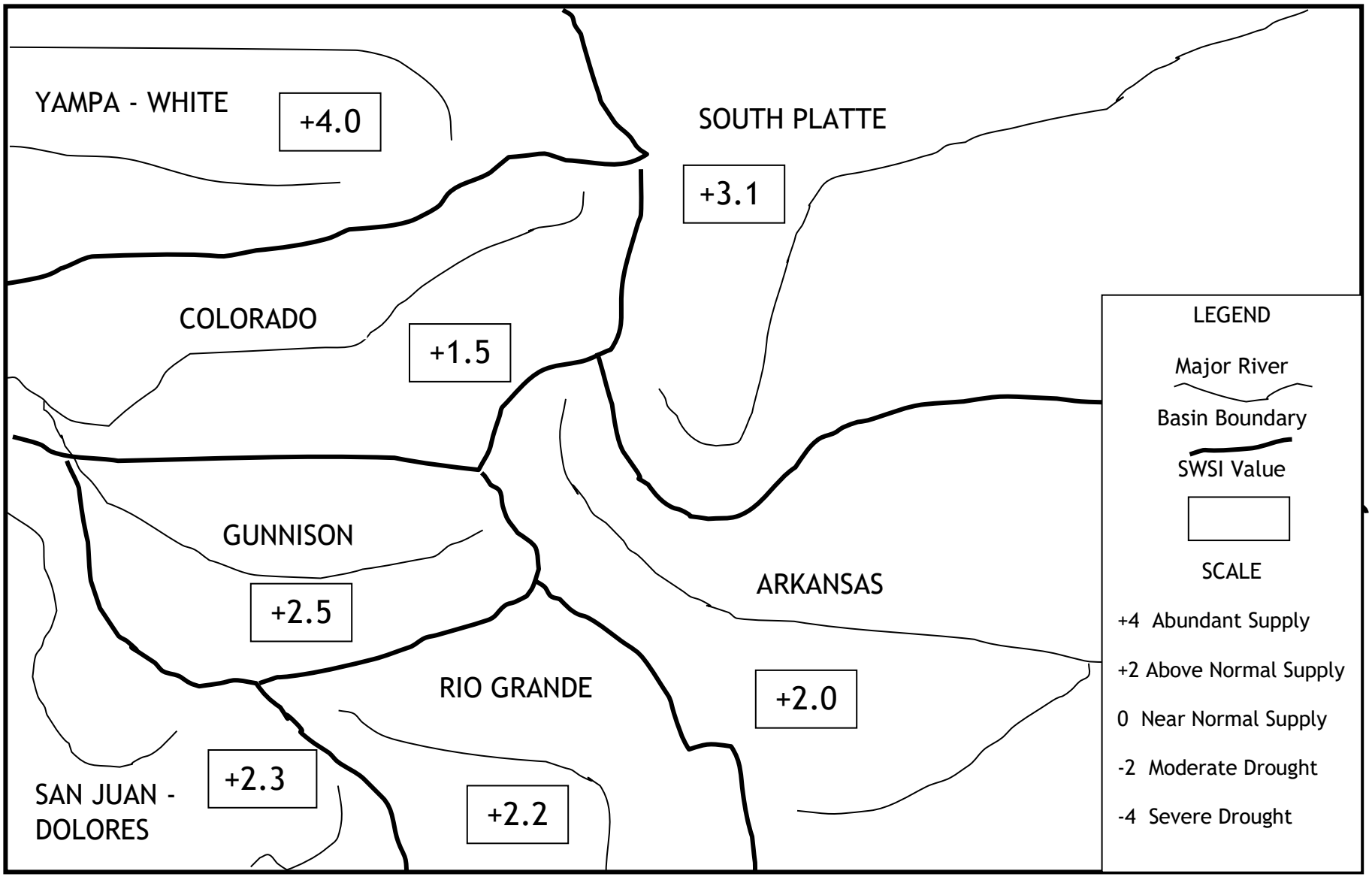
The SWSI calculation for the fall season (October 1 to January 1) is based solely on reservoir storage at the end of last month, in this case November 30. The following SWSI values were computed for each of the seven major basins for December 1, 2019. Water supply conditions, as represented by water in storage, are above normal to well above normal in all the river basins and well above normal in the Yampa-White and South Platte River Basins.

Basin	December 1 SWSI	Change from Previous Month	Change from Previous Year
Arkansas	2.0	0.0	0.1
Colorado	1.5	0.6	4.3
Gunnison	2.5	-0.4	6.4
Rio Grande	2.2	-0.1	0.4
San Juan-Dolores	2.3	-0.1	3.2
South Platte	3.1	0.0	4.0
Yampa-White	4.0	0.0	3.2

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

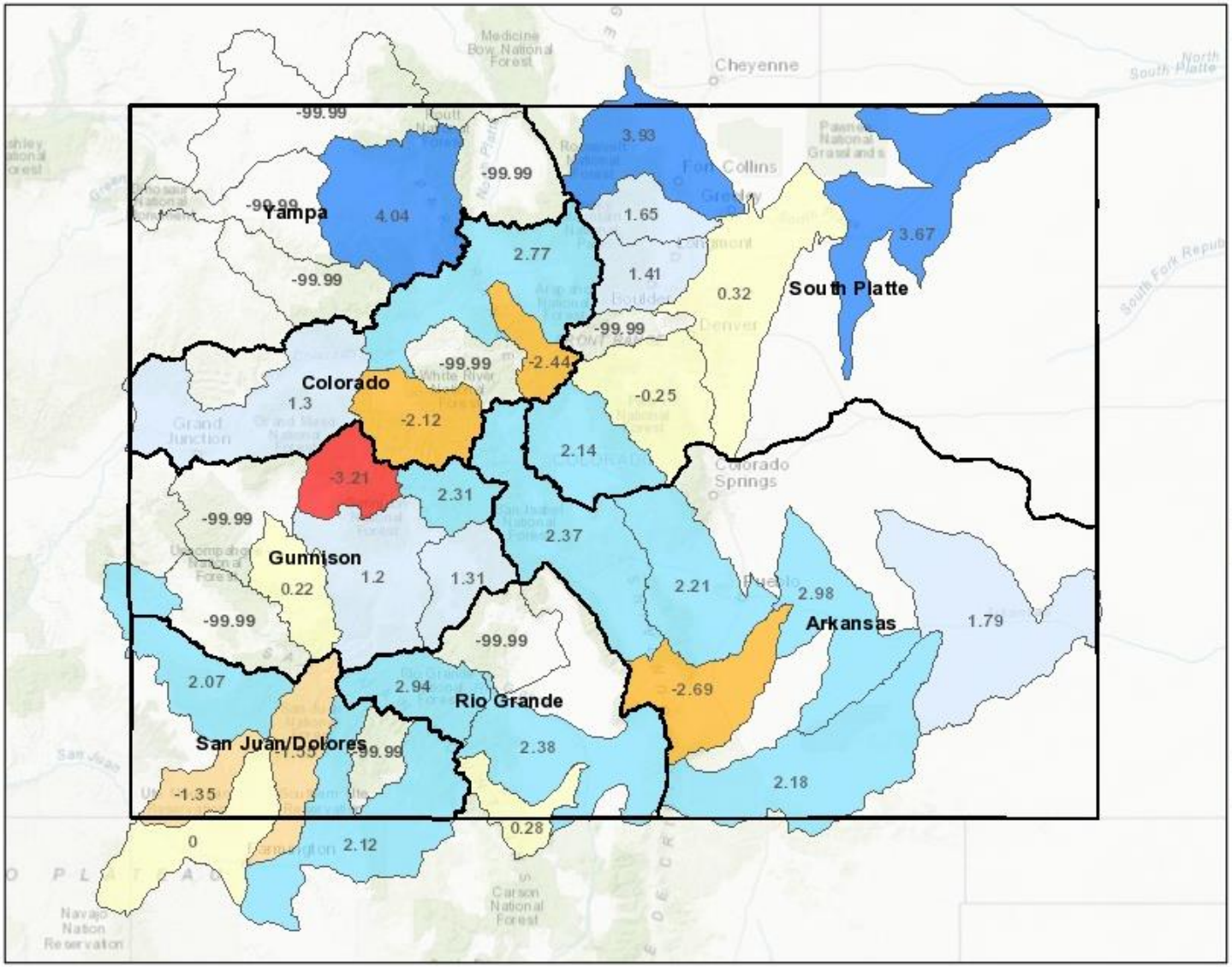


December 1, 2019

SURFACE WATER SUPPLY INDEX FOR COLORADO BY HUC

COLORADO'S Decision Support Systems
CWCB / DWR

December 1, 2019 SWSI



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: 12/20/2019 5:31:40 PM

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

Basin	HUC ID	HUC Name	SWSI	Reservoir Storage NEP	Total Vol (AF)
Arkansas	11020006	Huerfano	-2.69	18	0
	11020010	Purgatoire	2.19	76	20,920
	11020005	Upper Arkansas-Lake Meredith	2.98	86	41,531
	11020009	Upper Arkansas-John Martin Reservoir	1.80	72	95,494
	11020002	Upper Arkansas	2.22	77	200,200
	11020001	Arkansas Headwaters	2.38	79	212,237
Colorado	14010005	Colorado Headwaters-Plateau	1.30	66	13,477
	14010002	Blue	-2.44	21	70,468
	14010004	Roaring Fork	-2.13	24	77,780
	14010001	Colorado Headwaters	2.78	83	130,860
	14010003	Eagle	N/A		
Gunnison	14020003	Tomichi	1.32	66	340
	14020004	North Fork Gunnison	-3.22	11	940
	14020006	Uncompahgre	0.23	53	63,248
	14020001	East-Taylor	2.31	78	75,918
	14020002	Upper Gunnison	1.20	64	758,123
	14020005	Lower Gunnison	N/A		
	14030003	San Miguel	N/A		
Rio Grande	13010002	Alamosa-Trinchera	2.38	79	10,661
	13010005	Conejos	0.28	53	19,474
	13010001	Rio Grande Headwaters	2.95	85	39,522
	13010004	Saguache	N/A		
San Juan-Dolores	14080105	Middle San Juan	0.00	50	3,300
	14080107	Mancos	-1.36	34	3,722
	14080104	Animas	-1.56	31	
	14080101	Upper San Juan	2.13	76	73,333
	14030002	Upper Dolores	2.07	75	304,564
	14080102	Piedra	N/A		
South Platte	10190005	St. Vrain	1.41	67	56,608
	10190003	Middle South Platte-Cherry Creek	0.33	54	73,200
	10190001	South Platte Headwater	2.15	76	156,100
	10190012	Middle South Platte-Sterling	3.67	94	163,300
	10190007	Cache La Poudre	3.94	97	175,026
	10190002	Upper South Platte	-0.26	47	287,932
	10190006	Big Thompson	1.65	70	513,330
	10190004	Clear	N/A		
Yampa-White	14050001	Upper Yampa	4.04	99	43,401
	10180001	North Platte Headwaters	N/A		
	14050002	Lower Yampa	N/A		
	14050003	Little Snake	N/A		
	14050005	Upper White	N/A		

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)

December 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	6,541	62
		HOMESTAKE RESERVOIR	41,131	73
		TWIN LAKES RESERVOIR	46,579	58
		TURQUOISE LAKE	117,986	86
11020006	Huerfano	CUCHARAS RESERVOIR	0	18
11020010	Purgatoire	TRINIDAD LAKE	20,920	76
11020002	Upper Arkansas	PUEBLO RESERVOIR	200,200	77
11020009	Upper Arkansas-John Martin Reservoir	ADOBE CREEK RESERVOIR	13,660	52
		JOHN MARTIN RESERVOIR	81,834	72
11020005	Upper Arkansas-Lake Meredith	LAKE HENRY	4,153	62
		MEREDITH RESERVOIR	37,378	87
14010002	Blue	GREEN MOUNTAIN RESERVOIR	70,468	21
14010001	Colorado Headwaters	WOLFORD MOUNTAIN RESERVOIR	51,560	89
		WILLIAMS FORK RESERVOIR	79,300	82
14010005	Colorado Headwaters-	VEGA RESERVOIR	13,477	66
14010004	Roaring Fork	RUEDI RESERVOIR	77,780	24
14020001	East-Taylor	TAYLOR PARK RESERVOIR	75,918	78
14020004	North Fork Gunnison	PAONIA RESERVOIR	940	11
14020003	Tomichi	VOUGA RESERVOIR NEAR DOYLEVILLE	340	66
14020006	Uncompahgre	RIDGEWAY RESERVOIR	63,248	53
14020002	Upper Gunnison	SILVER JACK RESERVOIR	751	3
		FRUITLAND RESERVOIR	1,208	71
		CRAWFORD RESERVOIR	5,599	45
		MORROW POINT RESERVOIR	108,416	10
		BLUE MESA RESERVOIR	642,149	67
13010002	Alamosa-Trinchera	MOUNTAIN HOME	4,244	82
		TERRACE RESERVOIR	6,417	74
13010005	Conejos	PLATORO RESERVOIR	19,474	53
13010001	Rio Grande Headwaters	RIO GRANDE RESERVOIR	3,973	21
		CONTINENTAL RESERVOIR	14,178	99
		SANTA MARIA RESERVOIR	21,371	91
14080104	Animas	LEMON RESERVOIR	17,666	31
14080107	Mancos	JACKSON GULCH RESERVOIR	3,722	34
14080105	Middle San Juan	LONG HOLLOW RESERVOIR	3,300	50
14030002	Upper Dolores	GROUNDHOG RESERVOIR	15,900	80
		MCPHEE RESERVOIR	288,664	74
14080101	Upper San Juan	VALLECITO RESERVOIR	73,333	76
10190006	Big Thompson	MARIANO RESERVOIR	200	4
		LAKE LOVELAND RESERVOIR	2,700	13
		LONE TREE RESERVOIR	4,200	46
		WILLOW CREEK RESERVOIR	6,131	73
		BOYD LAKE	34,400	64
		CARTER LAKE	67,934	71
		LAKE GRANBY	397,765	70

HUC ID	HUC Name	Component Name	Component Volume (AF)	Component NEP for Month
10190007	Cache La Poudre	HALLIGAN RESERVOIR	3,700	77
		BLACK HOLLOW RESERVOIR	3,900	99
		CACHE LA POUDRE	4,100	46
		CHAMBERS LAKE	4,800	84
		WINDSOR RESERVOIR	8,600	40
		FOSSIL CREEK RESERVOIR	8,900	95
		COBB LAKE	18,200	74
		HORSETOOTH RESERVOIR	122,826	97
10190003	Middle South Platte-Cherry Creek	HORSECREEK RESERVOIR	0	1
		BARR LAKE	15,400	30
		MILTON RESERVOIR	18,500	96
		STANDLEY RESERVOIR	39,300	86
10190012	Middle South Platte-Sterling	EMPIRE RESERVOIR	16,500	55
		JULESBURG RESERVOIR	16,500	51
		PREWITT RESERVOIR	20,300	86
		JACKSON LAKE RESERVOIR	23,400	76
		RIVERSIDE RESERVOIR	42,800	99
		POINT OF ROCKS RESERVOIR	43,800	76
10190001	South Platte Headwater	ANTERO RESERVOIR	20,100	90
		SPINNEY MOUNTAIN RESERVOIR	36,400	72
		ELEVENMILE CANYON RESERVOIR	99,600	80
10190005	St. Vrain	TERRY RESERVOIR	5,000	40
		MARSHALL RESERVOIR	5,100	60
		UNION RESERVOIR	8,605	30
		BUTTONROCK (RALPH PRICE) RESERVOIR	15,493	74
		GROSS RESERVOIR	22,410	73
10190002	Upper South Platte	CHEESMAN LAKE	65,332	58
		DILLON RESERVOIR	222,600	35
14050001	Upper Yampa	YAMCOLO RESERVOIR	8,001	90
		STAGECOACH RESERVOIR NR OAK CREEK	35,400	99

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

*No longer exists

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

Basinwide Conditions Assessment

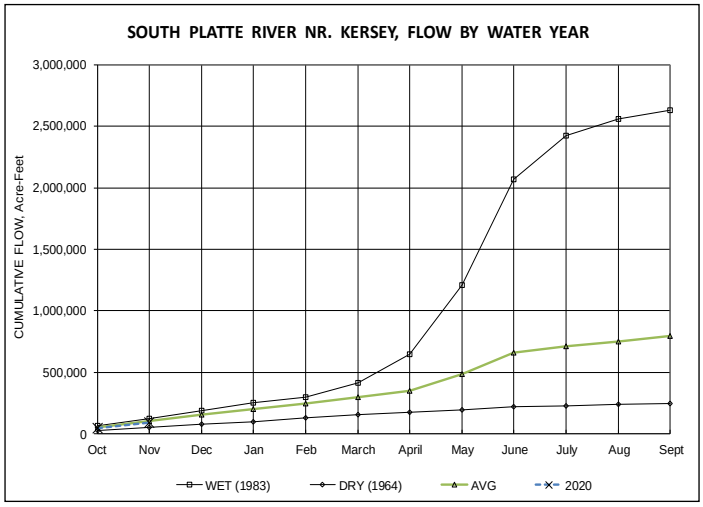
The SWSI value for the month was +3.1.

The month of November started with below average precipitation throughout much of the South Platte River Basin located in Northeastern Colorado, however the later portion of November experienced several widespread storms. The NRCS National Water and Climate Center report indicates that precipitation for the South Platte River Basin was 77% of the average for the month of November, however the higher mountain SNOTEL Sites (foothills and mountainous areas) indicates that the snowpack for the basin on December 1 to be 143% of average. Reservoirs continue to divert to storage during the month of November, which is the typical end of the irrigation season and start of the reservoir winter storage season.

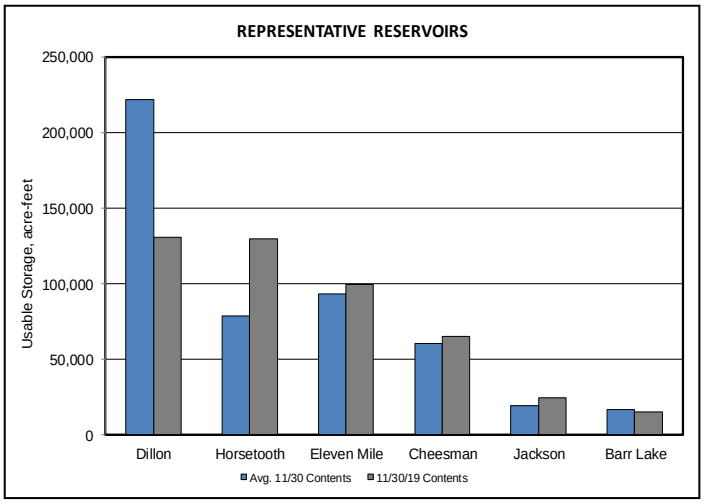
The drought conditions in northeastern Colorado improved from October into early November due to widespread precipitation at the end of October and the beginning of November. However the month of November experience below normal precipitation through the first two-thirds of the month until above average precipitation from several storms blanketed most of northeastern Colorado during the last third of the month. The USDA Drought Monitor rating for northeast Colorado identified several counties at the beginning of the month of November with a majority or entire county with a rating of DO (abnormally dry including: Adams, Arapaho, Park, Elbert, and Washington Counties. However, with the widespread storms towards the end of the month, only portions of a few Counties remained on the USDA Drought Monitor with a rating of D0 at the end of November, including: Park, Teller, El Paso, Elbert and Lincoln.

The month of November began and ended the month with above average flows due to precipitation events, with below average flows during the middle portion of the month during dry conditions. Overall the month of November recorded near average flows at the Kersey and Julesburg stream gaging stations. The flows at the Kersey gage downstream of the City of Greeley, experienced average daily flows for the month of November of approximately 819 cfs, 107% of the historic mean value of 766 cfs. The daily flows at the Julesburg gage, located near the state line, for the month of November were below average resulting in average flow of 310 cfs, 90% of the historic mean monthly value of 345 cfs.

November started the reservoir fill season with a 1910 Riverside call on the lower end of the mainstem. With demand down and reservoir fill levels starting the year at above average storage, a 1910 Riverside call remained until November 20th controlling the river. On November 20th a 1979 priority call at Chatfield Reservoir on the upper end of the mainstem was placed and continued into December. Many tributaries are controlled by internal senior reservoir calling for water within each tributary basin during the month of November.



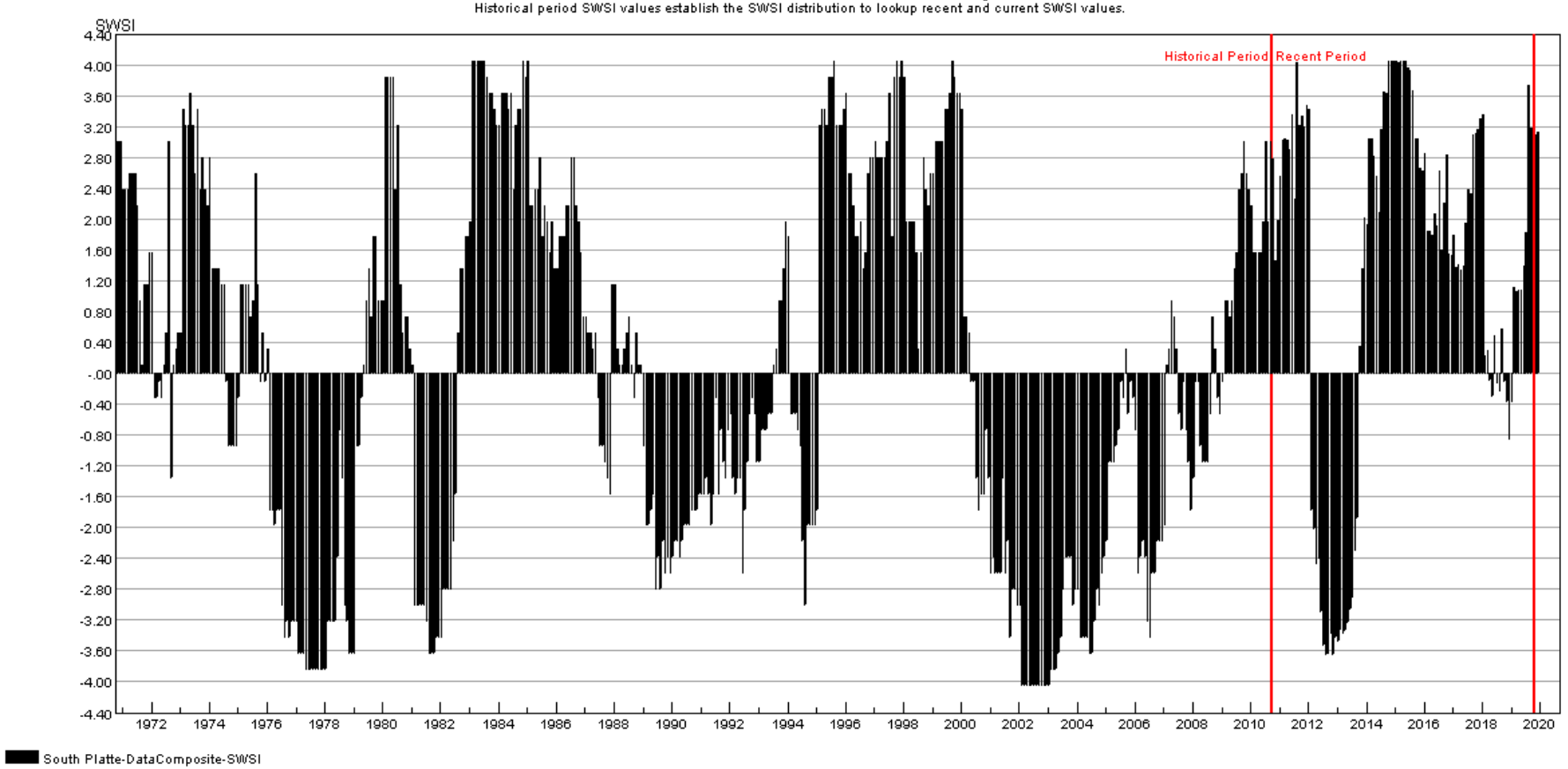
November is the typical start of the winter reservoir fill season. The below average precipitation for the month of November slowed reservoir filling, however the overall above average precipitation during the previous year leading into this current year found reservoir storage near average during the month of November. Reservoir storage levels throughout the South Platte River mainstem ended the month of November slightly below the average at the 6 SWSI Representative Reservoirs at 465,389 acre-feet volume, which is 95% of the long term average of 488,911 acre-feet. Additionally, 32 indexed reservoirs throughout Division 1 basin at 126% of the long term average (1981 - 2010) with a storage volume of 855,686 acre-feet at the end of November, representing approximately 75% of full capacity. This is ahead of the long term average of 60% of full capacity for the end of November storage in the 32 indexed reservoirs throughout Division 1.



The temperature and precipitation outlook into December 2019, January and February 2020 prepared by the National Weather Service, in northeastern Colorado indicates a trend toward slightly above average temperatures and 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 +2.0.

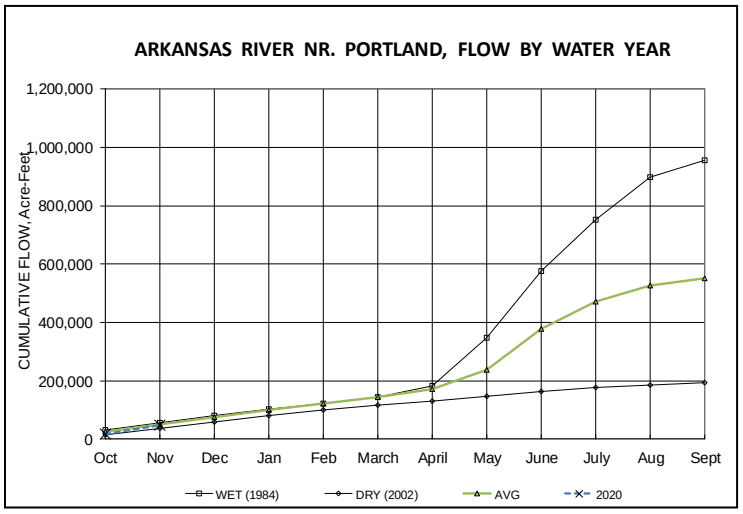
Outlook

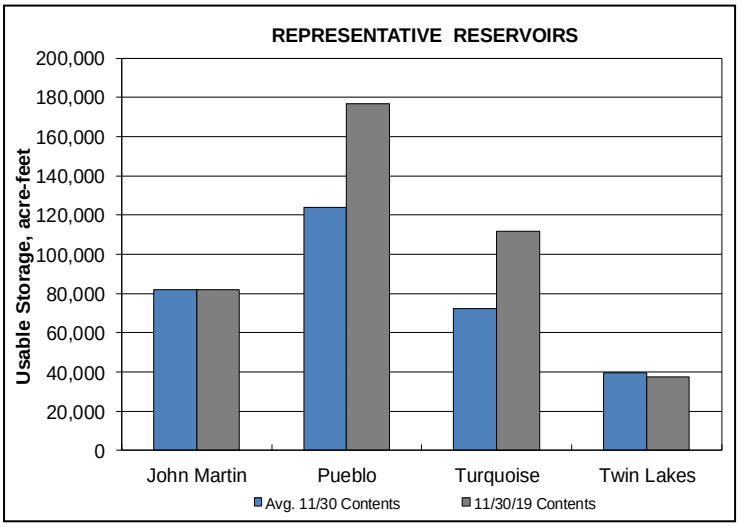
The Pueblo Winter Water Program began operation on November 15, 2019 with storage taking place initially in Pueblo and John Martin Reservoirs and under the Fort Lyon Canal system in Adobe Reservoir. Storage in John Martin Reservoir during November totaled approximately 7,060 acre-feet for Conservation Storage and only 934 acre-feet for Winter Water participants. These reported values are higher and lower, respectively, than last year. Storage overall under the Pueblo Winter Water Program in November totaled approximately 18,069 acre-feet in all storage locations, with 9,639 acre-feet in Pueblo Reservoir alone. These storage levels are generally higher than 2018.

Administrative Concerns

New Area Capacity tables have been developed and implemented at Adobe Reservoir, Walsenburg City Lakes and Lake Trinidad.

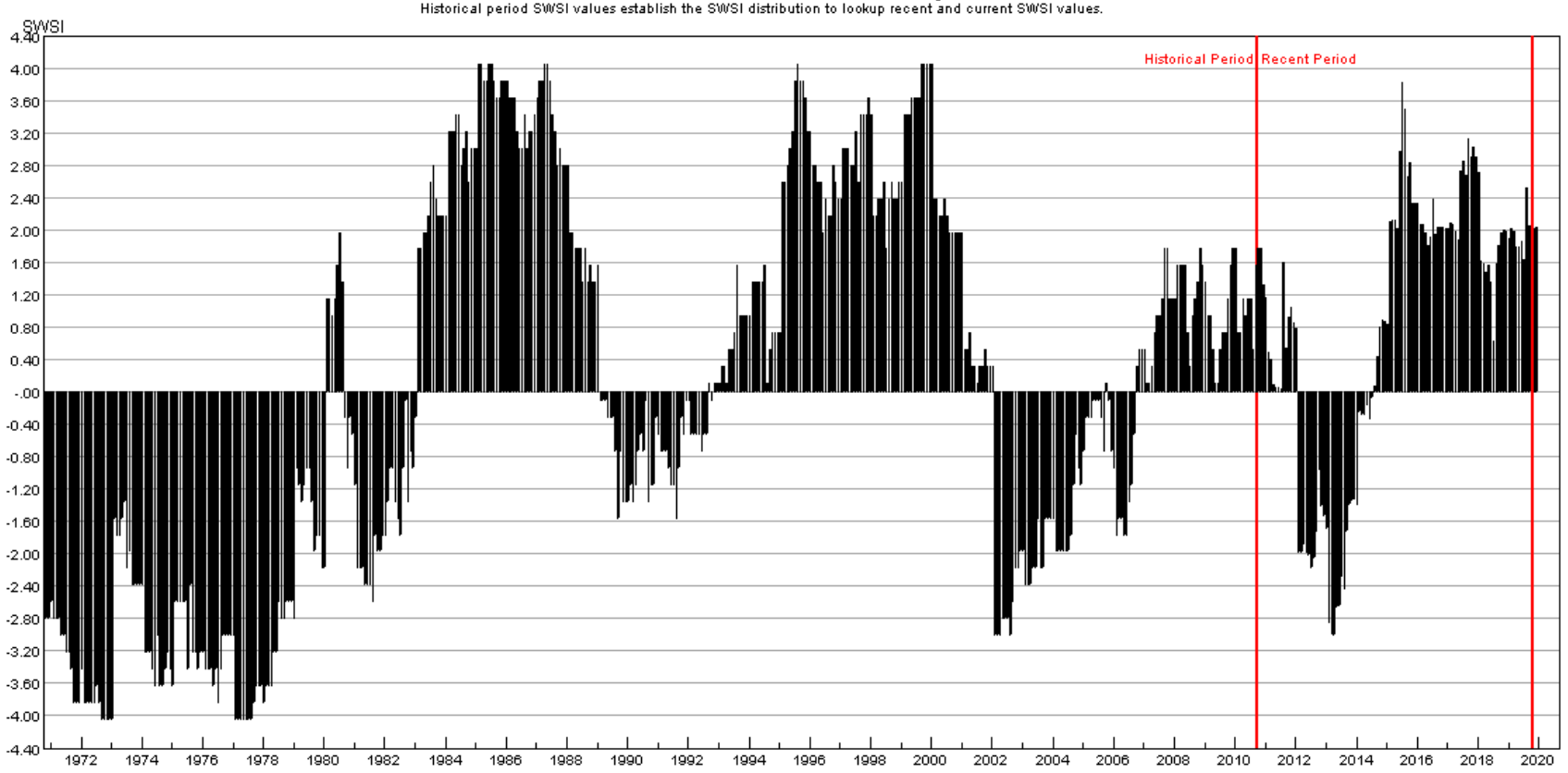
It is unlikely at present with current conditions that the Trinidad Reservoir will fill the Purgatoire River Water Conservancy District's transferred Model storage right before the end of the winter water program. There is still continued probability of the Pueblo Reservoir filling above the conservation pool and into the flood space. Continued management is required to minimize this possibility.





Arkansas Basin SWSI History

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



Basinwide Conditions Assessment

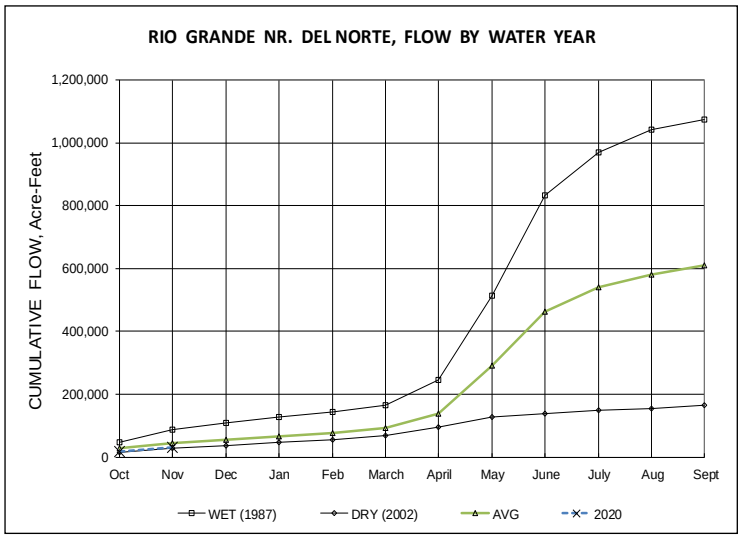
The SWSI value for the month was +2.2.

Flow at the gaging station Rio Grande near Del Norte averaged 219 cfs (80% of normal). The Conejos River near Mogote had a mean flow of 79 cfs (87% of normal). Streamflow levels in most drainages of the upper Rio Grande basin were slightly below normal during November.

Precipitation during November in Alamosa was 0.45 inches, 0.03 inch above normal. It was a mostly dry month in the San Luis Valley until the Thanksgiving snowstorm. The storm increased the accumulated snowpack in the upper Rio Grande basin to slightly above the long term average for late November. That is something to be very thankful for.

Outlook

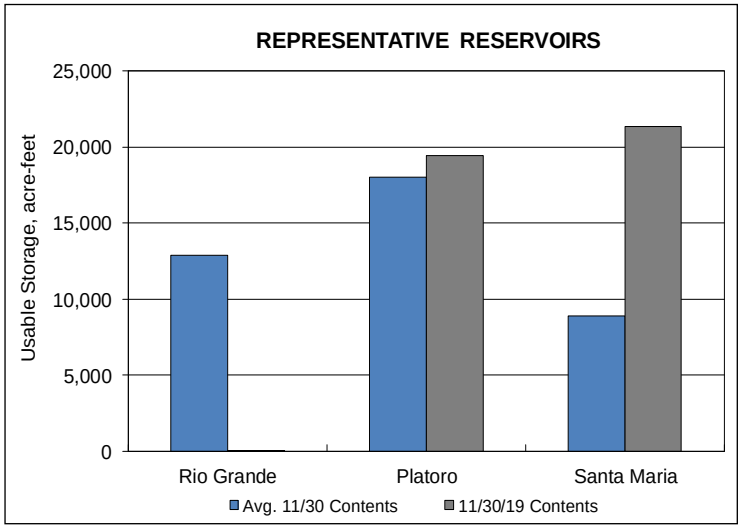
Weather conditions have been generally very pleasant with sunny days and mild temperatures this autumn. Weather forecasts continue to predict above normal temperatures and below normal precipitation for the next several months.



Administrative/Management Concerns

Colorado will slightly over-deliver on the amount required to meet the Rio Grande Compact delivery requirement to New Mexico and Texas during 2019. Individually, the Conejos basin is very close to their delivery requirement, while the Rio Grande pared down its over-delivery via decreed diversions for recharge purposes from November 2 through 15.

December 1st was the deadline for annual submittal of meter readings on irrigation wells in Water Division 3. Compliance has been generally good, with a few stragglers still working out data submittal issues with the staff. The Division Engineer has been working with the Office of the Attorney General to bring tardy well users into metering and reporting compliance.

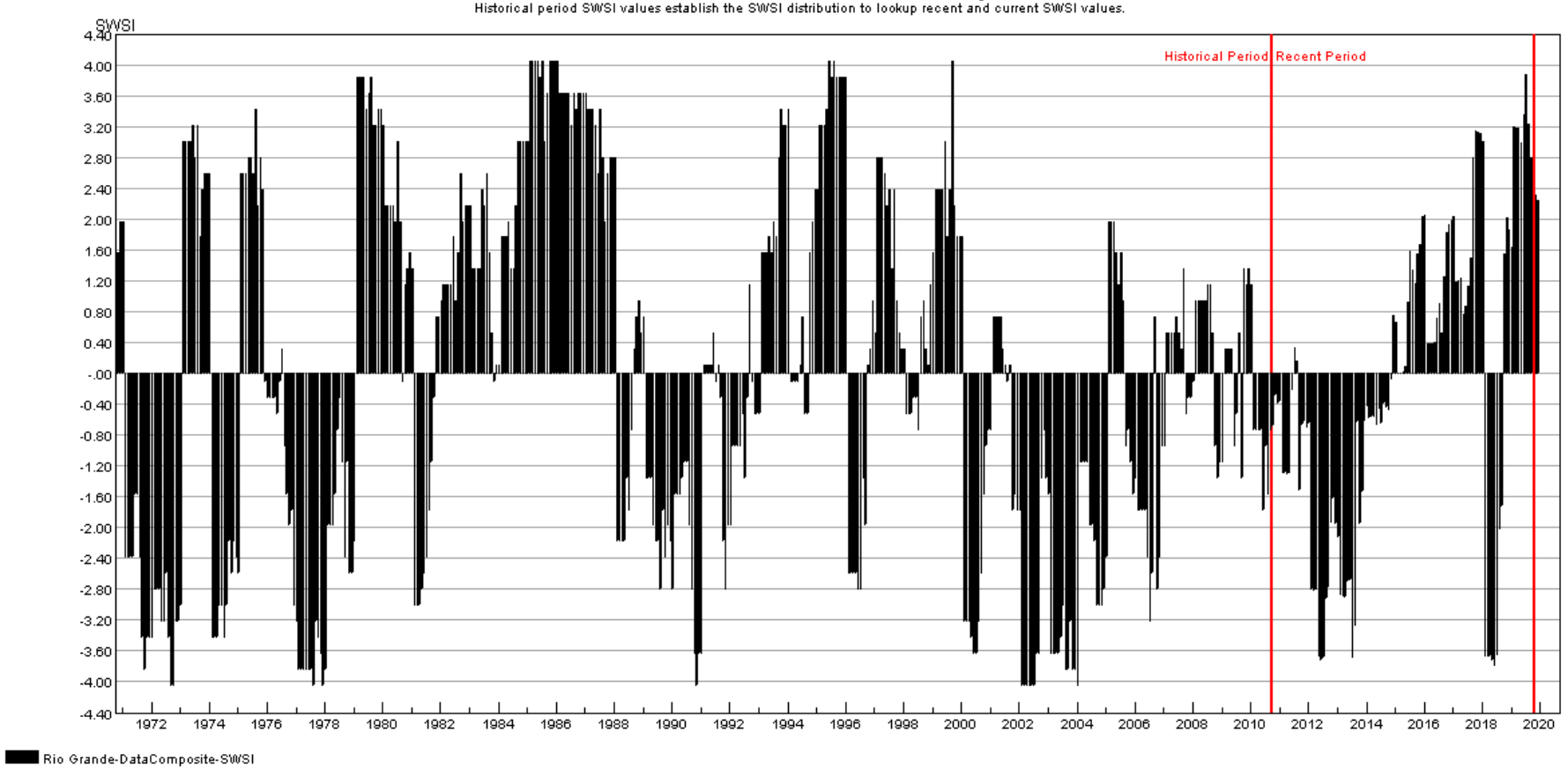


Public Use Impact

Mild weather conditions hampered the success of hunters this fall and slowed the open of the ski season. The snowless farm fields during the majority of the month made the natives restless and fearful of damage to alfalfa stands. They were many requests for a variance to the irrigation season close of November 1, the typical end of season date. Fortunately, the Thanksgiving snowstorm coated the Valley floor with much needed snow.

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 +2.5.

Basin Wide Conditions Outlook

Precipitation varied significantly across the Gunnison basin again in November. Areas on the far west side of the basin, such as the Uncompahgre Plateau, received nearly 150% of average precipitation, while central and northern areas received between 50 and 90% of average. The Gunnison River basin as a whole, as measured by an average of SWE for all Snotel stations, sat near the 30-year median at 95% on December 1st. Basins above Blue Mesa, Ridgway and Paonia Reservoirs contained 100%, 93% and 73% of the median, respectively.. Areas above Taylor Park and in the headwaters of Tomichi Creek continue to have the greatest amount of snow, where up to 123% of average SWE existed on December 1st. Temperatures were generally one to 3 degrees above average in November.

Outlook

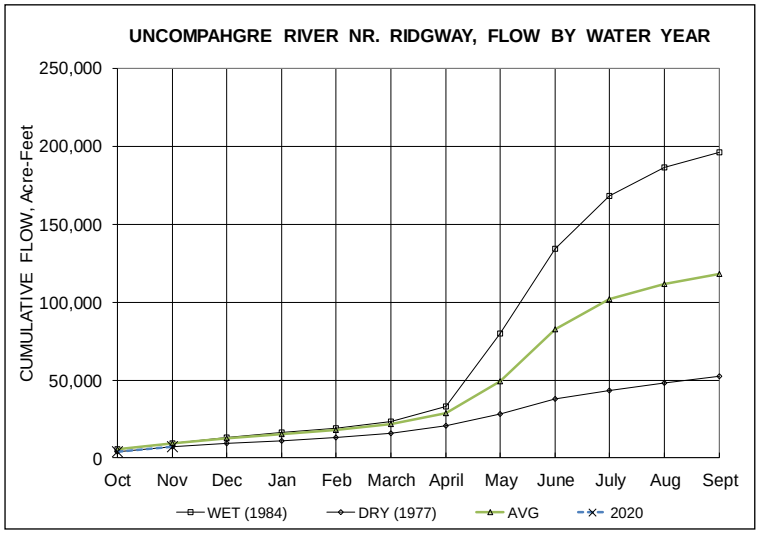
During the January to March period the National Weather Service is forecasting above average temperatures and equal chances of above average precipitation in the Gunnison basin.

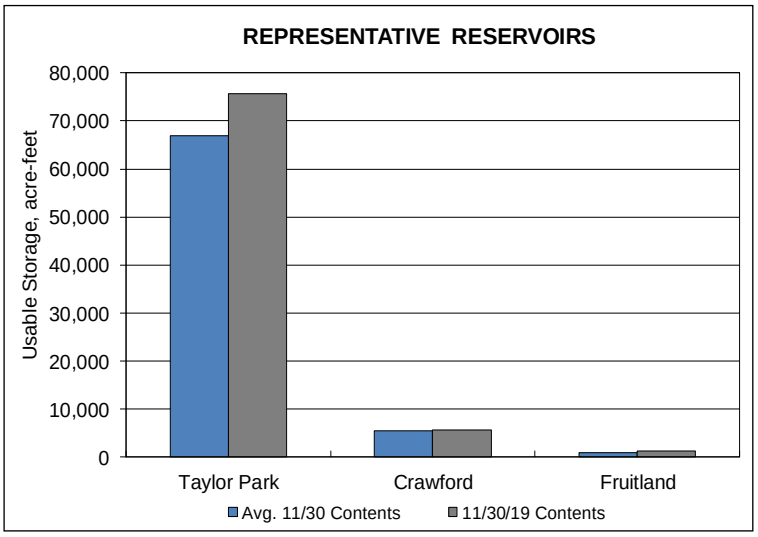
Administrative/Management Concerns

As mentioned in the previous months update, the Gunnison Tunnel shut down irrigation operations on November 1st. As per typical winter operations, the Gunnison Tunnel was opened twice during November to refill Fairview Reservoir with approximately 200 acre-feet of water. Fairview Reservoir is the storage reservoir for the Project 7 Water Authority, which provides treated water for a majority of the Uncompahgre Valley, by treating and selling water to six municipal suppliers, including the City of Montrose, City of Delta, Town of Olathe, Chipeta Water, Tri-County Water Conservancy District and Menoken Water.

Taylor Park Reservoir carried over a full first fill account (106,230 acre-feet), which consisted of 77,076 acre-feet physically in storage at Taylor Park and 29,154 acre-feet of first fill account in Blue Mesa Reservoir. Pursuant to accounting conditions in 86CW203 this means that all releases since November 1st have been moving first fill water down to Blue Mesa while all inflows are accruing to second fill. To that end, 6,000 acre-feet of first fill were moved to Blue Mesa and 5,203 acre-feet were stored under second fill during November.

Blue Mesa Reservoir contains 641,974 acre-feet and is 7.5 feet above the 7,490 feet water surface elevation target to prevent icing above the reservoir. The Bureau of Reclamation increased releases from Blue Mesa and the Aspinall Unit in early December to 1,600 cfs in an attempt to achieve the target elevation by December 31st.



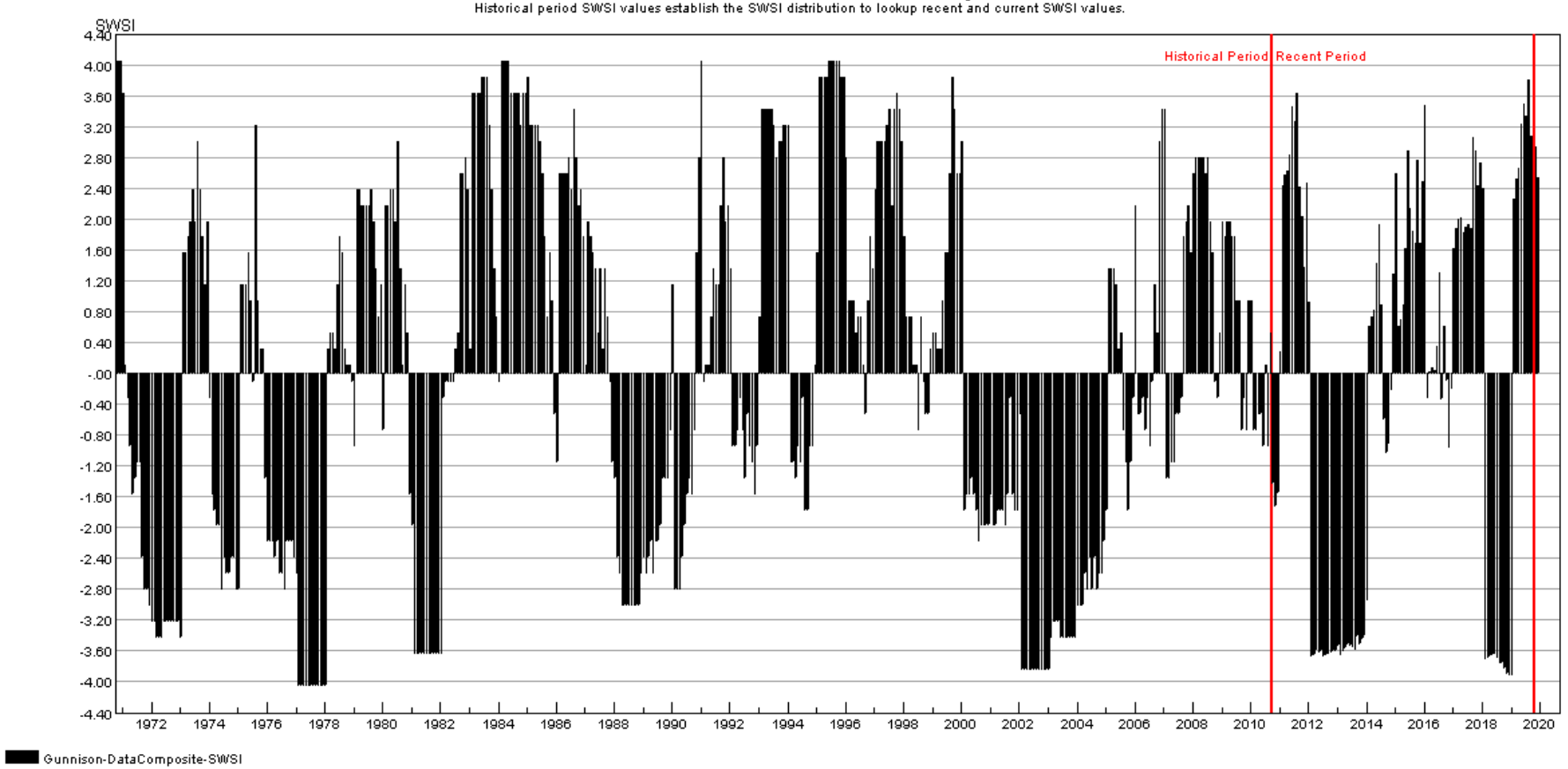


Public Use Impacts

Ski resorts in Division 4 benefited from large storms around Thanksgiving and were able to open with good conditions for the Thanksgiving holiday. Storms have continued to accrue and as of mid-December area ski resorts, such as Crested Butte and Telluride, had base depths near 30 inches.

Gunnison Basin SWSI History

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



Dec-19

Basinwide Conditions Assessment

The SWSI value for the month was +1.5.

Outlook

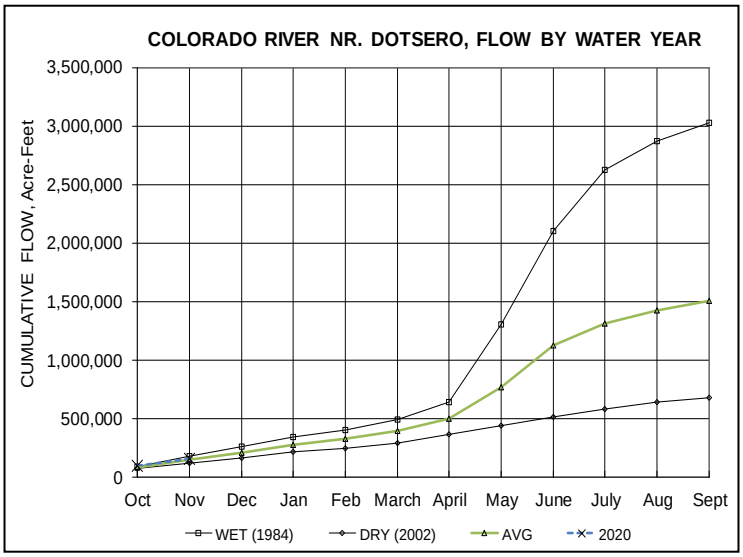
Colorado River flows are running below average with tributary flows also running below average to average throughout December. As of December 19, the Upper Colorado River Basin snowpack was 127 percent of median snow water equivalent and 94 percent of average precipitation. Forecasts call for above average precipitation with above and below normal temperatures for western Colorado through December.

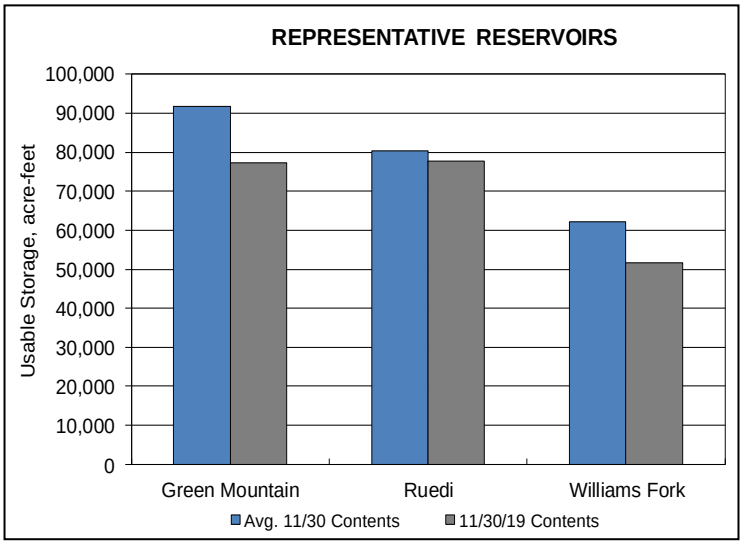
Administrative/Management Concerns

The call on the Colorado River mainstem is the Senior Shoshone (1250cfs) water right. Green Mountain is releasing to pass inflows, release contract water, CB-T replacement water and HUP water.

Public Use Impacts

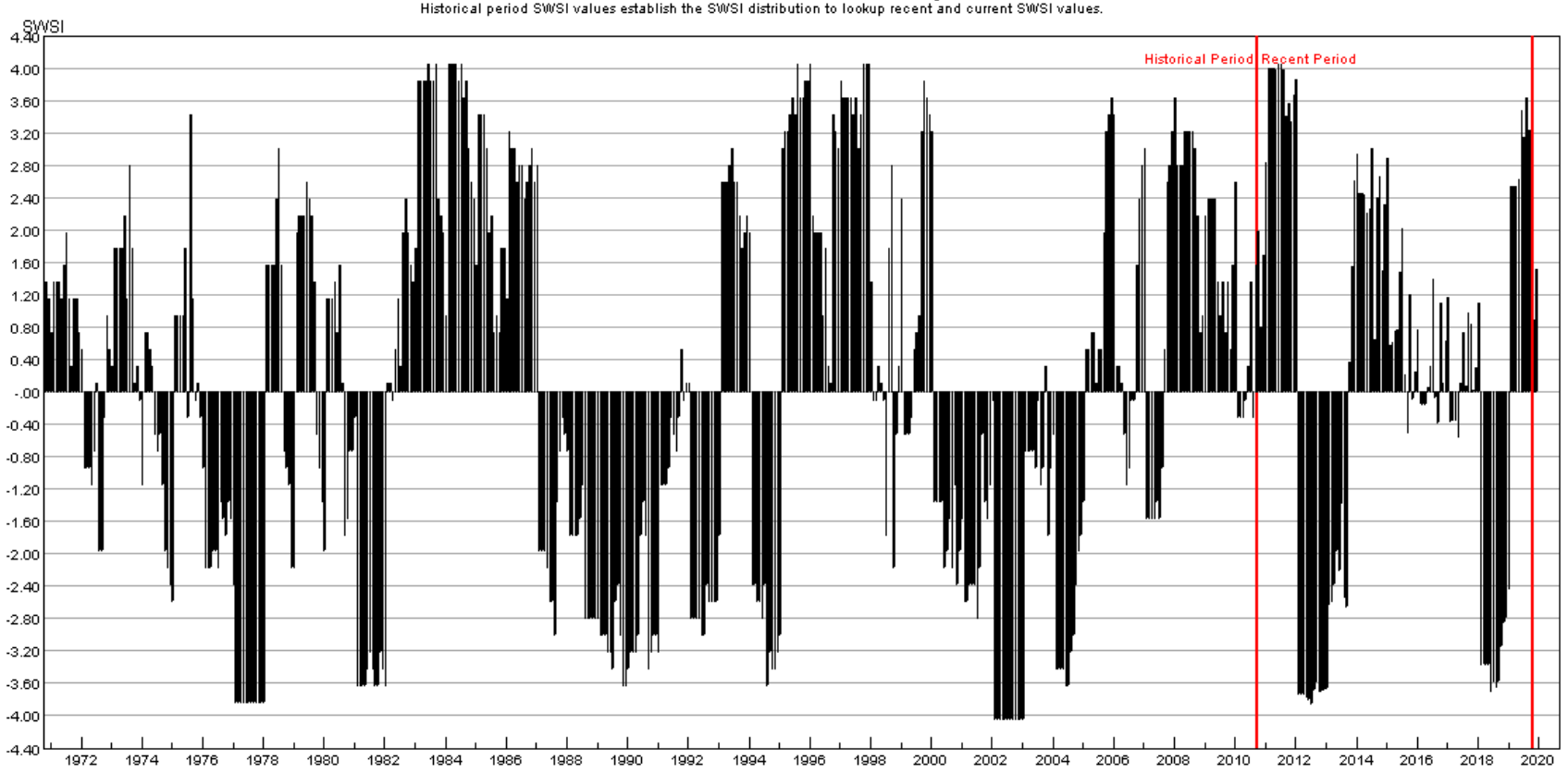
Glenwood Springs sixth grade students have been learning about the Colorado River ecology as part of their semester long expeditionary study, and as a result have started to raise money for charities that support watershed health, including the support for the public purchase of land surrounding Sweetwater Lake, located above Dotsero.





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 +4.0.

Precipitation (24 sites) - Entire Yampa, White, and North Platte basins were **63%** of the monthly average, putting the basin at 87% of average for the water year to date. Which is down from last year's monthly average of 134%. For the month, the lowest percent of average, at 36%, was the Columbine SNOTEL station. The highest, at 121%, was the Little Snake River SNOTEL station.
**Averages are from 1981-2010 records*

Snowpack (25 sites) - Yampa, White, and North Platte basins were **121%** of the monthly SWE median. This is down from last year's median of 137%. For the month, the lowest percent of median, at 66%, was the Bison Lake SNOTEL station. The highest, at 260%, was the Battle Mountain SNOTEL station.
**Averages are from 1981-2010 records*

Temperatures – The average temperature for Colorado Climate Division 2: Colorado River Drainage was **34.3° F**. This is 3.7°F from the average of 30.6°F or 12% above average. This temperature ranks 108th lowest of the previous 125 years of data. For the Platte Drainage, Colorado Climate Division 4, the average temperature was **34.1°F**, 0.7°F or 2% above the average of 33.4°F, ranking 32nd.
**Averages are from 1901-2000 records*

Reservoir Outlook

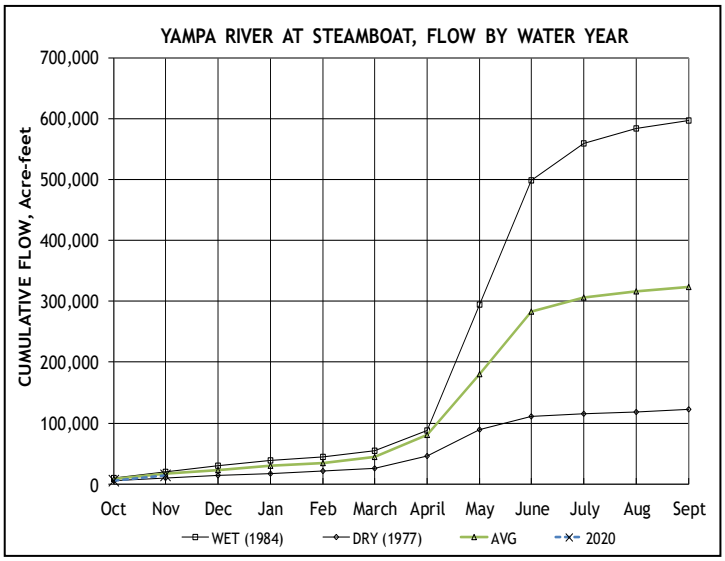
Elkhead Reservoir – November 30th, 2019 elevation was 71.6' and 19,170 AF of 25,550 AF – 75% capacity

Fish Creek Reservoir – December 1st, 2019 elevation was 9,871.43' at 2,410 AF of 4,170 AF – 57.8% capacity.

Stagecoach Reservoir – December 1st, 2019 elevation was 7202.8' at 35,400 AF of 36,500 – 97% capacity, 117% average, 113% last year

Yamcolo Reservoir – December 1st, 2019 elevation was 67.94' at 8,000 AF of 8,700 – 92% capacity, 167% average, 67% last year.

**Averages are from 1981-2010 records*



Public Use Impacts

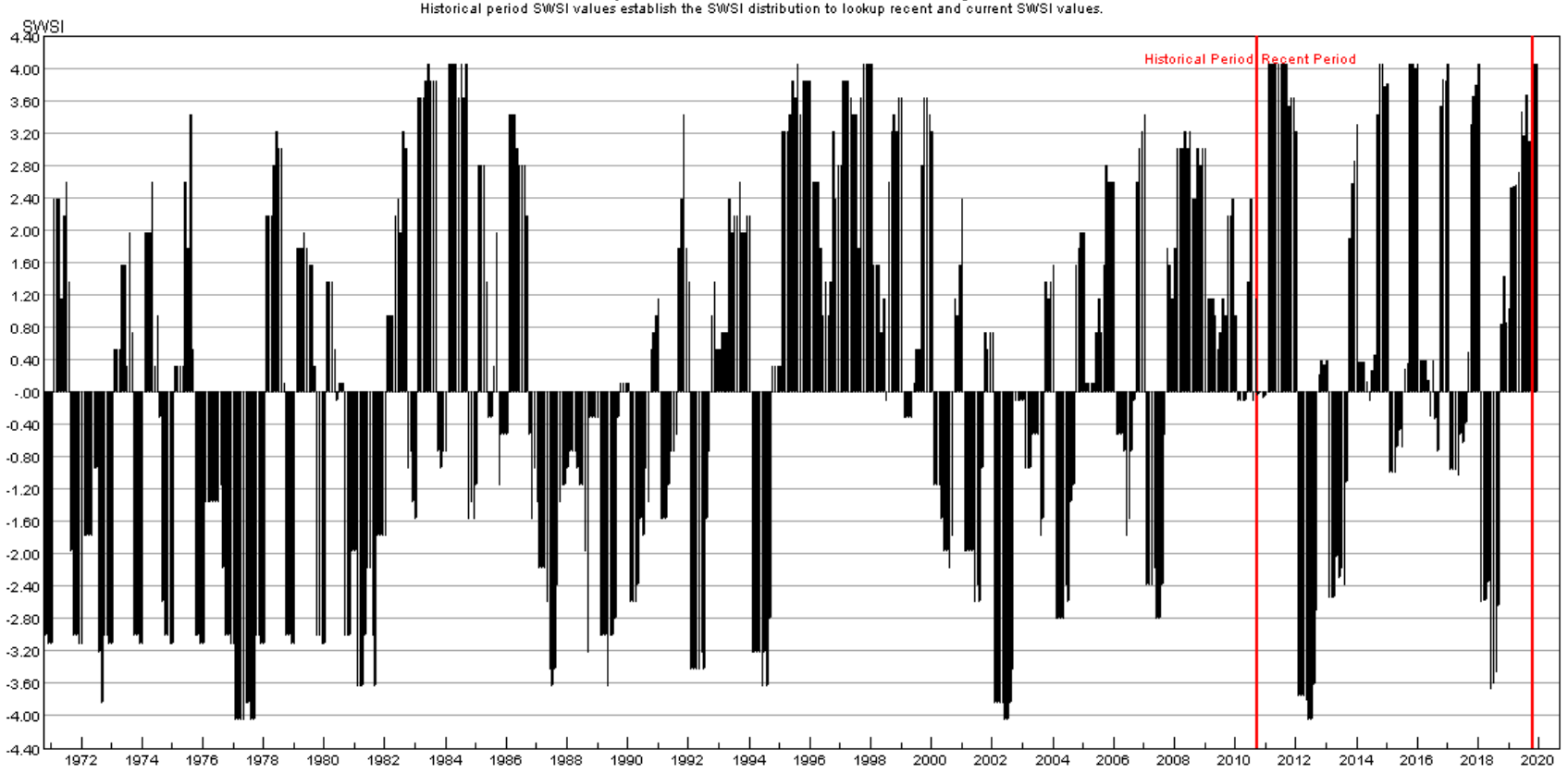
Steamboat Ski Resort opened the earliest in history on Nov. 15th due to significant snows in October and November.

Administrative Concerns

There have been no calls in Division 6 for November.

Yampa-White Basin SWSI History

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



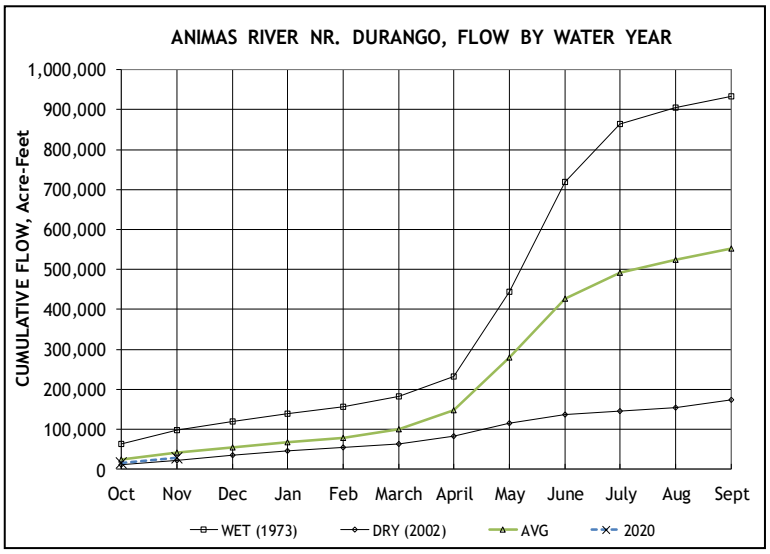
Basinwide Conditions Assessment

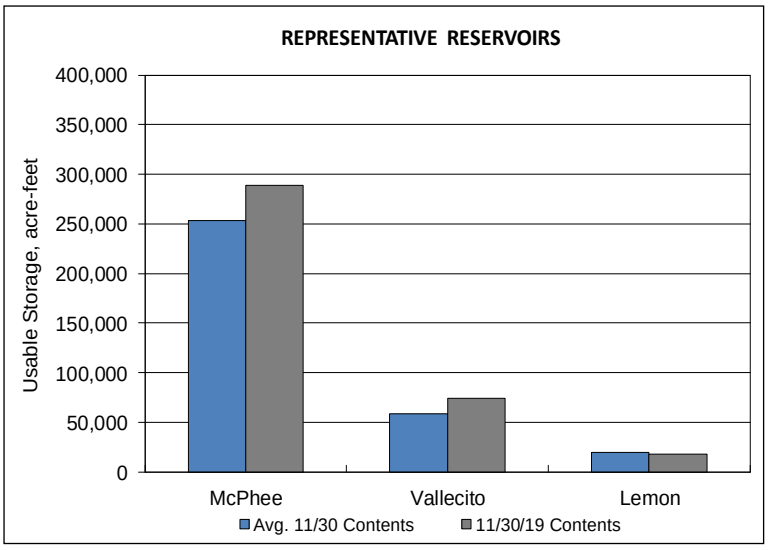
The SWSI value for the month was +2.3.

Flow at the Animas River at Durango averaged 210 cfs (74% of average). The flow at the Dolores River at Dolores was estimated to average 82 cfs (74% of average). The La Plata River at Hesperus averaged 4.5 cfs (43% of average). Precipitation in Durango was 2.07 inches for the month, 138% of the 30-year average of 1.50 inches. Precipitation to date in Durango, for the water year is 2.35 inches, 71% of the 30-year average of 3.33 inches. The average high and low temperatures for the month of November in Durango were 55° and 24°. In comparison, the 30-year average high and low for the month is 52° and 24°. At the end of the month Vallecito Reservoir contained 74,231 acre-feet compared to its average content of 54,171 acre-feet (137% of average). McPhee Reservoir was up to 288,588 acre-feet compared to its average content of 257,645 (112% of average), while Lemon Reservoir was up to 18,000 acre-feet as compared to its average content of 19,282 acre-feet (93% of average).

Outlook

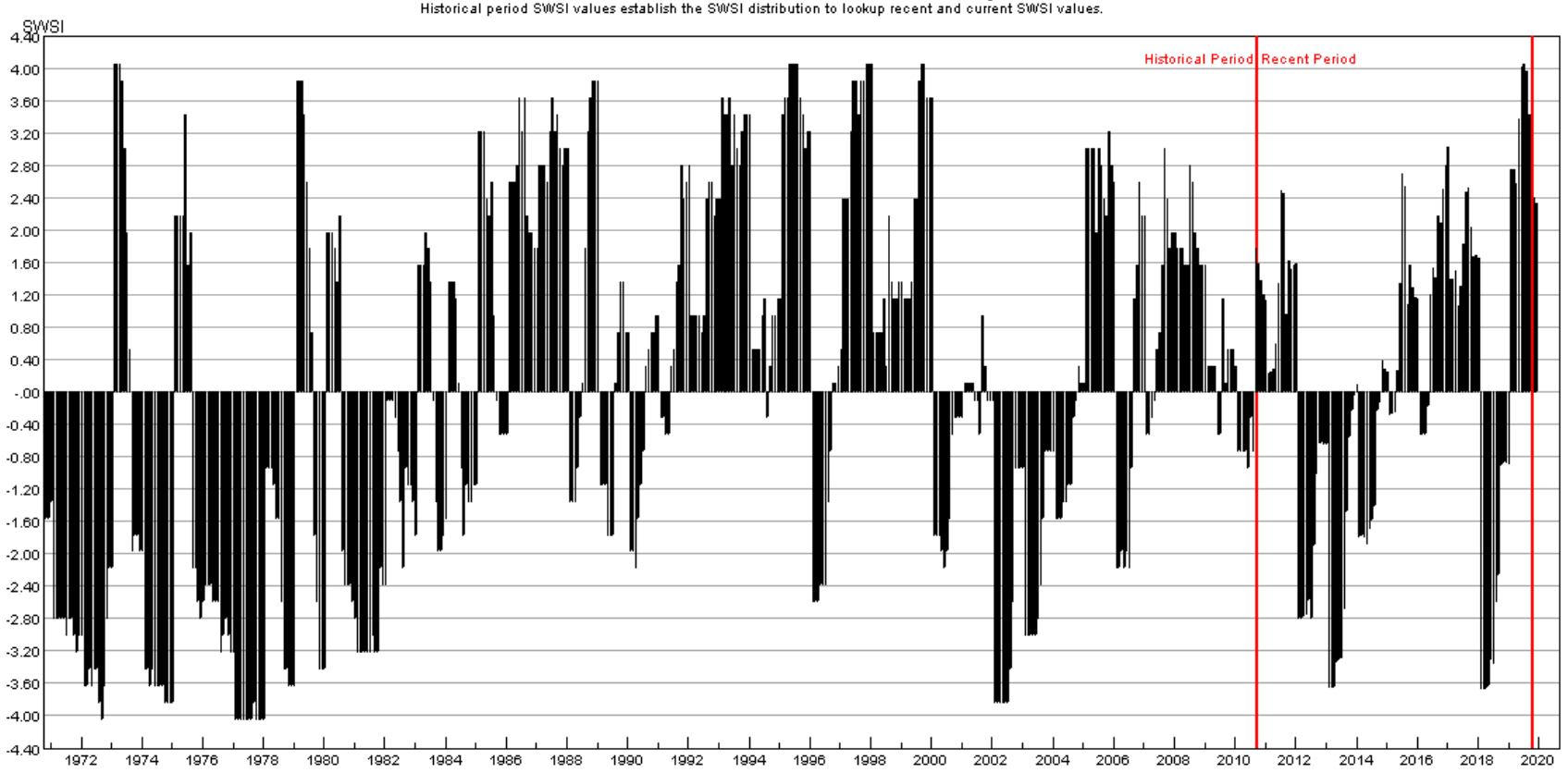
Precipitation (2.07 inches) was above average for November in Durango. There were 31 years out of 125 years of record where there was more precipitation than this year. The flows in the rivers gained a little bit toward average this month with the increase in precipitation. There are 81 out of 109 years of record where the total flow past the Animas River at Durango stream gauge was more than this year. There were 63 out of 110 years of record where the total flow past the Dolores stream gauge was more than this year and 93 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.





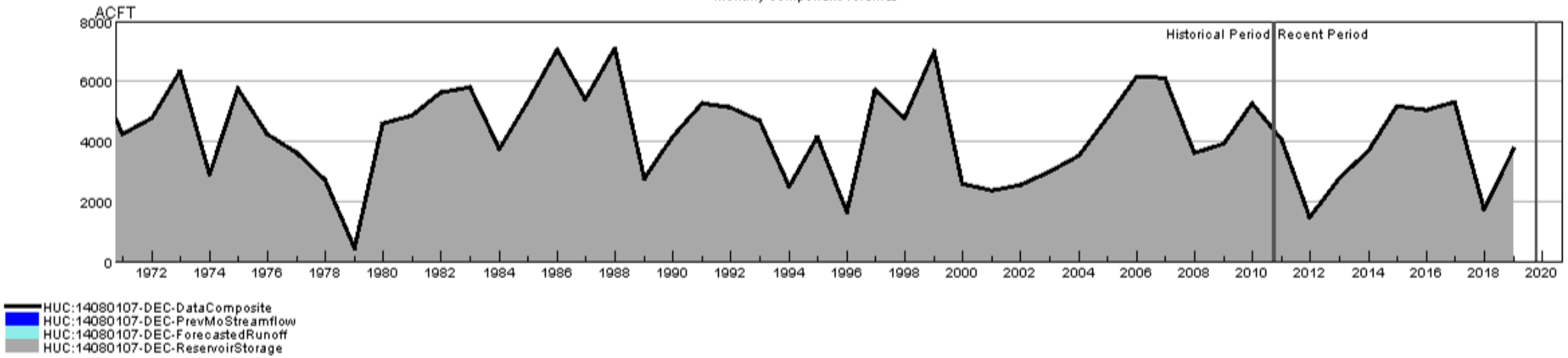
San Juan-Dolores Basin SWSI History

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



HUC 14080107 (Mancos) Surface Water Supply - DEC

Monthly component volumes



HUC:14080107-DEC-DataComposite
HUC:14080107-DEC-PrevMoStreamflow
HUC:14080107-DEC-ForecastedRunoff
HUC:14080107-DEC-ReservoirStorage

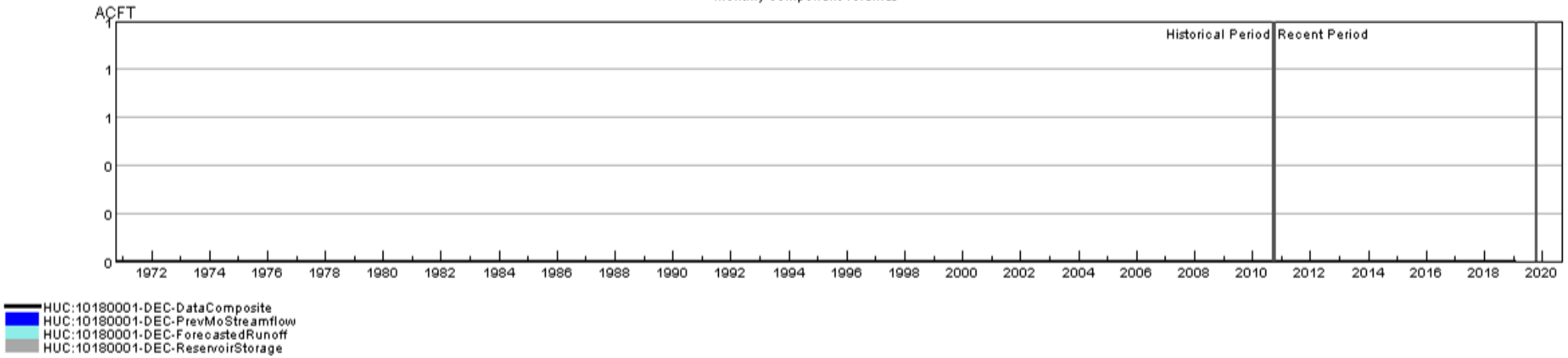
HUC 14080107 (Mancos) SWSI Values - DEC

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

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

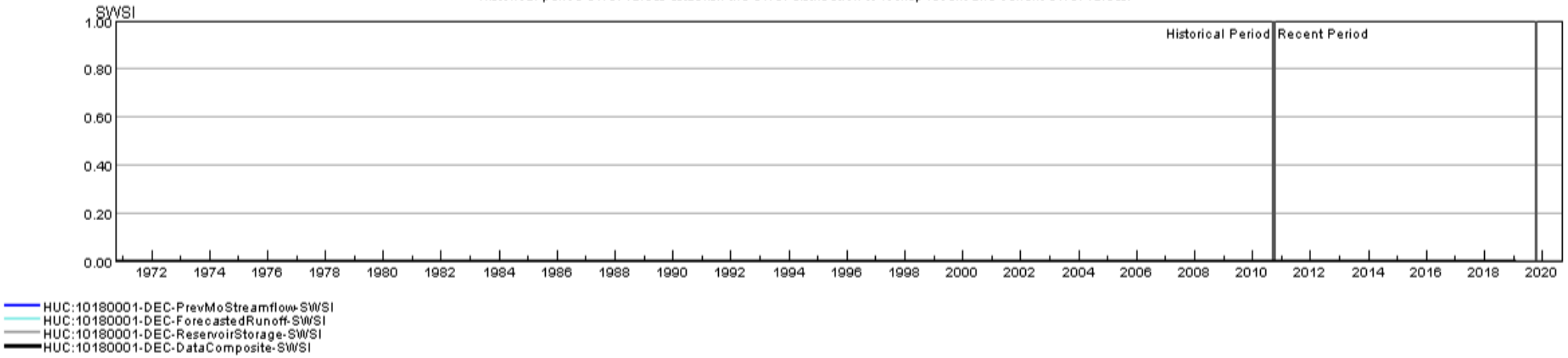
HUC 10180001 (North Platte Headwaters) Surface Water Supply - DEC

Monthly component volumes



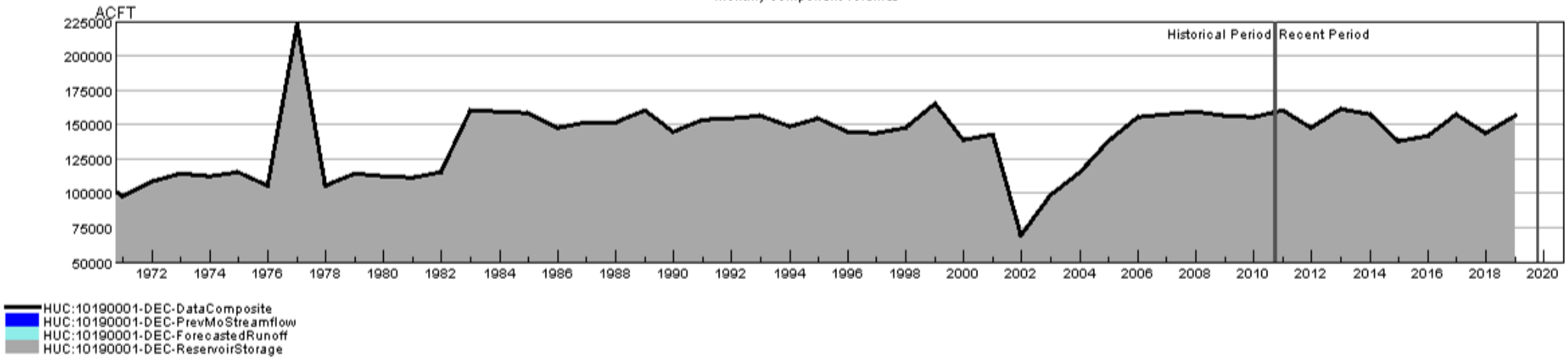
HUC 10180001 (North Platte Headwaters) SWSI Values - DEC

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



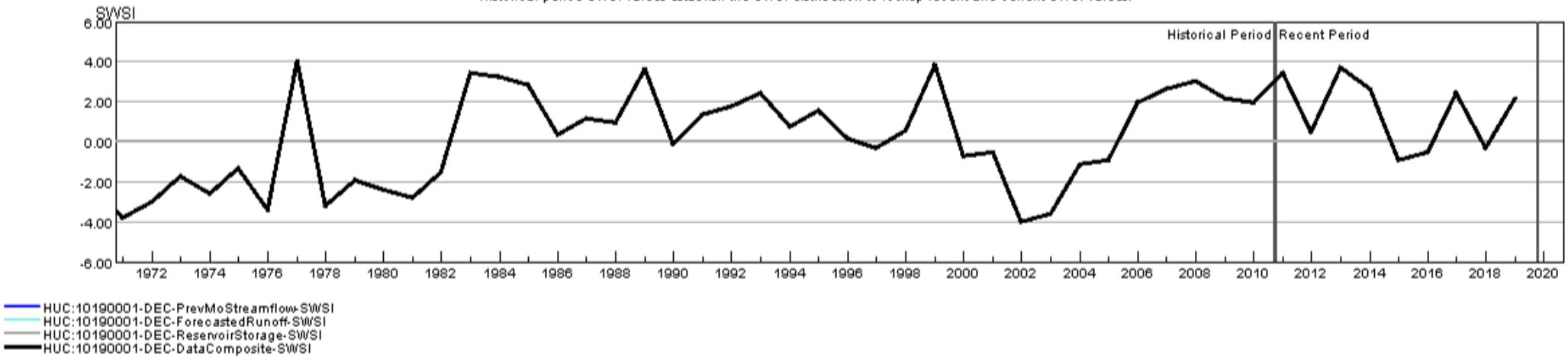
HUC 10190001 (South Platte Headwater) Surface Water Supply - DEC

Monthly component volumes



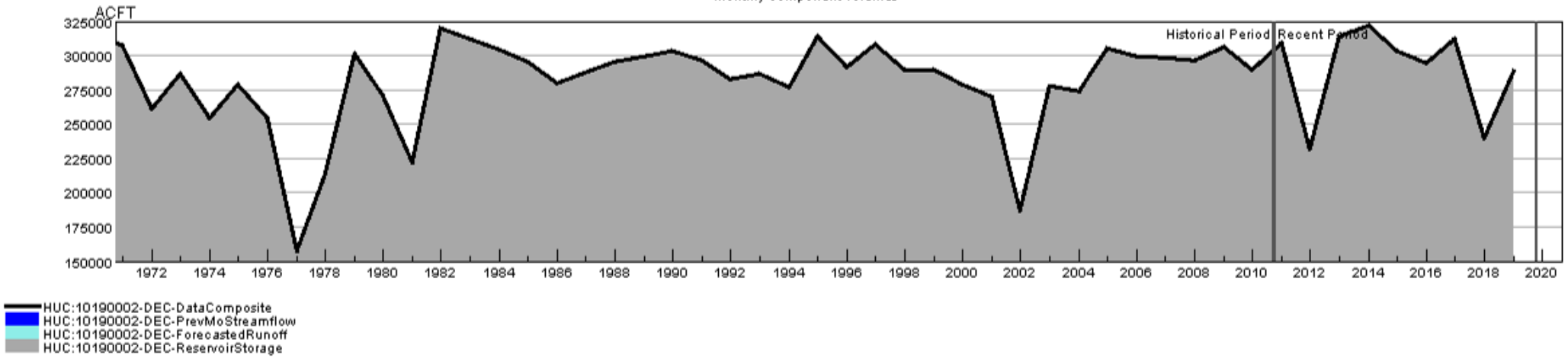
HUC 10190001 (South Platte Headwater) SWSI Values - DEC

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



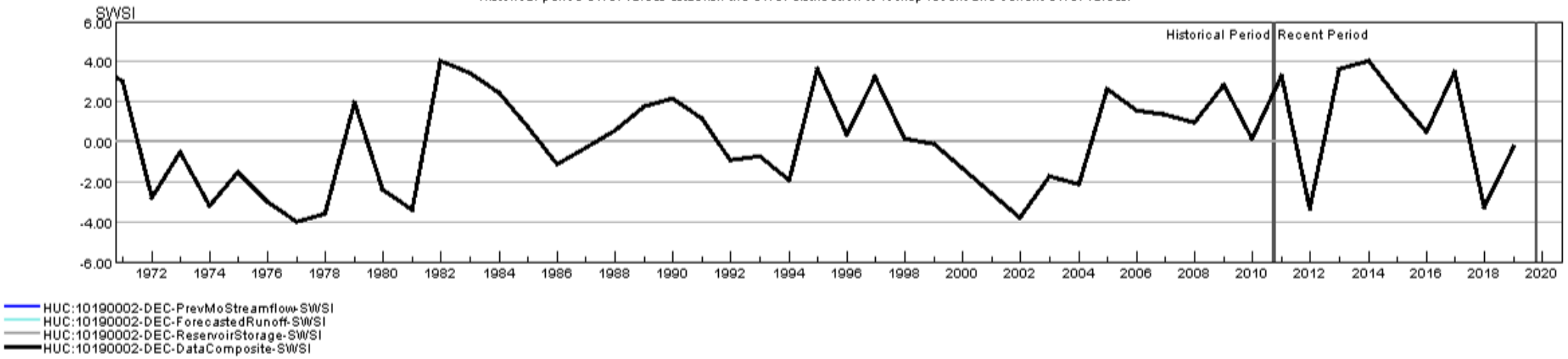
HUC 10190002 (Upper South Platte) Surface Water Supply - DEC

Monthly component volumes



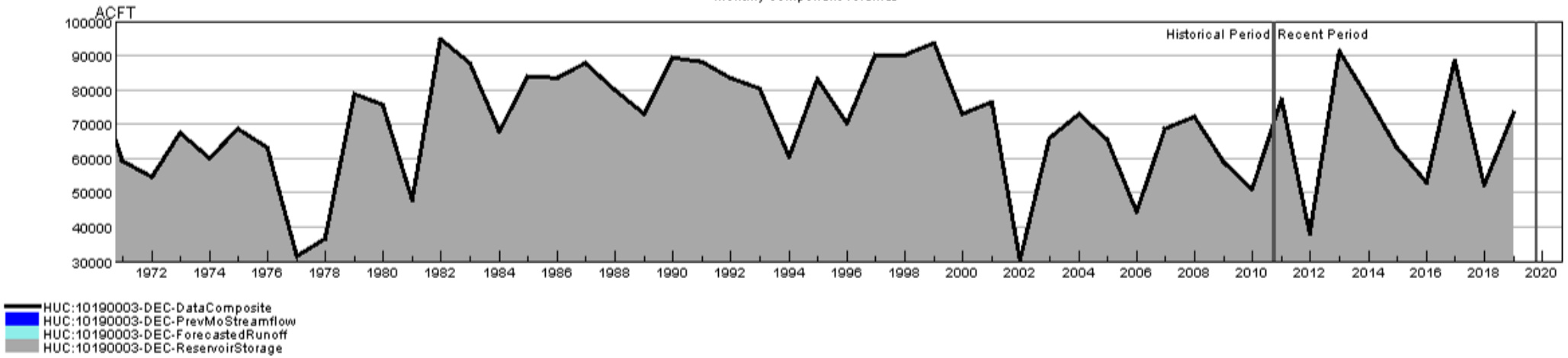
HUC 10190002 (Upper South Platte) SWSI Values - DEC

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



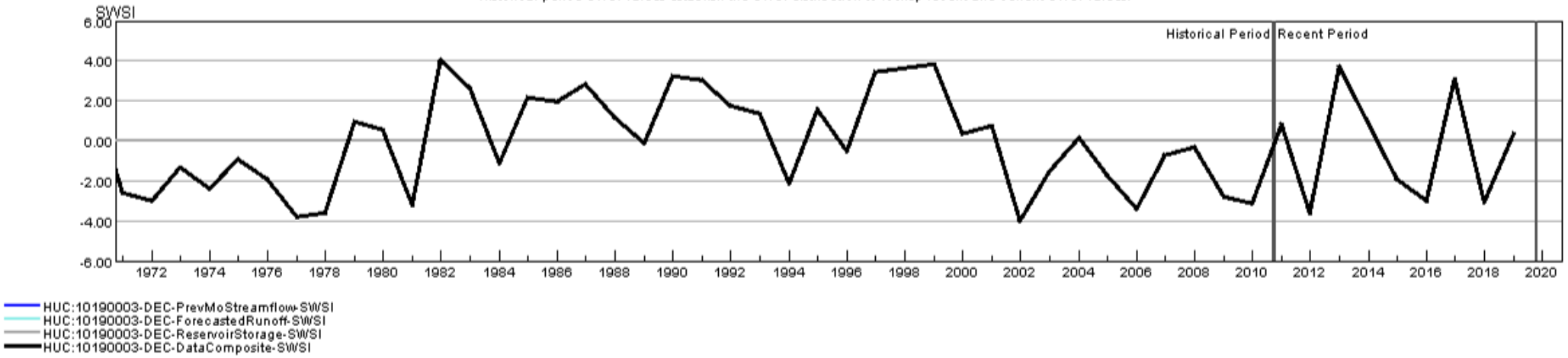
HUC 10190003 (Middle South Platte-Cherry Creek) Surface Water Supply - DEC

Monthly component volumes



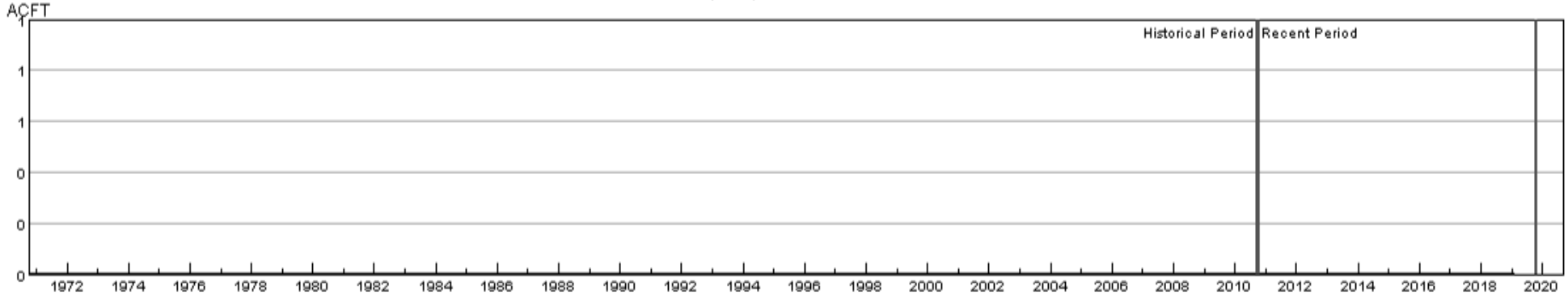
HUC 10190003 (Middle South Platte-Cherry Creek) SWSI Values - DEC

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



HUC 10190004 (Clear) Surface Water Supply - DEC

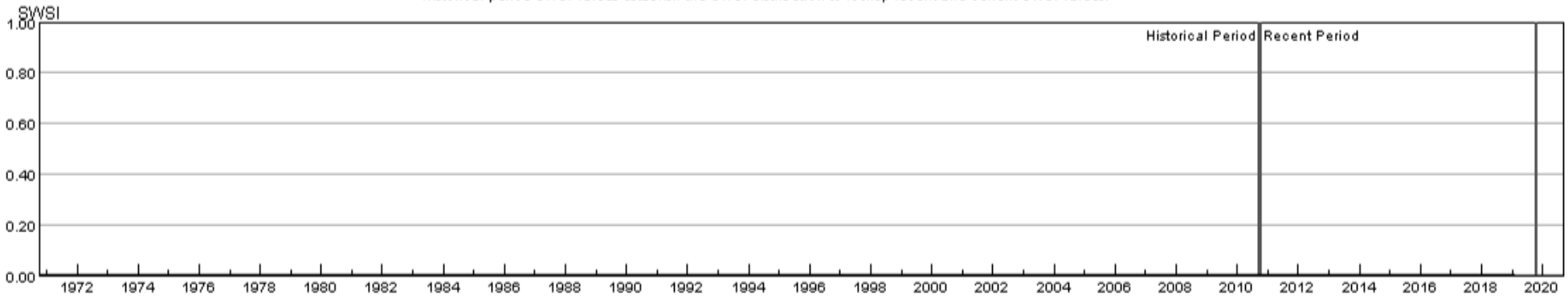
Monthly component volumes



HUC:10190004-DEC-DataComposite
HUC:10190004-DEC-PrevMoStreamflow
HUC:10190004-DEC-ForecastedRunoff
HUC:10190004-DEC-ReservoirStorage

HUC 10190004 (Clear) SWSI Values - DEC

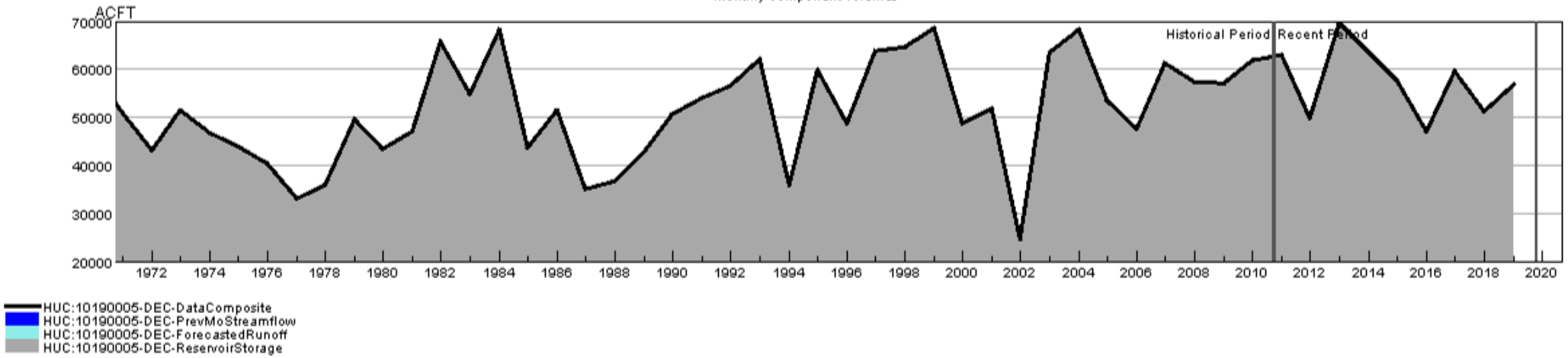
Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.



HUC:10190004-DEC-PrevMoStreamflow-SWSI
HUC:10190004-DEC-ForecastedRunoff-SWSI
HUC:10190004-DEC-ReservoirStorage-SWSI
HUC:10190004-DEC-DataComposite-SWSI

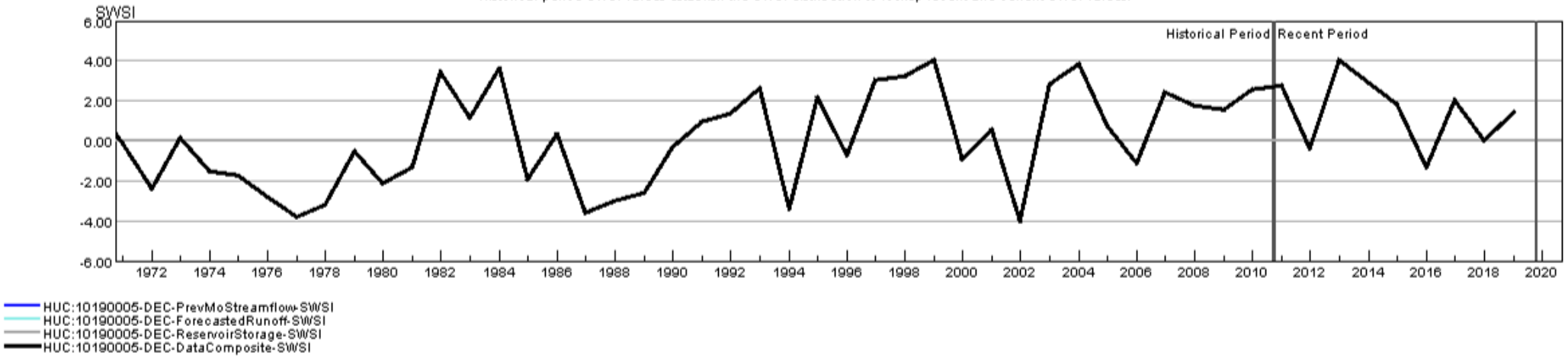
HUC 10190005 (St. Vrain) Surface Water Supply - DEC

Monthly component volumes



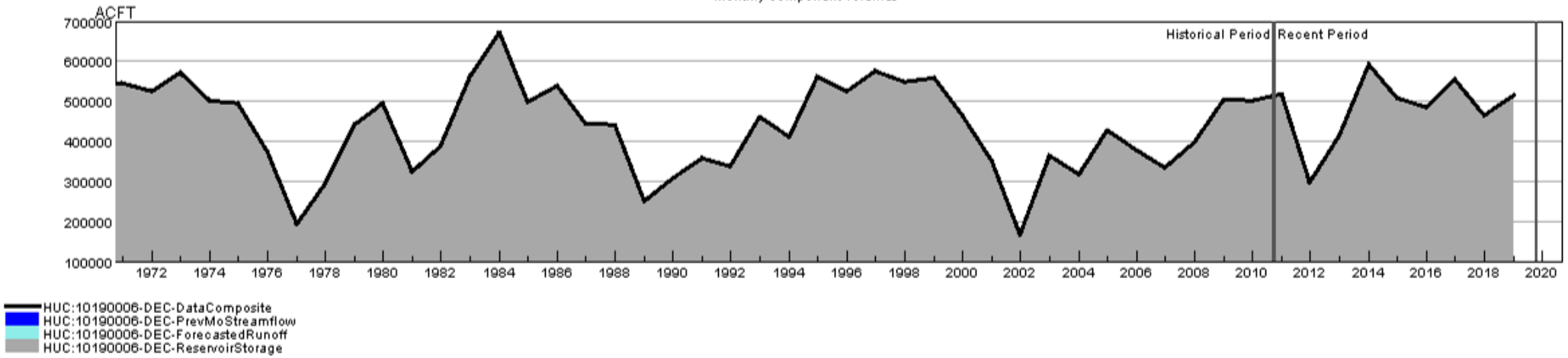
HUC 10190005 (St. Vrain) SWSI Values - DEC

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



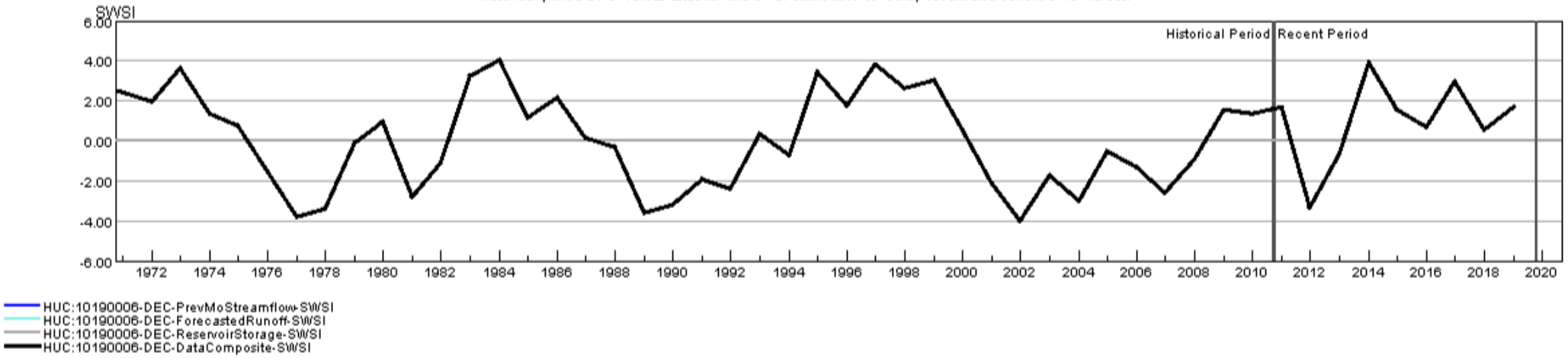
HUC 10190006 (Big Thompson) Surface Water Supply - DEC

Monthly component volumes



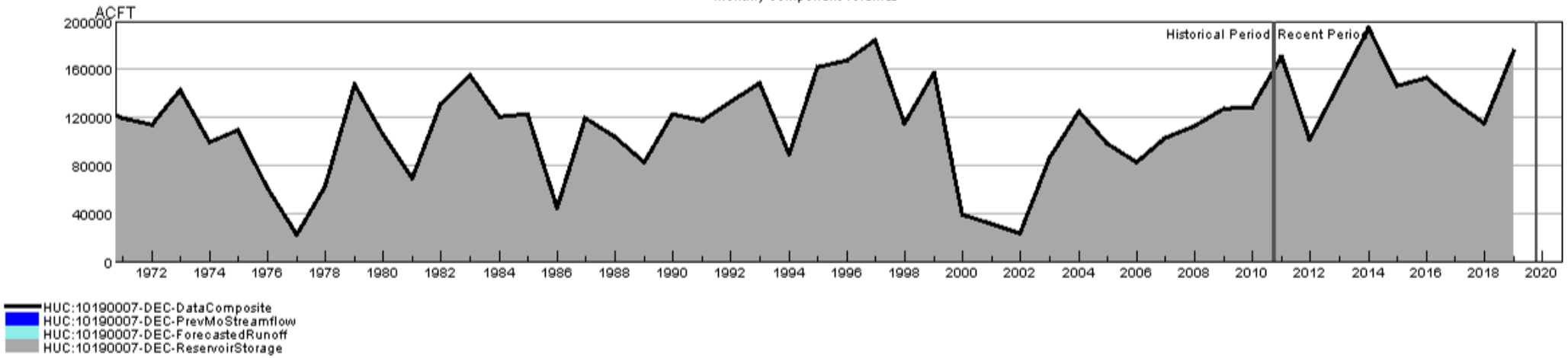
HUC 10190006 (Big Thompson) SWSI Values - DEC

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



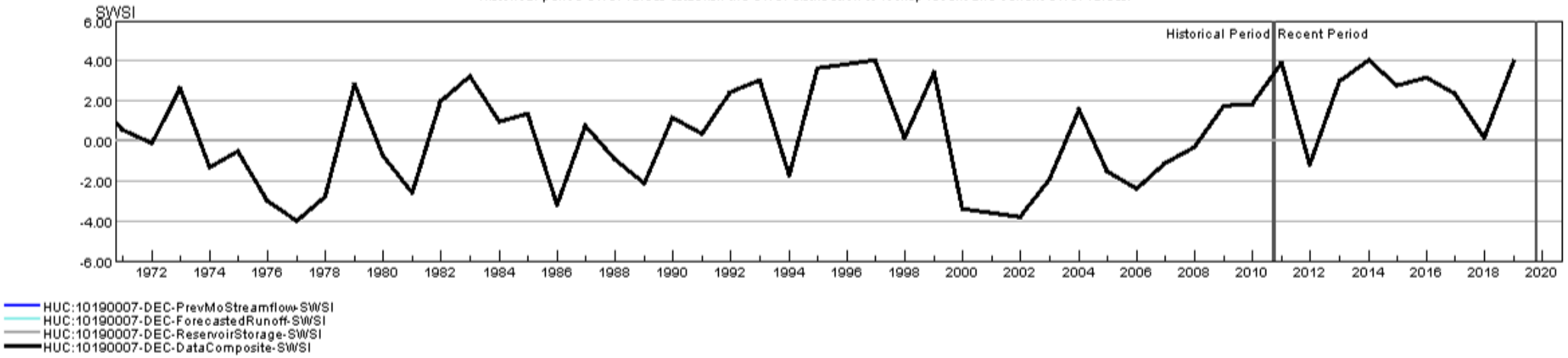
HUC 10190007 (Cache La Poudre) Surface Water Supply - DEC

Monthly component volumes



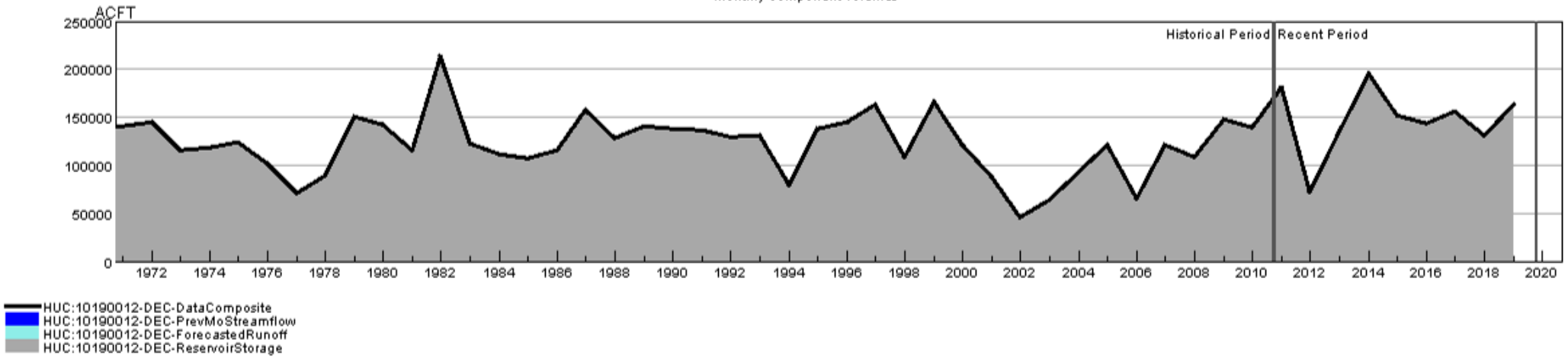
HUC 10190007 (Cache La Poudre) SWSI Values - DEC

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



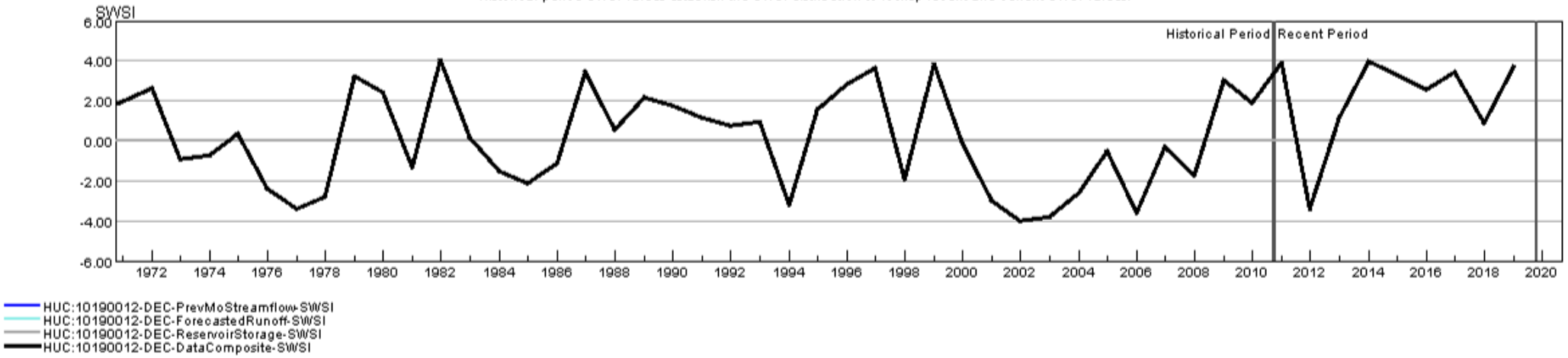
HUC 10190012 (Middle South Platte-Sterling) Surface Water Supply - DEC

Monthly component volumes



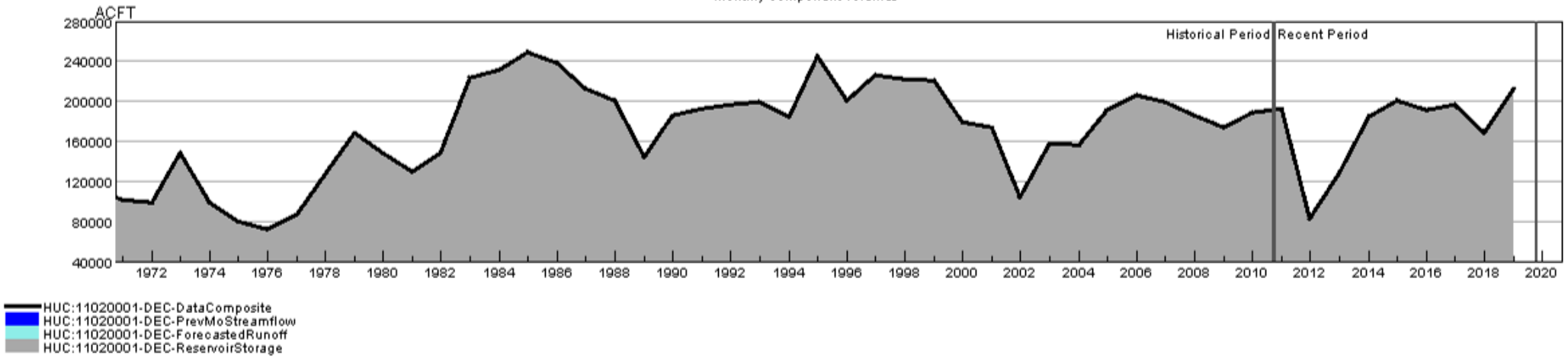
HUC 10190012 (Middle South Platte-Sterling) SWSI Values - DEC

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



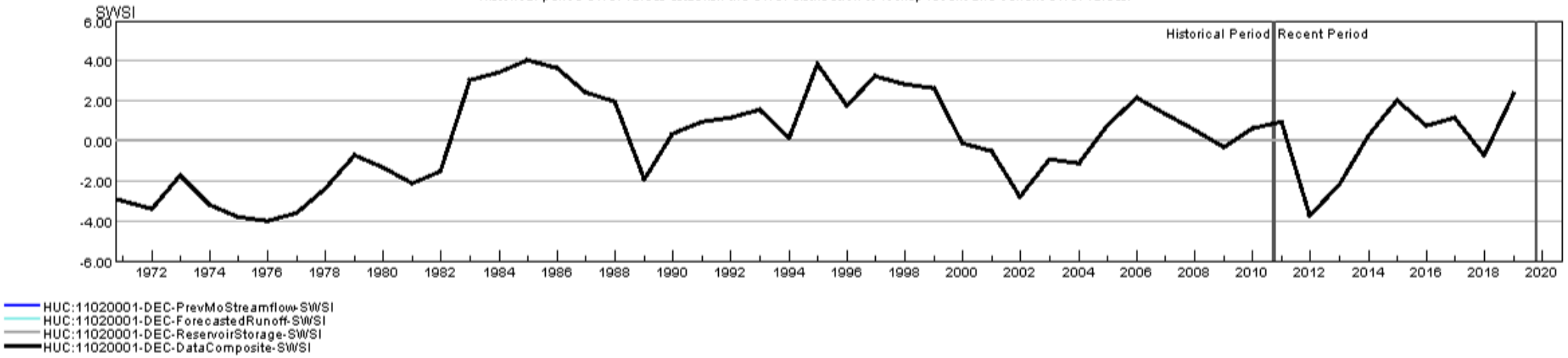
HUC 11020001 (Arkansas Headwaters) Surface Water Supply - DEC

Monthly component volumes



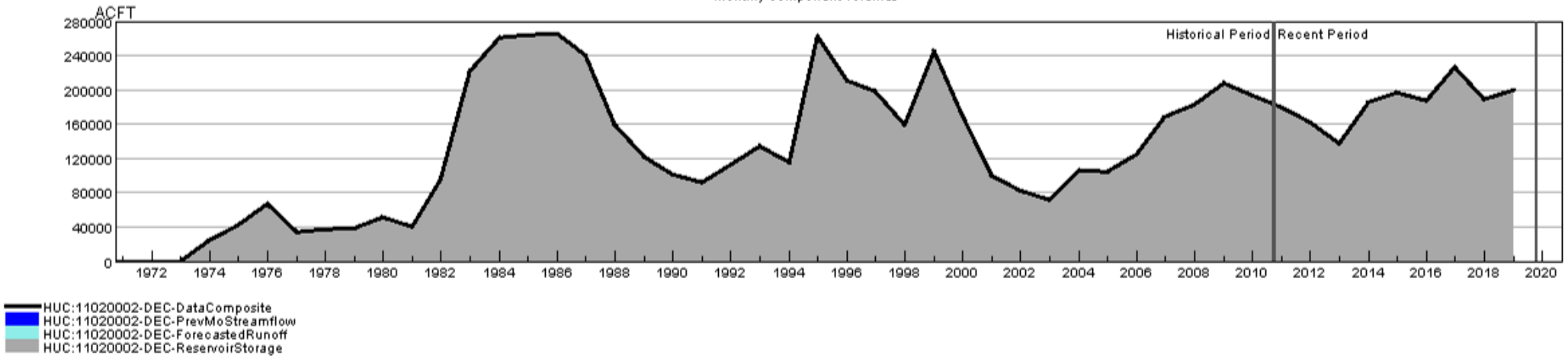
HUC 11020001 (Arkansas Headwaters) SWSI Values - DEC

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



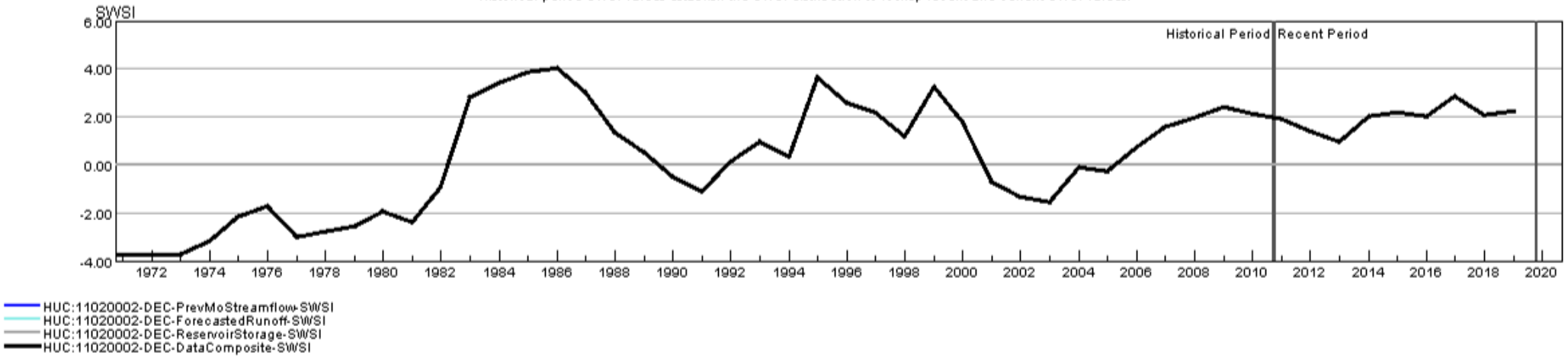
HUC 11020002 (Upper Arkansas) Surface Water Supply - DEC

Monthly component volumes



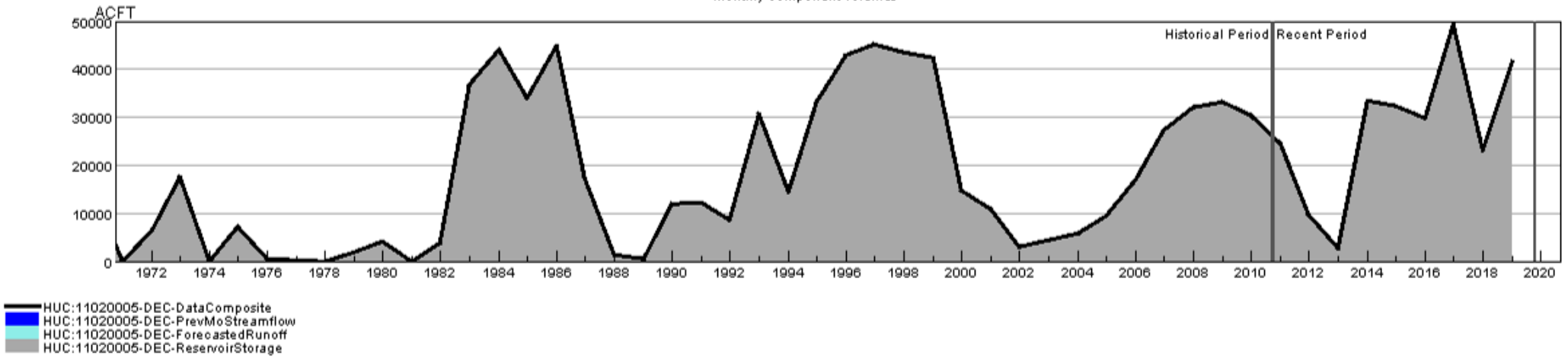
HUC 11020002 (Upper Arkansas) SWSI Values - DEC

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



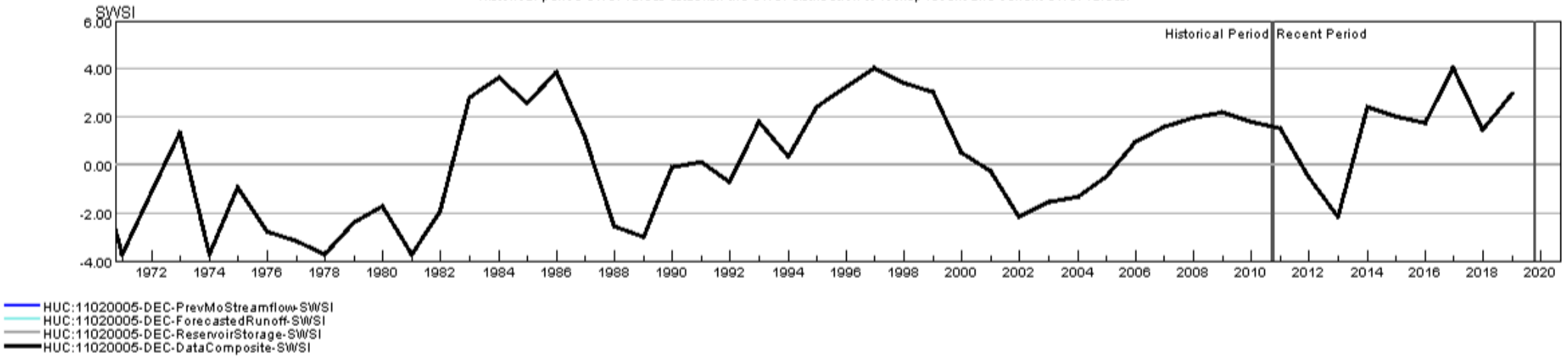
HUC 11020005 (Upper Arkansas-Lake Meredith) Surface Water Supply - DEC

Monthly component volumes



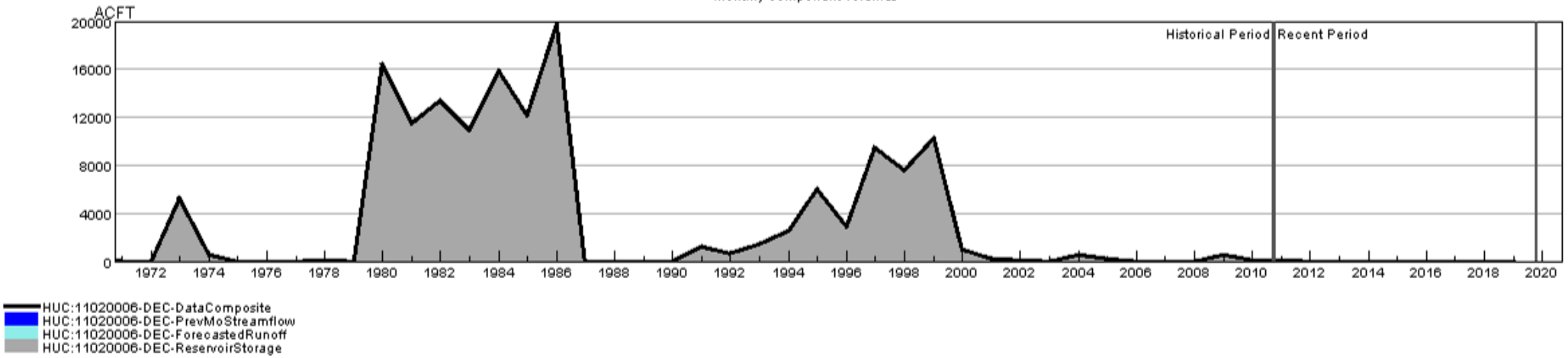
HUC 11020005 (Upper Arkansas-Lake Meredith) SWSI Values - DEC

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



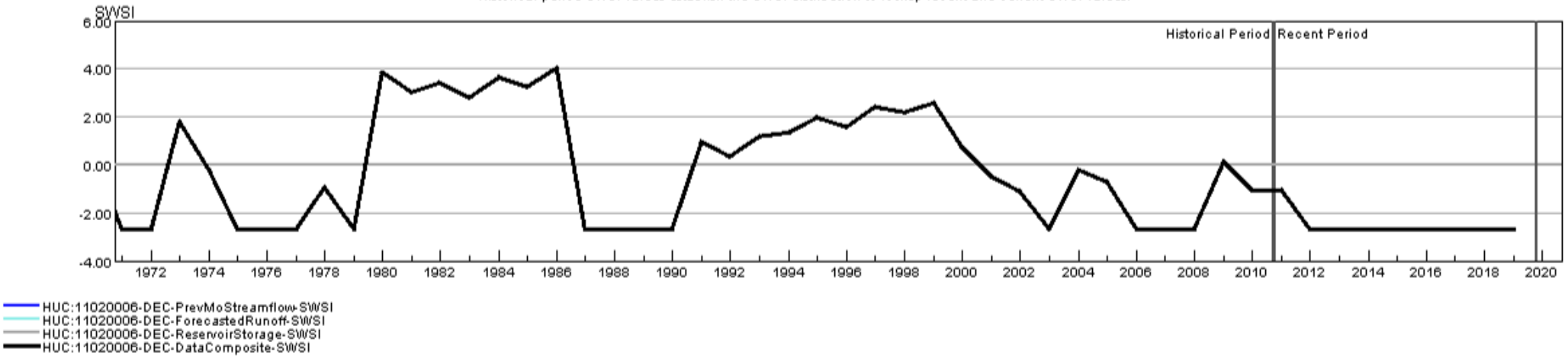
HUC 11020006 (Huerfano) Surface Water Supply - DEC

Monthly component volumes



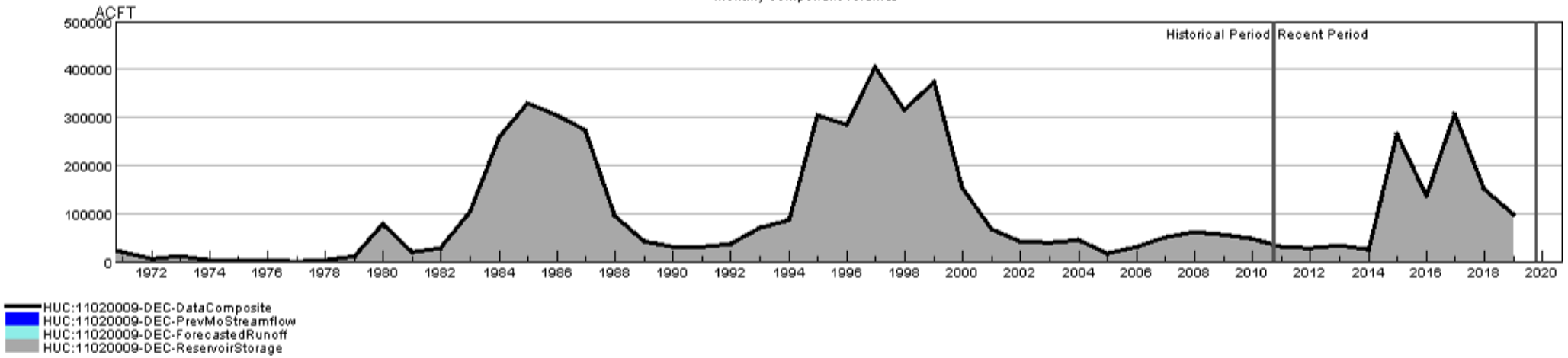
HUC 11020006 (Huerfano) SWSI Values - DEC

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



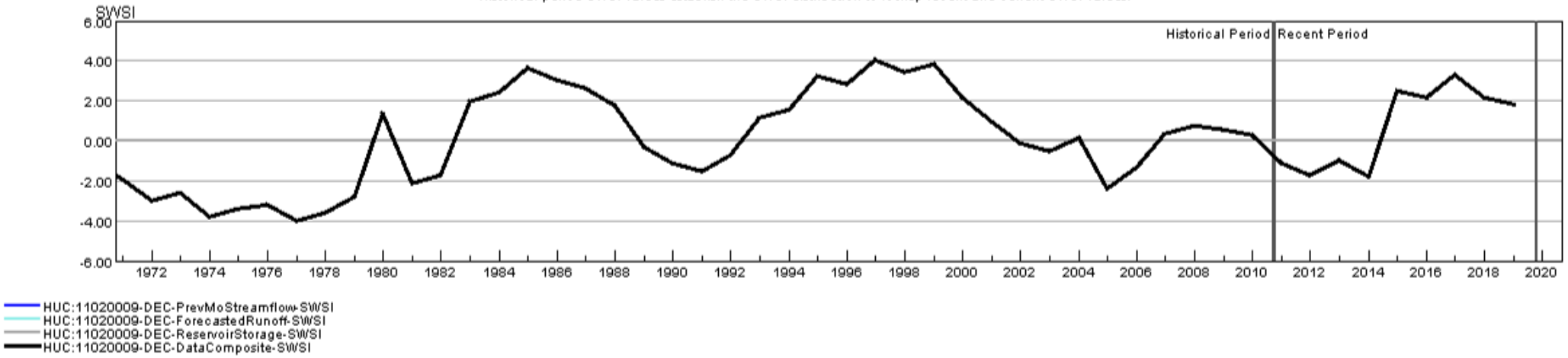
HUC 11020009 (Upper Arkansas-John Martin Reservoir) Surface Water Supply - DEC

Monthly component volumes



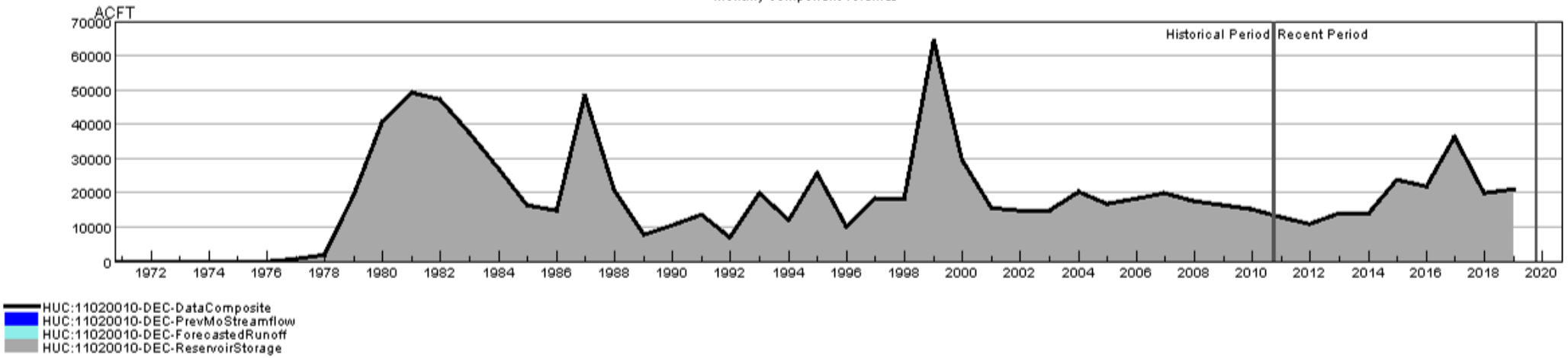
HUC 11020009 (Upper Arkansas-John Martin Reservoir) SWSI Values - DEC

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



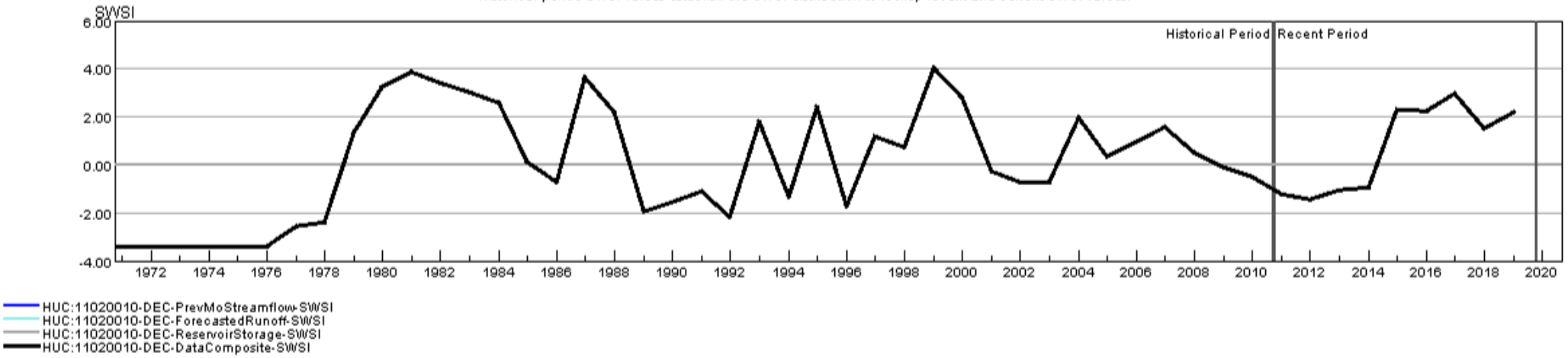
HUC 11020010 (Purgatoire) Surface Water Supply - DEC

Monthly component volumes



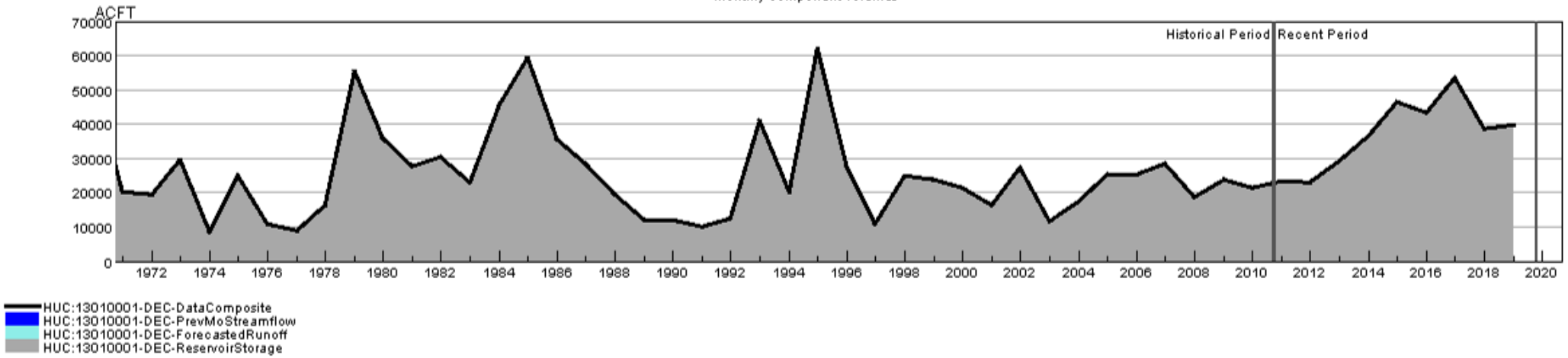
HUC 11020010 (Purgatoire) SWSI Values - DEC

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



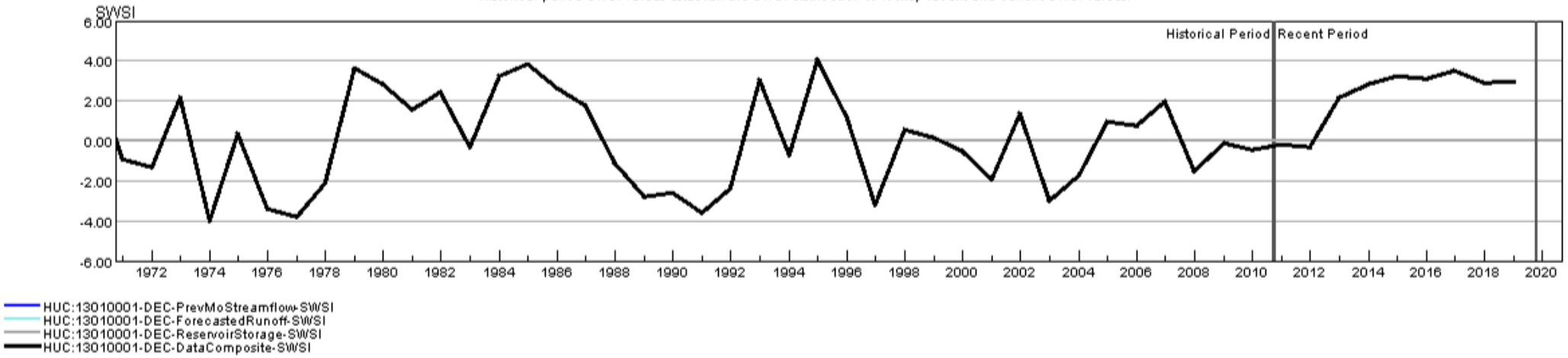
HUC 13010001 (Rio Grande Headwaters) Surface Water Supply - DEC

Monthly component volumes



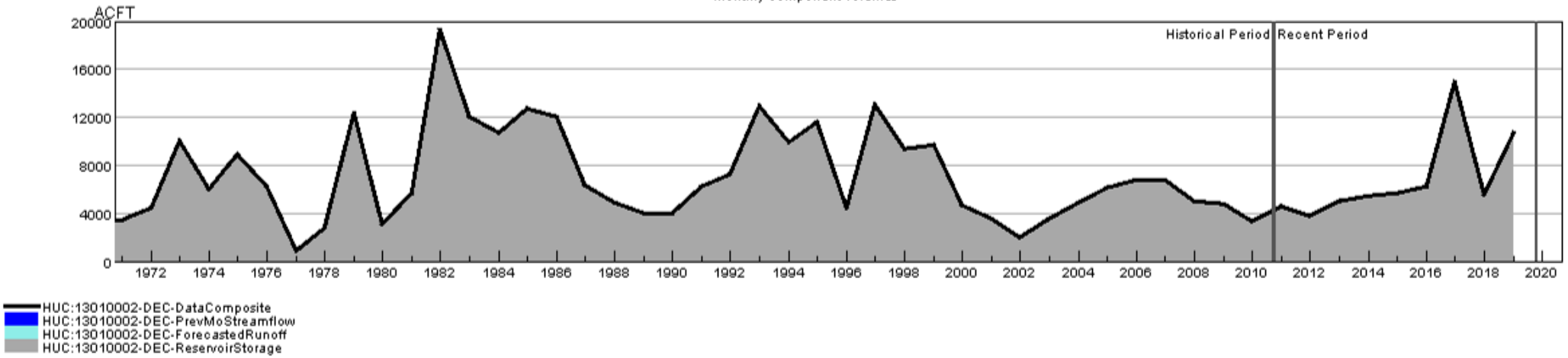
HUC 13010001 (Rio Grande Headwaters) SWSI Values - DEC

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



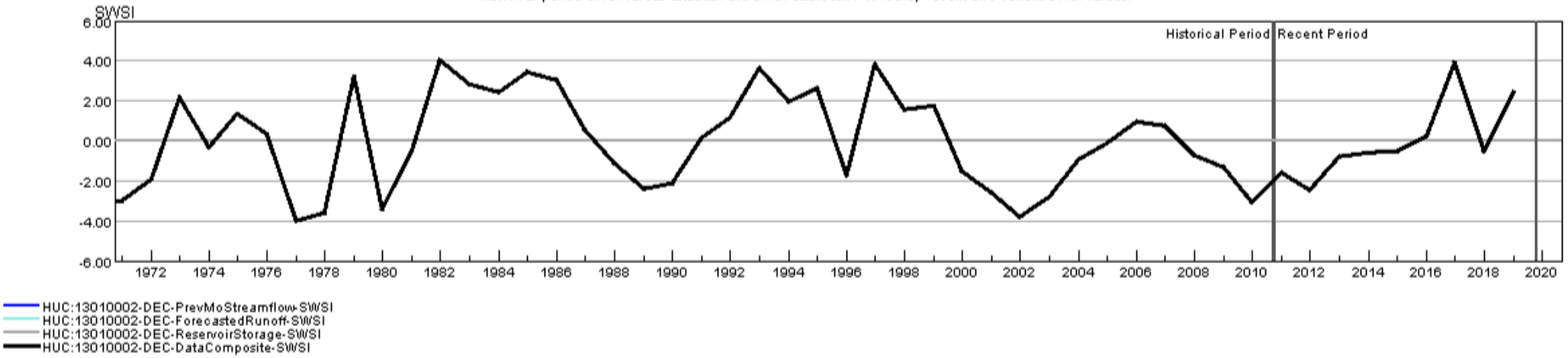
HUC 13010002 (Alamosa-Trinchera) Surface Water Supply - DEC

Monthly component volumes



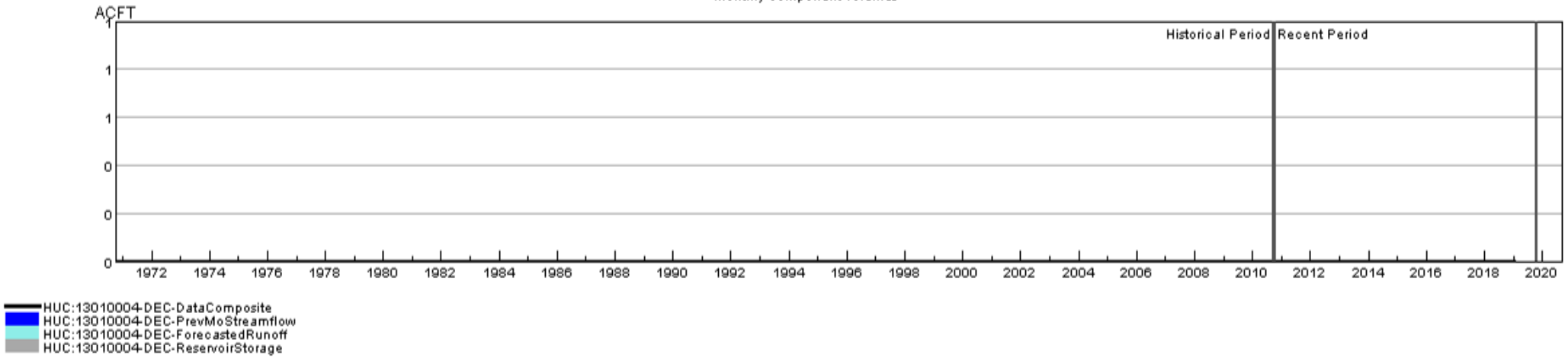
HUC 13010002 (Alamosa-Trinchera) SWSI Values - DEC

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



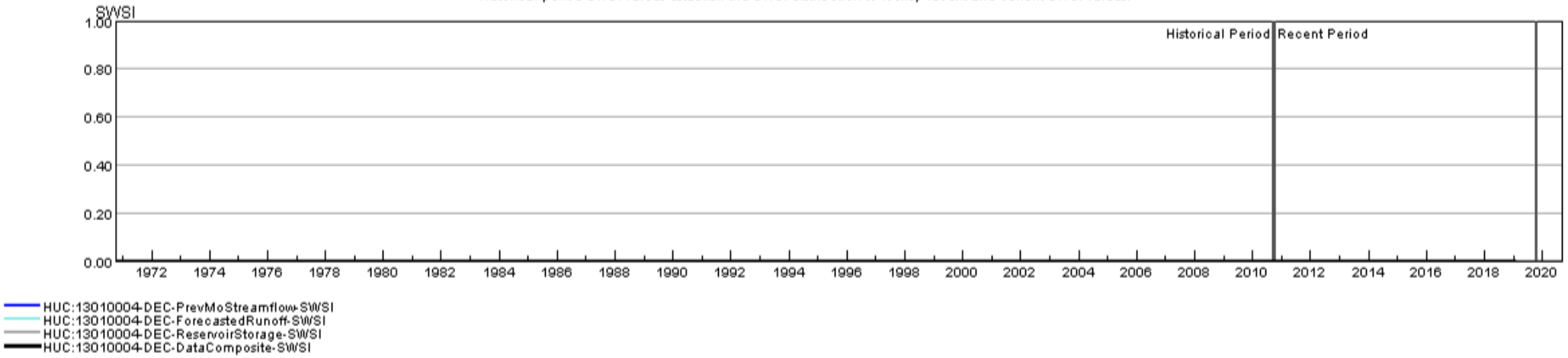
HUC 13010004 (Saguache) Surface Water Supply - DEC

Monthly component volumes



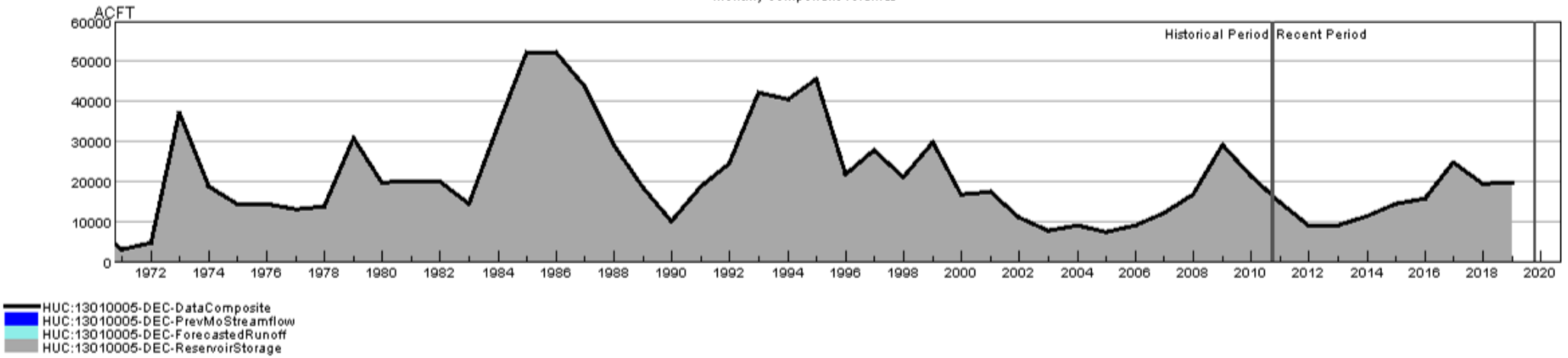
HUC 13010004 (Saguache) SWSI Values - DEC

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



HUC 13010005 (Conejos) Surface Water Supply - DEC

Monthly component volumes

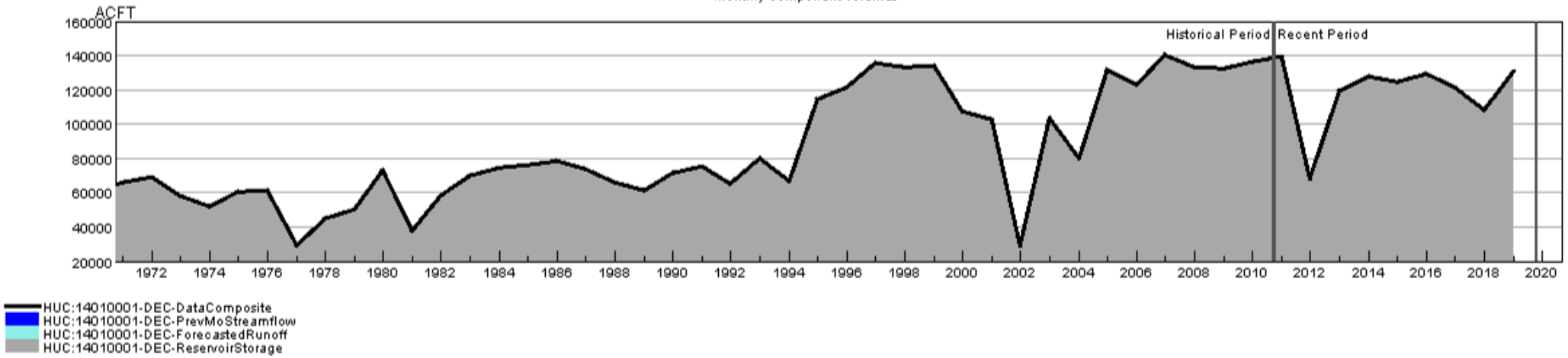


HUC 13010005 (Conejos) SWSI Values - DEC

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

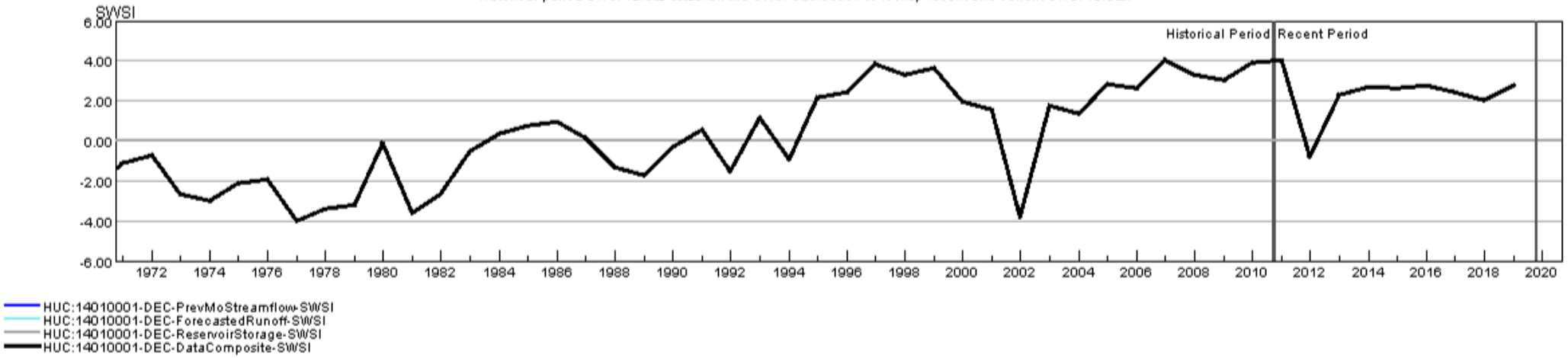
HUC 14010001 (Colorado Headwaters) Surface Water Supply - DEC

Monthly component volumes



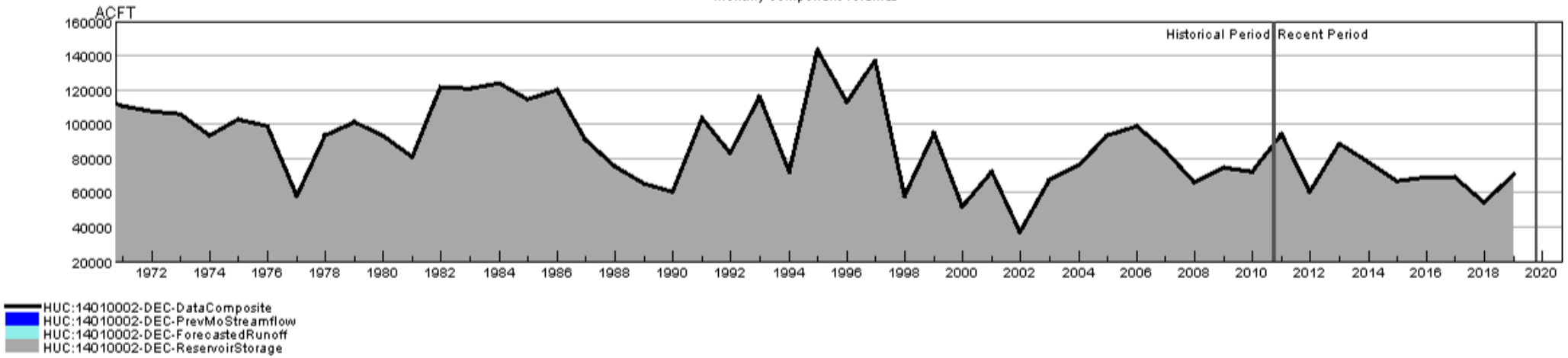
HUC 14010001 (Colorado Headwaters) SWSI Values - DEC

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



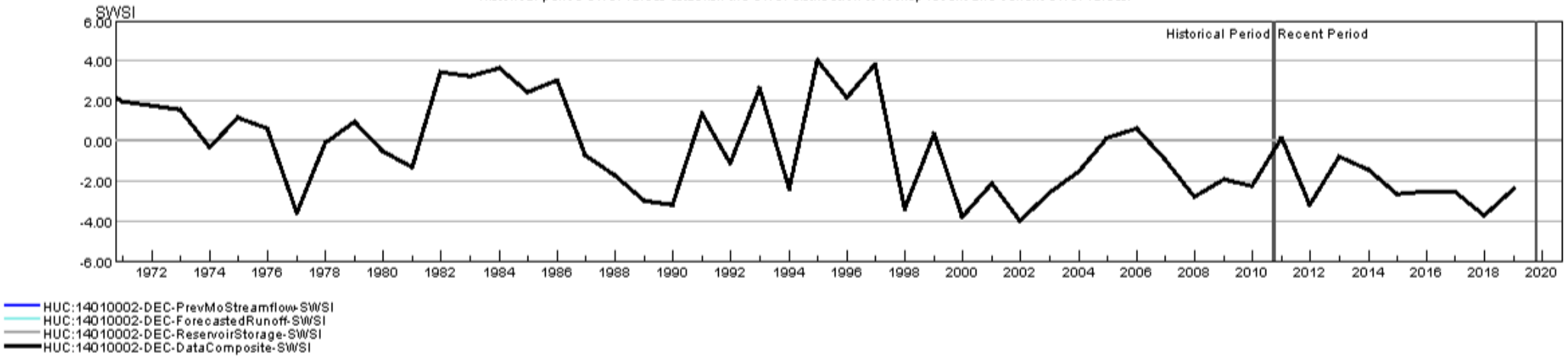
HUC 14010002 (Blue) Surface Water Supply - DEC

Monthly component volumes



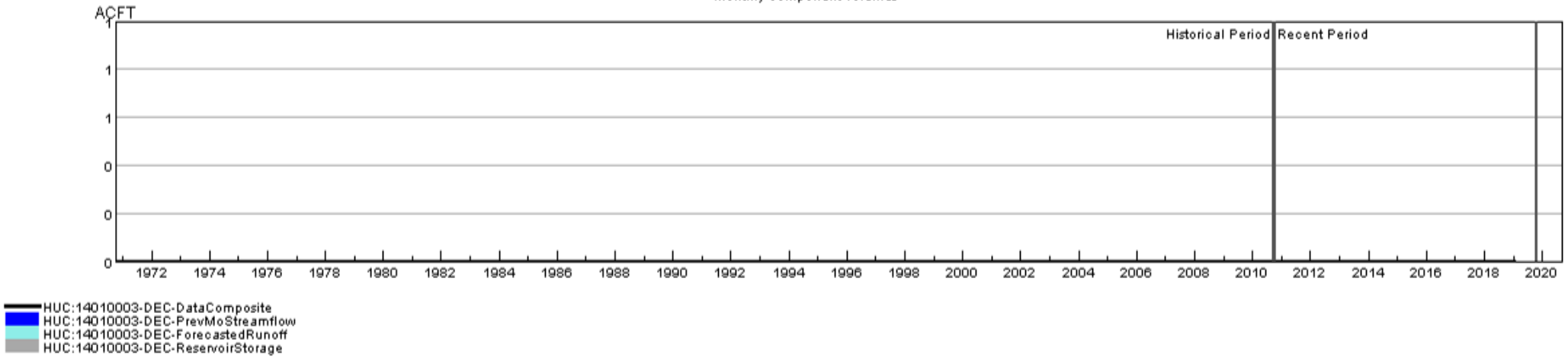
HUC 14010002 (Blue) SWSI Values - DEC

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



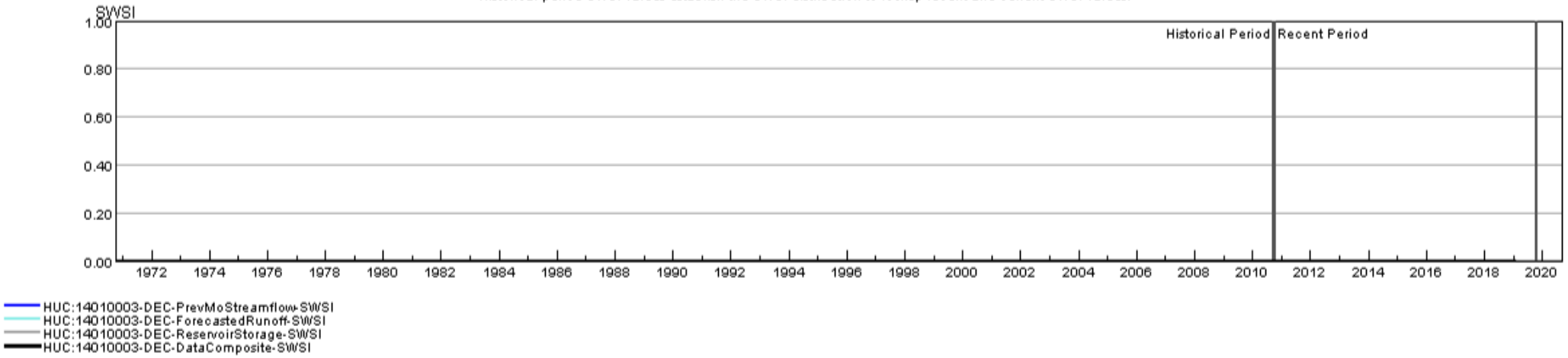
HUC 14010003 (Eagle) Surface Water Supply - DEC

Monthly component volumes



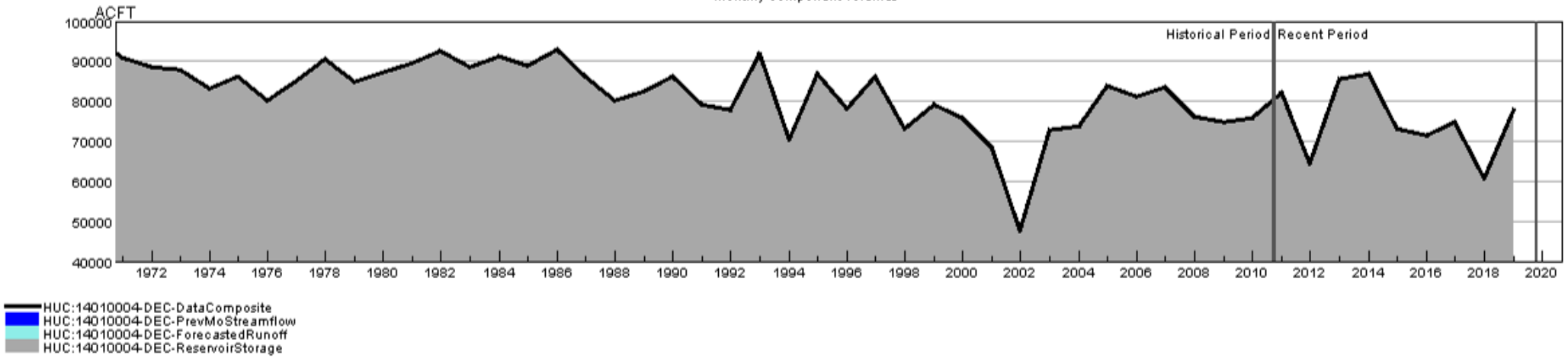
HUC 14010003 (Eagle) SWSI Values - DEC

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



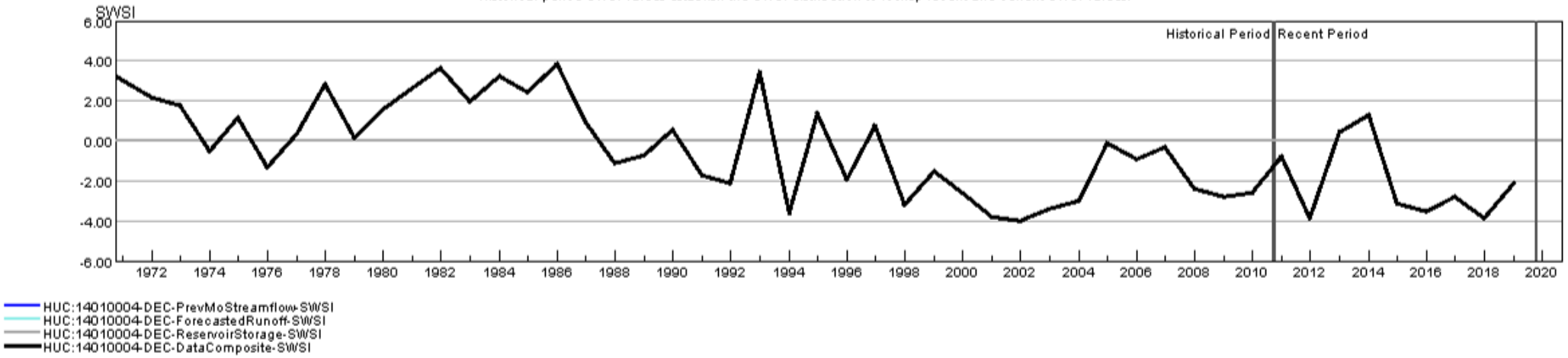
HUC 14010004 (Roaring Fork) Surface Water Supply - DEC

Monthly component volumes



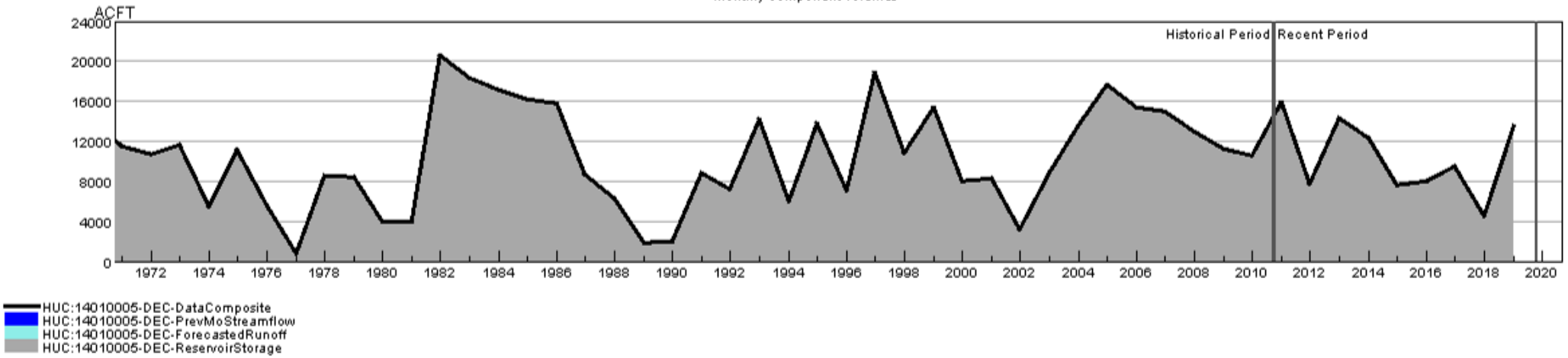
HUC 14010004 (Roaring Fork) SWSI Values - DEC

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



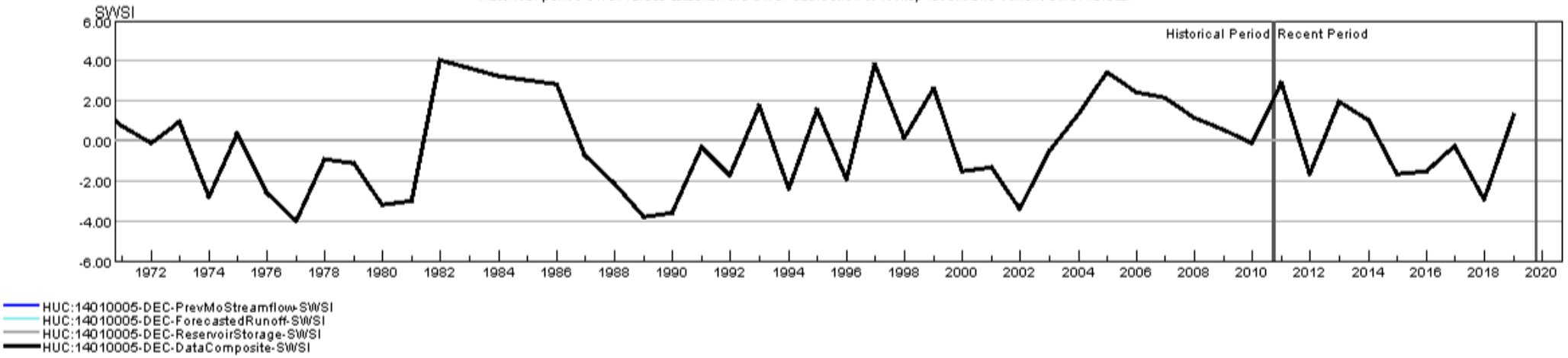
HUC 14010005 (Colorado Headwaters-Plateau) Surface Water Supply - DEC

Monthly component volumes



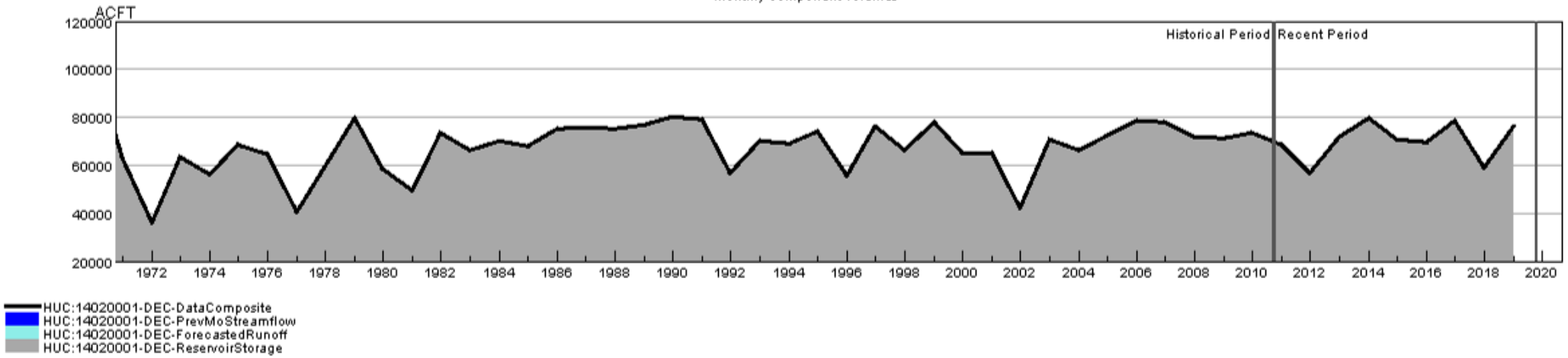
HUC 14010005 (Colorado Headwaters-Plateau) SWSI Values - DEC

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



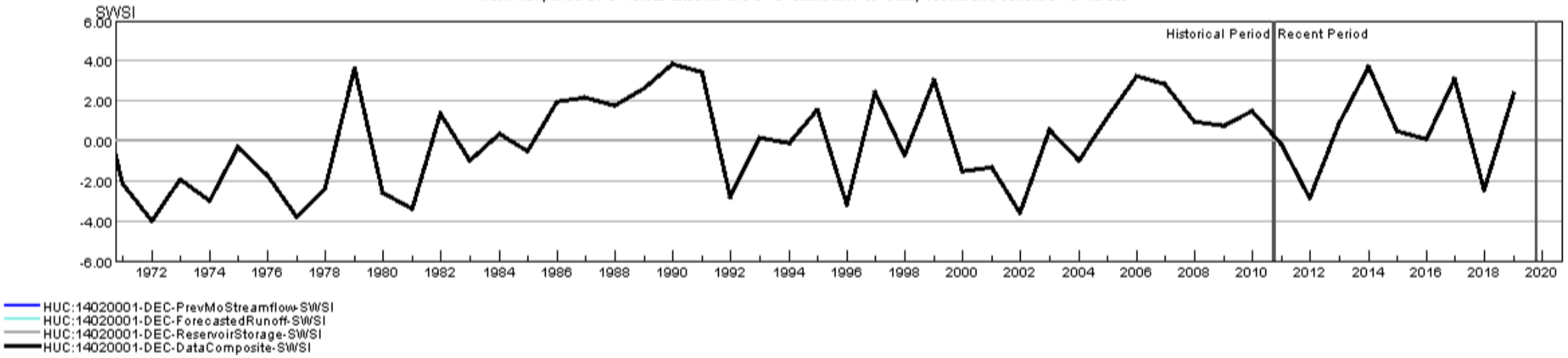
HUC 14020001 (East-Taylor) Surface Water Supply - DEC

Monthly component volumes



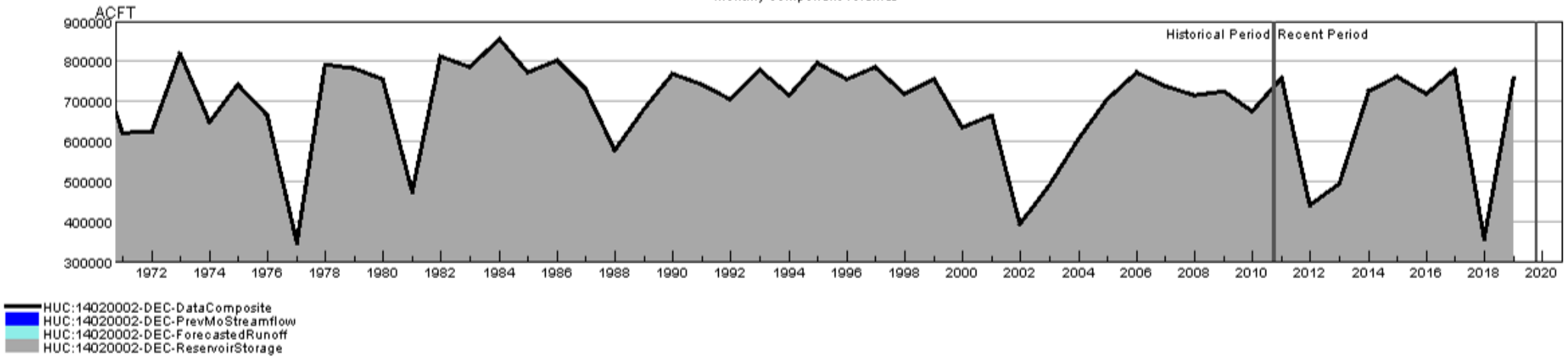
HUC 14020001 (East-Taylor) SWSI Values - DEC

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



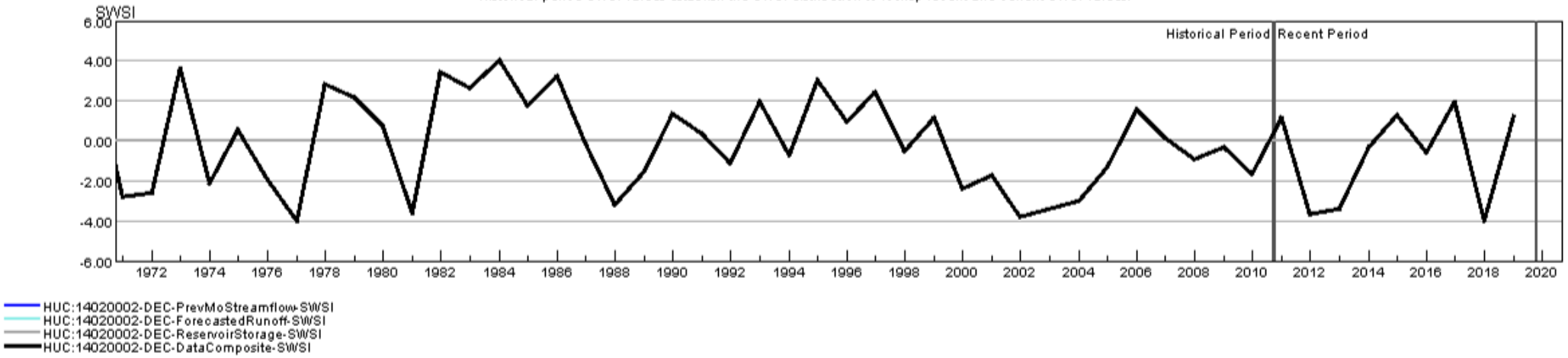
HUC 14020002 (Upper Gunnison) Surface Water Supply - DEC

Monthly component volumes



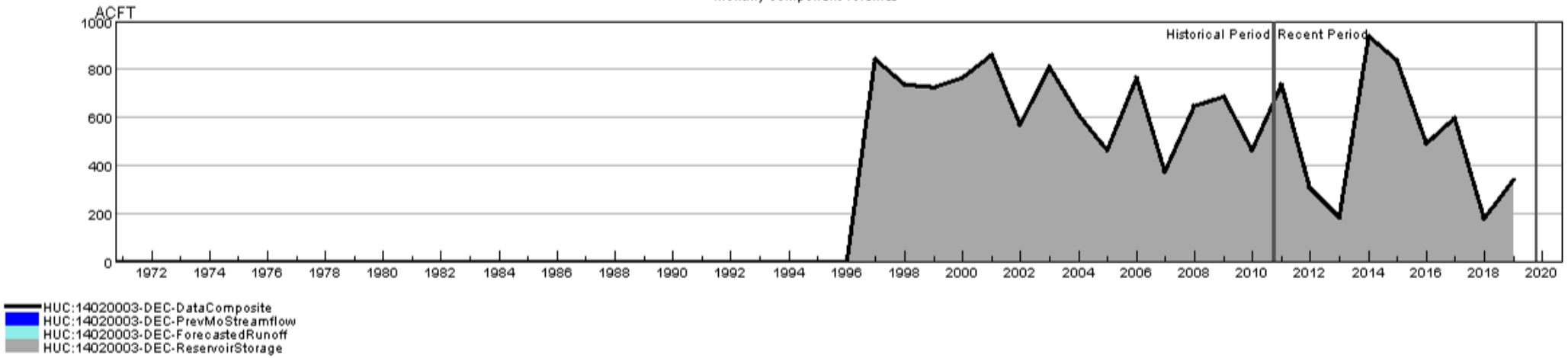
HUC 14020002 (Upper Gunnison) SWSI Values - DEC

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



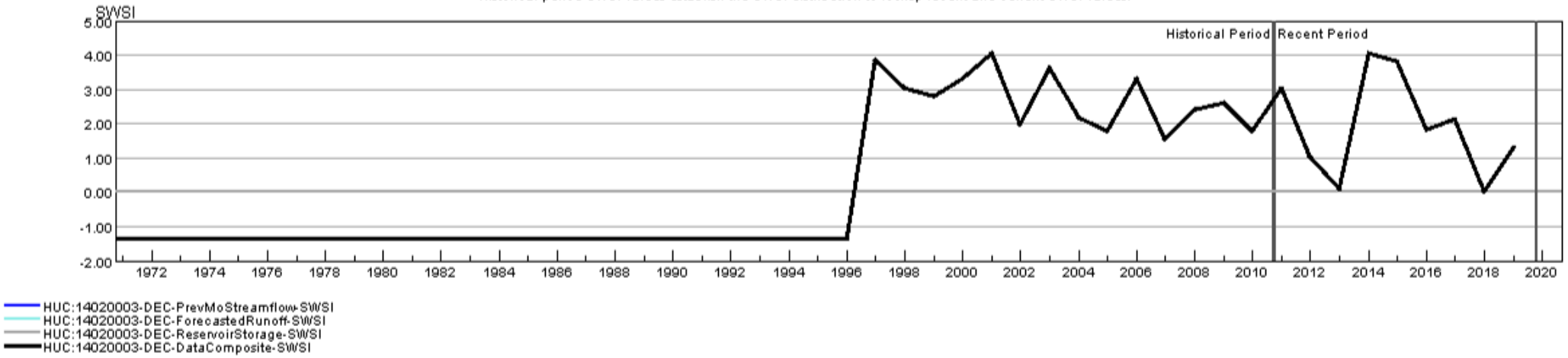
HUC 14020003 (Tomichi) Surface Water Supply - DEC

Monthly component volumes



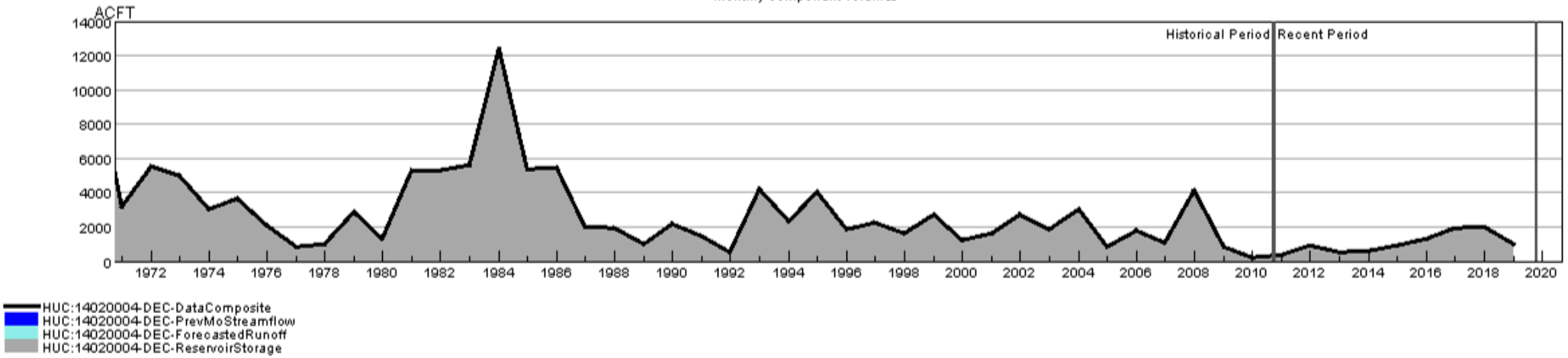
HUC 14020003 (Tomichi) SWSI Values - DEC

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



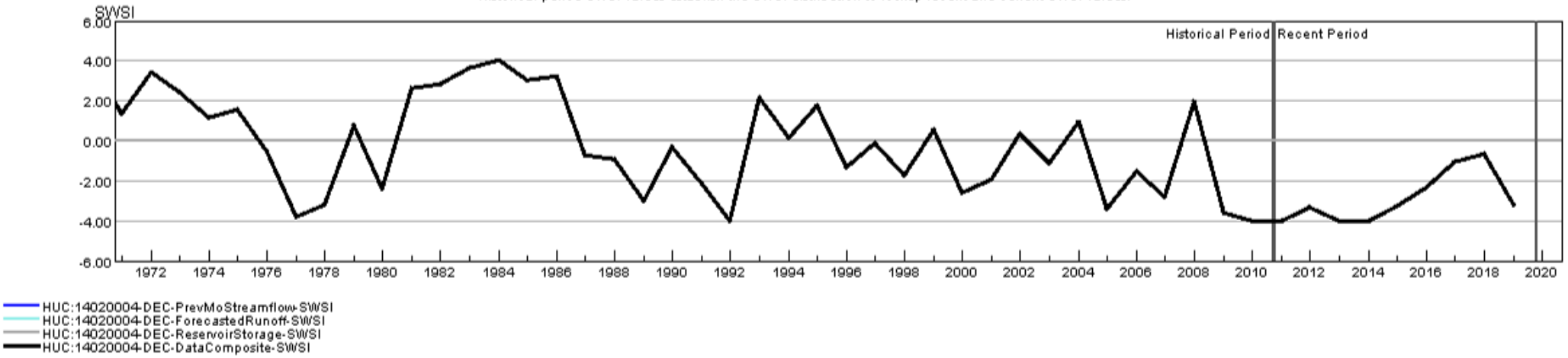
HUC 14020004 (North Fork Gunnison) Surface Water Supply - DEC

Monthly component volumes



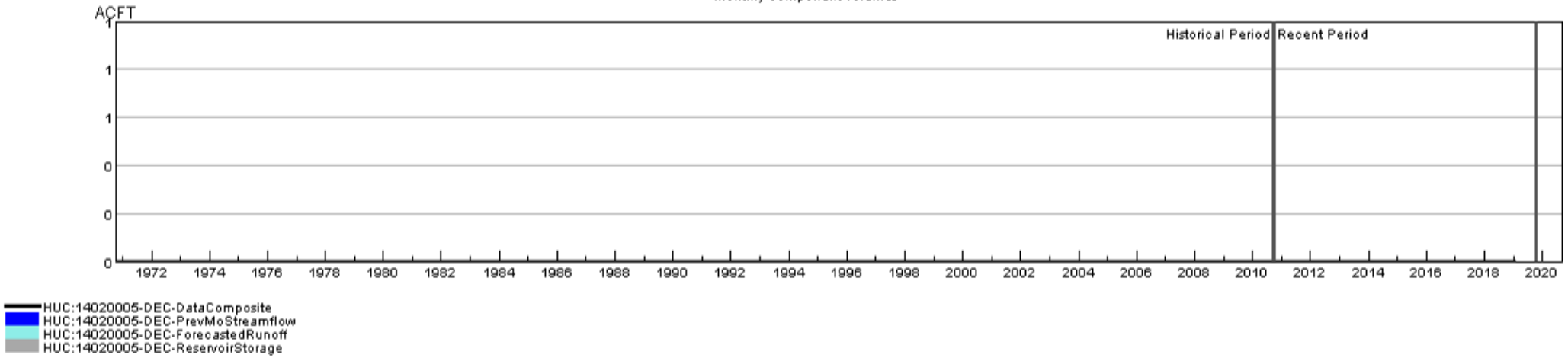
HUC 14020004 (North Fork Gunnison) SWSI Values - DEC

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



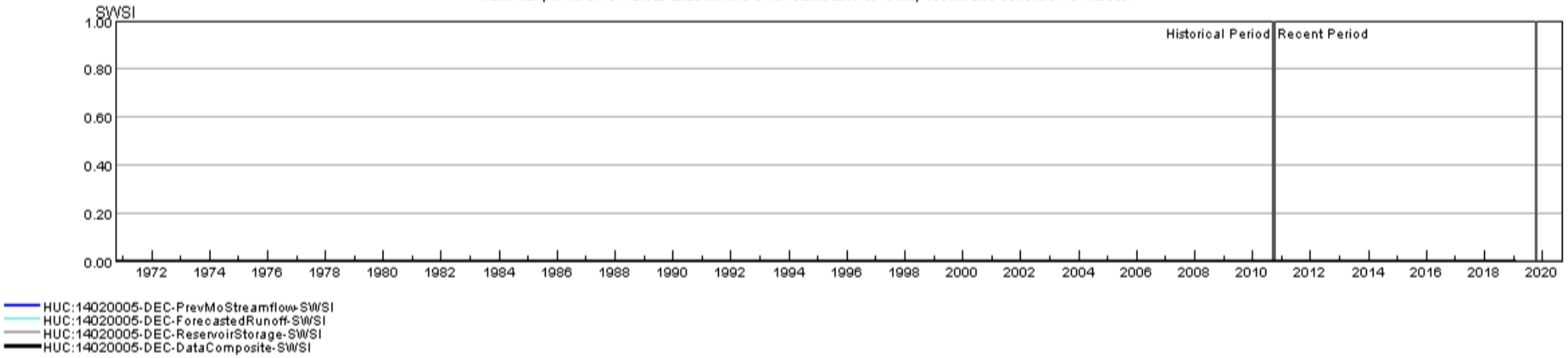
HUC 14020005 (Lower Gunnison) Surface Water Supply - DEC

Monthly component volumes



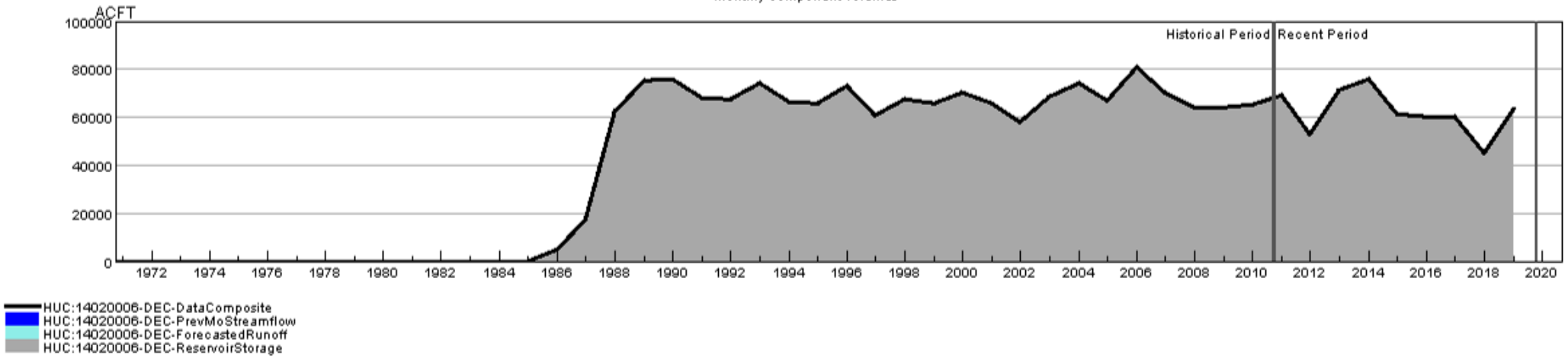
HUC 14020005 (Lower Gunnison) SWSI Values - DEC

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



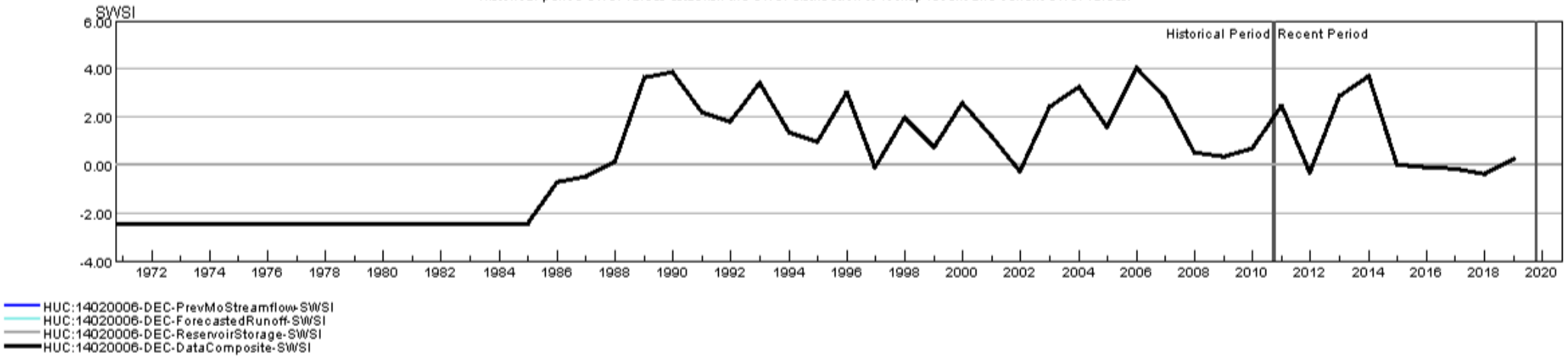
HUC 14020006 (Uncompahgre) Surface Water Supply - DEC

Monthly component volumes



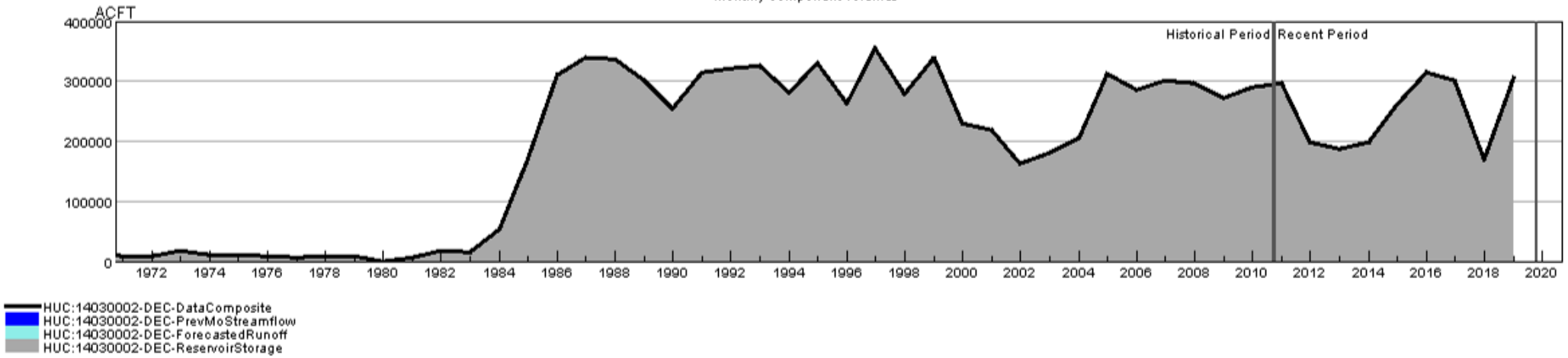
HUC 14020006 (Uncompahgre) SWSI Values - DEC

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



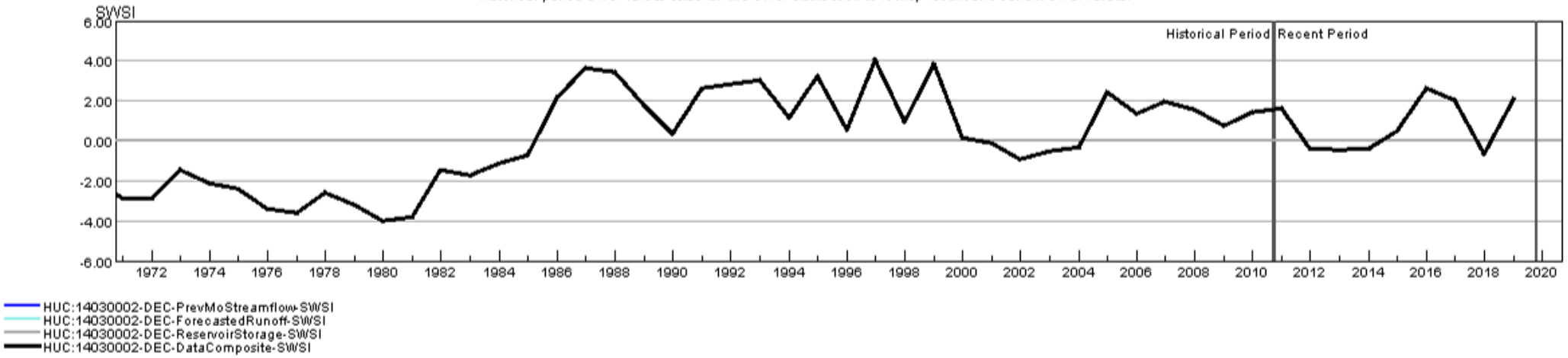
HUC 14030002 (Upper Dolores) Surface Water Supply - DEC

Monthly component volumes



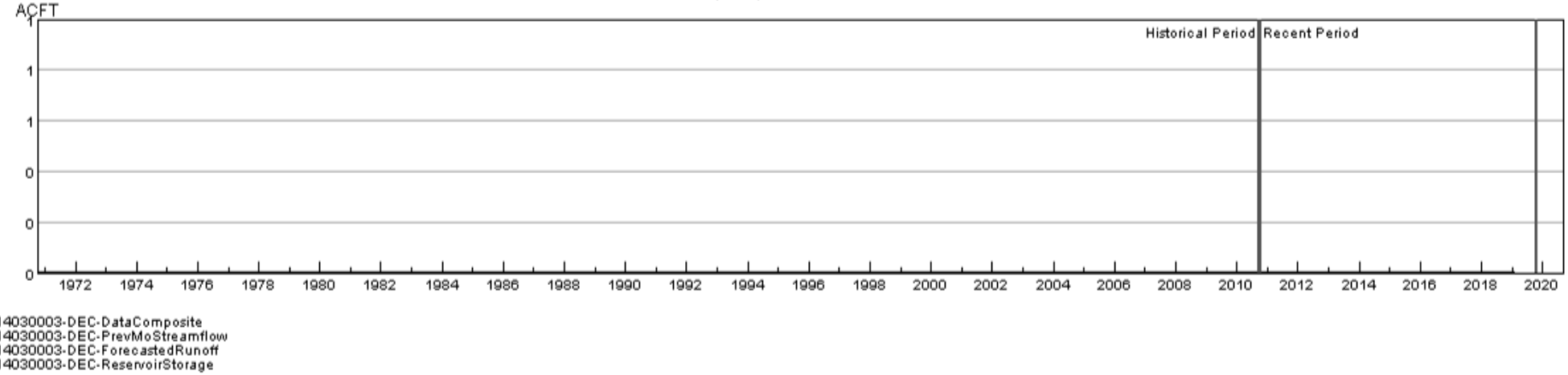
HUC 14030002 (Upper Dolores) SWSI Values - DEC

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



HUC 14030003 (San Miguel) Surface Water Supply - DEC

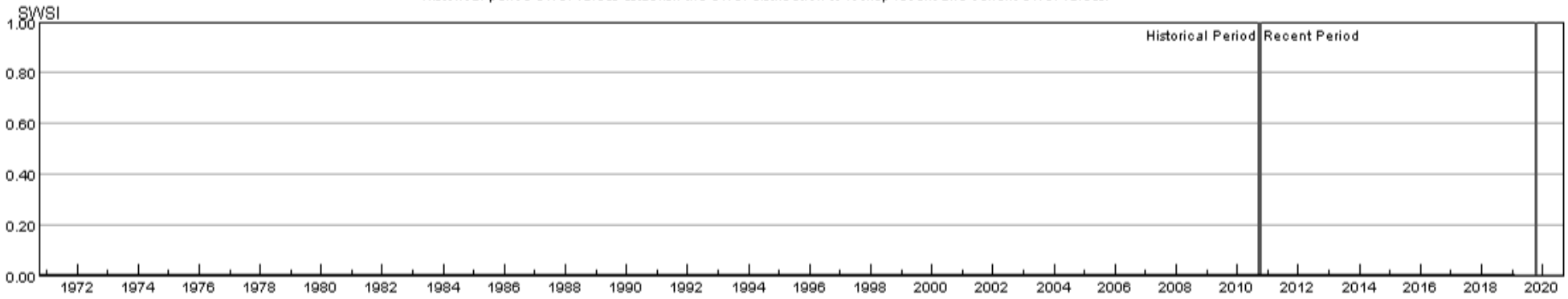
Monthly component volumes



HUC:14030003-DEC-DataComposite
HUC:14030003-DEC-PrevMoStreamflow
HUC:14030003-DEC-ForecastedRunoff
HUC:14030003-DEC-ReservoirStorage

HUC 14030003 (San Miguel) SWSI Values - DEC

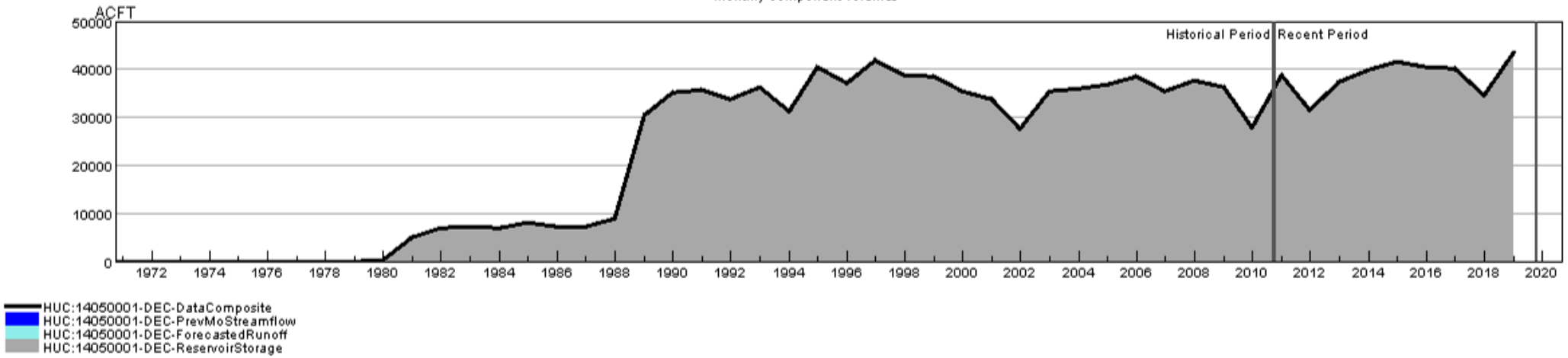
Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.



HUC:14030003-DEC-PrevMoStreamflow-SWSI
HUC:14030003-DEC-ForecastedRunoff-SWSI
HUC:14030003-DEC-ReservoirStorage-SWSI
HUC:14030003-DEC-DataComposite-SWSI

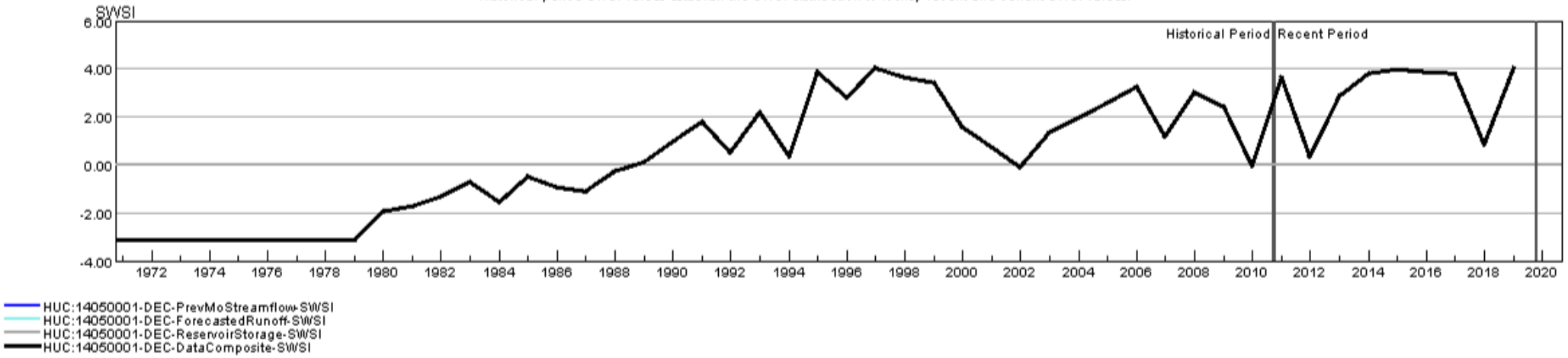
HUC 14050001 (Upper Yampa) Surface Water Supply - DEC

Monthly component volumes



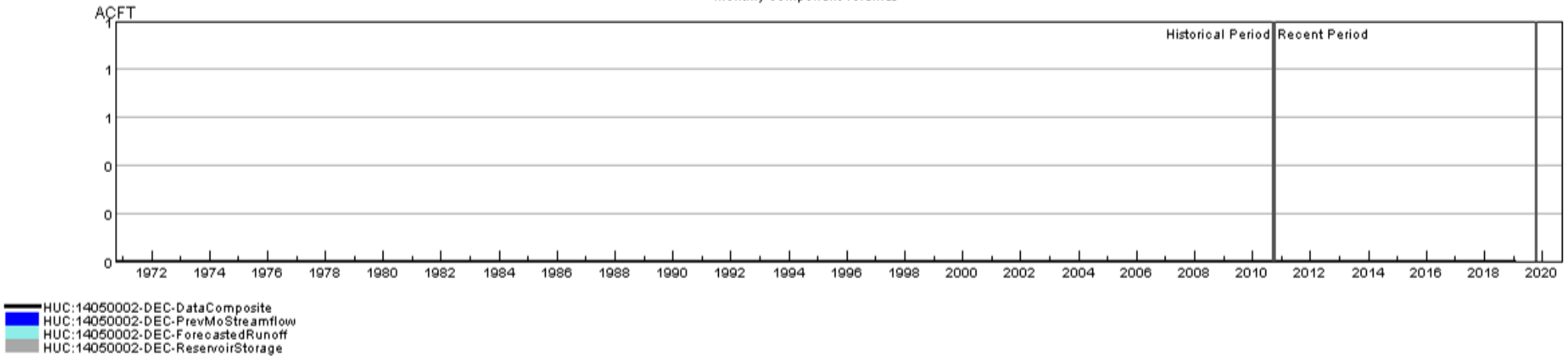
HUC 14050001 (Upper Yampa) SWSI Values - DEC

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



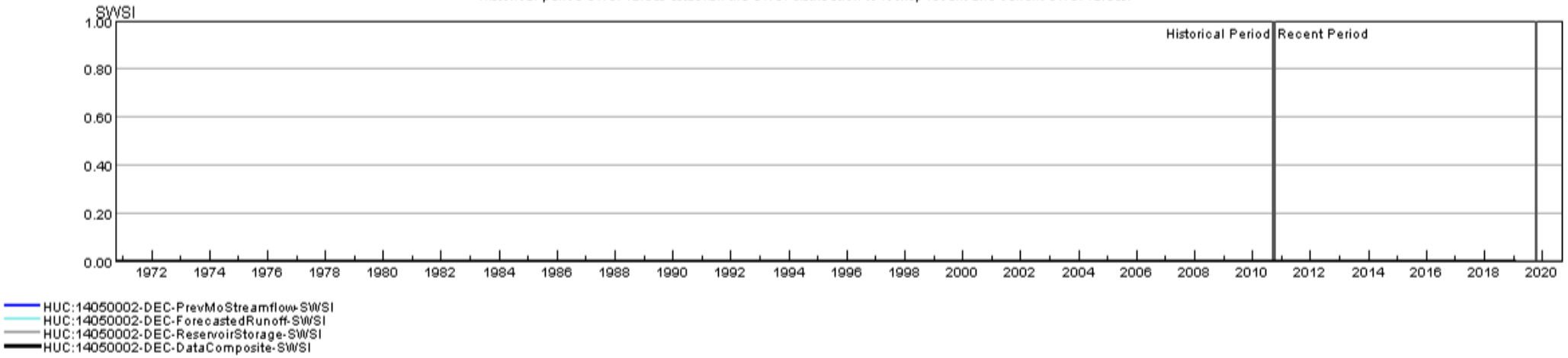
HUC 14050002 (Lower Yampa) Surface Water Supply - DEC

Monthly component volumes



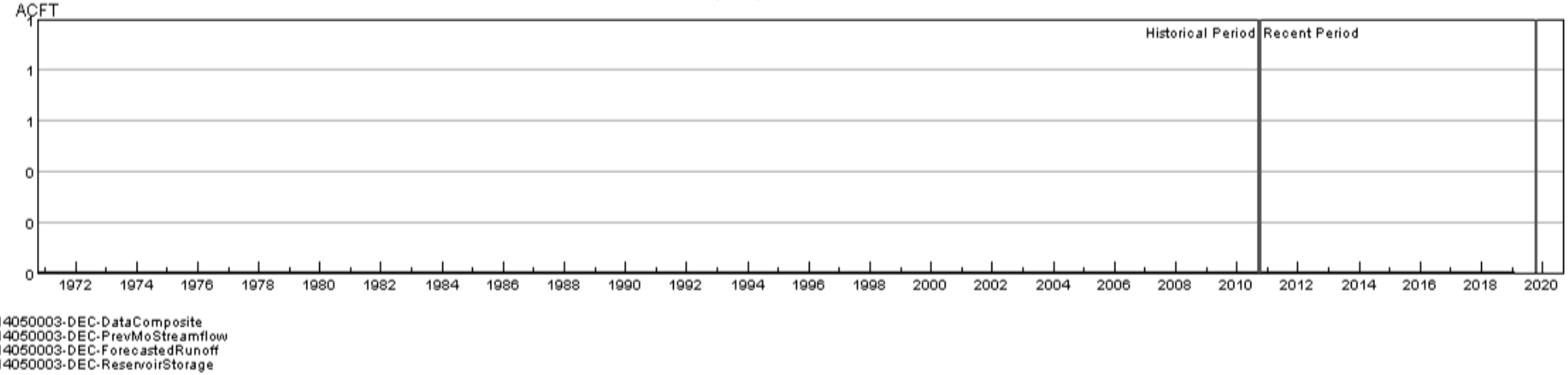
HUC 14050002 (Lower Yampa) SWSI Values - DEC

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



HUC 14050003 (Little Snake) Surface Water Supply - DEC

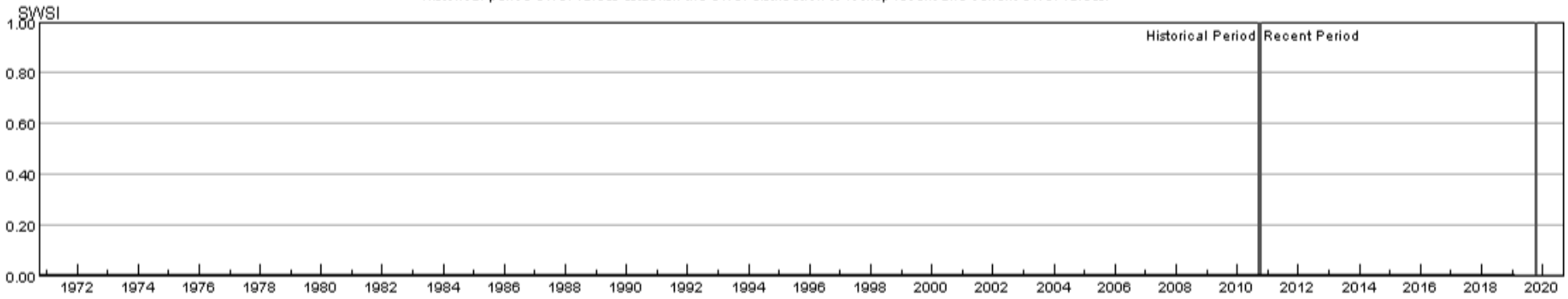
Monthly component volumes



HUC:14050003-DEC-DataComposite
HUC:14050003-DEC-PrevMoStreamflow
HUC:14050003-DEC-ForecastedRunoff
HUC:14050003-DEC-ReservoirStorage

HUC 14050003 (Little Snake) SWSI Values - DEC

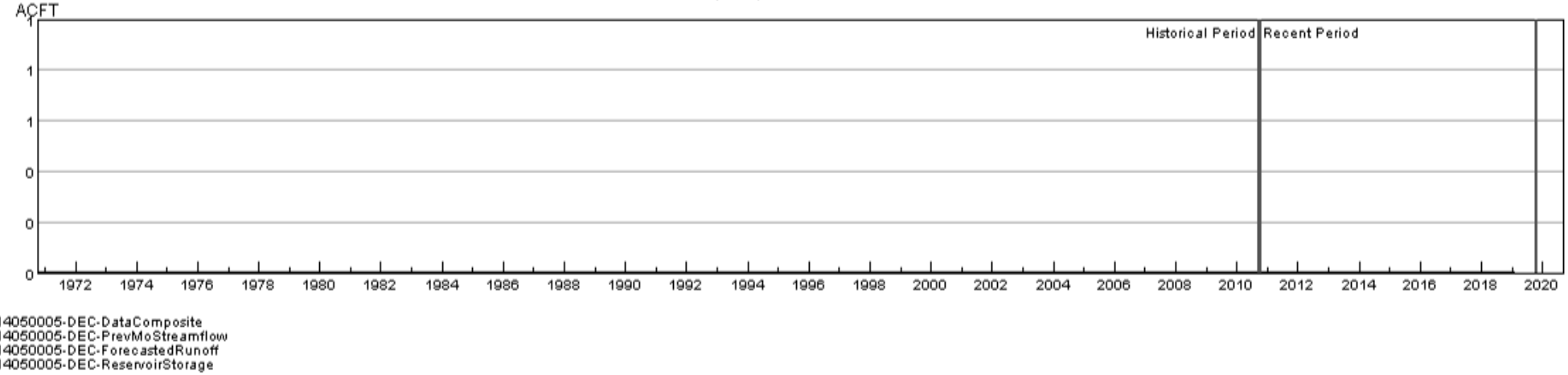
Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.



HUC:14050003-DEC-PrevMoStreamflow-SWSI
HUC:14050003-DEC-ForecastedRunoff-SWSI
HUC:14050003-DEC-ReservoirStorage-SWSI
HUC:14050003-DEC-DataComposite-SWSI

HUC 14050005 (Upper White) Surface Water Supply - DEC

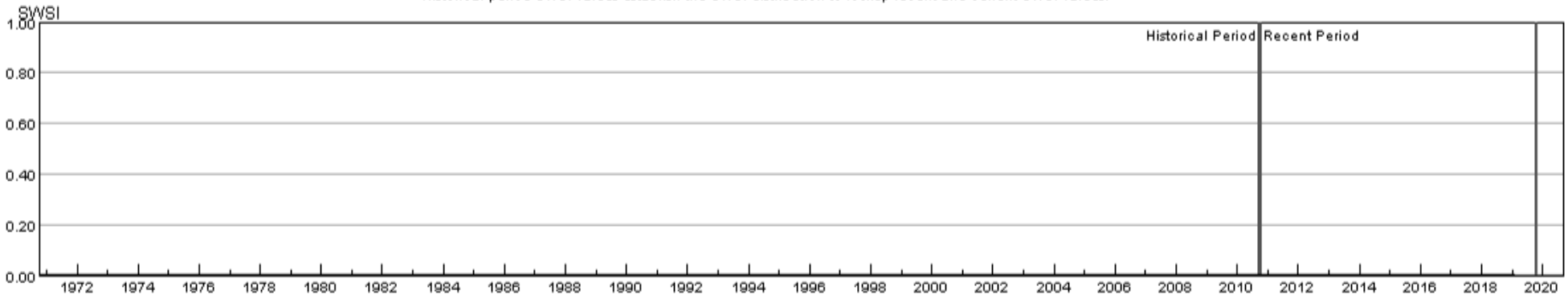
Monthly component volumes



HUC:14050005-DEC-DataComposite
HUC:14050005-DEC-PrevMoStreamflow
HUC:14050005-DEC-ForecastedRunoff
HUC:14050005-DEC-ReservoirStorage

HUC 14050005 (Upper White) SWSI Values - DEC

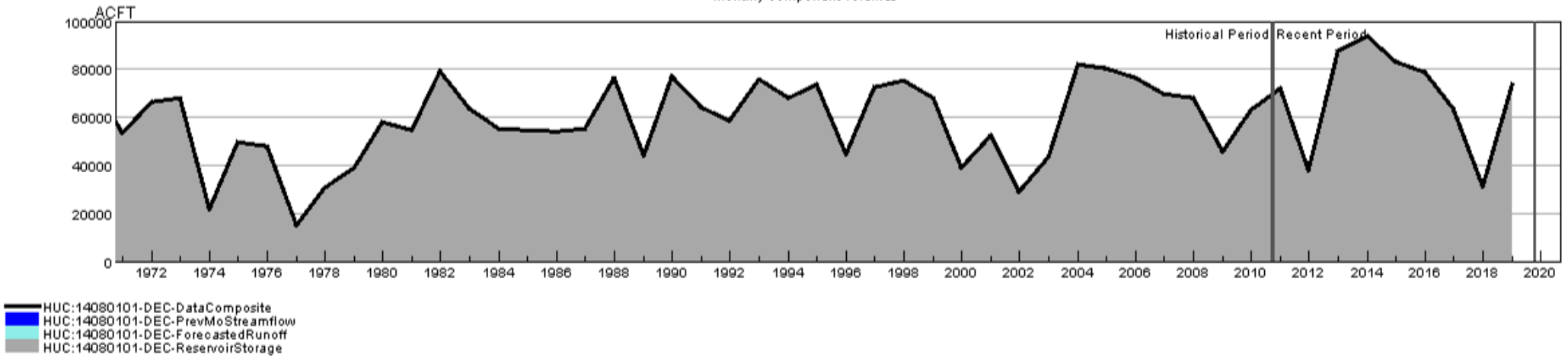
Historical period SWSI values establish the SWSI distribution to lookup recent and current SWSI values.



HUC:14050005-DEC-PrevMoStreamflow-SWSI
HUC:14050005-DEC-ForecastedRunoff-SWSI
HUC:14050005-DEC-ReservoirStorage-SWSI
HUC:14050005-DEC-DataComposite-SWSI

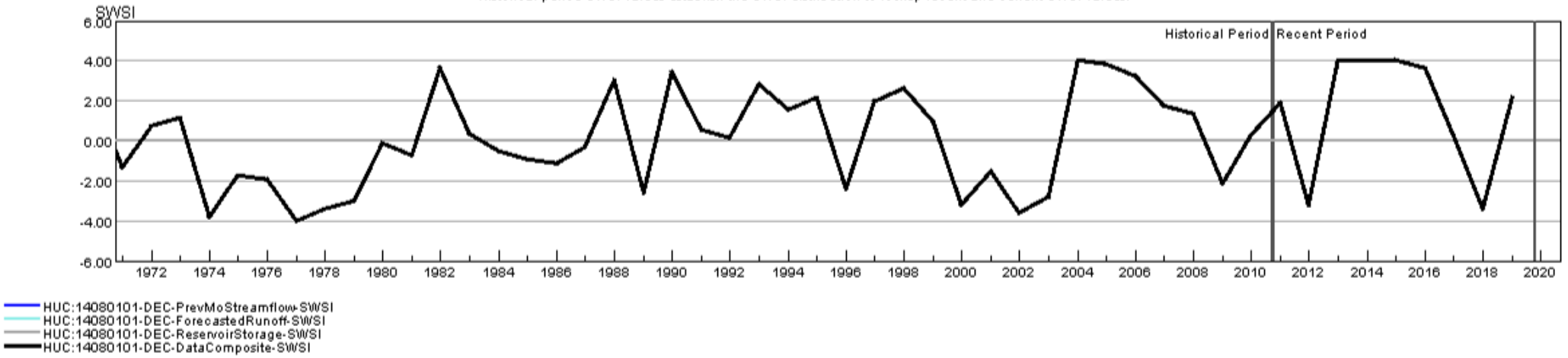
HUC 14080101 (Upper San Juan) Surface Water Supply - DEC

Monthly component volumes



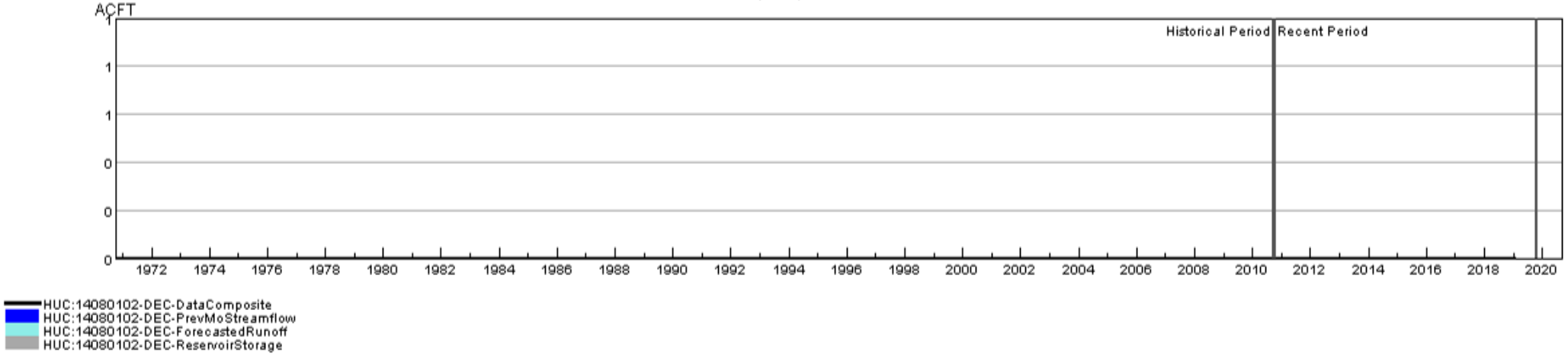
HUC 14080101 (Upper San Juan) SWSI Values - DEC

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



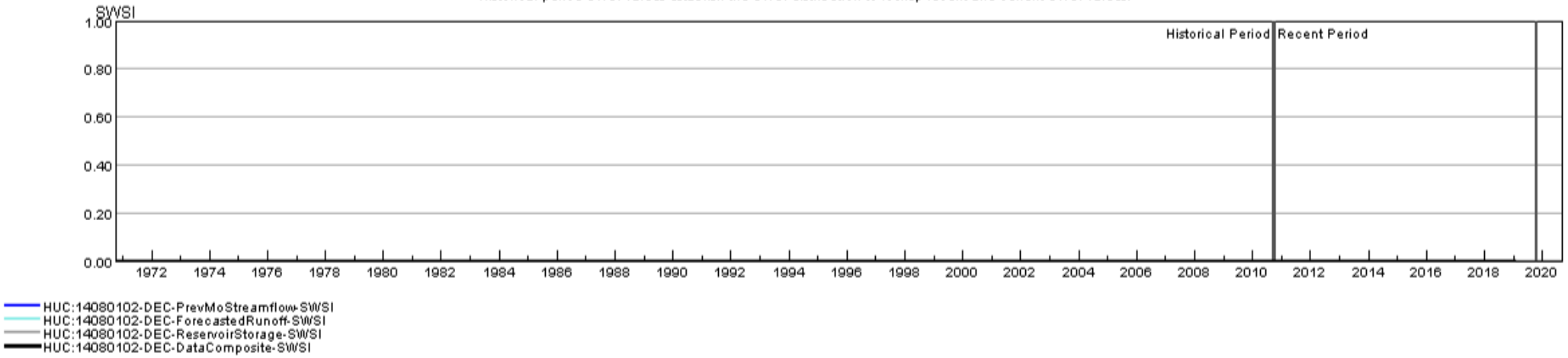
HUC 14080102 (Piedra) Surface Water Supply - DEC

Monthly component volumes



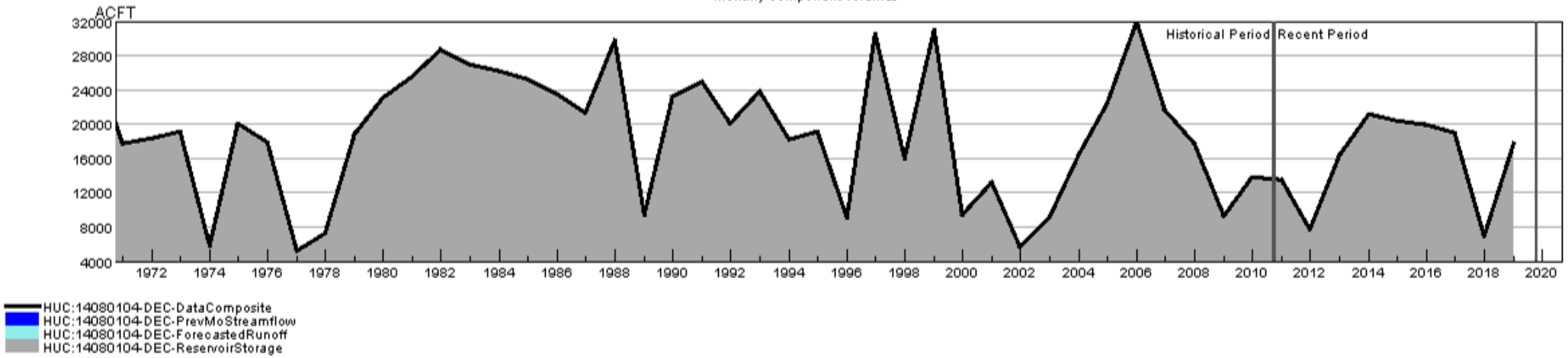
HUC 14080102 (Piedra) SWSI Values - DEC

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



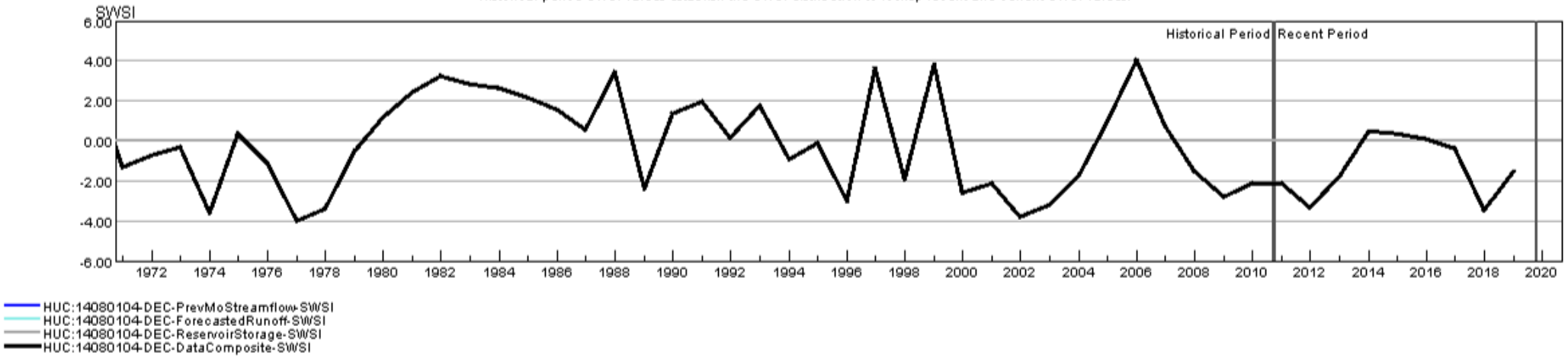
HUC 14080104 (Animas) Surface Water Supply - DEC

Monthly component volumes



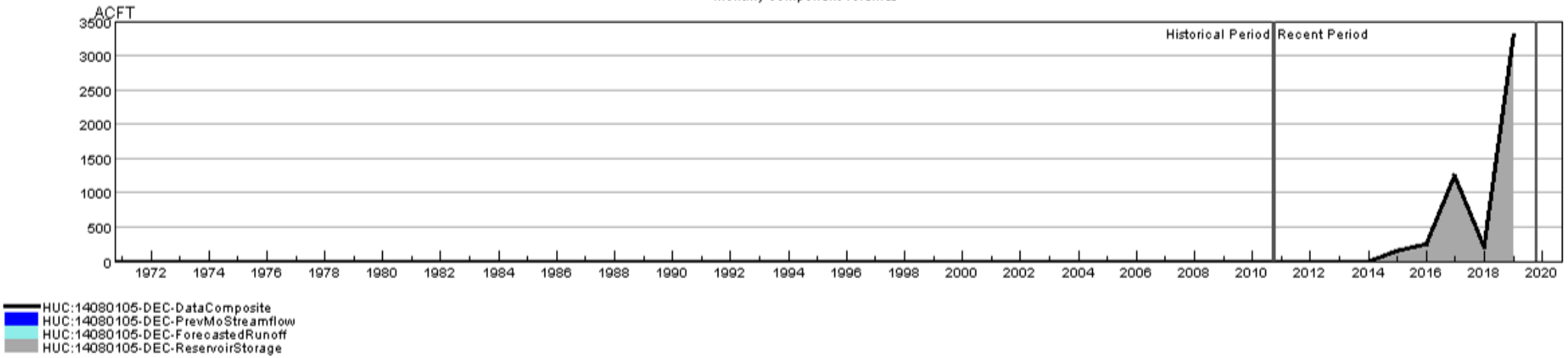
HUC 14080104 (Animas) SWSI Values - DEC

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



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

Monthly component volumes



HUC 14080105 (Middle San Juan) SWSI Values - DEC

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