



Utah Climate and Water Report

October 1, 2021



Fish Lake National Forest

Near the Black Flat-U.M. Creek SNOTEL site

Photo by Joel Burley

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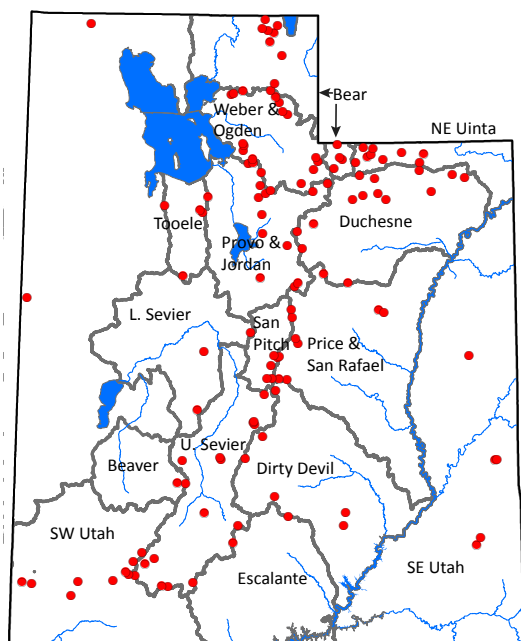
Utah Climate and Water Report

The purpose of the Climate and Water Report is to provide a snapshot of current and immediate past climatic conditions and other information useful to agricultural and water user interests in Utah. The report utilizes data from several sources that represent specific parameters (streamflow data from the United States Geological Survey, reservoir data from the Bureau of Reclamation, and other sources), geography including high elevation United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Snowpack Telemetry (SNOTEL) data, and agriculturally important data from the USDA-NRCS Soil Climate Analysis Network (SCAN). Data on precipitation, soil moisture, soil temperature, reservoir storage, and streamflow are analyzed and presented. These data analyses can be used to increase irrigation efficiency and agricultural production. As with all data and analyses, there are limitations due to data quality, quantity, and spatial application.



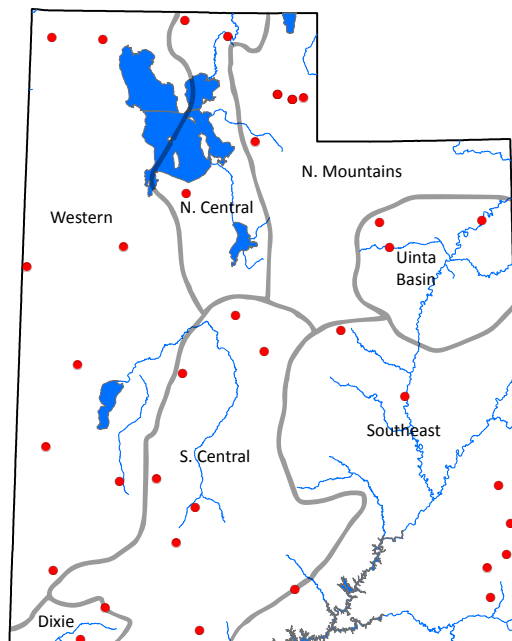
SNOTEL

- Mountainous areas
- High elevation (>6,000 ft)
- Water supply forecasting
- Installed where snow pack represents the water supply



SCAN

- Agricultural and range lands
- Mid elevation (3 – 7,000 ft).
- Irrigation efficiency and rangeland productivity
- Installed on spatially representative soils



Utah General Summary

October 1, 2021

*This report has been reorganized to better reflect two distinct geographic areas being monitored – the low elevation valley sites (**Soil Climate Analysis Network**) that are critical for agricultural production and operations, and the high elevation mountainous areas where water supply is generated (**SNOWTElemetry**). Most of the graphs have been updated to utilize daily data versus the old monthly bar charts so that the timing and distribution of precipitation and other events can be seen. The timing distribution of precipitation can be as important as the overall amount in an agricultural context. These graphs are hyperlinked so that the user can simply click on the graph and be taken to the most recent version on the Snow Survey web page. Questions, comments and suggestions are welcome and should be directed to jordan.clayton@usda.gov.*

Current Valley Conditions (SCAN)

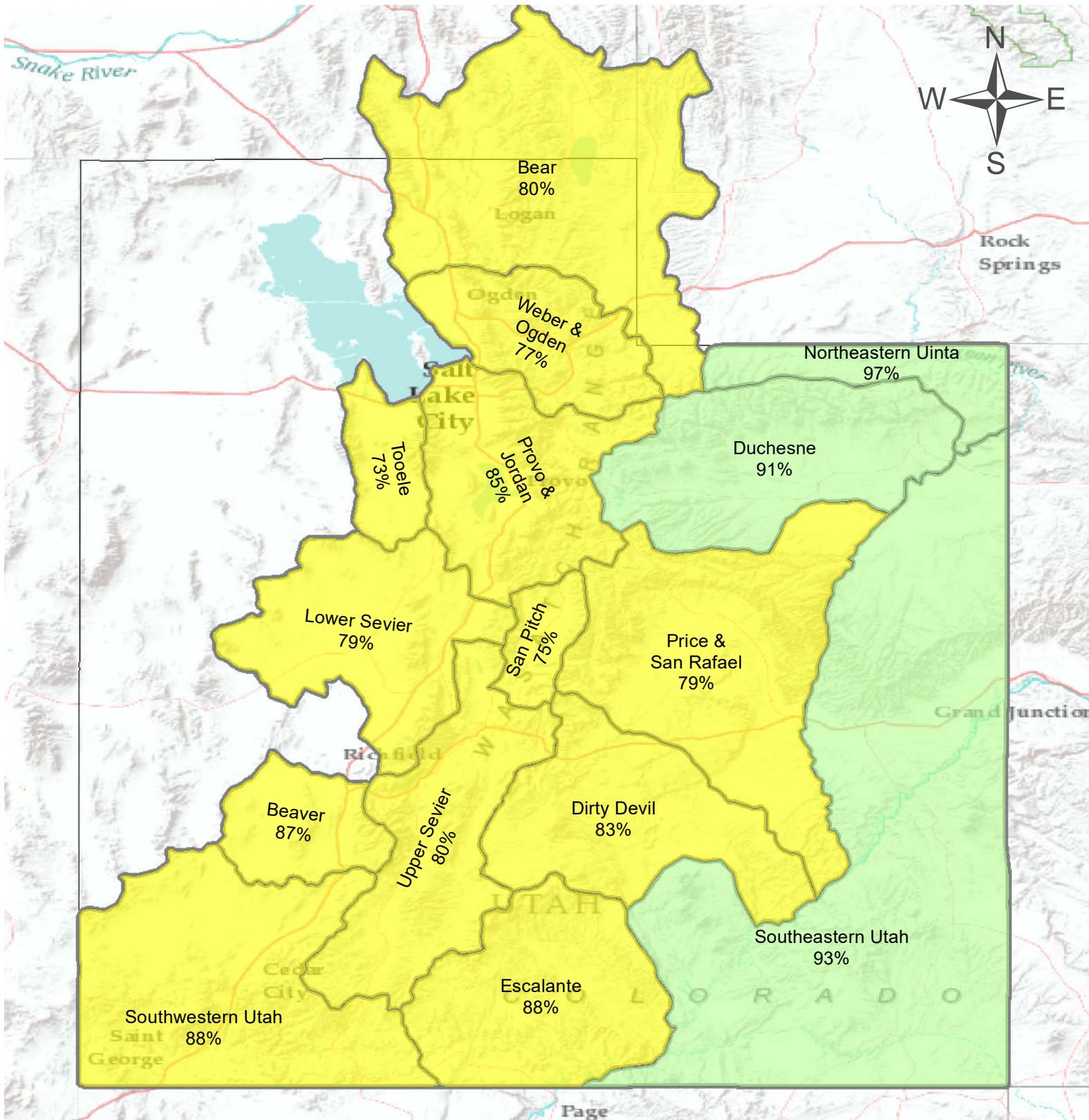
September brought more typical conditions than the past two months, with 0.7 inches of precipitation accumulating in Utah's valley locations. Southeastern Utah fared the best during September, receiving 1.4 inches, while Southwestern Utah received a paltry 0.3 inches. Overall, Utah's SCAN sites ended up the 2021 water year with an average of 8 inches of precipitation. Although below average, this would have been significantly worse if it weren't for the exceptional monsoonal moisture of July and August. Soil moisture levels dropped through September, as evapotranspiration rates remained high at Utah's SCAN sites. At the end of the water year at Utah SCAN sites, soil moisture conditions were generally below average, but higher than last year at this time. Soil temperatures across most of the state ended September near or above normal. Utah continues to persist in severe (D2) to exceptional (D4) drought conditions. Luckily, however, the portion of Utah experiencing D4 drought has dropped to 20%, down from 65% just three months ago.

Current Mountain Conditions (SNOTEL)

With September in our rear view mirror, we now can bid adieu to the 2021 water year. Good riddance! The 2021 water year precipitation ended at 82% of average for Utah's mountains, up from 64% earlier in the summer. Accumulated precipitation hovered at or below the previous record minimum for much of the water year until our recent boost from the summer monsoon, which pushed totals to just above the bottom 10th percentile of observations. If we combine the statewide precipitation deficit from the end of this water year with last year's, we get roughly 13" of additional moisture (above and beyond what we normally receive) that will be needed to get us back to 'normal'. For context, the average annual statewide precipitation is 32.1", so our current deficit is roughly 40% of what Utah normally gets in a year. Reservoir storage ended the water year at 48% of capacity, down 15% from last year and down 26% from the previous year at this time. Fifty percent of Utah's rivers are in the driest categories for streamflow for this time of year, and Water Availability Indices (WAIs) remain at historically-low levels (bottom 15th percentile) for 10 of Utah's 18 major basins.

And yet, there's hope. As noted in last month's report, the unusually strong summer monsoon provided much-needed improvement in the amount of soil moisture available in Utah's mountains. While things have dried out somewhat since then, statewide soil moisture is currently at 36% of saturation, which is close to average for this time of year and up 13% from last year's value. Soils are likely to remain at around average moisture levels or above because we are now entering the fall season when our mountain soils don't lose as much moisture to evapotranspiration compared with summer months, and certainly any additional precipitation we receive before the snow season will help. All of this will lead to an improved amount of runoff during next spring's snowmelt season, which ought to help replenish our reservoir system. Assuming we get a reasonable amount of snow...

Finally, please note that starting this water year the National Water and Climate Center (NWCC) has migrated to the new 1991-2020 climatological normals window. In addition, all NWCC normals will use median instead of average as the measure of central tendency. The Utah Snow Survey office will be publishing a special report in Fall 2021 to explain these differences and their potential impacts on our understanding of current water supply conditions. Please [contact us](#) with any questions or concerns in the meantime.



Statewide Precipitation

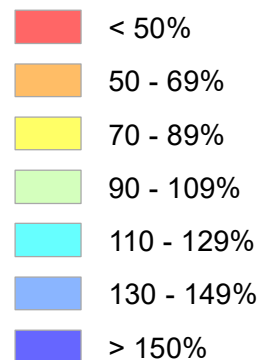
As of October 1, 2021:

82% of Normal Precipitation

53% of Normal Precipitation Last Month

0 10 20 40 60 80 100 Miles

% of Normal



October 1, 2021

Water Availability Index

Basin or Region	Sep EOM* Storage	September Flow	Storage + Flow	Percentile	WAI#	Years with similar WAI
	KAF^	KAF^	KAF^	%		
Bear River	520	4.3	524	48	-0.2	01, 14, 13, 89
Woodruff Narrows	10.3	4.3	14.6	29	-1.8	94, 12, 13, 88
Little Bear	2.5	0.9	3.4	10	-3.3	94, 03, 01, 07
Ogden	20.1	1.8	21.9	5	-3.8	92, 00, 03, 90
Weber	59.6	5.1	64.7	9	-3.4	92, 13, 18, 12
Provo River	249.4	2.0	251.4	4	-3.9	13, 07, 04, 15
Western Uinta	126.7	4.0	130.7	34	-1.3	12, 02, 20, 88
Eastern Uinta	10.7	1.6	12.3	5	-3.8	18, 02, 89, 13
Blacks Fork	3.8	4.0	7.8	44	-0.5	10, 96, 15, 17
Price	13.7	0.1	13.8	31	-1.6	89, 07, 13, 96
Smiths Creek	3.8	2.2	6.0	47	-0.2	15, 06, 09, 08
Joes Valley	21.8	0.8	22.5	5	-3.8	02, 90, 94, 18
Moab	0.7	0.3	1.0	51	0.1	96, 08, 06, 07
Upper Sevier River	10.0	0.8	10.8	14	-3.0	02, 18, 91, 90
San Pitch	0.0	0.3	0.3	10	-3.4	02, 07, 15, 04
Lower Sevier	20.8	3.2	24.0	12	-3.2	18, 16, 17, 92
Beaver	1.7	0.9	2.6	10	-3.4	04, 02, 00, 01
Virgin River	28.4	4.0	32.4	28	-1.8	09, 12, 20, 07

*EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.

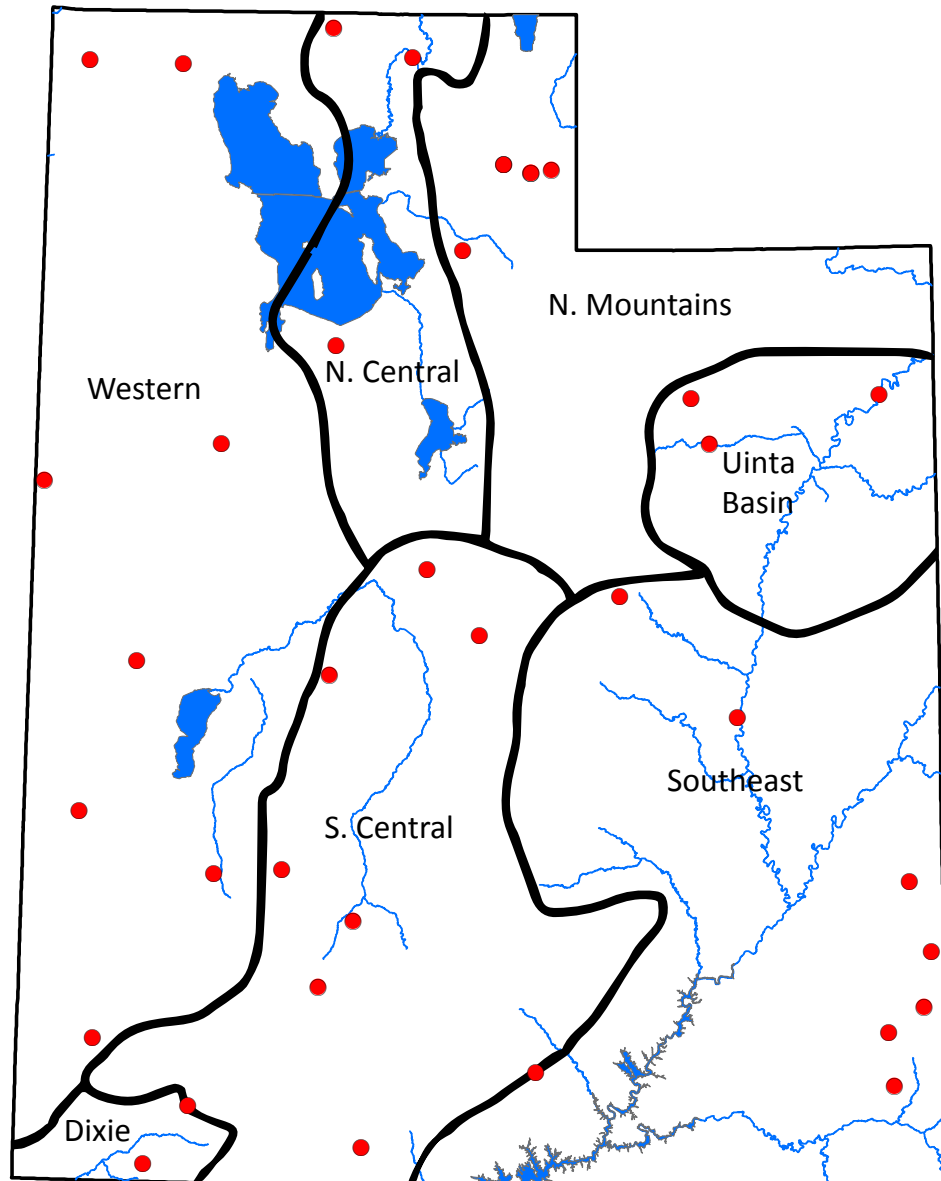
What is a Water Availability Index?

The Water Availability Index (WAI) is an observed hydrologic indicator of current surface water availability within a watershed. The index is calculated by combining current reservoir storage with the previous months streamflow. WAI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) with a value of zero (0) indicating median water supply as compared to historical analysis. WAI's are calculated in this fashion to be consistent with other hydroclimatic indicators such as the Palmer Drought Index and the Precipitation index.

Utah Snow Surveys has also chosen to display the WAI value as well as a PERCENT CHANCE OF NON-EXCEEDANCE. While this is a cumbersome name, it has the simplest application. It can be best thought of as a scale of 1 to 99 with 1 being the drought of record (driest possible conditions) and 99 being the flood of record (wettest possible conditions) and a value of 50 representing average conditions. This rating scale is a percentile rating as well, for example a WAI of 75% means that this years water supply is greater than 75% of all historical events and that only 25% of the time has it been exceeded. Conversely a WAI of 10% means that 90% of historical events have been greater than this one and that only 10% have had less total water supply. This scale is comparable between basins: a SWSI of 50% means the same relative ranking on watershed A as it does on watershed B, which may not be strictly true of the +4 to -4 scale.

For more information on the WAI go to: www.ut.nrcs.usda.gov/snow/ on the water supply page. The entire period of historical record for reservoir storage and streamflow is available.

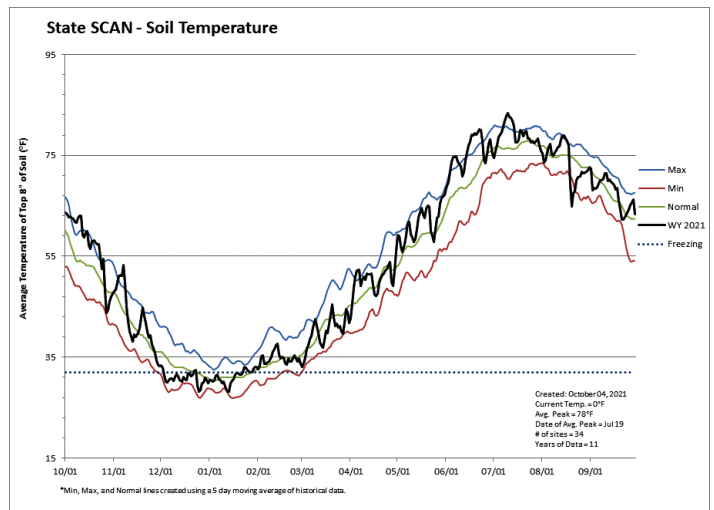
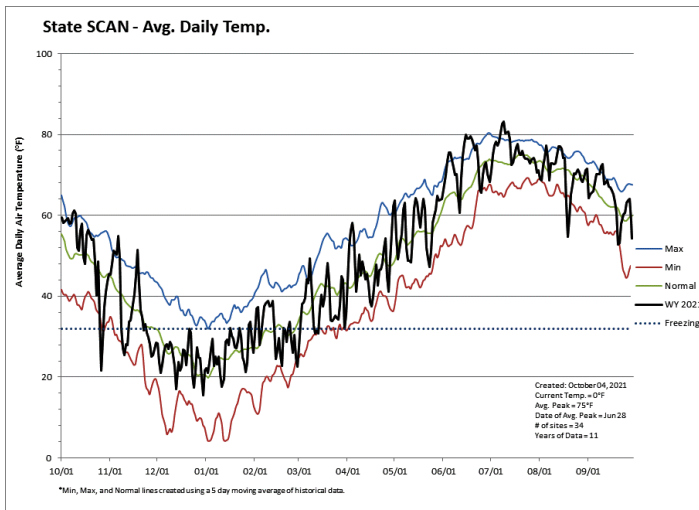
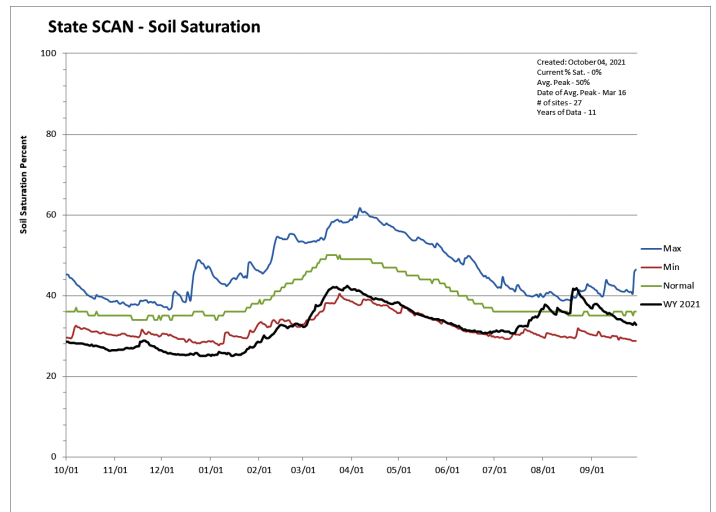
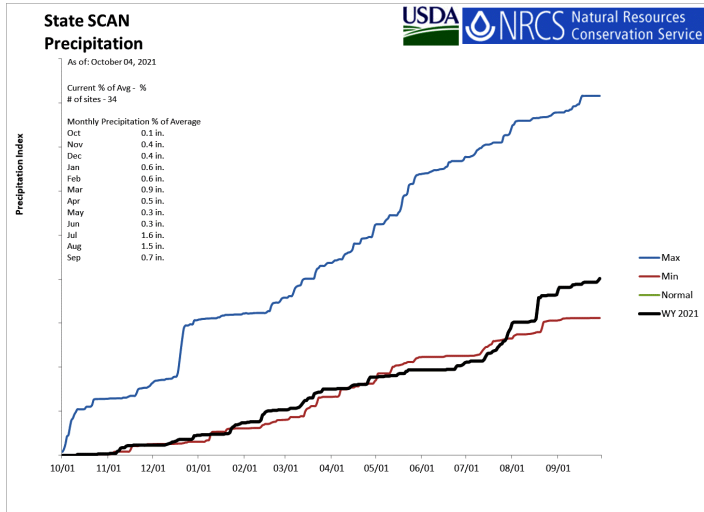
SCAN portion of report



Statewide SCAN

October 1, 2021

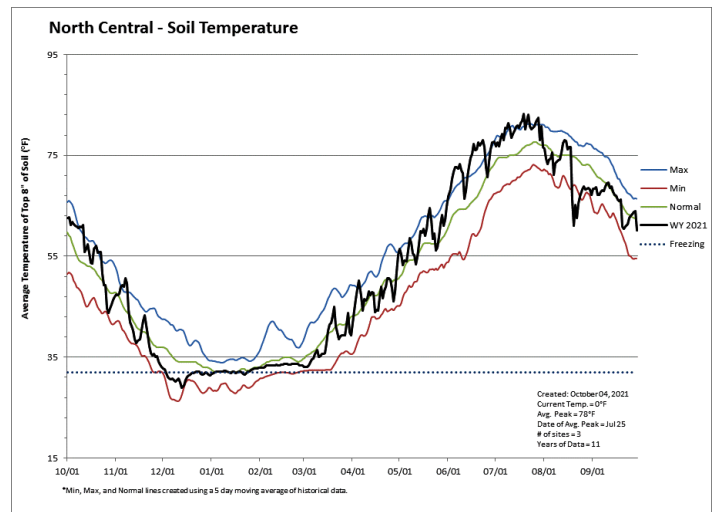
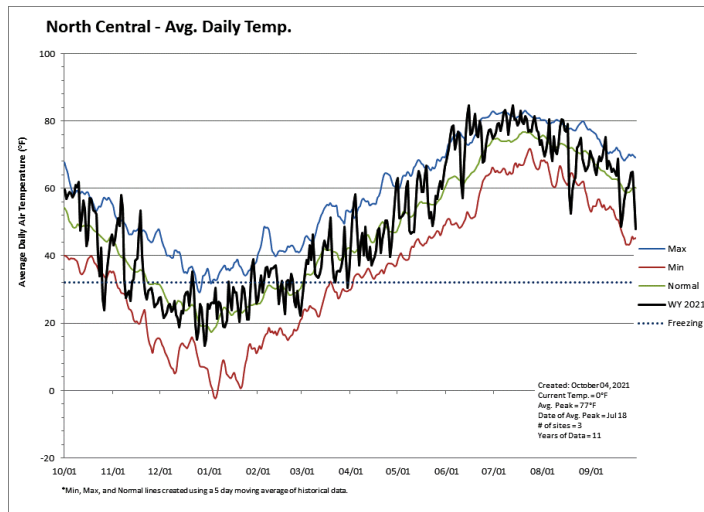
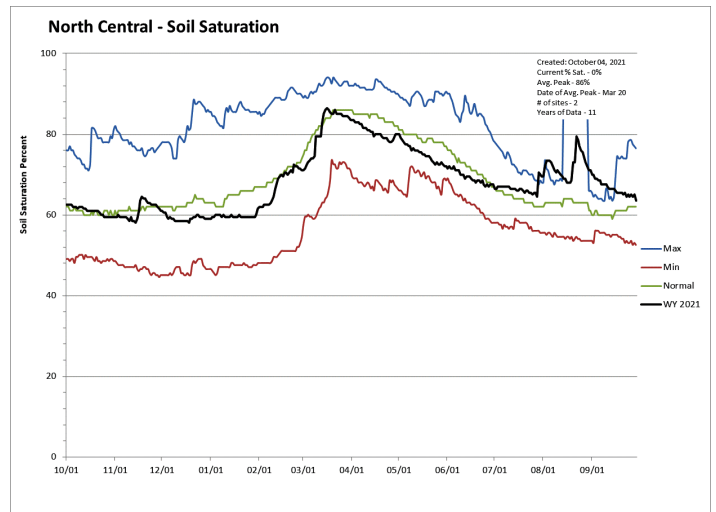
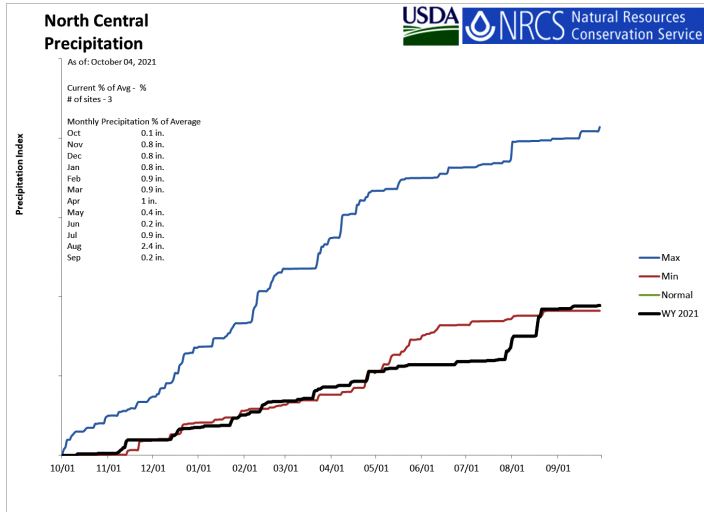
The average precipitation at SCAN sites within Utah was 0.7 inches in September, which brings the seasonal accumulation (Oct-Sep) to 8 inches. Soil moisture is at 33% compared to 28% last year.



North Central

October 1, 2021

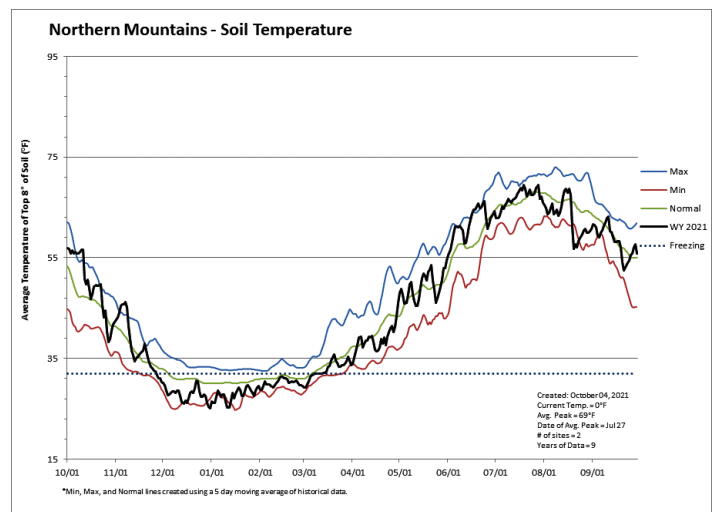
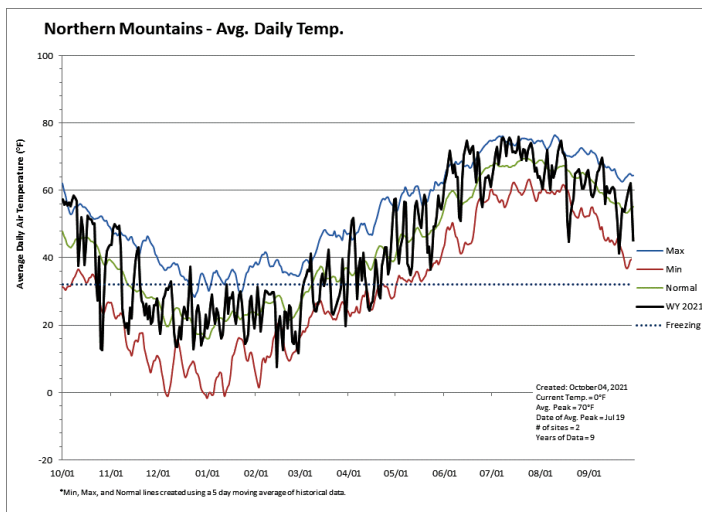
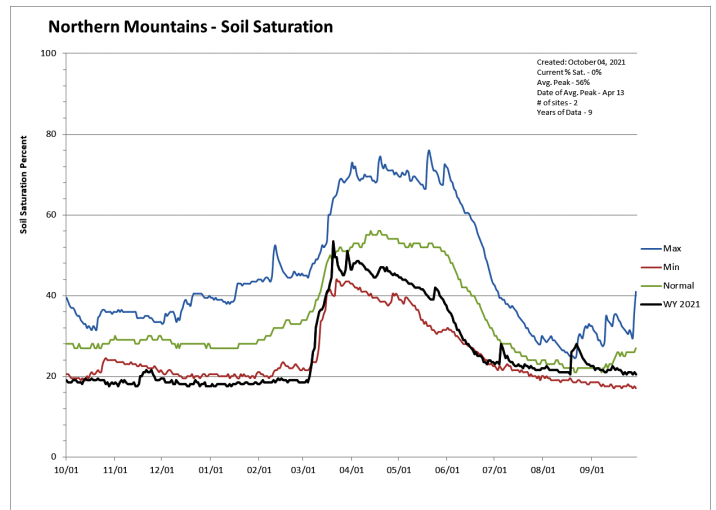
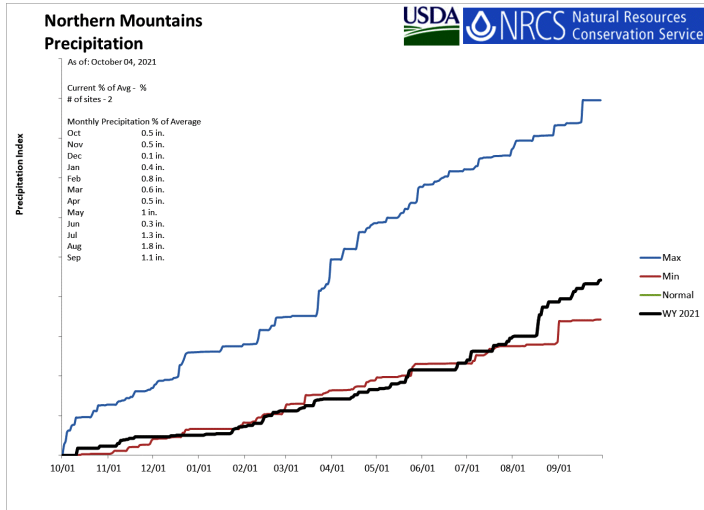
The average precipitation in September at SCAN sites within the basin was 0.2 inches, which brings the seasonal accumulation (Oct-Sep) to 9.4 inches. Soil moisture is at 64% compared to 63% last year.



Northern Mountains

October 1, 2021

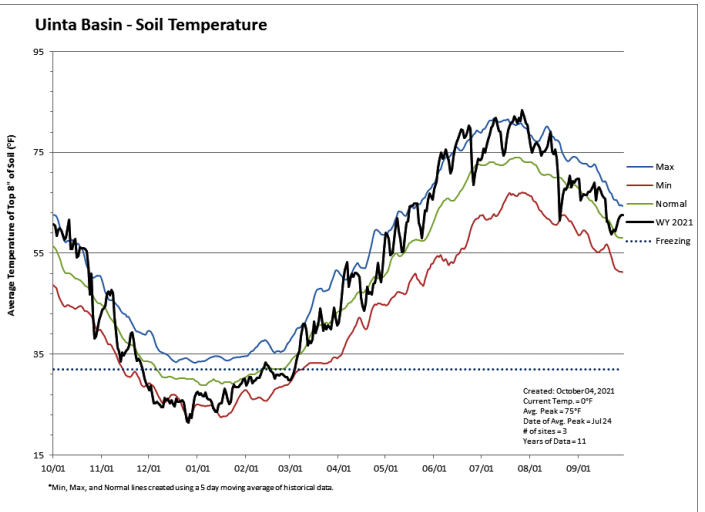
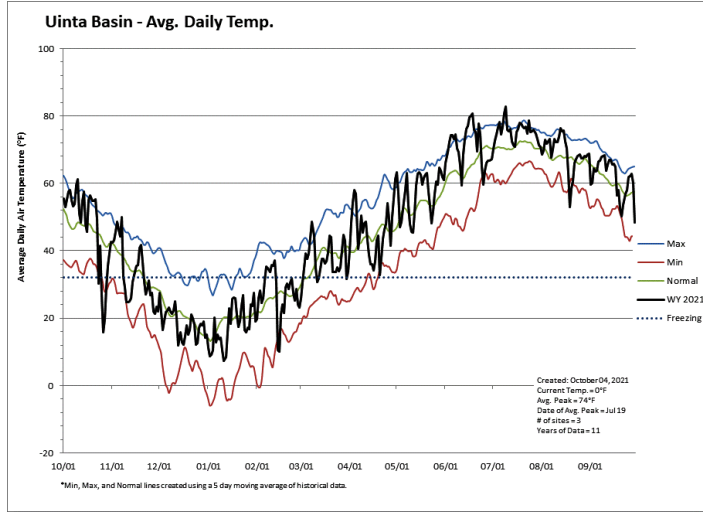
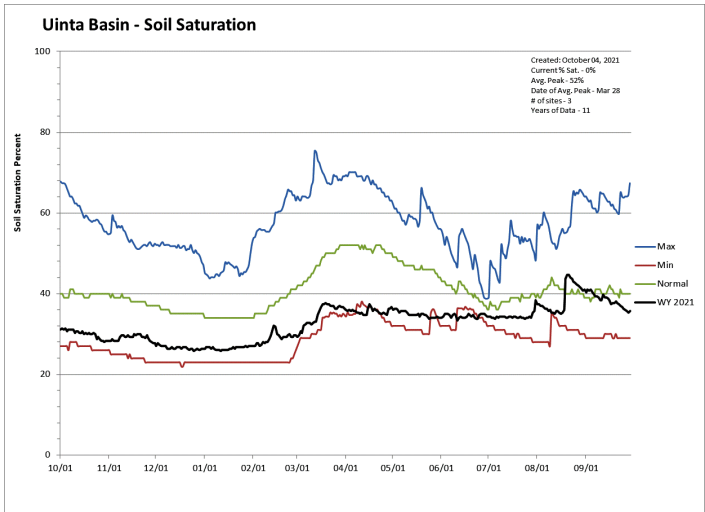
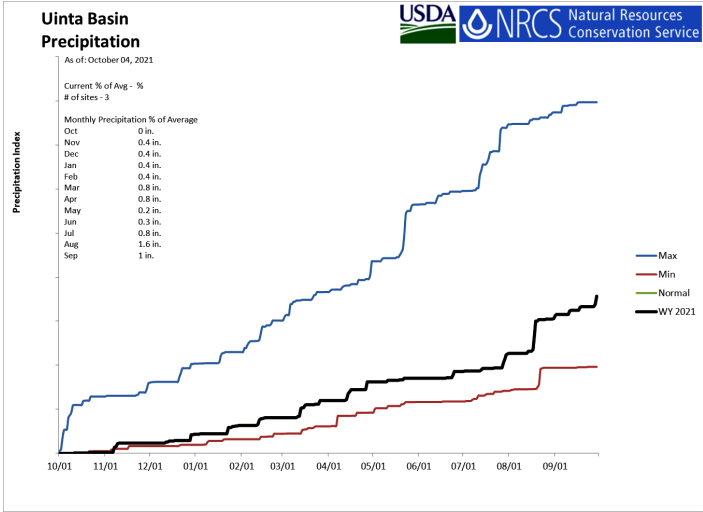
The average precipitation in September at SCAN sites within the basin was 1.1 inches, which brings the seasonal accumulation (Oct-Sep) to 8.9 inches. Soil moisture is at 20% compared to 19% last year.



Uinta Basin

October 1, 2021

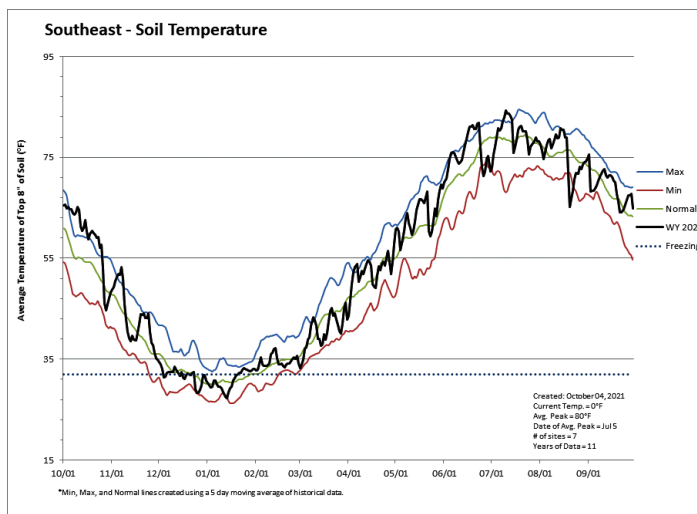
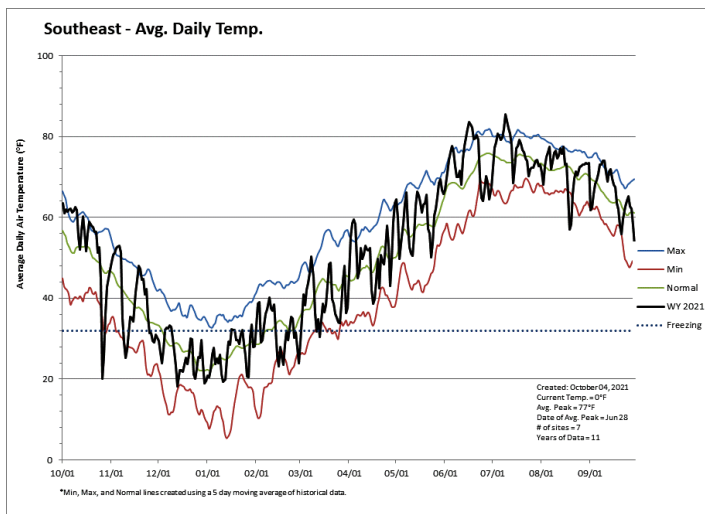
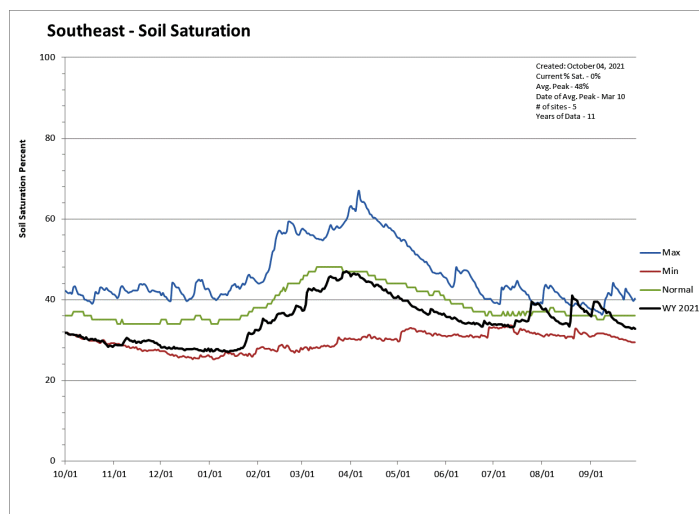
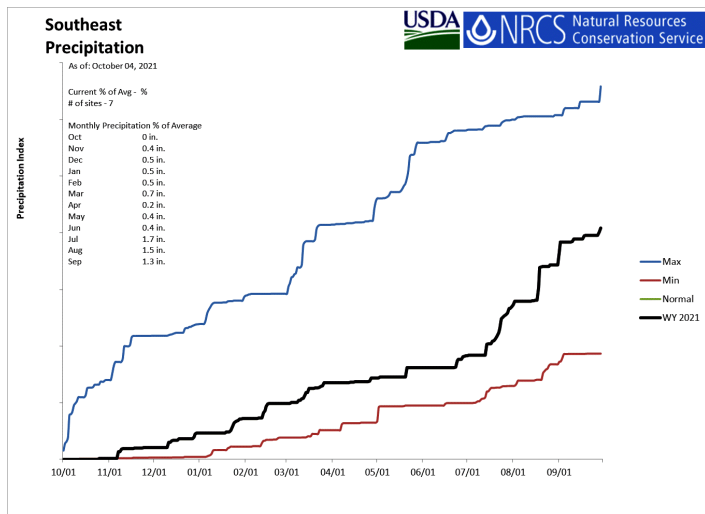
The average precipitation in September at SCAN sites within the basin was 1 inches, which brings the seasonal accumulation (Oct-Sep) to 7.1 inches. Soil moisture is at 37% compared to 31% last year.



Southeast

October 1, 2021

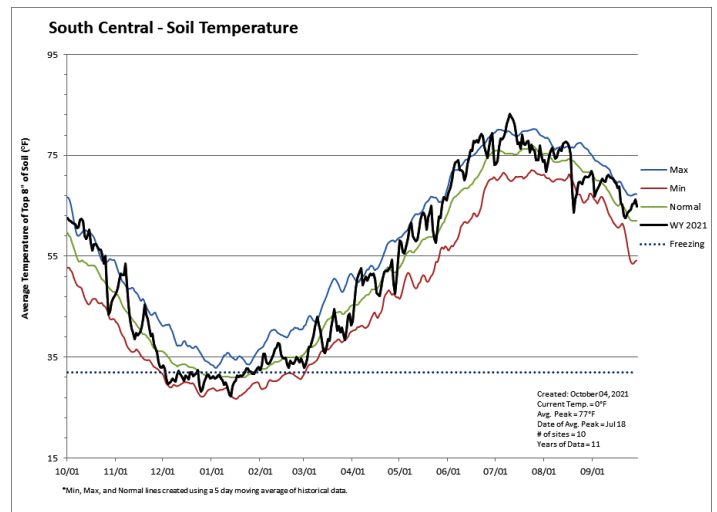
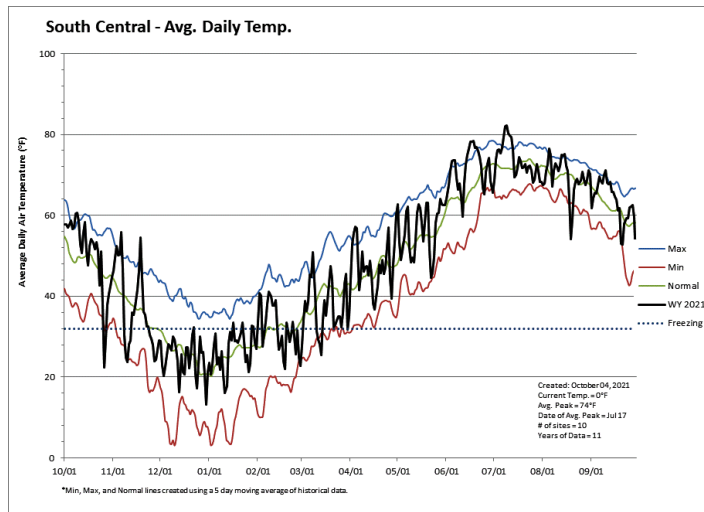
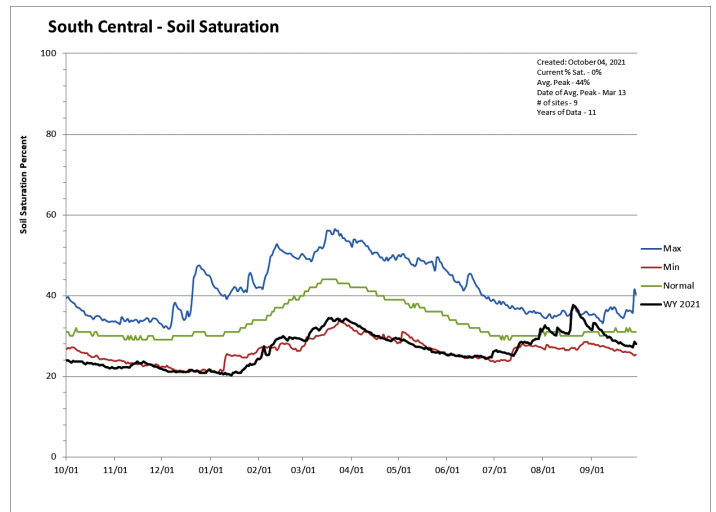
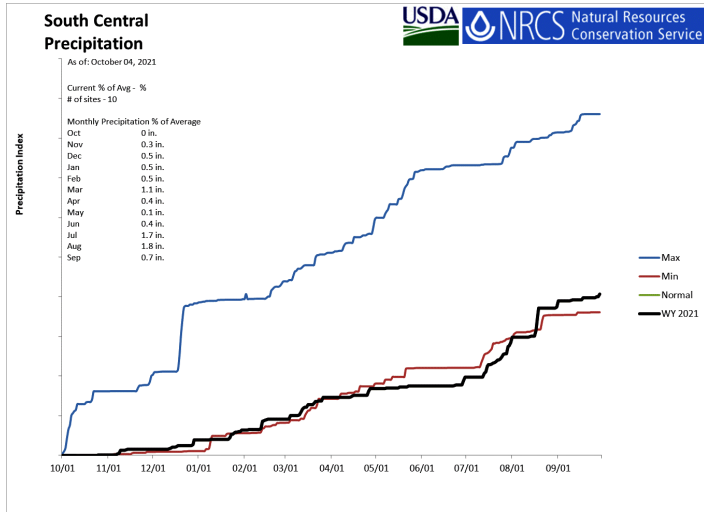
The average precipitation in September at SCAN sites within the basin was 1.4 inches, which brings the seasonal accumulation (Oct-Sep) to 8.3 inches. Soil moisture is at 33% compared to 32% last year.



South Central

October 1, 2021

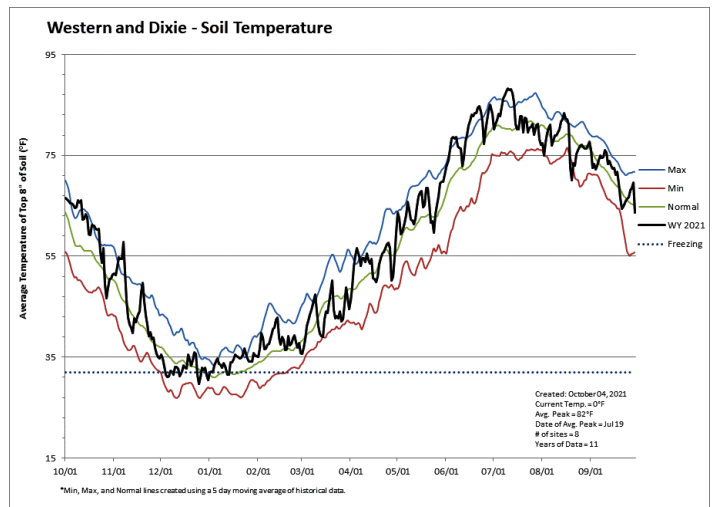
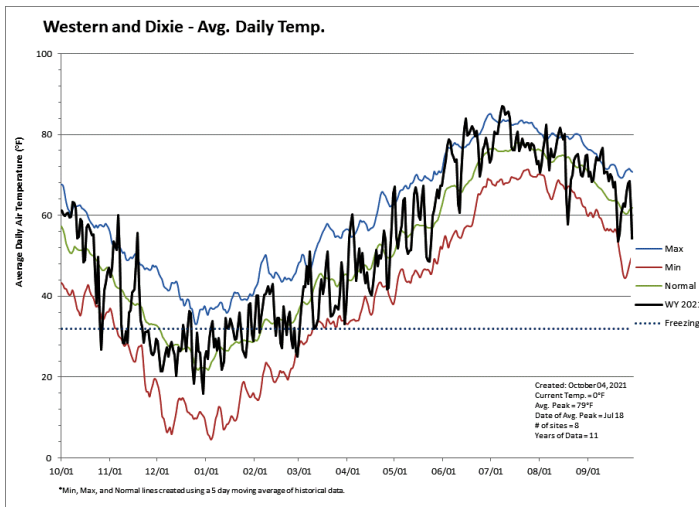
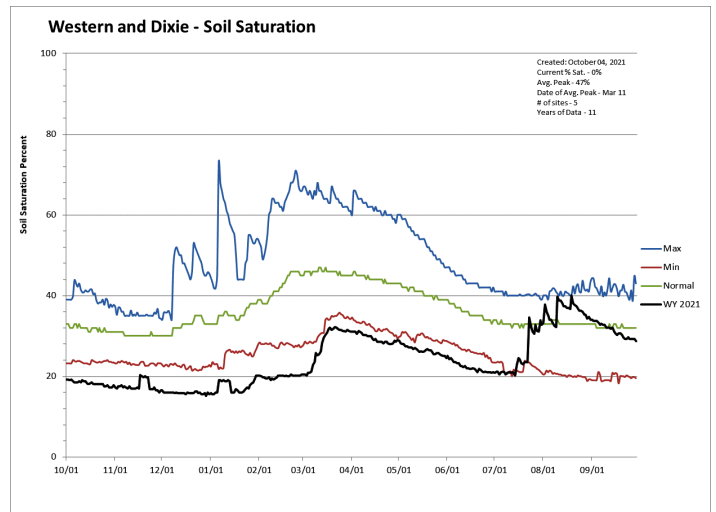
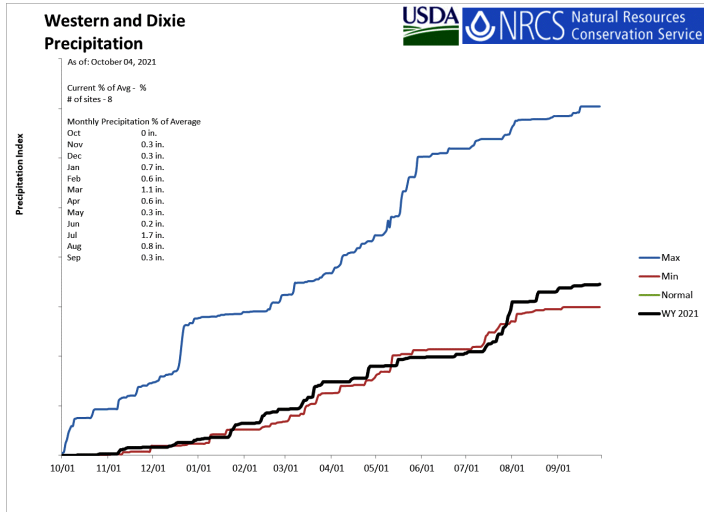
The average precipitation in September at SCAN sites within the basin was 0.7 inches, which brings the seasonal accumulation (Oct-Sep) to 8.1 inches. Soil moisture is at 28% compared to 24% last year.



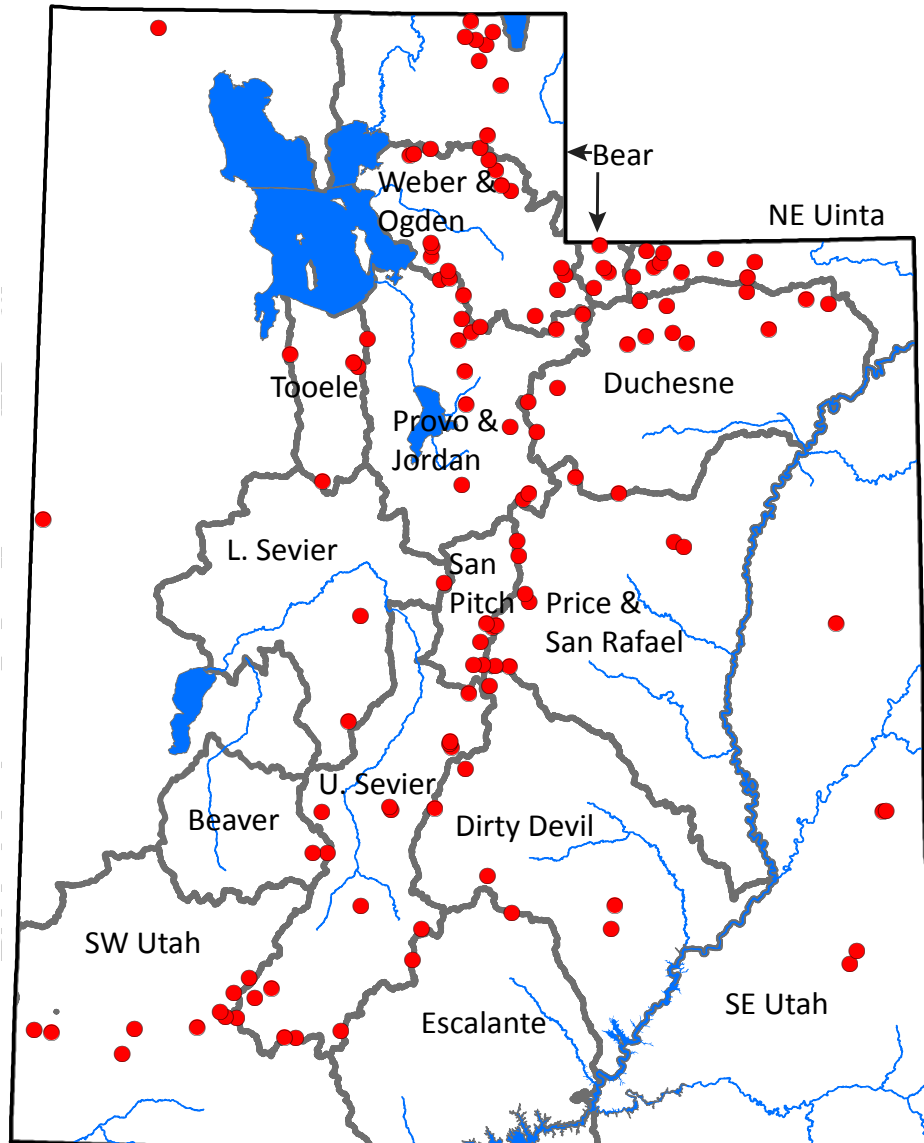
Western and Dixie

October 1, 2021

The average precipitation in September at SCAN sites within the basin was 0.3 inches, which brings the seasonal accumulation (Oct-Sep) to 6.9 inches. Soil moisture is at 29% compared to 19% last year.



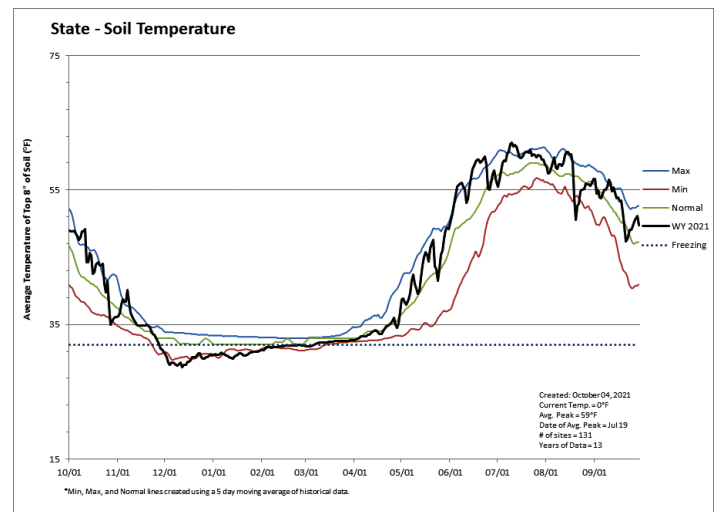
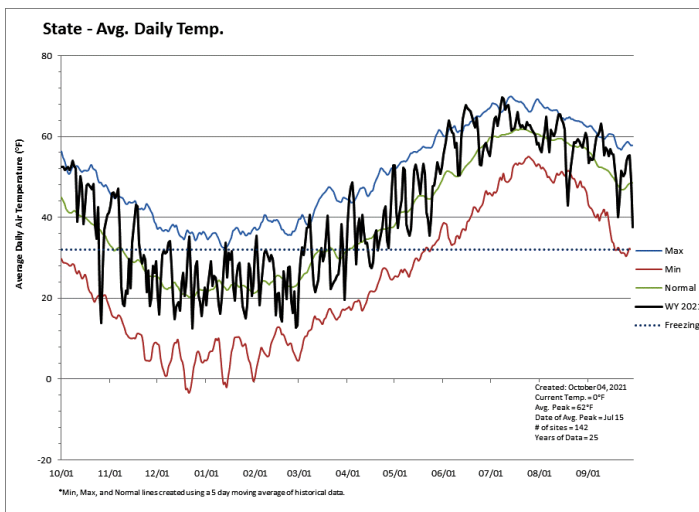
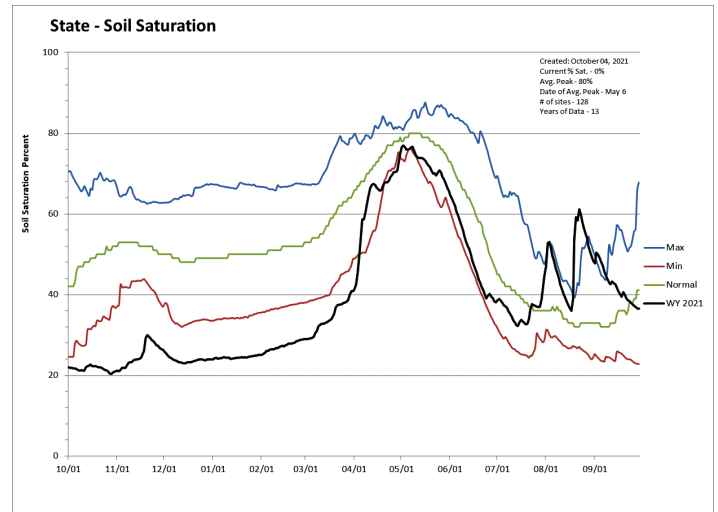
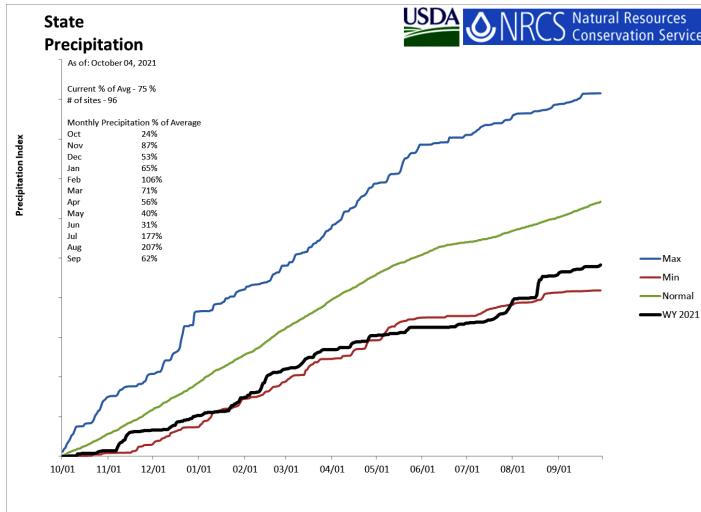
SNOTEL portion of report



Statewide SNOTEL

October 1, 2021

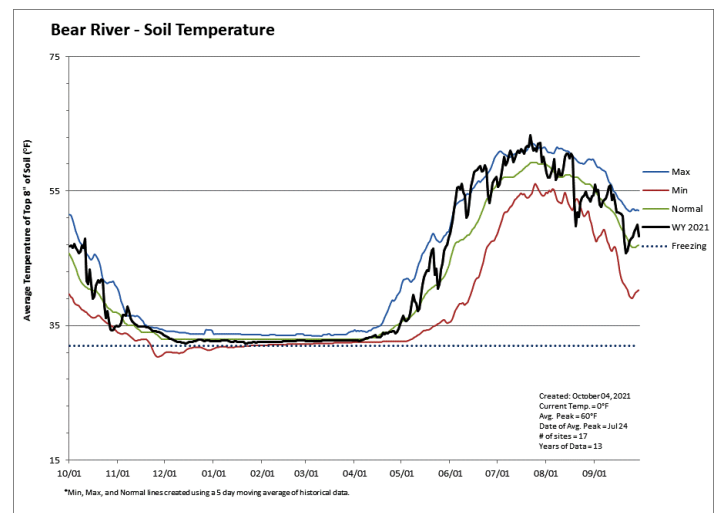
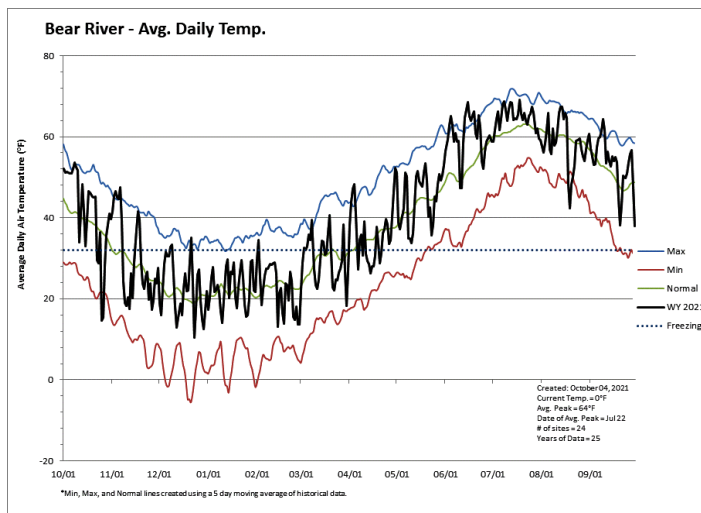
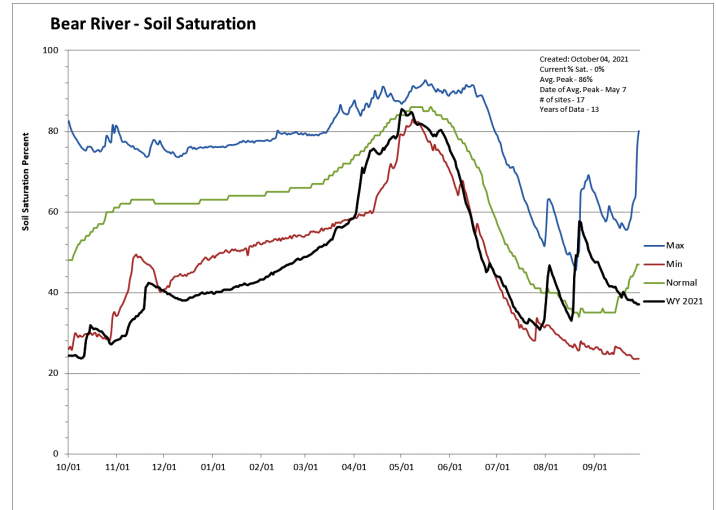
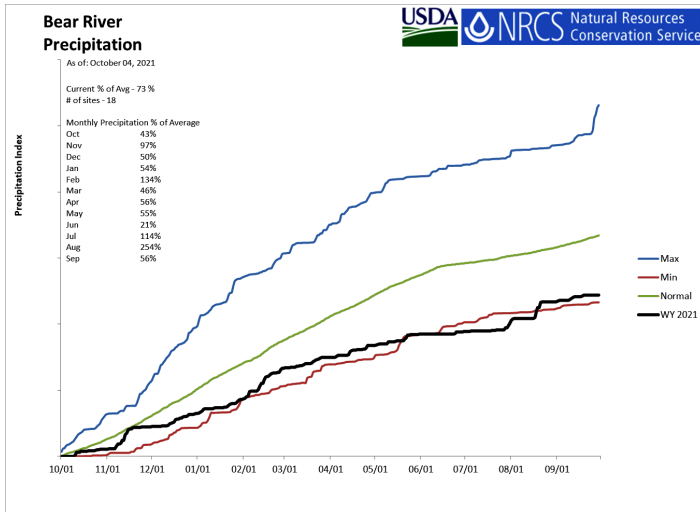
Precipitation at SNOTEL sites during September was much below average at 53%, which brings the seasonal accumulation (Oct-Sep) to 82% of average. Soil moisture is at 36% compared to 23% last year. Reservoir storage is at 48% of capacity, compared to 63% last year.



Bear River Basin

October 1, 2021

Precipitation in September was much below average at 49%, which brings the seasonal accumulation (Oct-Sep) to 80% of average. Soil moisture is at 36% compared to 24% last year. Reservoir storage is at 21% of capacity, compared to 38% last year. The water availability index for the Bear River is 48%, 29% for Woodruff Narrows and 10% for the Little Bear.

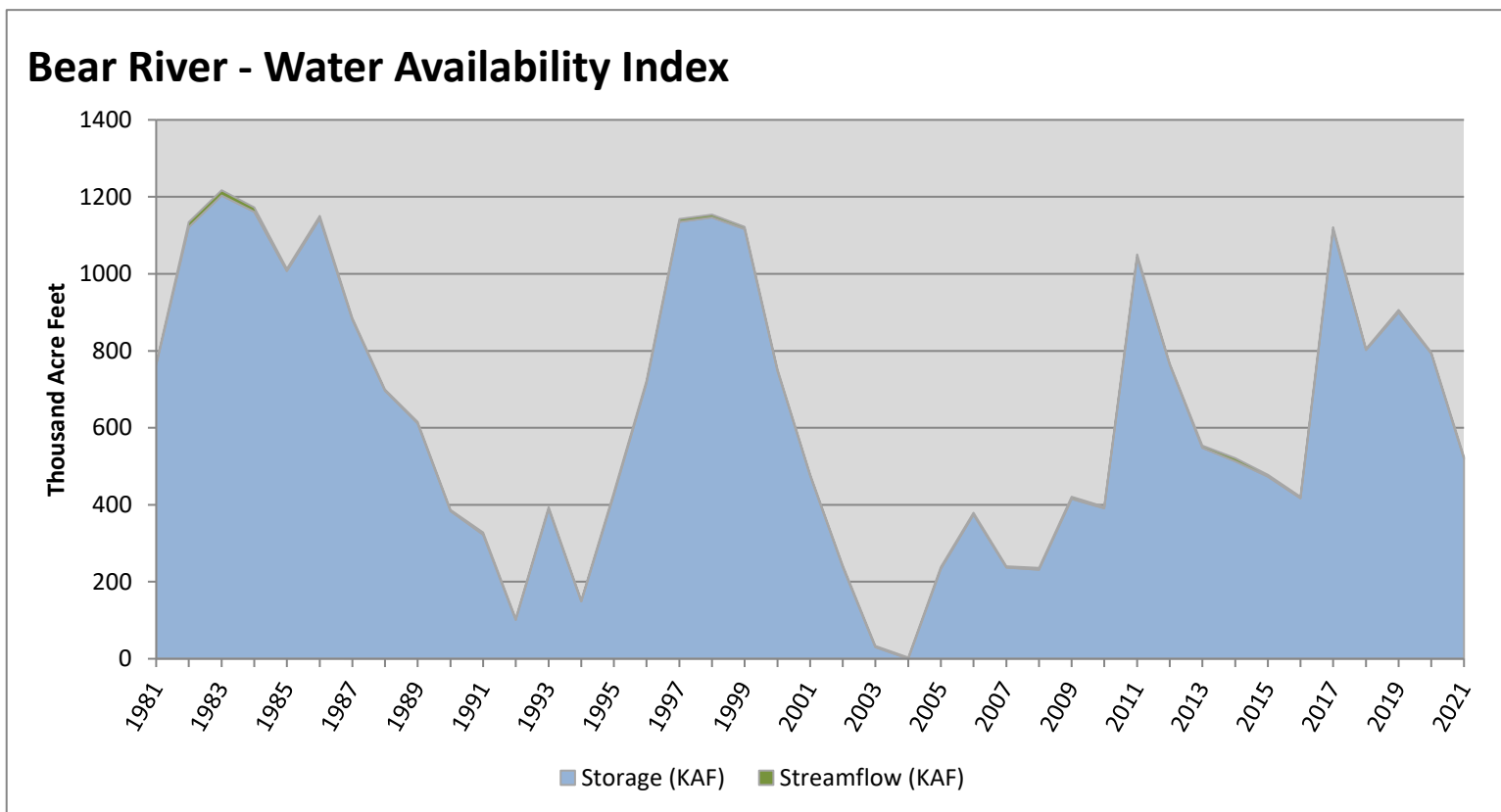


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Bear River	519.77	4.34	524.11	48	-0.2	01, 14, 13, 89

^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.

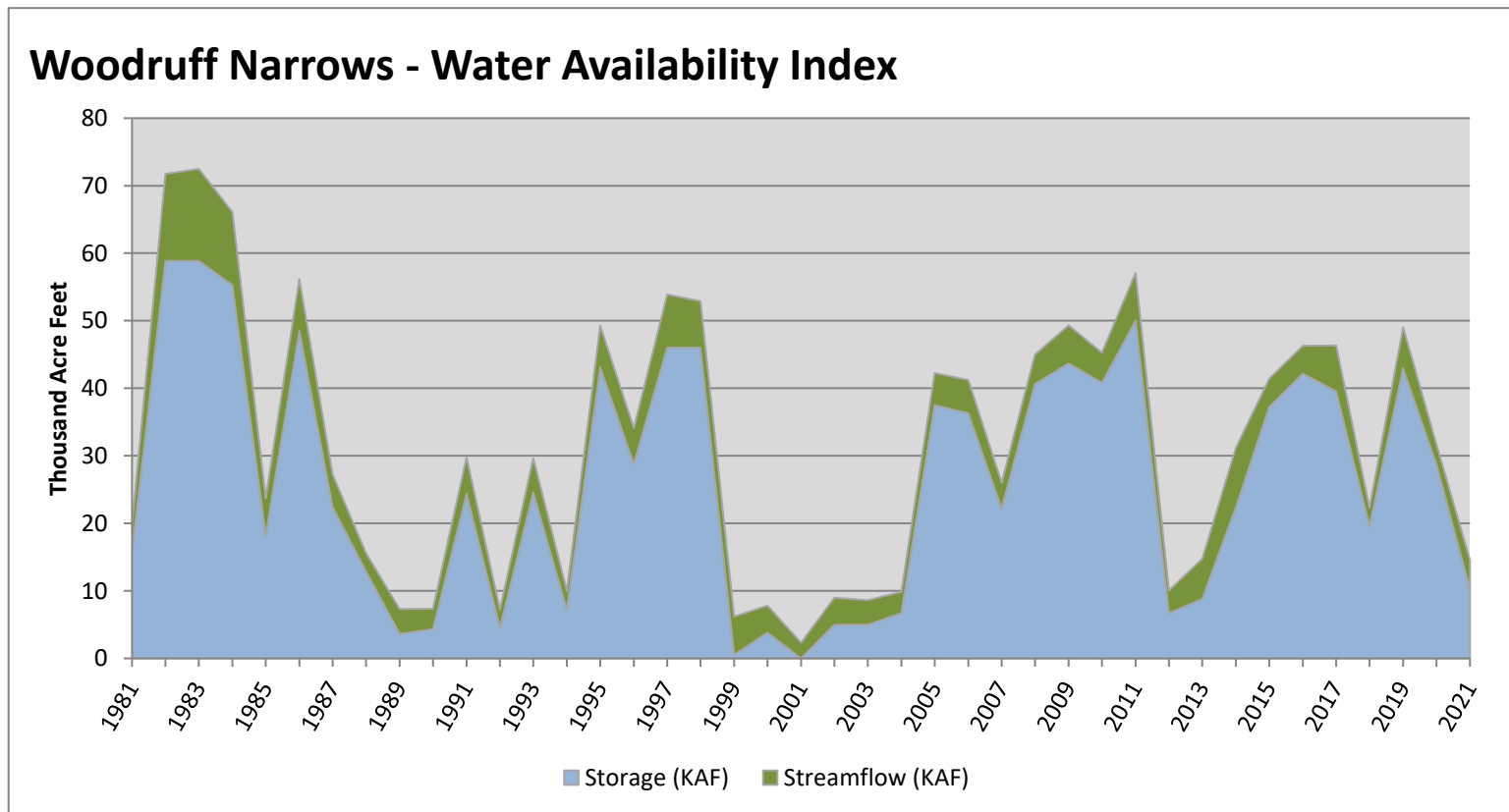


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Woodruff Narrows	10.28	4.34	14.62	29	-1.79	94, 12, 13, 88

^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.

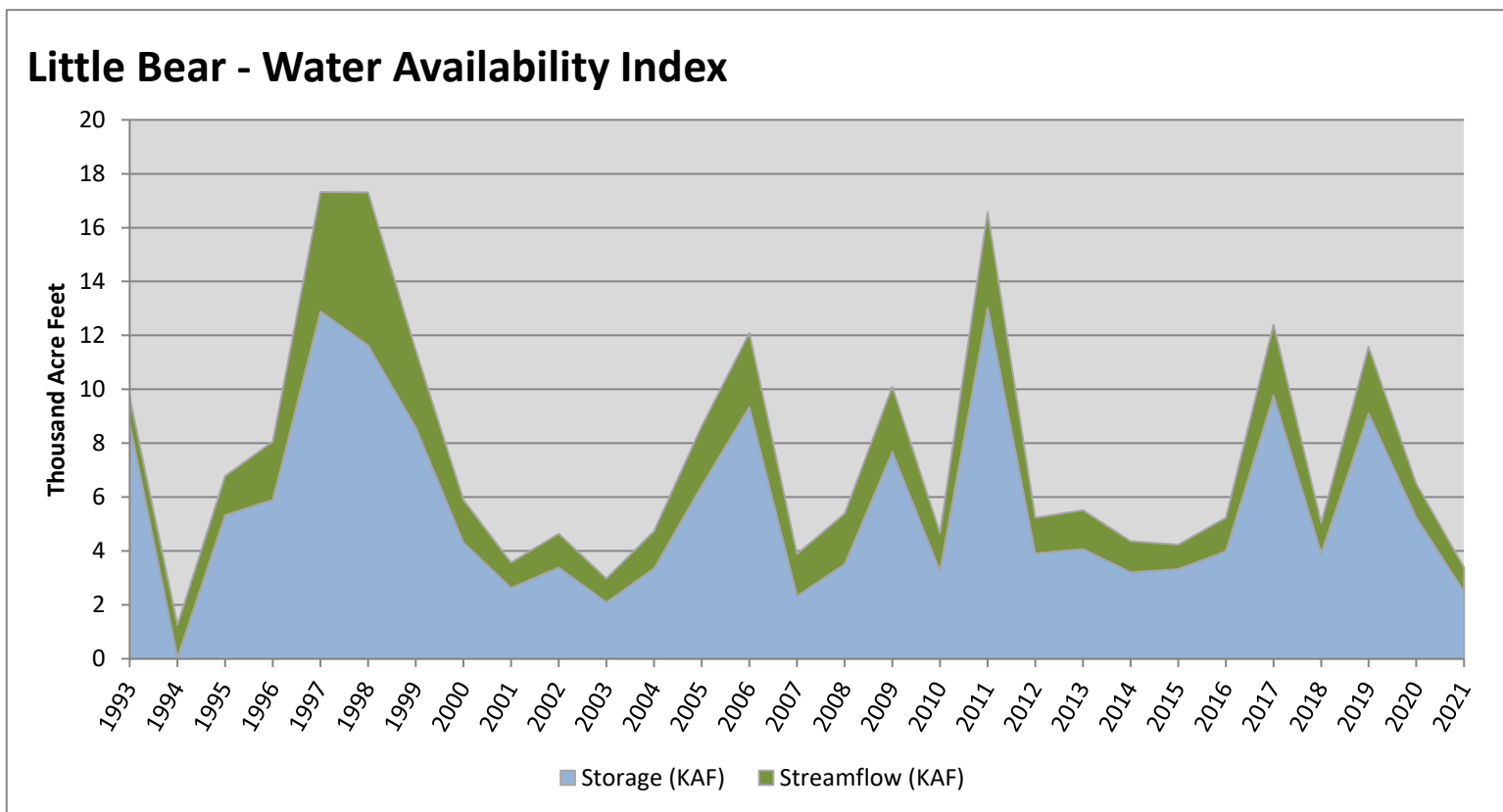


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Little Bear	2.49	0.90	3.39	10	-3.33	94, 03, 01, 07

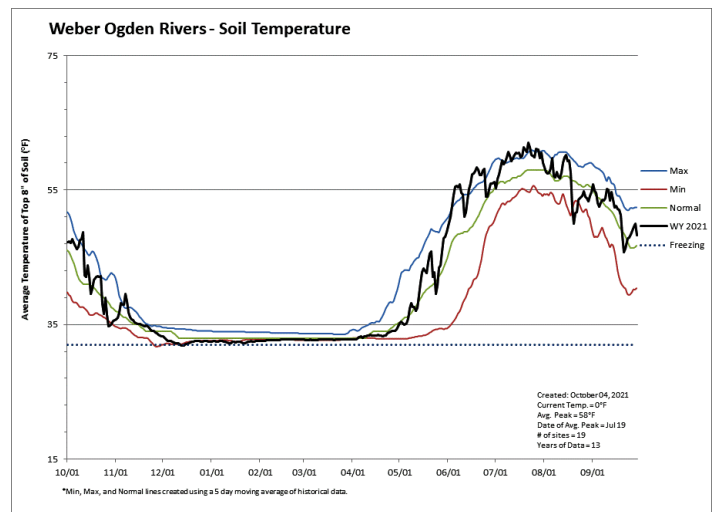
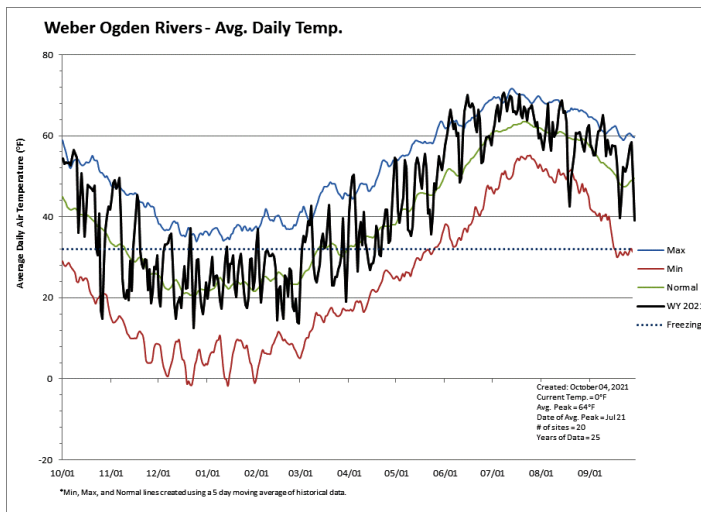
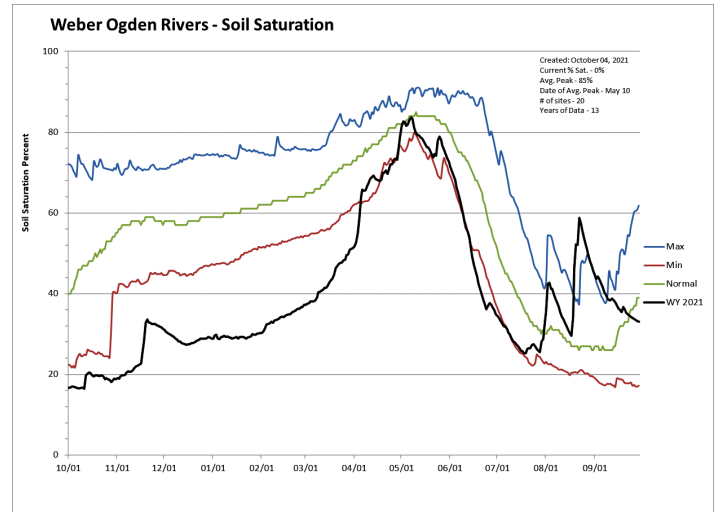
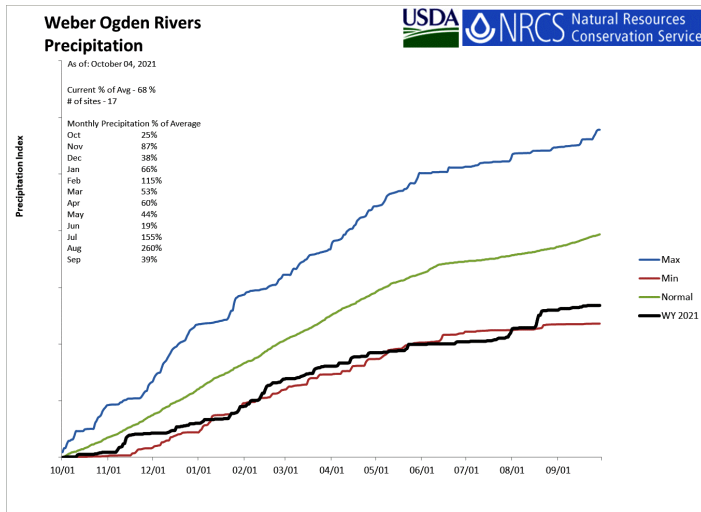
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Weber & Ogden River Basins

October 1, 2021

Precipitation in September was much below average at 34%, which brings the seasonal accumulation (Oct-Sep) to 77% of average. Soil moisture is at 32% compared to 17% last year. Reservoir storage is at 29% of capacity, compared to 52% last year. The water availability index for the Ogden River is 5% and 9% for the Weber River.

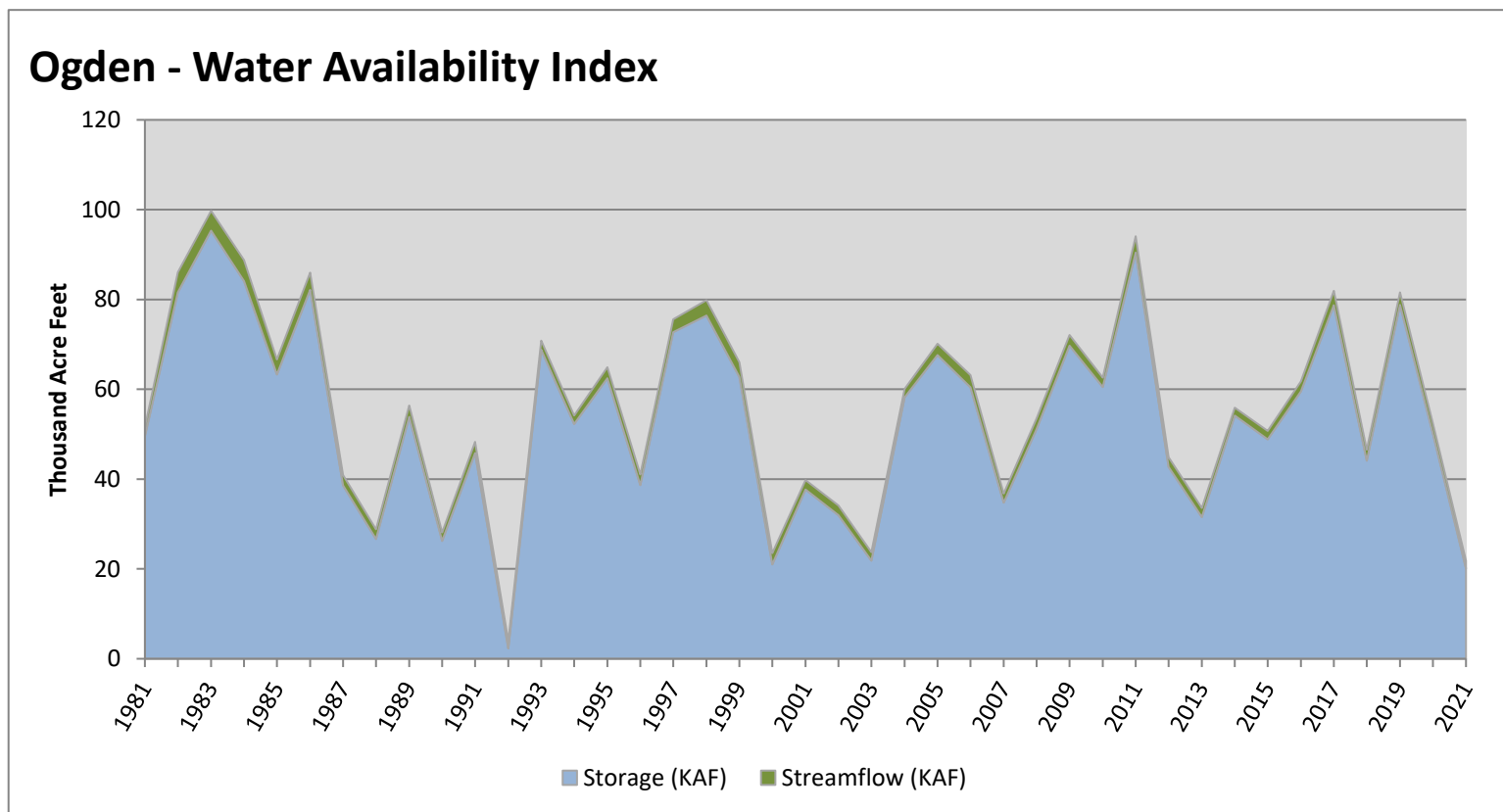


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Ogden	20.12	1.76	21.88	5	-3.77	92, 00, 03, 90

^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.

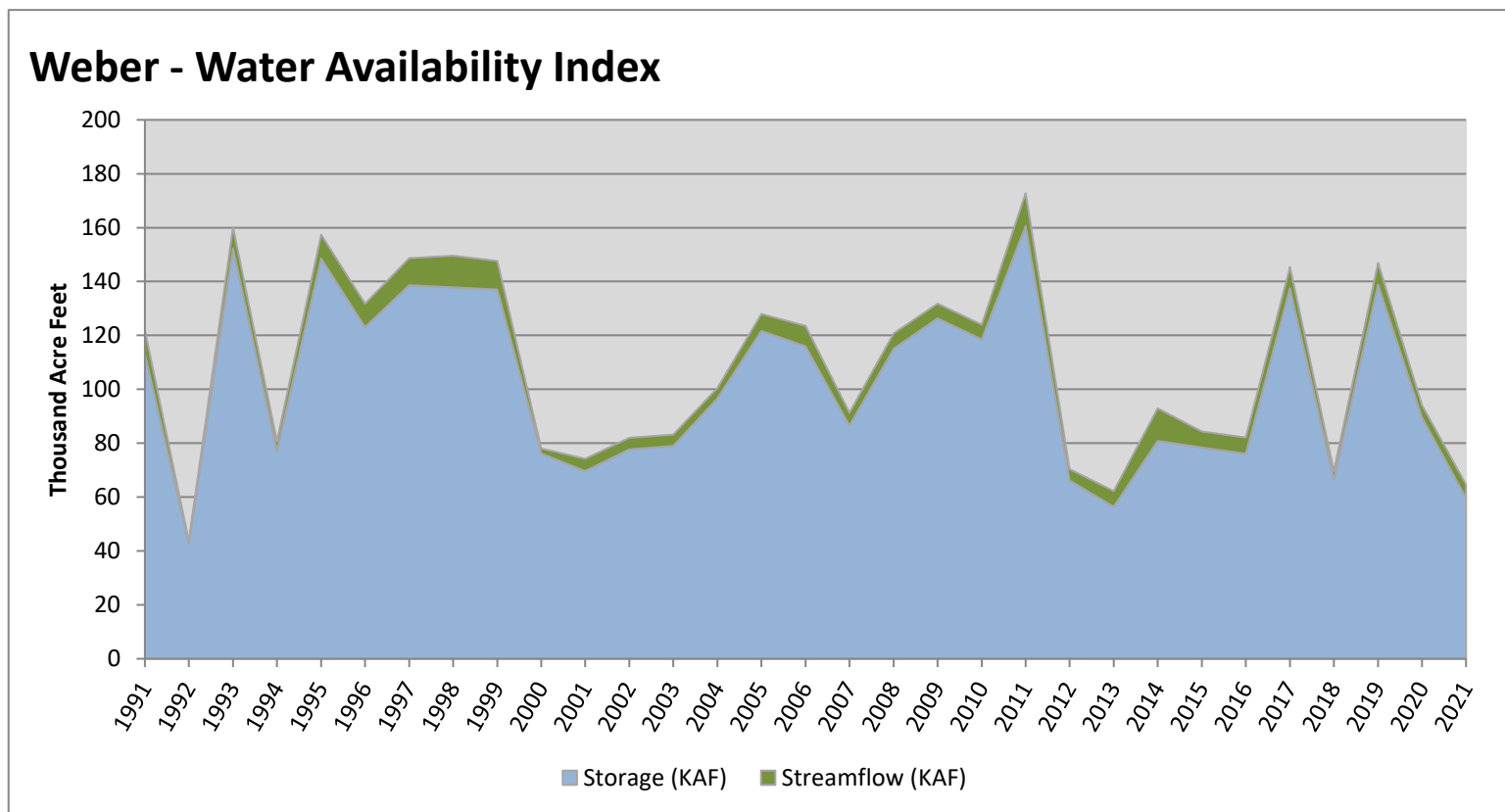


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Weber	59.63	5.07	64.70	9	-3.39	92, 13, 18, 12

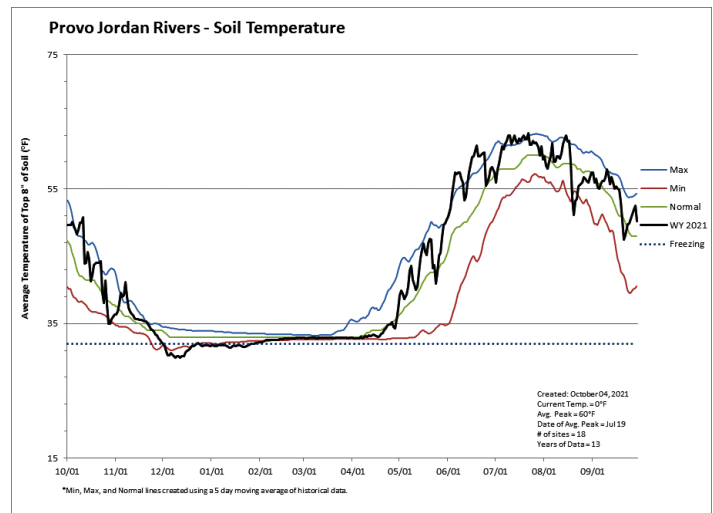
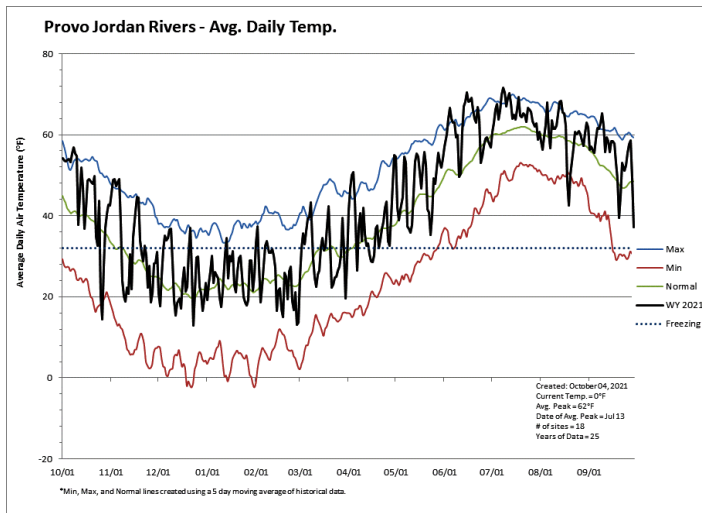
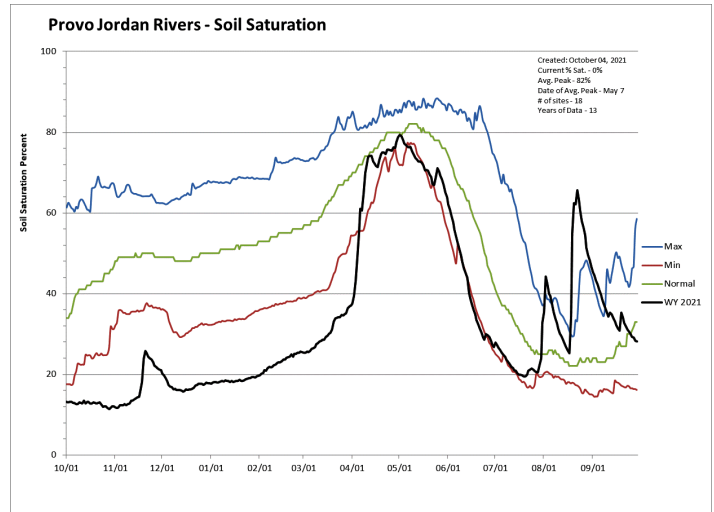
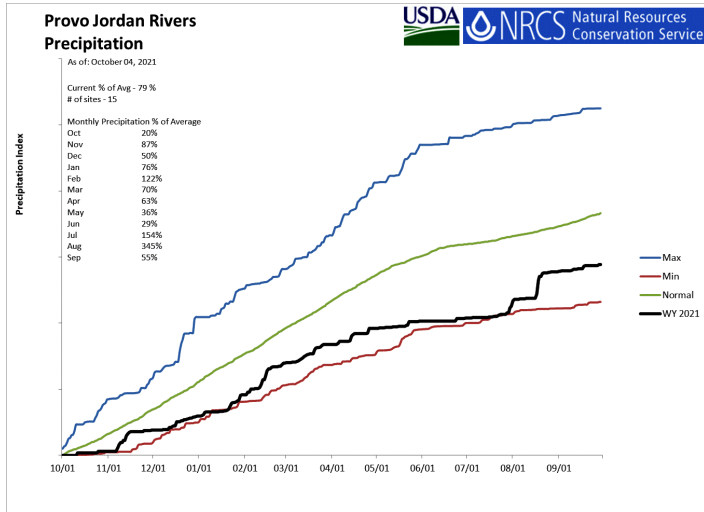
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Provo & Jordan River Basins

October 1, 2021

Precipitation in September was much below average at 45%, which brings the seasonal accumulation (Oct-Sep) to 85% of average. Soil moisture is at 27% compared to 13% last year. Reservoir storage is at 61% of capacity, compared to 76% last year. The water availability index for the Provo River is 4%.

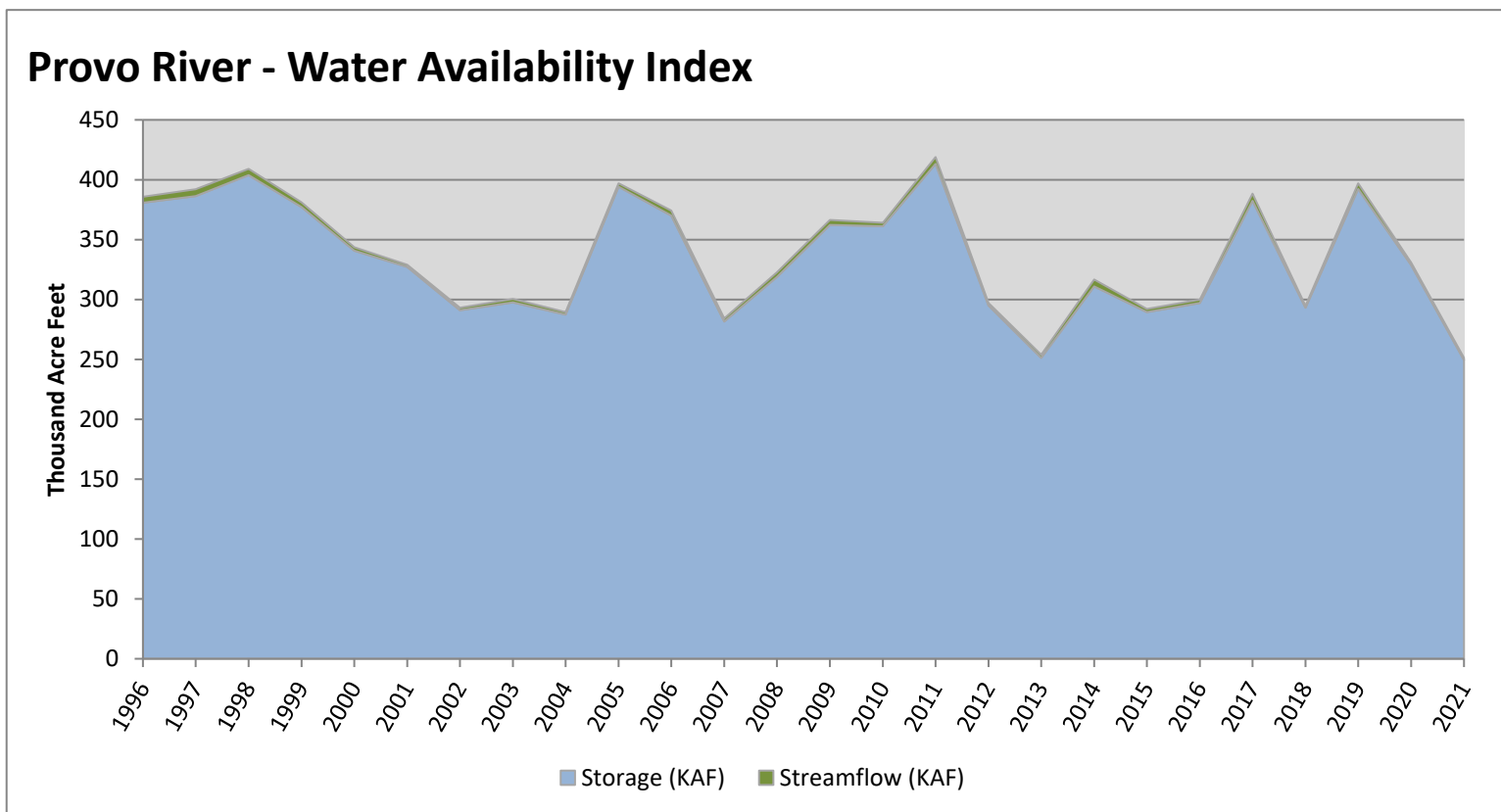


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Provo River	249.38	2.01	251.39	4	-3.86	13, 07, 04, 15

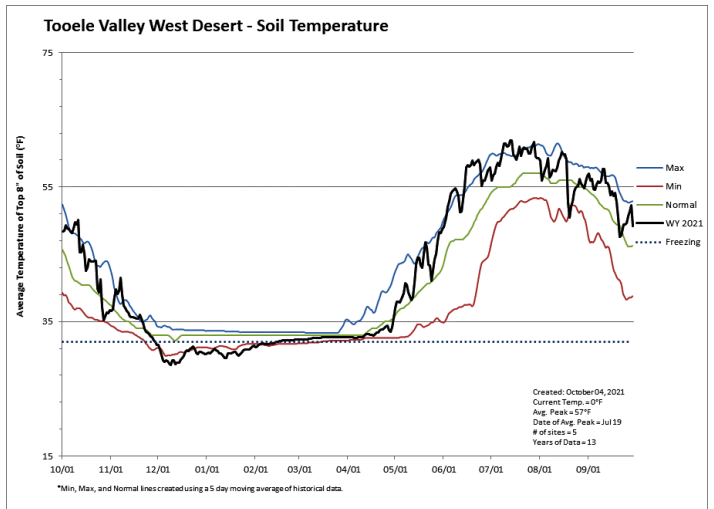
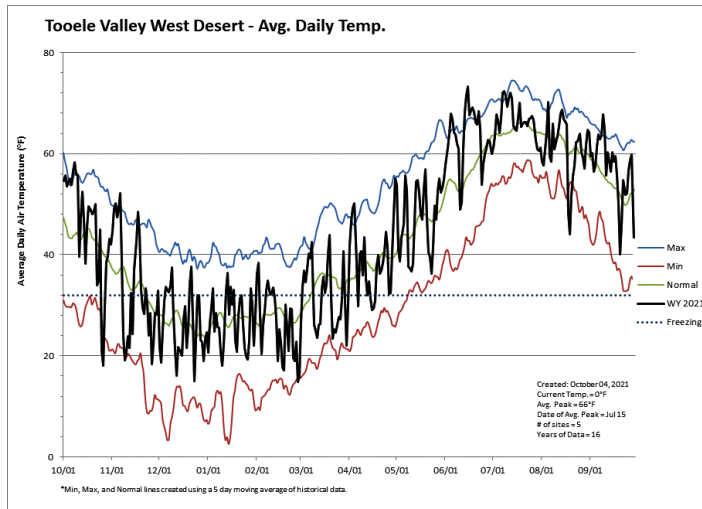
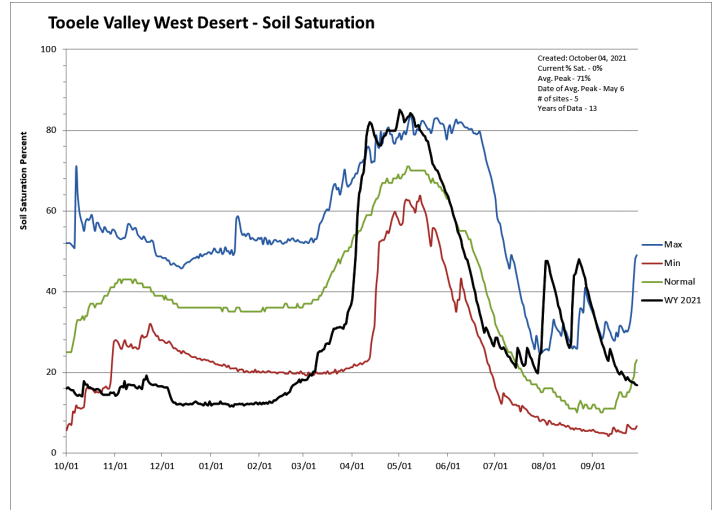
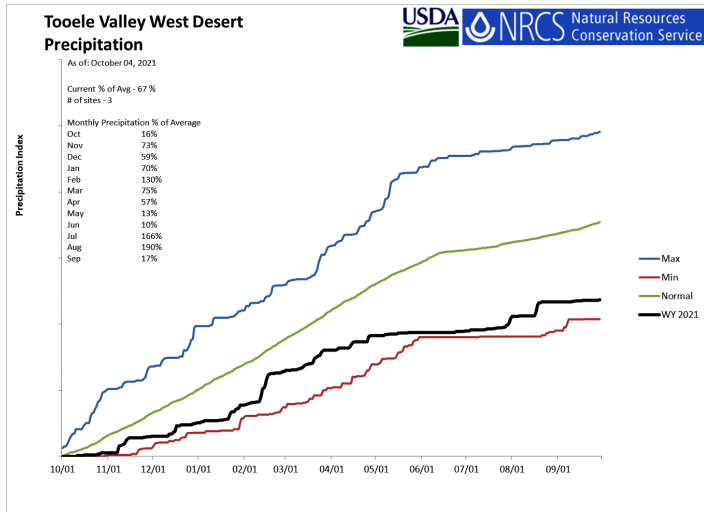
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Tooele Valley & West Desert Basins

October 1, 2021

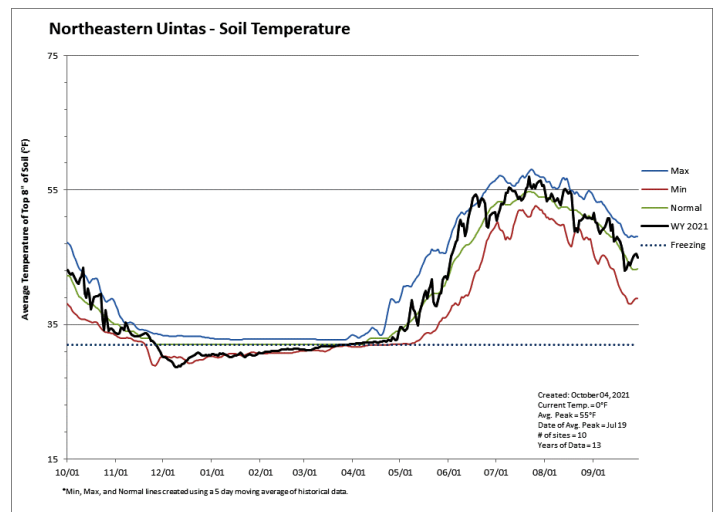
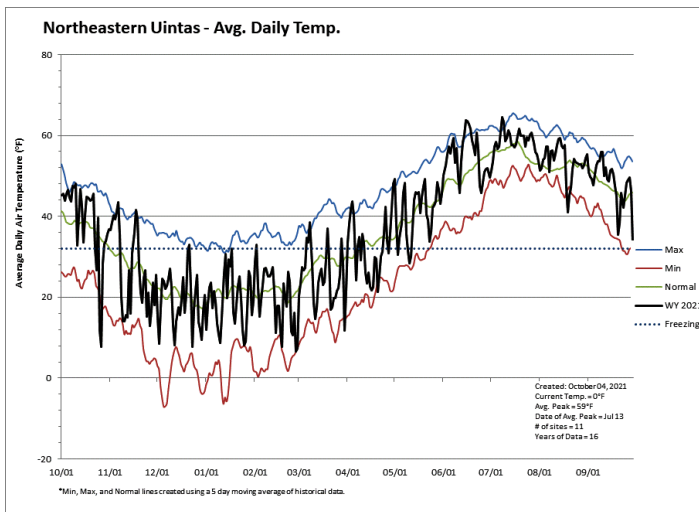
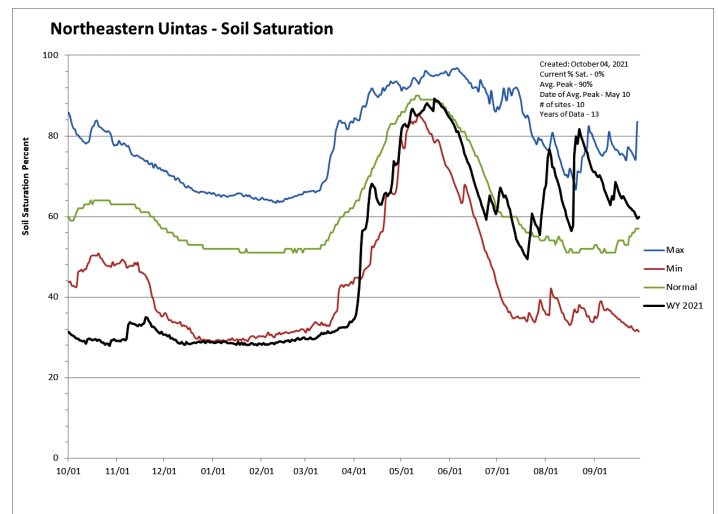
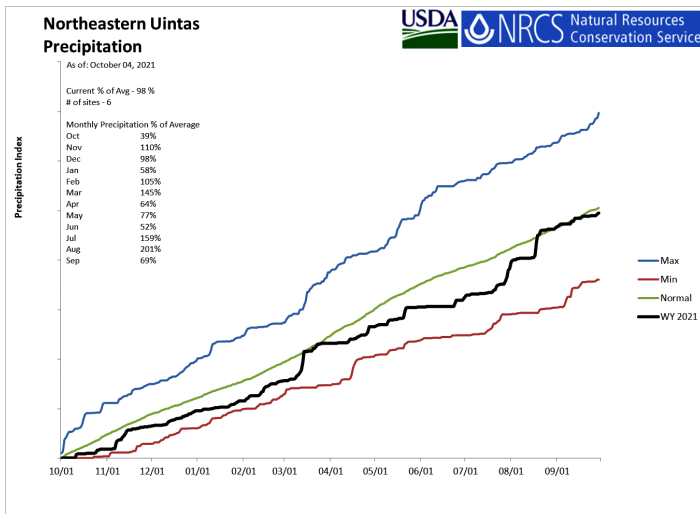
Precipitation in September was much below average at 16%, which brings the seasonal accumulation (Oct-Sep) to 73% of average. Soil moisture is at 13% compared to 11% last year. Reservoir storage is at 34% of capacity, compared to 24% last year.



Northeastern Uinta Basin

October 1, 2021

Precipitation in September was much below average at 56%, which brings the seasonal accumulation (Oct-Sep) to 97% of average. Soil moisture is at 57% compared to 34% last year. Reservoir storage is at 79% of capacity, compared to 85% last year. The water availability index for Blacks Fork is 44% and 47% for Smiths Creek.

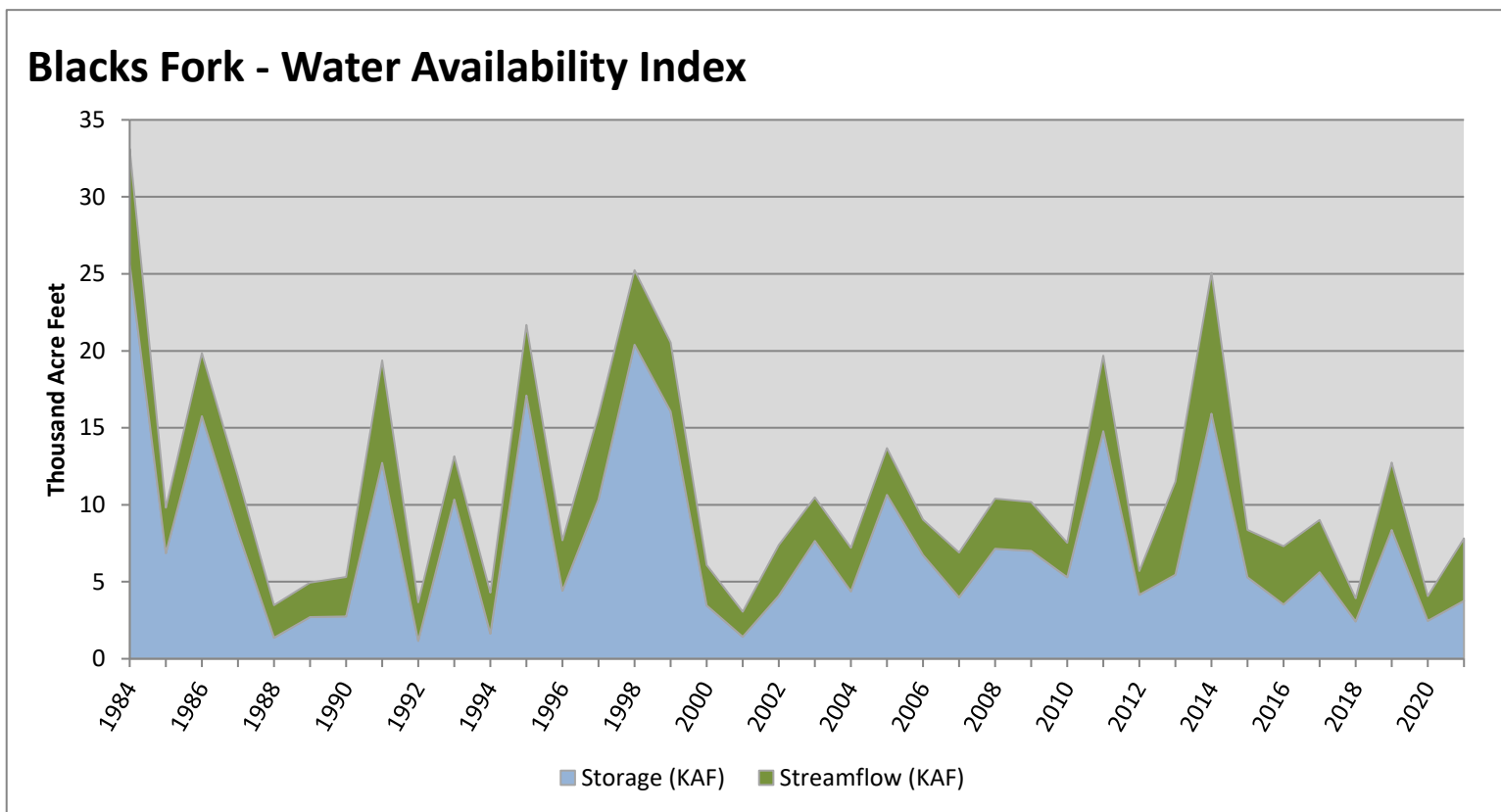


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Blacks Fork	3.77	4.04	7.81	44	-0.53	10, 96, 15, 17

^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.

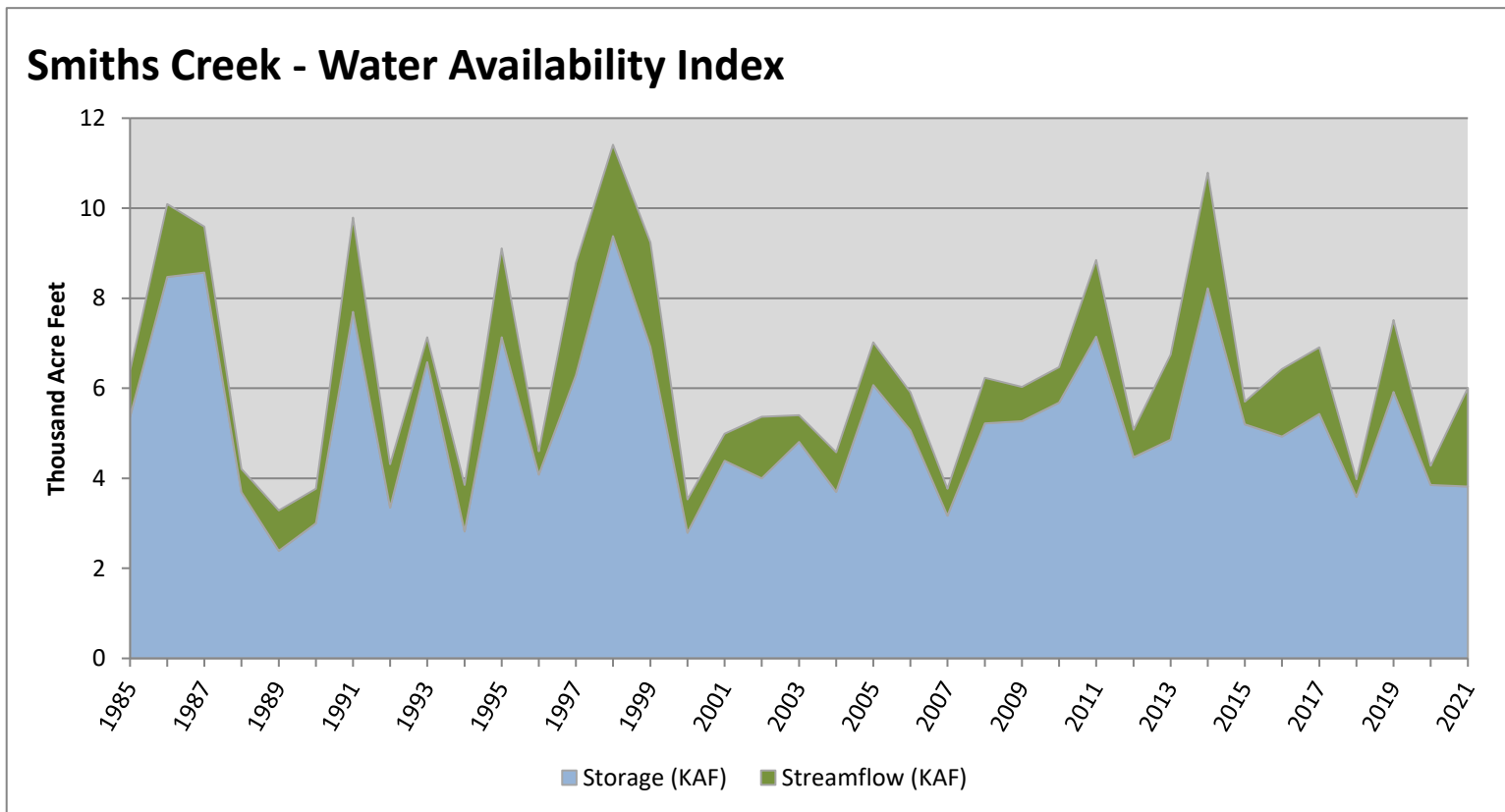


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Smiths Creek	3.82	2.19	6.01	47	-0.22	15, 06, 09, 08

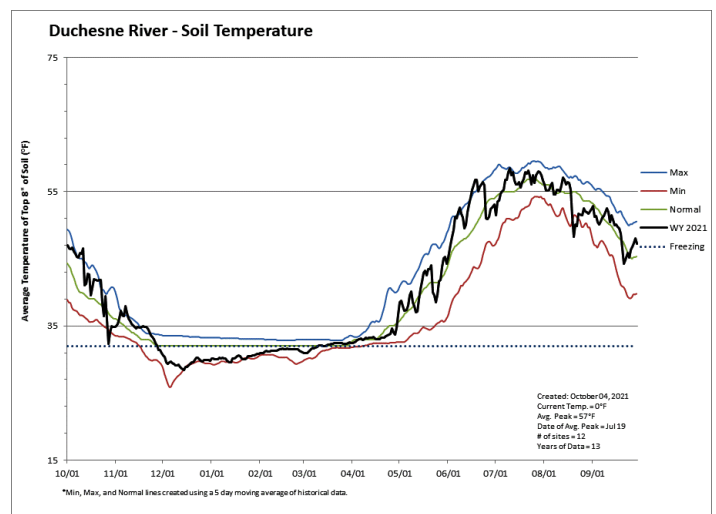
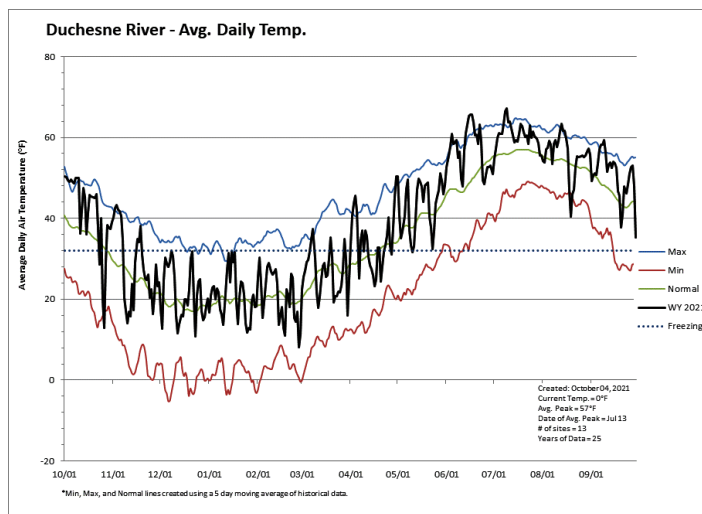
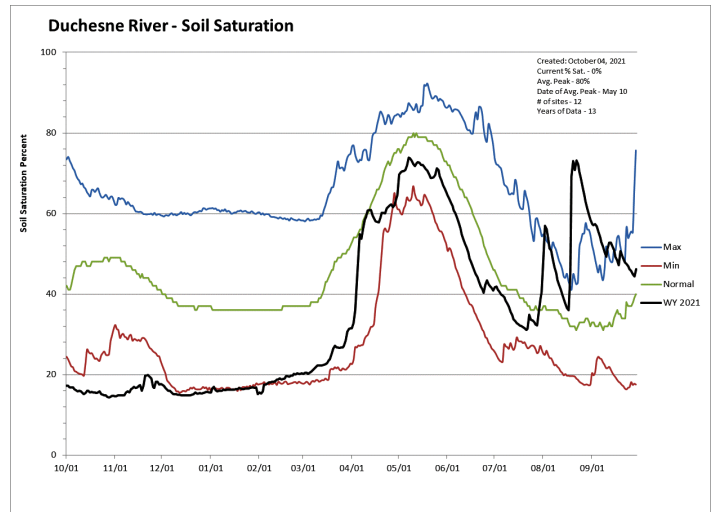
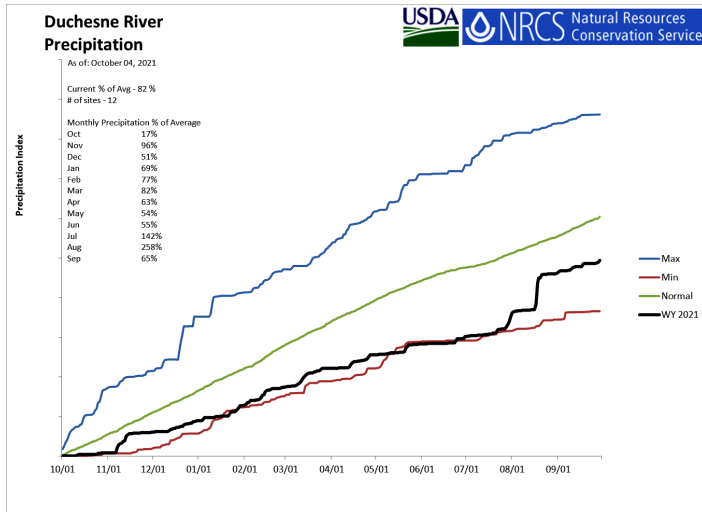
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Duchesne River Basin

October 1, 2021

Precipitation in September was much below average at 57%, which brings the seasonal accumulation (Oct-Sep) to 91% of average. Soil moisture is at 46% compared to 19% last year. Reservoir storage is at 68% of capacity, compared to 77% last year. The water availability index for the Western Uintas is 34% and 5% for the Eastern Uintas.

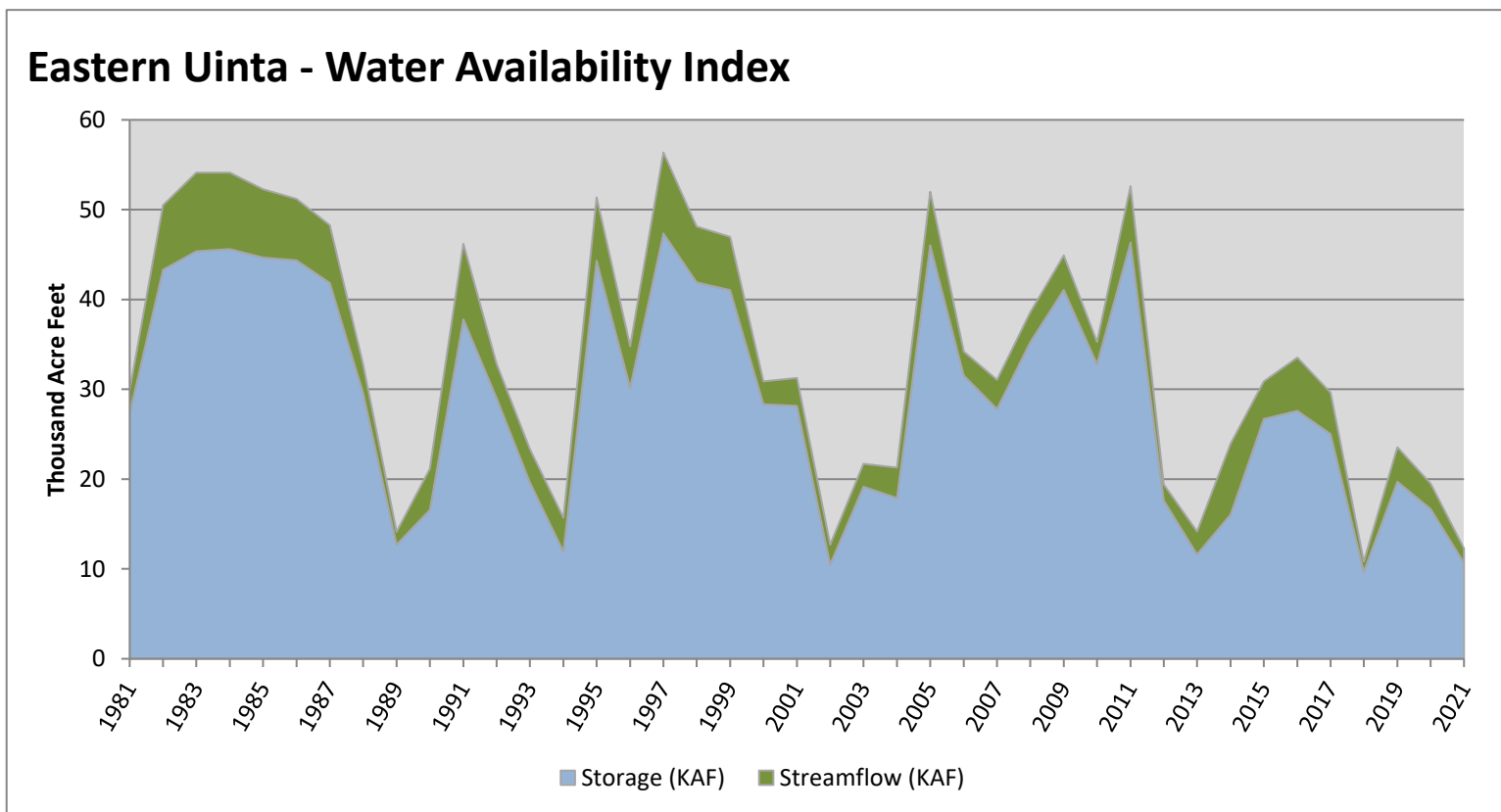


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Eastern Uinta	10.67	1.63	12.30	5	-3.77	18, 02, 89, 13

^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.

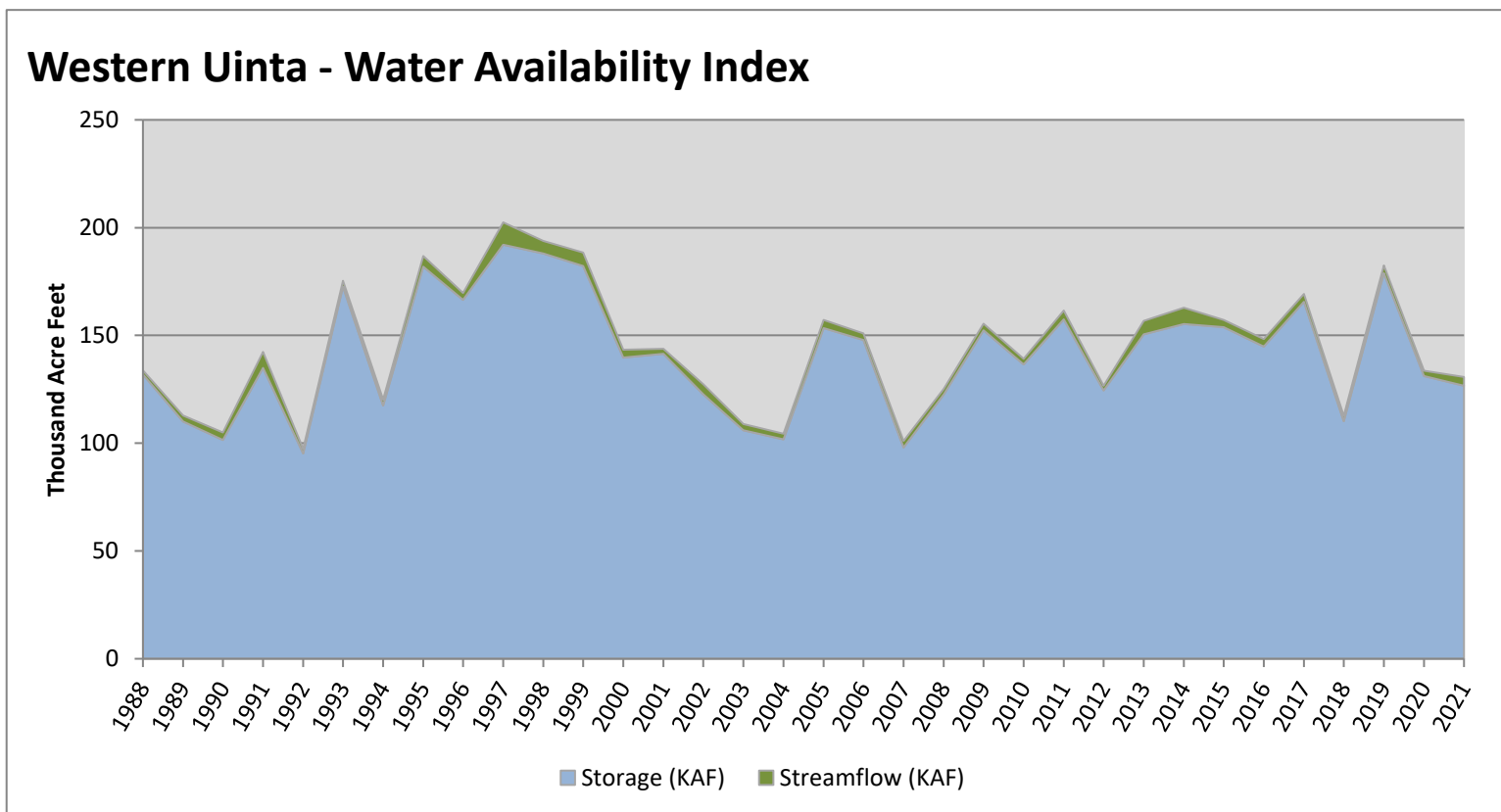


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Western Uinta	126.68	4.01	130.69	34	-1.31	12, 02, 20, 88

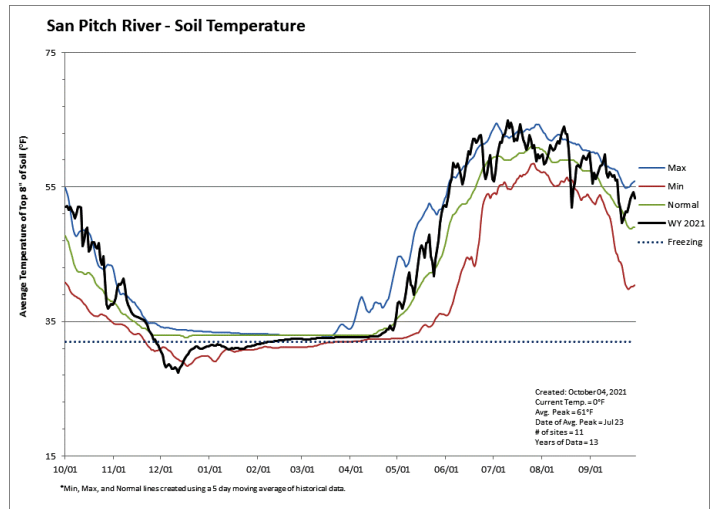
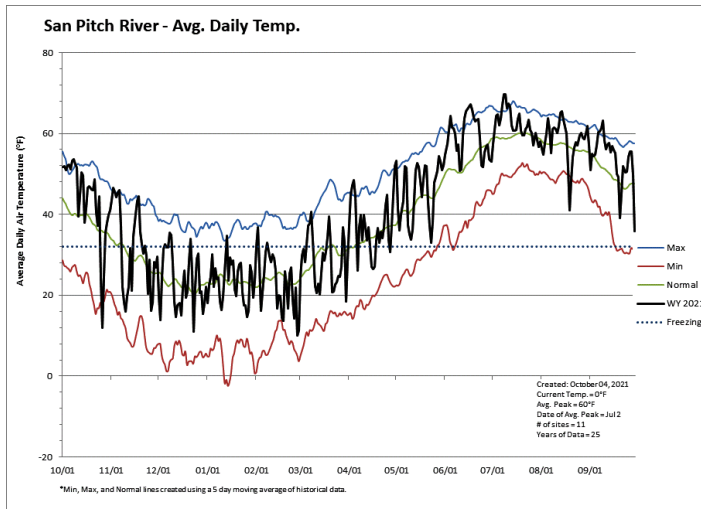
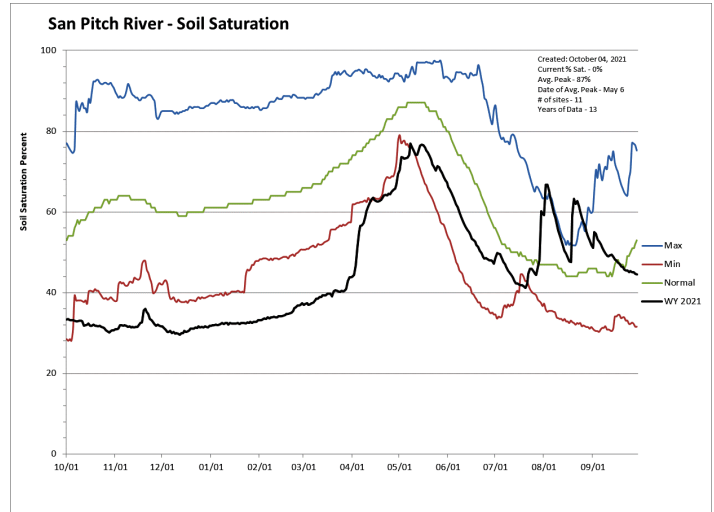
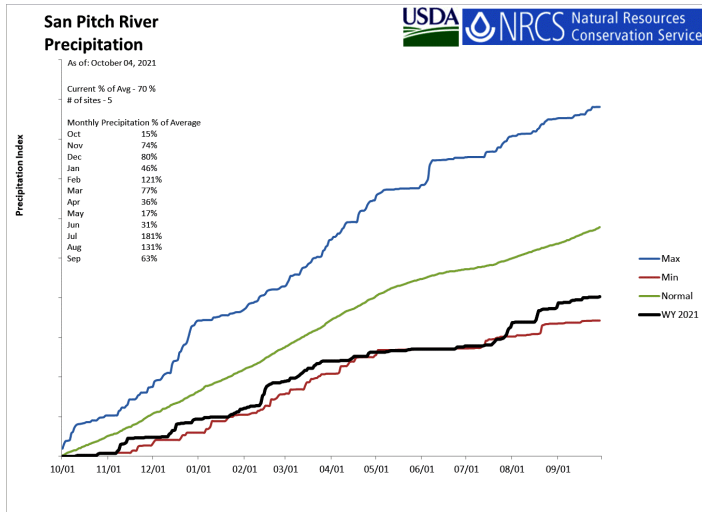
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



San Pitch River Basin

October 1, 2021

Precipitation in September was much below average at 60%, which brings the seasonal accumulation (Oct-Sep) to 75% of average. Soil Moisture is at 45% compared to 36% last year. Reservoir storage is at 0% of capacity, compared to 0% last year. The water availability index for the San Pitch is 10%.

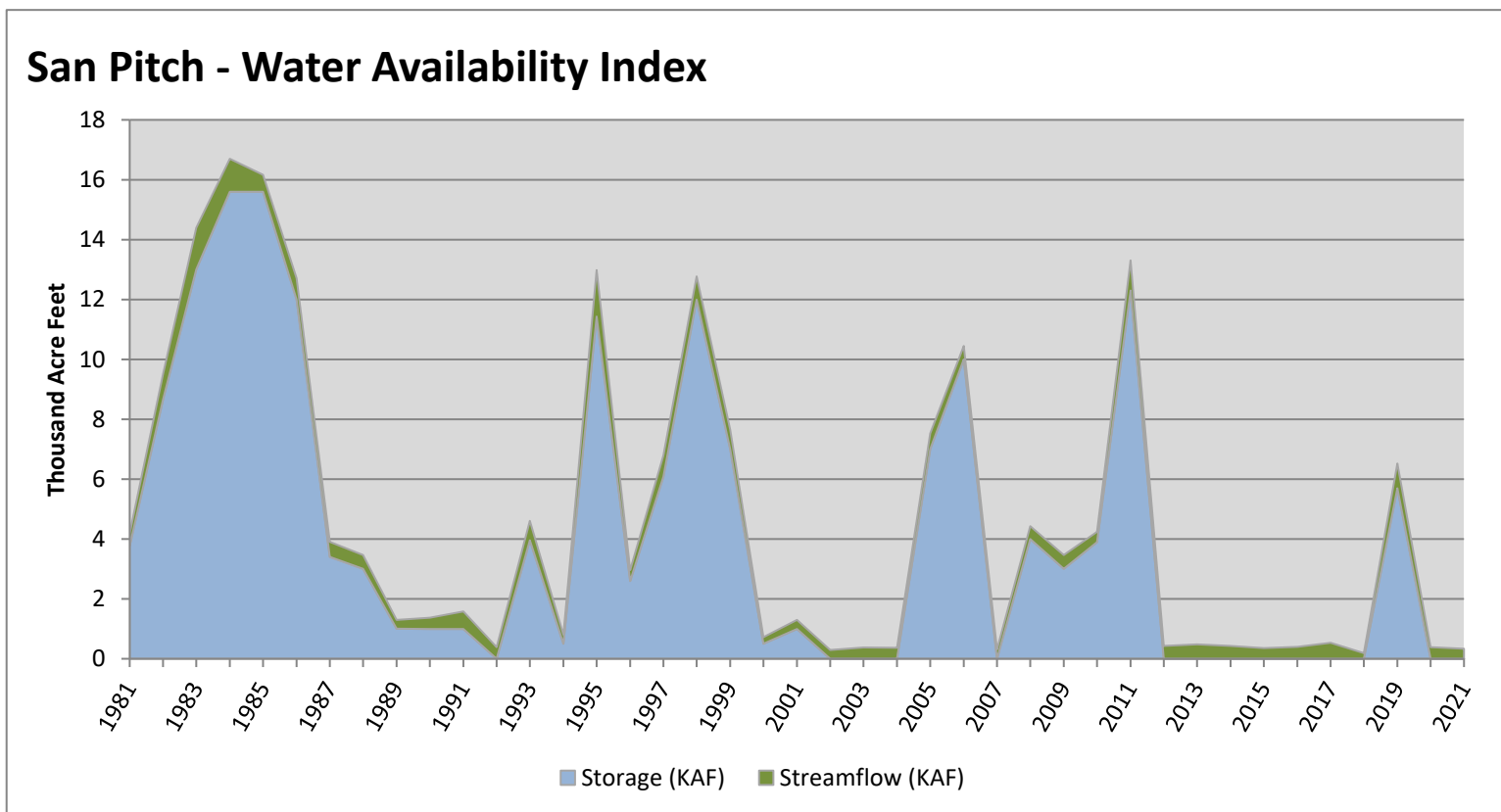


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
San Pitch	0.00	0.34	0.34	10	-3.37	02, 07, 15, 04

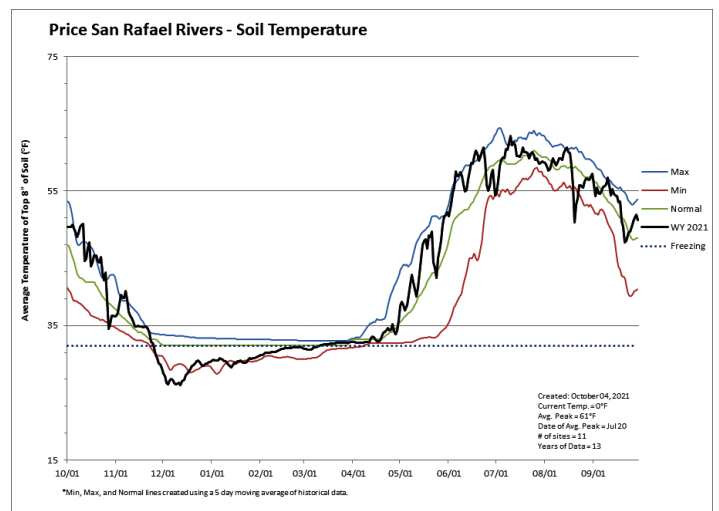
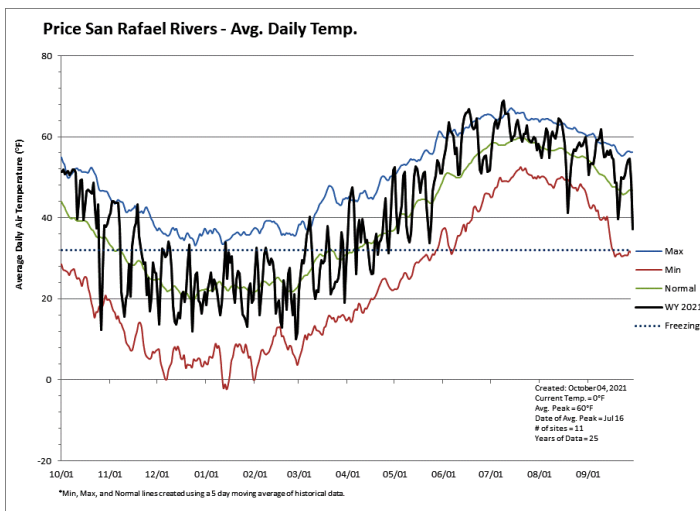
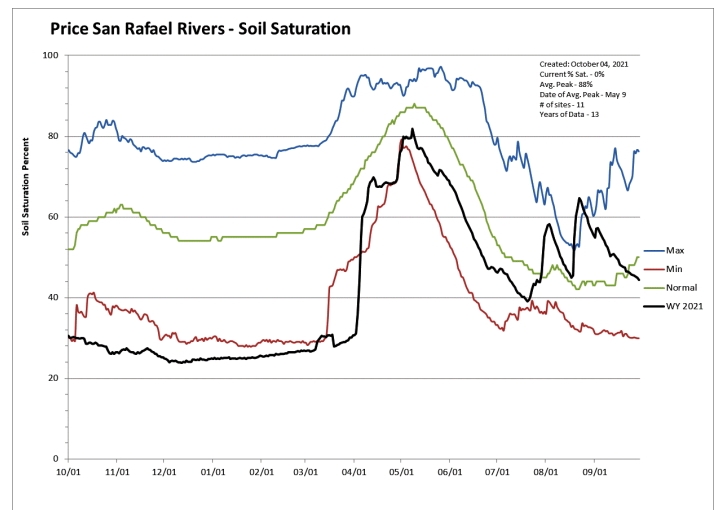
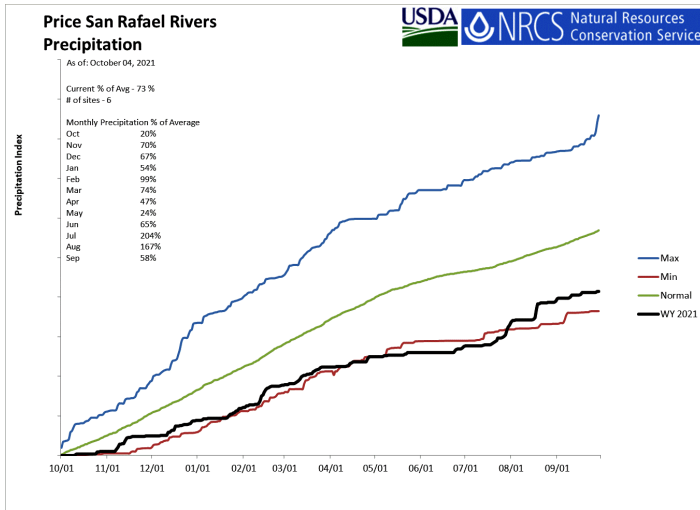
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Price & San Rafael Basins

October 1, 2021

Precipitation in September was much below average at 54%, which brings the seasonal accumulation (Oct-Sep) to 79% of average. Soil moisture is at 45% compared to 31% last year. Reservoir storage is at 27% of capacity, compared to 53% last year. The water availability index for the Price River is 31%, and 5% for Joe's Valley.

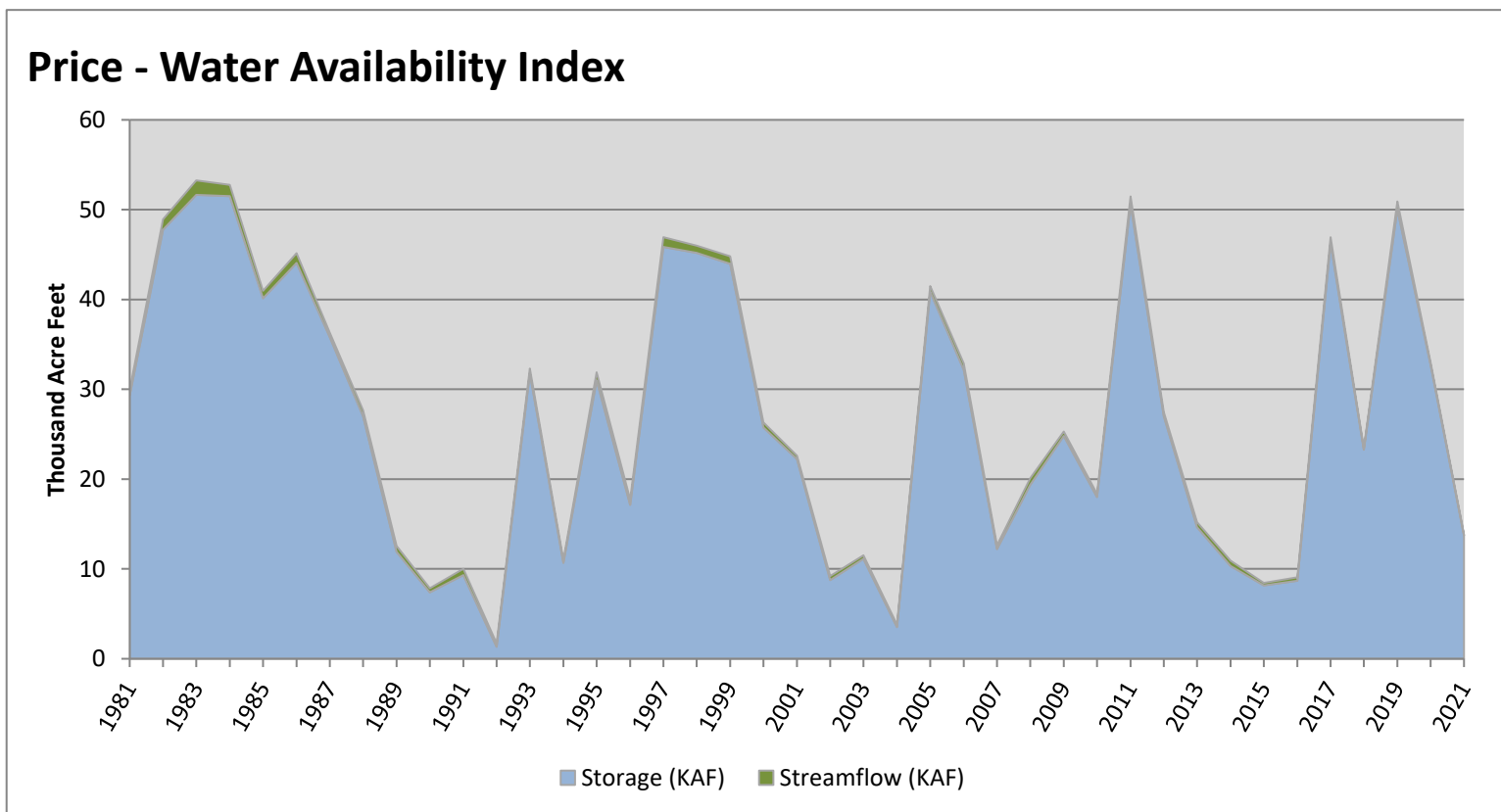


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Price	13.72	0.12	13.84	31	-1.59	89, 07, 13, 96

^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.

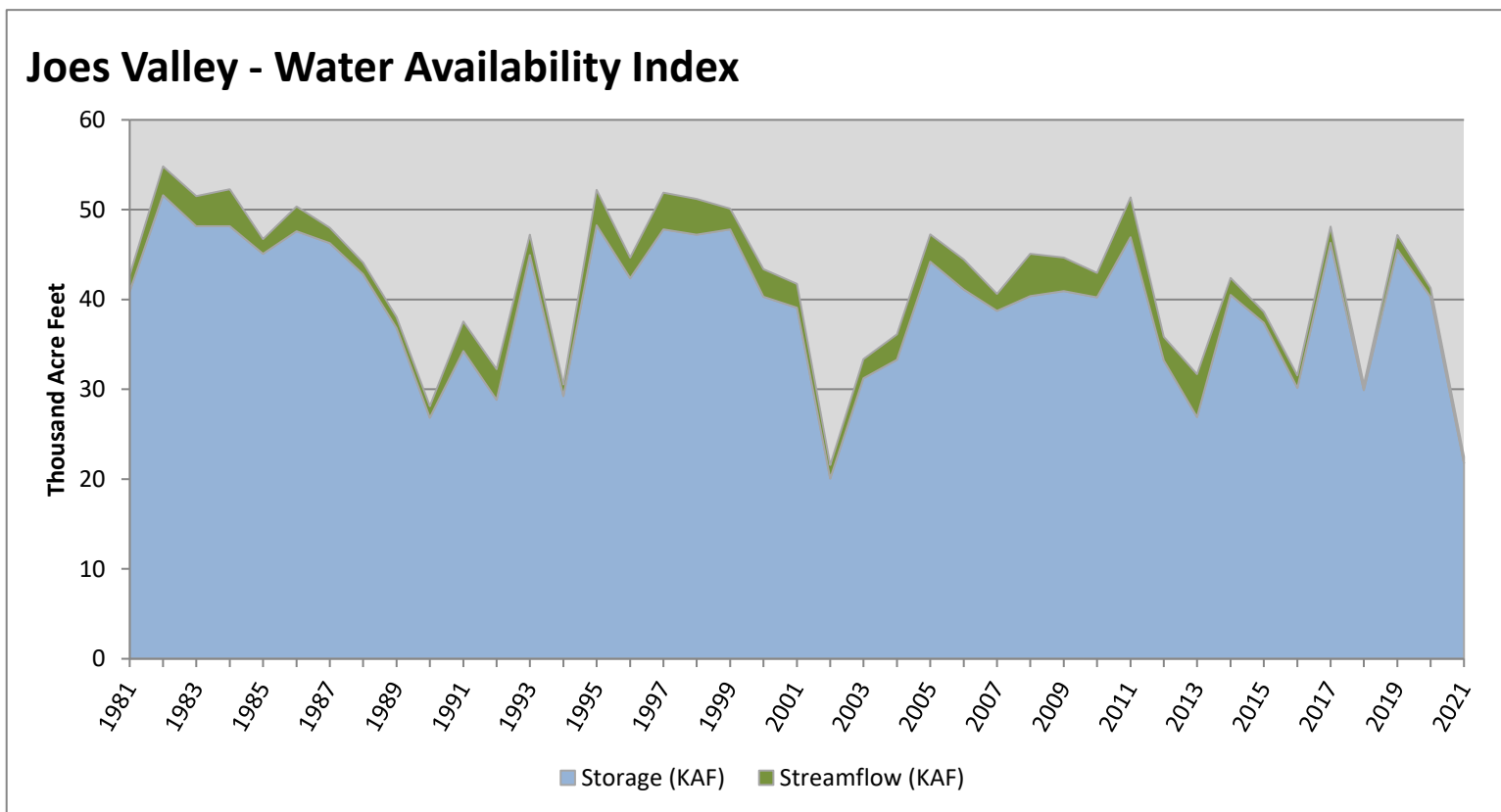


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Joos Valley	21.77	0.75	22.52	5	-3.77	02, 90, 94, 18

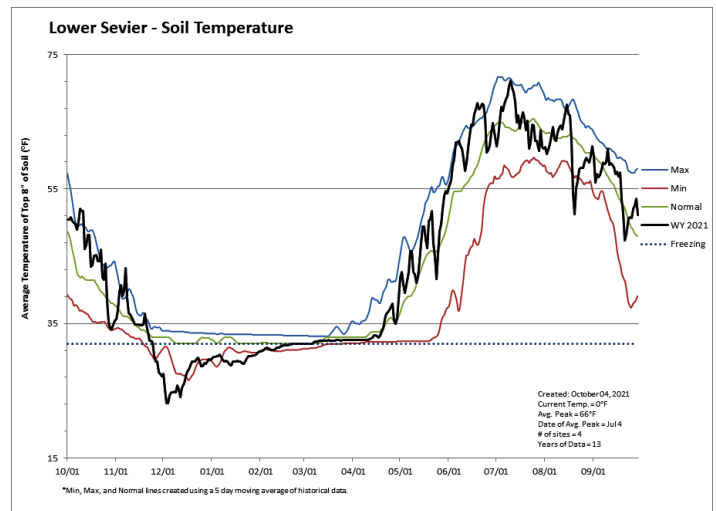
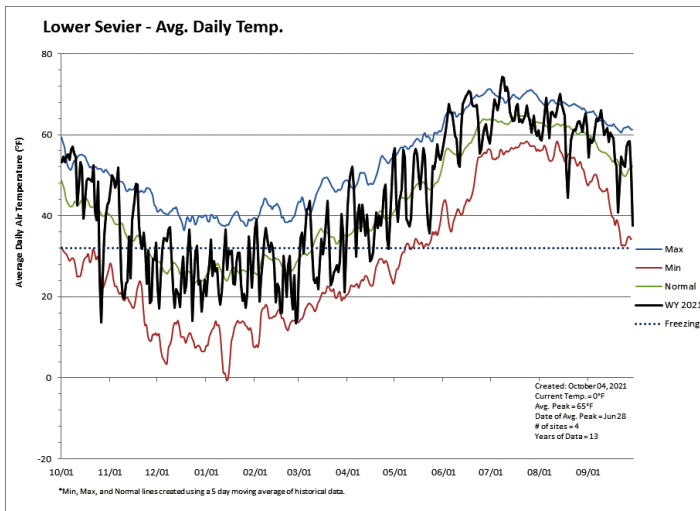
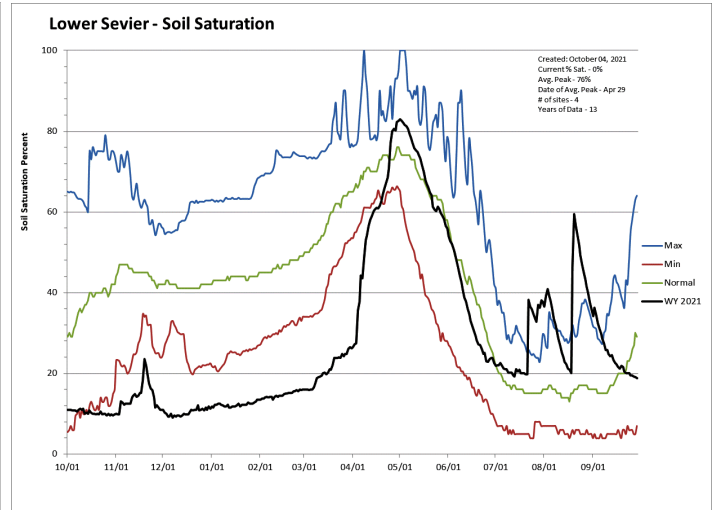
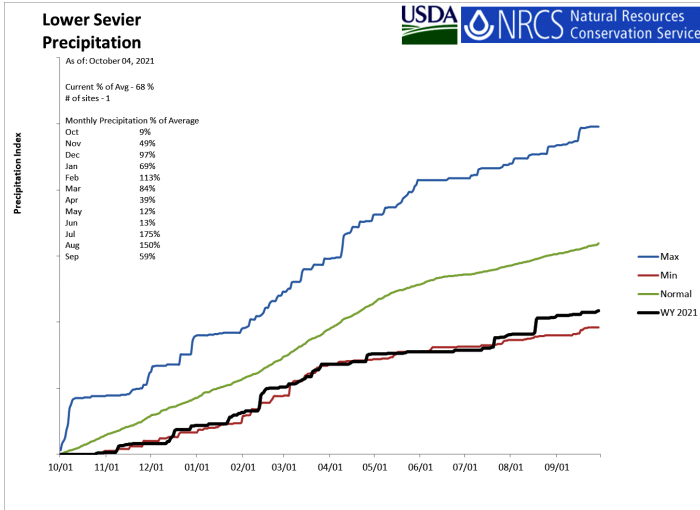
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Lower Sevier Basin

October 1, 2021

Precipitation in September was much below average at 43%, which brings the seasonal accumulation (Oct-Sep) to 79% of average. Soil moisture is at 18% compared to 11% last year. Reservoir storage is at 9% of capacity, compared to 18% last year. The water availability index for the Lower Sevier is 12%.

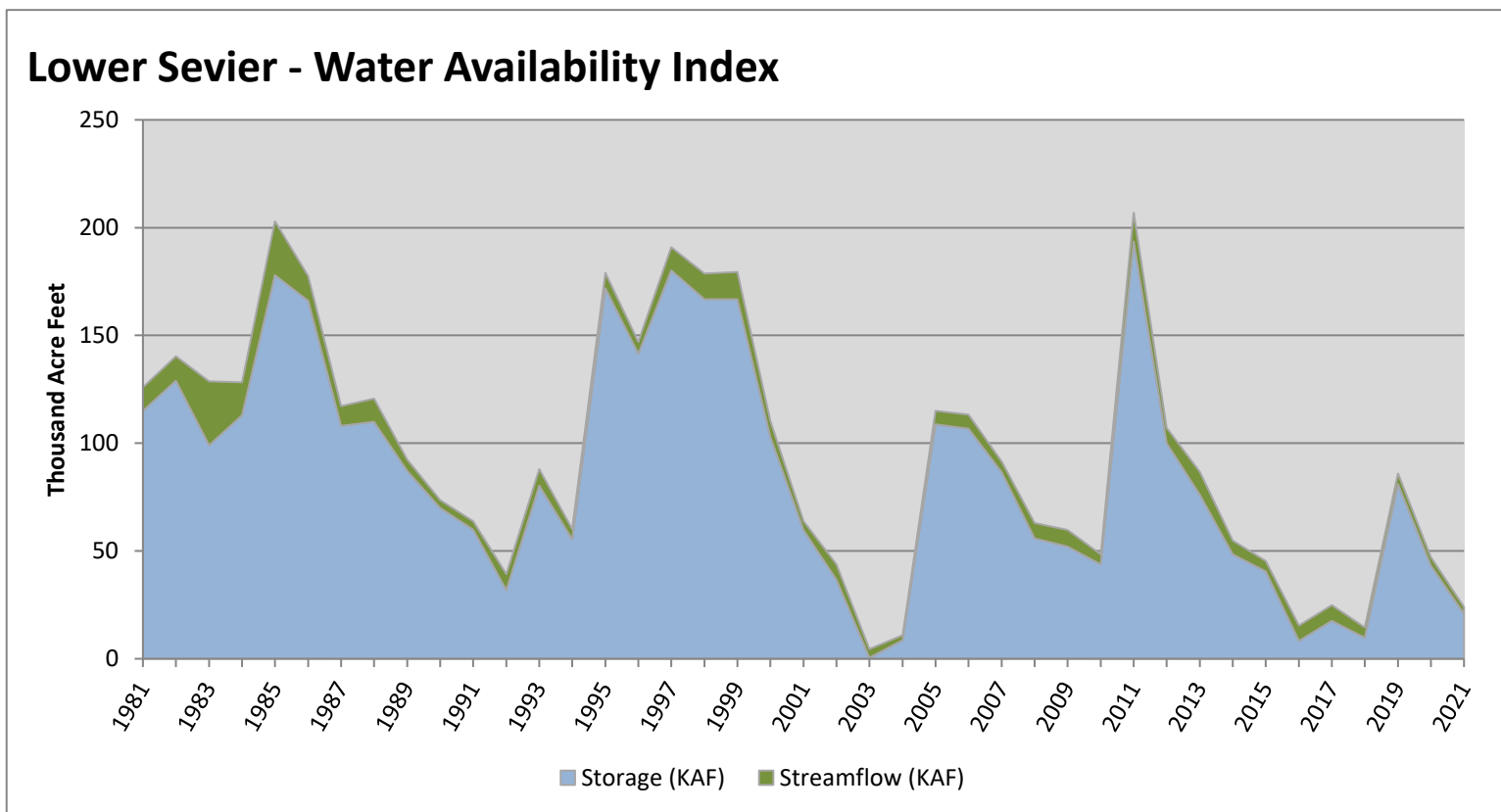


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Lower Sevier	20.76	3.24	24.00	12	-3.17	18, 16, 17, 92

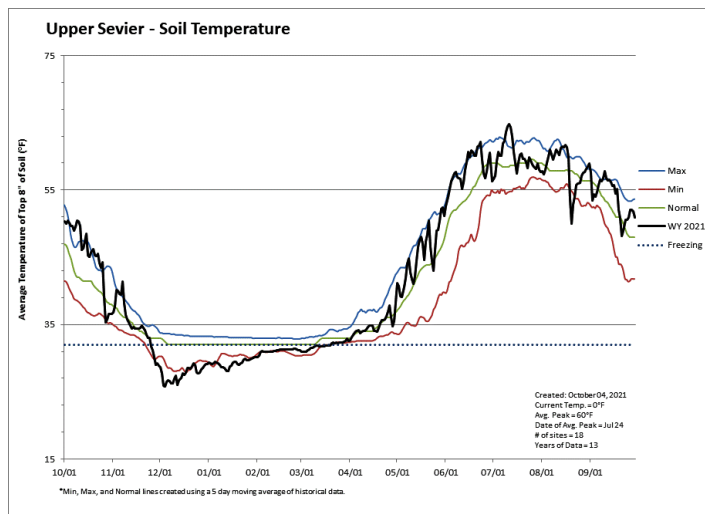
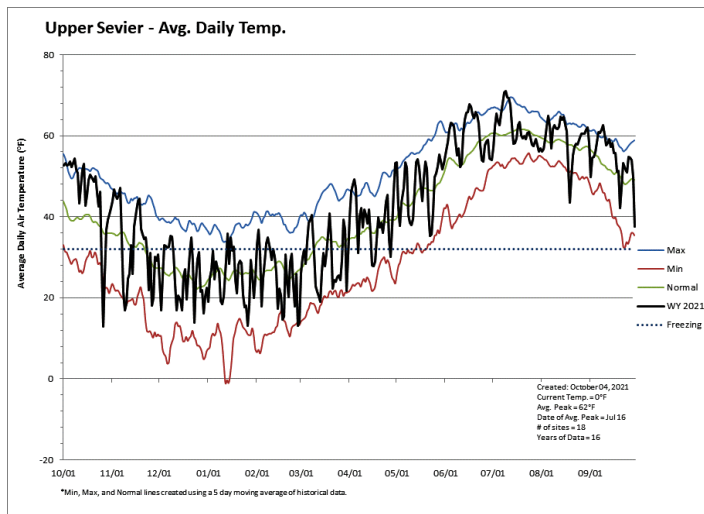
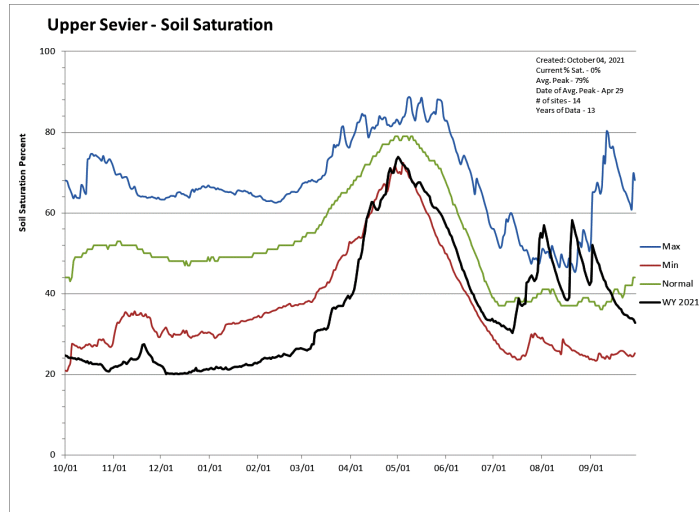
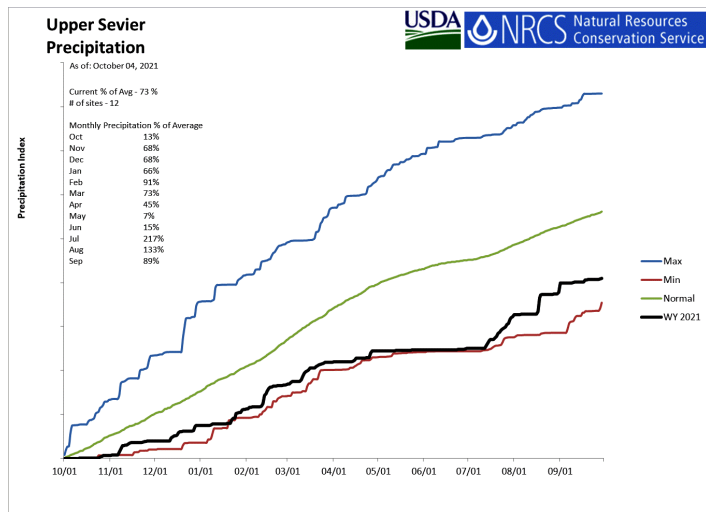
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Upper Sevier Basin

October 1, 2021

Precipitation in September was below average at 77%, which brings the seasonal accumulation (Oct-Sep) to 80% of average. Soil moisture is at 31% compared to 24% last year. Reservoir storage is at 10% of capacity, compared to 29% last year. The water availability index for the Upper Sevier is 14%.

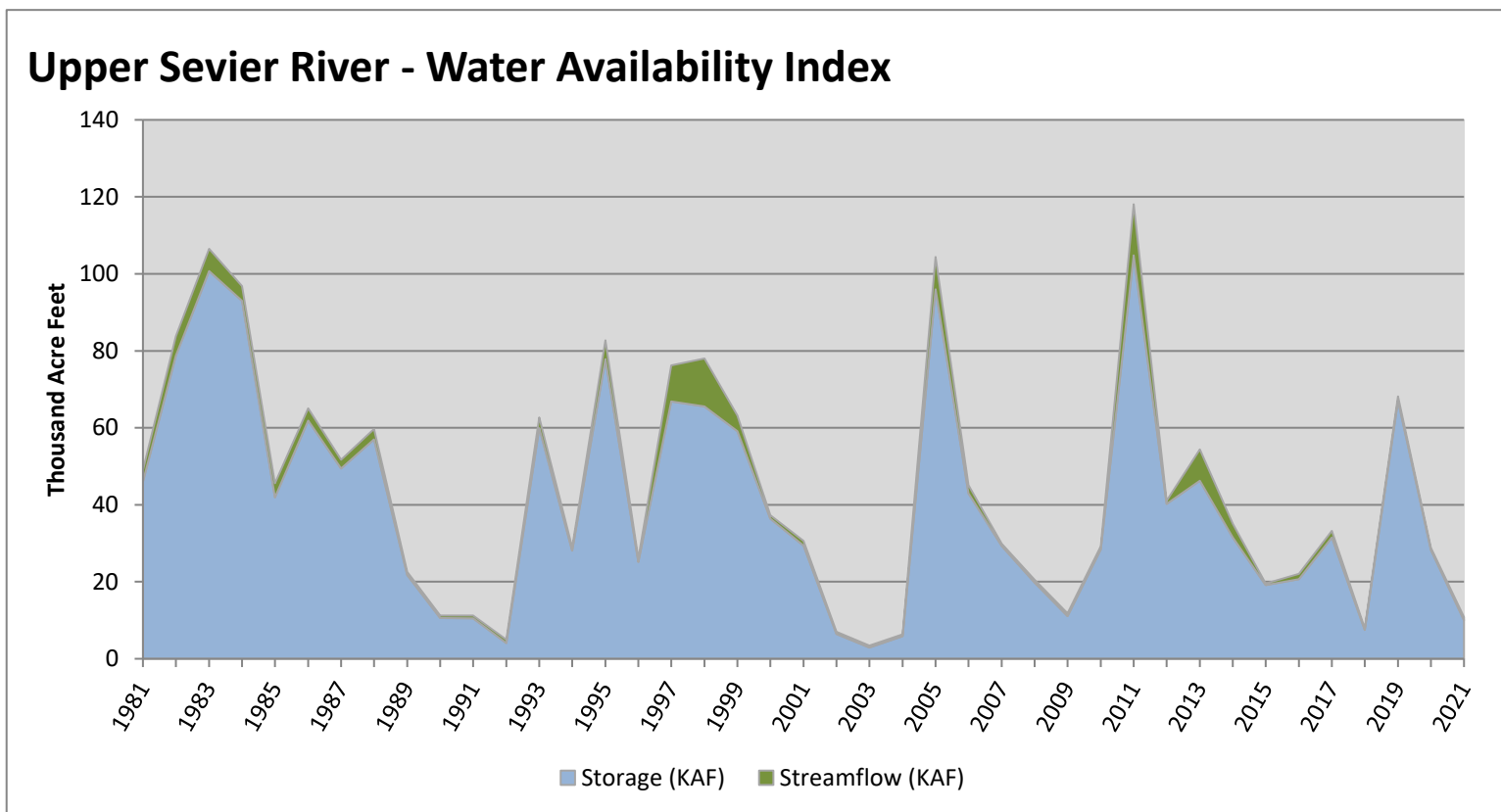


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Upper Sevier River	9.99	0.84	10.83	14	-2.98	02, 18, 91, 90

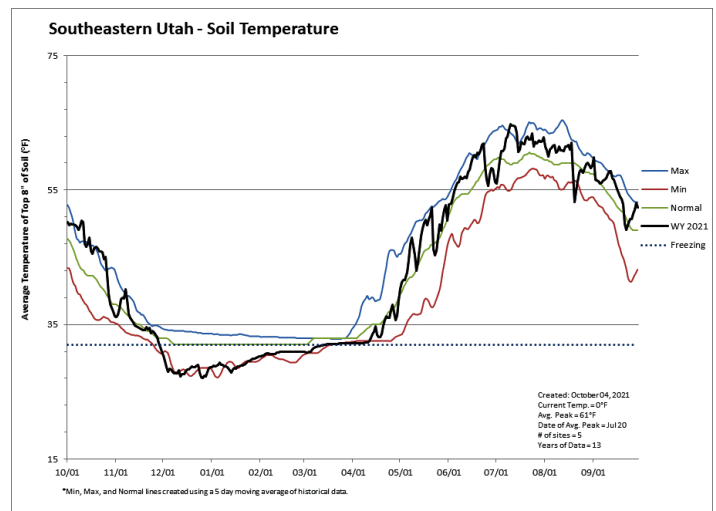
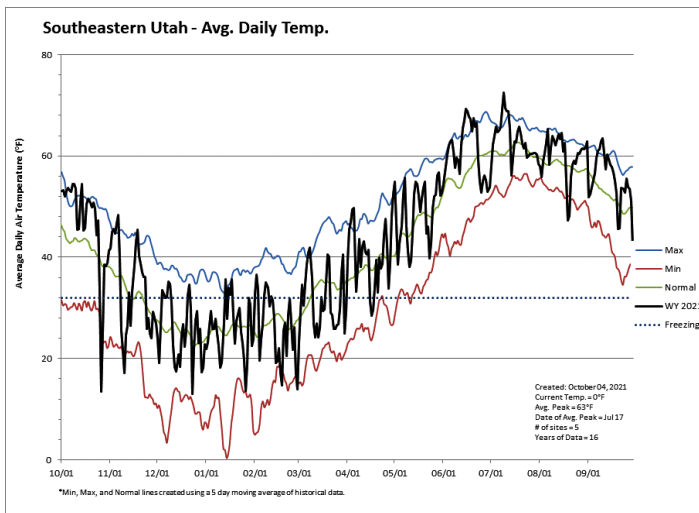
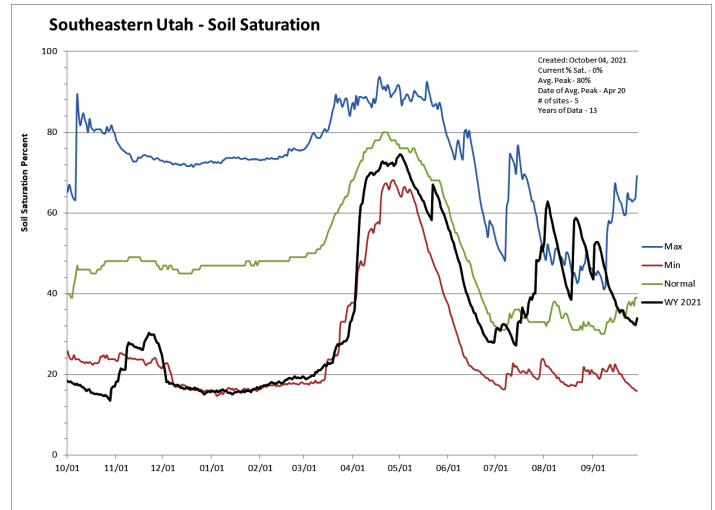
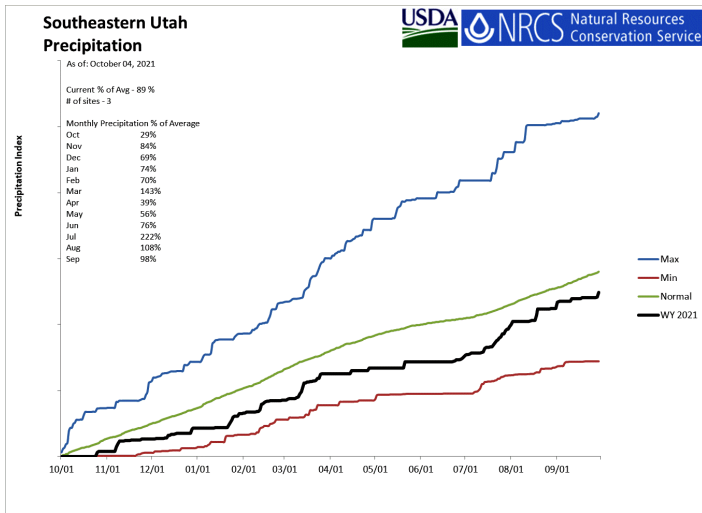
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southeastern Utah

October 1, 2021

Precipitation in September was near average at 100%, which brings the seasonal accumulation (Oct-Sep) to 93% of average. Soil moisture is at 44% compared to 19% last year. Reservoir storage is at 31% of capacity, compared to 19% last year. The water availability index for Moab is 51%.

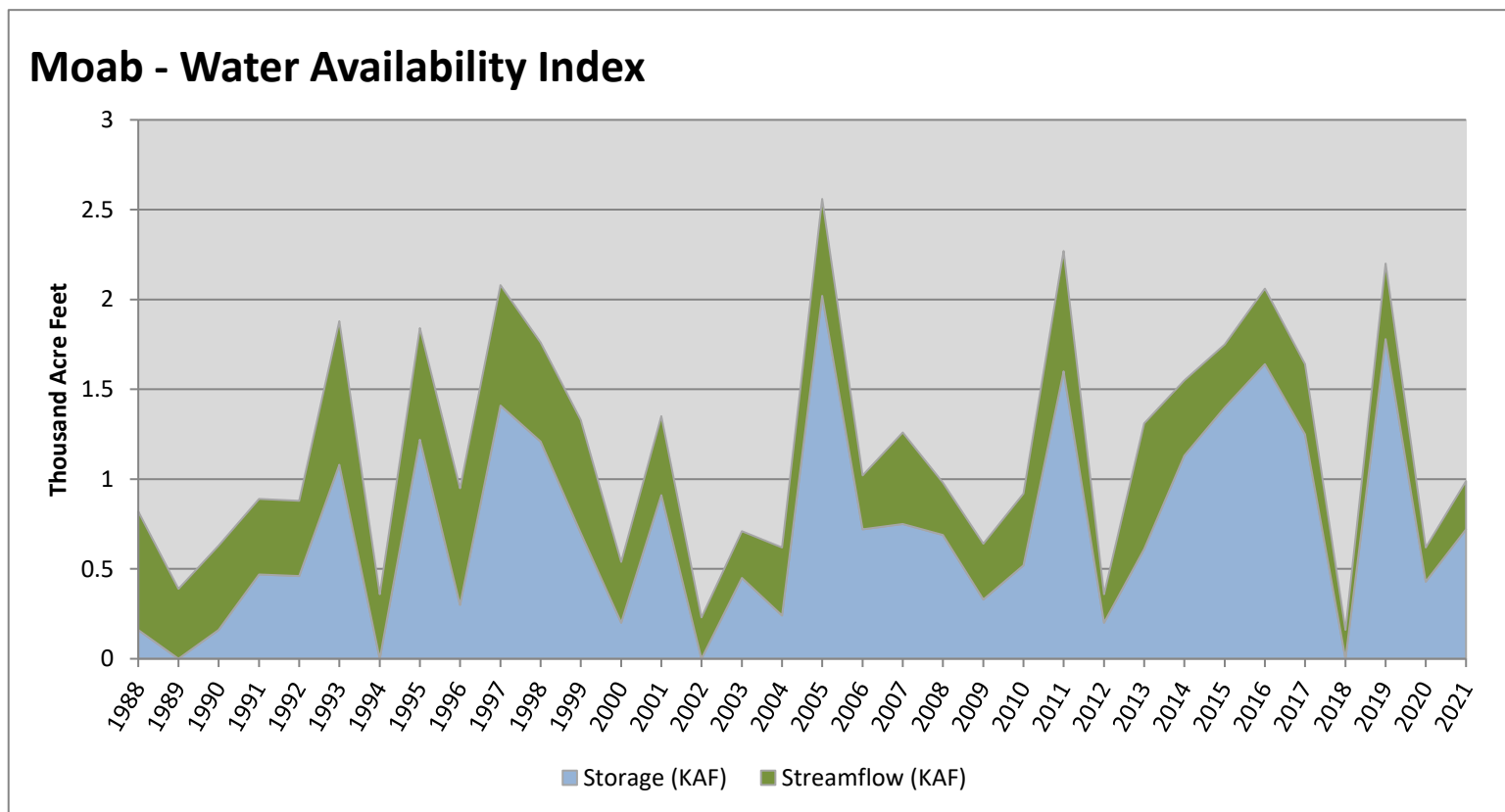


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Moab	0.72	0.27	0.99	51	0.12	96, 08, 06, 07

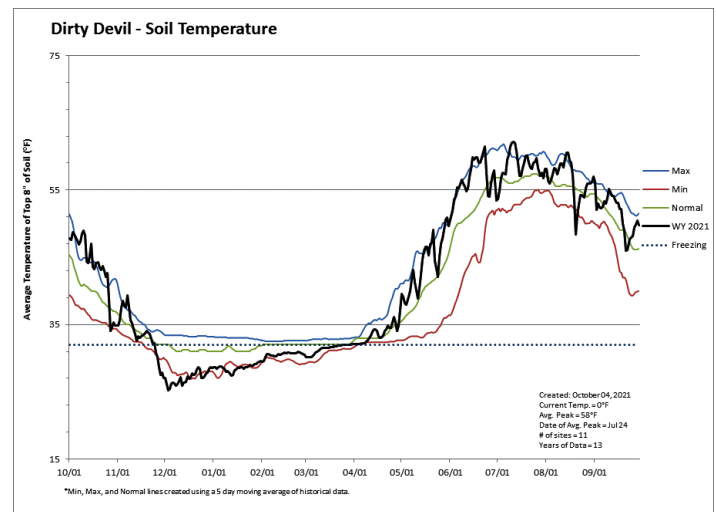
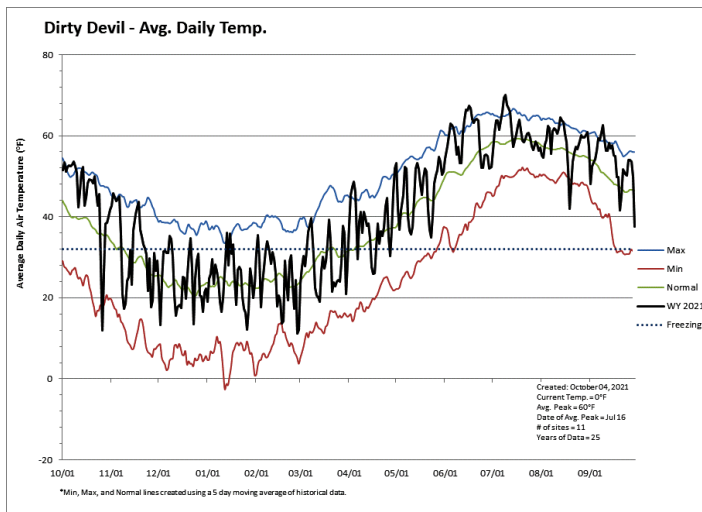
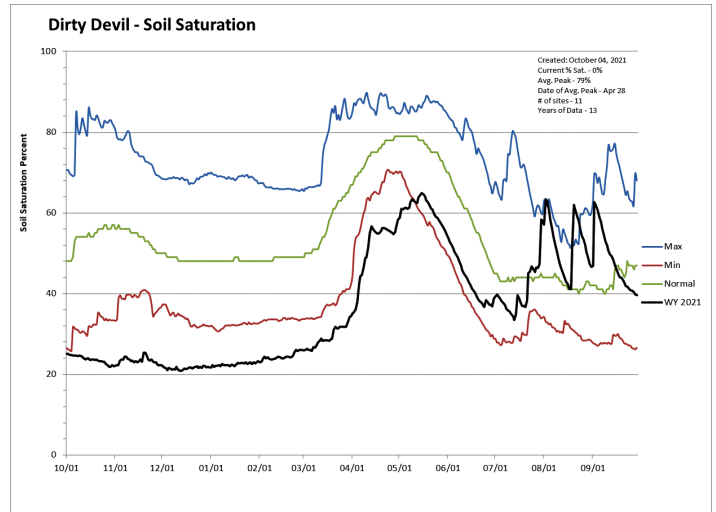
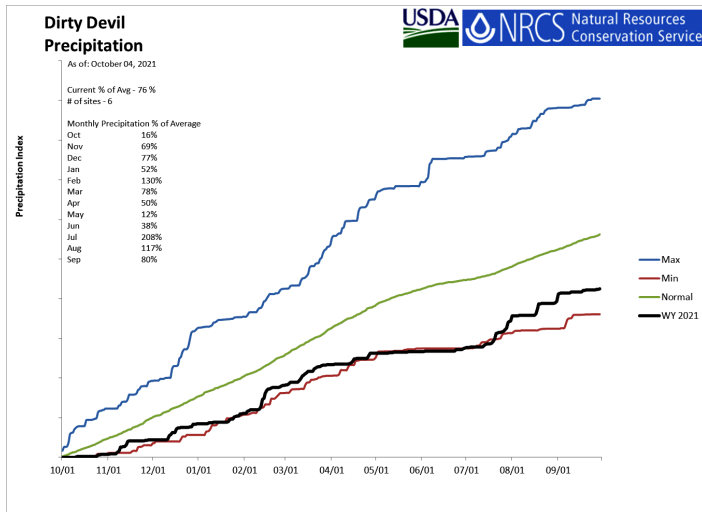
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Dirty Devil Basin

October 1, 2021

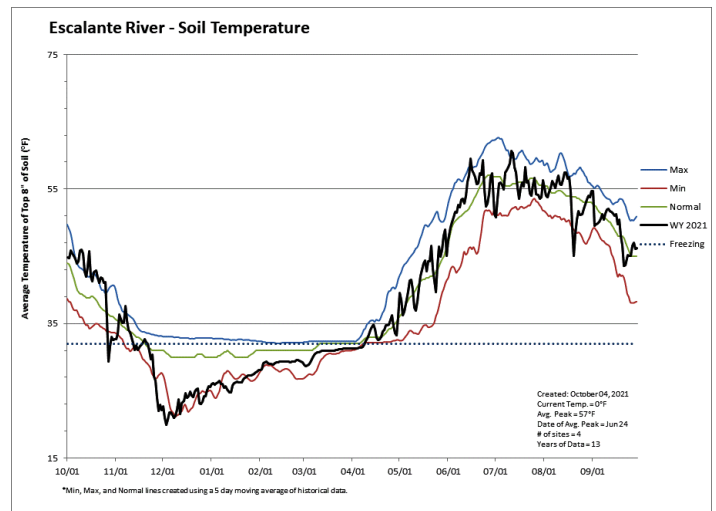
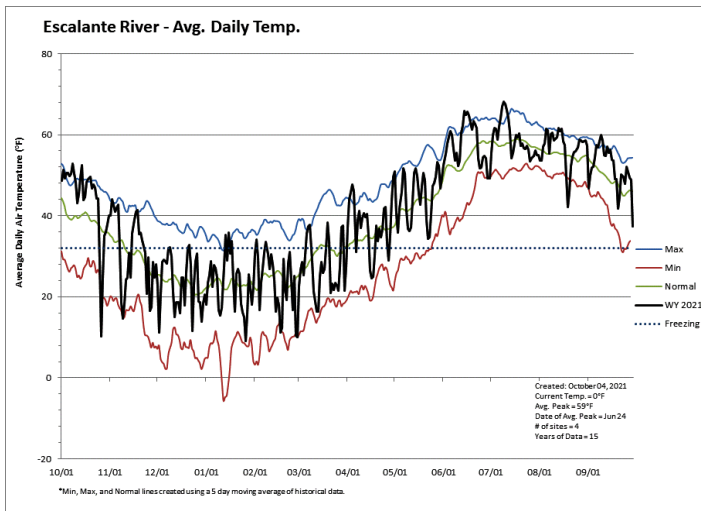
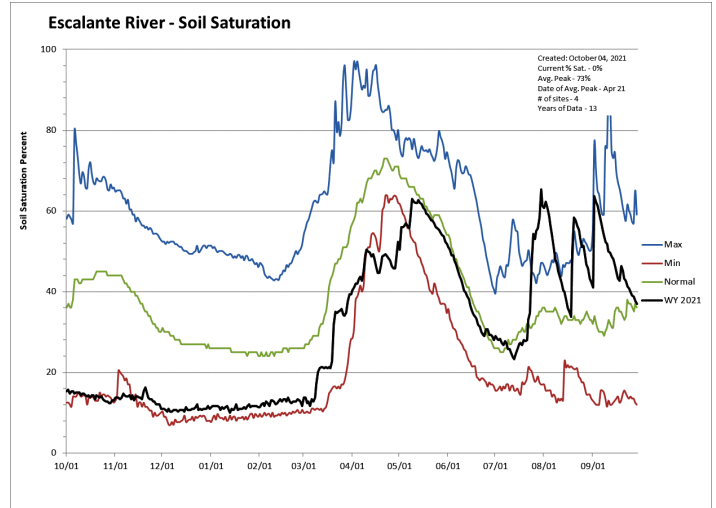
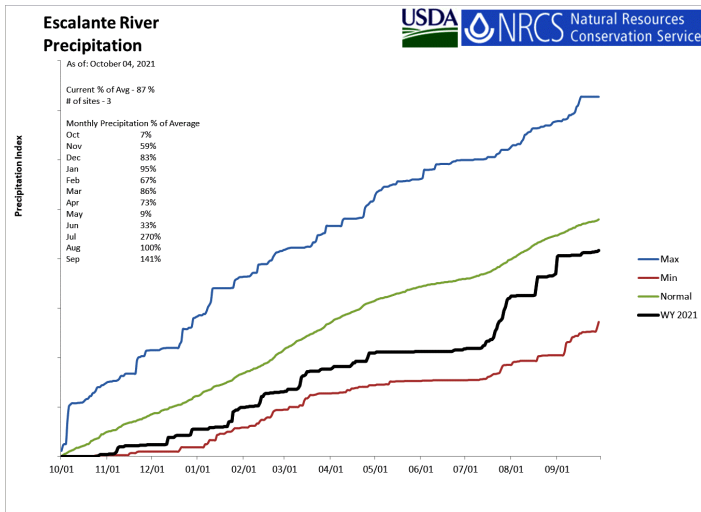
Precipitation in September was below average at 74%, which brings the seasonal accumulation (Oct-Sep) to 83% of average. Soil moisture is at 40% compared to 26% last year.



Escalante River Basin

October 1, 2021

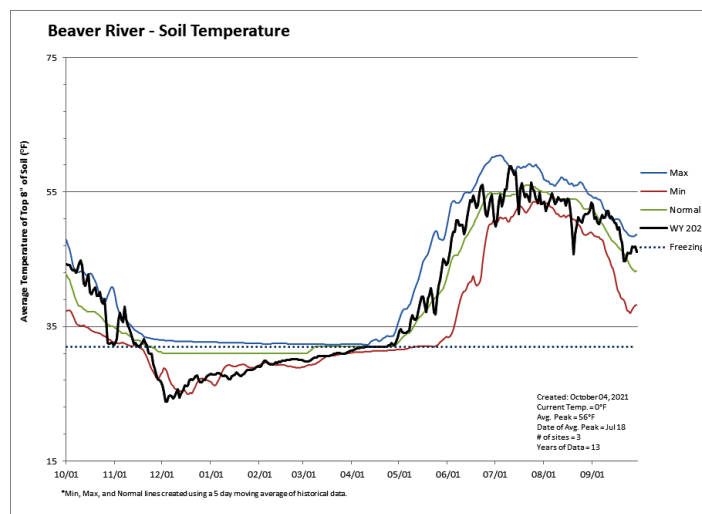
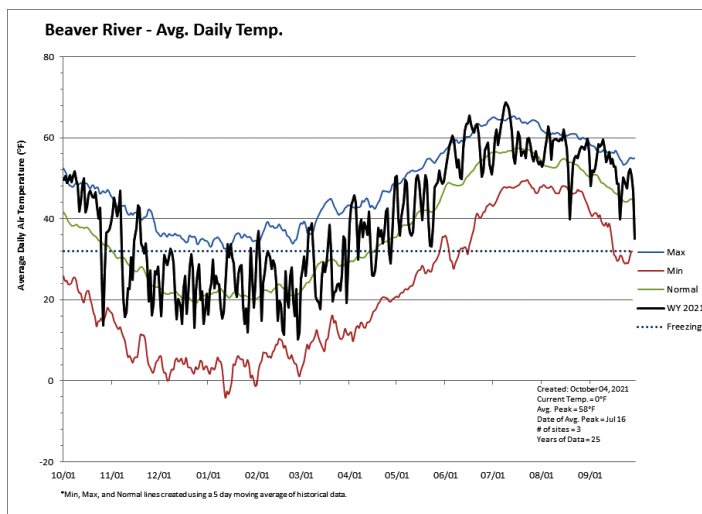
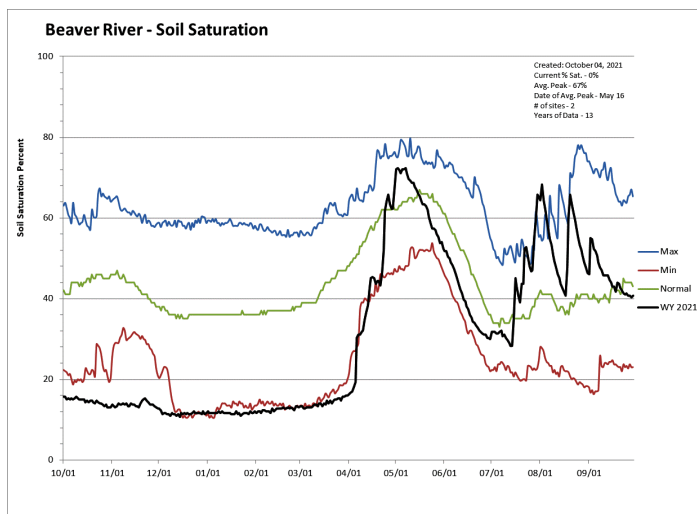
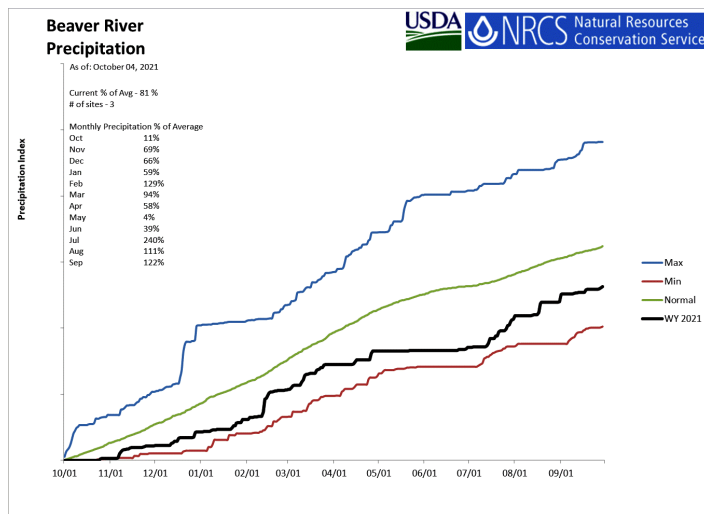
Precipitation in September was near average at 95%, which brings the seasonal accumulation (Oct-Sep) to 88% of average. Soil moisture is at 32% compared to 15% last year.



Beaver River Basin

October 1, 2021

Precipitation in September was below average at 87%, which brings the seasonal accumulation (Oct-Sep) to 87% of average. Soil moisture is at 41% compared to 16% last year. Reservoir storage is at 7% of capacity, compared to 14% last year. The water availability index for the Beaver River is 10%.

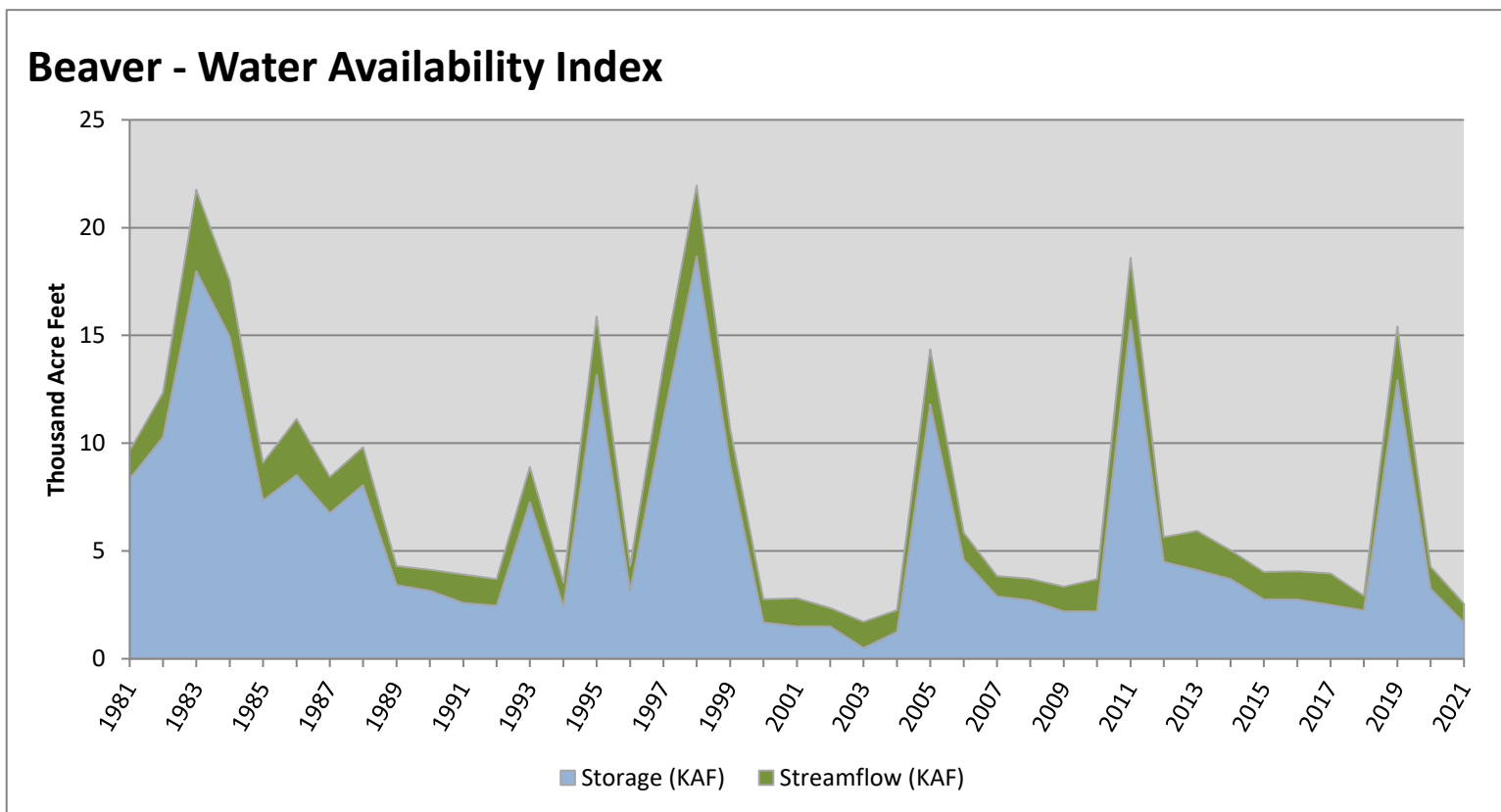


October 1, 2021

Water Availability Index

Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Beaver	1.67	0.88	2.55	10	-3.37	04, 02, 00, 01

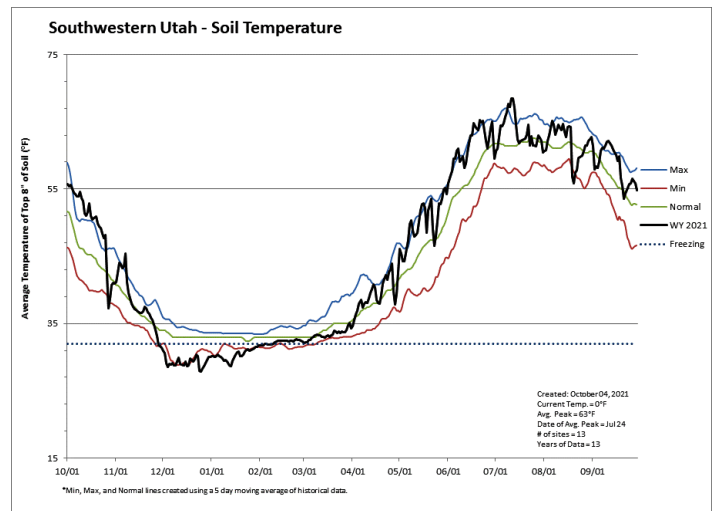
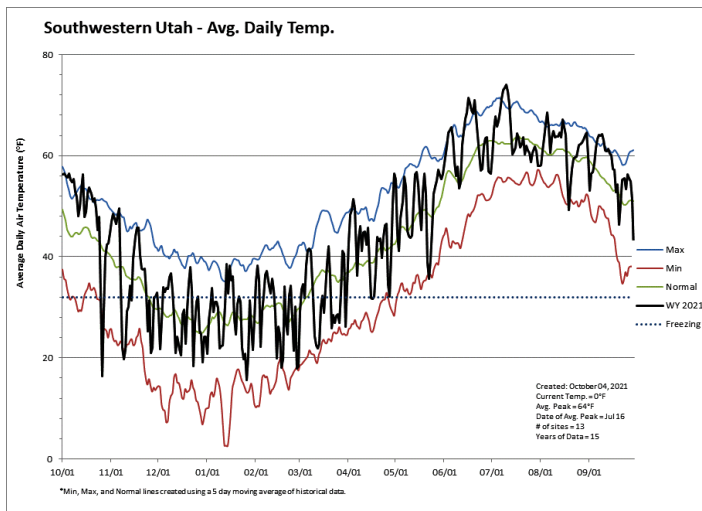
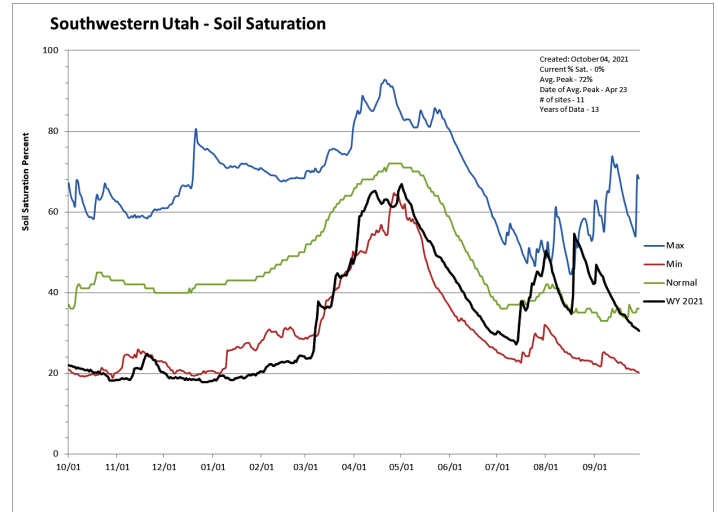
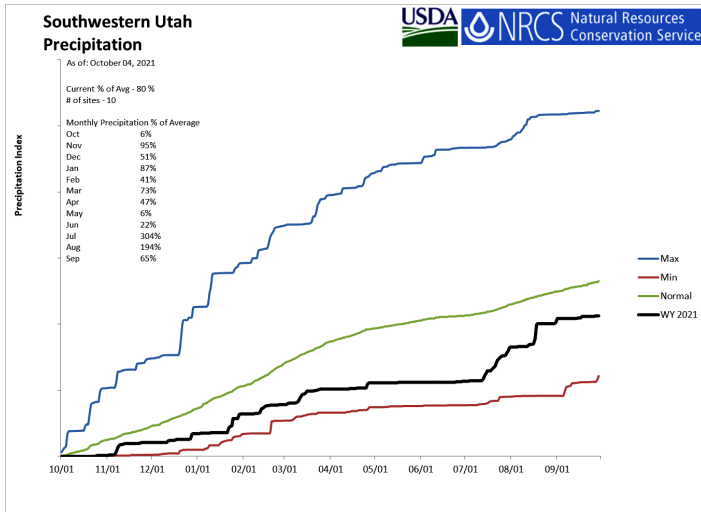
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southwestern Utah

October 1, 2021

Precipitation in September was much below average at 61%, which brings the seasonal accumulation (Oct-Sep) to 88% of average. Soil moisture is at 30% compared to 22% last year. Reservoir storage is at 48% of capacity, compared to 52% last year. The water availability index for the Virgin River is 28%.

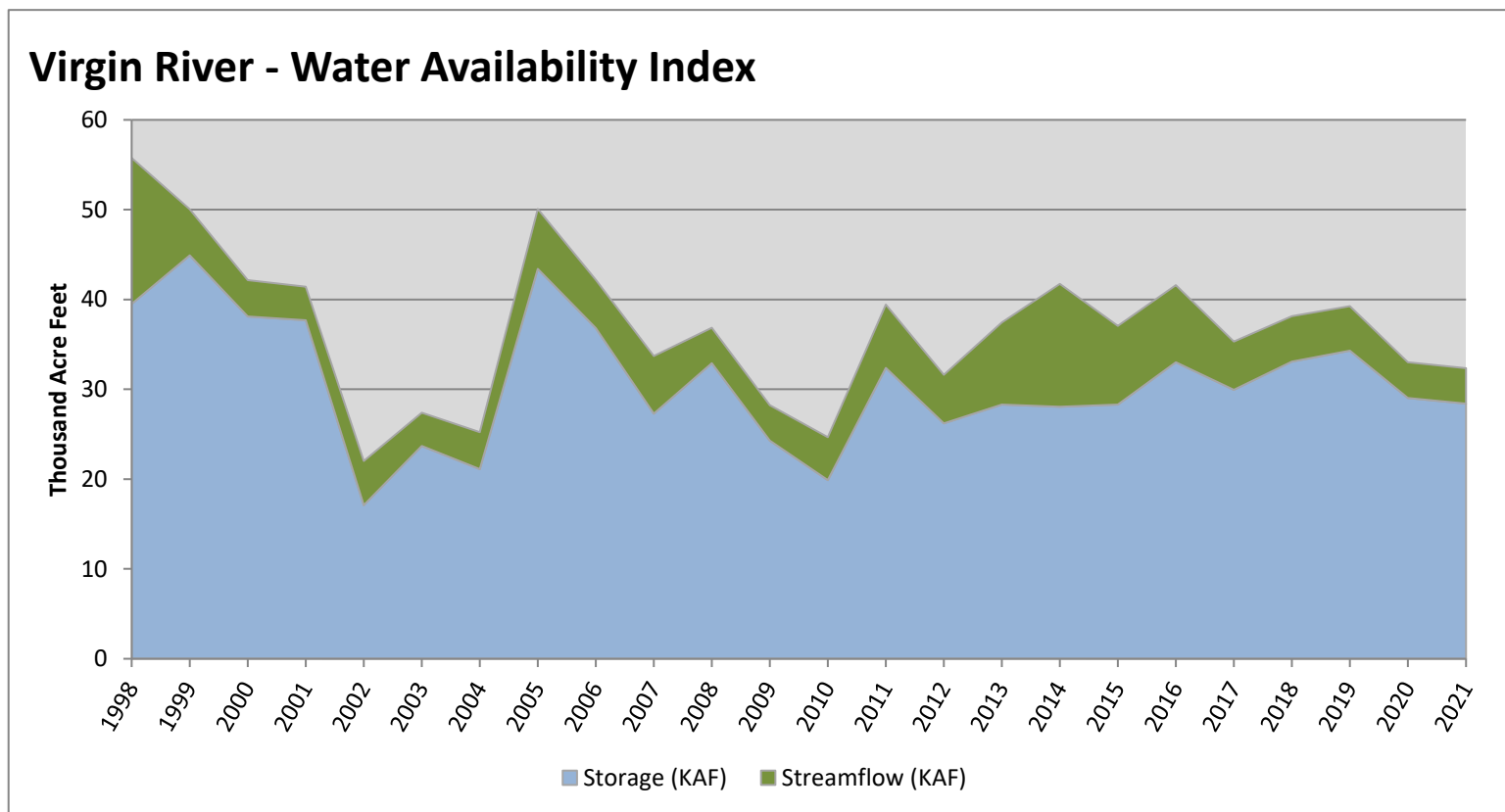


October 1, 2021

Water Availability Index

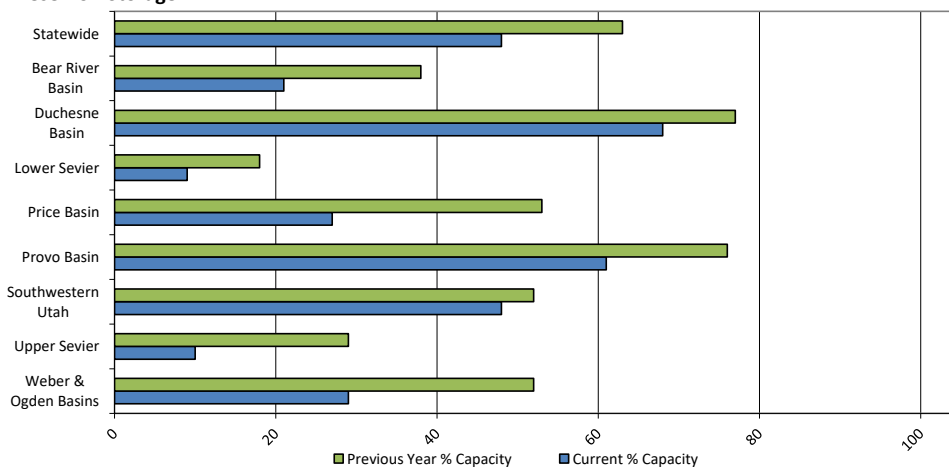
Basin or Region	Sep EOM [*] Storage	September Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Virgin River	28.40	3.96	32.36	28	-1.83	09, 12, 20, 07

^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Reservoir Storage Summary for the end of September 2021	Current (KAF)	Last Year (KAF)	Average (KAF)	Capacity (KAF)	Current % Capacity	Last Year % Capacity	Average % Capacity	Current % Average	Last Year % Average
Big Sand Wash Reservoir	1.7	1.4		25.7	7%	6%			
Causey Reservoir	3.0	2.4	2.7	7.1	42%	33%	38%	111%	88%
Cleveland Lake	0.7	1.2		5.4	13%	22%			
Currant Creek Reservoir	15.3	14.6	14.7	15.5	99%	94%	95%	104%	100%
Deer Creek Reservoir	88.7	90.8	94.7	149.7	59%	61%	63%	94%	96%
East Canyon Reservoir	21.5	29.3	29.4	49.5	43%	59%	59%	73%	100%
Echo Reservoir	8.3	13.7	21.9	73.9	11%	19%	30%	38%	63%
Grantsville Reservoir	1.3	0.8	0.8	3.3	39%	25%	25%	155%	99%
Gunlock	4.3	4.7	5.9	10.4	42%	45%	57%	73%	79%
Gunnison Reservoir	0.0	0.0	3.1	20.3	0%	0%	15%	0%	0%
Huntington North Reservoir	1.2	1.8	1.6	4.2	28%	42%	37%	76%	113%
Hyrum Reservoir	2.5	5.2	5.8	15.3	16%	34%	38%	43%	90%
Joes Valley Reservoir	21.8	40.3	38.6	61.6	35%	65%	63%	56%	104%
Jordanelle Reservoir	160.7	237.9	211.8	314.0	51%	76%	67%	76%	112%
Ken's Lake	0.7	0.4	0.8	2.3	31%	19%	34%	92%	55%
Kolob Reservoir	2.8	5.0		5.6	50%	89%			
Lost Creek Reservoir	8.8	14.7	12.0	22.5	39%	65%	53%	73%	122%
Lower Enterprise	1.0	0.0	0.4	2.6	38%	2%	15%	246%	10%
Miller Flat Reservoir	1.3	1.3		5.2	26%	24%			
Millsite	3.3	3.5	9.8	16.7	20%	21%	59%	33%	35%
Minersville Reservoir	1.7	3.2	5.2	23.3	7%	14%	22%	32%	62%
Moon Lake Reservoir	9.3	7.0	11.6	35.8	26%	20%	32%	80%	61%
Otter Creek Reservoir	7.4	14.8	19.7	52.5	14%	28%	38%	37%	75%
Panguitch Lake	4.5	14.2	12.2	22.3	20%	64%	55%	37%	117%
Pineview Reservoir	17.1	47.7	49.9	110.1	16%	43%	45%	34%	96%
Piute Reservoir	2.6	13.5	17.1	71.8	4%	19%	24%	15%	79%
Porcupine Reservoir	2.8	4.9	5.3	11.3	25%	43%	47%	53%	92%
Quail Creek	24.1	24.4	25.0	40.0	60%	61%	63%	96%	97%
Red Fleet Reservoir	8.1	14.3	16.2	25.7	32%	56%	63%	50%	88%
Rockport Reservoir	15.9	29.4	36.0	60.9	26%	48%	59%	44%	82%
Sand Hollow Reservoir	34.9	38.3		50.0	70%	77%			
Scofield Reservoir	13.7	32.7	24.2	65.8	21%	50%	37%	57%	135%
Settlement Canyon Reservoir	0.1	0.2	0.3	1.0	15%	20%	30%	50%	65%
Sevier Bridge Reservoir	20.8	43.2	77.8	236.0	9%	18%	33%	27%	55%
Smith And Morehouse Reservoir	5.2	2.4	4.1	8.1	64%	30%	51%	126%	59%
Starvation Reservoir	96.6	113.3	116.5	164.1	59%	69%	71%	83%	97%
Stateline Reservoir	3.8	3.9	5.3	12.0	32%	32%	44%	72%	73%
Steinaker Reservoir	2.5	2.4	11.6	33.4	8%	7%	35%	22%	20%
Strawberry Reservoir	811.7	929.9	825.8	1105.9	73%	84%	75%	98%	113%
Upper Enterprise	0.6	3.7	1.9	10.0	6%	37%	19%	33%	199%
Upper Stillwater Reservoir	20.8	10.9	16.0	32.5	64%	34%	49%	130%	68%
Utah Lake	415.8	601.4	564.6	870.9	48%	69%	65%	74%	107%
Willard Bay	79.2	142.6	132.2	215.0	37%	66%	61%	60%	108%
Woodruff Creek	1.3	1.6	0.9	4.0	32%	41%	22%	147%	190%
Woodruff Narrows Reservoir	10.3	28.7		57.3	18%	50%			
Meeks Cabin Reservoir	3.8	2.5		32.5	12%	8%			
Bear Lake	519.8	793.4		1302.0	40%	61%			
Basin-wide Total	1907.9	2521.7	2433.3	3981.3	48%	63%	61%	78%	104%
# of reservoirs	39.0	39.0	39.0	39.0	39	39	39	39	39
# of reservoirs	42	42	42	42	42	42	42	42	42

Reservoir Storage



Issued by

Terry Cosby
Chief
Natural Resources Conservation Service
U.S. Department of Agriculture

Released by

Emily Fife
State Conservationist
Natural Resources Conservation Service
Salt Lake City, Utah

Prepared by

Snow Survey Staff:
Jordan Clayton, Data Collection Officer
Troy Brosten, Assistant Supervisor
Kent Sutcliffe, Soil Scientist
Dave Eiriksson, Hydrologist
Joel Burley, Hydrologist
Doug Neff, Electronic Technician



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Snow Survey, NRCS, USDA
245 North Jimmy Doolittle Road
Salt Lake City, UT 84116
(385) 285-3118



Utah Climate and Water Report

Natural Resources Conservation Service
Salt Lake City, UT

