



Utah Climate and Water Report

August 1, 2018



Uinta Mountains, near the Chepeta SNOTEL site

Photo by Jordan Clayton

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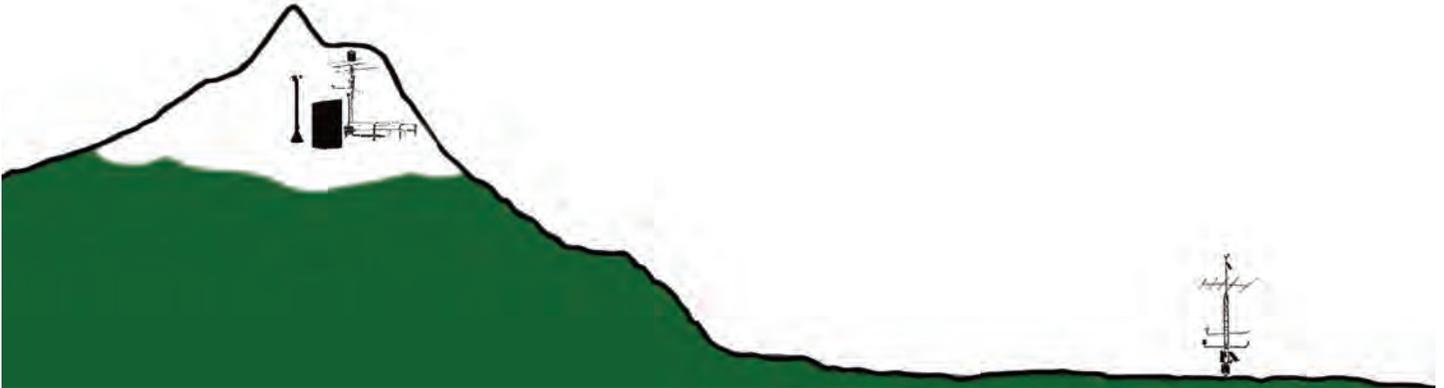
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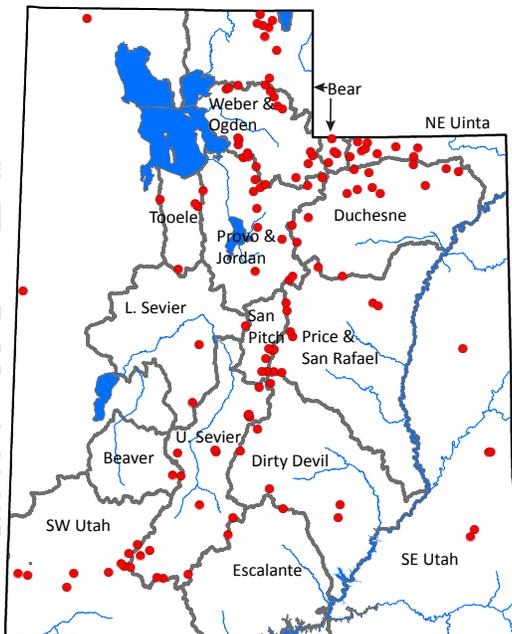
Utah Climate and Water Report

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.



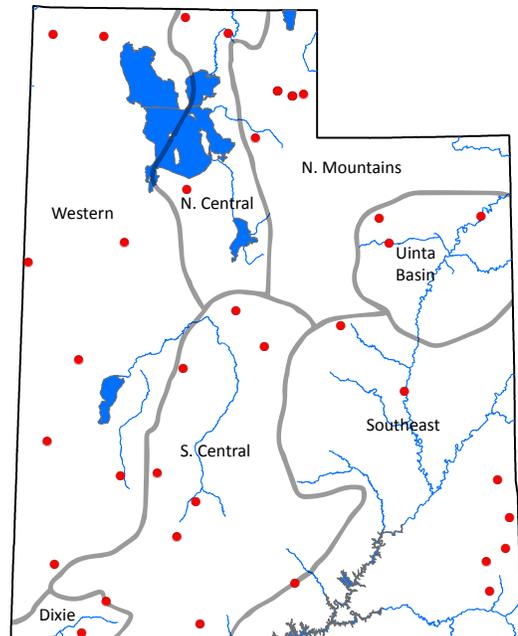
SNOTEL

- 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

August 1, 2018

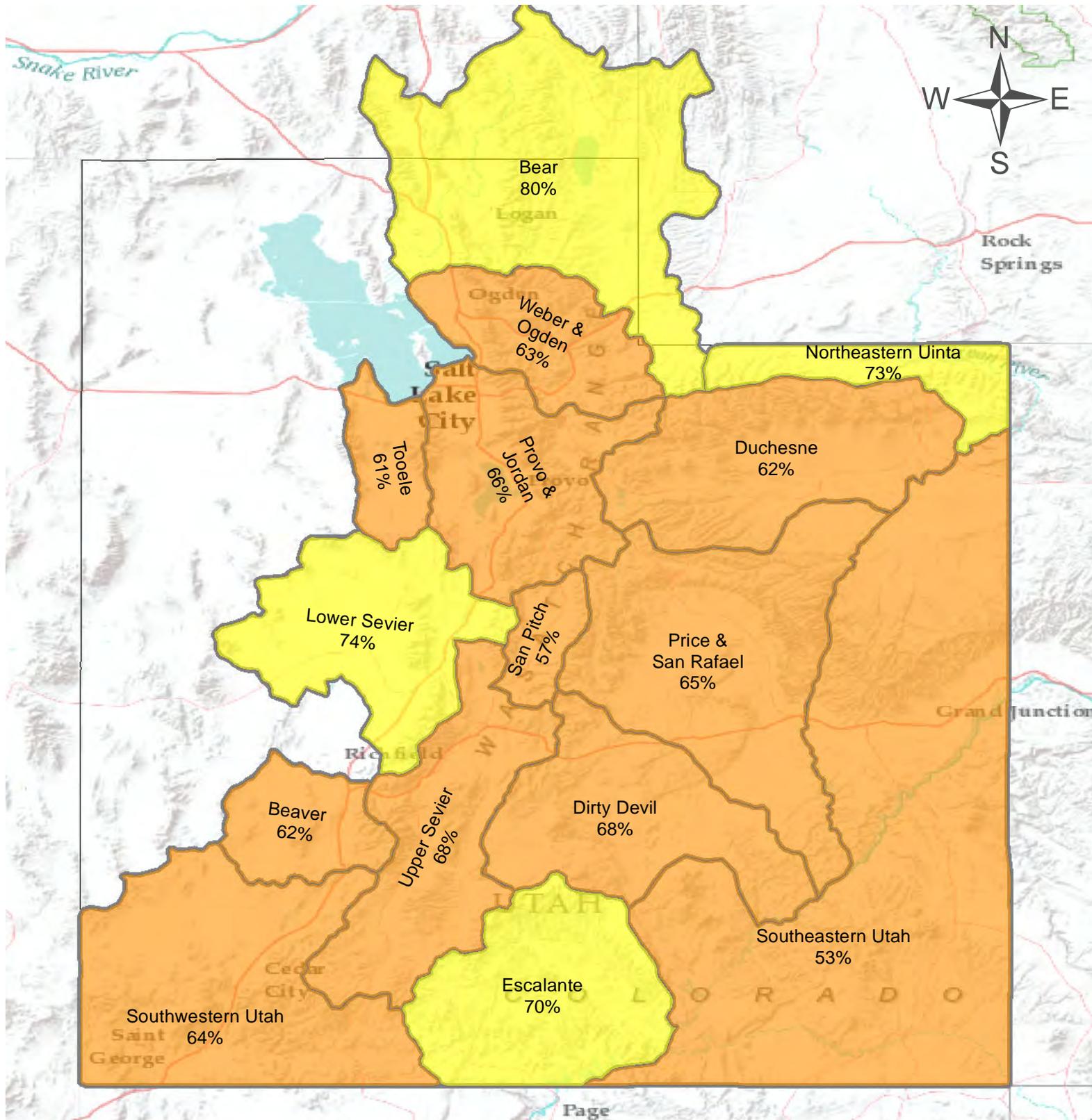
This report has been reorganized to better reflect two distinct geographic areas being monitored – the low elevation valley sites (Soil Climate Analysis Network) that are critical for agricultural production and operations, and the high elevation mountainous areas where water supply is generated (SNOWTElemetry). 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 troy.brosten@ut.usda.gov.

Current Valley Conditions (SCAN)

July was another extremely dry month in Utah's valley locations, but some monsoonal moisture towards the end of the month helped a bit. An average of 0.8 inches of precipitation fell at Utah's SCAN sites in July. Rainfall favored southern Utah in July, with a maximum of 1.5 inches in the South Central region. Northern Utah regions recorded a scant 0.1 inches of precipitation during the month. On average, statewide soil temperatures are above normal due to the persistent hot and dry conditions. Soil moisture levels continue to be very low; current statewide percent saturation is roughly 30 percent, which is below what has been observed over the last ~15 years.

Current Mountain Conditions (SNOTEL)

In general July was a continuation of hot and dry weather across Utah except for southern Utah which received some reprieve from the dryness thanks to a few monsoonal moisture events that temporarily helped bring the soil moistures closer to normal. Monsoonal events did not make it north of the Provo and Jordan watersheds; northern Utah basins are currently experiencing record low soil moisture. July precipitation in the mountains as reported by the SNOTEL network across Utah was 27-84% for the northern basins and 109-199% in the southern basins due to the monsoonal rainfall. Seasonal precipitation accumulation (Oct-Jul) is below average across Utah, ranging from 80% in the Bear Basin down to 53% in Southeastern Utah. As expected, with hot and dry weather, we have been drawing down our reservoirs where most reservoirs have seen up to a 10% or more drop in their storage over the month of July. Current Utah reservoir storage is at 65% compared to 80% last year. Water Availability Indexes (WAI) range from 72% on the Bear River Basin to 3% in the San Pitch Basin. As of July 31 almost all Utah counties continue to experience severe to exceptional drought conditions, as reported by the U.S. Drought Monitor.



Statewide Precipitation

As of August 1, 2018:

67% of Normal Precipitation

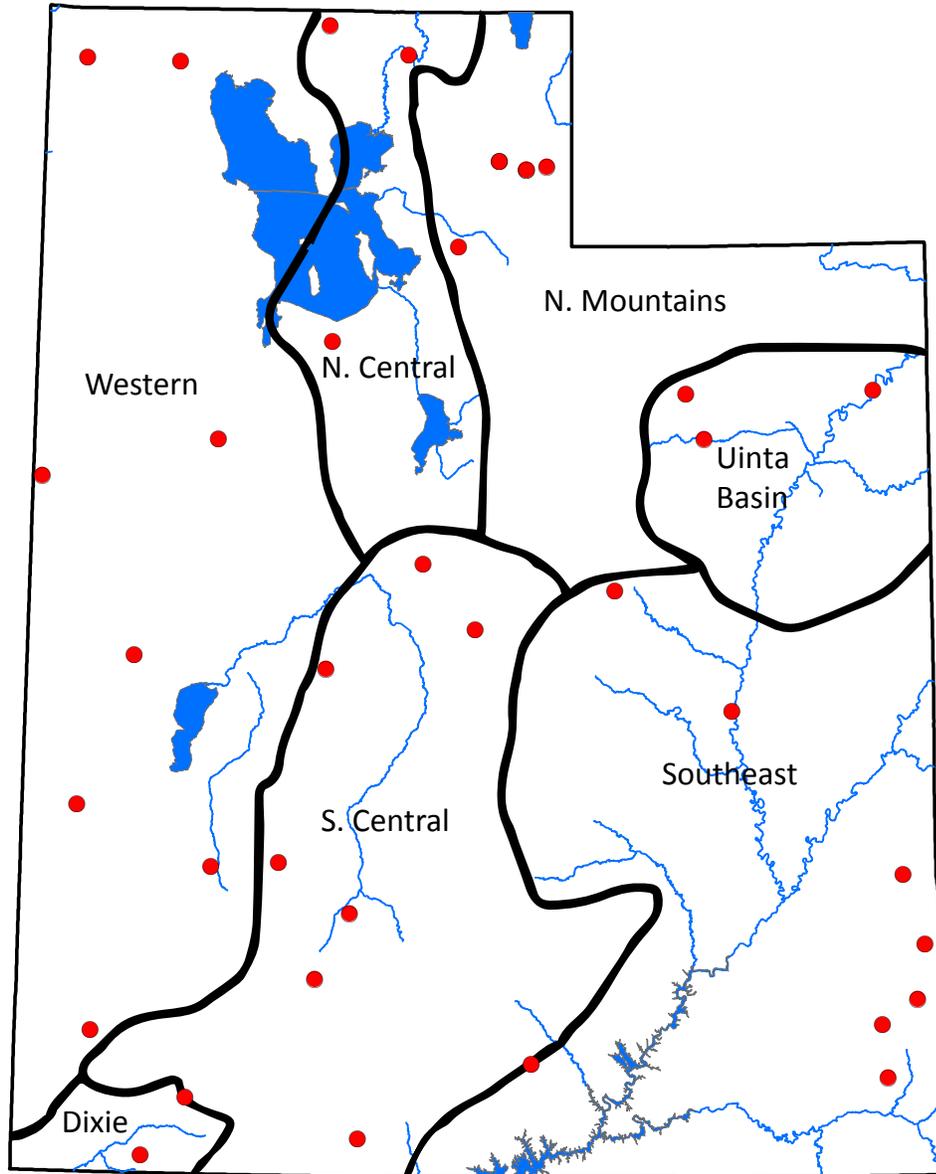
101% of Normal Precipitation Last Month

% of Normal

- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%

0 10 20 40 60 80 100 Miles

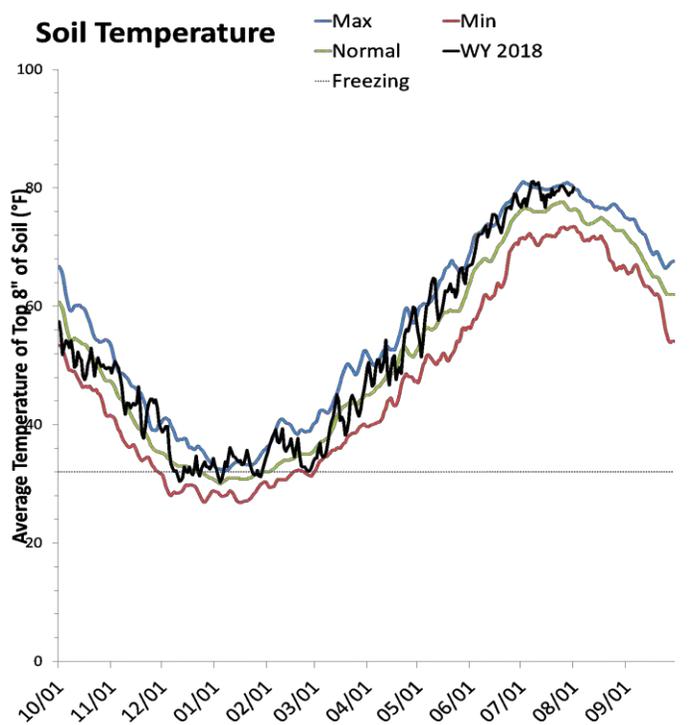
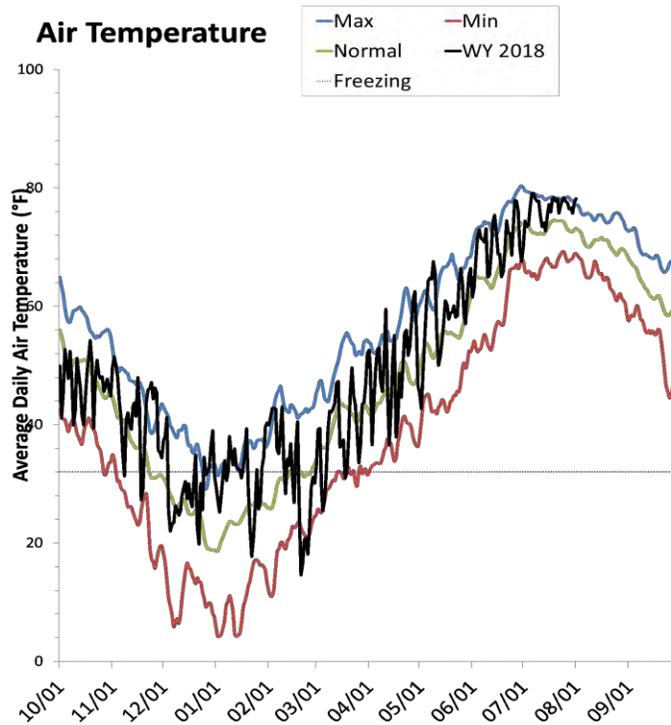
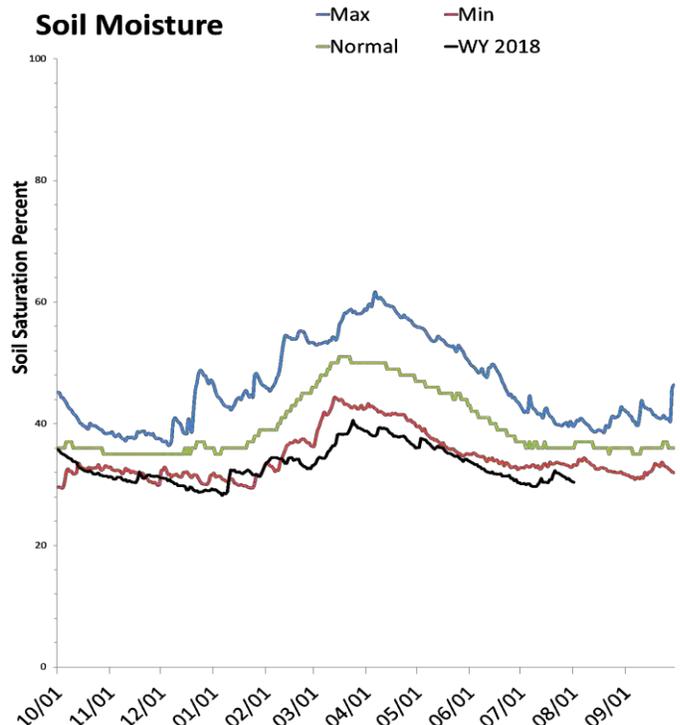
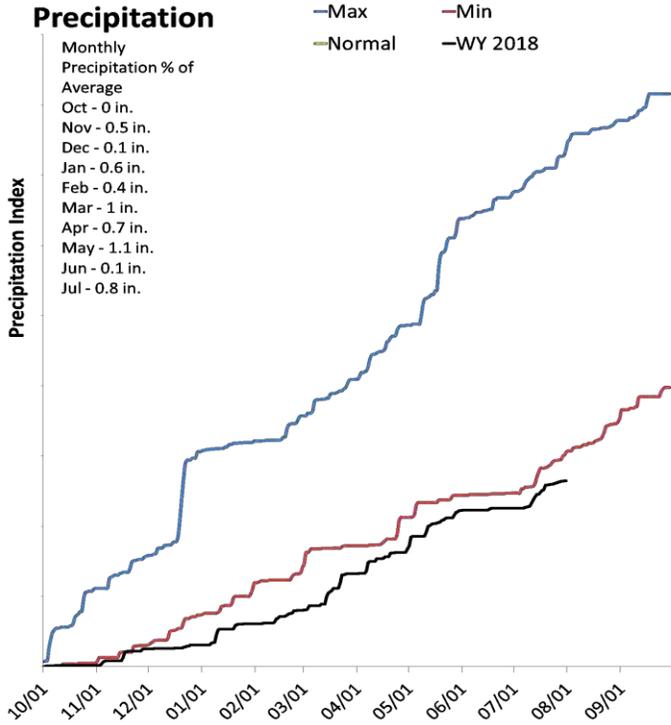
SCAN portion of report



Statewide SCAN

August 1, 2018

The average precipitation at SCAN sites within Utah was 0.8 inches in July, which brings the seasonal accumulation (Oct-Jul) to 5.3 inches. Soil moisture is at 30% compared to 36% last year.



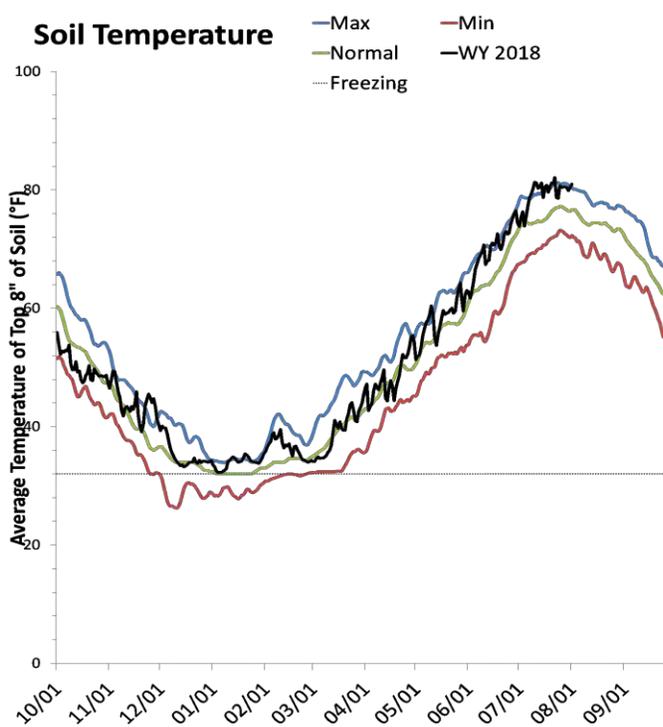
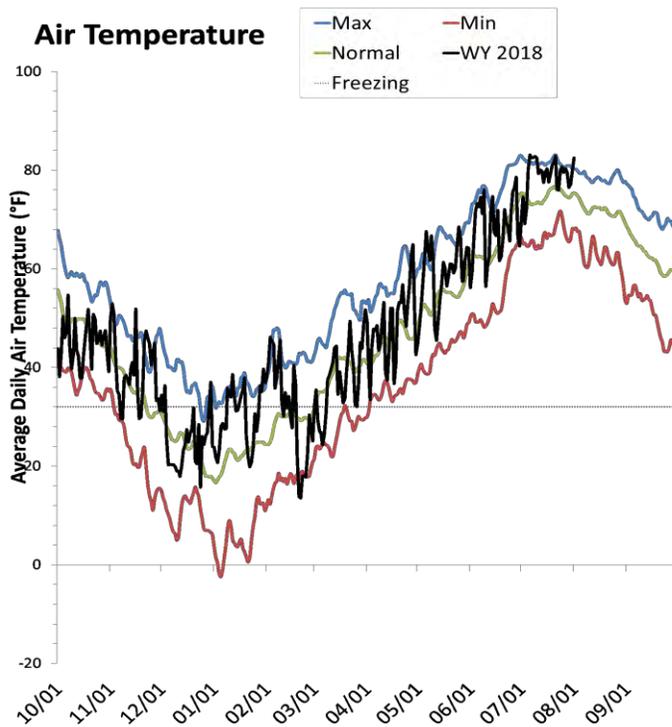
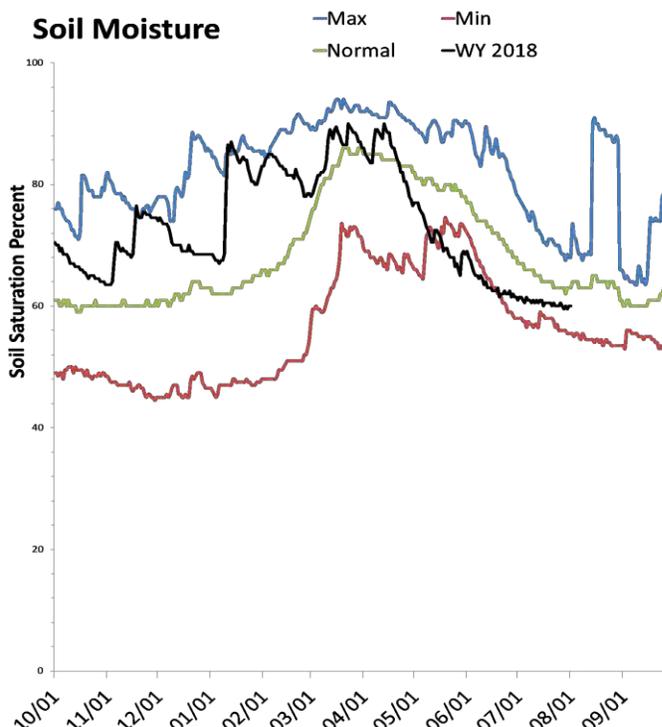
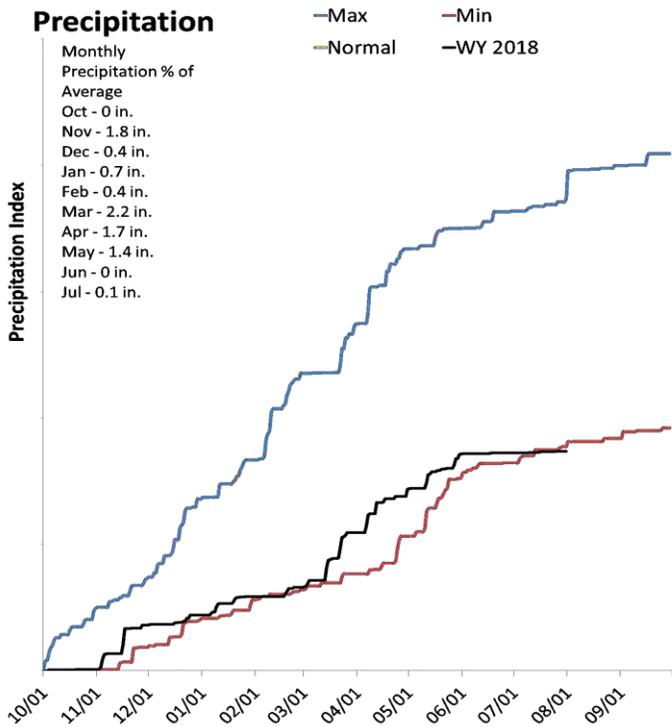
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

*Min, Max, and Normal lines created using a 5 day moving average of historical data.

North Central

August 1, 2018

The average precipitation in July at SCAN sites within the basin was 0.1 inches, which brings the seasonal accumulation (Oct-Jul) to 8.7 inches. Soil moisture is at 60% compared to 66% last year.



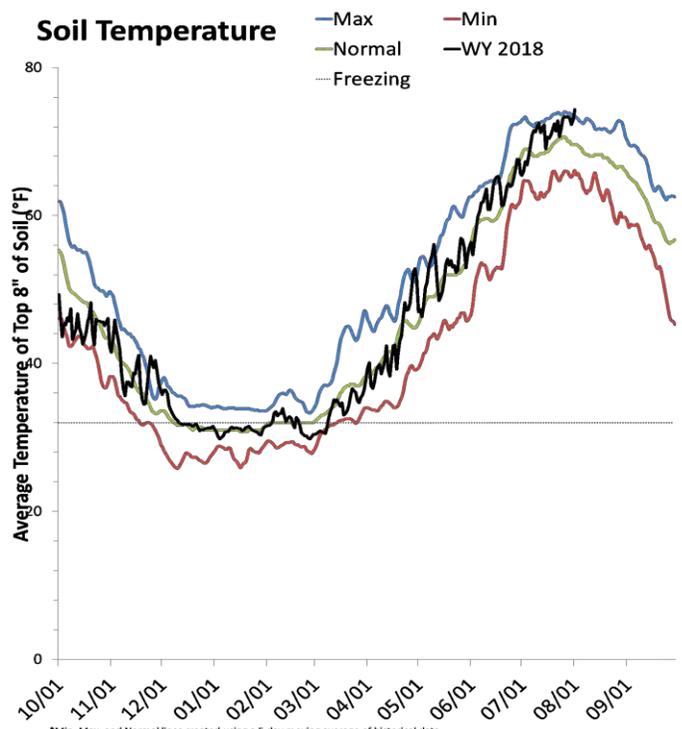
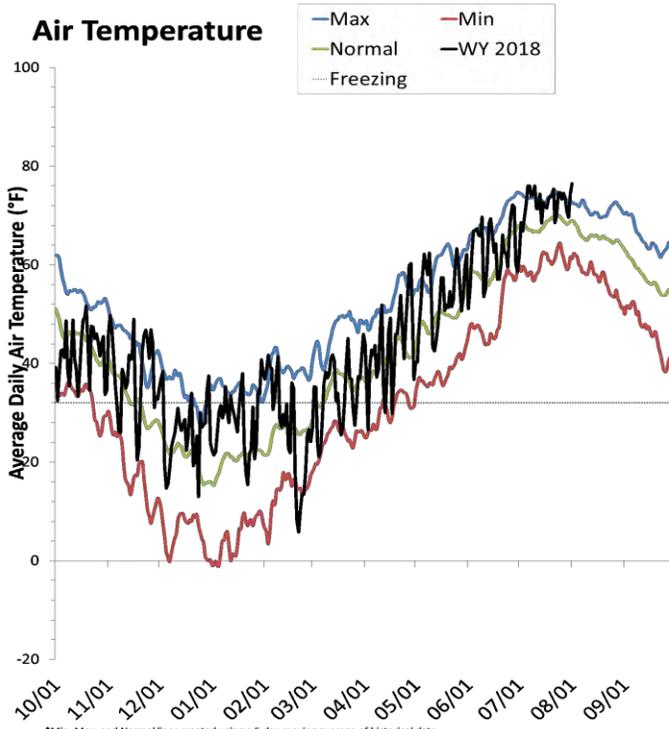
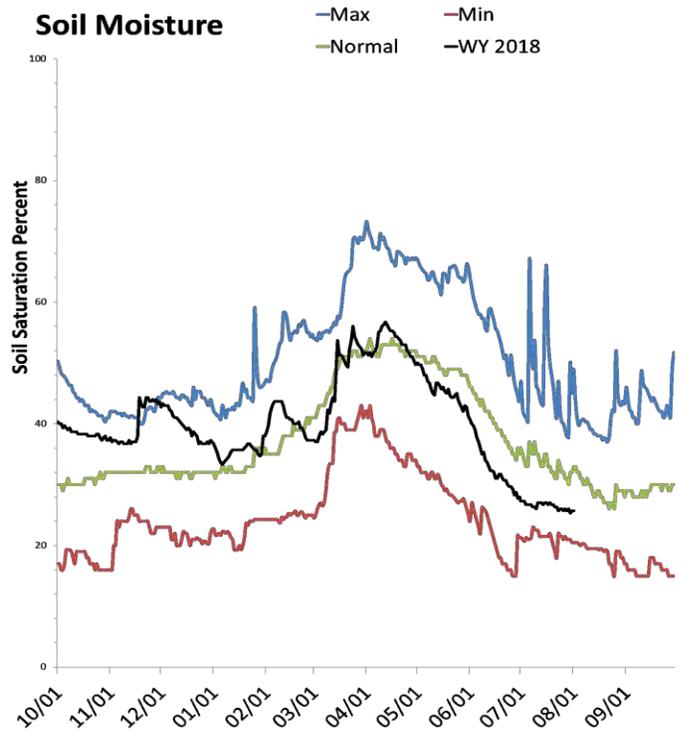
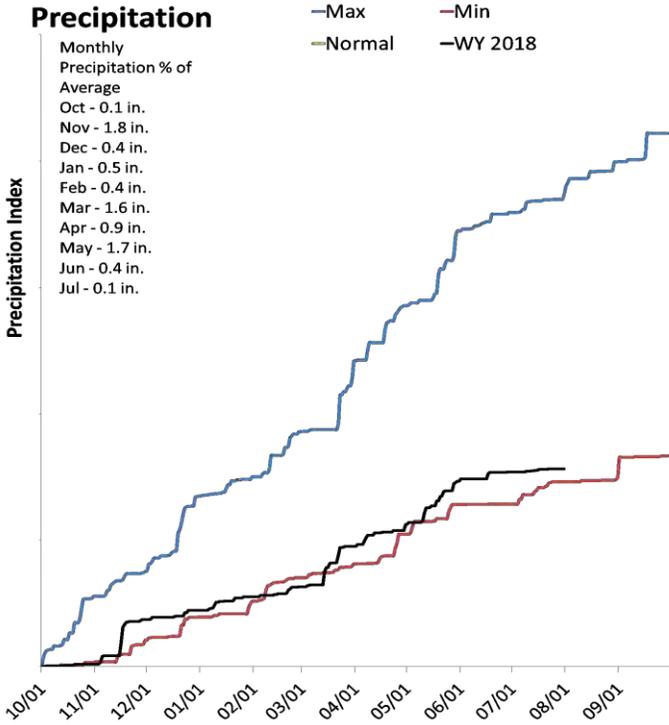
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Northern Mountains

August 1, 2018

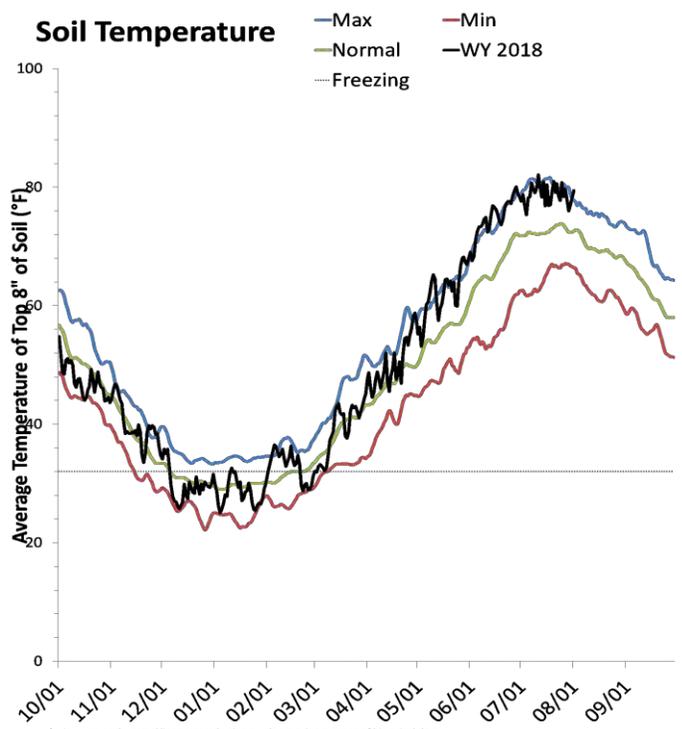
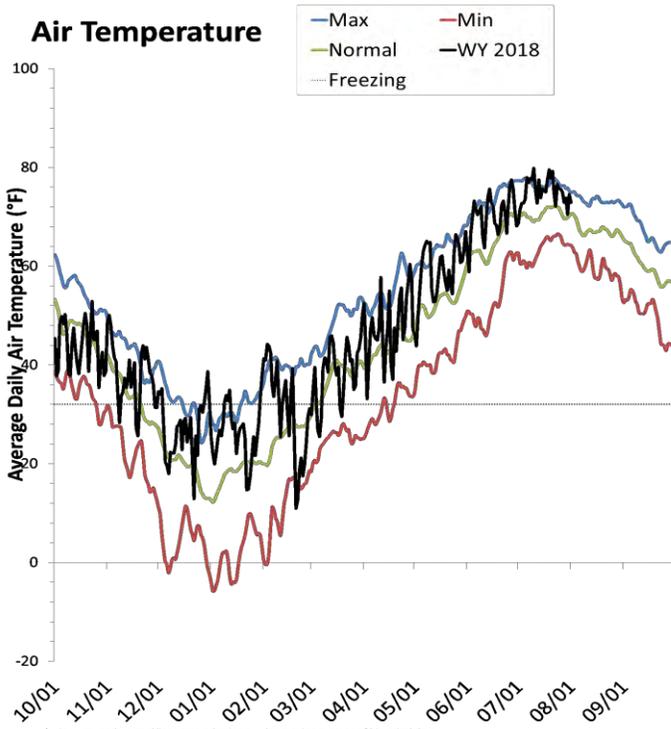
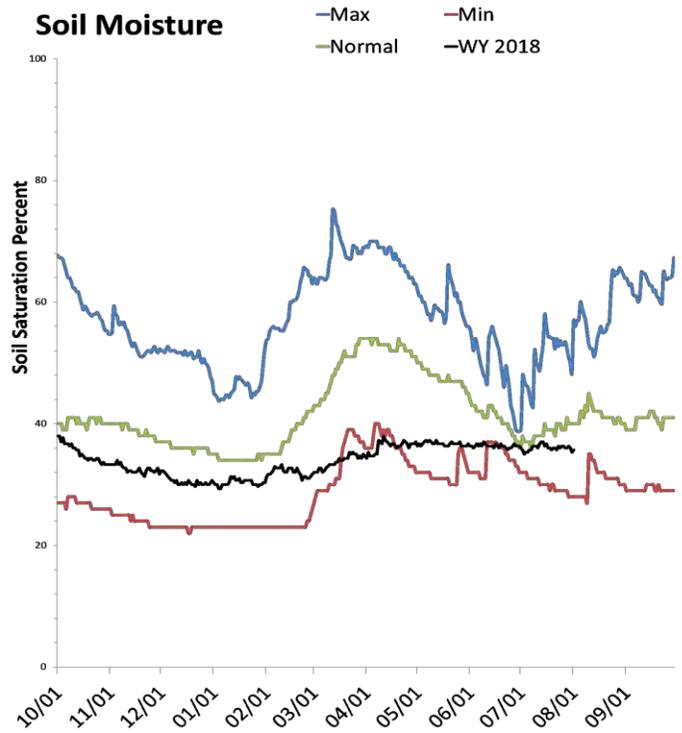
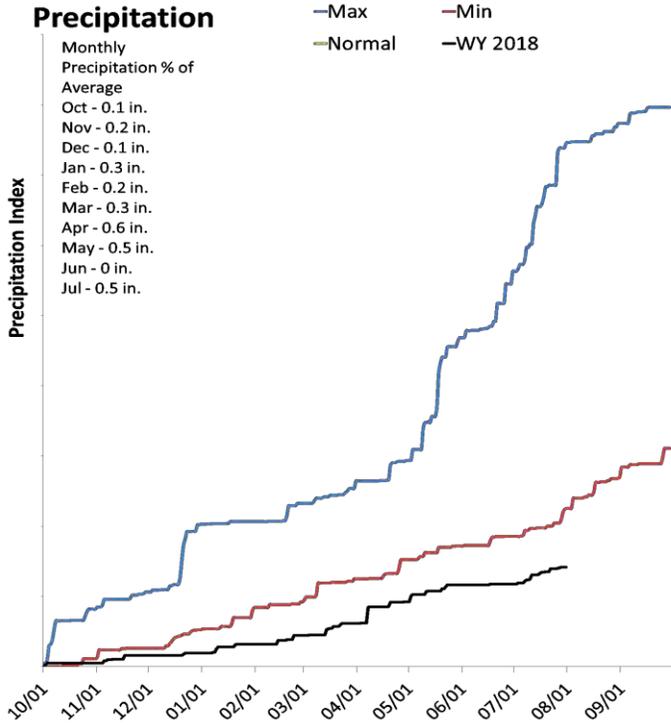
The average precipitation in July at SCAN sites within the basin was 0.1 inches, which brings the seasonal accumulation (Oct-Jul) to 7.8 inches. Soil moisture is at 25% compared to 36% last year.



Uinta Basin

August 1, 2018

The average precipitation in July at SCAN sites within the basin was 0.5 inches, which brings the seasonal accumulation (Oct-Jul) to 2.8 inches. Soil moisture is at 36% compared to 39% last year.



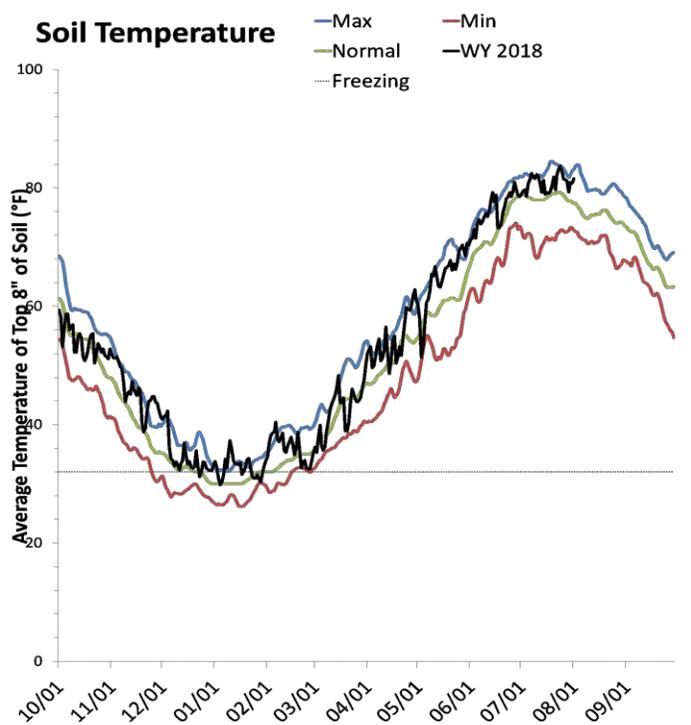
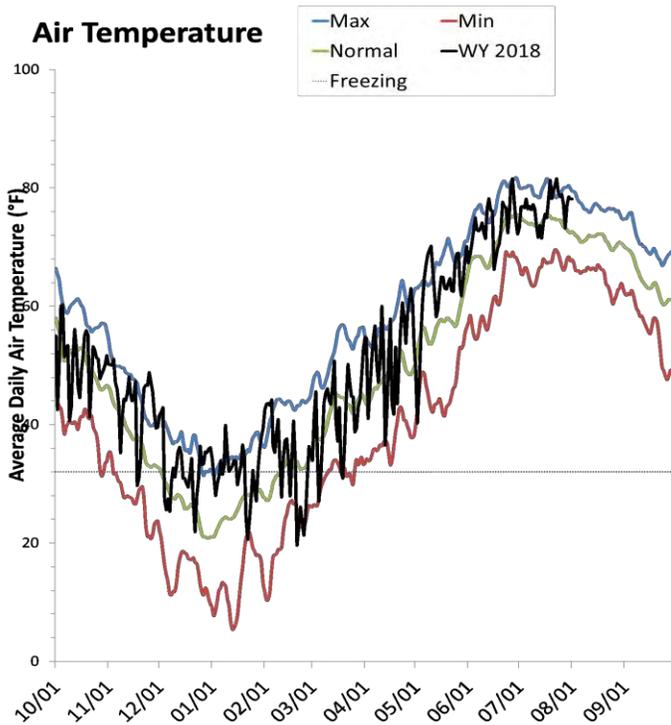
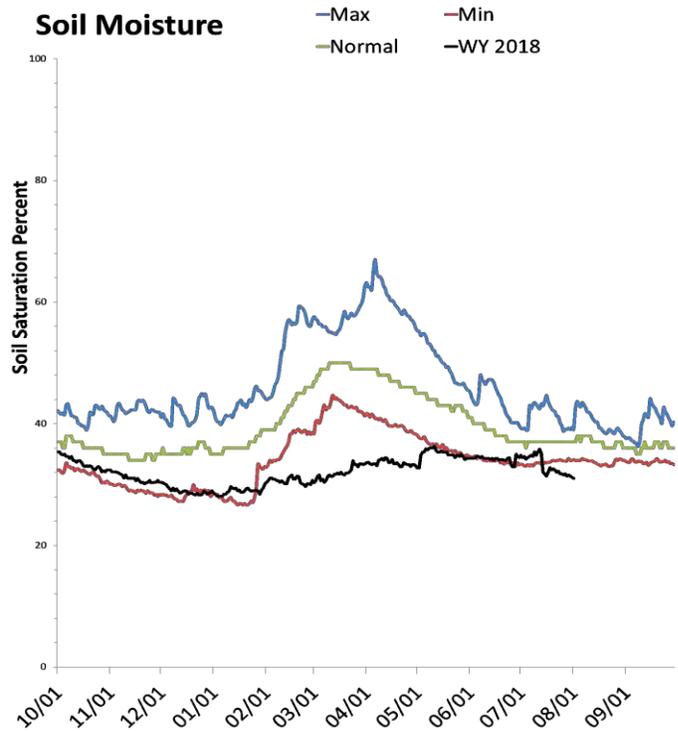
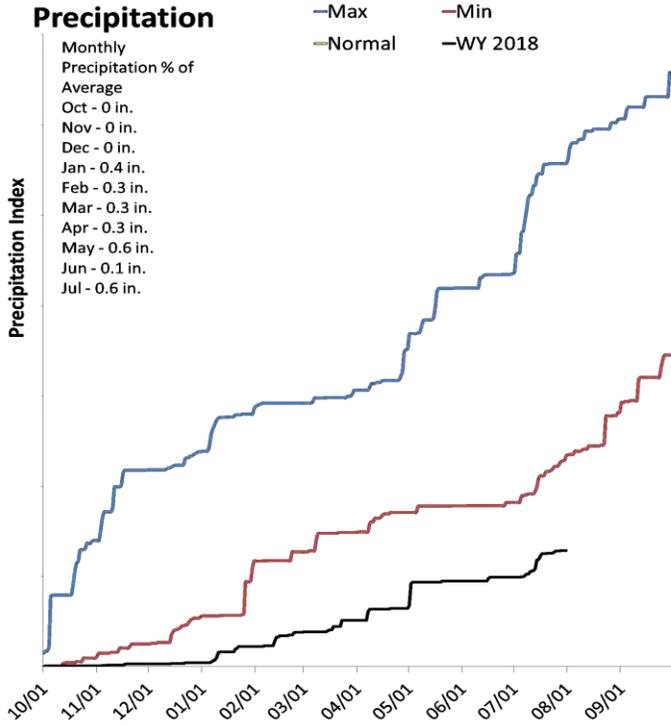
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Southeast

August 1, 2018

The average precipitation in July at SCAN sites within the basin was 0.6 inches, which brings the seasonal accumulation (Oct-Jul) to 2.6 inches. Soil moisture is at 31% compared to 39% last year.



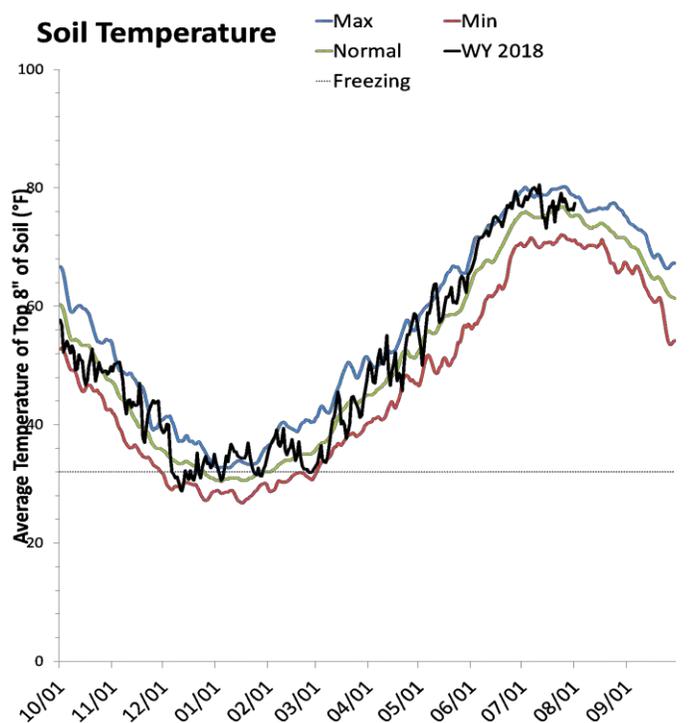
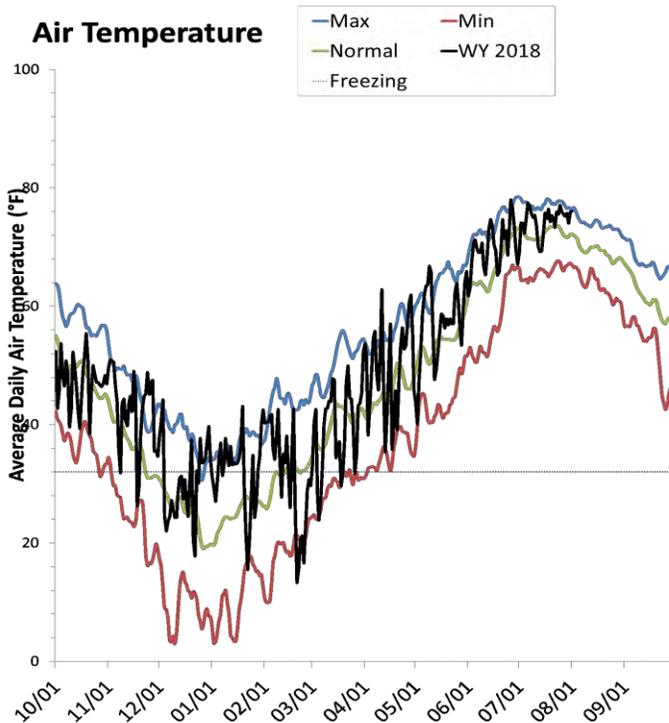
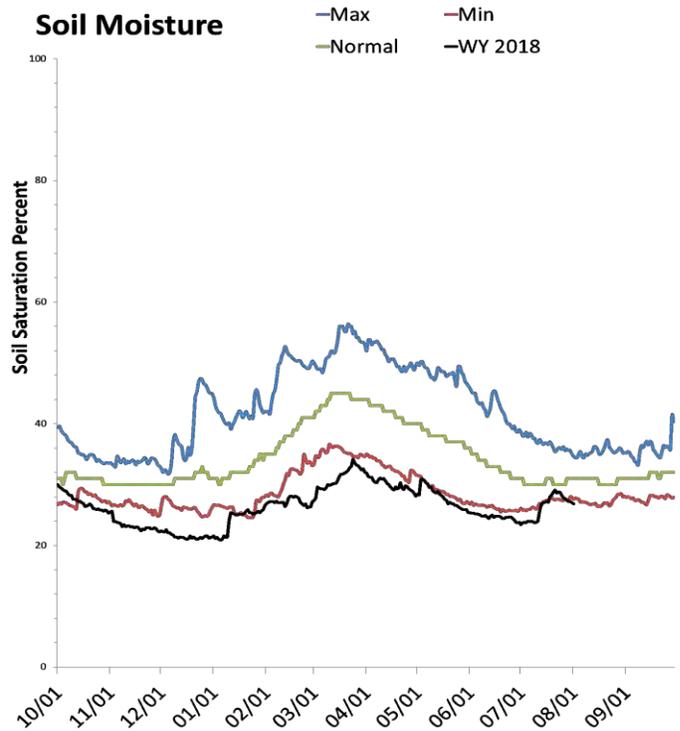
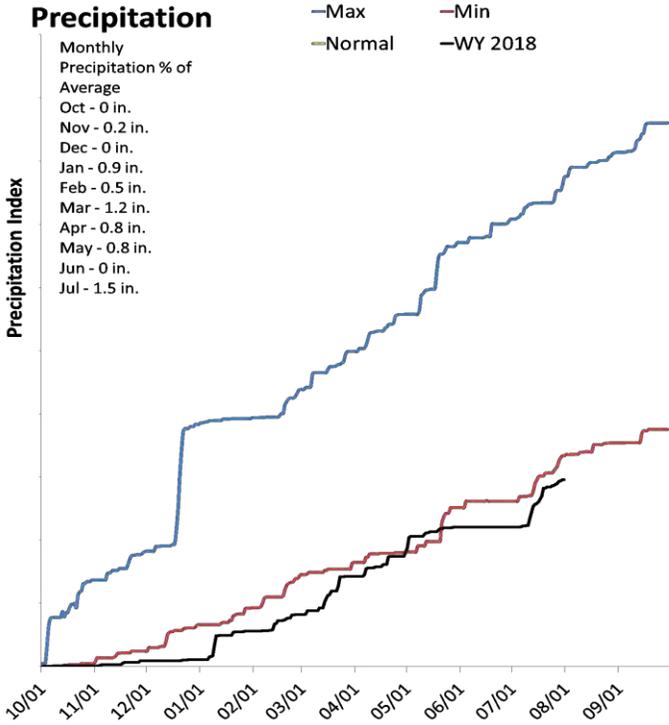
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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South Central

August 1, 2018

The average precipitation in July at SCAN sites within the basin was 1.5 inches, which brings the seasonal accumulation (Oct-Jul) to 5.9 inches. Soil moisture is at 27% compared to 32% last year.



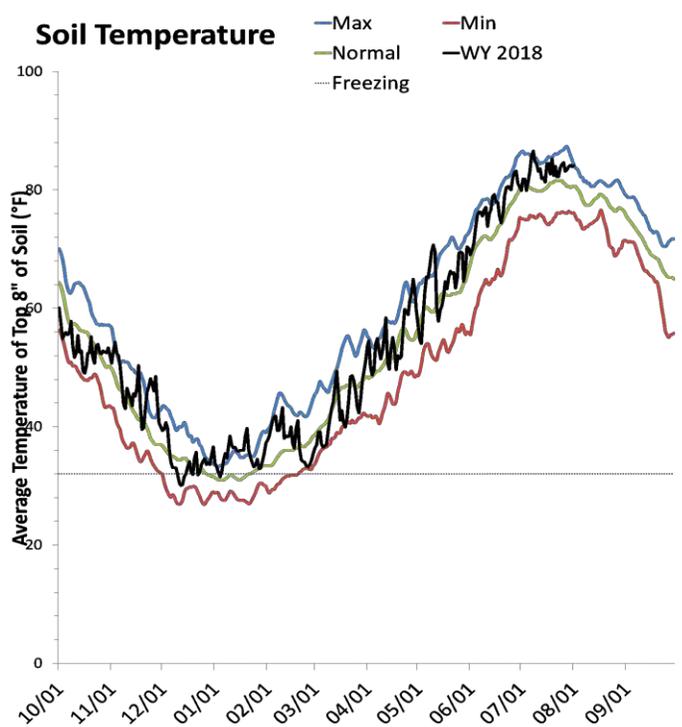
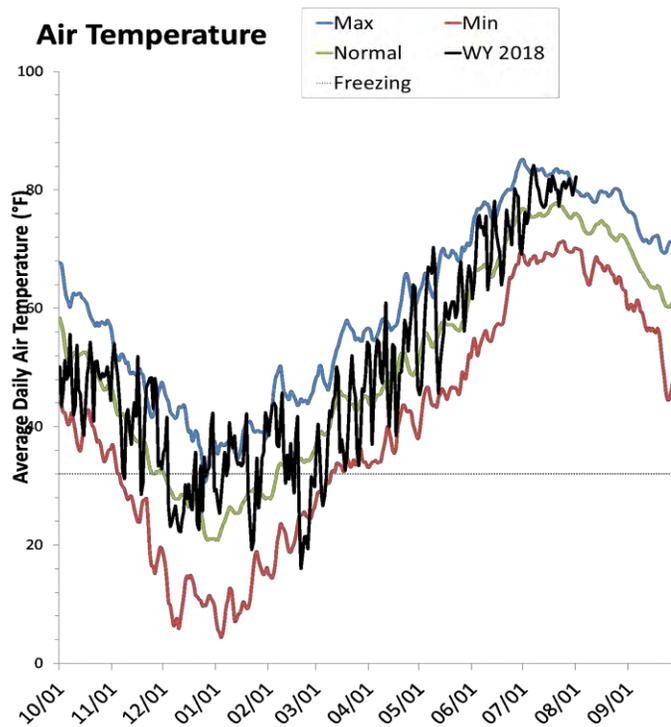
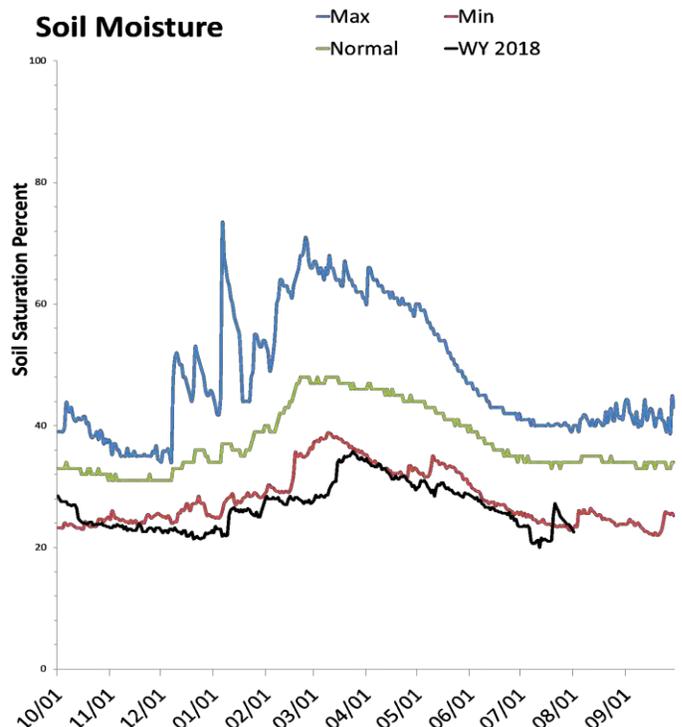
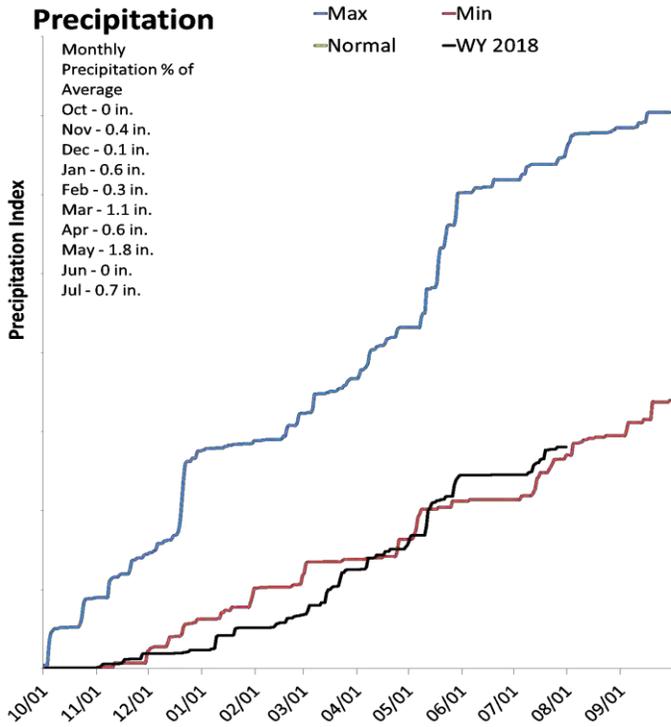
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Western and Dixie

August 1, 2018

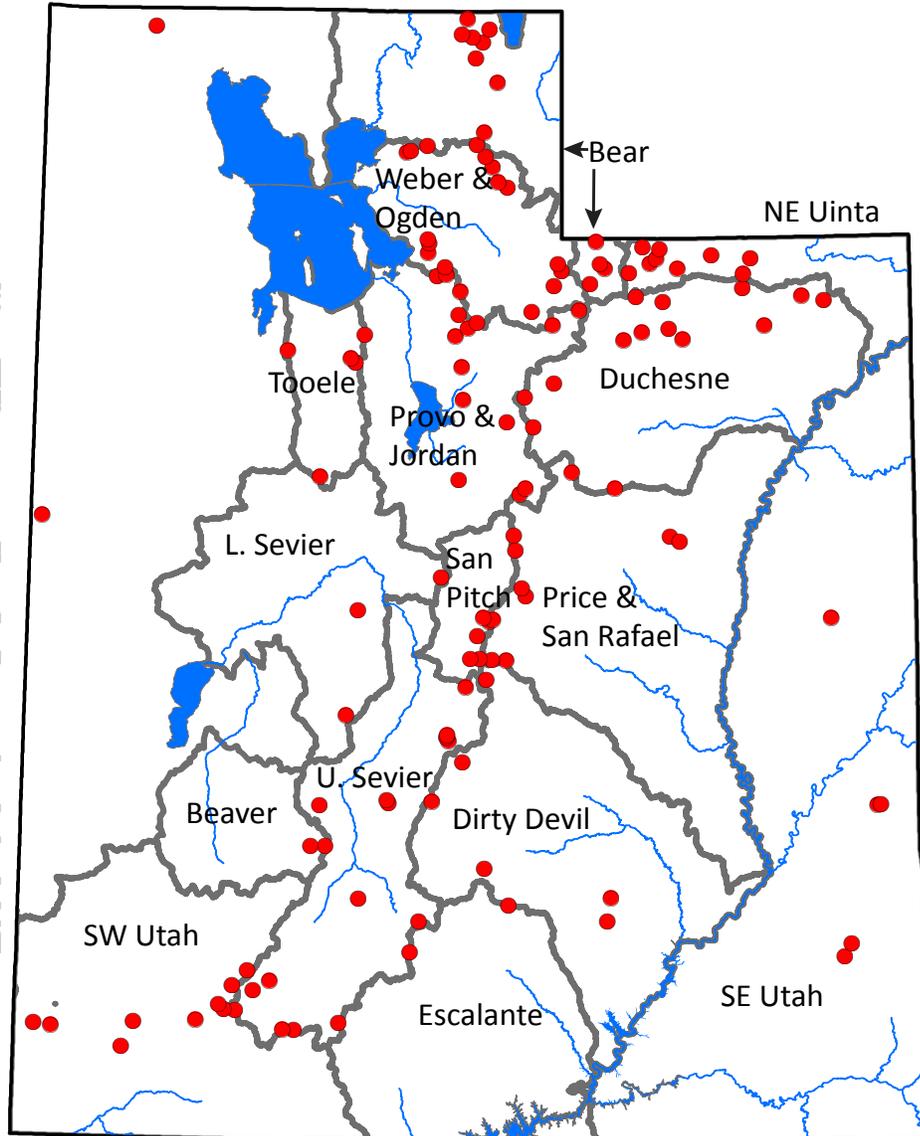
The average precipitation in July at SCAN sites within the basin was 0.7 inches, which brings the seasonal accumulation (Oct-Jul) to 5.6 inches. Soil moisture is at 21% compared to 29% last year.



*Min, Max, and Normal lines created using a 5 day moving average of historical data.

*Min, Max, and Normal lines created using a 5 day moving average of historical data.

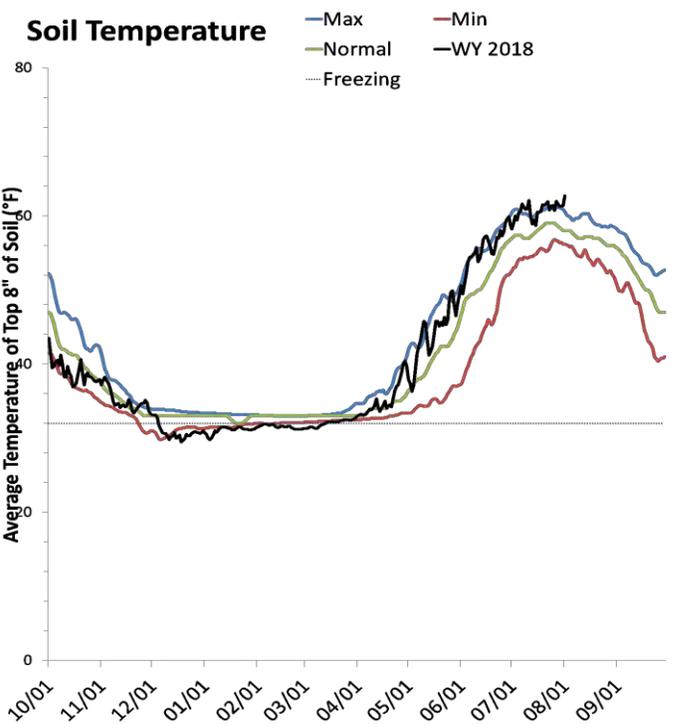
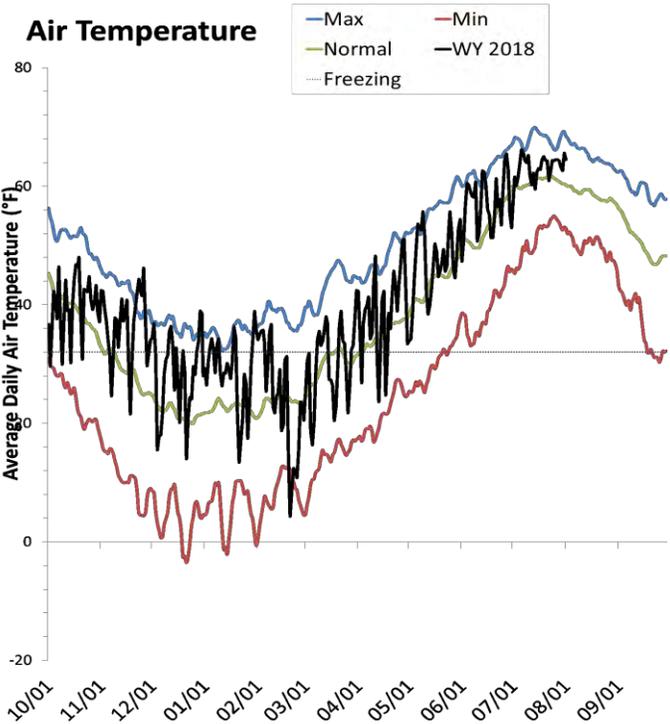
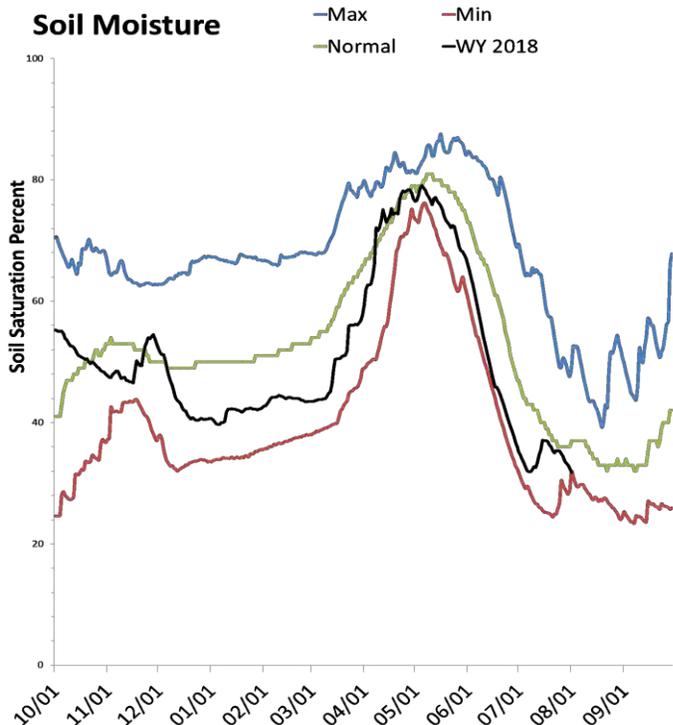
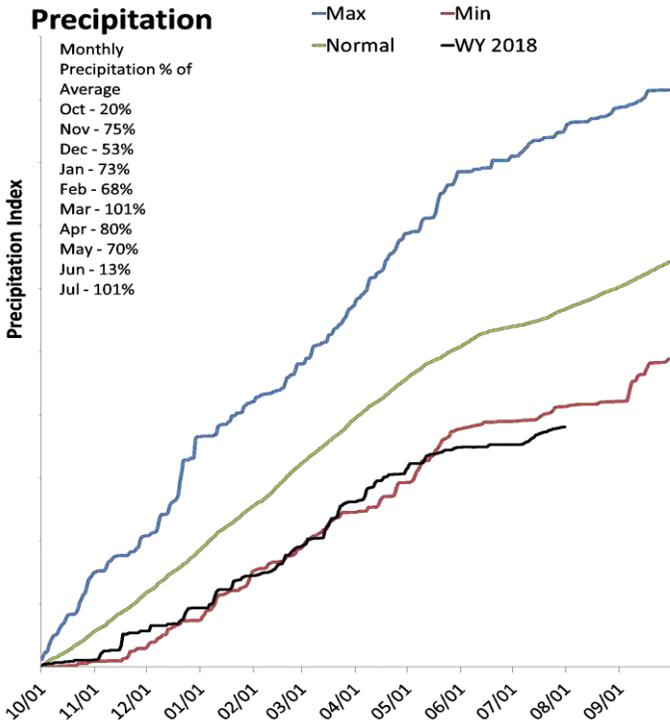
SNOTEL portion of report



Statewide SNOTEL

August 1, 2018

Precipitation at SNOTEL sites during July was near average at 101%, which brings the seasonal accumulation (Oct-Jul) to 67% of average. Soil moisture is at 32% compared to 42% last year. Reservoir storage is at 65% of capacity, compared to 80% last year.



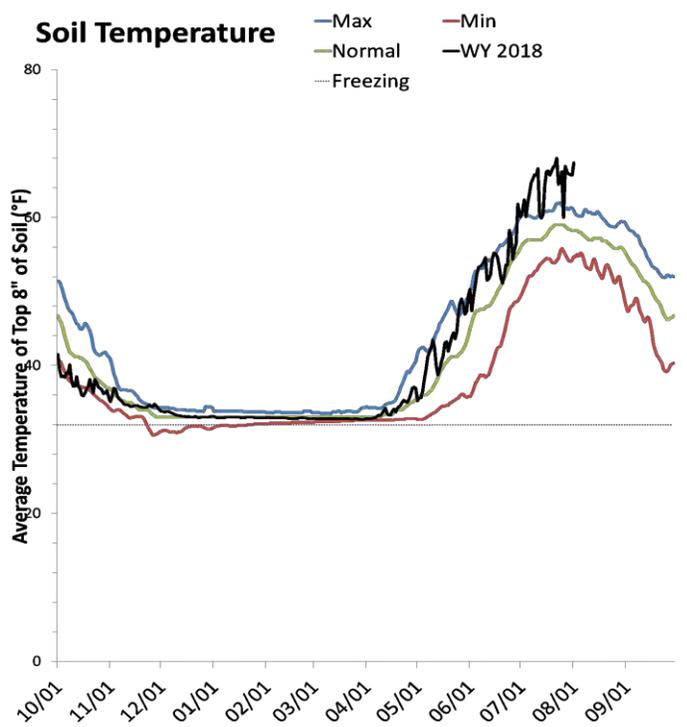
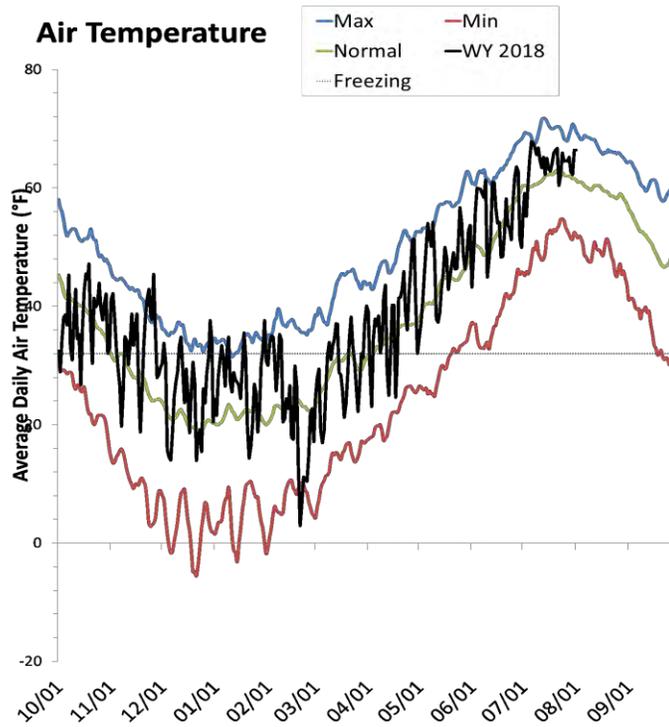
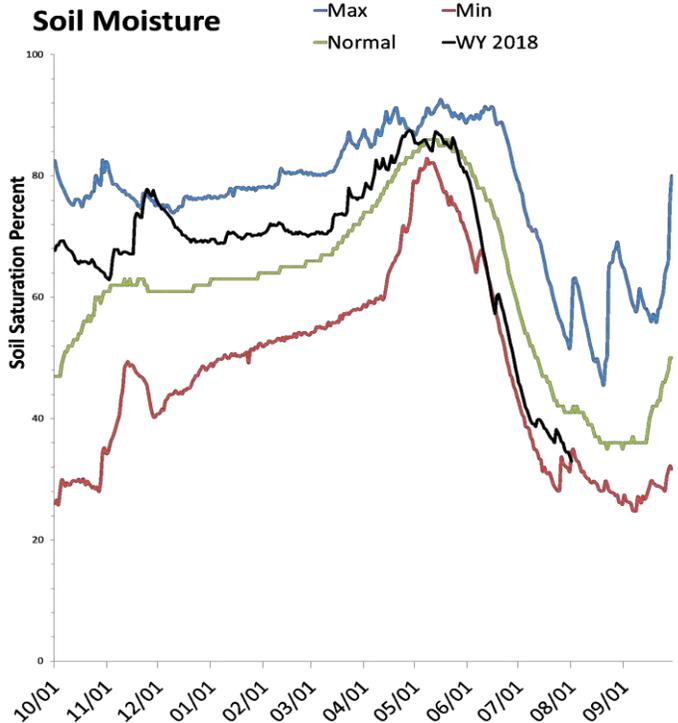
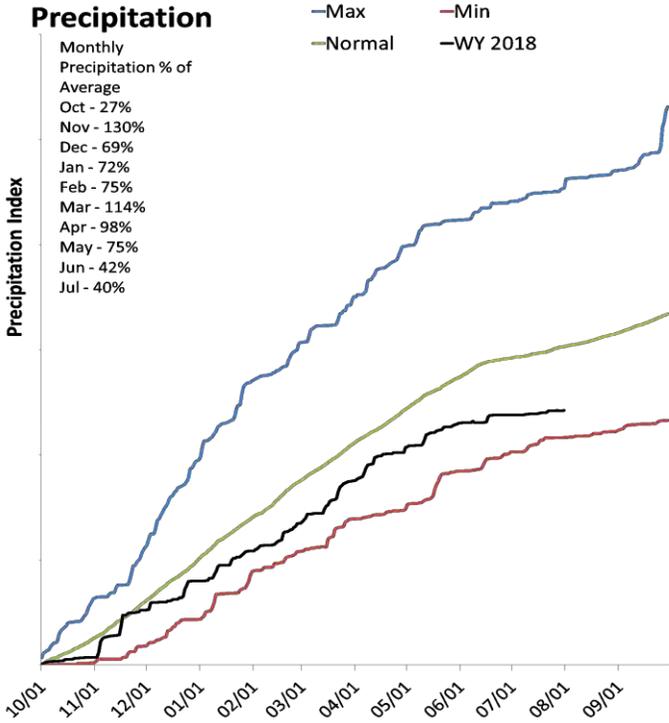
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

*Min, Max, and Normal lines created using a 5 day moving average of historical data.

Bear River Basin

August 1, 2018

Precipitation in July was much below average at 40%, which brings the seasonal accumulation (Oct-Jul) to 80% of average. Soil moisture is at 34% compared to 43% last year. Reservoir storage is at 72% of capacity, compared to 91% last year. The water availability index for the Bear River is 72%, 36% for Woodruff Narrows and 26% for the Little Bear.



*Min, Max, and Normal lines created using a 5 day moving average of historical data.

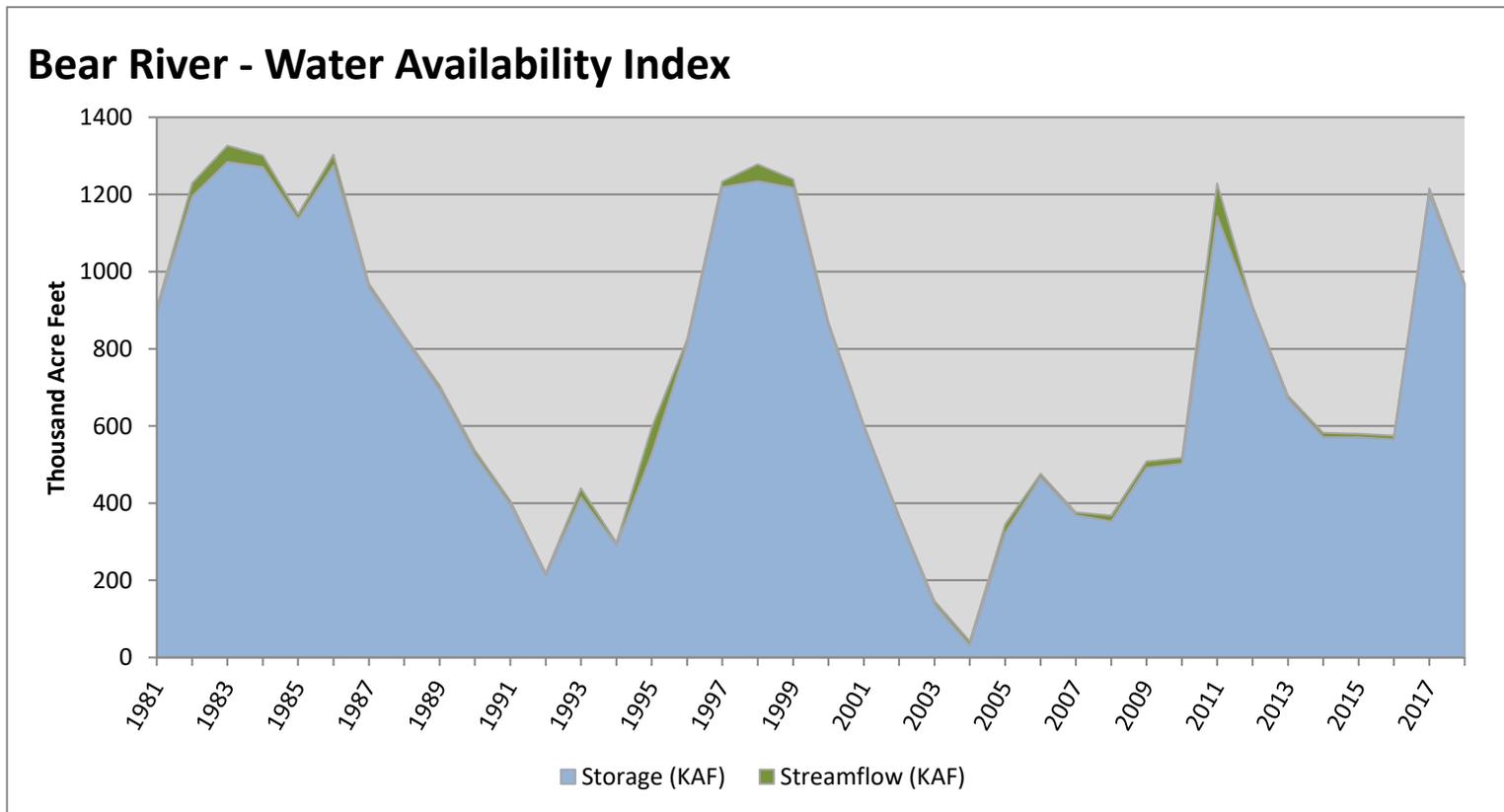
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2018

Water Availability Index

Basin or Region	Jul EOM [*] Storage	July Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Bear River	961.59	7.76	969.35	72	1.82	12, 87, 85, 17

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

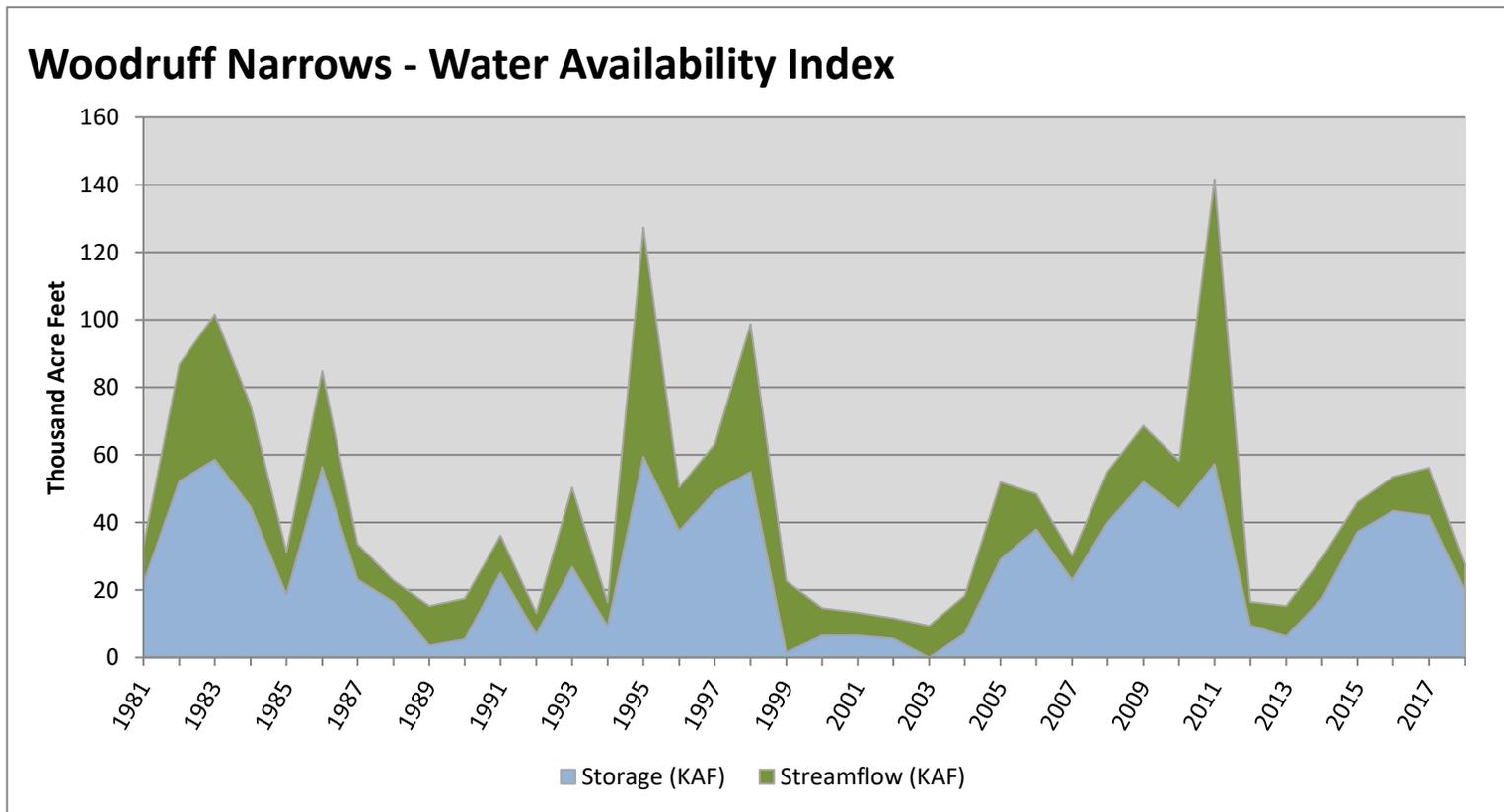


August 1, 2018

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similar WAI
	KAF^	KAF^	KAF^	%		
Woodruff Narrows	19.70	7.76	27.46	36	-1.18	99, 88, 14, 07

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

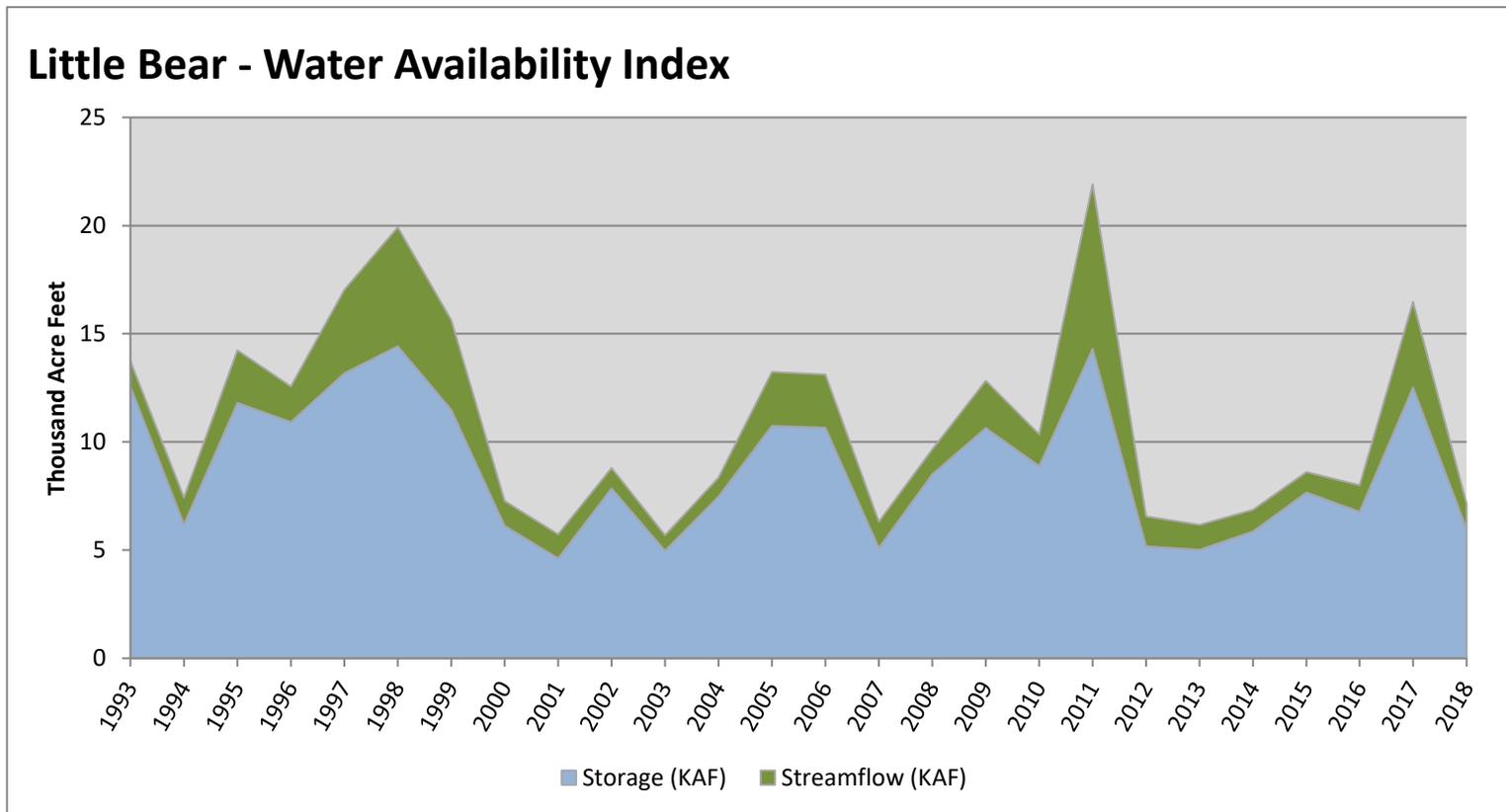


August 1, 2018

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Little Bear	5.97	1.17	7.14	26	-2.01	12, 14, 00, 94

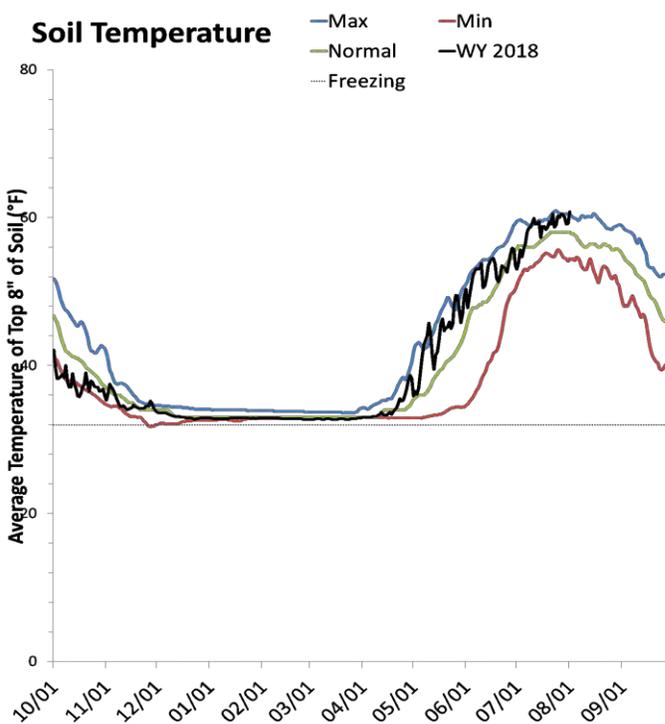
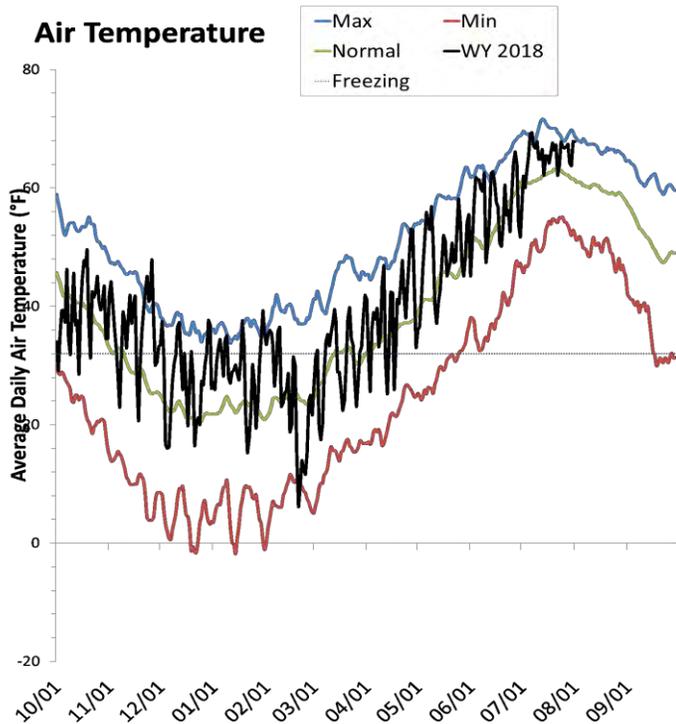
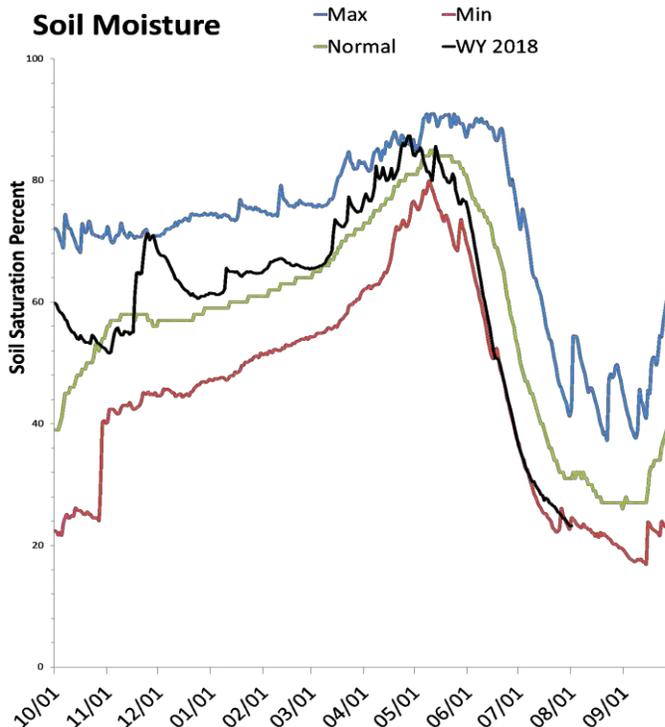
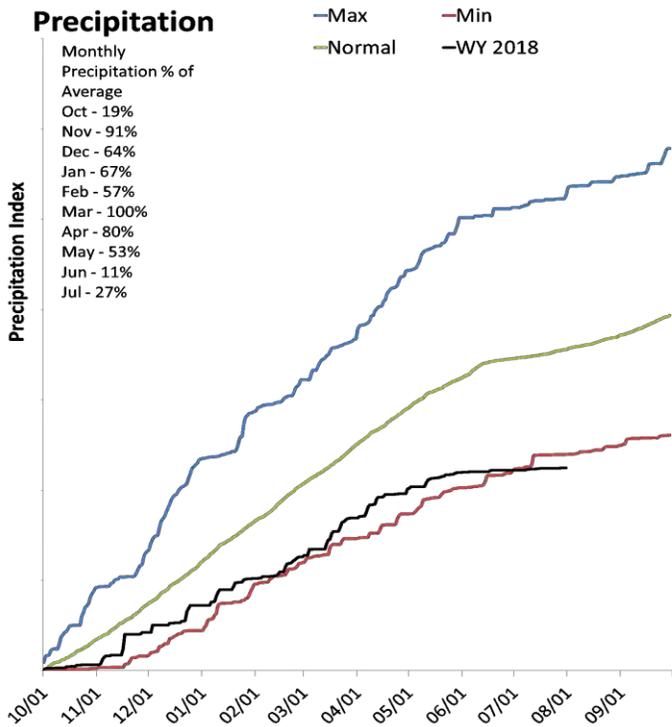
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Weber & Ogden River Basins

August 1, 2018

Precipitation in July was much below average at 27%, which brings the seasonal accumulation (Oct-Jul) to 63% of average. Soil moisture is at 23% compared to 37% last year. Reservoir storage is at 66% of capacity, compared to 87% last year. The water availability index for the Ogden River is 33% and 28% for the Weber River.

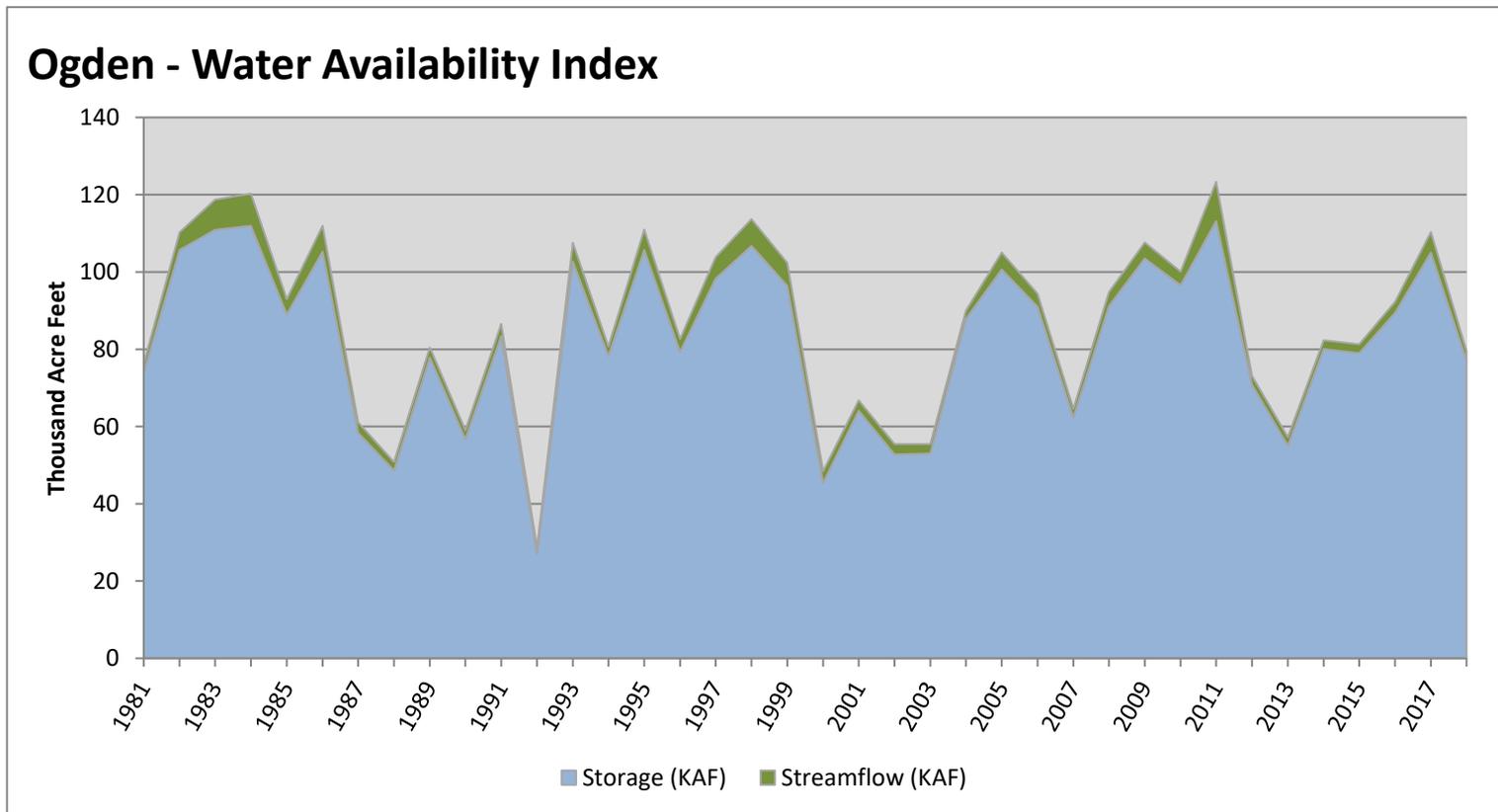


August 1, 2018

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Ogden	77.04	2.50	79.54	33	-1.39	12, 81, 89, 94

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

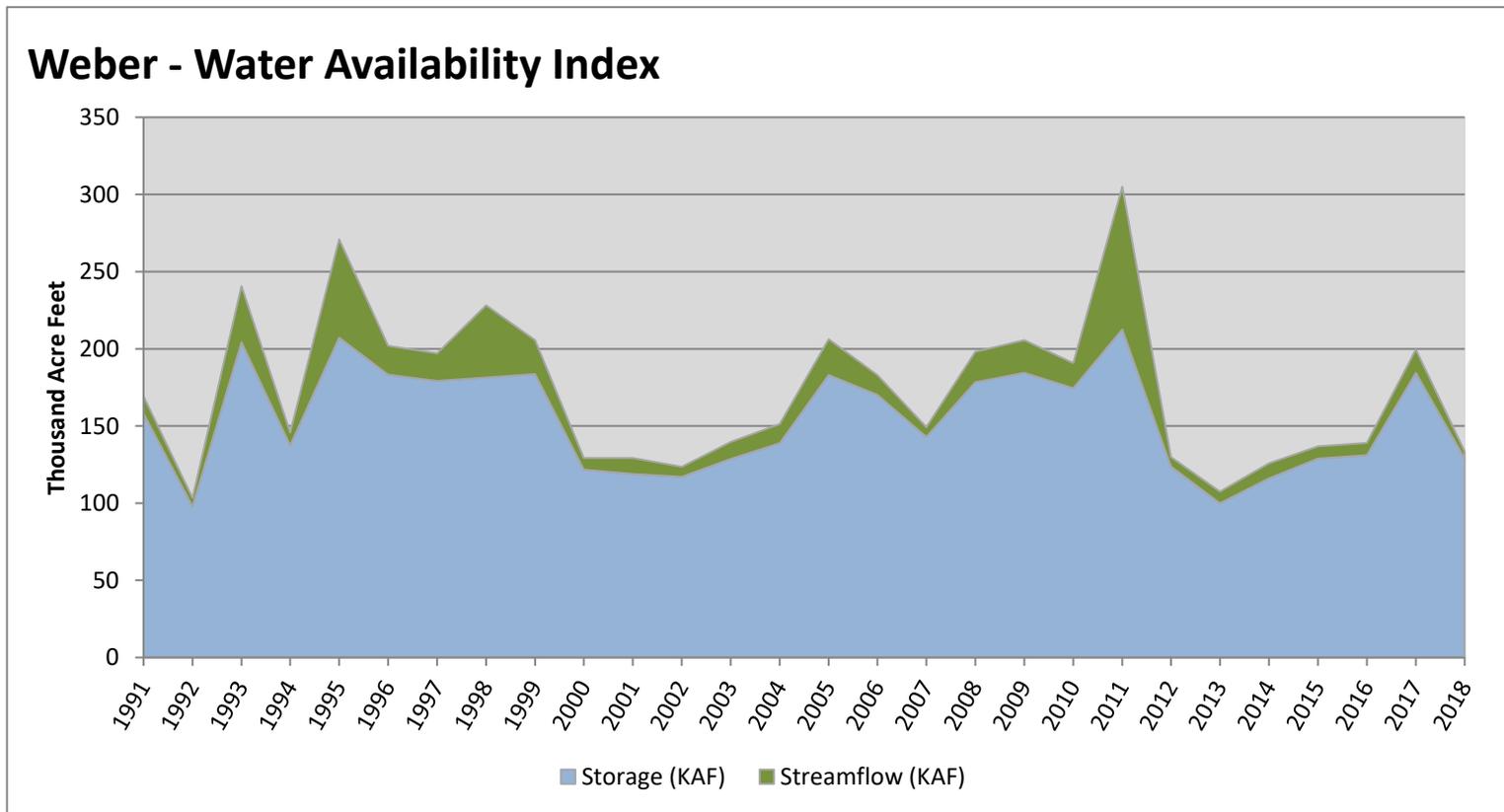


August 1, 2018

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Weber	128.84	4.80	133.64	28	-1.87	00, 12, 15, 16

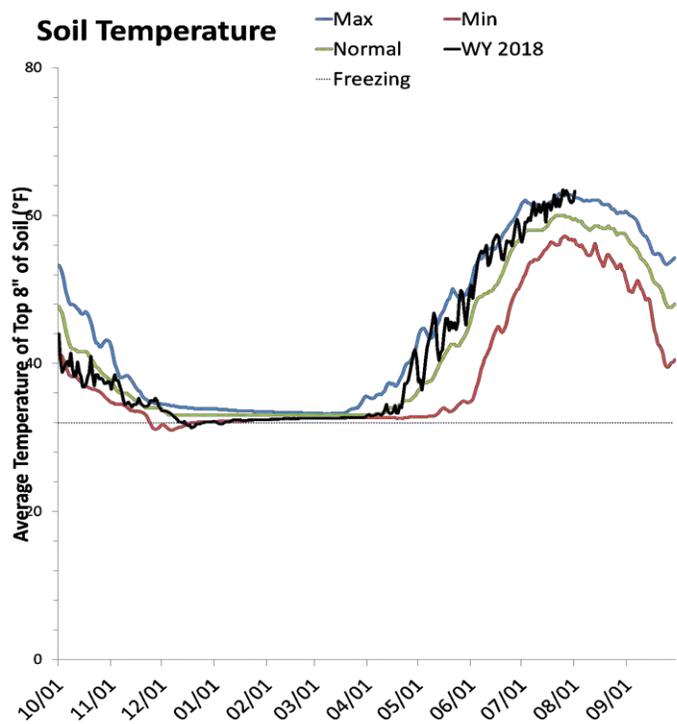
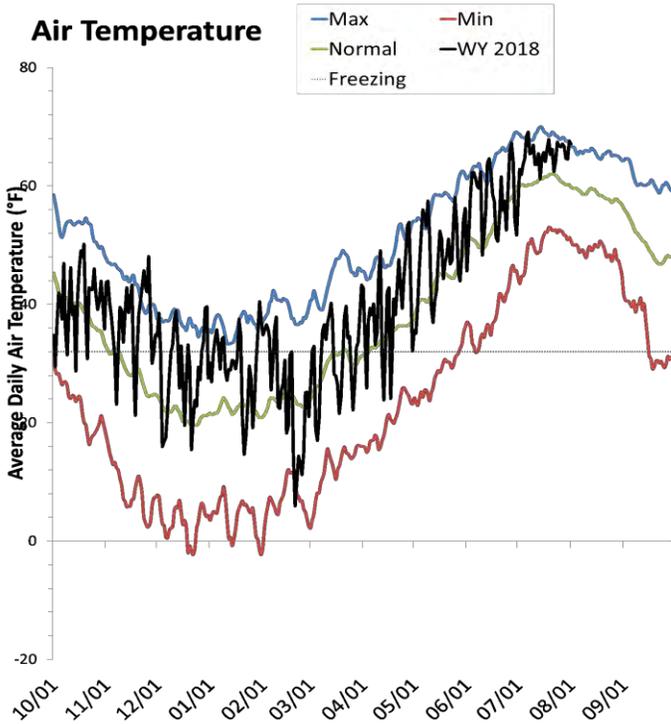
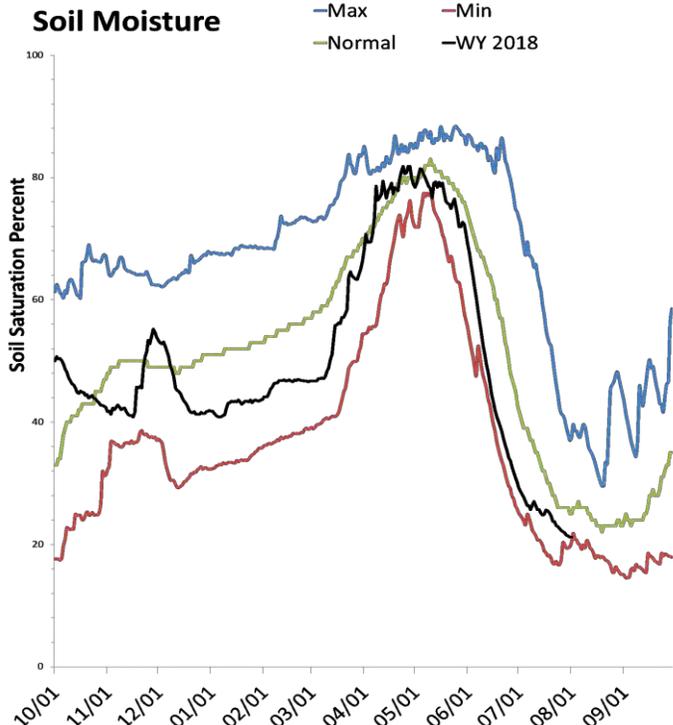
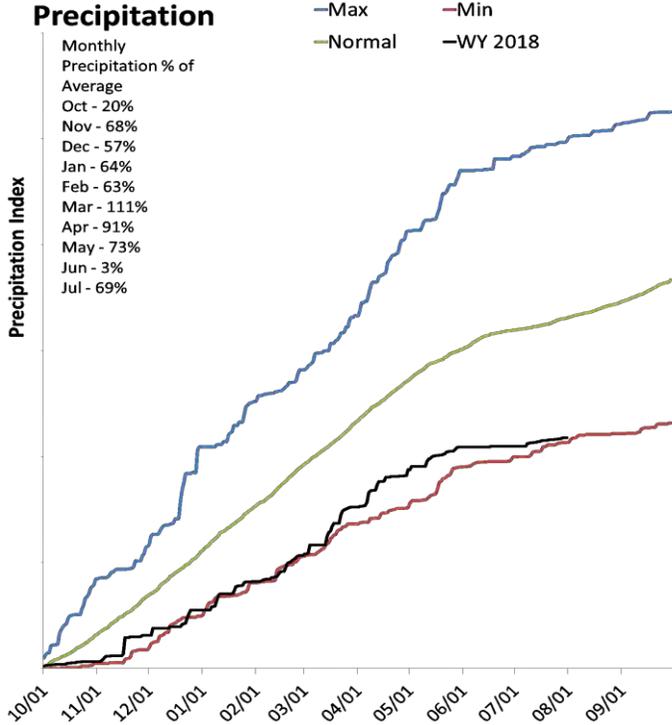
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Provo & Jordan River Basins

August 1, 2018

Precipitation in July was much below average at 68%, which brings the seasonal accumulation (Oct-Jul) to 66% of average. Soil moisture is at 21% compared to 29% last year. Reservoir storage is at 72% of capacity, compared to 81% last year. The water availability index for the Provo River is 42%.



*Min, Max, and Normal lines created using a 5 day moving average of historical data.

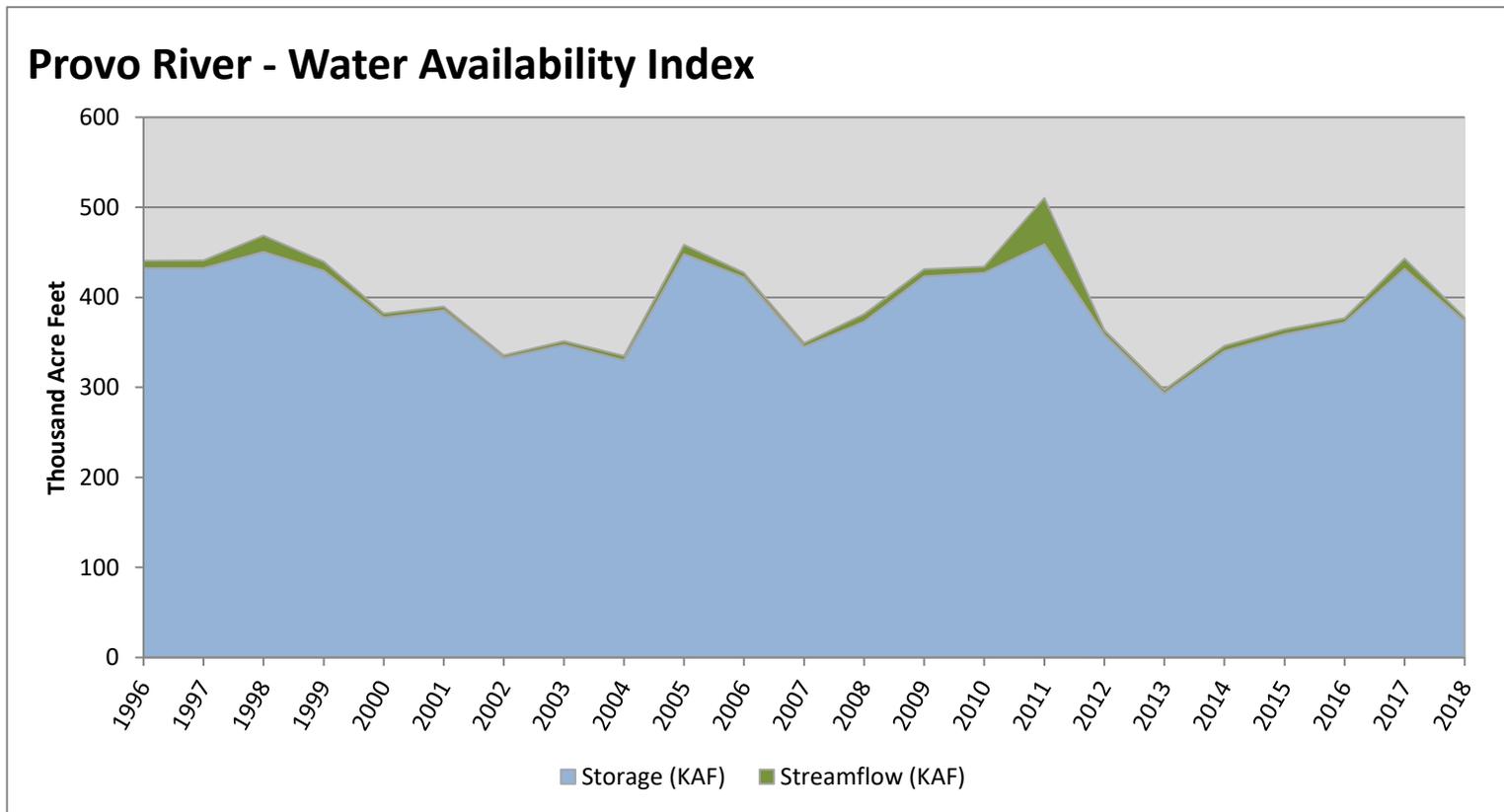
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2018

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Provo River	373.24	4.38	377.62	42	-0.69	15, 16, 08, 00

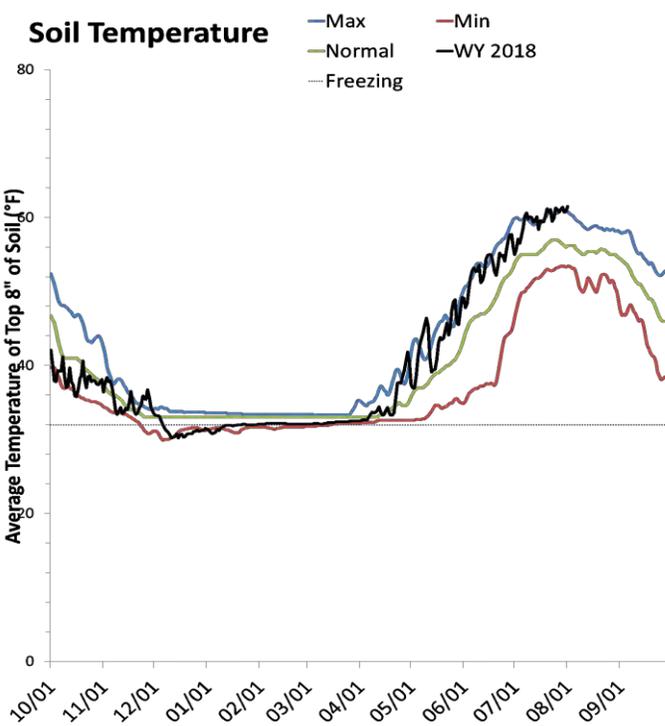
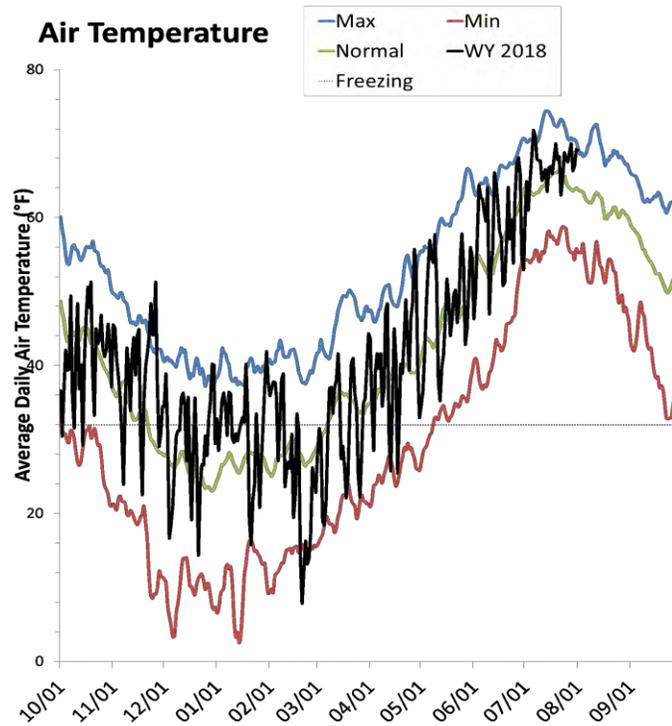
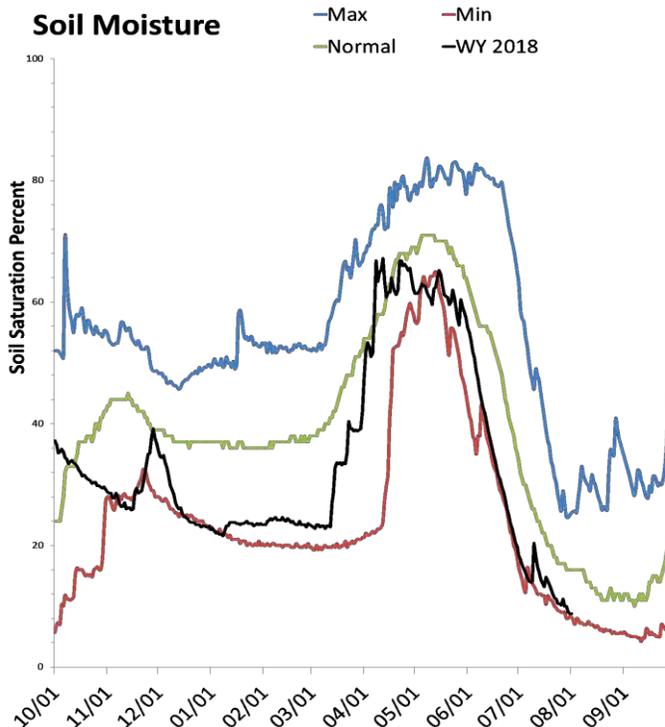
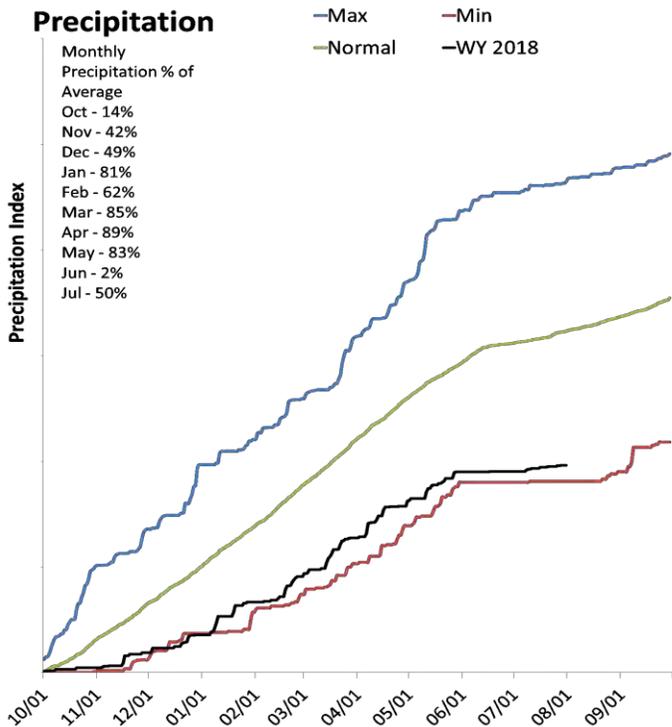
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Tooele Valley & West Desert Basins

August 1, 2018

Precipitation in July was much below average at 49%, which brings the seasonal accumulation (Oct-Jul) to 61% of average. Soil moisture is at 9% compared to 17% last year. Reservoir storage is at 36% of capacity, compared to 58% last year.



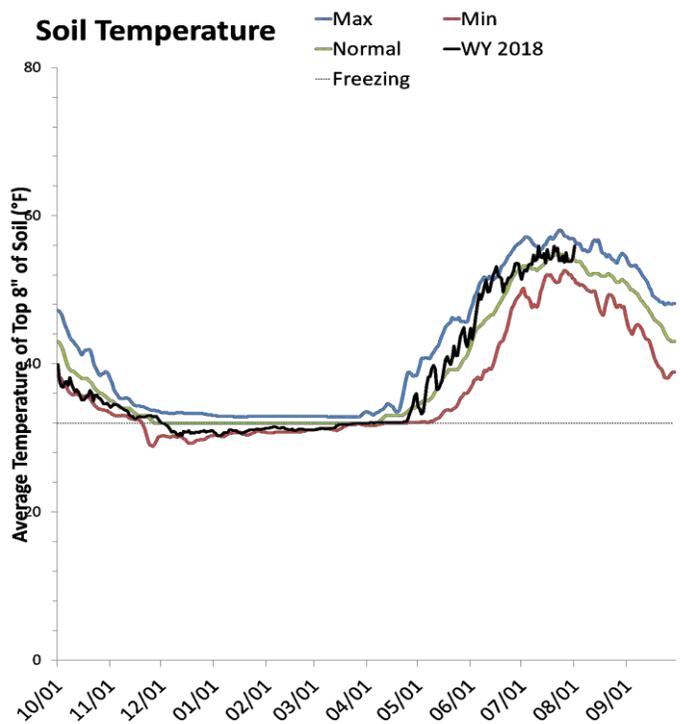
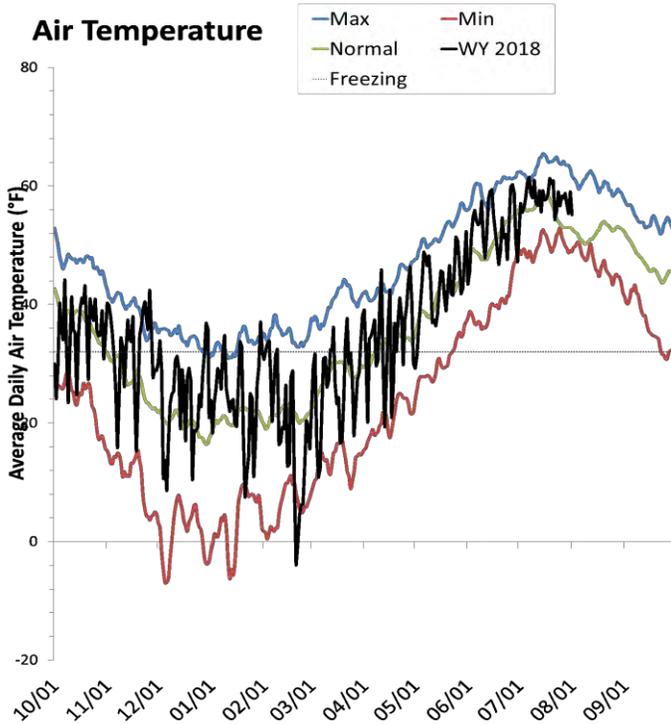
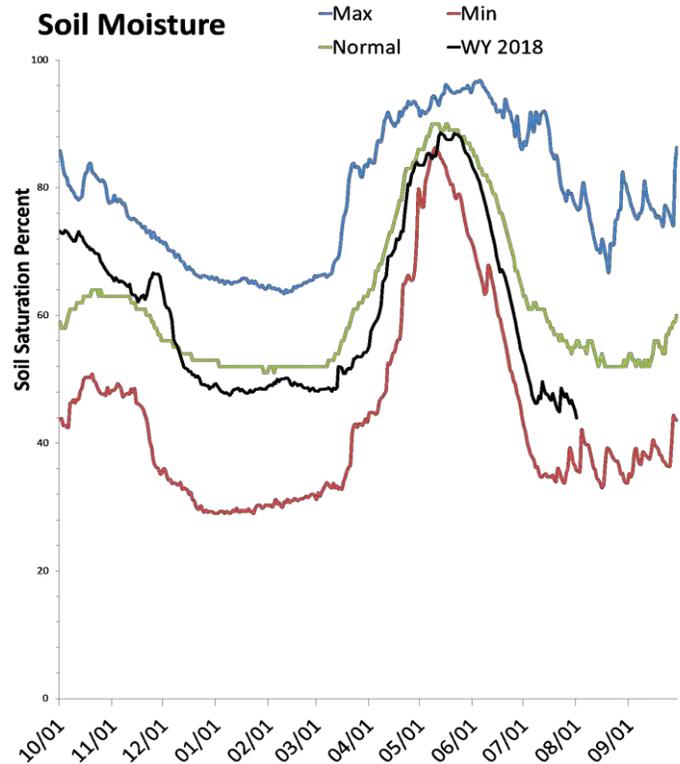
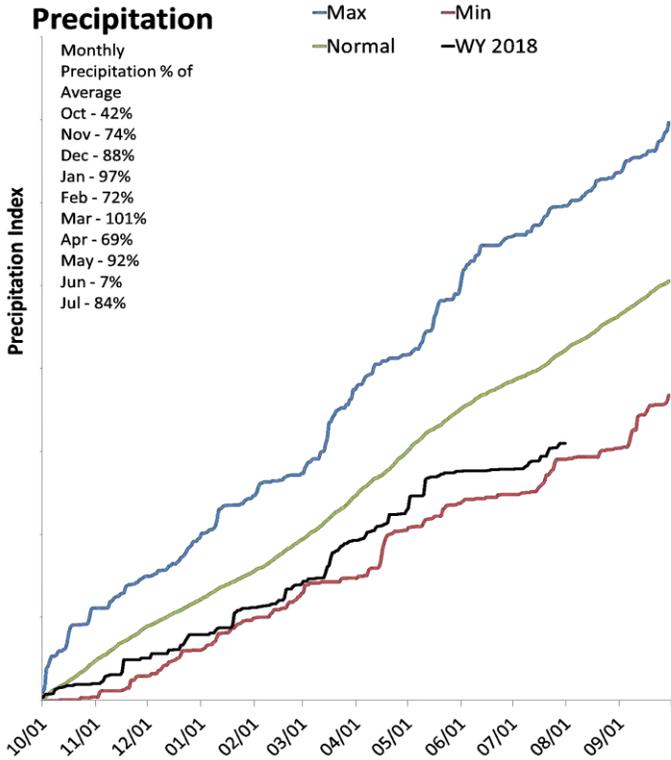
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

*Min, Max, and Normal lines created using a 5 day moving average of historical data.

Northeastern Uinta Basin

August 1, 2018

Precipitation in July was below average at 84%, which brings the seasonal accumulation (Oct-Jul) to 73% of average. Soil moisture is at 42% compared to 64% last year. Reservoir storage is at 93% of capacity, compared to 94% last year. The water availability index for Blacks Fork is 19% and 26% for Smiths Creek.



*Min, Max, and Normal lines created using a 5 day moving average of historical data.

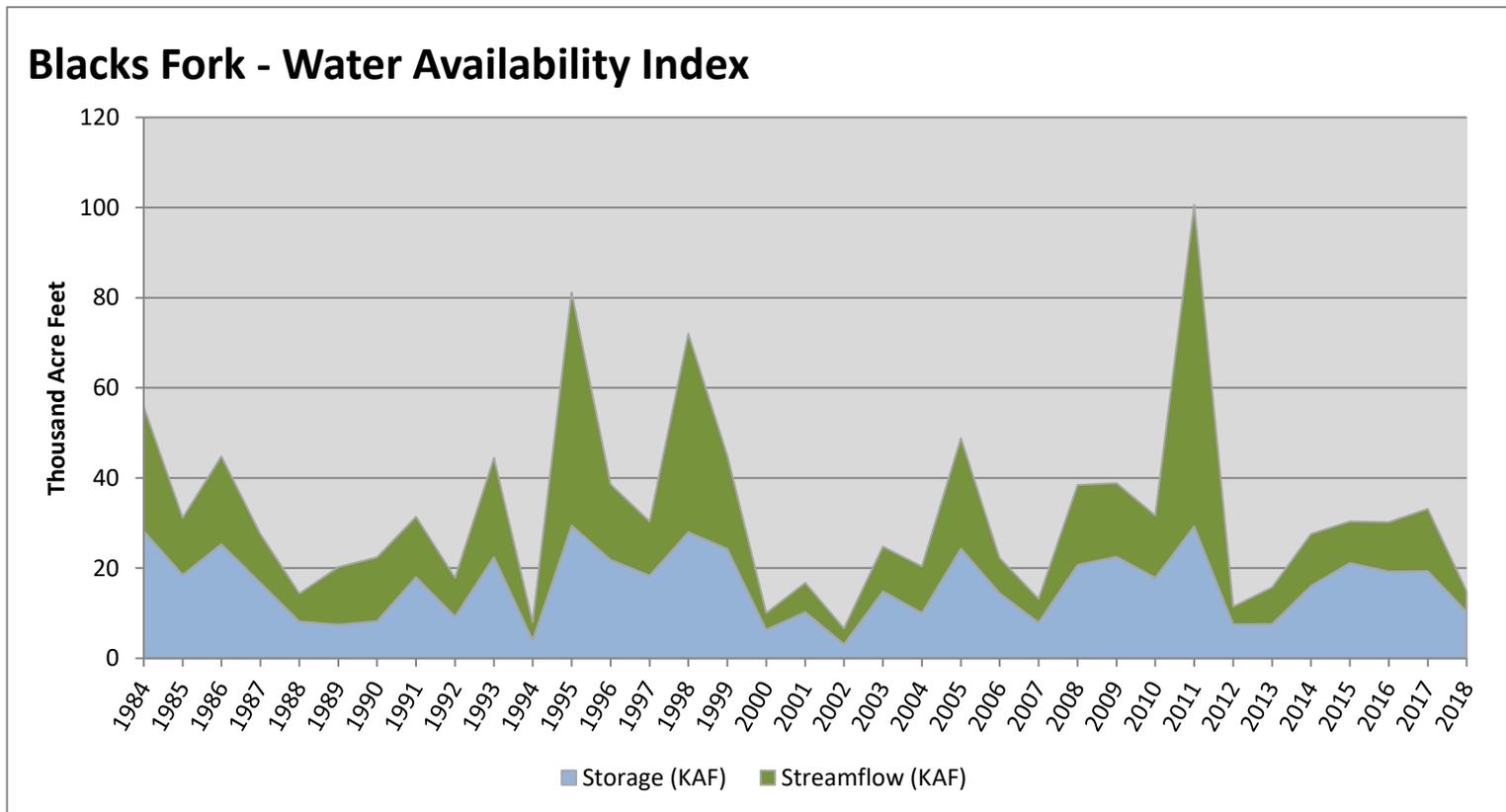
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2018

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Blacks Fork	10.35	4.49	14.84	19	-2.55	07, 88, 13, 01

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

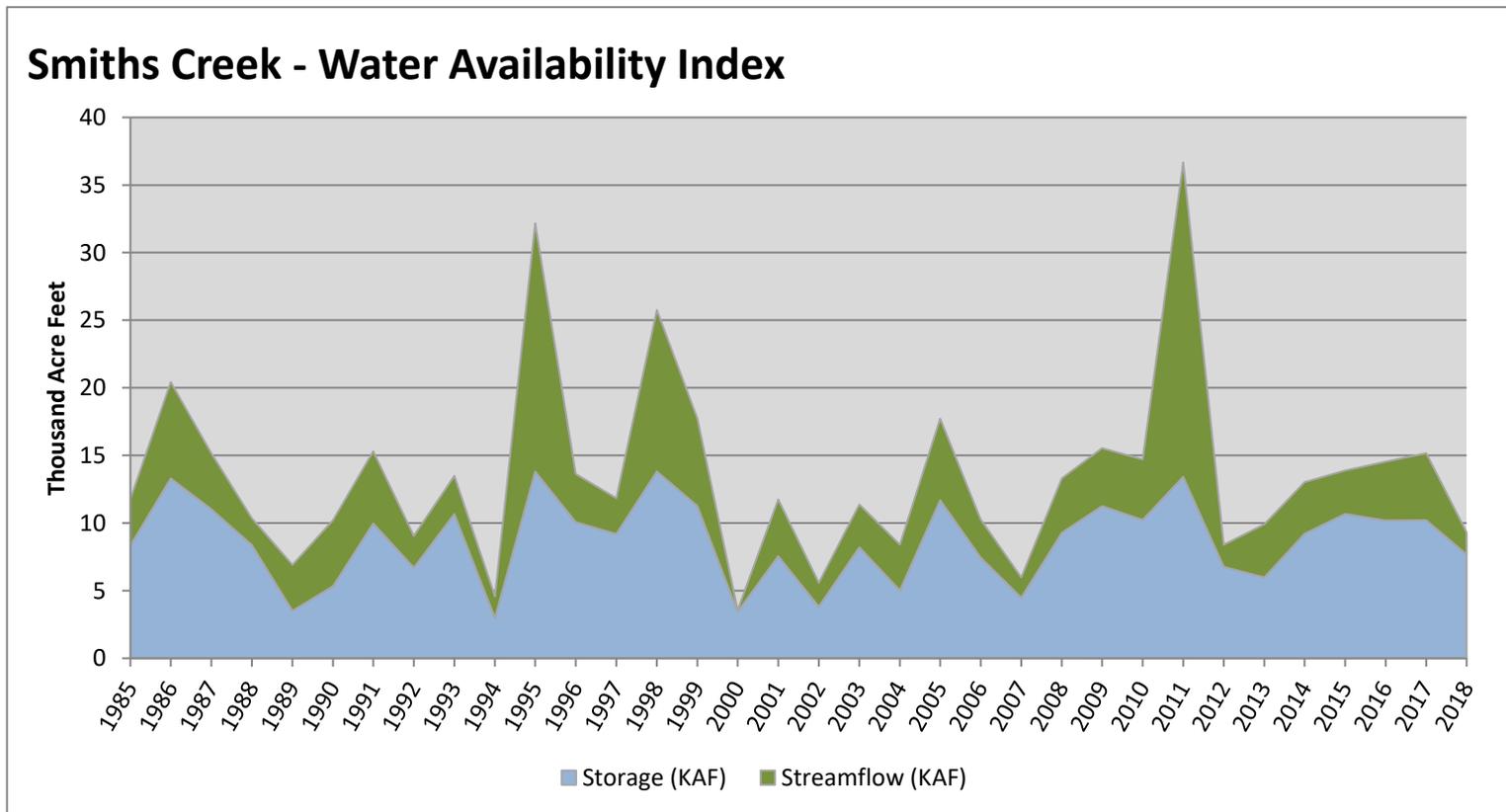


August 1, 2018

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Smiths Creek	7.67	1.64	9.31	26	-2.02	12, 92, 13, 90

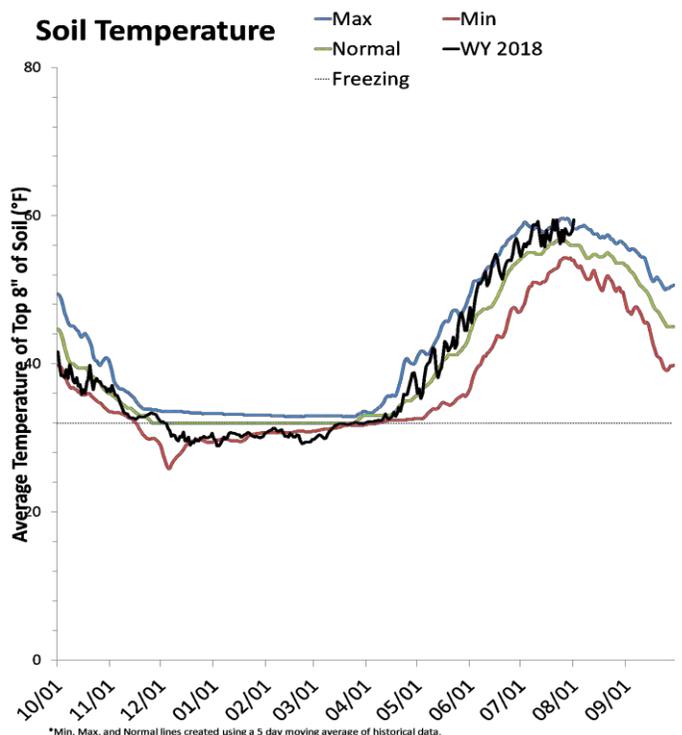
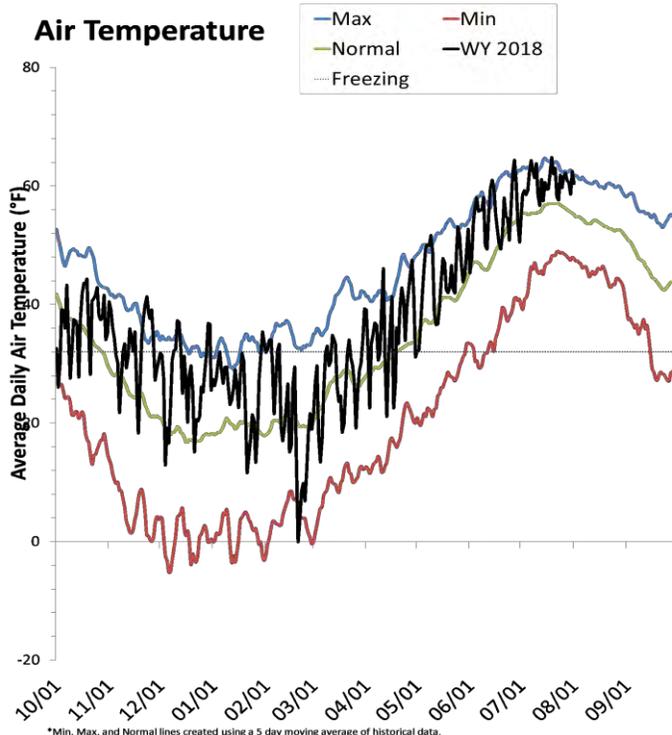
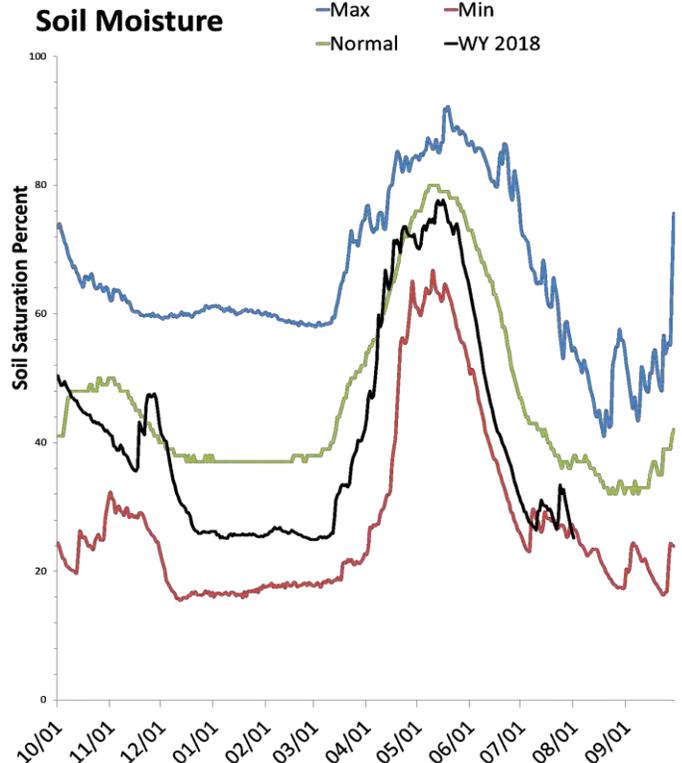
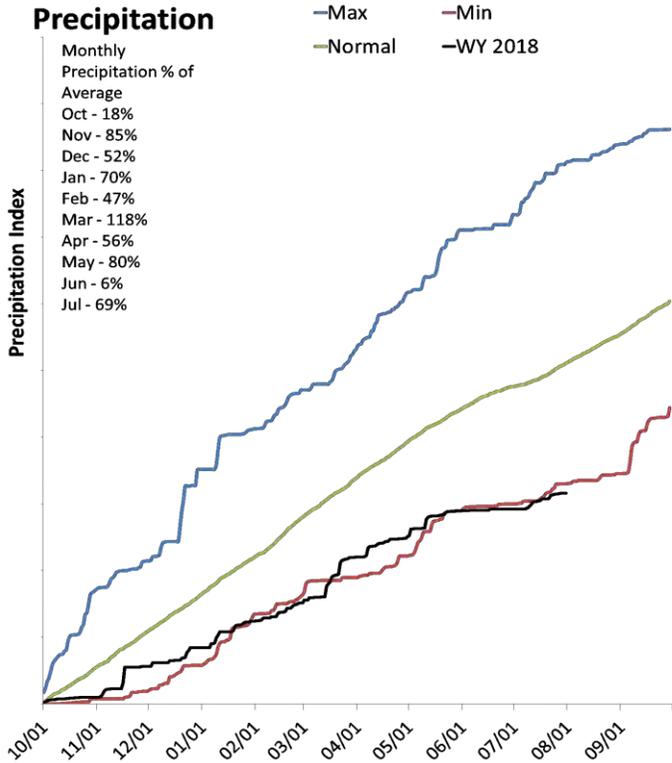
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Duchesne River Basin

August 1, 2018

Precipitation in July was much below average at 69%, which brings the seasonal accumulation (Oct-Jul) to 62% of average. Soil moisture is at 26% compared to 39% last year. Reservoir storage is at 75% of capacity, compared to 85% last year. The water availability index for the Western Uintas is 28% and 8% for the Eastern Uintas.

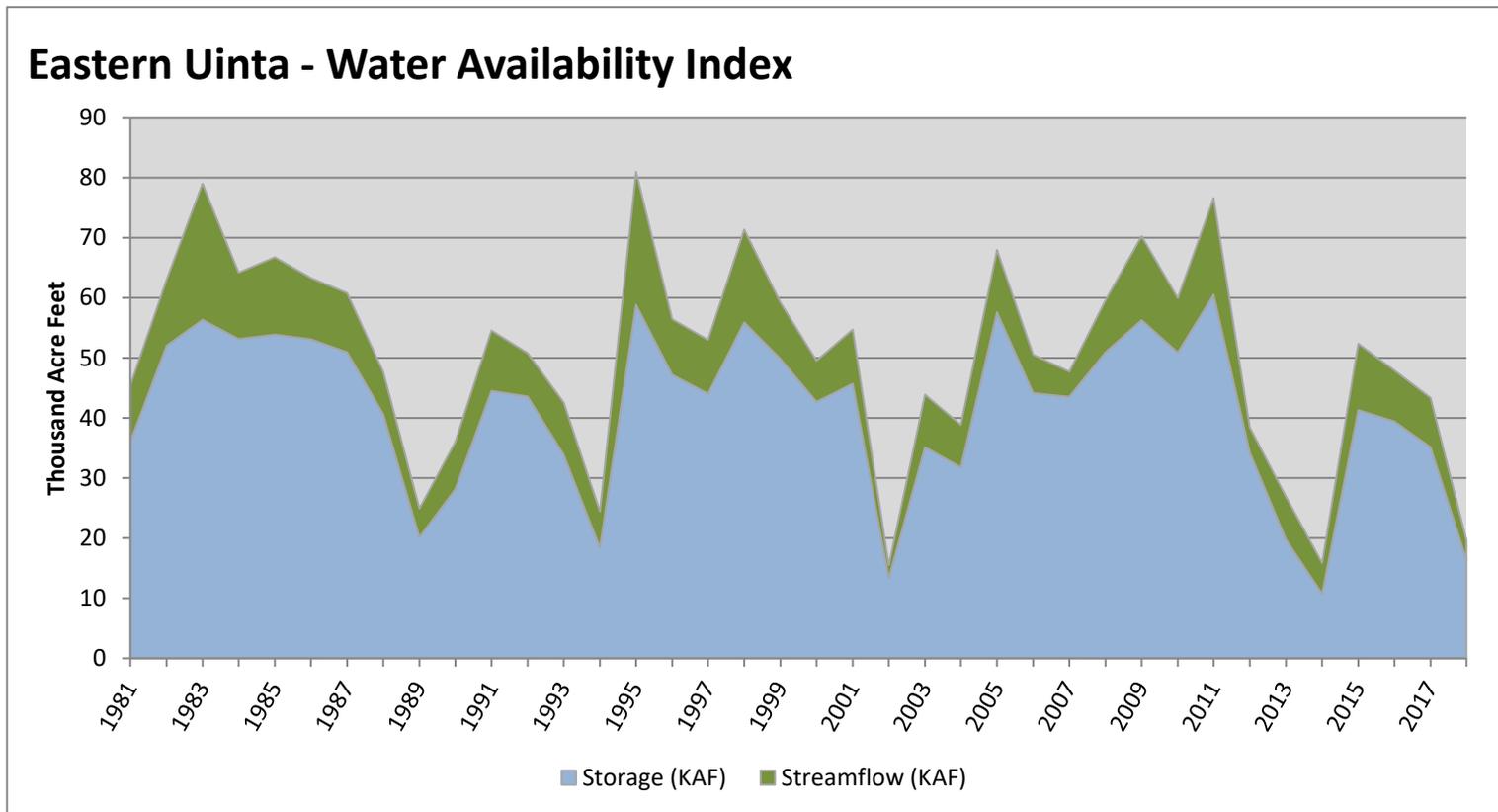


August 1, 2018

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Eastern Uinta	16.33	3.24	19.57	8	-3.53	02, 14, 94, 89

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

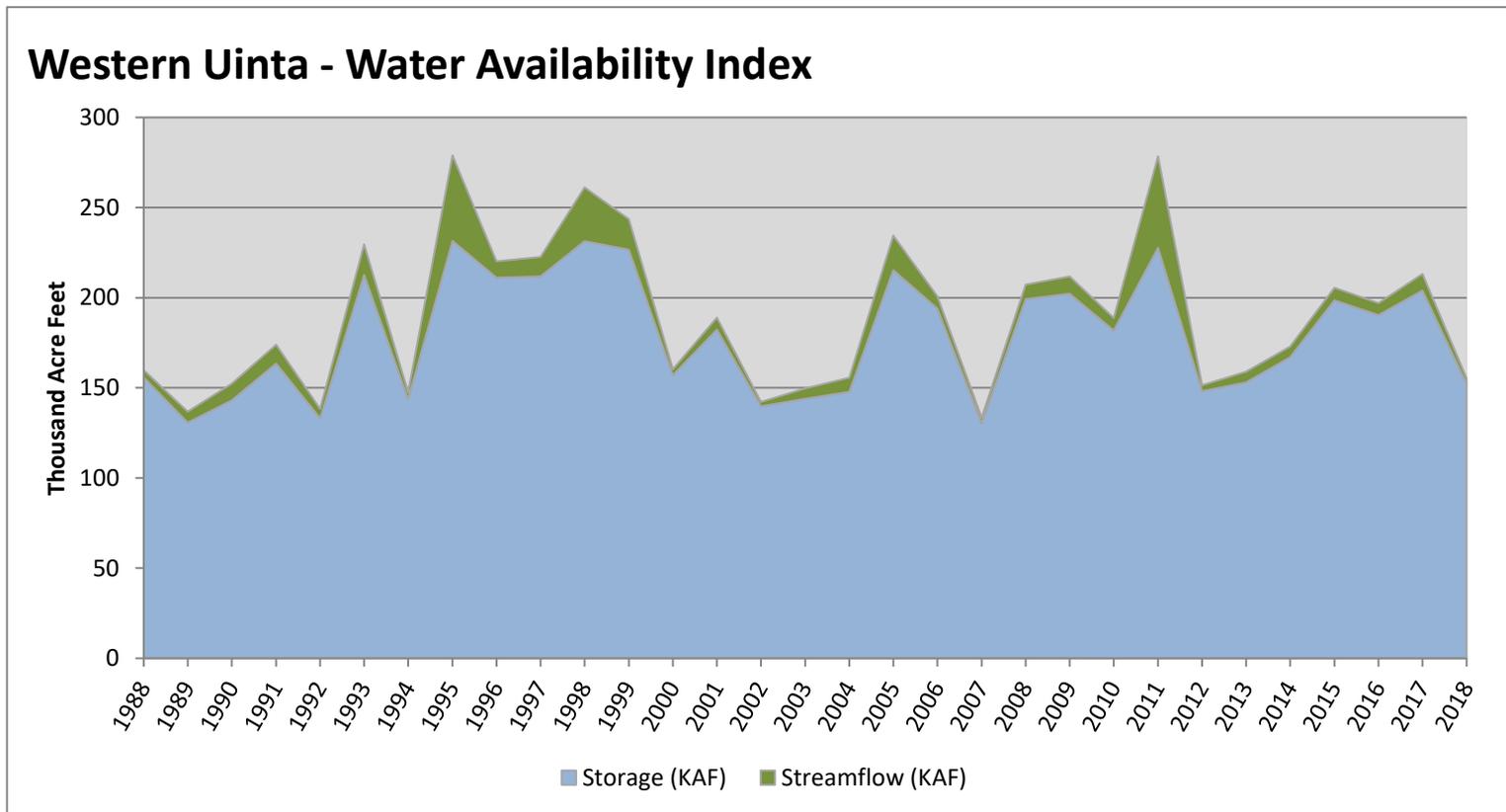


August 1, 2018

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Western Uinta	152.22	3.08	155.30	28	-1.82	12, 90, 04, 13

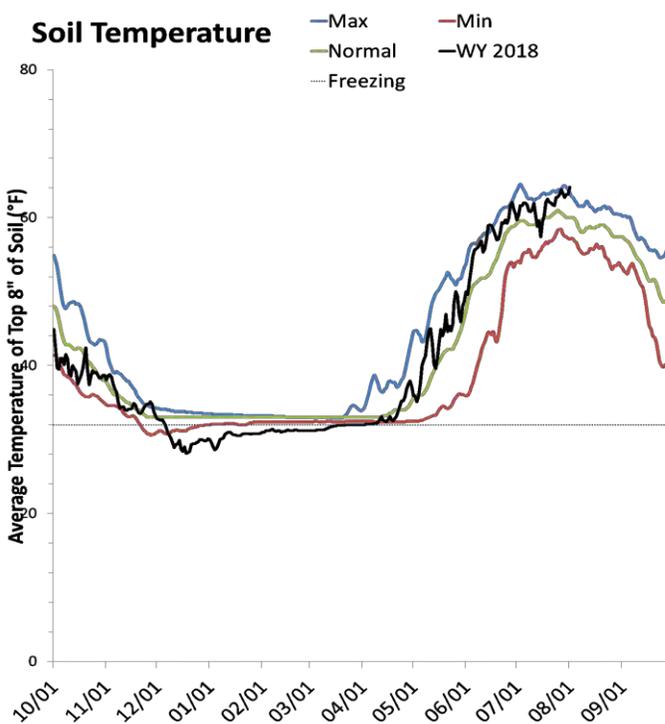
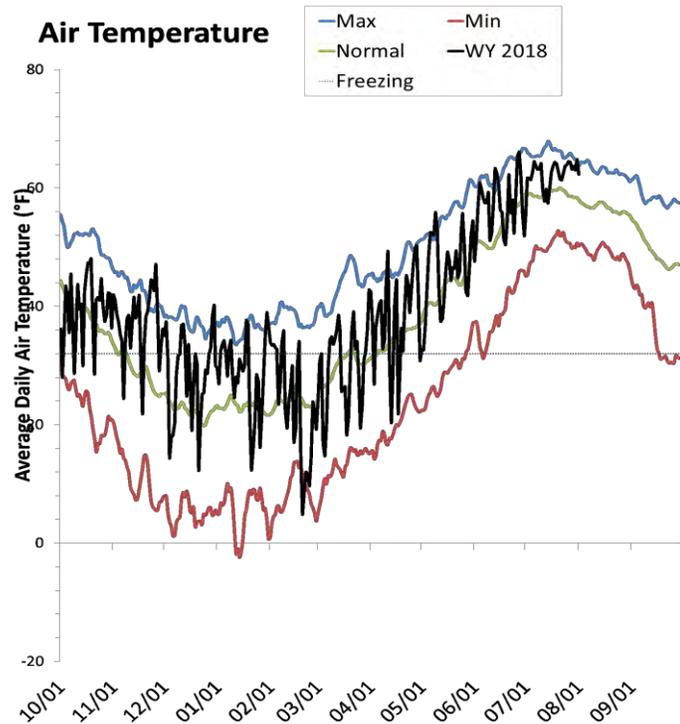
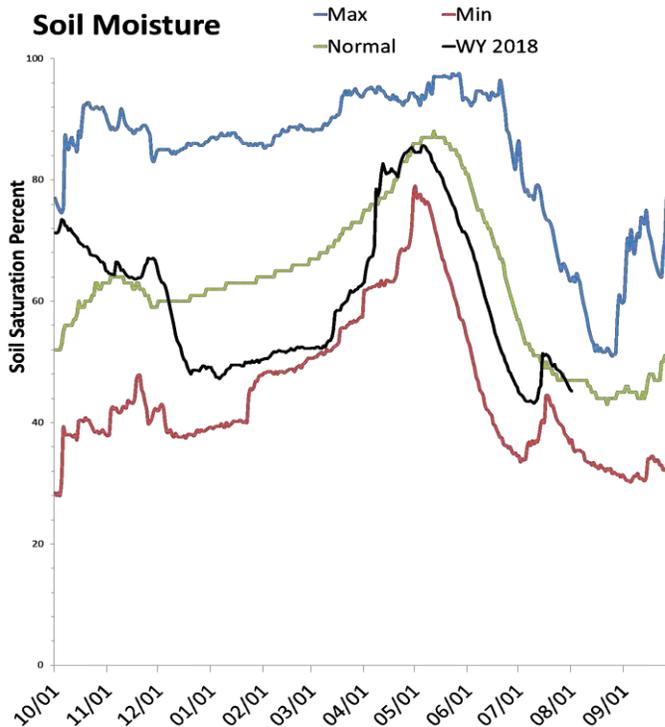
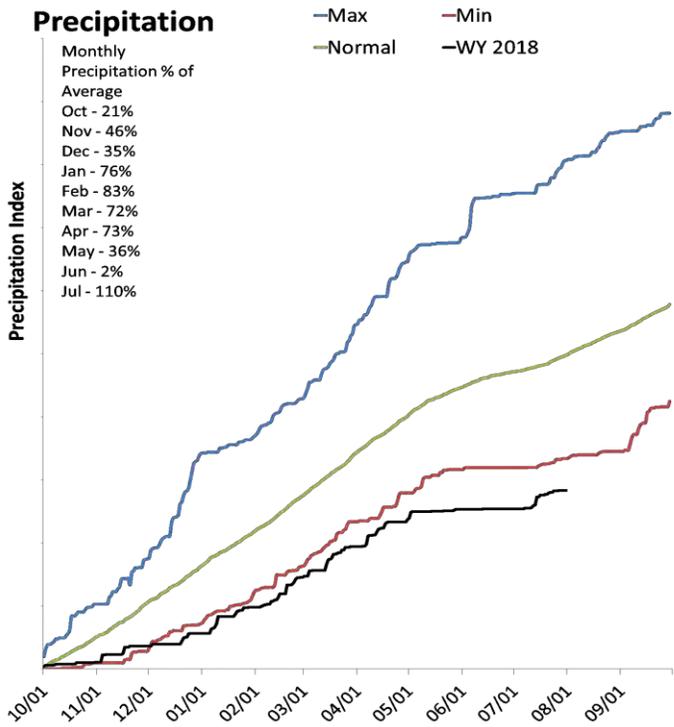
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



San Pitch River Basin

August 1, 2018

Precipitation in July was above average at 111%, which brings the seasonal accumulation (Oct-Jul) to 57% of average. Soil Moisture is at 46% compared to 53% last year. Reservoir storage is at 0% of capacity, compared to 44% last year. The water availability index for the San Pitch is 3%.



*Min, Max, and Normal lines created using a 5 day moving average of historical data.

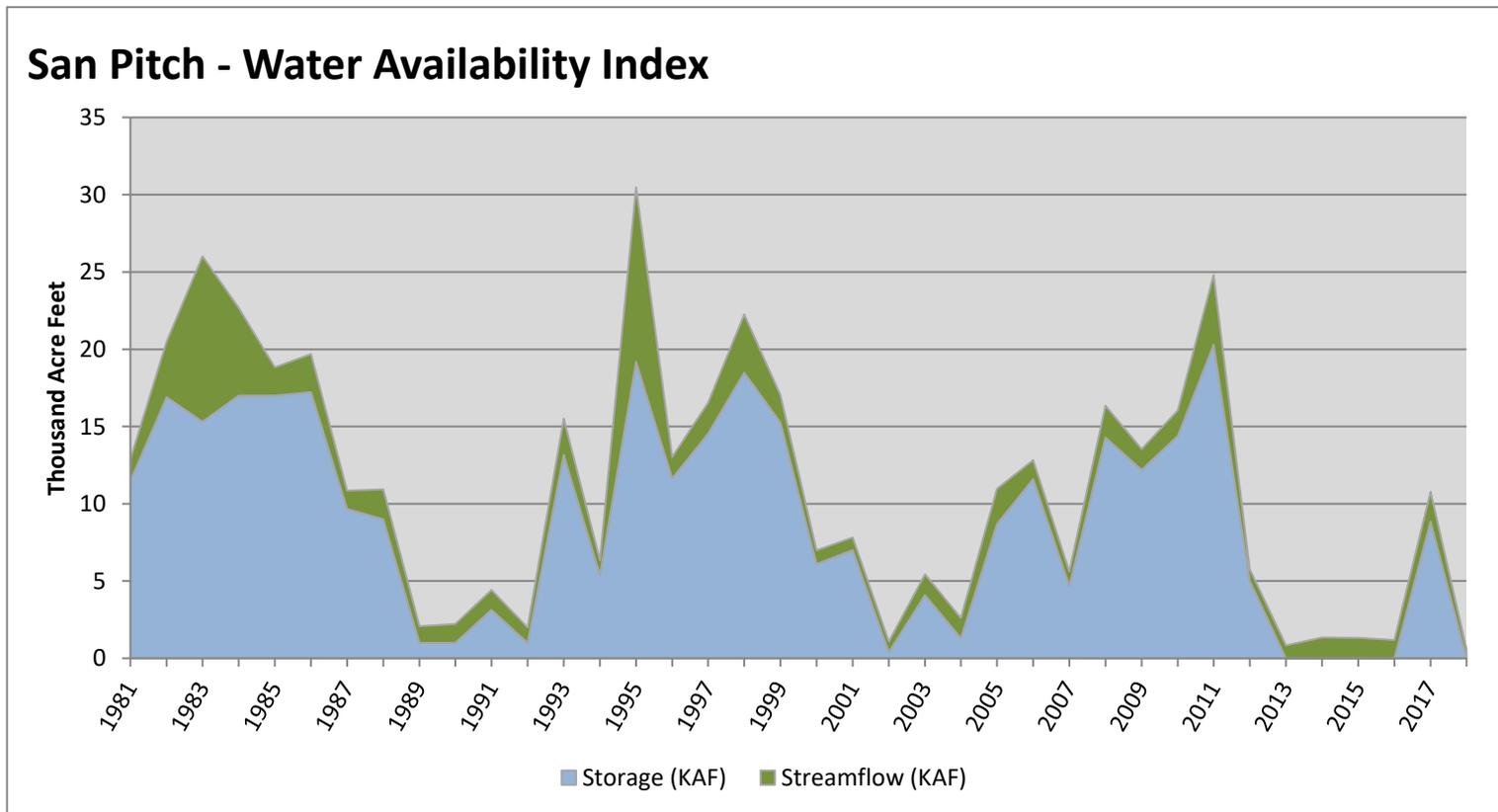
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2018

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
San Pitch	0.00	0.59	0.59	3	-3.95	13, 02, 16, 15

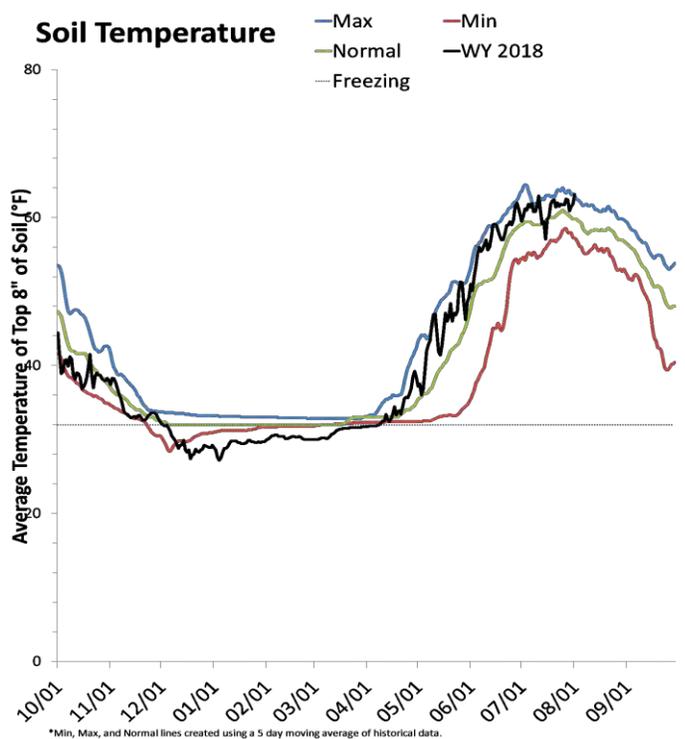
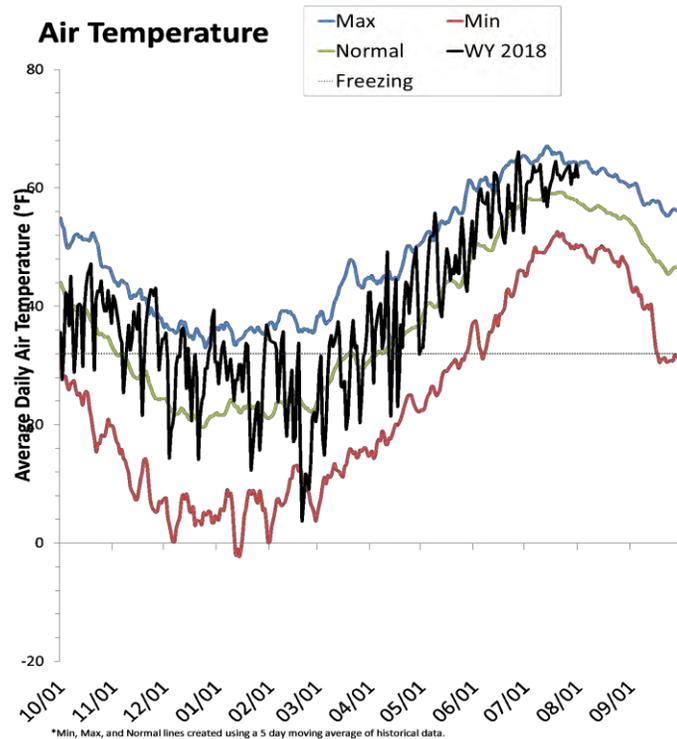
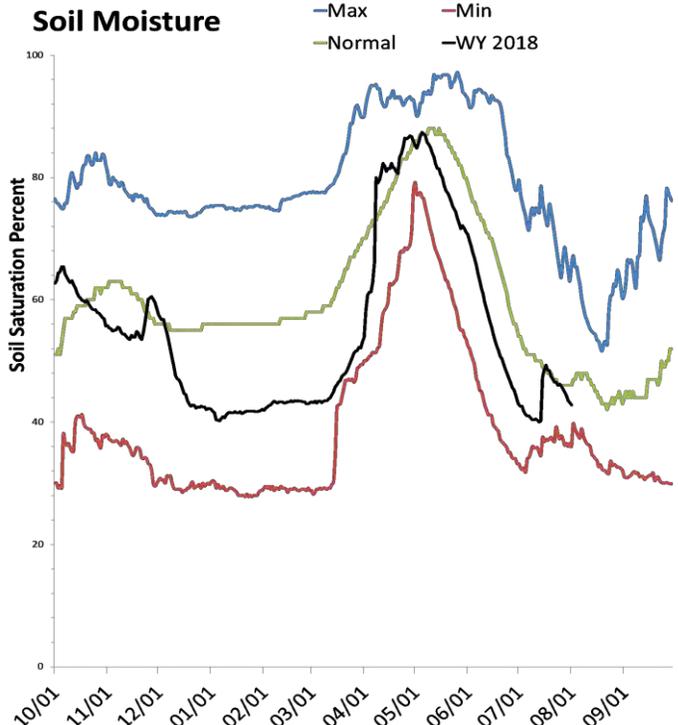
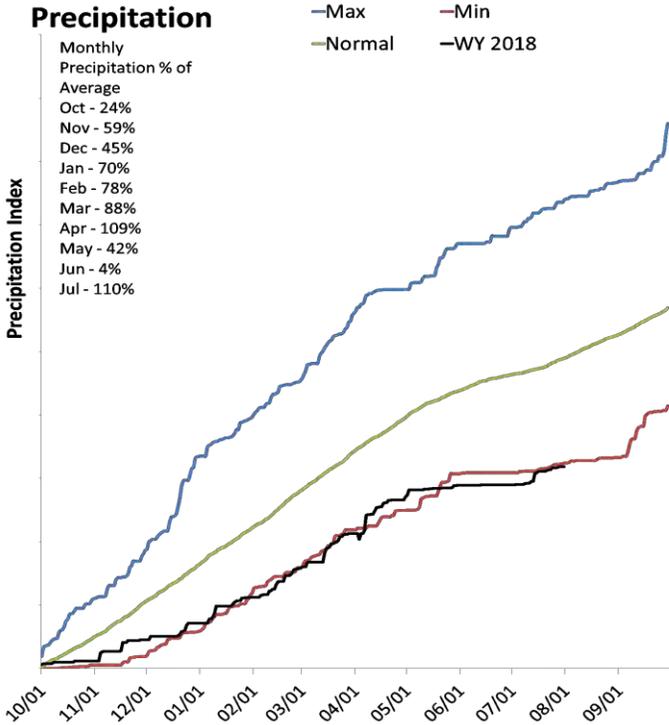
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Price & San Rafael Basins

August 1, 2018

Precipitation in July was near average at 109%, which brings the seasonal accumulation (Oct-Jul) to 65% of average. Soil moisture is at 43% compared to 55% last year. Reservoir storage is at 54% of capacity, compared to 89% last year. The water availability index for the Price River is 46%, and 13% for Joe's Valley.



*Min, Max, and Normal lines created using a 5 day moving average of historical data.

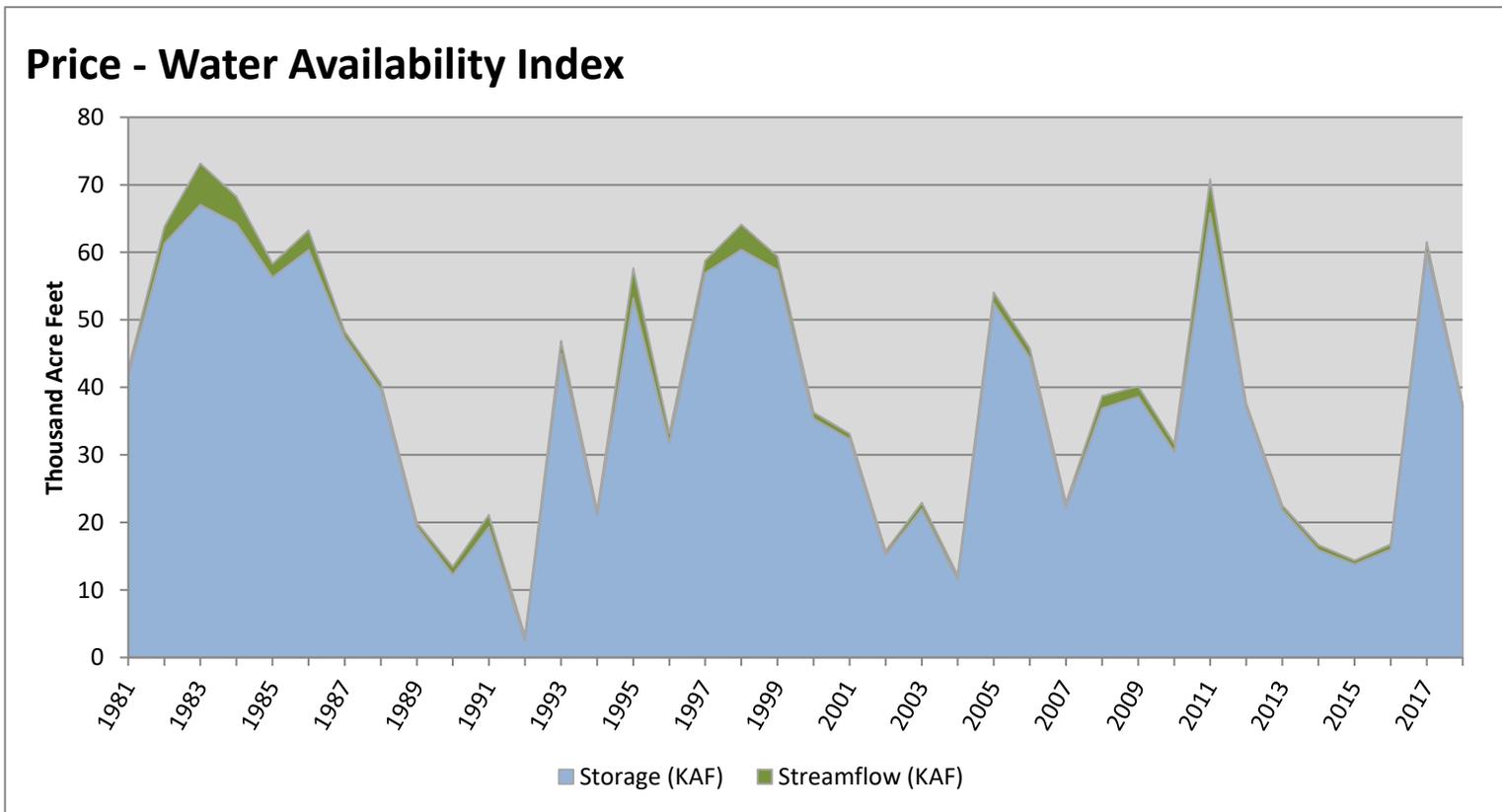
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2018

Water Availability Index

Basin or Region	Jul EOM [*] Storage	July Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Price	37.09	0.40	37.49	46	-0.32	96, 00, 12, 08

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

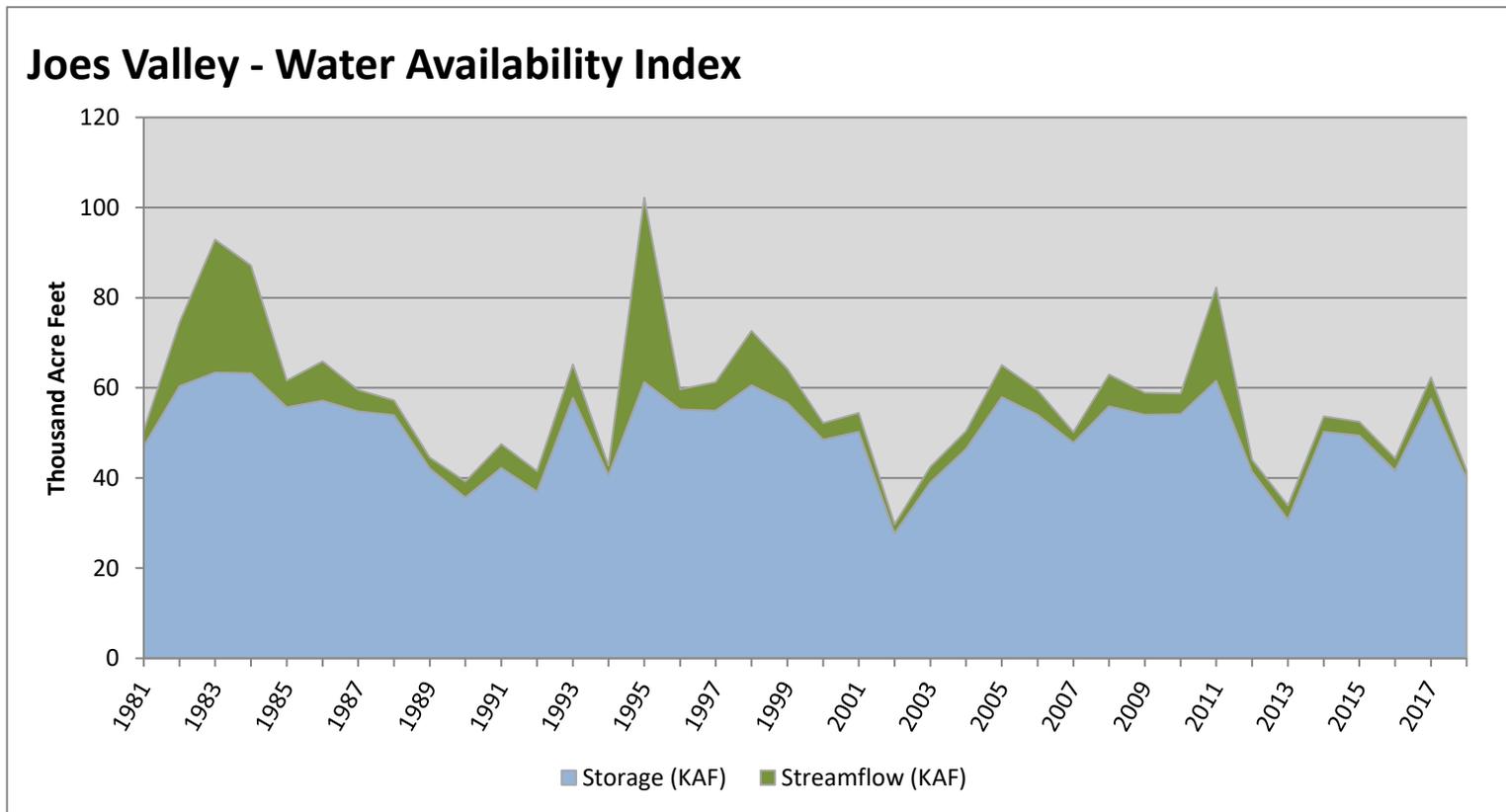


August 1, 2018

Water Availability Index

Basin or Region	Jul EOM [*] Storage	July Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Joese Valley	39.80	1.81	41.61	13	-3.1	90, 92, 03, 94

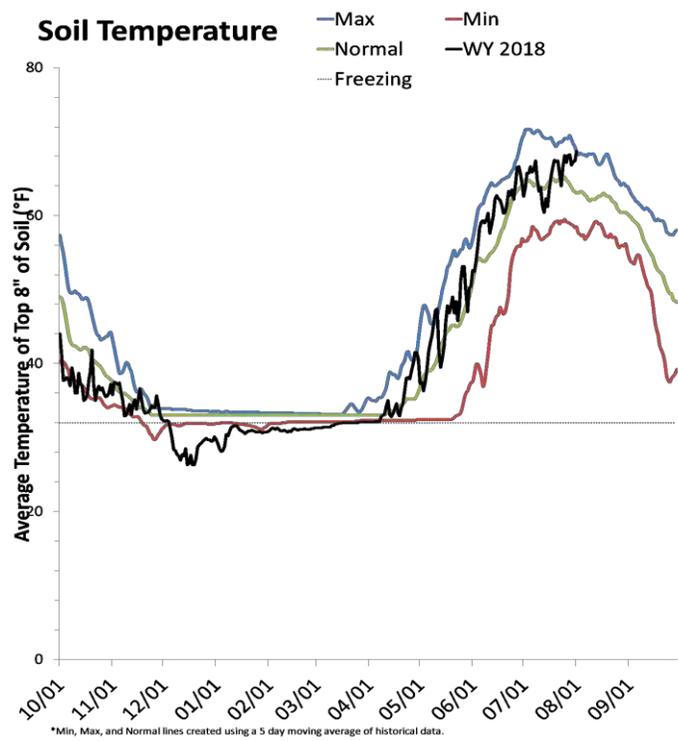
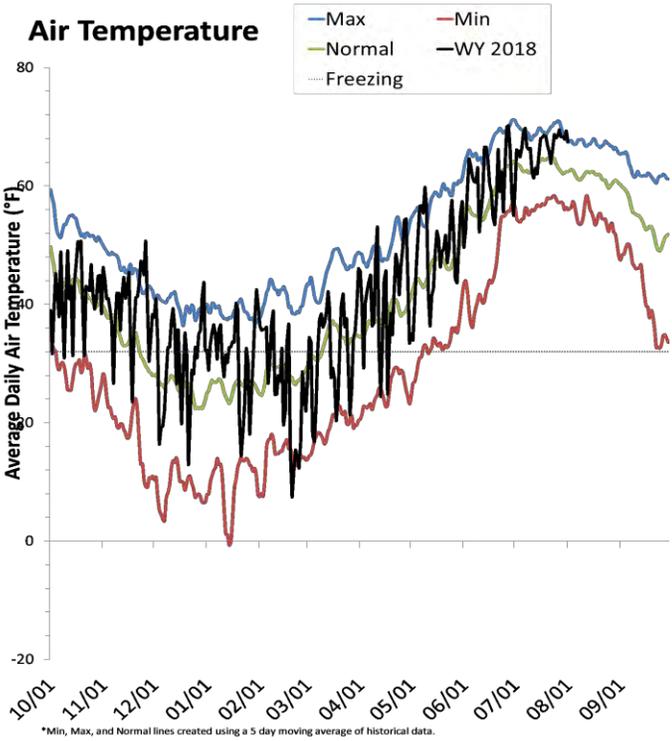
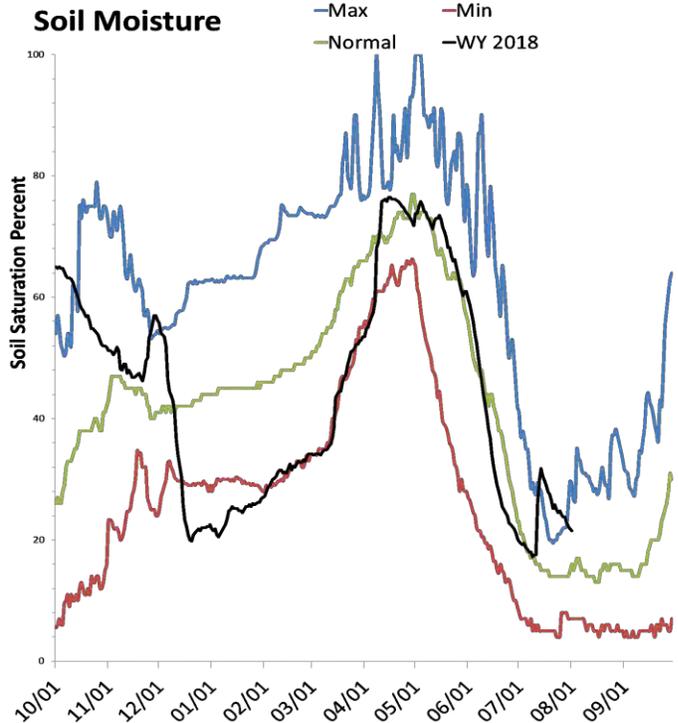
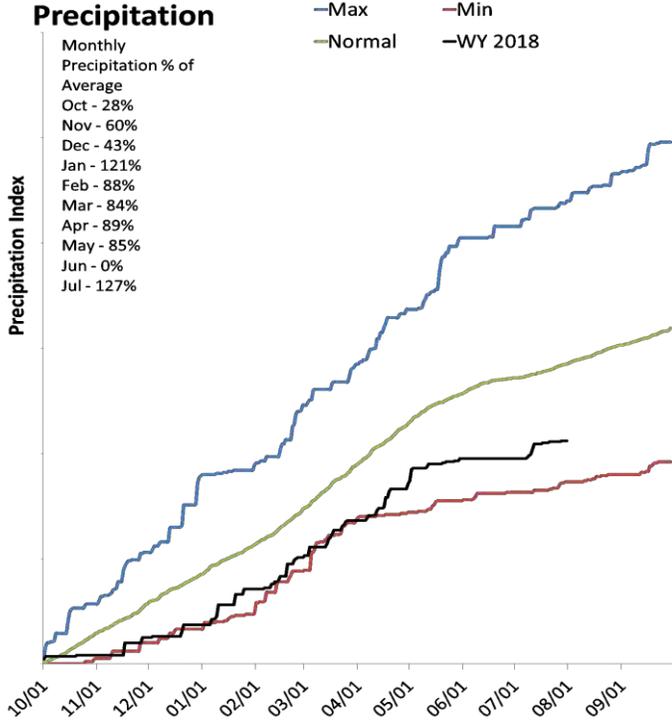
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Lower Sevier Basin

August 1, 2018

Precipitation in July was much above average at 131%, which brings the seasonal accumulation (Oct-Jul) to 74% of average. Soil moisture is at 22% compared to 21% last year. Reservoir storage is at 8% of capacity, compared to 11% last year. The water availability index for the Lower Sevier is 8%.



*Min, Max, and Normal lines created using a 5 day moving average of historical data.

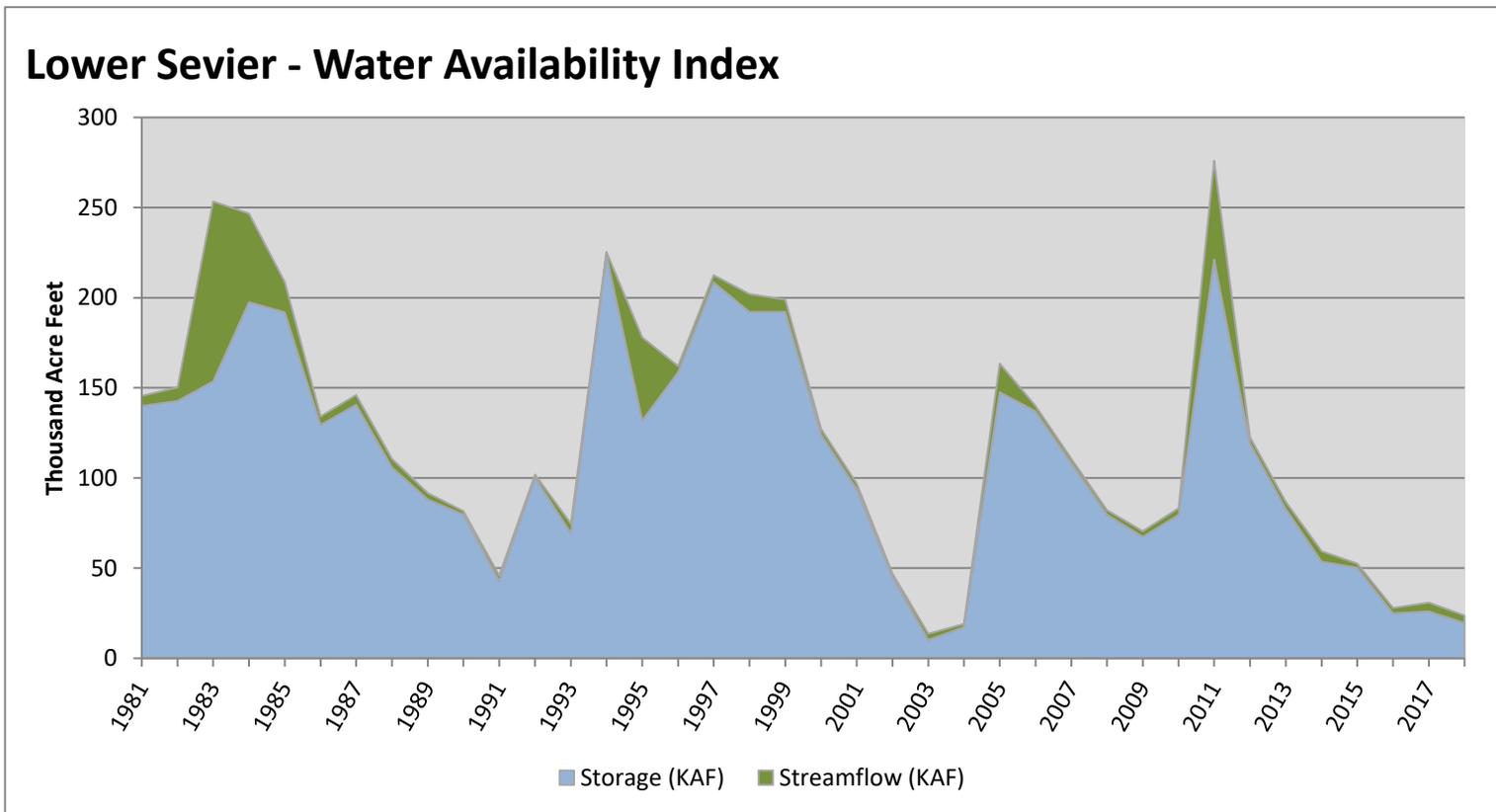
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2018

Water Availability Index

Basin or Region	Jul EOM [*] Storage	July Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Lower Sevier	19.58	4.12	23.70	8	-3.53	03, 04, 16, 17

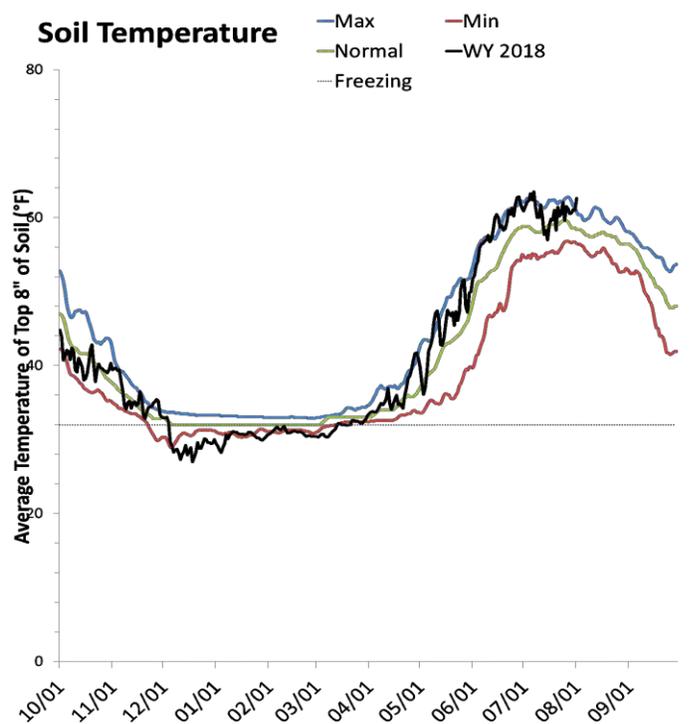
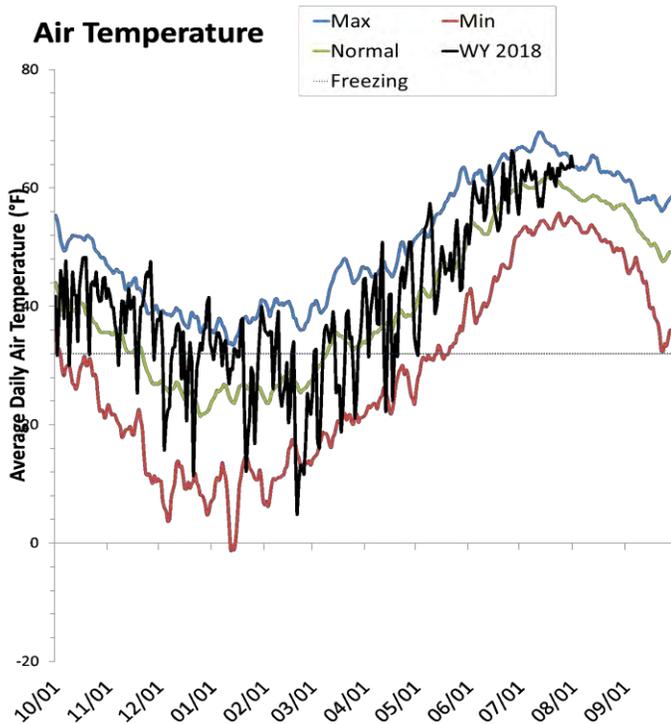
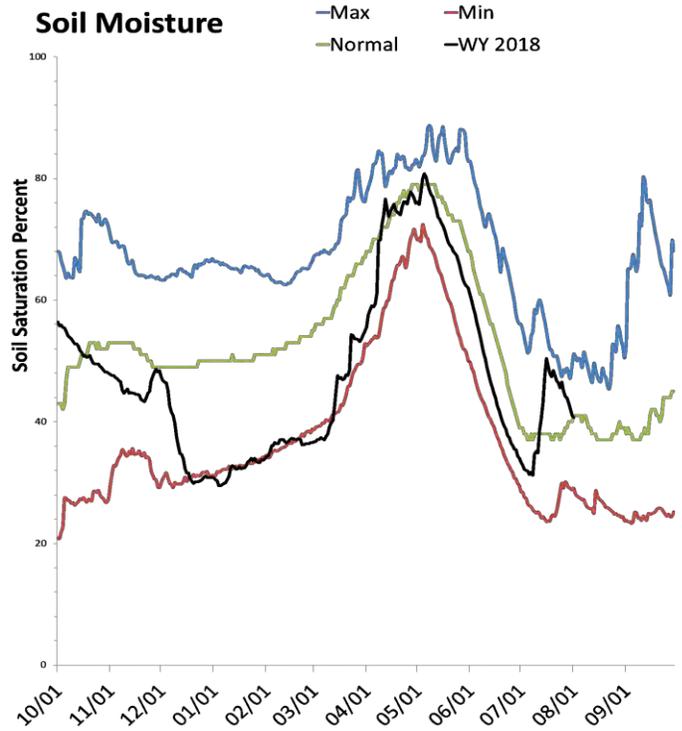
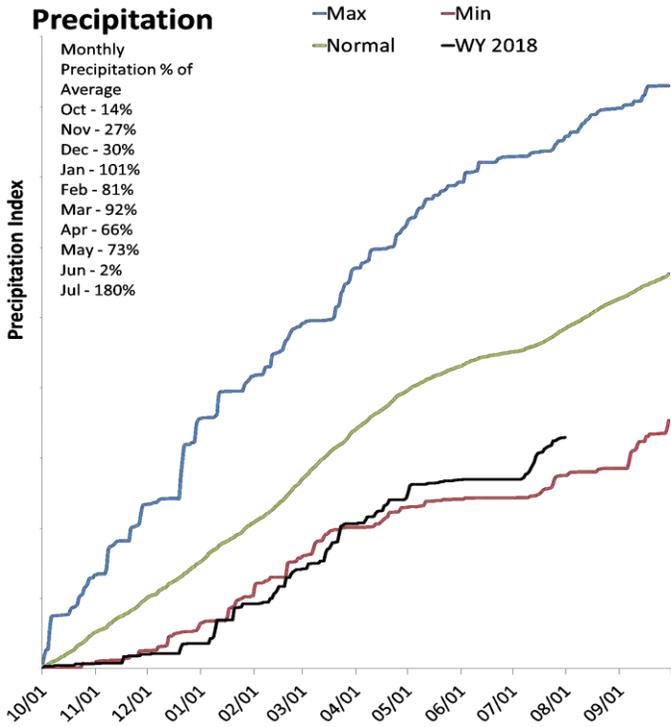
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Upper Sevier Basin

August 1, 2018

Precipitation in July was much above average at 179%, which brings the seasonal accumulation (Oct-Jul) to 68% of average. Soil moisture is at 40% compared to 46% last year. Reservoir storage is at 23% of capacity, compared to 42% last year. The water availability index for the Upper Sevier is 10%.



*Min, Max, and Normal lines created using a 5 day moving average of historical data.

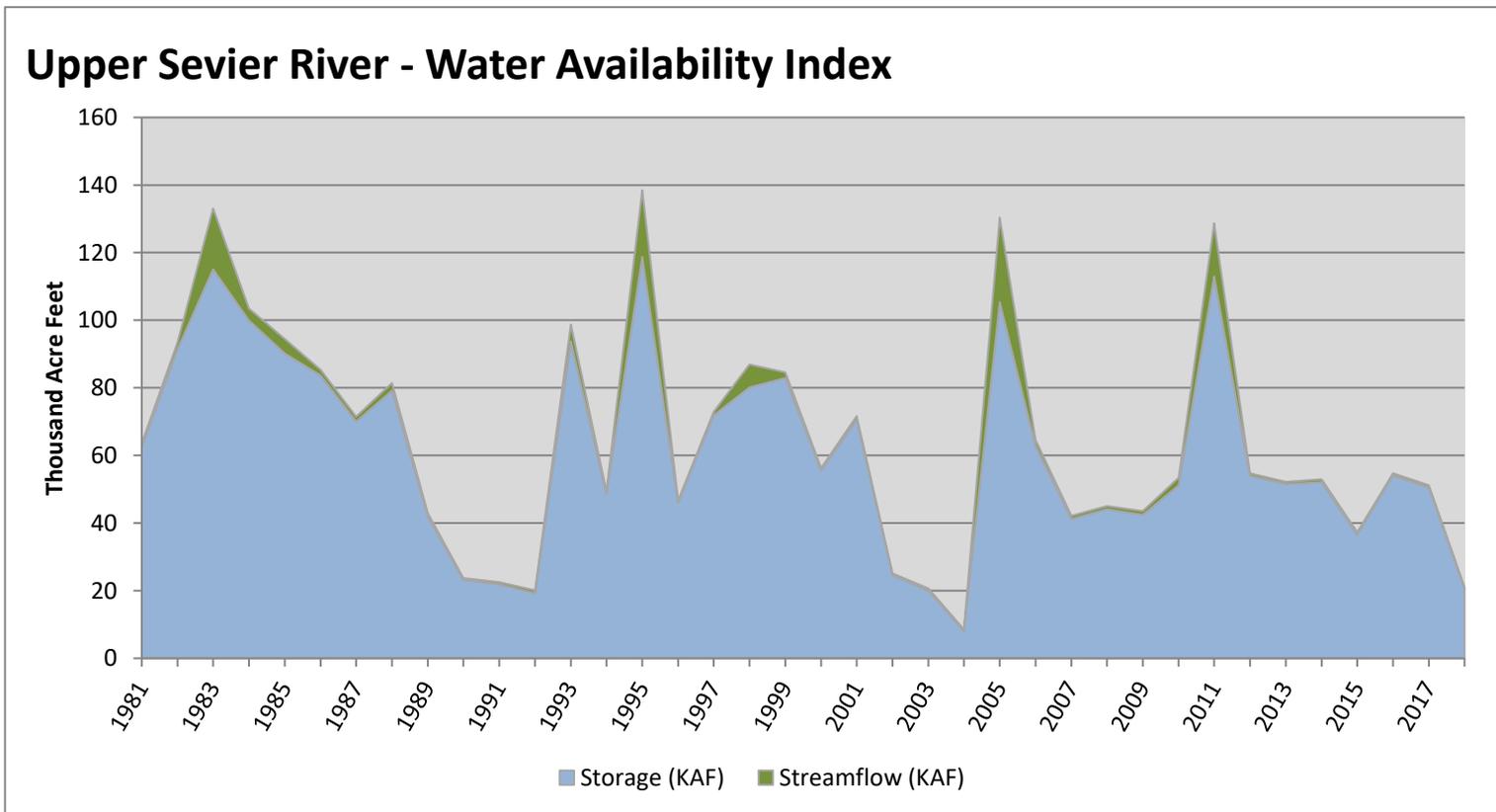
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2018

Water Availability Index

Basin or Region	Jul EOM [*] Storage	July Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Upper Sevier River	20.57	0.51	21.08	10	-3.31	92, 03, 91, 90

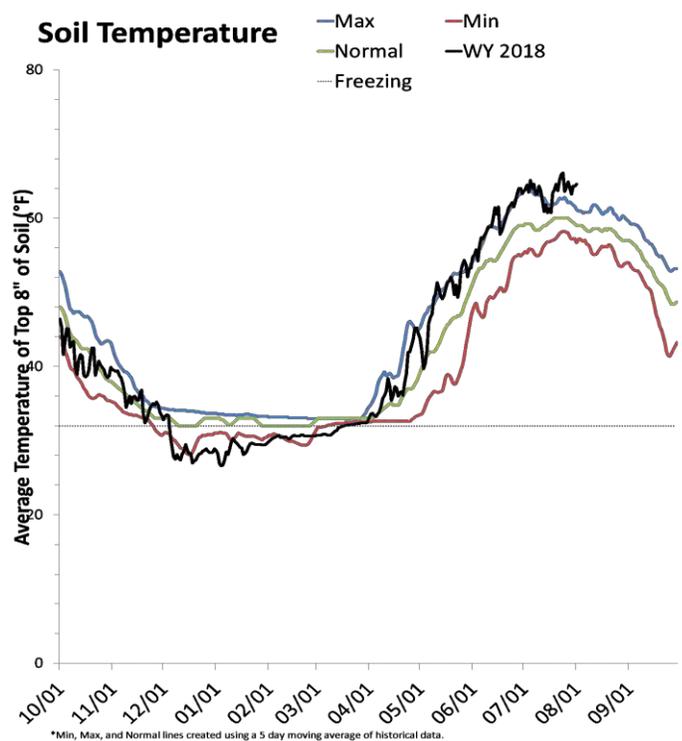
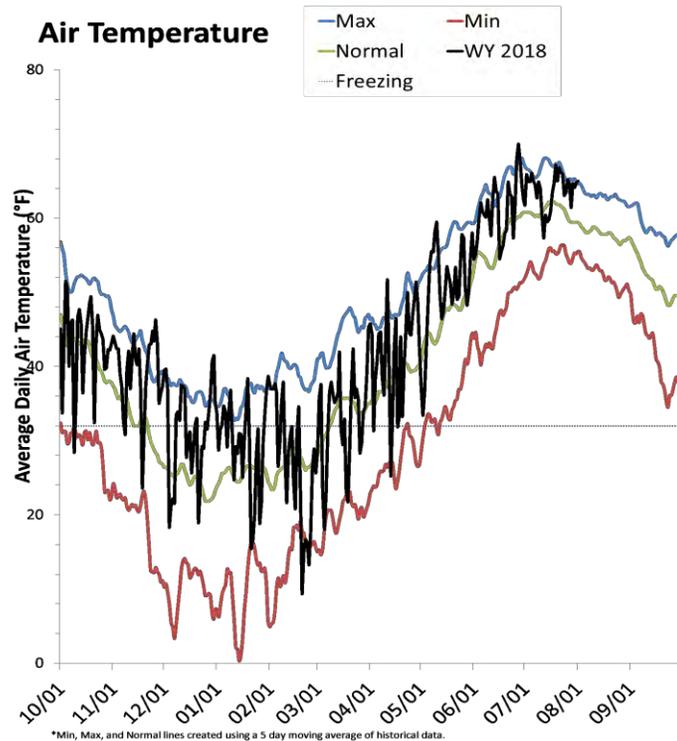
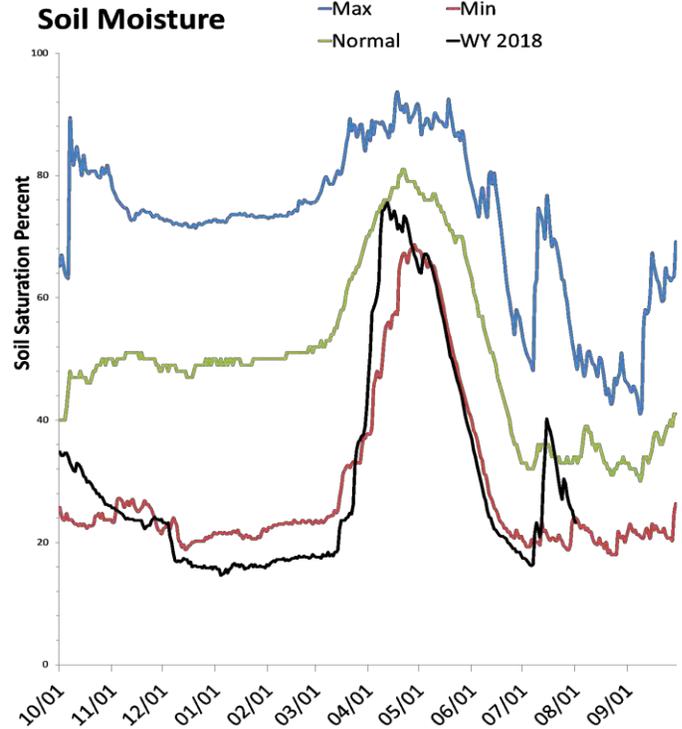
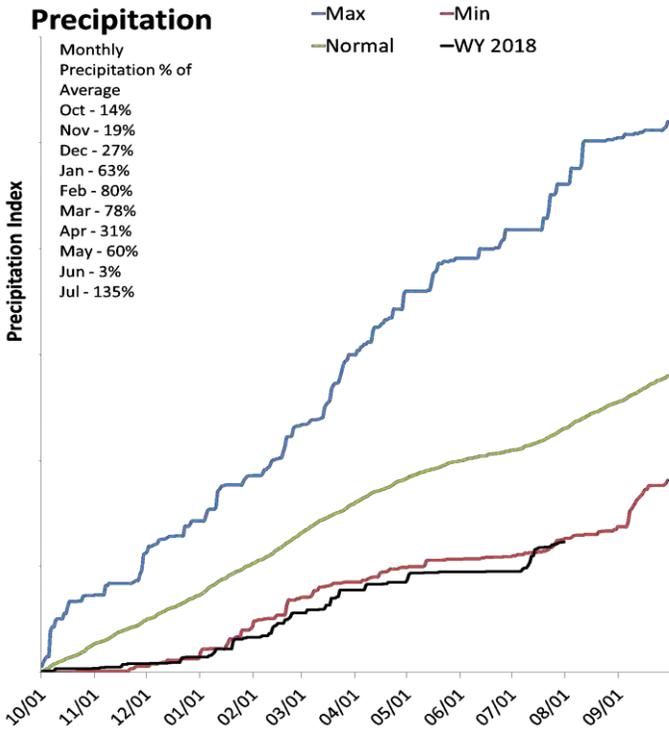
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southeastern Utah

August 1, 2018

Precipitation in July was much above average at 134%, which brings the seasonal accumulation (Oct-Jul) to 53% of average. Soil moisture is at 23% compared to 45% last year. Reservoir storage is at 15% of capacity, compared to 86% last year. The water availability index for Moab is 9%.



*Min, Max, and Normal lines created using a 5 day moving average of historical data.

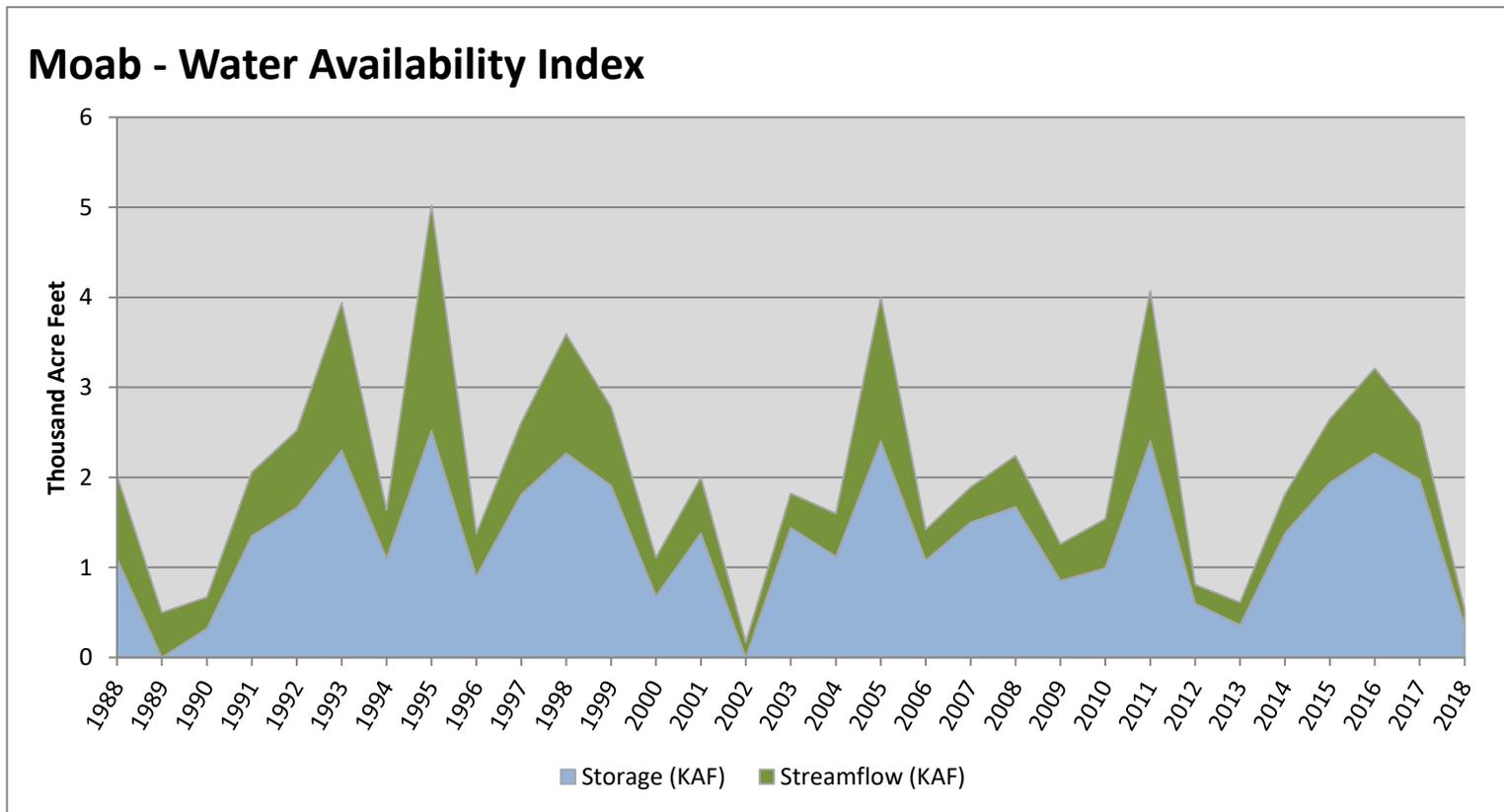
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2018

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Moab	0.35	0.18	0.53	9	-3.39	02, 89, 13, 90

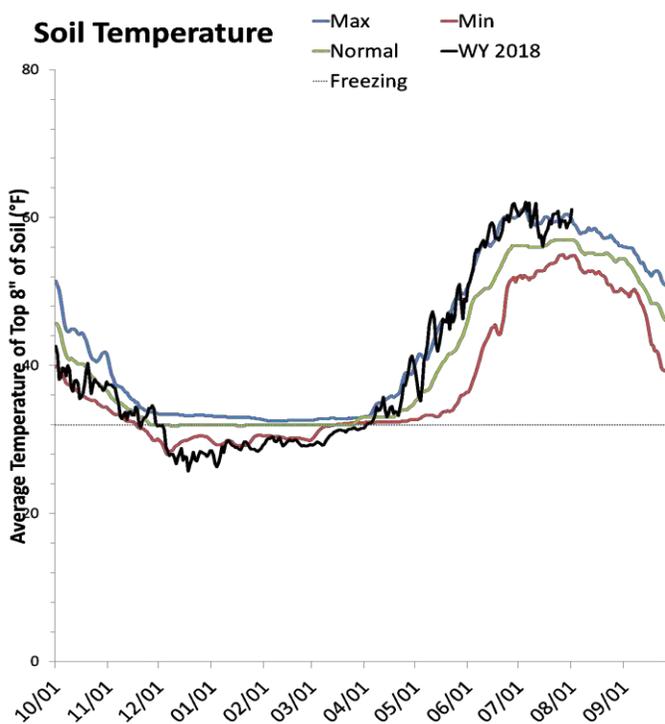
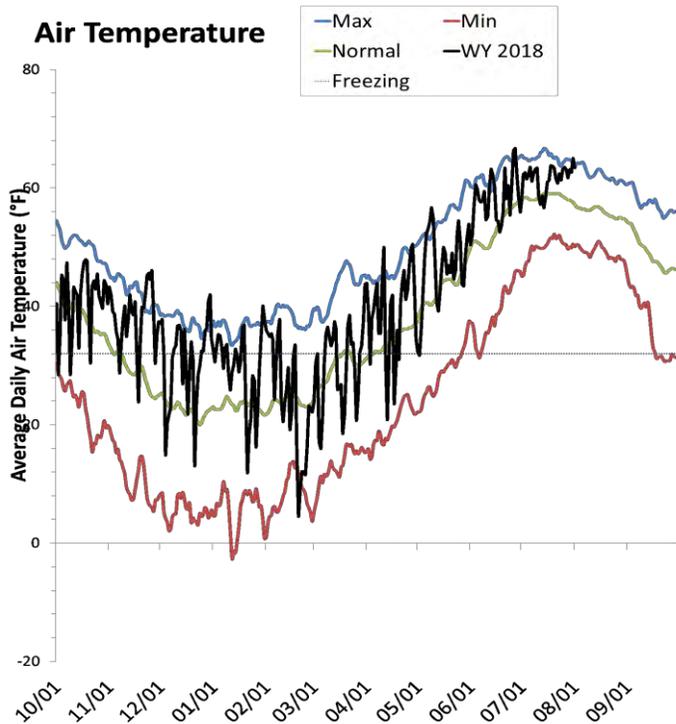
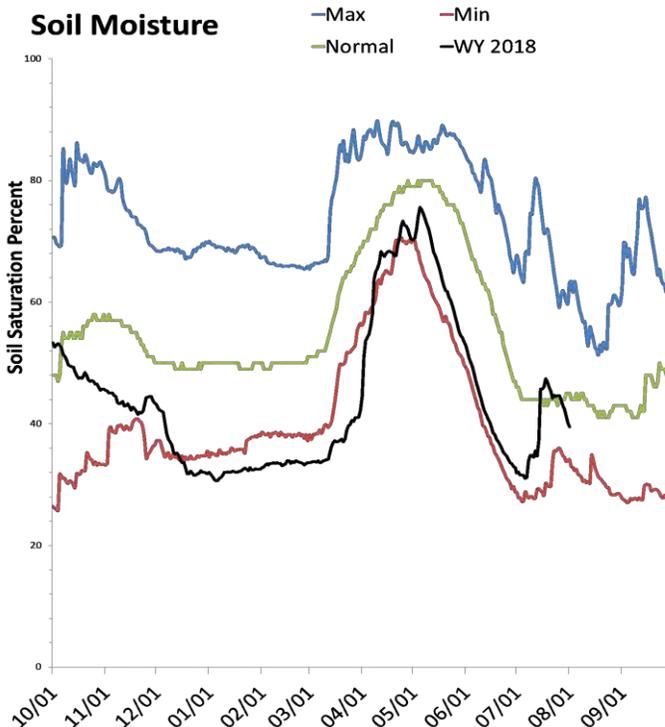
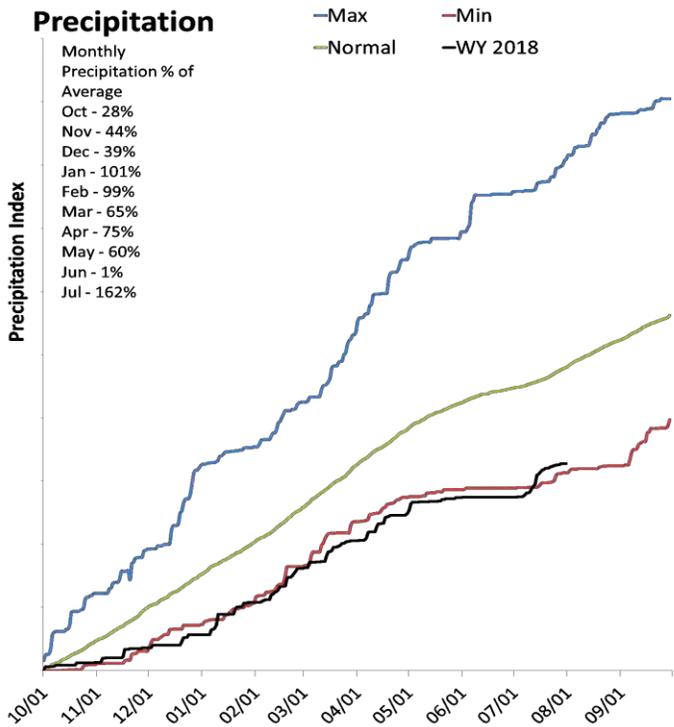
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Dirty Devil Basin

August 1, 2018

Precipitation in July was much above average at 165%, which brings the seasonal accumulation (Oct-Jul) to 68% of average. Soil moisture is at 40% compared to 52% last year.



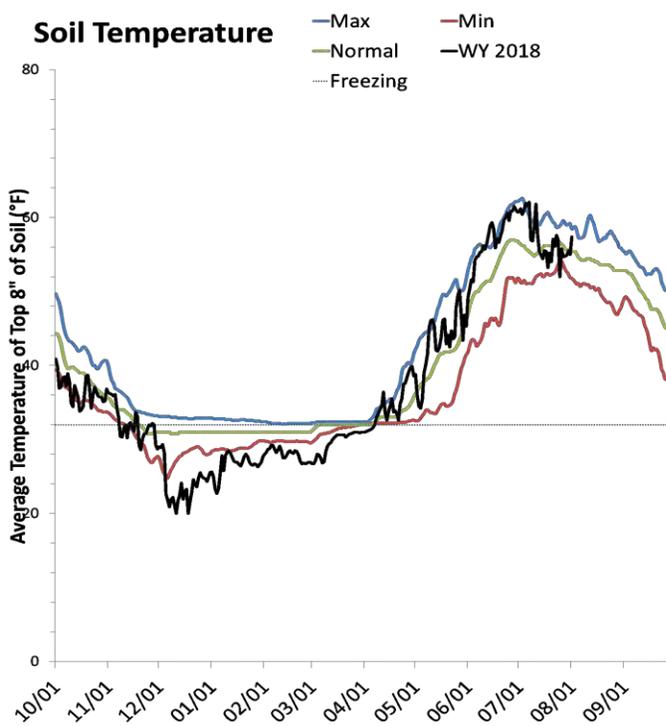
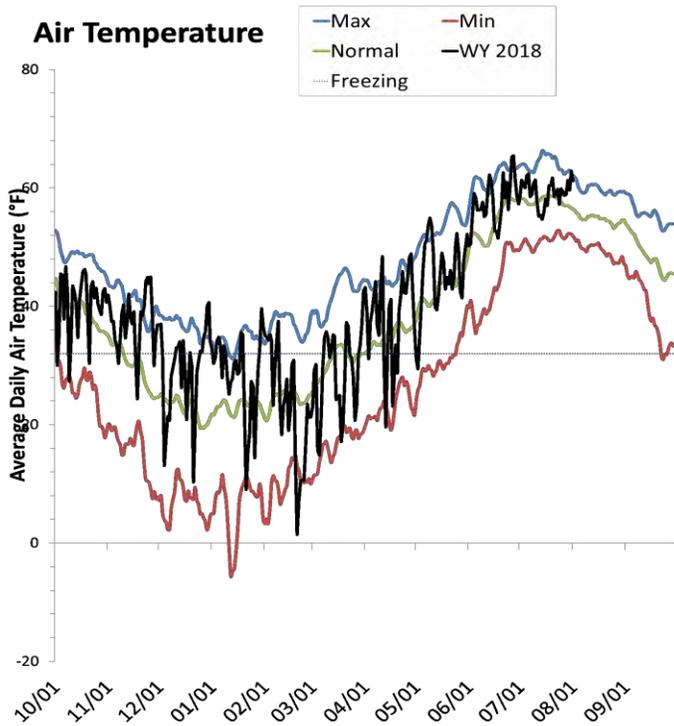
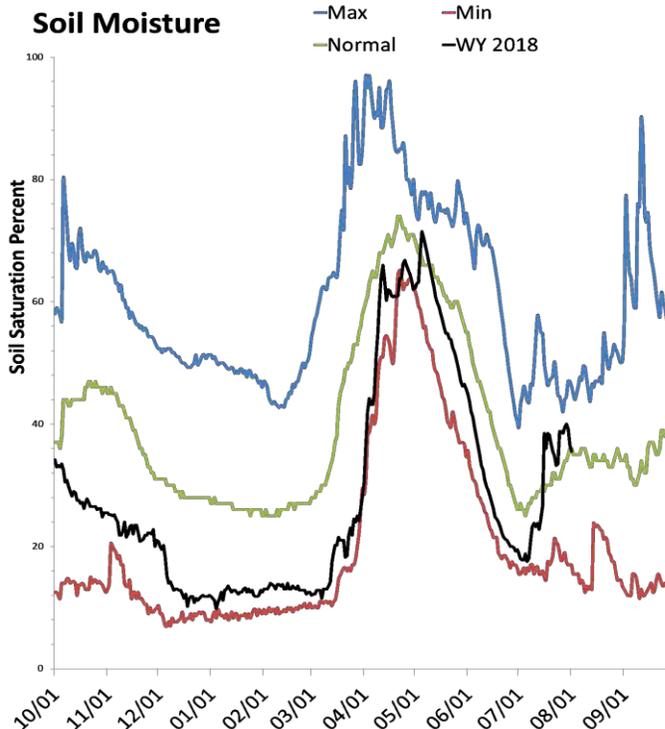
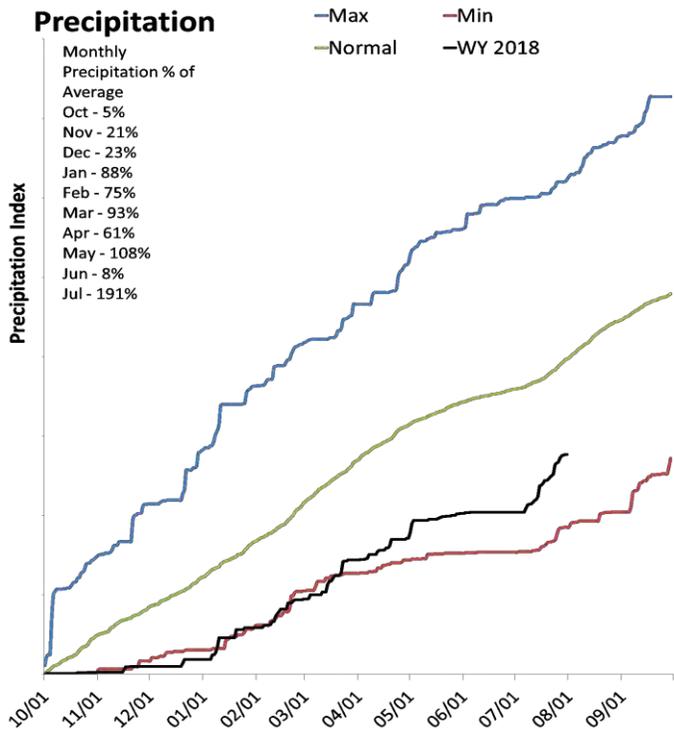
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

*Min, Max, and Normal lines created using a 5 day moving average of historical data.

Escalante River Basin

August 1, 2018

Precipitation in July was much above average at 191%, which brings the seasonal accumulation (Oct-Jul) to 70% of average. Soil moisture is at 36% compared to 48% last year.



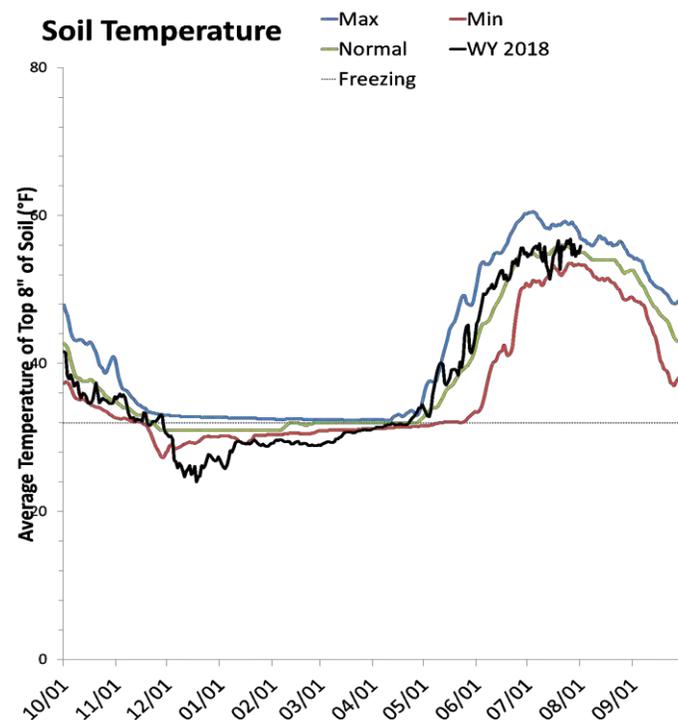
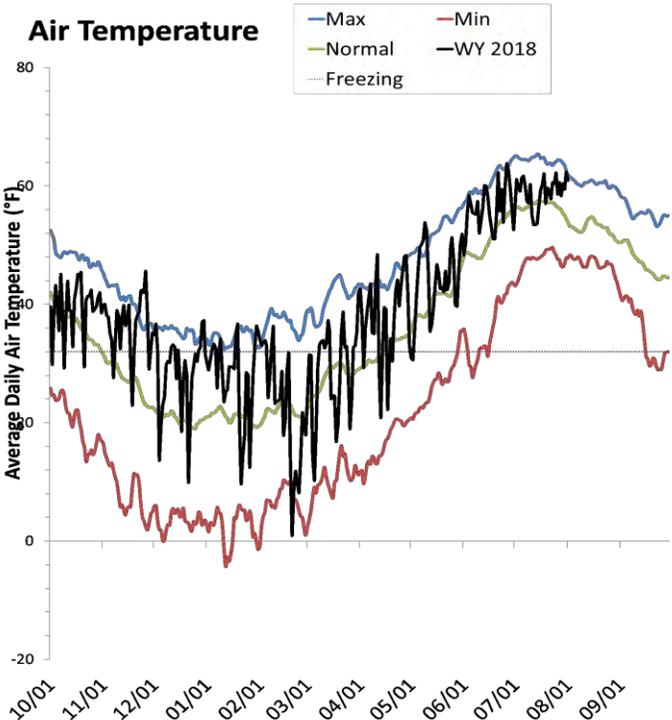
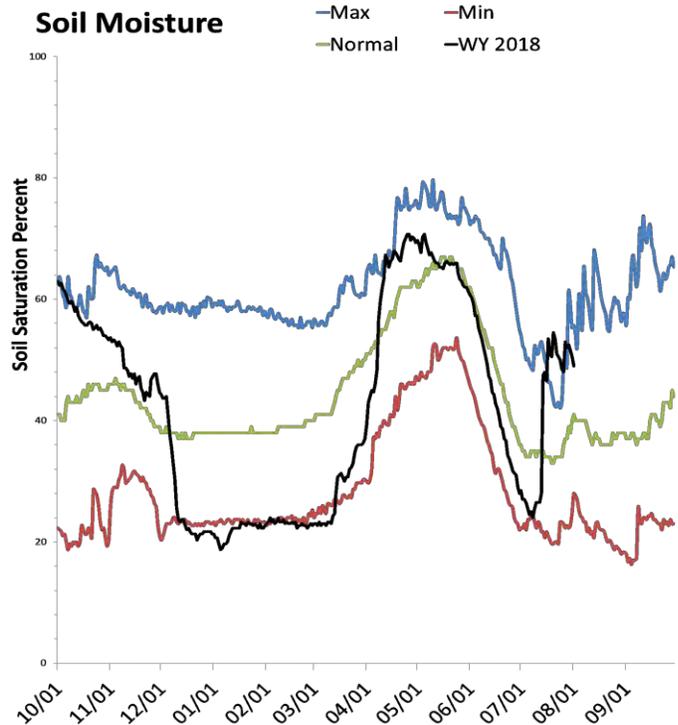
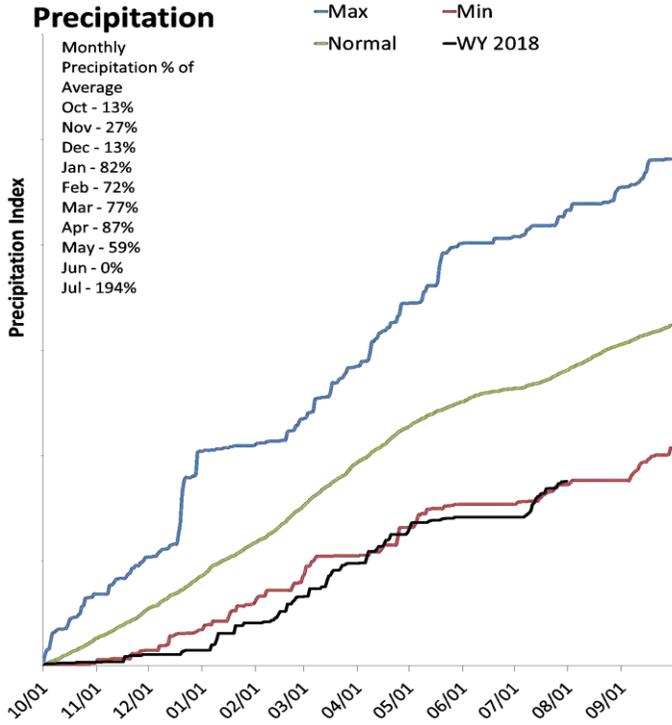
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

*Min, Max, and Normal lines created using a 5 day moving average of historical data.

Beaver River Basin

August 1, 2018

Precipitation in July was much above average at 196%, which brings the seasonal accumulation (Oct-Jul) to 62% of average. Soil moisture is at 51% compared to 46% last year. Reservoir storage is at 22% of capacity, compared to 36% last year. The water availability index for the Beaver River is 21%.



*Min, Max, and Normal lines created using a 5 day moving average of historical data.

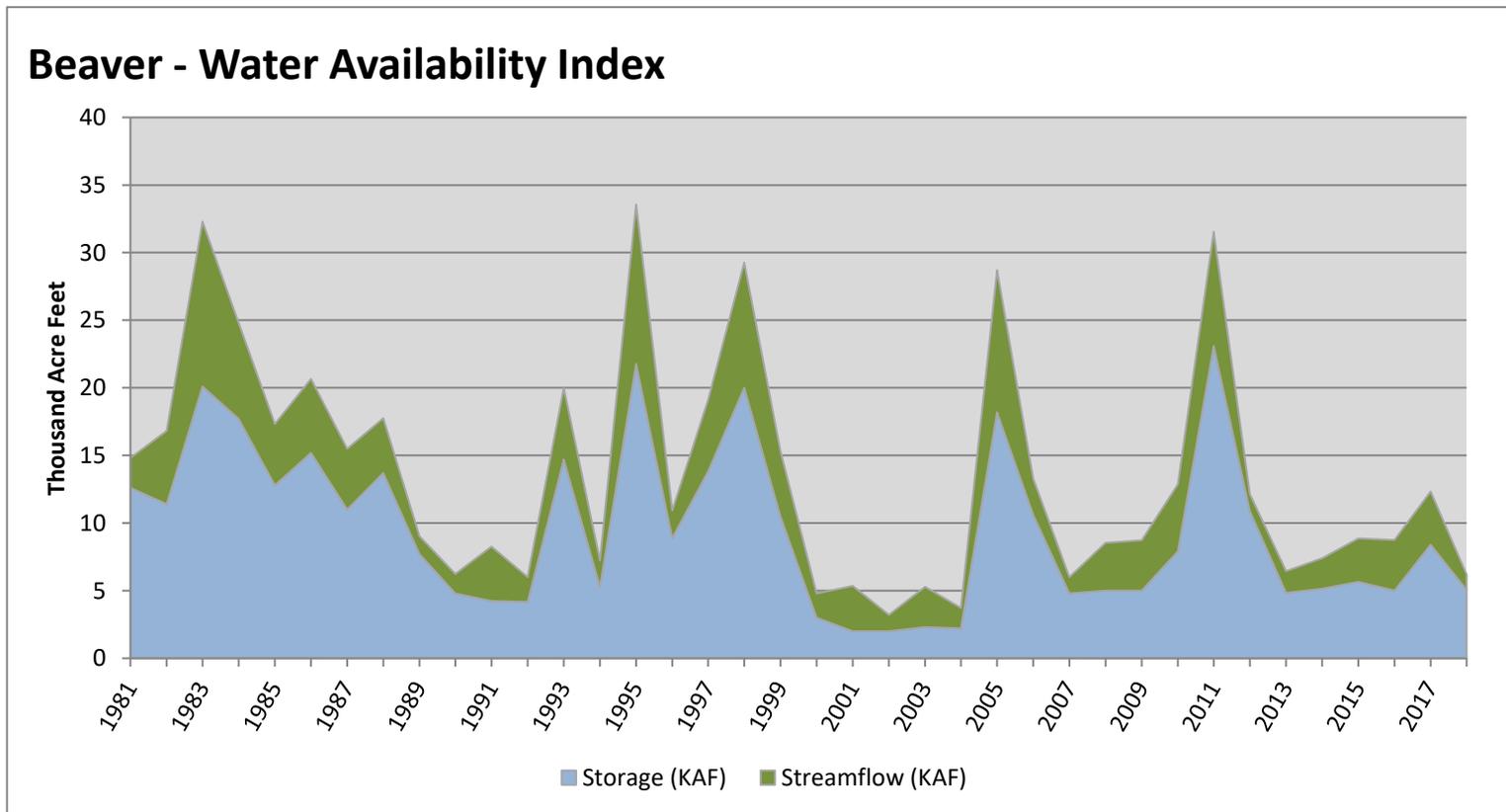
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2018

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Beaver	5.04	1.14	6.18	21	-2.46	92, 07, 90, 13

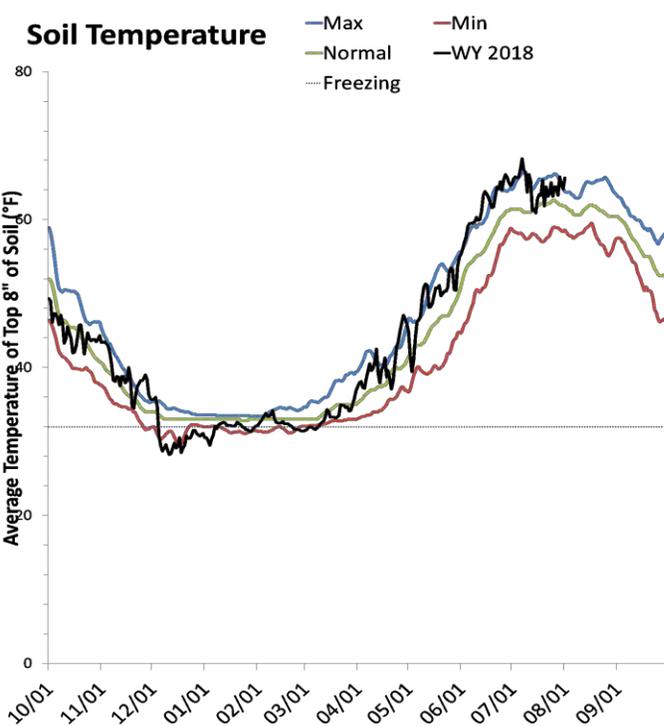
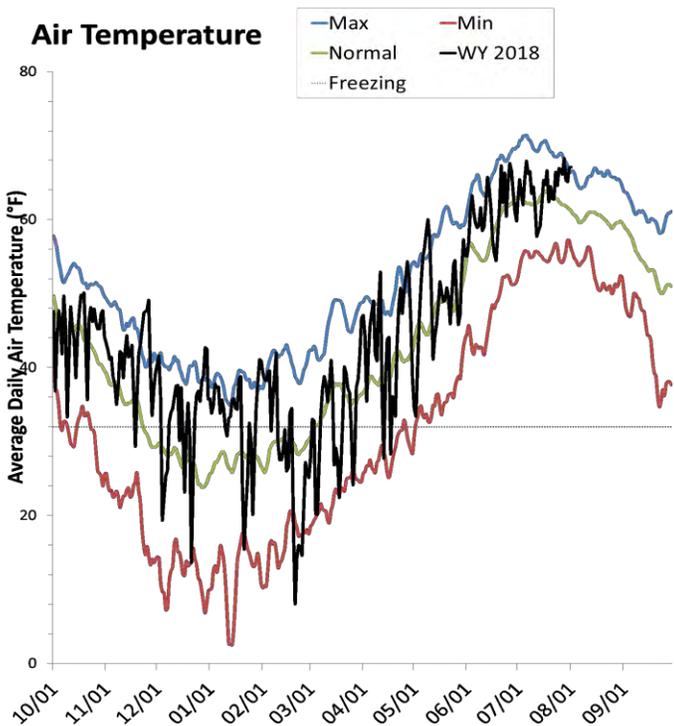
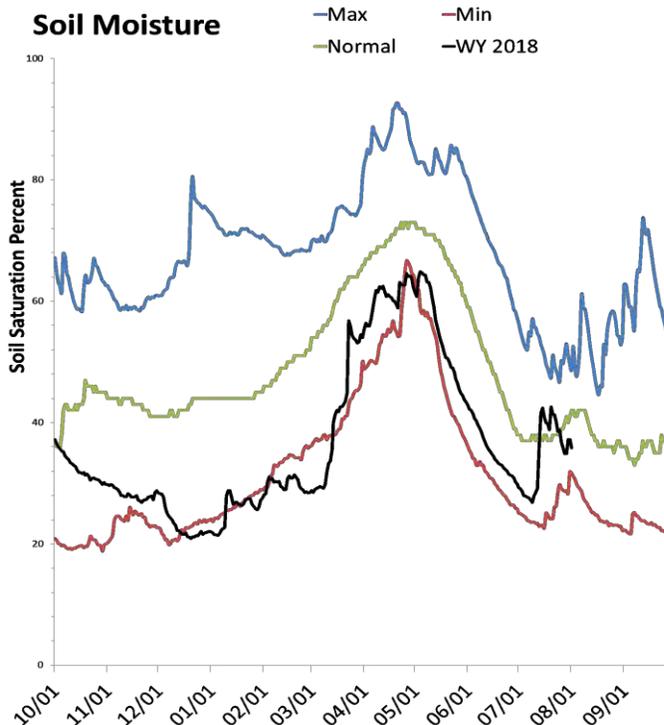
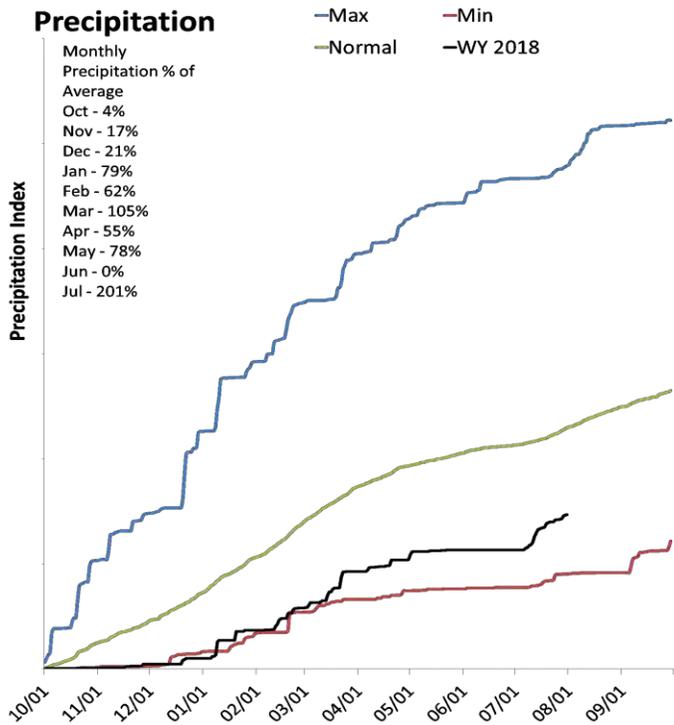
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Southwestern Utah

August 1, 2018

Precipitation in July was much above average at 199%, which brings the seasonal accumulation (Oct-Jul) to 64% of average. Soil moisture is at 36% compared to 47% last year. Reservoir storage is at 50% of capacity, compared to 63% last year. The water availability index for the Virgin River is 45%.



*Min, Max, and Normal lines created using a 5 day moving average of historical data.

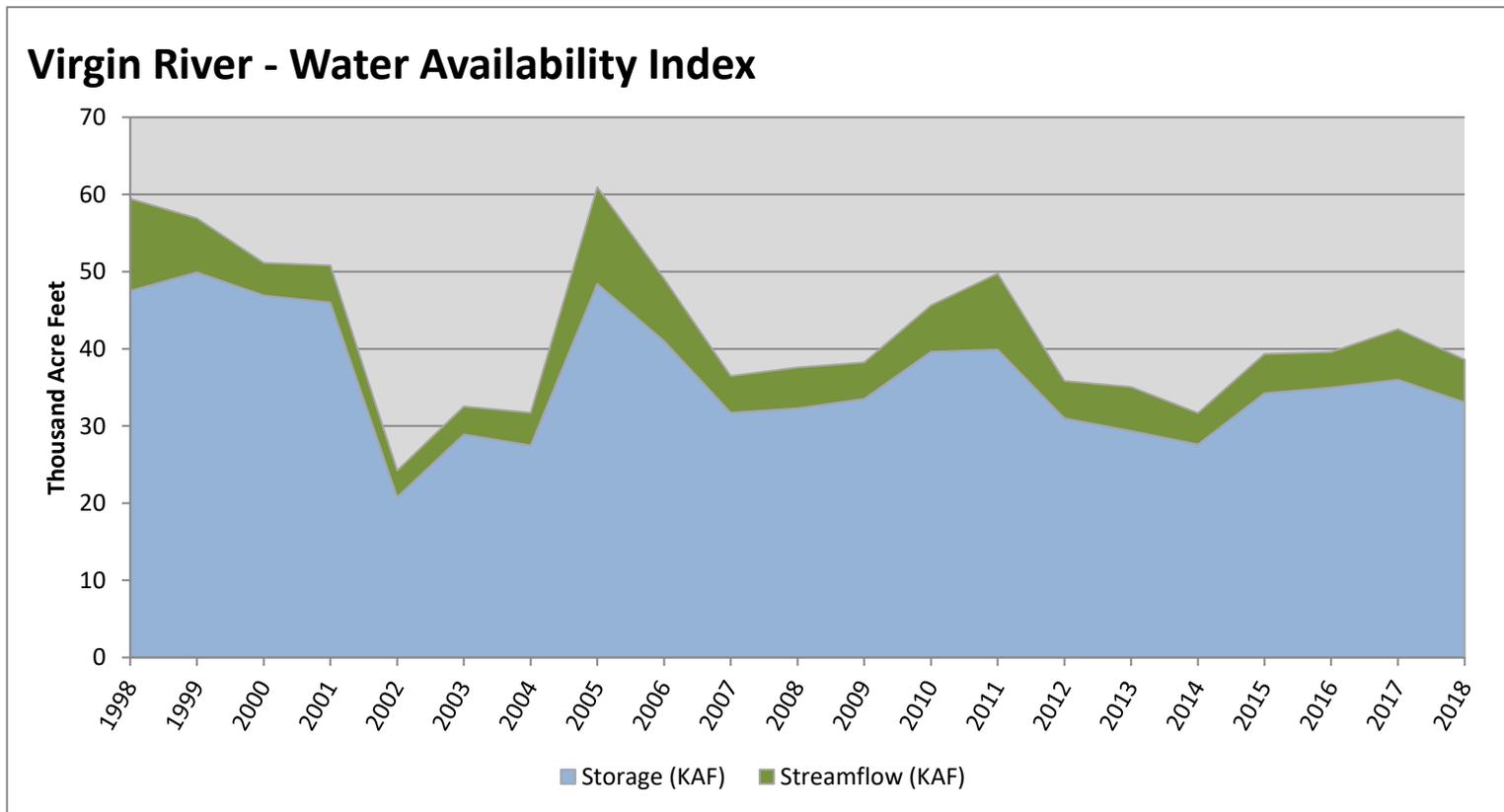
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2018

Water Availability Index

Basin or Region	Jul EOM [*] Storage	July Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Virgin River	33.07	5.54	38.61	45	-0.38	08, 09, 15, 16

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



August 1, 2018

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similar WAI
	KAF^	KAF^	KAF^	%		
Bear River	962	7.8	969	72	1.8	12, 87, 85, 17
Woodruff Narrows	19.7	7.8	27.5	36	-1.2	99, 88, 14, 07
Little Bear	6.0	1.2	7.1	26	-2.0	12, 14, 00, 94
Ogden	77.0	2.5	79.5	33	-1.4	12, 81, 89, 94
Weber	128.8	4.8	133.6	28	-1.9	00, 12, 15, 16
Provo River	373.2	4.4	377.6	42	-0.7	15, 16, 08, 00
Western Uinta	152.2	3.1	155.3	28	-1.8	12, 90, 04, 13
Eastern Uinta	16.3	3.2	19.6	8	-3.5	02, 14, 94, 89
Blacks Fork	10.4	4.5	14.8	19	-2.6	07, 88, 13, 01
Price	37.1	0.4	37.5	46	-0.3	96, 00, 12, 08
Smiths Creek	7.7	1.6	9.3	26	-2.0	12, 92, 13, 90
Joes Valley	39.8	1.8	41.6	13	-3.1	90, 92, 03, 94
Moab	0.4	0.2	0.5	9	-3.4	02, 89, 13, 90
Upper Sevier River	20.6	0.5	21.1	10	-3.3	92, 03, 91, 90
San Pitch	0.0	0.6	0.6	3	-4.0	13, 02, 16, 15
Lower Sevier	19.6	4.1	23.7	8	-3.5	03, 04, 16, 17
Beaver	5.0	1.1	6.2	21	-2.5	92, 07, 90, 13
Virgin River	33.1	5.5	38.6	45	-0.4	08, 09, 15, 16

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

What is a Water Availability Index?

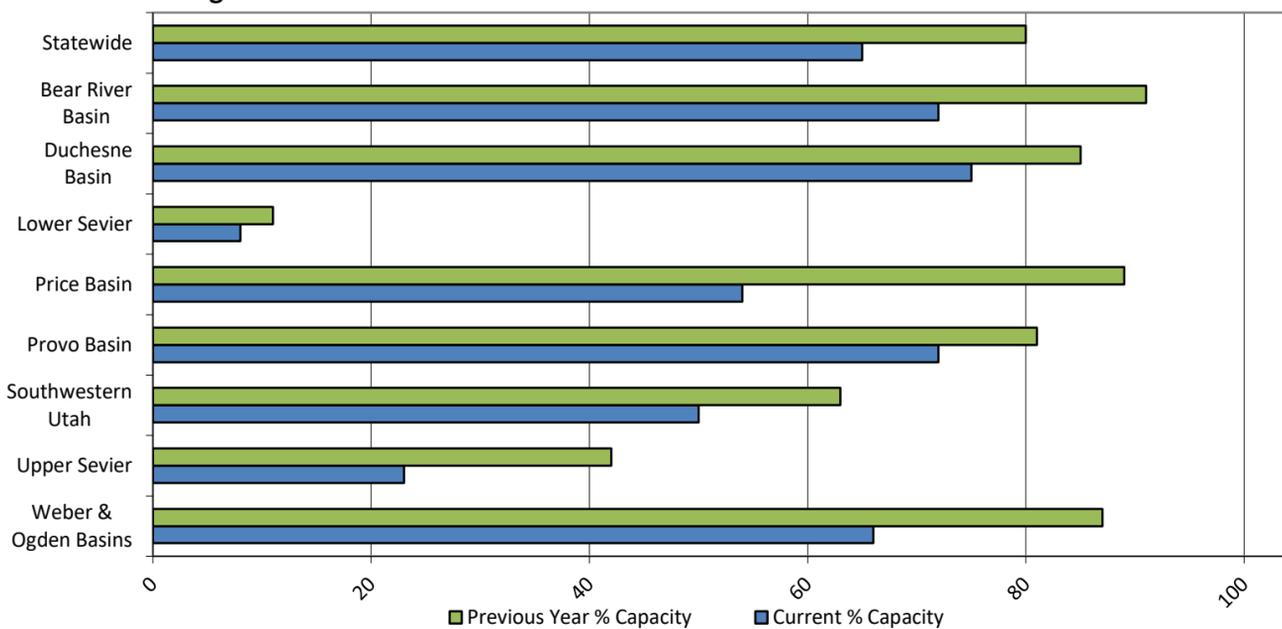
The Water Availability Index (WAI) is an observed hydrologic indicator of current surface water availability within a watershed. The index is calculated by combining current reservoir storage with the previous months streamflow. WAI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) 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.

Reservoir Storage Summary for the end of July 2018	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	2.8	19.1		25.7	11%	74%			
Causey Reservoir	4.6	6.9	5.2	7.1	65%	97%	73%	89%	132%
Cleveland Lake	2.1	3.8		5.4	39%	71%			
Currant Creek Reservoir	14.2	14.8	15.2	15.5	92%	95%	98%	94%	97%
Deer Creek Reservoir	116.1	143.9	123.4	149.7	78%	96%	82%	94%	117%
East Canyon Reservoir	37.4	45.4	40.9	49.5	76%	92%	83%	91%	111%
Echo Reservoir	32.2	54.3	49.0	73.9	44%	73%	66%	66%	111%
Grantsville Reservoir	1.2	1.8	1.7	3.3	36%	55%	51%	71%	107%
Gunlock	7.1	7.0	7.2	10.4	68%	67%	69%	98%	97%
Gunnison Reservoir	0.0	8.9	10.4	20.3	0%	44%	51%	0%	85%
Huntington North Reservoir	2.0	3.4	2.6	4.2	49%	81%	62%	78%	131%
Hyrum Reservoir	6.0	12.5	9.5	15.3	39%	82%	62%	63%	132%
Joes Valley Reservoir	39.8	57.6	51.0	61.6	65%	93%	83%	78%	113%
Jordanelle Reservoir	257.2	287.6	288.4	314.0	82%	92%	92%	89%	100%
Ken's Lake	0.4	2.0	1.4	2.3	15%	86%	62%	24%	138%
Kolob Reservoir	2.0	4.7		5.6	36%	84%			
Lost Creek Reservoir	17.1	20.4	16.0	22.5	76%	90%	71%	107%	127%
Lower Enterprise	0.5	1.5	0.4	2.6	17%	58%	16%	110%	366%
Miller Flat Reservoir	1.5	4.3		5.2	29%	83%			
Millsite	1.2	11.7	14.5	16.7	7%	70%	87%	8%	81%
Minersville Reservoir	5.0	8.4	10.0	23.3	22%	36%	43%	50%	84%
Moon Lake Reservoir	10.9	31.9	26.1	35.8	30%	89%	73%	42%	122%
Otter Creek Reservoir	15.8	38.2	29.4	52.5	30%	73%	56%	54%	130%
Panguitch Lake	13.5	10.7	14.6	22.3	61%	48%	65%	93%	73%
Pineview Reservoir	72.4	98.2	77.0	110.1	66%	89%	70%	94%	128%
Piute Reservoir	4.7	12.3	32.1	71.8	7%	17%	45%	15%	38%
Porcupine Reservoir	8.2	10.5	8.5	11.3	73%	93%	75%	96%	124%
Quail Creek	26.0	29.0	26.1	40.0	65%	73%	65%	100%	111%
Red Fleet Reservoir	13.8	21.7	21.2	25.7	54%	84%	82%	65%	102%
Rockport Reservoir	37.4	56.8	51.5	60.9	61%	93%	85%	73%	110%
Sand Hollow Reservoir	45.0	27.9		50.0	90%	56%			
Scotfield Reservoir	37.1	59.9	39.7	65.8	56%	91%	60%	93%	151%
Settlement Canyon Reservoir	0.4	0.7	0.7	1.0	35%	70%	67%	52%	104%
Sevier Bridge Reservoir	19.6	26.1	120.0	236.0	8%	11%	51%	16%	22%
Smith And Morehouse Reservoir	4.8	7.6	6.5	8.1	59%	94%	80%	74%	117%
Starvation Reservoir	115.6	145.3	143.2	164.1	70%	89%	87%	81%	101%
Stateline Reservoir	7.7	10.2	8.9	12.0	64%	85%	74%	86%	115%
Steinaker Reservoir	2.5	13.4	22.5	33.4	8%	40%	67%	11%	60%
Strawberry Reservoir	883.4	950.0	713.1	1105.9	80%	86%	64%	124%	133%
Upper Enterprise	0.3	2.8	2.8	10.0	3%	28%	28%	11%	100%
Upper Stillwater Reservoir	25.7	26.7	24.5	32.5	79%	82%	75%	105%	109%
Utah Lake	498.4	585.5	756.4	870.9	57%	67%	87%	66%	77%
Willard Bay	155.6	187.4	148.3	215.0	72%	87%	69%	105%	126%
Woodruff Creek	0.0	2.1	1.3	4.0	0%	53%	32%	0%	167%
Woodruff Narrows Reservoir	19.7	42.0	25.7	57.3	34%	73%	45%	77%	163%
Meeks Cabin Reservoir	10.4	19.4	16.7	32.5	32%	60%	51%	62%	116%
Bear Lake	961.6	1201.5	696.0	1302.0	74%	92%	53%	138%	173%
Basin-wide Total	3487.3	4277.7	3659.6	5373.1	65%	80%	68%	95%	117%
# of reservoirs	42.0	42.0	42.0	42.0	42	42	42	42	42
# of reservoirs	42	42	42	42	42	42	42	42	42

Reservoir Storage



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Utah Climate and Water Report

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