



Utah Climate and Water Report

July 1, 2018



Gunnison Reservoir, UT

Photo by Anthony Steinfeldt

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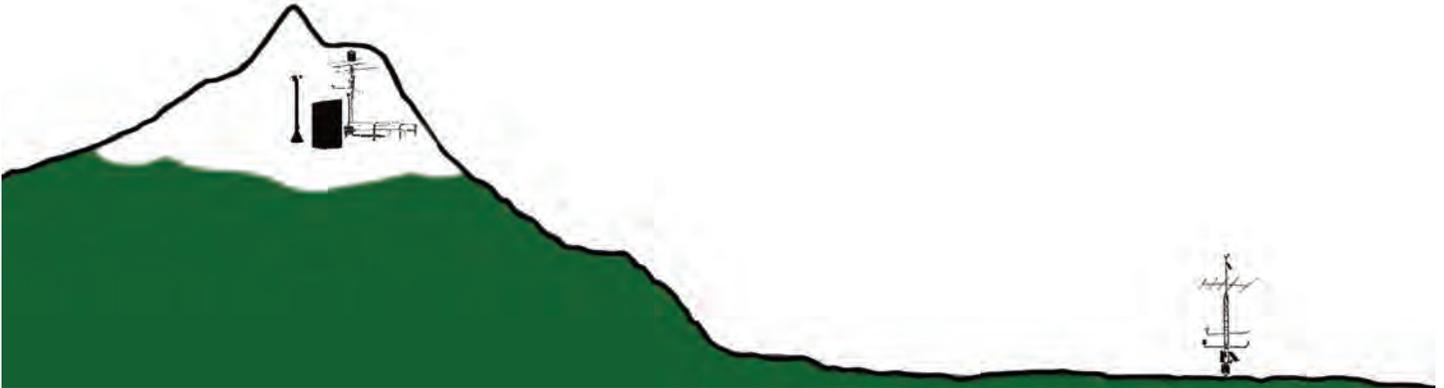
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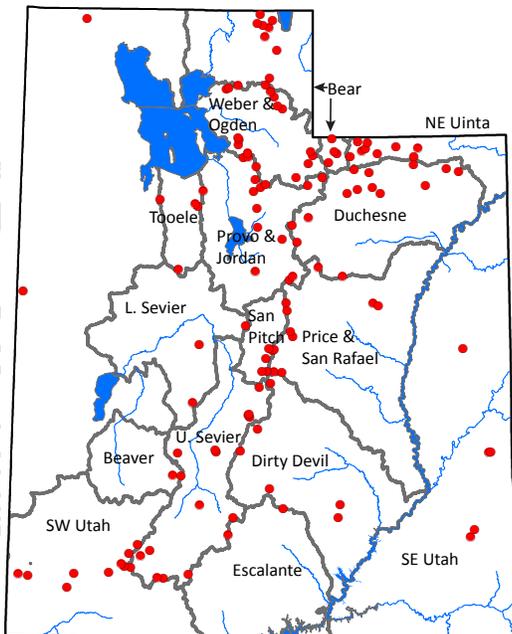
Utah Climate and Water Report

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.



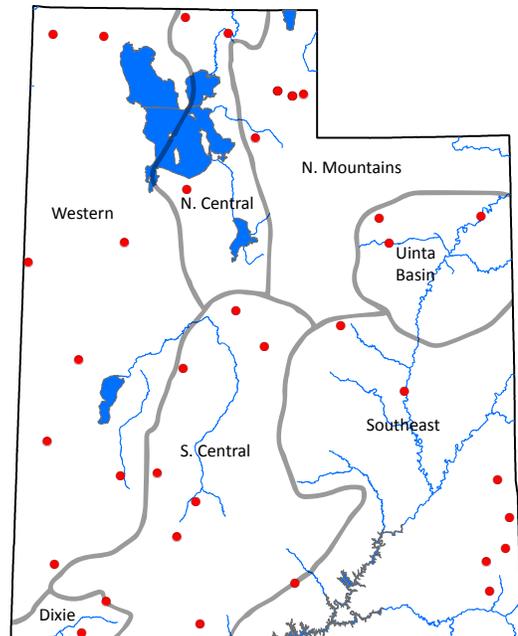
SNOTEL

- 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 July 1, 2018

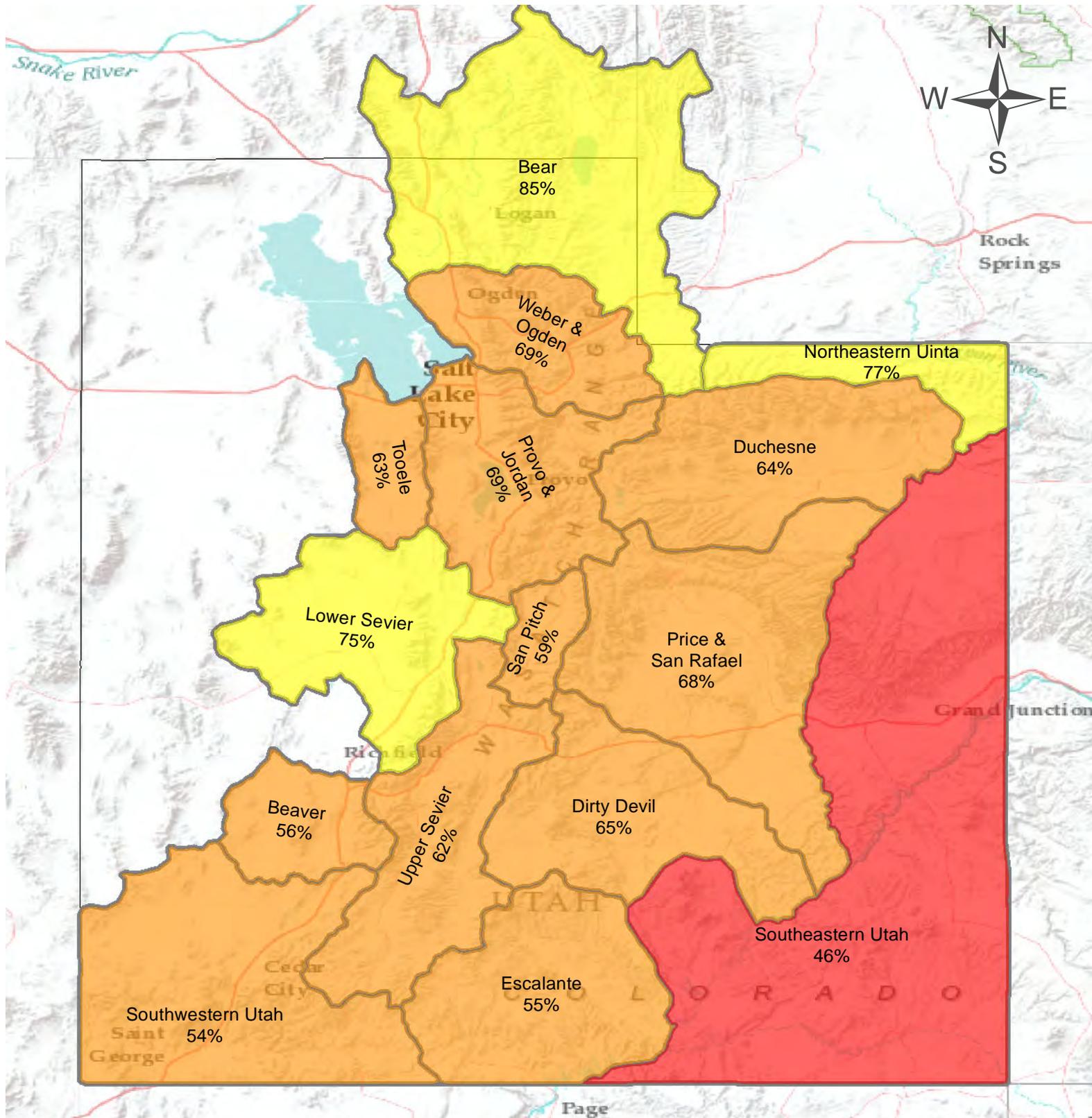
This report has been reorganized to better reflect two distinct geographic areas being monitored – the low elevation valley sites (Soil Climate Analysis Network) that are critical for agricultural production and operations, and the high elevation mountainous areas where water supply is generated (SNOWTElemetry).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

An average of only 0.1 inches of precipitation fell in valley locations in Utah in June, making this an extremely dry month. As was the case in May, this rainfall favored Northern Utah, with a maximum of 0.4 inches in the Northern Mountains Region. Most regions of Utah recorded no measurable precipitation during the month. This has continued to worsen drought conditions throughout the state. Overall, soil temperatures are high and soil moisture levels continue to be near or below record-low levels statewide. Conditions described in this report are reflected in both the number of fires burning in Utah and in the extreme fire behavior being witnessed in these fires. Hopefully there will be a strong monsoon season, especially in Southwestern Utah, where drought conditions are the worst.

Current Mountain Conditions (SNOTEL)

It is dry and hot and with the dry and hot come the wildfires. June precipitation in the mountains as reported by the SNOTEL network across Utah was at 13% of average and that number is inflated because Bear River Basin caught 41% average precipitation for June. The rest of the basins ranged from 0% - 10% of average precipitation for the month of June (that's about 0 - 3 tenths of an inch of rain). The seasonal cumulative precipitation (Oct-Jun) ranges from 85% on the Bear River to 46% in Southeastern Utah. Streamflow peaks were low and early resulting in little to no improvement in reservoir storage levels. Due to good carryover from the previous water year many reservoirs reached reasonable fill levels despite this year's low snowpack. However, those reservoirs that did not benefit from last year's carryover are now at significantly low levels (e.g. Millsite – 7%, Piute – 10%, Sevier Bridge – 13%, and Gunnison Reservoir – 0%). Counties south of Salt Lake, as reported by the U.S. Drought Monitor, range from severe to exceptional drought with Sanpete and San Juan counties experiencing exceptional drought conditions. Water Availability Indexes (WAI) range from 72% on the Bear River Basin to 3% in San Pitch and Moab areas. Other regions with low WAI numbers include Eastern Uinta – 8%, Joes Valley – 8%, Upper and Lower Sevier – 5%, and Beaver – 5%. The three month outlook, published by the NOAA Climate Prediction Center, forecasts above normal precipitation and temperatures. With luck rainfall from the monsoon season will help mitigate the extreme drought conditions we're seeing in Southern Utah. It's hot and dry folks so keep hydrated and be mindful of current fire restrictions in your area.



Statewide Precipitation

As of July 1, 2018:

68% of Normal Precipitation

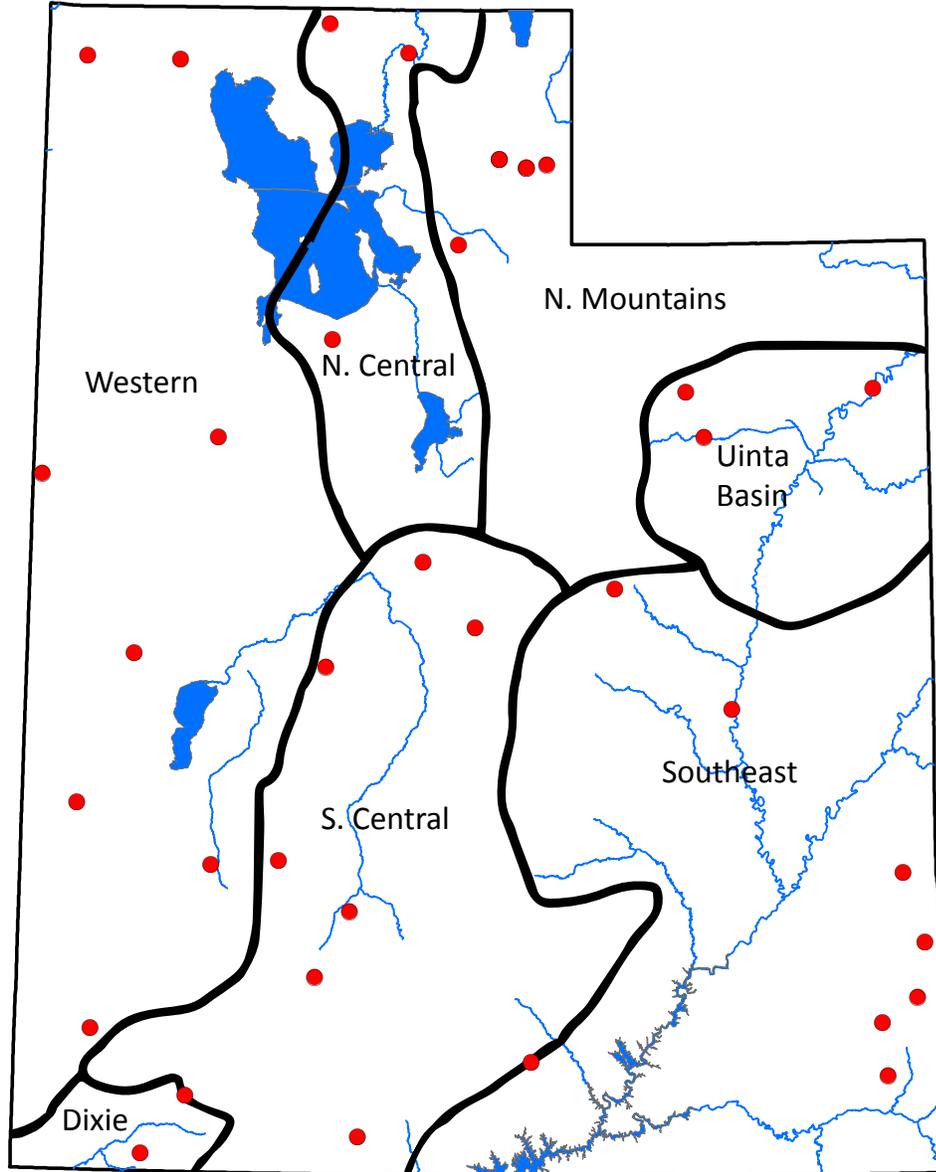
80% of Normal Precipitation Last Month

% of Normal

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

0 10 20 40 60 80 100 Miles

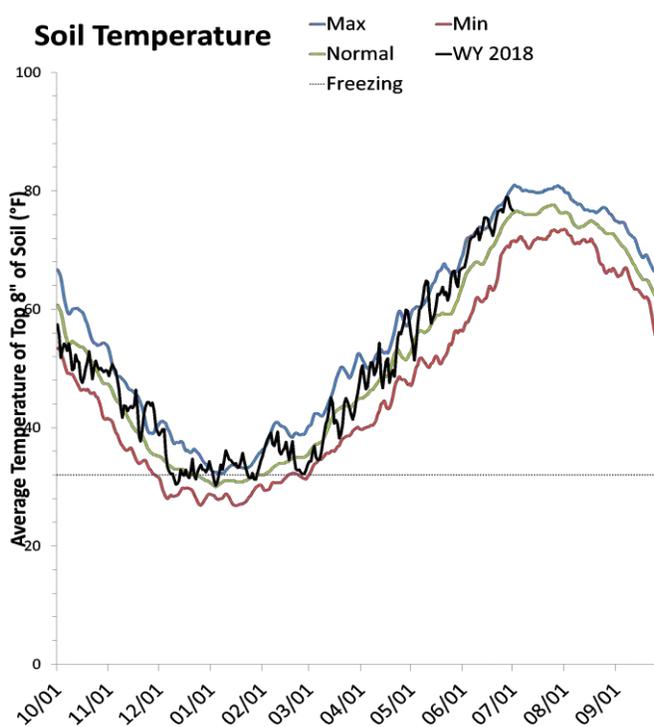
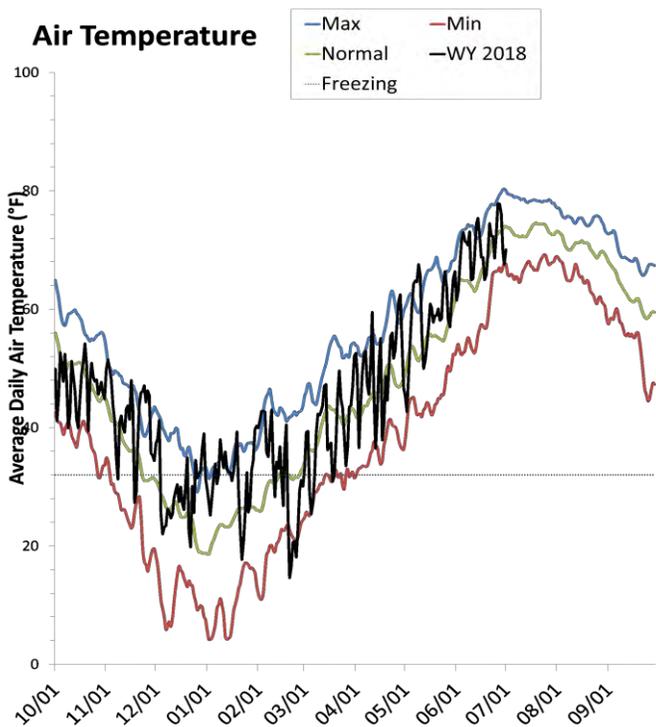
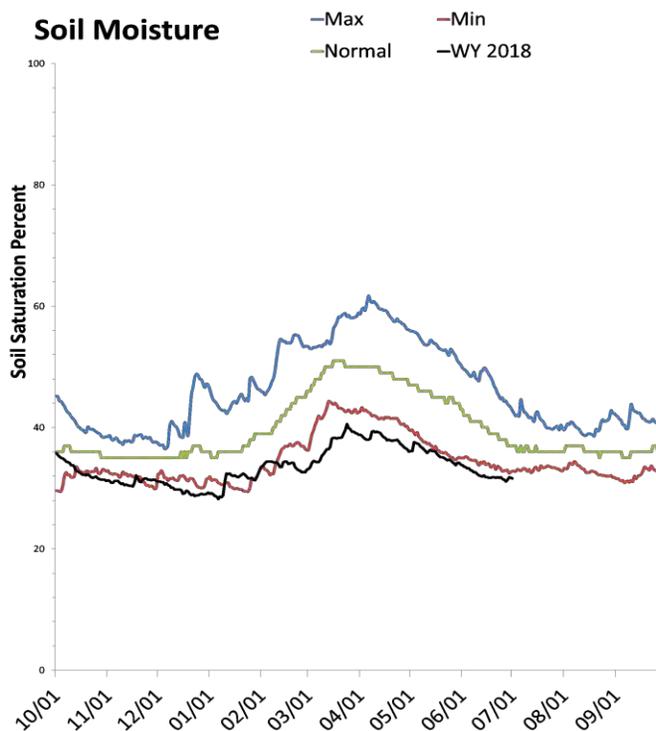
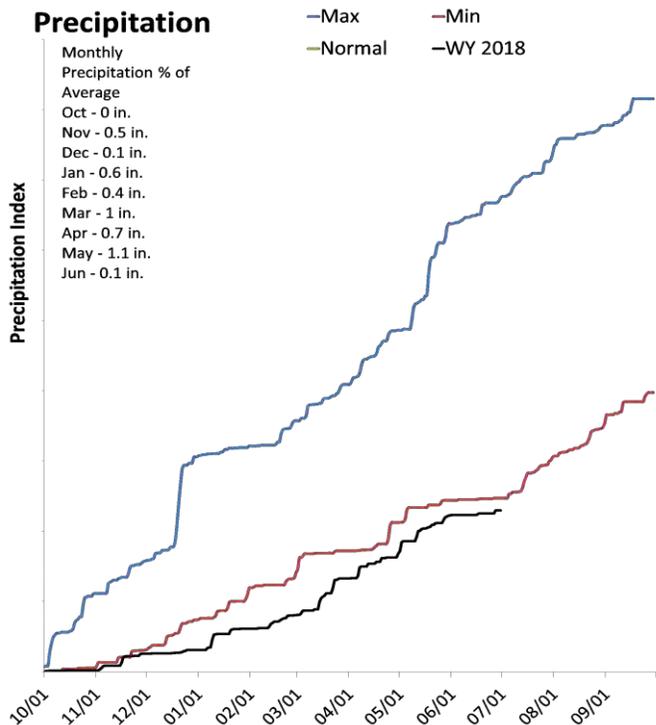
SCAN portion of report



Statewide SCAN

July 1, 2018

The average precipitation at SCAN sites within Utah was 0.1 inches in June, which brings the seasonal accumulation (Oct-Jun) to 4.6 inches. Soil moisture is at 31% compared to 36% last year.



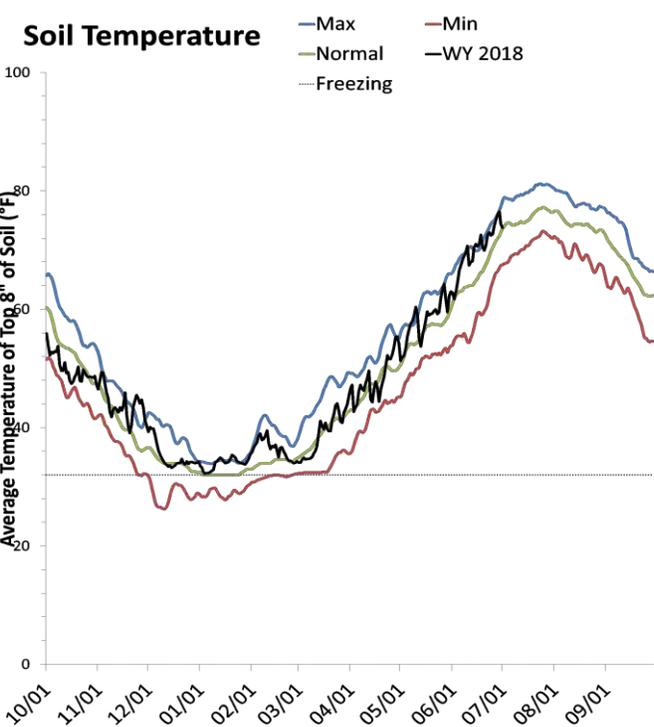
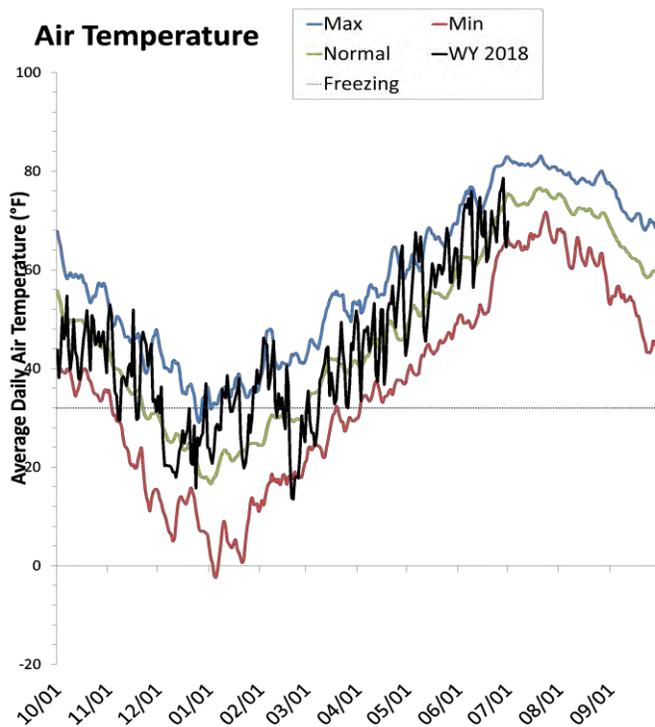
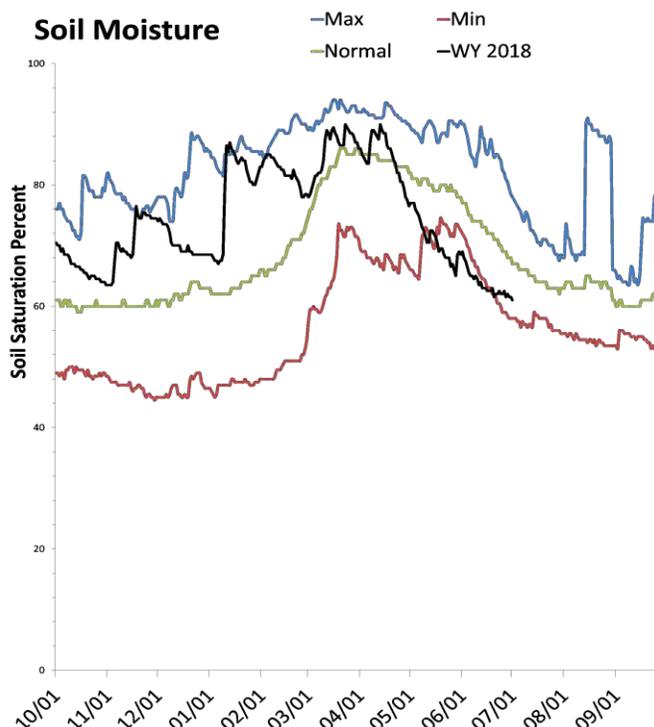
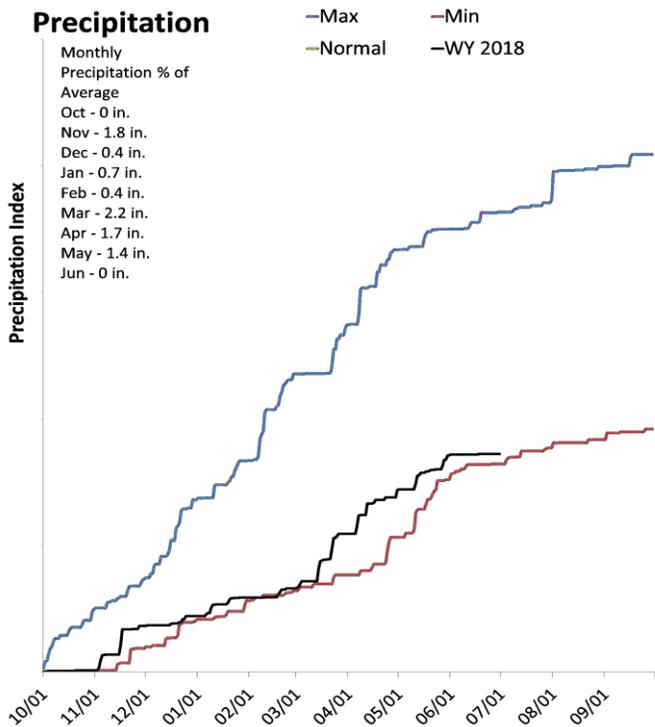
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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North Central

July 1, 2018

The average precipitation in June at SCAN sites within the basin was 0.1 inches, which brings the seasonal accumulation (Oct-Jun) to 8.6 inches. Soil moisture is at 62% compared to 68% last year.



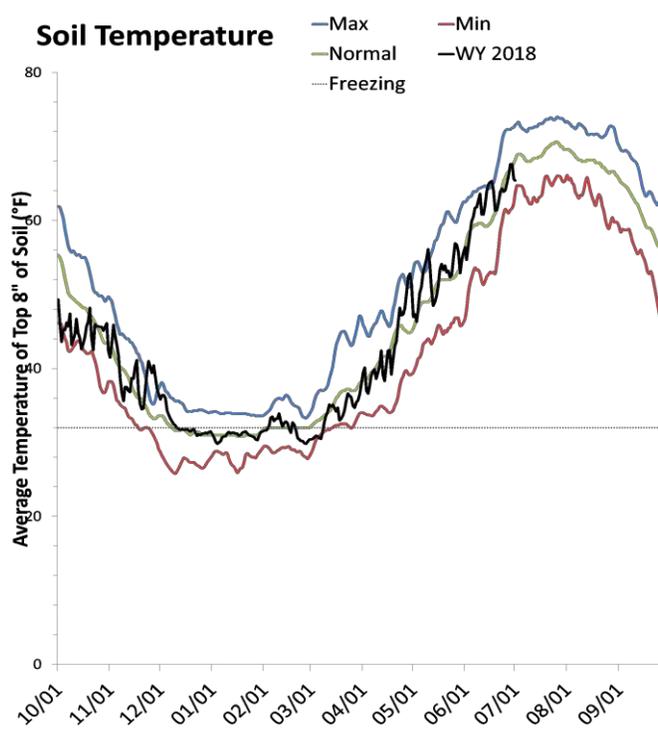
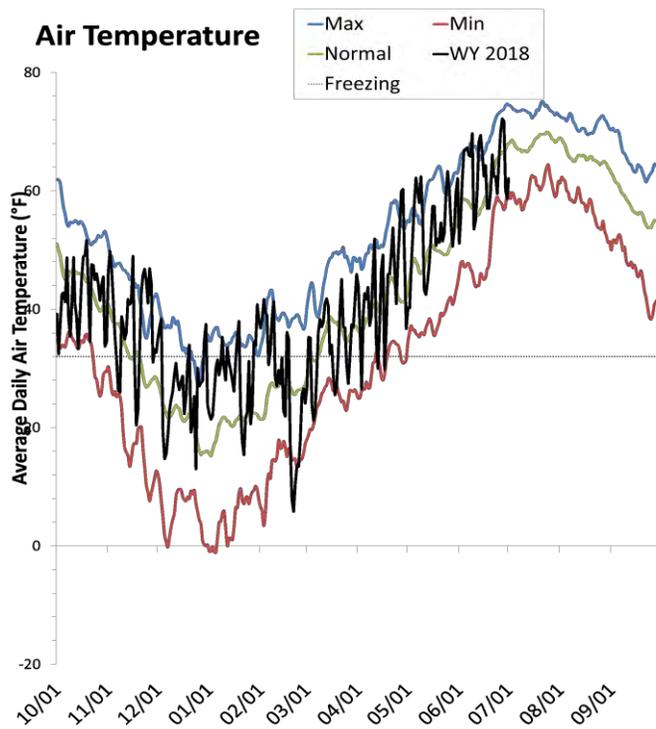
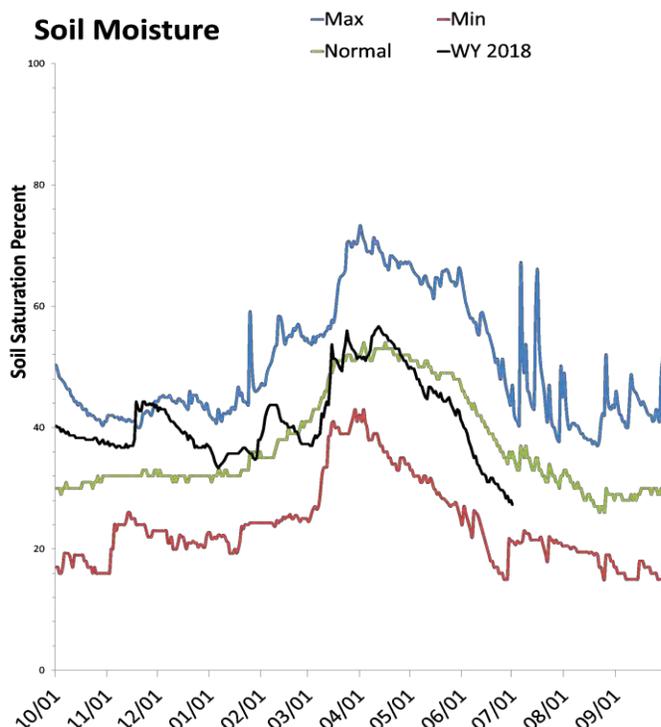
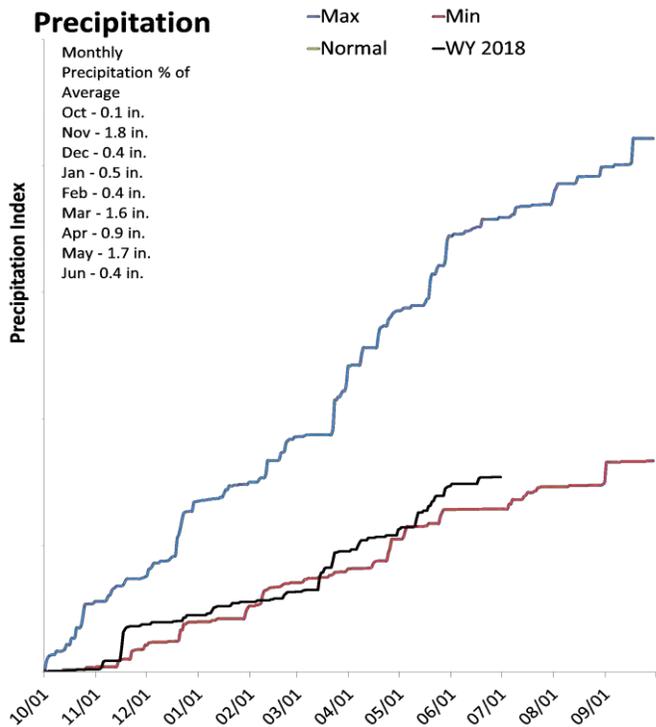
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Northern Mountains

July 1, 2018

The average precipitation in June at SCAN sites within the basin was 0.4 inches, which brings the seasonal accumulation (Oct-Jun) to 7.7 inches. Soil moisture is at 28% compared to 43% last year.



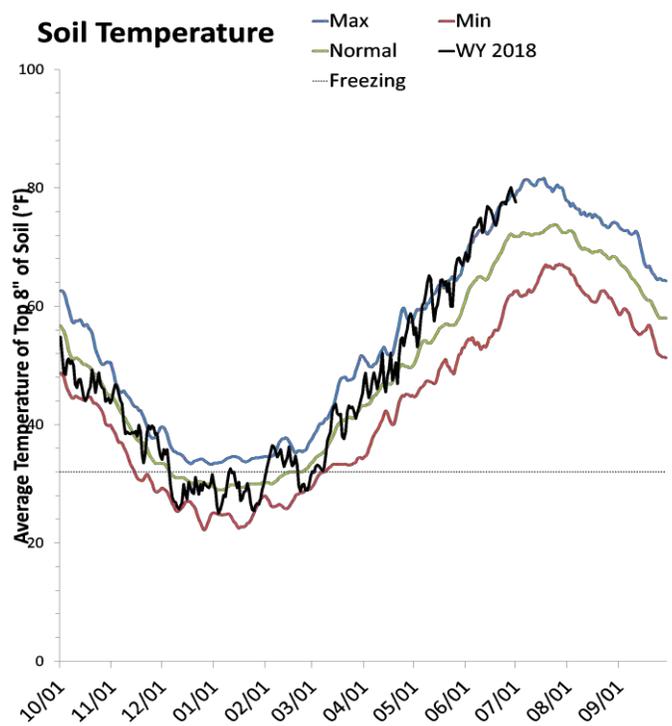
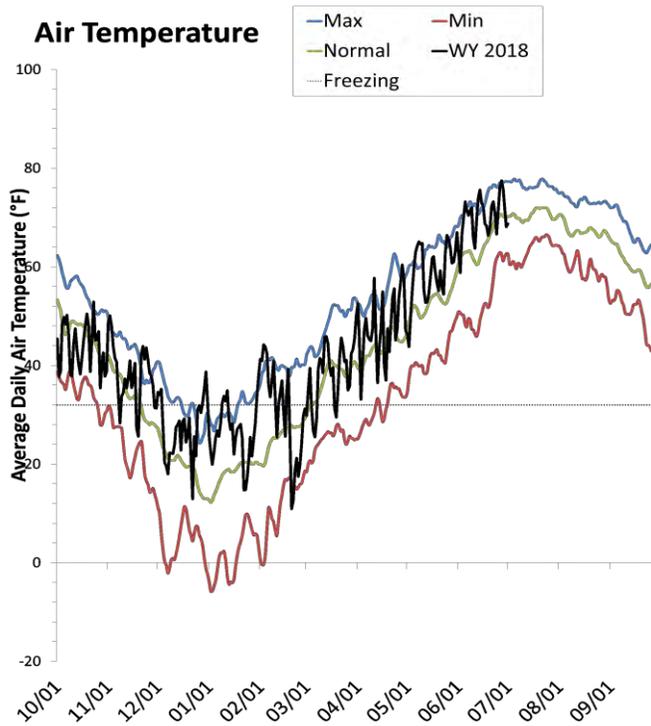
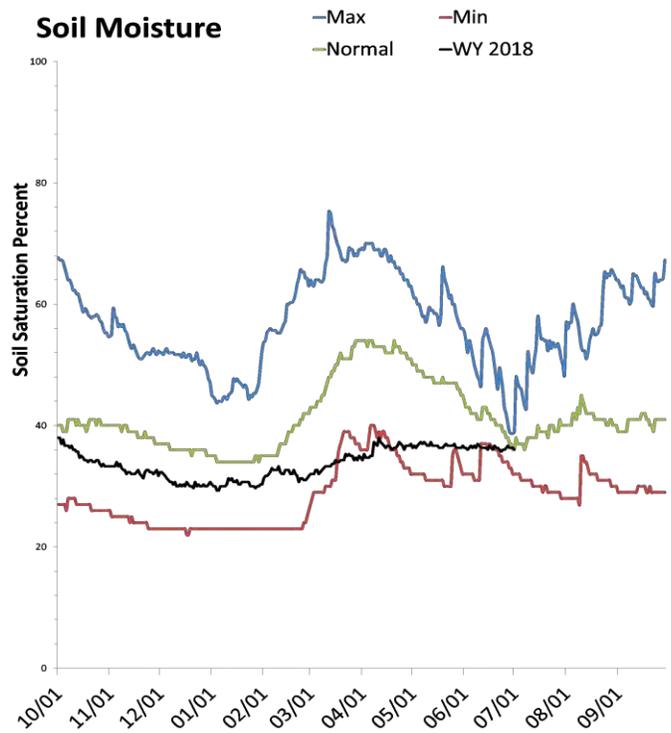
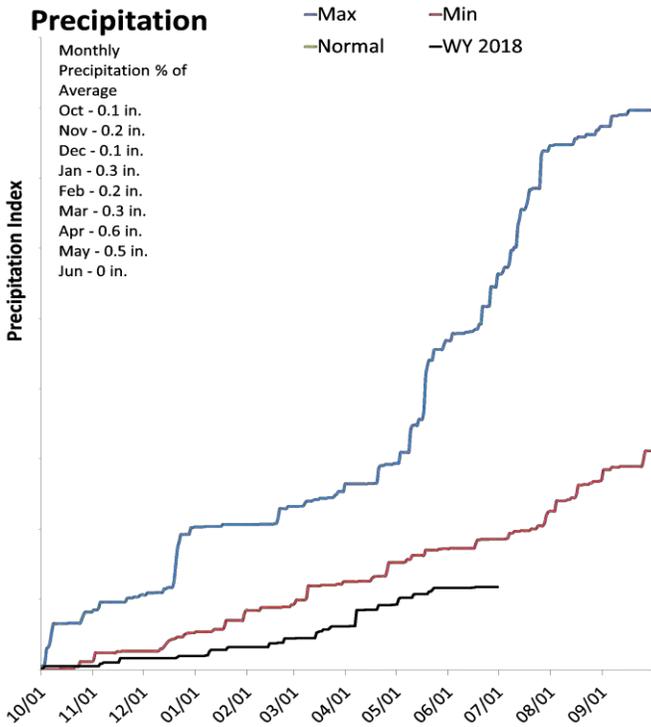
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Uinta Basin

July 1, 2018

The average precipitation in June at SCAN sites within the basin was 0 inches, which brings the seasonal accumulation (Oct-Jun) to 2.4 inches. Soil moisture is at 36% compared to 38% last year.



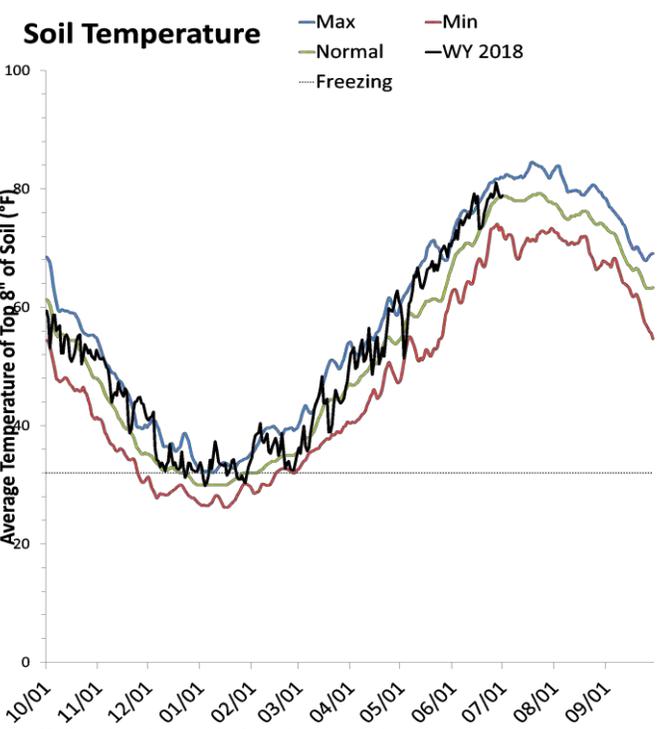
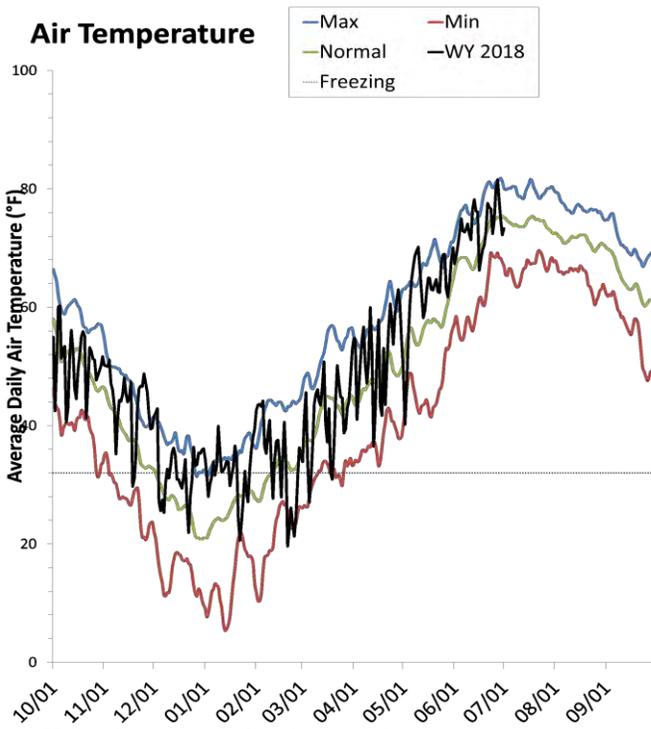
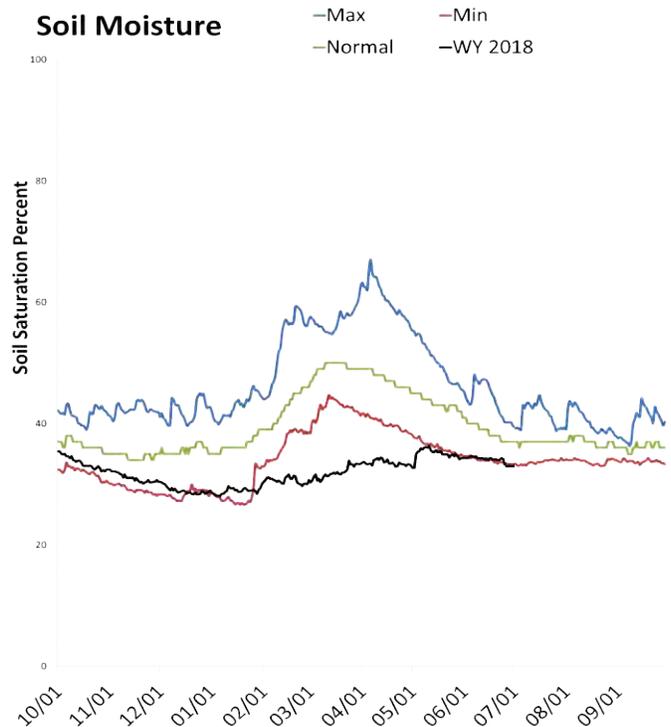
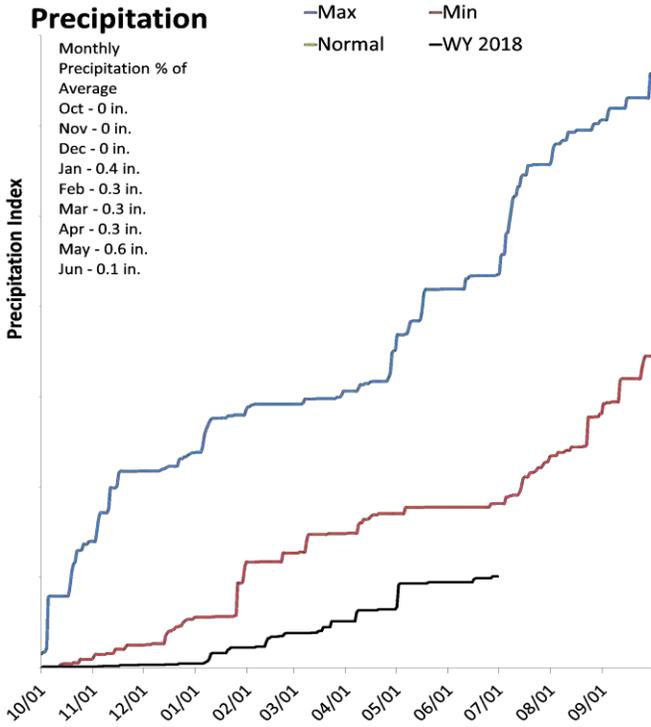
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Southeast

July 1, 2018

The average precipitation in June at SCAN sites within the basin was 0.1 inches, which brings the seasonal accumulation (Oct-Jun) to 2 inches. Soil moisture is at 38% compared to 37% last year.



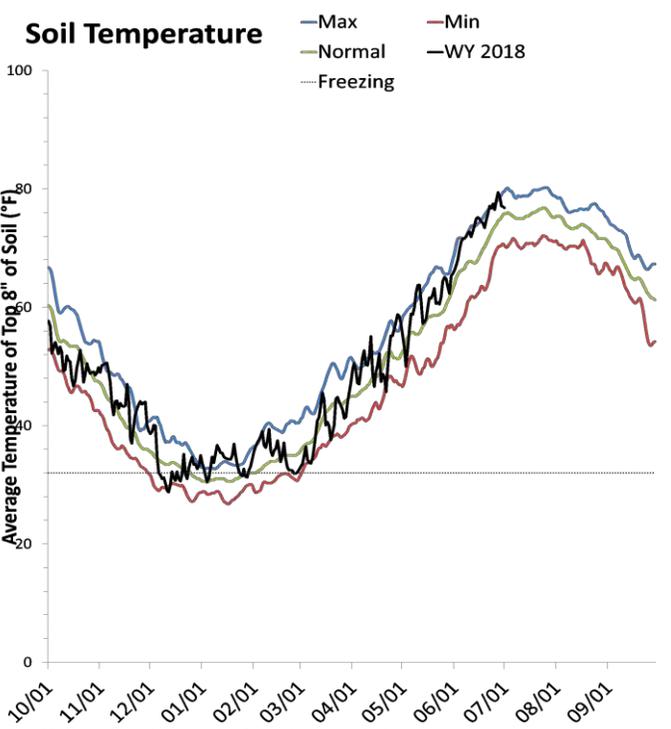
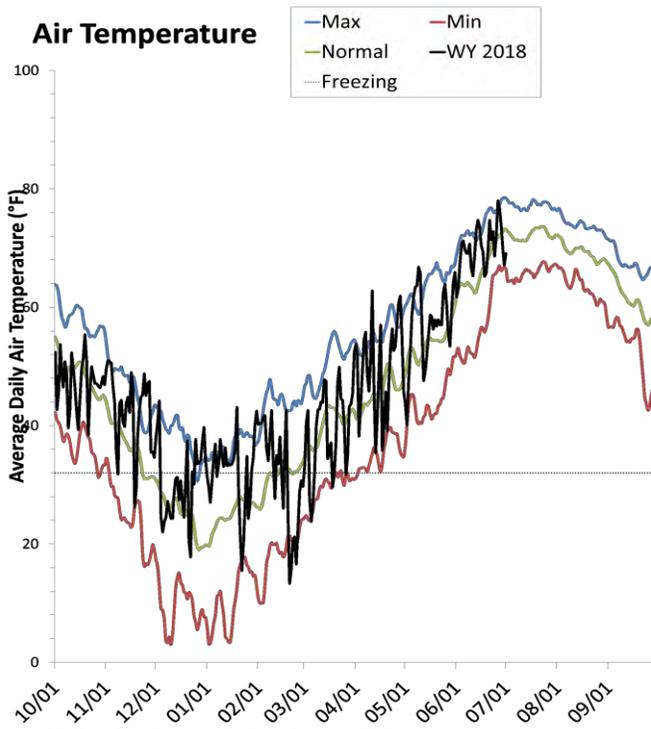
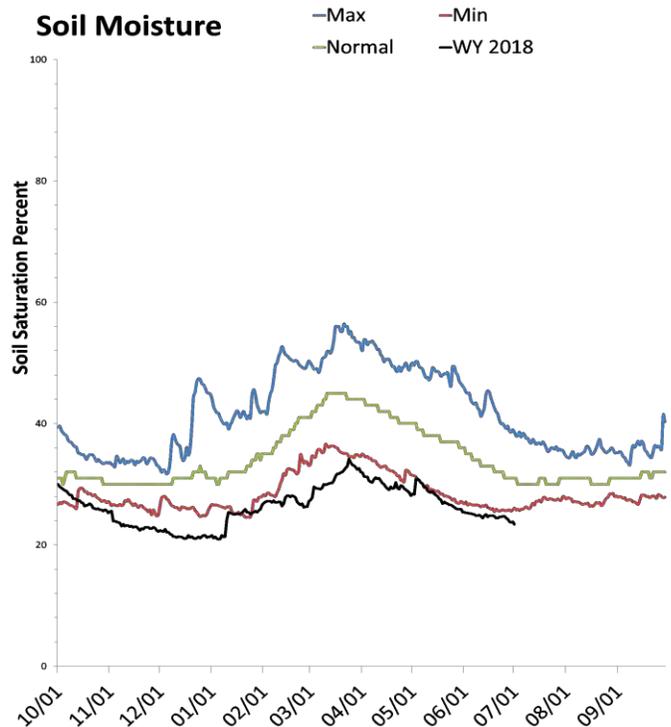
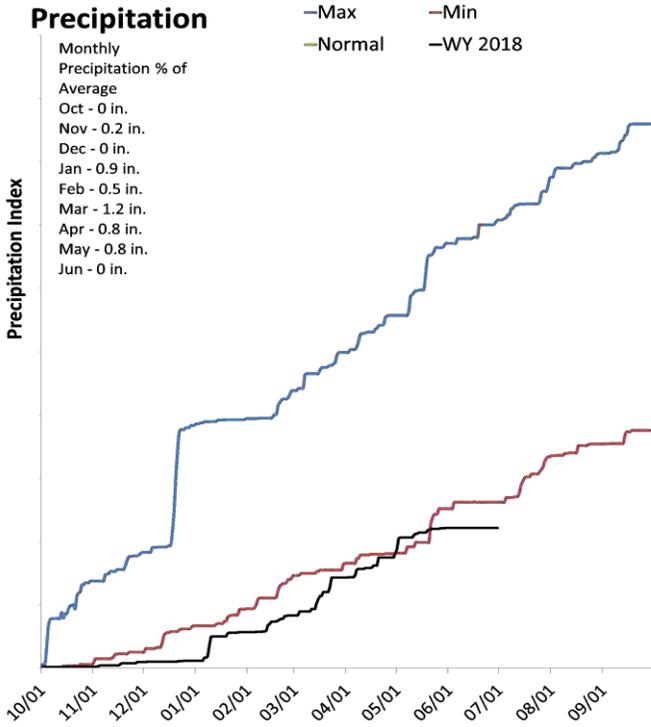
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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South Central

July 1, 2018

The average precipitation in June at SCAN sites within the basin was 0 inches, which brings the seasonal accumulation (Oct-Jun) to 4.4 inches. Soil moisture is at 24% compared to 30% last year.



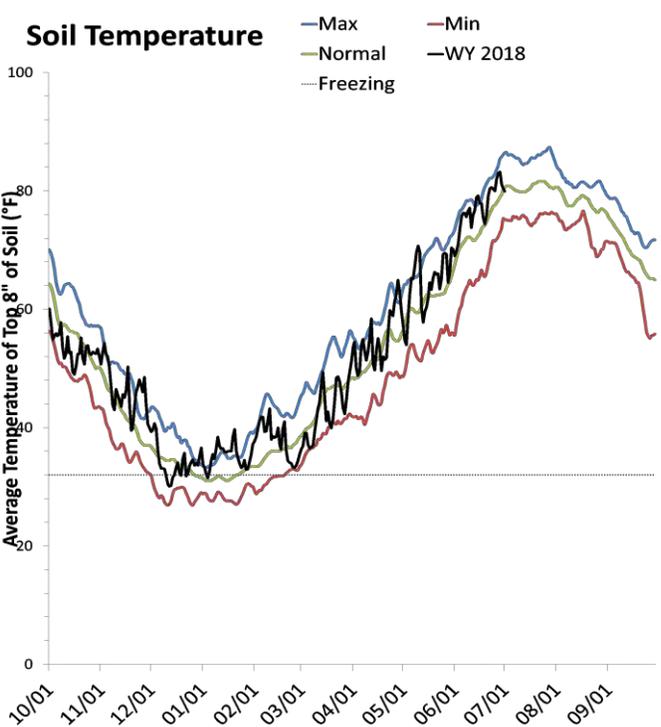
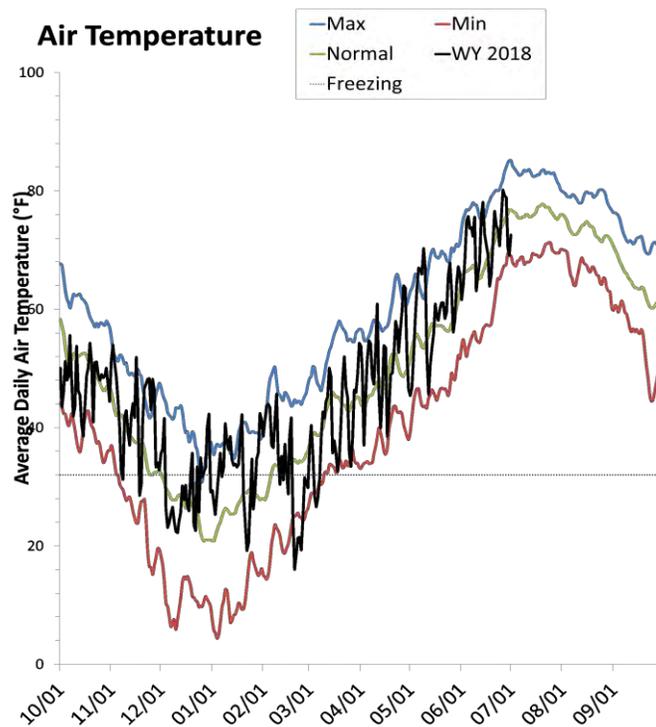
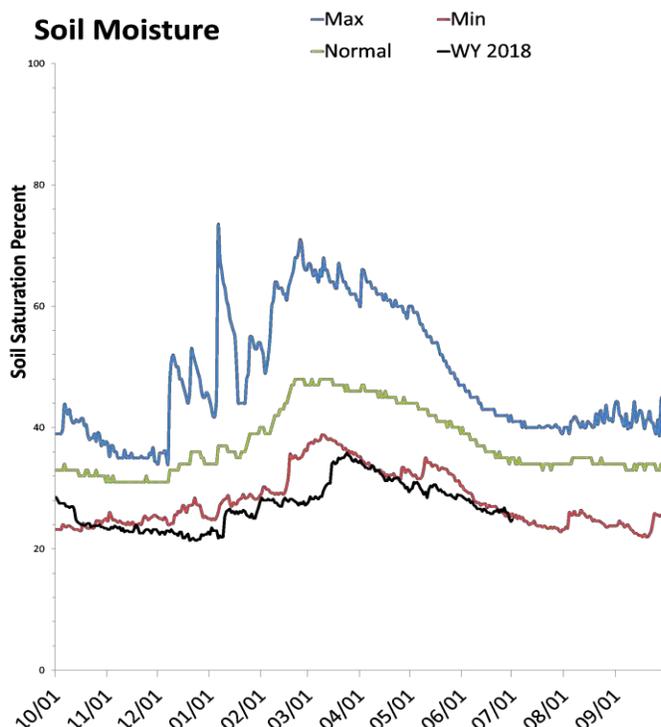
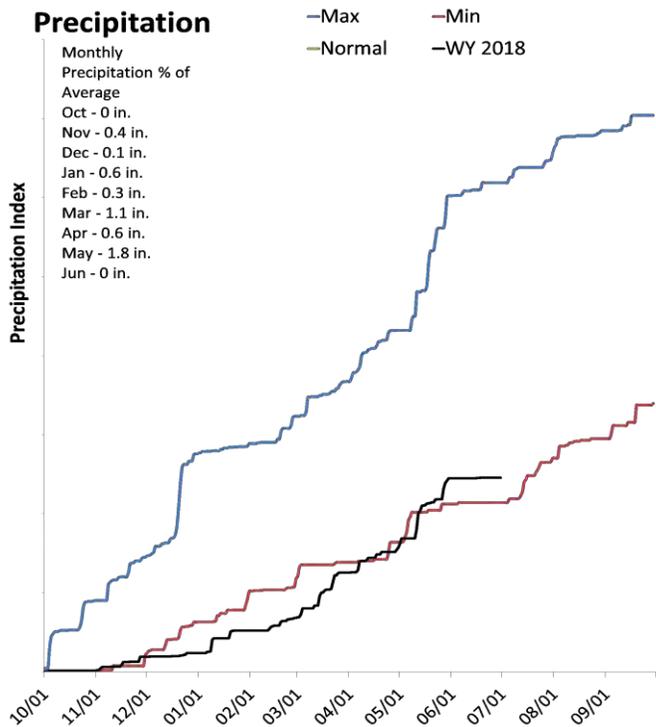
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Western and Dixie

July 1, 2018

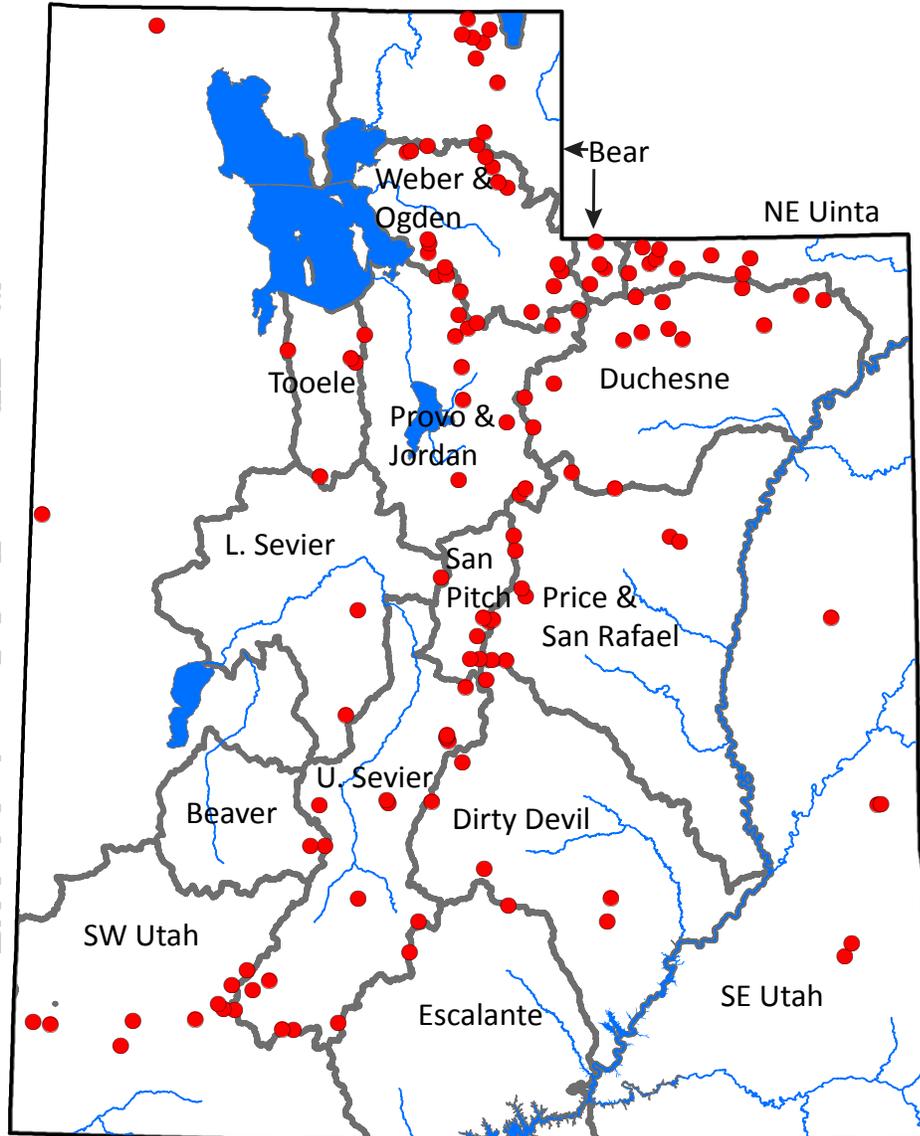
The average precipitation in June at SCAN sites within the basin was 0 inches, which brings the seasonal accumulation (Oct-Jun) to 4.9 inches. Soil moisture is at 24% compared to 26% last year.



*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.

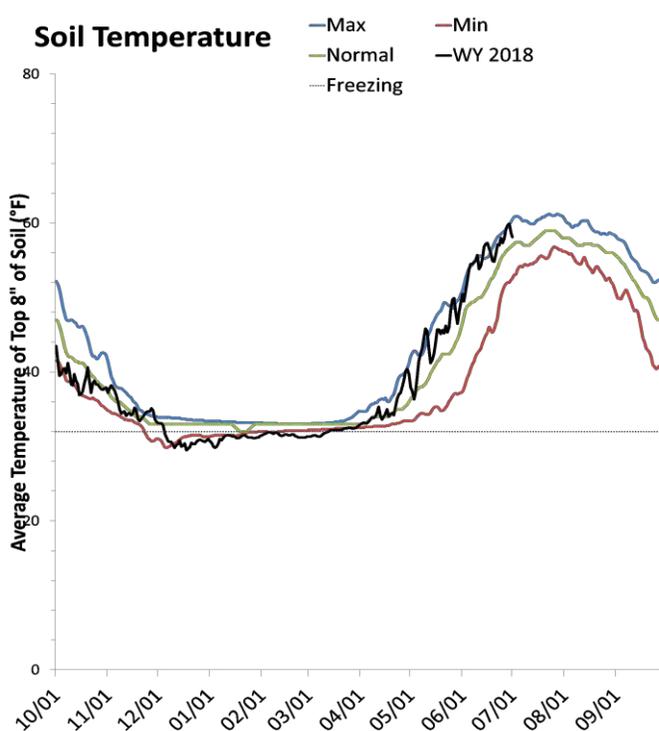
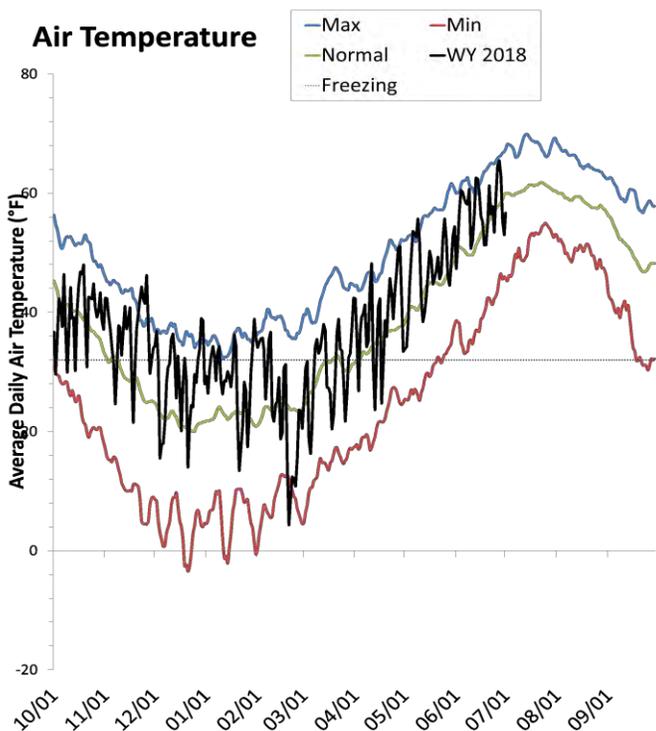
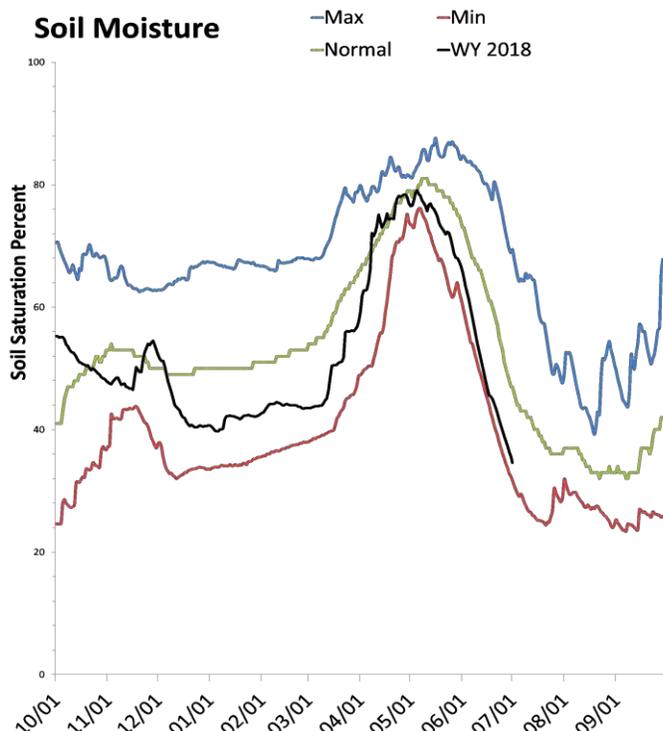
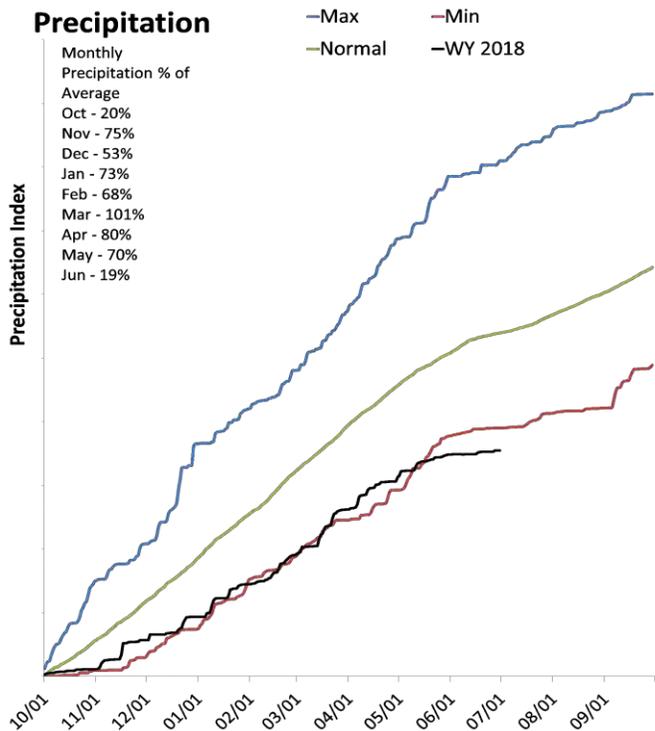
SNOTEL portion of report



Statewide SNOTEL

July 1, 2018

Precipitation at SNOTEL sites during June was much below average at 13%, which brings the seasonal accumulation (Oct-Jun) to 66% of average. Soil moisture is at 35% compared to 45% last year. Reservoir storage is at 73% of capacity, compared to 85% last year.



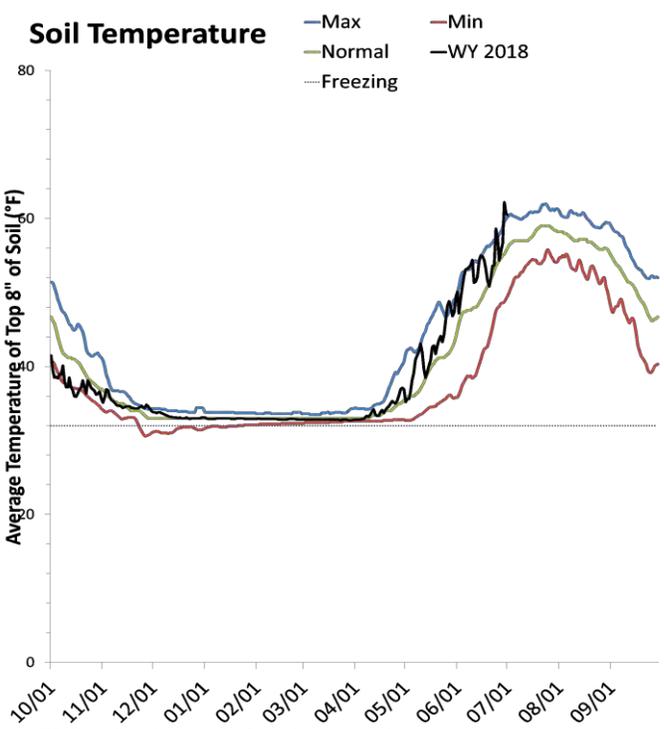
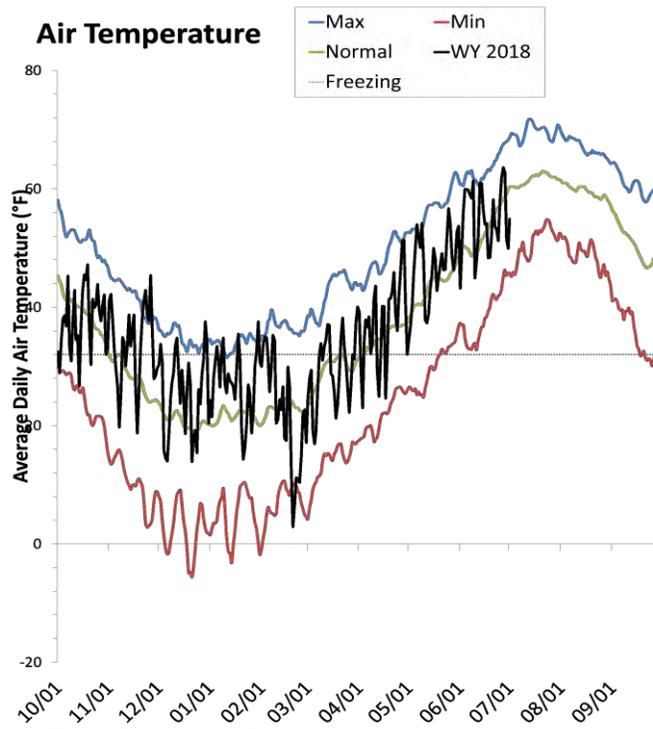
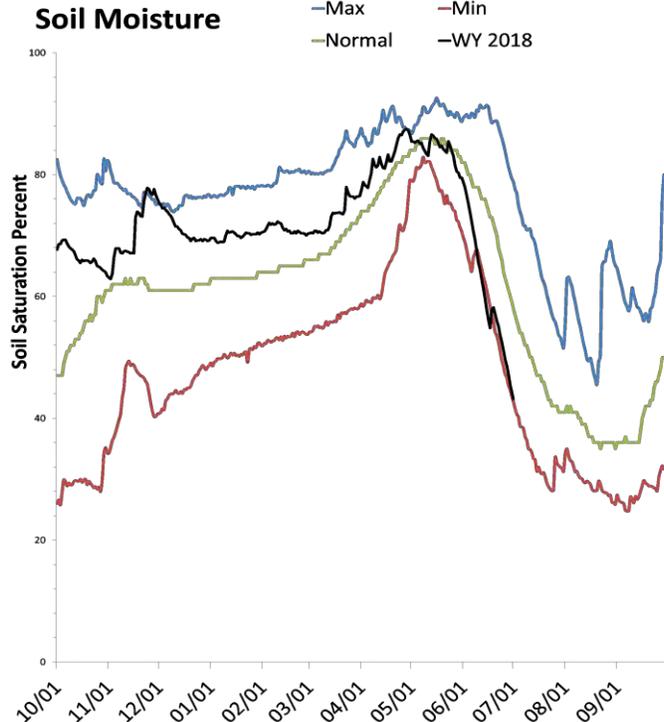
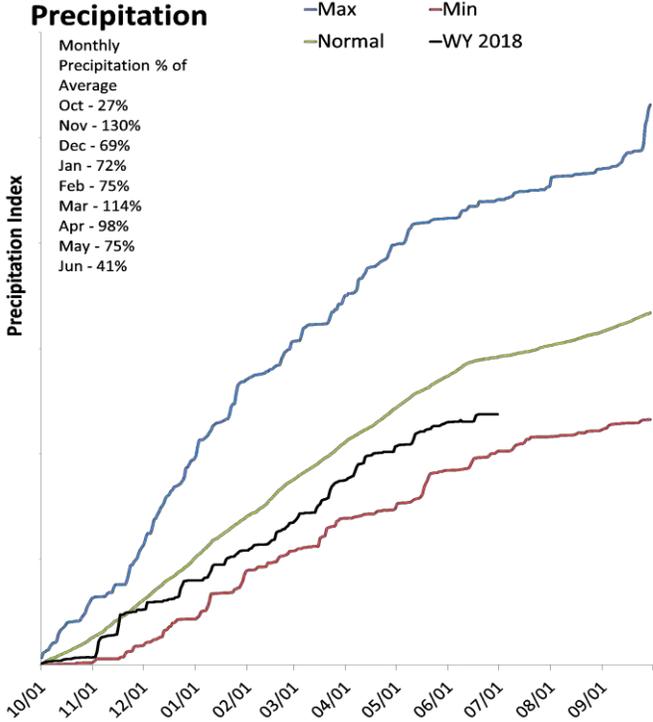
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Bear River Basin

July 1, 2018

Precipitation in June was much below average at 41%, which brings the seasonal accumulation (Oct-Jun) to 81% of average. Soil moisture is at 44% compared to 61% last year. Reservoir storage is at 78% of capacity, compared to 92% last year. The water availability index for the Bear River is 72%, 33% for Woodruff Narrows and 33% for the Little Bear.



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

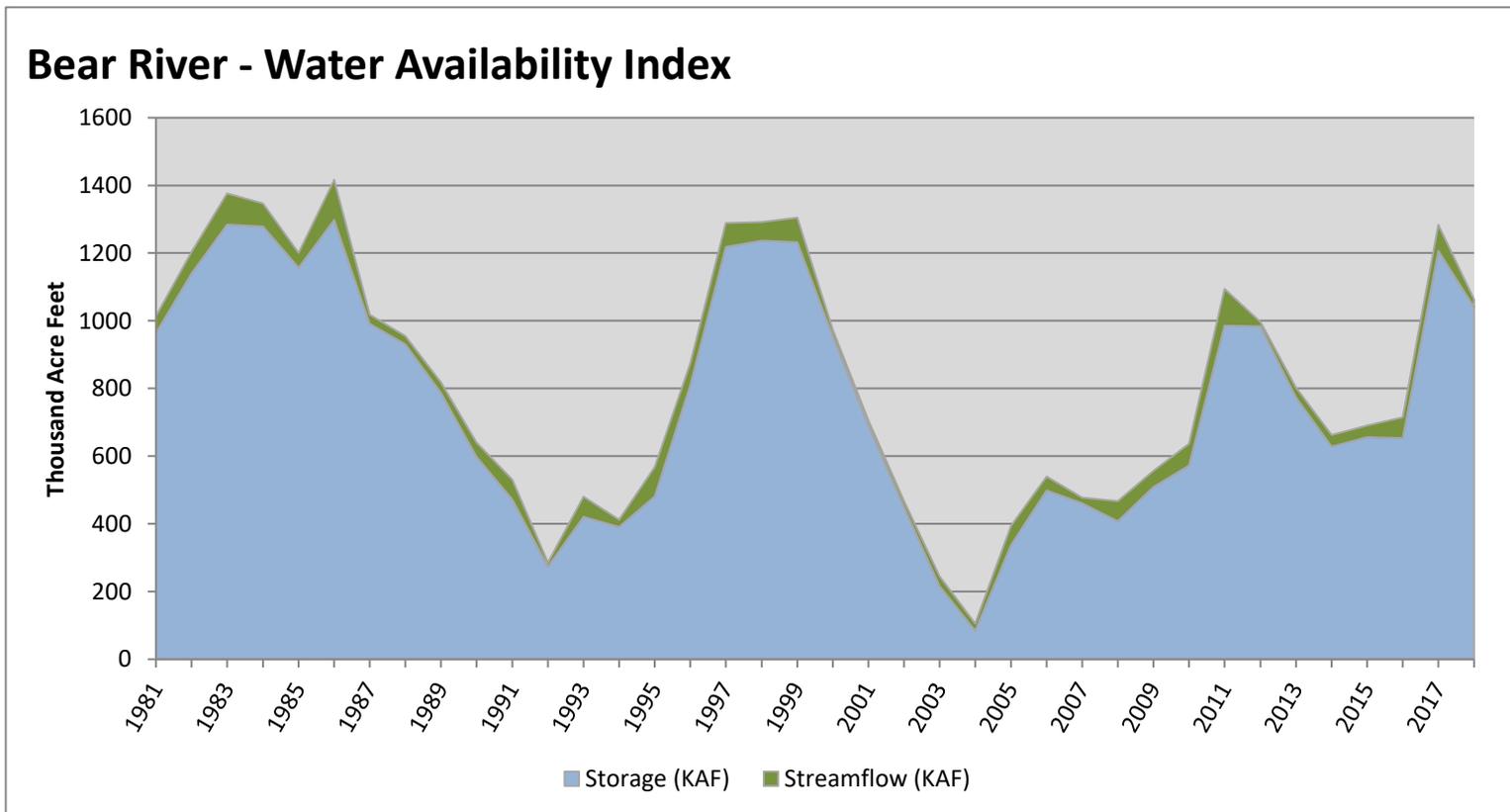
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Bear River	1040.33	23.38	1063.71	72	1.82	81, 87, 11, 85

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

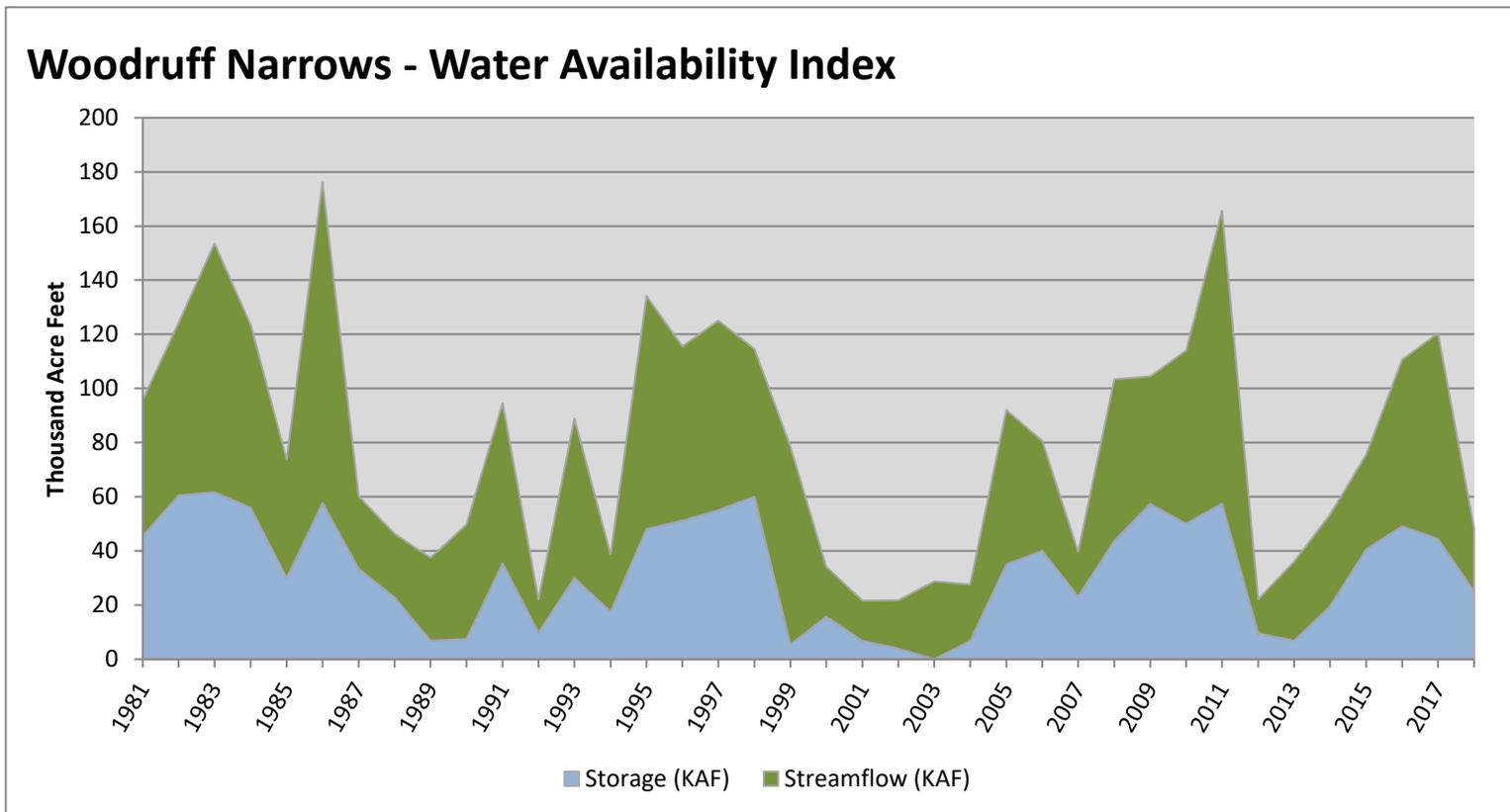


July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Woodruff Narrows	24.97	23.38	48.35	33	-1.39	07, 88, 90, 14

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

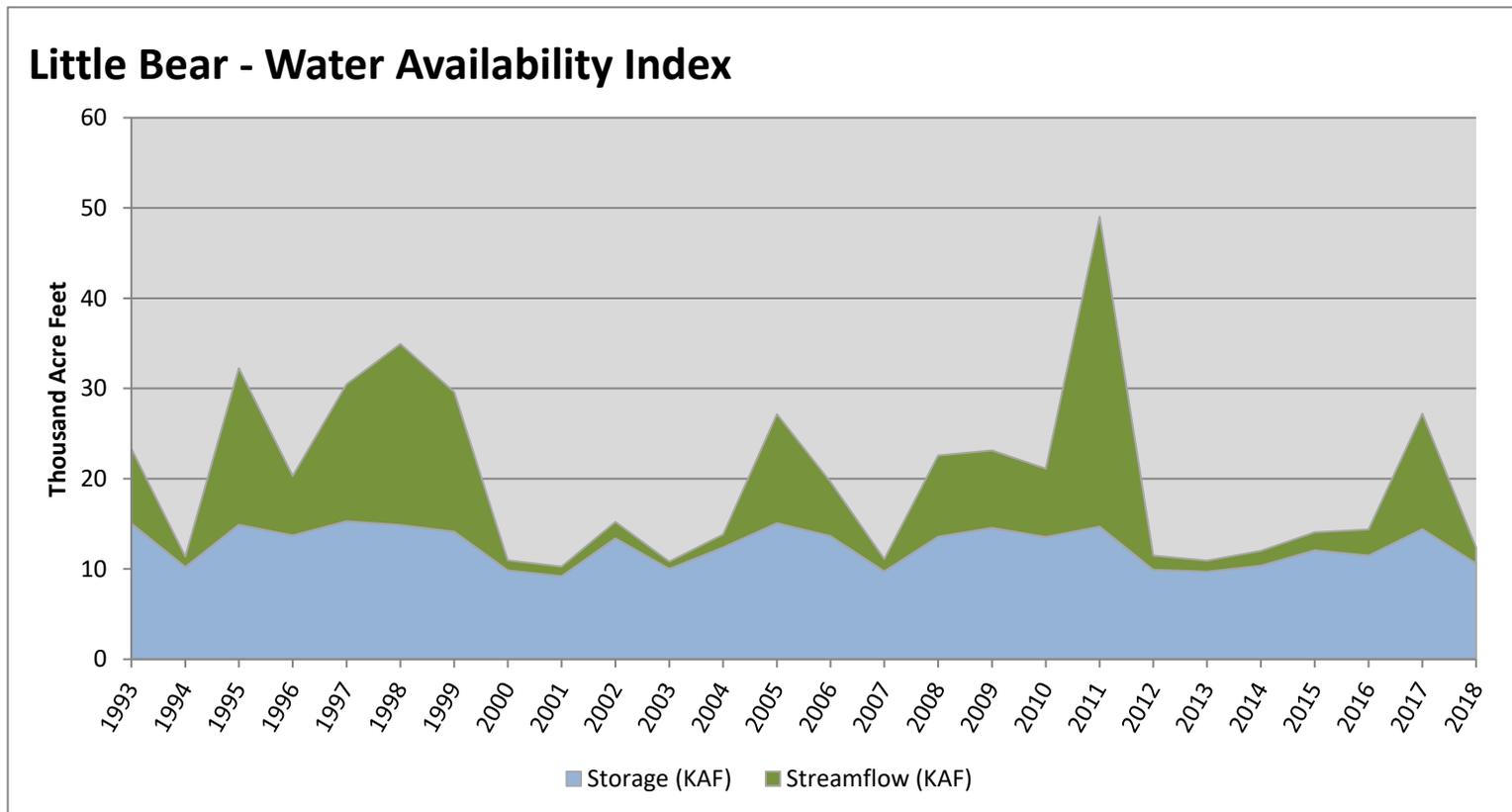


July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Little Bear	10.60	1.79	12.39	33	-1.39	12, 14, 04, 15

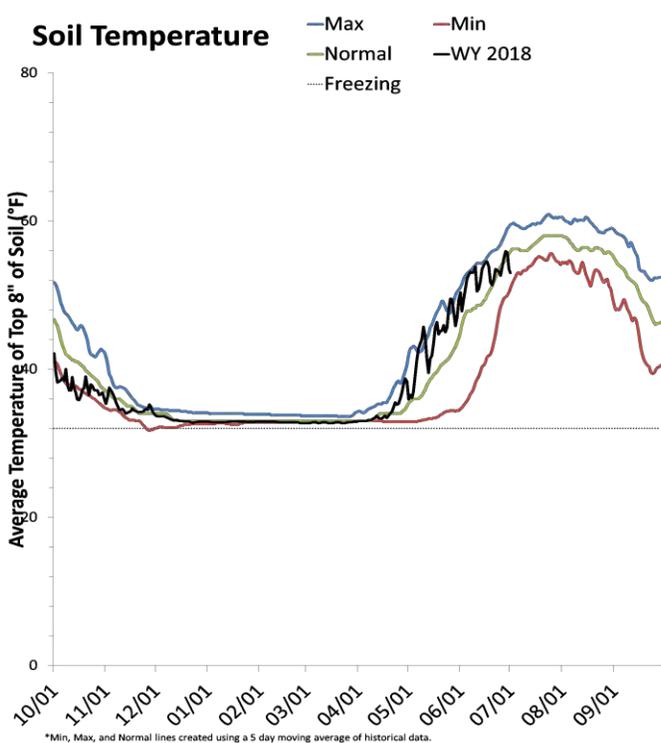
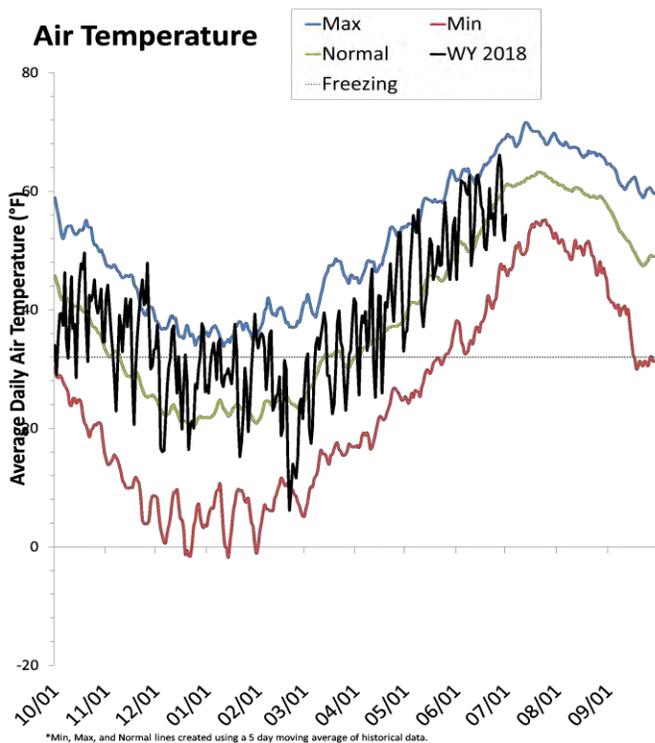
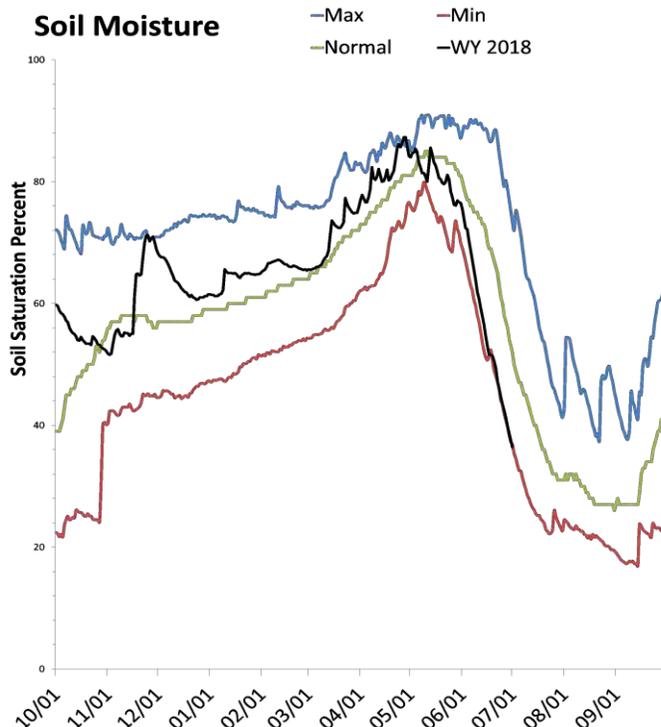
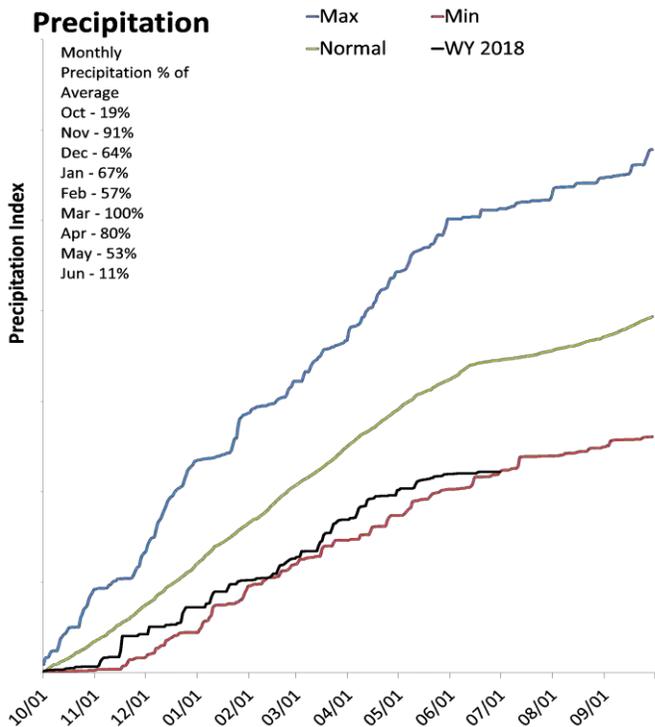
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Weber & Ogden River Basins

July 1, 2018

Precipitation in June was much below average at 10%, which brings the seasonal accumulation (Oct-Jun) to 64% of average. Soil moisture is at 37% compared to 54% last year. Reservoir storage is at 80% of capacity, compared to 97% last year. The water availability index for the Ogden River is 36% and 24% for the Weber River.



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

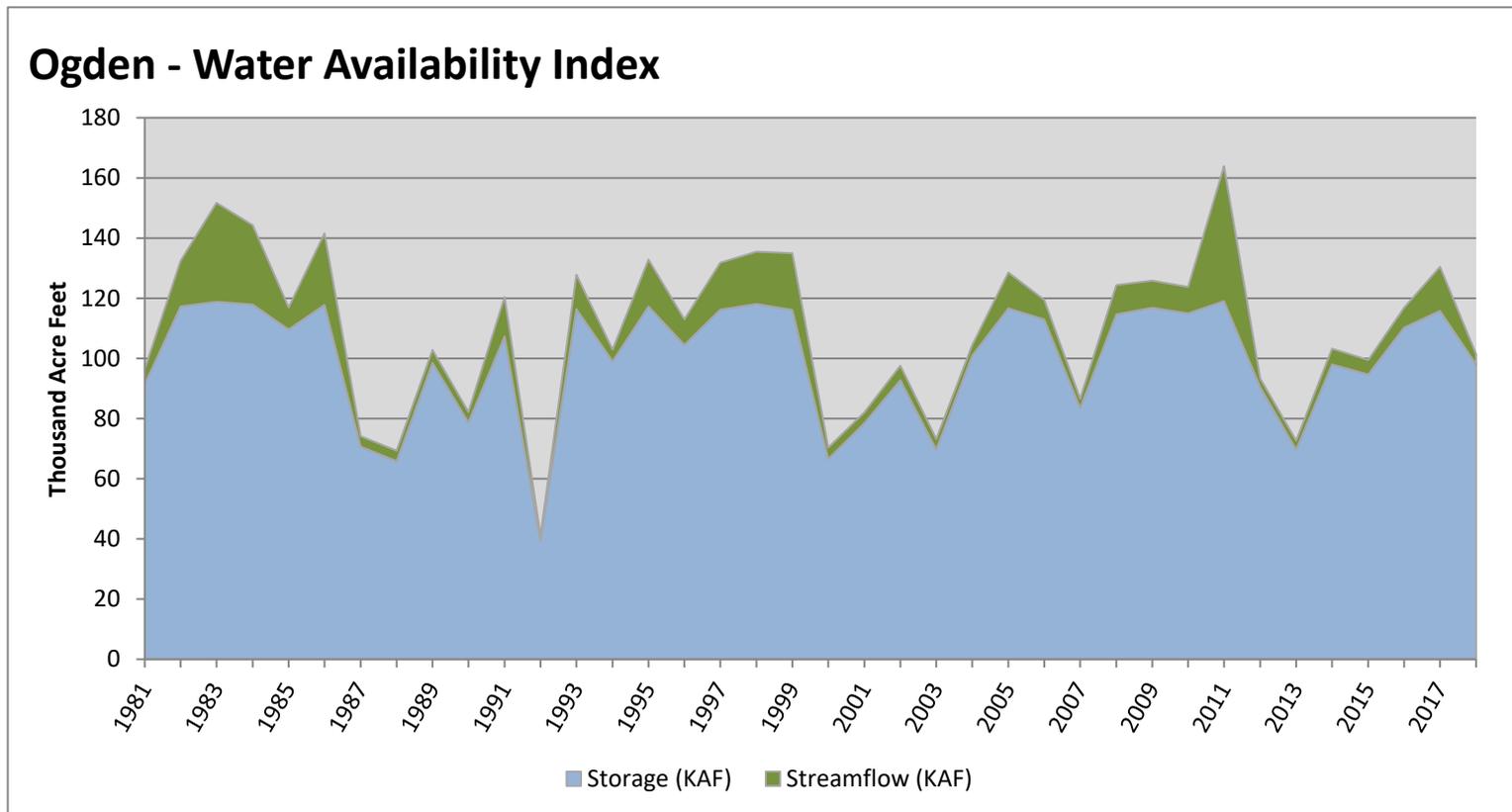
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Ogden	98.04	3.41	101.45	36	-1.18	02, 15, 89, 94

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

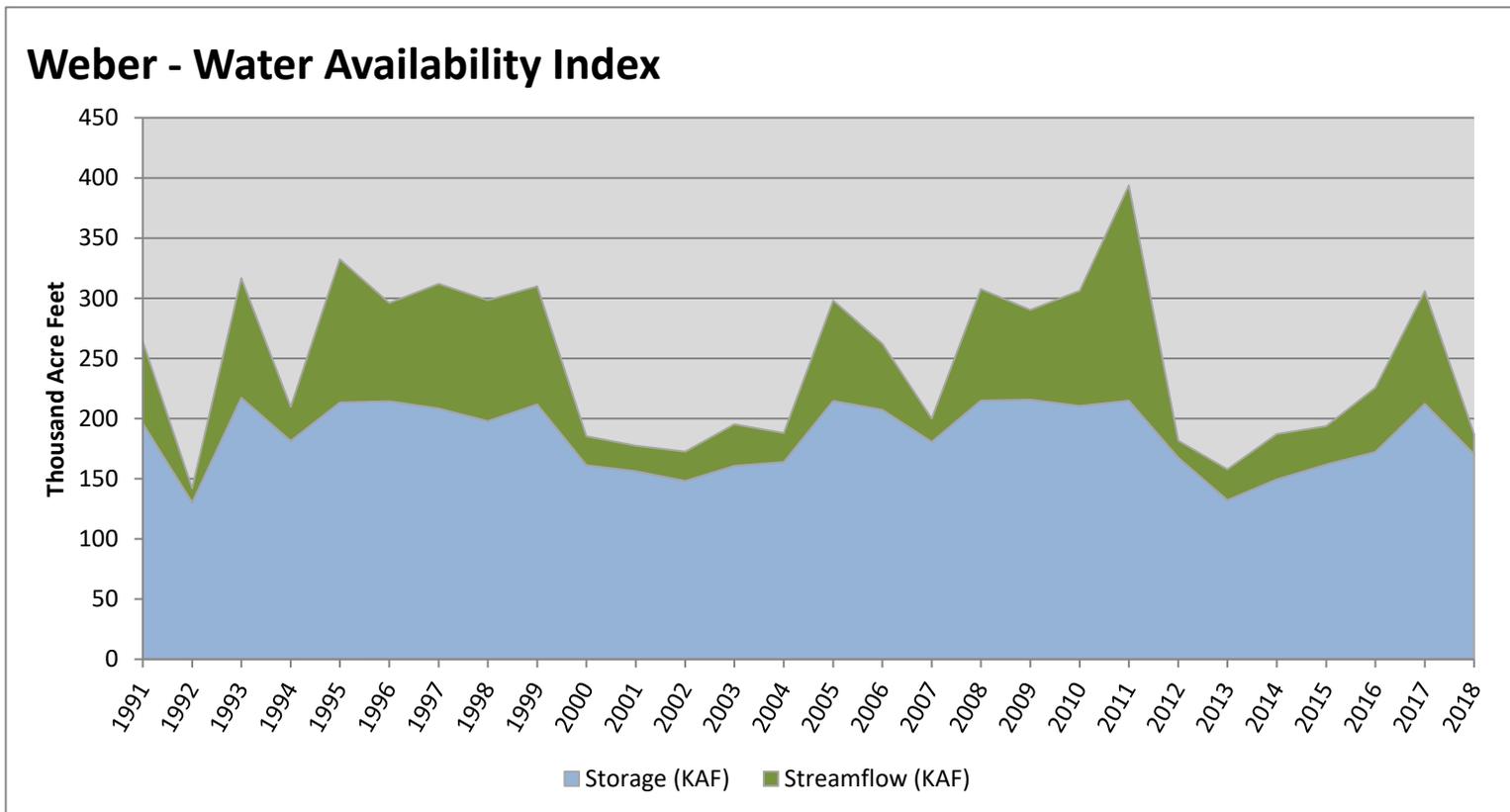


July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [^] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Weber	170.42	16.70	187.12	24	-2.16	12, 00, 14, 04

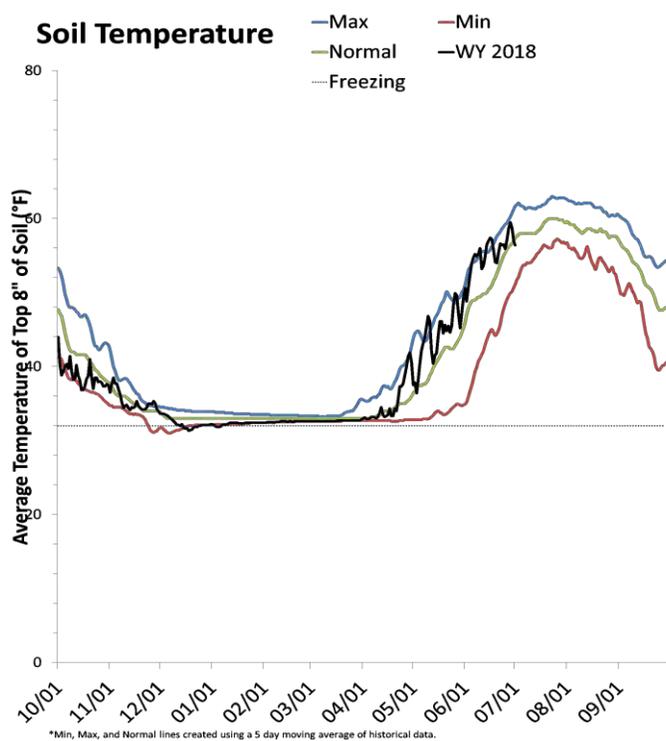
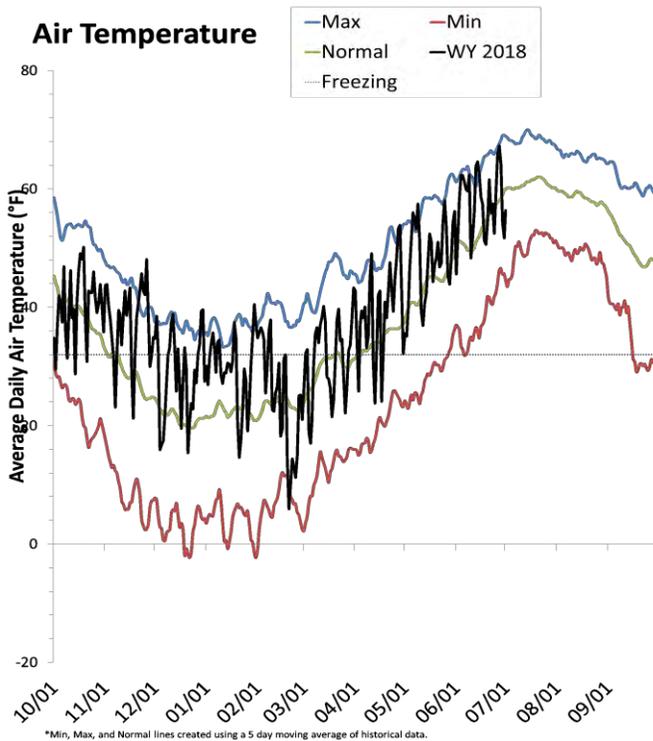
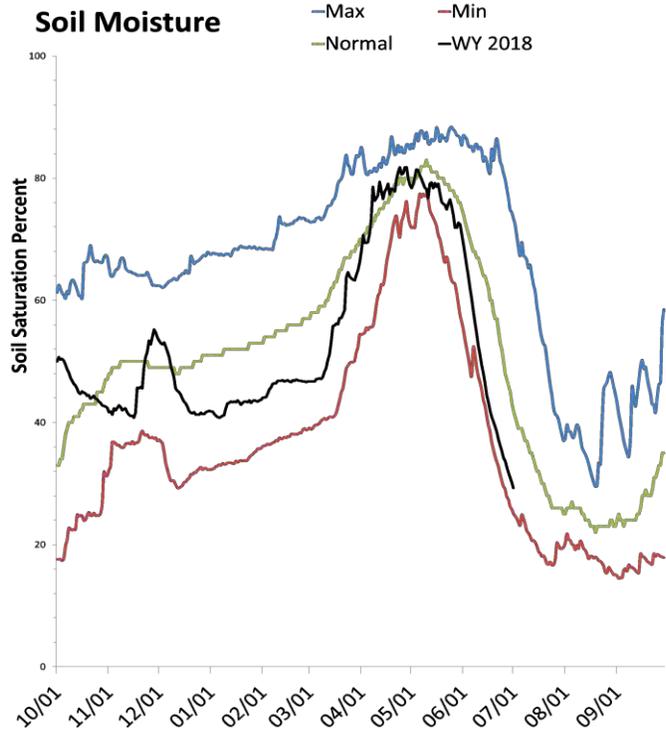
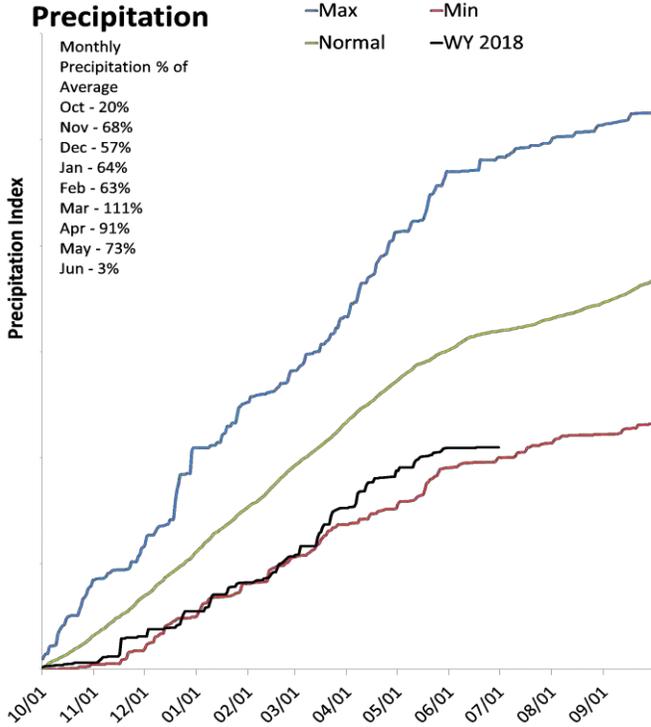
[^]EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Provo & Jordan River Basins

July 1, 2018

Precipitation in June was much below average at 3%, which brings the seasonal accumulation (Oct-Jun) to 66% of average. Soil moisture is at 30% compared to 39% last year. Reservoir storage is at 78% of capacity, compared to 84% last year. The water availability index for the Provo River is 46%.



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

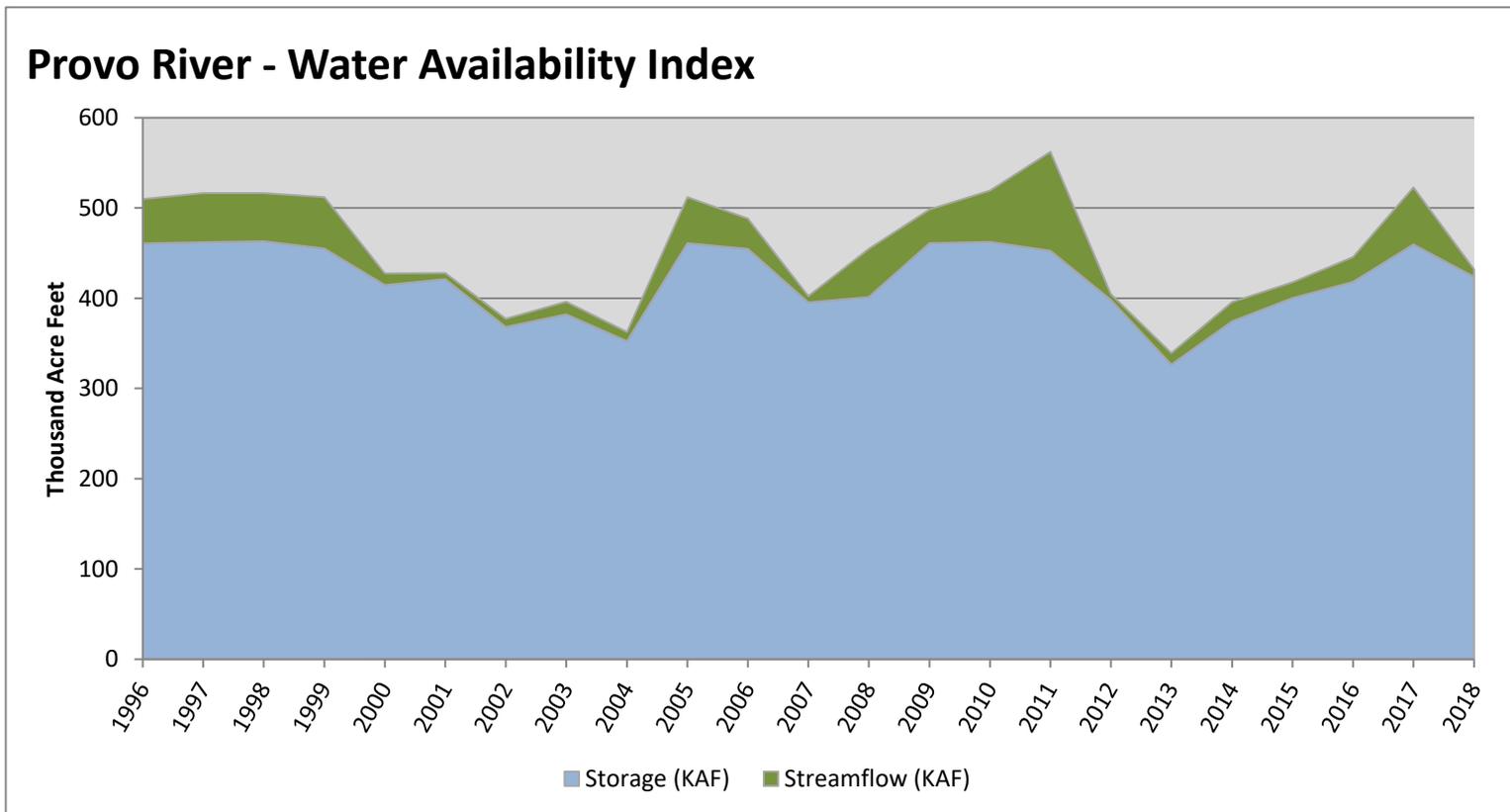
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July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Provo River	423.50	8.70	432.20	46	-0.35	00, 01, 16, 08

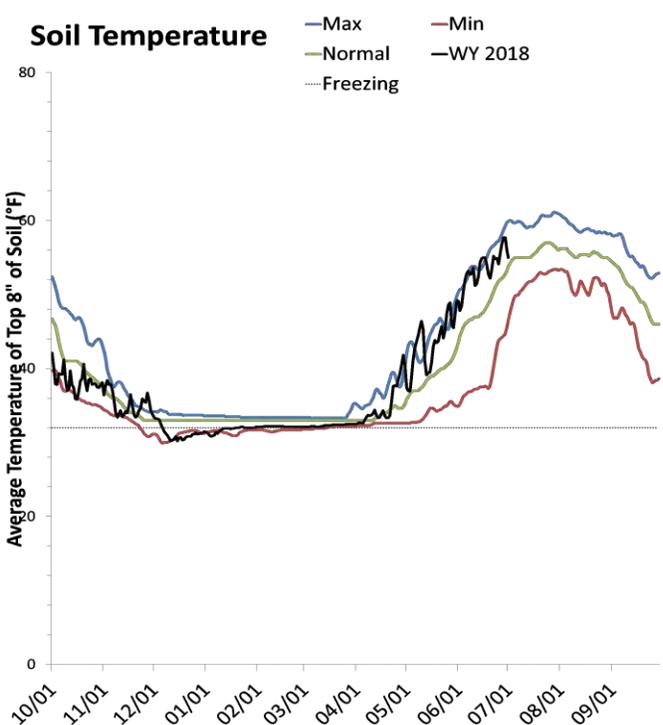
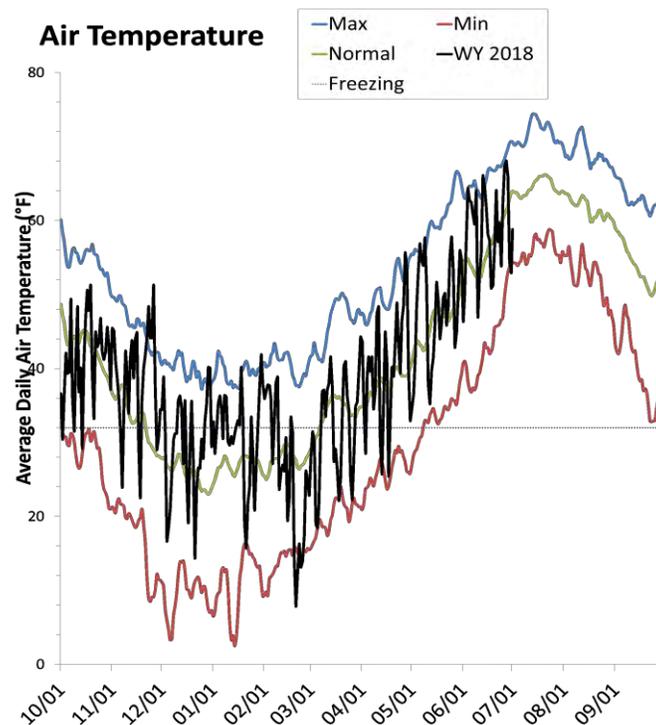
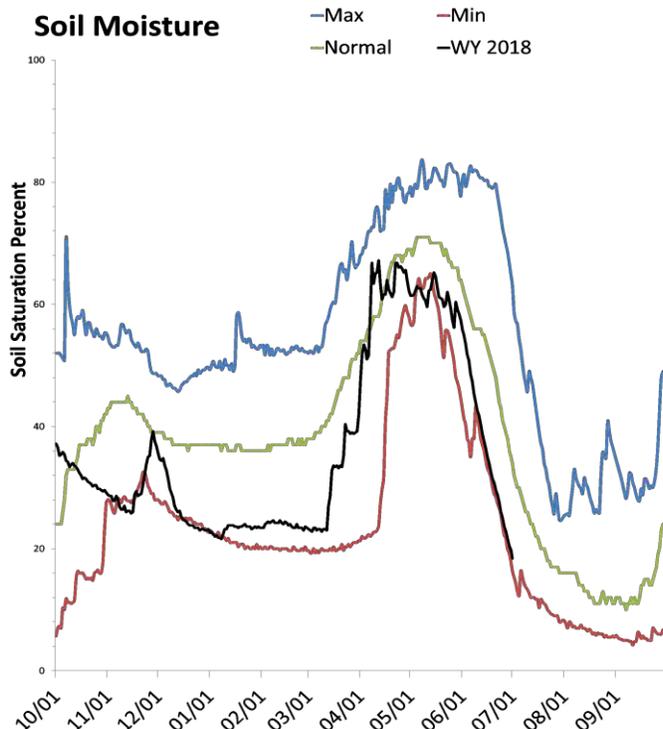
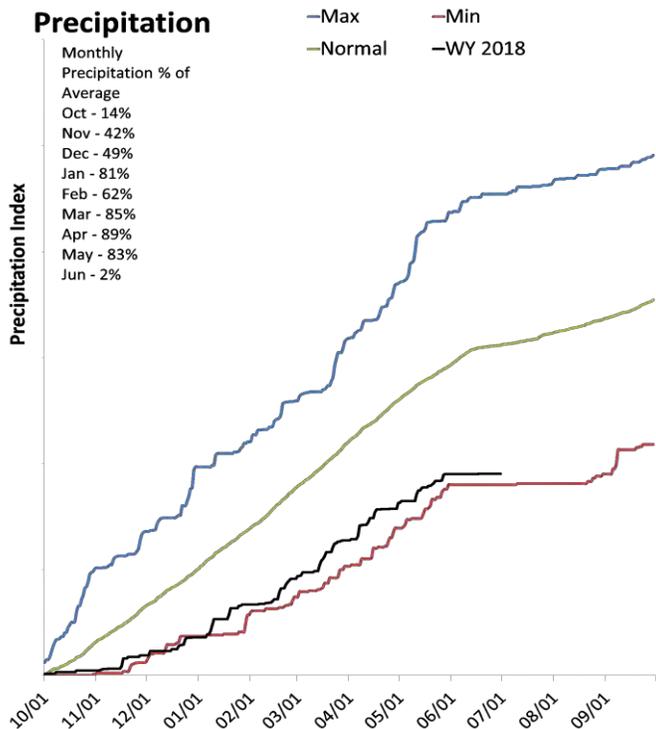
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Tooele Valley & West Desert Basins

July 1, 2018

Precipitation in June was much below average at 2%, which brings the seasonal accumulation (Oct-Jun) to 61% of average. Soil moisture is at 19% compared to 29% last year. Reservoir storage is at 53% of capacity, compared to 84% last year.



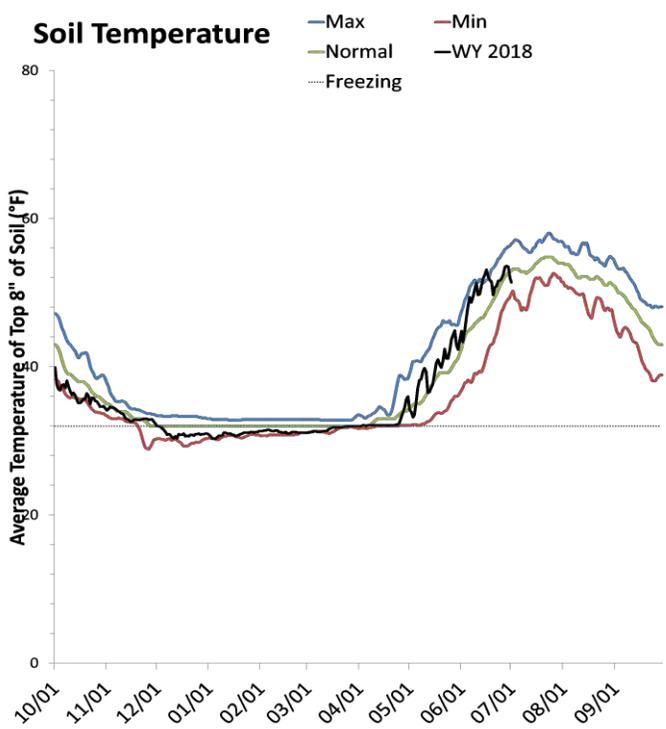
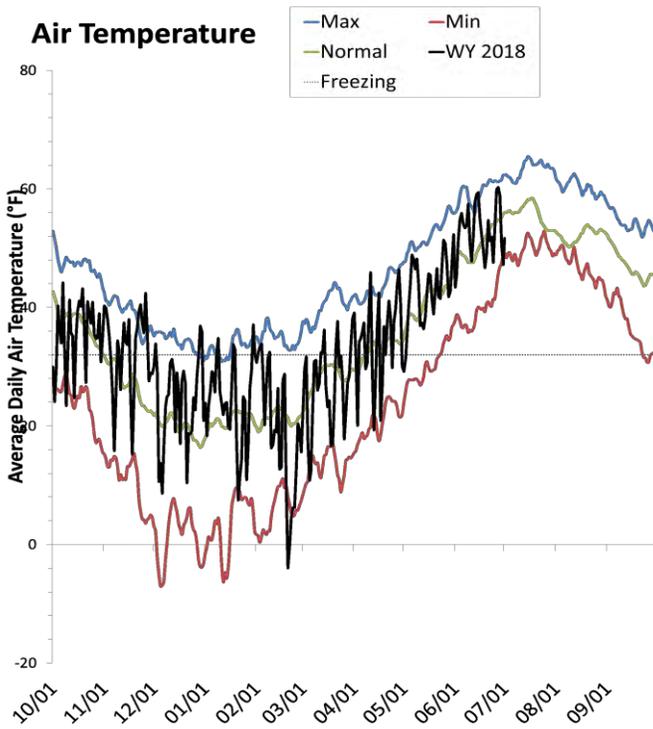
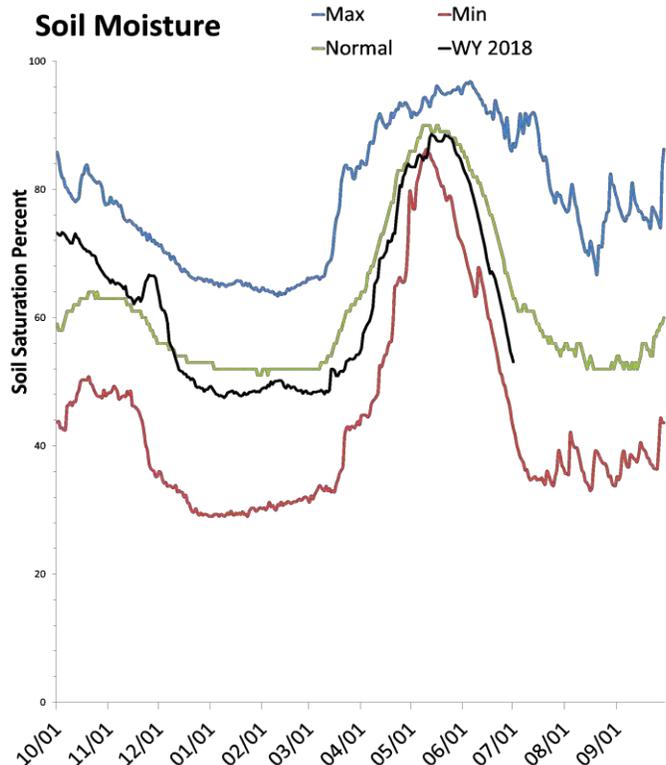
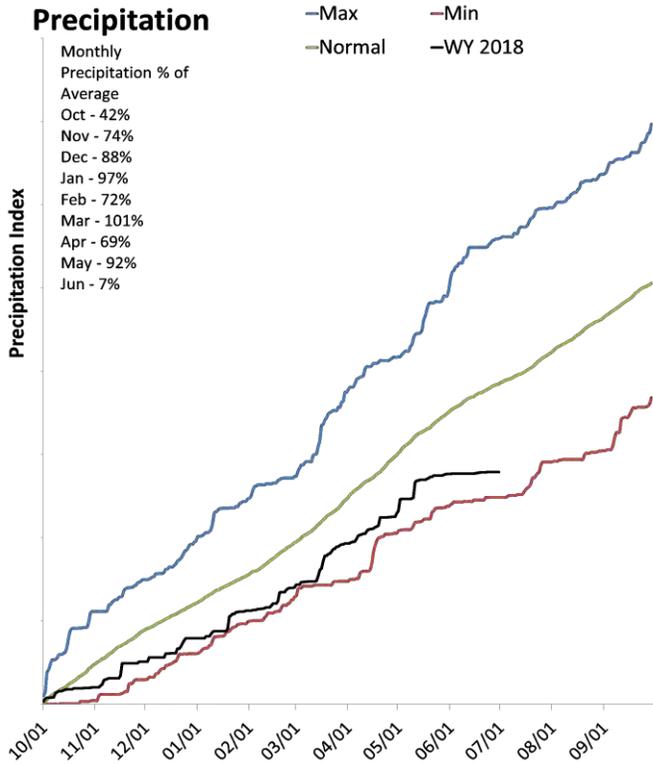
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Northeastern Uinta Basin

July 1, 2018

Precipitation in June was much below average at 7%, which brings the seasonal accumulation (Oct-Jun) to 72% of average. Soil moisture is at 49% compared to 61% last year. Reservoir storage is at 94% of capacity, compared to 91% last year. The water availability index for Blacks Fork is 33% and 26% for Smiths Creek.



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

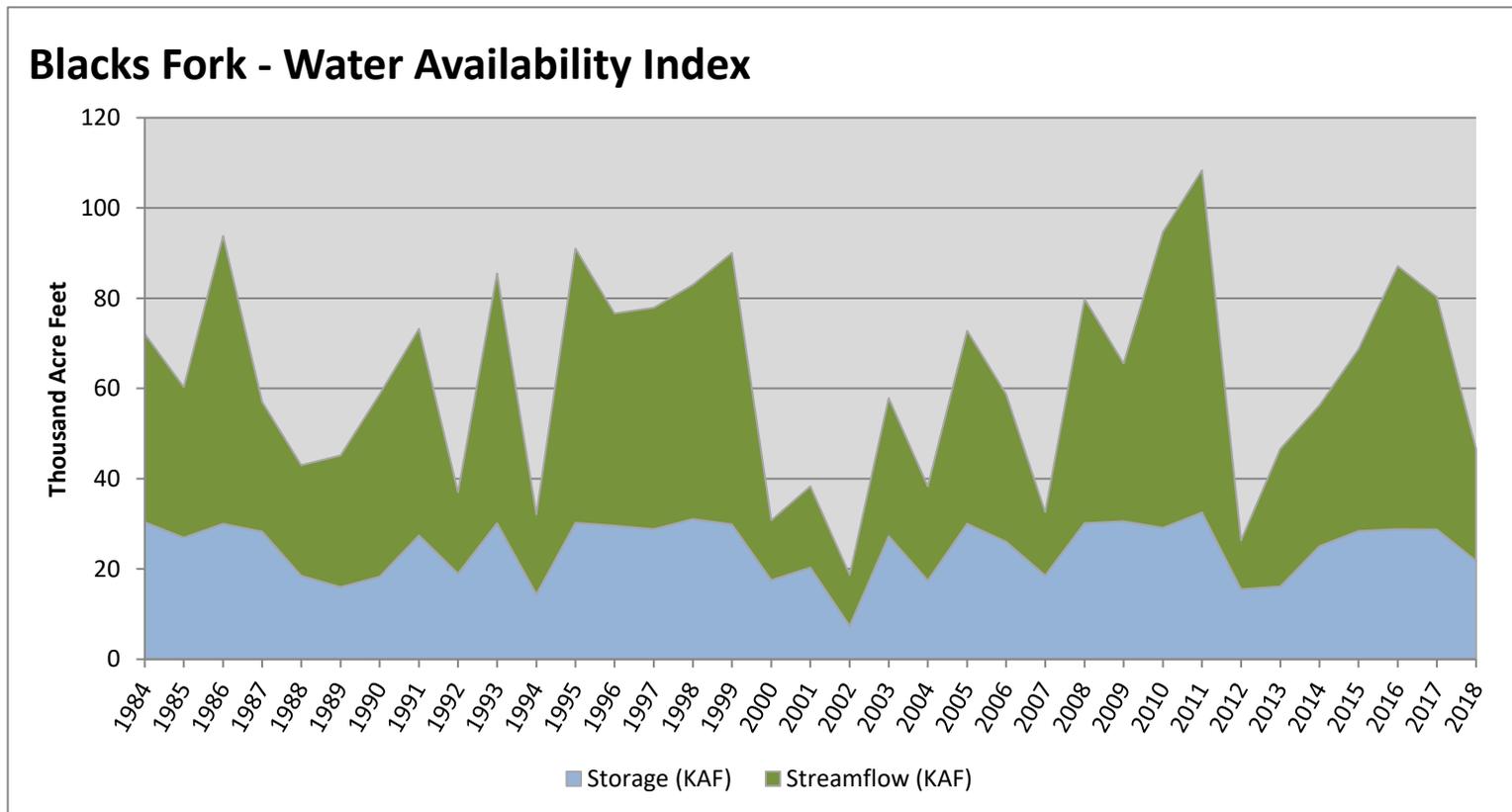
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Blacks Fork	21.77	24.85	46.62	33	-1.39	89, 13, 14, 87

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

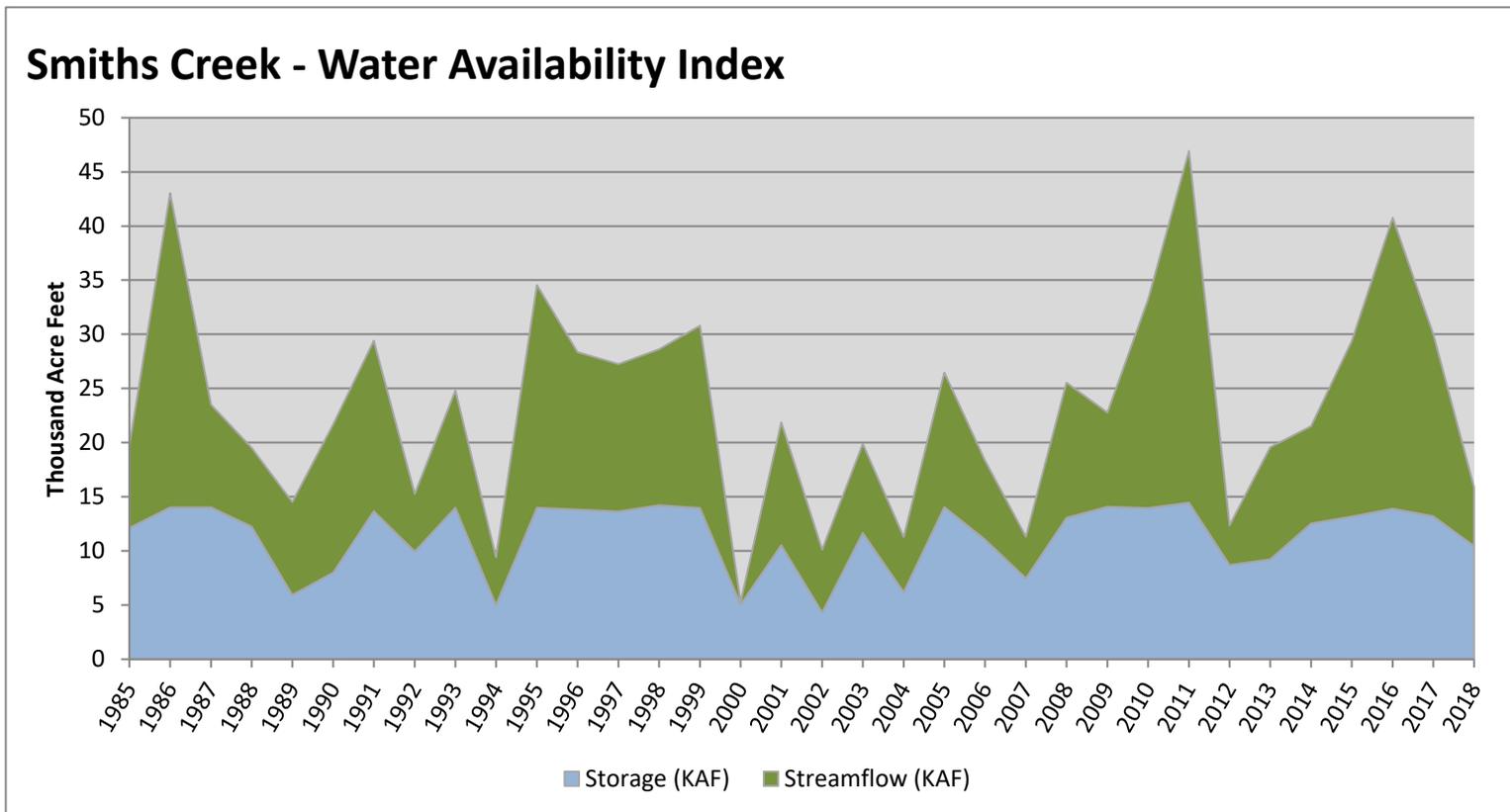


July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [^] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Smiths Creek	10.43	5.44	15.87	26	-2.02	89, 92, 06, 88

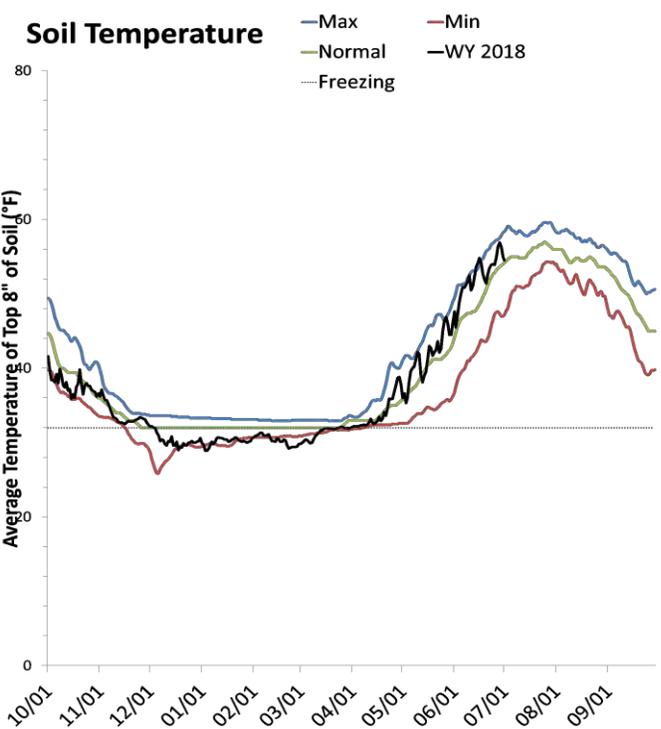
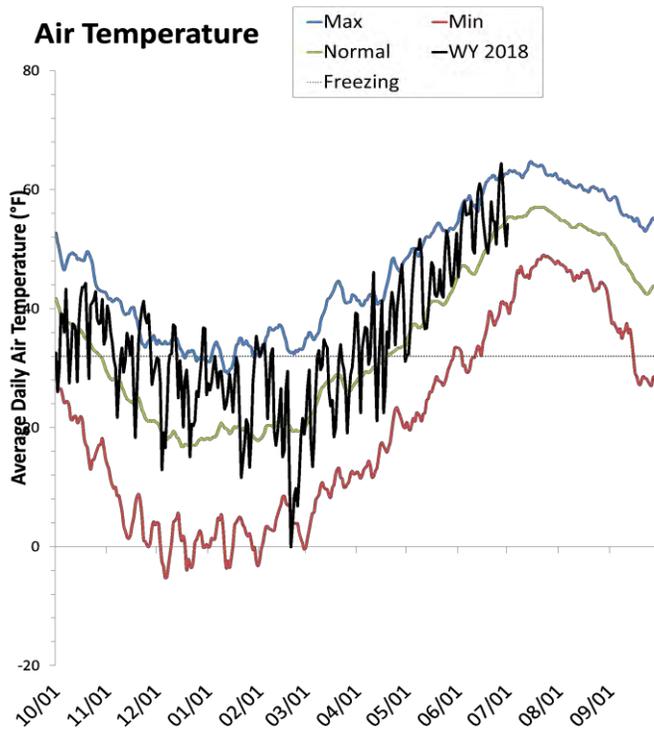
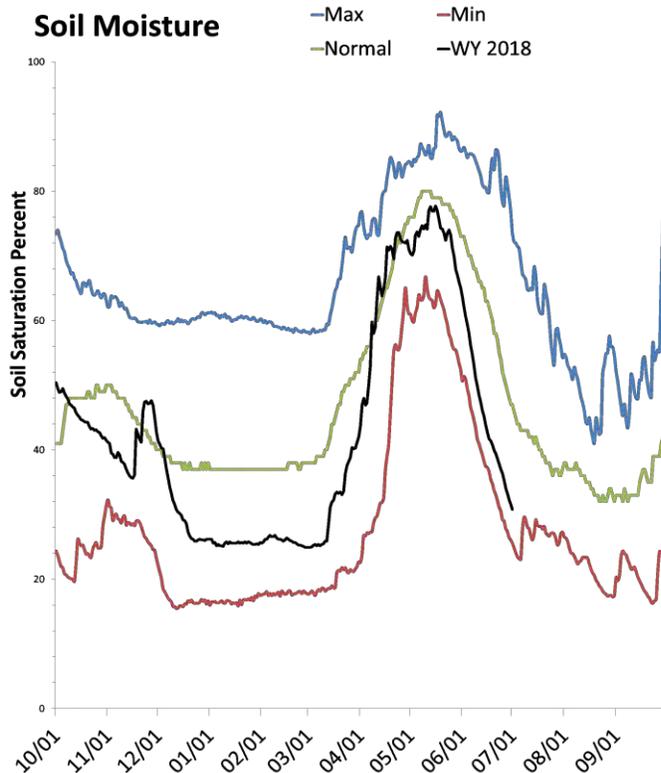
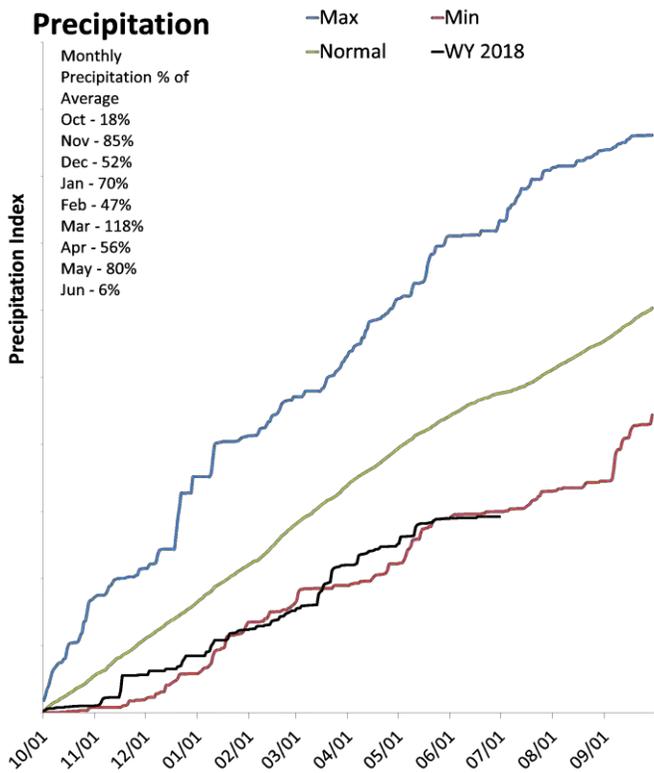
[^]EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Duchesne River Basin

July 1, 2018

Precipitation in June was much below average at 6%, which brings the seasonal accumulation (Oct-Jun) to 61% of average. Soil moisture is at 31% compared to 42% last year. Reservoir storage is at 81% of capacity, compared to 88% last year. The water availability index for the Western Uintas is 22% and 8% for the Eastern Uintas.



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

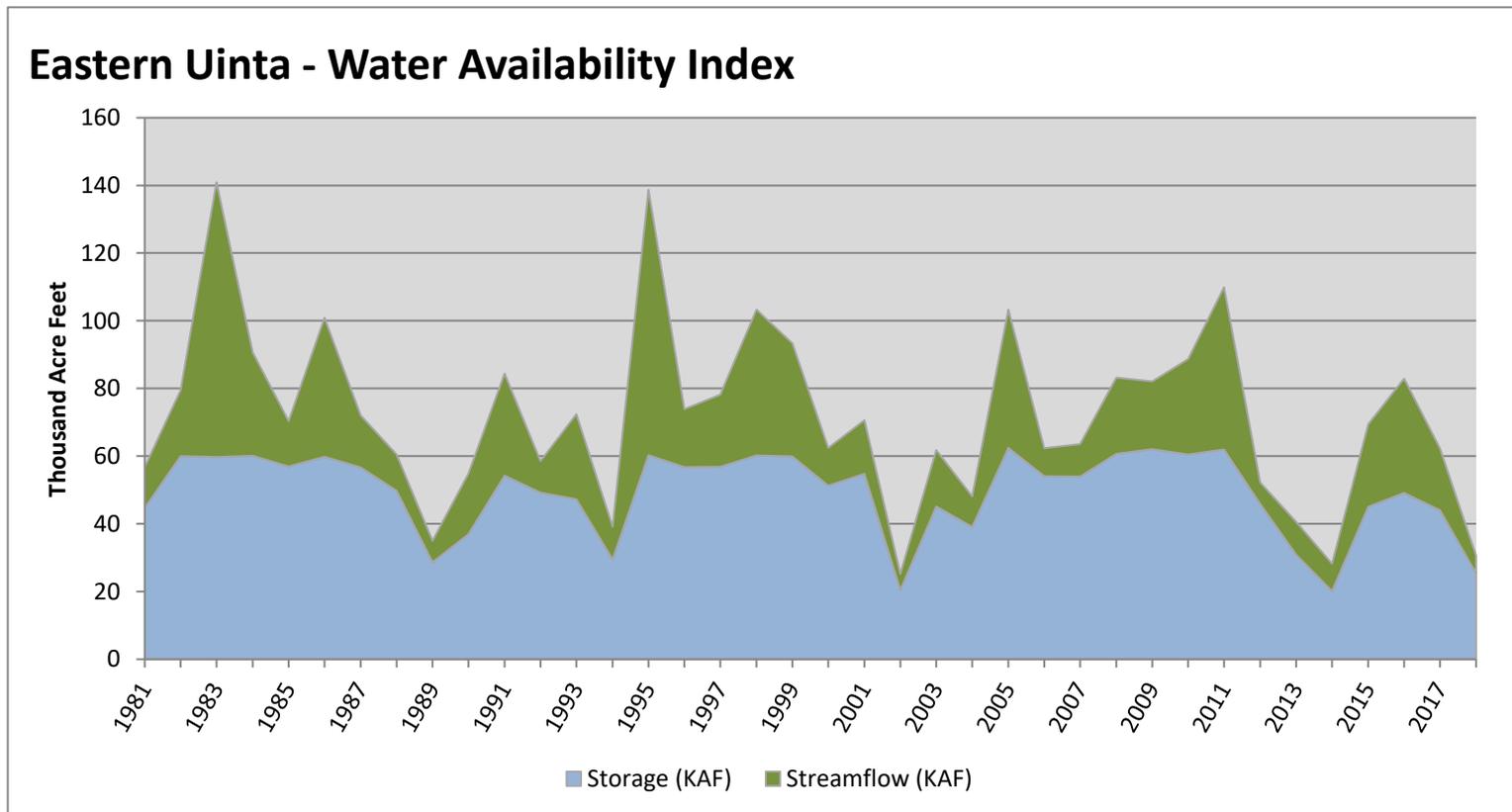
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Eastern Uinta	25.38	5.25	30.63	8	-3.53	02, 14, 89, 94

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

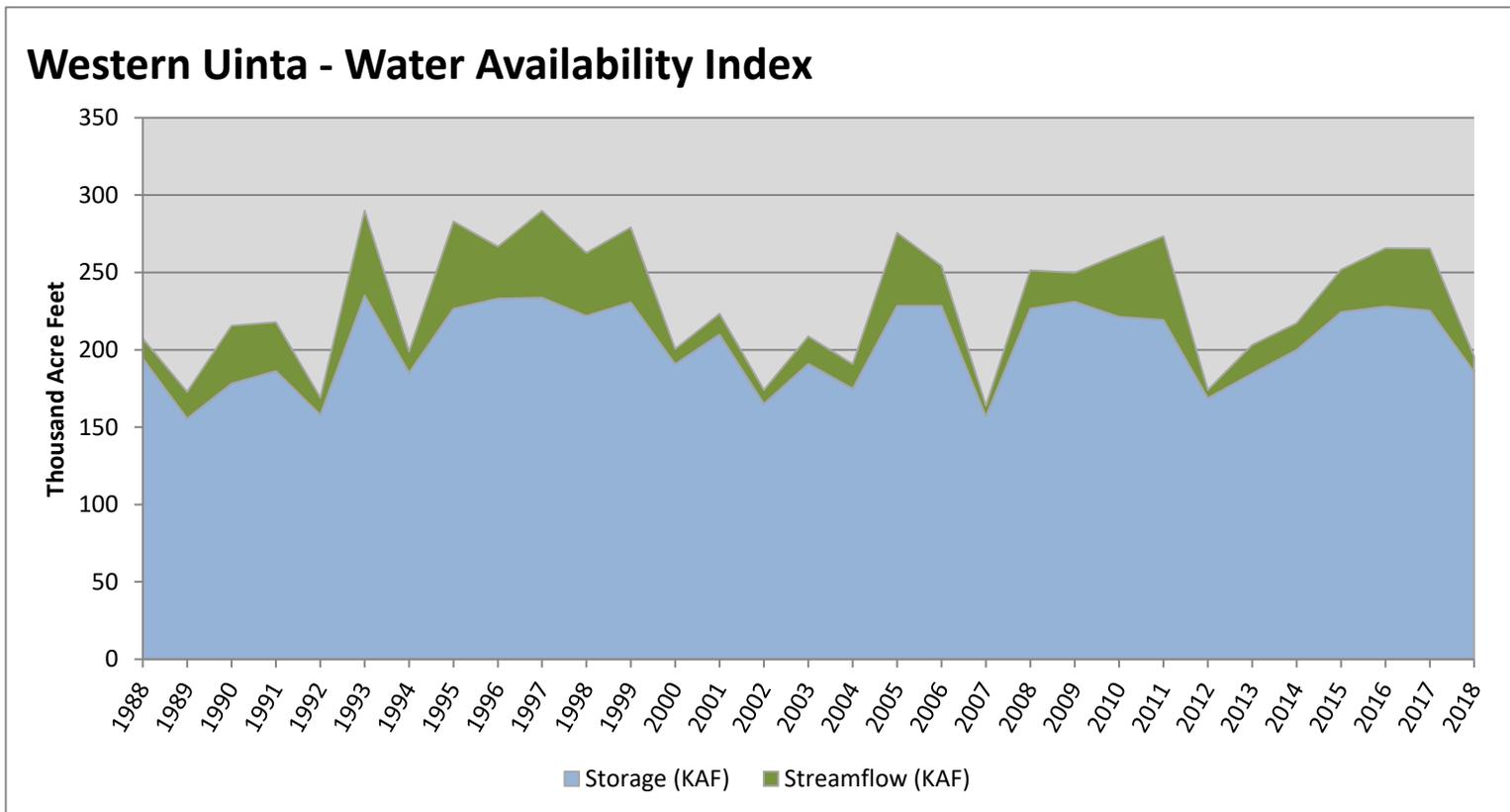


July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [^] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Western Uinta	185.64	9.95	195.59	22	-2.34	12, 04, 94, 00

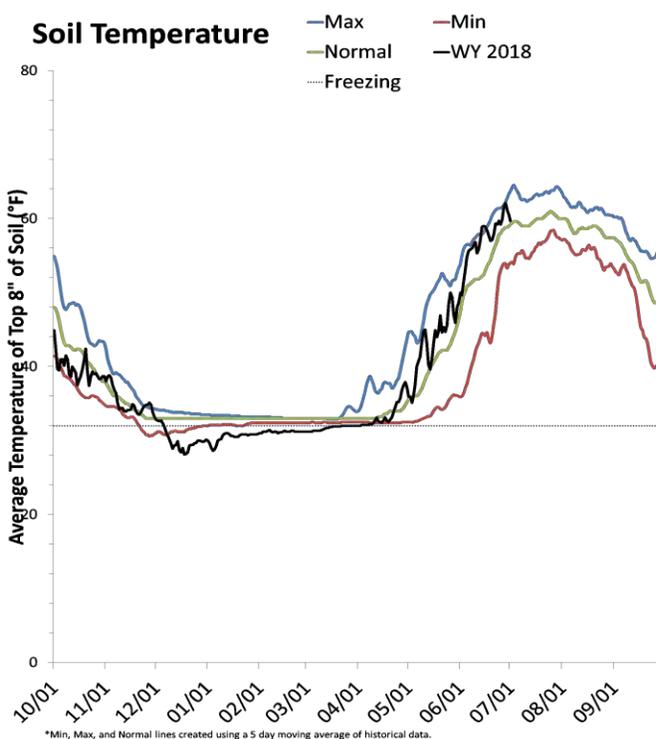
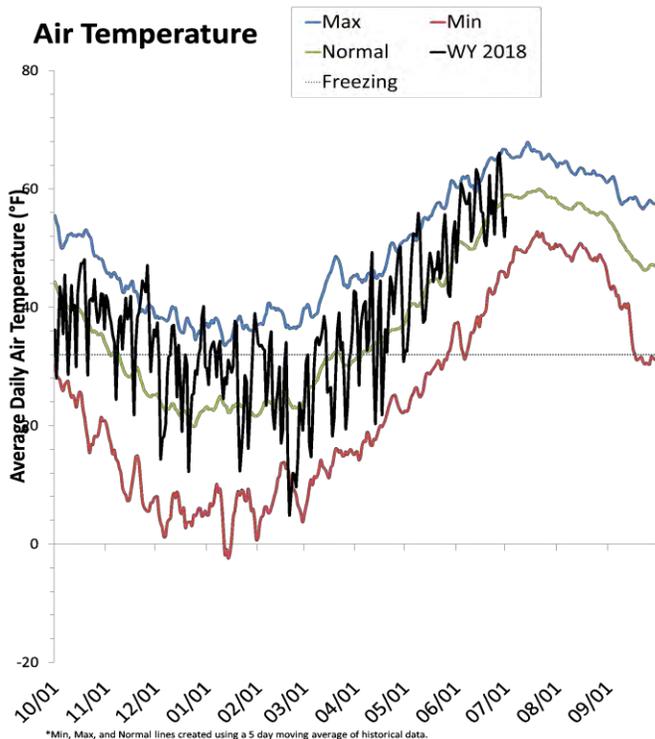
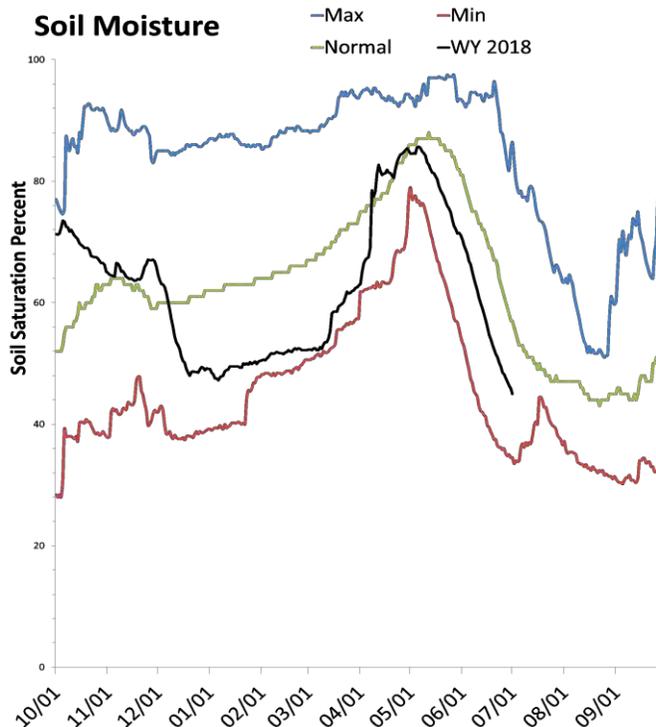
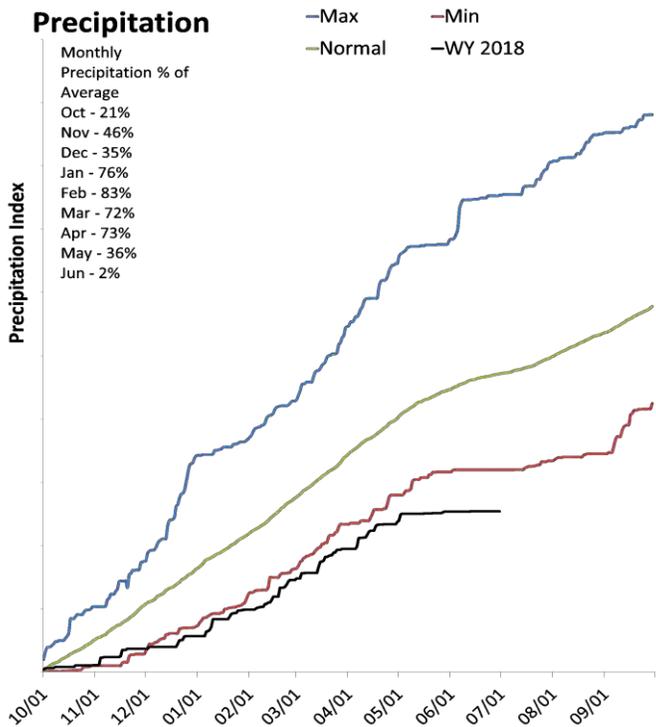
[^]EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



San Pitch River Basin

July 1, 2018

Precipitation in June was much below average at 2%, which brings the seasonal accumulation (Oct-Jun) to 54% of average. Soil Moisture is at 45% compared to 54% last year. Reservoir storage is at 0% of capacity, compared to 71% 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.

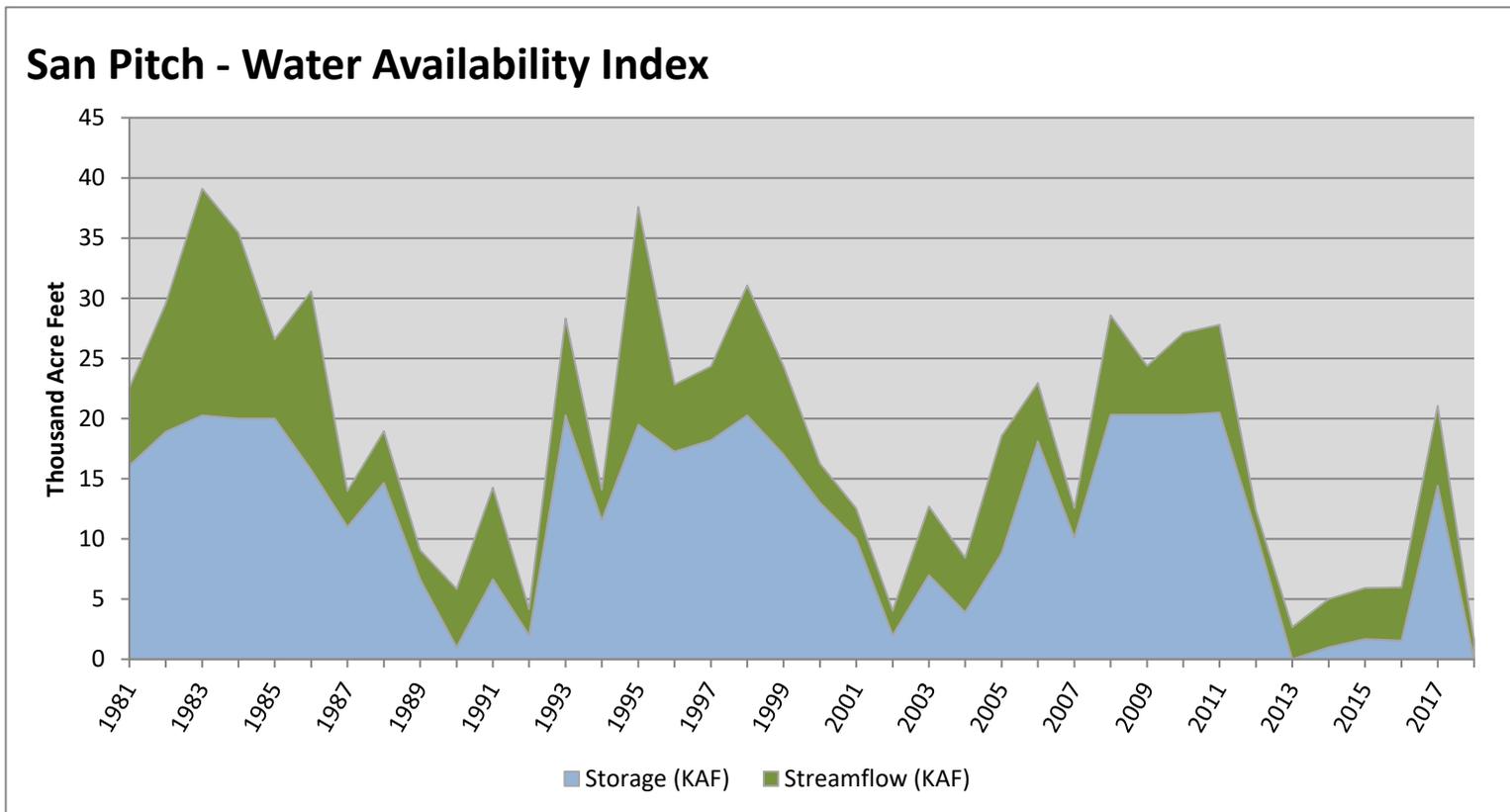
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
San Pitch	0.00	1.62	1.62	3	-3.95	13, 02, 92, 14

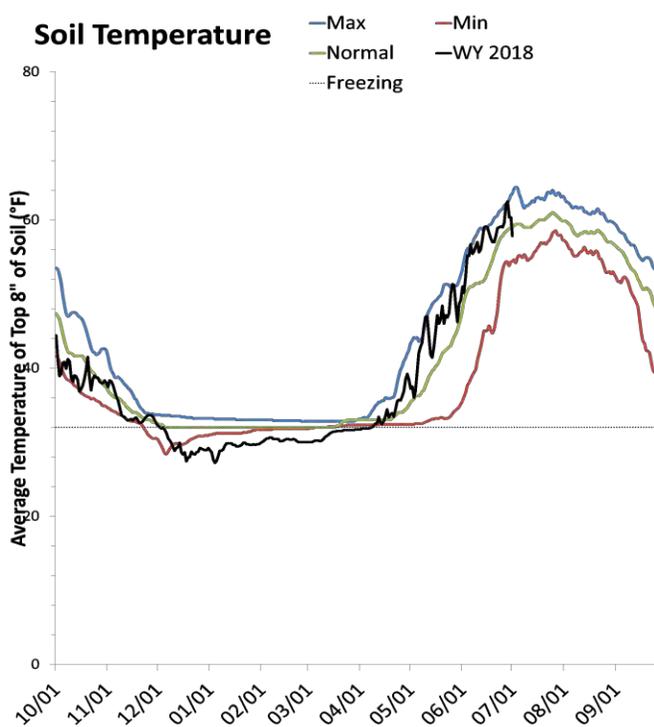
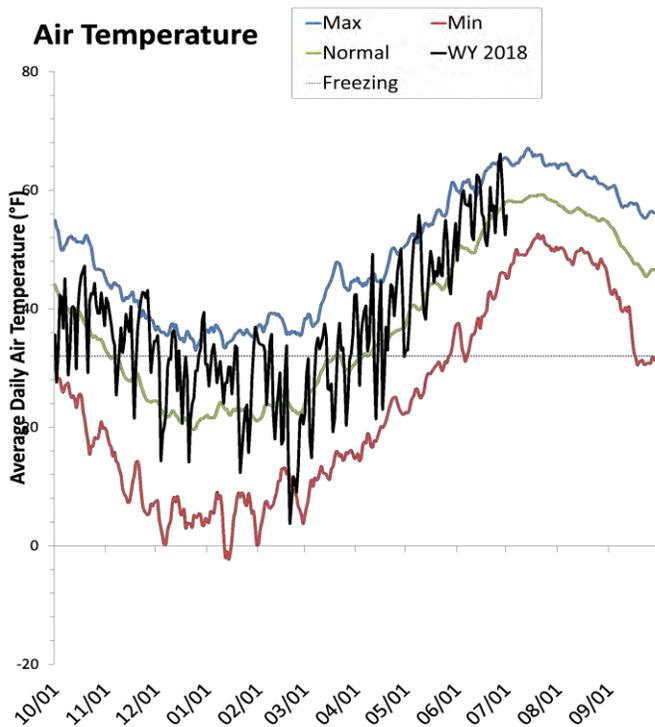
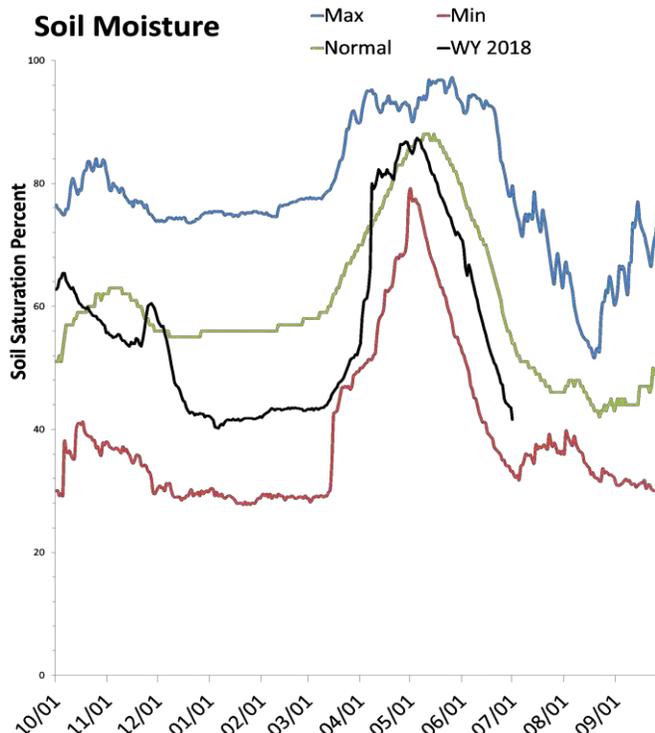
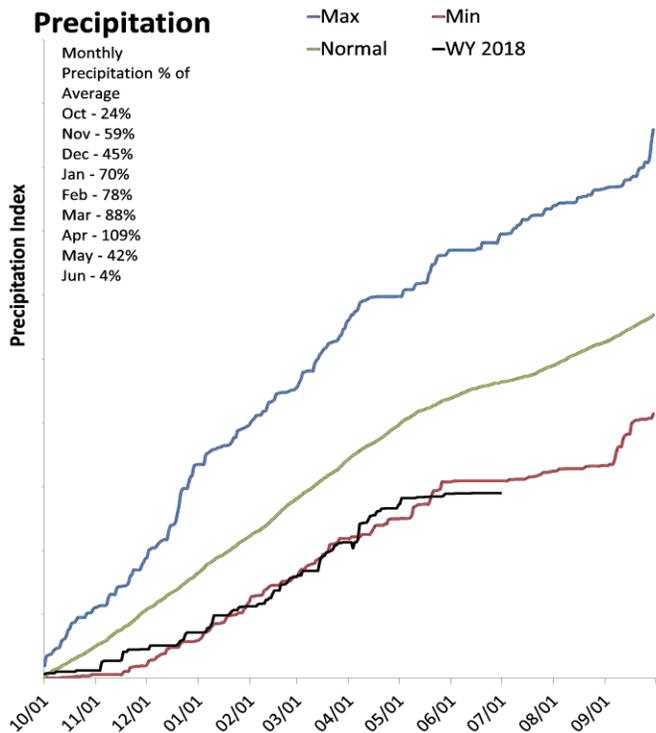
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Price & San Rafael Basins

July 1, 2018

Precipitation in June was much below average at 4%, which brings the seasonal accumulation (Oct-Jun) to 63% of average. Soil moisture is at 43% compared to 50% last year. Reservoir storage is at 64% of capacity, compared to 99% last year. The water availability index for the Price River is 44%, and 8% for Joe's Valley.



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

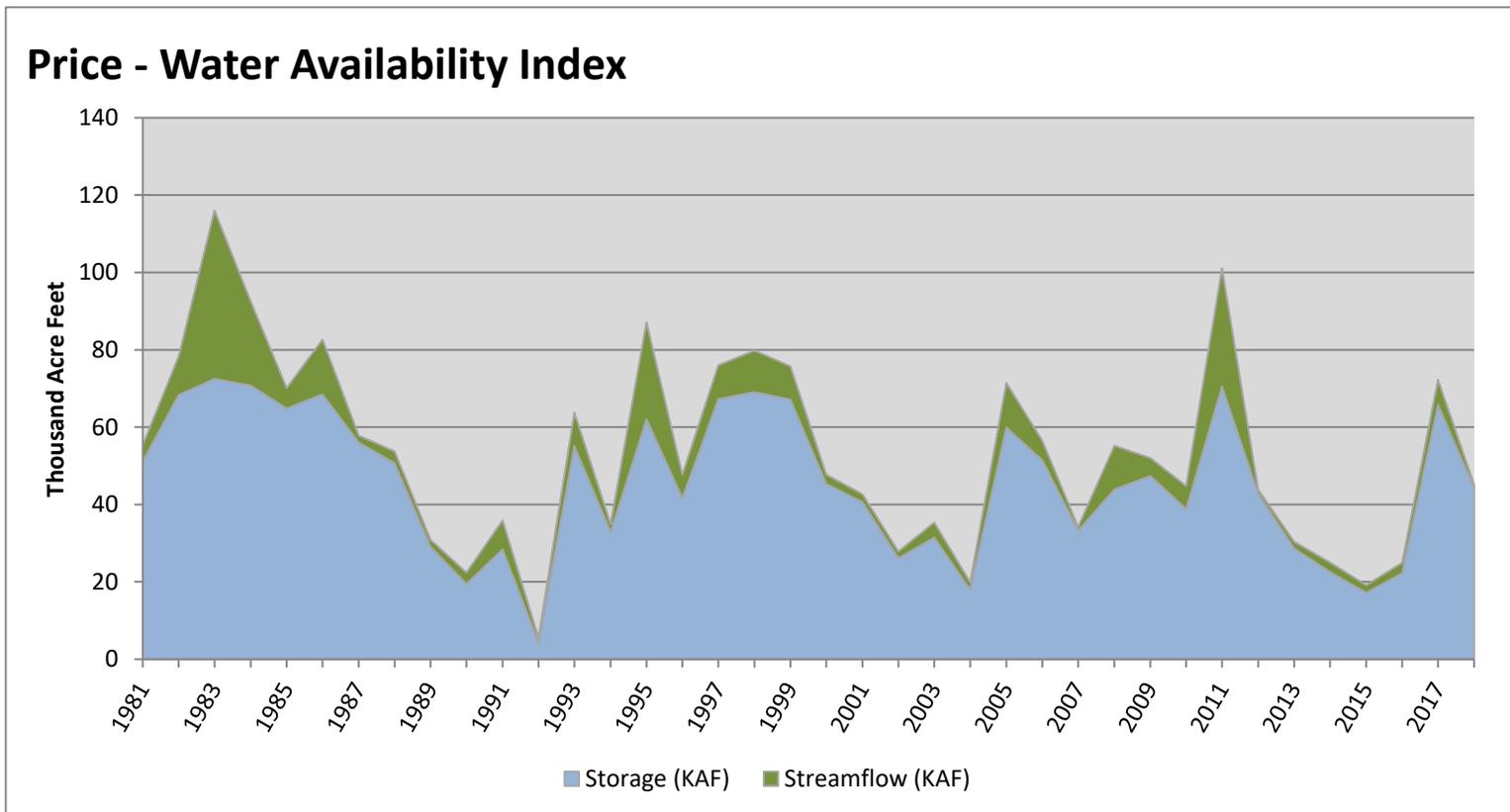
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Price	44.35	0.86	45.21	44	-0.53	12, 10, 96, 00

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

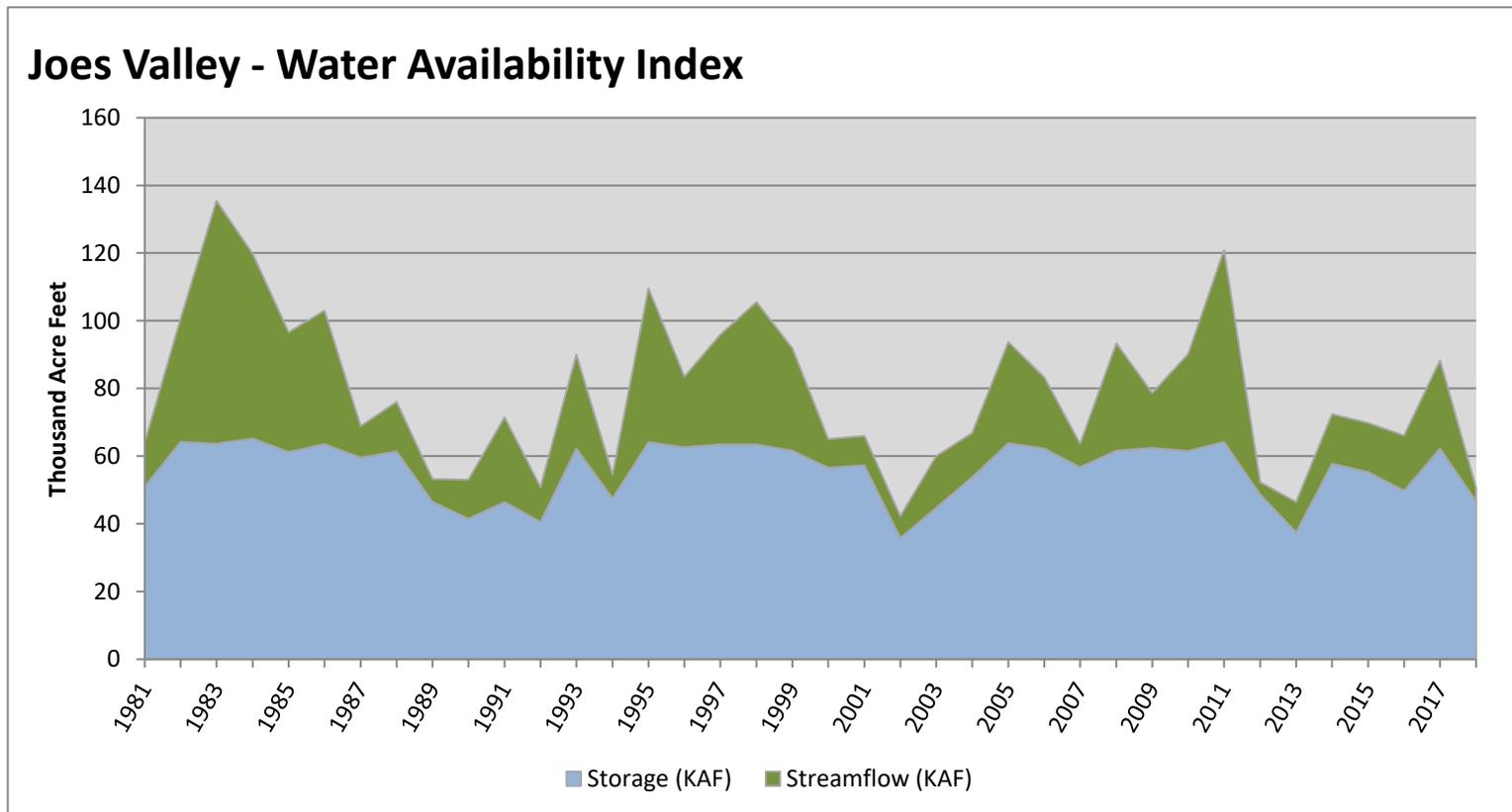


July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Joese Valley	46.75	4.00	50.75	8	-3.53	02, 13, 92, 12

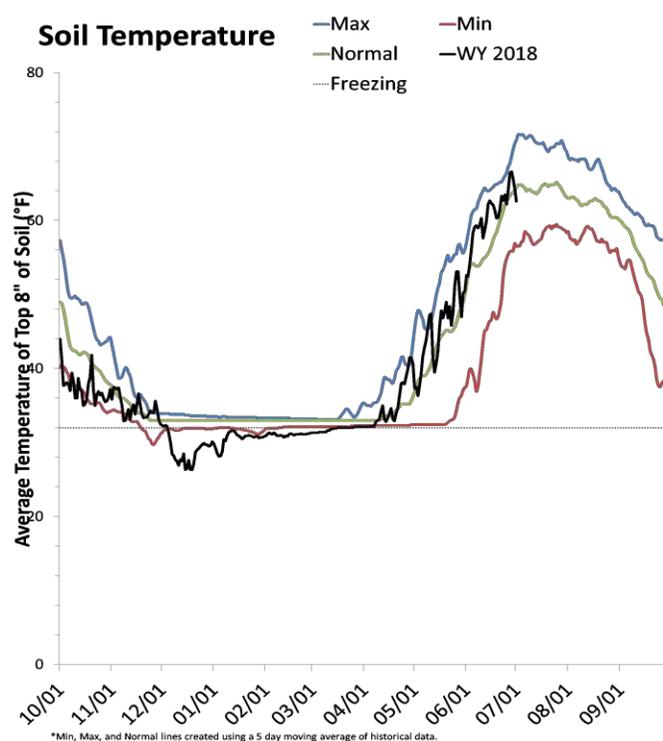
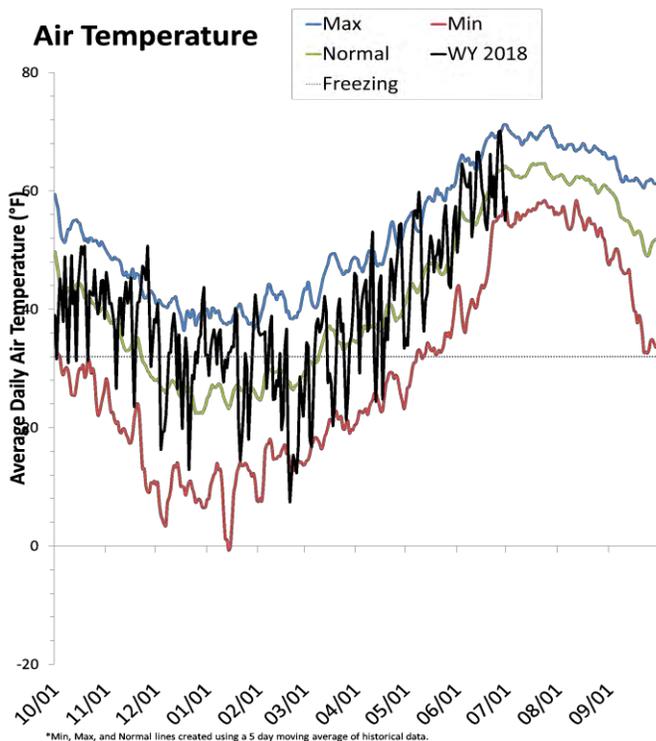
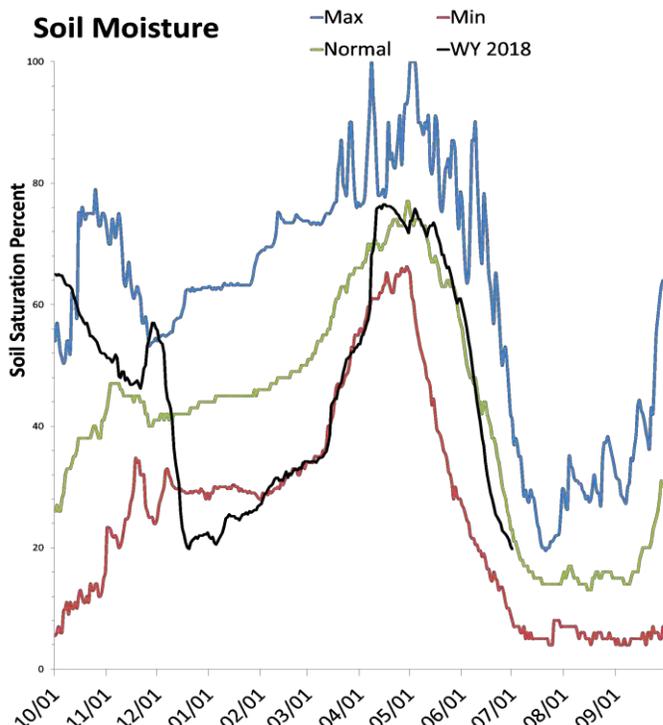
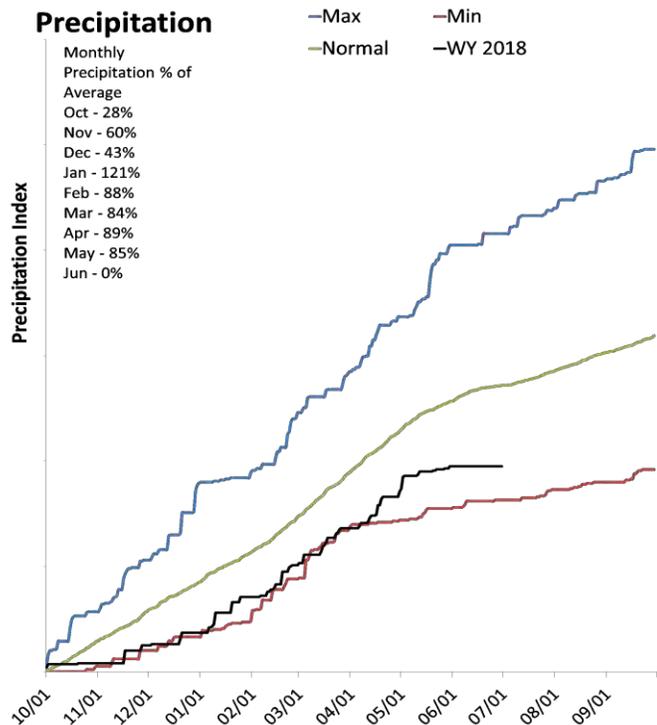
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Lower Sevier Basin

July 1, 2018

Precipitation in June was much below average at 0%, which brings the seasonal accumulation (Oct-Jun) to 72% of average. Soil moisture is at 20% compared to 22% last year. Reservoir storage is at 13% of capacity, compared to 22% last year. The water availability index for the Lower Sevier is 5%.



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

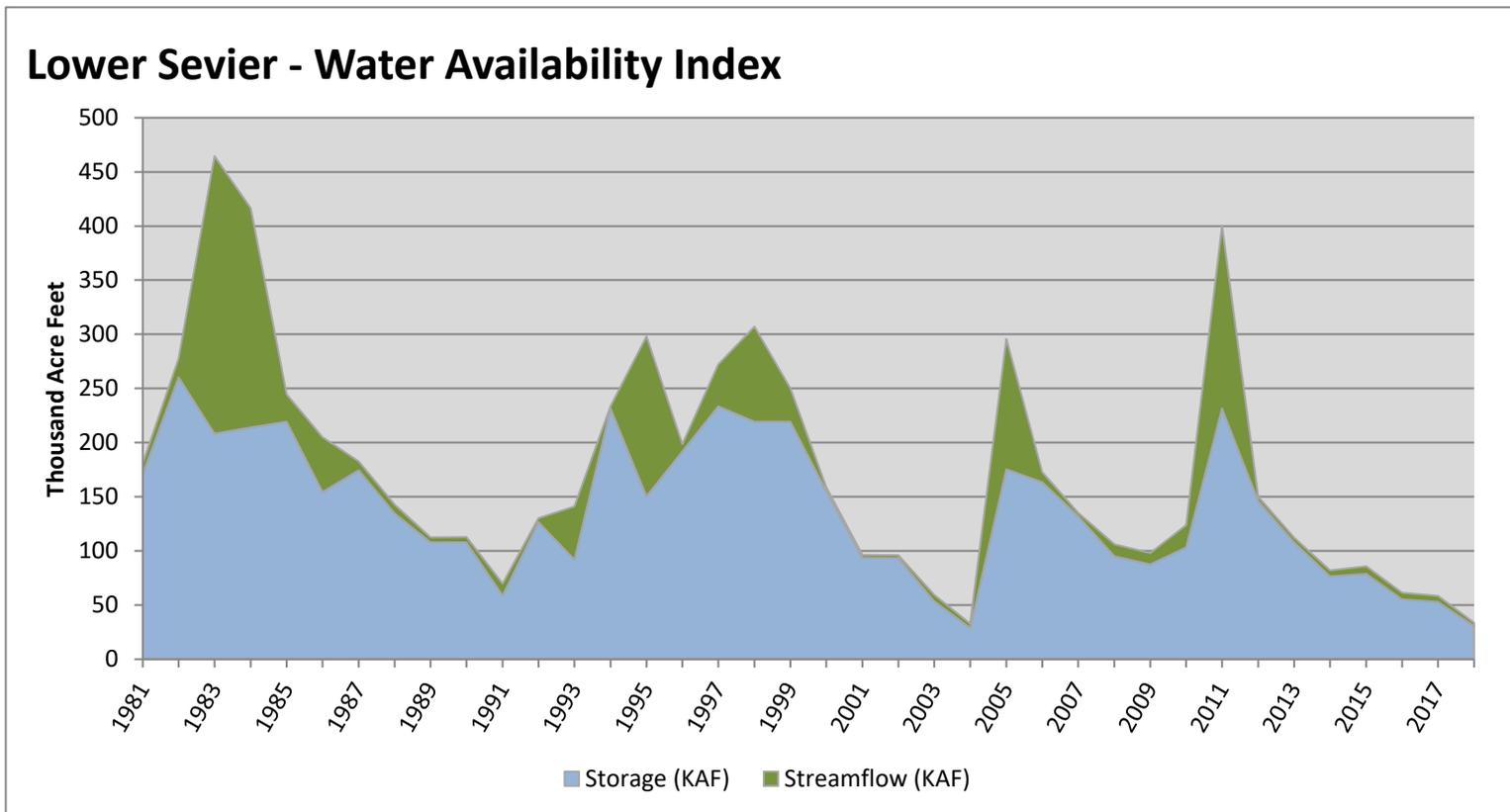
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Lower Sevier	30.50	3.11	33.61	5	-3.74	04, 17, 03, 16

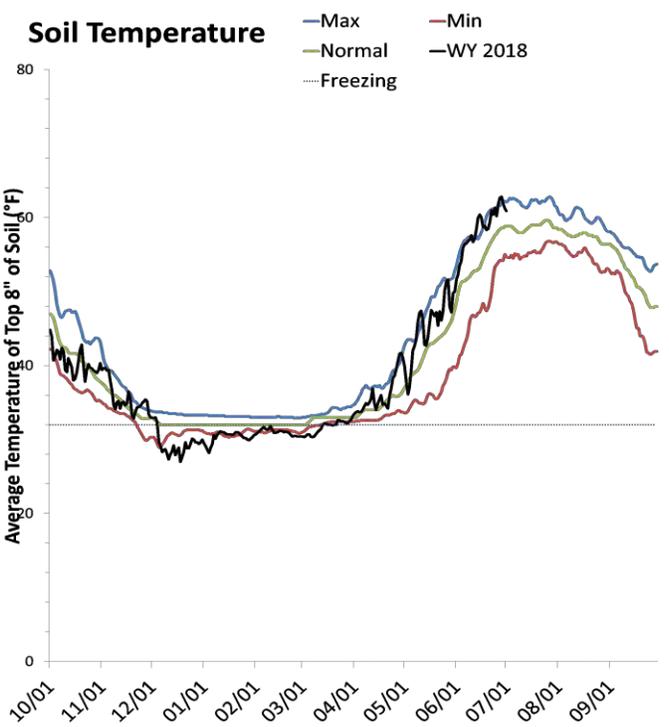
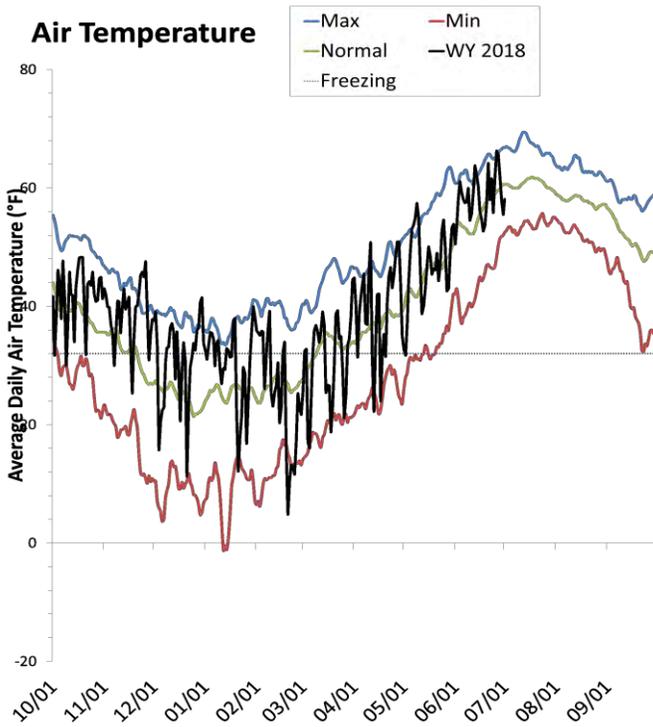
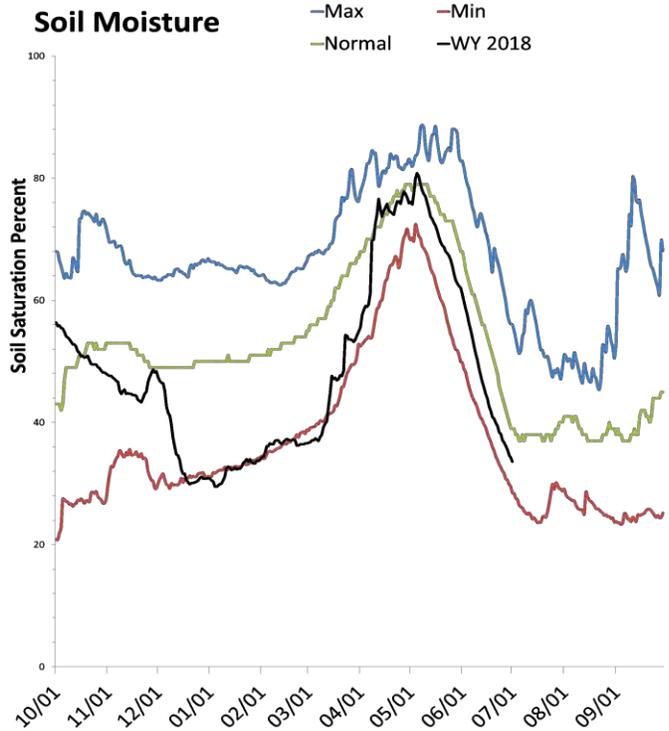
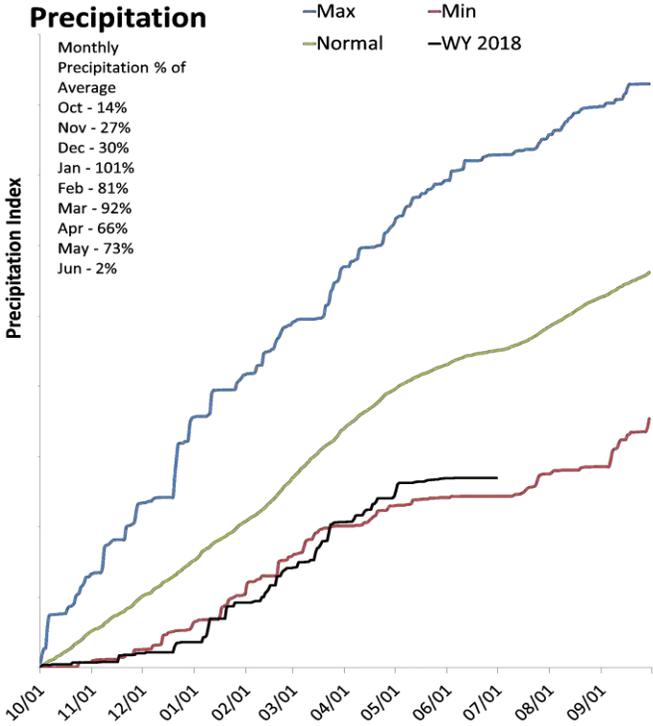
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Upper Sevier Basin

July 1, 2018

Precipitation in June was much below average at 2%, which brings the seasonal accumulation (Oct-Jun) to 60% of average. Soil moisture is at 33% compared to 36% last year. Reservoir storage is at 32% of capacity, compared to 59% last year. The water availability index for the Upper Sevier is 5%.



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

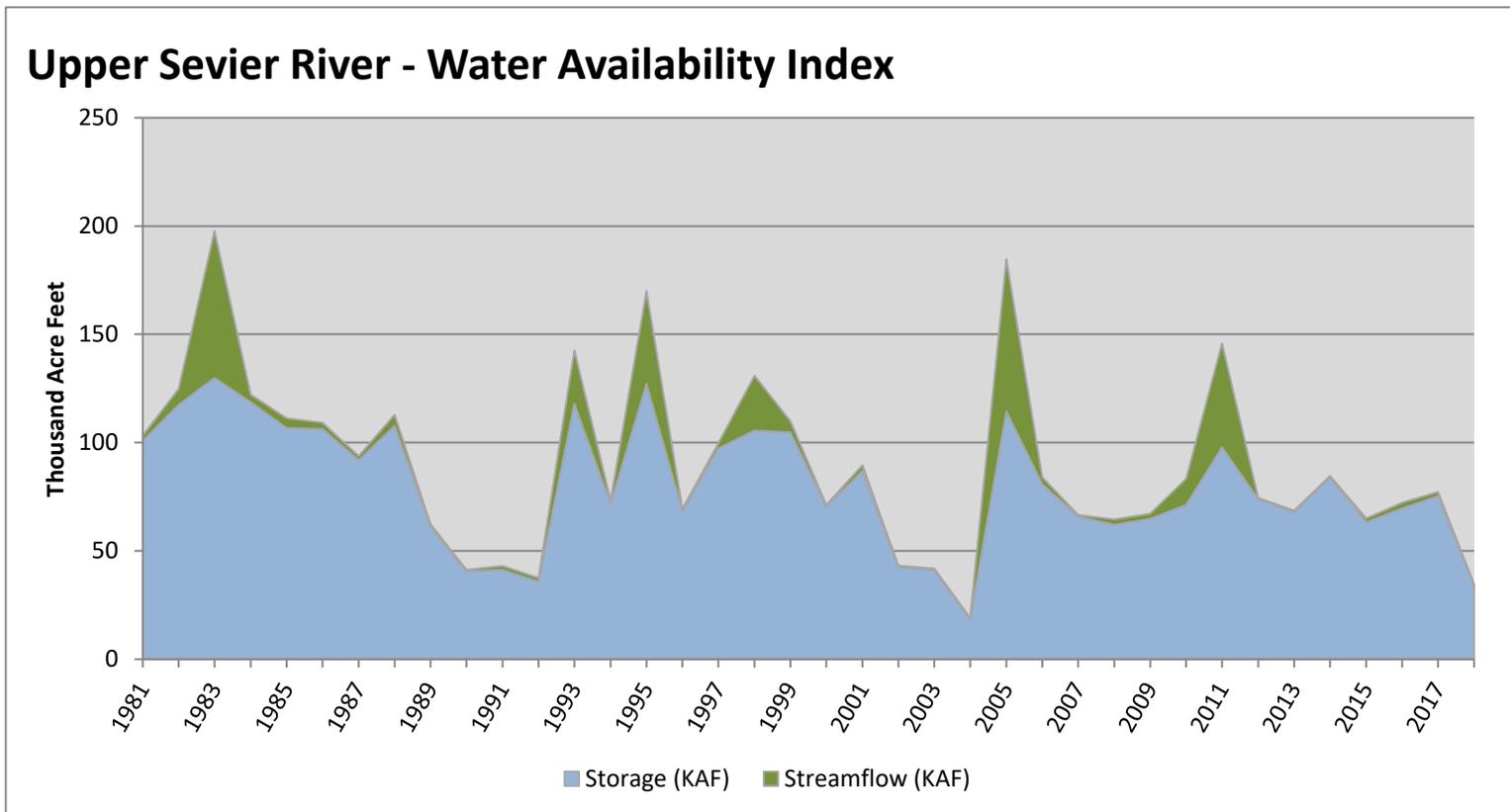
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Upper Sevier River	34.11	0.57	34.68	5	-3.74	04, 92, 90, 03

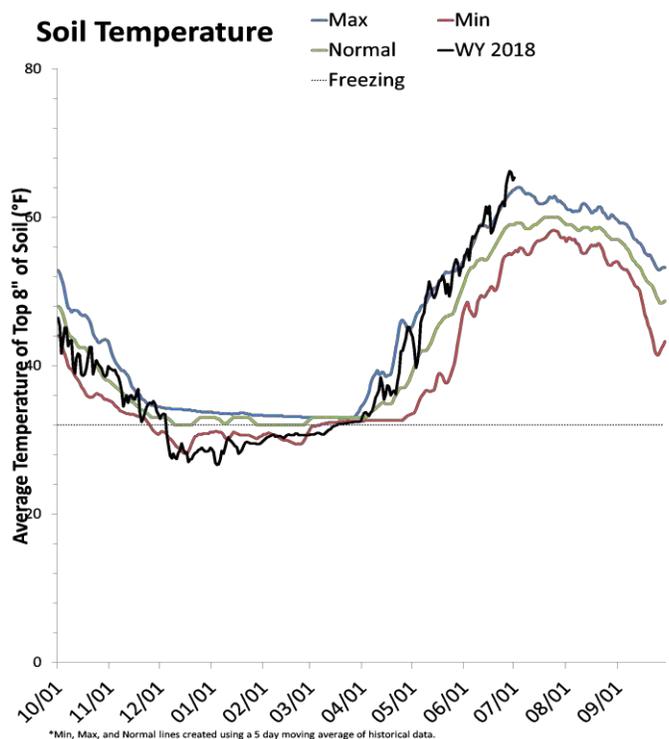
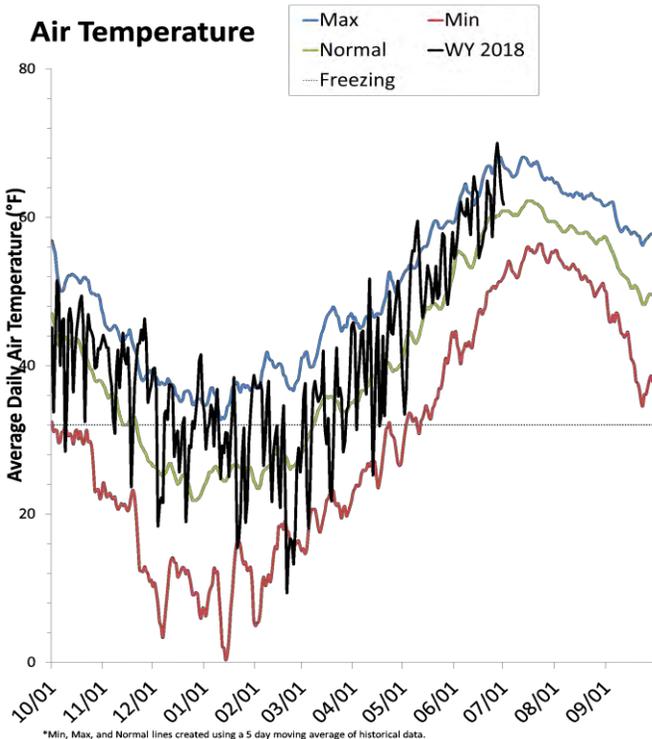
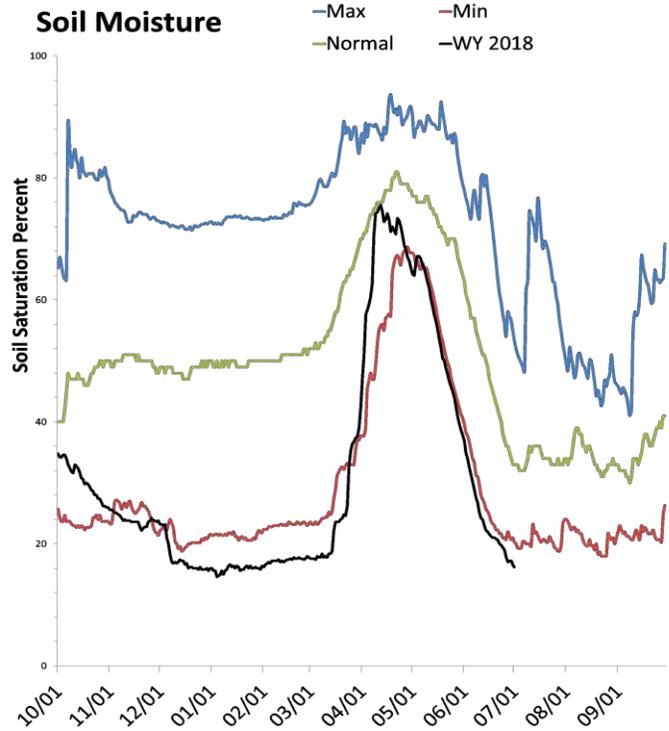
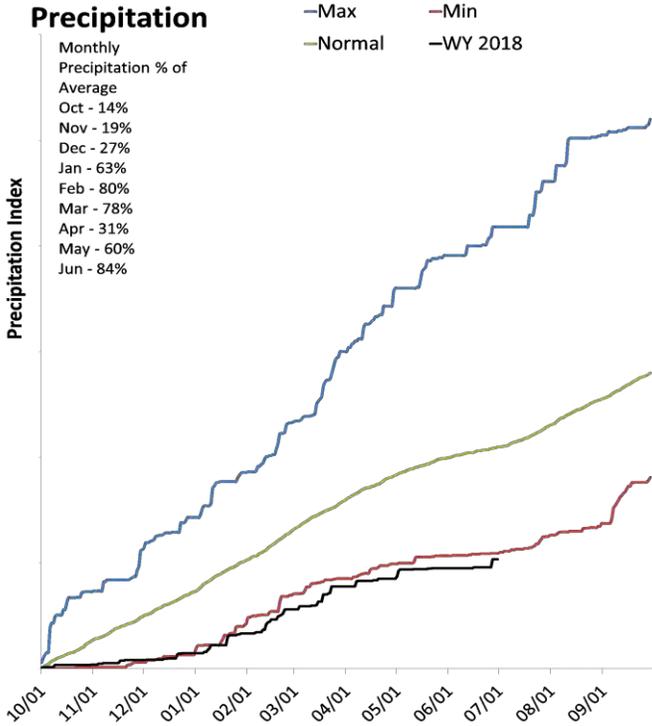
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southeastern Utah

July 1, 2018

Precipitation in June was much below average at 5%, which brings the seasonal accumulation (Oct-Jun) to 50% of average. Soil moisture is at 17% compared to 22% last year. Reservoir storage is at 23% of capacity, compared to 105% last year. The water availability index for Moab is 3%.



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

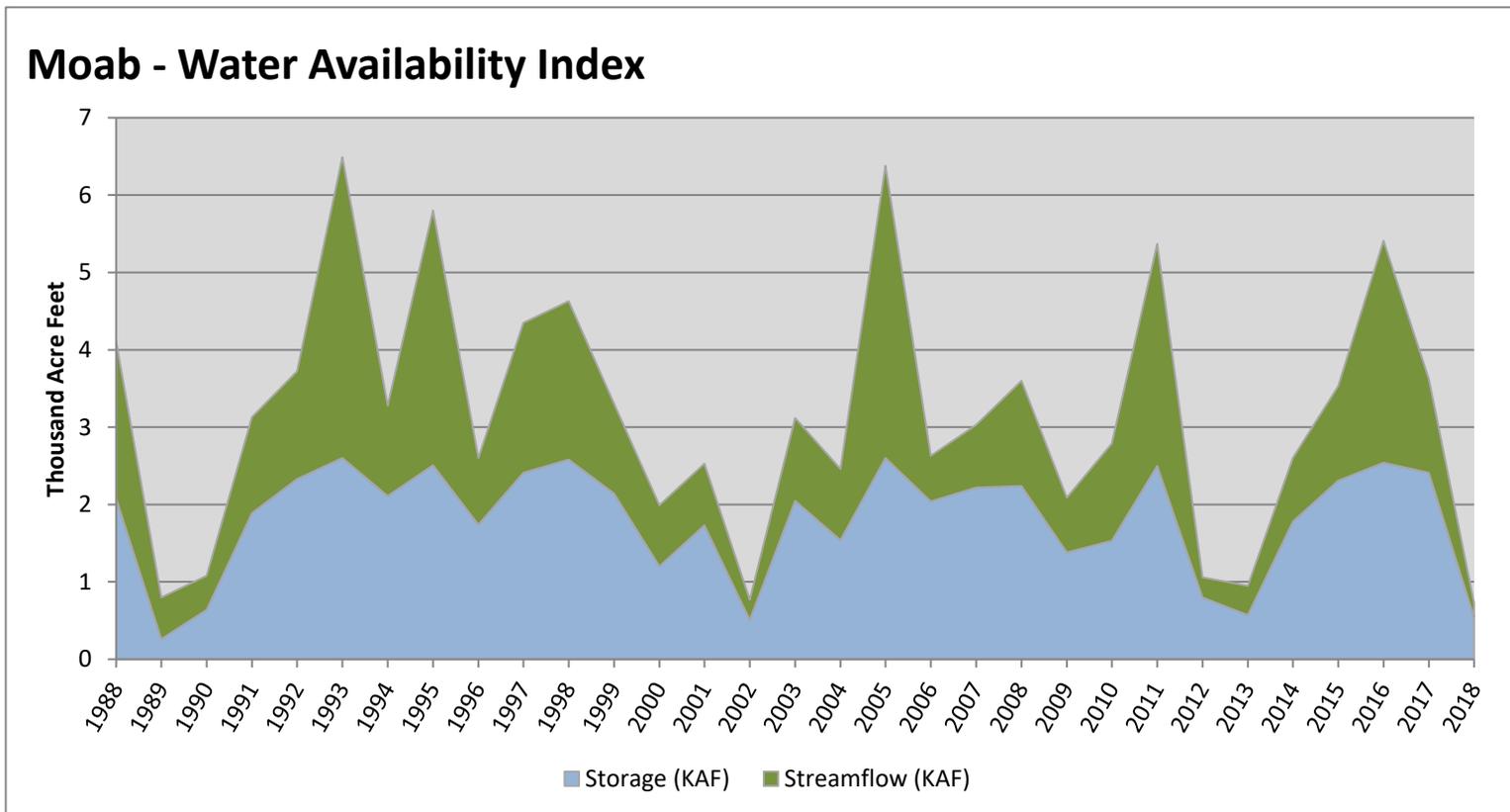
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Moab	0.54	0.19	0.73	3	-3.91	02, 89, 13, 12

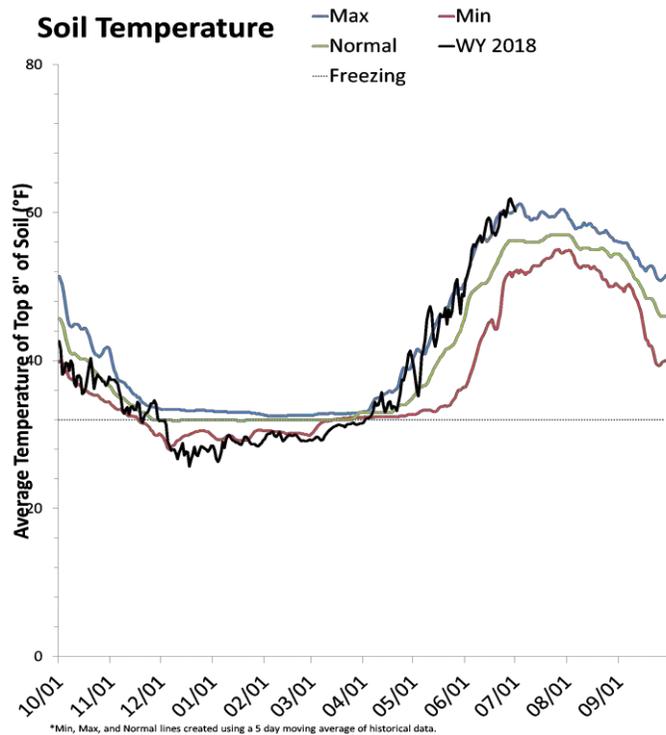
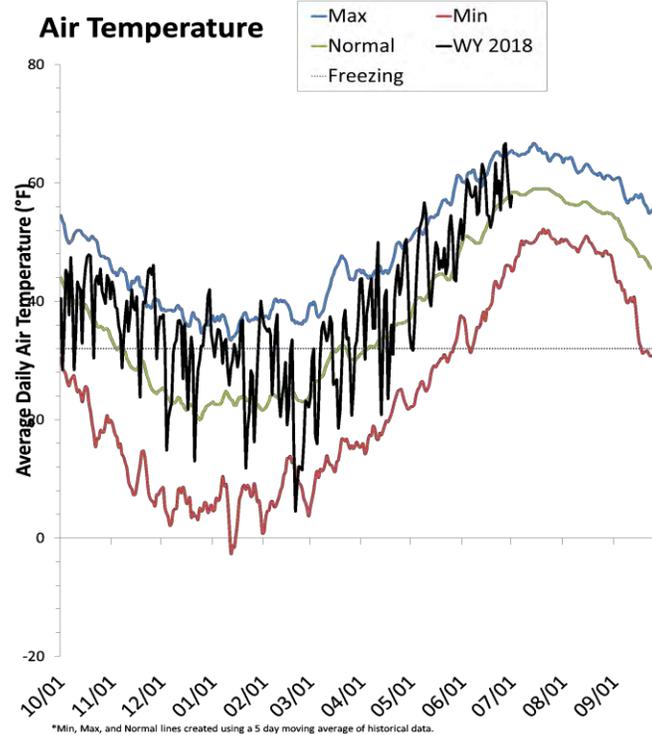
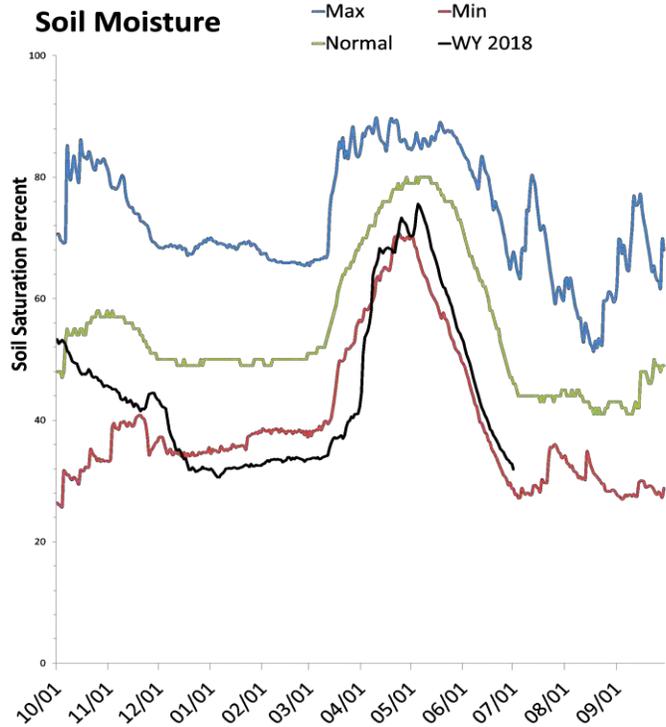
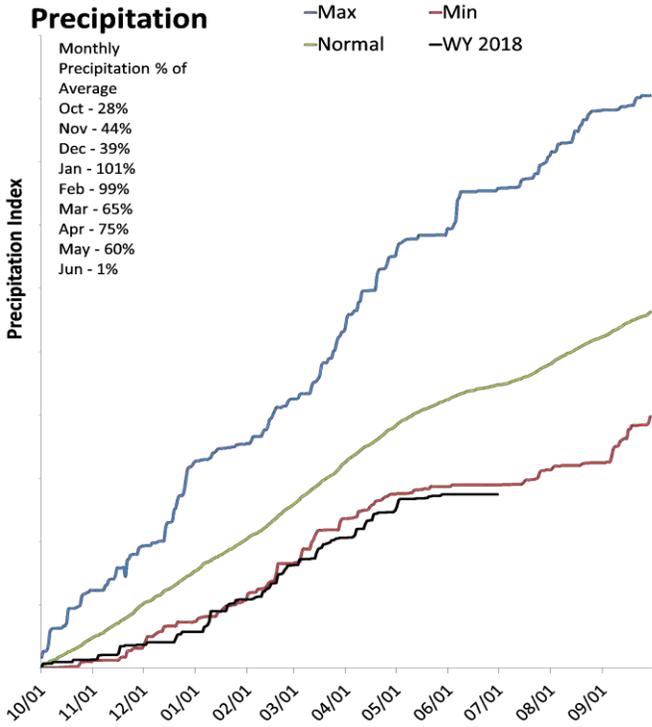
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Dirty Devil Basin

July 1, 2018

Precipitation in June was much below average at 1%, which brings the seasonal accumulation (Oct-Jun) to 61% of average. Soil moisture is at 33% compared to 40% last year.



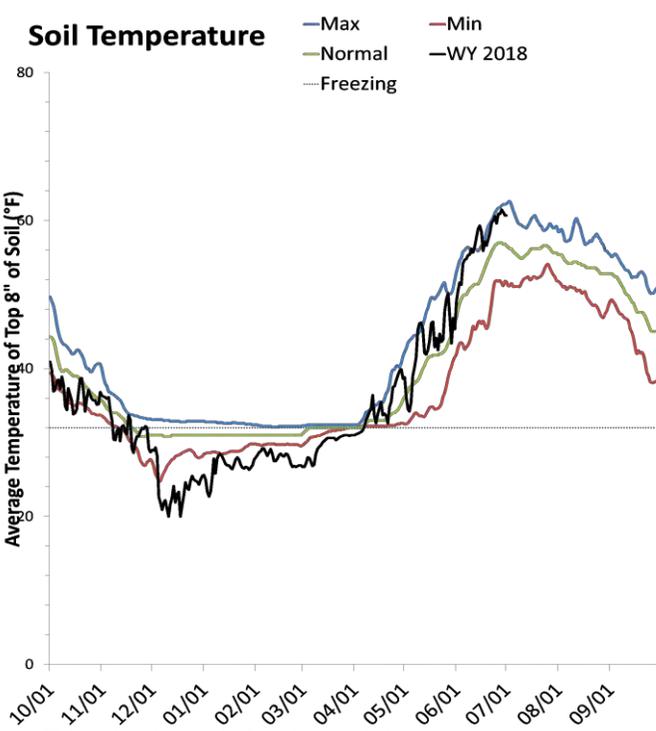
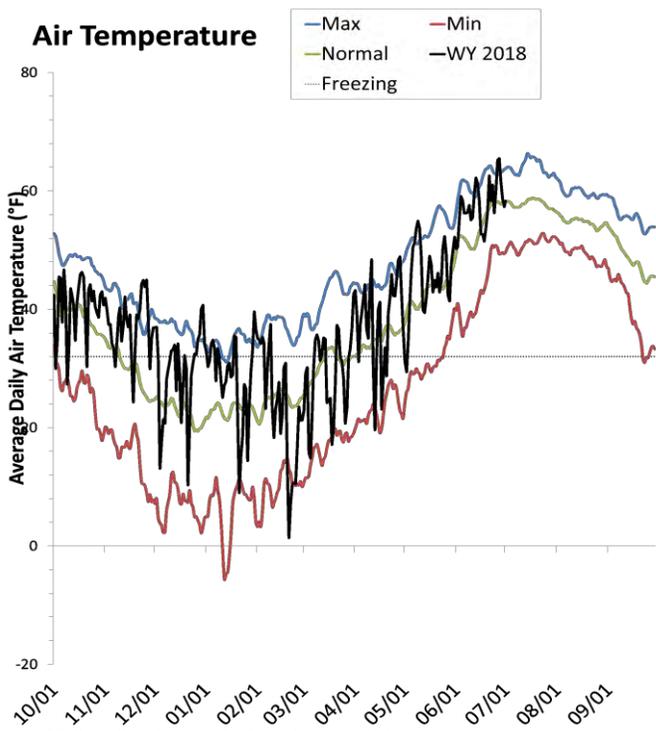
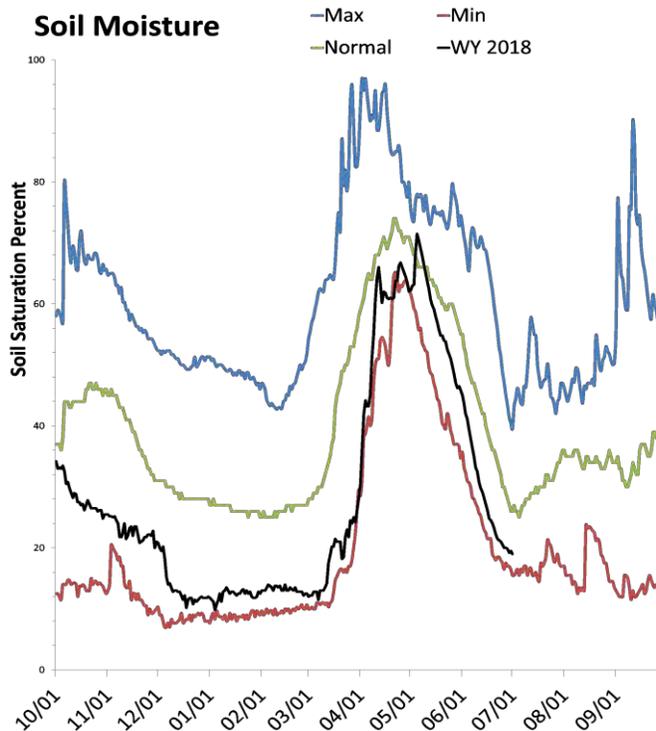
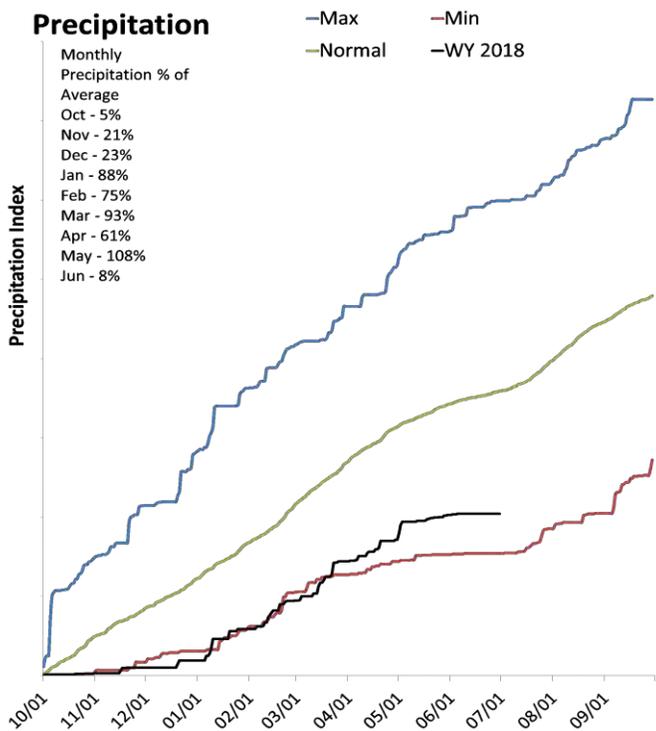
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Escalante River Basin

July 1, 2018

Precipitation in June was much below average at 8%, which brings the seasonal accumulation (Oct-Jun) to 57% of average. Soil moisture is at 19% compared to 30% last year.



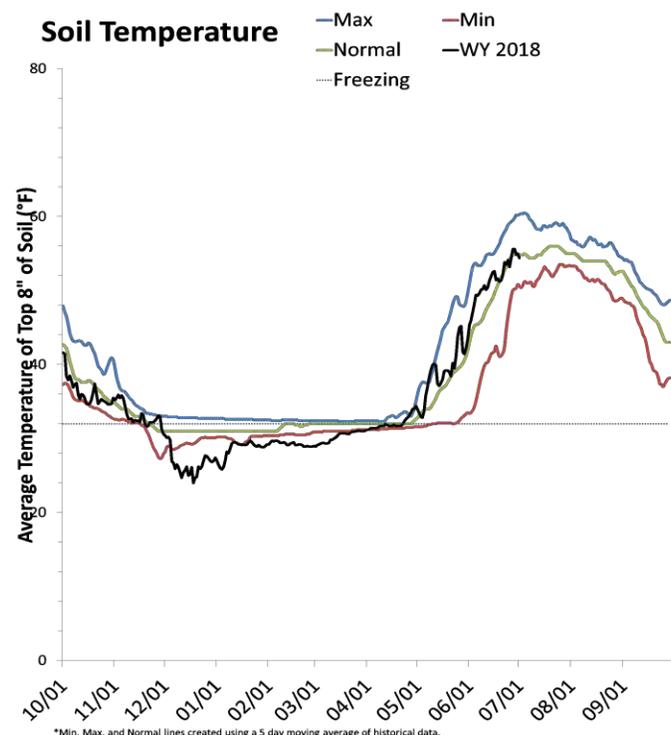
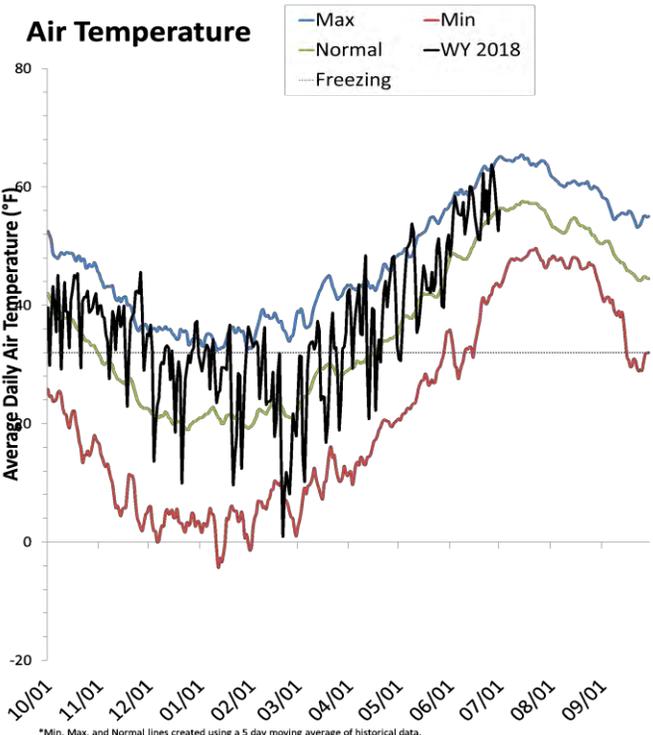
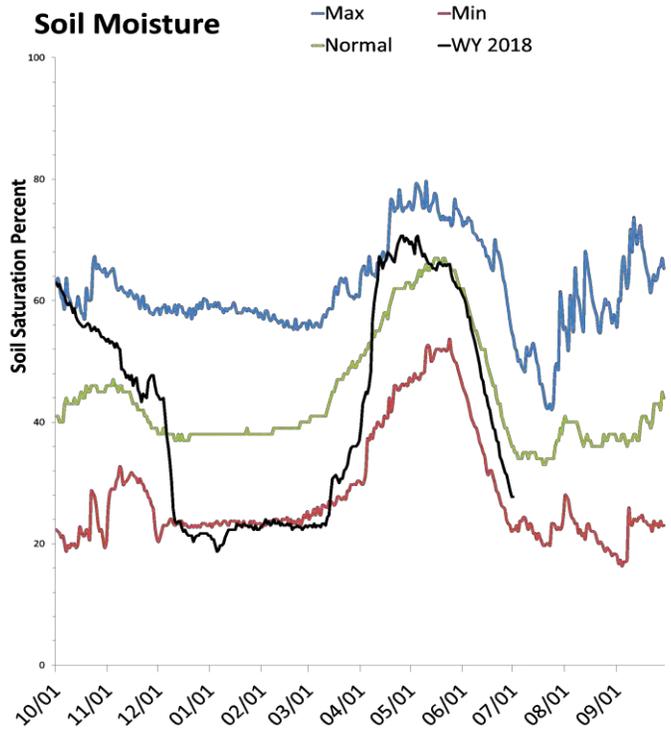
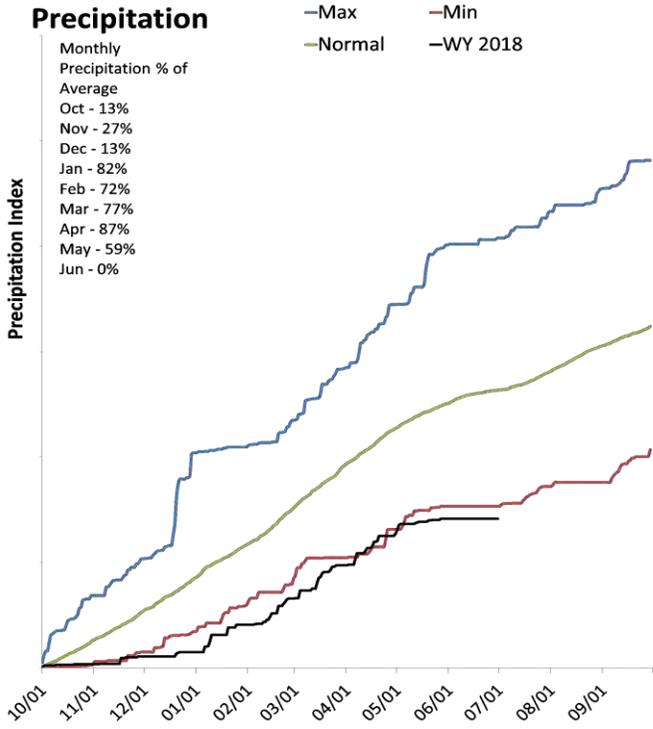
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Beaver River Basin

July 1, 2018

Precipitation in June was much below average at 0%, which brings the seasonal accumulation (Oct-Jun) to 54% of average. Soil moisture is at 28% compared to 36% last year. Reservoir storage is at 26% of capacity, compared to 54% last year. The water availability index for the Beaver River is 5%.



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

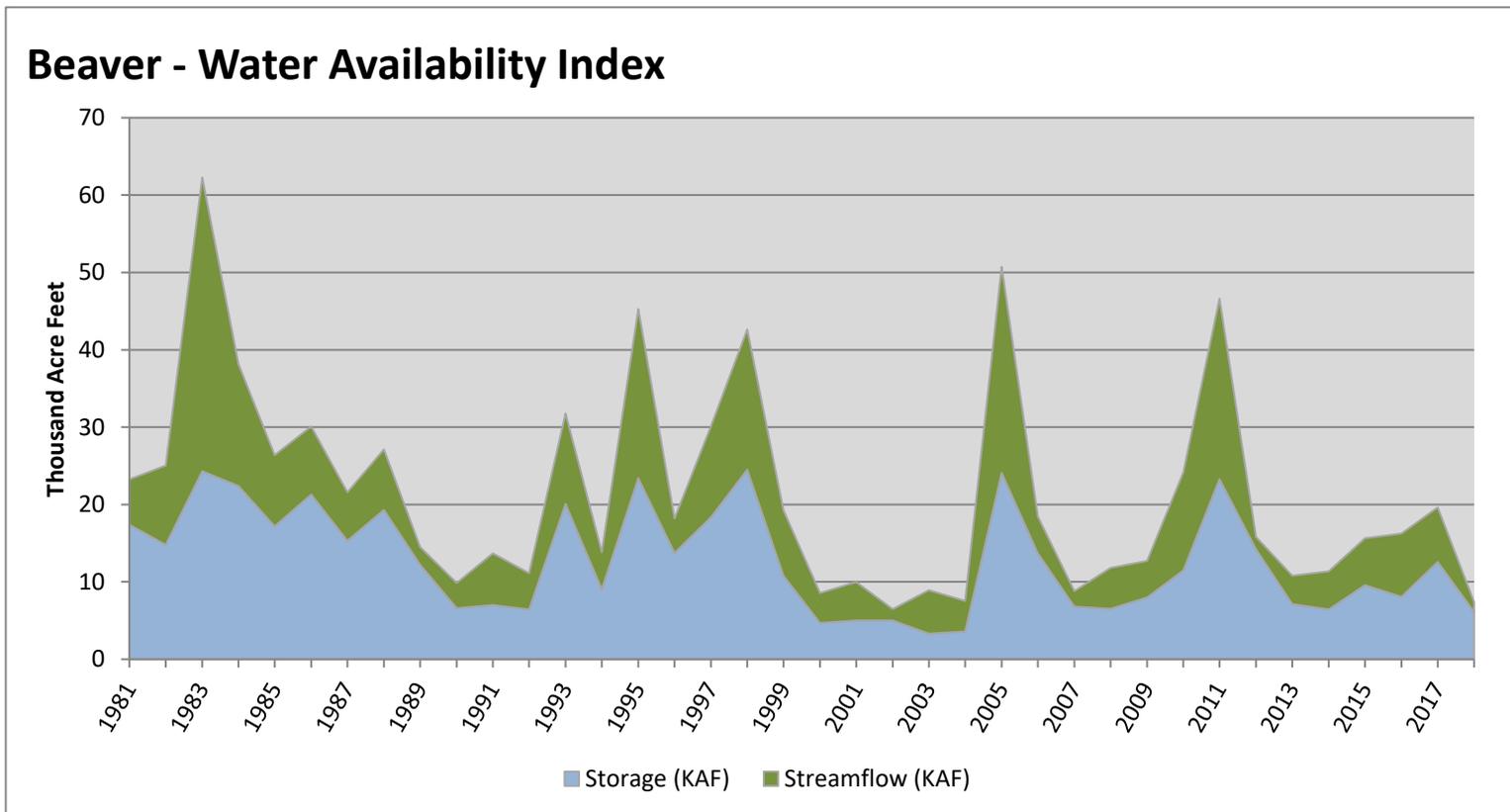
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [^] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Beaver	6.10	1.30	7.40	5	-3.74	02, 04, 00, 07

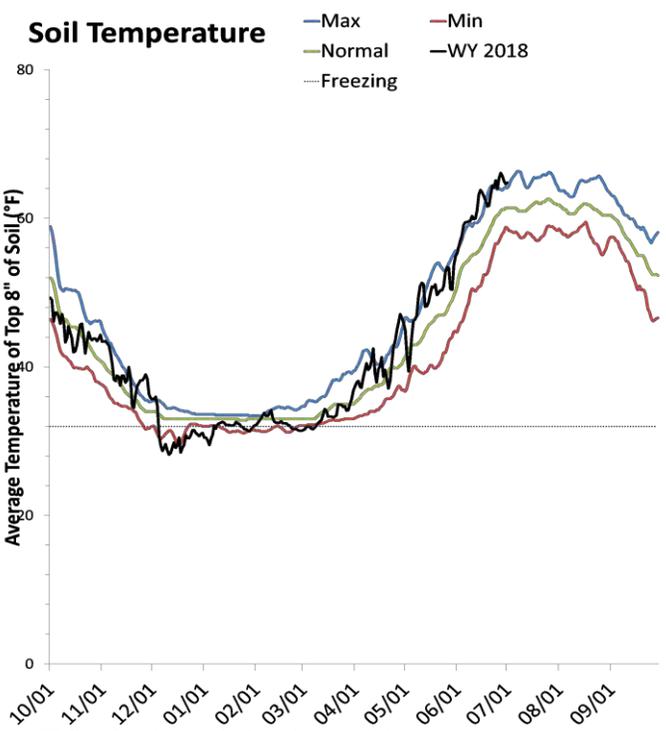
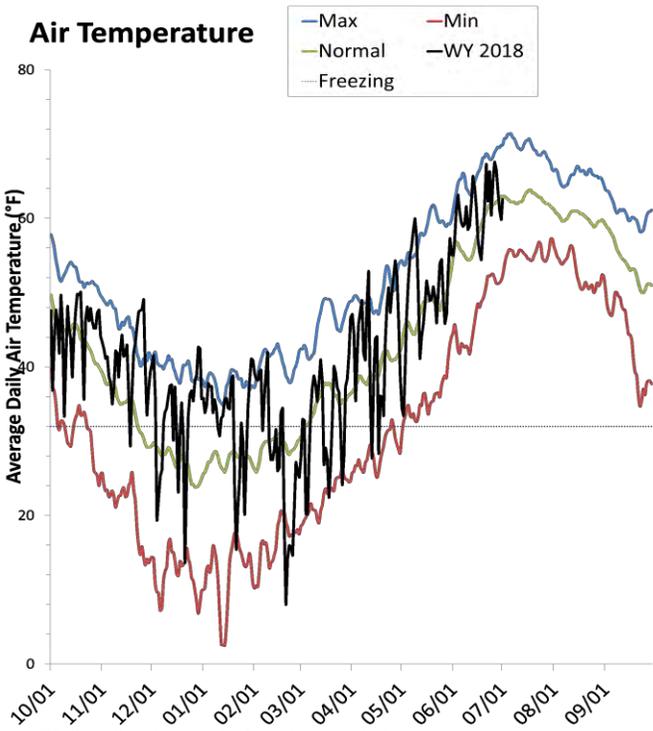
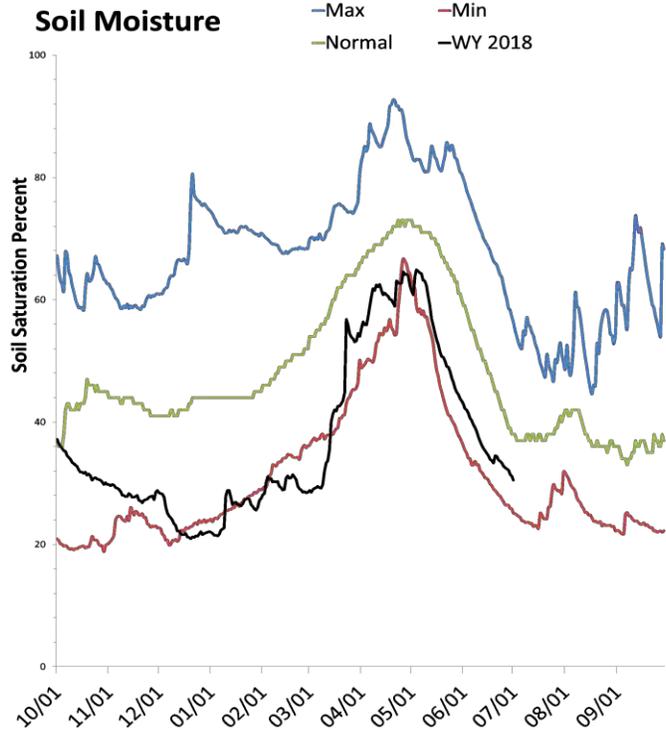
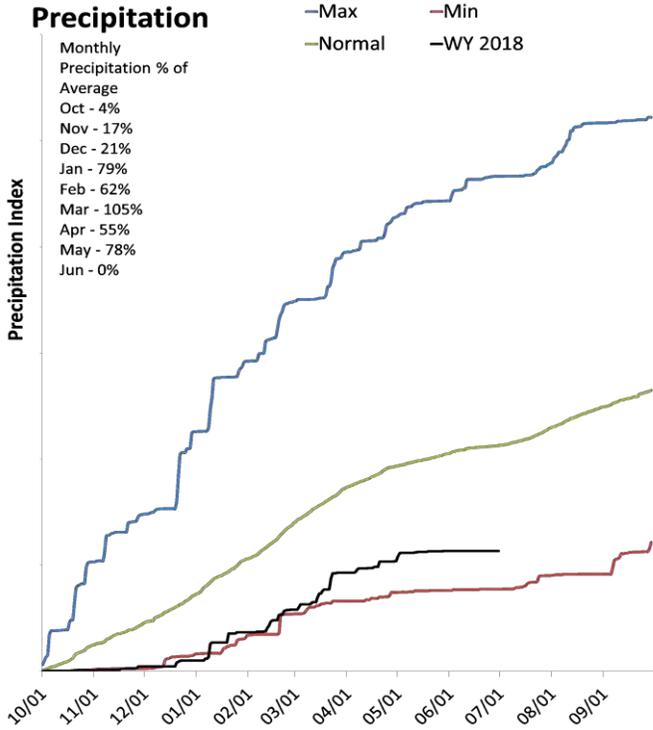
[^]EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southwestern Utah

July 1, 2018

Precipitation in June was much below average at 0%, which brings the seasonal accumulation (Oct-Jun) to 53% of average. Soil moisture is at 30% compared to 33% last year. Reservoir storage is at 52% of capacity, compared to 63% last year. The water availability index for the Virgin River is 27%.



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

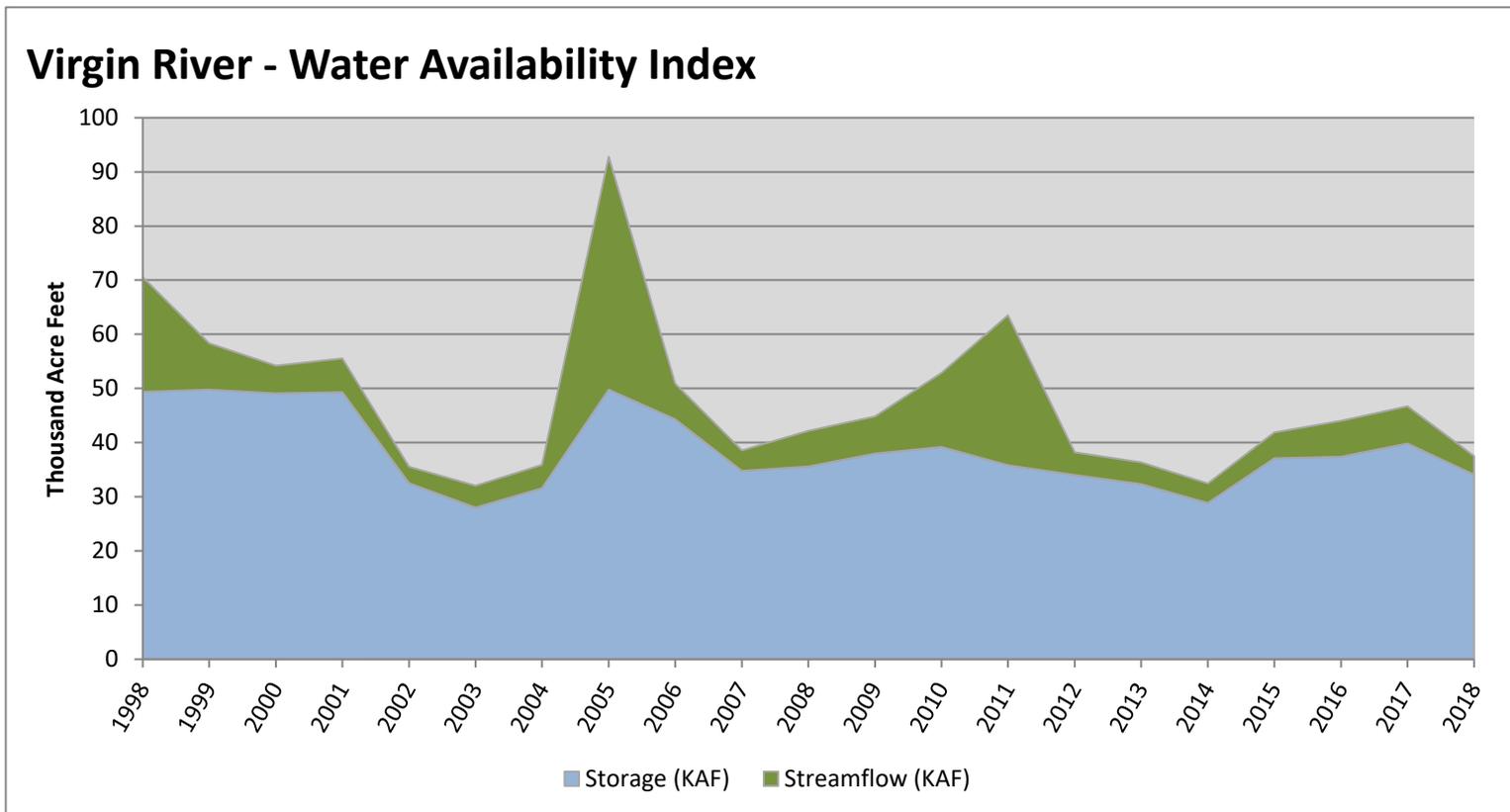
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2018

Water Availability Index

Basin or Region	Jun EOM [^] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Virgin River	34.08	3.45	37.53	27	-1.89	04, 13, 12, 07

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



July 1, 2018

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Bear River	1040	23.4	1064	72	1.8	81, 87, 11, 85
Woodruff Narrows	25.0	23.4	48.4	33	-1.4	07, 88, 90, 14
Little Bear	10.6	1.8	12.4	33	-1.4	12, 14, 04, 15
Ogden	98.0	3.4	101.5	36	-1.2	02, 15, 89, 94
Weber	170.4	16.7	187.1	24	-2.2	12, 00, 14, 04
Provo River	423.5	8.7	432.2	46	-0.4	00, 01, 16, 08
Western Uinta	185.6	10.0	195.6	22	-2.3	12, 04, 94, 00
Eastern Uinta	25.4	5.3	30.6	8	-3.5	02, 14, 89, 94
Blacks Fork	21.8	24.9	46.6	33	-1.4	89, 13, 14, 87
Price	44.4	0.9	45.2	44	-0.5	12, 10, 96, 00
Smiths Creek	10.4	5.4	15.9	26	-2.0	89, 92, 06, 88
Joes Valley	46.8	4.0	50.8	8	-3.5	02, 13, 92, 12
Moab	0.5	0.2	0.7	3	-3.9	02, 89, 13, 12
Upper Sevier River	34.1	0.6	34.7	5	-3.7	04, 92, 90, 03
San Pitch	0.0	1.6	1.6	3	-4.0	13, 02, 92, 14
Lower Sevier	30.5	3.1	33.6	5	-3.7	04, 17, 03, 16
Beaver	6.1	1.3	7.4	5	-3.7	02, 04, 00, 07
Virgin River	34.1	3.5	37.5	27	-1.9	04, 13, 12, 07

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

What is a Water Availability Index?

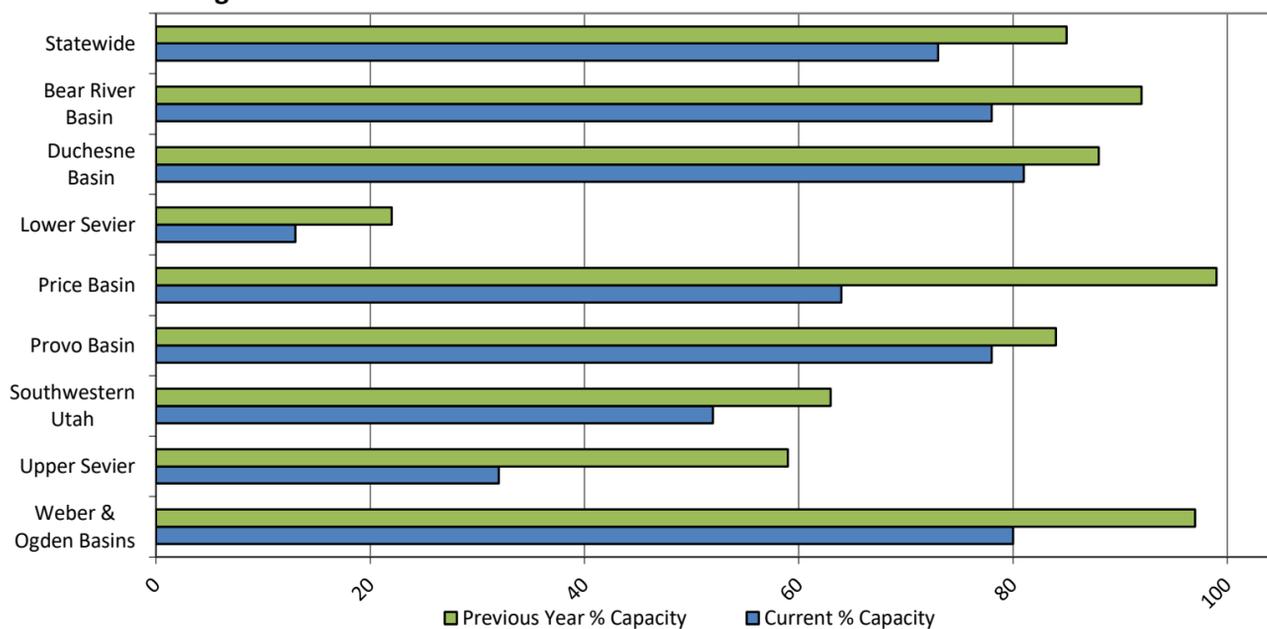
The Water Availability Index (WAI) is an observed hydrologic indicator of current surface water availability within a watershed. The index is calculated by combining current reservoir storage with the previous months streamflow. WAI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) 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 June 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	11.1	25.4		25.7	43%	99%			
Causey Reservoir	6.6	7.0	6.7	7.1	93%	99%	94%	99%	105%
Cleveland Lake	4.0	5.4		5.4	74%	100%			
Currant Creek Reservoir	15.0	14.5	15.2	15.5	97%	94%	98%	99%	95%
Deer Creek Reservoir	135.8	150.5	136.2	149.7	91%	101%	91%	100%	111%
East Canyon Reservoir	43.9	49.5	45.9	49.5	89%	100%	93%	96%	108%
Echo Reservoir	51.8	72.2	64.4	73.9	70%	98%	87%	80%	112%
Grantsville Reservoir	1.9	2.7	2.4	3.3	57%	82%	73%	78%	113%
Gunlock	7.3	9.5	7.3	10.4	70%	91%	70%	100%	130%
Gunnison Reservoir	0.0	14.4	14.2	20.3	0%	71%	70%	0%	102%
Huntington North Reservoir	3.3	3.6	3.4	4.2	80%	86%	81%	98%	106%
Hyrum Reservoir	10.6	14.4	13.1	15.3	69%	94%	86%	81%	110%
Joes Valley Reservoir	46.8	62.2	56.8	61.6	76%	101%	92%	82%	110%
Jordanelle Reservoir	287.7	309.2	296.7	314.0	92%	98%	94%	97%	104%
Ken's Lake	0.5	2.4	1.9	2.3	23%	105%	83%	28%	126%
Kolob Reservoir	2.1	5.5		5.6	37%	99%			
Lost Creek Reservoir	19.9	22.4	18.2	22.5	88%	99%	81%	109%	123%
Lower Enterprise	0.8	1.7	1.1	2.6	29%	65%	42%	68%	155%
Miller Flat Reservoir	3.2	5.2		5.2	61%	100%			
Millsite	1.2	15.3	15.7	16.7	7%	91%	94%	7%	97%
Minersville Reservoir	6.1	12.6	13.5	23.3	26%	54%	58%	45%	93%
Moon Lake Reservoir	25.0	37.8	33.6	35.8	70%	106%	94%	75%	112%
Otter Creek Reservoir	26.9	48.8	36.4	52.5	51%	93%	69%	74%	134%
Panguitch Lake	13.5	11.8	16.2	22.3	61%	53%	73%	84%	73%
Pineview Reservoir	91.4	108.7	93.0	110.1	83%	99%	84%	98%	117%
Piute Reservoir	7.2	26.6	45.0	71.8	10%	37%	63%	16%	59%
Porcupine Reservoir	11.9	11.3	10.6	11.3	105%	100%	94%	112%	107%
Quail Creek	26.8	30.4	29.0	40.0	67%	76%	73%	92%	105%
Red Fleet Reservoir	17.2	24.1	23.4	25.7	67%	94%	91%	73%	103%
Rockport Reservoir	47.9	59.8	56.9	60.9	79%	98%	93%	84%	105%
Sand Hollow Reservoir	45.5	47.5		50.0	91%	95%			
Scofield Reservoir	44.3	65.8	48.2	65.8	67%	100%	73%	92%	137%
Settlement Canyon Reservoir	0.4	0.9	0.8	1.0	43%	90%	82%	52%	110%
Sevier Bridge Reservoir	30.5	53.0	148.5	236.0	13%	22%	63%	21%	36%
Smith And Morehouse Reservoir	7.0	8.3	7.5	8.1	86%	102%	93%	93%	110%
Starvation Reservoir	133.7	156.1	153.2	164.1	81%	95%	93%	87%	102%
Stateline Reservoir	10.4	13.2	11.3	12.0	87%	110%	94%	92%	117%
Steinaker Reservoir	8.2	19.9	28.3	33.4	25%	60%	85%	29%	70%
Strawberry Reservoir	918.0	953.9	727.7	1105.9	83%	86%	66%	126%	131%
Upper Enterprise	0.5	3.2	3.7	10.0	5%	32%	37%	14%	86%
Upper Stillwater Reservoir	26.9	31.4	28.9	32.5	83%	97%	89%	93%	109%
Utah Lake	559.8	632.9	834.5	870.9	64%	73%	96%	67%	76%
Willard Bay	169.2	200.9	160.4	215.0	79%	93%	75%	105%	125%
Woodruff Creek	0.5	7.0	3.1	4.0	13%	174%	78%	16%	224%
Woodruff Narrows Reservoir	25.0	44.5	30.8	57.3	44%	78%	54%	81%	144%
Meeks Cabin Reservoir	21.8	28.8	24.9	32.5	67%	89%	77%	87%	116%
Bear Lake	1040.3	1207.1	738.2	1302.0	80%	93%	57%	141%	164%
Basin-wide Total	3903.4	4550.1	4006.8	5373.1	73%	85%	75%	97%	114%
# 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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