



Utah Climate and Water Report

April 1, 2018



Huntington Horseshoe SNOTEL

Photo by Jordan Clayton

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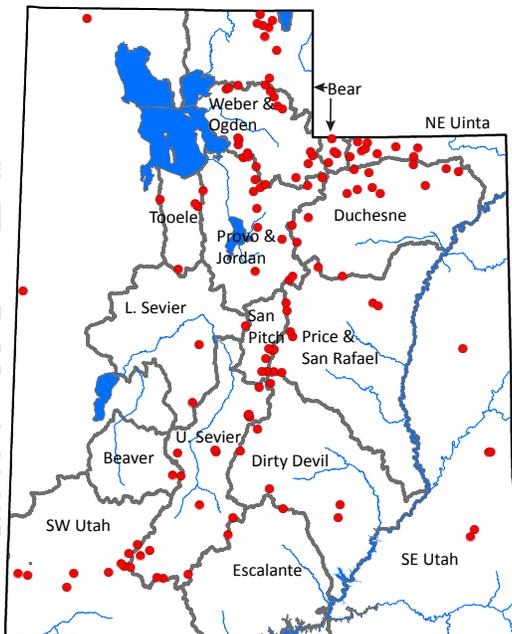
Utah Climate and Water Report

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.



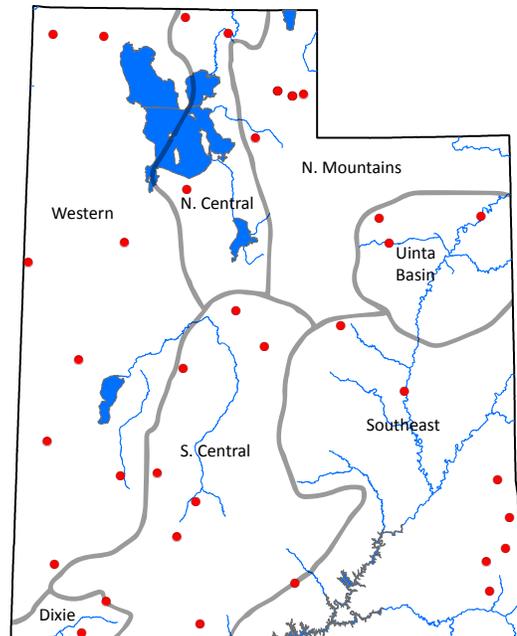
SNOTEL

- 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

April 1, 2018

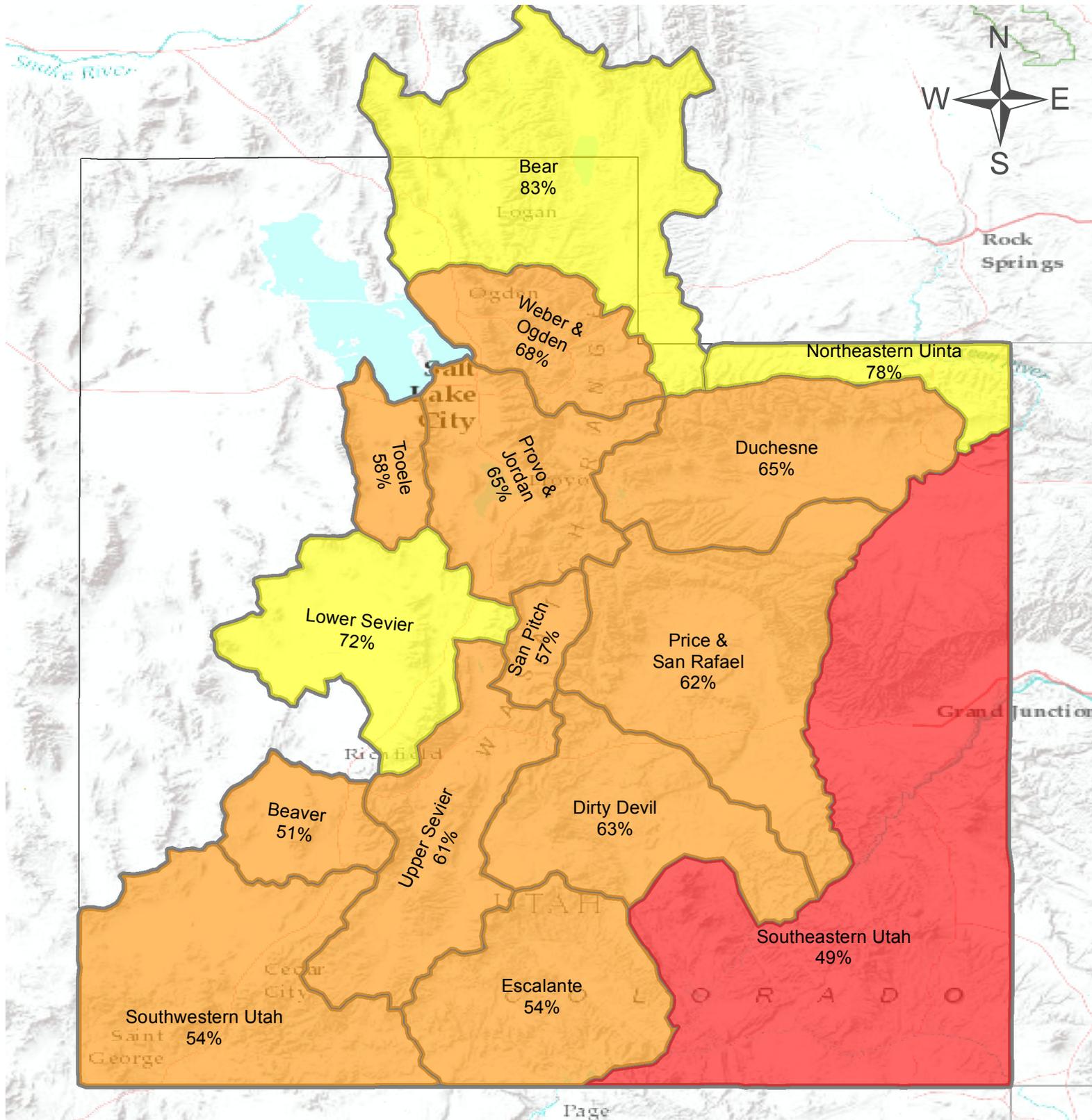
*This report has been reorganized to better reflect two distinct geographic areas being monitored – the low elevation valley sites (**Soil Climate Analysis Network**) that are critical for agricultural production and operations, and the high elevation mountainous areas where water supply is generated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

Utah's valley locations received an average of one inch of precipitation this month, making March the wettest month so far this water year. Unfortunately, the eastern part of the state came up short; the Uinta Basin and Southeast regions each received a scant 0.3 inches of precipitation during the month. Soil moisture conditions were particularly bad at the beginning of the month in these two regions, and they continued to deteriorate further through the month. As the growing season begins in other regions of Utah, conditions vary. In the north, soil moisture conditions are near or slightly above average and soil temperatures are about average. In the rest of Southern and Central Utah, soil moisture is much below average and soil temperatures are significantly above average. This is not the start to growing season that is hoped for in Southern and Eastern Utah. Like the mountain locations in Utah, this continues to be a very dry water year.

Current Mountain Conditions (SNOTEL)

April 1, 2015 basin snowpack numbers were hovering right around 41% of normal and the snowpack started declining after March 1st. Fast forward three years and the 2018 March month increased our snowpack by about 10%, moving our current basin snowpack normal closer to 60%. We can add to that happy thought that many of our reservoirs are over 75% full thanks to carryover from last year. As of April 1st, the normal peak of snowpack accumulation, Utah watersheds are at: Bear – 82%, Weber – 60%, Provo – 61%, Tooele – 53%, Duchesne – 63%, Price – 58%, Upper Sevier – 61%, San Pitch – 62%, and Southwestern Utah – 56% of normal. General runoff conditions are much below average across the entire state. Soil moisture, while normal to near normal in the north, is at record low levels in the south. With much below-normal snowpack and very dry soils the southern basins could experience even lower streamflow conditions than what has been forecasted. April 1st snowpacks, as measured by the NRCS SNOTEL system, range from 45% of median in the Southeastern area to 82% in the Bear and Northeastern Uinta. Most basins range from 53% to 64% of normal. Mountain precipitation during March was 101% of average which brings the seasonal accumulation (Oct-Mar) to 67% of normal. Snowmelt stream flows are expected to be much below average across most of the state. Most flows are forecasted to be in the 22% to 68% of average range.



Statewide Precipitation

As of April 1, 2018:

67% of Normal Precipitation

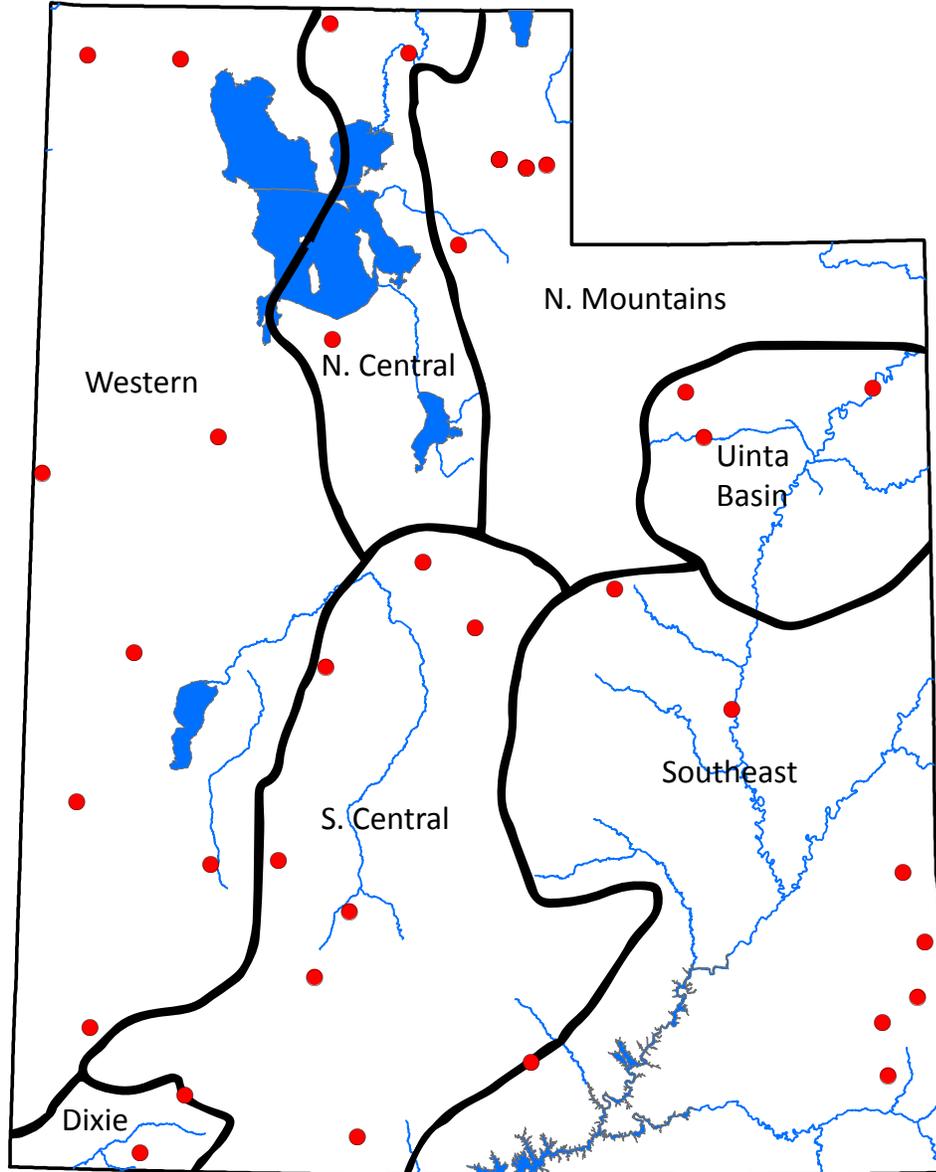
101% of Normal Precipitation Last Month

% of Normal

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



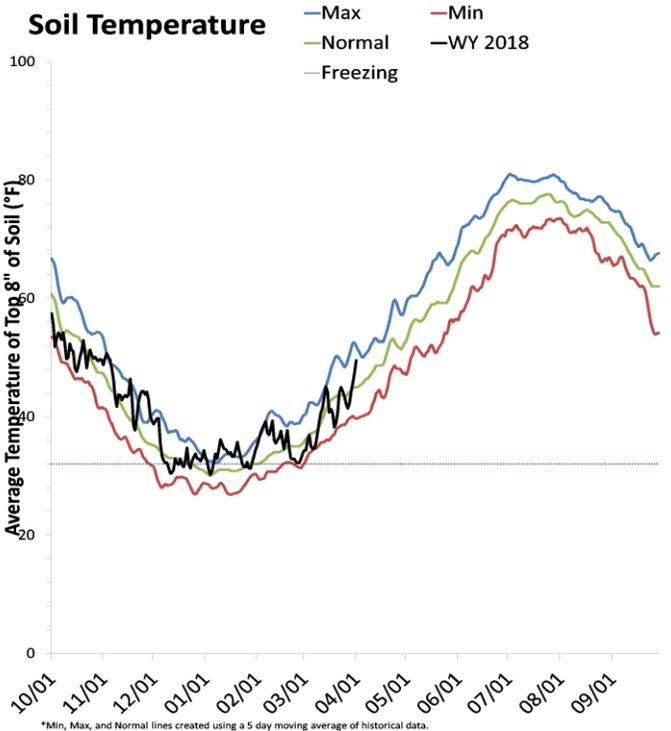
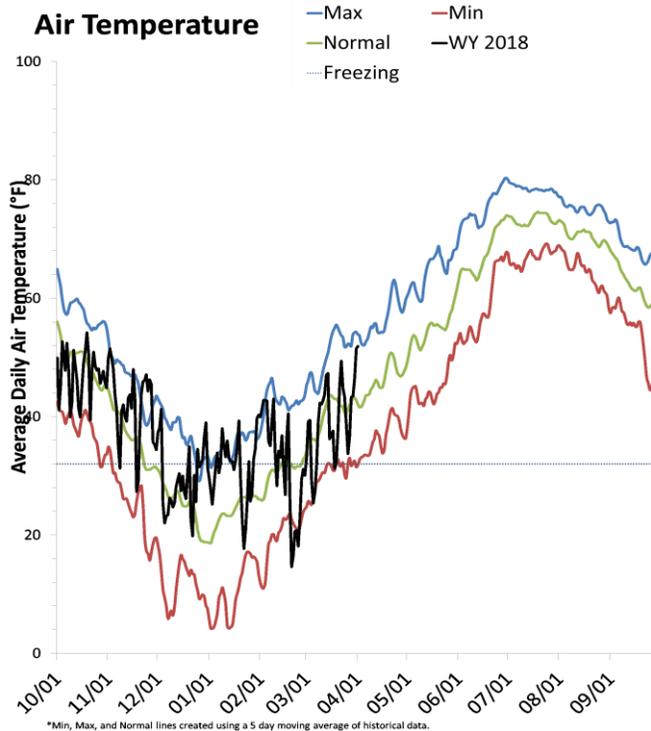
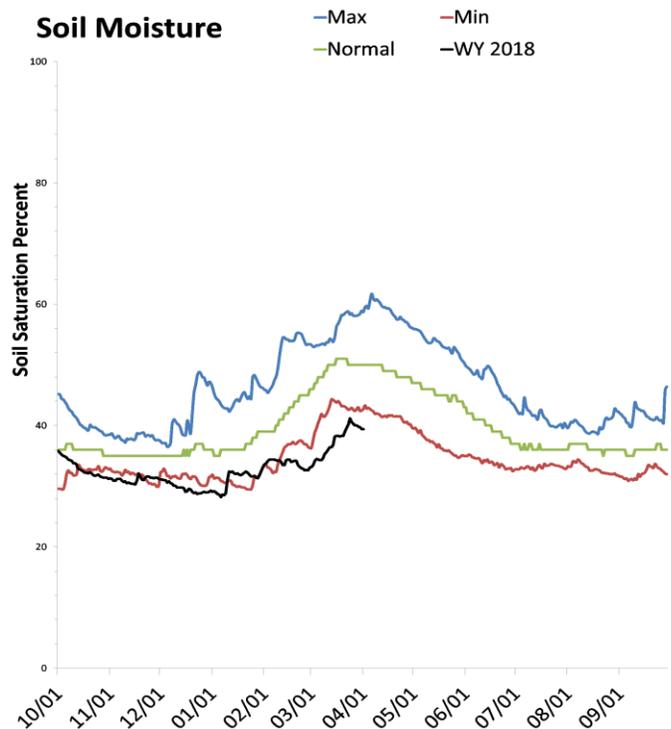
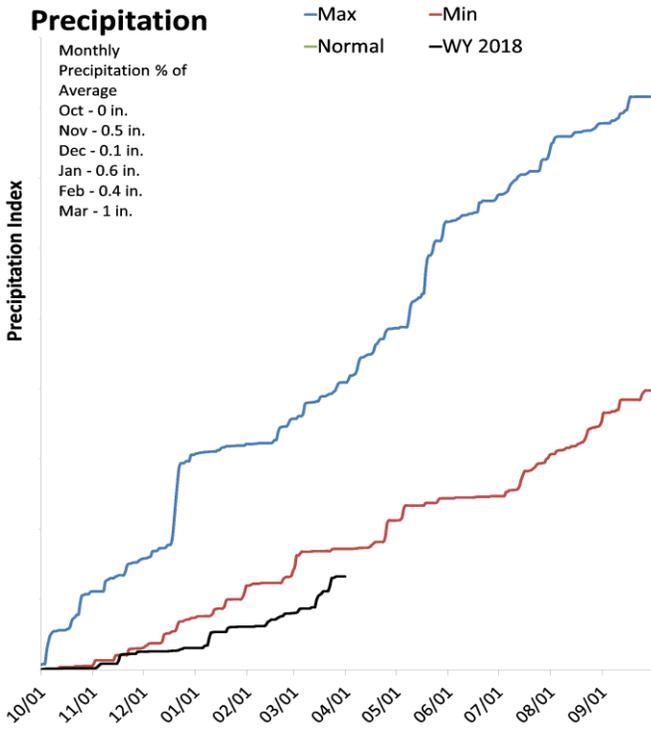
SCAN portion of report



Statewide SCAN

April 1, 2018

The average precipitation at SCAN sites within Utah was 1 inches in March, which brings the seasonal accumulation (Oct-Mar) to 2.7 inches. Soil moisture is at 39% compared to 55% last year.



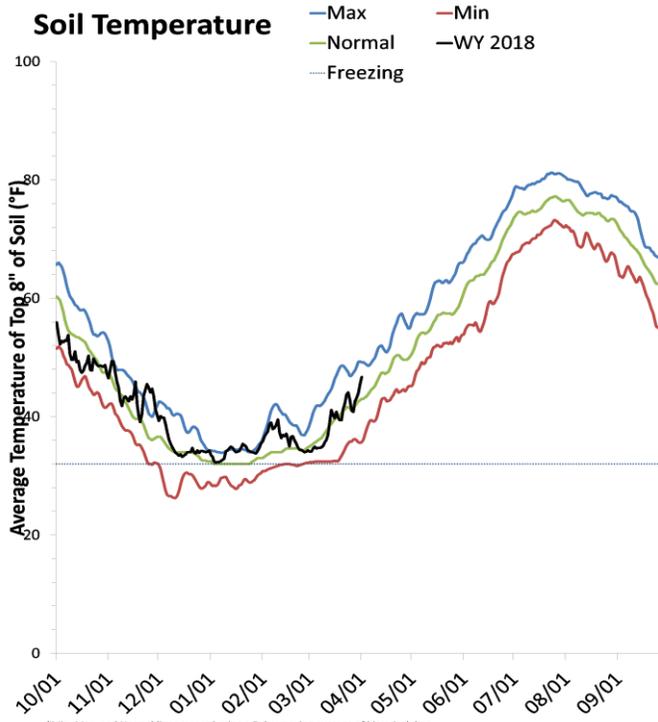
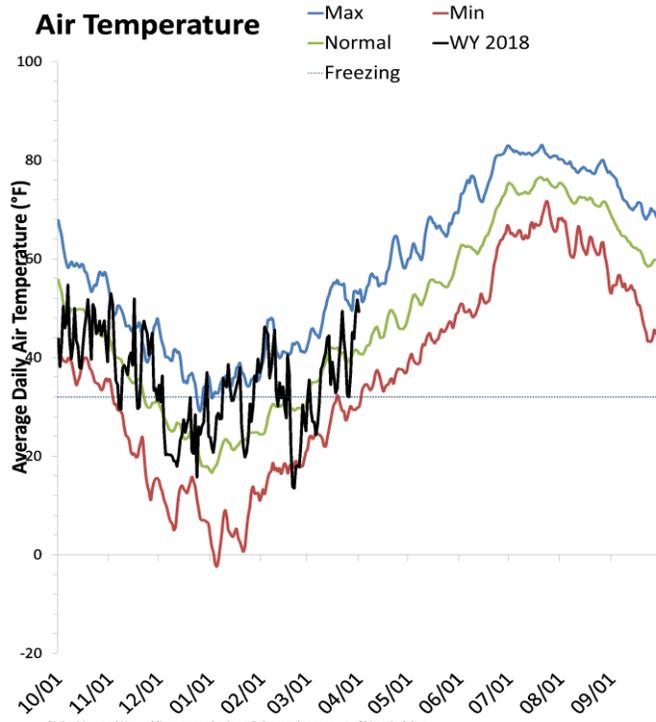
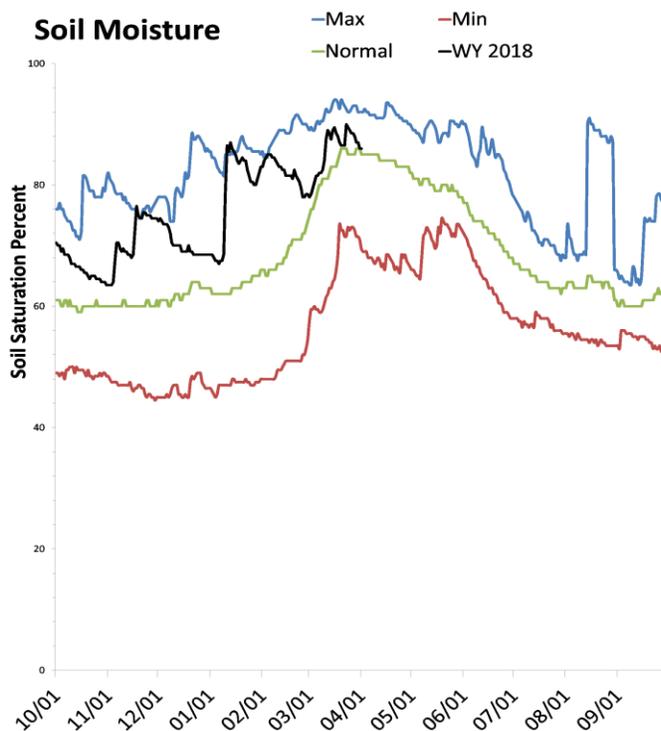
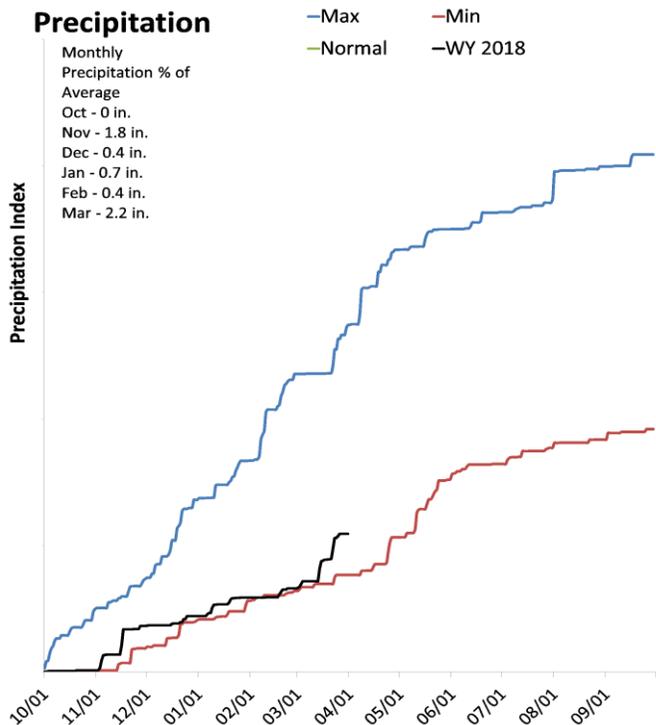
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

North Central

April 1, 2018

The average precipitation in March at SCAN sites within the basin was 2.2 inches, which brings the seasonal accumulation (Oct-Mar) to 5.5 inches. Soil moisture is at 86% compared to 90% last year.



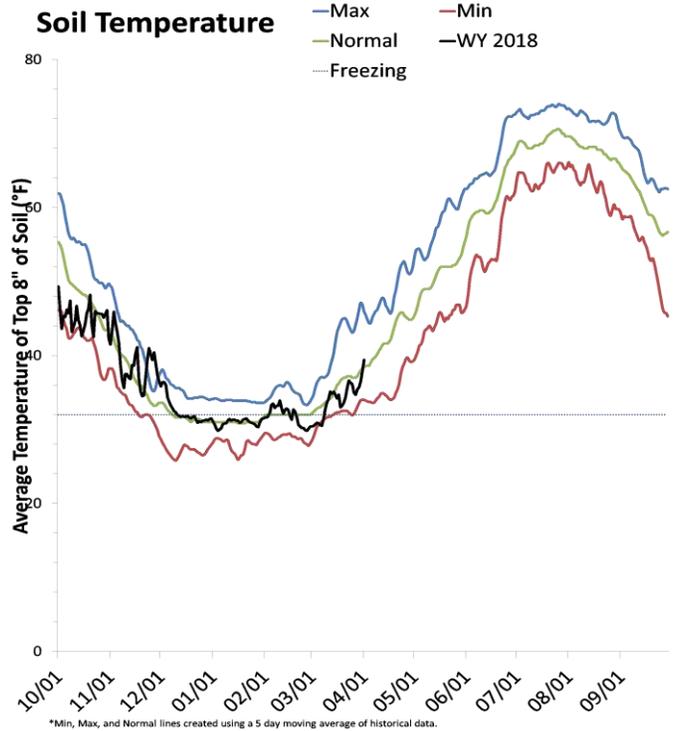
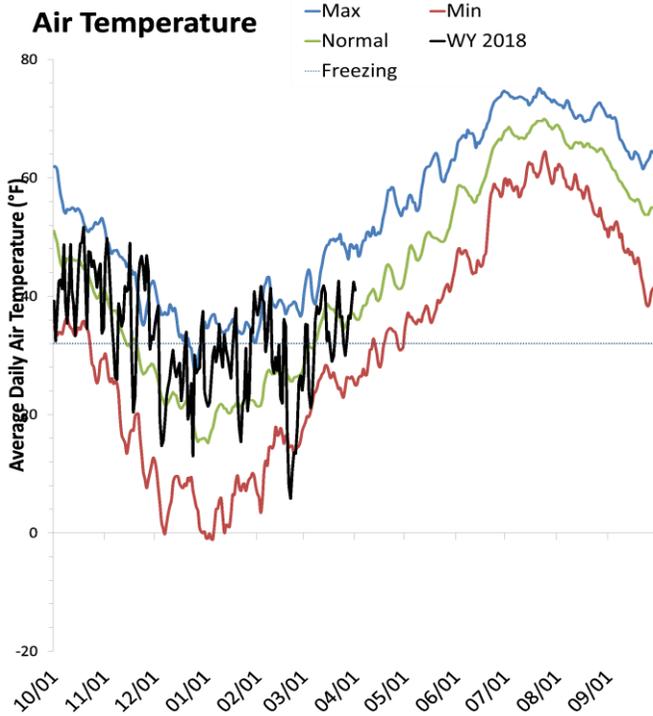
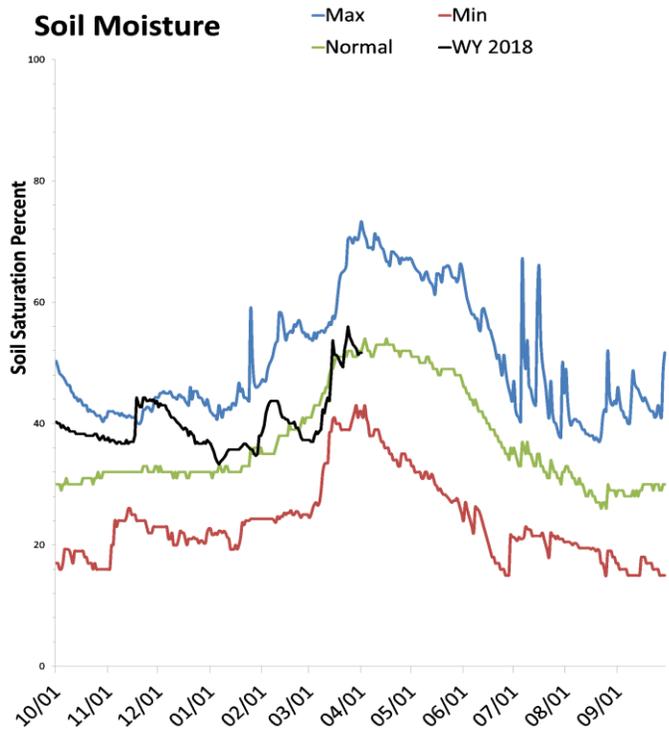
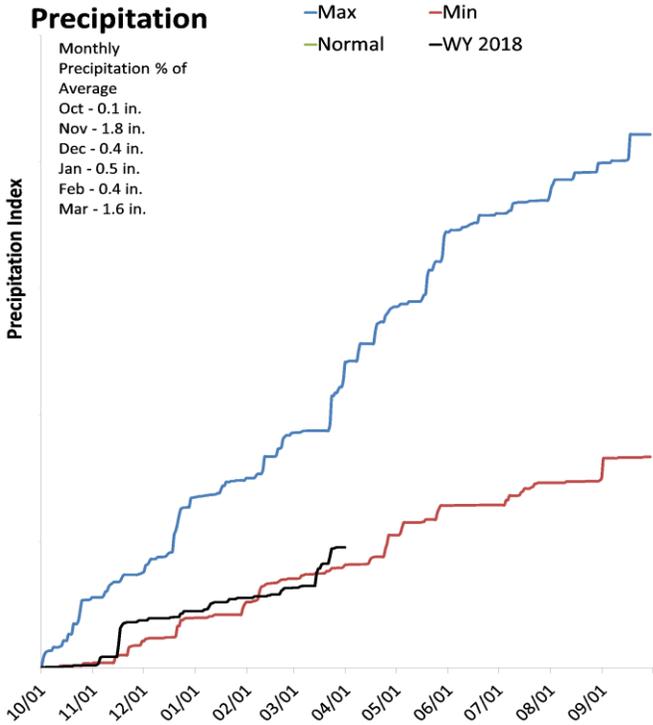
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Northern Mountains

April 1, 2018

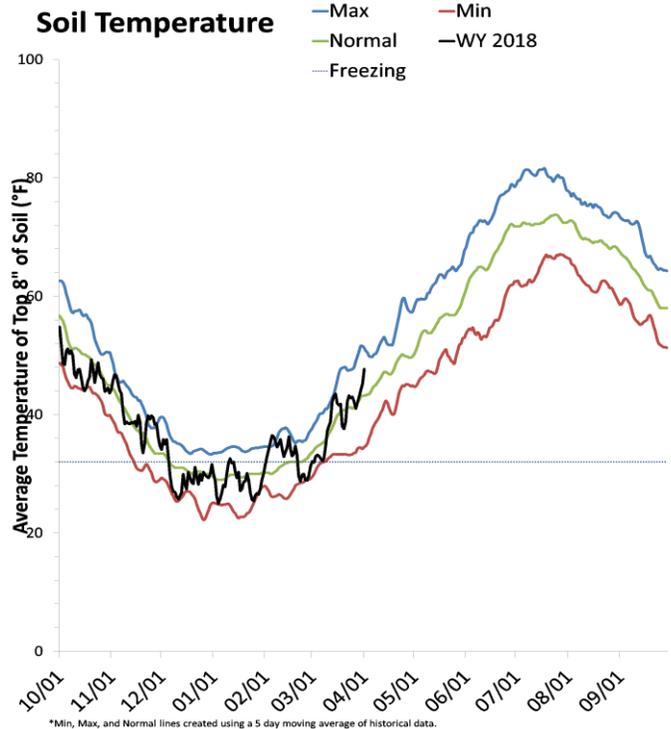
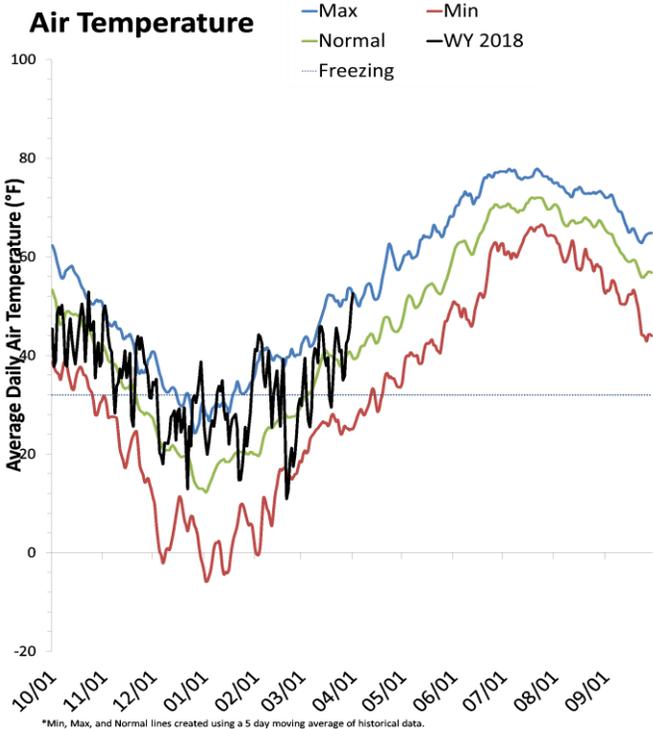
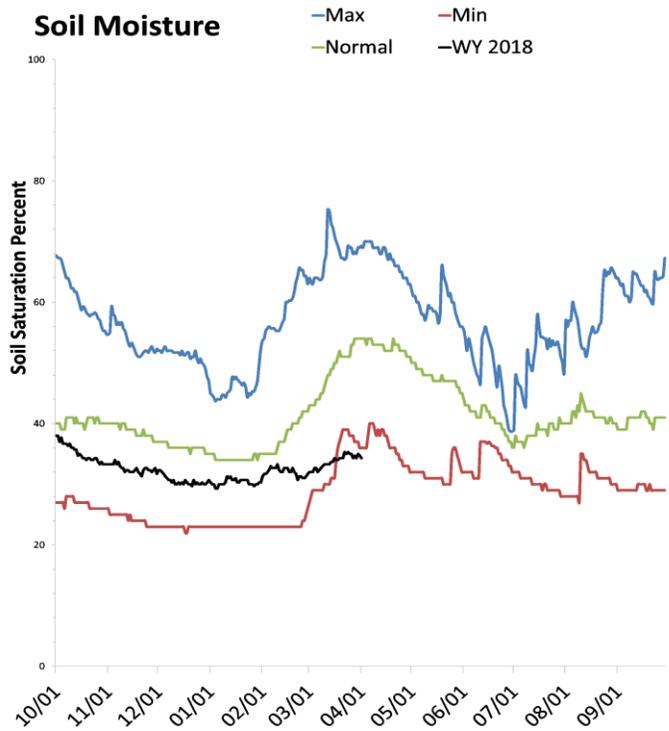
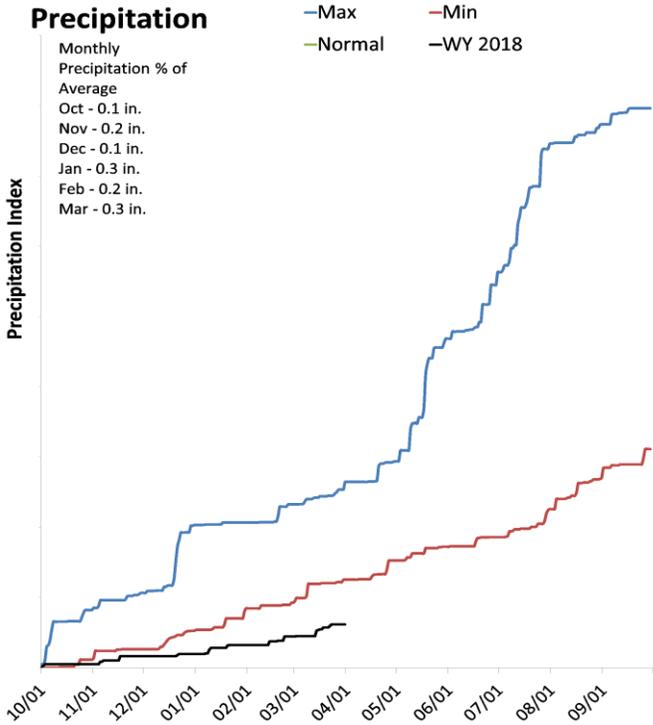
The average precipitation in March at SCAN sites within the basin was 1.6 inches, which brings the seasonal accumulation (Oct-Mar) to 4.8 inches. Soil moisture is at 52% compared to 73% last year.



Uinta Basin

April 1, 2018

The average precipitation in March at SCAN sites within the basin was 0.3 inches, which brings the seasonal accumulation (Oct-Mar) to 1.2 inches. Soil moisture is at 35% compared to 69% last year.



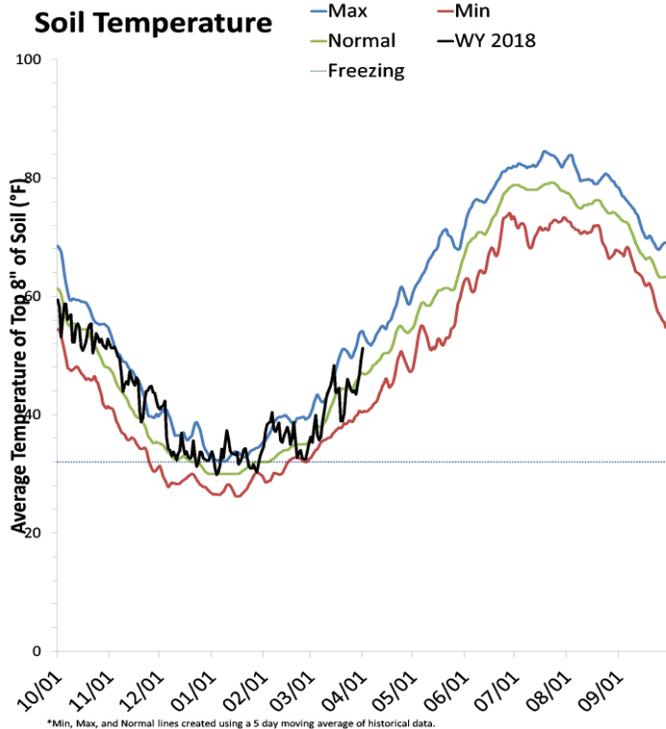
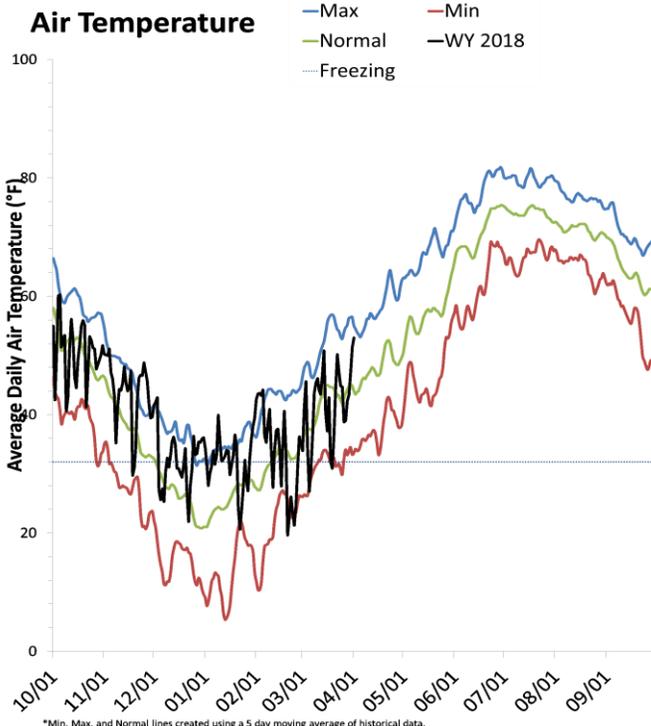
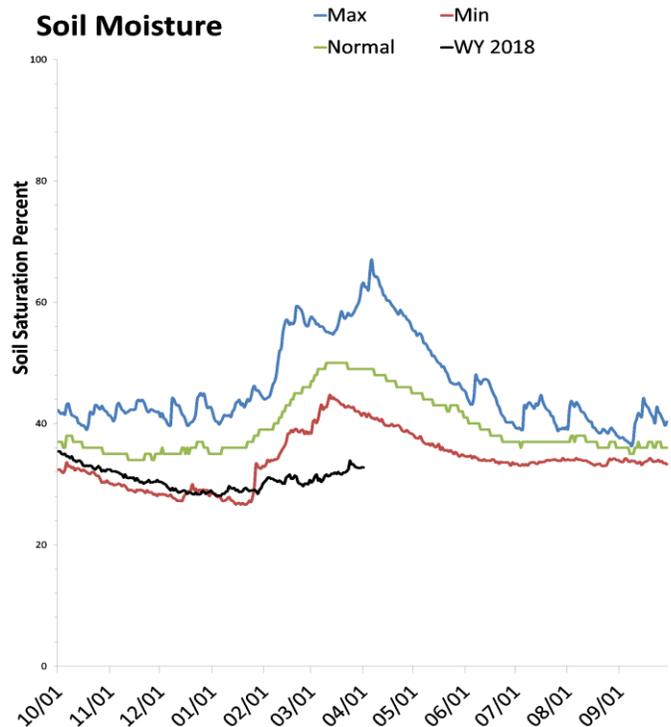
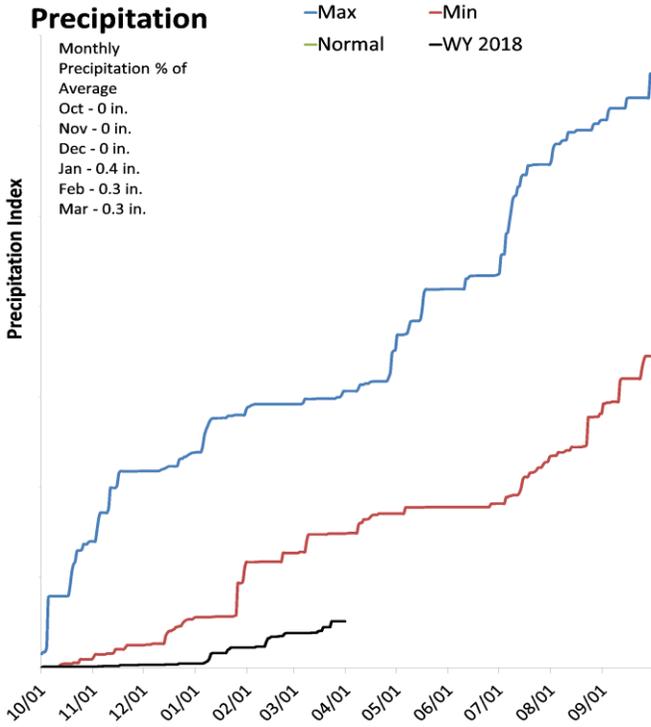
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Southeast

April 1, 2018

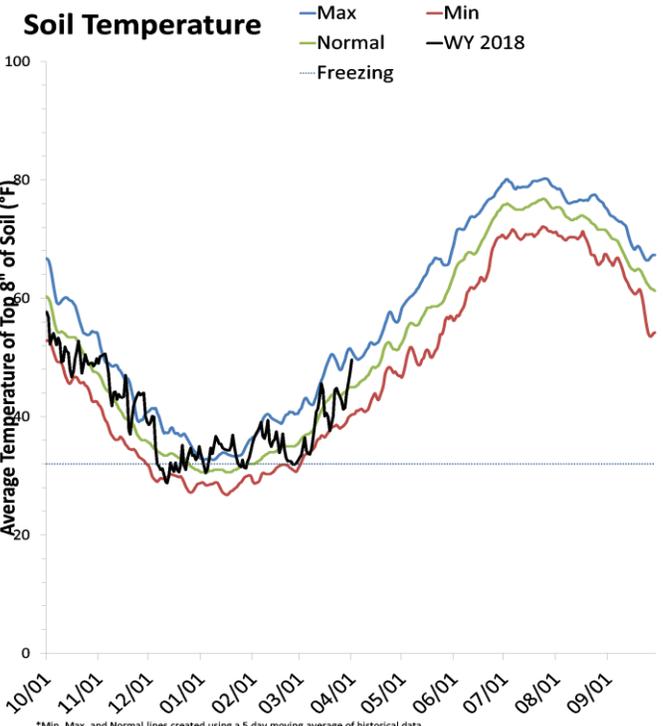
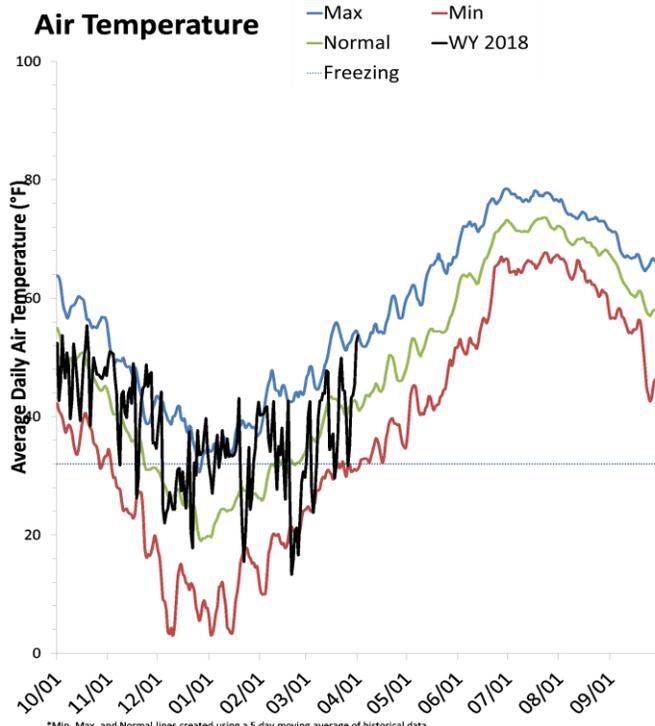
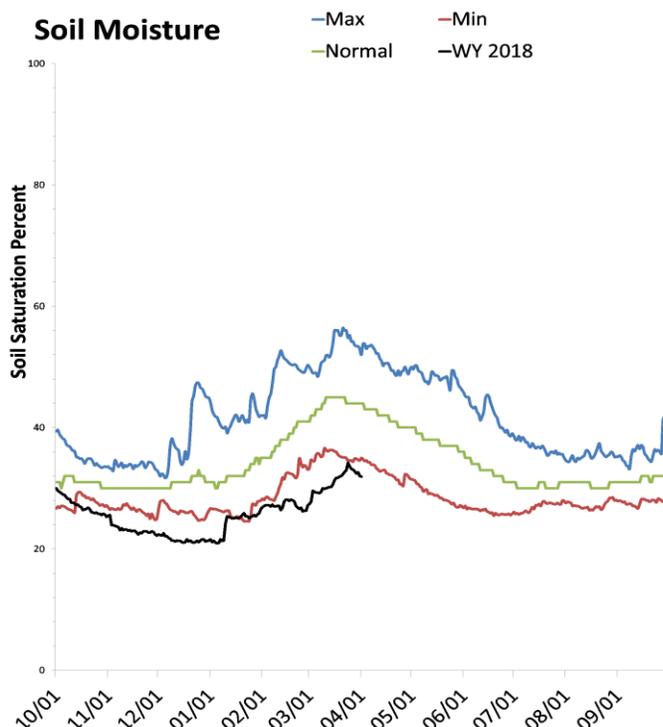
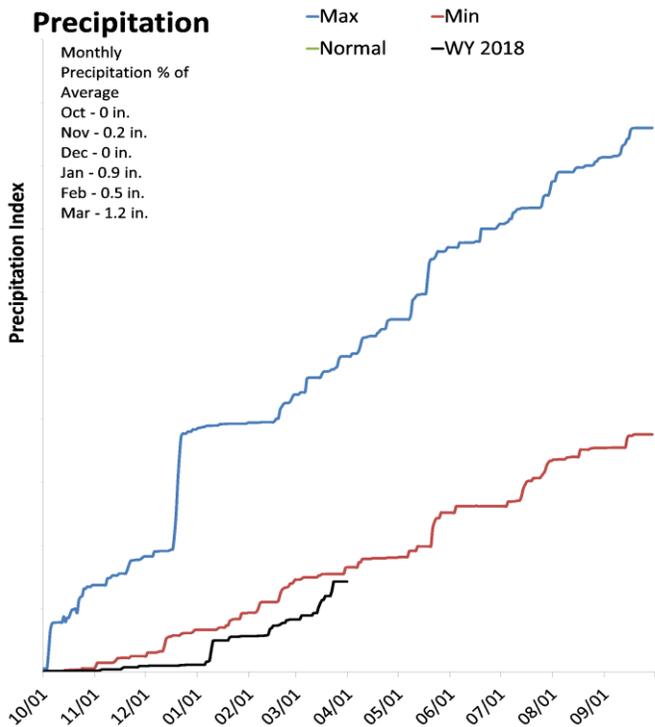
The average precipitation in March at SCAN sites within the basin was 0.3 inches, which brings the seasonal accumulation (Oct-Mar) to 1 inches. Soil moisture is at 34% compared to 52% last year.



South Central

April 1, 2018

The average precipitation in March at SCAN sites within the basin was 1.2 inches, which brings the seasonal accumulation (Oct-Mar) to 2.9 inches. Soil moisture is at 32% compared to 47% last year.



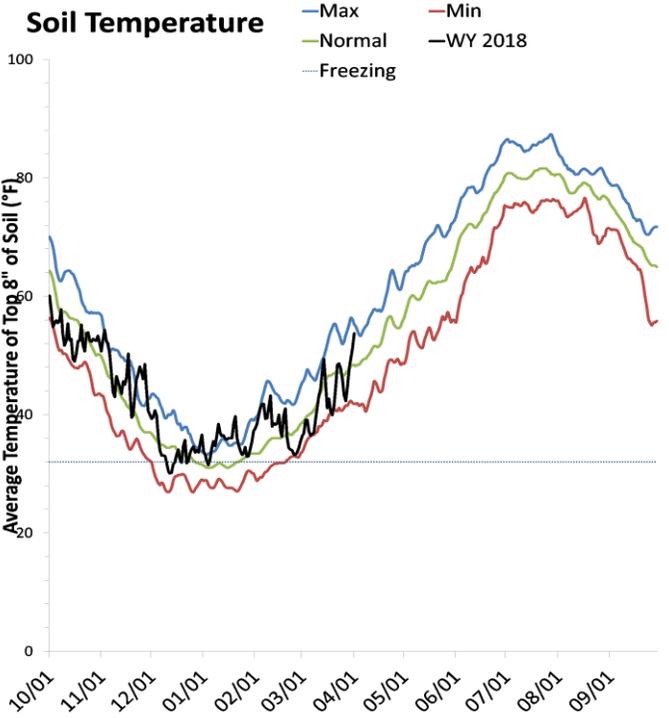
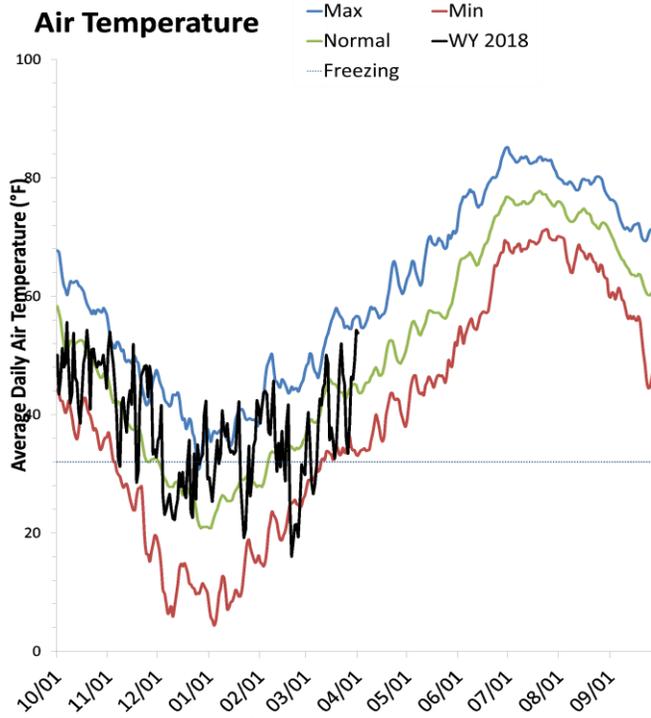
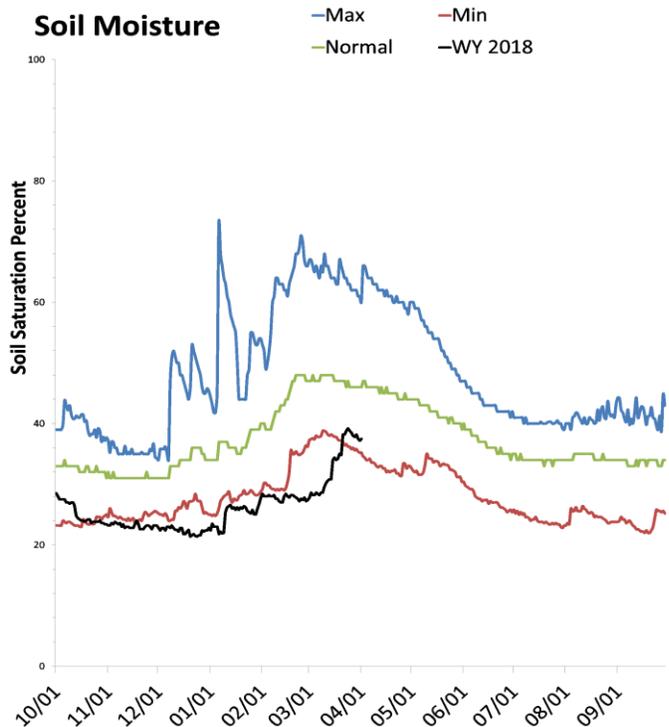
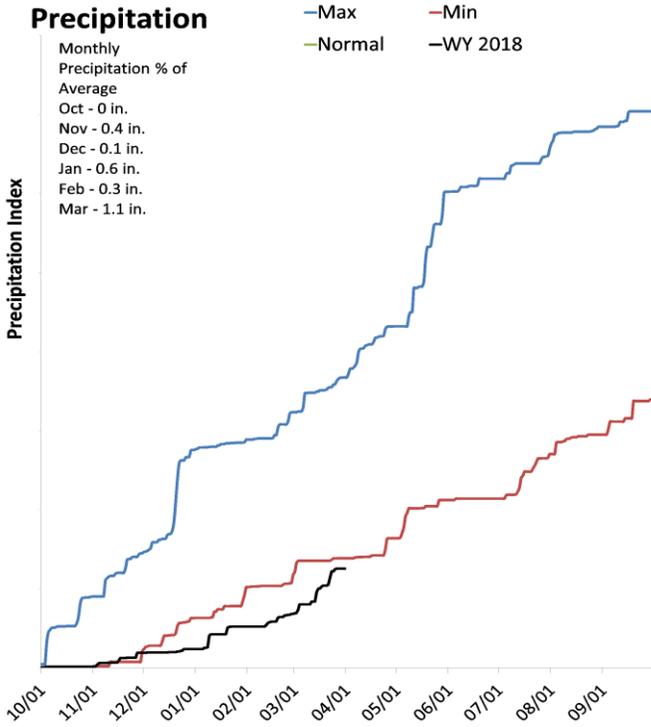
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Western and Dixie

April 1, 2018

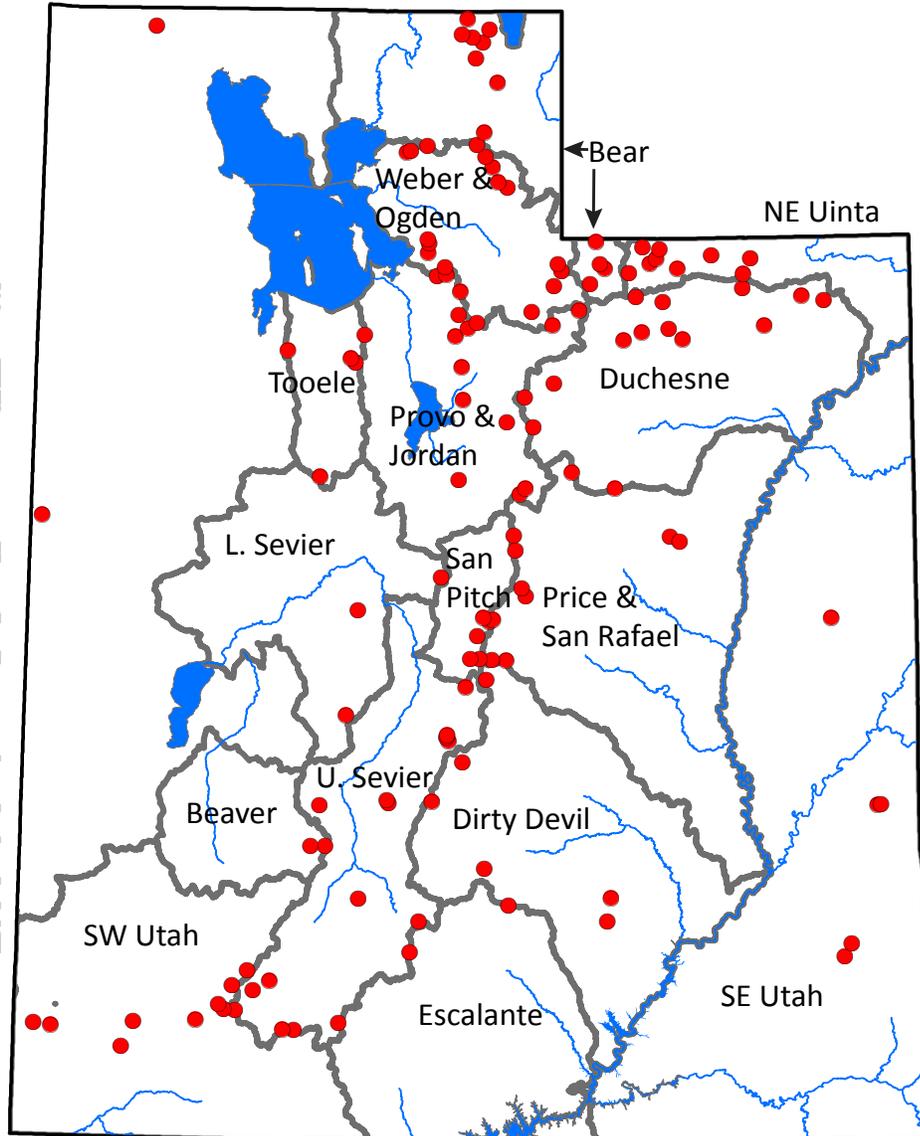
The average precipitation in March at SCAN sites within the basin was 1.1 inches, which brings the seasonal accumulation (Oct-Mar) to 2.5 inches. Soil moisture is at 34% compared to 39% last year.



*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.

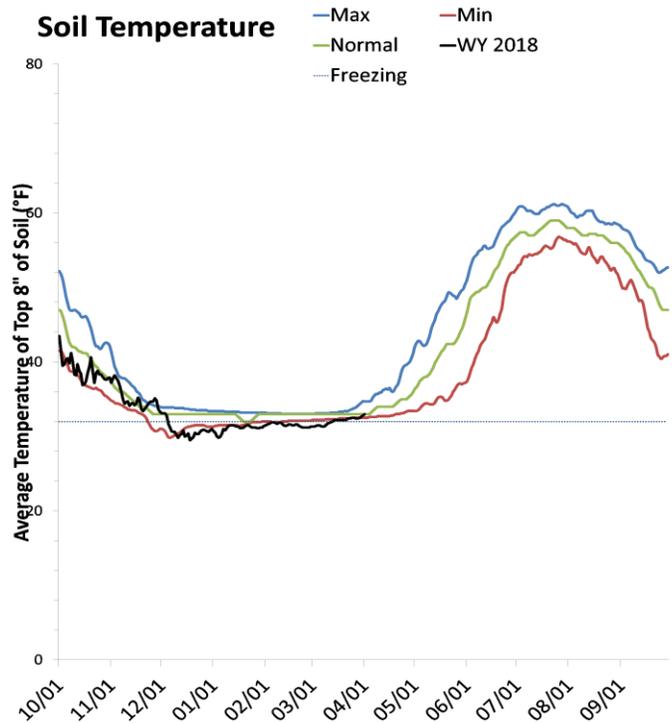
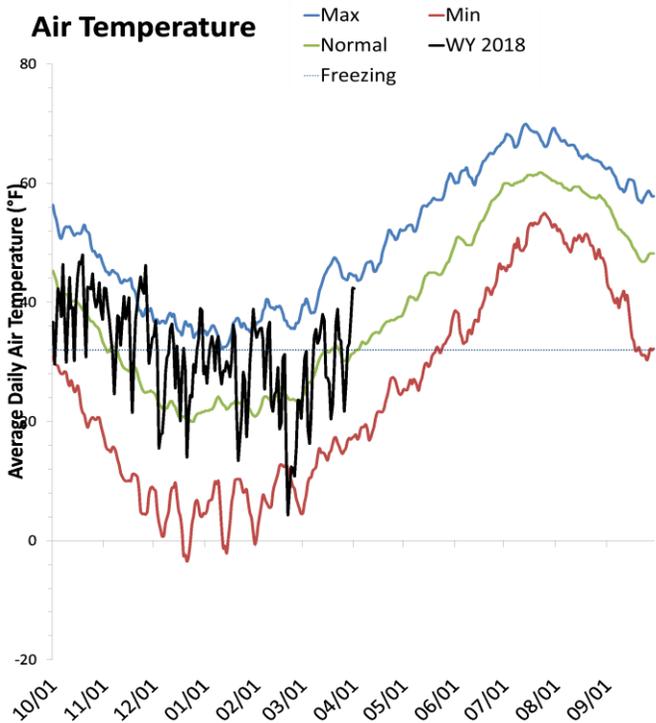
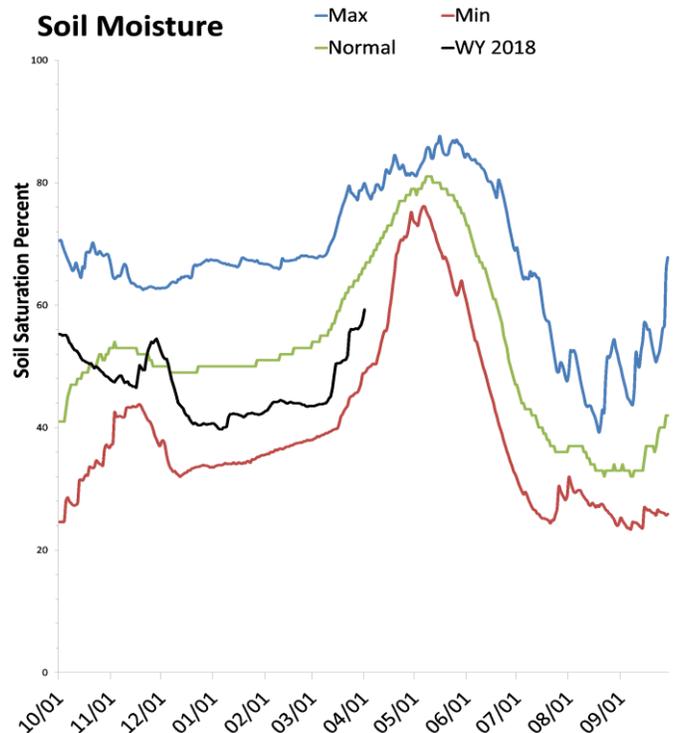
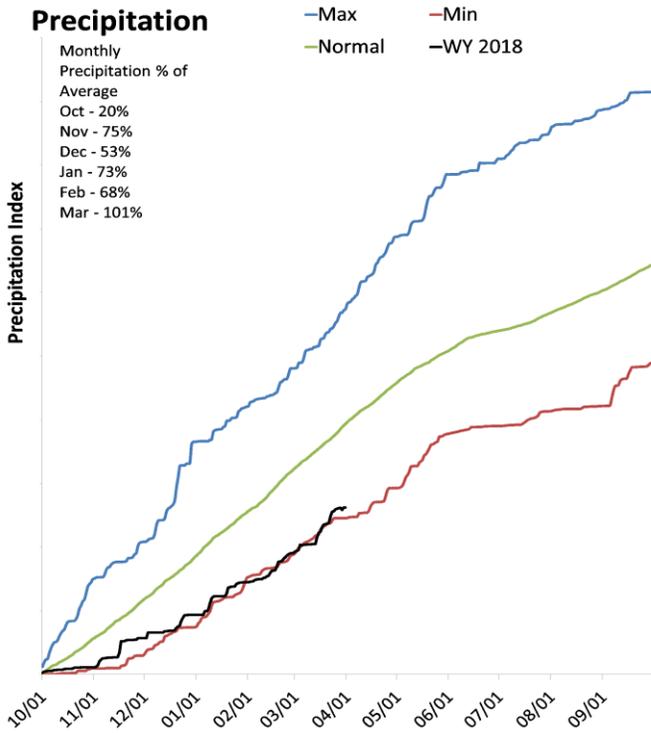
SNOTEL portion of report



Statewide SNOTEL

April 1, 2018

Precipitation at SNOTEL sites during March was near average at 101%, which brings the seasonal accumulation (Oct-Mar) to 67% of average. Soil moisture is at 58% compared to 78% last year. Reservoir storage is at 77% of capacity, compared to 62% last year.



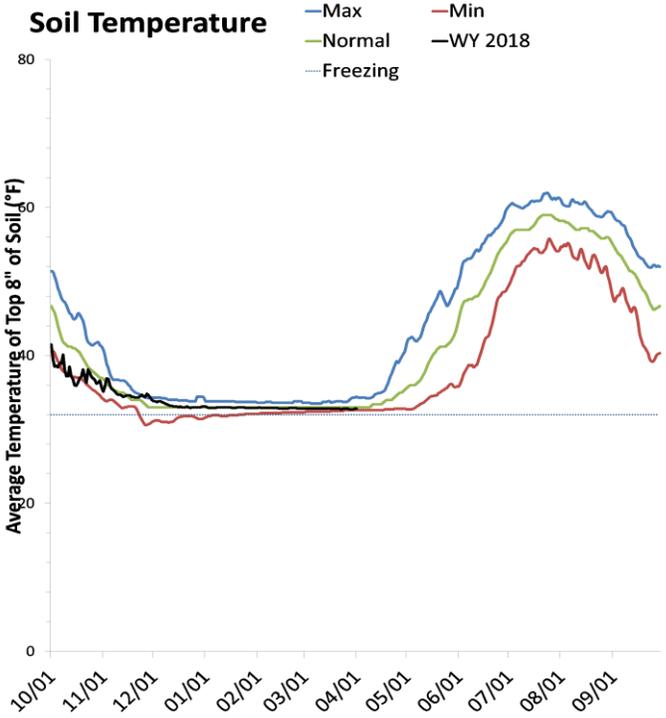
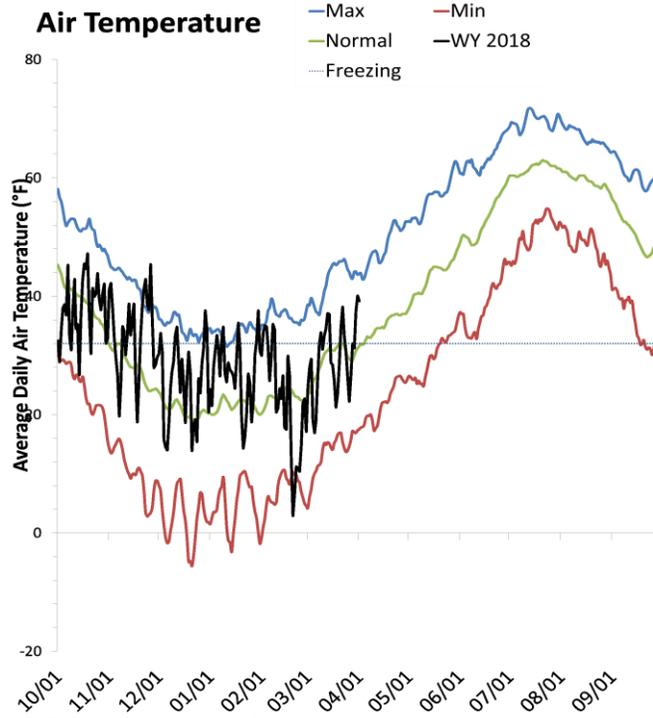
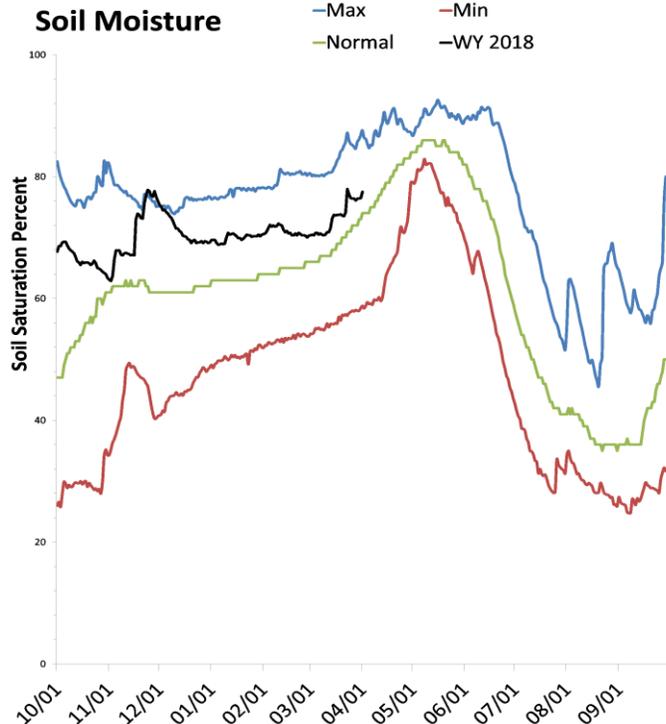
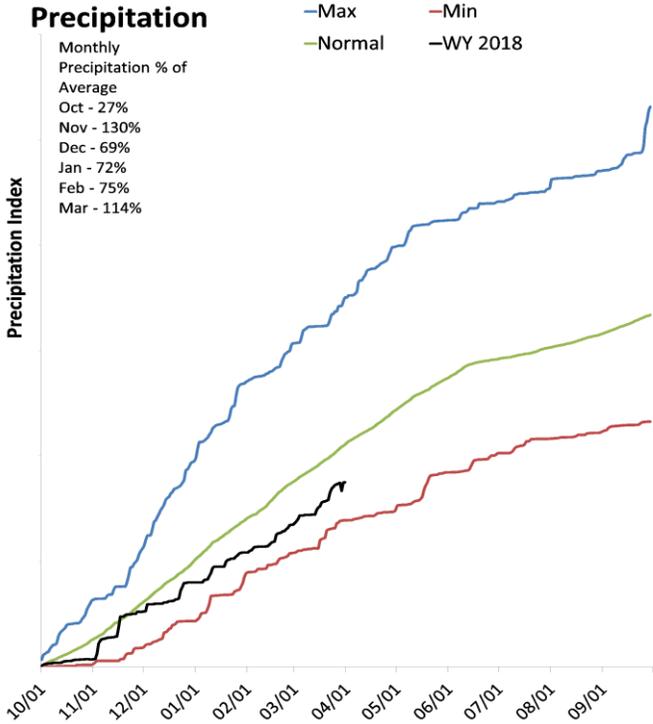
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Bear River Basin

April 1, 2018

Precipitation in March was above average at 114%, which brings the seasonal accumulation (Oct-Mar) to 83% of average. Soil moisture is at 76% compared to 84% last year. Reservoir storage is at 78% of capacity, compared to 53% last year. The water availability index for the Bear River is 92%, 82% for Woodruff Narrows and 44% for the Little Bear.



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

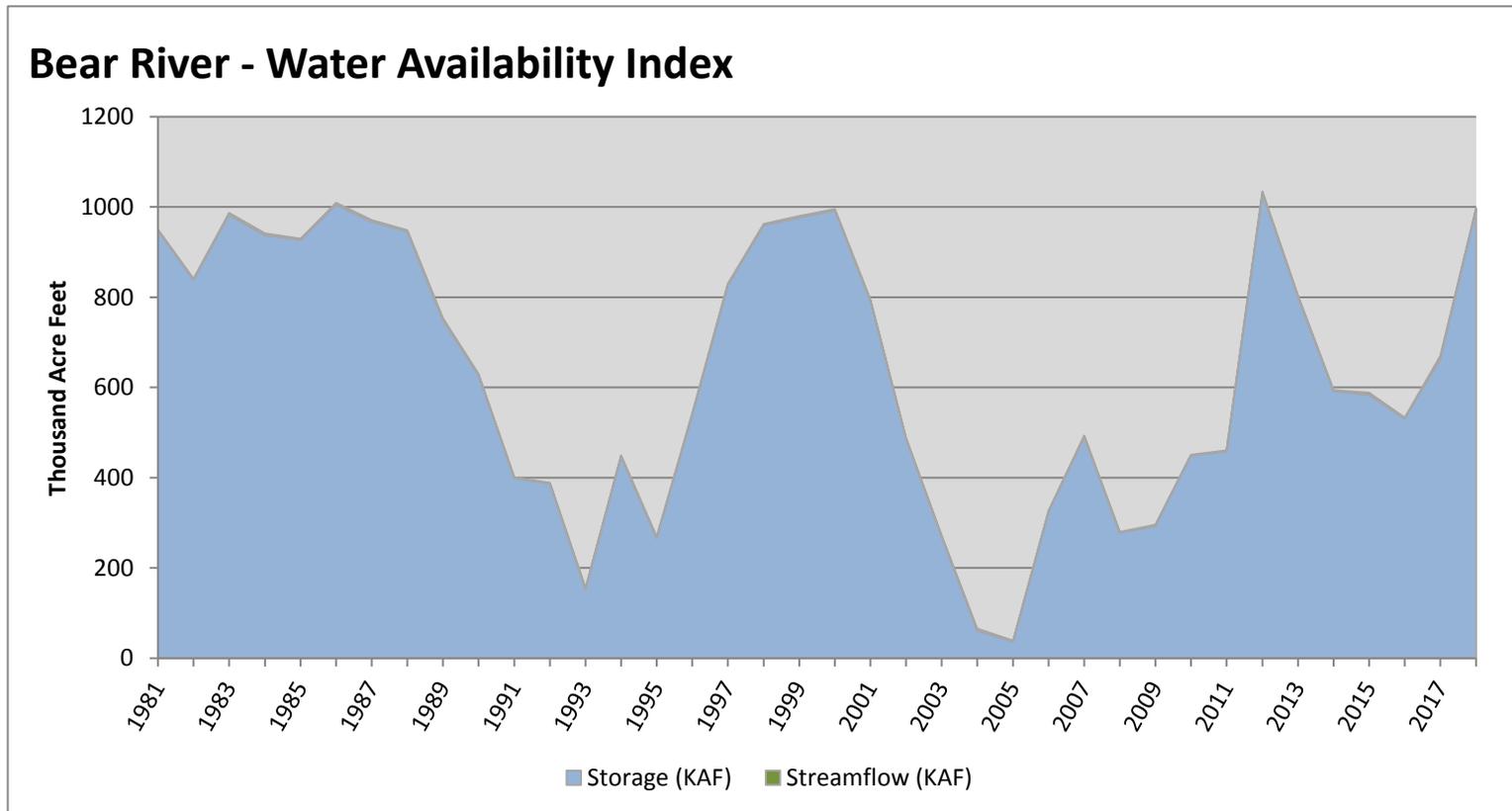
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Bear River	994.30	2.76	997.06	92	3.53	83, 00, 86, 12

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

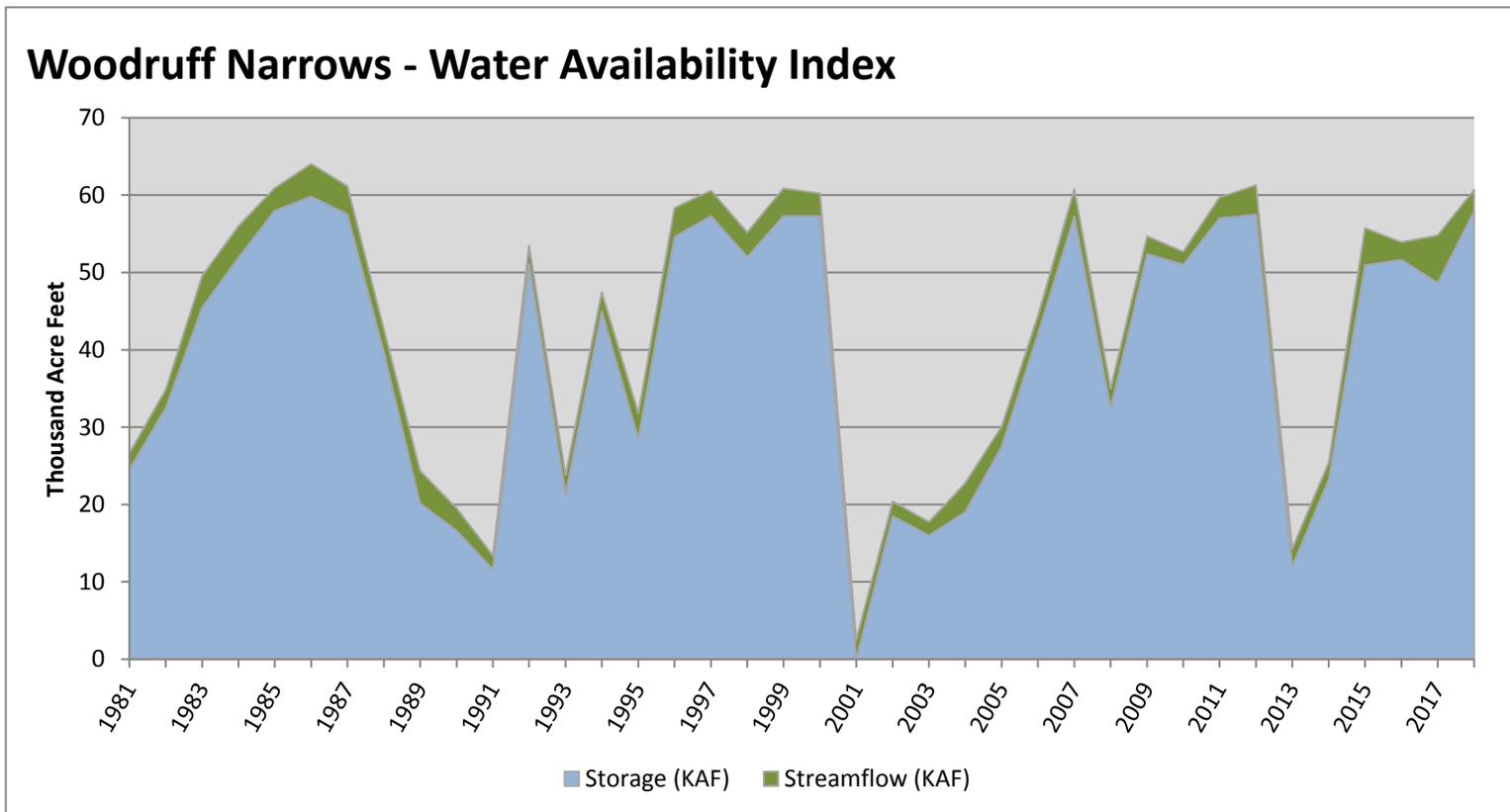


April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Woodruff Narrows	57.89	2.76	60.65	82	2.67	00, 97, 07, 99

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

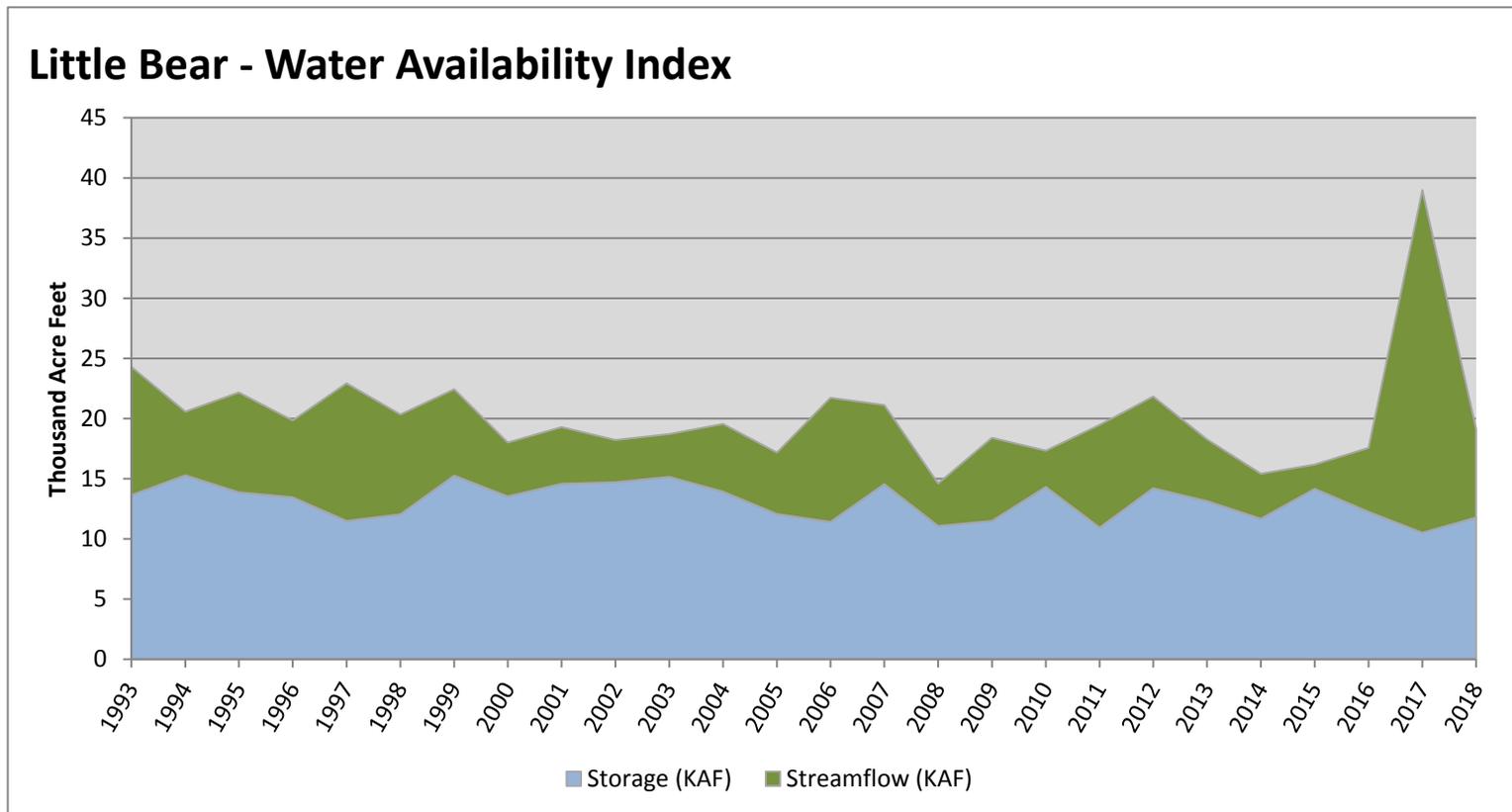


April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Little Bear	11.78	7.39	19.17	44	-0.46	09, 03, 01, 11

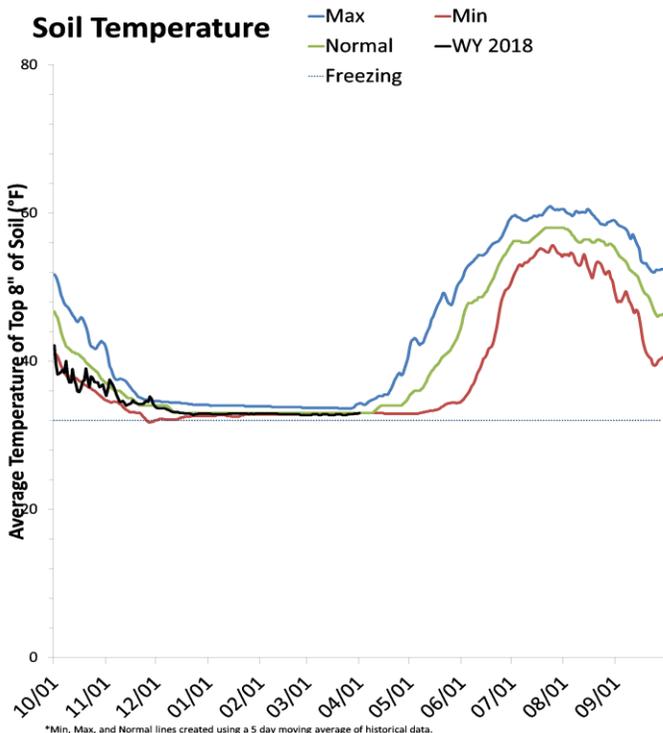
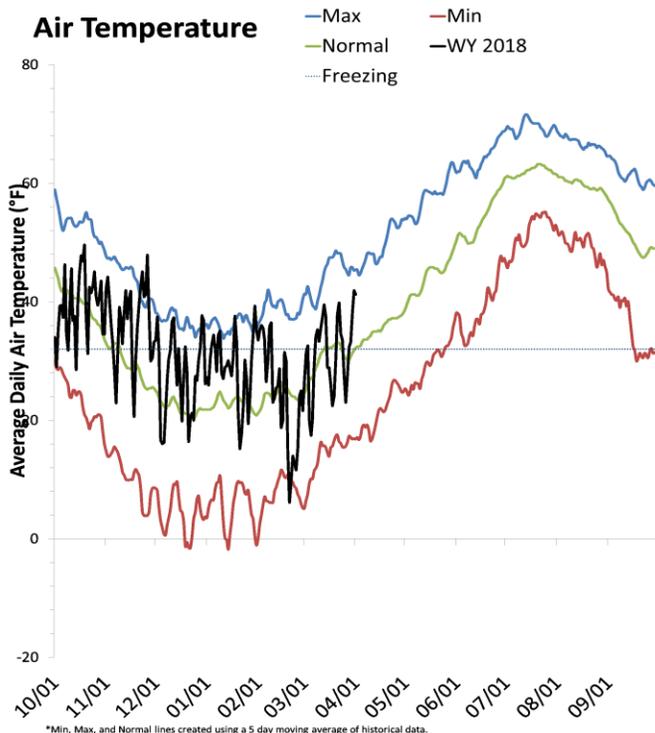
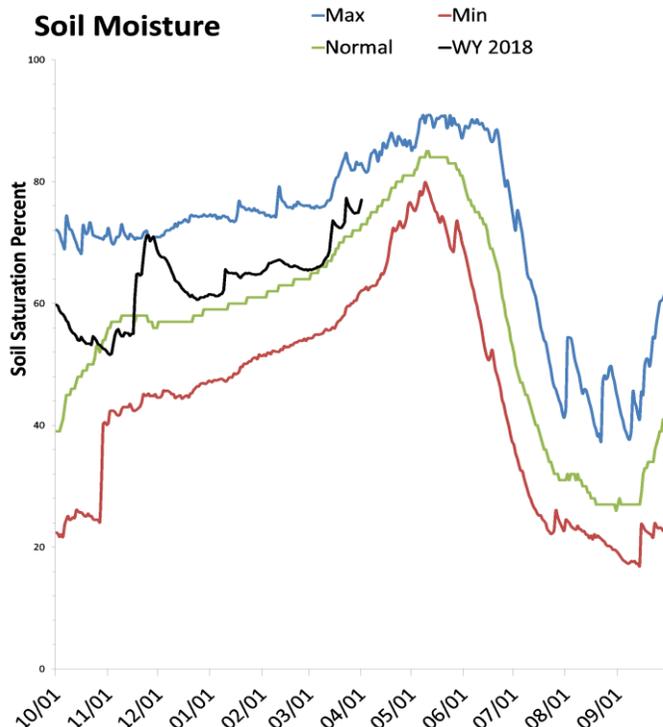
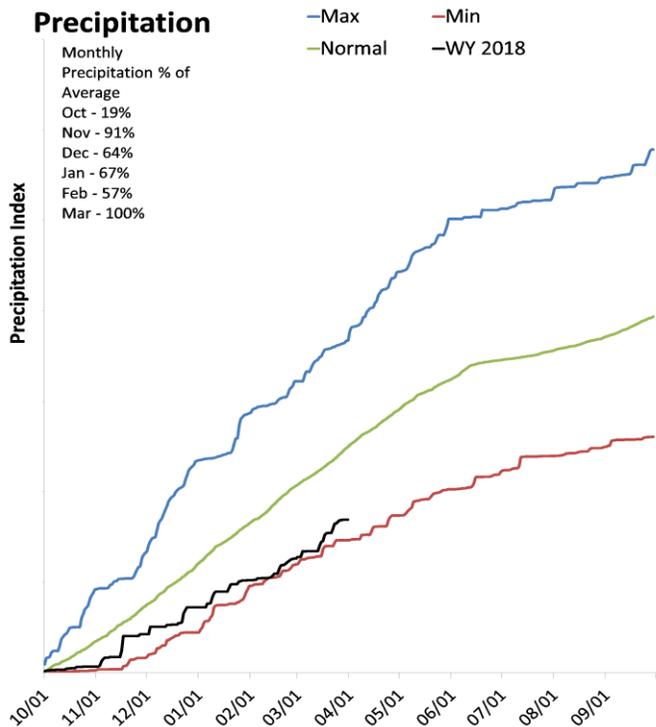
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Weber & Ogden River Basins

April 1, 2018

Precipitation in March was near average at 100%, which brings the seasonal accumulation (Oct-Mar) to 68% of average. Soil moisture is at 76% compared to 80% last year. Reservoir storage is at 85% of capacity, compared to 70% last year. The water availability index for the Ogden River is 92% and 90% for the Weber River.



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

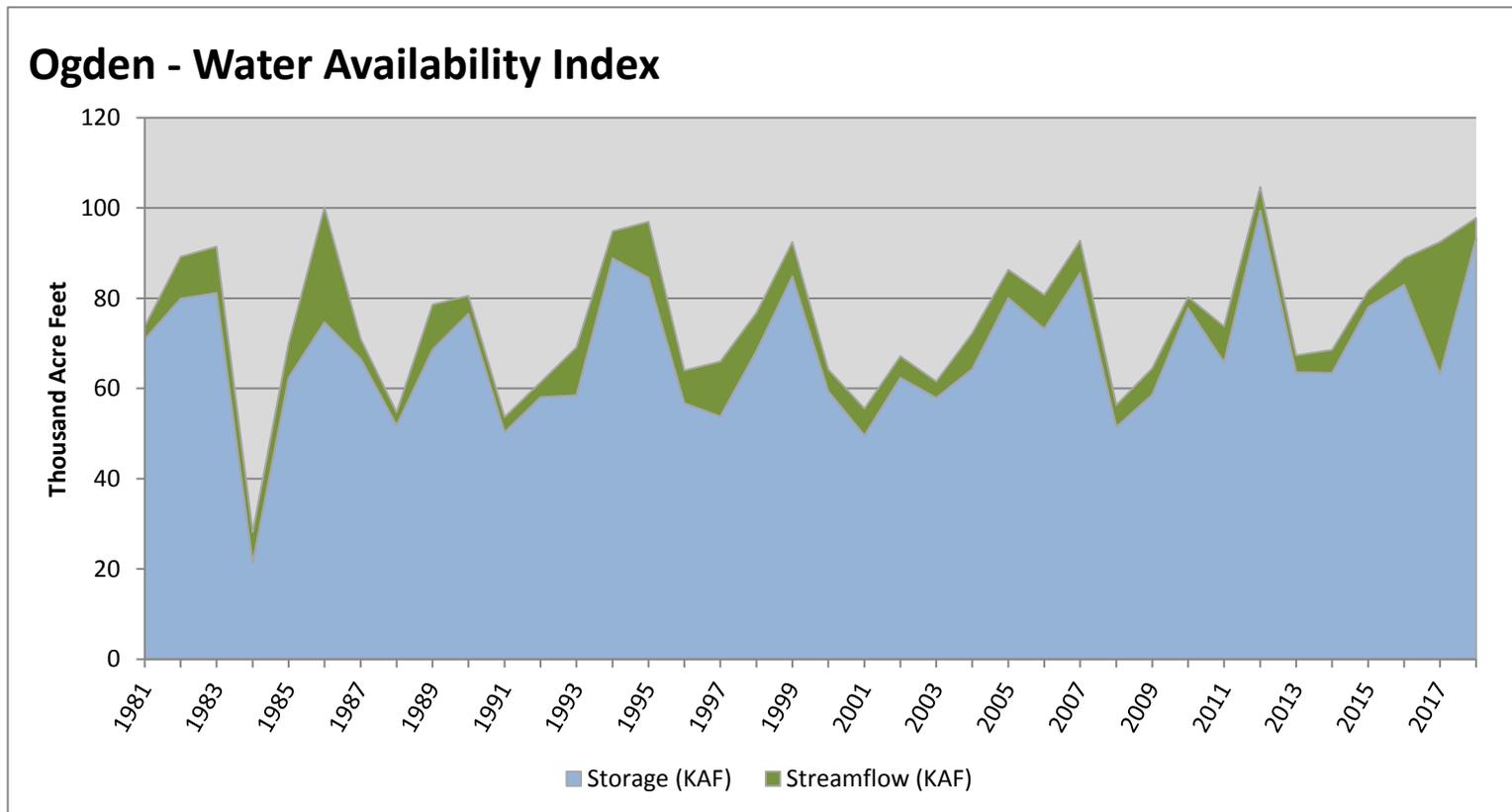
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Ogden	93.23	4.56	97.79	92	3.53	94, 95, 86, 12

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

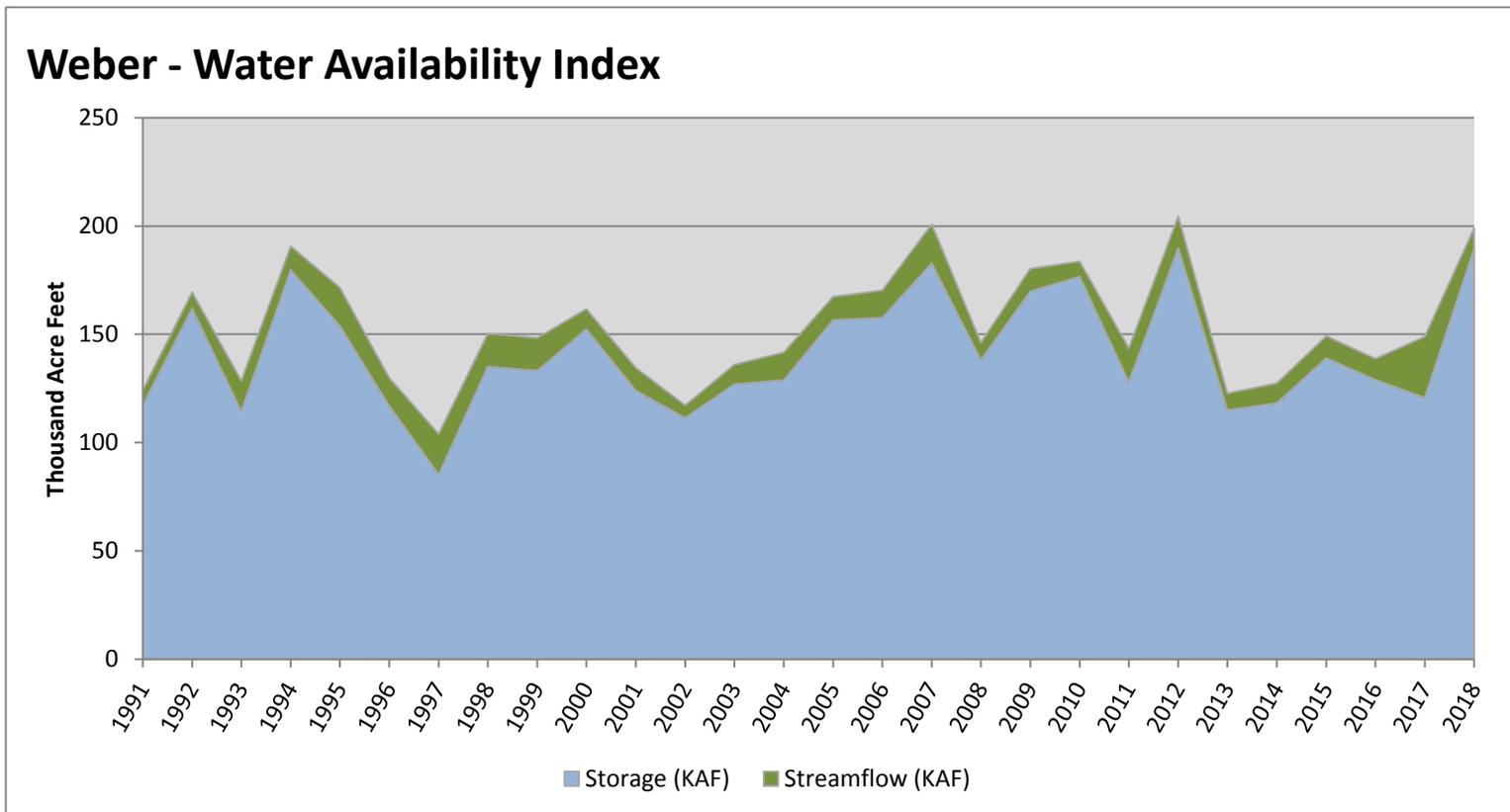


April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Weber	189.50	9.35	198.85	90	3.3	10, 94, 07, 12

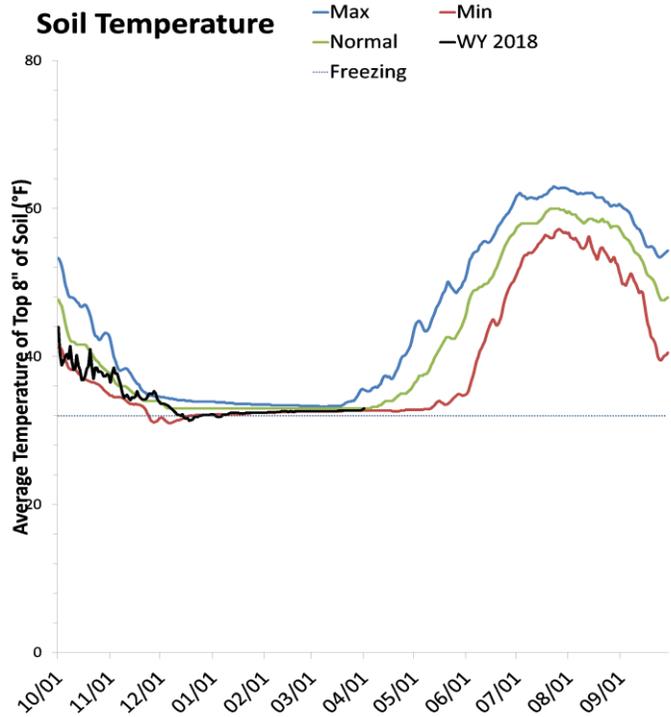
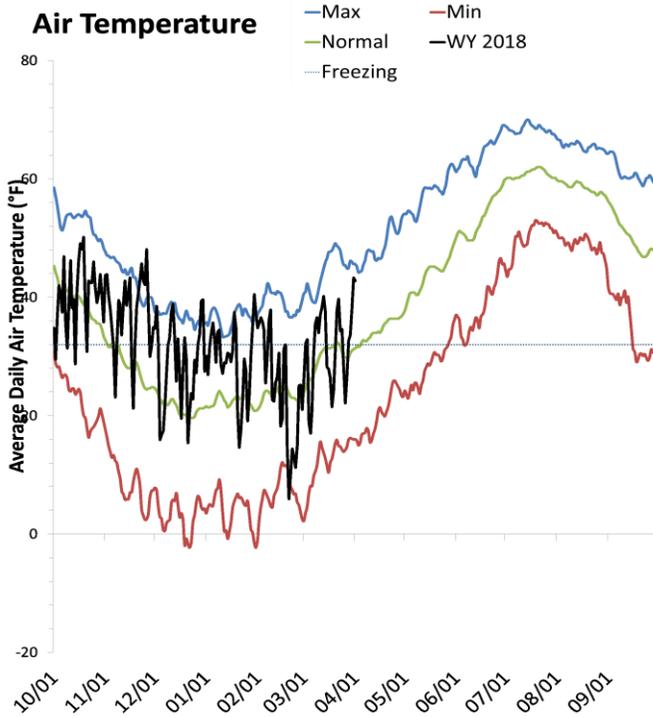
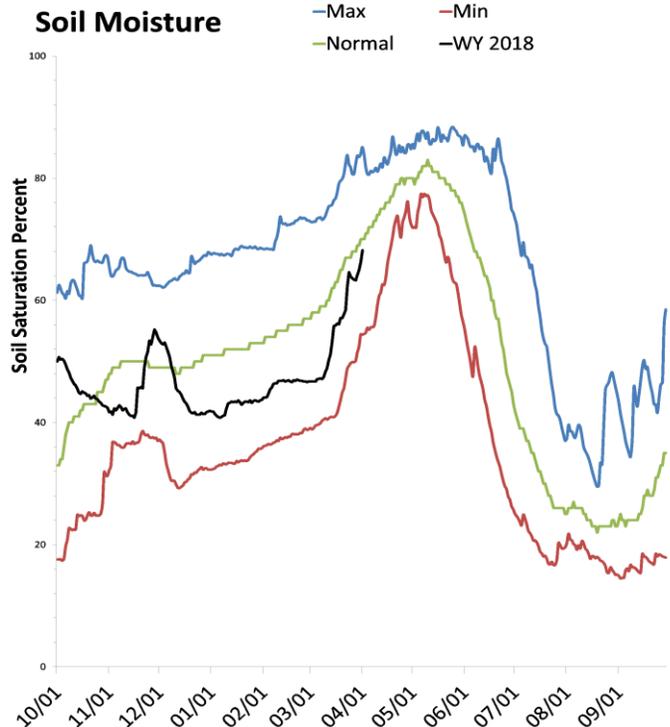
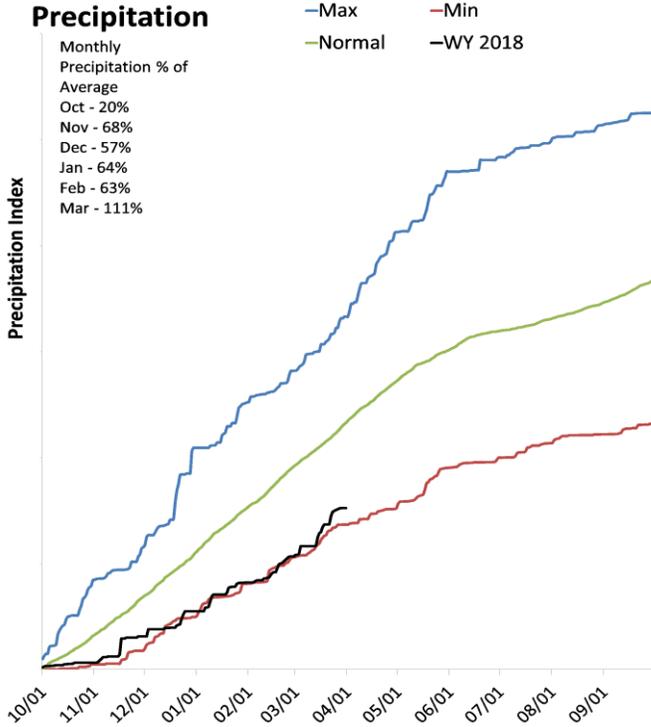
[^]EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Provo & Jordan River Basins

April 1, 2018

Precipitation in March was above average at 111%, which brings the seasonal accumulation (Oct-Mar) to 65% of average. Soil moisture is at 67% compared to 80% last year. Reservoir storage is at 81% of capacity, compared to 68% last year. The water availability index for the Provo River is 92%.



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

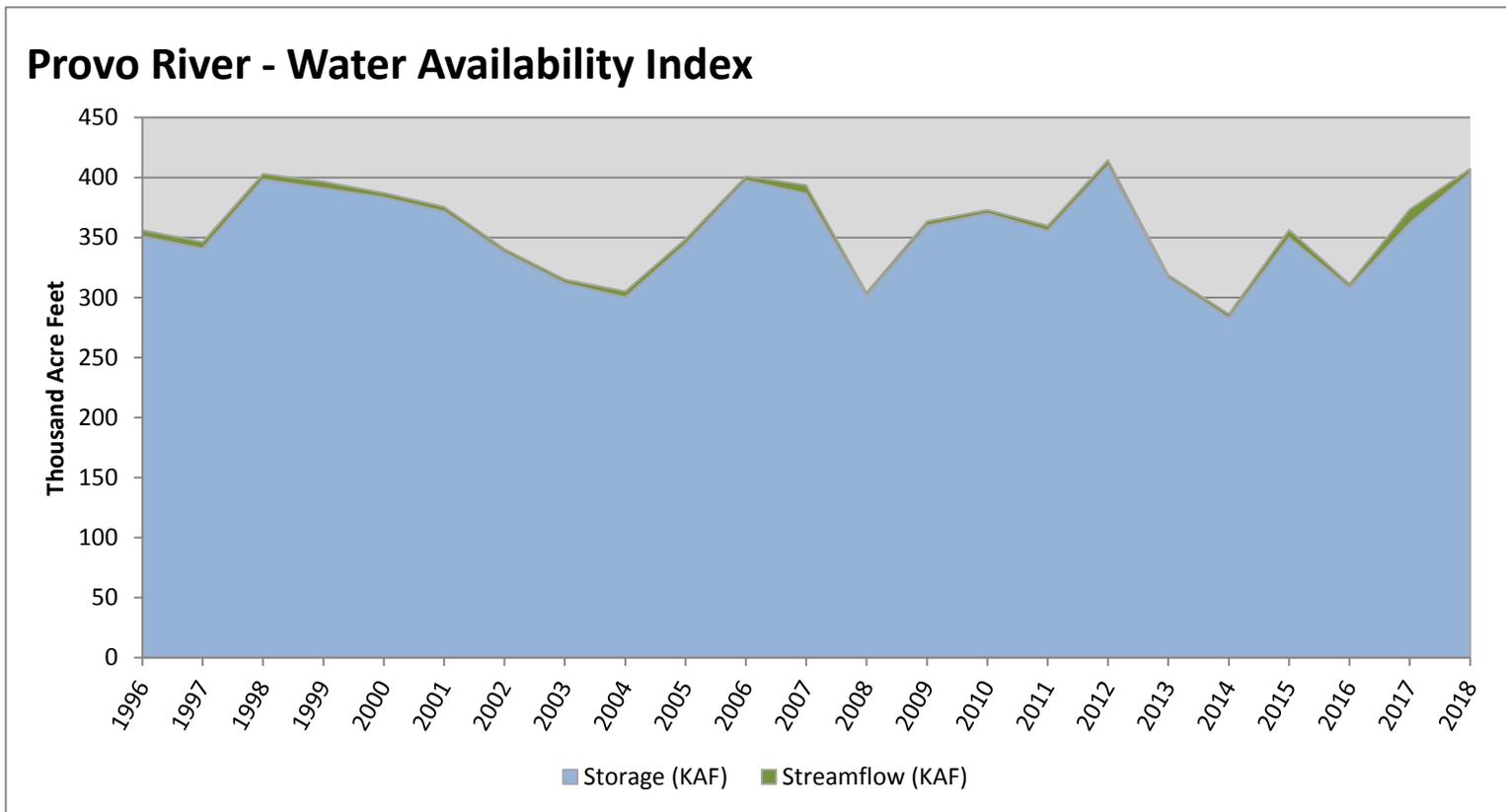
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Provo River	403.58	3.74	407.32	92	3.47	12, 98, 06, 99

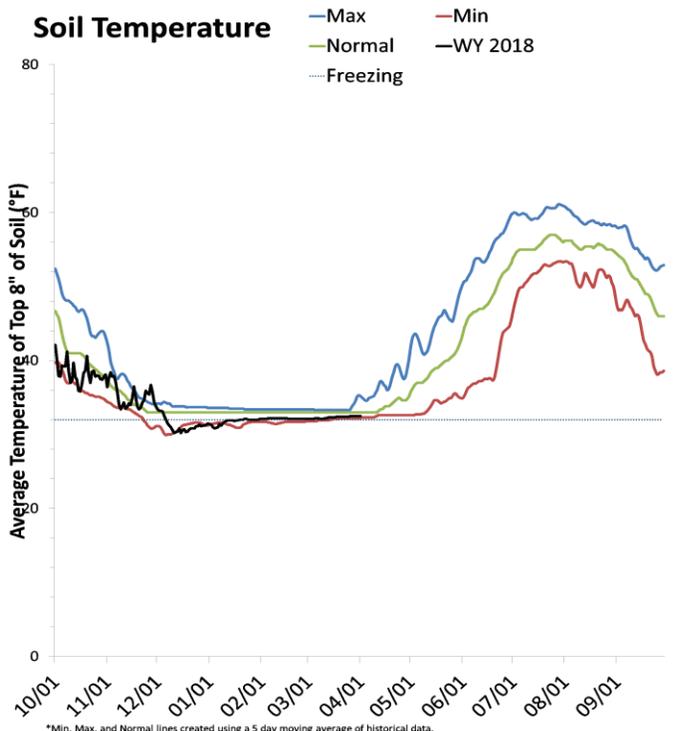
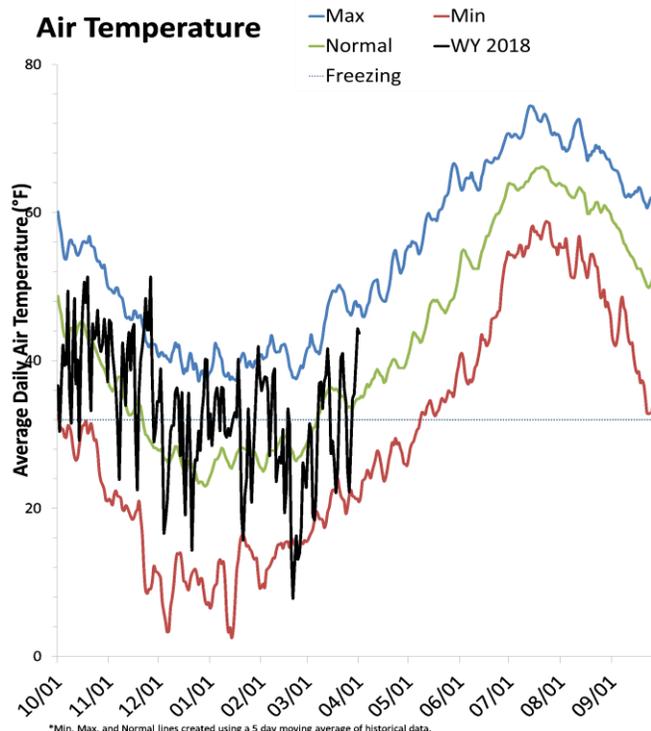
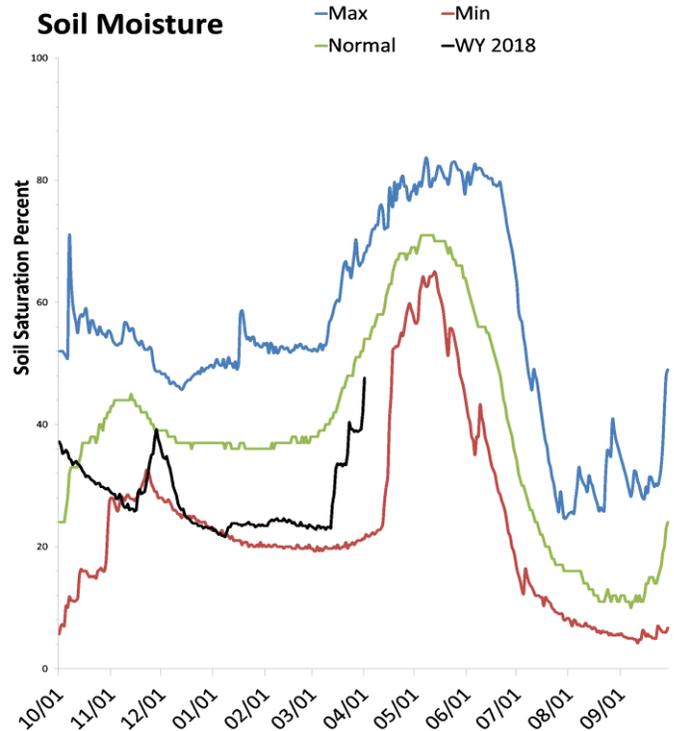
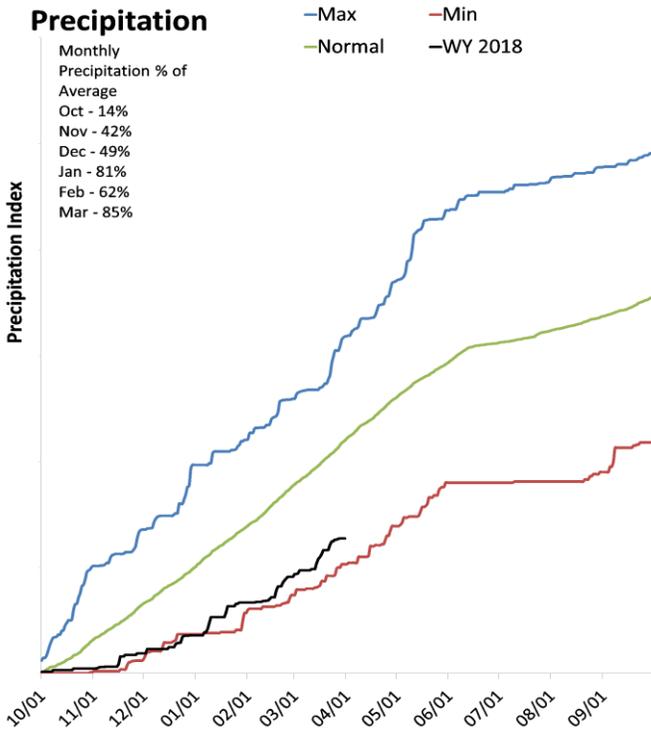
[^]EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Tooele Valley & West Desert Basins

April 1, 2018

Precipitation in March was below average at 86%, which brings the seasonal accumulation (Oct-Mar) to 58% of average. Soil moisture is at 44% compared to 60% last year. Reservoir storage is at 79% of capacity, compared to 76% last year.



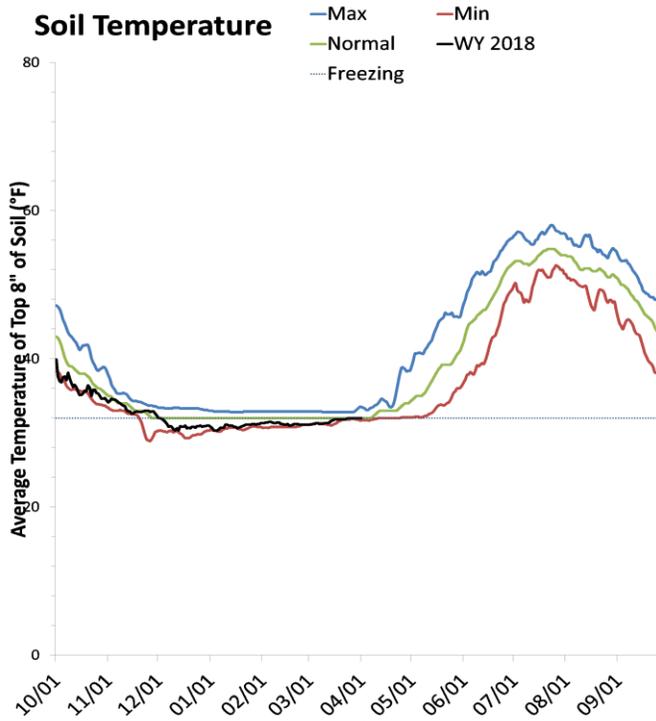
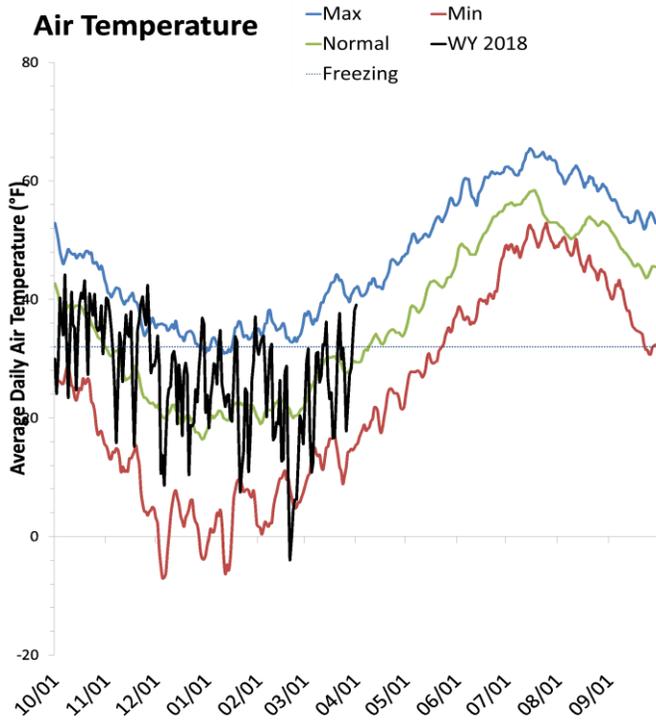
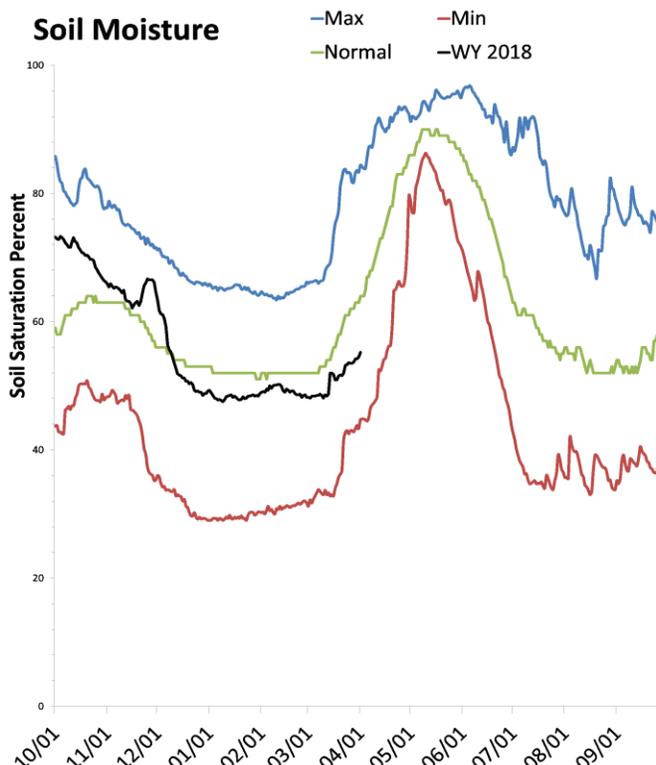
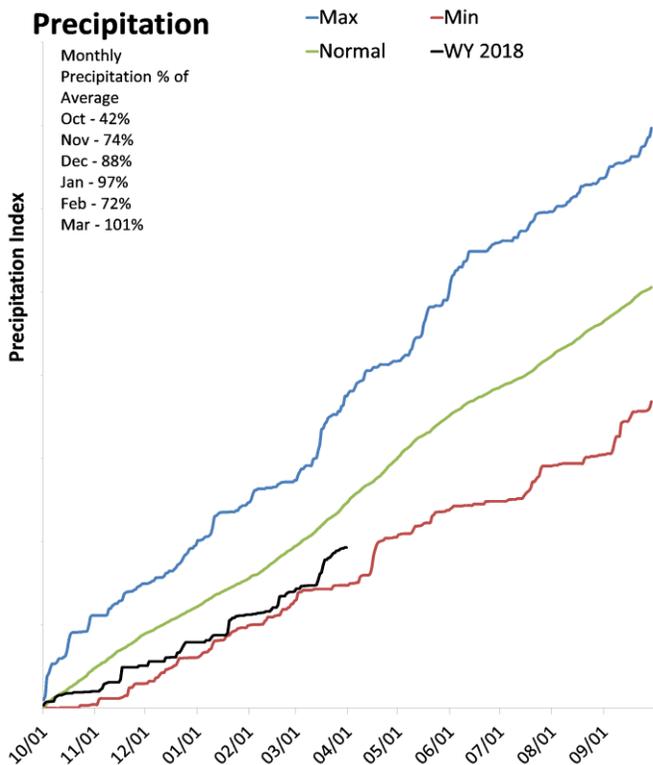
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Northeastern Uinta Basin

April 1, 2018

Precipitation in March was near average at 100%, which brings the seasonal accumulation (Oct-Mar) to 78% of average. Soil moisture is at 53% compared to 81% last year. Reservoir storage is at 84% of capacity, compared to 84% last year. The water availability index for Blacks Fork is 53% and 54% for Smiths Creek.



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

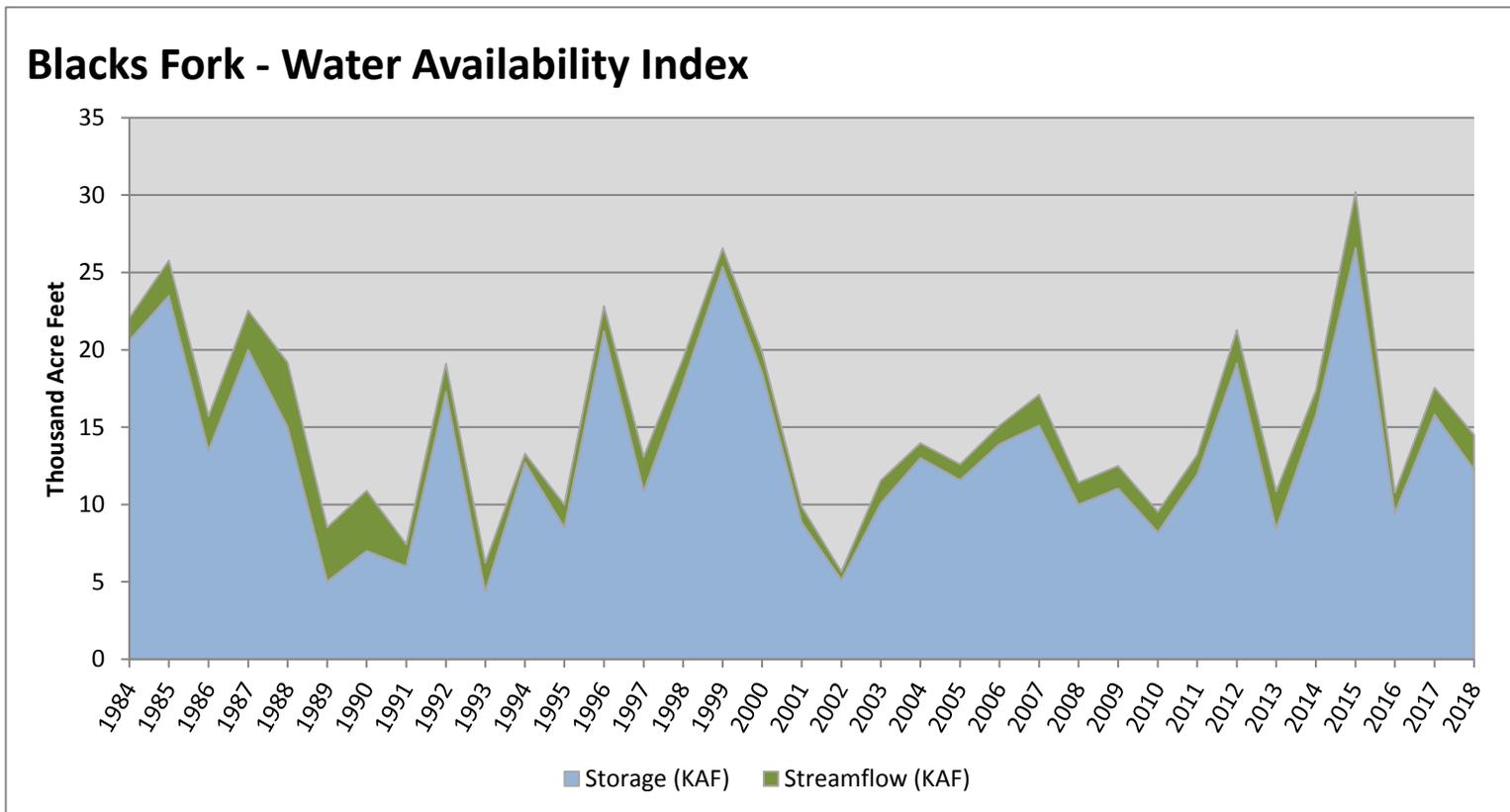
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Blacks Fork	12.25	2.24	14.49	53	0.23	94, 04, 06, 86

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

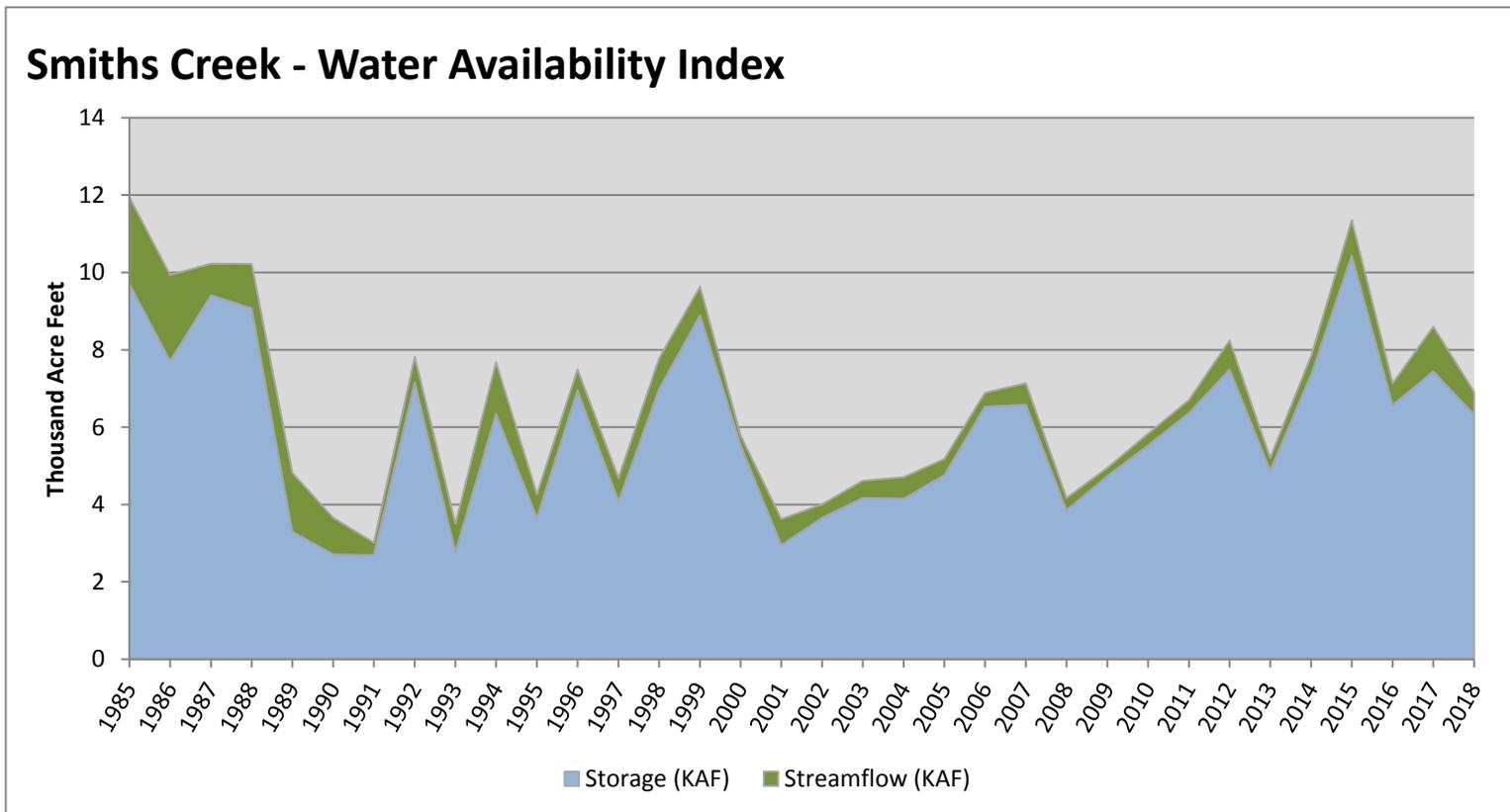


April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Smiths Creek	6.33	0.58	6.91	54	0.36	11, 06, 07, 16

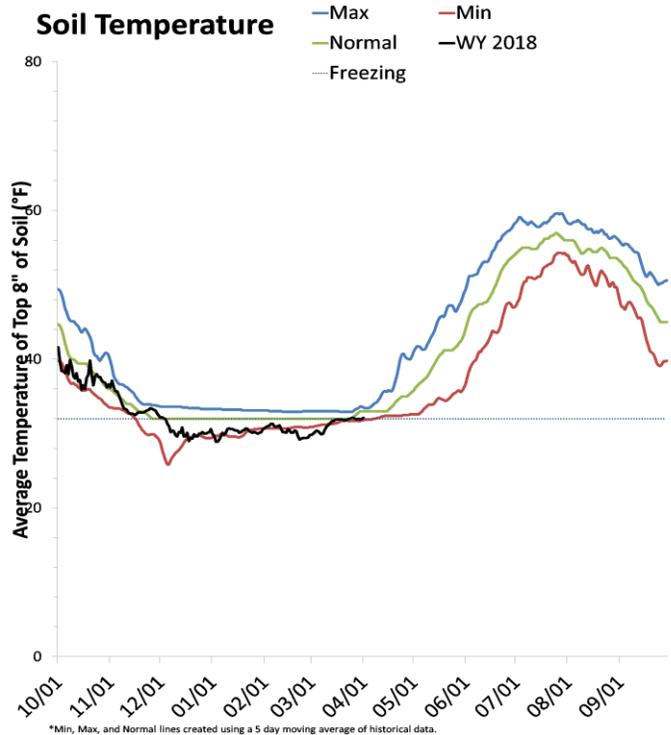
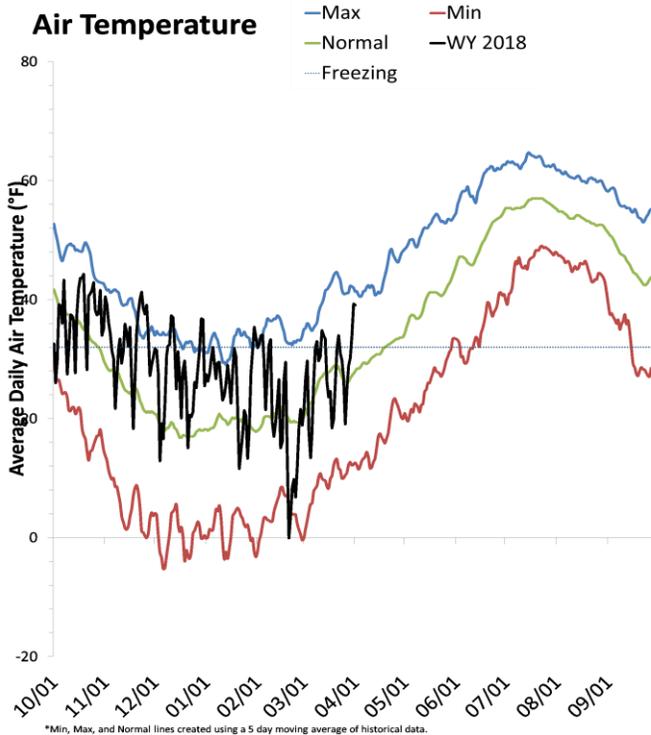
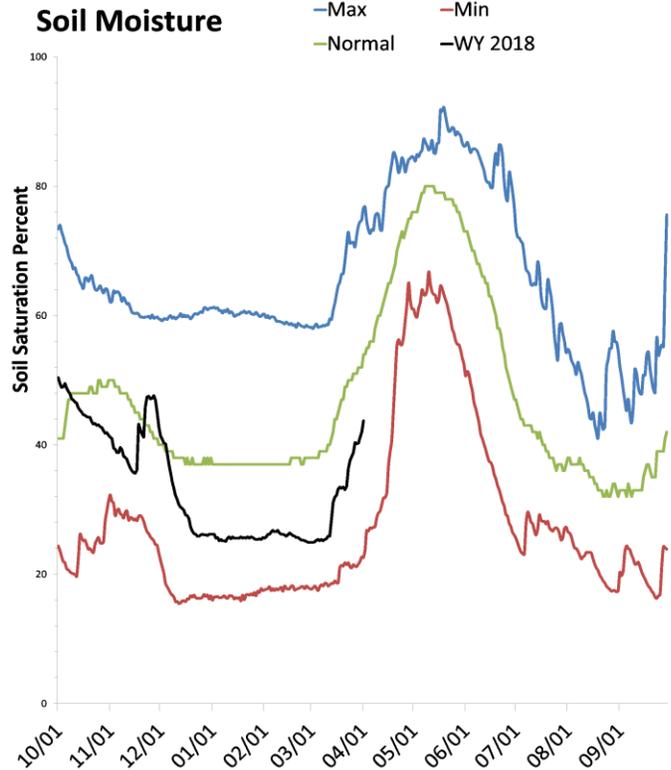
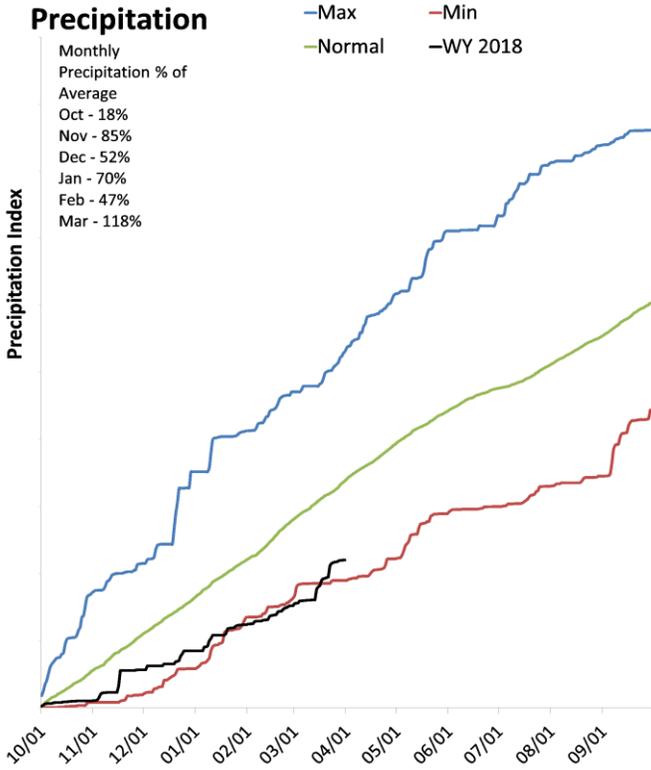
[^]EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Duchesne River Basin

April 1, 2018

Precipitation in March was above average at 117%, which brings the seasonal accumulation (Oct-Mar) to 65% of average. Soil moisture is at 43% compared to 73% last year. Reservoir storage is at 84% of capacity, compared to 72% last year. The water availability index for the Western Uintas is 91% and 38% for the Eastern Uintas.

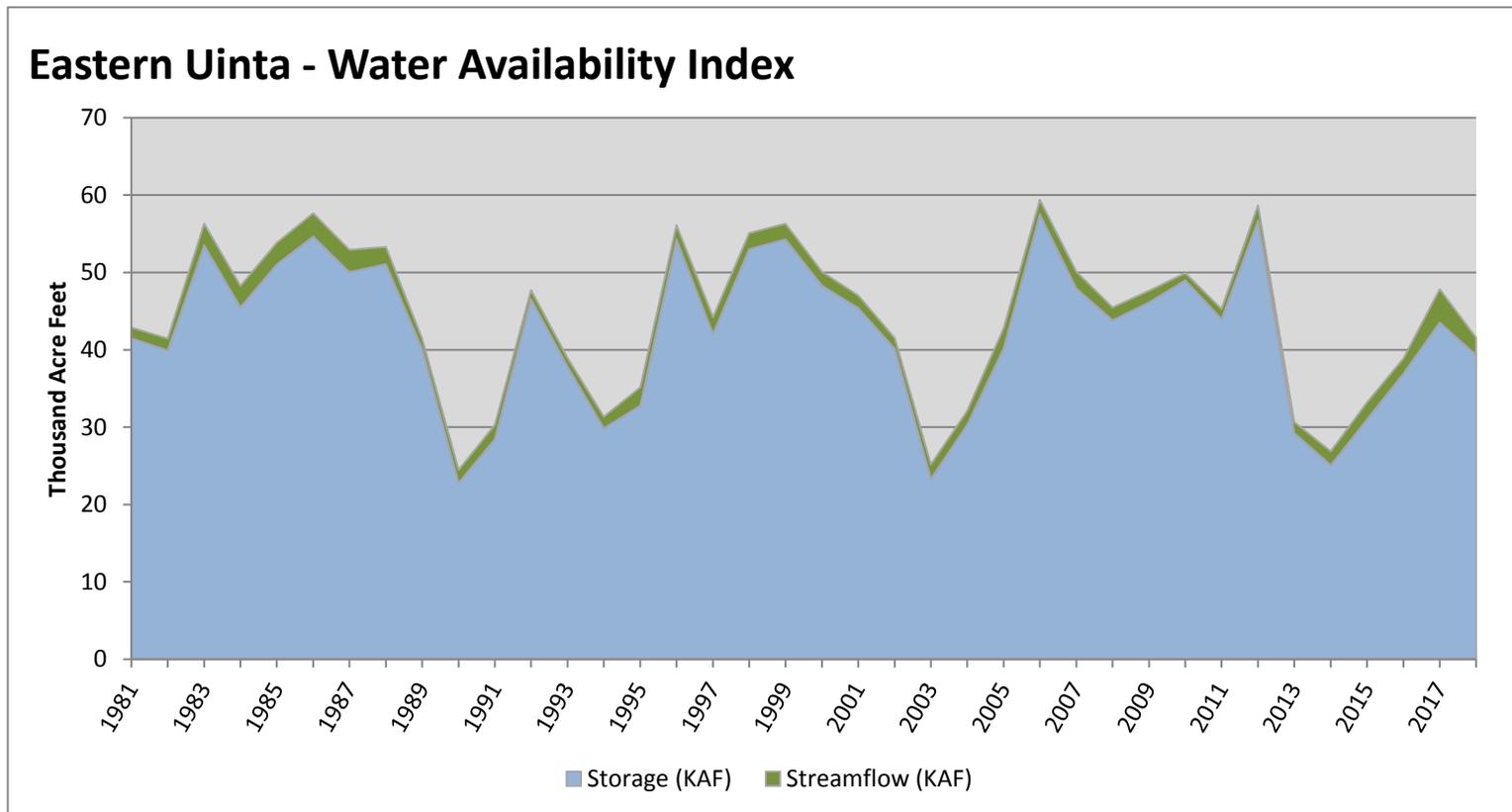


April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Eastern Uinta	39.34	2.21	41.55	38	-0.96	89, 02, 05, 81

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

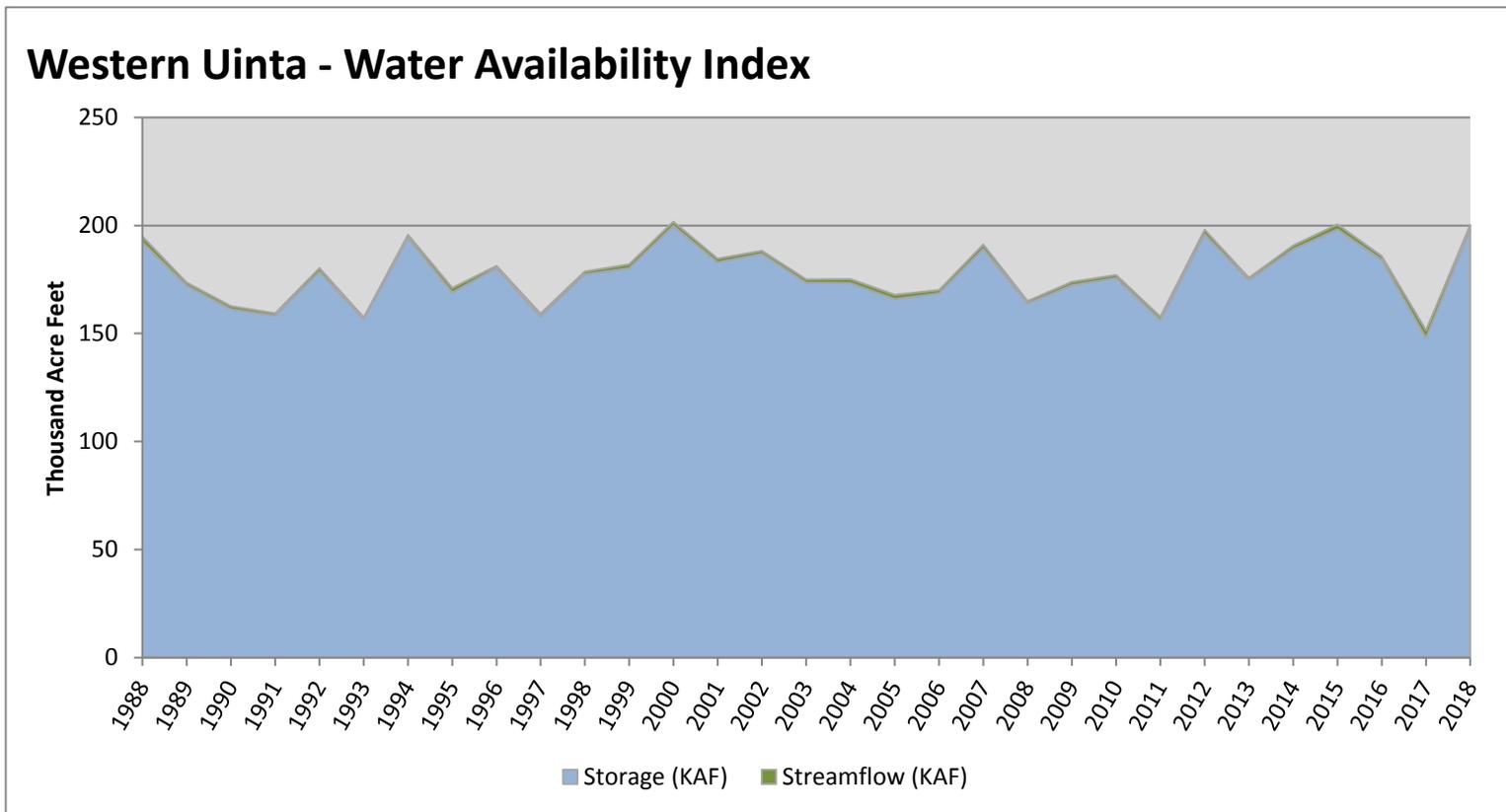


April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Western Uinta	198.25	1.96	200.21	91	3.39	94, 12, 15, 00

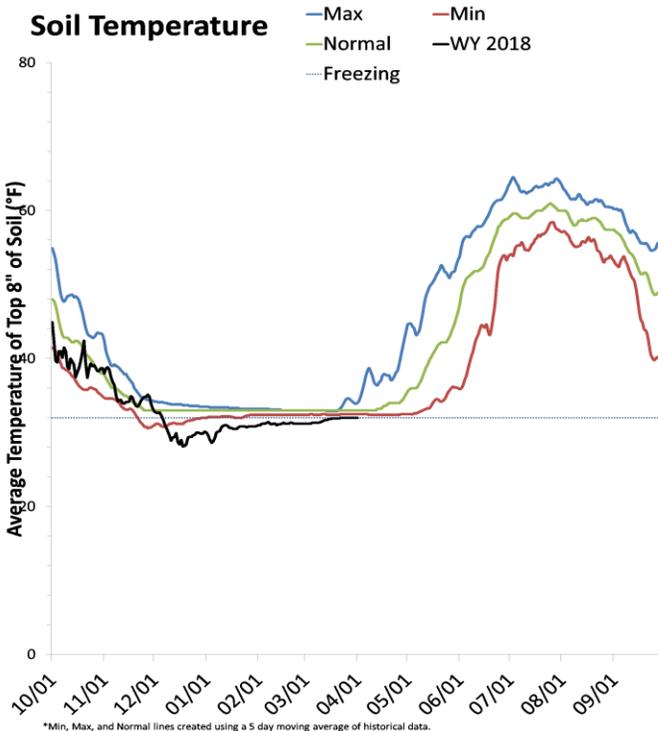
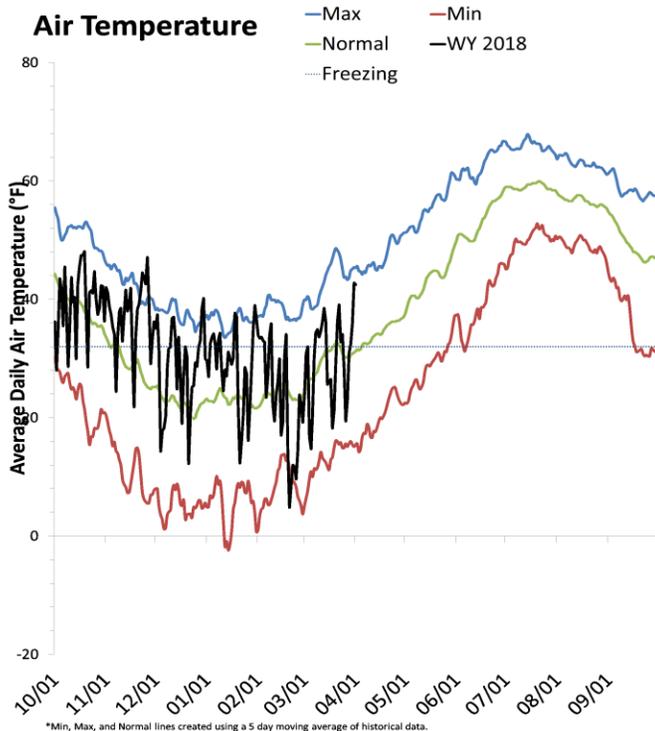
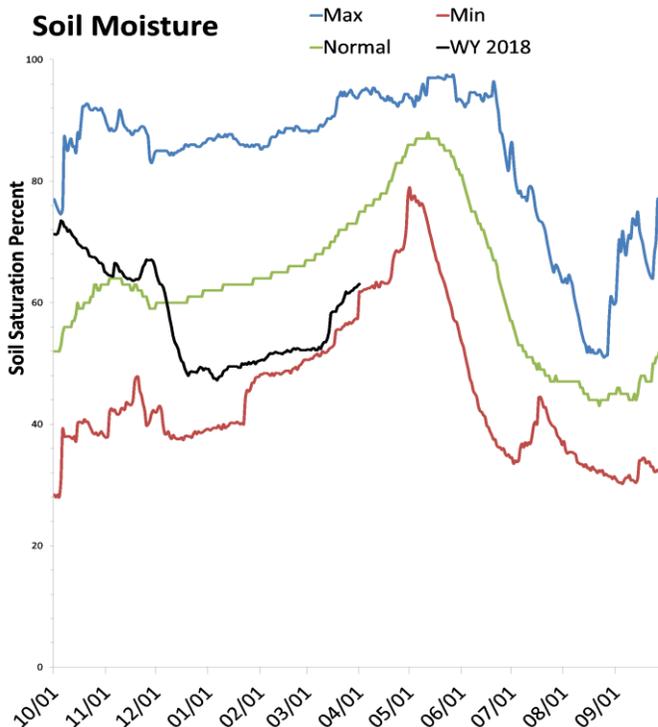
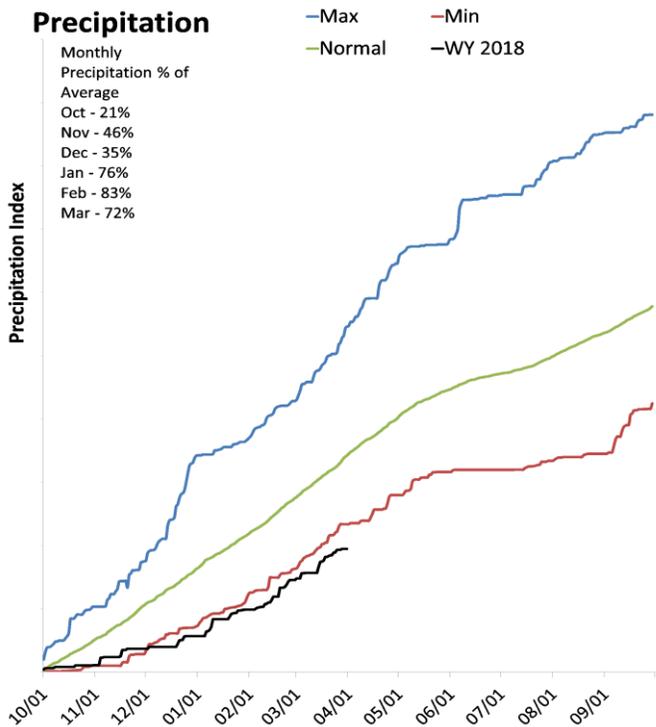
[^]EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



San Pitch River Basin

April 1, 2018

Precipitation in March was below average at 72%, which brings the seasonal accumulation (Oct-Mar) to 57% of average. Soil Moisture is at 63% compared to 85% last year. Reservoir storage is at 21% of capacity, compared to 21% last year. The water availability index for the San Pitch is 15%.



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

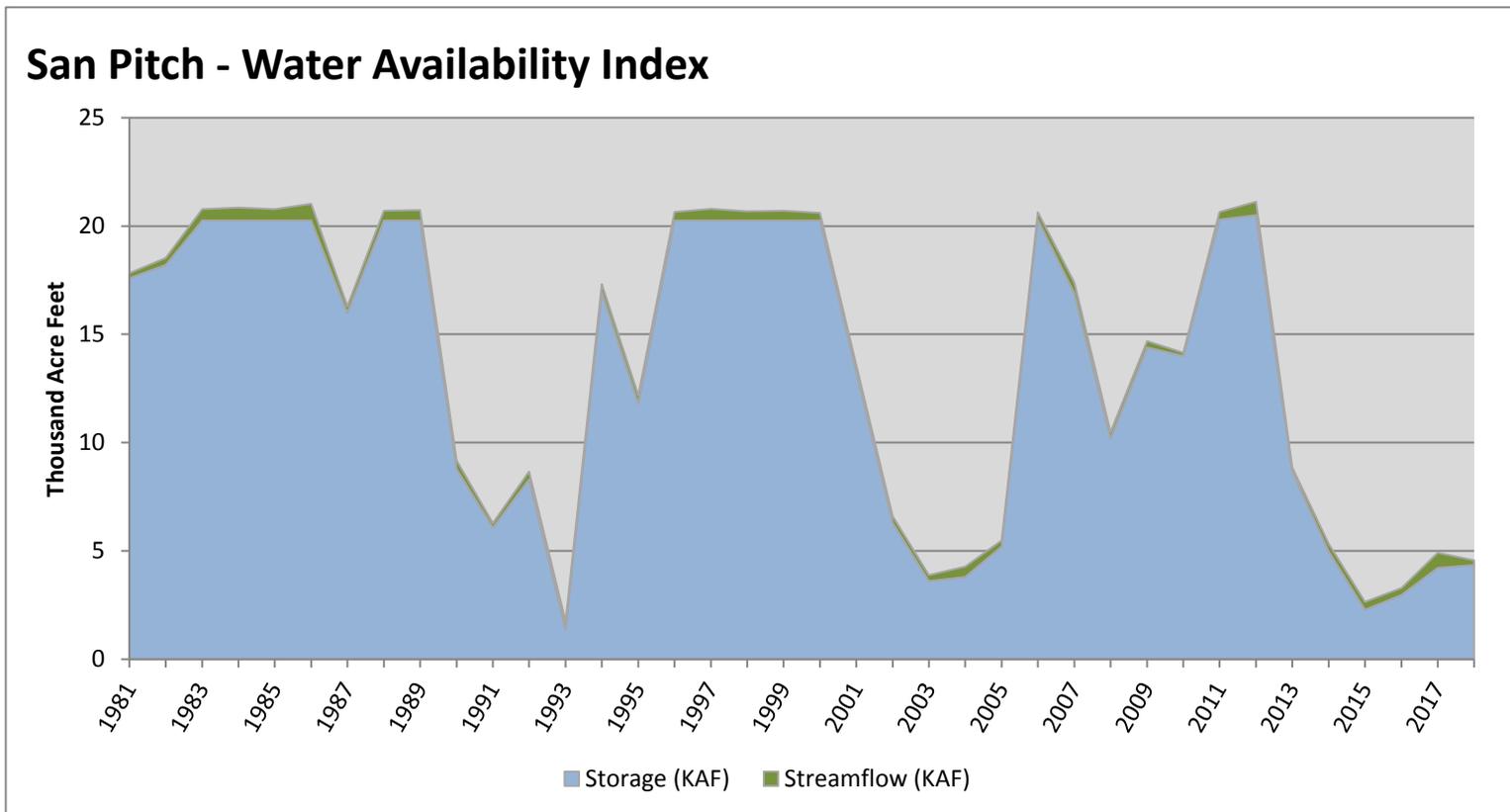
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
San Pitch	4.35	0.21	4.56	15	-2.88	03, 04, 17, 14

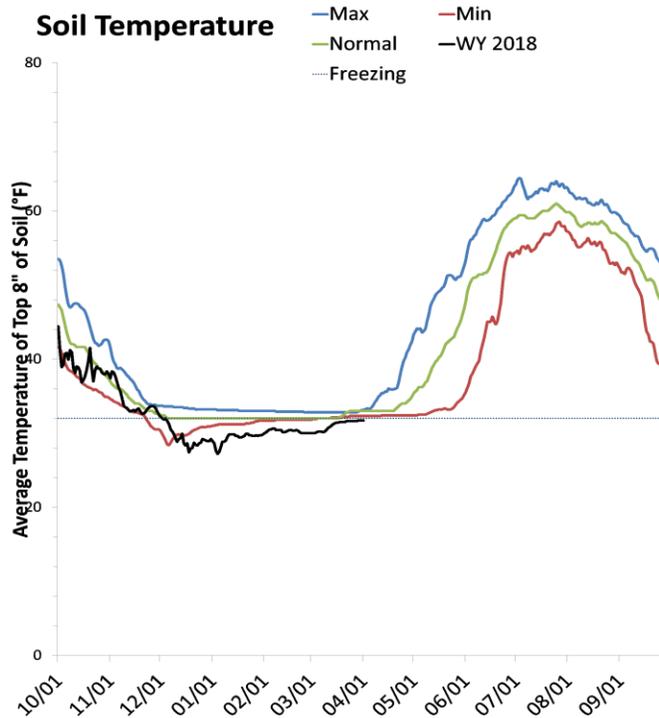
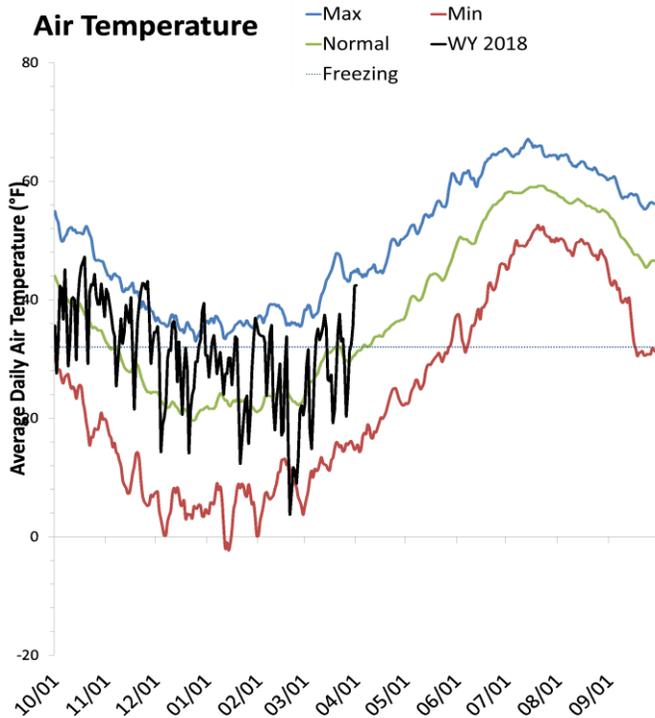
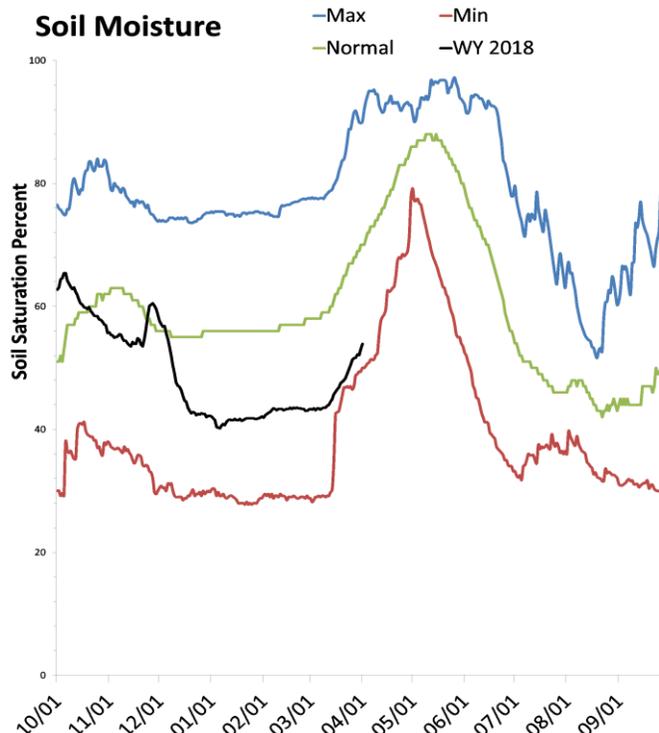
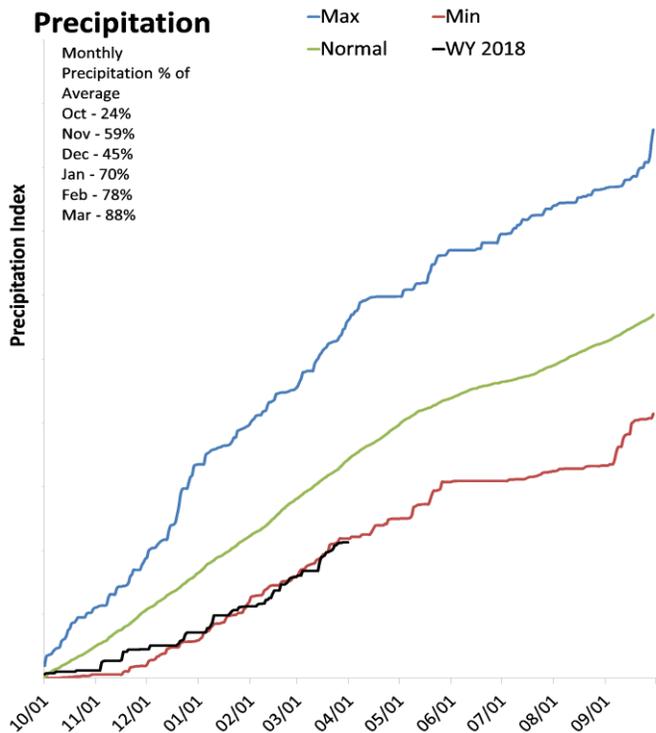
[^]EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Price & San Rafael Basins

April 1, 2018

Precipitation in March was below average at 88%, which brings the seasonal accumulation (Oct-Mar) to 62% of average. Soil moisture is at 53% compared to 85% last year. Reservoir storage is at 71% of capacity, compared to 47% last year. The water availability index for the Price River is 92%, and 69% for Joe's Valley.



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

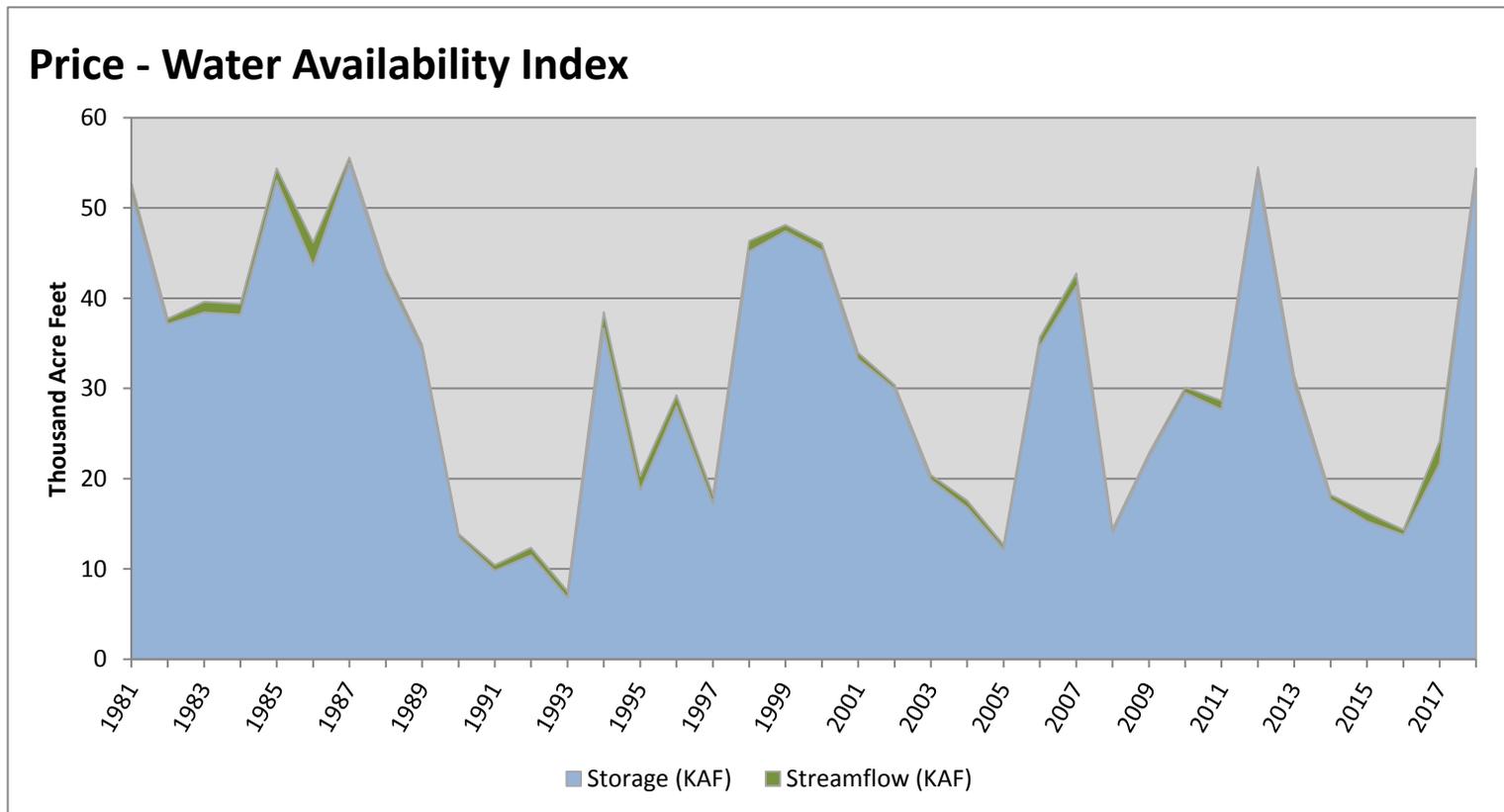
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Price	53.67	0.75	54.42	92	3.53	81, 85, 12, 87

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

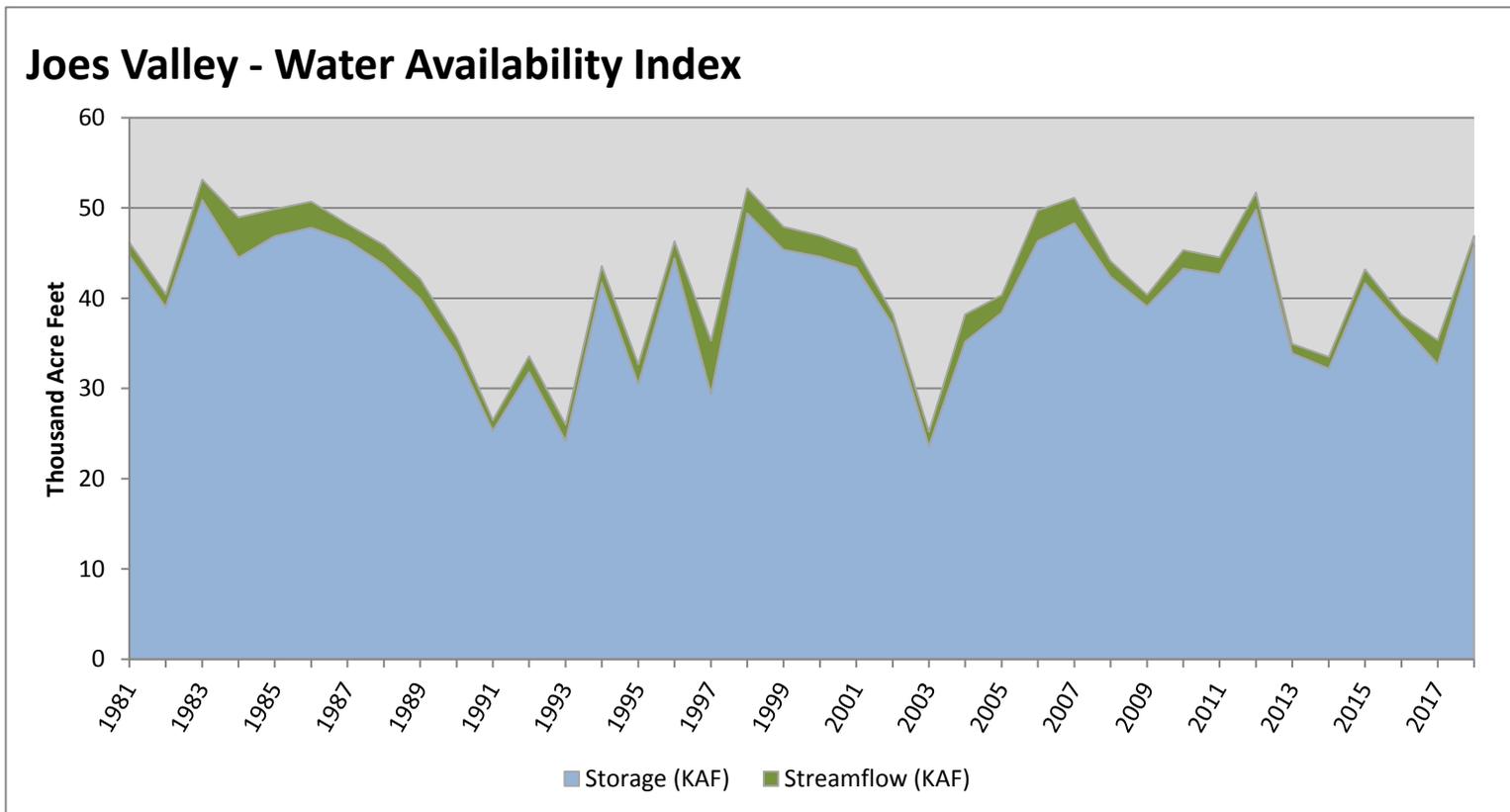


April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Joos Valley	45.88	1.03	46.91	69	1.6	81, 96, 00, 99

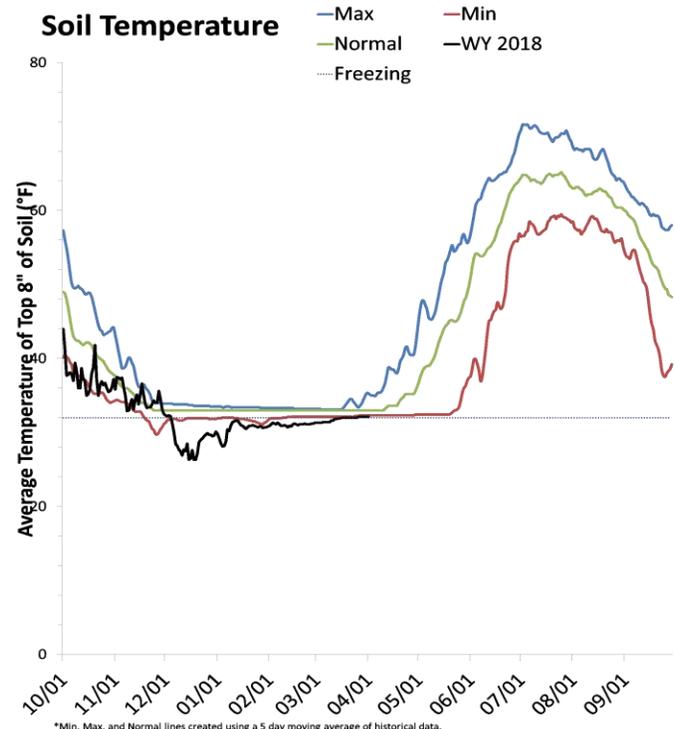
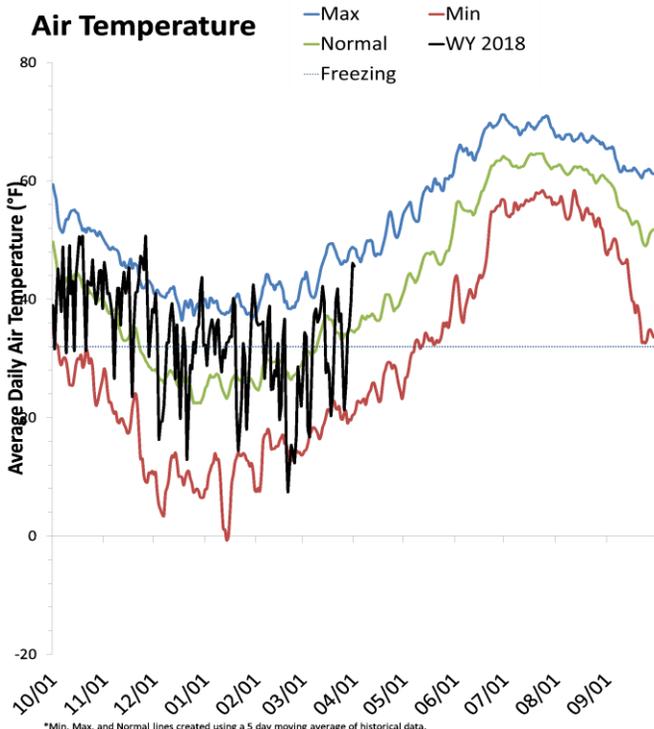
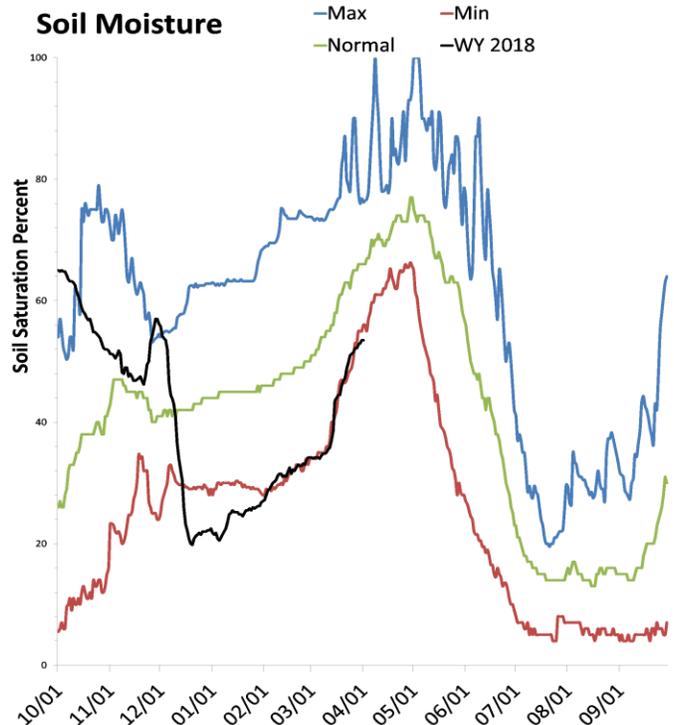
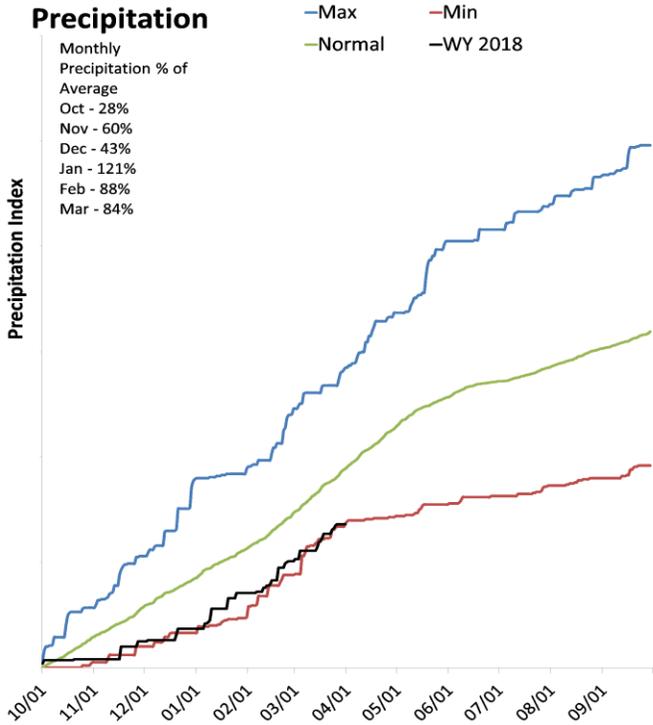
[^]EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Lower Sevier Basin

April 1, 2018

Precipitation in March was below average at 83%, which brings the seasonal accumulation (Oct-Mar) to 72% of average. Soil moisture is at 52% compared to 75% last year. Reservoir storage is at 38% of capacity, compared to 37% 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.

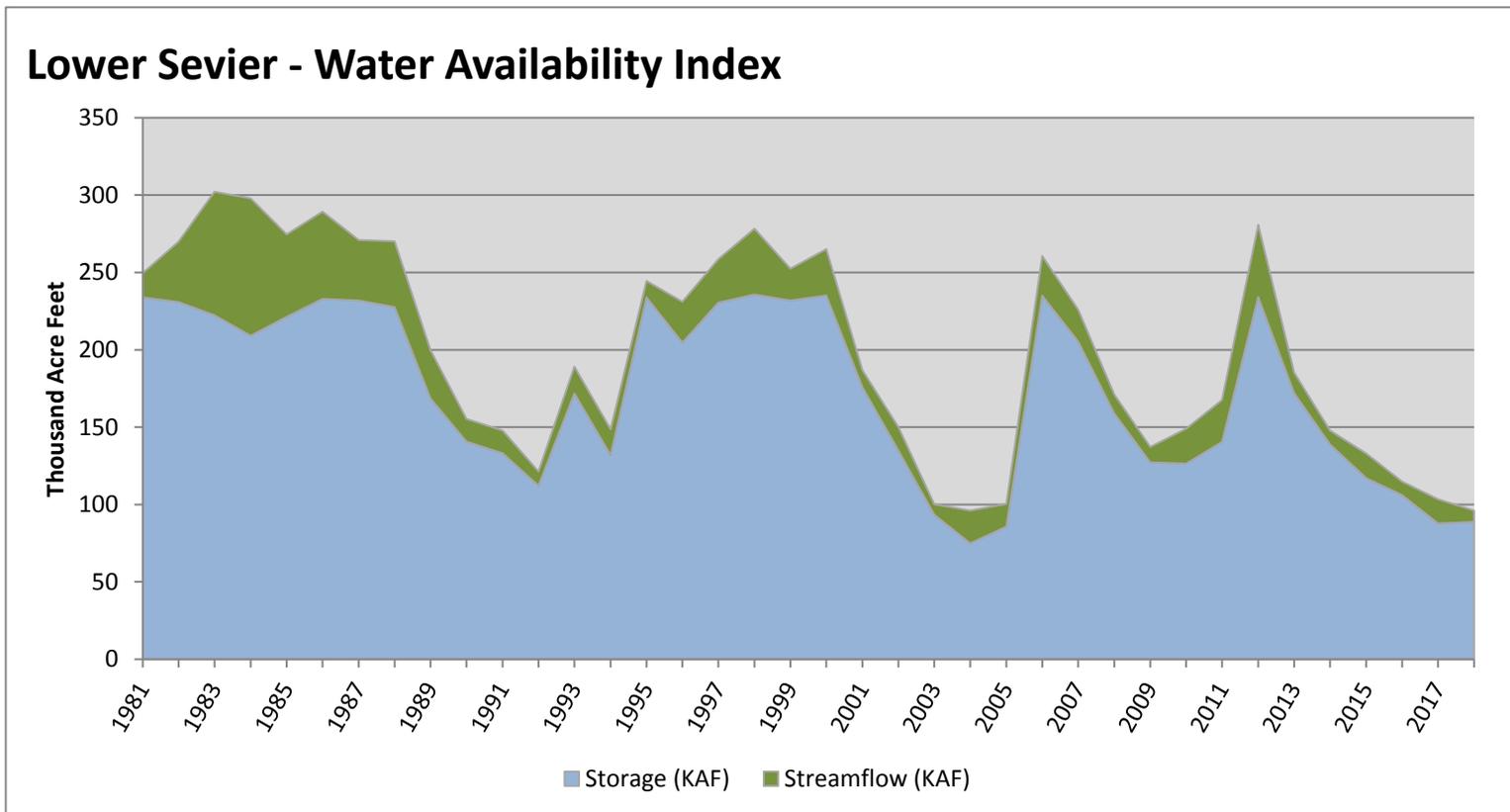
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Lower Sevier	88.66	7.52	96.18	5	-3.74	04, 03, 05, 17

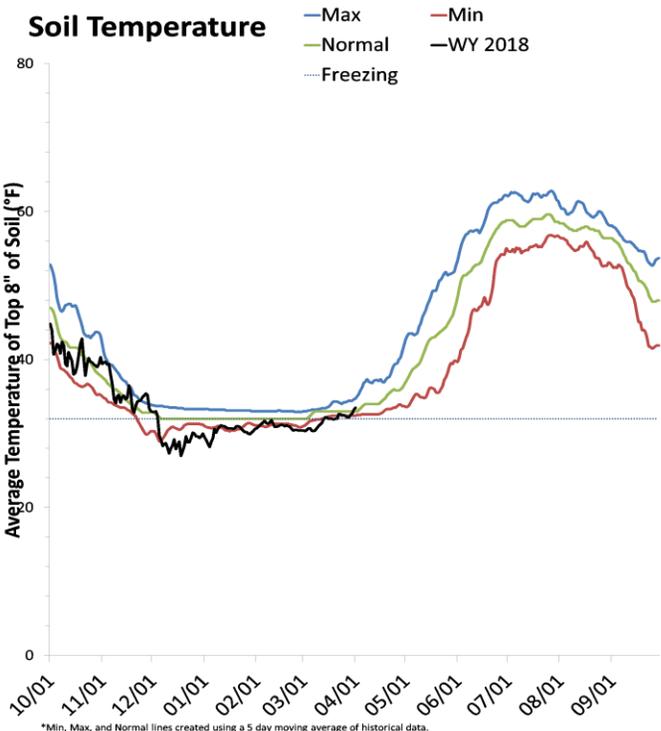
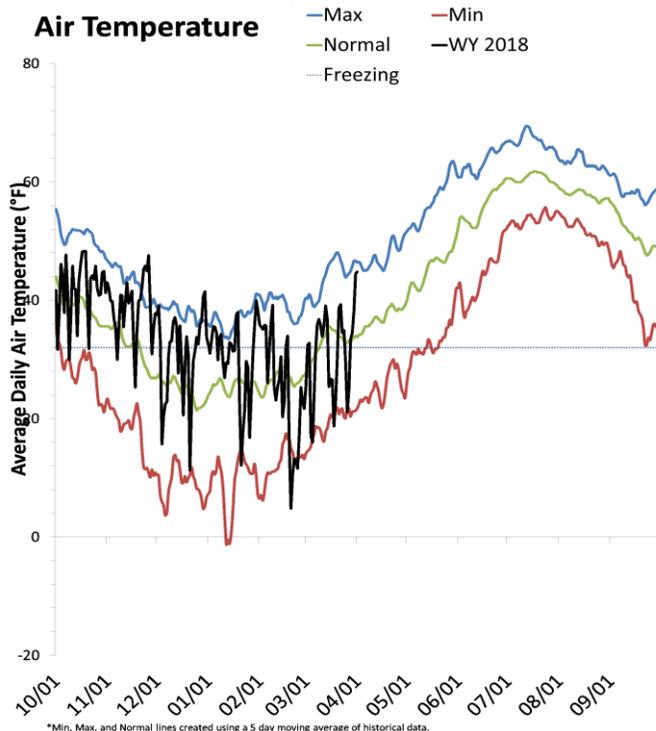
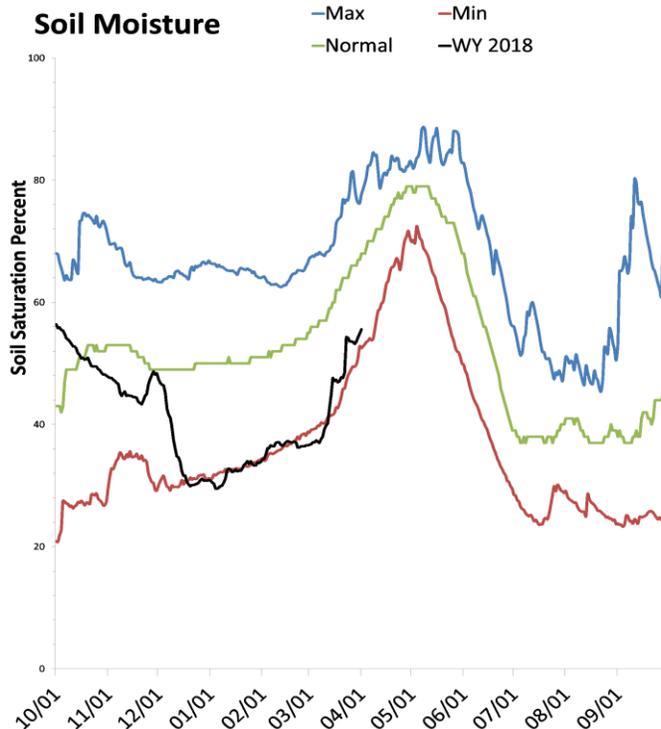
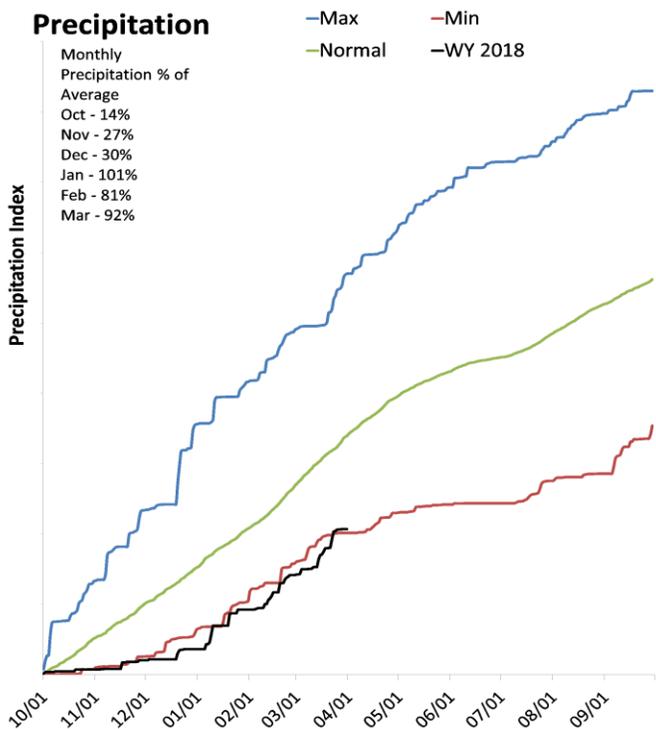
[^]EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Upper Sevier Basin

April 1, 2018

Precipitation in March was near average at 92%, which brings the seasonal accumulation (Oct-Mar) to 61% of average. Soil moisture is at 55% compared to 74% last year. Reservoir storage is at 64% of capacity, compared to 60% last year. The water availability index for the Upper Sevier is 26%.

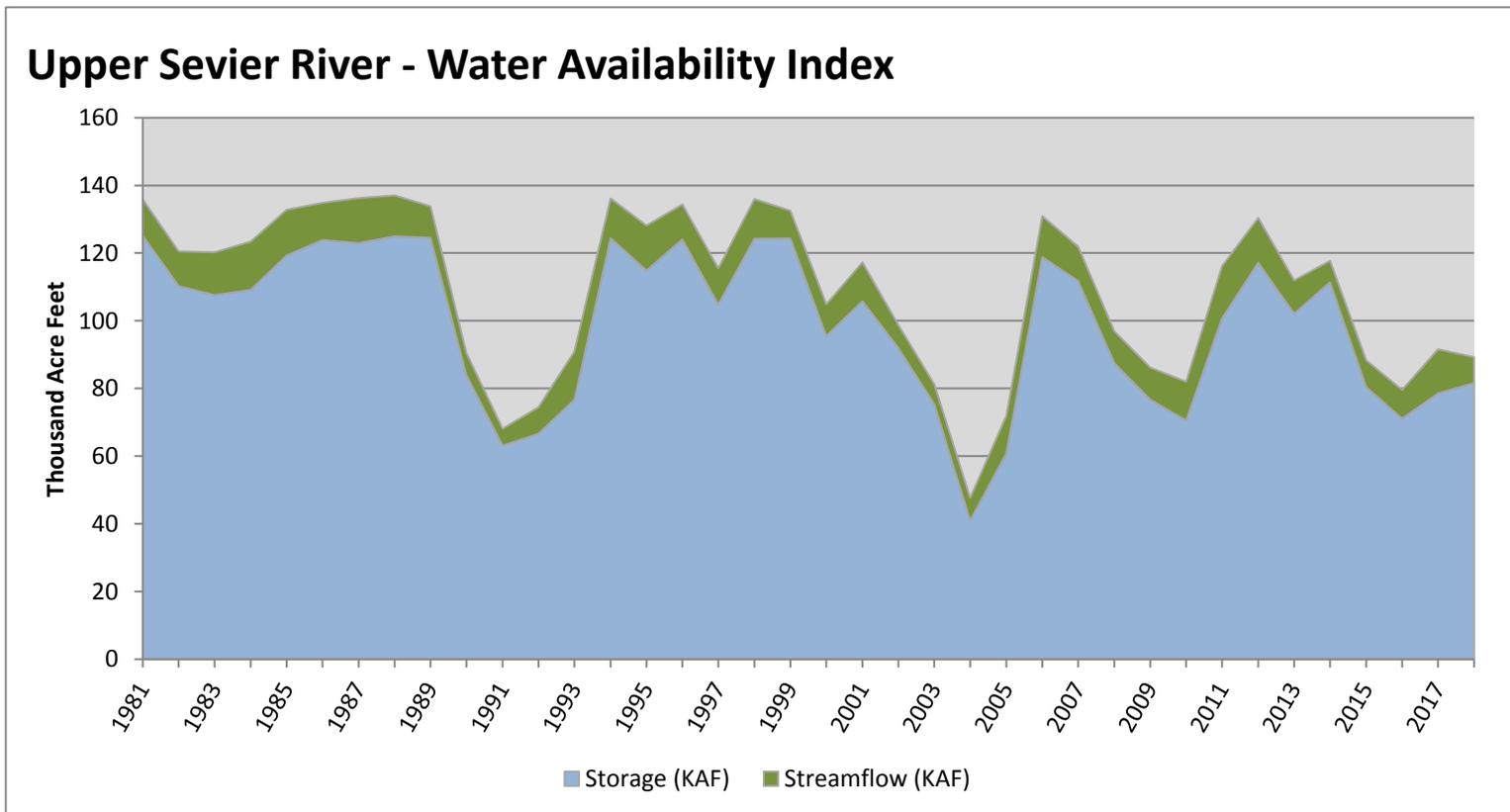


April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Upper Sevier River	81.59	7.62	89.21	26	-2.03	09, 15, 90, 93

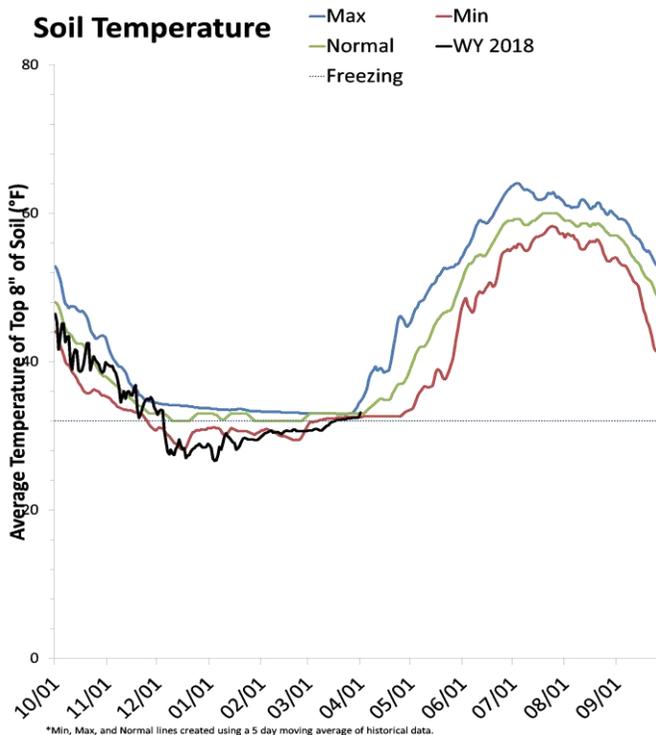
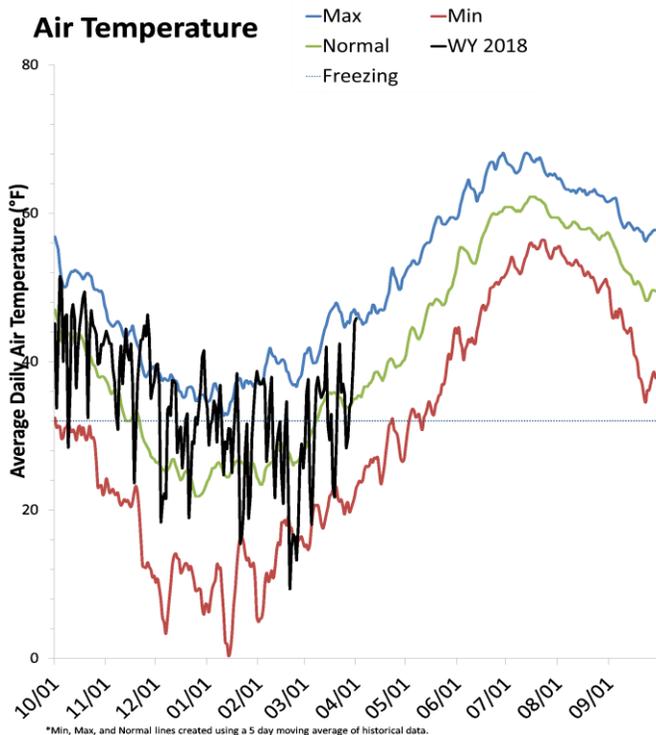
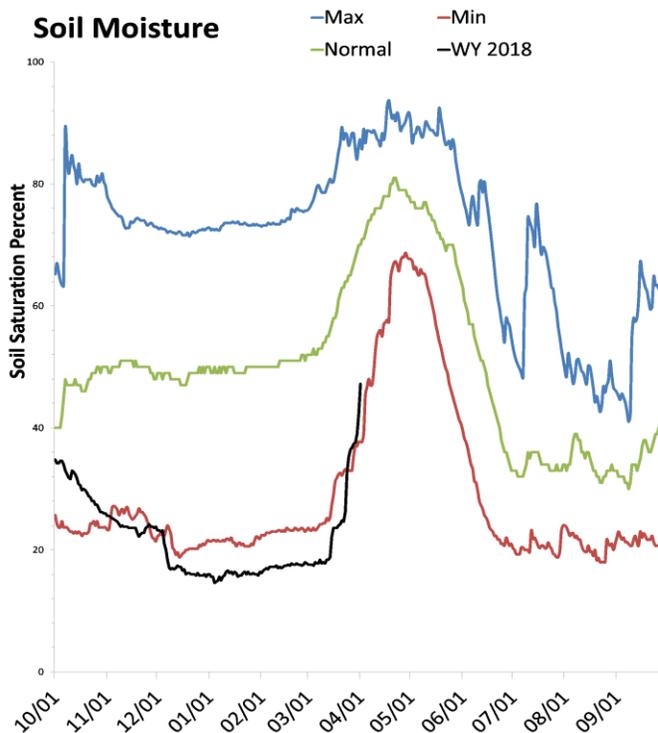
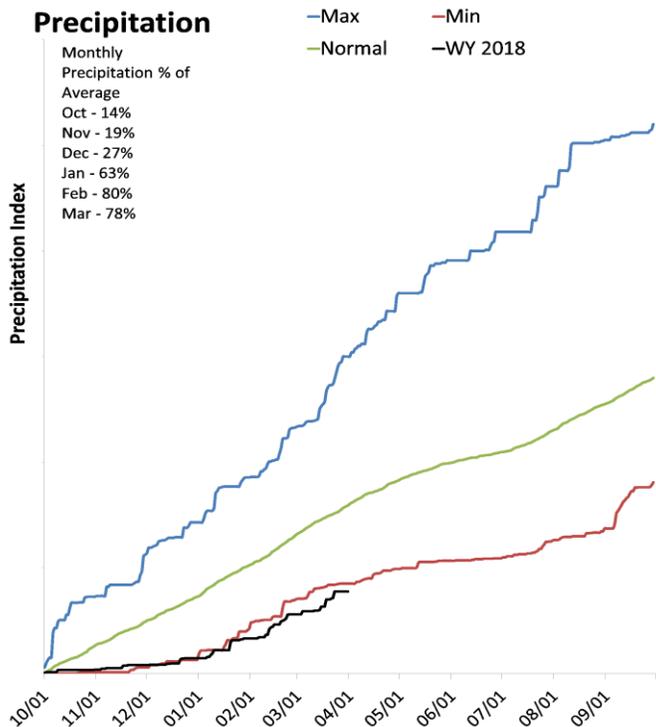
[^]EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southeastern Utah

April 1, 2018

Precipitation in March was below average at 78%, which brings the seasonal accumulation (Oct-Mar) to 49% of average. Soil moisture is at 45% compared to 83% last year. Reservoir storage is at 59% of capacity, compared to 87% last year. The water availability index for Moab is 53%.



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

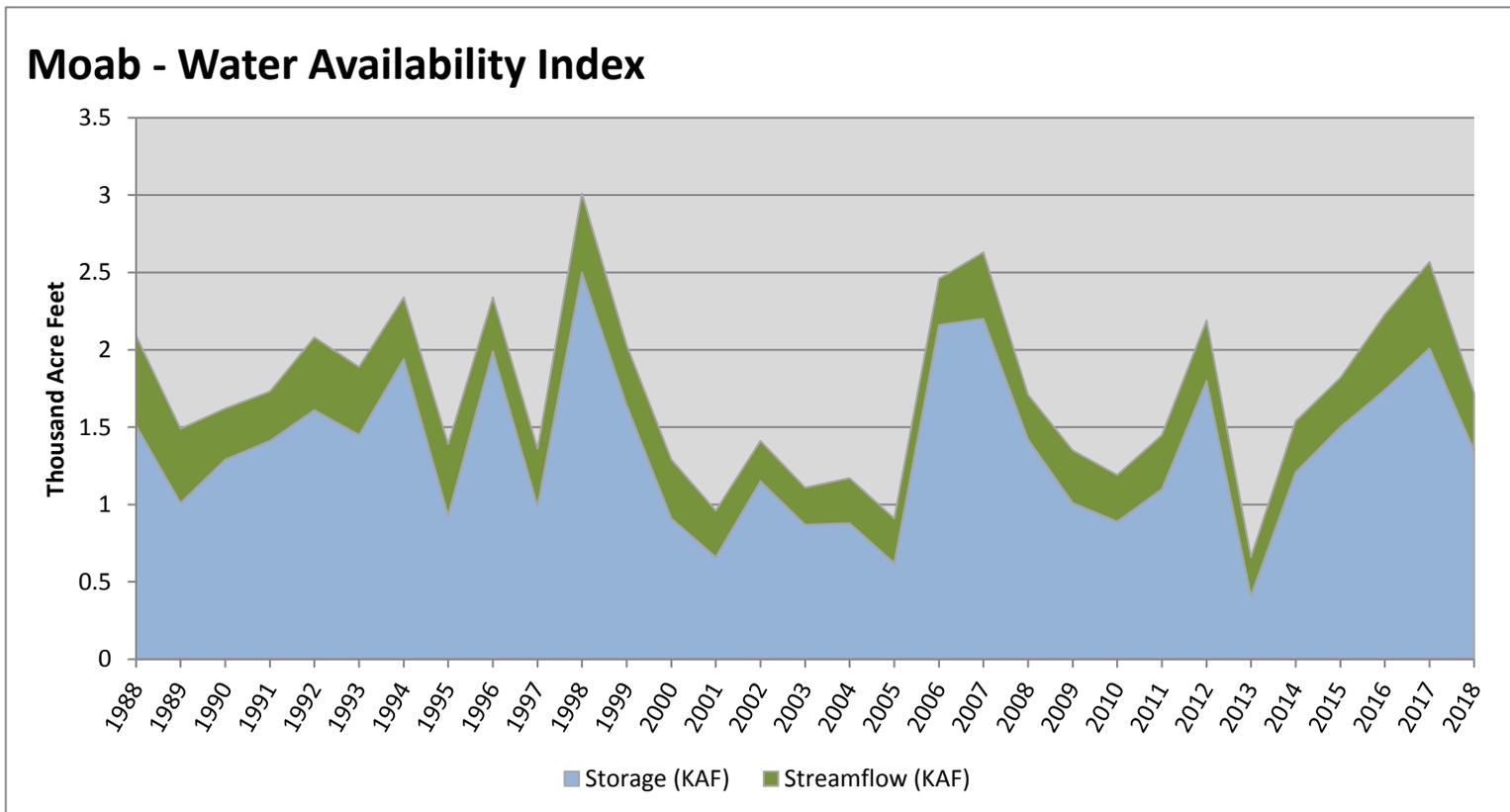
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Moab	1.35	0.37	1.72	53	0.26	90, 08, 91, 15

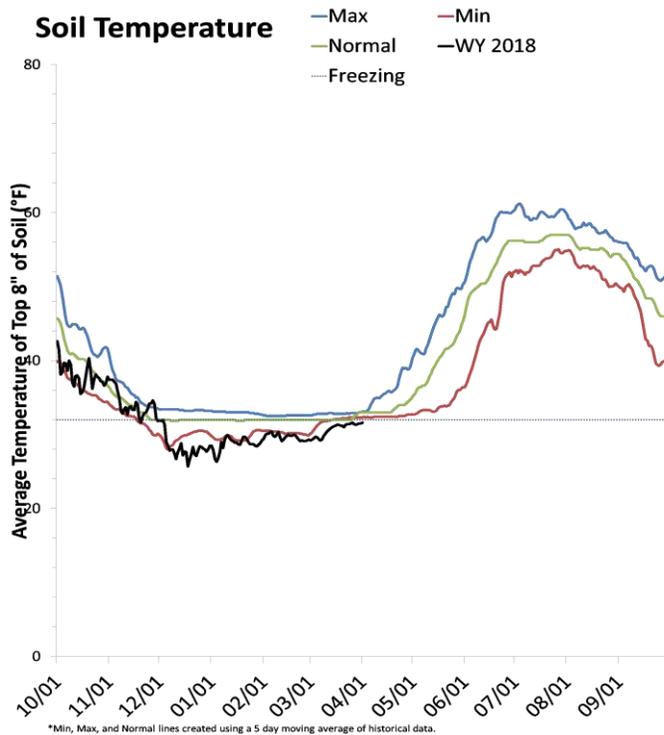
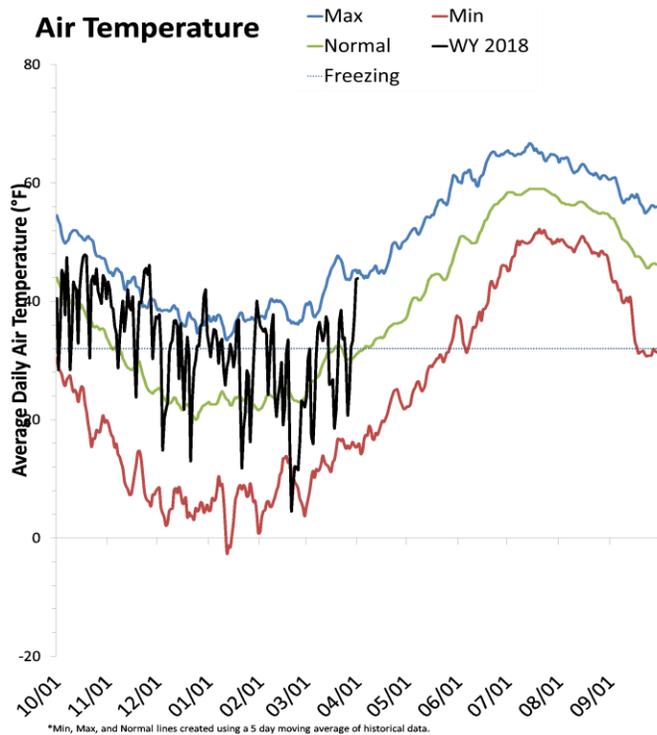
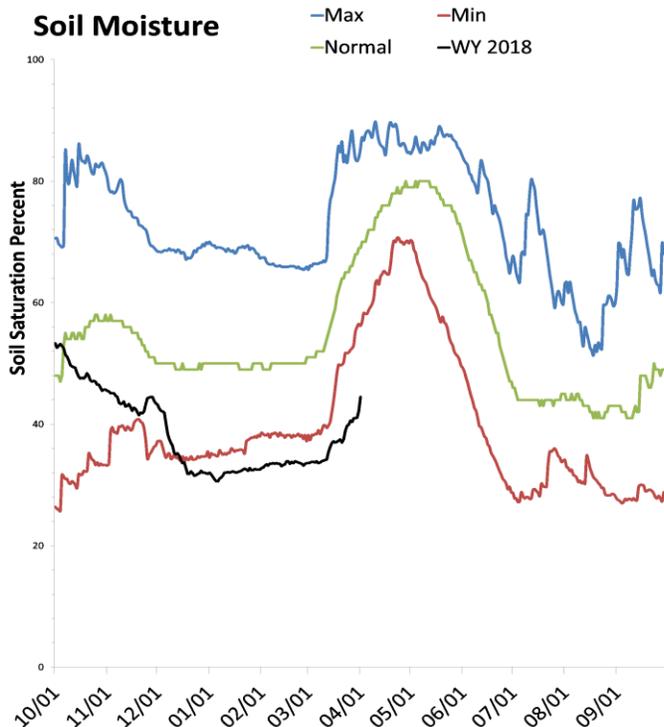
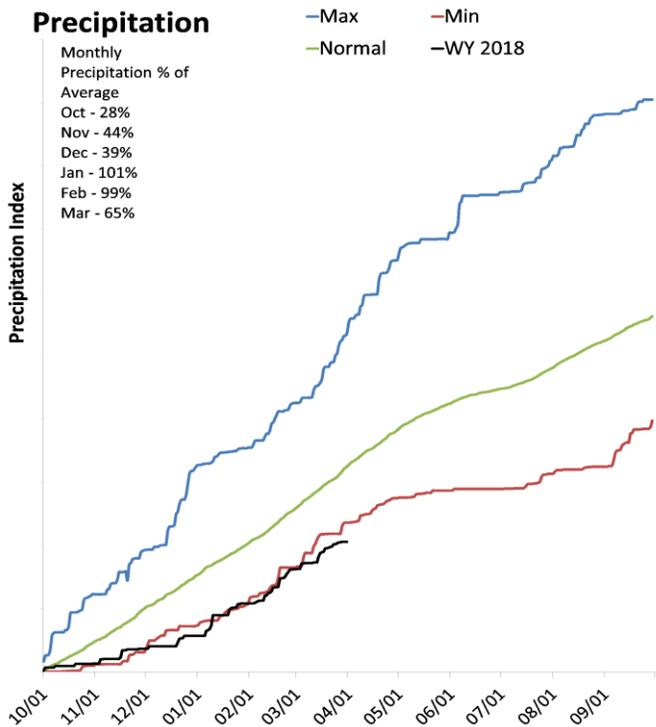
[^]EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Dirty Devil Basin

April 1, 2018

Precipitation in March was much below average at 65%, which brings the seasonal accumulation (Oct-Mar) to 63% of average. Soil moisture is at 43% compared to 70% last year.



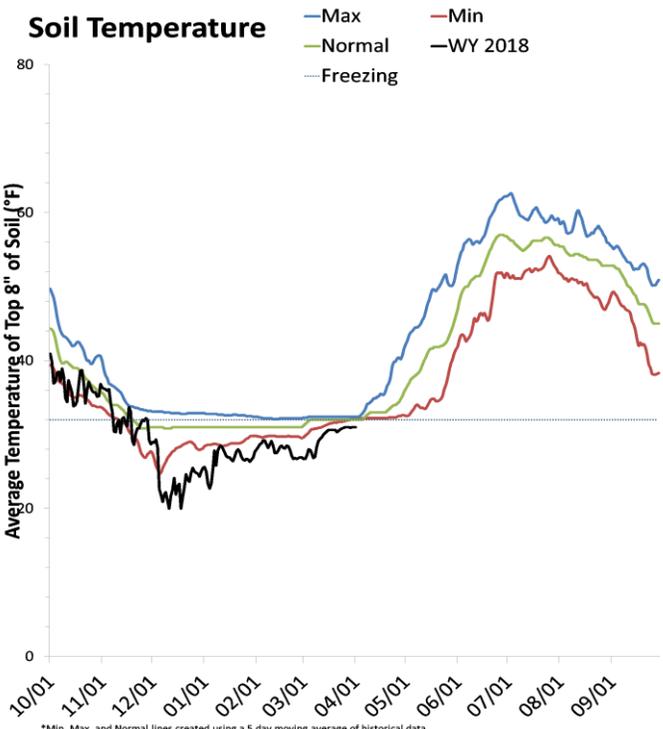
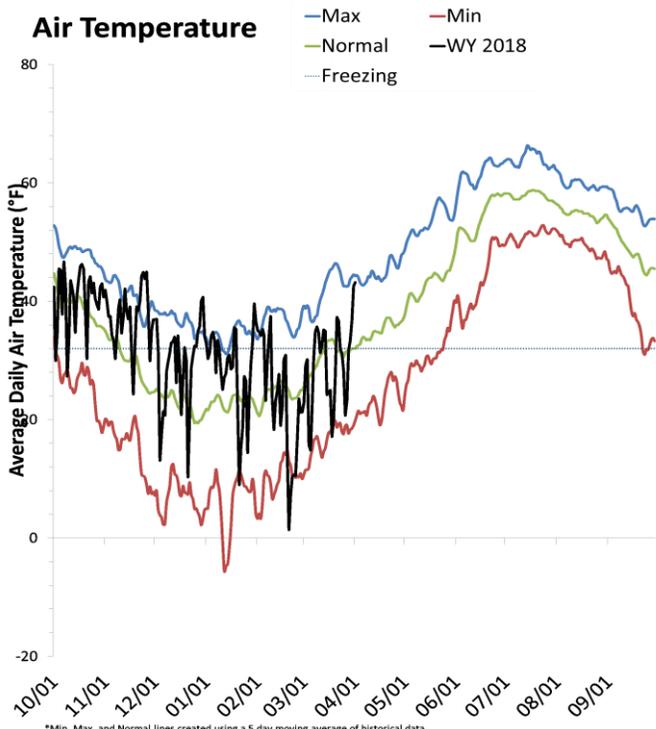
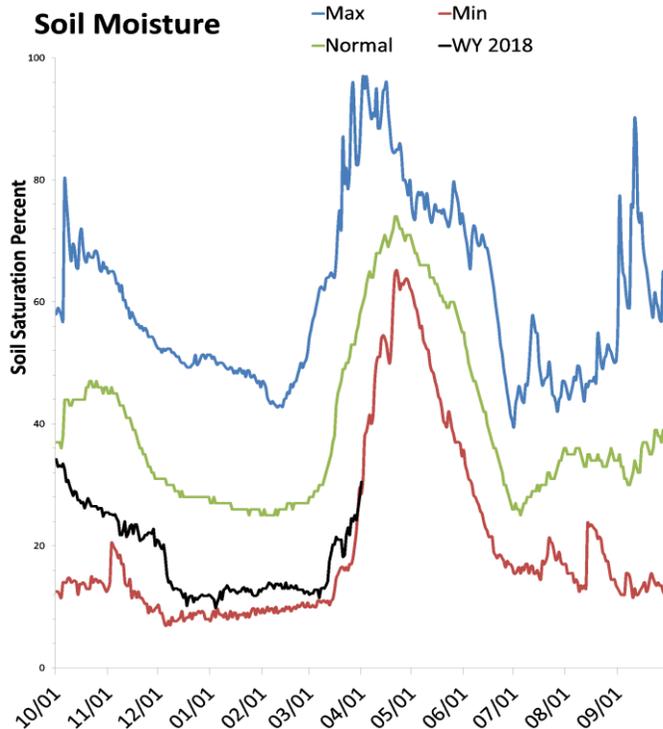
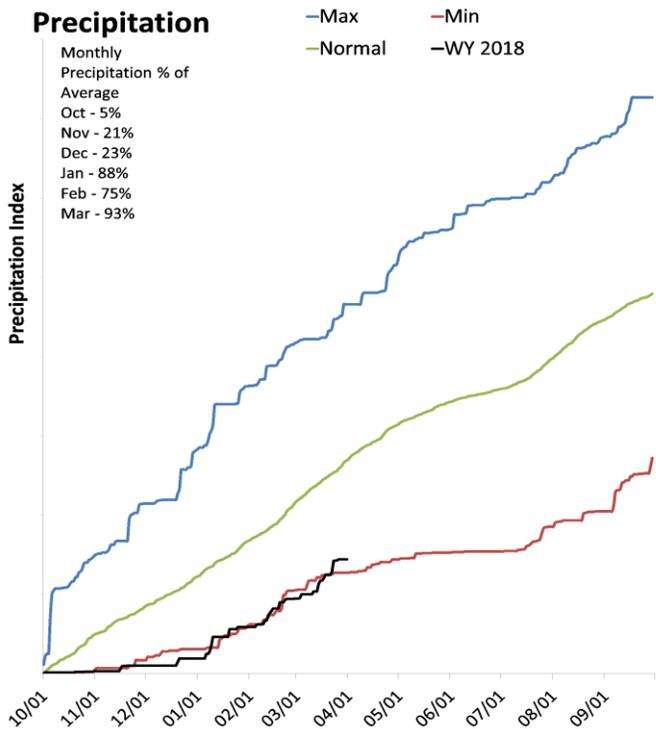
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Escalante River Basin

April 1, 2018

Precipitation in March was near average at 93%, which brings the seasonal accumulation (Oct-Mar) to 54% of average. Soil moisture is at 30% compared to 62% last year.



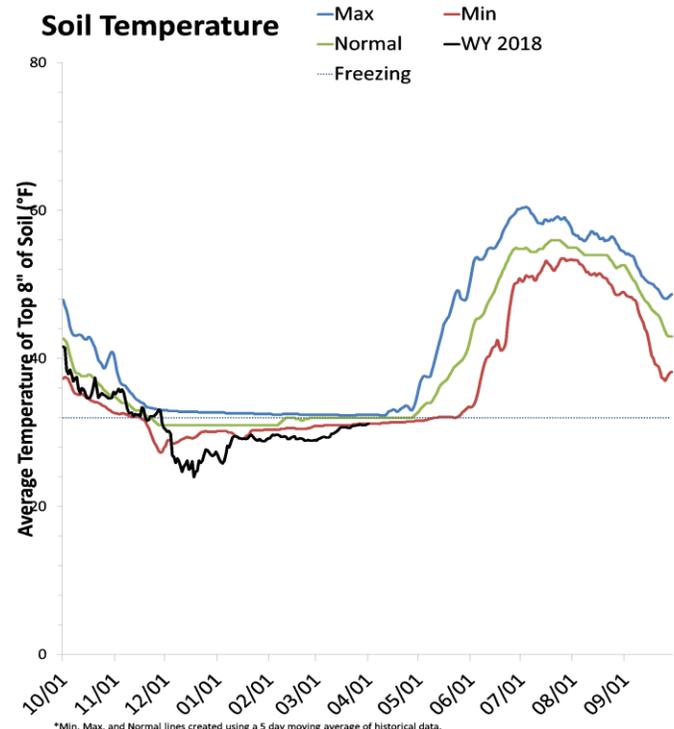
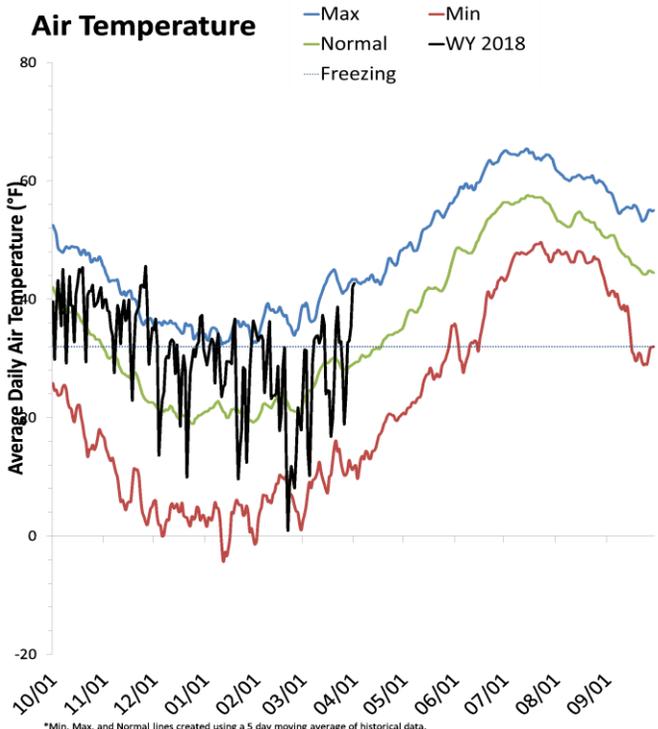
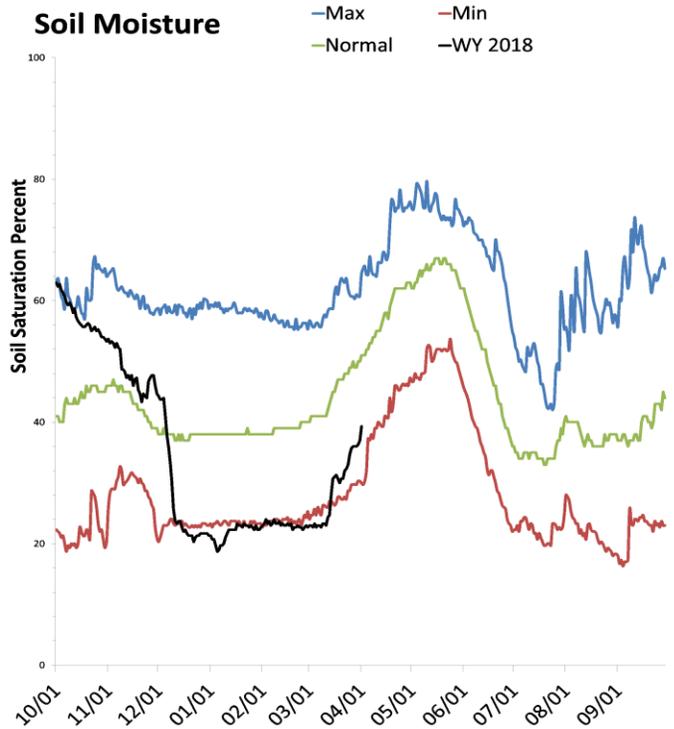
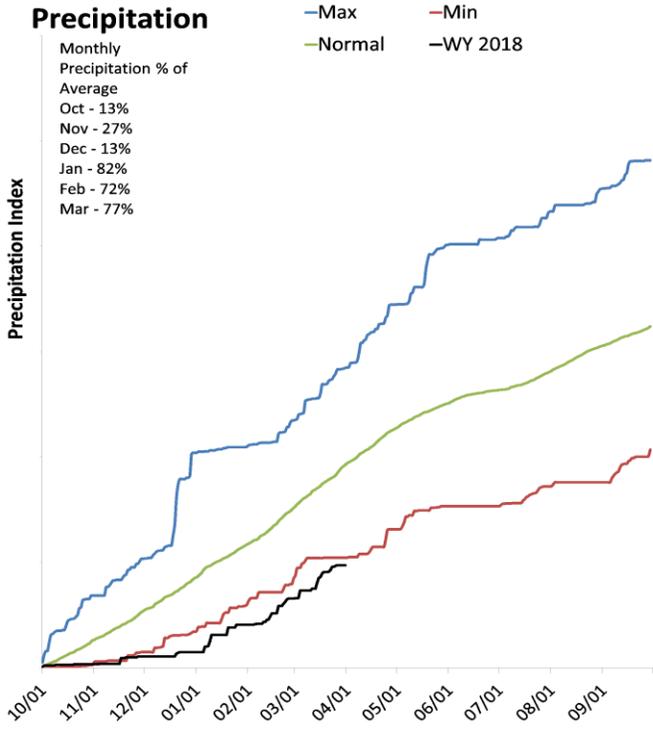
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Beaver River Basin

April 1, 2018

Precipitation in March was below average at 77%, which brings the seasonal accumulation (Oct-Mar) to 51% of average. Soil moisture is at 38% compared to 60% last year. Reservoir storage is at 53% of capacity, compared to 52% last year. The water availability index for the Beaver River is 33%.



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

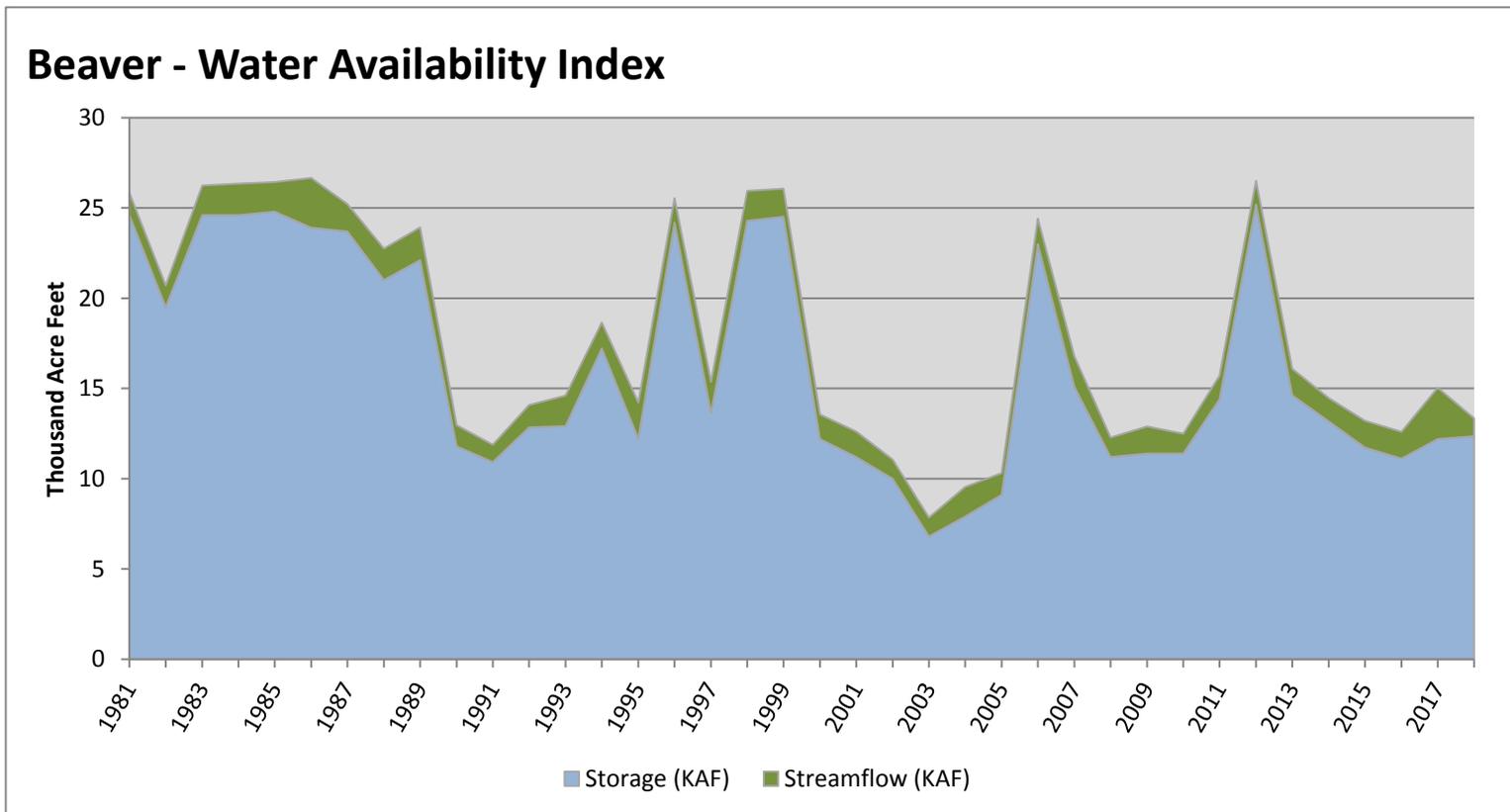
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Beaver	12.36	0.99	13.35	33	-1.39	90, 15, 00, 92

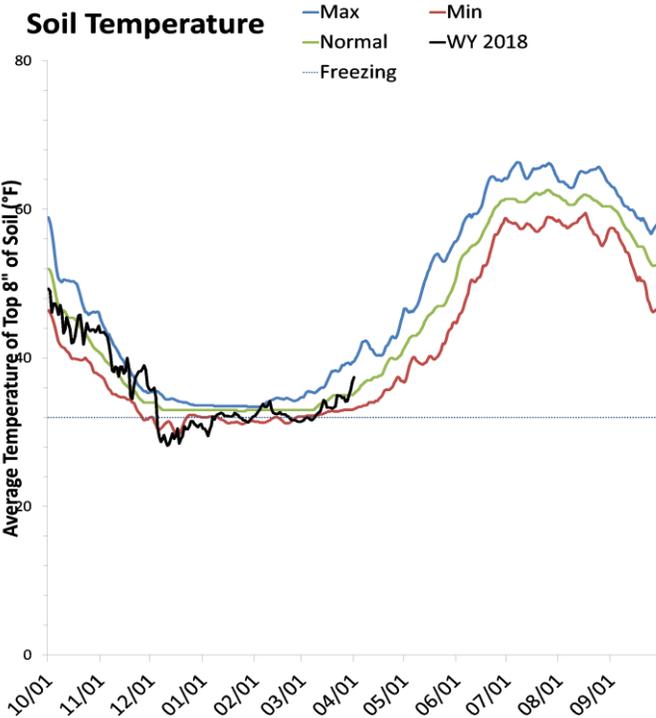
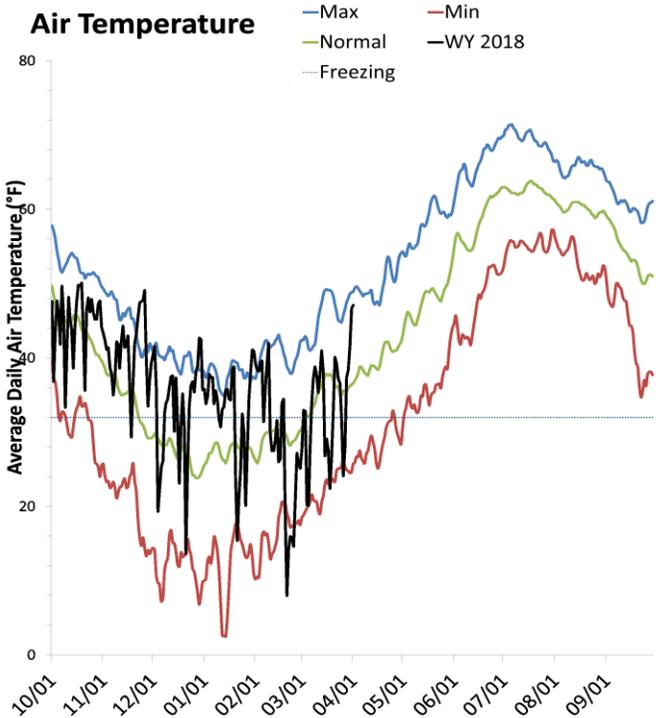
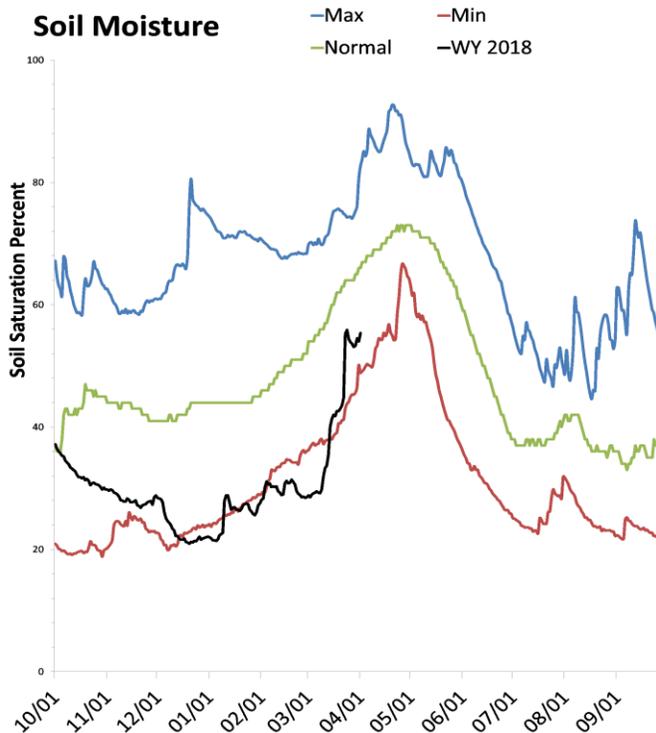
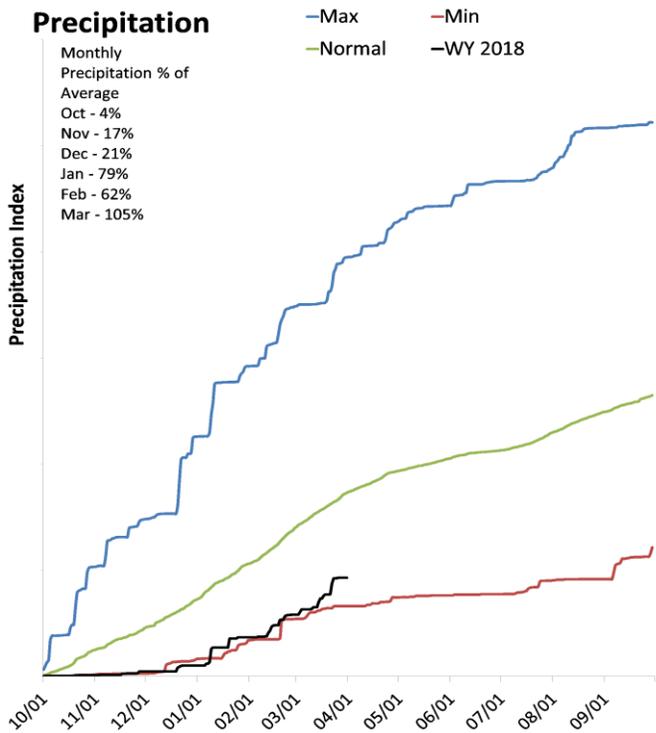
[^]EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southwestern Utah

April 1, 2018

Precipitation in March was near average at 105%, which brings the seasonal accumulation (Oct-Mar) to 54% of average. Soil moisture is at 54% compared to 72% last year. Reservoir storage is at 53% of capacity, compared to 47% last year. The water availability index for the Virgin River is 41%.



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

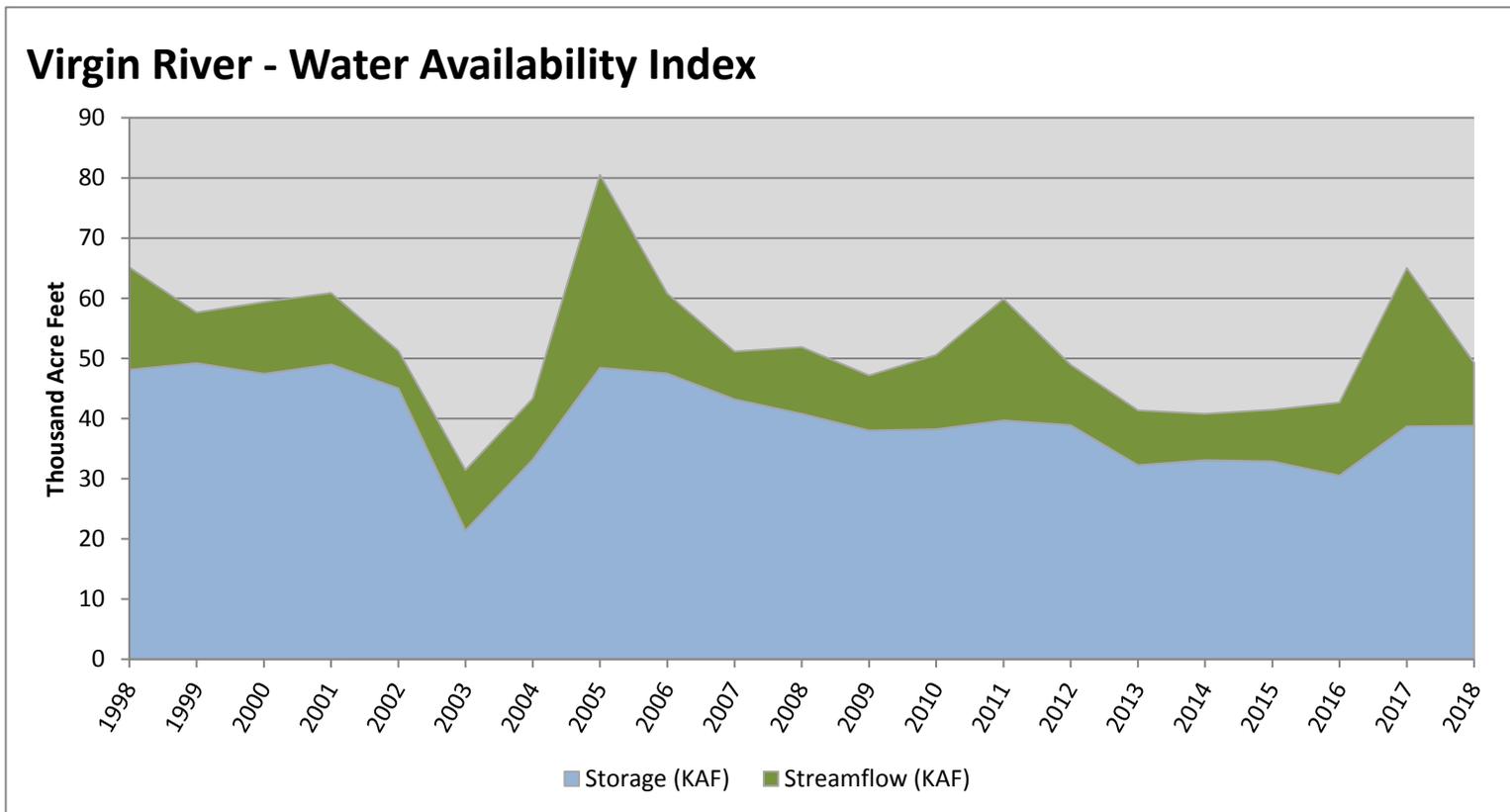
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2018

Water Availability Index

Basin or Region	Mar EOM [^] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Virgin River	38.81	10.43	49.24	41	-0.76	09, 12, 10, 07

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



April 1, 2018

Water Availability Index

Basin or Region	Mar EOM* Storage	March Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Bear River	994	2.8	997	92	3.5	83, 00, 86, 12
Woodruff Narrows	57.9	2.8	60.7	82	2.7	00, 97, 07, 99
Little Bear	11.8	7.4	19.2	44	-0.5	09, 03, 01, 11
Ogden	93.2	4.6	97.8	92	3.5	94, 95, 86, 12
Weber	189.5	9.4	198.9	90	3.3	10, 94, 07, 12
Provo River	403.6	3.7	407.3	92	3.5	12, 98, 06, 99
Western Uinta	198.3	2.0	200.2	91	3.4	94, 12, 15, 00
Eastern Uinta	39.3	2.2	41.6	38	-1.0	89, 02, 05, 81
Blacks Fork	12.3	2.2	14.5	53	0.2	94, 04, 06, 86
Price	53.7	0.8	54.4	92	3.5	81, 85, 12, 87
Smiths Creek	6.3	0.6	6.9	54	0.4	11, 06, 07, 16
Joes Valley	45.9	1.0	46.9	69	1.6	81, 96, 00, 99
Moab	1.4	0.4	1.7	53	0.3	90, 08, 91, 15
Upper Sevier River	81.6	7.6	89.2	26	-2.0	09, 15, 90, 93
San Pitch	4.4	0.2	4.6	15	-2.9	03, 04, 17, 14
Lower Sevier	88.7	7.5	96.2	5	-3.7	04, 03, 05, 17
Beaver	12.4	1.0	13.4	33	-1.4	90, 15, 00, 92
Virgin River	38.8	10.4	49.2	41	-0.8	09, 12, 10, 07

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

What is a Water Availability Index?

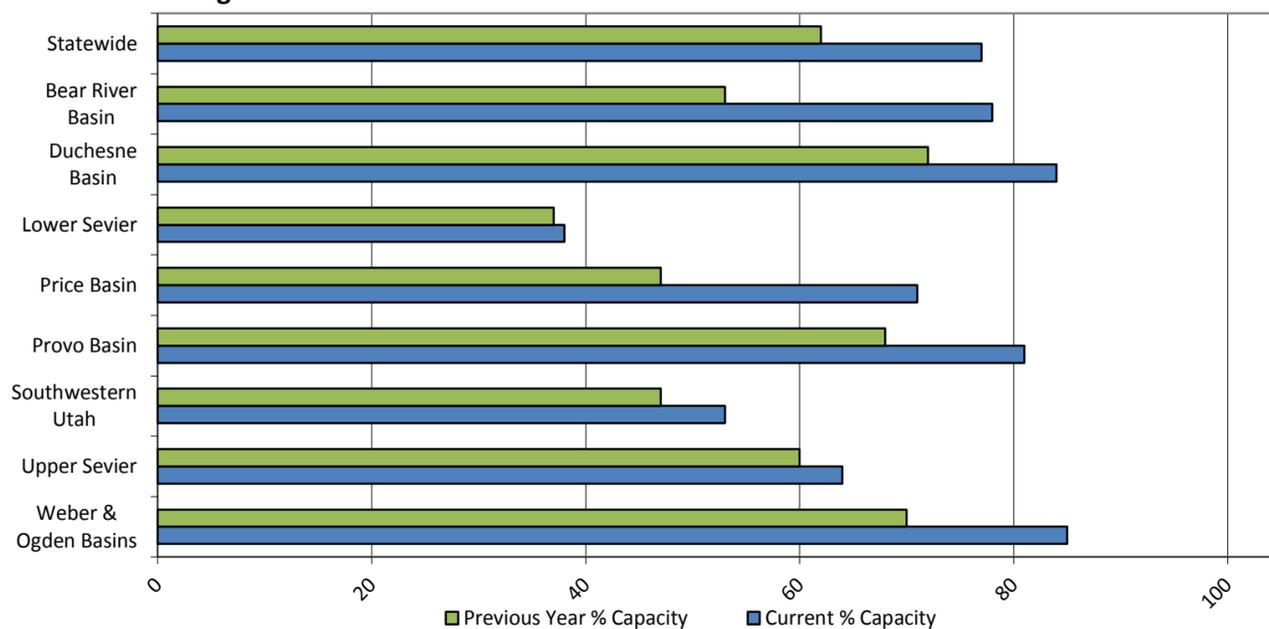
The Water Availability Index (WAI) is an observed hydrologic indicator of current surface water availability within a watershed. The index is calculated by combining current reservoir storage with the previous months streamflow. WAI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) 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 March 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	25.7	26.0		25.7	100%	101%			
Causey Reservoir	6.8	7.1	3.2	7.1	96%	100%	45%	212%	222%
Cleveland Lake	2.9	1.9		5.4	53%	35%			
Currant Creek Reservoir	15.0	14.2	14.8	15.5	96%	92%	95%	101%	96%
Deer Creek Reservoir	150.0	148.9	116.8	149.7	100%	99%	78%	128%	127%
East Canyon Reservoir	44.4	37.1	36.4	49.5	90%	75%	74%	122%	102%
Echo Reservoir	65.8	35.3	50.2	73.9	89%	48%	68%	131%	70%
Grantsville Reservoir	2.6	2.7	2.5	3.3	78%	83%	76%	102%	109%
Gunlock	8.0	7.4	6.8	10.4	77%	71%	65%	118%	108%
Gunnison Reservoir	4.4	4.2	14.7	20.3	21%	21%	72%	30%	29%
Huntington North Reservoir	4.0	4.1	3.8	4.2	94%	99%	90%	104%	109%
Hyrum Reservoir	11.8	10.5	13.0	15.3	77%	69%	85%	91%	81%
Joes Valley Reservoir	45.9	32.7	40.0	61.6	74%	53%	65%	115%	82%
Jordanelle Reservoir	253.6	213.0	239.4	314.0	81%	68%	76%	106%	89%
Ken's Lake	1.4	2.0	1.3	2.3	59%	87%	58%	102%	151%
Kolob Reservoir	1.2	5.6		5.6	21%	100%			
Lost Creek Reservoir	19.6	15.6	12.6	22.5	87%	69%	56%	156%	124%
Lower Enterprise	1.7	2.5	1.4	2.6	64%	96%	55%	117%	175%
Miller Flat Reservoir	3.9	2.3		5.2	75%	45%			
Millsite	1.2	11.9	10.4	16.7	7%	71%	62%	11%	115%
Minersville Reservoir	12.4	12.2	16.8	23.3	53%	52%	72%	74%	73%
Moon Lake Reservoir	26.8	30.0	27.3	35.8	75%	84%	76%	98%	110%
Otter Creek Reservoir	42.9	43.3	42.2	52.5	82%	82%	80%	102%	103%
Panguitch Lake	11.6	8.7	14.5	22.3	52%	39%	65%	80%	60%
Pineview Reservoir	86.4	56.1	62.8	110.1	79%	51%	57%	138%	89%
Piute Reservoir	38.7	35.2	58.2	71.8	54%	49%	81%	66%	60%
Porcupine Reservoir	11.3	11.4	8.2	11.3	100%	101%	73%	138%	139%
Quail Creek	30.8	31.3	31.1	40.0	77%	78%	78%	99%	101%
Red Fleet Reservoir	21.1	20.2	18.8	25.7	82%	79%	73%	112%	107%
Rockport Reservoir	54.8	26.7	37.6	60.9	90%	44%	62%	146%	71%
Sand Hollow Reservoir	48.5	47.9		50.0	97%	96%			
Scofield Reservoir	53.7	21.7	30.7	65.8	82%	33%	47%	175%	71%
Settlement Canyon Reservoir	0.8	0.5	0.8	1.0	82%	52%	75%	109%	70%
Sevier Bridge Reservoir	88.7	87.8	181.9	236.0	38%	37%	77%	49%	48%
Smith And Morehouse Reservoir	4.9	5.9	3.6	8.1	61%	73%	44%	137%	165%
Starvation Reservoir	163.1	116.2	149.7	164.1	99%	71%	91%	109%	78%
Stateline Reservoir	6.3	7.4	5.3	12.0	53%	62%	44%	119%	140%
Steinaker Reservoir	18.3	23.3	24.5	33.4	55%	70%	73%	75%	95%
Strawberry Reservoir	935.8	807.5	665.1	1105.9	85%	73%	60%	141%	121%
Upper Enterprise	1.7	4.2	5.3	10.0	17%	42%	53%	31%	79%
Upper Stillwater Reservoir	8.3	1.7	4.5	32.5	26%	5%	14%	185%	37%
Utah Lake	633.4	478.9	816.5	870.9	73%	55%	94%	78%	59%
Willard Bay	184.9	199.4	147.7	215.0	86%	93%	69%	125%	135%
Woodruff Creek	4.0	4.1	3.3	4.0	100%	103%	83%	121%	124%
Woodruff Narrows Reservoir	57.9	48.7	38.4	57.3	101%	85%	67%	151%	127%
Meeks Cabin Reservoir	12.2	15.8	13.4	32.5	38%	49%	41%	91%	118%
Bear Lake	994.3	663.7	611.9	1302.0	76%	51%	47%	162%	108%
Basin-wide Total	4140.9	3311.5	3587.4	5373.1	77%	62%	67%	115%	92%
# 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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