

Utah Climate and Water Report

May 1, 2017



Mount Baldy, Sanpete County

Just above the Mt Baldy SNOTEL, where there is still 28 inches of SWE and nearly 60 inches of snow

Photo by Troy Brosten

Utah Climate and Water Report

Report Content

1) Statewide Hydrologic Summary

- a) Utah General Summary
 - Supporting Documents

2) Climate and Water Information – SCAN

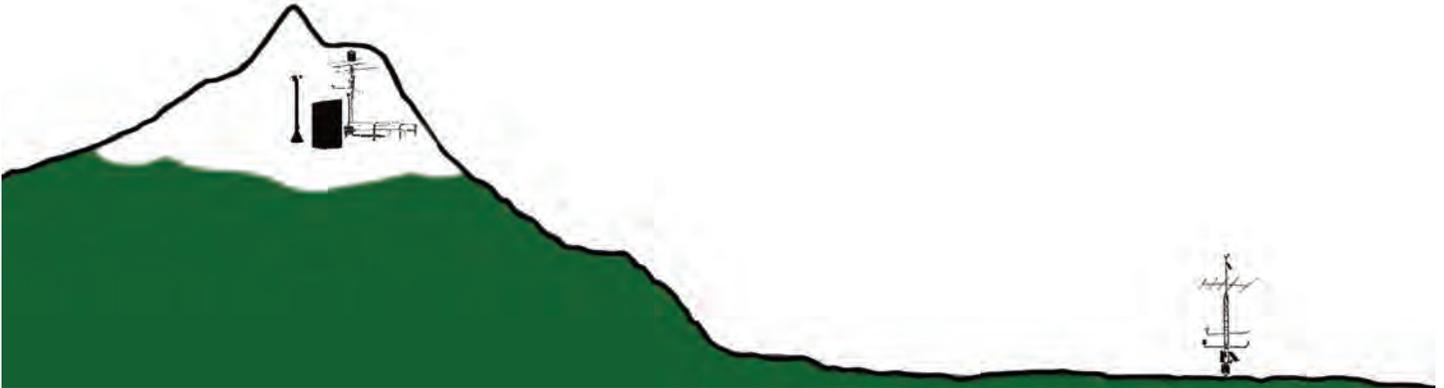
- a) Statewide SCAN
- b) Southeast
- c) South Central
- d) Western and Dixie
- e) Uinta Basin
- f) North Central
- g) Northern Mountains

3) Climate and Water Information – SNOTEL

- a) Statewide SNOTEL
- b) Bear River Basin
 - Water Availability Indices
- c) Weber & Ogden River Basins
 - Water Availability Indices
- d) Provo & Jordan River Basins
 - Water Availability Index
- e) Tooele Valley & West Desert Basins
- f) Northeastern Uinta Basin
 - Water Availability Indices
- g) Duchesne River Basins
 - Water Availability Indices
- h) San Pitch River Basin
 - Water Availability Index
- i) Price & San Rafael Basins
 - Water Availability Indices
- j) Lower Sevier Basin
 - Water Availability Index
- k) Upper Sevier Basin
 - Water Availability Index
- l) Southeastern Utah
 - Water Availability Index
- m) Dirty Devil
- n) Escalante River Basin
 - Water Availability Index
- o) Beaver River Basin
 - Water Availability Index
- p) Southwestern Utah
 - Water Availability Index

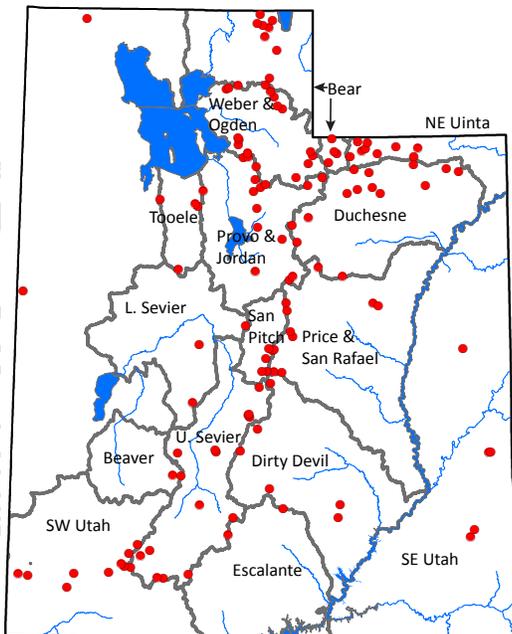
Utah Climate and Water Report

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.



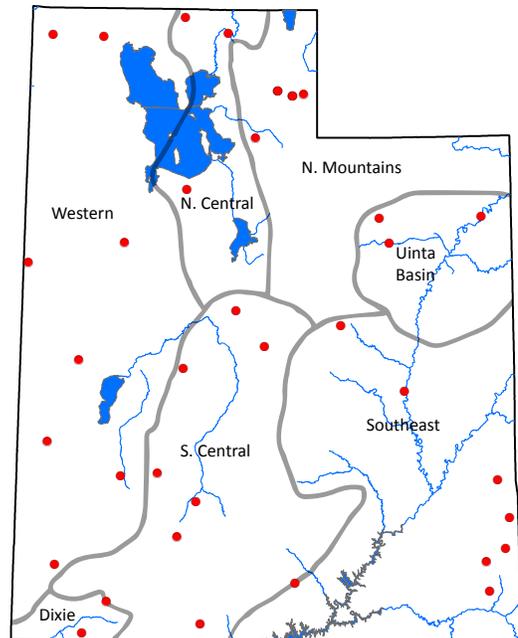
SNOTEL

- 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 May 1, 2017

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 Randy.Julander@ut.usda.gov.

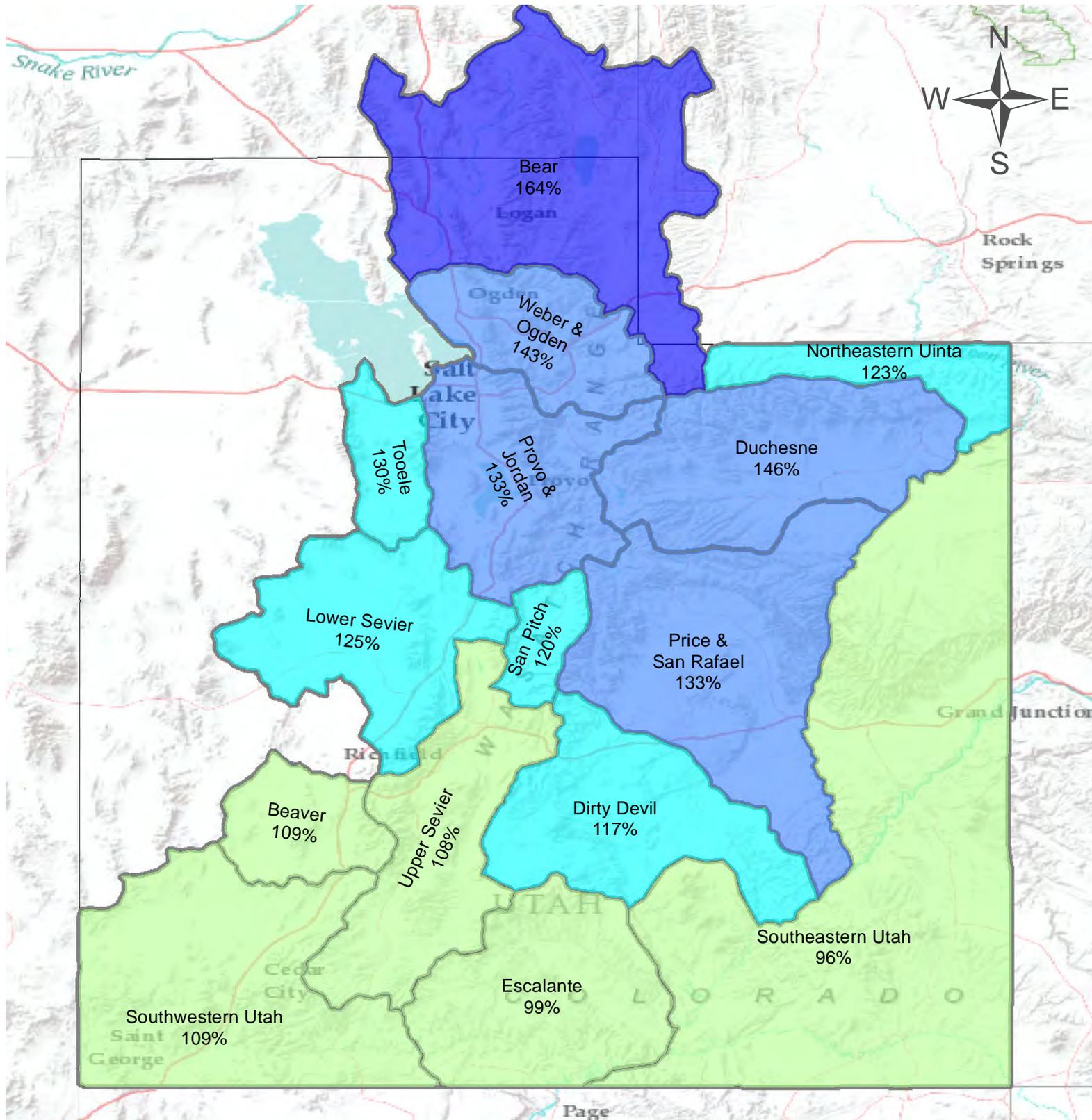
Current Valley Conditions (SCAN)

April brought one inch of precipitation to Utah's valley locations, bringing the total to 8.5 inches for this water year. The trend favoring Northern Utah locations was back in April, with the region receiving 2.2 to 3.0 inches. The Southeastern and Uinta areas were dry, only receiving 0.2 inches of precipitation in April. Soil moisture in these two areas is right around normal, due to carryover from earlier wet months. On average, soil moisture levels are just above normal throughout the state. The significant story is that Cache and Box Elder Counties are back to record levels of soil moisture. Several SCAN sites in these counties are again showing saturated or near-saturated conditions; these conditions are already having a significant negative impact on crop production in these counties. Farmers in Southern Idaho, which has experienced similar weather conditions, have had to push back potato and wheat crop planting. Although on the rebound, soil temperatures remain slightly below normal for May 1.

Current Mountain Conditions (SNOTEL)

March and April produced above average streamflow across the state of Utah. For some locations in southeastern Utah this was peak flow as the snowpack in this area is pretty much depleted except for the highest elevations. So for the Southeast, the Dirty Devil and the Escalante regions, streamflows will be declining quickly. This area has been relatively dry for several months now, getting only 19% of average precipitation this past month. The remainder of southern Utah including the Sevier, Beaver and Virgin Rivers have substantial flow yet to come and have snowpacks closer to normal. So for these basins, May should produce above average flow with June and July drying quickly. The Price, San Rafael and San Pitch watersheds in central Utah all have above normal snowpacks that should produce above average streamflow well into June. Northern Utah watersheds have snowpacks that range from 125% to 202% of normal. Given normal melt conditions these snowpacks have the potential to produce exceptionally high runoff which is likely to continue well into June and July. A cool and wet climate sequence could exacerbate flood potential, whereas normal temperatures and low precipitation would decrease adverse conditions. The four major basins in northern Utah: the Bear, Weber, Provo and Duchesne all should have well above normal streamflow which should continue long into the summer months. For northern Utah, all the pieces are in place for an outstanding water year. As an example,

inflow to Bear Lake in March was 120,000 acre-feet and in April it was nearly 220,000 acre-feet for a total inflow thus far of 340,000 acre-feet with a lot more to come. Climatic conditions in May and June will still impact both the peak flows and the overall flow volumes this season. April precipitation was near average statewide at 110%, which brings the seasonal accumulation (Oct-Apr) to 135% of average. Precipitation was much above normal in northern Utah ranging from 130% to 165% of average whereas in the south it was much below normal ranging between 19% and 109% of average. Statewide soil moisture is at 80% compared to 76% last year. Reservoir storage is at 71% of capacity, compared to 61% last year. Streamflow forecasts range between 94% and 339% of average.



Statewide Precipitation

As of May 1, 2017:

135% of Normal Precipitation

110% of Normal Precipitation Last Month

% of Normal

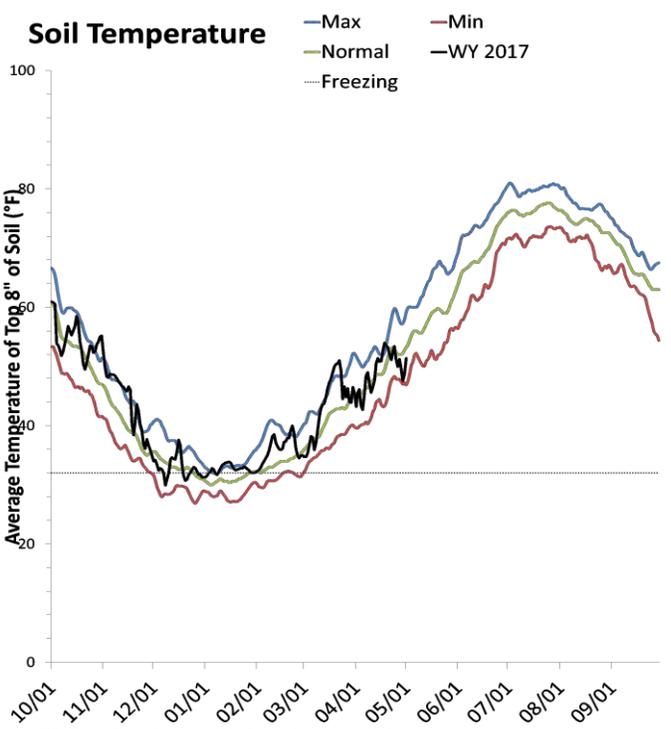
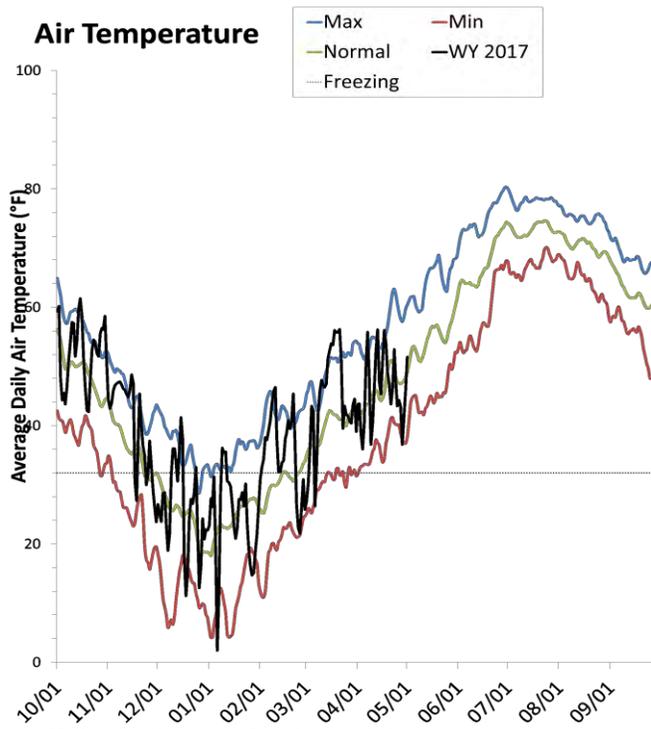
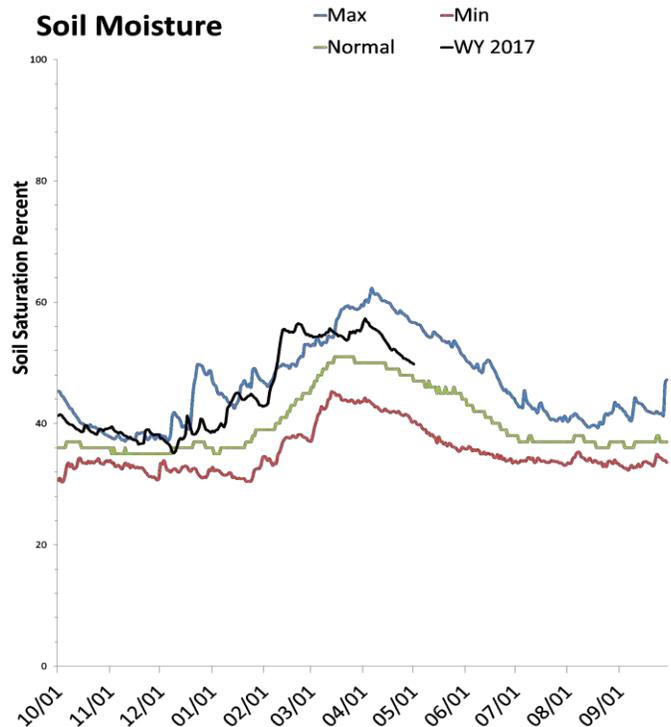
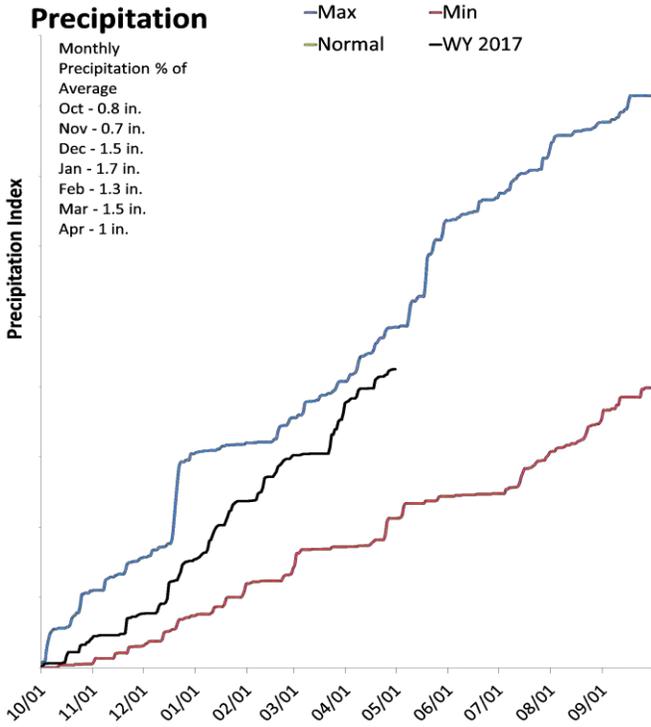
- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%

0 10 20 40 60 80 100 Miles

Statewide SCAN

May 1, 2017

The average precipitation at SCAN sites within Utah was 1 inch in April, which brings the seasonal accumulation (Oct-Apr) to 8.5 inches. Soil moisture is at 49% compared to 51% last year.



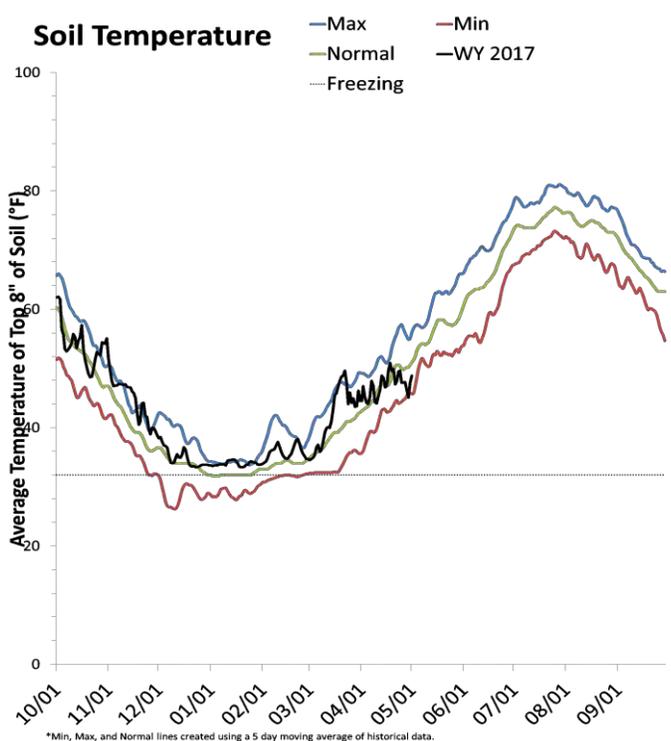
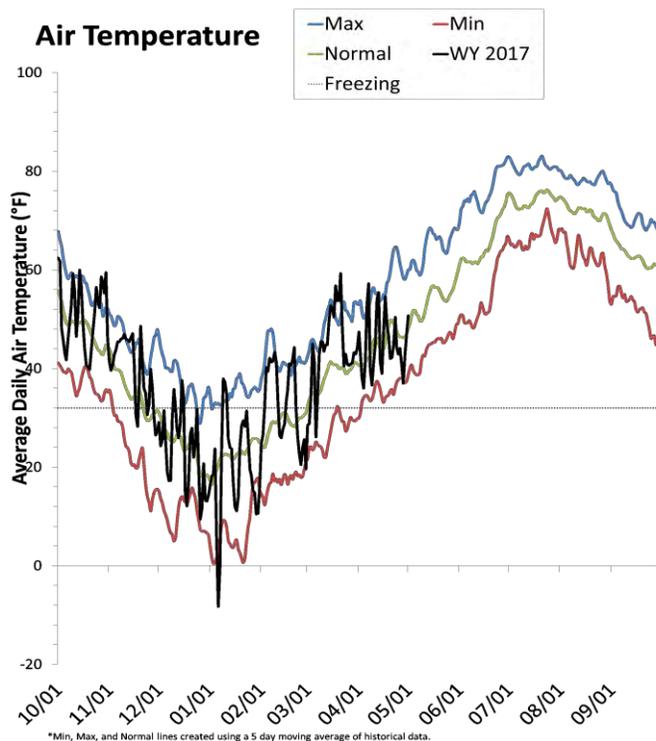
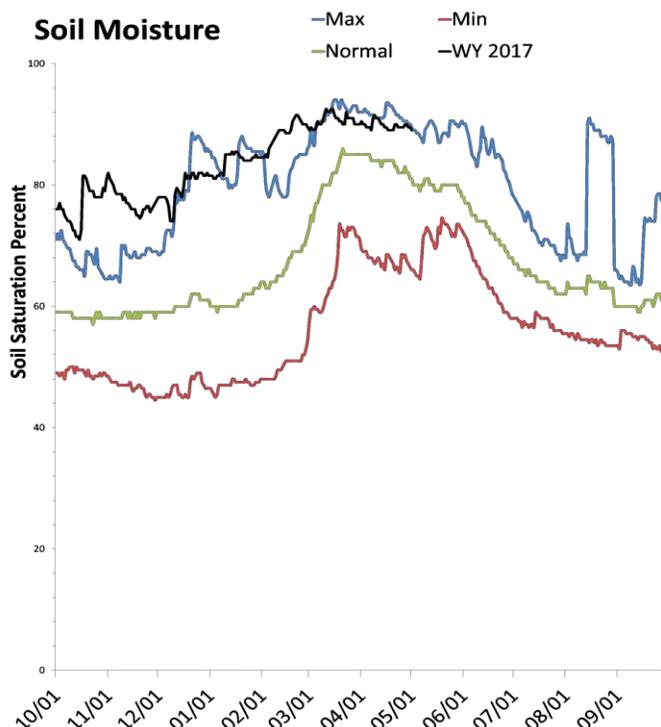
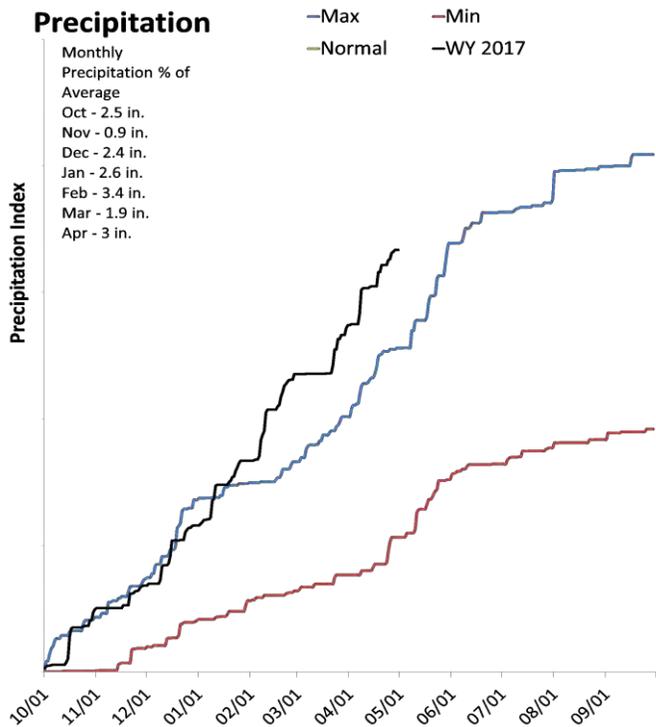
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

North Central

May 1, 2017

The average precipitation in April at SCAN sites within the basin was 3 inches, which brings the seasonal accumulation (Oct-Apr) to 16.7 inches. Soil moisture is at 89% compared to 81% last year.



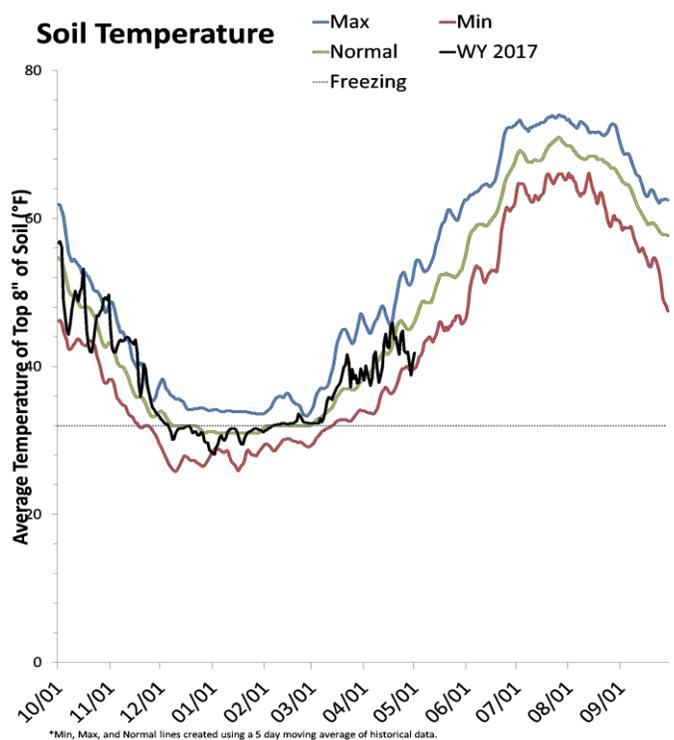
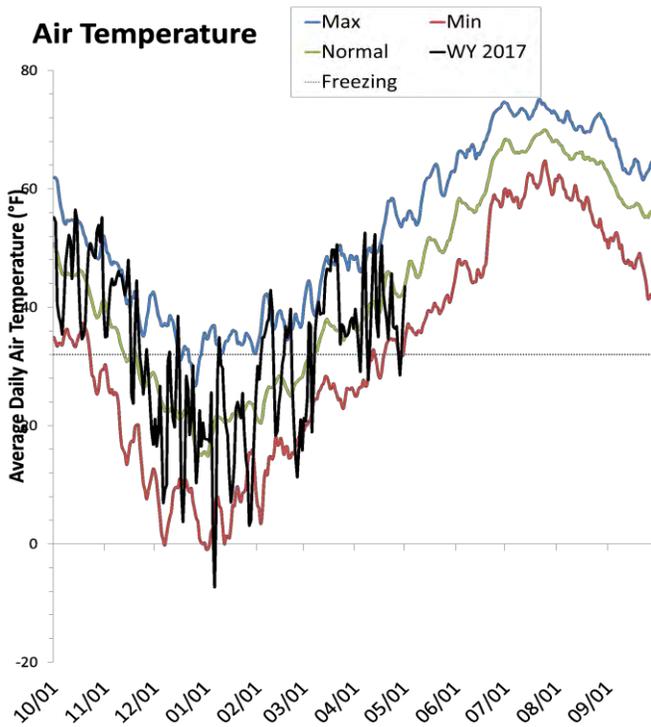
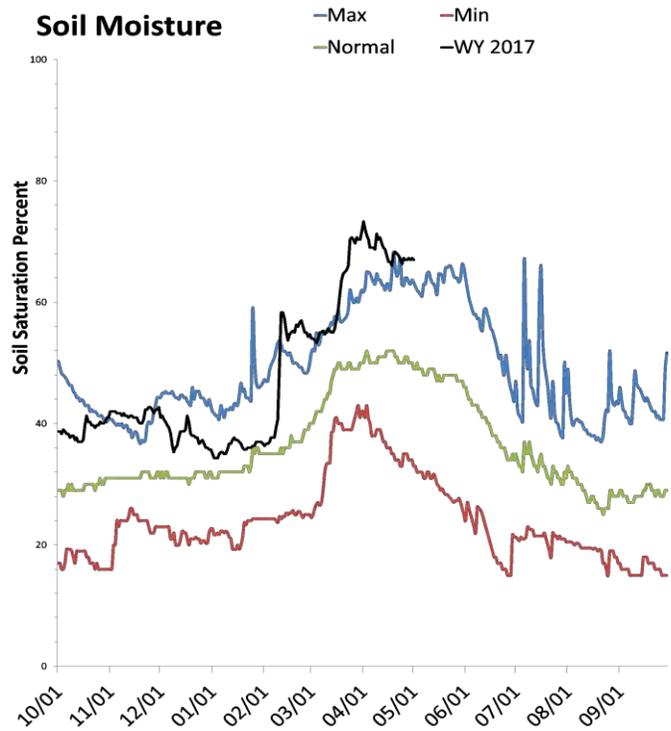
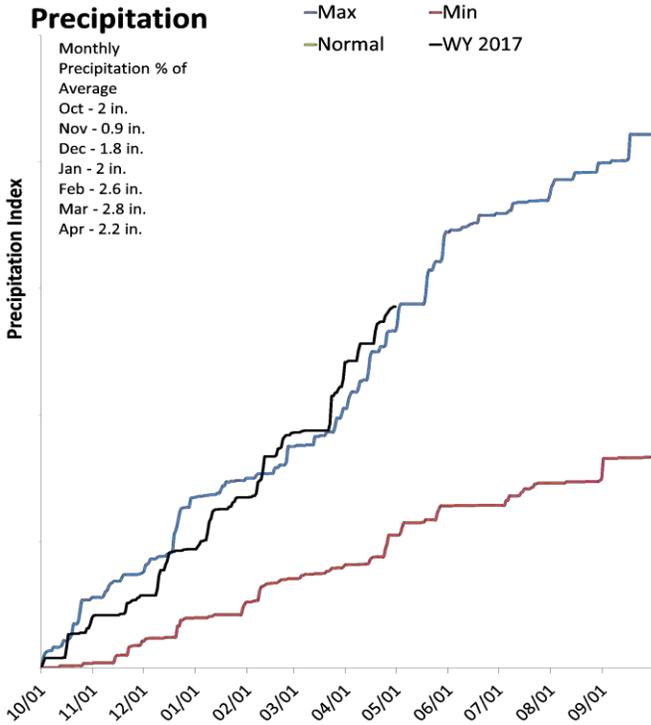
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Northern Mountains

May 1, 2017

The average precipitation in April at SCAN sites within the basin was 2.2 inches, which brings the seasonal accumulation (Oct-Apr) to 14.3 inches. Soil moisture is at 67% compared to 63% last year.



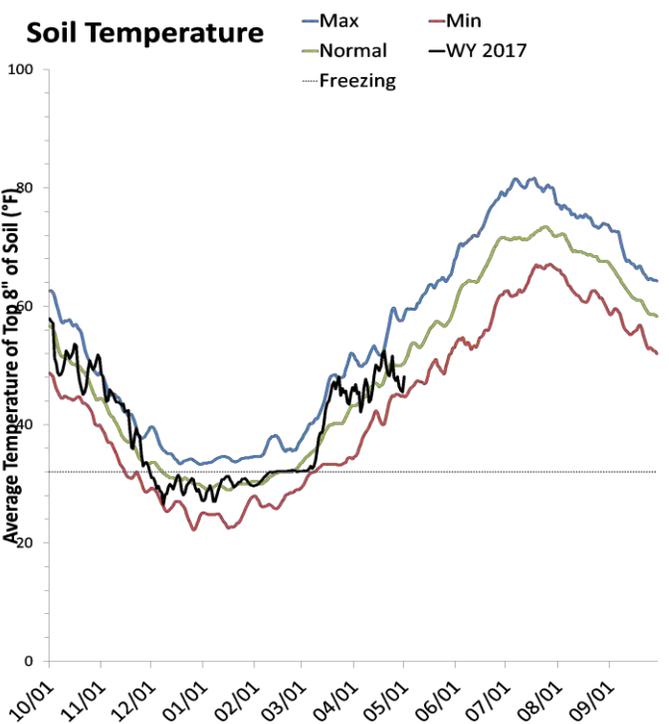
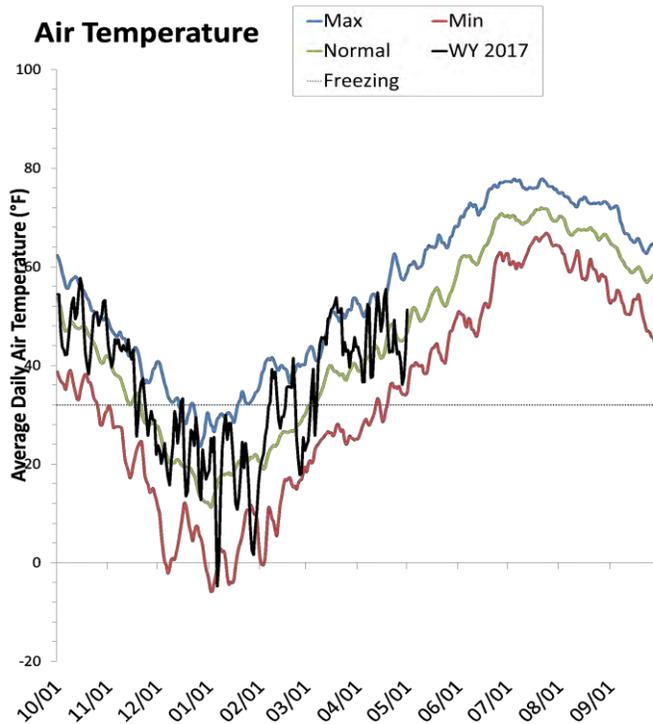
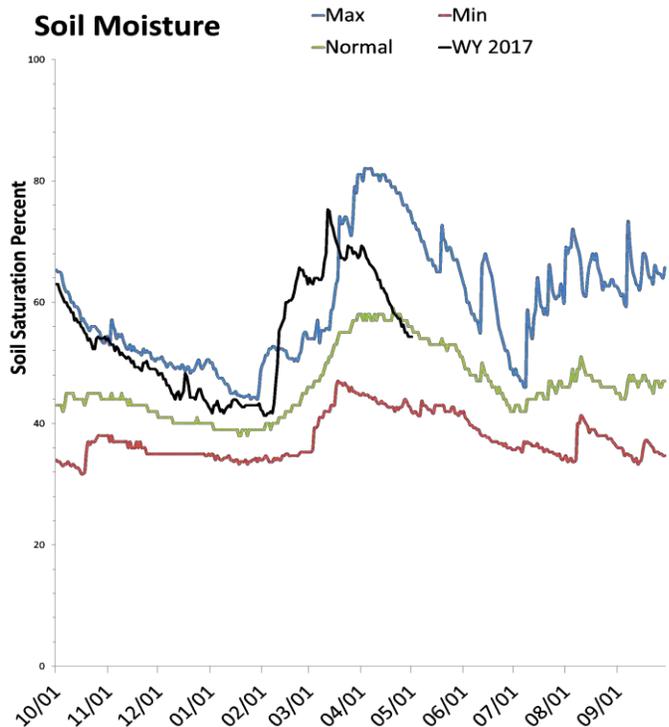
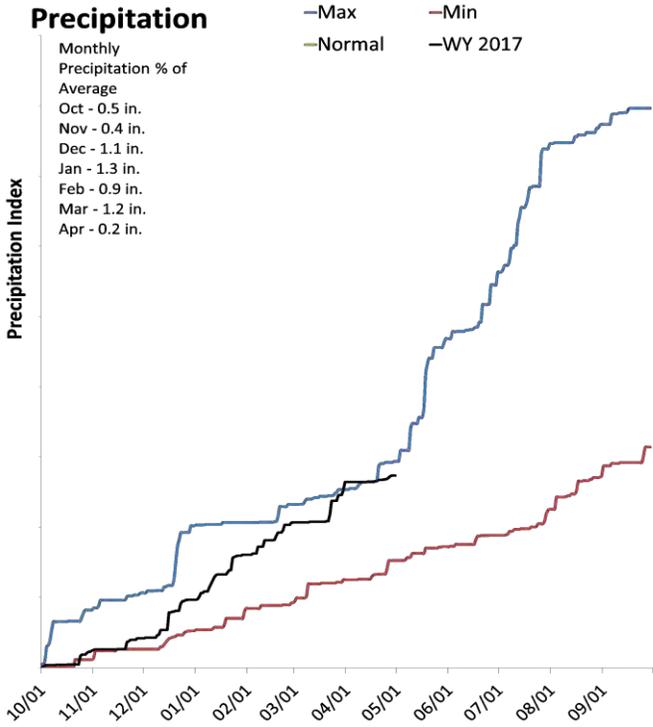
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Uinta Basin

May 1, 2017

The average precipitation in April at SCAN sites within the basin was 0.2 inches, which brings the seasonal accumulation (Oct-Apr) to 5.5 inches. Soil moisture is at 54% compared to 51% last year.



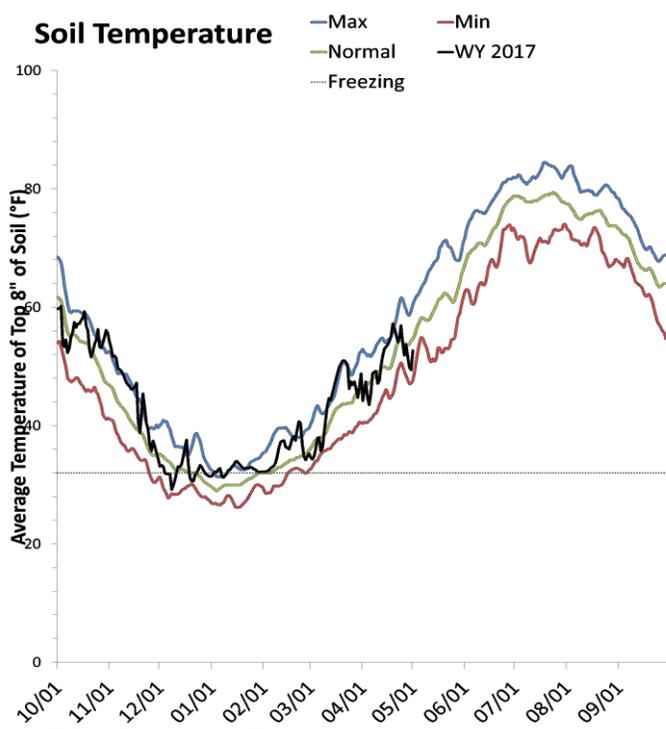
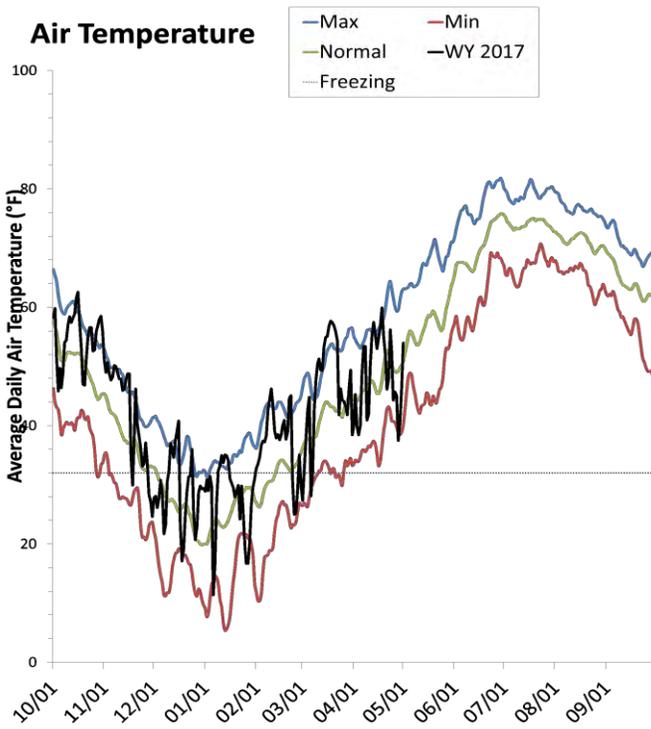
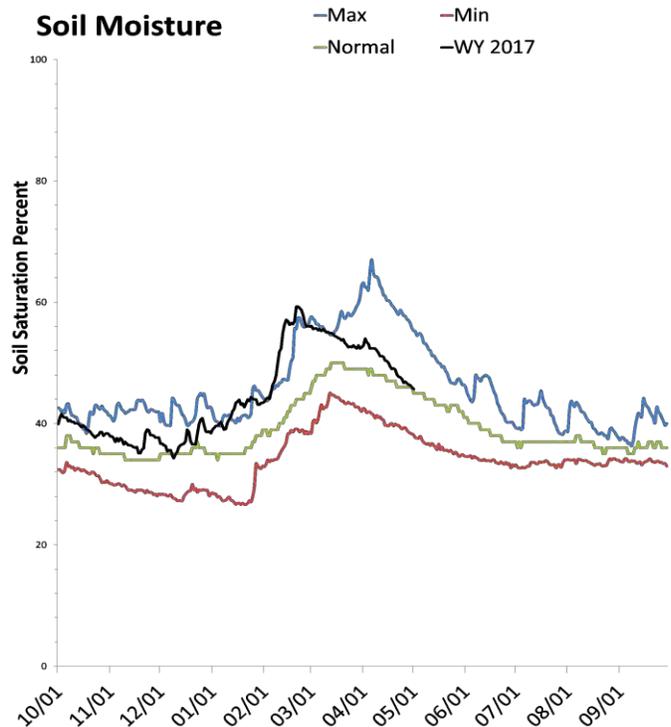
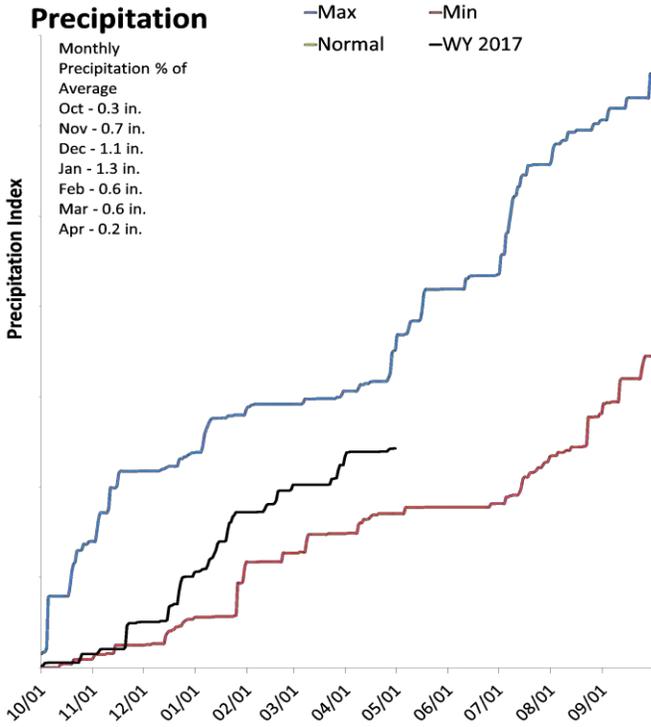
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Southeast

May 1, 2017

The average precipitation in April at SCAN sites within the basin was 0.2 inches, which brings the seasonal accumulation (Oct-Apr) to 4.9 inches. Soil moisture is at 46% compared to 50% last year.



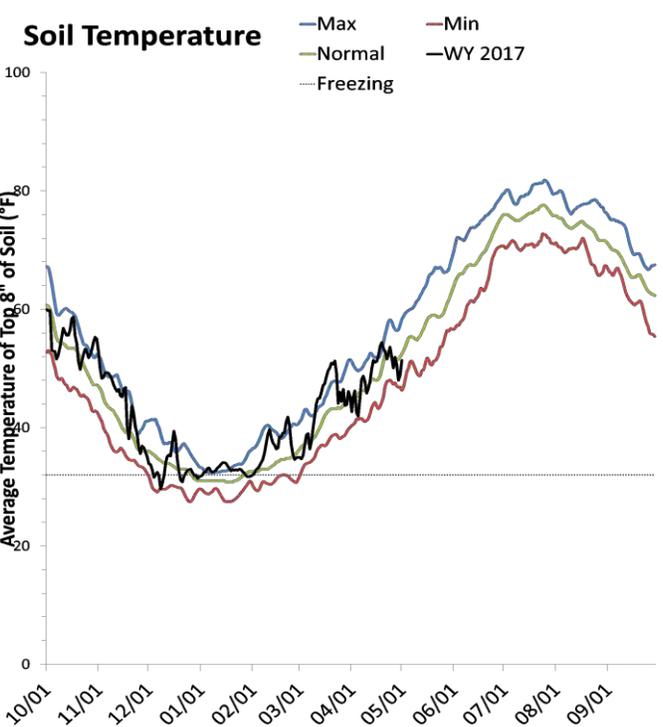
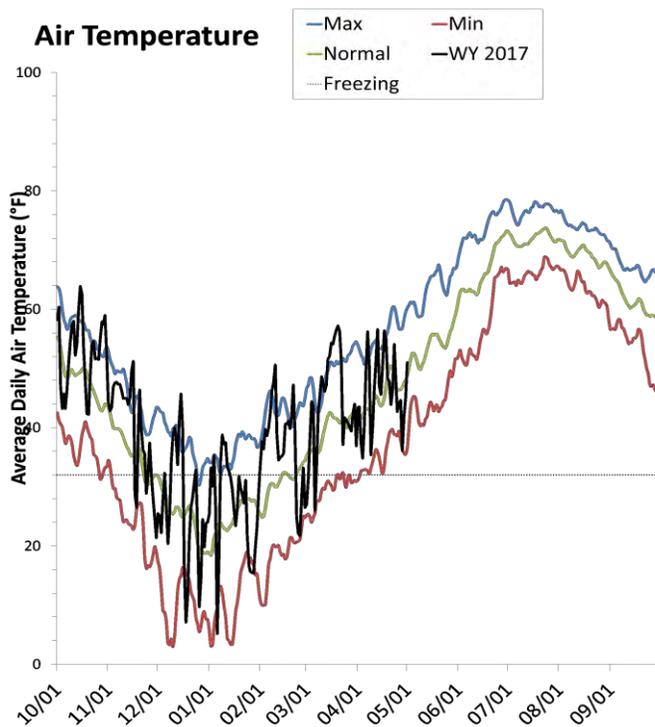
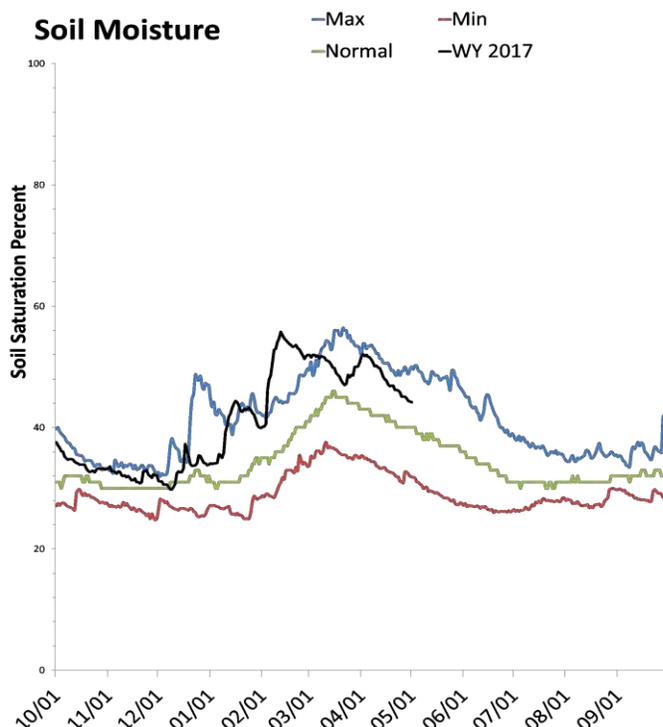
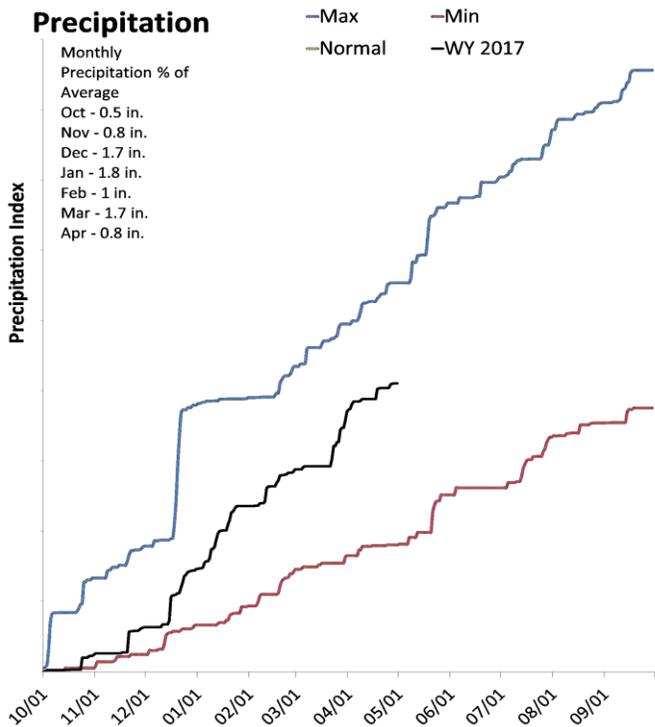
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

South Central

May 1, 2017

The average precipitation in April at SCAN sites within the basin was 0.8 inches, which brings the seasonal accumulation (Oct-Apr) to 8.2 inches. Soil moisture is at 41% compared to 46% last year.



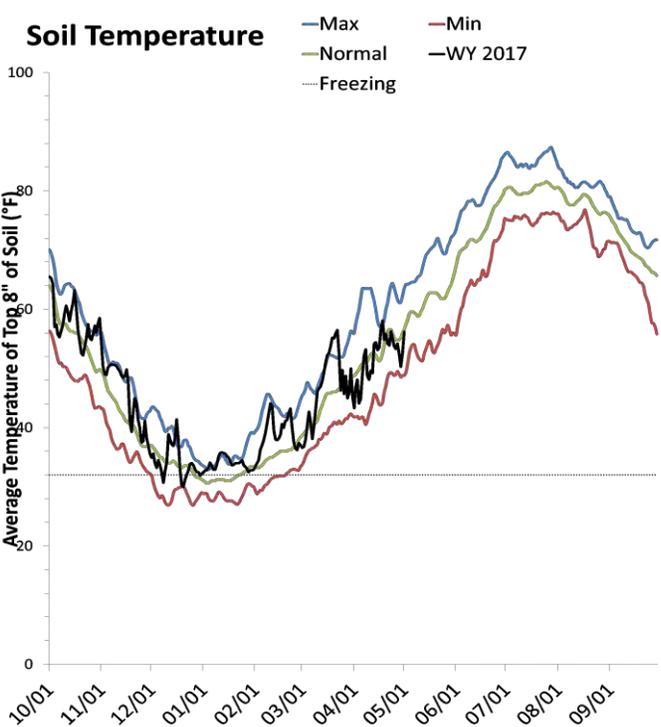
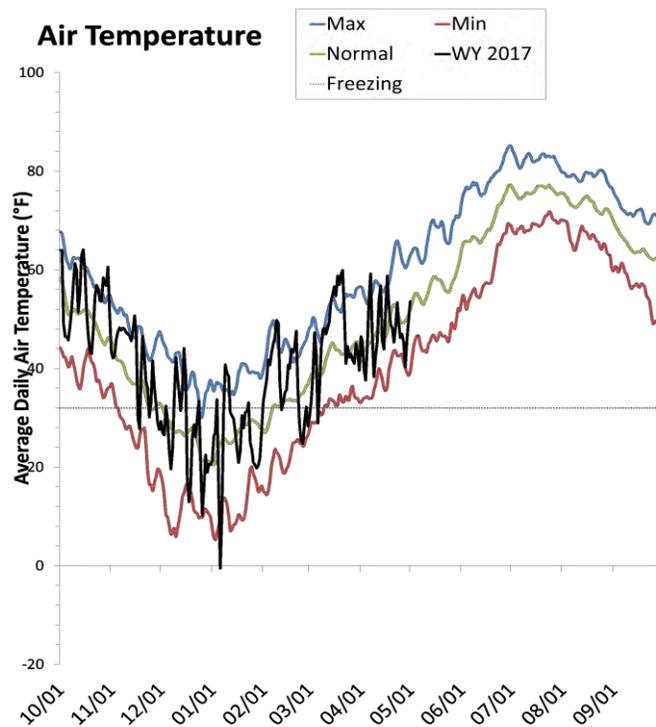
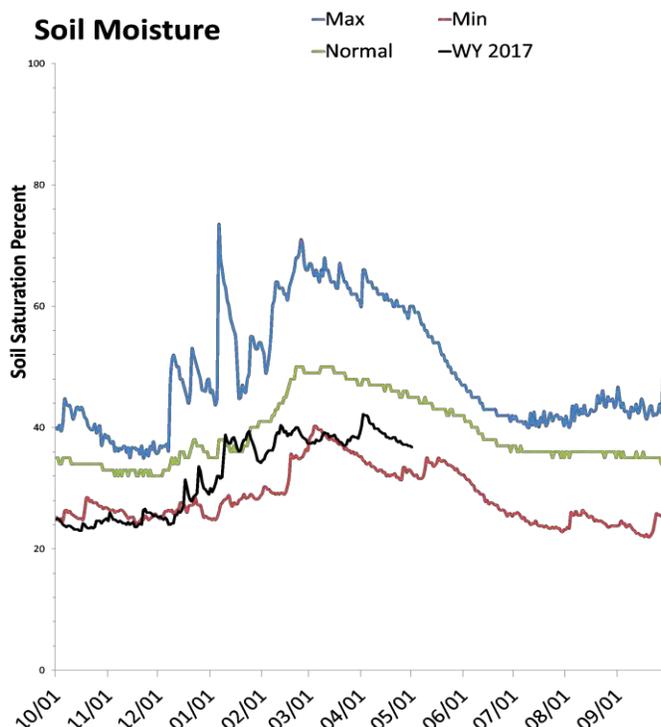
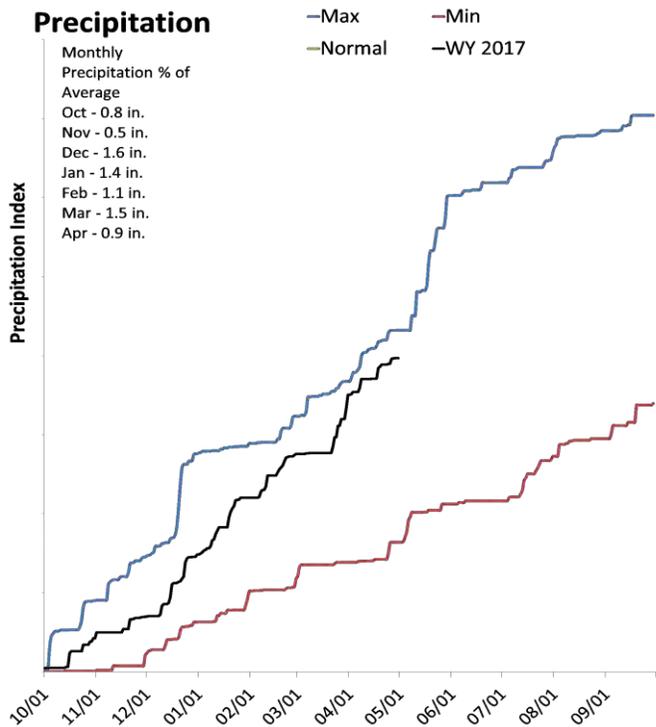
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Western and Dixie

May 1, 2017

The average precipitation in April at SCAN sites within the basin was 0.9 inches, which brings the seasonal accumulation (Oct-Apr) to 7.9 inches. Soil moisture is at 37% compared to 42% last year.



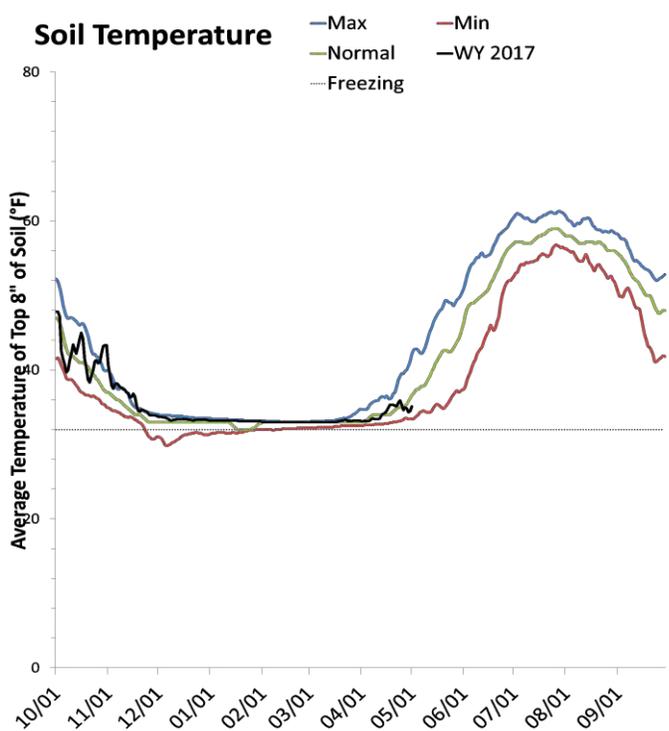
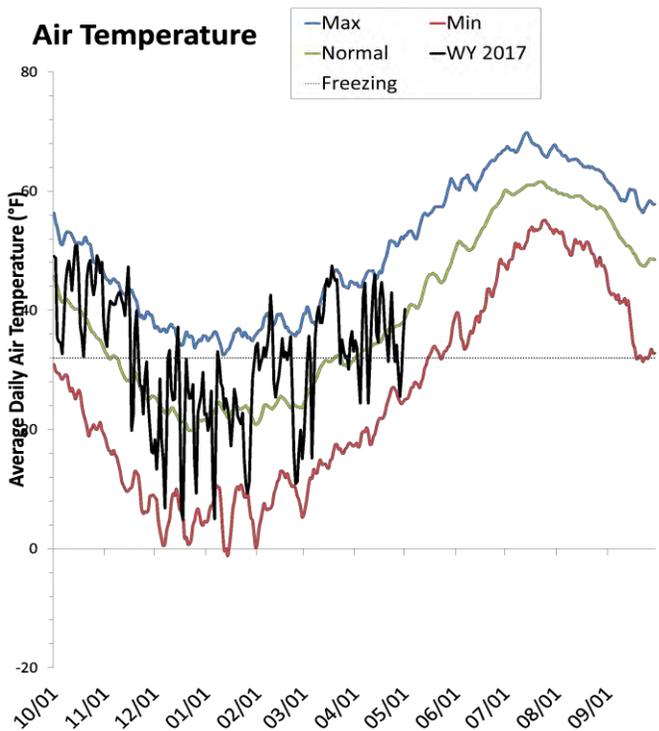
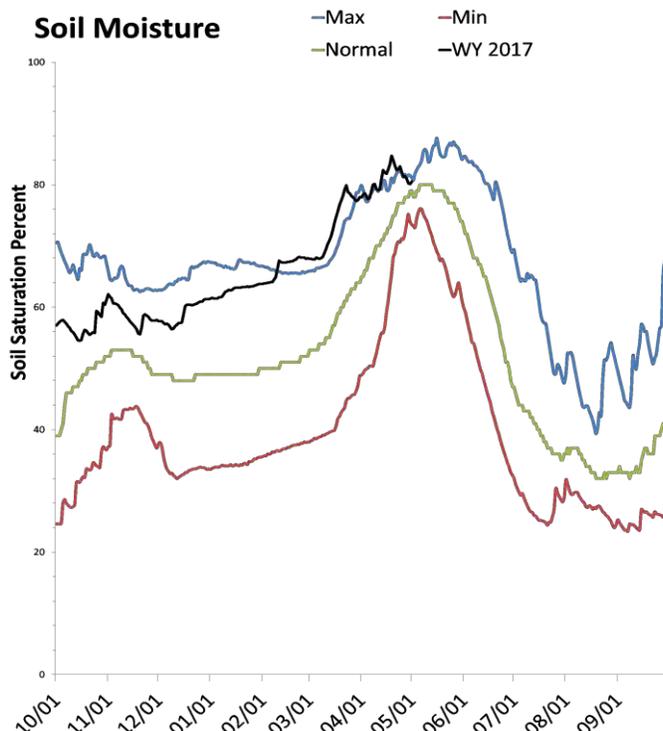
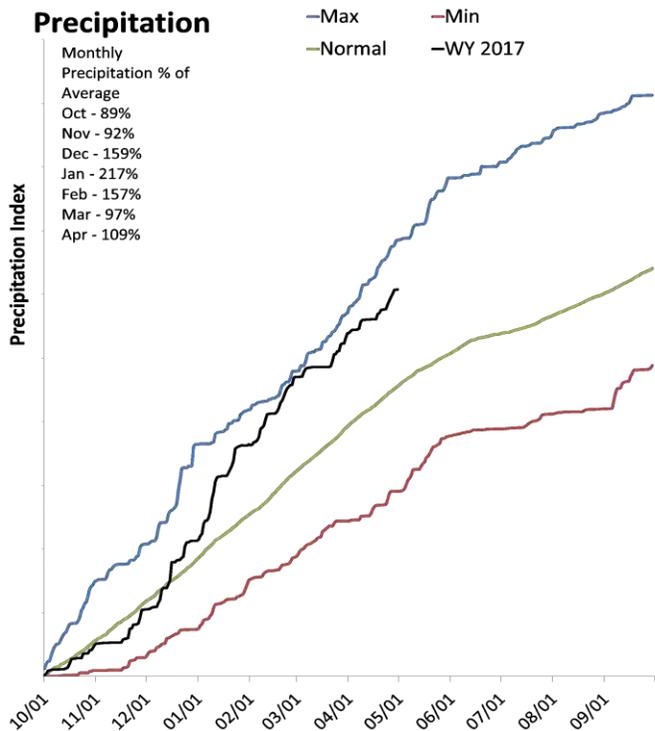
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Statewide SNOTEL

May 1, 2017

Precipitation at SNOTEL sites during April was above average at 110%, which brings the seasonal accumulation (Oct-Apr) to 135% of average. Soil moisture is at 80% compared to 76% last year. Reservoir storage is at 71% of capacity, compared to 61% last year.



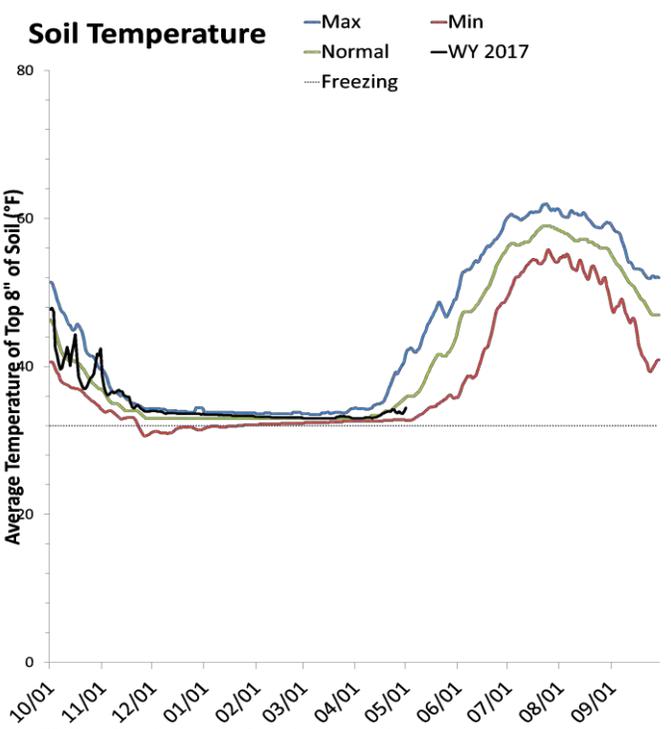
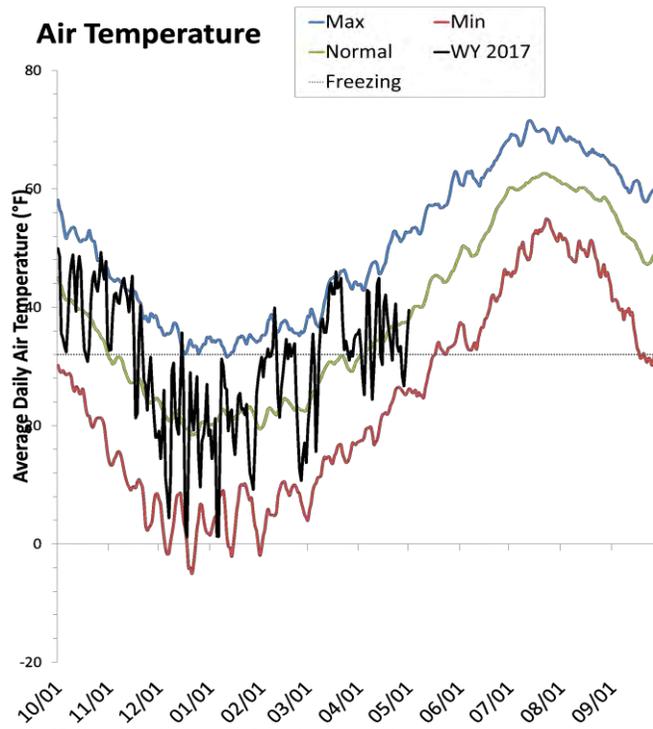
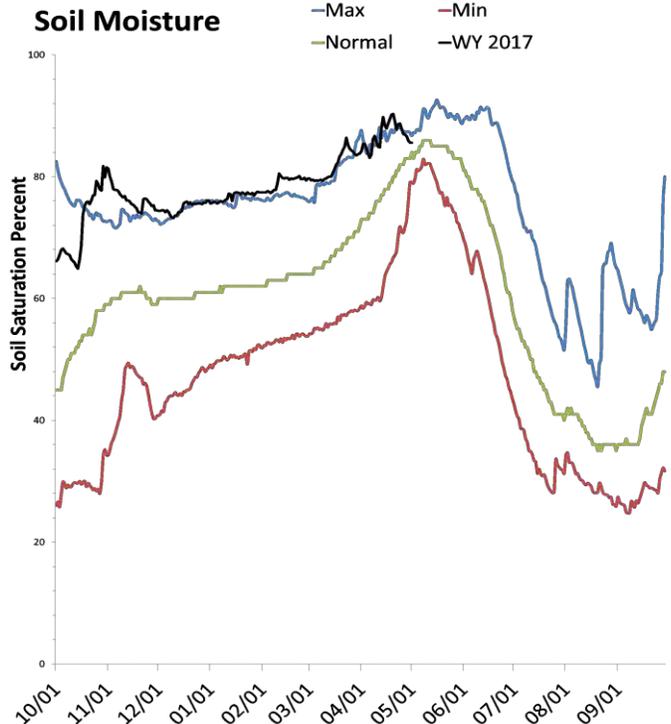
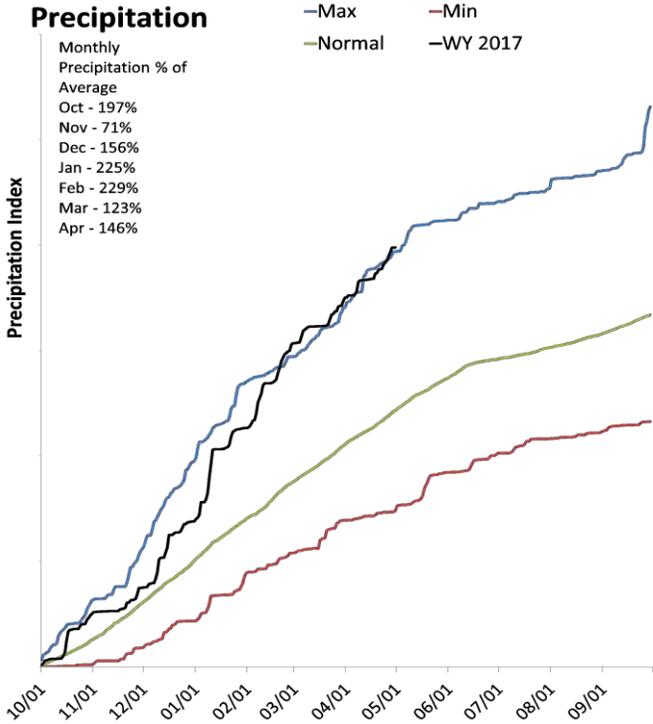
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Bear River Basin

May 1, 2017

Precipitation in April was much above average at 145%, which brings the seasonal accumulation (Oct-Apr) to 164% of average. Soil moisture is at 85% compared to 80% last year. Reservoir storage is at 69% of capacity, compared to 46% last year. The water availability index for the Bear River is 66%, 63% for Woodruff Narrows and 96% for the Little Bear.



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

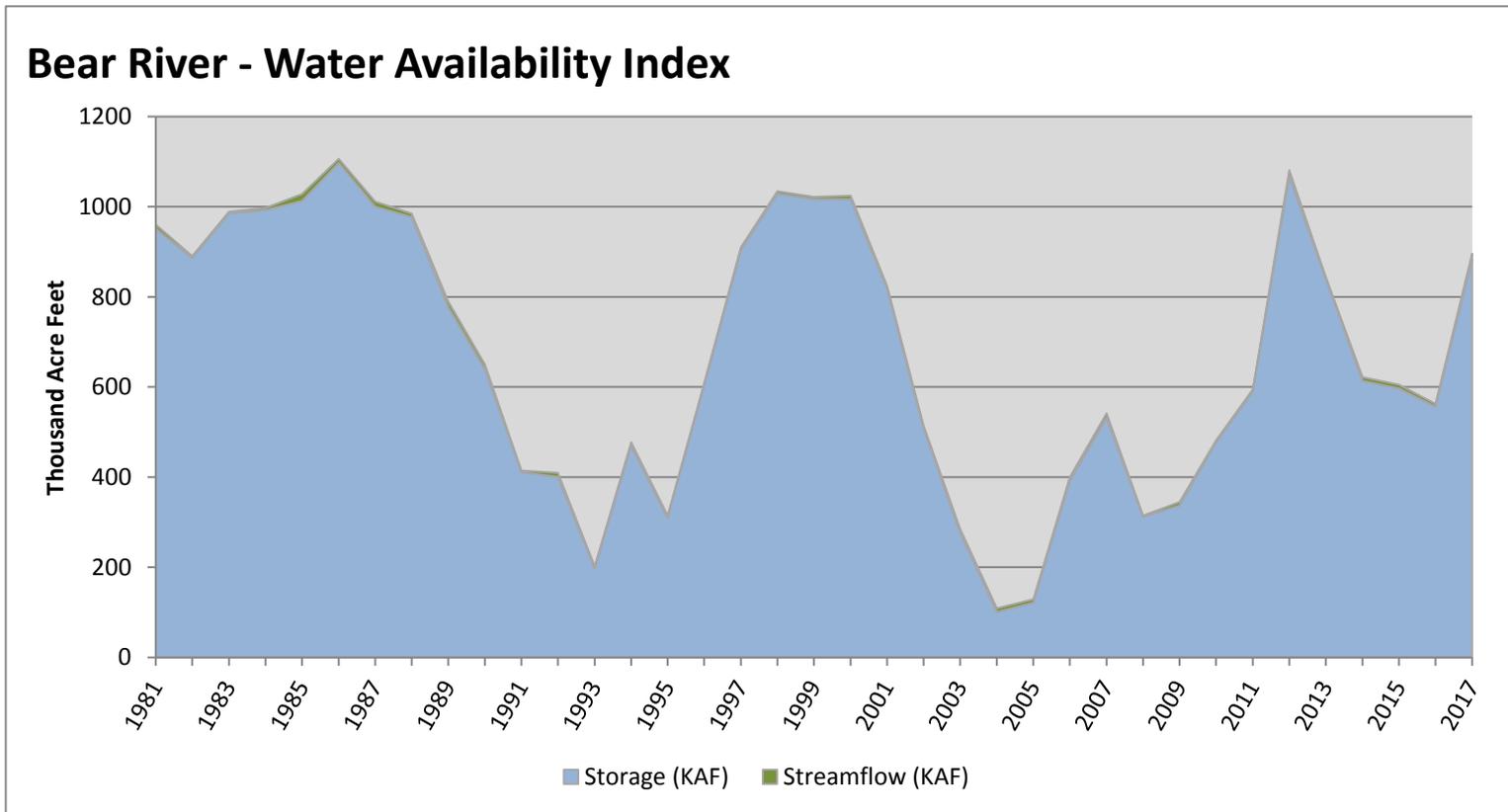
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Bear River	883.30	13.03	896.33	66	1.32	13, 82, 97, 81

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

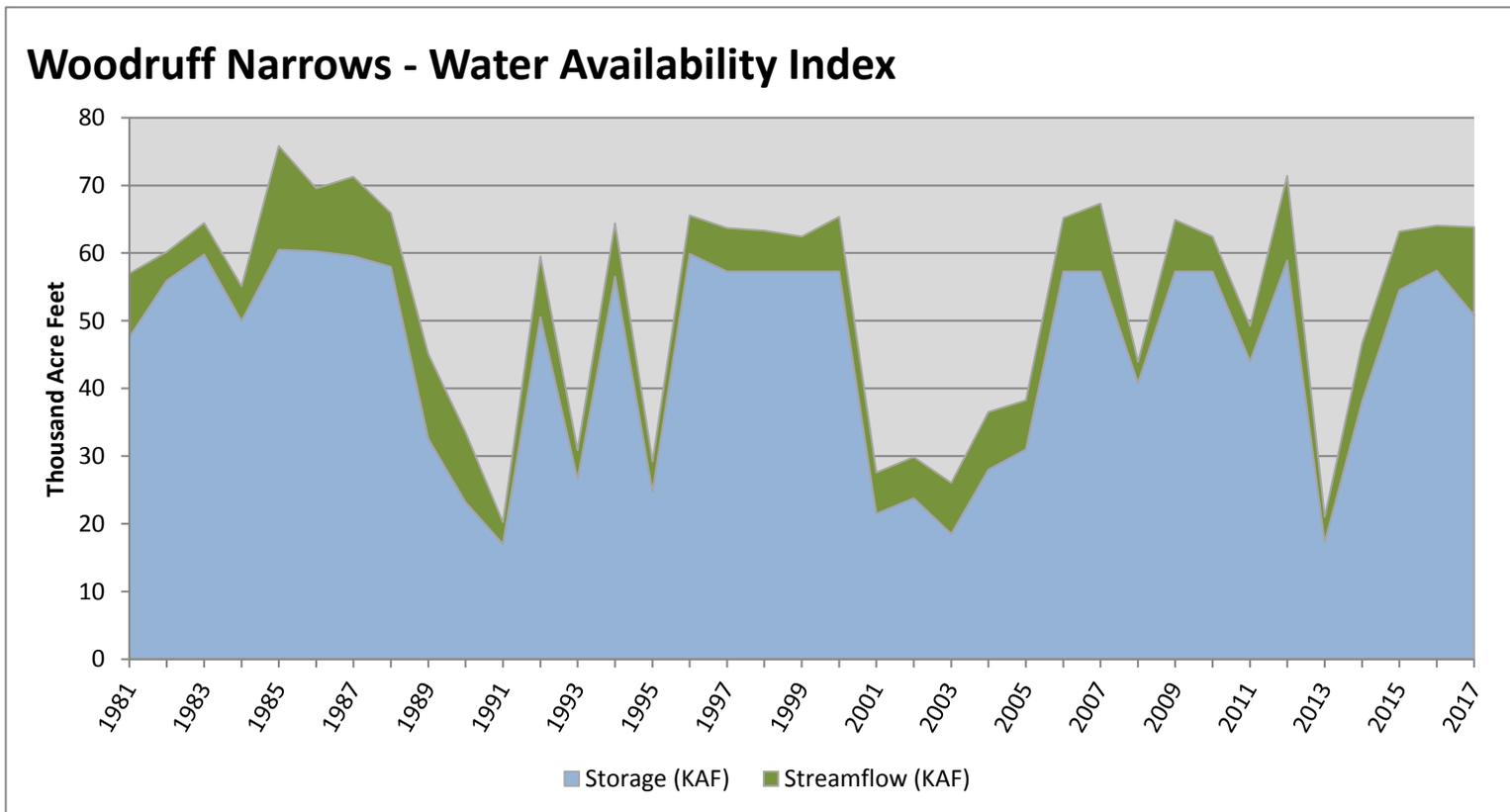


May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Woodruff Narrows	50.80	13.03	63.83	63	1.1	98, 97, 16, 94

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

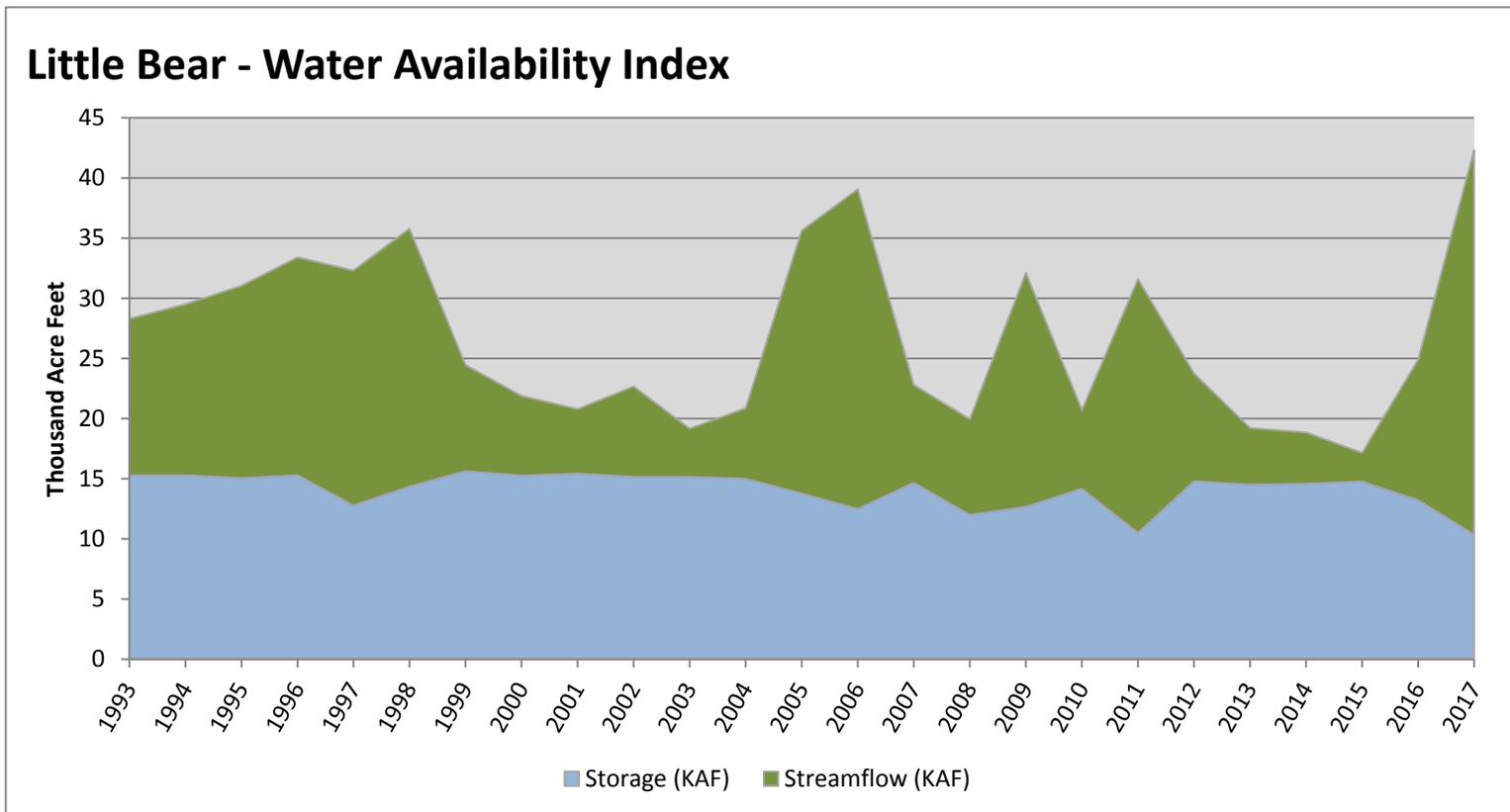


May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Little Bear	10.35	31.95	42.30	96	3.85	06, 98, 05, 96

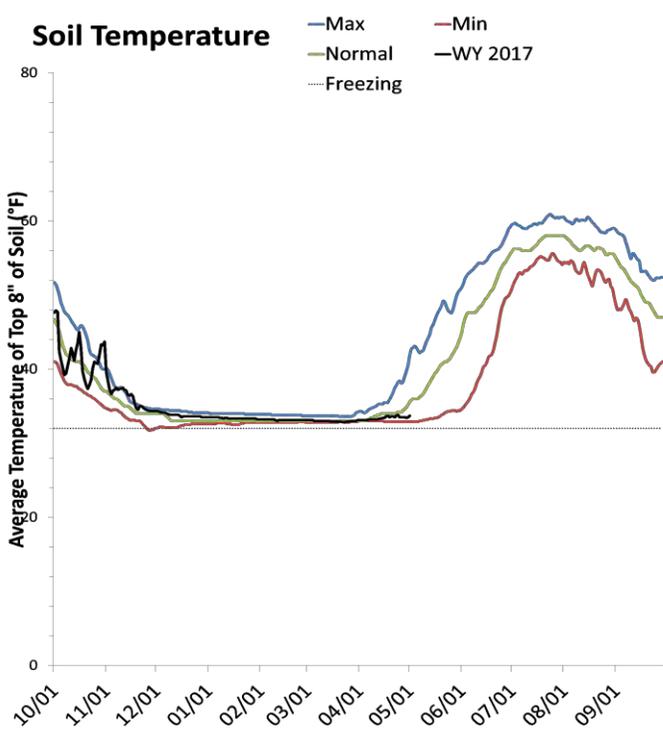
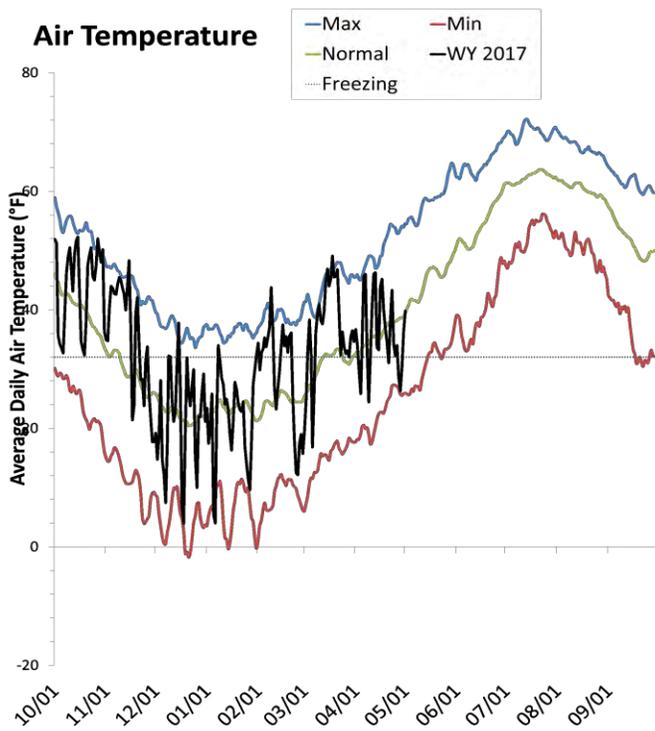
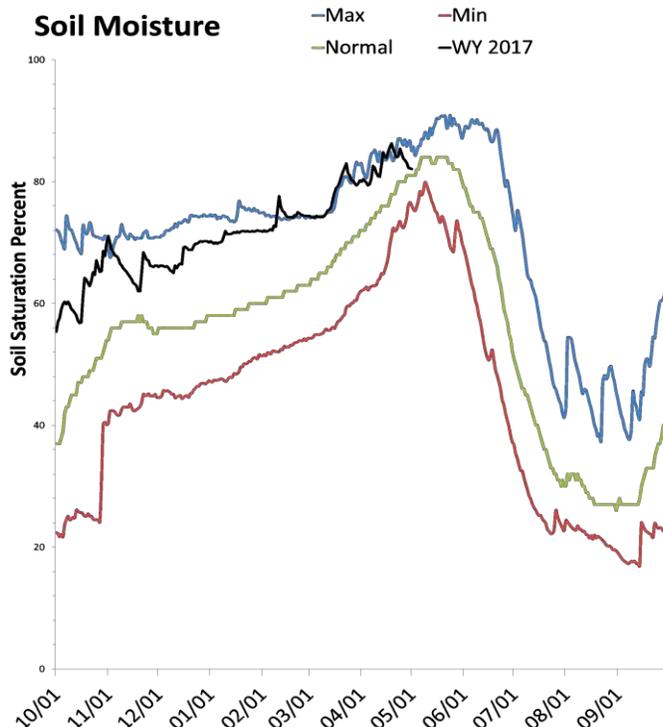
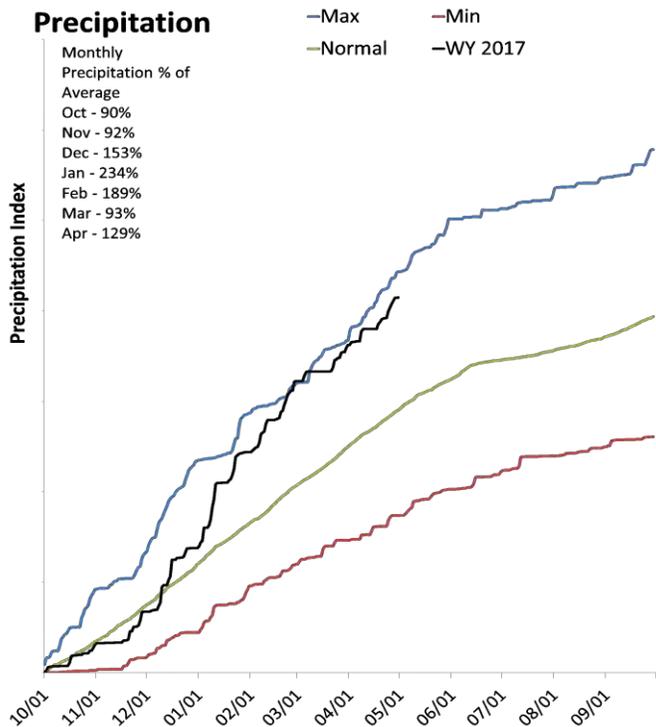
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Weber & Ogden River Basins

May 1, 2017

Precipitation in April was above average at 129%, which brings the seasonal accumulation (Oct-Apr) to 143% of average. Soil moisture is at 82% compared to 75% last year. Reservoir storage is at 77% of capacity, compared to 74% last year. The water availability index for the Ogden River is 68% and 71% for the Weber River.



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

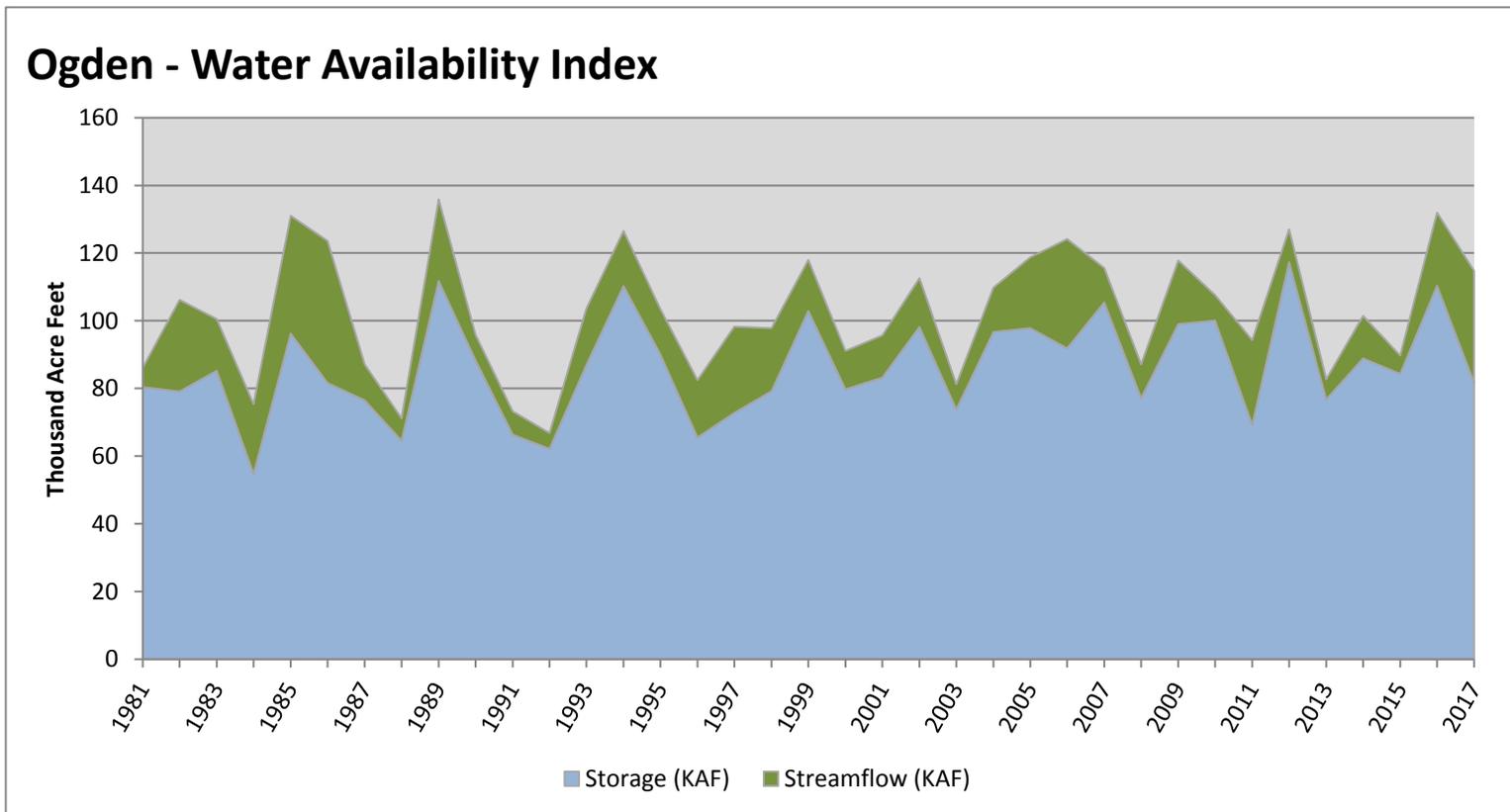
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Ogden	81.74	33.02	114.76	68	1.54	04, 02, 07, 09

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

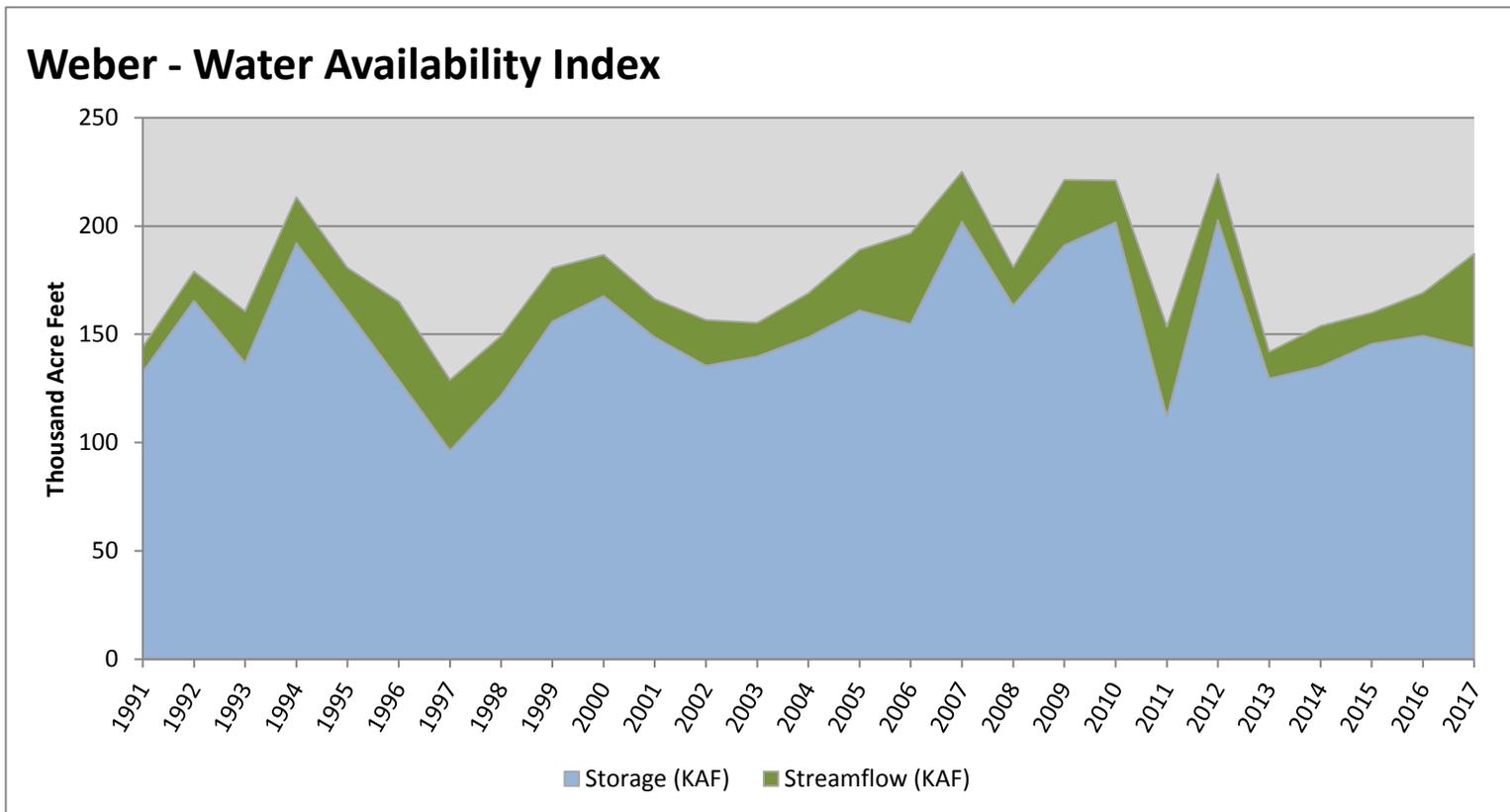


May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Weber	143.58	43.57	187.15	71	1.79	08, 00, 05, 06

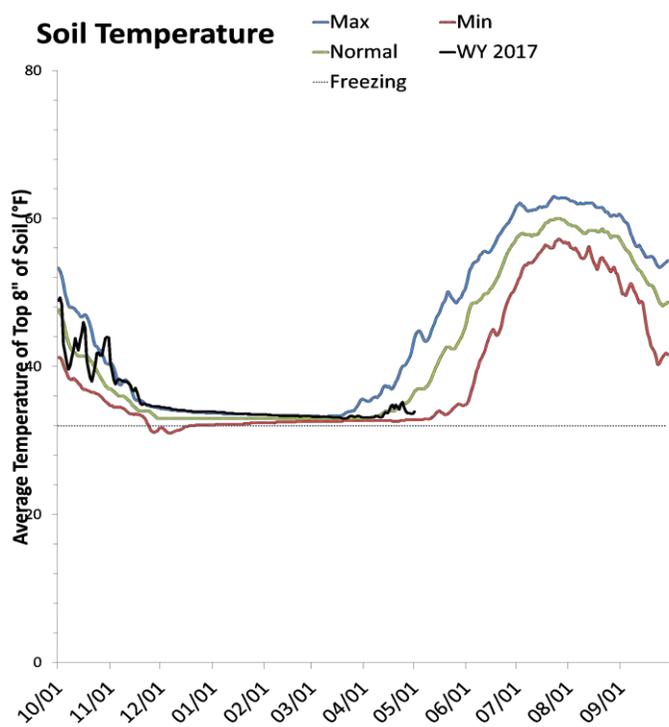
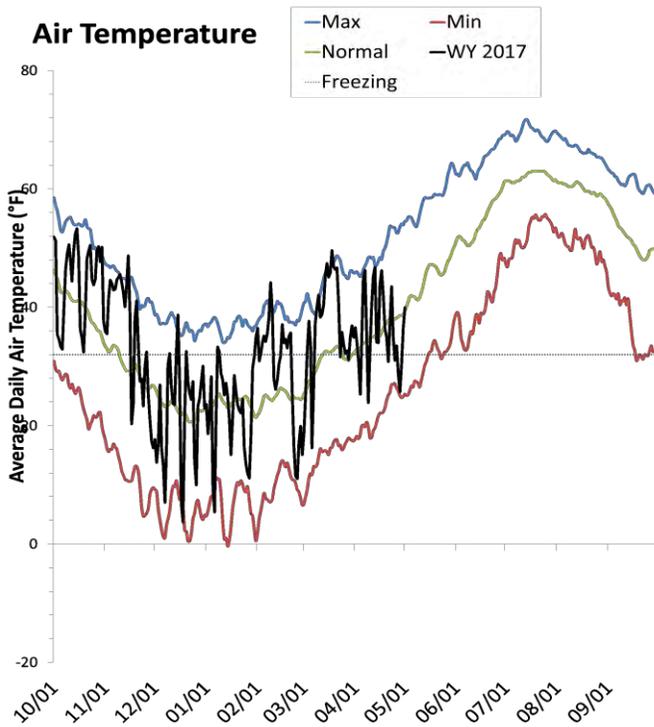
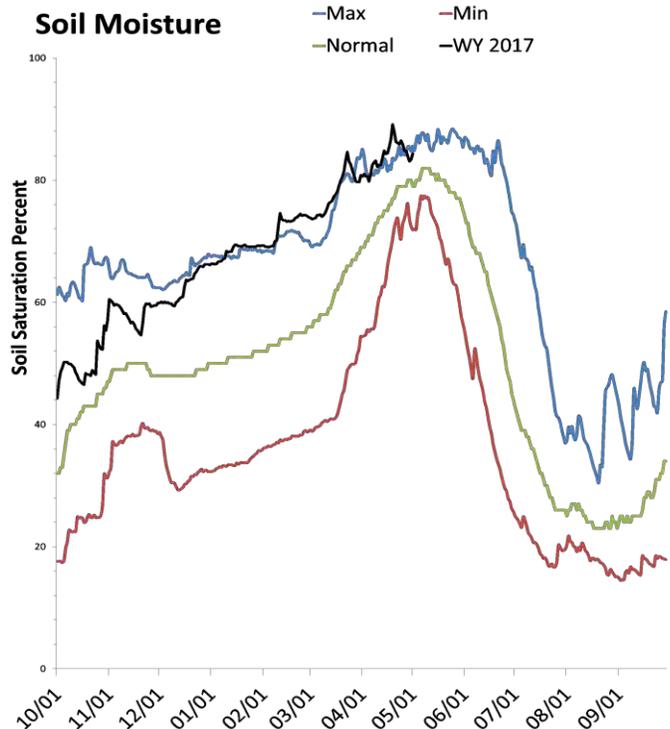
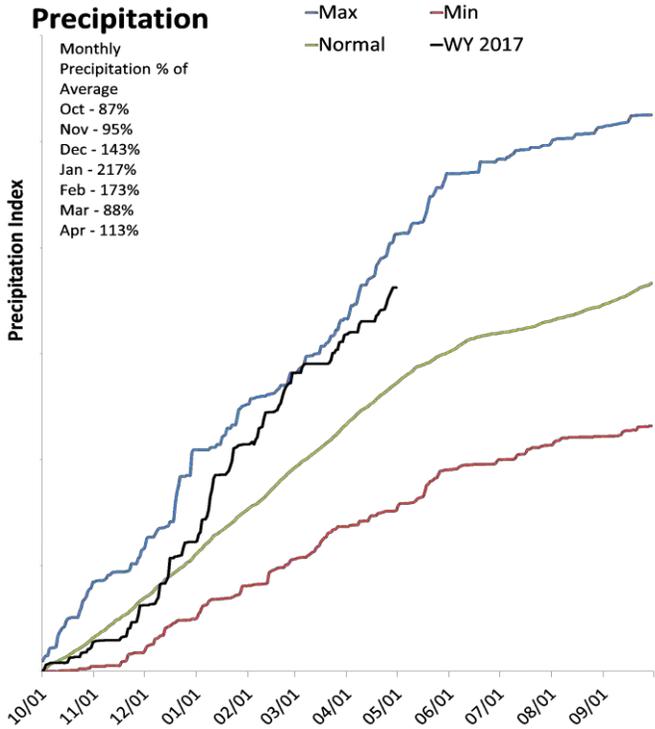
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Provo & Jordan River Basins

May 1, 2017

Precipitation in April was above average at 113%, which brings the seasonal accumulation (Oct-Apr) to 133% of average. Soil moisture is at 83% compared to 73% last year. Reservoir storage is at 75% of capacity, compared to 66% last year. The water availability index for the Provo River is 91%.



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

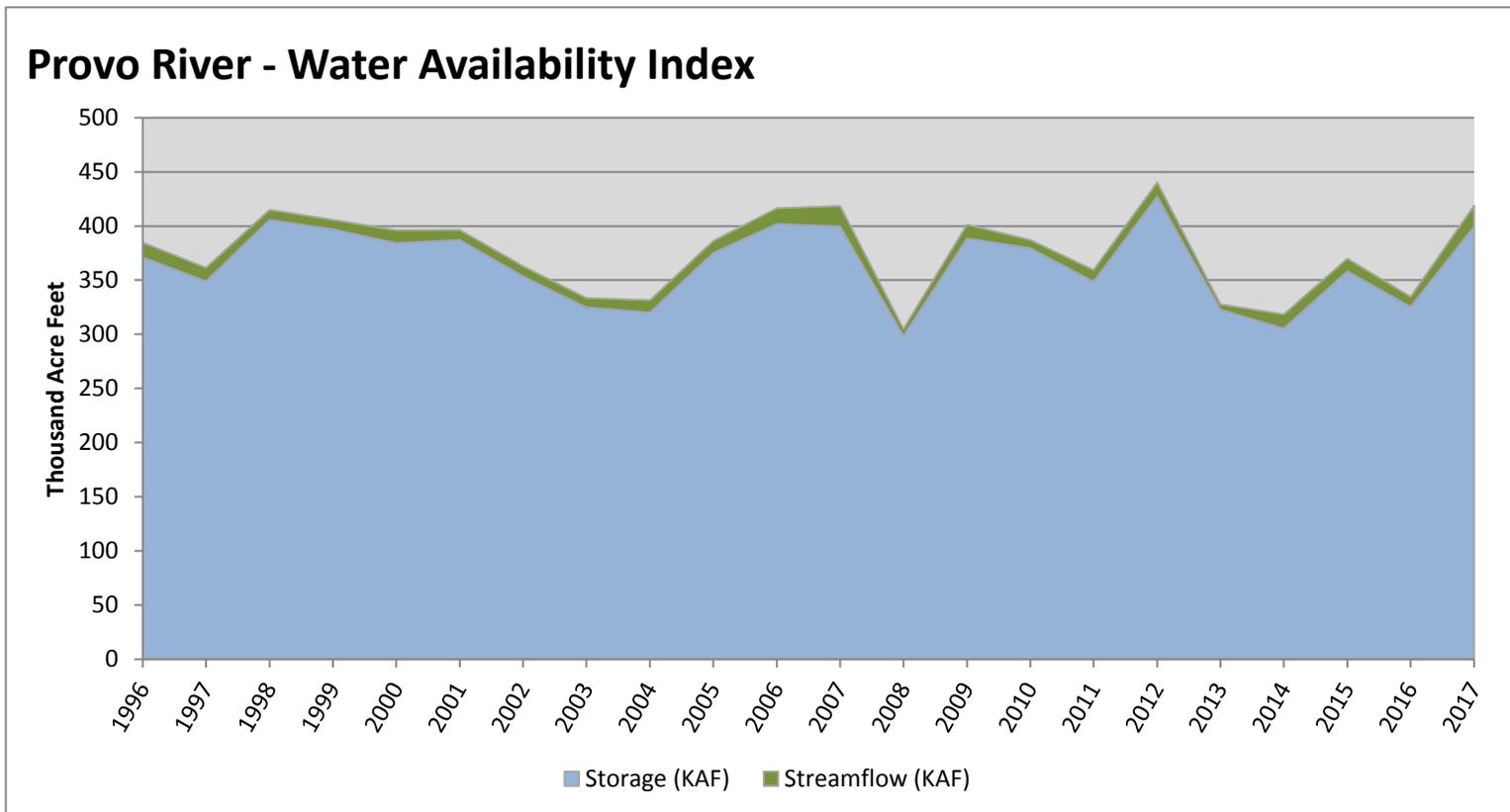
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Provo River	399.69	19.03	418.72	91	3.44	12, 07, 06, 98

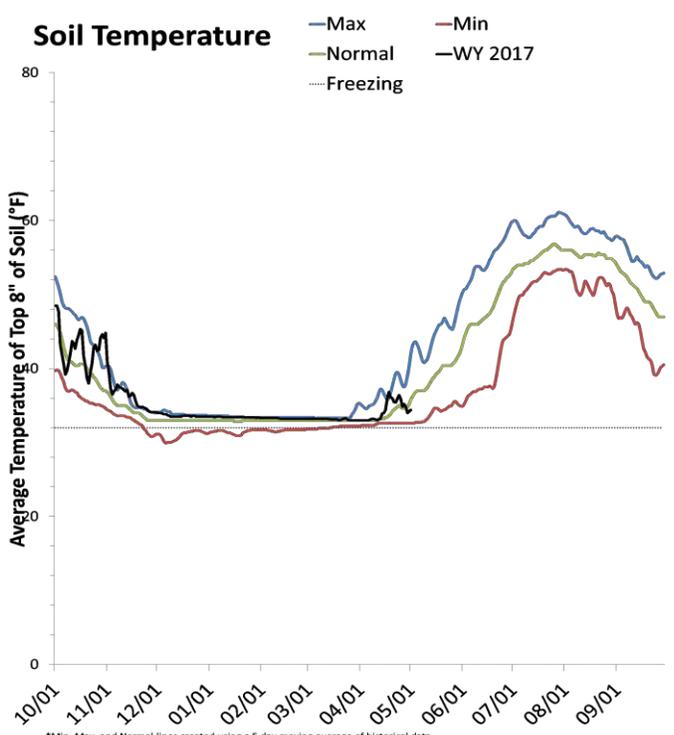
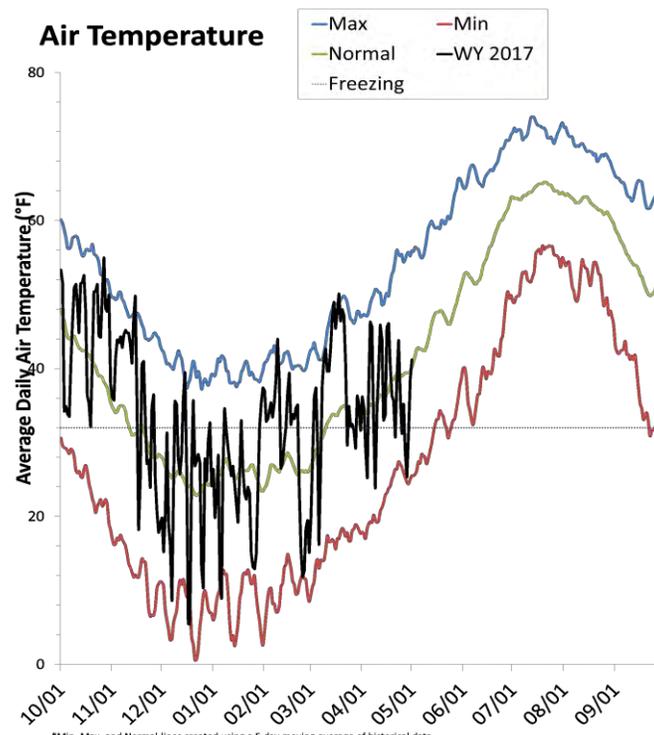
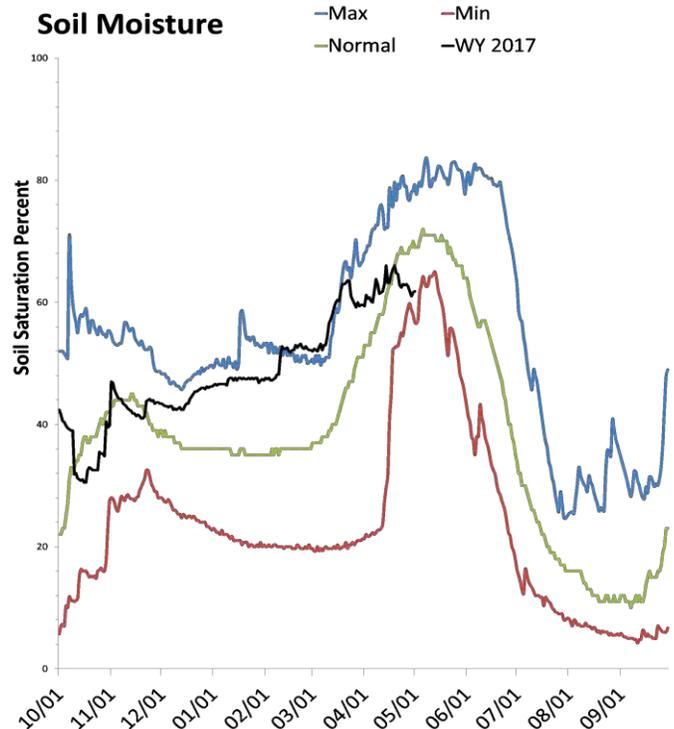
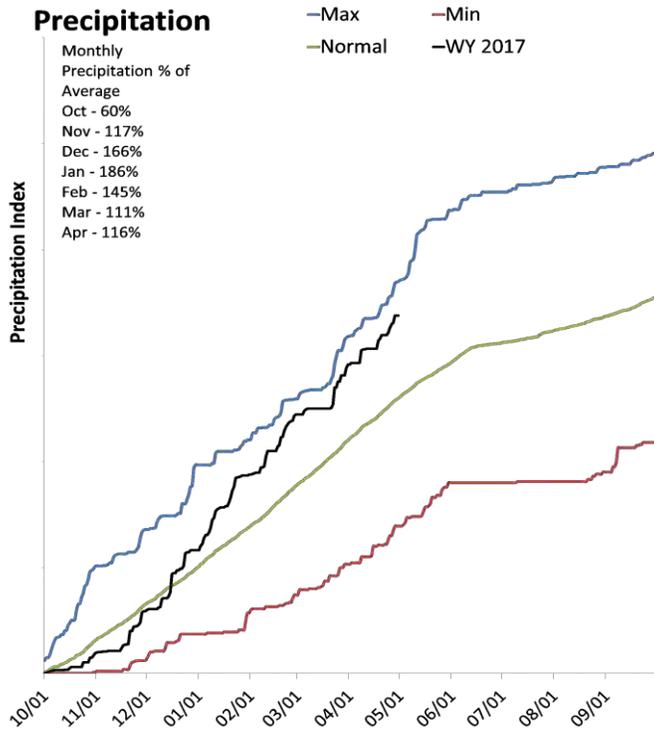
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Tooele Valley & West Desert Basins

May 1, 2017

Precipitation in April was above average at 116%, which brings the seasonal accumulation (Oct-Apr) to 130% of average. Soil moisture is at 62% compared to 50% last year. Reservoir storage is at 96% of capacity, compared to 83% last year.



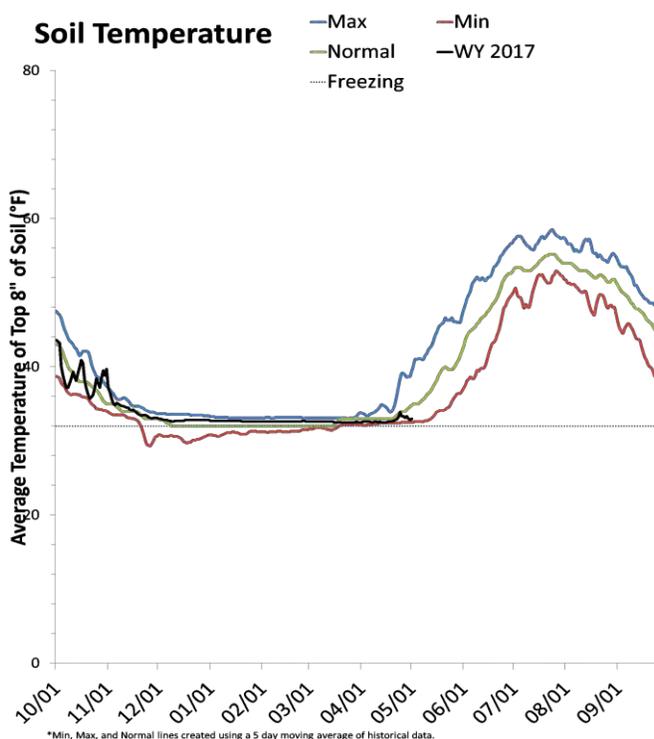
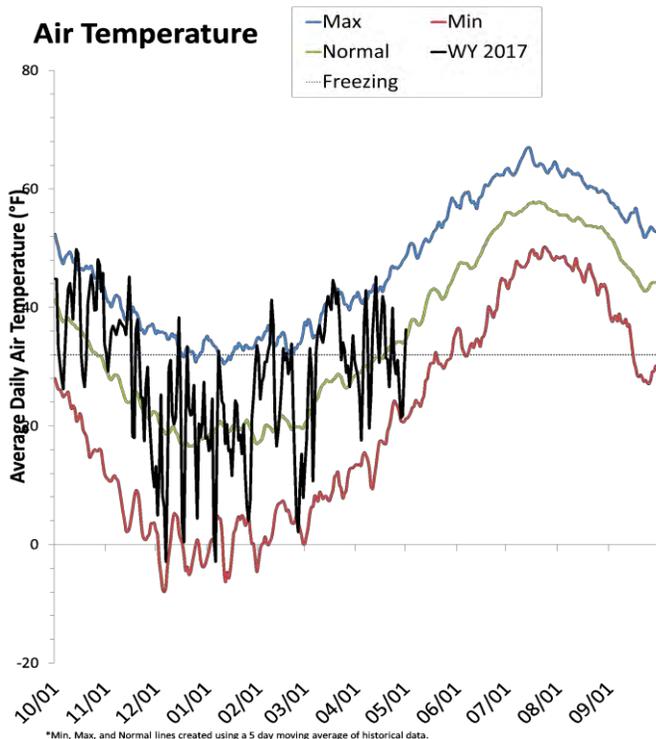
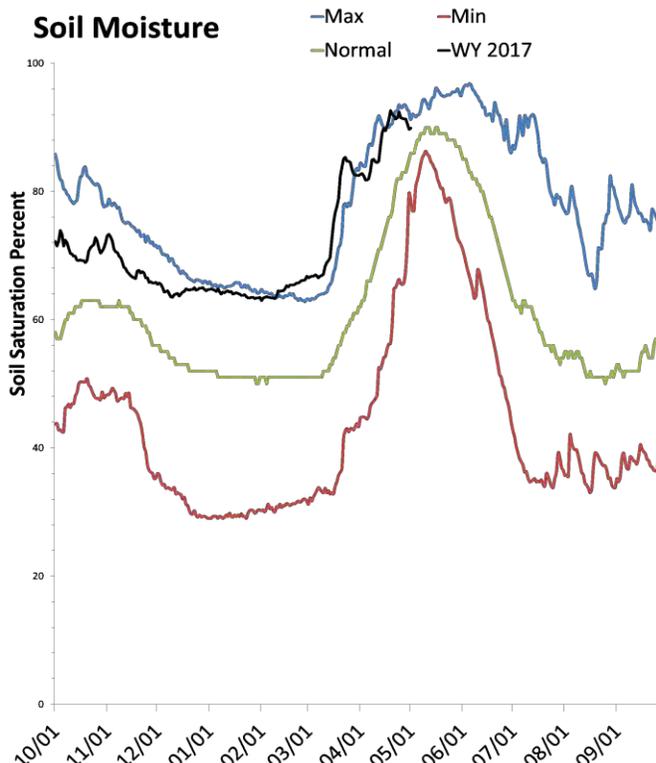
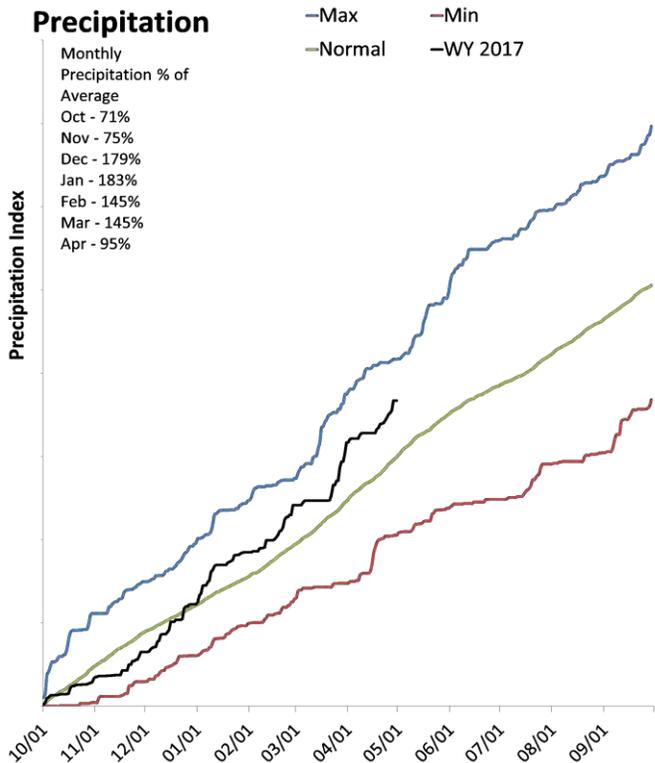
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Northeastern Uinta Basin

May 1, 2017

Precipitation in April was near average at 96%, which brings the seasonal accumulation (Oct-Apr) to 123% of average. Soil moisture is at 89% compared to 83% last year. Reservoir storage is at 82% of capacity, compared to 85% last year. The water availability index for Blacks Fork is 86% and 85% for Smiths Creek.



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

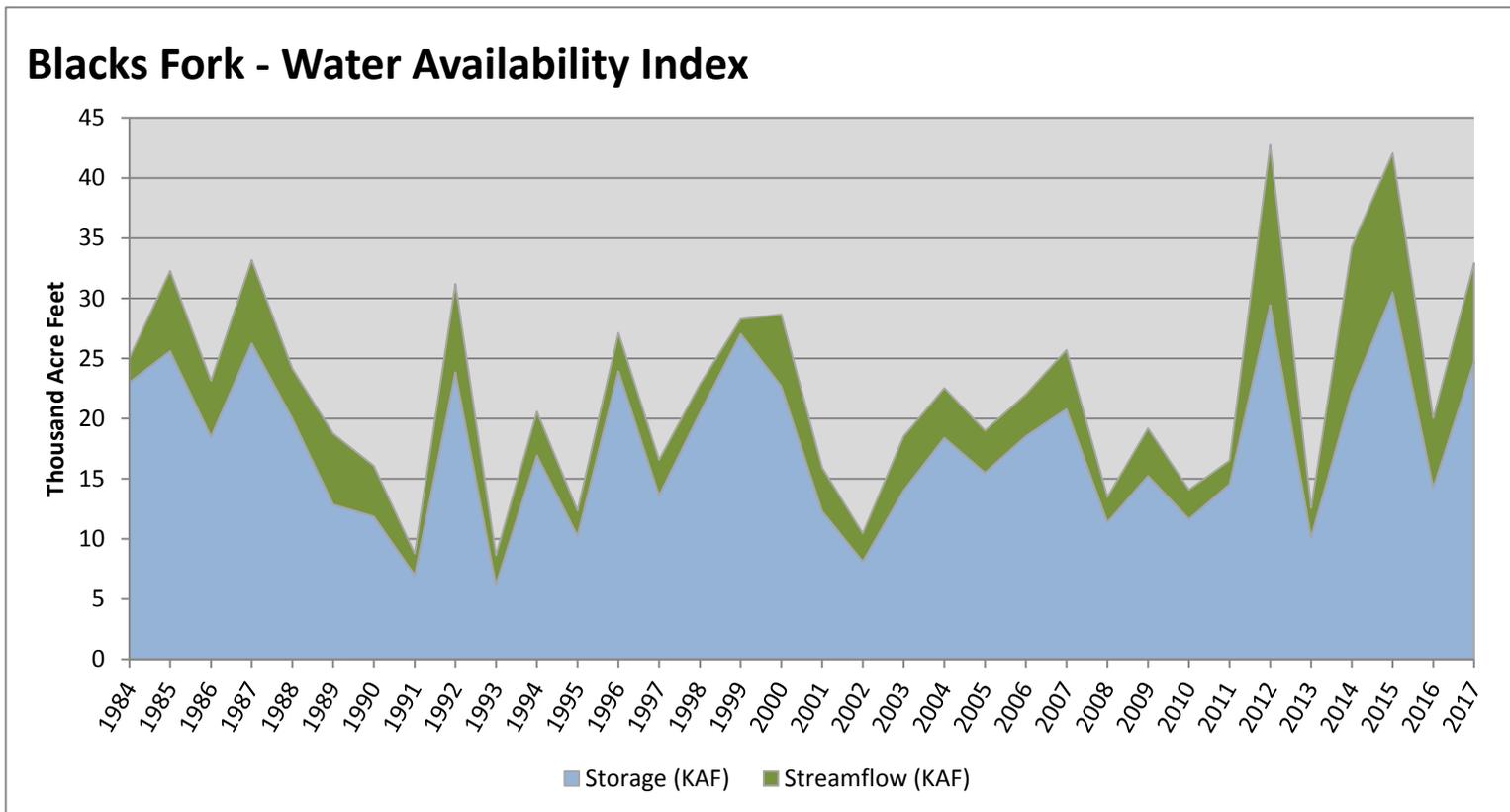
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [^] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Blacks Fork	24.70	8.23	32.93	86	2.98	92, 85, 87, 14

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

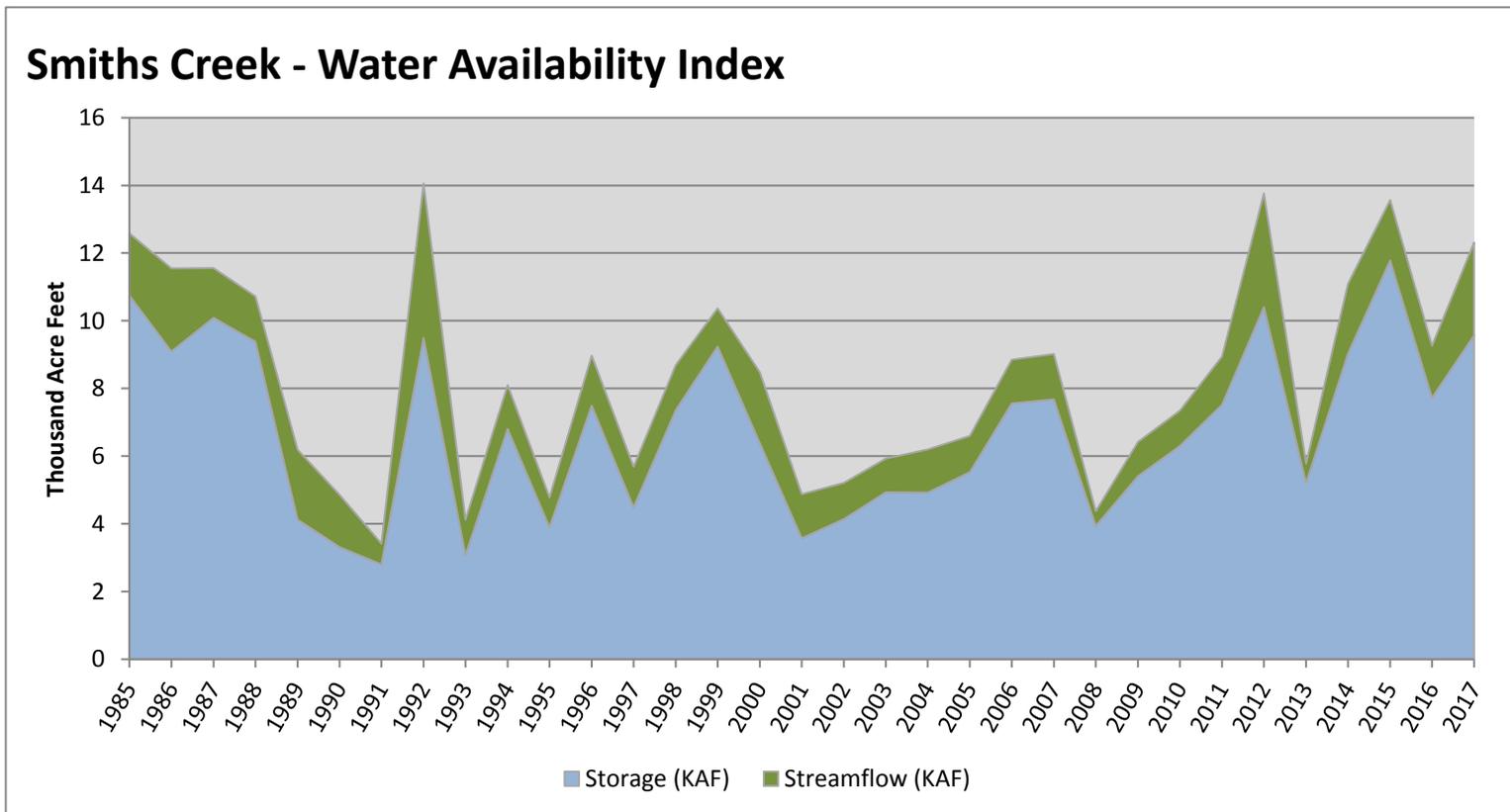


May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Smiths Creek	9.57	2.74	12.31	85	2.94	86, 87, 85, 15

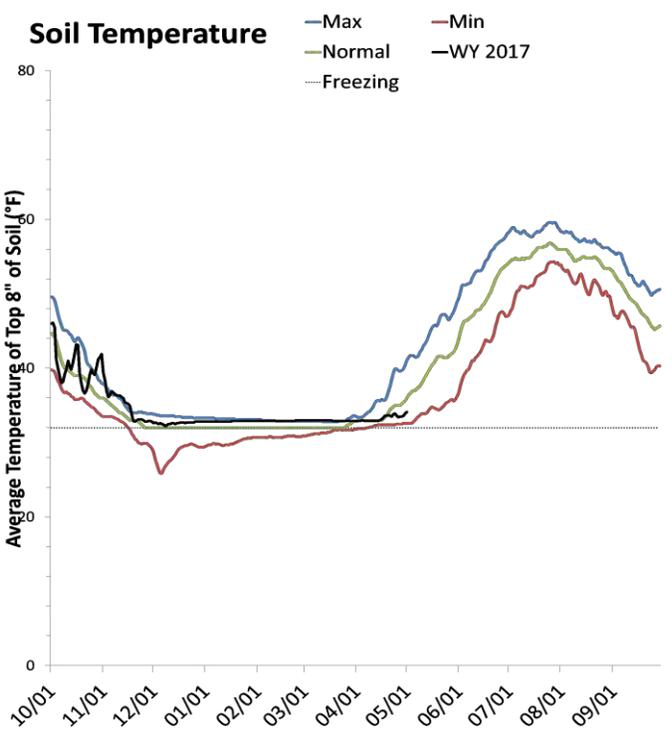
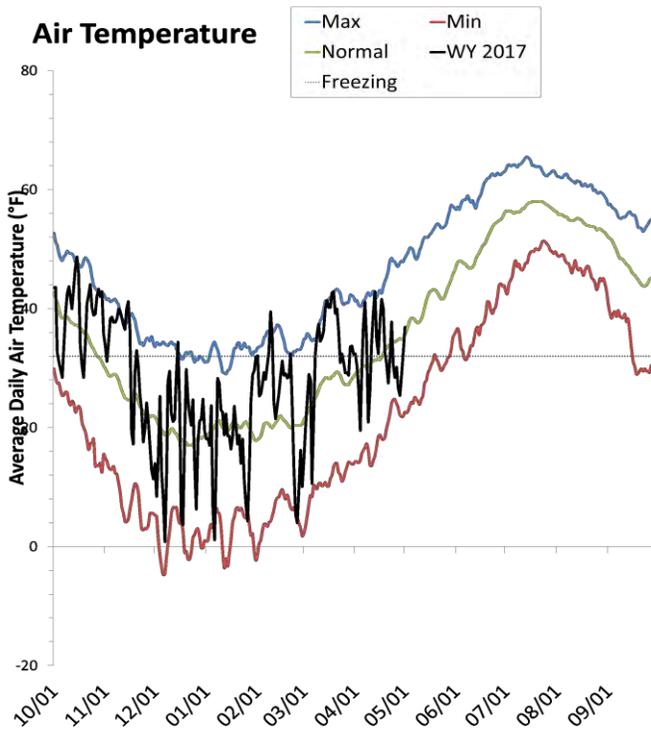
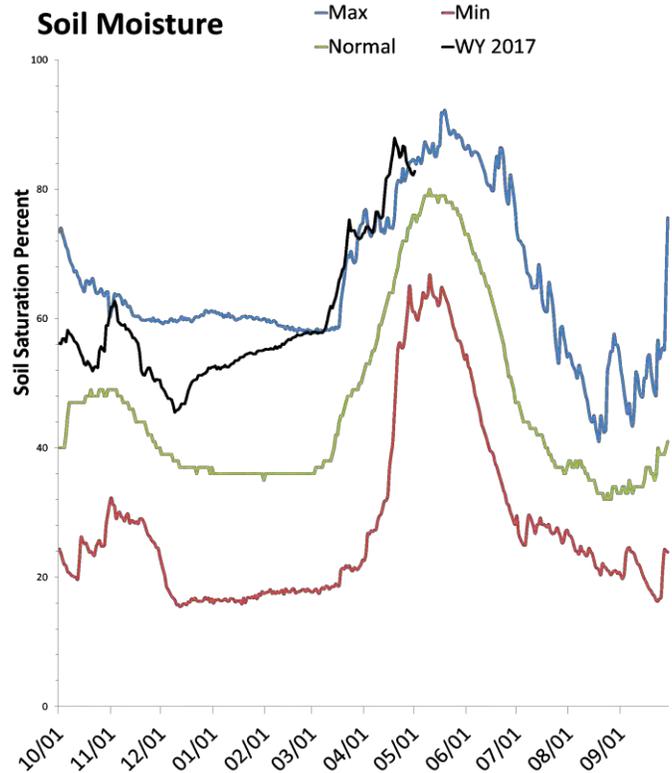
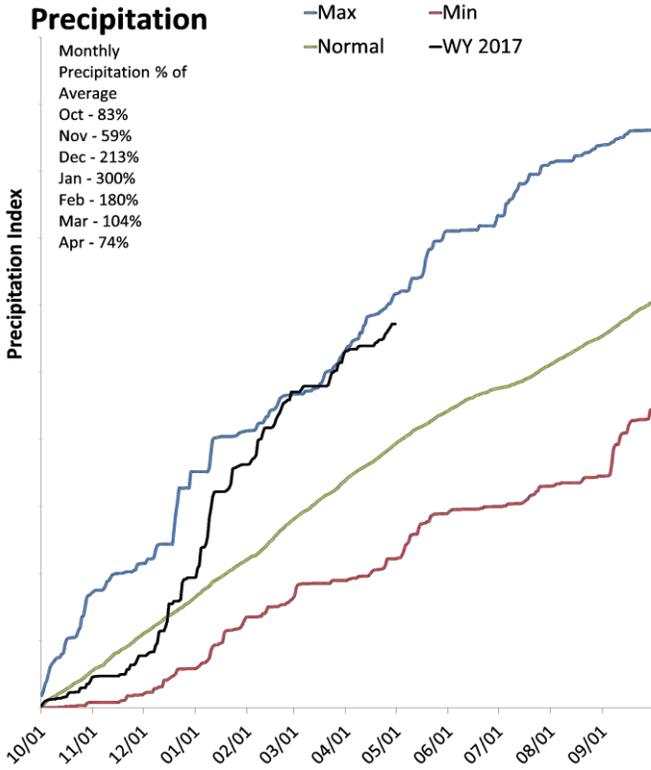
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Duchesne River Basin

May 1, 2017

Precipitation in April was below average at 74%, which brings the seasonal accumulation (Oct-Apr) to 146% of average. Soil moisture is at 82% compared to 76% last year. Reservoir storage is at 76% of capacity, compared to 74% last year. The water availability index for the Western Uintas is 16% and 58% for the Eastern Uintas.



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

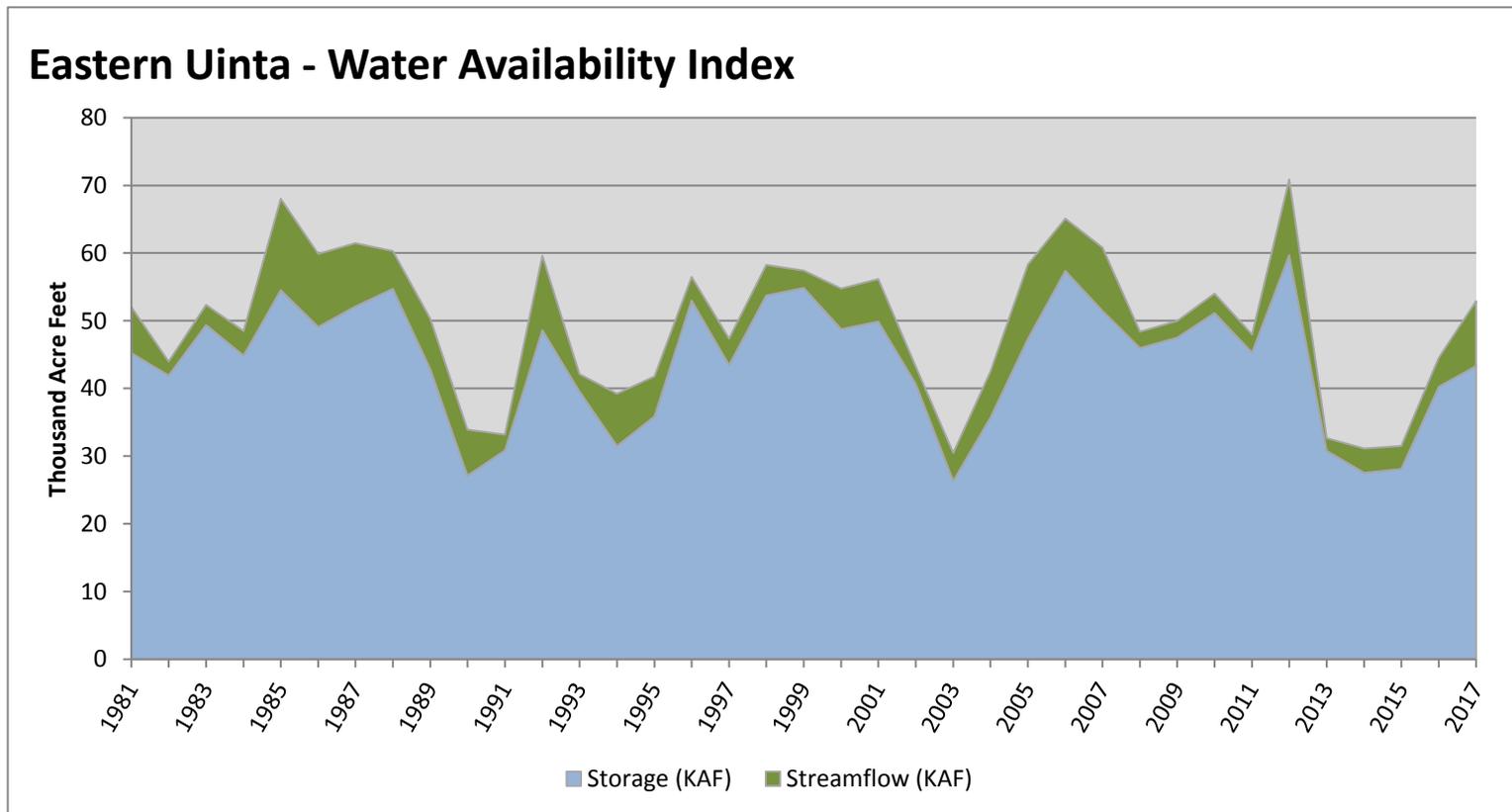
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Eastern Uinta	43.32	9.57	52.89	58	0.66	81, 83, 10, 00

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

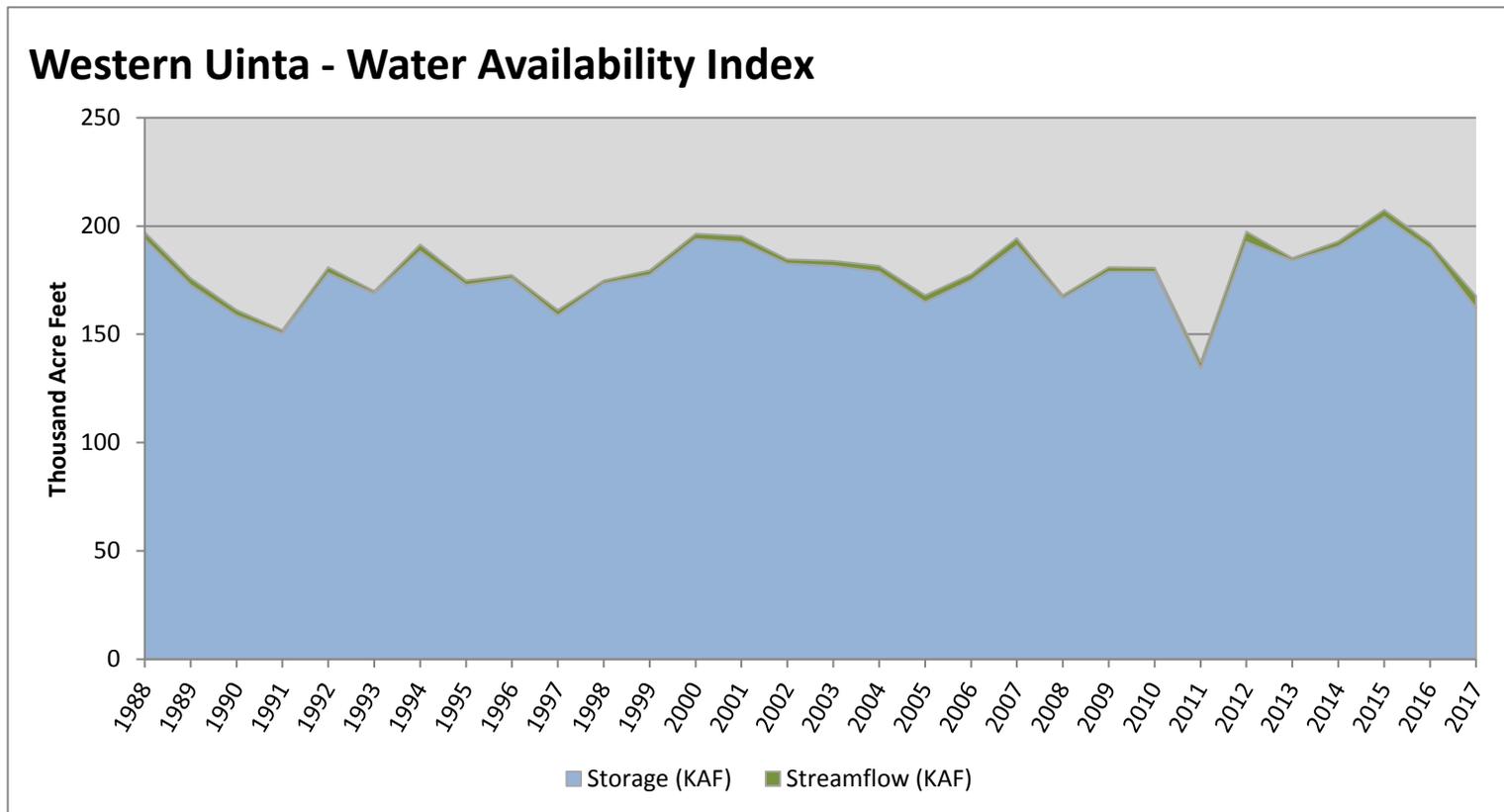


May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Western Uinta	162.11	5.76	167.87	16	-2.82	97, 90, 05, 08

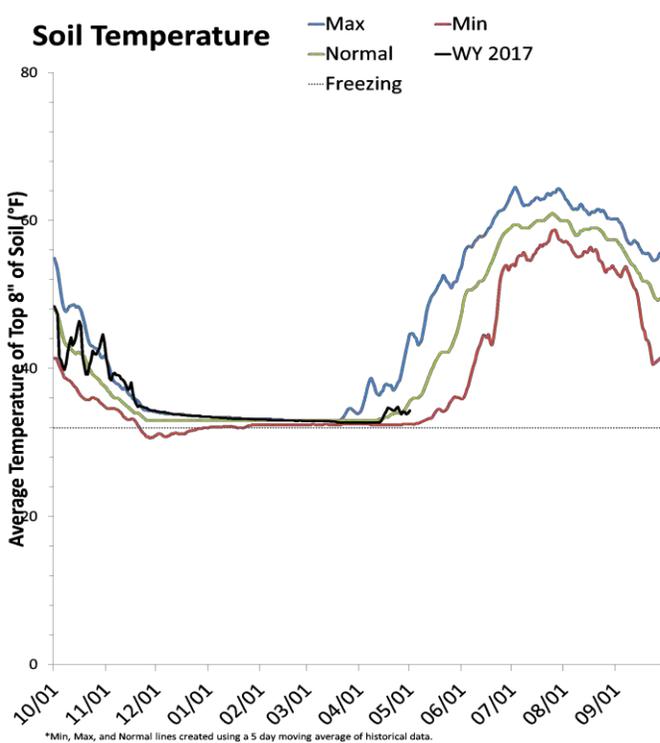
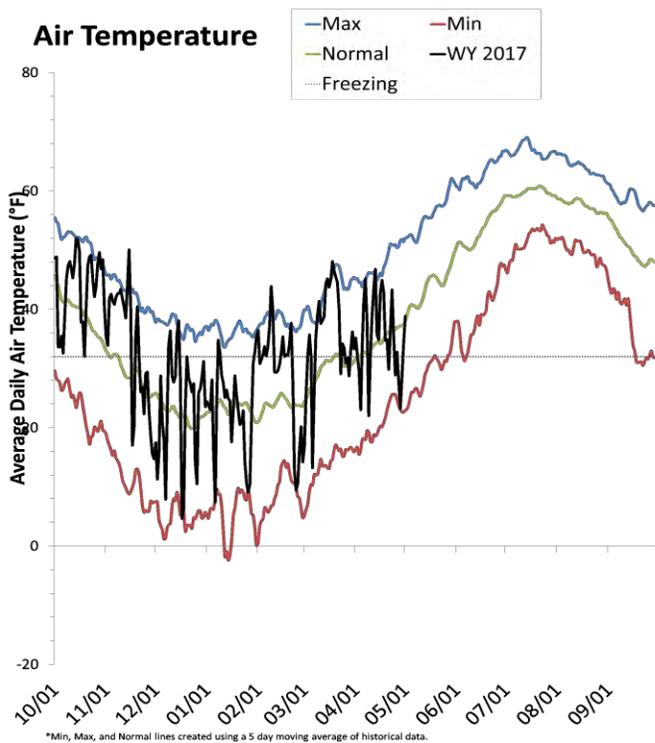
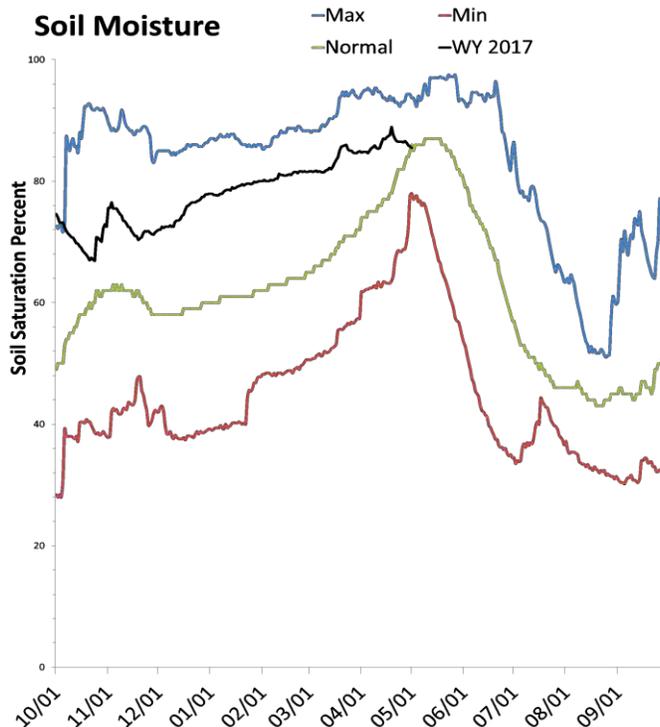
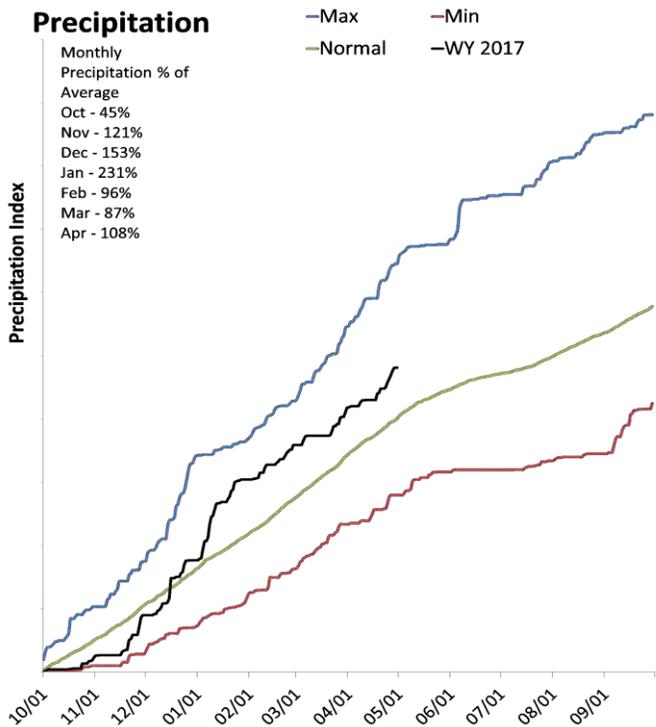
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



San Pitch River Basin

May 1, 2017

Precipitation in April was near average at 109%, which brings the seasonal accumulation (Oct-Apr) to 120% of average. Soil Moisture is at 86% compared to 83% last year. Reservoir storage is at 22% of capacity, compared to 5% last year. The water availability index for the San Pitch is 21%.



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

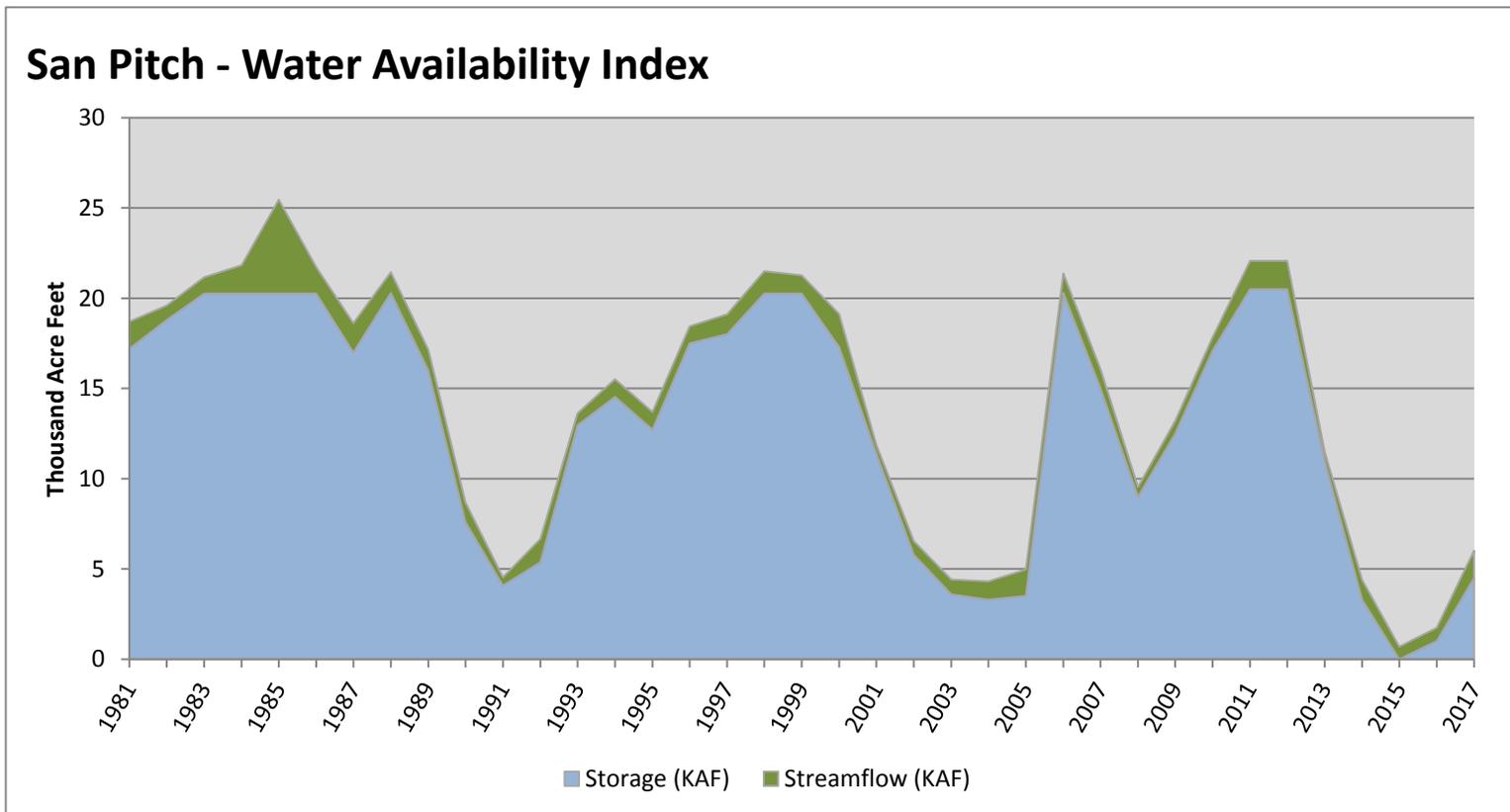
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
San Pitch	4.50	1.52	6.02	21	-2.41	91, 05, 02, 92

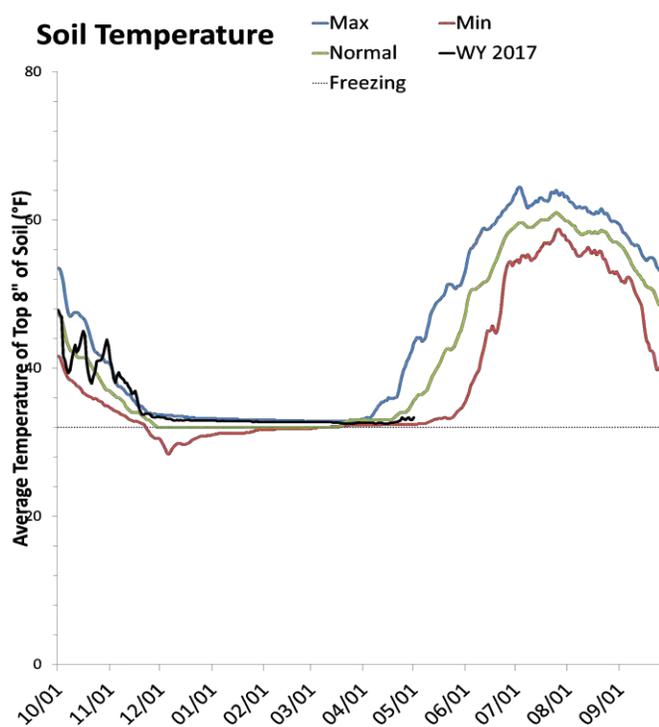
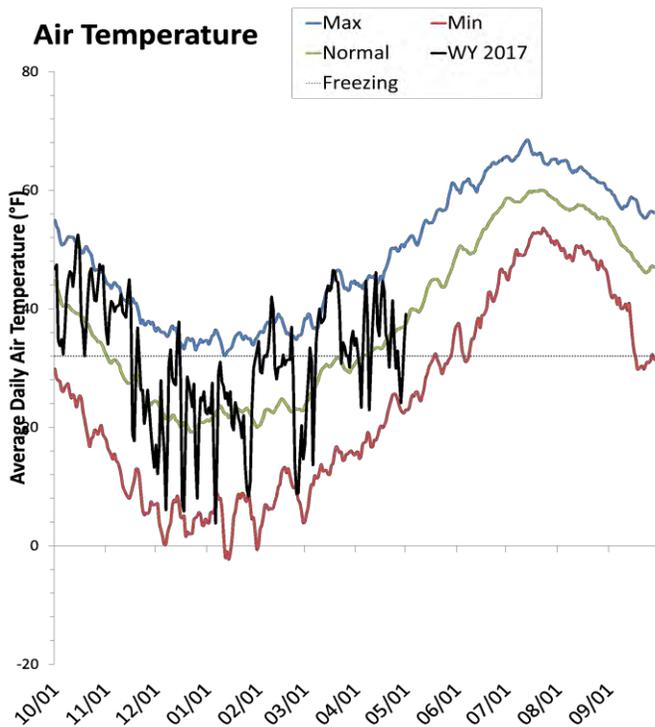
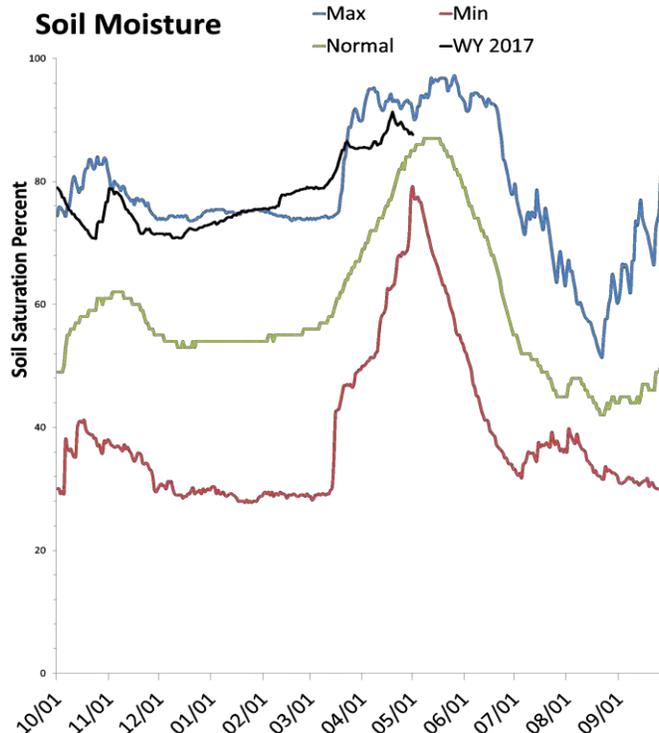
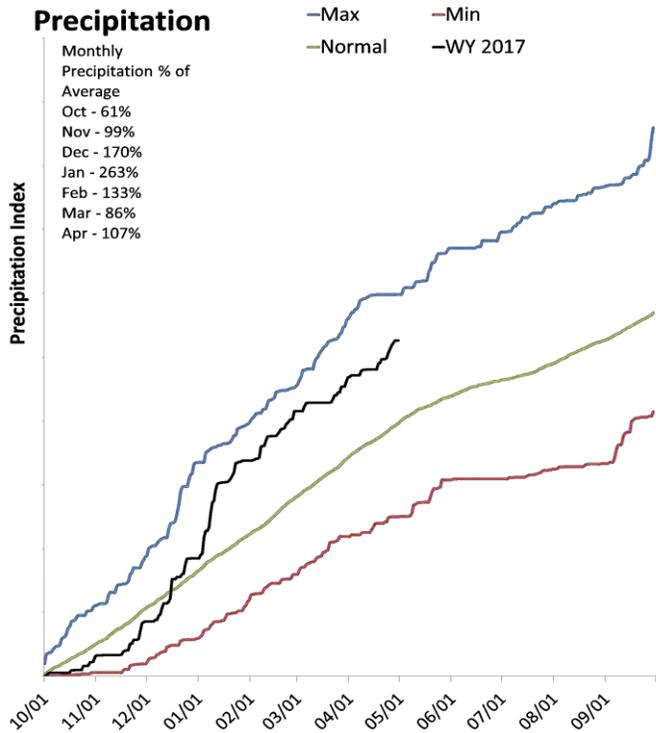
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Price & San Rafael Basins

May 1, 2017

Precipitation in April was near average at 107%, which brings the seasonal accumulation (Oct-Apr) to 133% of average. Soil moisture is at 88% compared to 84% last year. Reservoir storage is at 54% of capacity, compared to 44% last year. The water availability index for the Price River is 68%, and 21% for Joe's Valley.



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

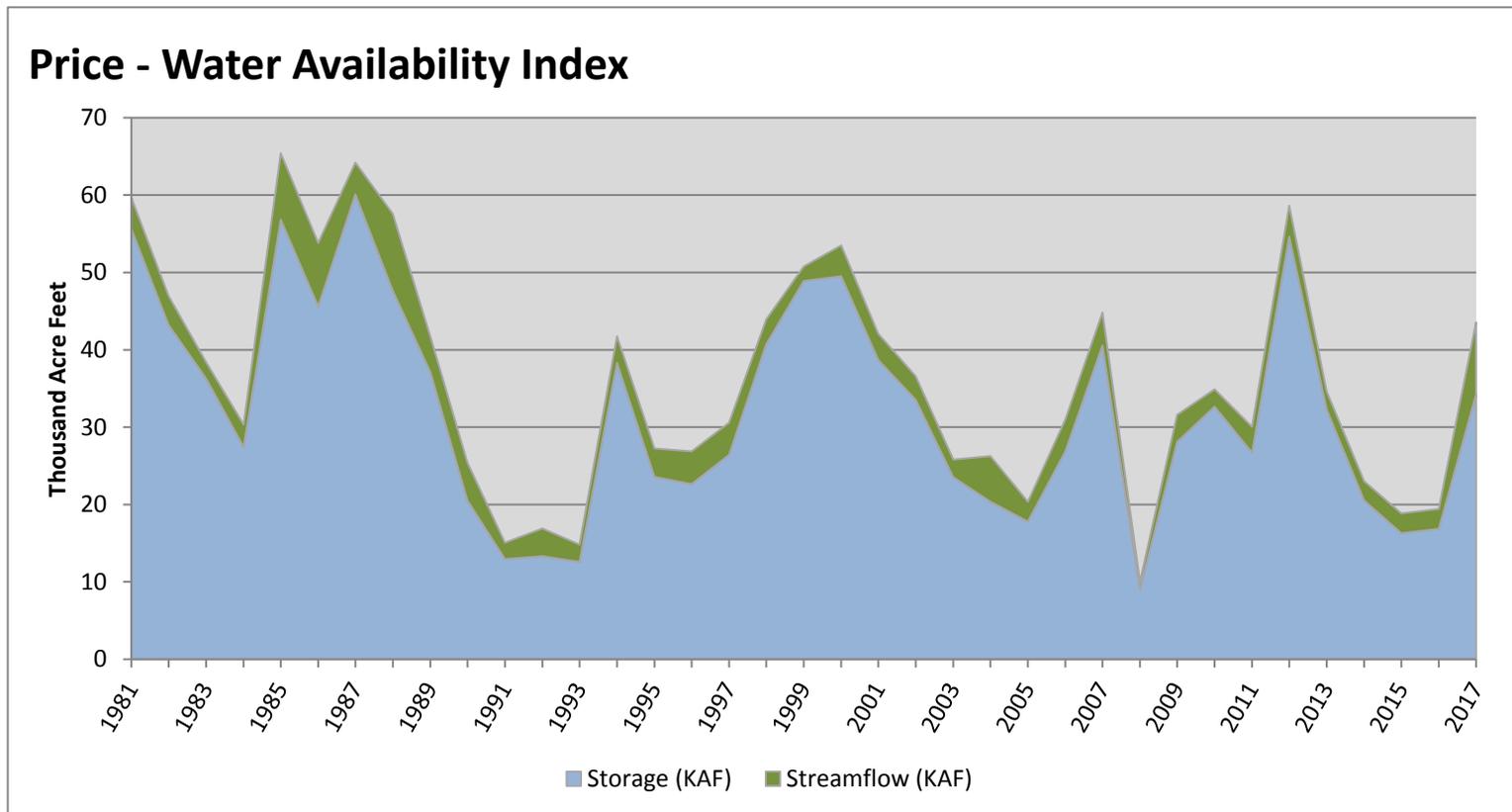
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Price	34.25	9.31	43.56	68	1.54	89, 01, 98, 07

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

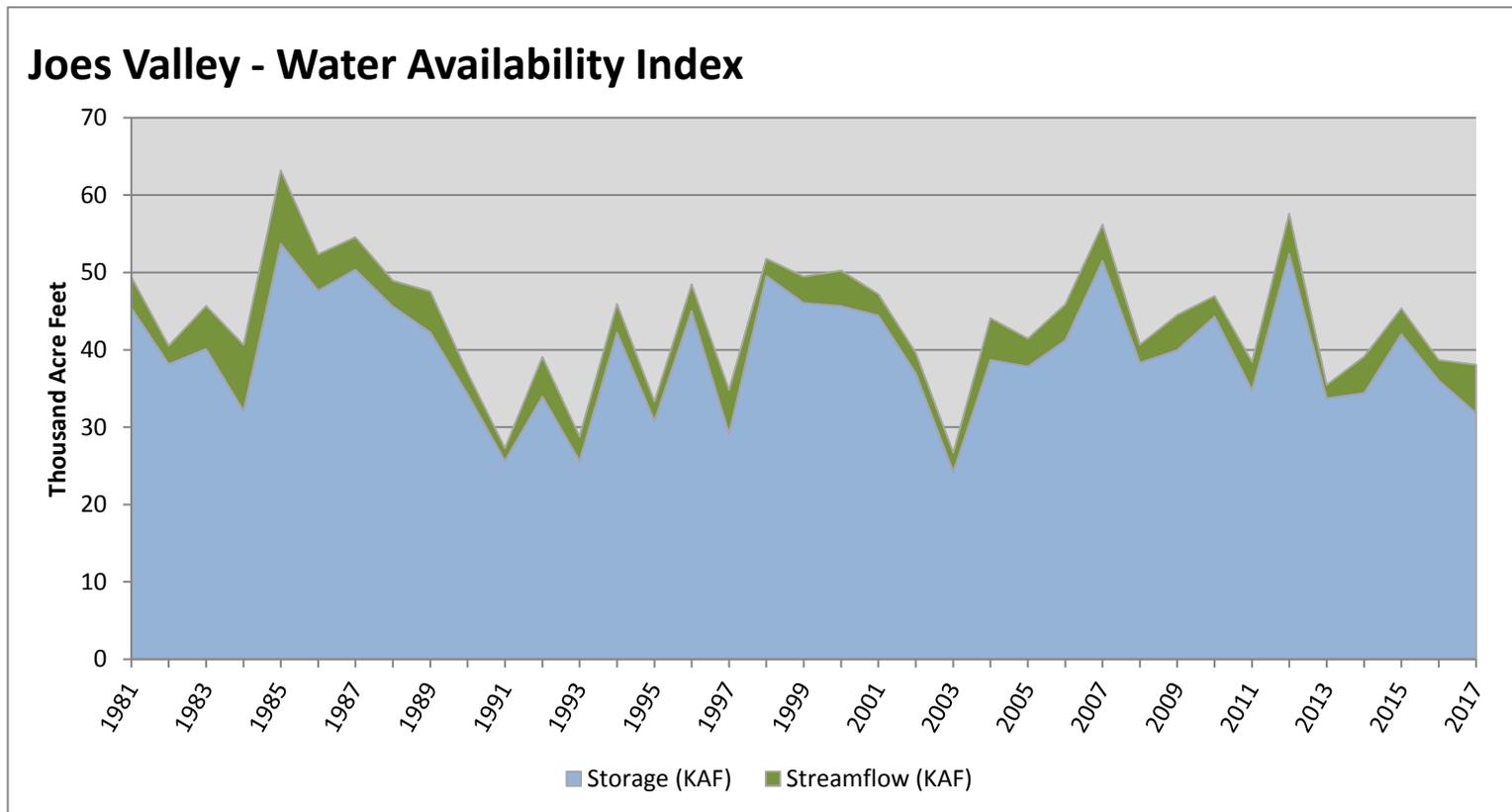


May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Joese Valley	31.81	6.24	38.05	21	-2.41	13, 90, 11, 16

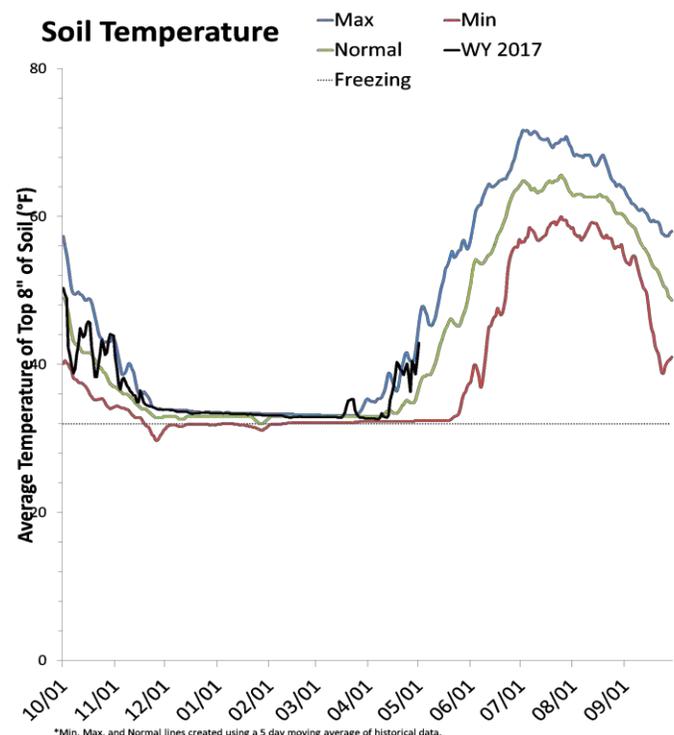
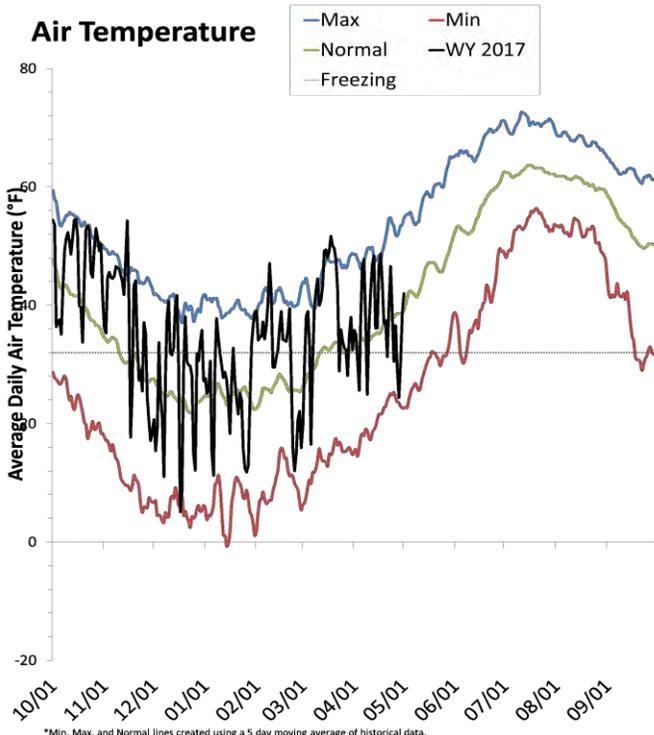
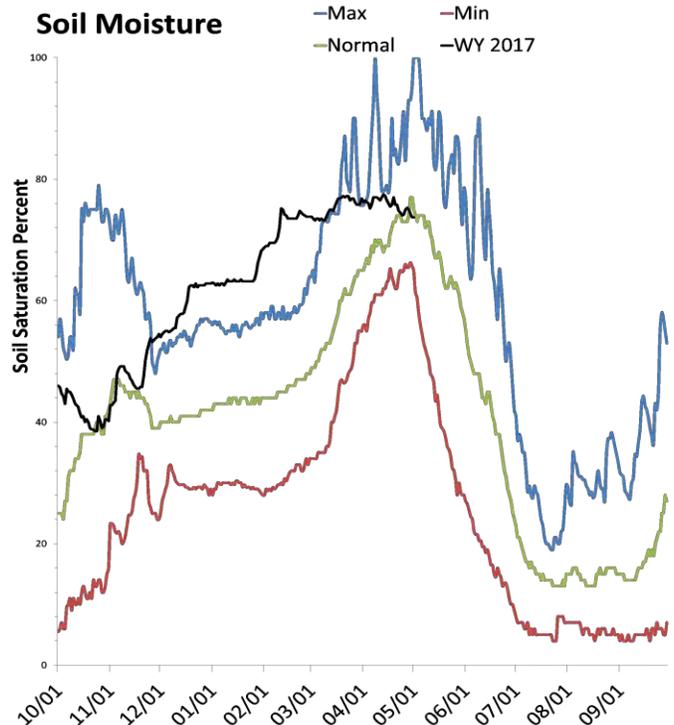
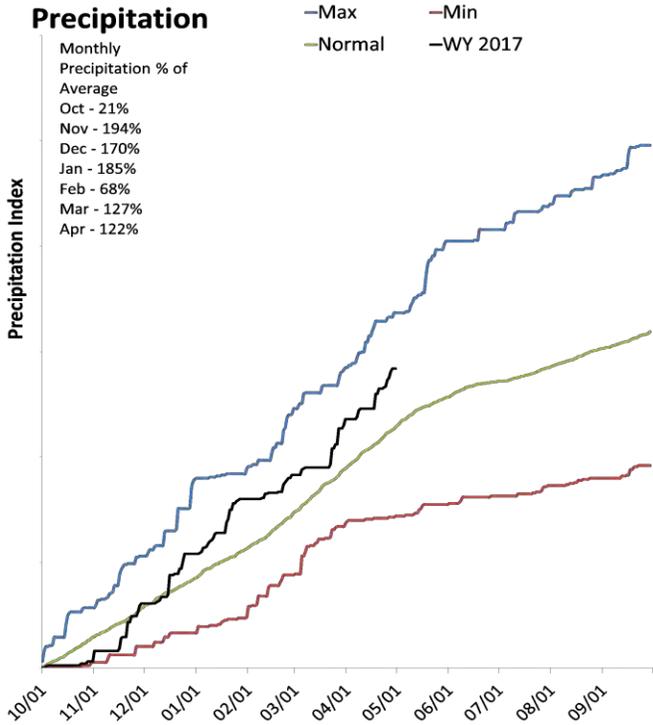
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Lower Sevier Basin

May 1, 2017

Precipitation in April was above average at 123%, which brings the seasonal accumulation (Oct-Apr) to 125% of average. Soil moisture is at 74% compared to 68% last year. Reservoir storage is at 40% of capacity, compared to 70% last year. The water availability index for the Lower Sevier is 11%.



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

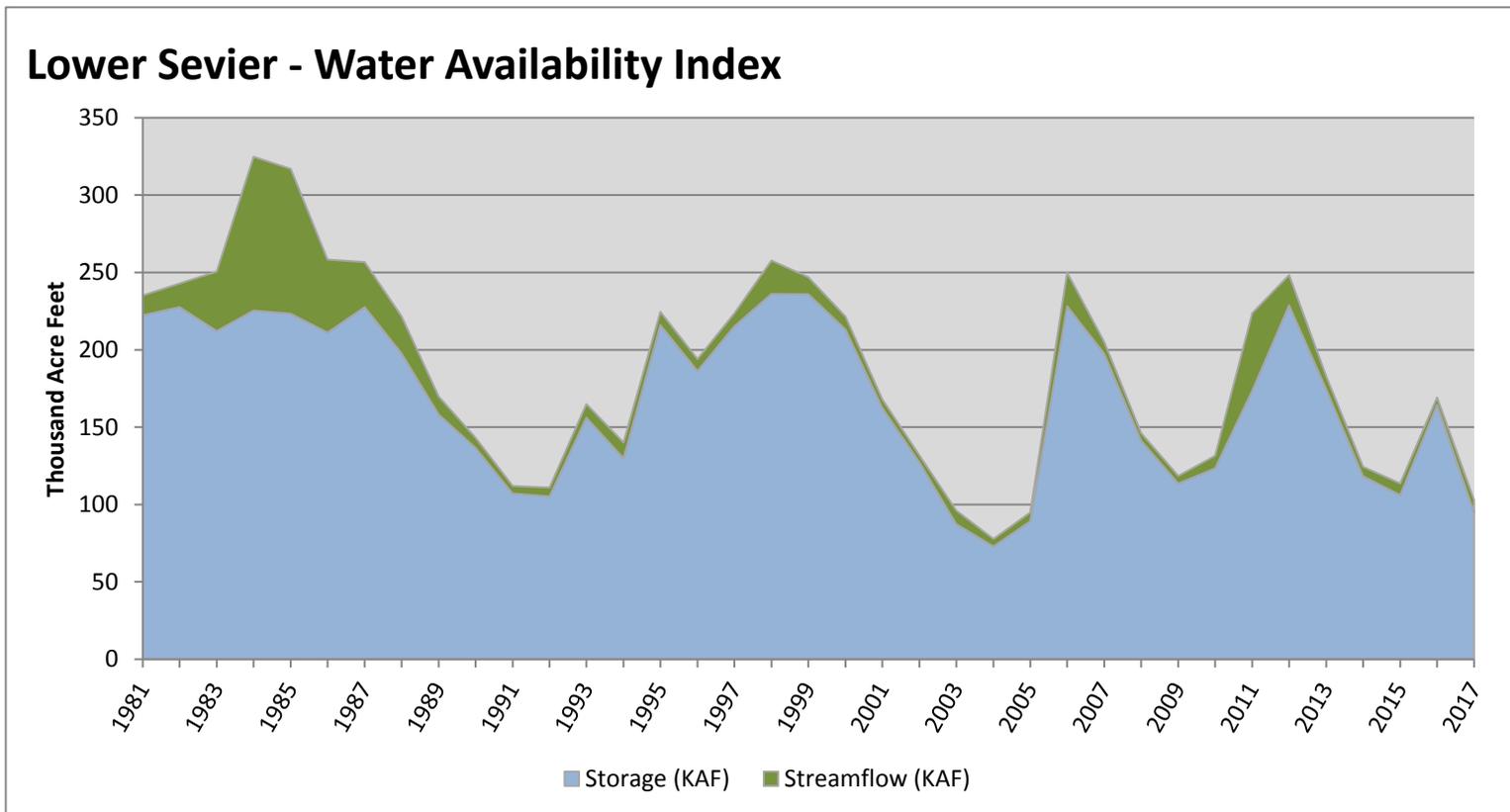
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Lower Sevier	94.94	8.02	102.96	11	-3.29	05, 03, 92, 91

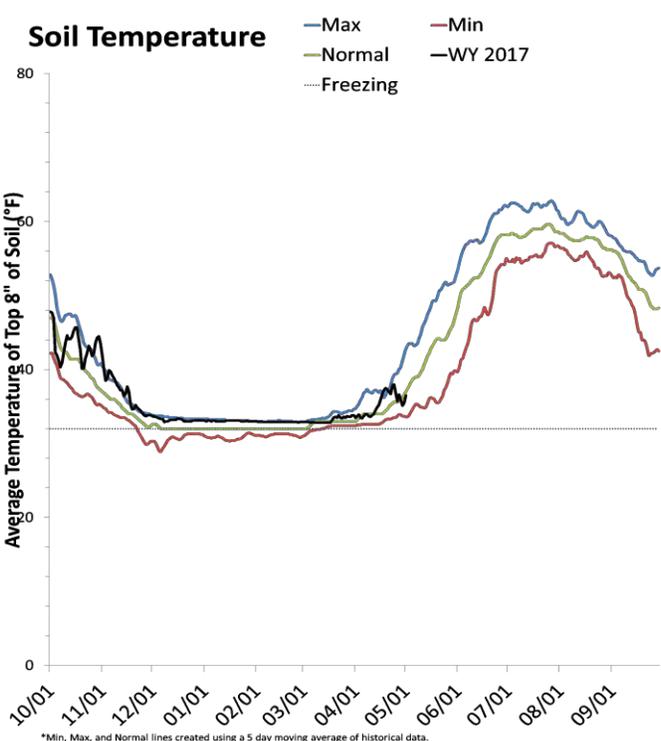
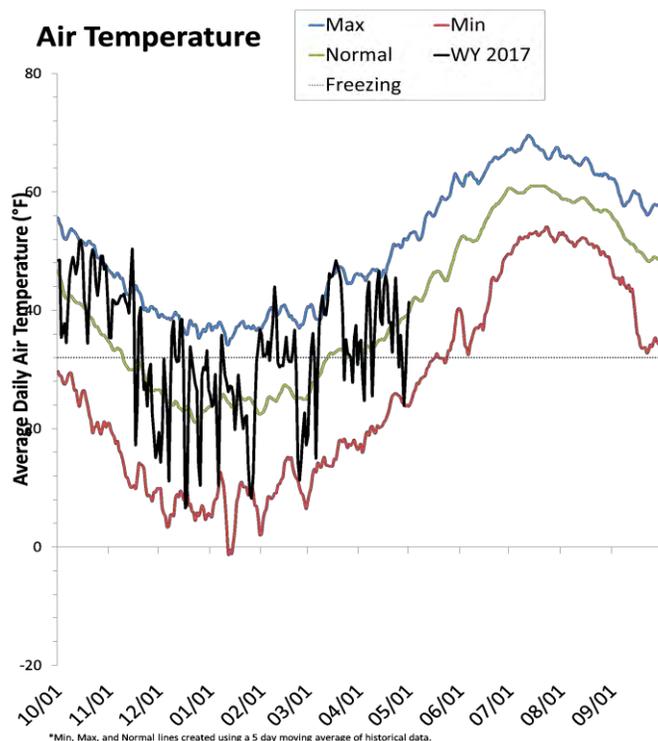
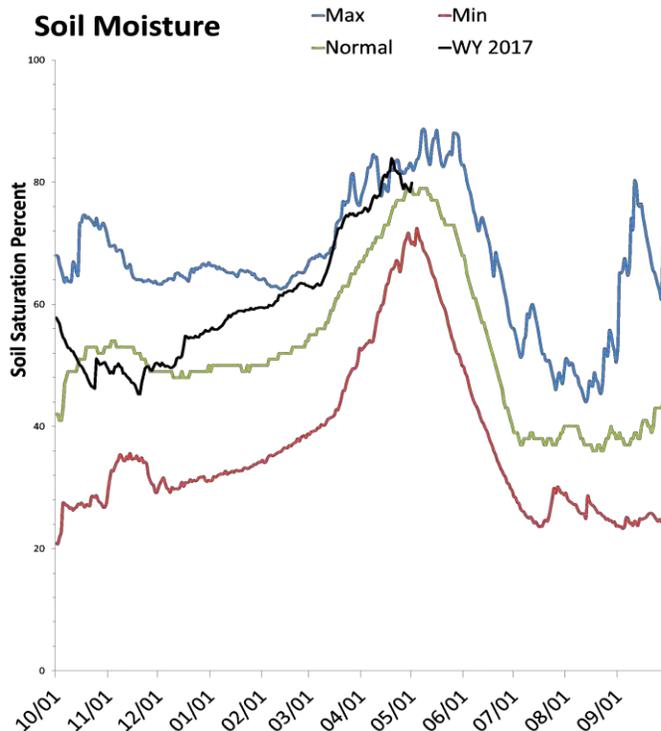
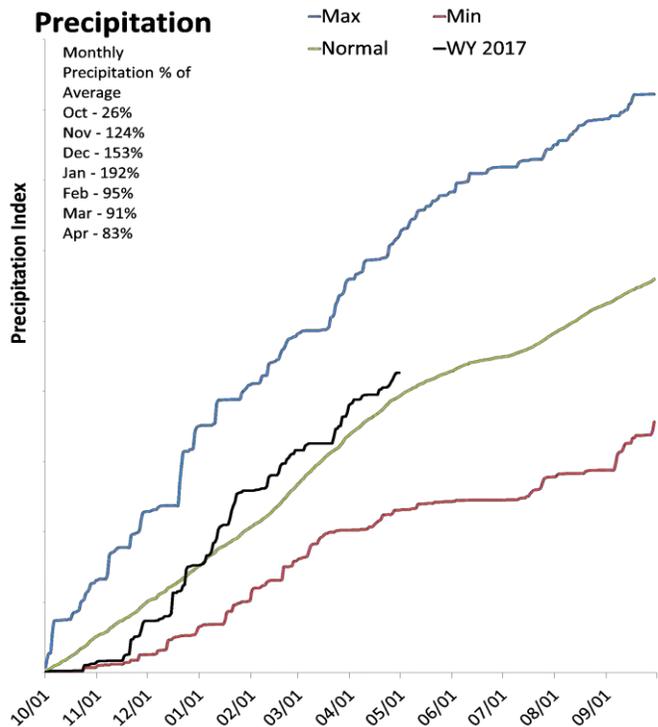
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Upper Sevier Basin

May 1, 2017

Precipitation in April was below average at 83%, which brings the seasonal accumulation (Oct-Apr) to 108% of average. Soil moisture is at 78% compared to 76% last year. Reservoir storage is at 72% of capacity, compared to 61% last year. The water availability index for the Upper Sevier is 42%.



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

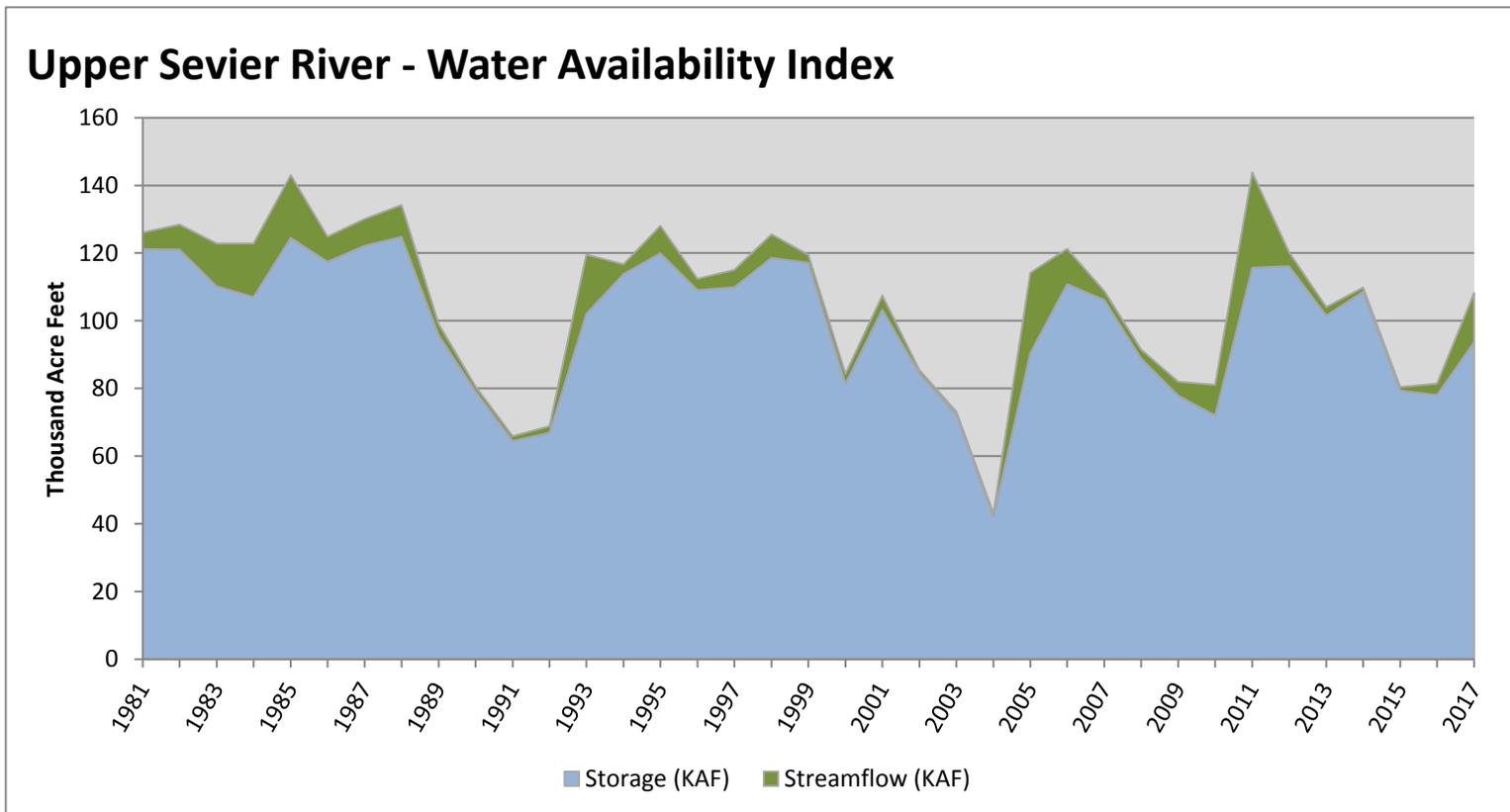
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Upper Sevier River	93.75	14.48	108.23	42	-0.66	13, 01, 07, 14

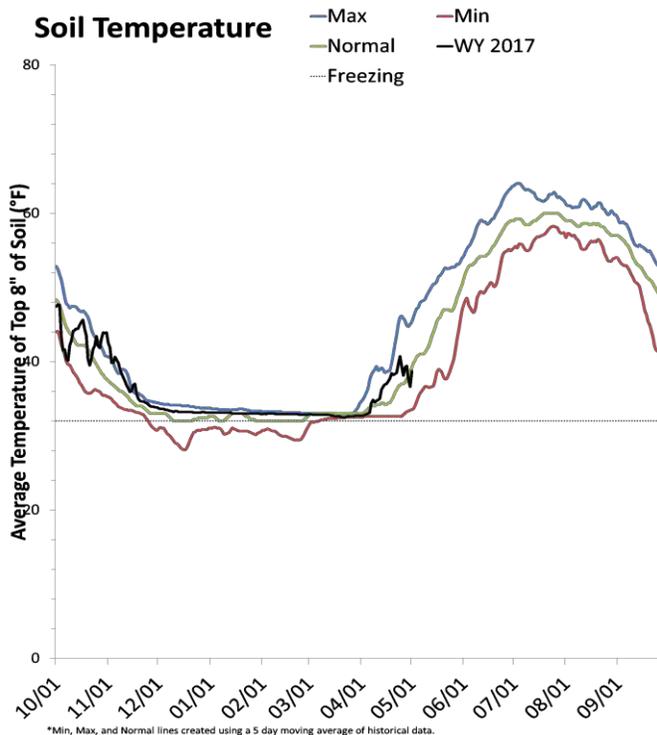
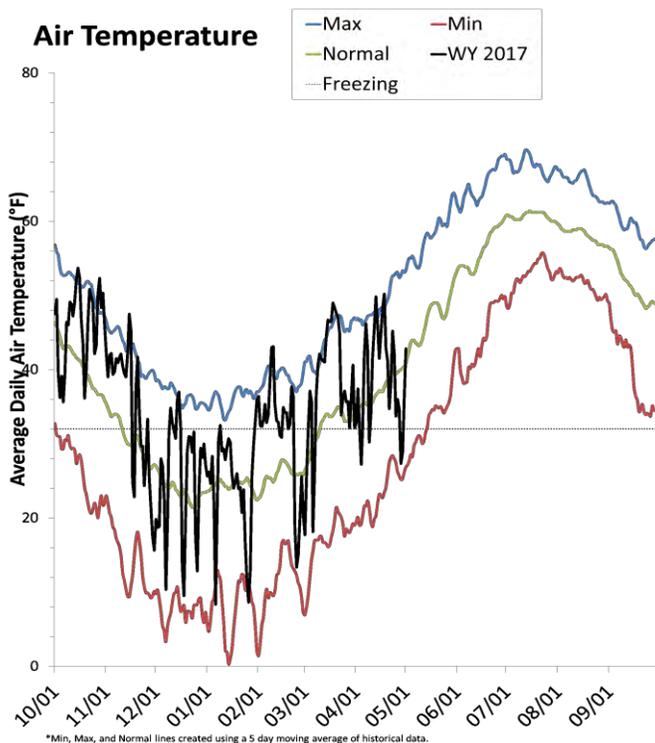
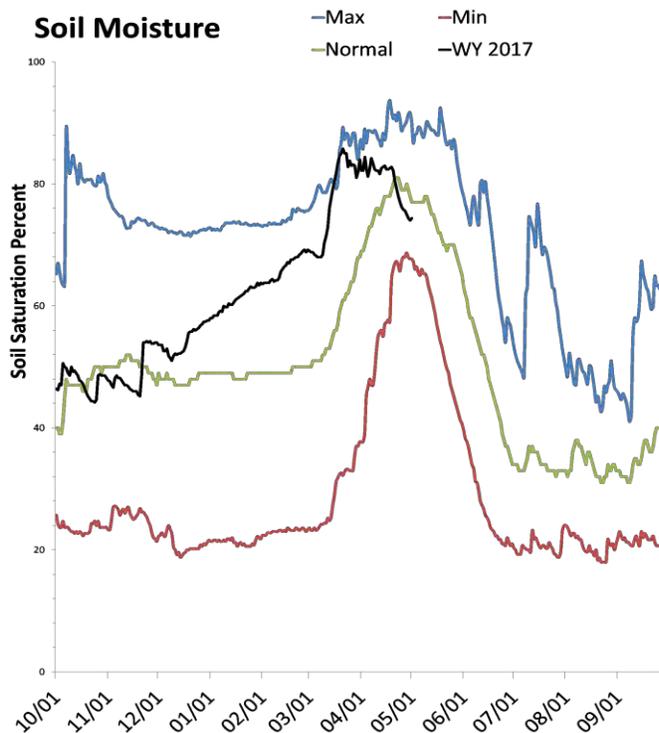
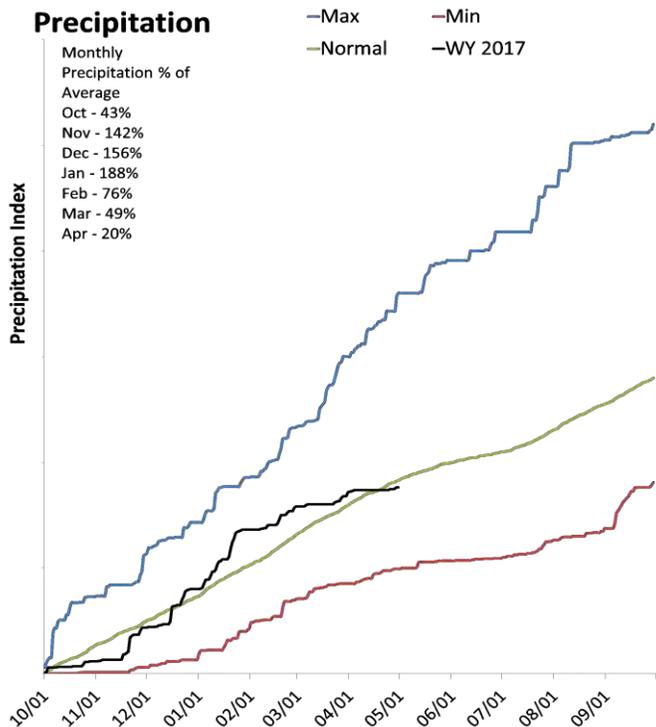
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southeastern Utah

May 1, 2017

Precipitation in April was much below average at 19%, which brings the seasonal accumulation (Oct-Apr) to 96% of average. Soil moisture is at 74% compared to 85% last year. Reservoir storage is at 92% of capacity, compared to 96% last year. The water availability index for Moab is 84%.



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

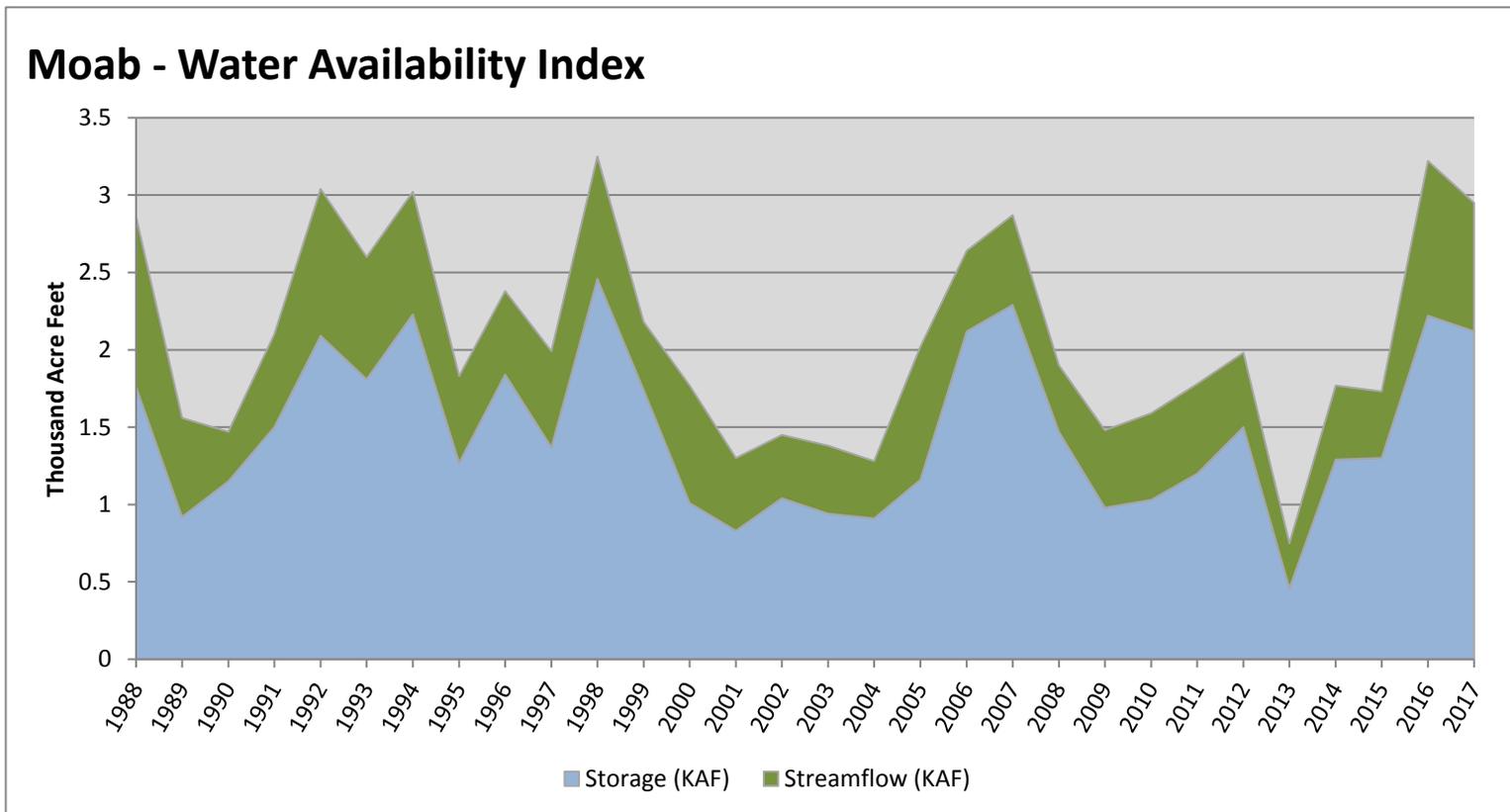
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Moab	2.12	0.83	2.95	84	2.82	88, 07, 94, 92

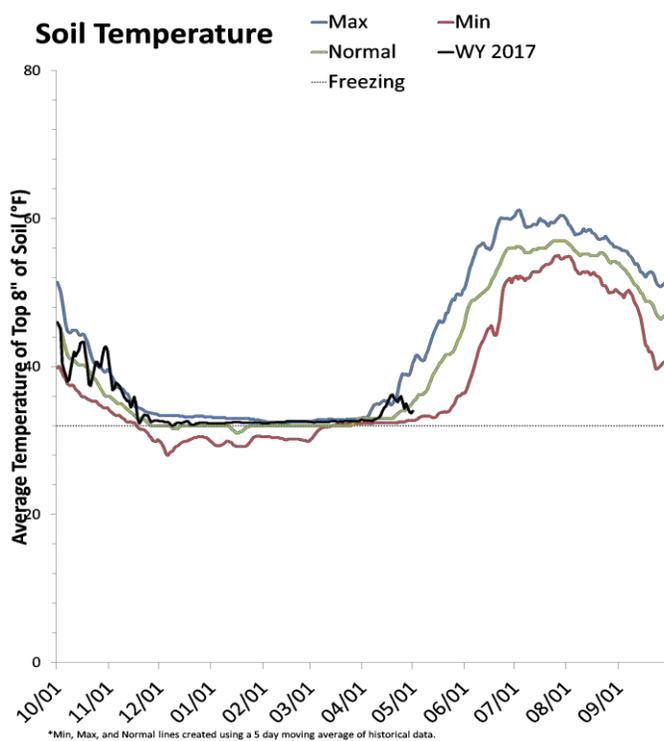
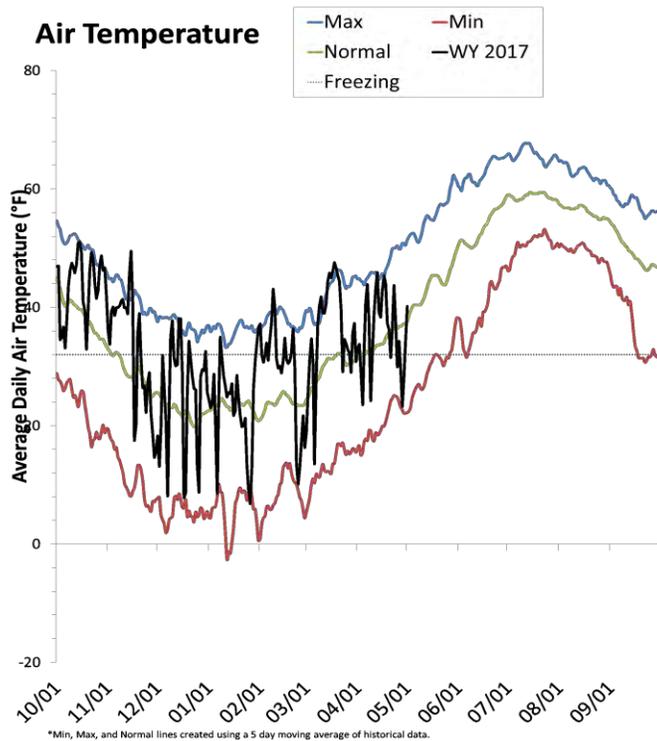
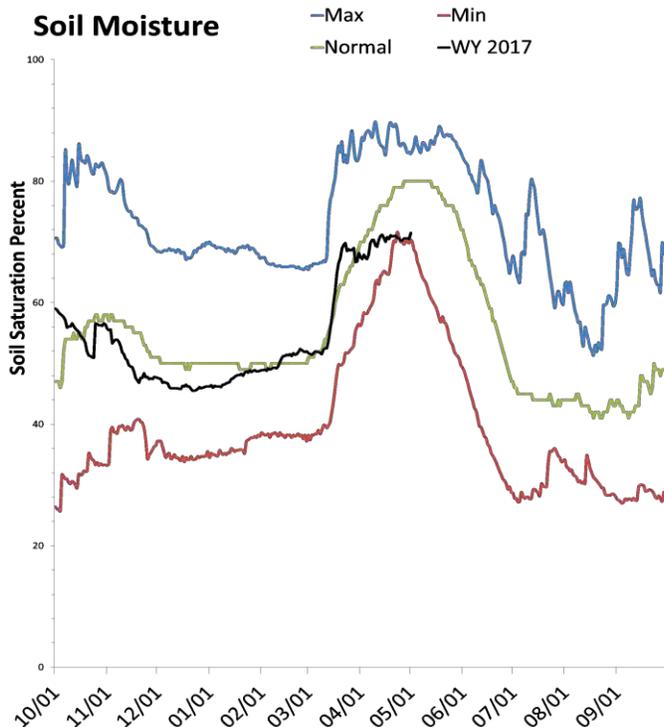
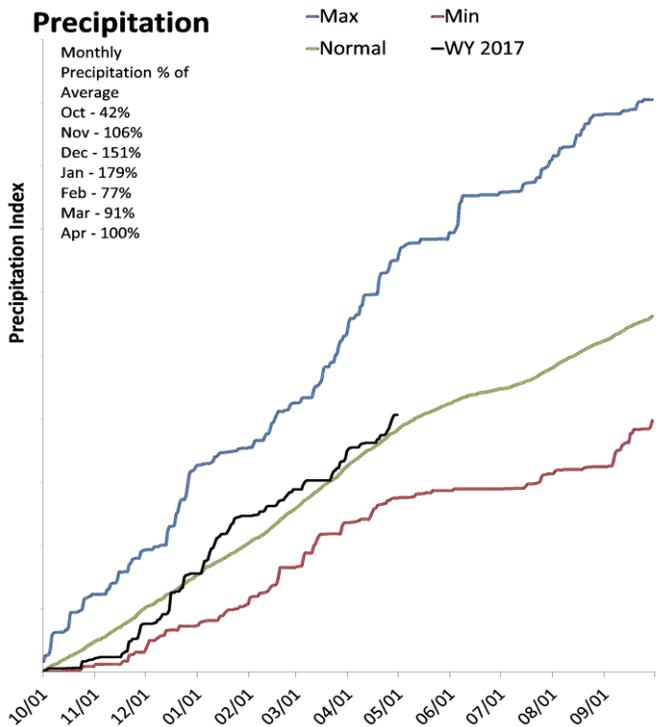
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Dirty Devil Basin

May 1, 2017

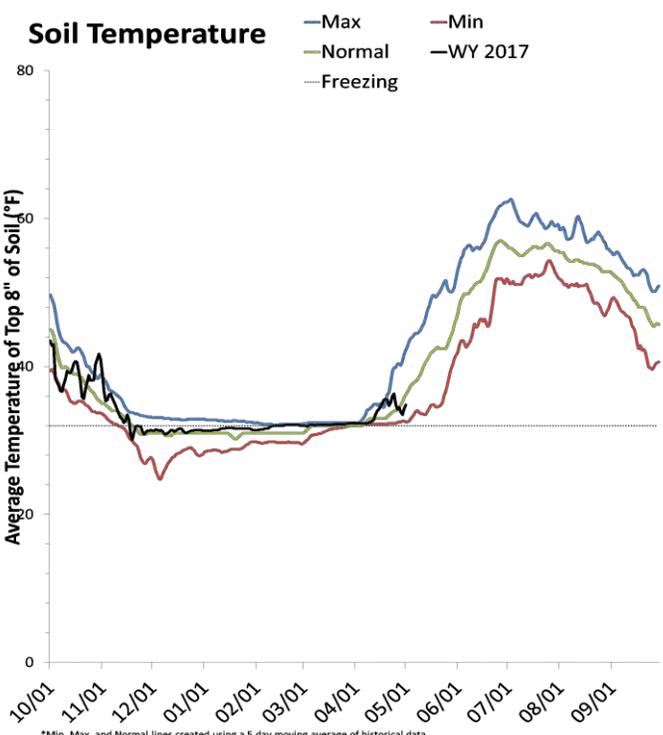
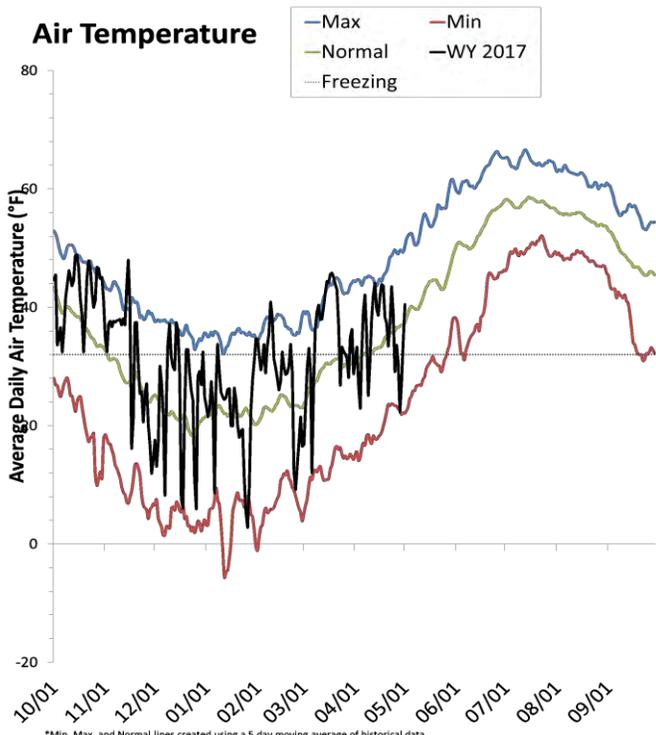
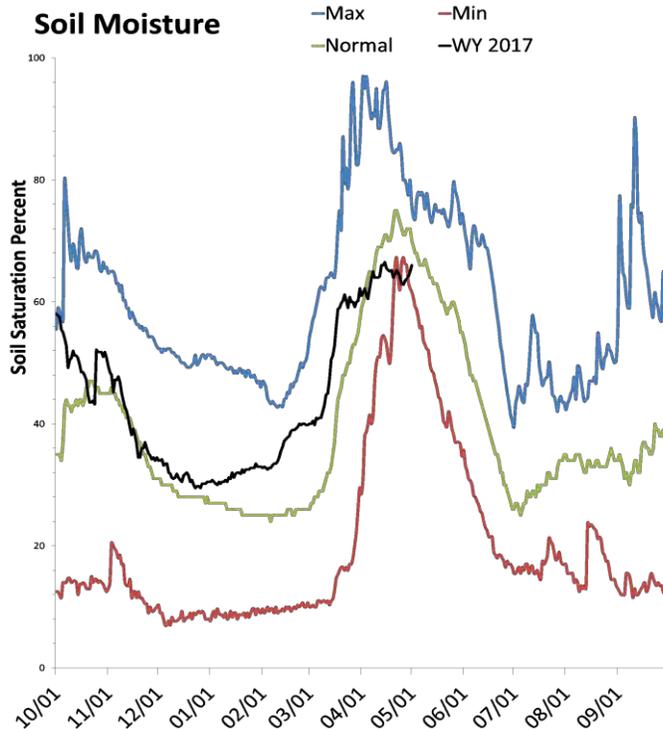
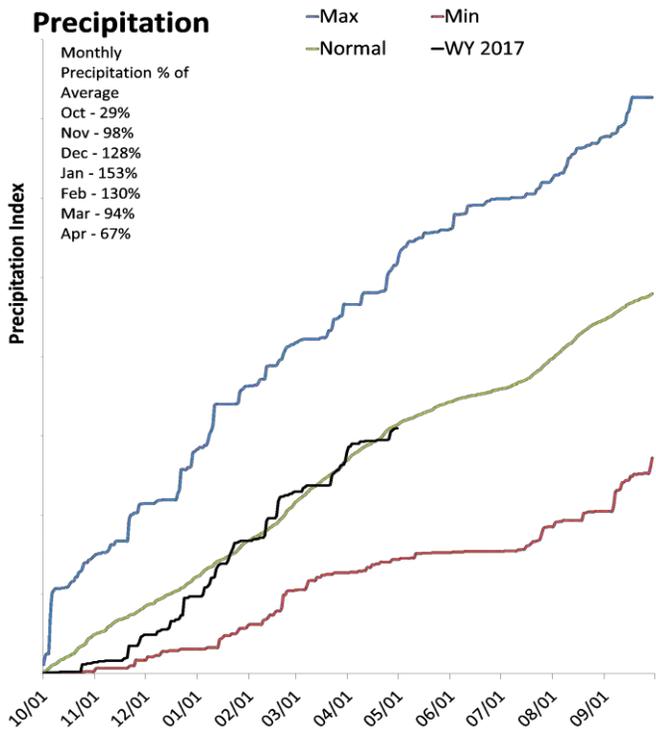
Precipitation in April was above average at 126%, which brings the seasonal accumulation (Oct-Apr) to 117% of average. Soil moisture is at 73% compared to 75% last year.



Escalante River Basin

May 1, 2017

Precipitation in April was much below average at 67%, which brings the seasonal accumulation (Oct-Apr) to 99% of average. Soil moisture is at 65% compared to 68% last year.



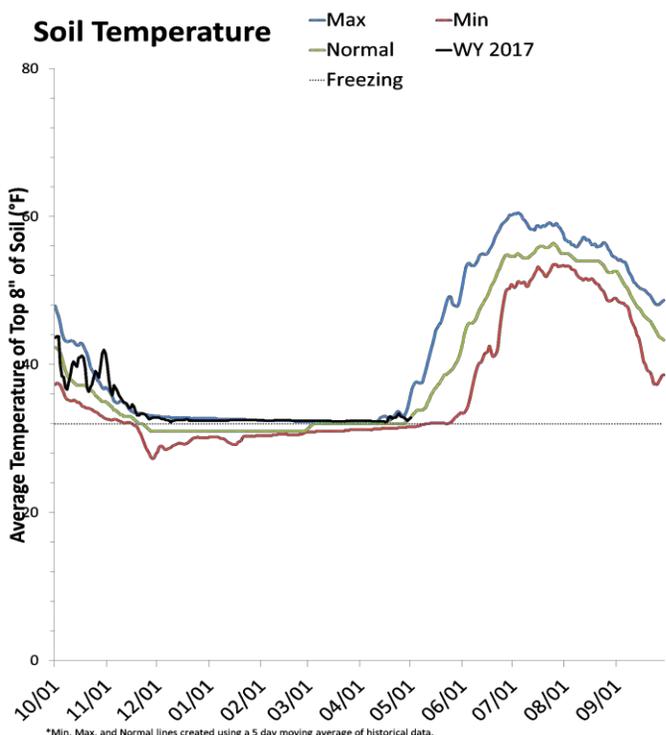
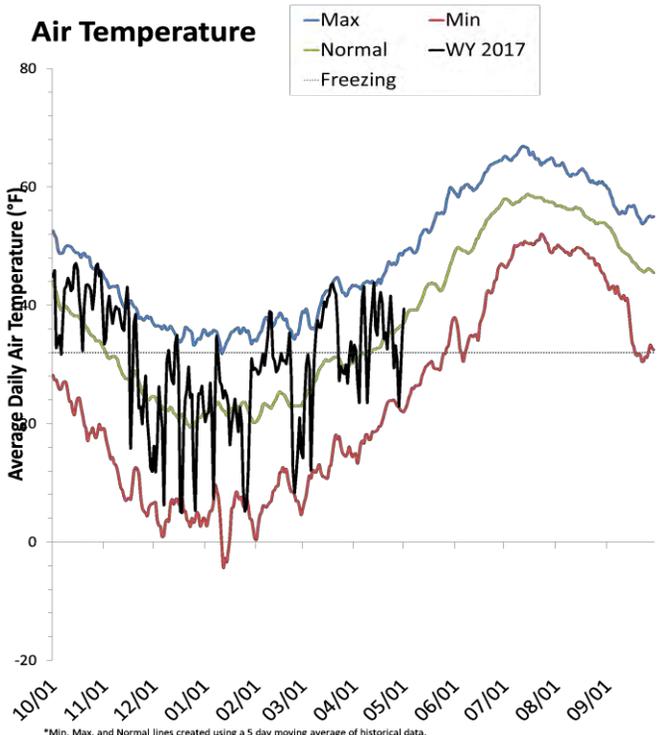
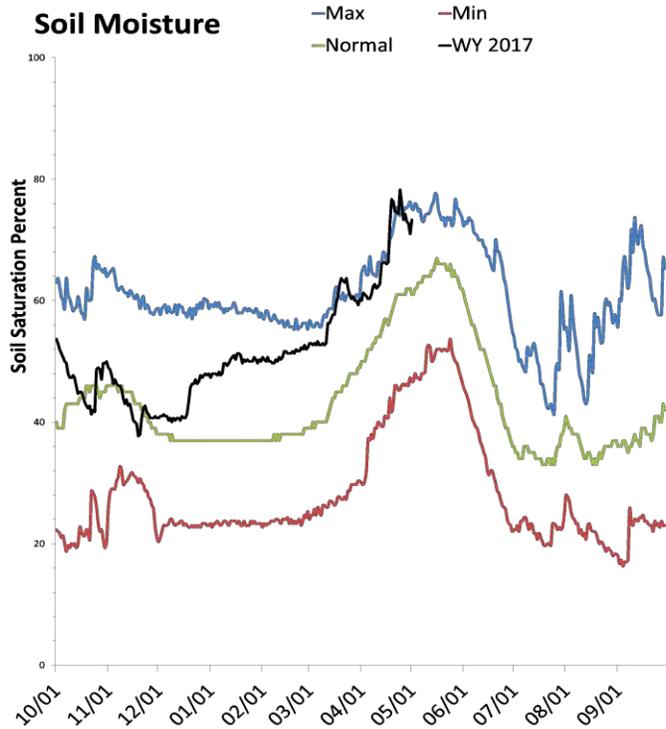
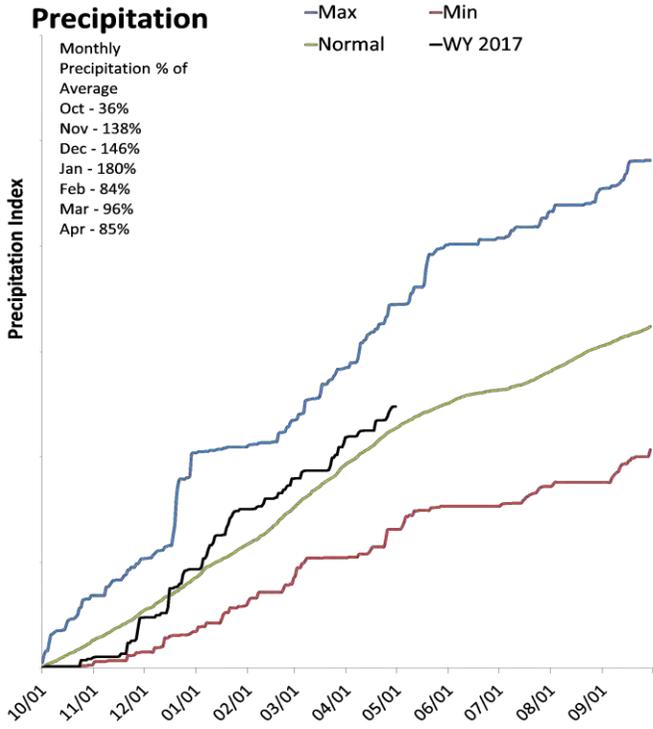
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Beaver River Basin

May 1, 2017

Precipitation in April was below average at 85%, which brings the seasonal accumulation (Oct-Apr) to 109% of average. Soil moisture is at 72% compared to 58% last year. Reservoir storage is at 53% of capacity, compared to 46% last year. The water availability index for the Beaver River is 55%.



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

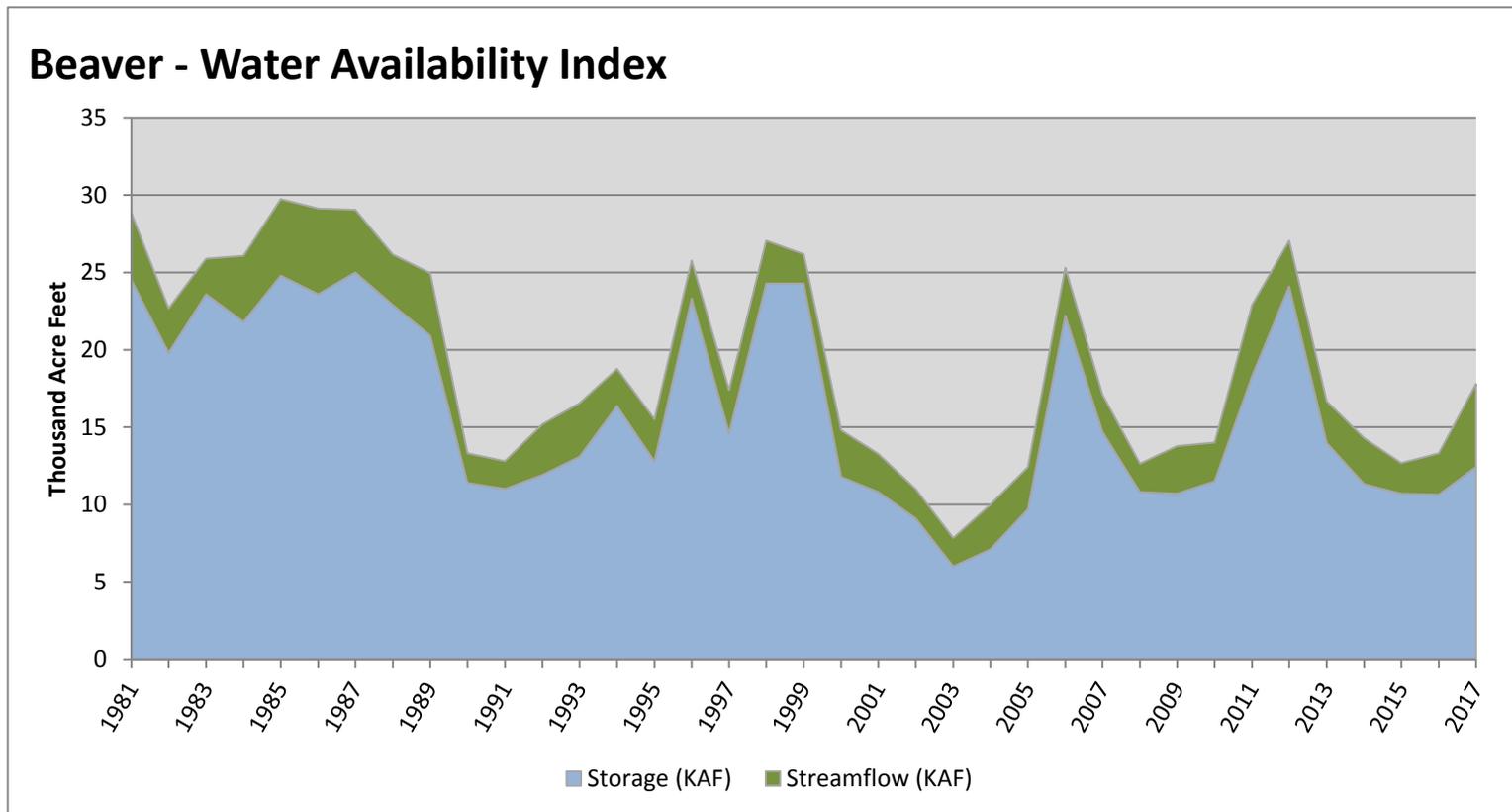
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Beaver	12.44	5.36	17.80	55	0.44	07, 97, 94, 82

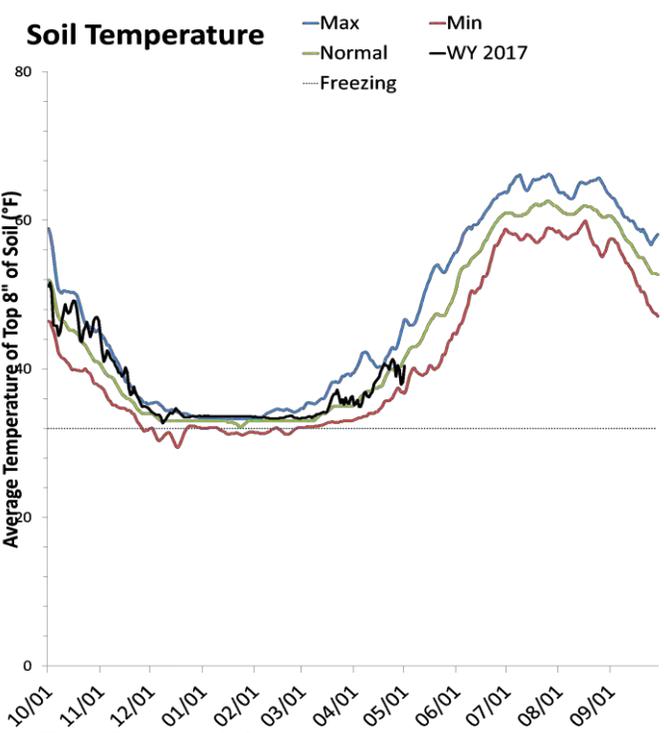
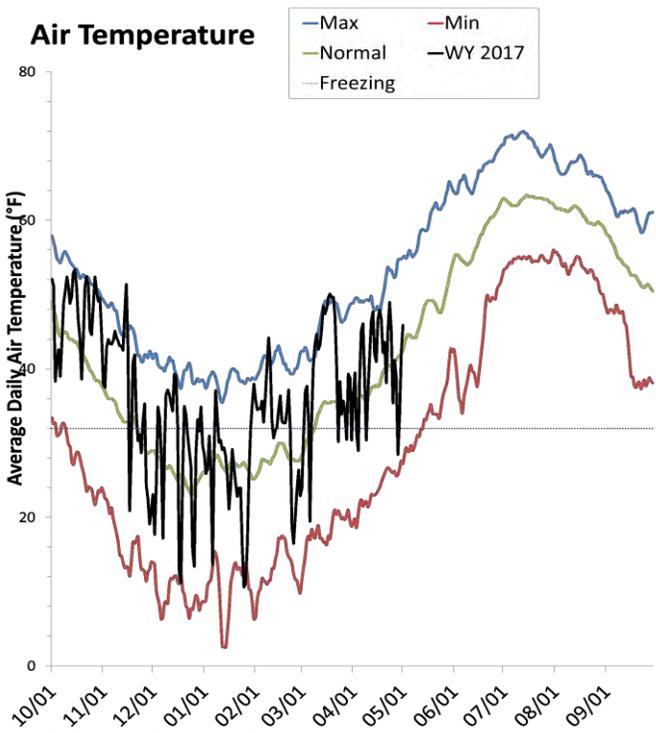
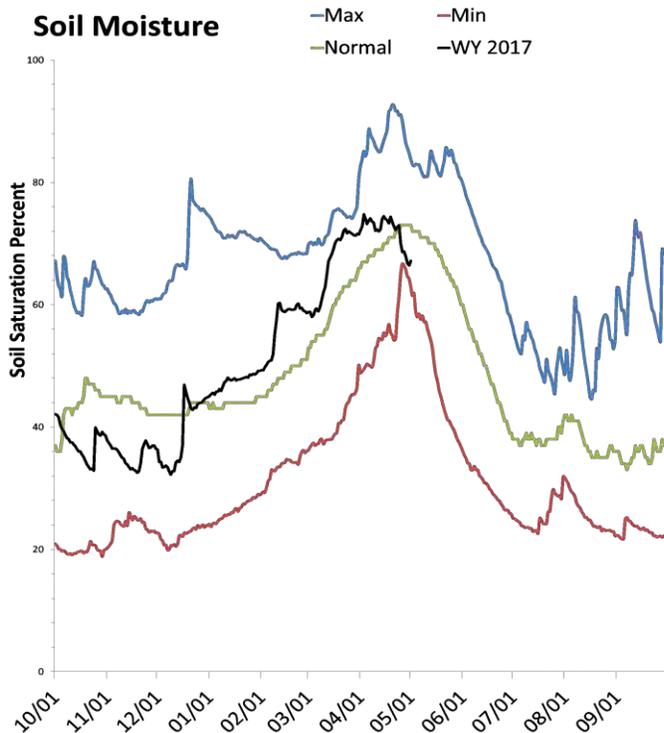
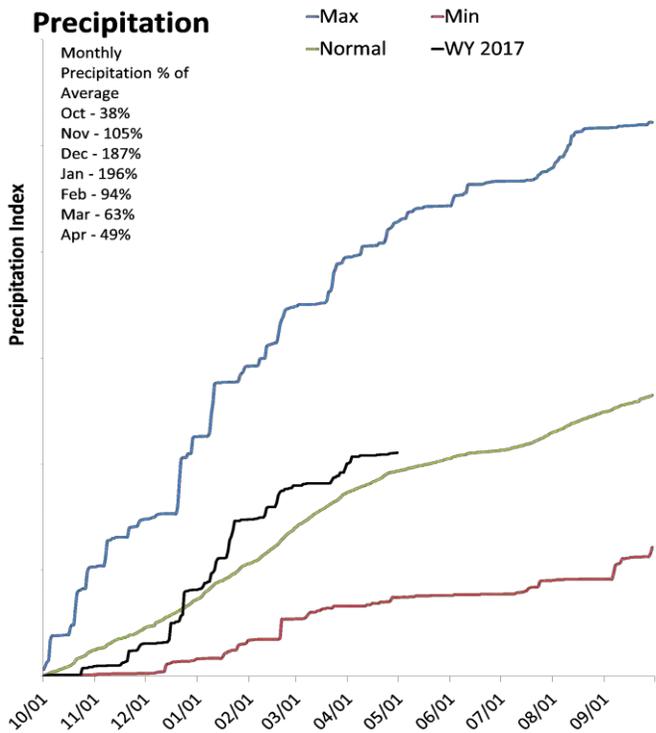
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southwestern Utah

May 1, 2017

Precipitation in April was much below average at 50%, which brings the seasonal accumulation (Oct-Apr) to 109% of average. Soil moisture is at 67% compared to 75% last year. Reservoir storage is at 50% of capacity, compared to 45% last year. The water availability index for the Virgin River is 81%.



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

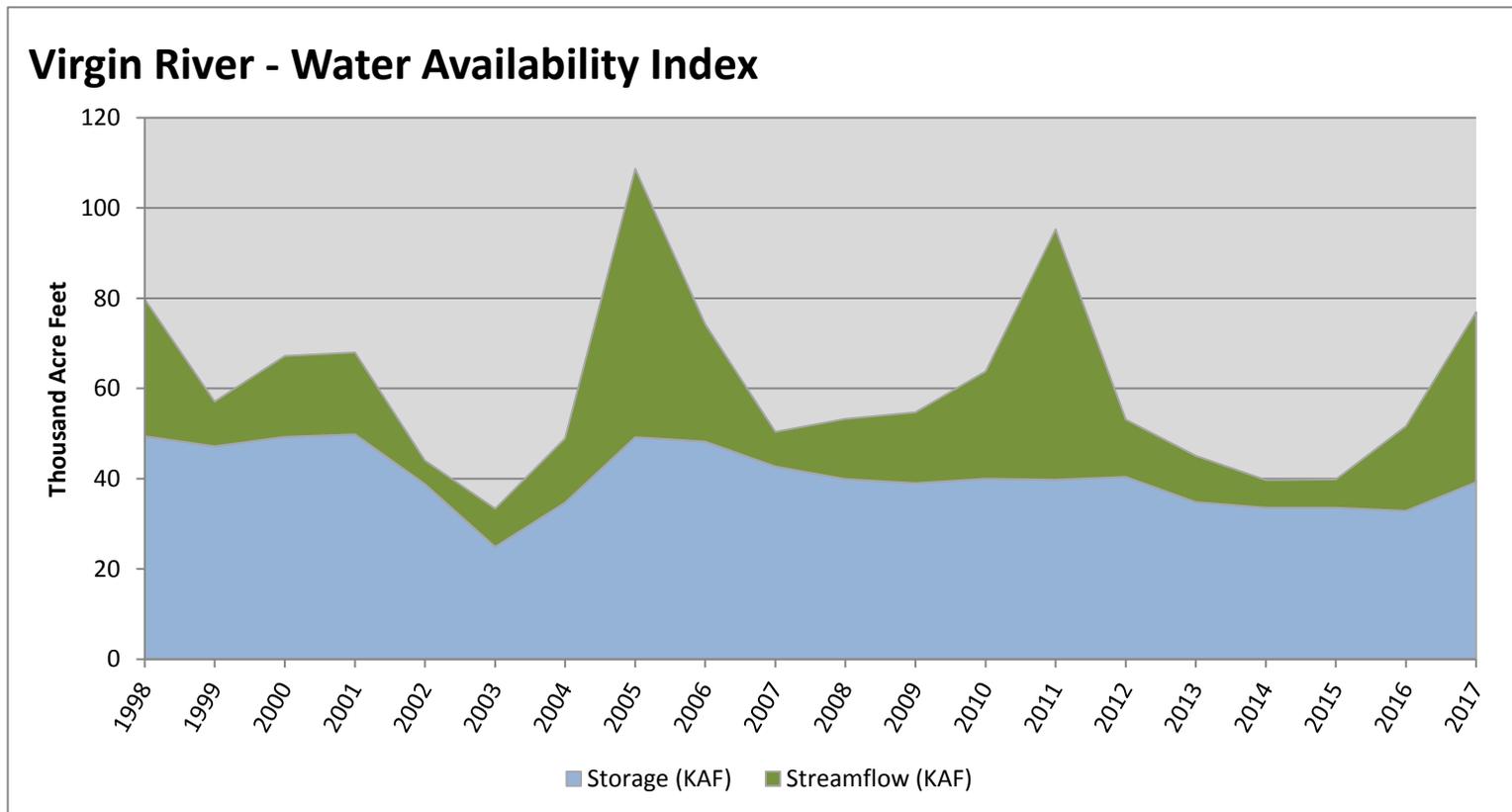
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

May 1, 2017

Water Availability Index

Basin or Region	Apr EOM [*] Storage	April Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Virgin River	39.20	37.73	76.93	81	2.58	01, 06, 98, 11

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



May 1, 2017

Water Availability Index

Basin or Region	Apr EOM* Storage	April Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Bear River	883	13.0	896	66	1.3	13, 82, 97, 81
Woodruff Narrows	50.8	13.0	63.8	63	1.1	98, 97, 16, 94
Little Bear	10.4	32.0	42.3	96	3.9	06, 98, 05, 96
Ogden	81.7	33.0	114.8	68	1.5	04, 02, 07, 09
Weber	143.6	43.6	187.2	71	1.8	08, 00, 05, 06
Provo River	399.7	19.0	418.7	91	3.4	12, 07, 06, 98
Western Uinta	162.1	5.8	167.9	16	-2.8	97, 90, 05, 08
Eastern Uinta	43.3	9.6	52.9	58	0.7	81, 83, 10, 00
Blacks Fork	24.7	8.2	32.9	86	3.0	92, 85, 87, 14
Price	34.3	9.3	43.6	68	1.5	89, 01, 98, 07
Smiths Creek	9.6	2.7	12.3	85	2.9	86, 87, 85, 15
Joes Valley	31.8	6.2	38.1	21	-2.4	13, 90, 11, 16
Moab	2.1	0.8	3.0	84	2.8	88, 07, 94, 92
Upper Sevier River	93.8	14.5	108.2	42	-0.7	13, 01, 07, 14
San Pitch	4.5	1.5	6.0	21	-2.4	91, 05, 02, 92
Lower Sevier	94.9	8.0	103.0	11	-3.3	05, 03, 92, 91
Beaver	12.4	5.4	17.8	55	0.4	07, 97, 94, 82
Virgin River	39.2	37.7	76.9	81	2.6	01, 06, 98, 11

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

What is a Water Availability Index?

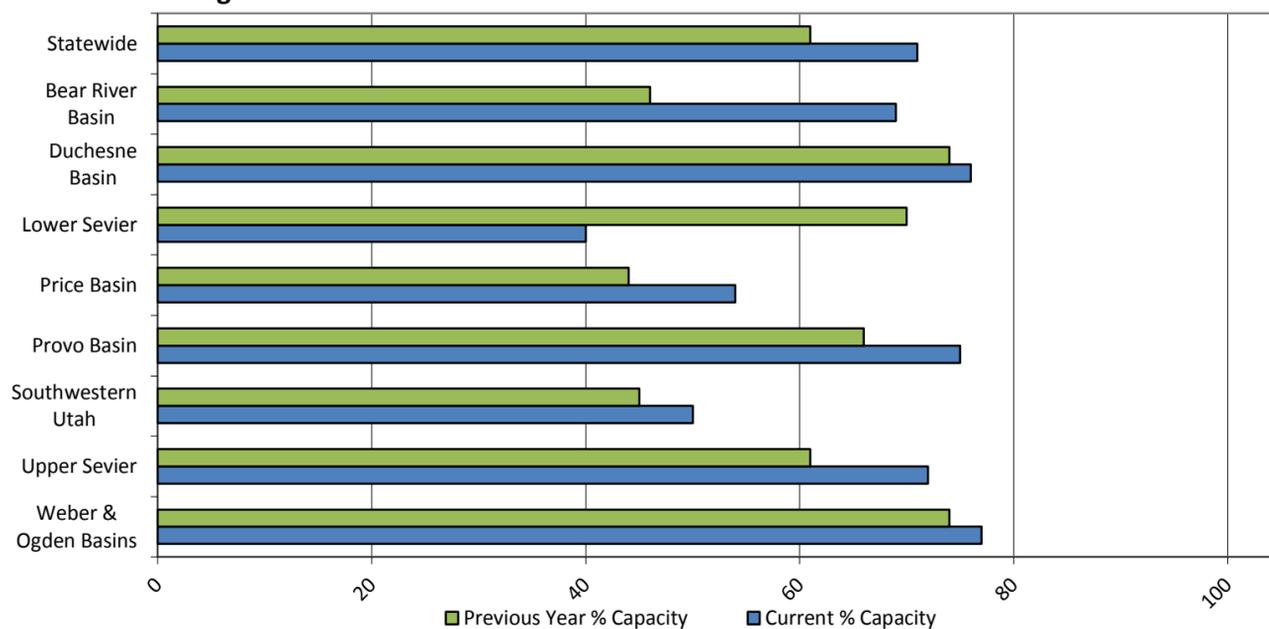
The Water Availability Index (WAI) is an observed hydrologic indicator of current surface water availability within a watershed. The index is calculated by combining current reservoir storage with the previous months streamflow. WAI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) 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 April 2017	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	25.8	25.8		25.7	101%	100%			
Causey Reservoir	7.2	7.1	5.0	7.1	101%	101%	70%	144%	143%
Cleveland Lake	2.7	2.6		5.4	50%	48%			
Currant Creek Reservoir	13.6	14.9	14.9	15.5	88%	96%	96%	91%	100%
Deer Creek Reservoir	146.9	145.3	122.0	149.7	98%	97%	81%	120%	119%
East Canyon Reservoir	43.5	32.6	40.4	49.5	88%	66%	82%	108%	81%
Echo Reservoir	49.4	49.1	54.4	73.9	67%	66%	74%	91%	90%
Grantsville Reservoir	3.3	3.0	2.8	3.3	100%	90%	85%	118%	106%
Gunlock	8.1	2.7	6.8	10.4	78%	26%	65%	119%	40%
Gunnison Reservoir	4.5	1.0	14.2	20.3	22%	5%	70%	32%	7%
Huntington North Reservoir	3.7	3.8	3.9	4.2	88%	90%	93%	95%	97%
Hyrum Reservoir	10.4	13.2	14.1	15.3	68%	86%	92%	73%	94%
Joes Valley Reservoir	31.6	36.0	40.1	61.6	51%	59%	65%	79%	90%
Jordanelle Reservoir	252.8	180.1	247.1	320.0	79%	56%	77%	102%	73%
Ken's Lake	2.1	2.2	1.5	2.3	92%	96%	65%	143%	149%
Kolob Reservoir	5.6	4.4		5.6	101%	78%			
Lost Creek Reservoir	18.5	16.3	14.6	22.5	82%	72%	65%	127%	112%
Lower Enterprise	2.5	1.3	1.4	2.6	96%	48%	55%	176%	88%
Miller Flat Reservoir	3.1	2.3		5.2	59%	45%			
Millsite	10.9	8.7	11.2	16.7	65%	52%	67%	97%	78%
Minersville Reservoir	12.4	10.6	16.5	23.3	53%	46%	71%	75%	64%
Moon Lake Reservoir	29.2	25.1	27.6	35.8	82%	70%	77%	106%	91%
Otter Creek Reservoir	50.3	42.0	44.8	52.5	96%	80%	85%	112%	94%
Panguitch Lake	11.8	11.2	15.9	22.3	53%	50%	71%	74%	70%
Pineview Reservoir	74.6	103.3	79.9	110.1	68%	94%	73%	93%	129%
Piute Reservoir	43.5	36.0	54.4	71.8	61%	50%	76%	80%	66%
Porcupine Reservoir	11.4	11.4	10.1	11.3	101%	101%	89%	113%	113%
Quail Creek	31.1	30.1	31.6	40.0	78%	75%	79%	98%	95%
Red Fleet Reservoir	20.1	18.9	19.8	25.7	78%	74%	77%	102%	96%
Rockport Reservoir	26.9	45.1	40.1	60.9	44%	74%	66%	67%	113%
Sand Hollow Reservoir	46.9	42.9		50.0	94%	86%			
Scofield Reservoir	34.3	16.8	33.2	65.8	52%	26%	50%	103%	51%
Settlement Canyon Reservoir	0.8	0.5	0.8	1.0	82%	51%	80%	102%	64%
Sevier Bridge Reservoir	94.9	164.6	172.9	236.0	40%	70%	73%	55%	95%
Smith And Morehouse Reservoir	5.2	6.2	4.5	8.1	64%	77%	56%	116%	138%
Starvation Reservoir	131.1	162.7	151.9	165.3	79%	98%	92%	86%	107%
Stateline Reservoir	9.6	7.7	6.3	12.0	80%	64%	53%	152%	123%
Steinaker Reservoir	23.1	21.3	25.3	33.4	69%	64%	76%	91%	84%
Strawberry Reservoir	851.3	807.1	678.4	1105.9	77%	73%	61%	125%	119%
Upper Enterprise	5.5	0.6	5.0	10.0	55%	6%	50%	110%	12%
Upper Stillwater Reservoir	1.8	1.6	2.9	32.5	6%	5%	9%	63%	56%
Utah Lake	574.8	488.1	830.9	870.9	66%	56%	95%	69%	59%
Vernon Creek Reservoir	0.6	0.6	0.6	0.6	100%	100%	97%	103%	103%
Willard Bay	196.0	143.1	158.7	215.0	91%	67%	74%	124%	90%
Woodruff Creek	4.2	4.1	3.8	4.0	105%	103%	95%	111%	108%
Woodruff Narrows Reservoir	50.8	57.4	45.5	57.3	89%	100%	79%	112%	126%
Meeks Cabin Reservoir	24.7	14.3	16.5	32.5	76%	44%	51%	150%	86%
Bear Lake	883.3	555.9	651.7	1302.0	68%	43%	50%	136%	85%
Basin-wide Total	3812.4	3303.8	3724.0	5380.9	71%	61%	69%	102%	89%
# of reservoirs	43	43	43	43	43	43	43	43	43

Reservoir Storage



Issued by

**Chief
Natural Resources Conservation Service
U.S. Department of Agriculture**

Prepared by

**Snow Survey Staff
Randall Julander, Supervisor
Troy Brosten, Assistant Supervisor
Beau Uriona, Hydrologist
Jordan Clayton, Hydrologist
Kent Sutcliffe, Soil Scientist
Bob Nault, Electronics Technician**

Released by

**Clint Evans
Acting State Conservationist
Natural Resources Conservation Service
Salt Lake City, Utah**



YOU MAY OBTAIN THIS PRODUCT AS WELL AS CURENT SNOW, PRECIPITATION, TEMPERATURE AND SOIL MOISTURE, RESERVOIR, SURFACE WATER SUPPLY INDEX, AND OTHER DATA BY VISITING OUR WEB SITE @: <http://www.ut.nrcs.usda.gov/snow/>

Snow Survey, NRCS, USDA
245 North Jimmy Doolittle Road
Salt Lake City, UT 84116
(801) 524-5213



**Utah Climate and
Water Report**
Natural Resources Conservation Service
Salt Lake City, UT

