

Utah Climate and Water Report

August 2016



Near Chalk Creek #1 SNOTEL, Utah

Photo by Randy Julander

Utah General Summary

August 1, 2016

*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)

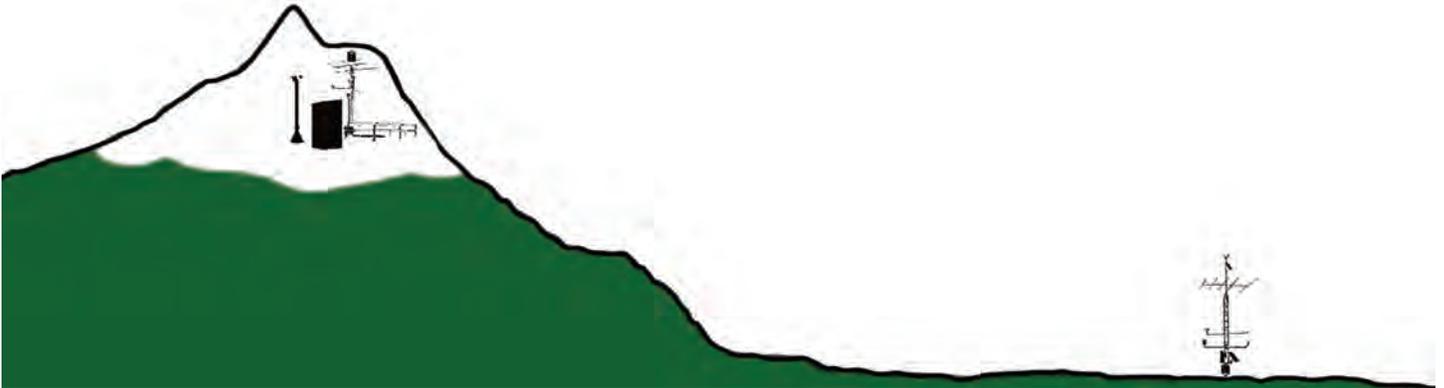
For the second month in a row, valley precipitation was light in July, averaging just 0.5 inches across the state. This brought the water year (Oct-July) valley total to 9.4 inches. Precipitation was exceptionally low in the Northern Mountains at less than 0.1 inch, to moderate at 1 inch in the Southeast. With the exception of the Northern areas, soil moisture conditions are well below normal. Statewide soil moisture is at 33% – slightly lower than last year's 36% value. Soil temperatures at end of July were a little warmer than normal. Overall, precipitation-to-date totals are now trending slightly lower this water year when compared to 2015 values.

Current Mountain Conditions (SNOTEL)

Most rivers and streams across the state are now at baseflow conditions. Many streams are flowing near normal but there are some that are exceptionally low such as the White river near Scofield, Duchesne at Tabiona, Vernon Creek and others. July precipitation in northern Utah was pretty close to nothing on the Bear and Weber – at 7% and 4% respectively. Southern Utah fared much better receiving between 40% and 135% of normal July precipitation. Both air and soil temperatures were above normal across most of the state. Soil moisture values have dropped to seasonal lows in response to hot temperatures and low precipitation. Reservoir storage is similar to last year but there are areas of concern where reservoir storage is very low: Enterprise, Sevier Bridge, Piute, Scofield, Woodruff Creek and Gunnison reservoirs. Hot temperatures and low precipitation combine for higher irrigation demand. Looking forward if August is as hot and dry as July, more reservoirs will be challenged.

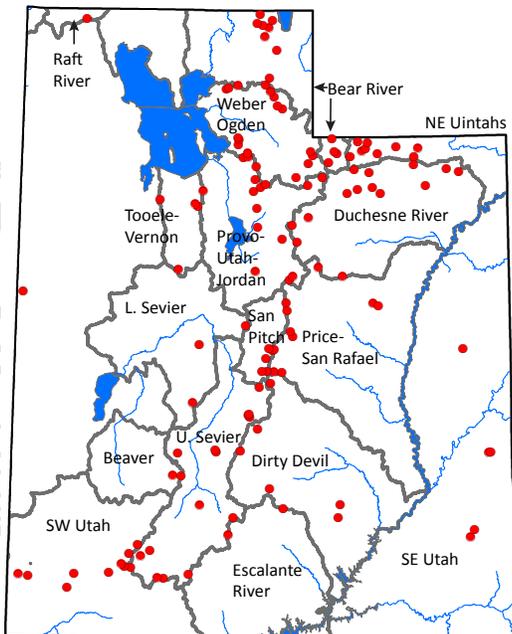
Utah Climate and Water Report

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.



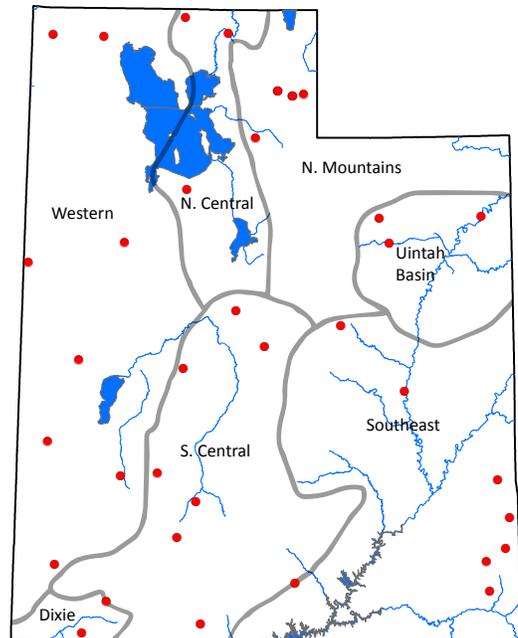
SNOTEL

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



SCAN

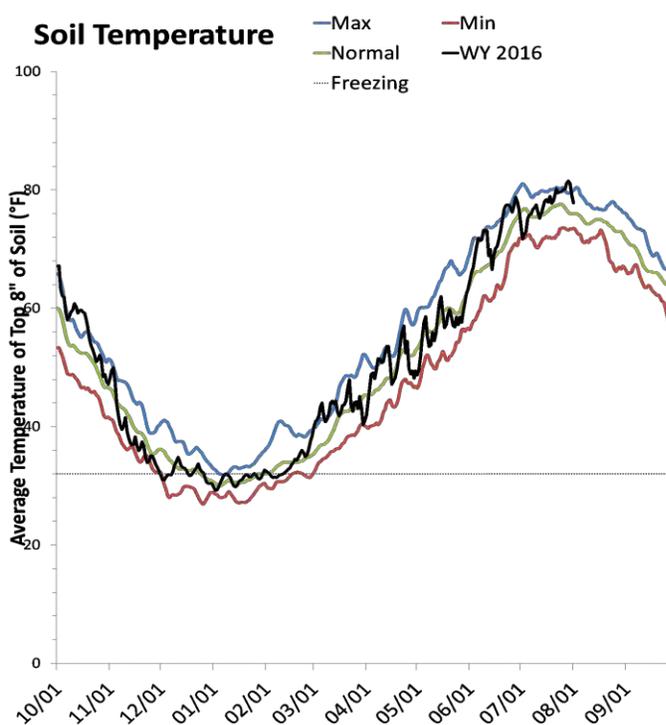
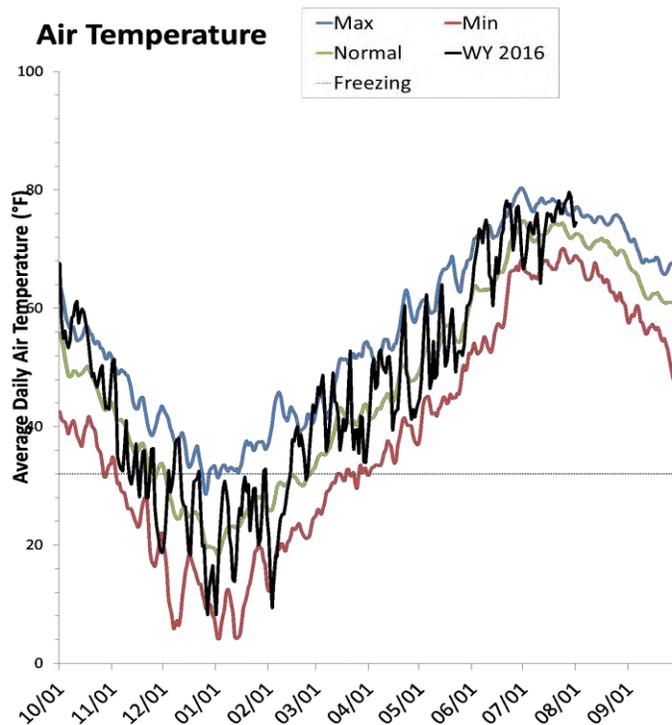
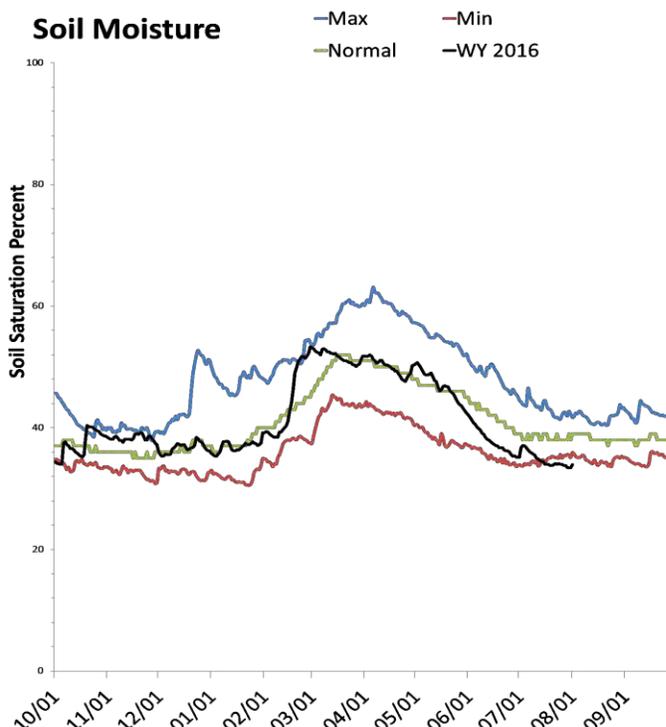
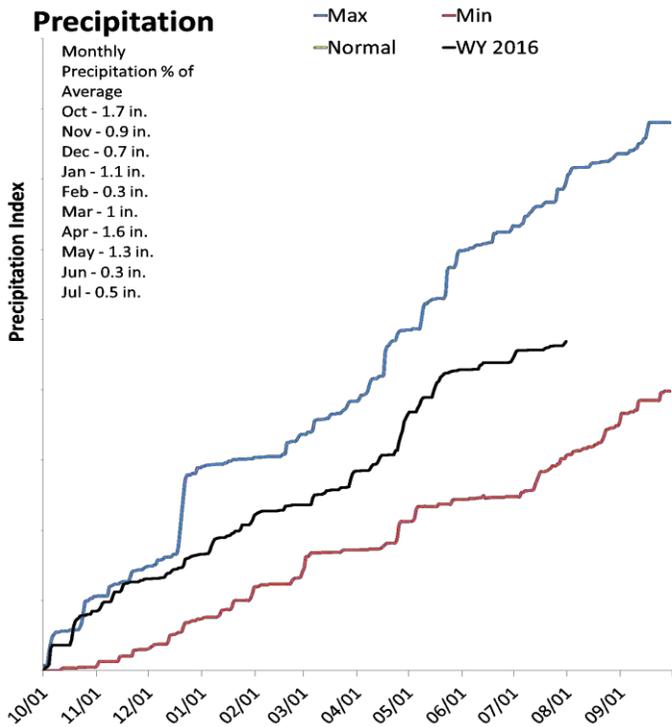
- Agricultural and range lands.
- Mid elevation (3 – 7,000 ft).
- Irrigation efficiency and rangeland productivity.
- Installed on spatially representative soils.



Statewide SCAN

8/1/2016

The average precipitation at SCAN sites within Utah was 0.5 inches in July, which brings the seasonal accumulation (Oct-Jul) to 9.4 inches. Soil moisture is at 33% compared to 36% last year.



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

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

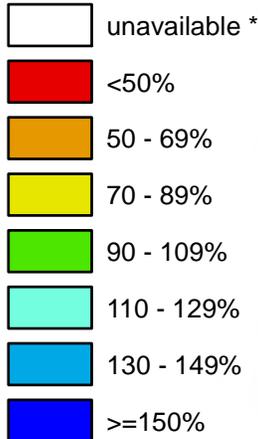
Utah

SNOTEL Water Year (Oct 1) to Date Precipitation % of Normal

RAFT River
↓

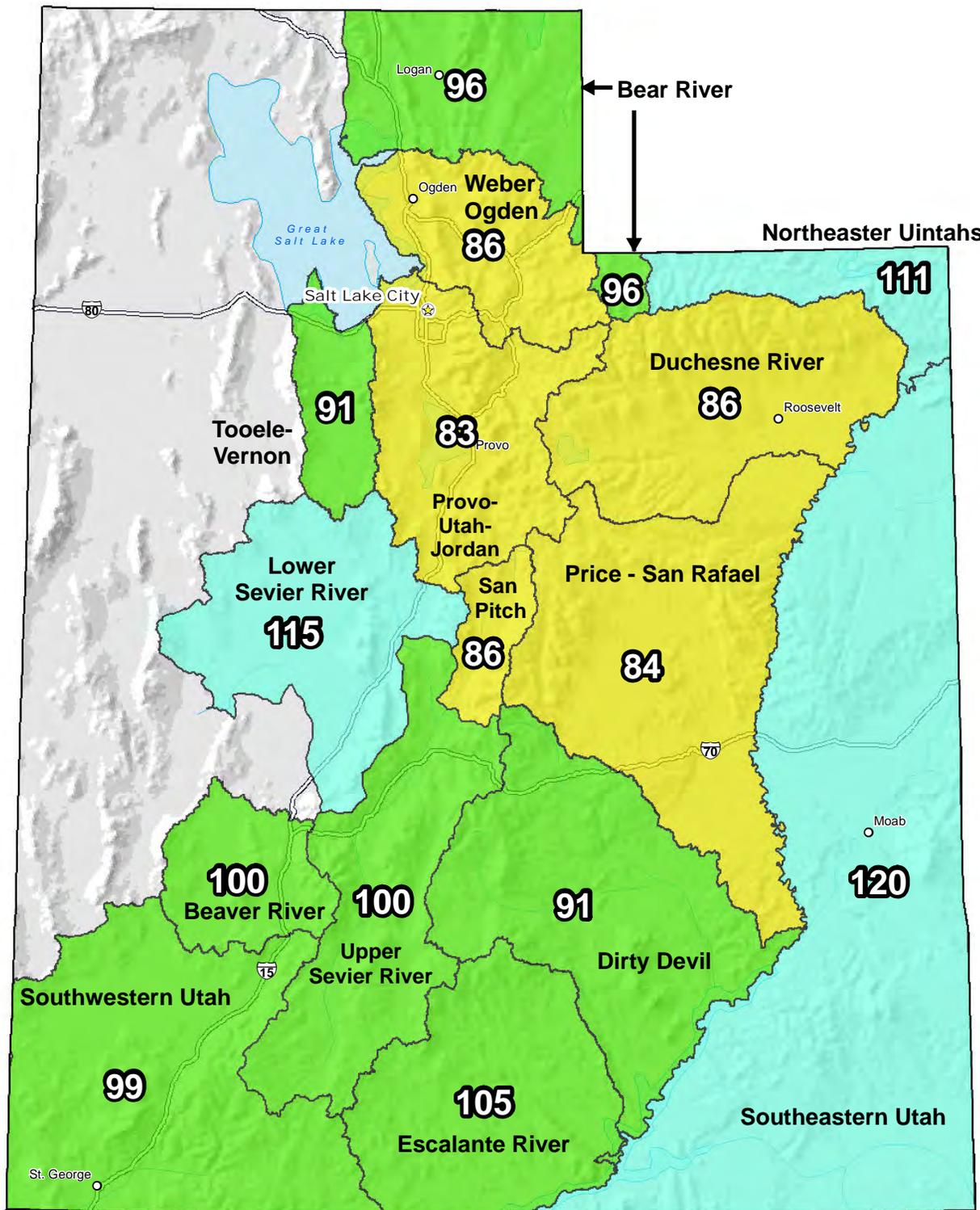
Aug 02, 2016

**Water Year
(Oct 1) to Date
Precipitation
Basin-wide
Percent of
1981-2010
Average**



* Data unavailable at time of posting or measurement is not representative at this time of year

**Provisional Data
Subject to Revision**



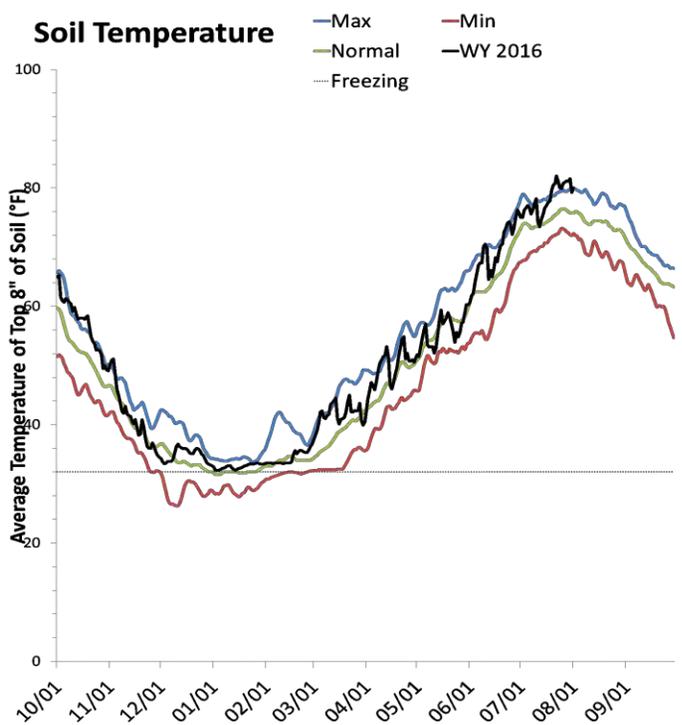
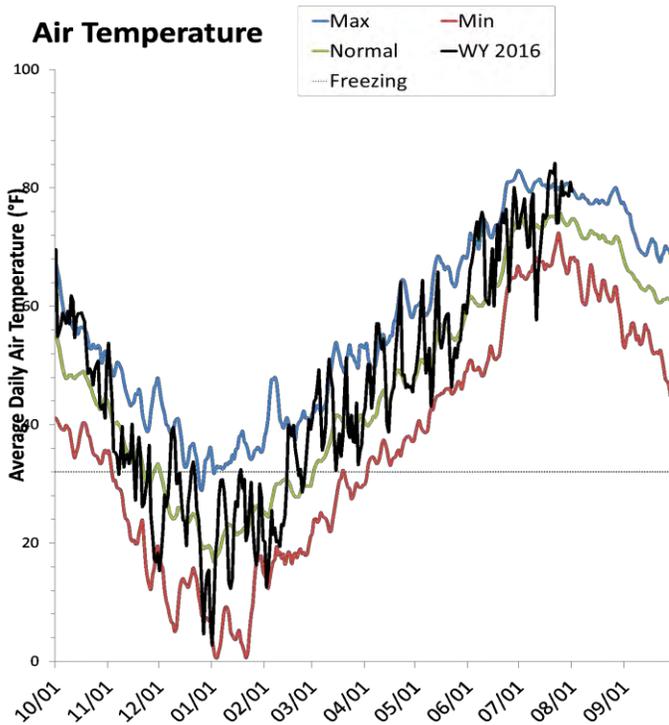
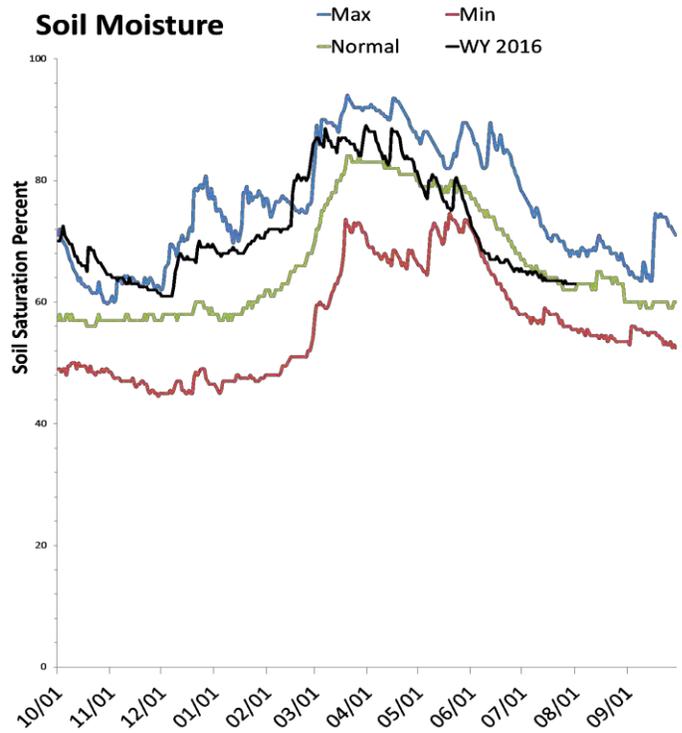
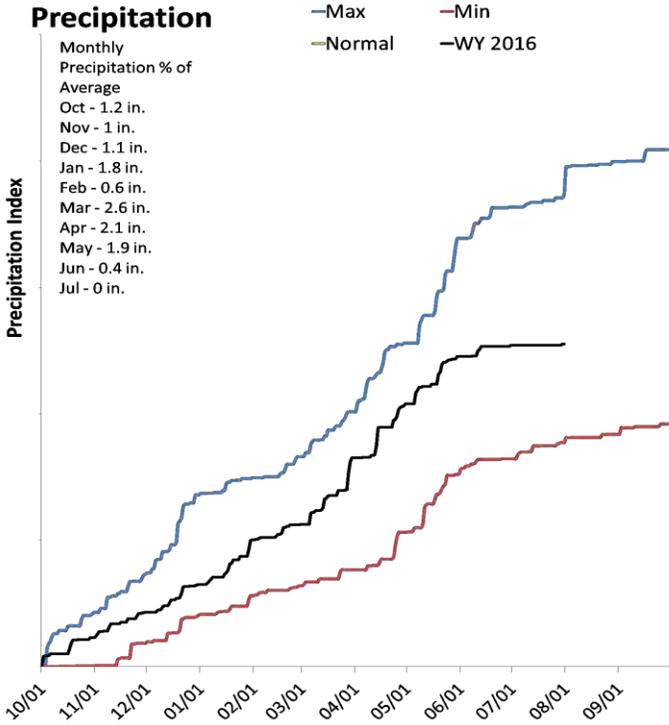
The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by:
USDA/NRCS National Water and Climate Center
Portland, Oregon
<http://www.wcc.nrcs.usda.gov>

North Central

8/1/2016

The average precipitation in July at SCAN sites within the basin was 0.1 inches, which brings the seasonal accumulation (Oct-Jul) to 12.8 inches. Soil moisture is at 63% compared to 68% last year.



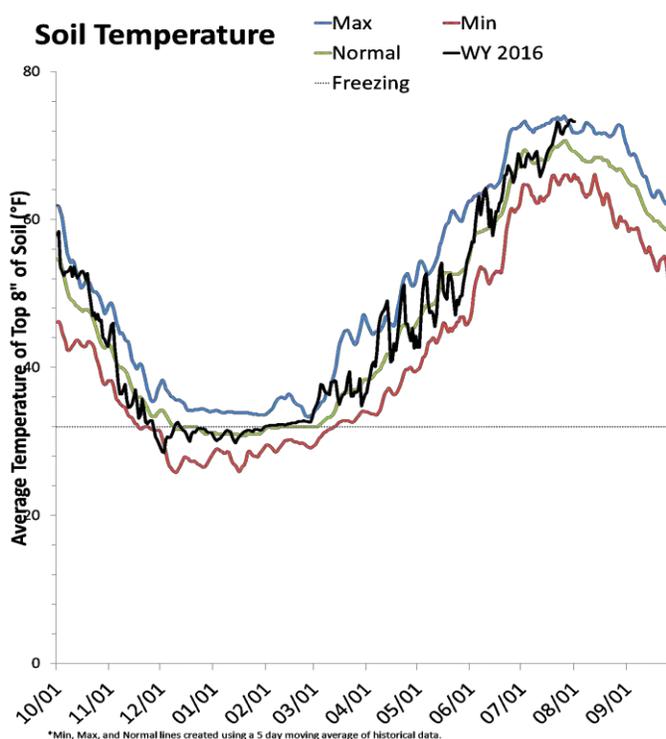
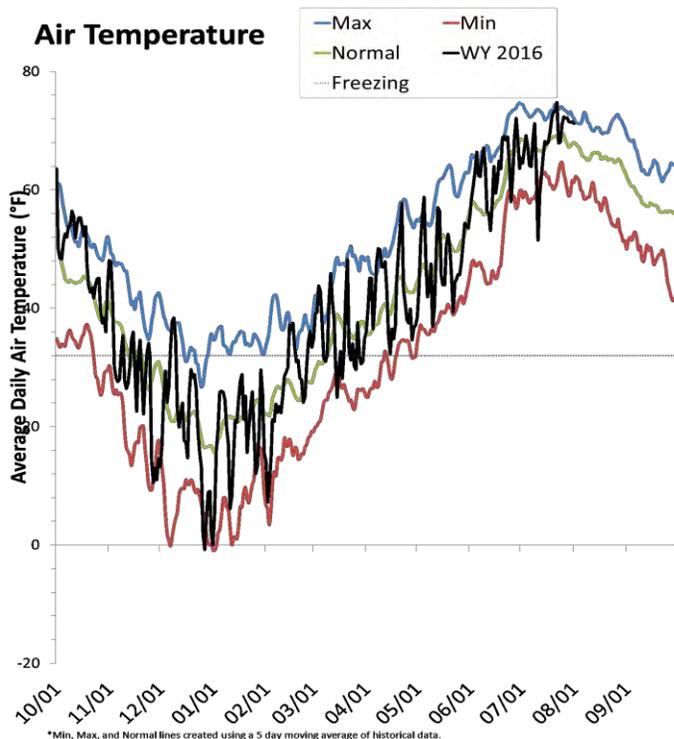
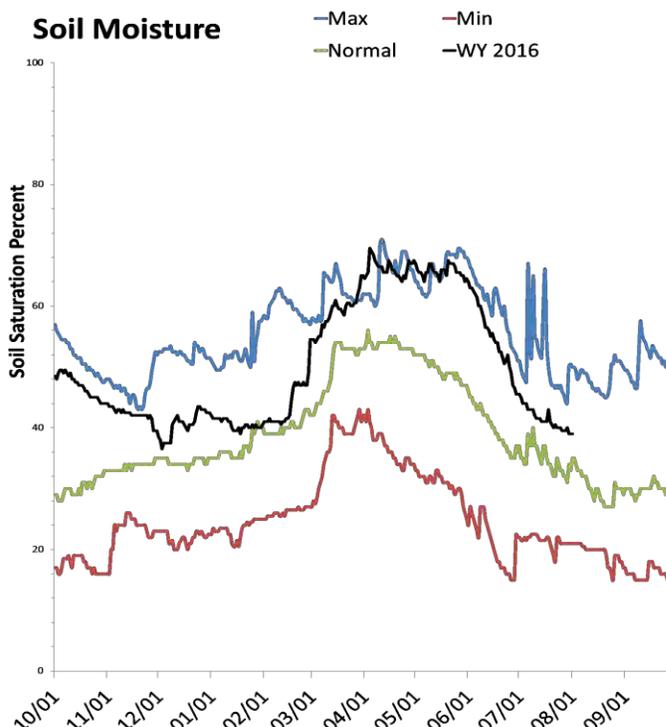
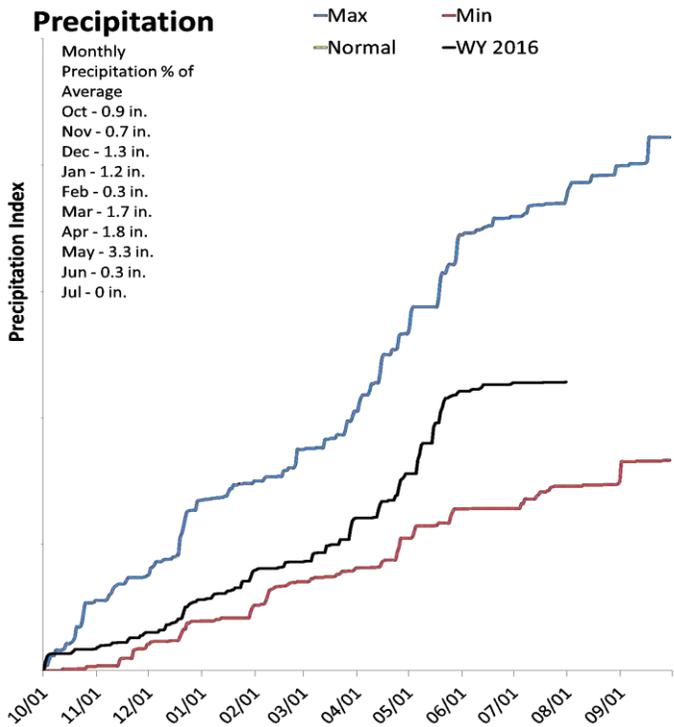
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Northern Mountains

8/1/2016

The average precipitation in July at SCAN sites within the basin was 0 inches, which brings the seasonal accumulation (Oct-Jul) to 11.4 inches. Soil moisture is at 33% compared to 38% last year.



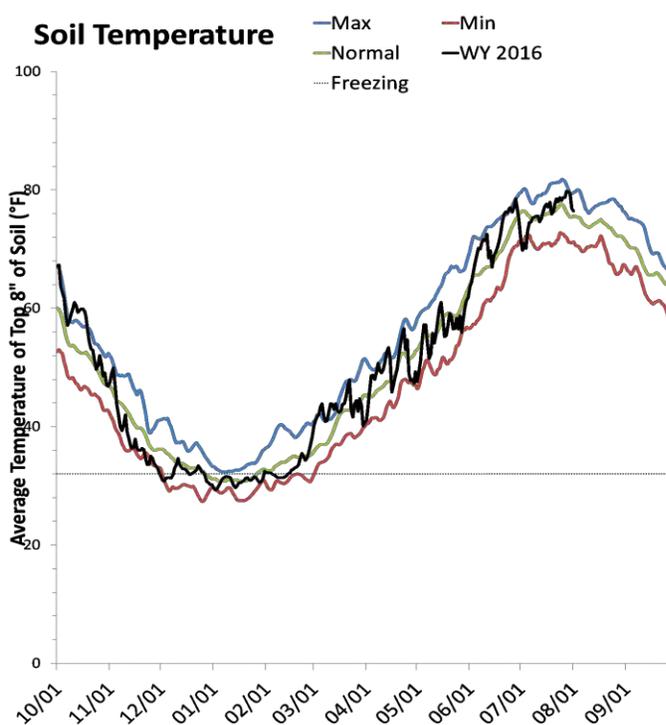
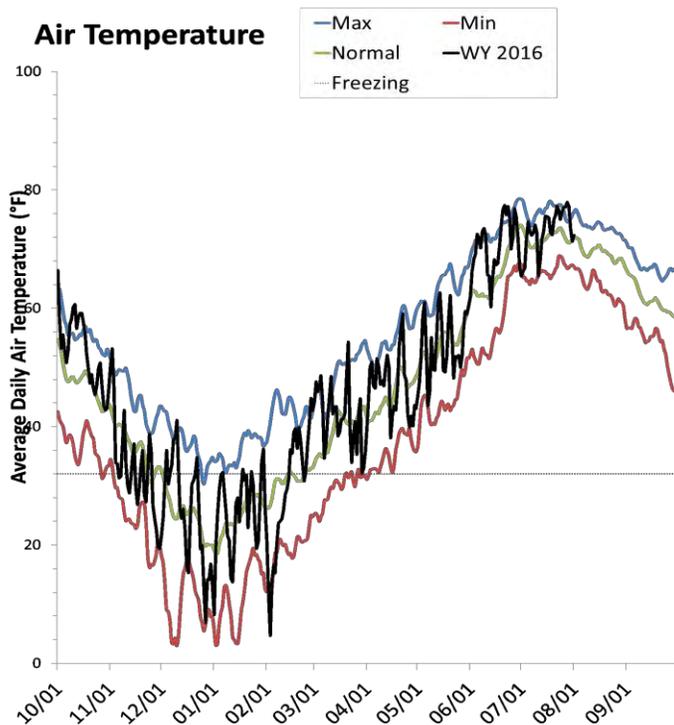
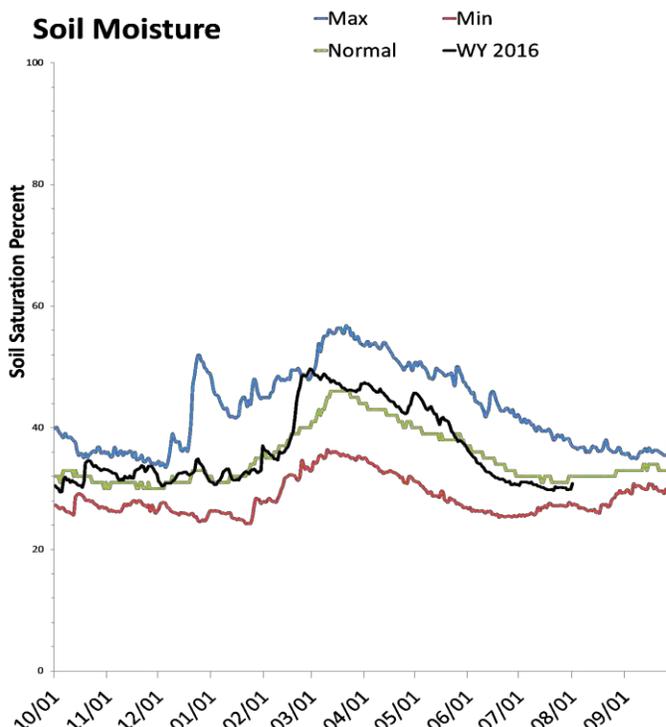
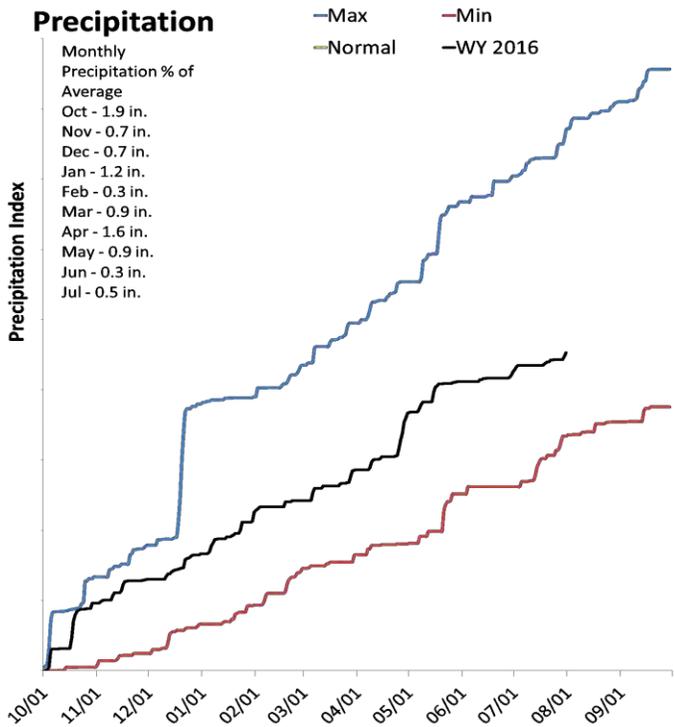
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South Central

8/1/2016

The average precipitation in July at SCAN sites within the basin was 0.5 inches, which brings the seasonal accumulation (Oct-Jul) to 9.1 inches. Soil moisture is at 30% compared to 31% last year.



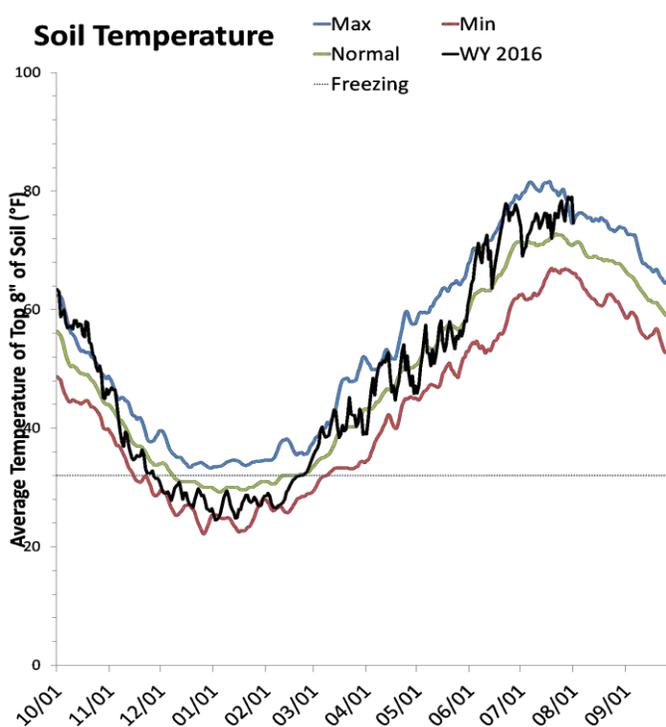
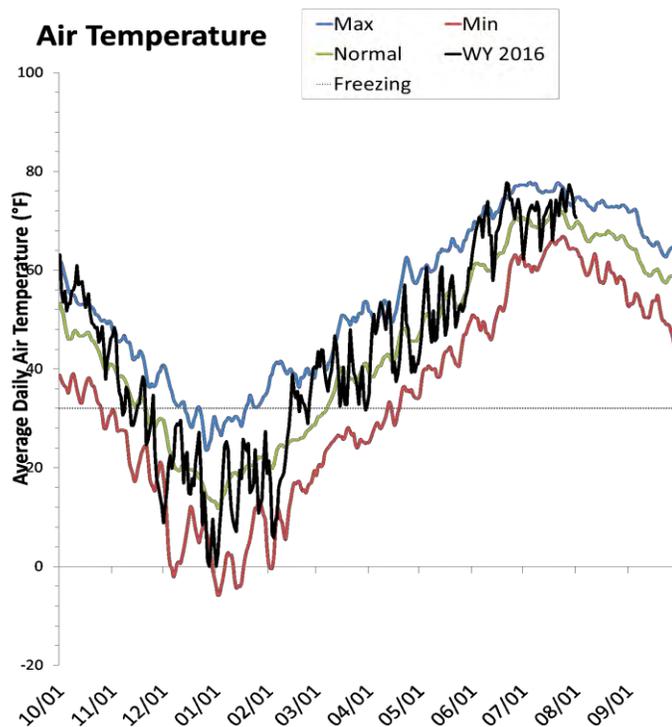
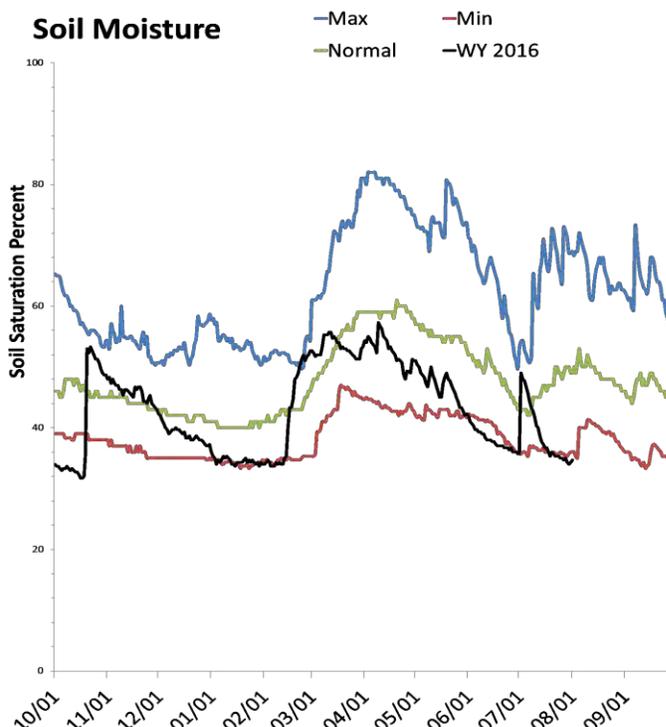
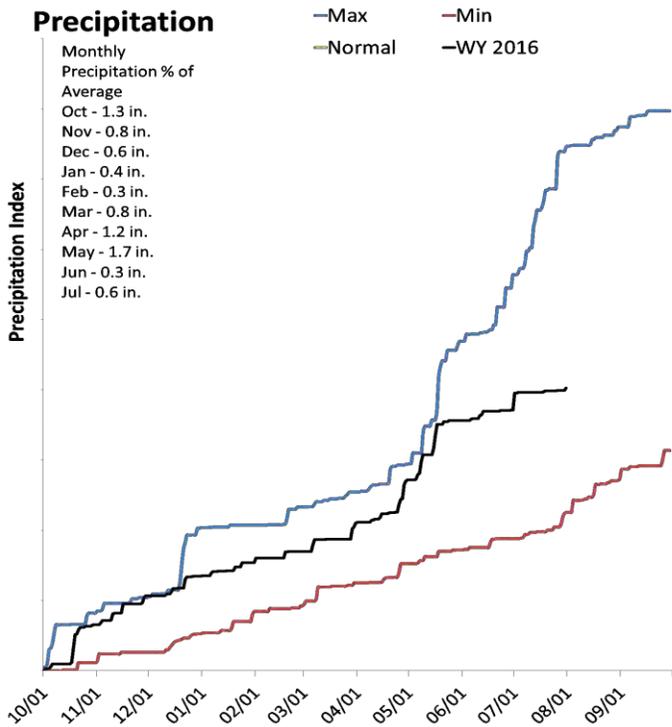
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Uintah Basin

8/1/2016

The average precipitation in July at SCAN sites within the basin was 0.6 inches, which brings the seasonal accumulation (Oct-Jul) to 8 inches. Soil moisture is at 35% compared to 54% last year.



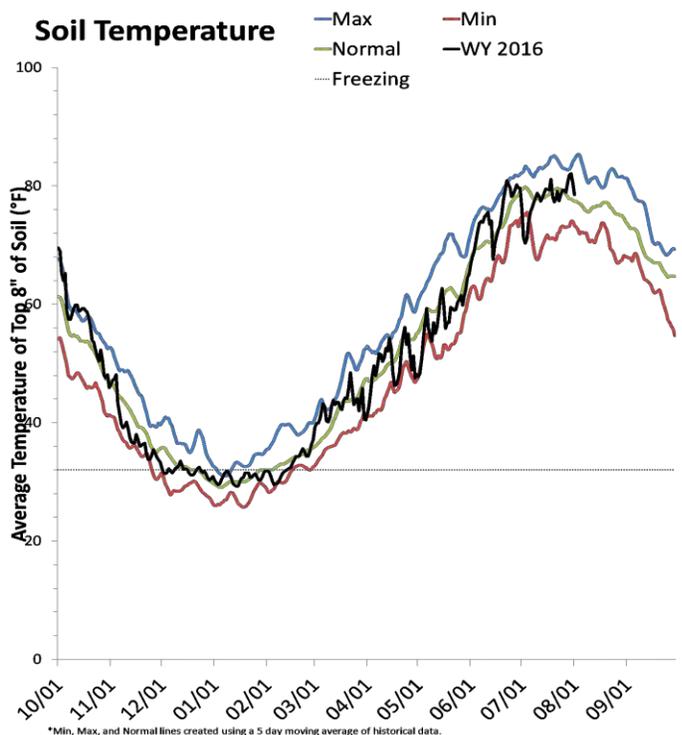
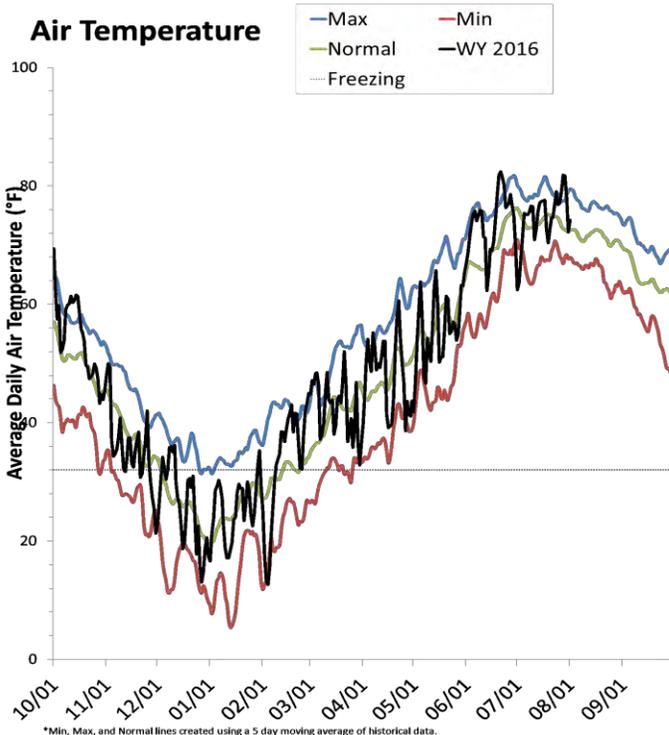
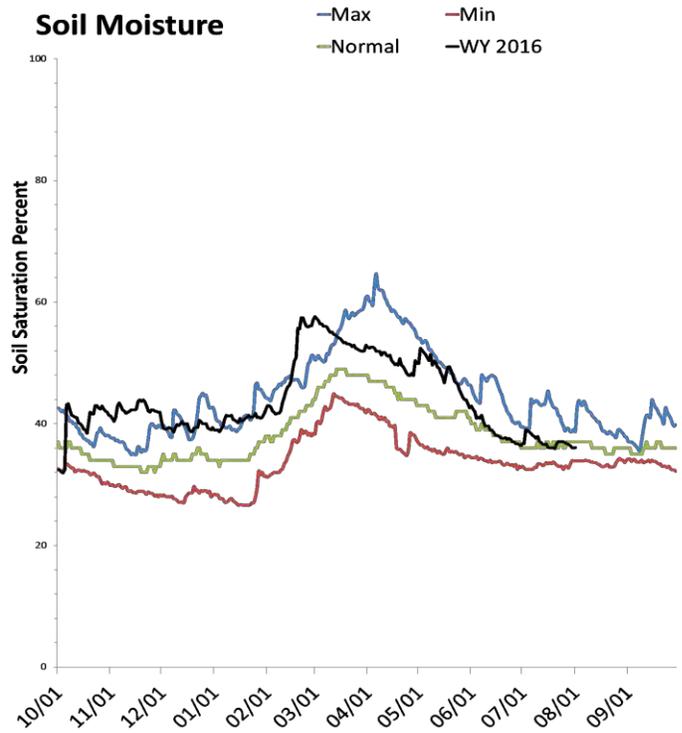
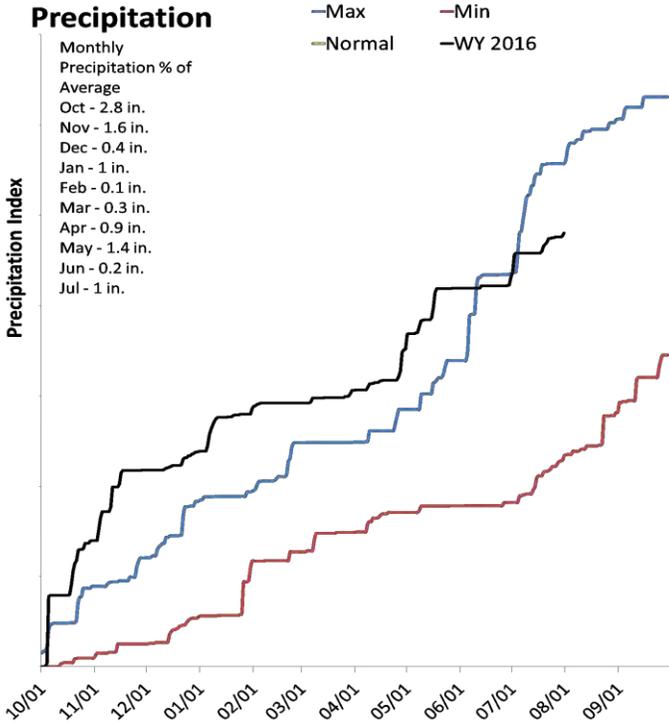
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Southeast

8/1/2016

The average precipitation in July at SCAN sites within the basin was 1 inches, which brings the seasonal accumulation (Oct-Jul) to 9.6 inches. Soil moisture is at 36% compared to 36% last year.



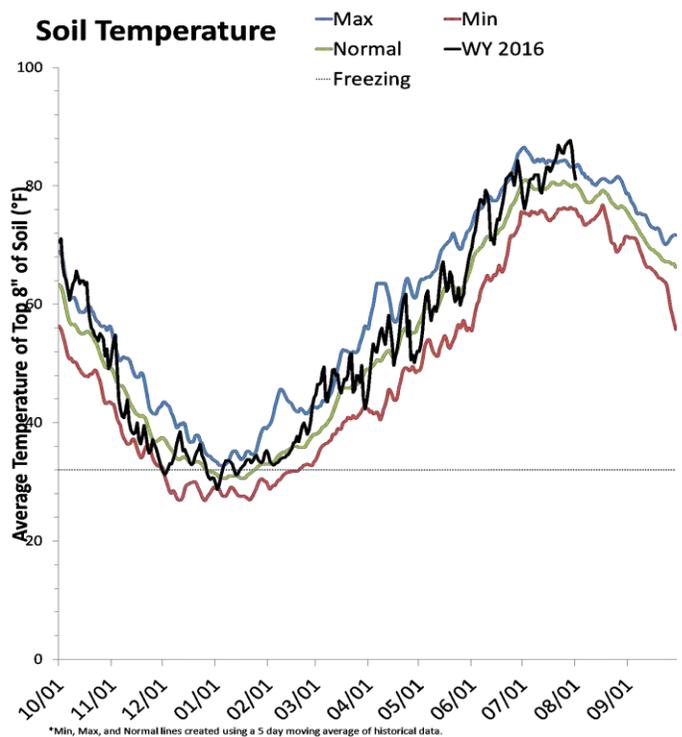
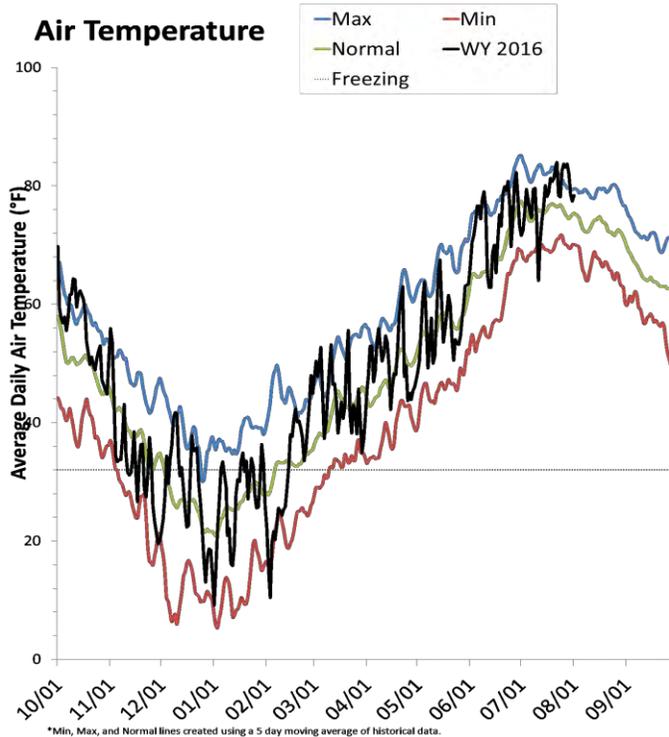
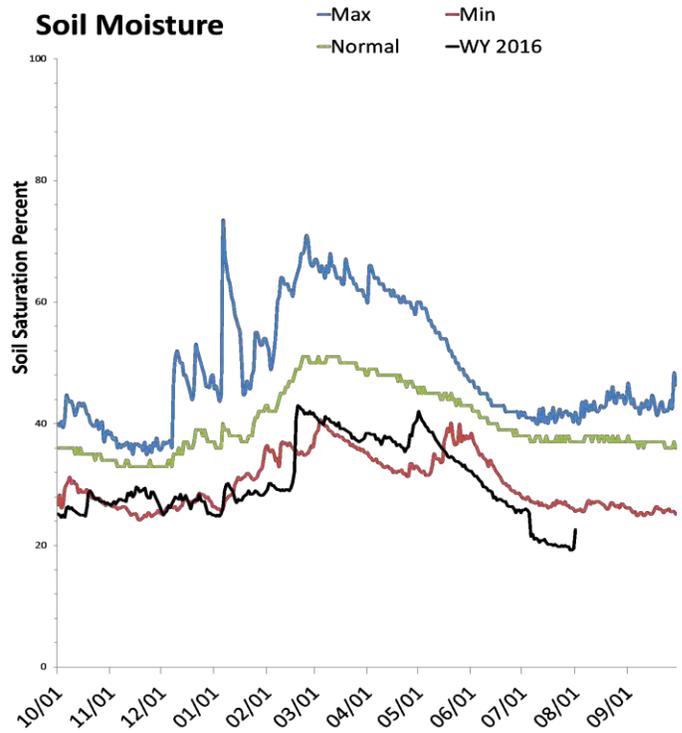
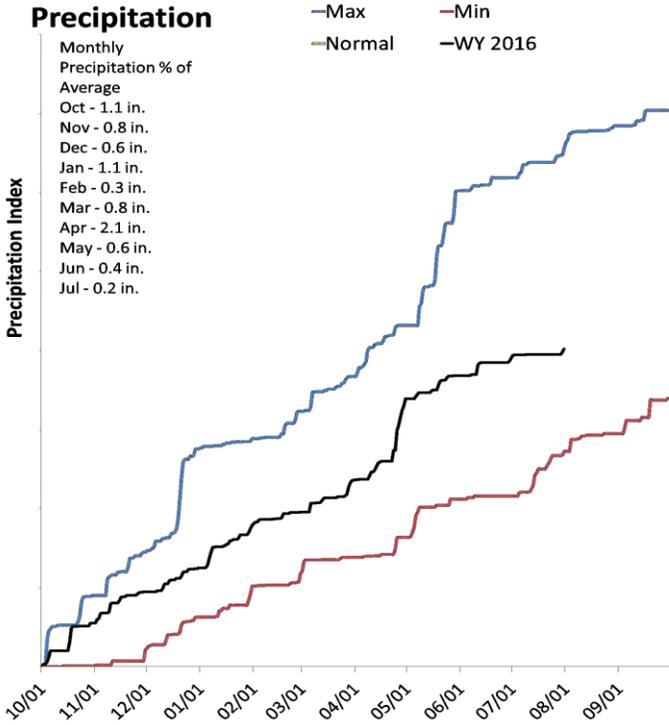
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Western and Dixie

8/1/2016

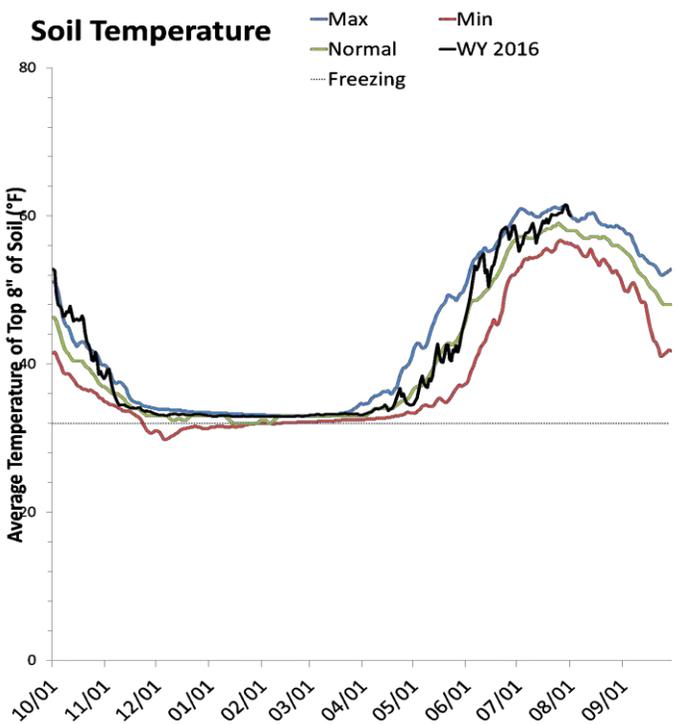
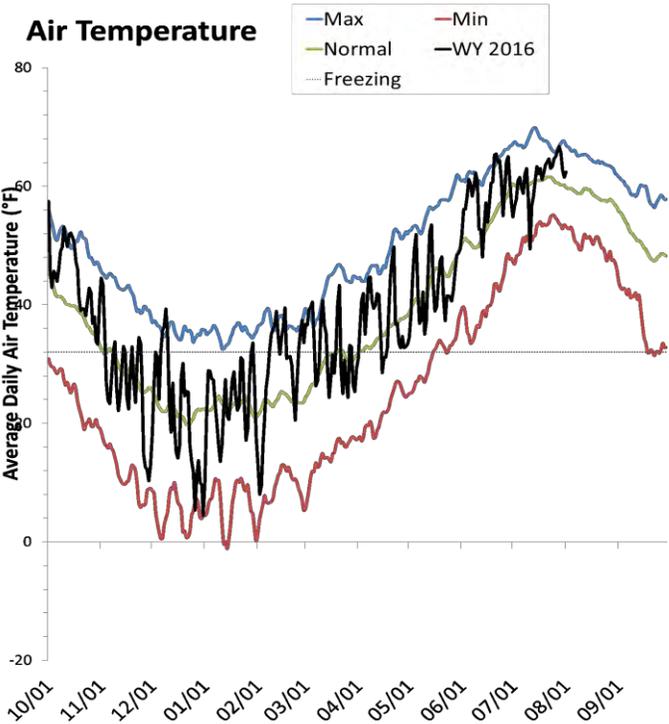
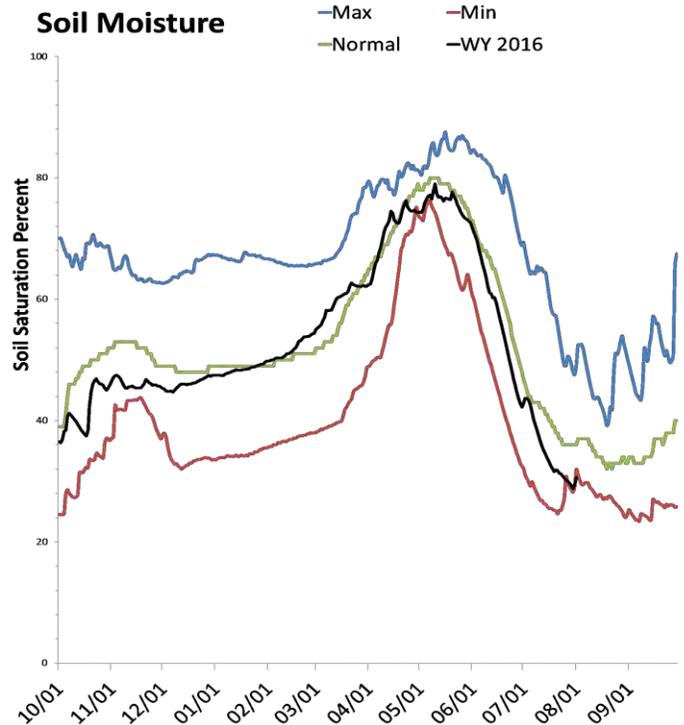
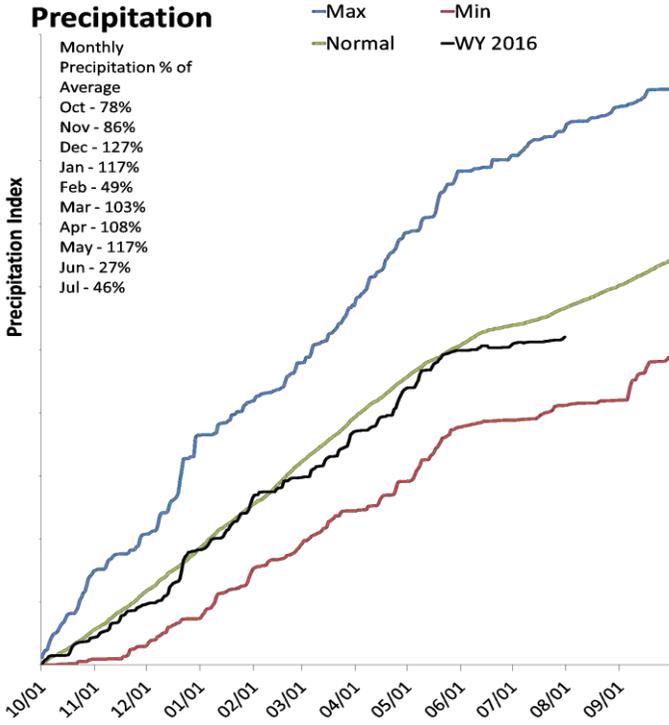
The average precipitation in July at SCAN sites within the basin was 0.2 inches, which brings the seasonal accumulation (Oct-Jul) to 8 inches. Soil moisture is at 20% compared to 26% last year.



Statewide SNOTEL

8/1/2016

Precipitation at SNOTEL sites during July was much below average at 46%, which brings the seasonal accumulation (Oct-Jul) to 92% of average. Soil moisture is at 31% compared to 40% last year. Reservoir storage is at 56% of capacity, compared to 56% last year.



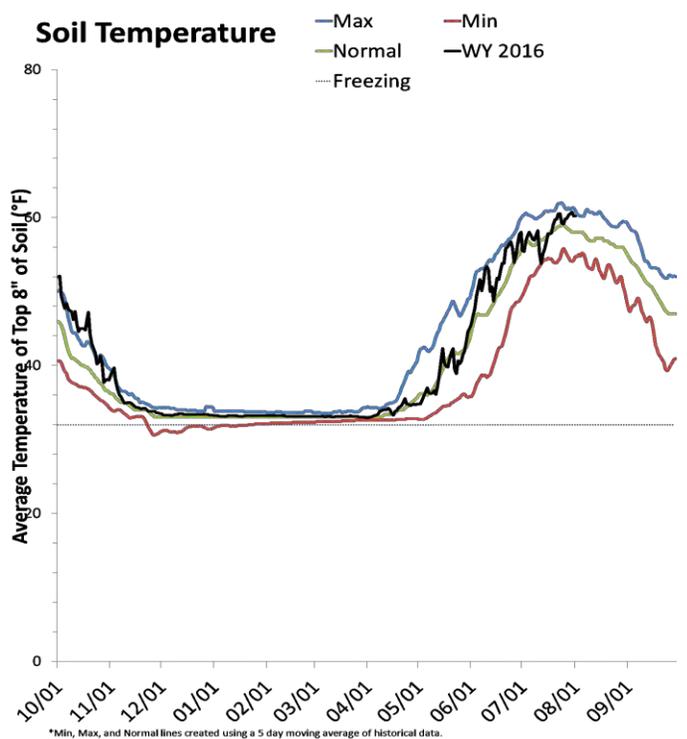
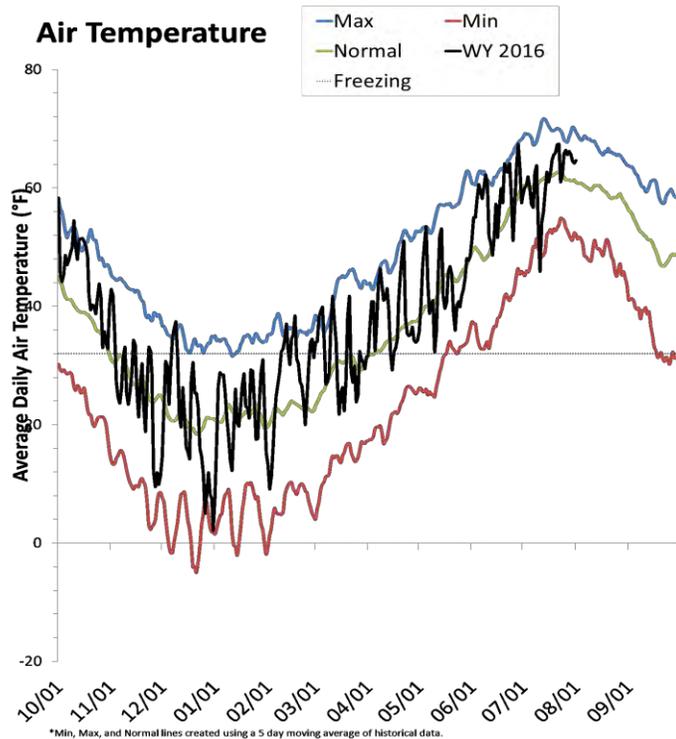
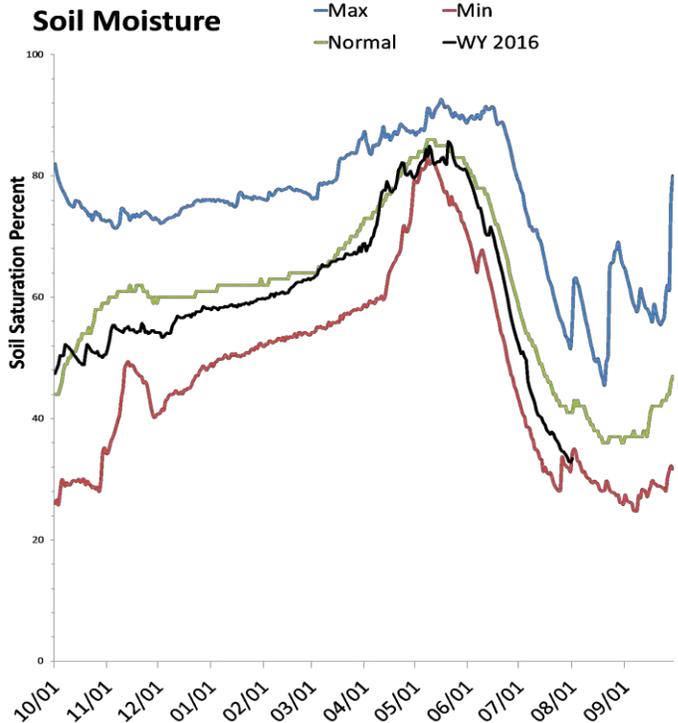
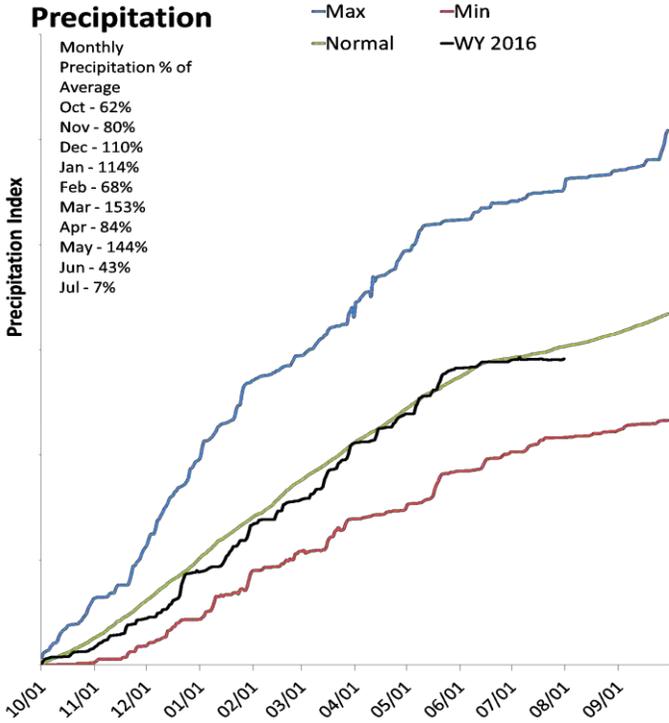
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Bear River Basin

8/1/2016

Precipitation in July was much below average at 7%, which brings the seasonal accumulation (Oct-Jul) to 96% of average. Soil moisture is at 33% compared to 48% last year. Reservoir storage is at 45% of capacity, compared to 45% last year. The water availability index for the Bear River is 41%, 68% for Woodruff Narrows and 36% for the Little Bear.

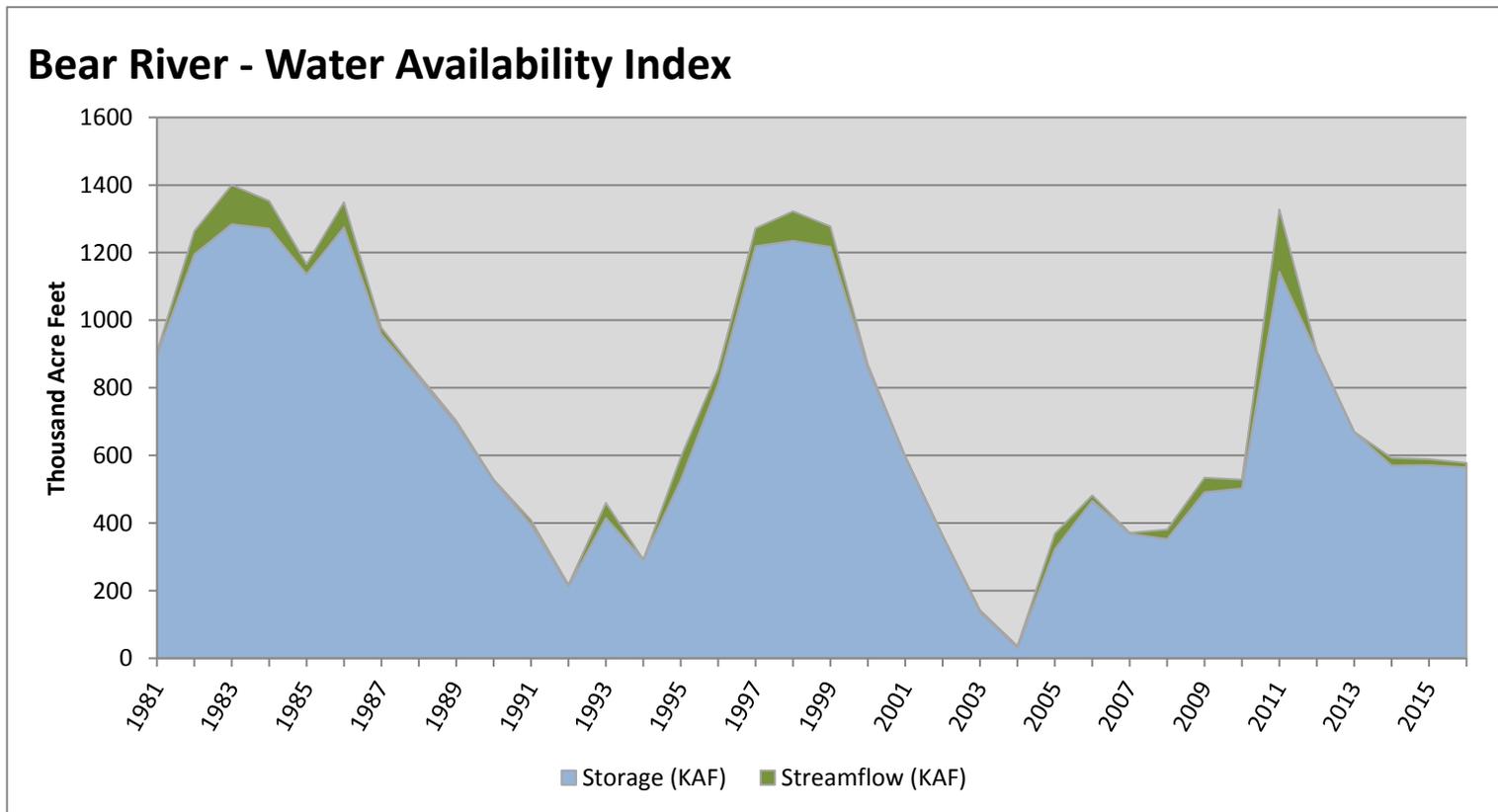


August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similar WAI
	KAF^	KAF^	KAF^	%		
Bear River	565.17	13.15	578.32	41	-0.79	10, 09, 15, 14

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

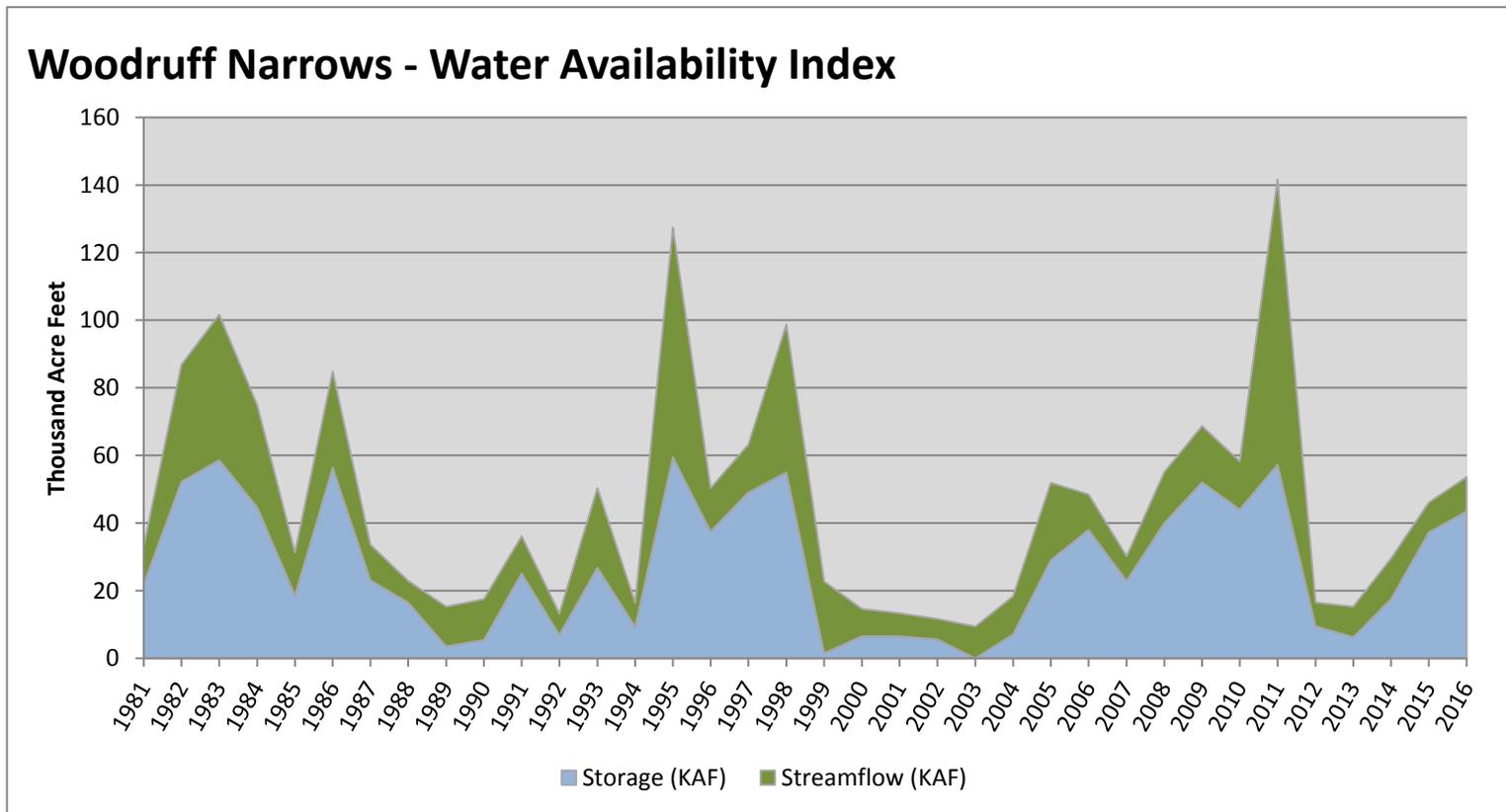


August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Woodruff Narrows	43.43	10.15	53.58	68	1.46	93, 05, 08, 10

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

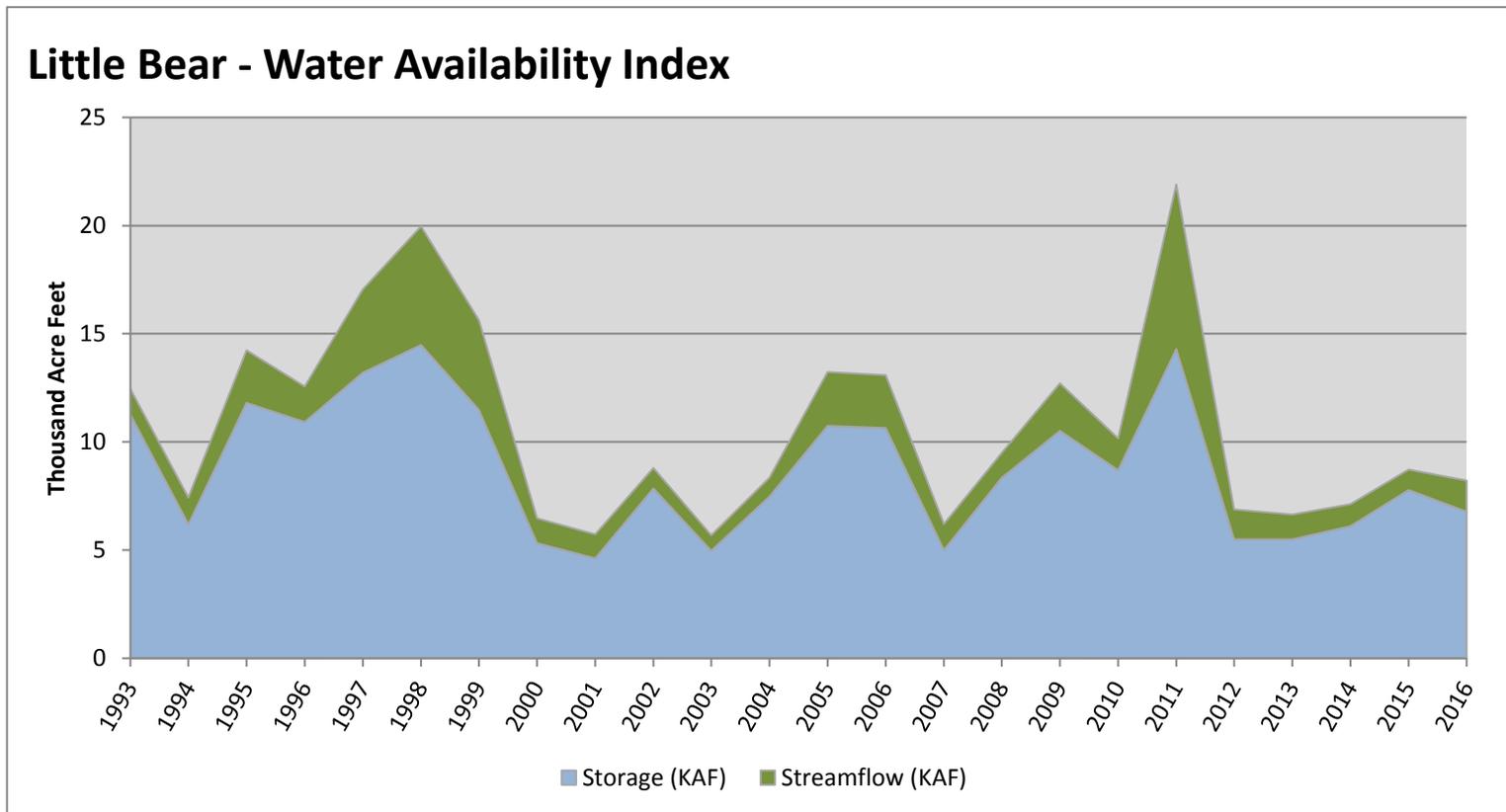


August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Little Bear	6.77	1.45	8.22	36	-1.17	14, 94, 04, 15

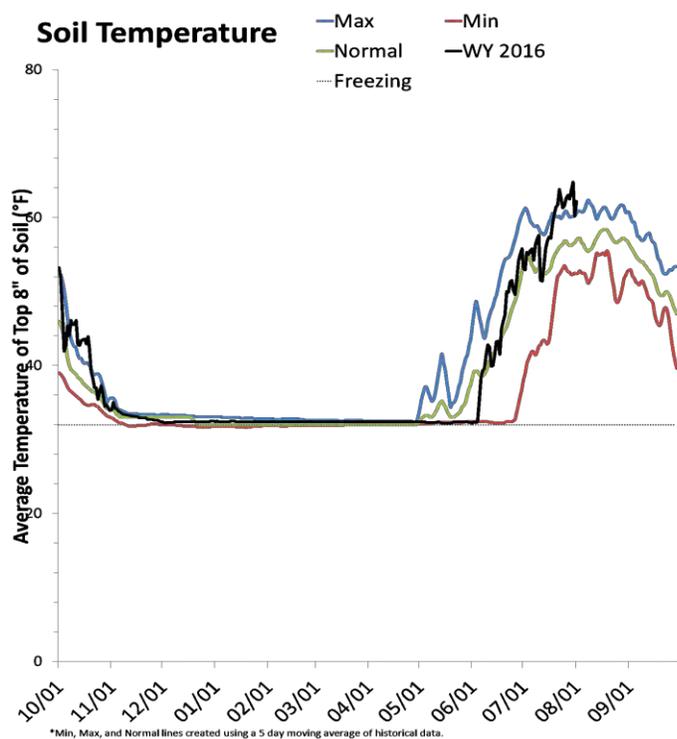
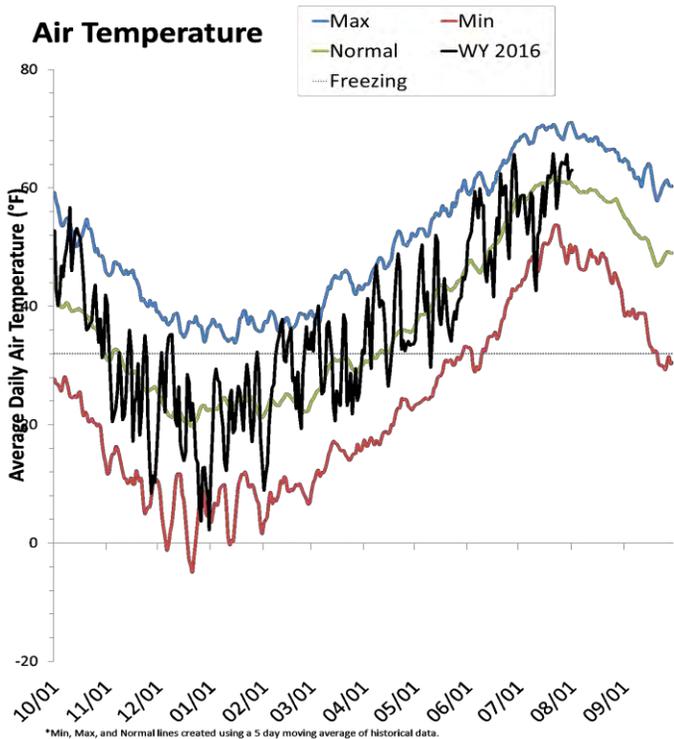
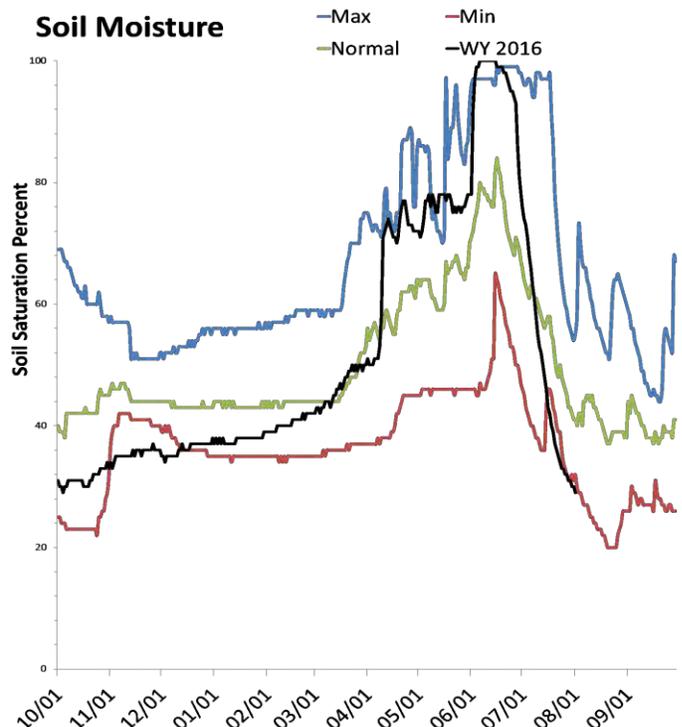
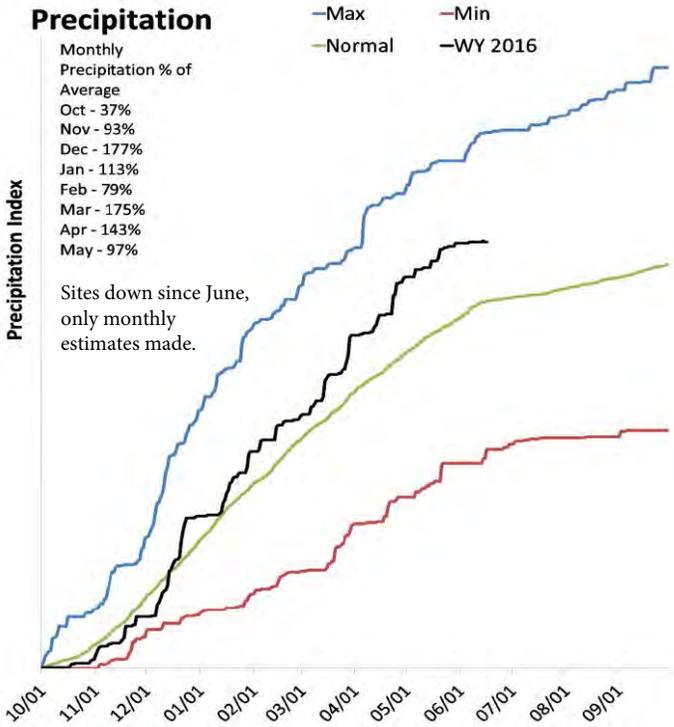
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Raft River Basin

8/1/2016

Precipitation in July was much below average at 22%, which brings the seasonal accumulation (Oct-Jul) to 90% of average. Soil moisture is at 29% compared to 38% last year.



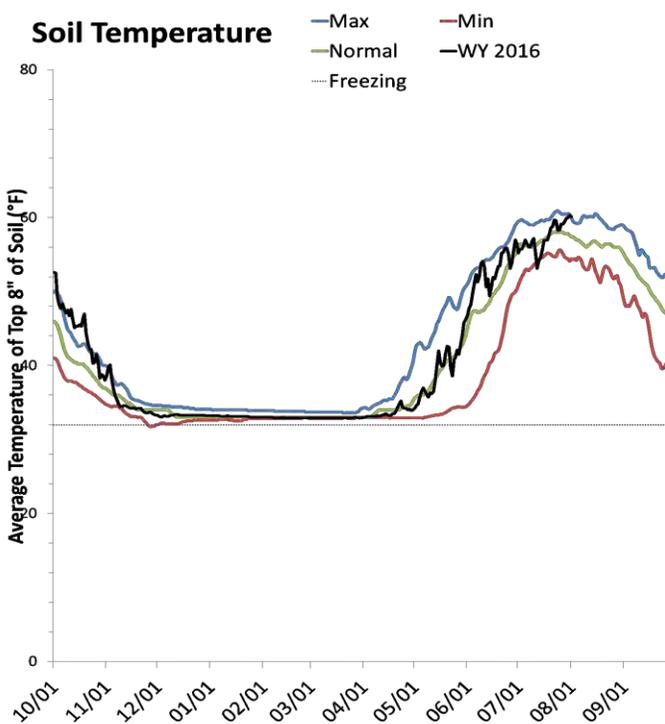
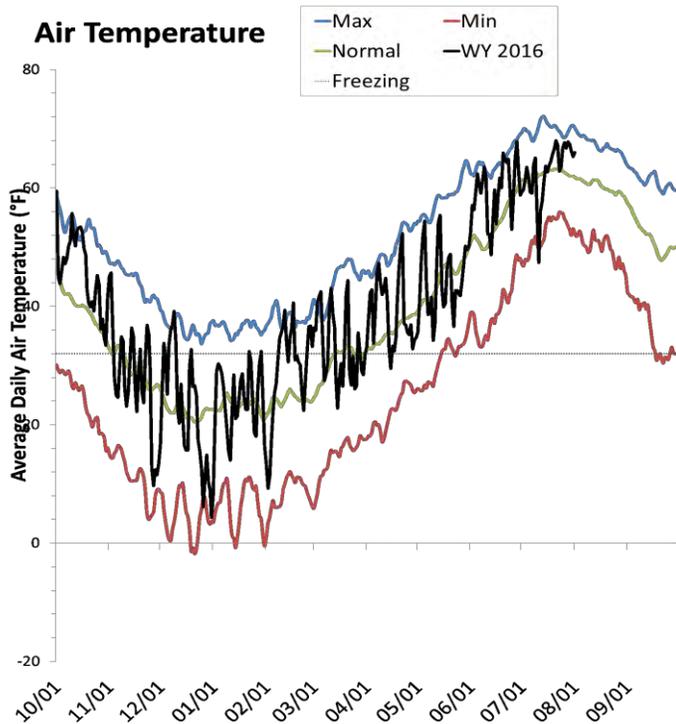
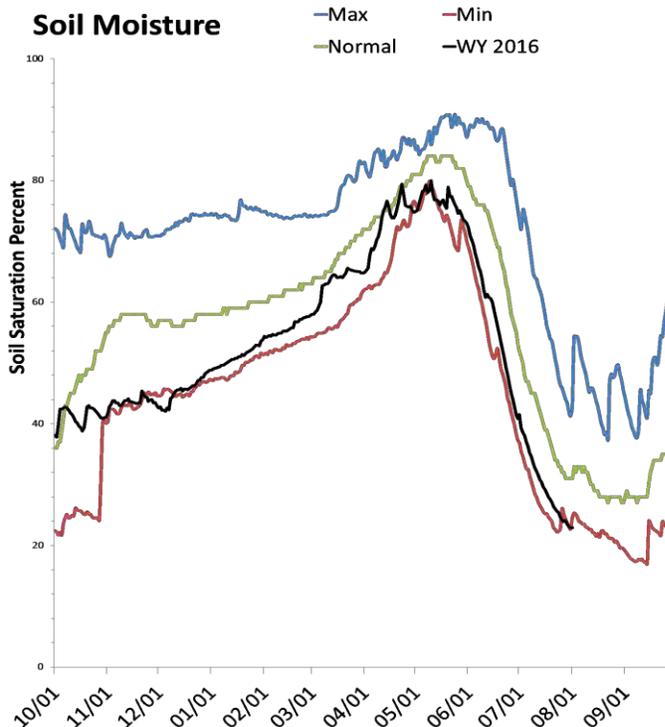
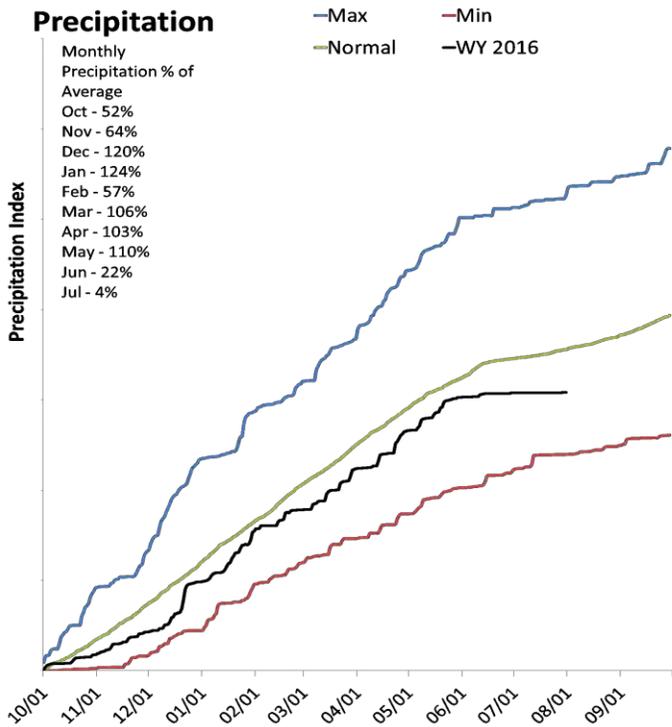
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Weber & Ogden River Basins

8/1/2016

Precipitation in July was much below average at 4%, which brings the seasonal accumulation (Oct-Jul) to 87% of average. Soil moisture is at 23% compared to 39% last year. Reservoir storage is at 61% of capacity, compared to 48% last year. The water availability index for the Ogden River is 54% and 33% for the Weber River.



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

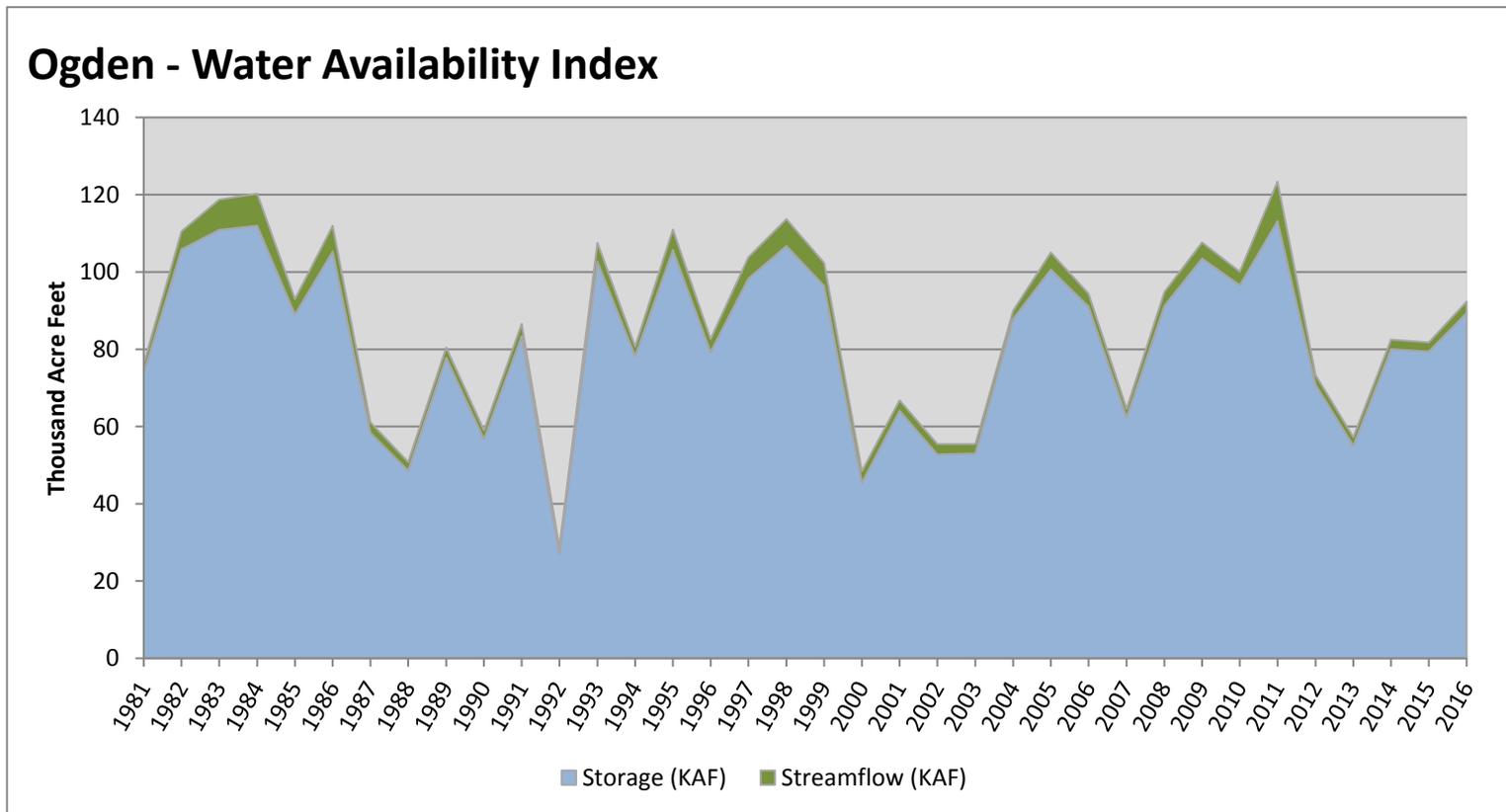
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Ogden	89.43	2.90	92.33	54	0.34	91, 04, 85, 06

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

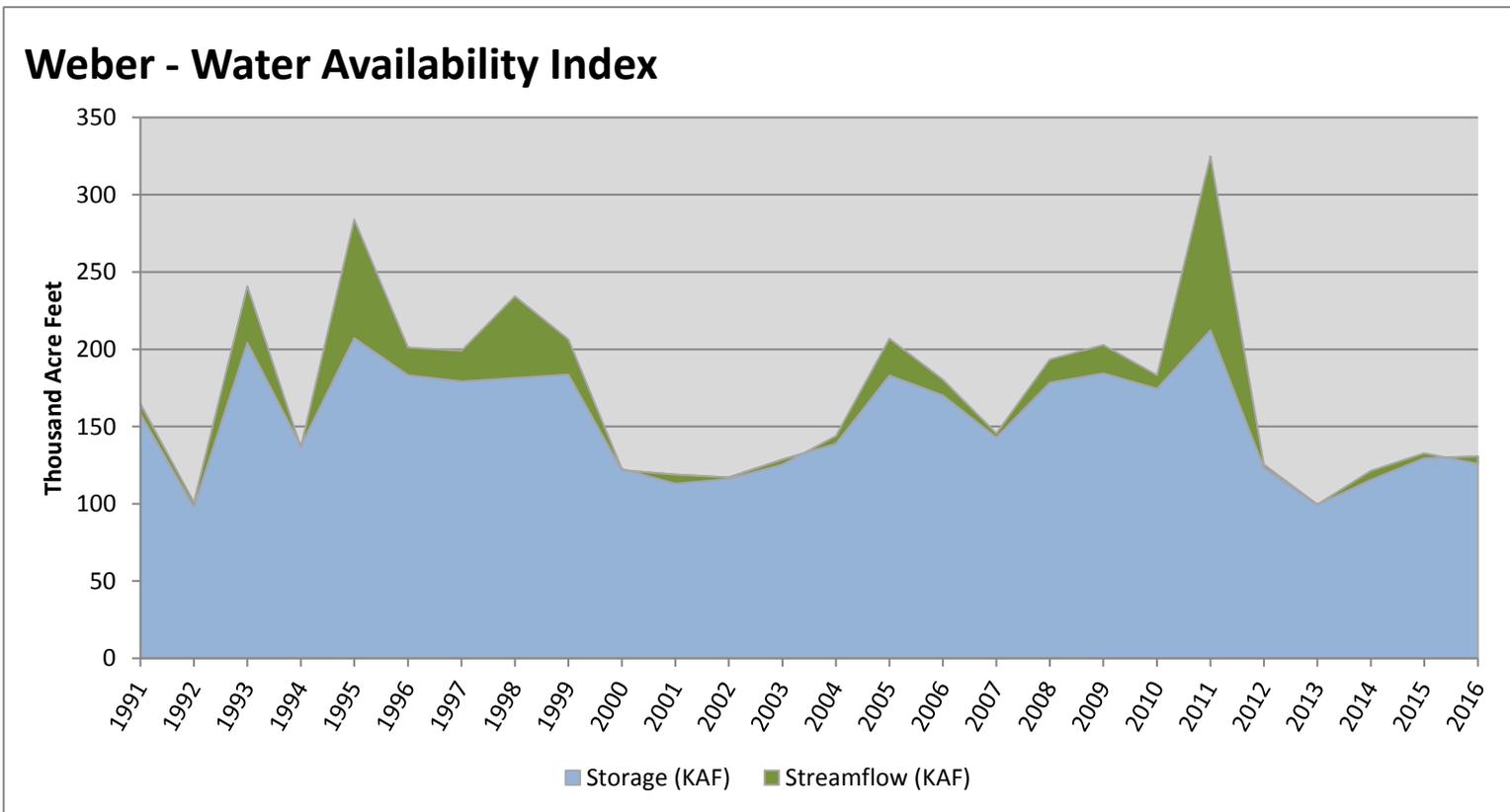


August 1, 2016

Water Availability Index

Basin or Region	Jul EOM [*] Storage	July Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Weber	130.66	-4.75	125.91	33	-1.39	03, 12, 15, 94

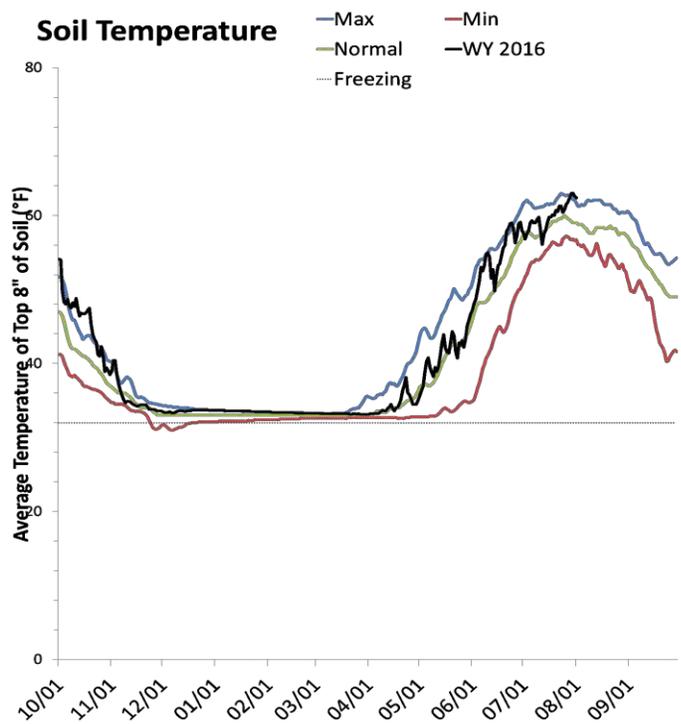
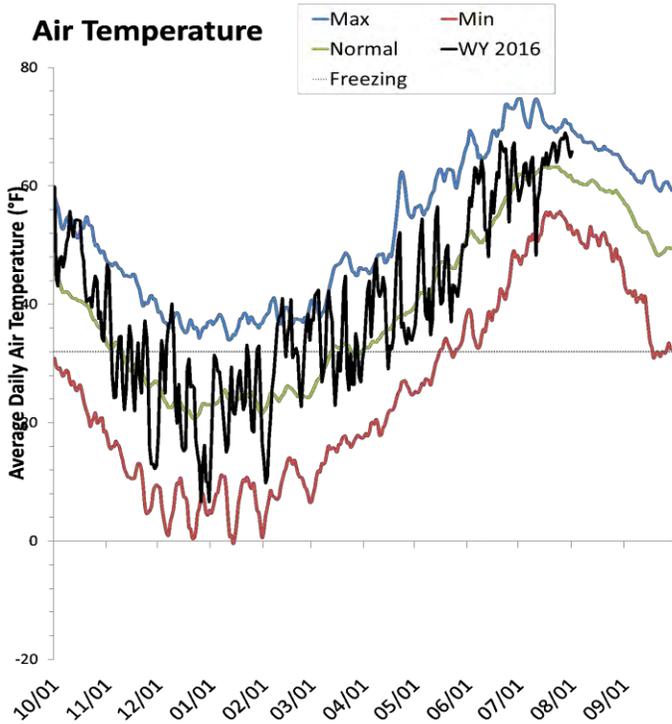
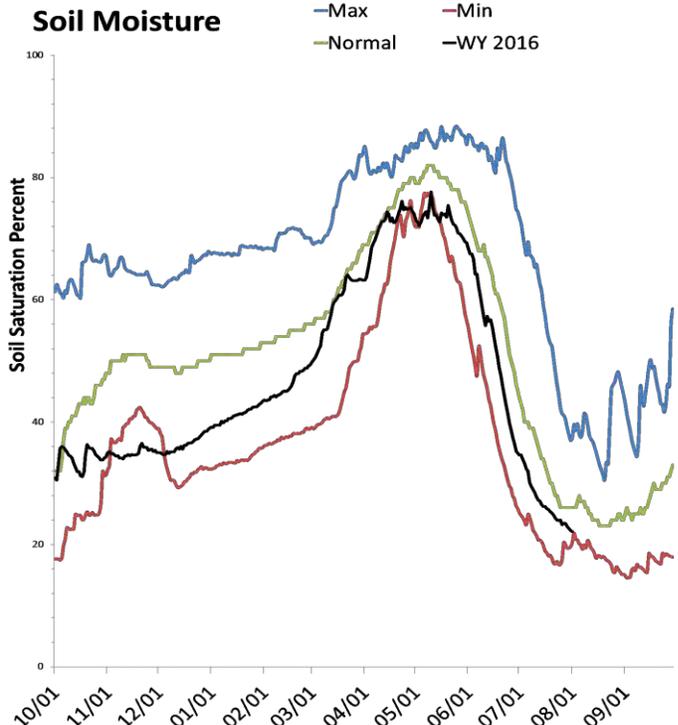
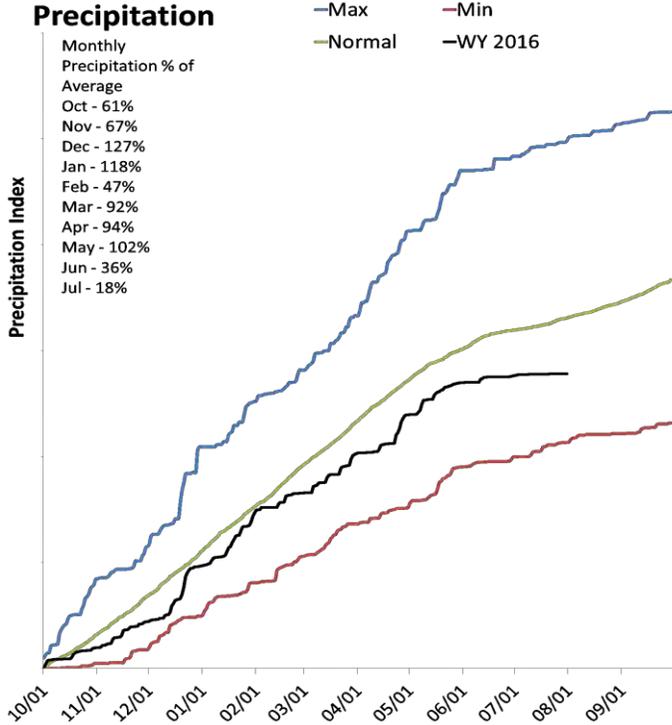
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Provo & Jordan River Basins

8/1/2016

Precipitation in July was much below average at 18%, which brings the seasonal accumulation (Oct-Jul) to 84% of average. Soil moisture is at 22% compared to 31% last year. Reservoir storage is at 63% of capacity, compared to 67% last year. The water availability index for the Provo River is 41%.



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

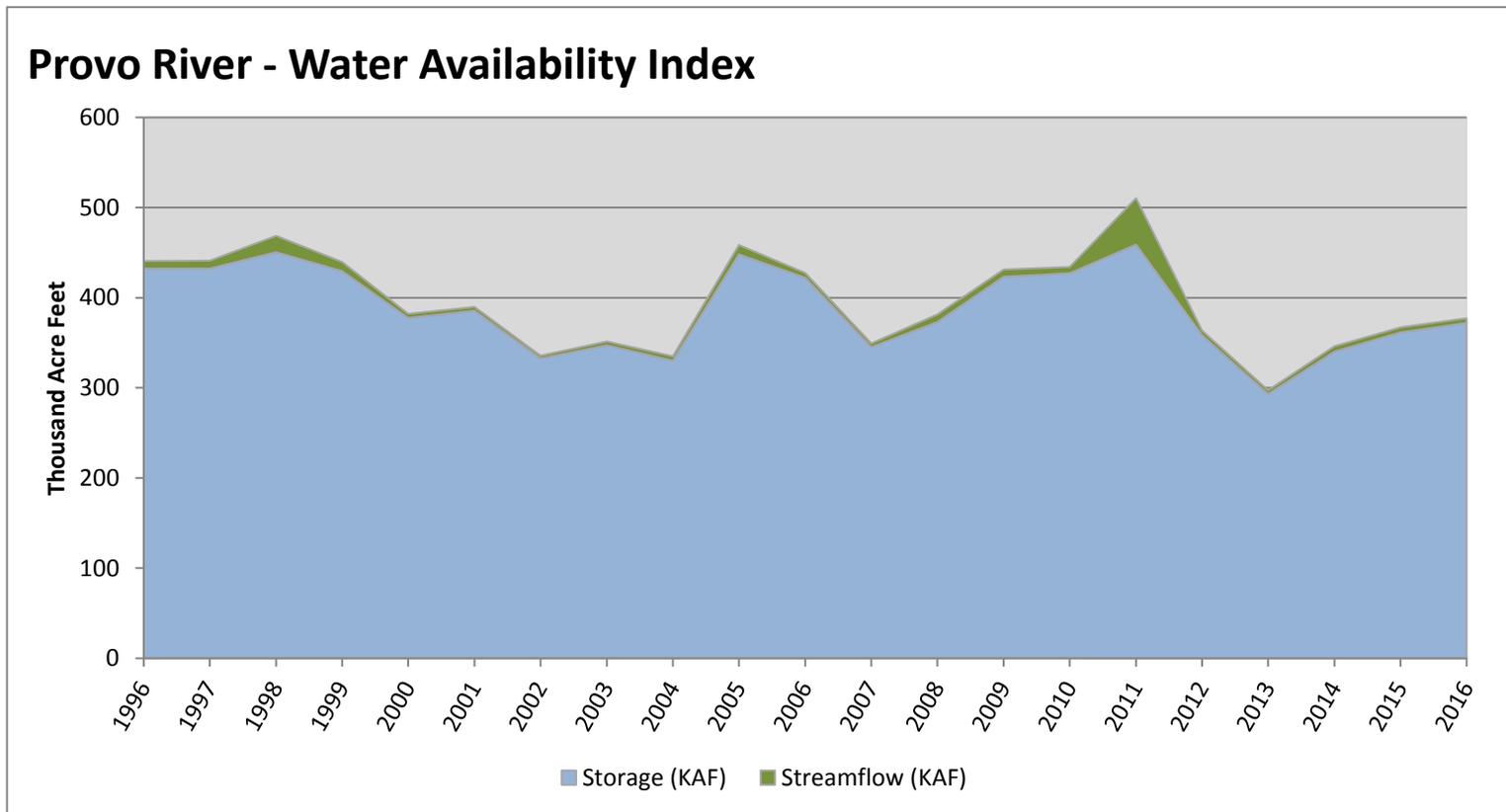
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Provo River	372.12	4.97	377.09	41	-0.76	12, 15, 08, 00

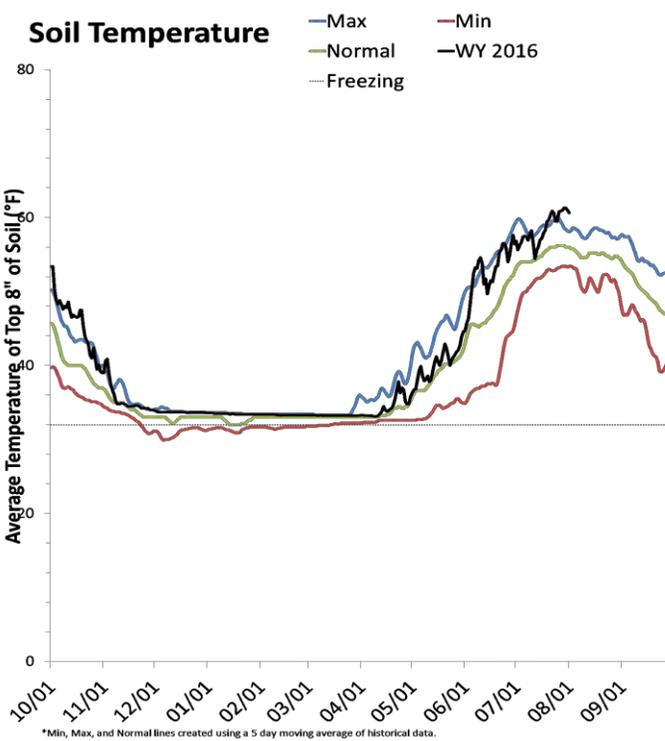
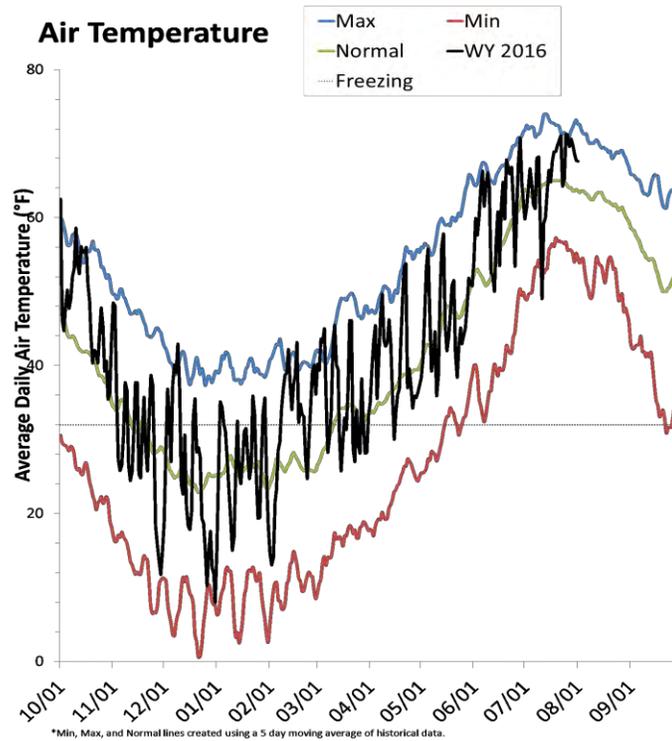
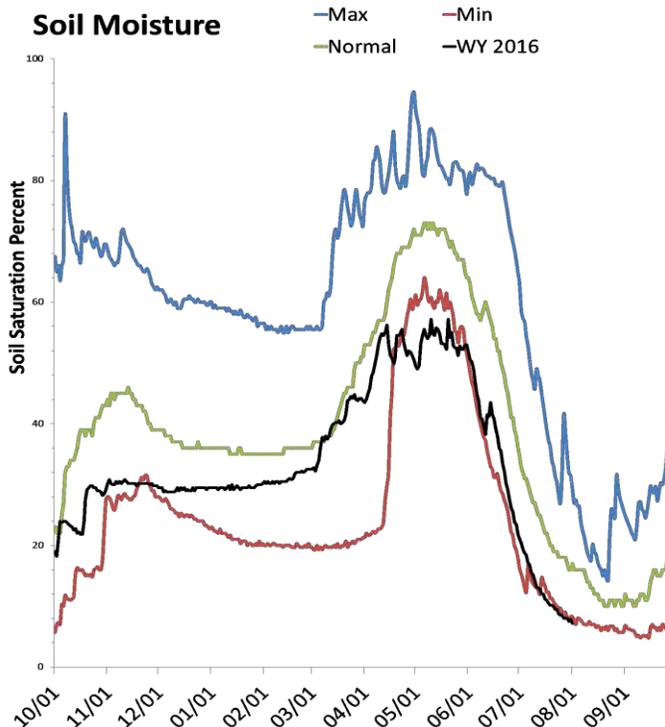
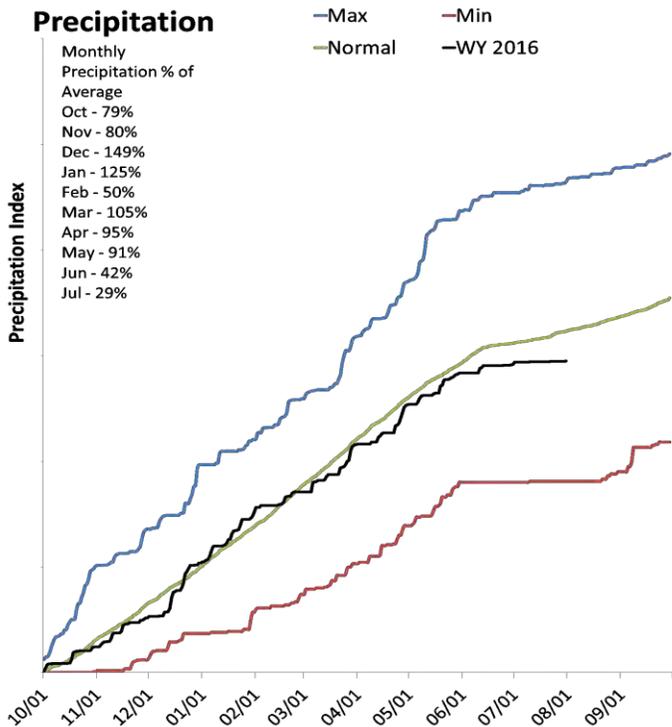
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Tooele & Vernon Creek Basins

8/1/2016

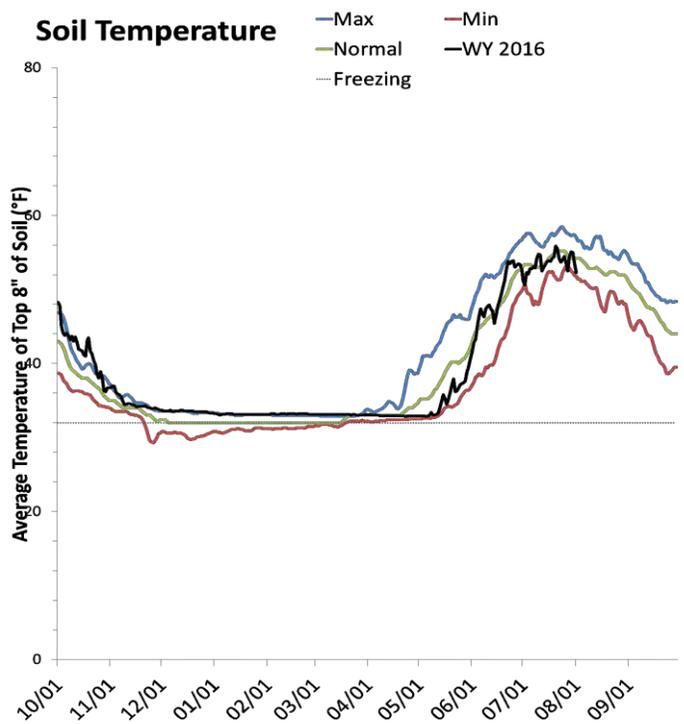
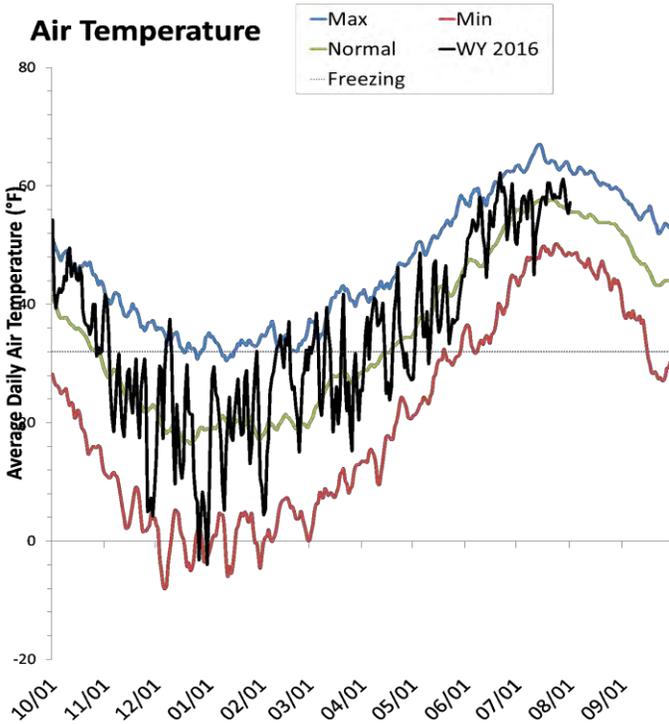
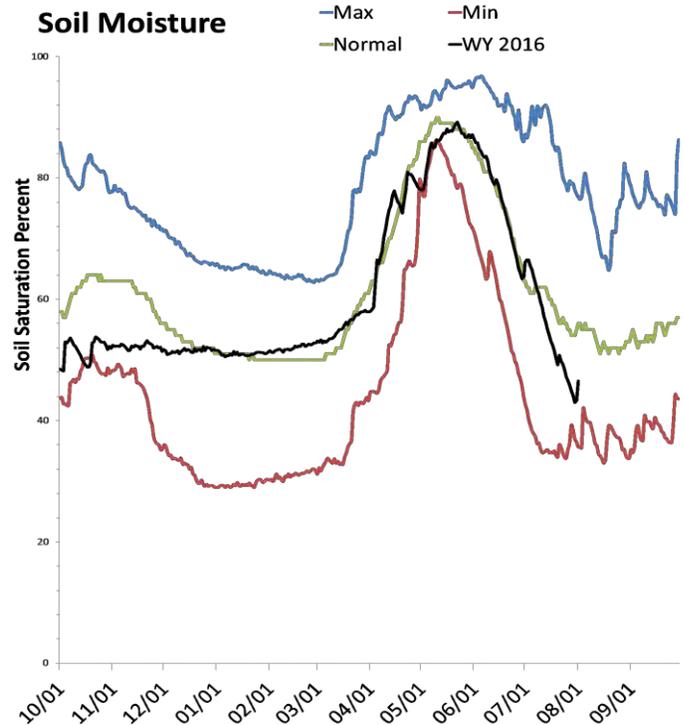
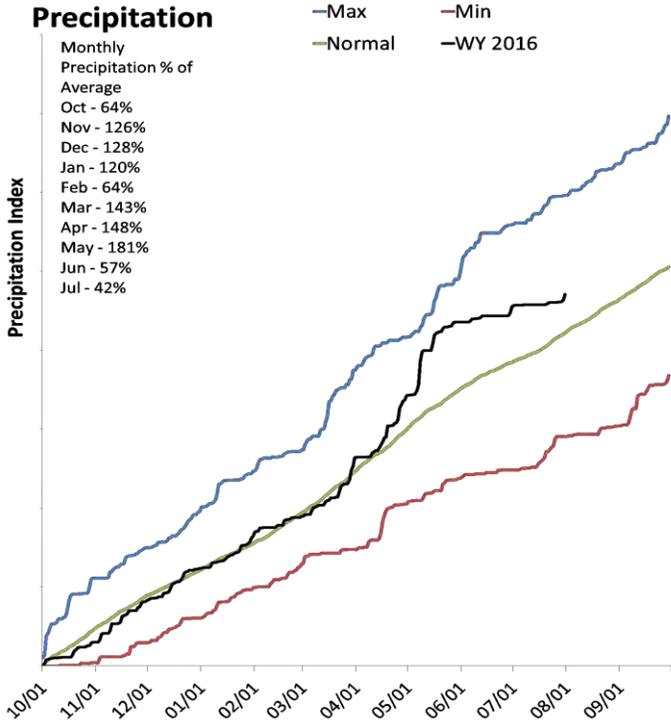
Precipitation in July was much below average at 29%, which brings the seasonal accumulation (Oct-Jul) to 91% of average. Soil moisture is at 8% compared to 14% last year. Reservoir storage is at 35% of capacity, compared to 55% last year.



Northeastern Uintah Basin

8/1/2016

Precipitation in July was much below average at 42%, which brings the seasonal accumulation (Oct-Jul) to 111% of average. Soil moisture is at 47% compared to 66% last year. Reservoir storage is at 88% of capacity, compared to 94% last year. The Water Availability Index for Blacks Fork is 50% and 67% for Smiths Creek.



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

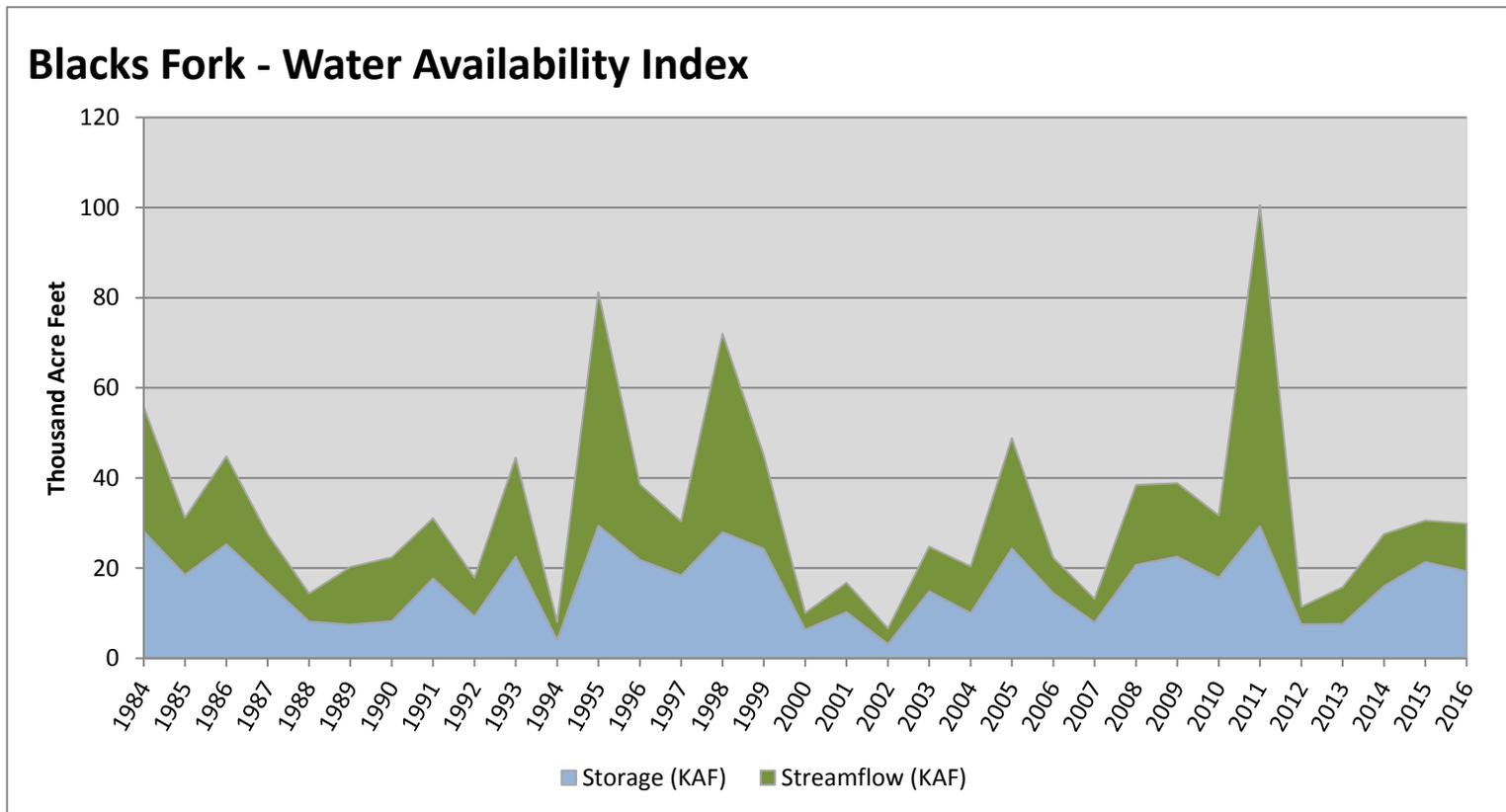
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Blacks Fork	19.25	10.59	29.84	50	0	14, 87, 97, 15

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

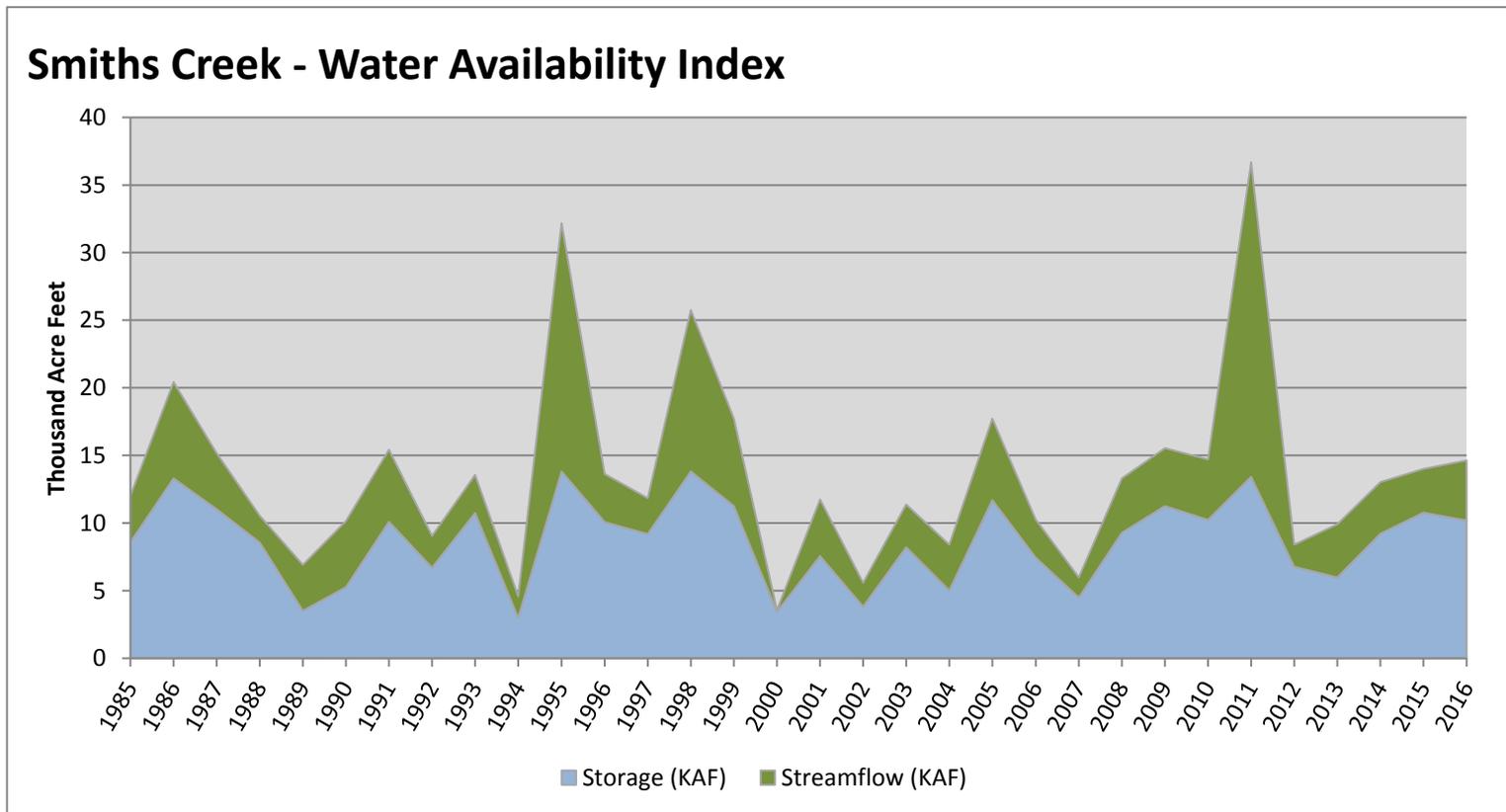


August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similar WAI
	KAF^	KAF^	KAF^	%		
Smiths Creek	10.19	4.44	14.63	67	1.39	96, 15, 10, 87

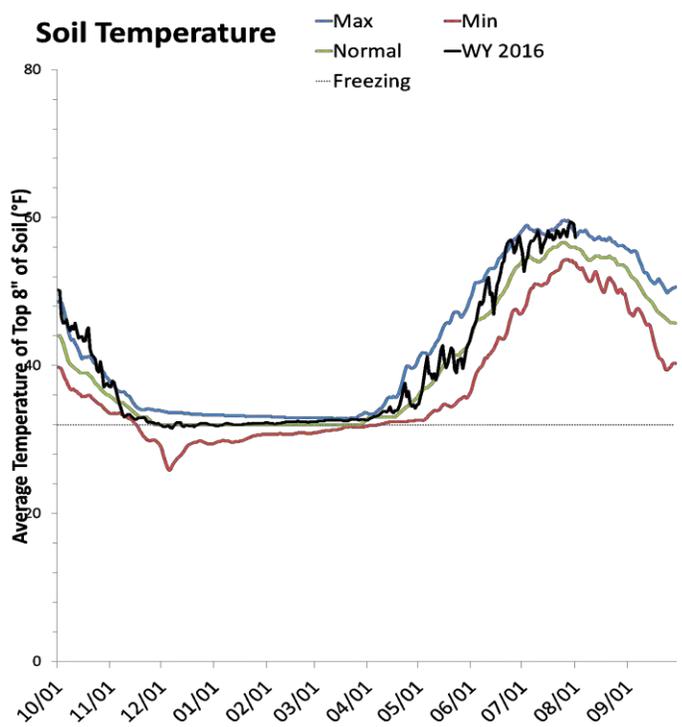
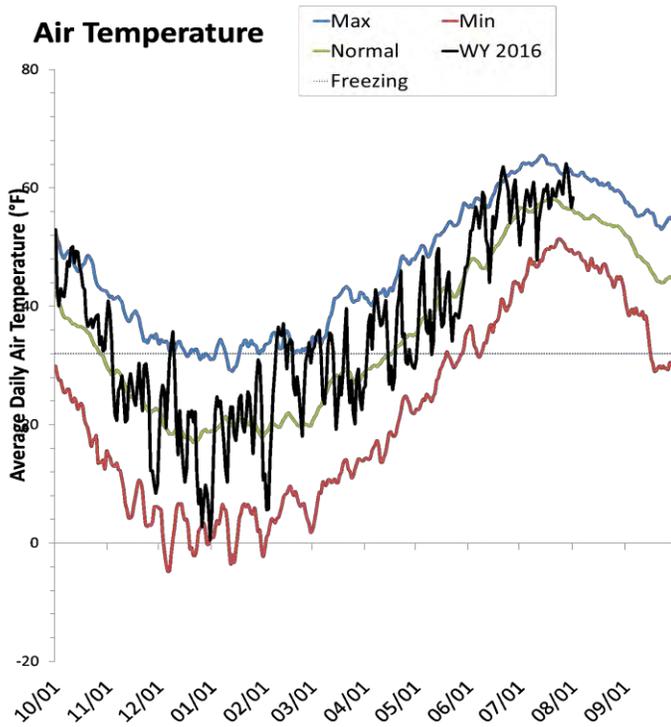
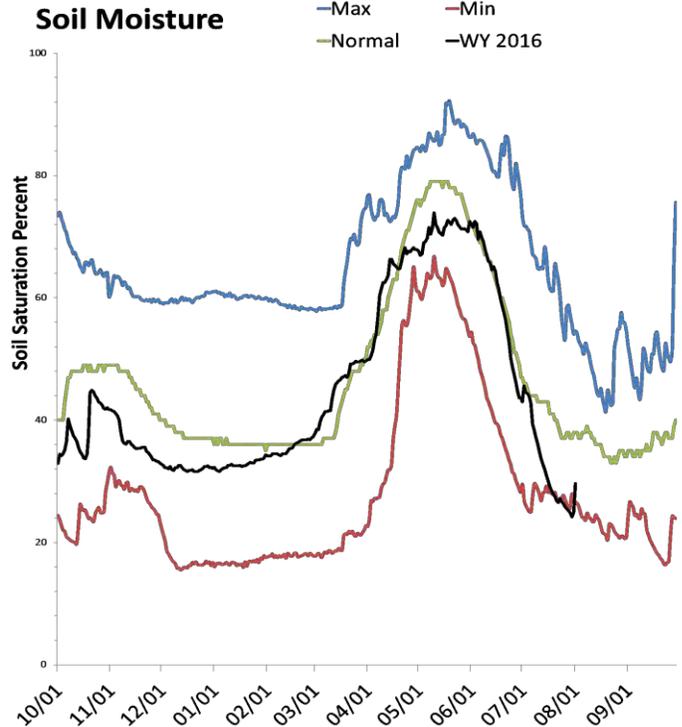
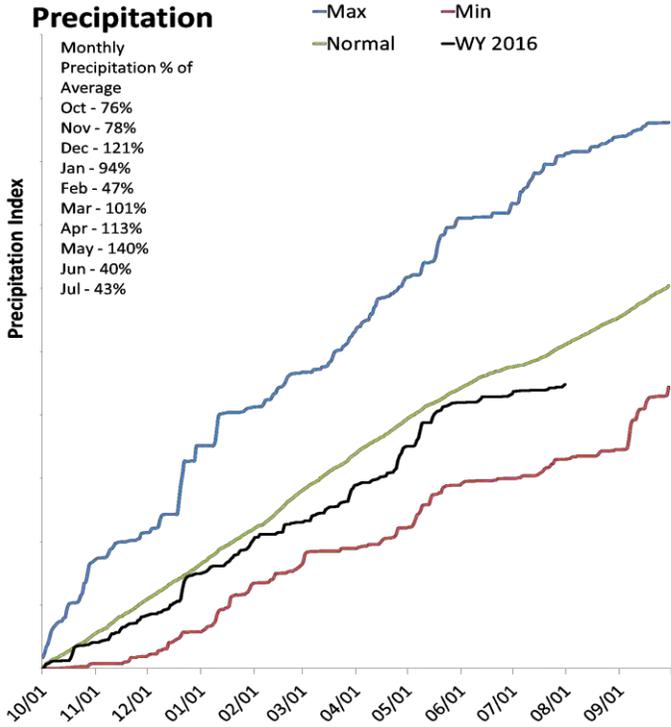
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Duchesne River Basin

8/1/2016

Precipitation in July was much below average at 43%, which brings the seasonal accumulation (Oct-Jul) to 88% of average. Soil moisture is at 30% compared to 42% last year. Reservoir storage is at 74% of capacity, compared to 77% last year. The water availability index for the Western Uintahs is 57% and 41% for the Eastern Uintahs.



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

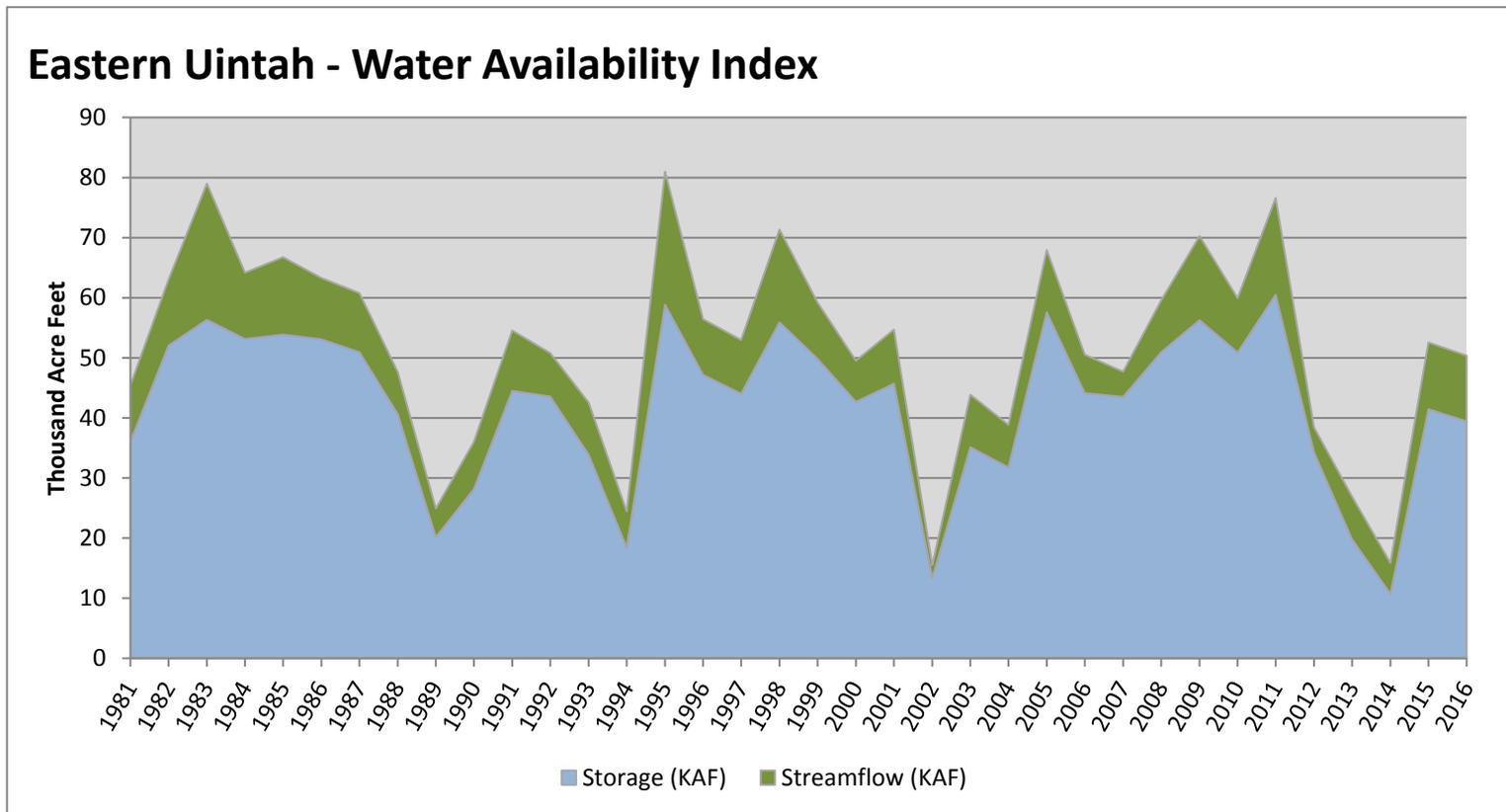
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Eastern Uintah	39.43	10.95	50.38	41	-0.79	07, 00, 06, 92

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

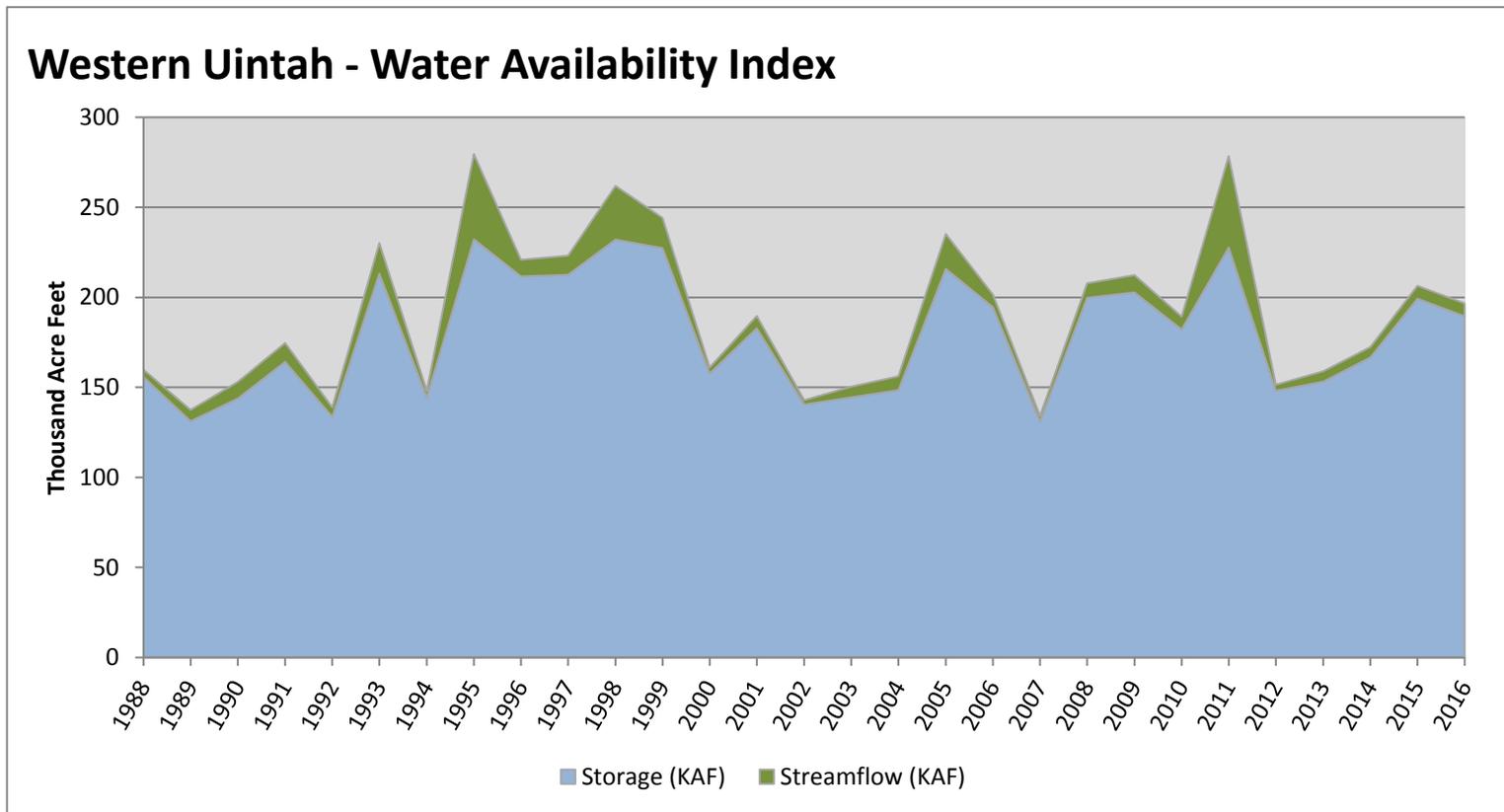


August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Western Uintah	189.47	7.23	196.70	57	0.56	10, 01, 06, 15

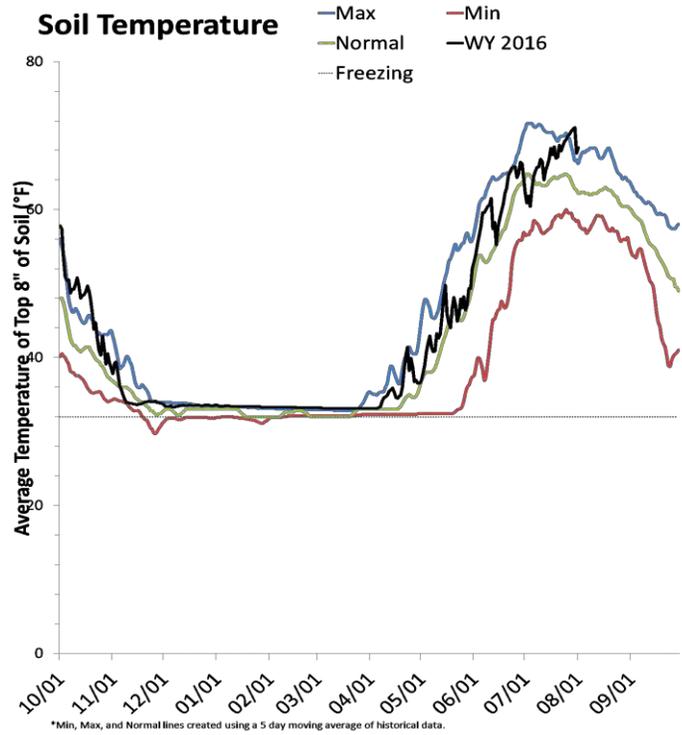
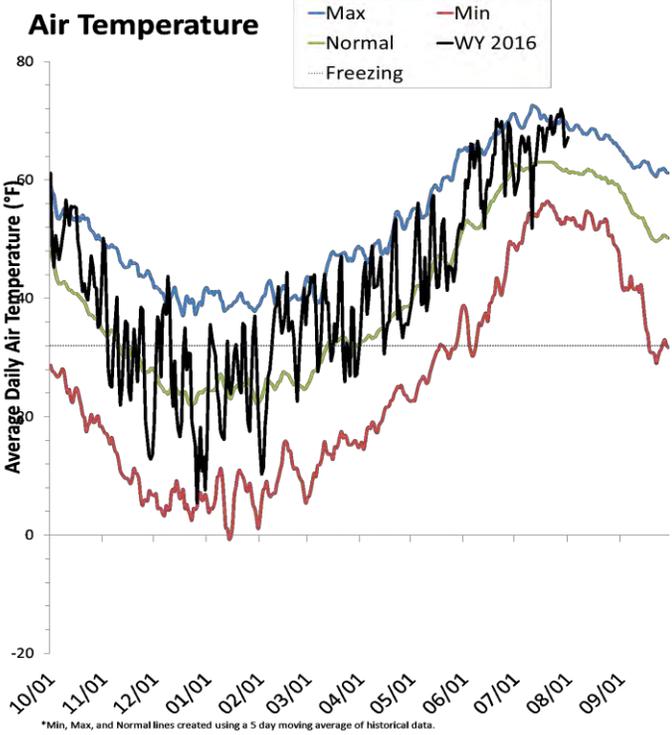
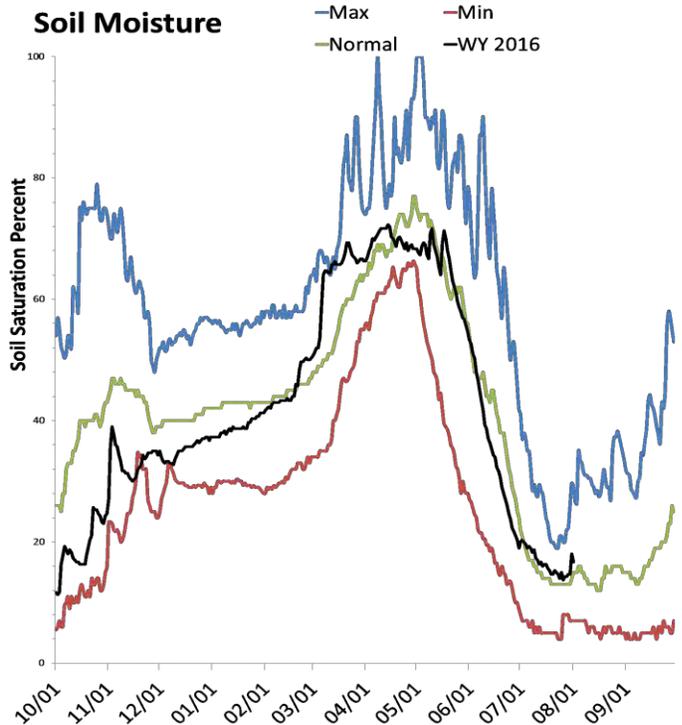
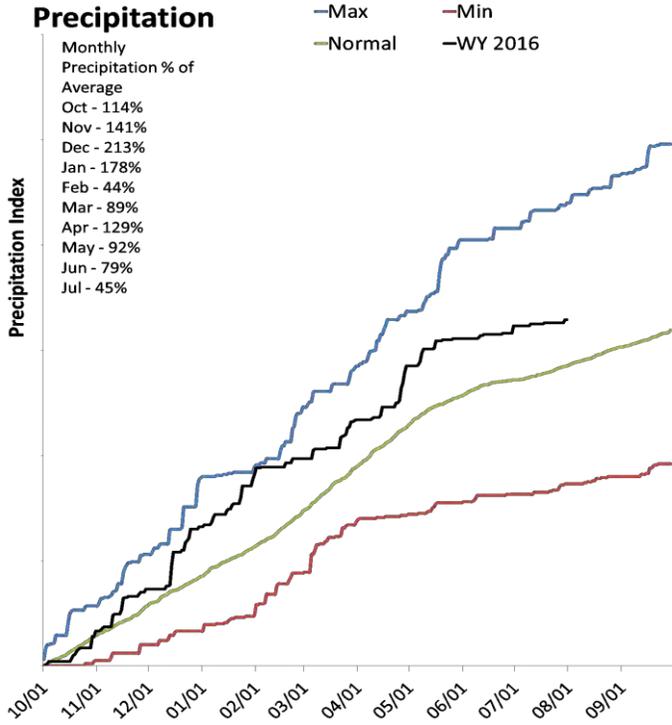
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Lower Sevier River Basin

8/1/2016

Precipitation in July was much below average at 46%, which brings the seasonal accumulation (Oct-Jul) to 115% of average. Soil moisture is at 17% compared to 29% last year. Reservoir storage is at 11% of capacity, compared to 21% last year. The water availability index for the Lower Sevier is 8%.



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

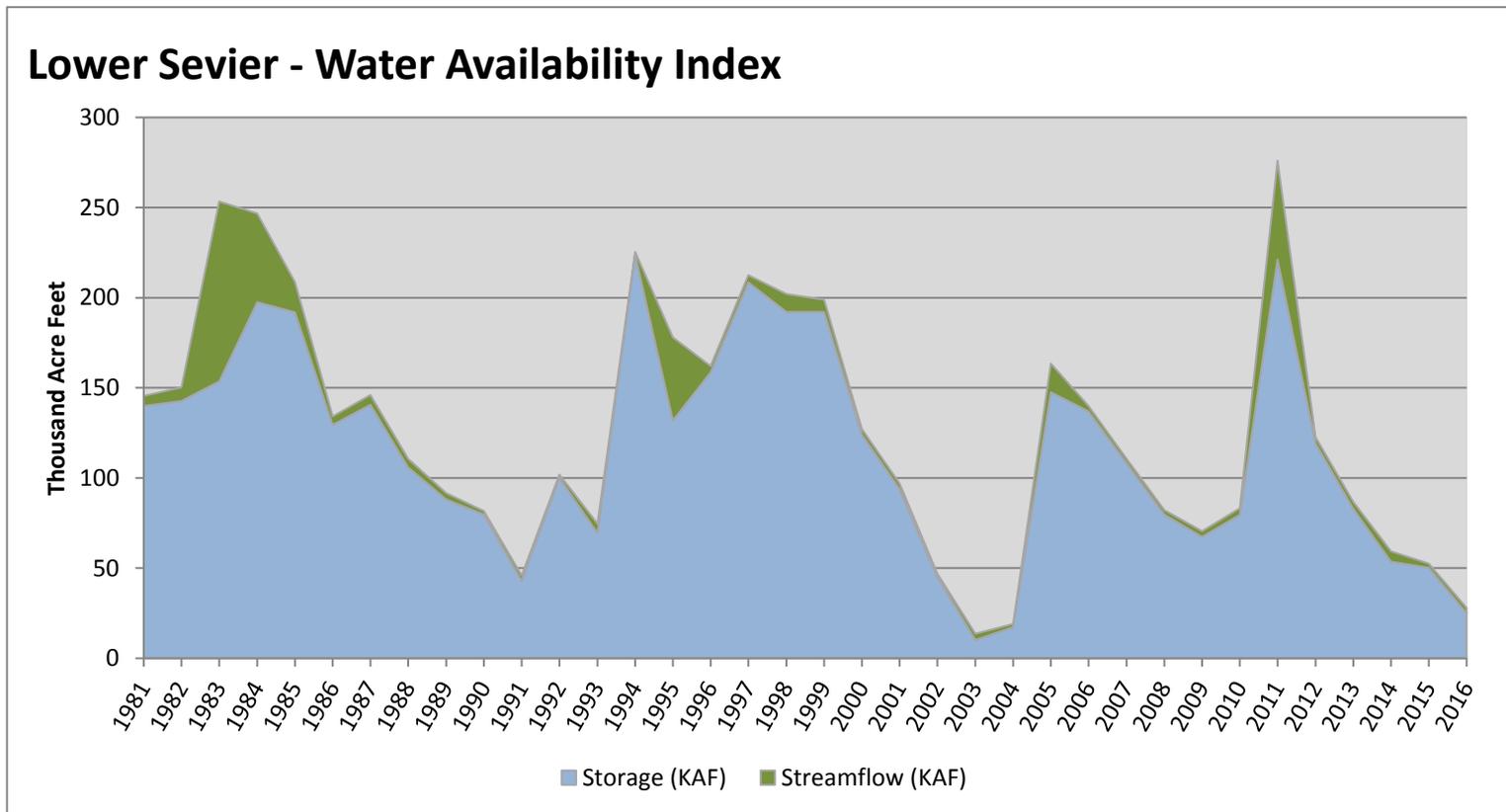
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Lower Sevier	24.97	2.91	27.88	8	-3.49	03, 04, 91, 02

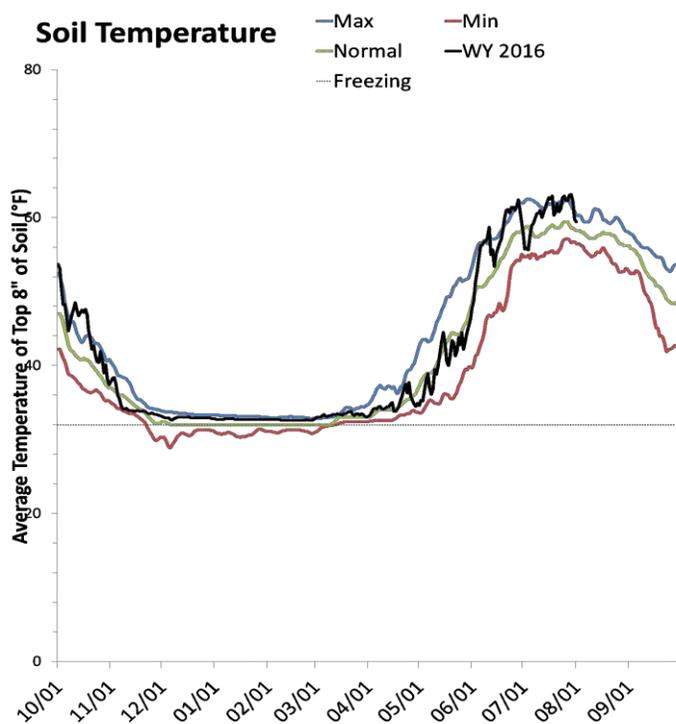
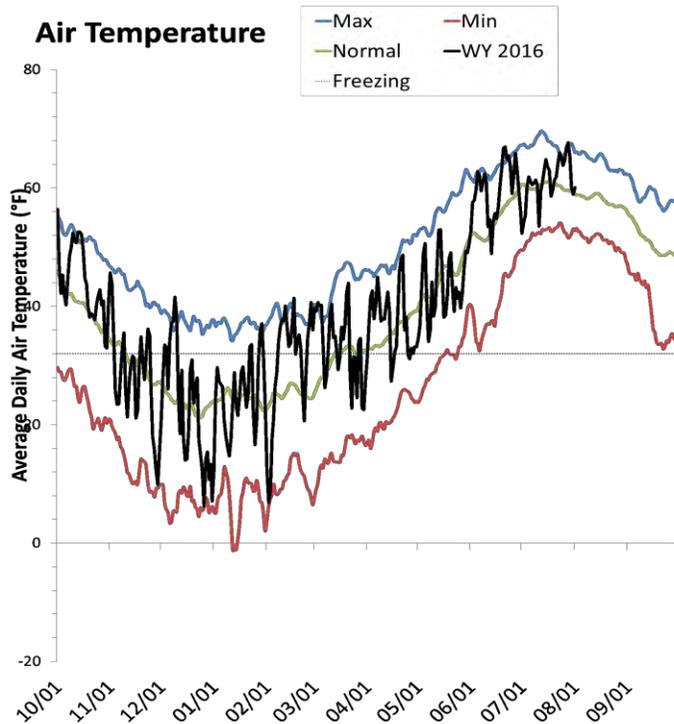
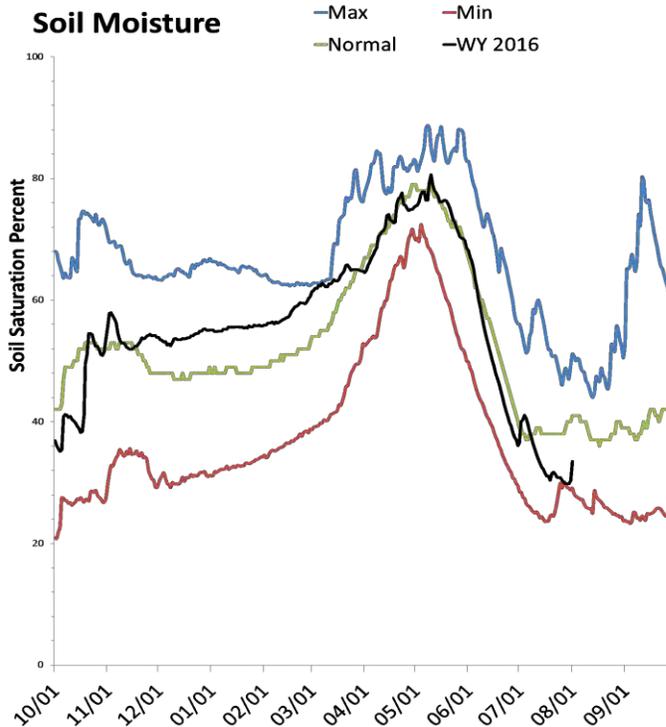
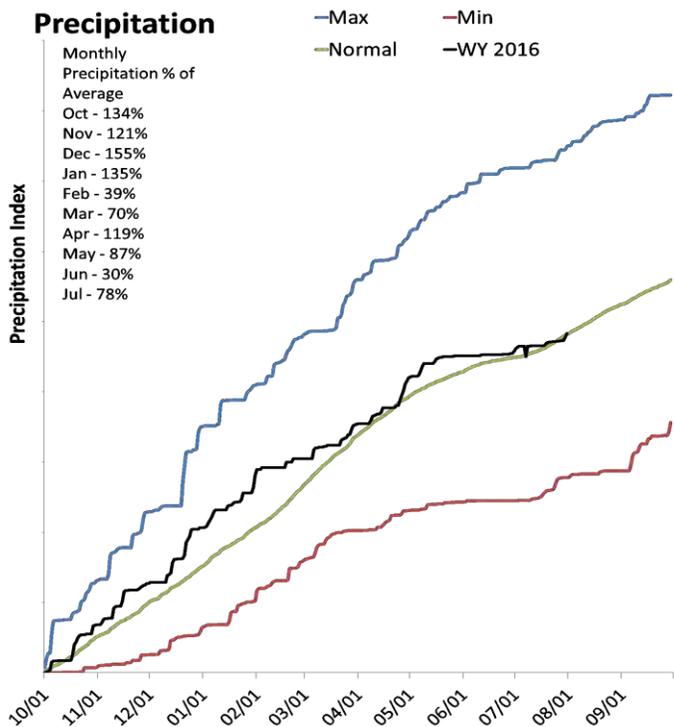
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Upper Sevier River Basin

8/1/2016

Precipitation in July was below average at 78%, which brings the seasonal accumulation (Oct-Jul) to 100% of average. Soil moisture is at 32% compared to 42% last year. Reservoir storage is at 44% of capacity, compared to 31% last year. The water availability index for the Upper Sevier is 46%.



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

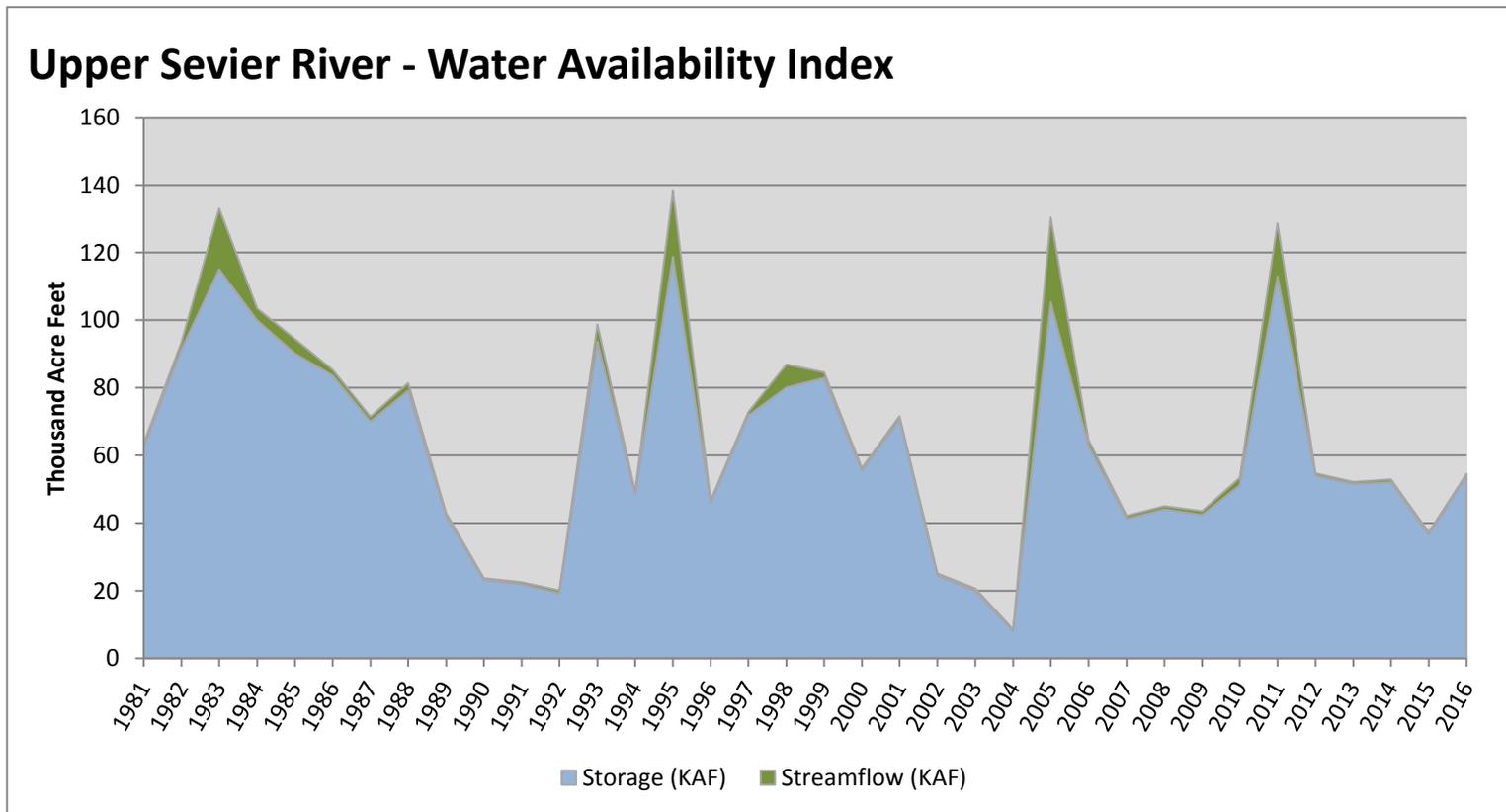
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Upper Sevier River	54.08	0.57	54.65	46	-0.34	14, 10, 12, 00

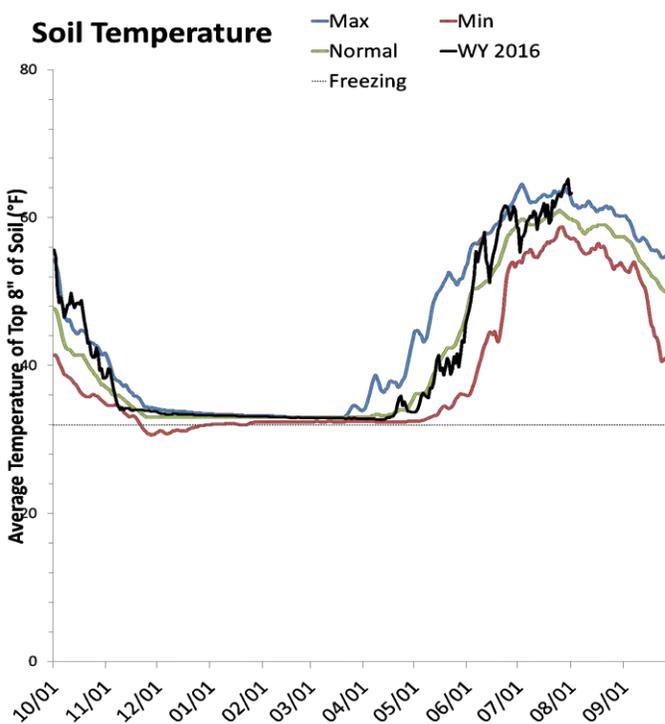
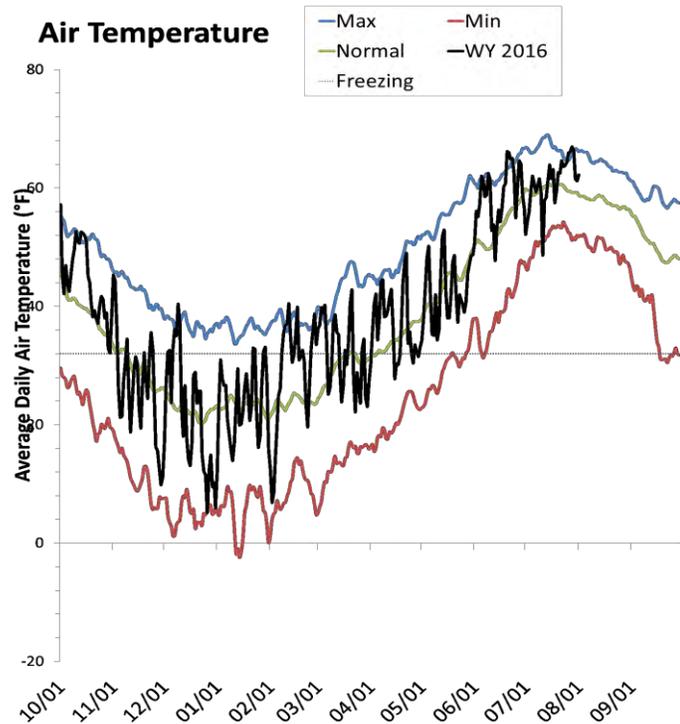
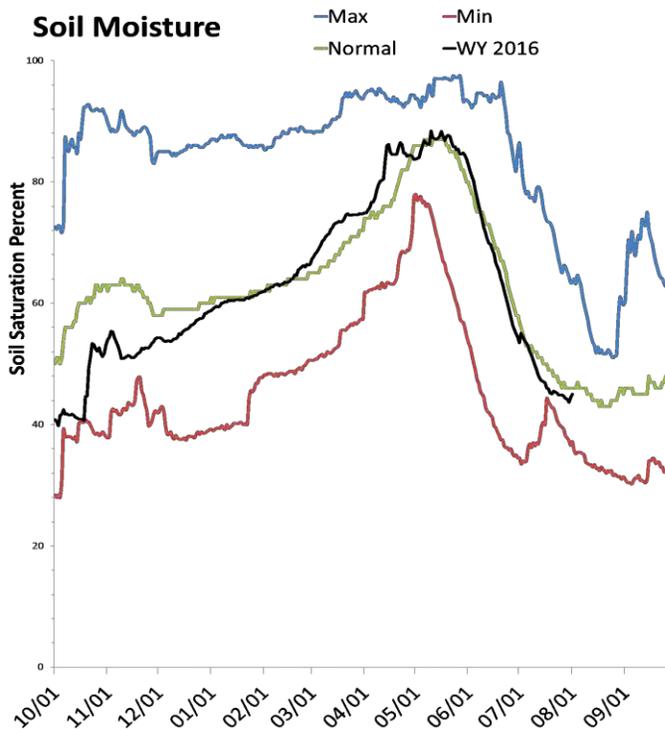
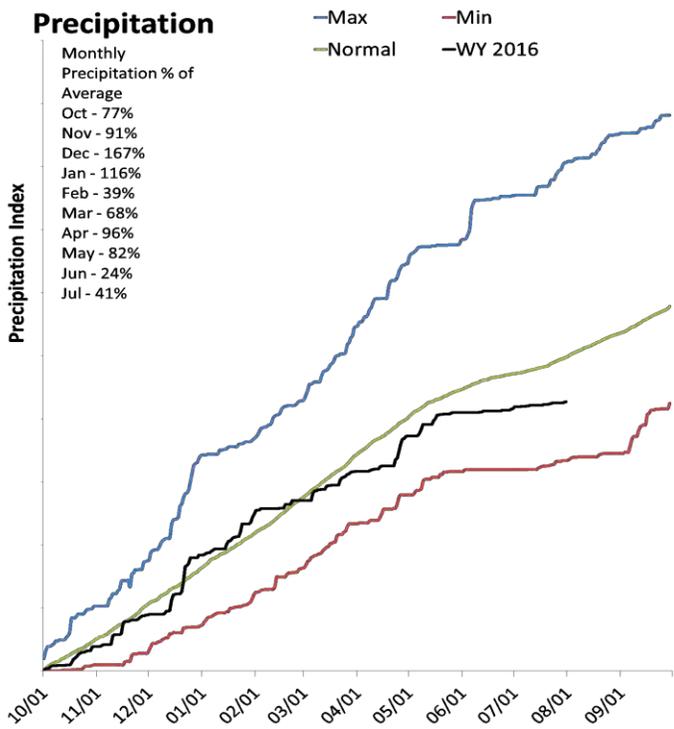
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



San Pitch River Basin

8/1/2016

Precipitation in July was much below average at 41%, which brings the seasonal accumulation (Oct-Jul) to 86% of average. Soil Moisture is at 44% compared to 49% last year. Reservoir storage is at 5% of capacity, compared to 0% last year. The water availability index for the San Pitch is 19%.



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

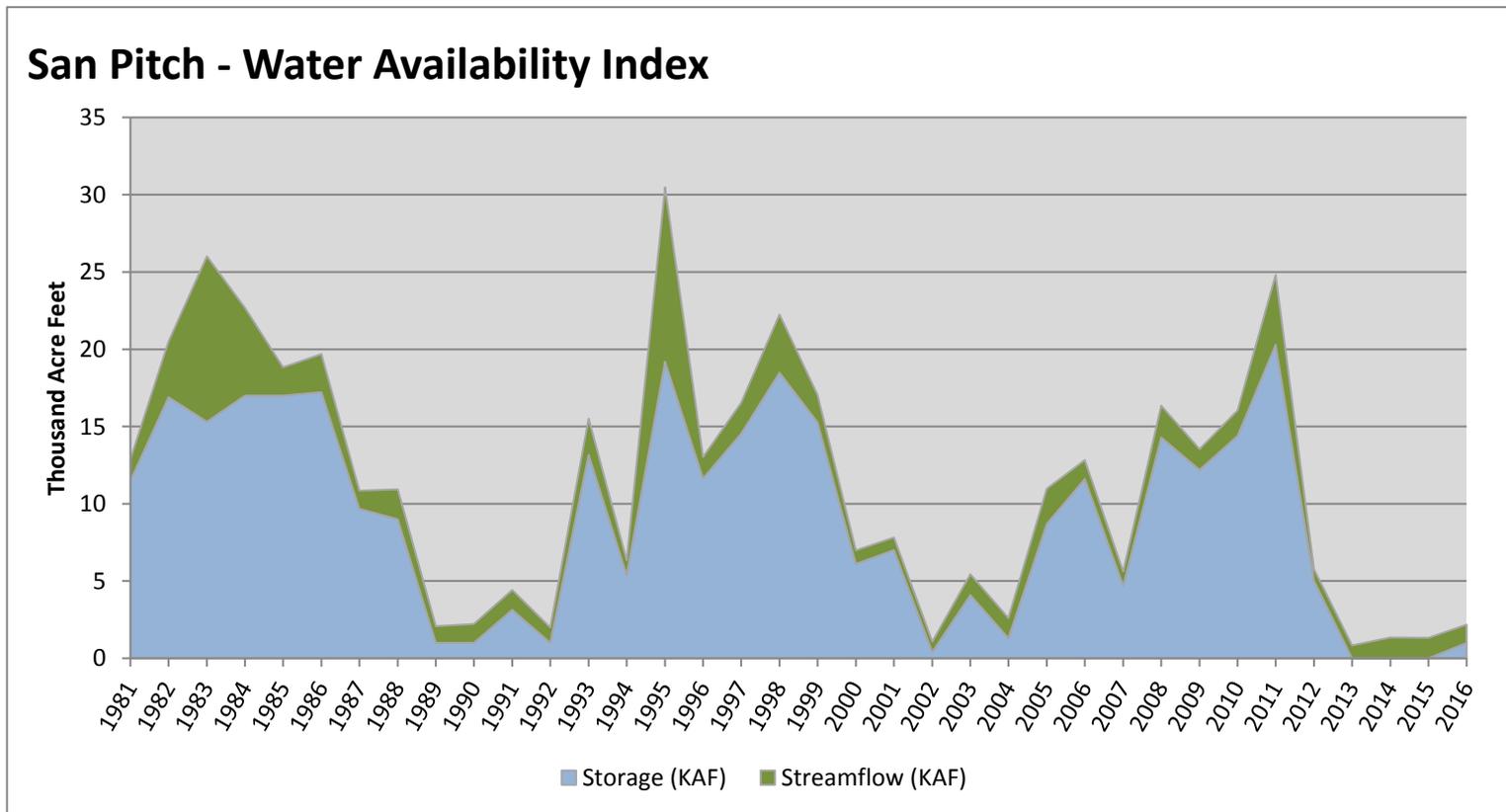
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
San Pitch	1.00	1.18	2.18	19	-2.59	92, 89, 90, 04

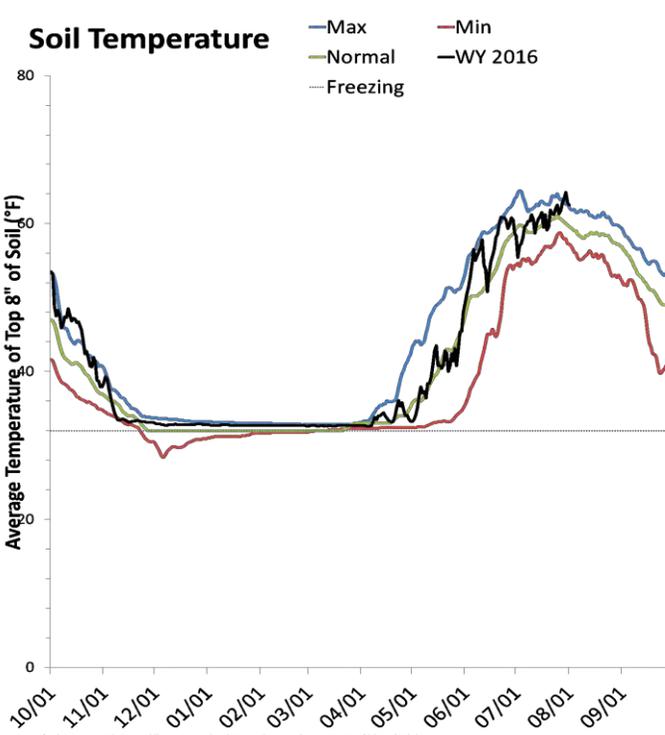
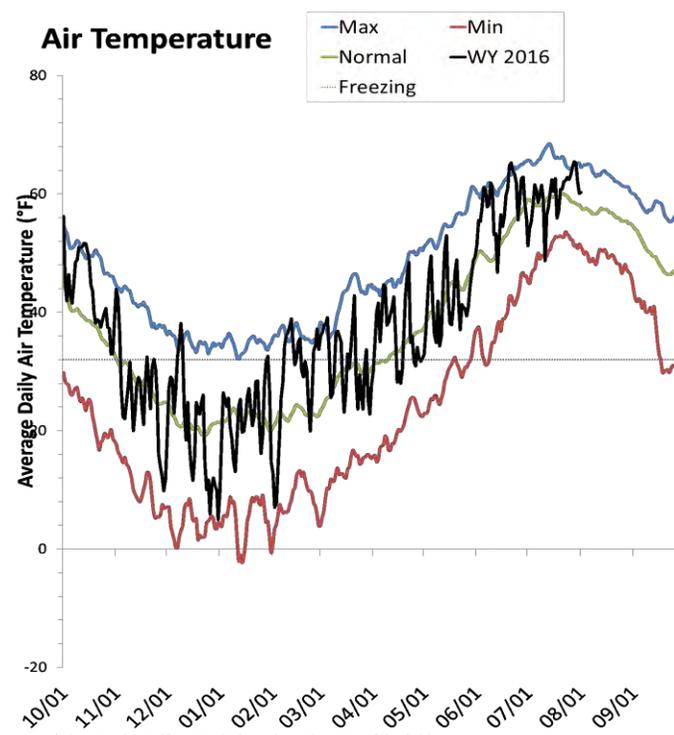
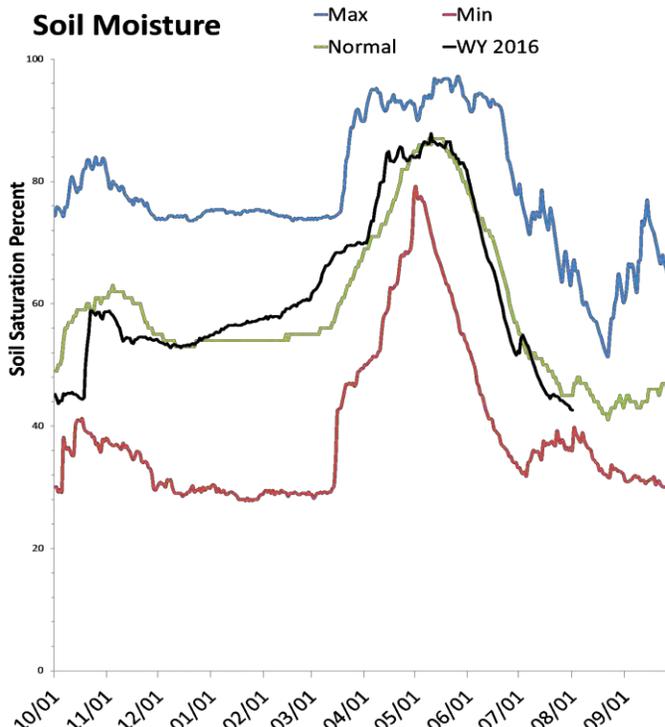
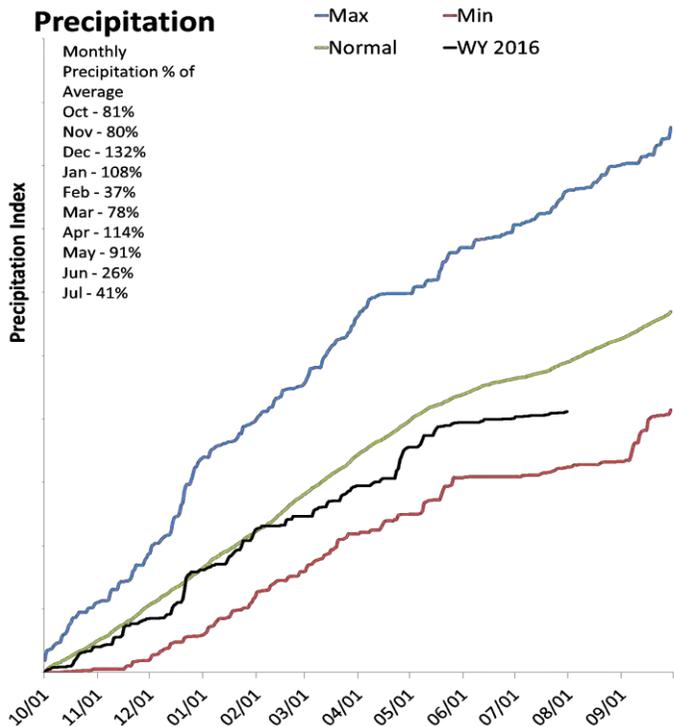
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Price & San Rafael Basins

8/1/2016

Precipitation in July was much below average at 41%, which brings the seasonal accumulation (Oct-Jul) to 84% of average. Soil moisture is at 43% compared to 47% last year. Reservoir storage is at 50% of capacity, compared to 54% last year. The water availability index for the Price River is 19%, and 22% for Joe's Valley.



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

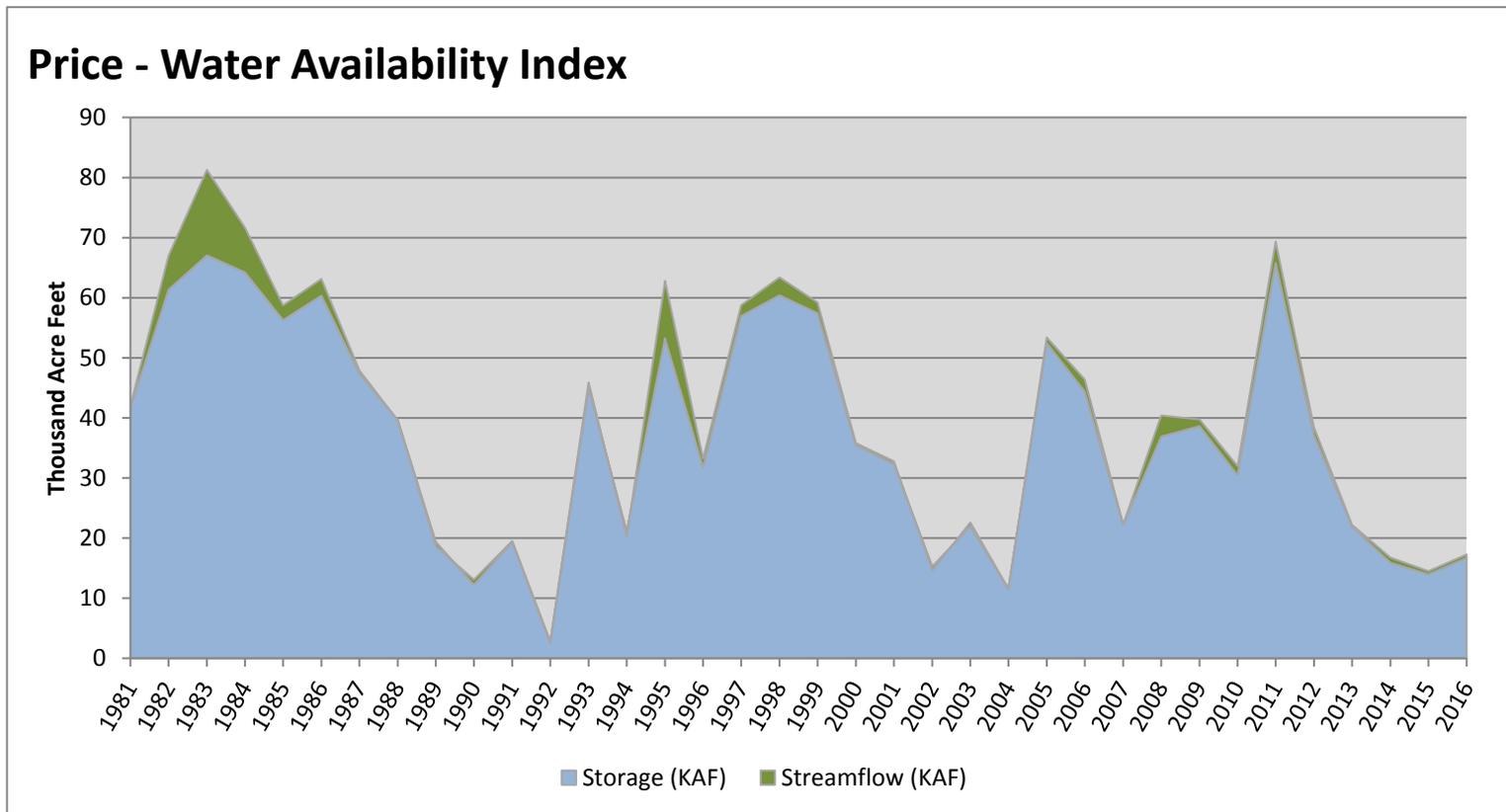
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2016

Water Availability Index

Basin or Region	Jul EOM [*] Storage	July Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Price	16.69	0.56	17.25	19	-2.59	02, 14, 89, 91

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

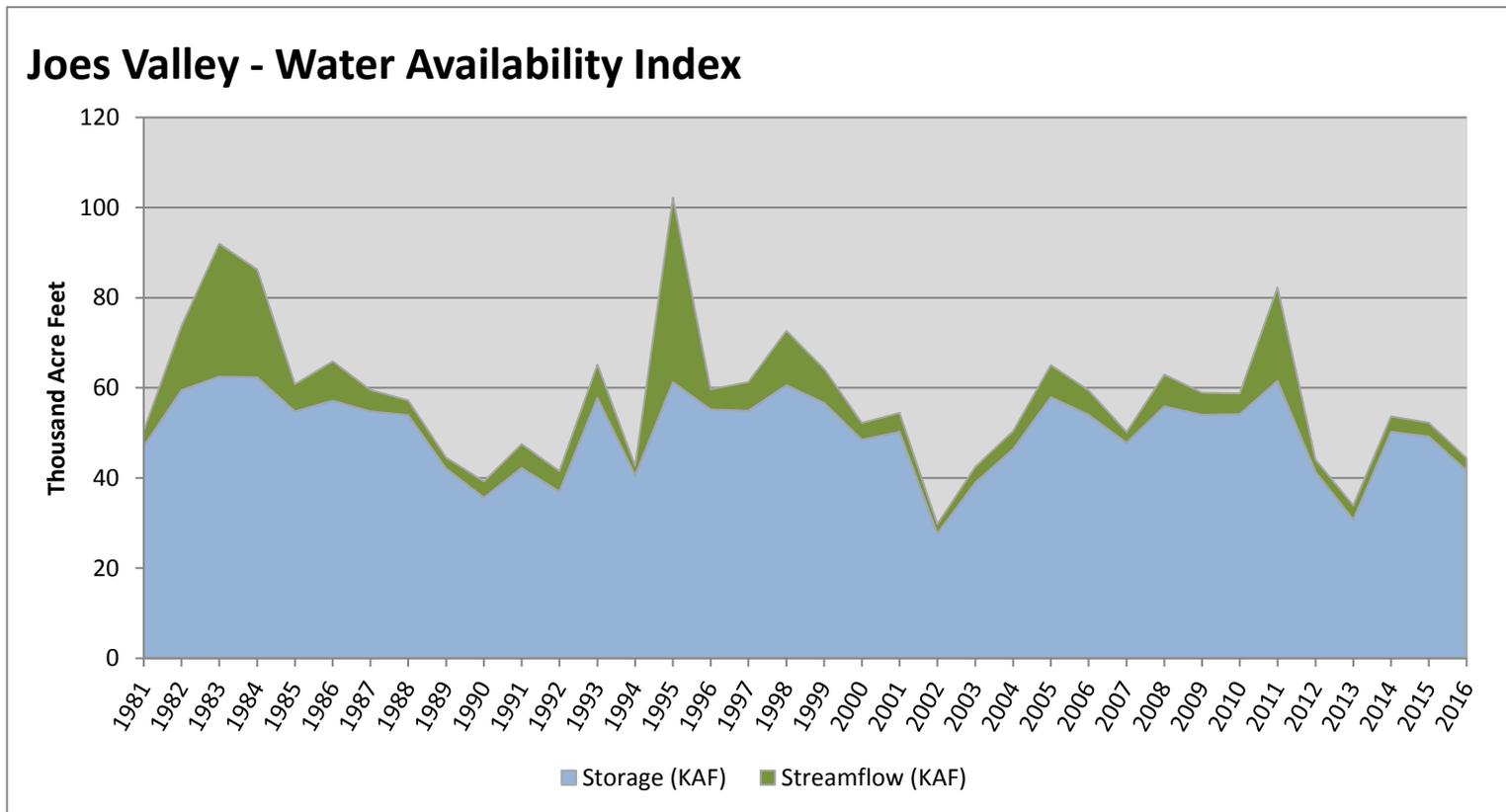


August 1, 2016

Water Availability Index

Basin or Region	Jul EOM [*] Storage	July Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Joese Valley	41.65	2.74	44.39	22	-2.36	94, 12, 89, 91

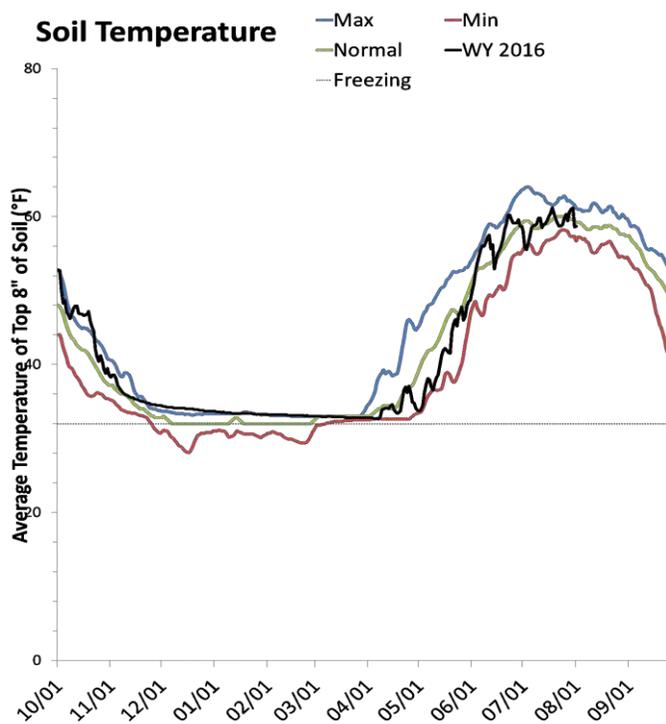
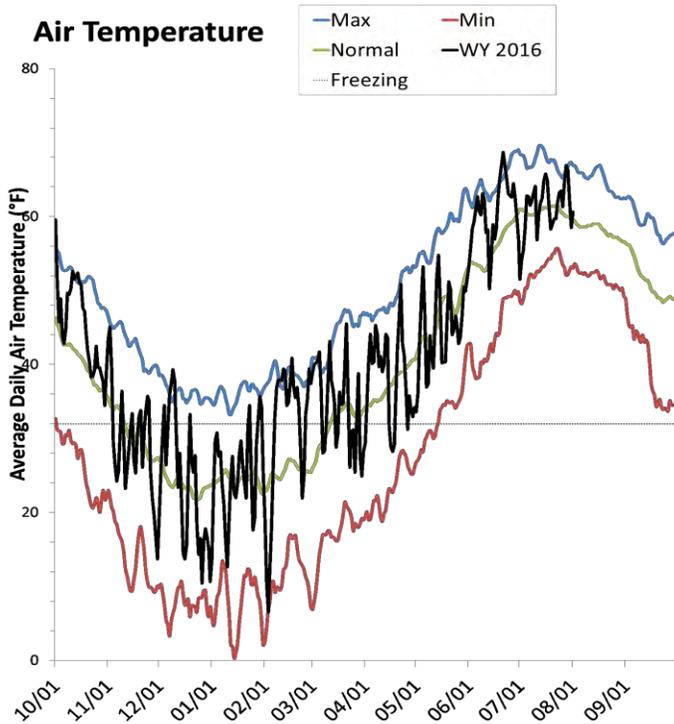
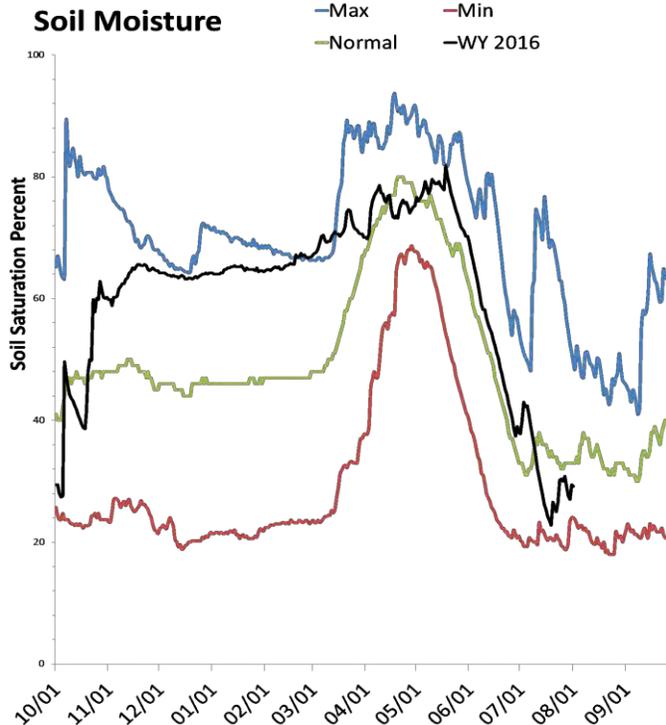
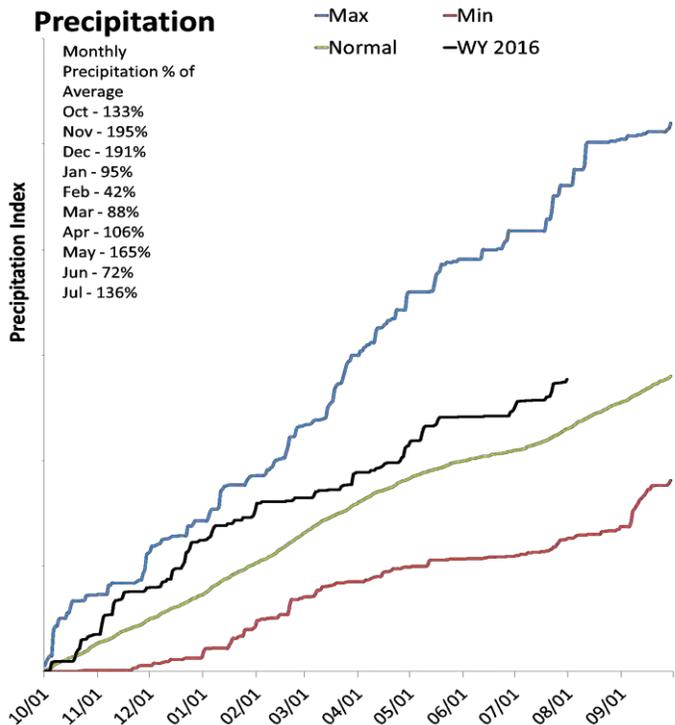
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southeastern Utah Basin

8/1/2016

Precipitation in July was much above average at 135%, which brings the seasonal accumulation (Oct-Jul) to 120% of average. Soil moisture is at 32% compared to 30% last year. Reservoir storage is at 99% of capacity, compared to 84% last year. The water availability index for Moab is 80%.



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

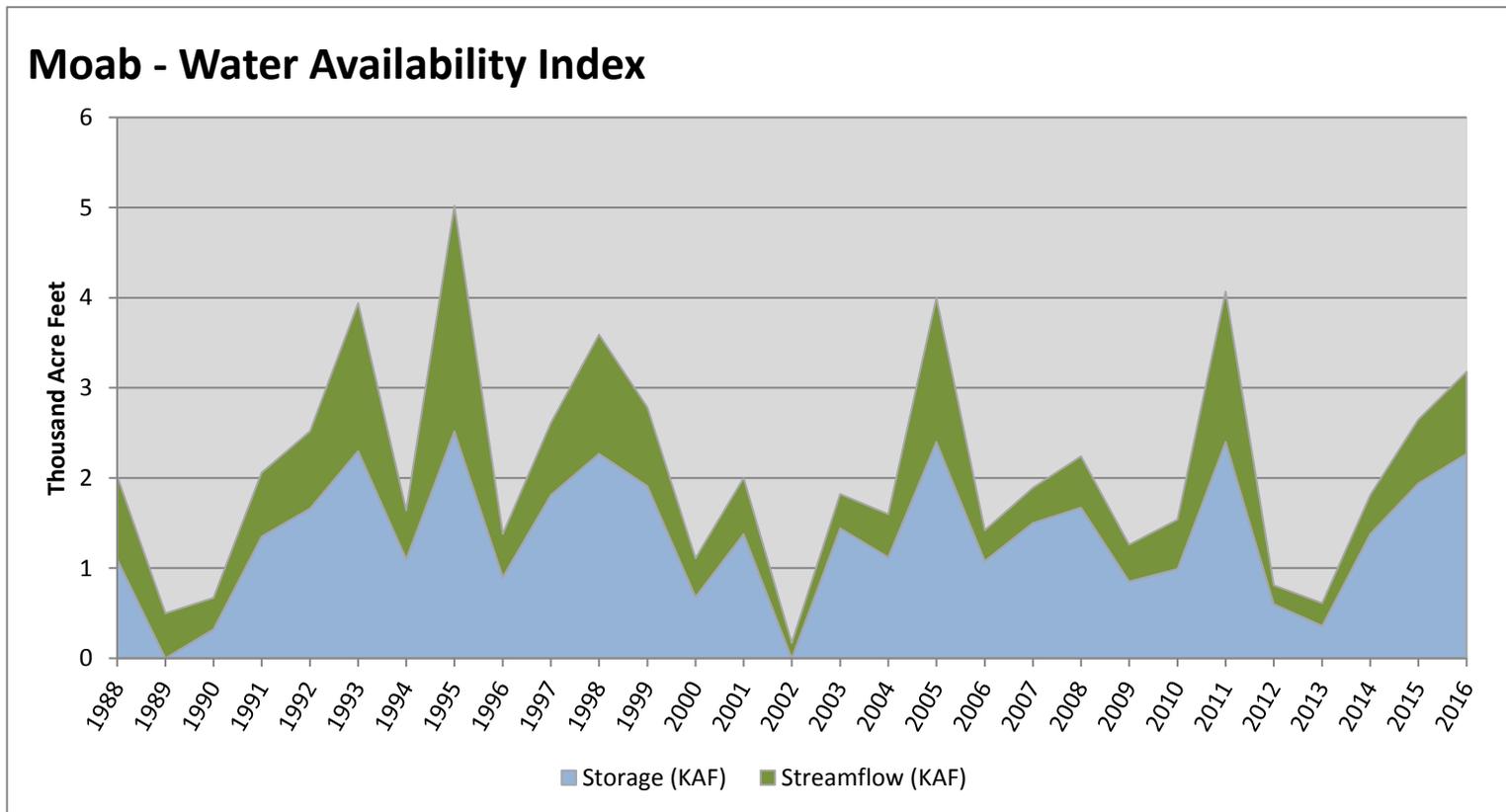
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Moab	2.27	0.91	3.18	80	2.5	15, 99, 98, 93

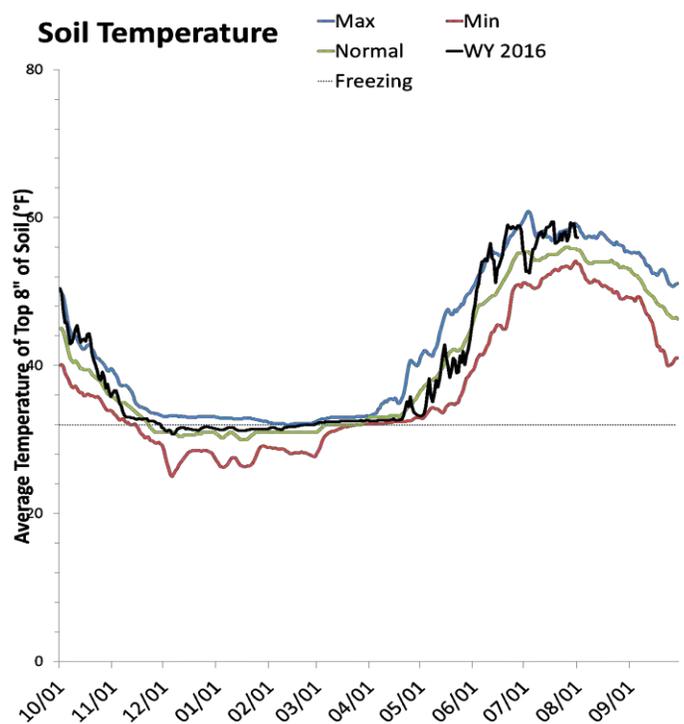
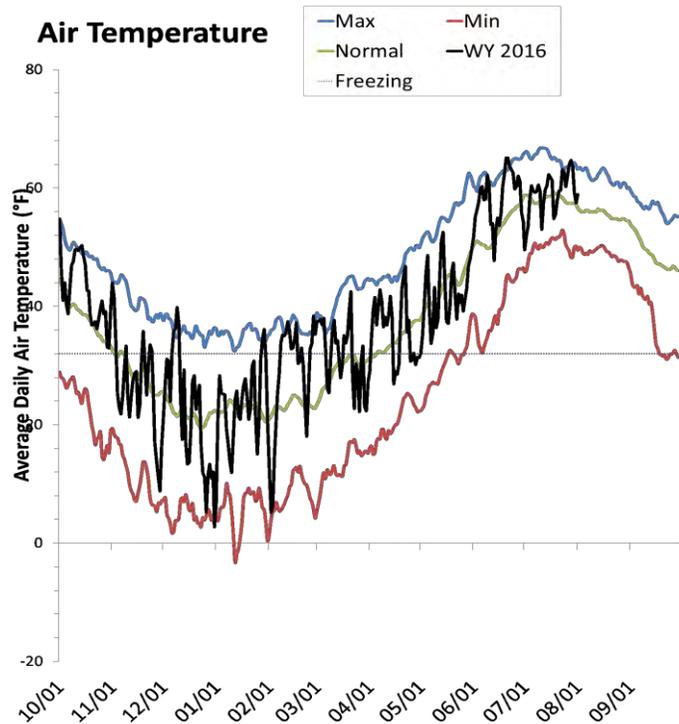
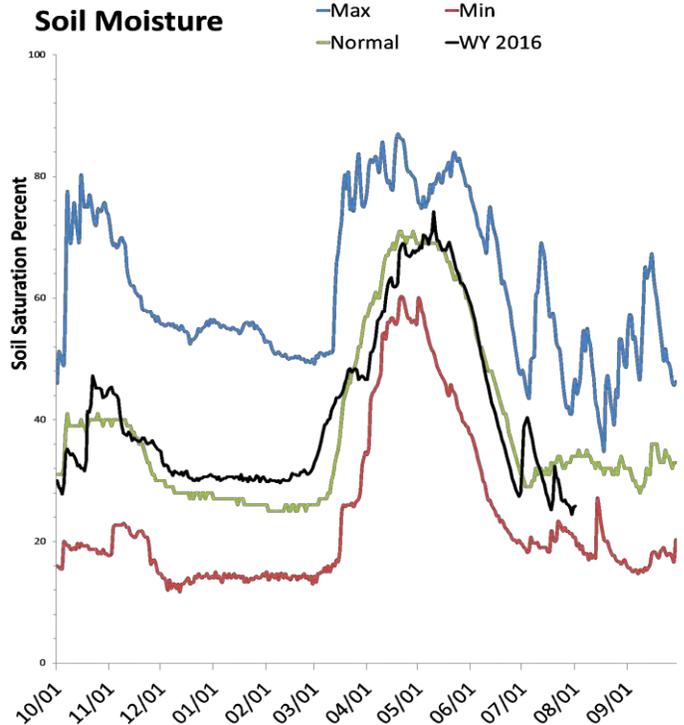
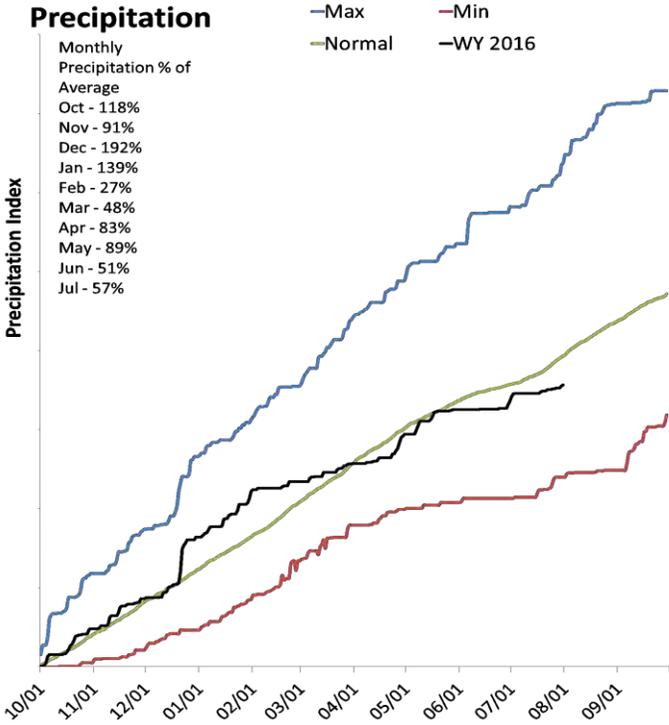
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Dirty Devil Basin

8/1/2016

Precipitation in July was much below average at 58%, which brings the seasonal accumulation (Oct-Jul) to 91% of average. Soil moisture is at 28% compared to 36% last year.



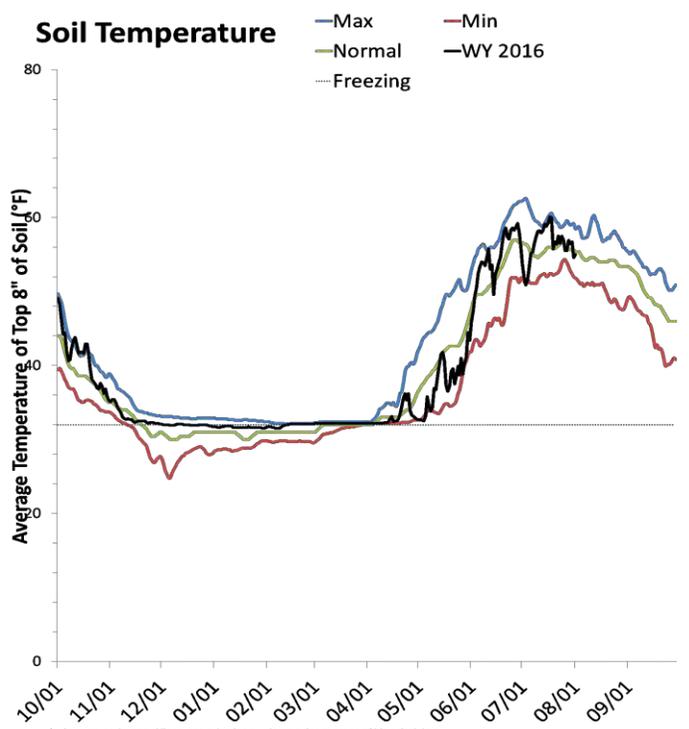
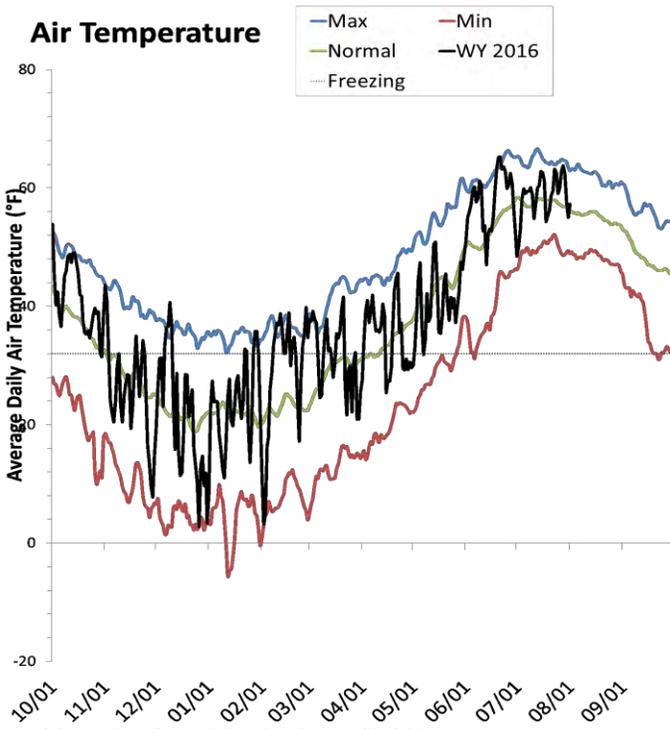
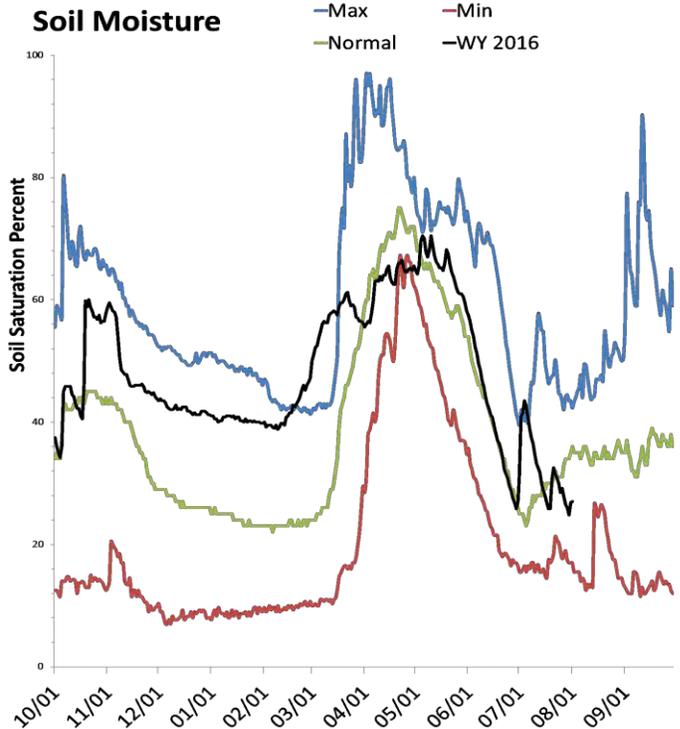
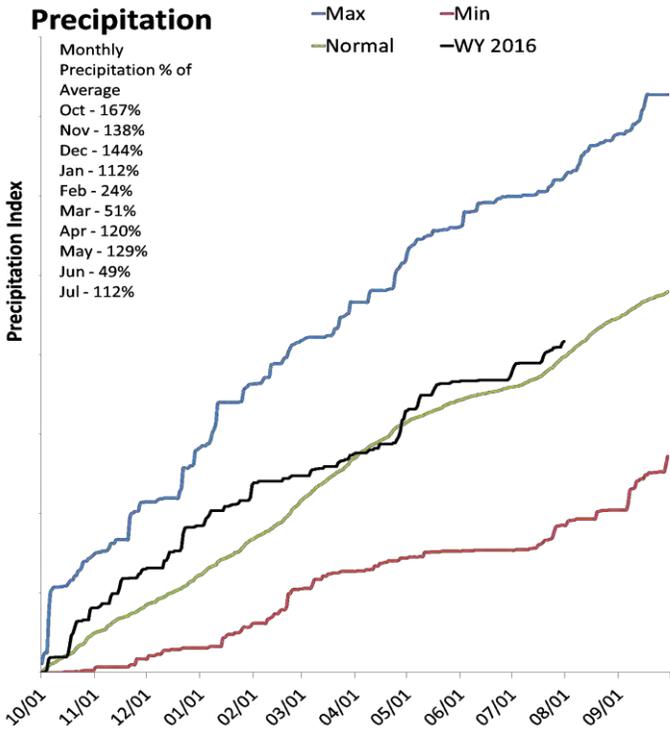
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Escalante River Basin

8/1/2016

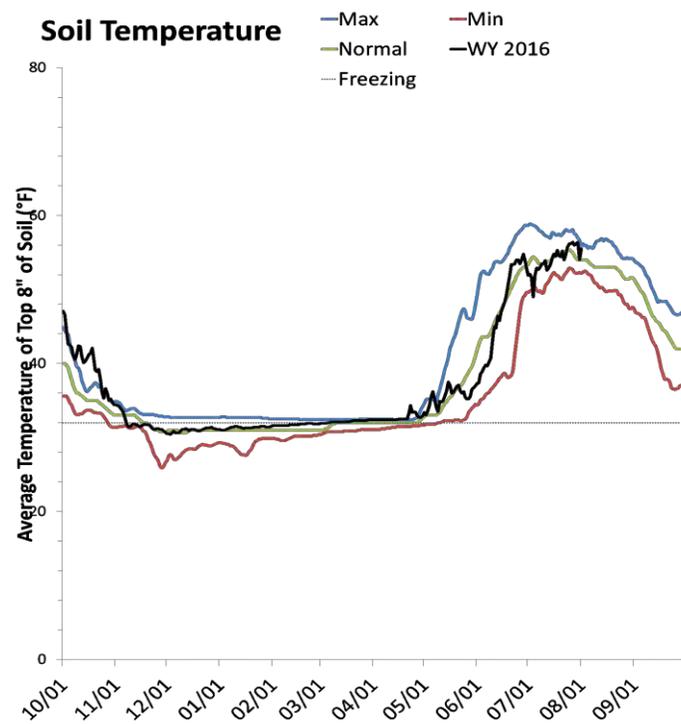
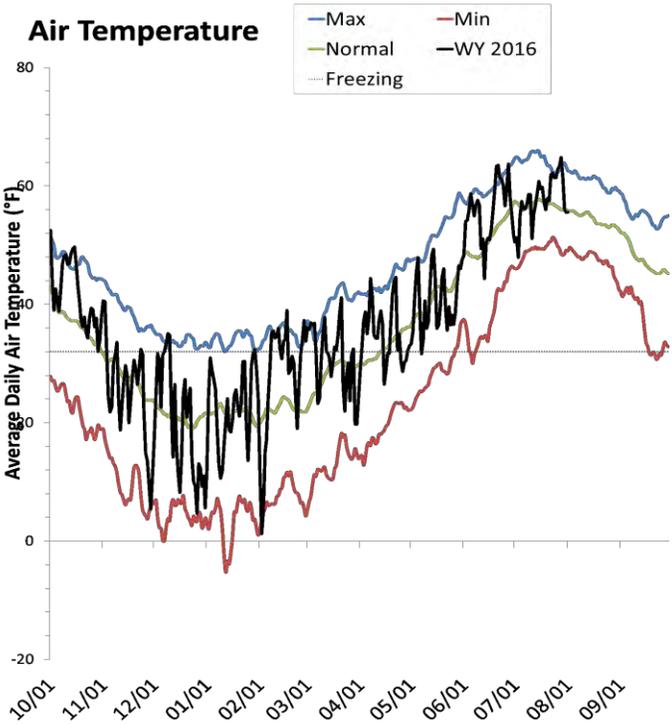
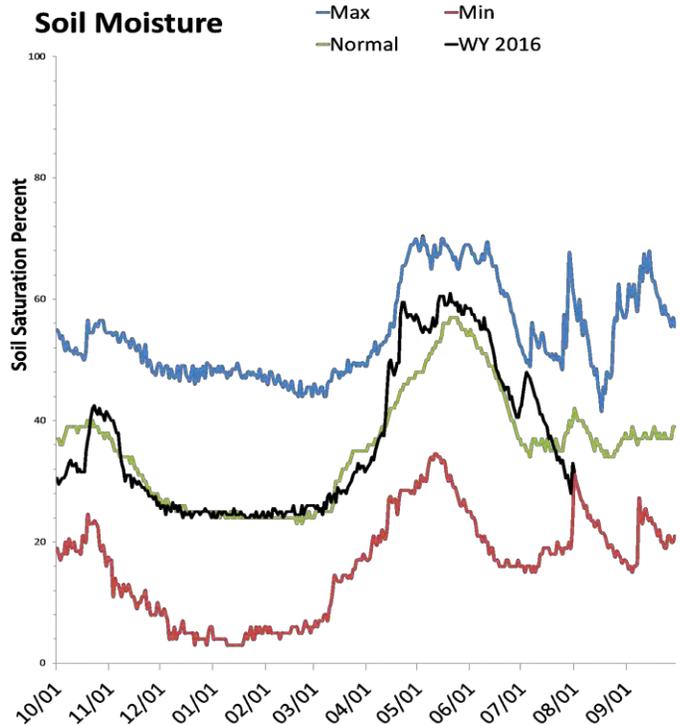
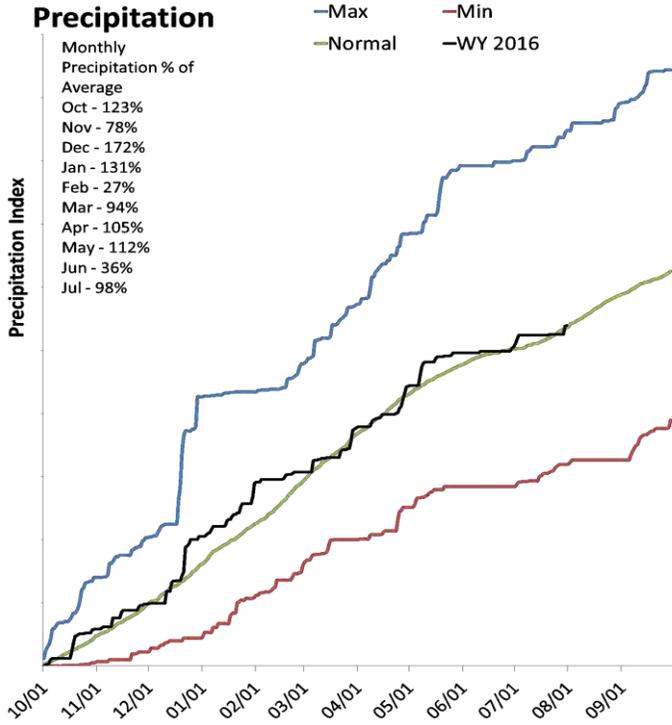
Precipitation in July was above average at 112%, which brings the seasonal accumulation (Oct-Jul) to 105% of average. Soil moisture is at 29% compared to 38% last year.



Beaver River Basin

8/1/2016

Precipitation in July was near average at 100%, which brings the seasonal accumulation (Oct-Jul) to 101% of average. Soil moisture is at 32% compared to 33% last year. Reservoir storage is at 21% of capacity, compared to 24% last year. The water availability index for the Beaver River is 46%.



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

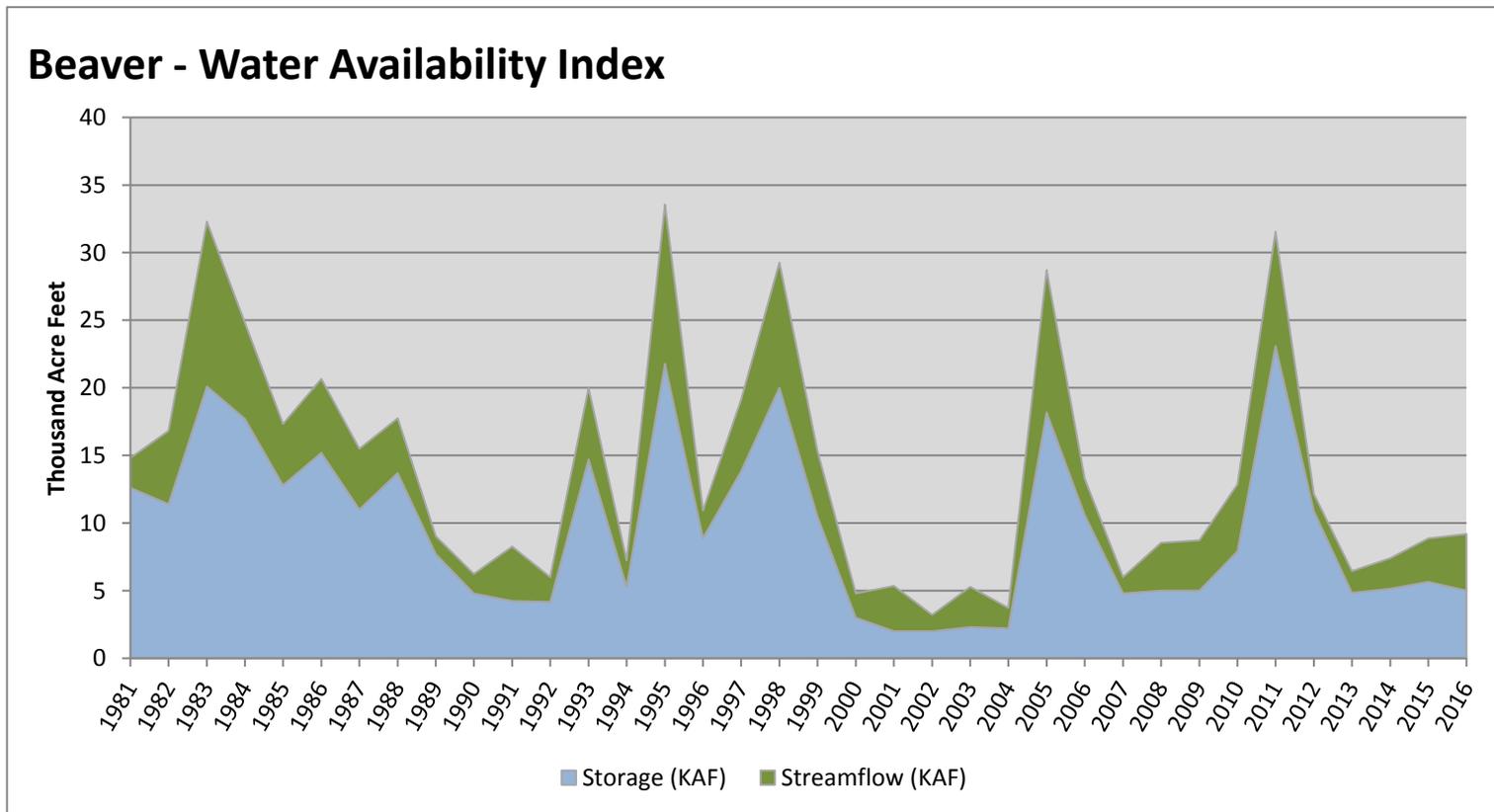
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Beaver	5.00	4.19	9.19	46	-0.34	15, 89, 96, 12

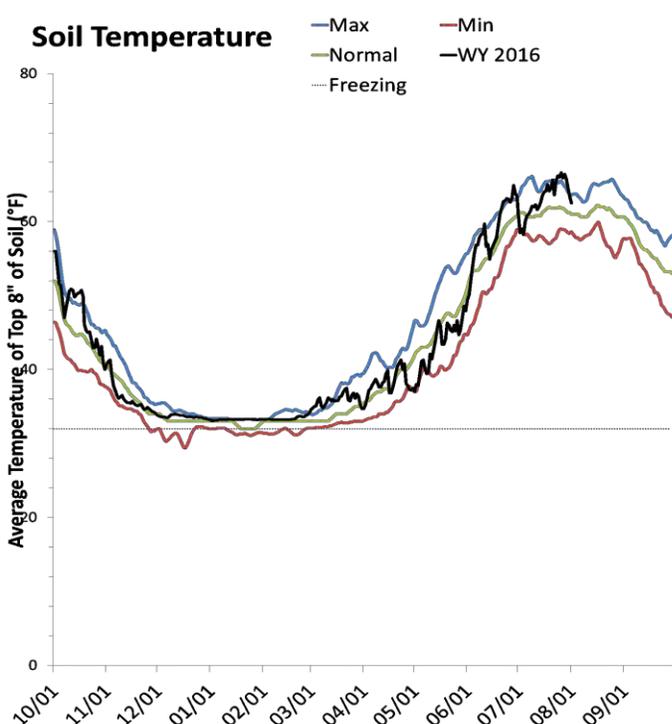
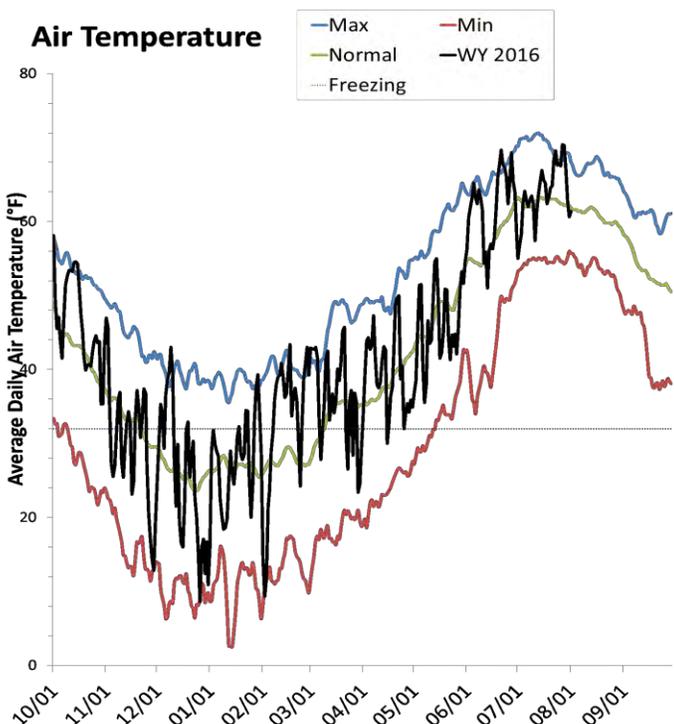
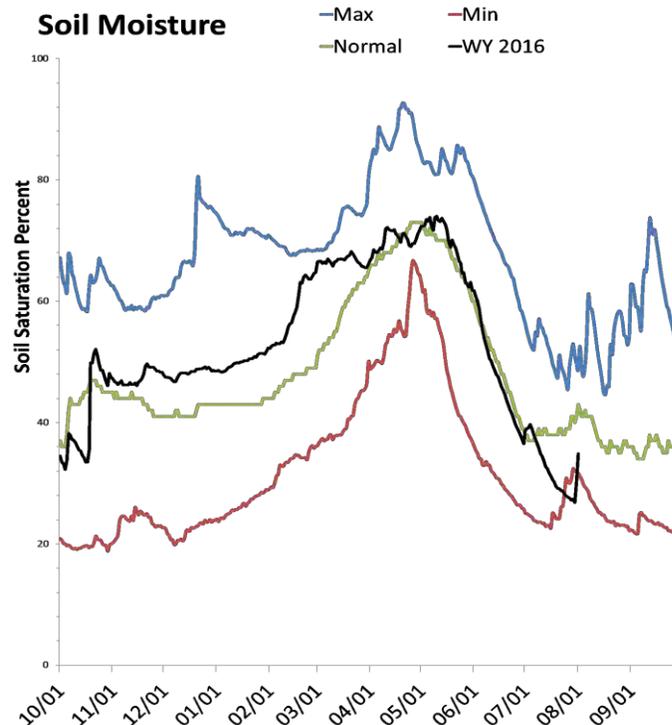
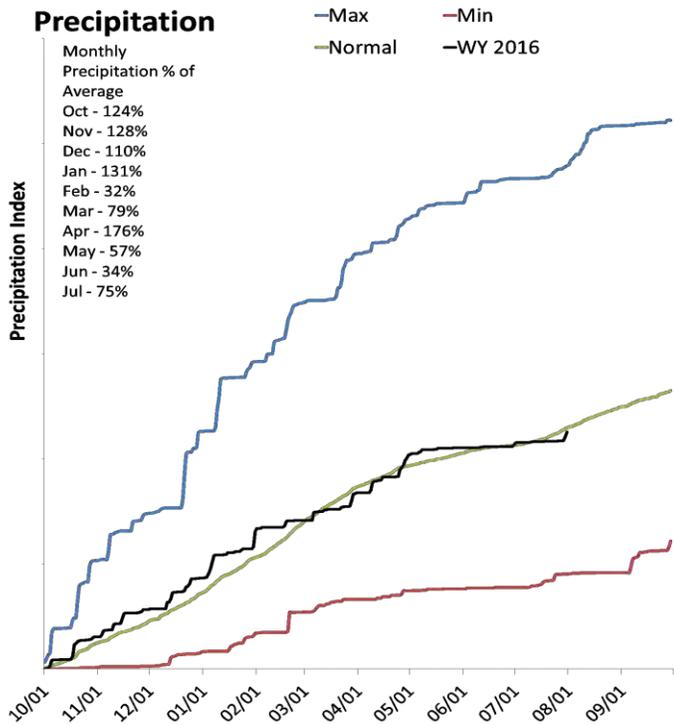
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



Southwestern Utah Basin

8/1/2016

Precipitation in July was below average at 74%, which brings the seasonal accumulation (Oct-Jul) to 98% of average. Soil moisture is at 32% compared to 36% last year. Reservoir storage is at 56% of capacity, compared to 54% last year. The water availability index for the Virgin River is 55%.



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

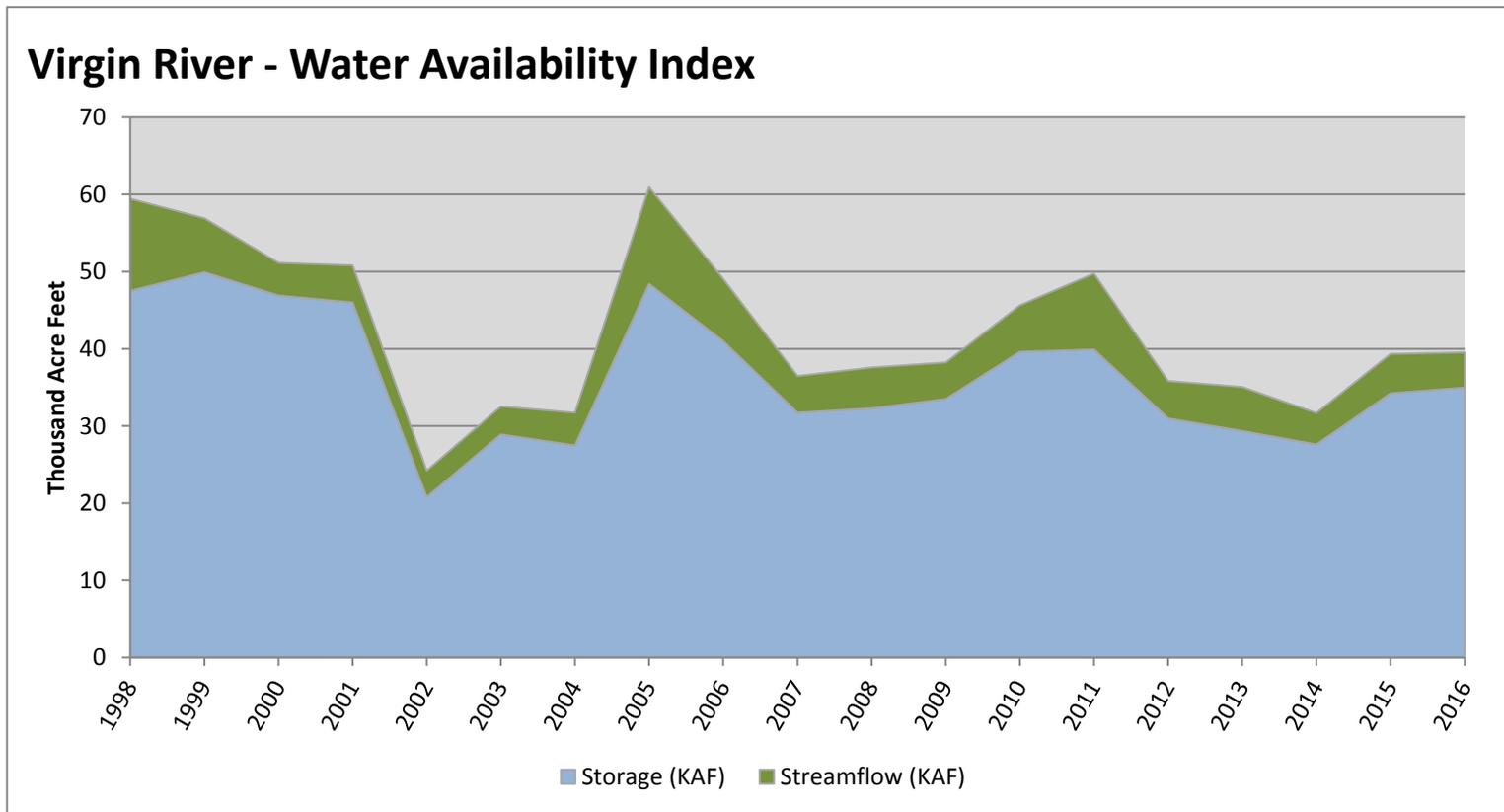
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

August 1, 2016

Water Availability Index

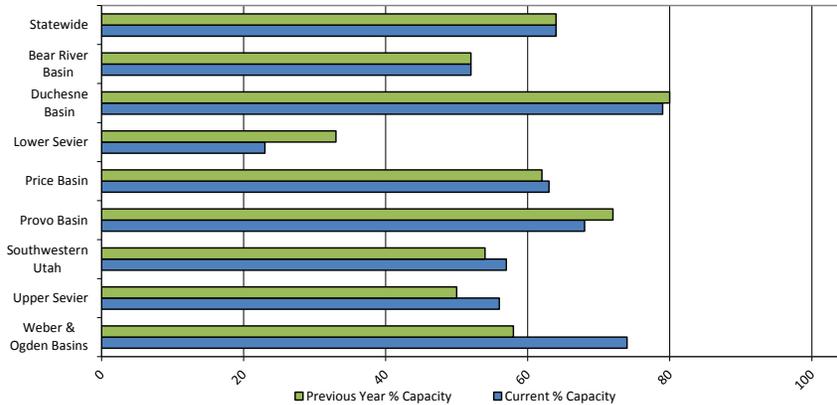
Basin or Region	Jul EOM [*] Storage	July Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Virgin River	34.98	4.57	39.55	55	0.42	09, 15, 10, 06

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



Reservoir Storage Summary for the end of June 2016	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	17.2	16.7		25.7	67%	65%			
Causey Reservoir	5.5	5.9	5.2	7.1	77%	83%	73%	105%	114%
Cleveland Lake	3.1	4.0		5.4	57%	74%			
Currant Creek Reservoir	15.1	15.0	15.2	15.5	97%	97%	98%	99%	99%
Deer Creek Reservoir	113.1	115.2	123.4	149.7	76%	77%	82%	92%	93%
East Canyon Reservoir	29.2	27.8	40.9	49.5	59%	56%	83%	71%	68%
Echo Reservoir	37.3	43.9	49.0	73.9	50%	59%	66%	76%	90%
Grantsville Reservoir	1.2	2.0	1.7	3.3	36%	61%	51%	70%	118%
Gunlock	4.6	3.5	7.2	10.4	44%	34%	69%	64%	48%
Gunnison Reservoir	1.0	0.0	10.4	20.3	5%	0%	51%	10%	0%
Huntington North Reservoir	3.0	2.6	2.6	4.2	71%	61%	62%	115%	99%
Hyrum Reservoir	6.8	7.8	9.5	15.3	44%	51%	62%	71%	82%
Joes Valley Reservoir	41.6	49.2	51.0	61.6	68%	80%	83%	82%	96%
Jordanelle Reservoir	259.0	246.2	288.4	320.0	81%	77%	90%	90%	85%
Ken's Lake	2.3	1.9	1.4	2.3	99%	84%	62%	159%	135%
Kolob Reservoir	5.4	5.3		5.6	97%	95%			
Lost Creek Reservoir	17.3	13.4	16.0	22.5	77%	59%	71%	108%	84%
Lower Enterprise	0.5	1.0	0.4	2.6	19%	38%	16%	122%	244%
Miller Flat Reservoir	2.7	4.3		5.2	51%	82%			
Millsite	13.4	14.2	14.5	16.7	80%	85%	87%	92%	98%
Minersville Reservoir	5.0	5.7	10.0	23.3	21%	24%	43%	50%	57%
Moon Lake Reservoir	24.5	27.1	26.1	35.8	68%	76%	73%	94%	104%
Otter Creek Reservoir	39.0	24.0	29.4	52.5	74%	46%	56%	133%	81%
Panguitch Lake	11.1	8.1	14.6	22.3	50%	37%	65%	76%	56%
Pineview Reservoir	84.0	73.5	77.0	110.1	76%	67%	70%	109%	95%
Plute Reservoir	15.1	12.6	32.1	71.8	21%	18%	45%	47%	39%
Porcupine Reservoir	5.5	8.9	8.5	11.3	49%	79%	75%	65%	105%
Quail Creek	30.4	30.8	26.1	40.0	76%	77%	65%	116%	118%
Red Fleet Reservoir	22.7	19.4	21.2	25.7	88%	75%	82%	107%	91%
Rockport Reservoir	41.0	38.4	51.5	60.9	67%	63%	85%	80%	74%
Sand Hollow Reservoir	45.5	34.7		50.0	91%	69%			
Scofield Reservoir	16.7	14.0	39.7	65.8	25%	21%	60%	42%	35%
Settlement Canyon Reservoir	0.4	0.4	0.7	1.0	36%	40%	67%	54%	60%
Sevier Bridge Reservoir	25.0	50.3	120.0	236.0	11%	21%	51%	21%	42%
Smith And Morehouse Reservoir	5.9	6.1	6.5	81.0	7%	7%	8%	91%	93%
Starvation Reservoir	142.9	147.6	143.2	165.3	86%	89%	87%	100%	103%
Stateline Reservoir	10.2	10.8	8.9	12.0	85%	90%	74%	115%	121%
Steinaker Reservoir	16.8	22.1	22.5	33.4	50%	66%	67%	75%	98%
Strawberry Reservoir	803.4	831.5	713.1	1105.9	73%	75%	64%	113%	117%
Upper Enterprise	0.3	0.5	2.8	10.0	3%	5%	28%	11%	18%
Upper Stillwater Reservoir	22.1	24.6	24.5	32.5	68%	76%	75%	90%	100%
Utah Lake	374.4	444.9	756.4	870.9	43%	51%	87%	50%	59%
Vernon Creek Reservoir	0.2	0.3	0.3	0.6	25%	50%	42%	60%	120%
Willard Bay	160.0	90.8	148.3	215.0	74%	42%	69%	108%	61%
Woodruff Creek	0.3	0.8	1.3	4.0	7%	20%	32%	21%	63%
Woodruff Narrows Reservoir	43.4	37.2	25.7	57.3	76%	65%	45%	169%	145%
Meeks Cabin Reservoir	19.2	21.4	16.7	32.5	59%	66%	51%	115%	128%
Bear Lake	565.2	571.1	696.0	1302.0	43%	44%	53%	81%	82%
Basin-wide Total	3035.2	3072.2	3659.8	5453.8	56%	56%	67%	83%	84%
# of reservoirs	43	43	43	43	43	43	43	43	43

Reservoir Storage



August 1, 2016

Water Availability Index

Basin or Region	Jul EOM* Storage	July Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Bear River	565	13.2	578	41	-0.8	10, 09, 15, 14
Woodruff Narrows	43.4	10.2	53.6	68	1.5	93, 05, 08, 10
Little Bear	6.8	1.5	8.2	36	-1.2	14, 94, 04, 15
Ogden	89.4	2.9	92.3	54	0.3	91, 04, 85, 06
Weber	130.7	-4.8	125.9	33	-1.4	03, 12, 15, 94
Provo River	372.1	5.0	377.1	41	-0.8	12, 15, 08, 00
Western Uintah	189.5	7.2	196.7	57	0.6	10, 01, 06, 15
Eastern Uintah	39.4	11.0	50.4	41	-0.8	07, 00, 06, 92
Blacks Fork	19.3	10.6	29.8	50	0.0	14, 87, 97, 15
Price	16.7	0.6	17.3	19	-2.6	02, 14, 89, 91
Smiths Creek	10.2	4.4	14.6	67	1.4	96, 15, 10, 87
Joes Valley	41.7	2.7	44.4	22	-2.4	94, 12, 89, 91
Moab	2.3	0.9	3.2	80	2.5	15, 99, 98, 93
Upper Sevier River	54.1	0.6	54.7	46	-0.3	14, 10, 12, 00
San Pitch	1.0	1.2	2.2	19	-2.6	92, 89, 90, 04
Lower Sevier	25.0	2.9	27.9	8	-3.5	03, 04, 91, 02
Beaver	5.0	4.2	9.2	46	-0.3	15, 89, 96, 12
Virgin River	35.0	4.6	39.6	55	0.4	09, 15, 10, 06

*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.

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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.nracs.usda.gov/snow/>

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