

Utah Climate and Water Report

July 2016



Aquarius Plateau, near Powel Point, Utah

Photo by Ian Sutcliffe

Utah General Summary July 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)

Valley precipitation was light in June, Utah's driest month, averaging just 0.3 inches across the state. This brought the seasonal (Oct-June) total to 8.9 inches. Precipitation was consistently low across the state; from 0.2 inches in the Southeast to 0.4 inches in the Western and Dixie and North Central areas. With the exception of the Northern area, soil moisture conditions are below or well below normal. Statewide soil moisture is at 35% – similar to last year's 37% value. June is also the month with the most dramatic drop in soil moisture, as low precipitation amounts intersect with high evapotranspiration rates. Soil temperatures at end of June are near normal. Overall, precipitation-to-date totals are slightly higher this water year when compared to 2015 values.

Current Mountain Conditions (SNOTEL)

Snowpacks are melted out and streamflow is decreasing rapidly toward base flow conditions. Most low elevation watersheds such as Blacksmiths Fork and Emigration Creek will have below normal April-July streamflow volumes. Higher elevation watersheds like the Bear and the Weber are doing reasonably well with most coming in average or even a little above. Runoff is below normal on the Price, San Rafael, San Pitch and the west end of the Uintah Basin. Runoff is doing very well on the east end of the Uintah Basin, the North Slope and Mill Creek near Moab and average on the Sevier and Virgin Basins. June is typically one of the driest months of the year and this year was even less with a statewide average of 37% of normal – basically 37% of next to nothing is even less than nothing. Reservoir storage statewide is at 64% of capacity, identical to last year. Some reservoirs of concern include Gunnison – 7%, Sevier Bridge – 23%, upper and lower Enterprise Reservoirs – 3% and 29% of capacity. The three month climate outlook (Climate Prediction Center) calls for above normal temperature and near normal precipitation thus irrigation demand may be normal or above. Also from the Climate Prediction Center – El Nino is now No Nino (neutral conditions) with a 75% probability of a La Nina this fall and winter – boy is that a whiplash from monster El Nino to possibly a La Nina. La Nina typically means drier conditions in the south and wetter in the north but don't bet the farm – last year's El Nino didn't produce typical results.

Utah

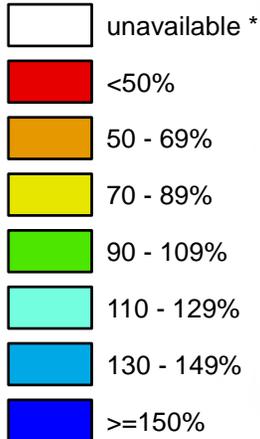
SNOTEL Water Year (Oct 1) to Date Precipitation

% of Normal

RAFT River
↓

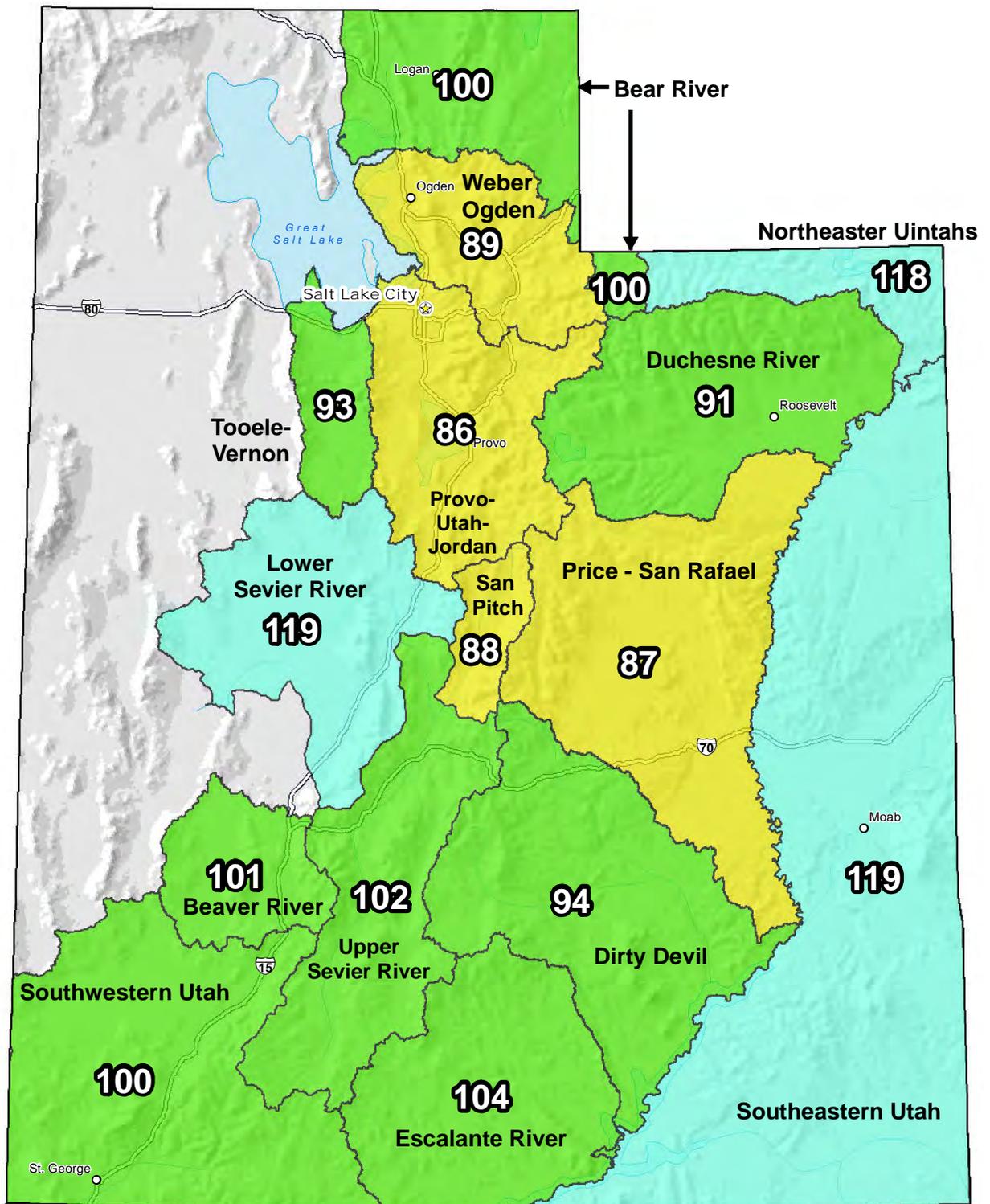
Jul 01, 2016

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**

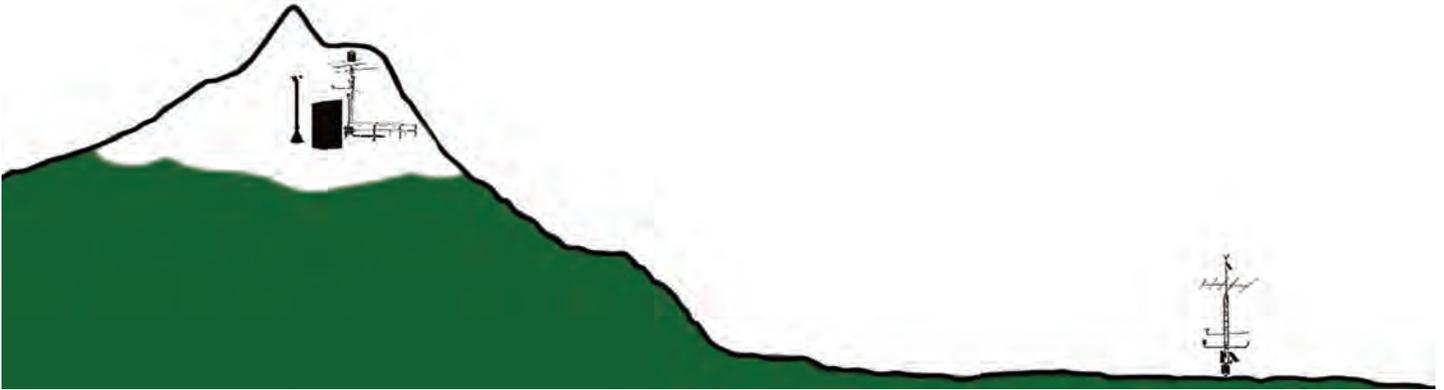


The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

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

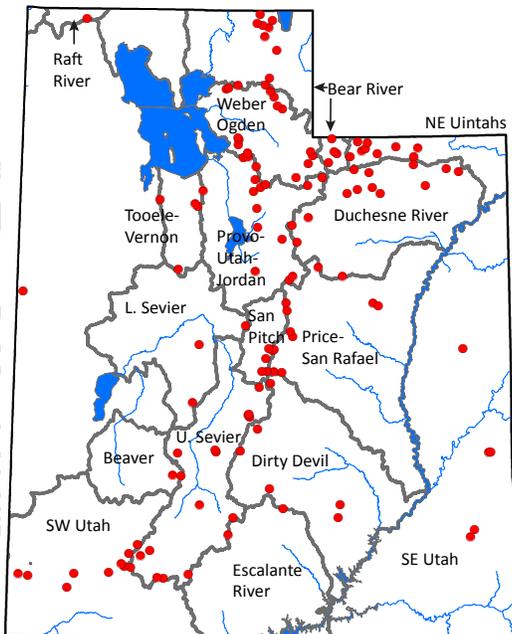
Utah Climate and Water Report

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.



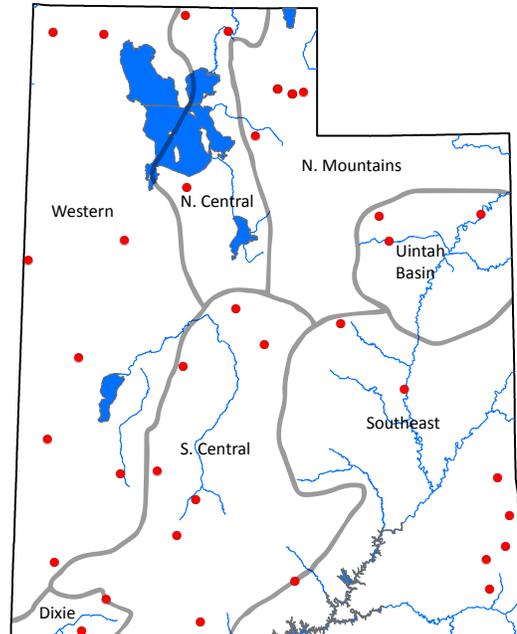
SNOTEL

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



SCAN

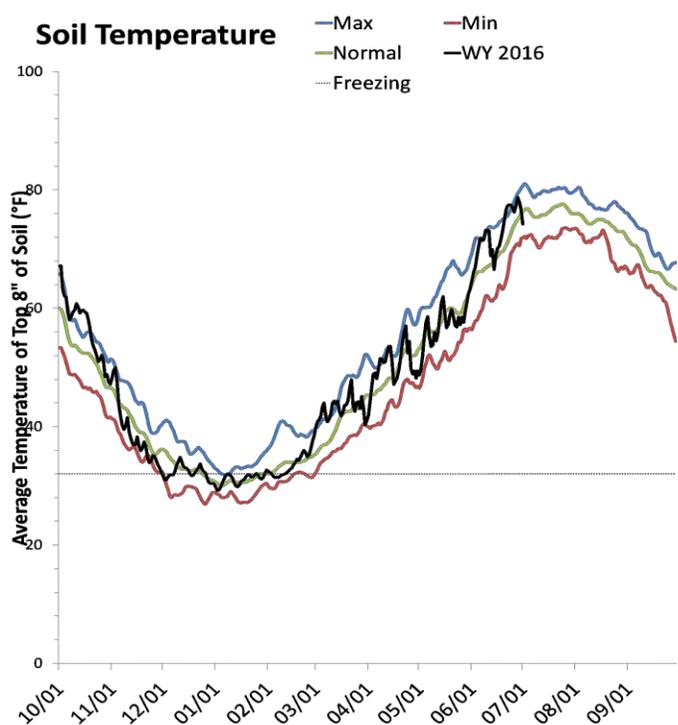
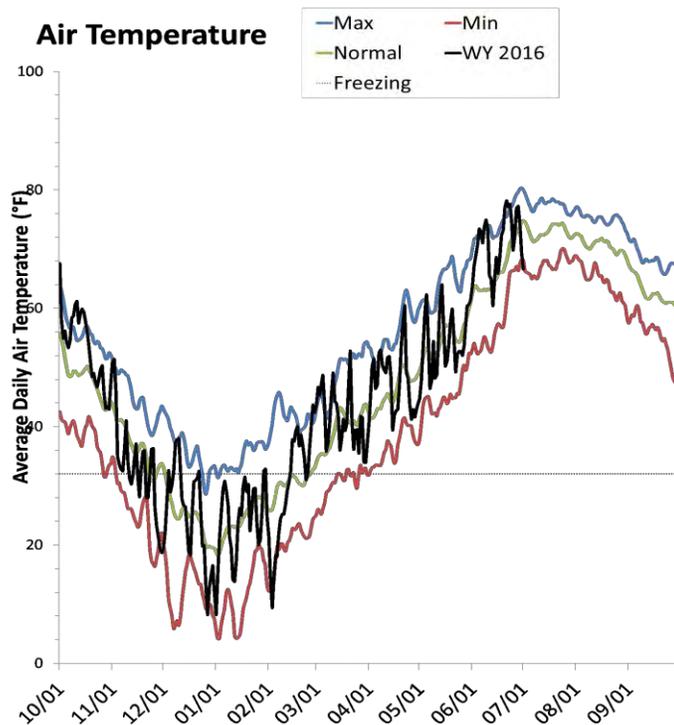
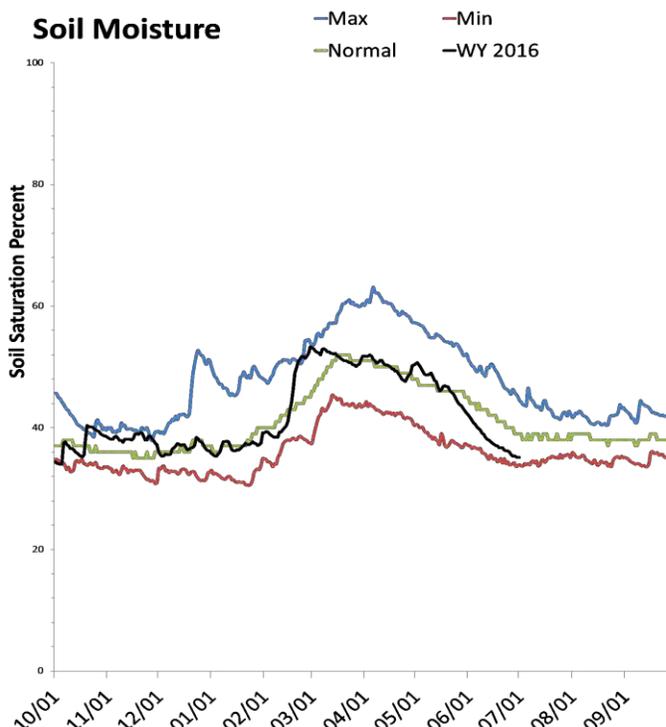
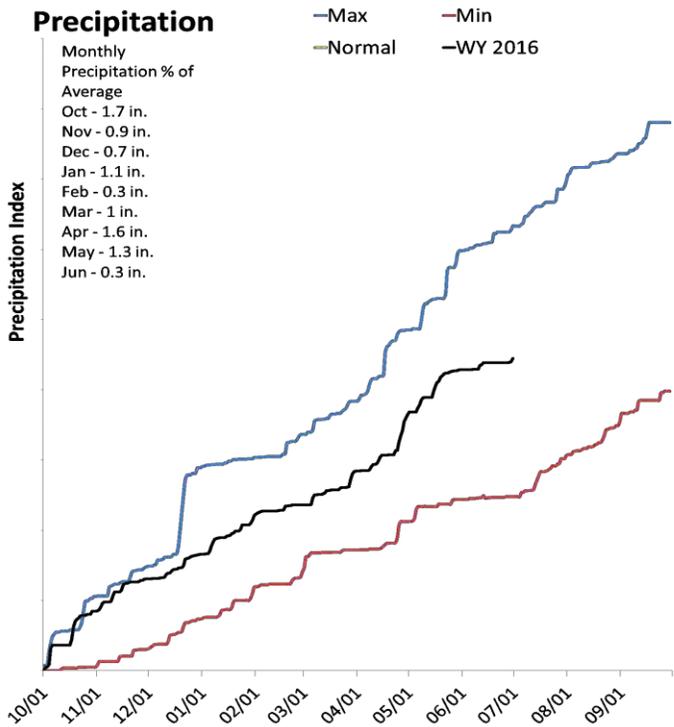
- Agricultural and range lands.
- Mid elevation (3 – 7,000 ft).
- Irrigation efficiency and rangeland productivity.
- Installed on spatially representative soils.



Statewide SCAN

7/1/2016

The average precipitation at SCAN sites within Utah was 0.3 inches in June, which brings the seasonal accumulation (Oct-Jun) to 8.9 inches. Soil moisture is at 35% compared to 37% last year.



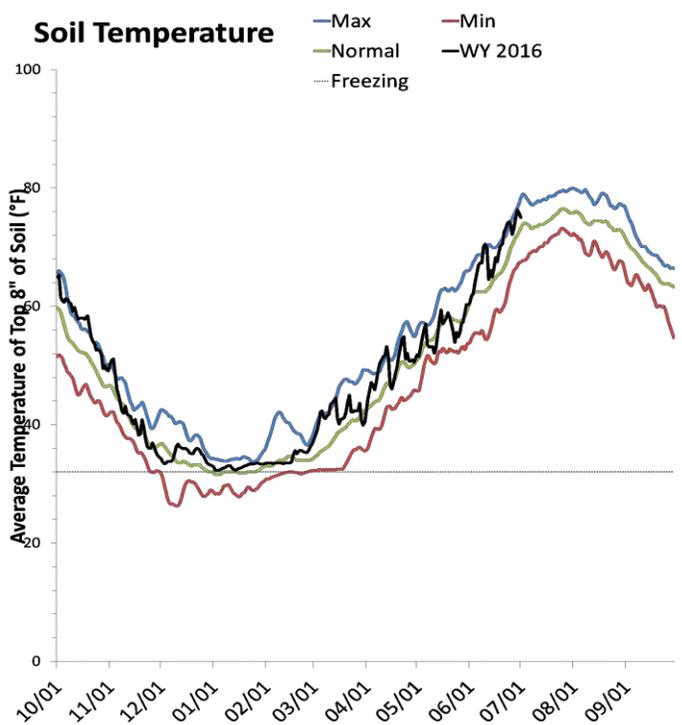
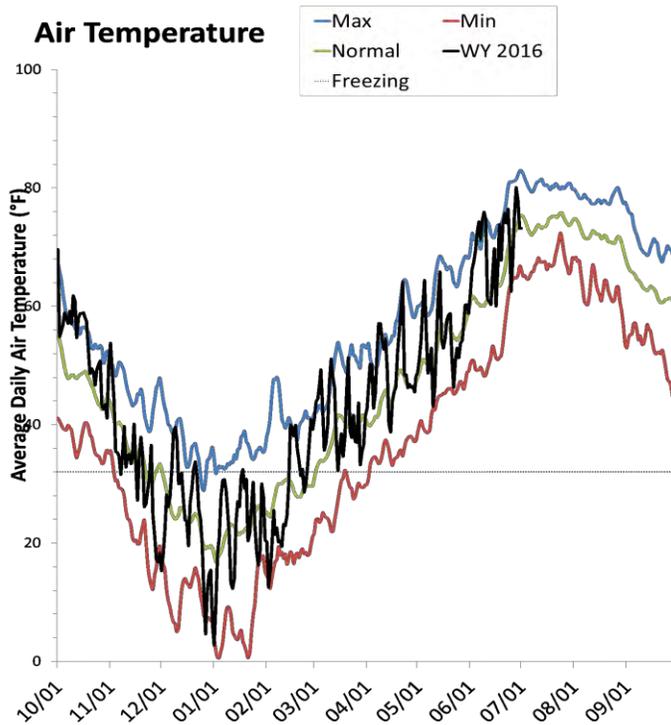
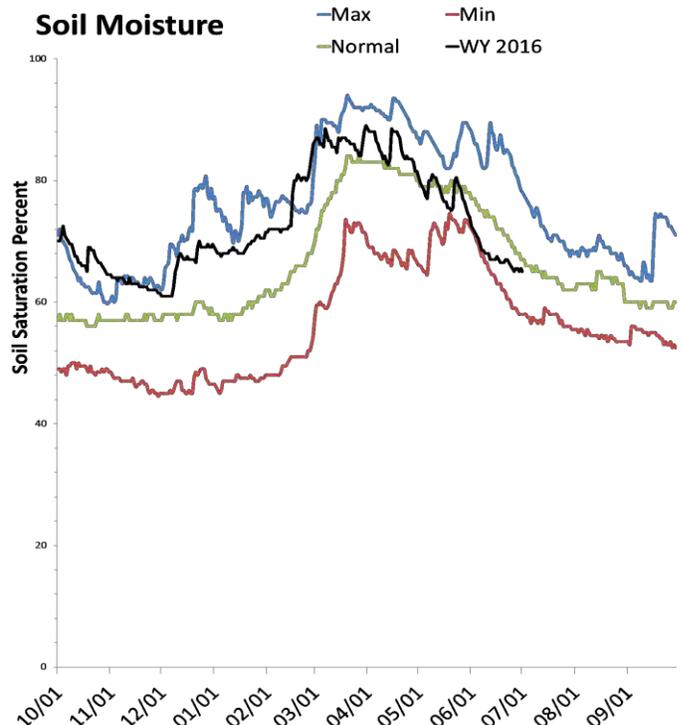
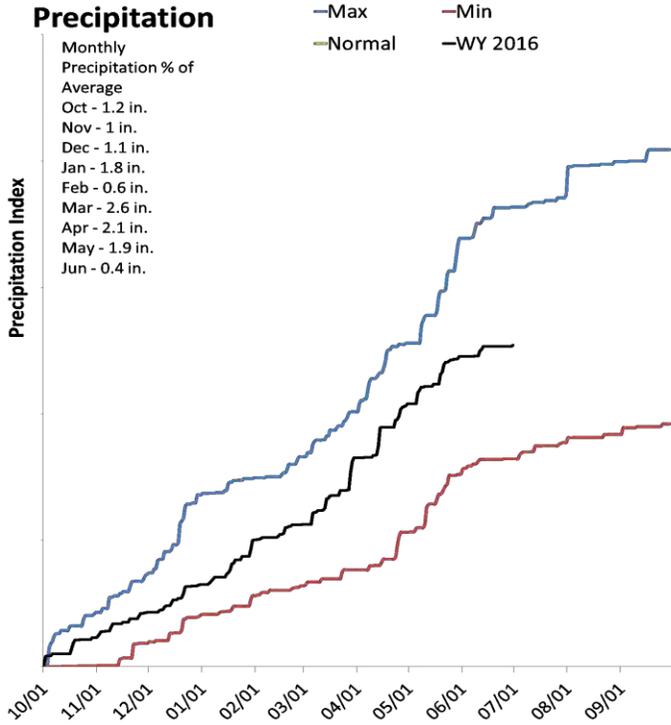
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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North Central

7/1/2016

The average precipitation in June at SCAN sites within the basin was 0.4 inches, which brings the seasonal accumulation (Oct-Jun) to 12.7 inches. Soil moisture is at 65% compared to 69% last year.



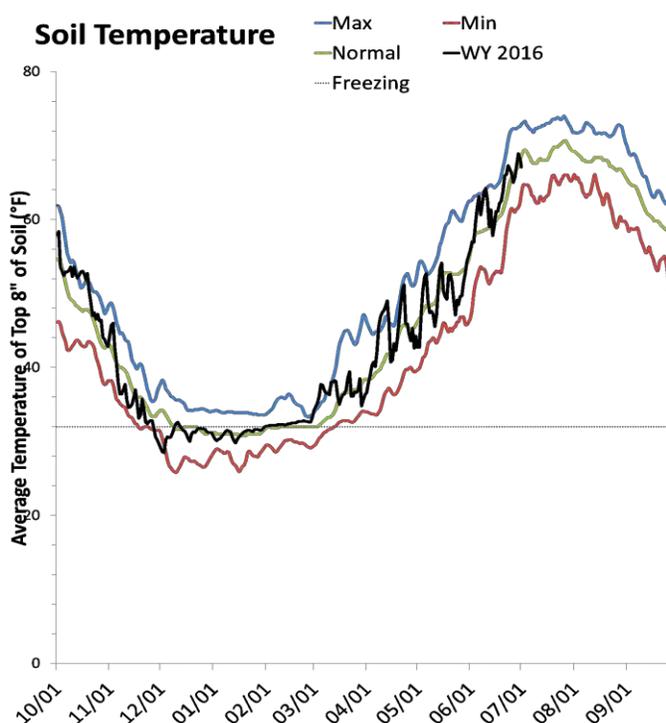
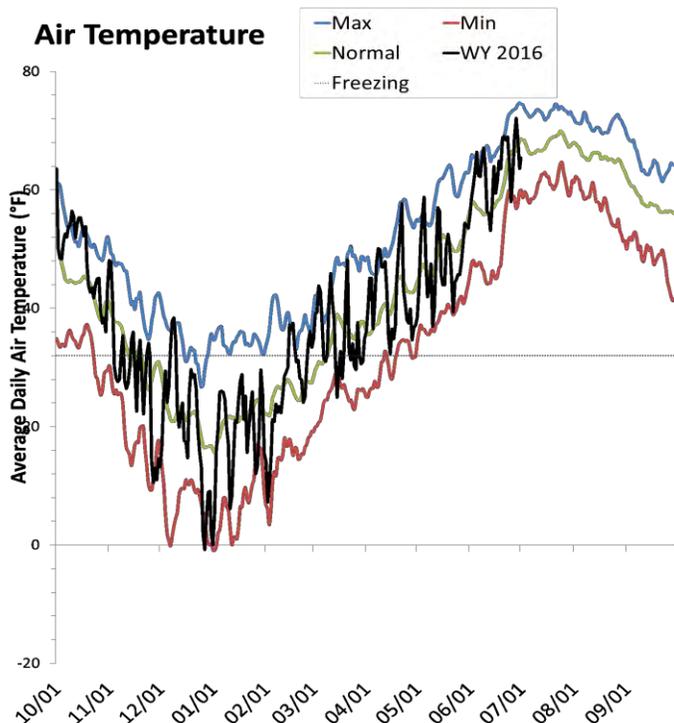
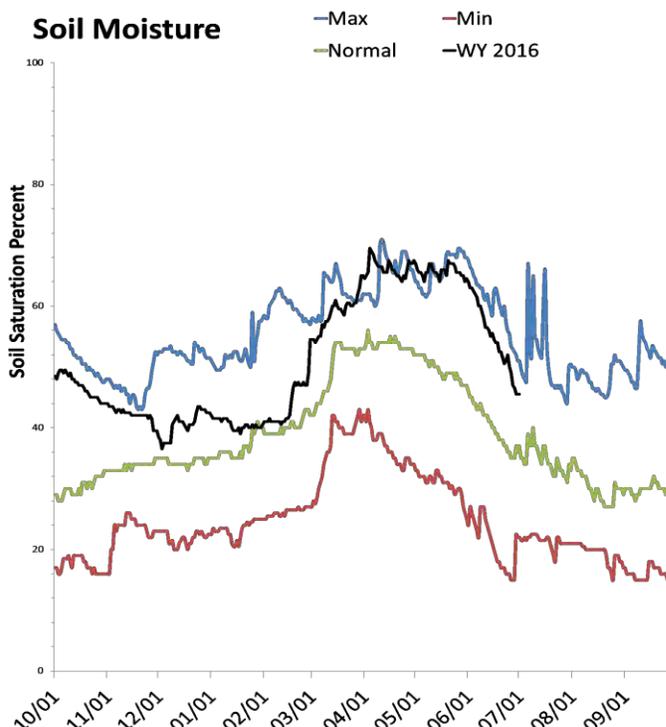
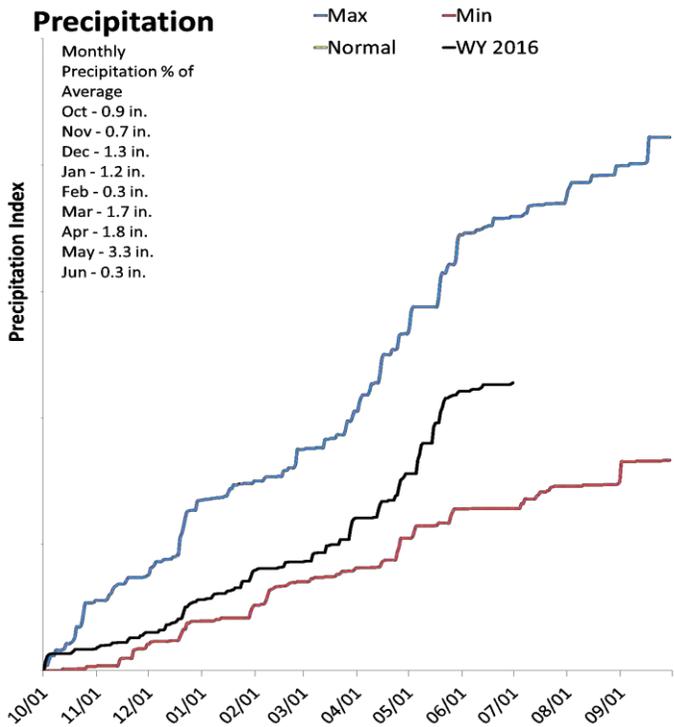
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Northern Mountains

7/1/2016

The average precipitation in June at SCAN sites within the basin was 0.3 inches, which brings the seasonal accumulation (Oct-Jun) to 11.4 inches. Soil moisture is at 40% compared to 44% last year.



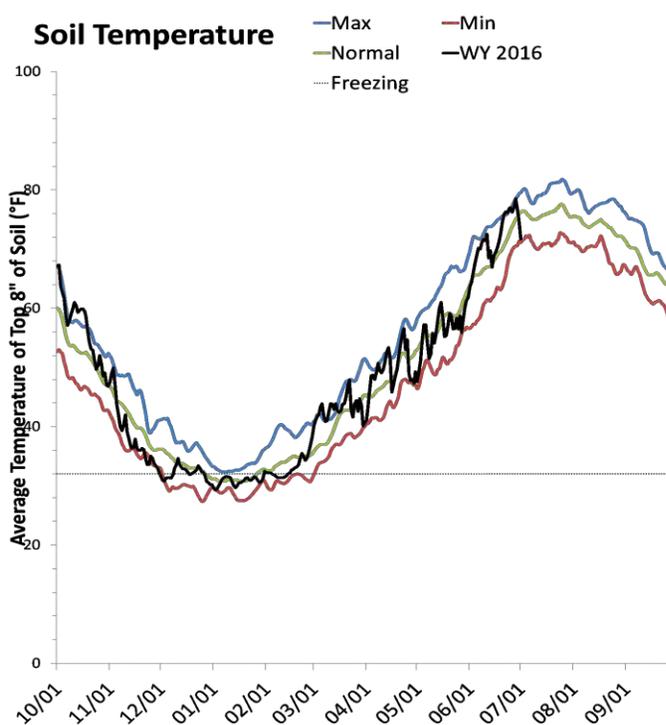
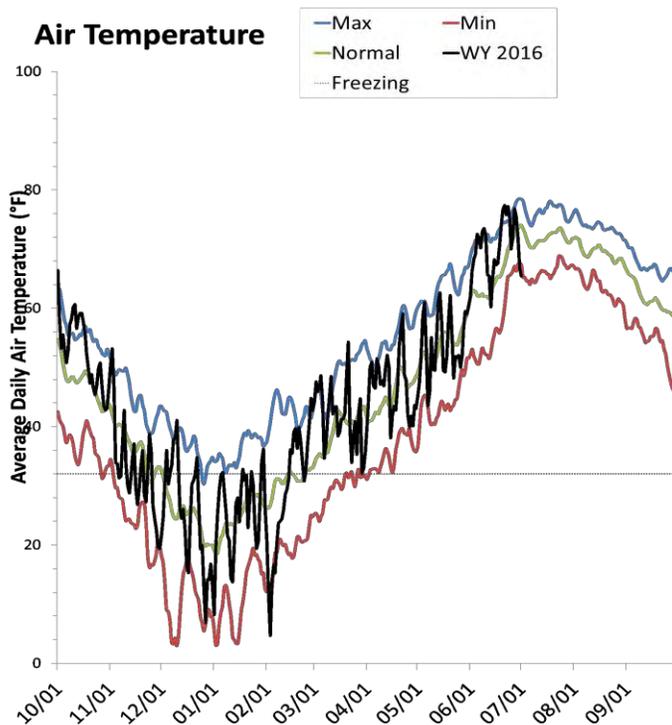
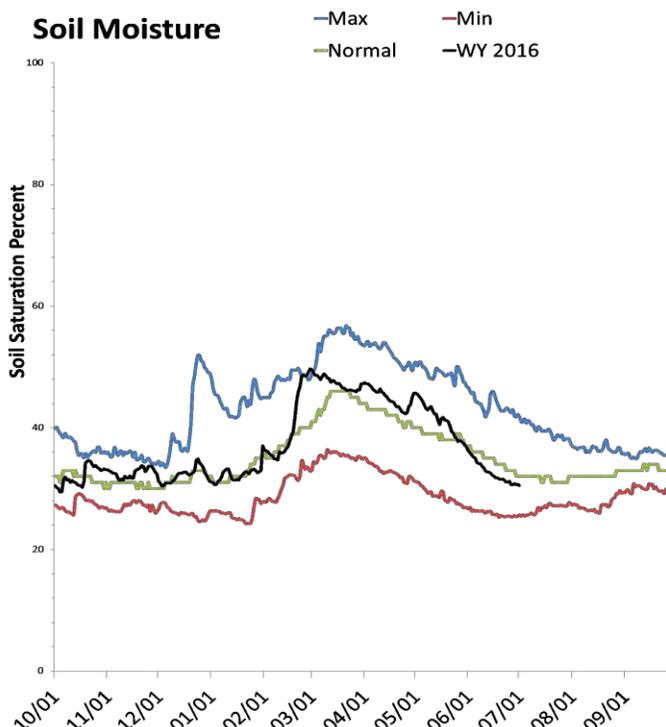
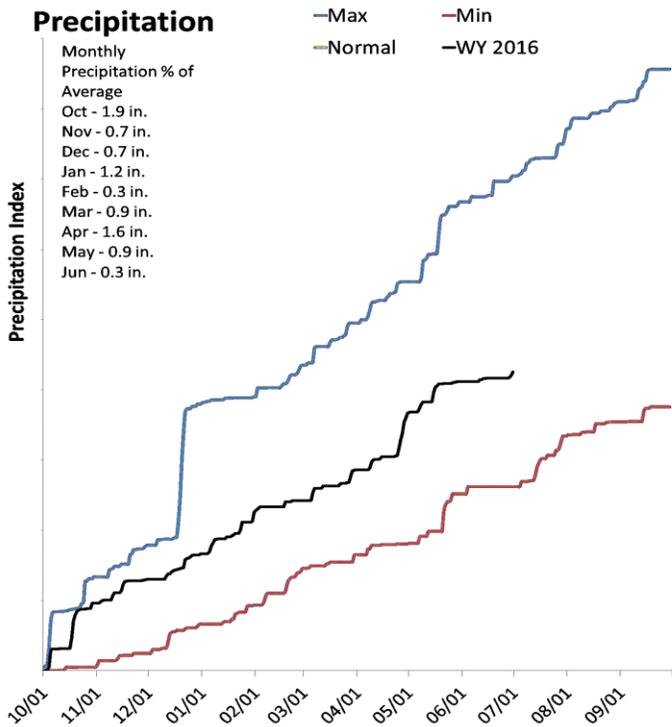
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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South Central

7/1/2016

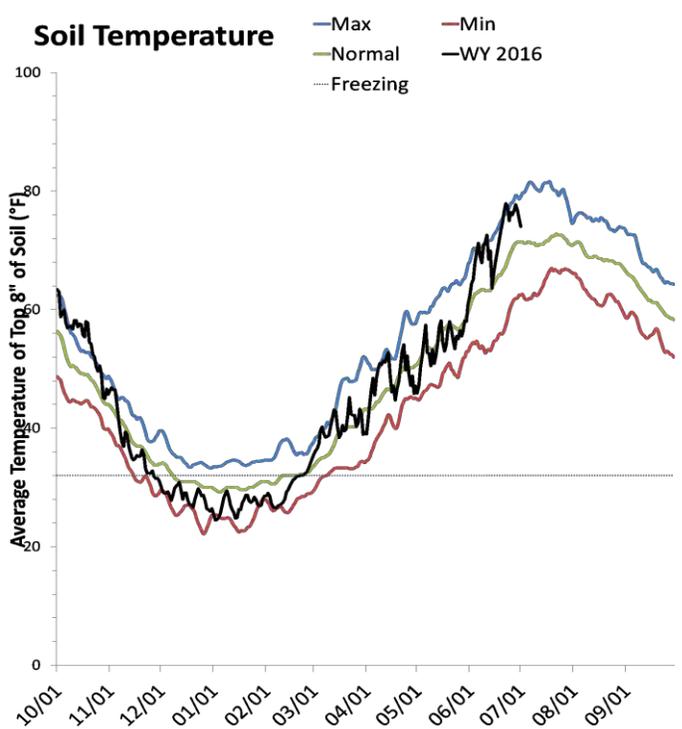
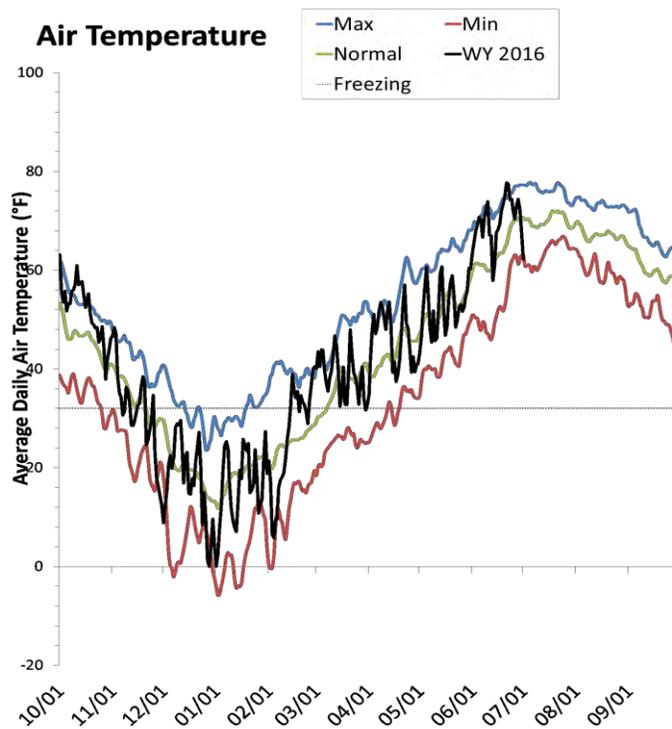
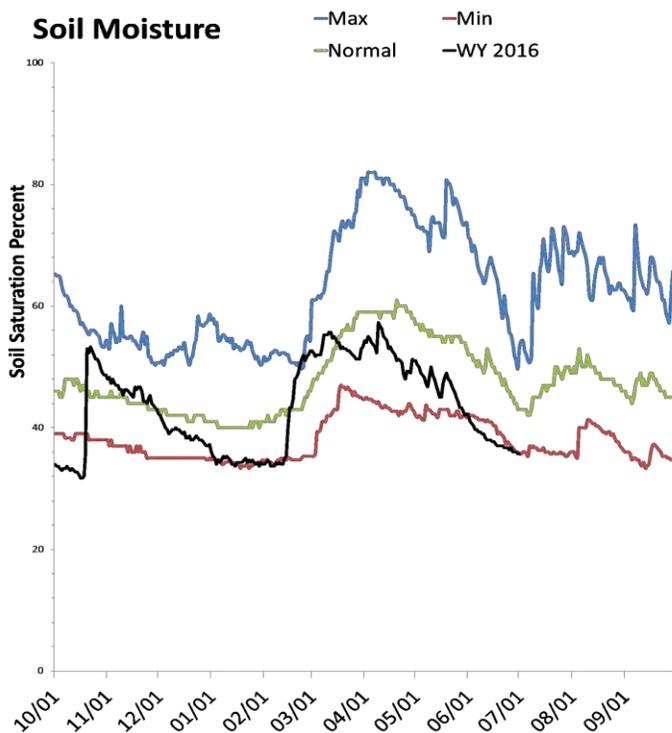
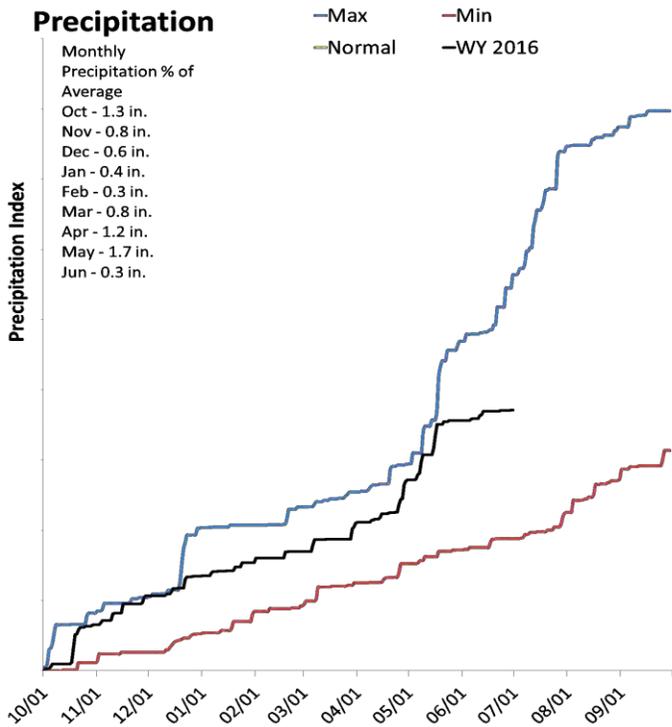
The average precipitation in June at SCAN sites within the basin was 0.3 inches, which brings the seasonal accumulation (Oct-Jun) to 8.5 inches. Soil moisture is at 31% compared to 32% last year.



Uintah Basin

7/1/2016

The average precipitation in June at SCAN sites within the basin was 0.3 inches, which brings the seasonal accumulation (Oct-Jun) to 7.4 inches. Soil moisture is at 36% compared to 36% last year.



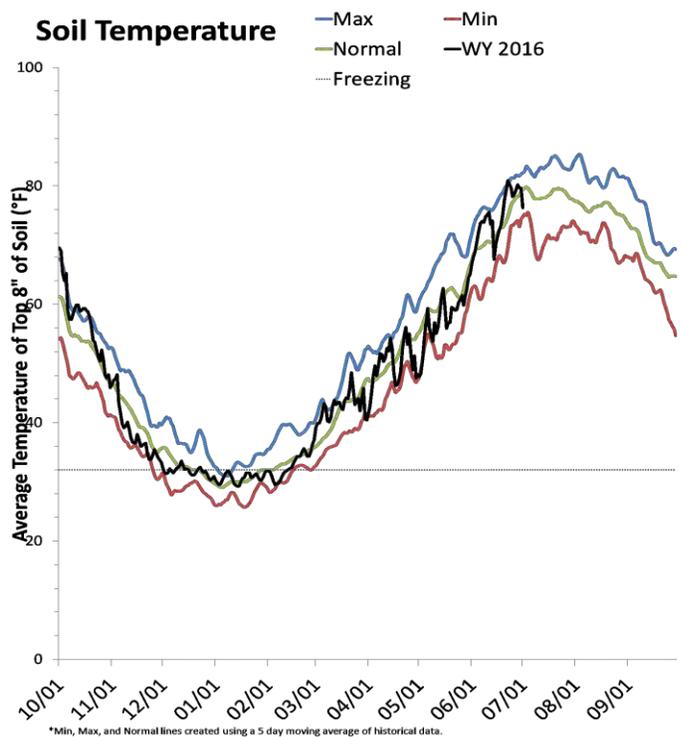
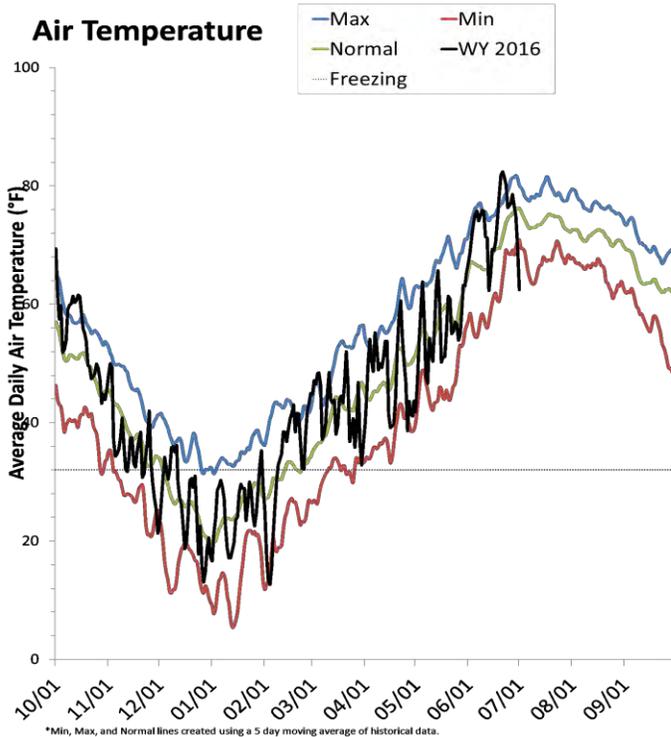
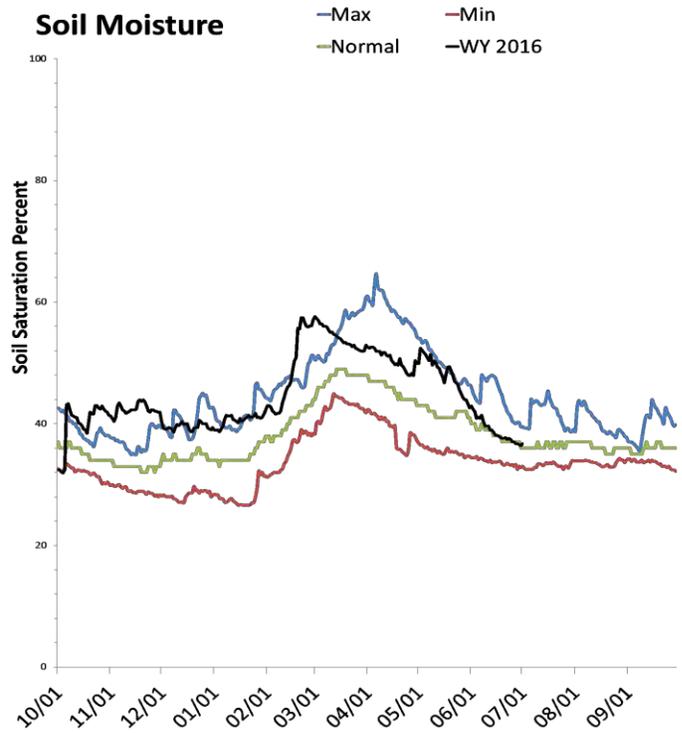
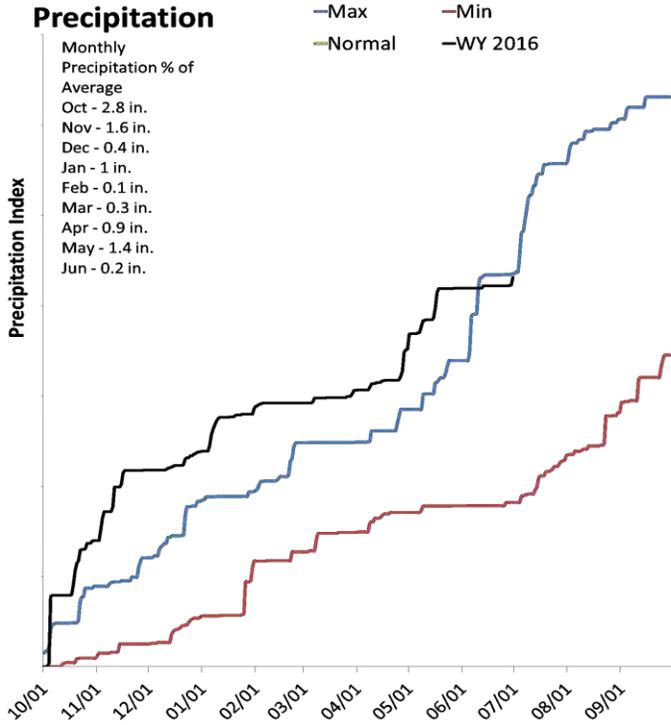
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Southeast

7/1/2016

The average precipitation in June at SCAN sites within the basin was 0.2 inches, which brings the seasonal accumulation (Oct-Jun) to 8.6 inches. Soil moisture is at 36% compared to 38% last year.



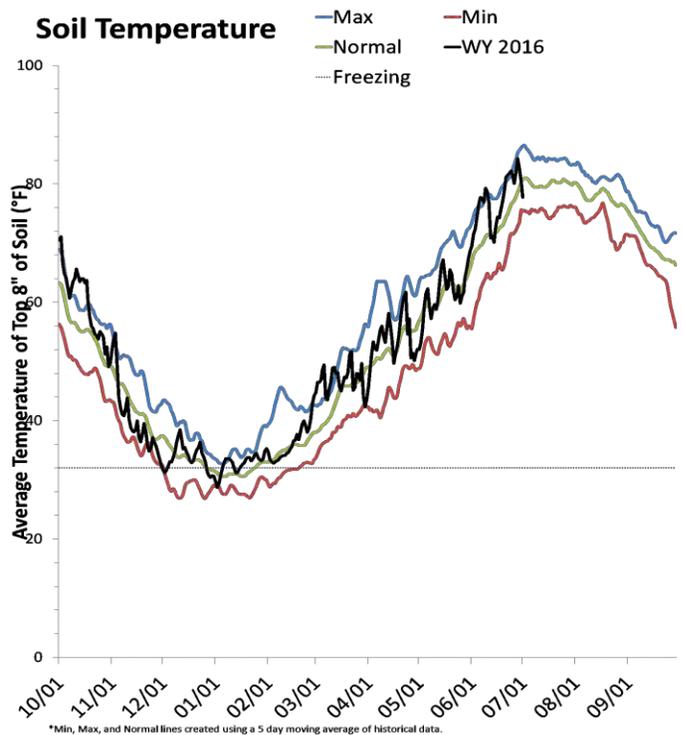
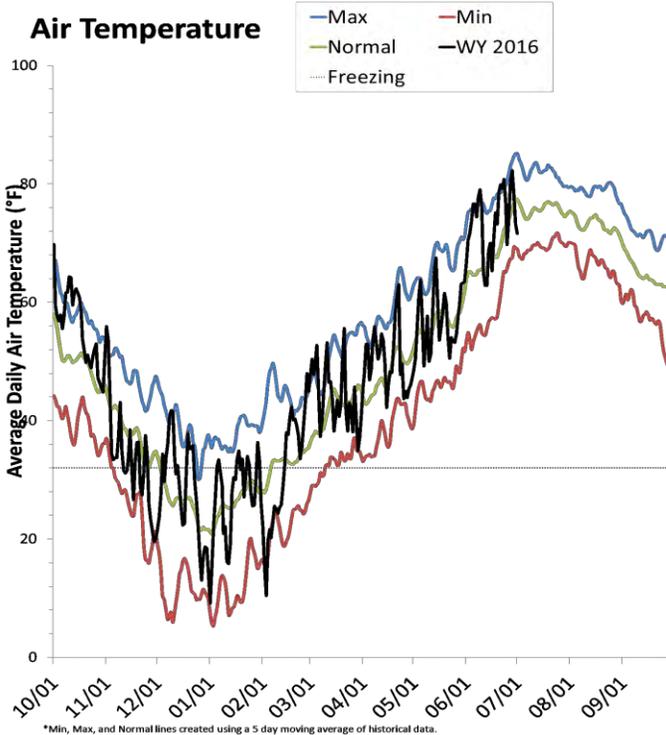
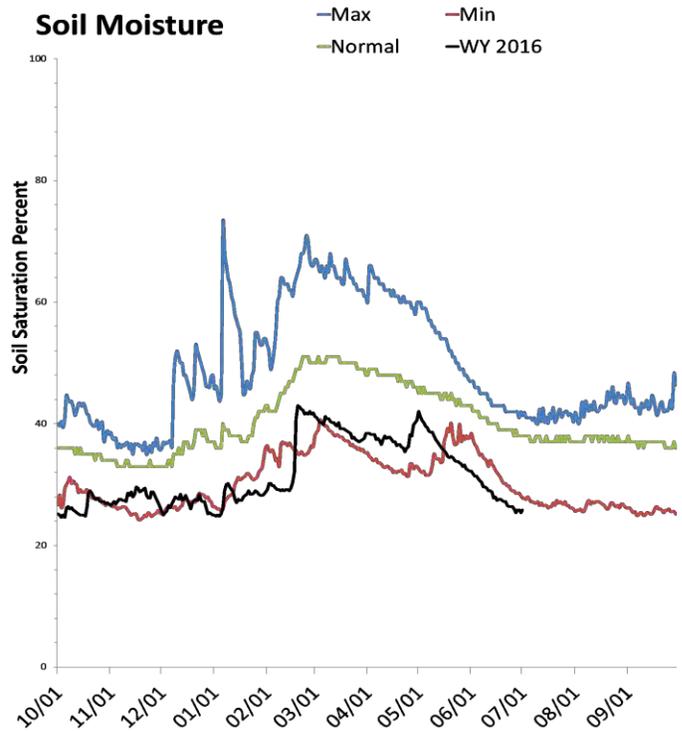
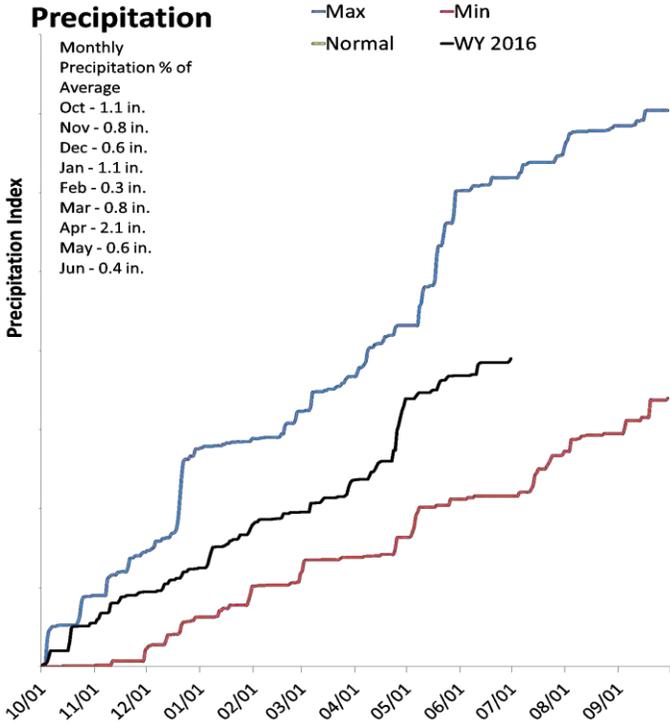
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Western and Dixie

7/1/2016

The average precipitation in June at SCAN sites within the basin was 0.4 inches, which brings the seasonal accumulation (Oct-Jun) to 7.8 inches. Soil moisture is at 26% compared to 28% last year.



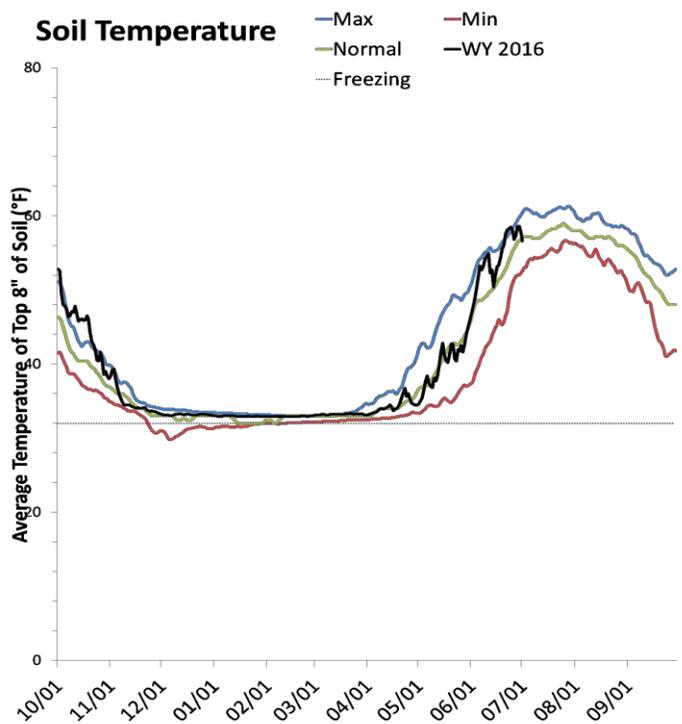
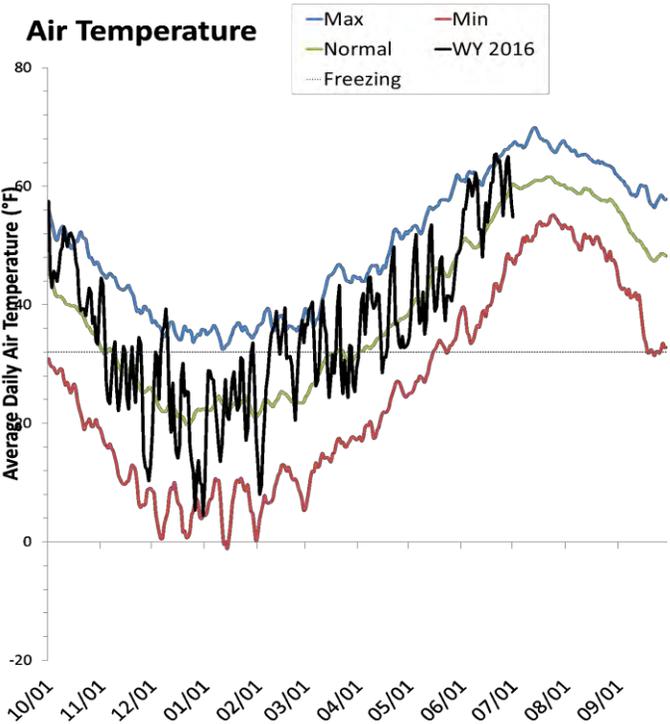
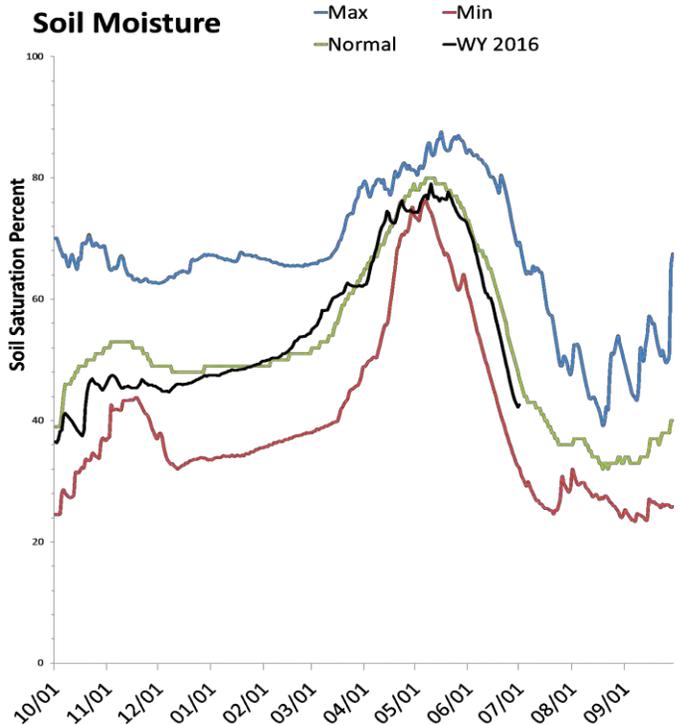
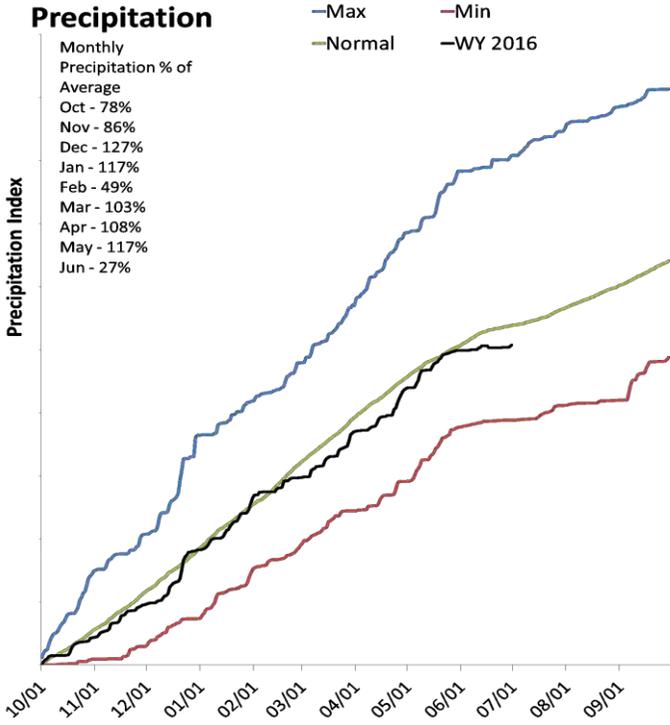
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Statewide SNOTEL

7/1/2016

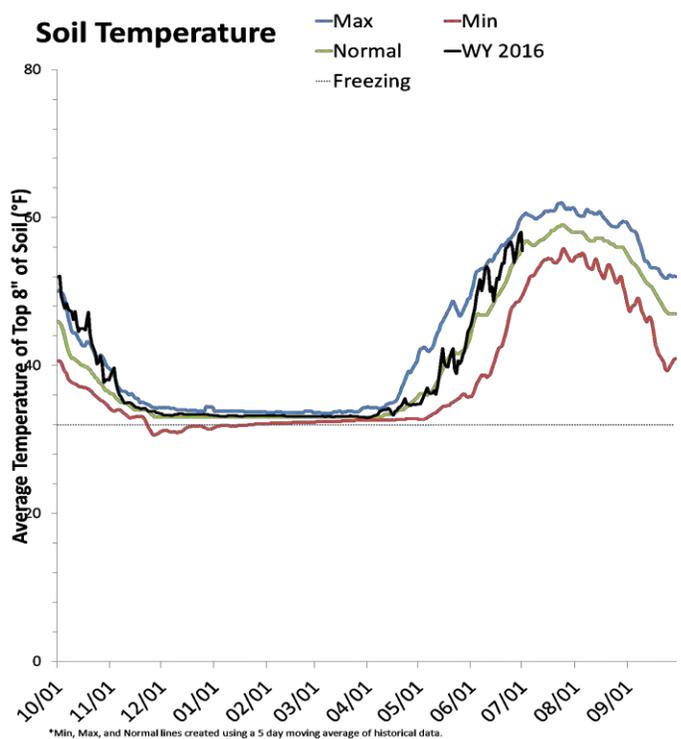
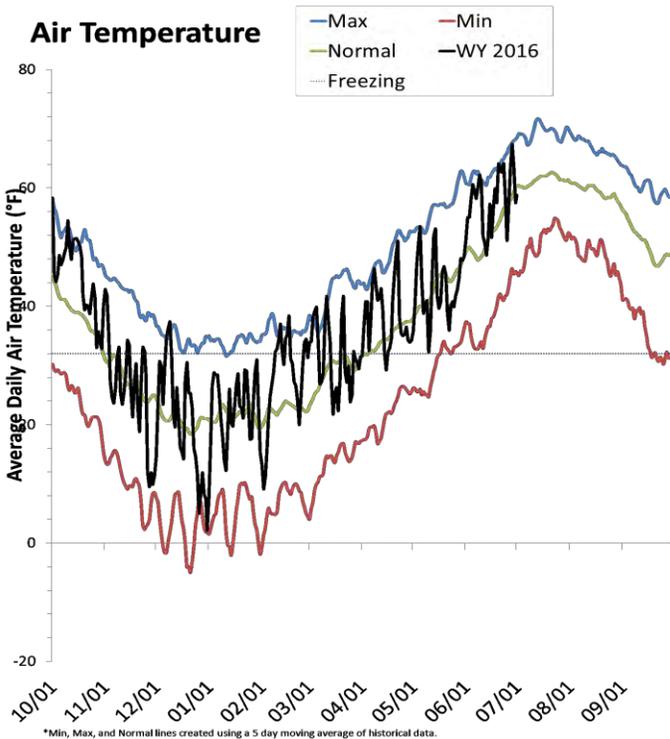
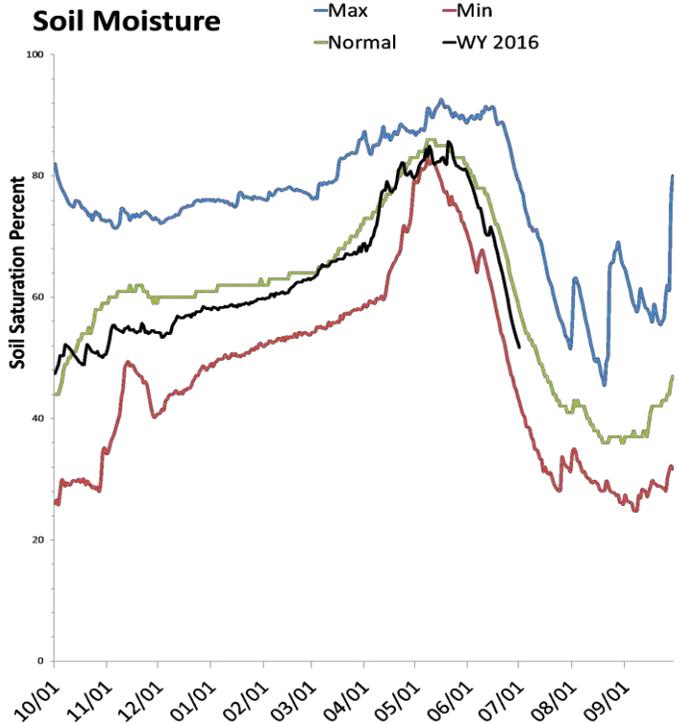
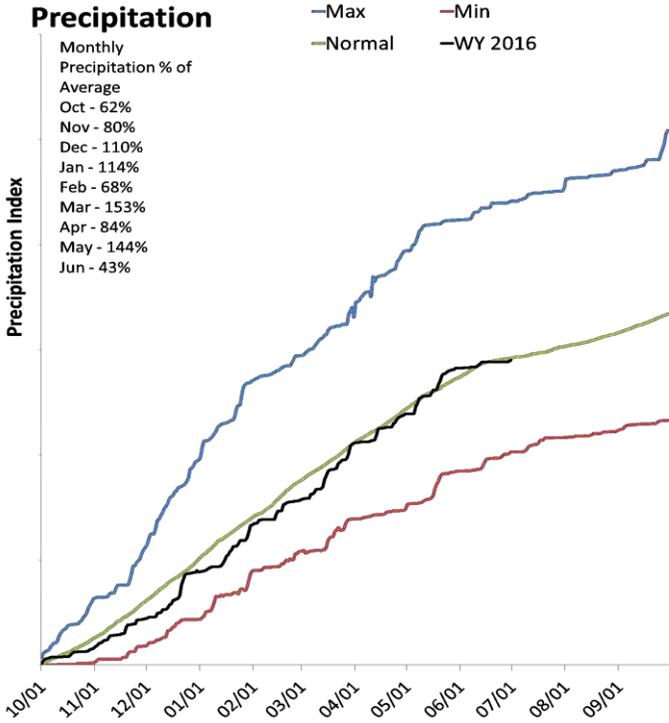
Precipitation at SNOTEL sites during June was much below average at 37%, which brings the seasonal accumulation (Oct-Jun) to 95% of average. Soil moisture is at 43% compared to 44% last year. Reservoir storage is at 64% of capacity, compared to 64% last year.



Bear River Basin

7/1/2016

Precipitation in June was much below average at 43%, which brings the seasonal accumulation (Oct-Jun) to 100% of average. Soil moisture is at 52% compared to 59% last year. Reservoir storage is at 52% of capacity, compared to 52% last year. The water availability index for the Bear River is 51%, 70% for Woodruff Narrows and 44% for the Little Bear.

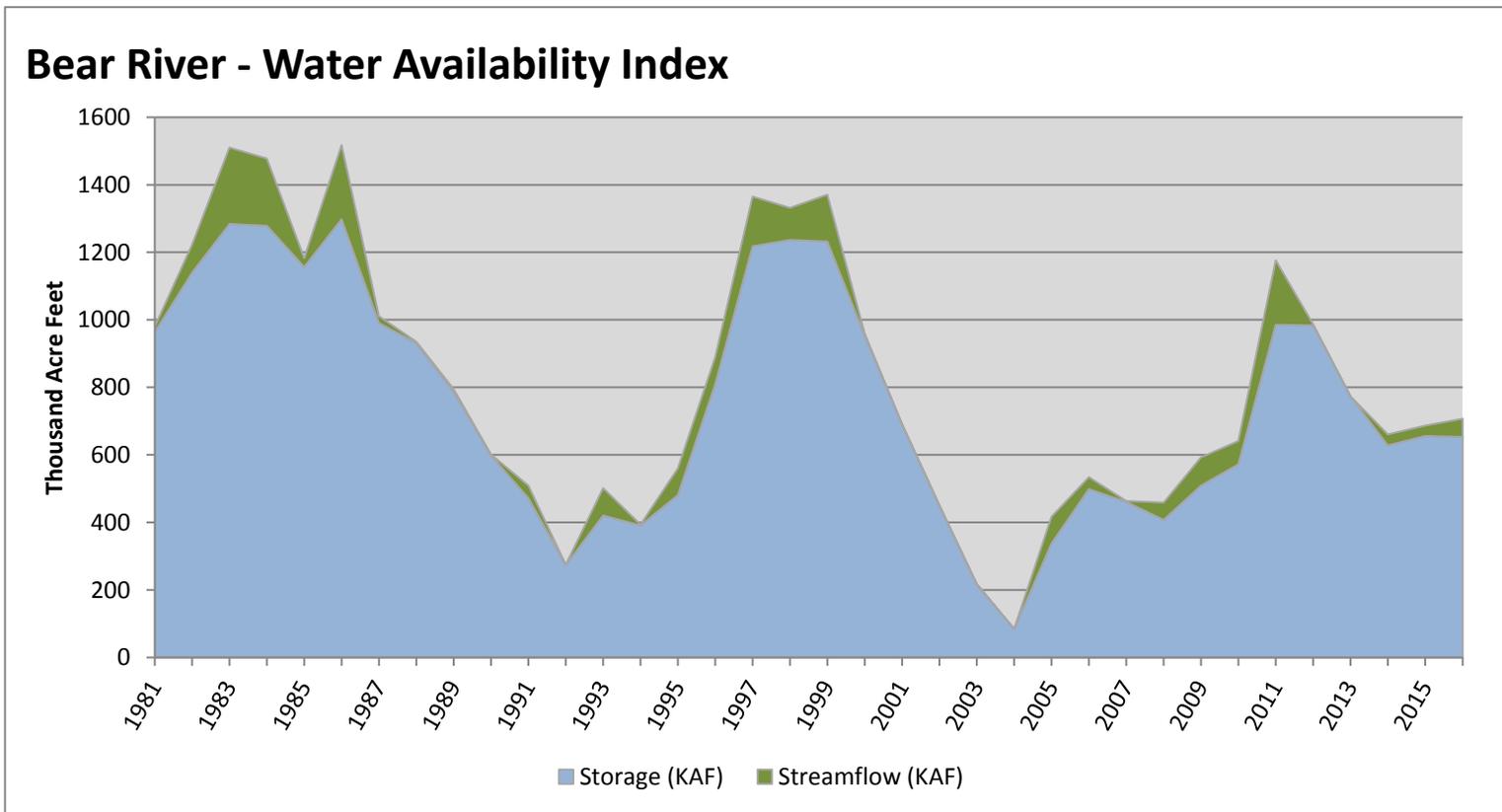


July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Bear River	652.96	54.53	707.49	51	0.11	15, 01, 13, 89

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

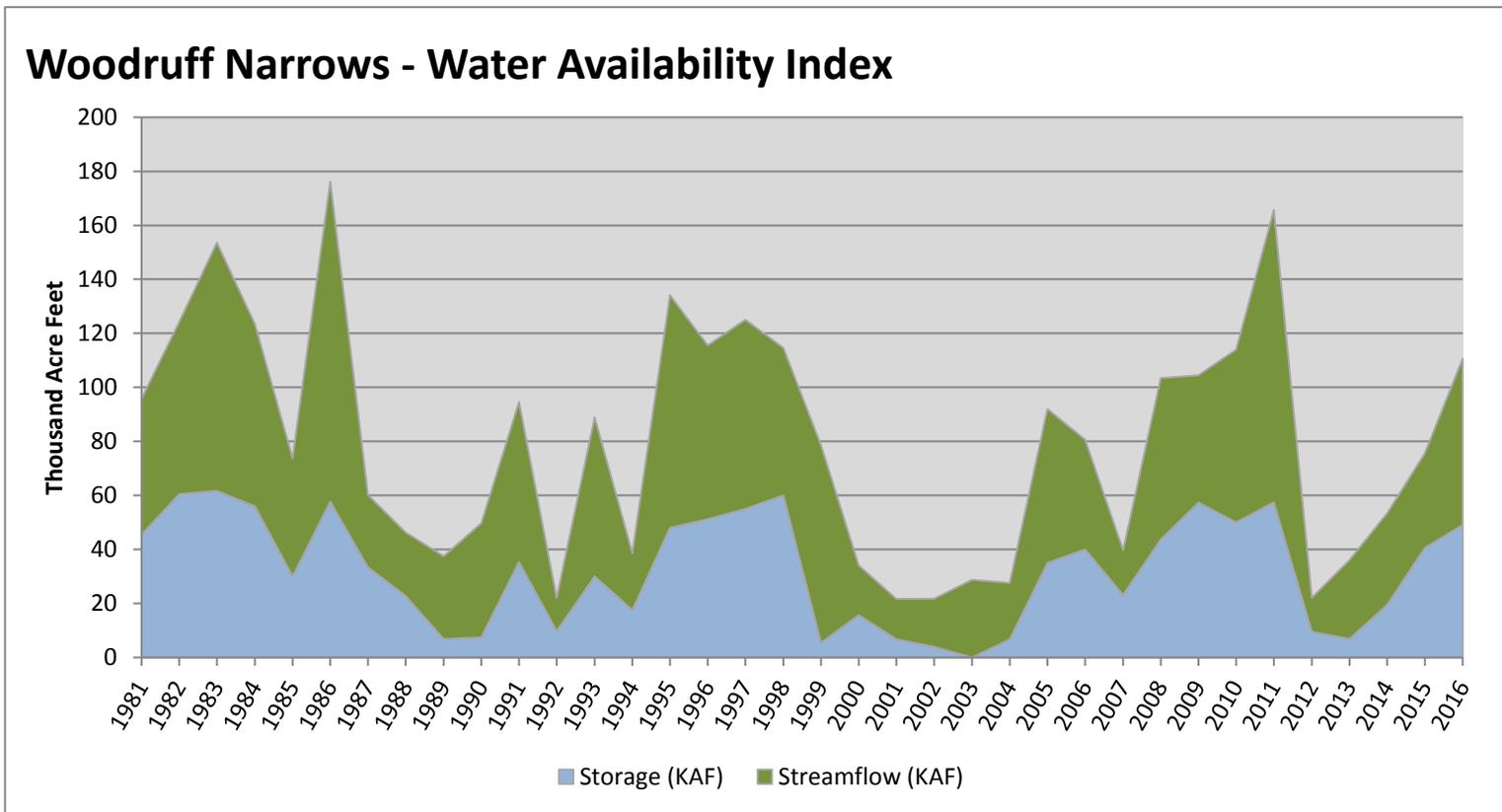


July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Woodruff Narrows	49.10	61.53	110.63	70	1.69	08, 09, 10, 98

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

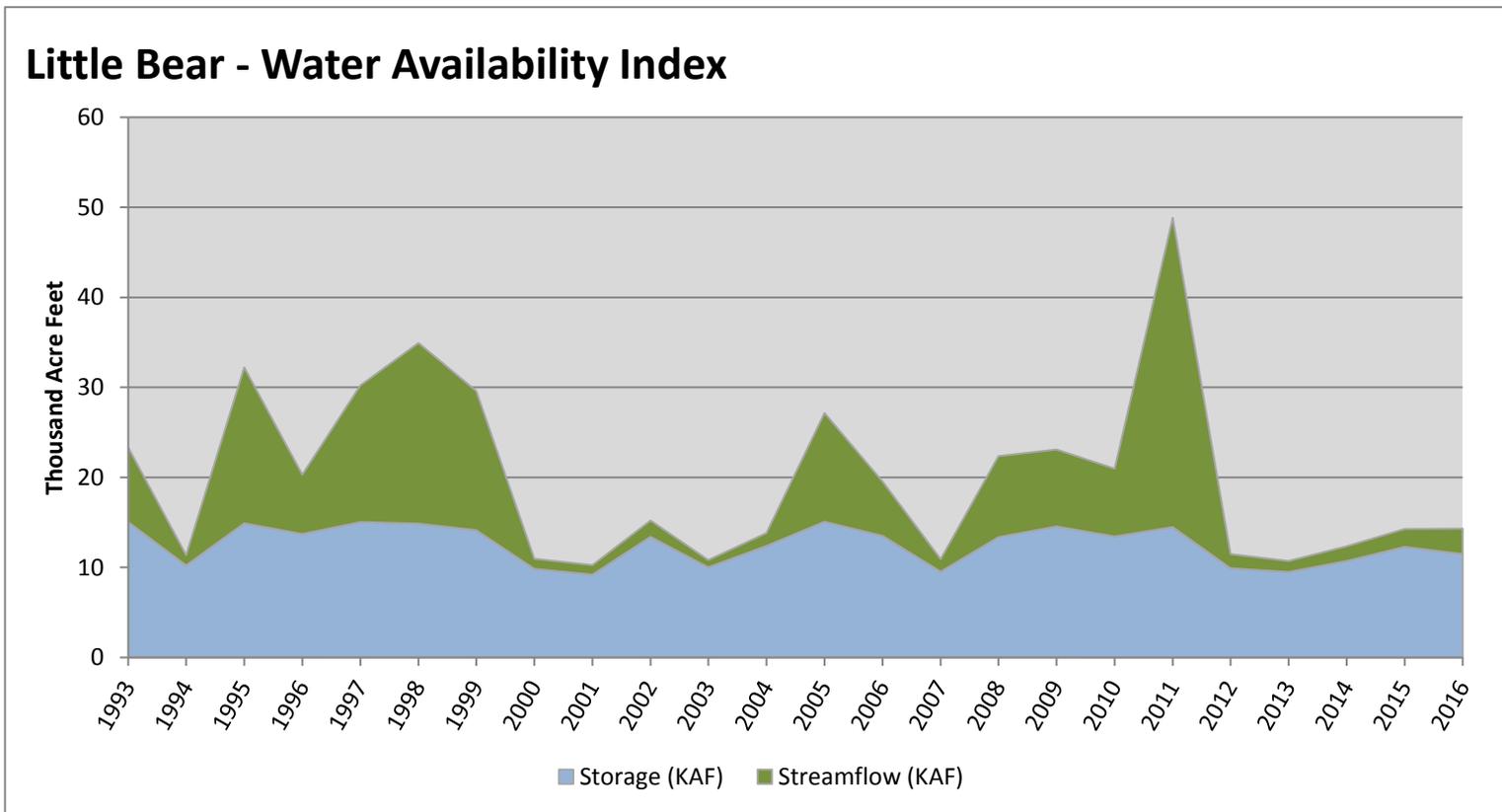


July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Little Bear	11.49	2.81	14.30	44	-0.5	04, 15, 02, 06

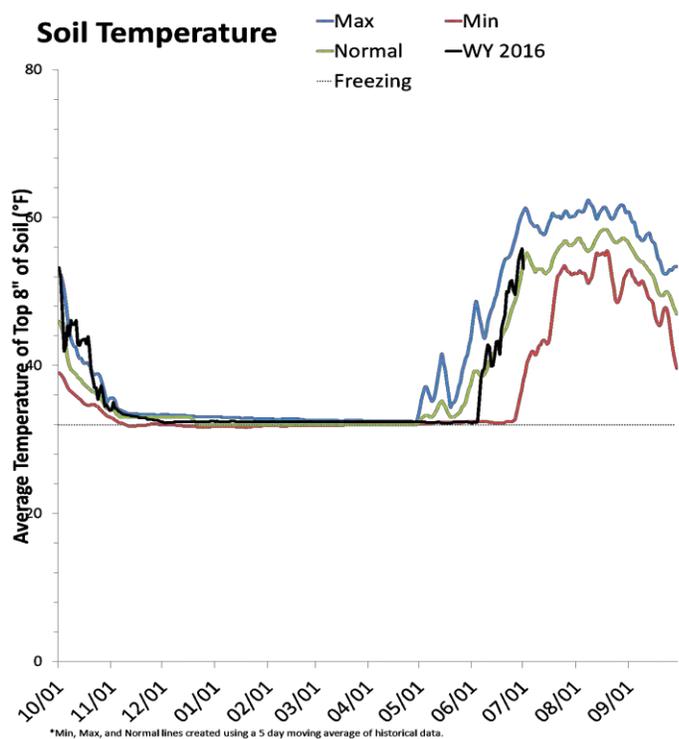
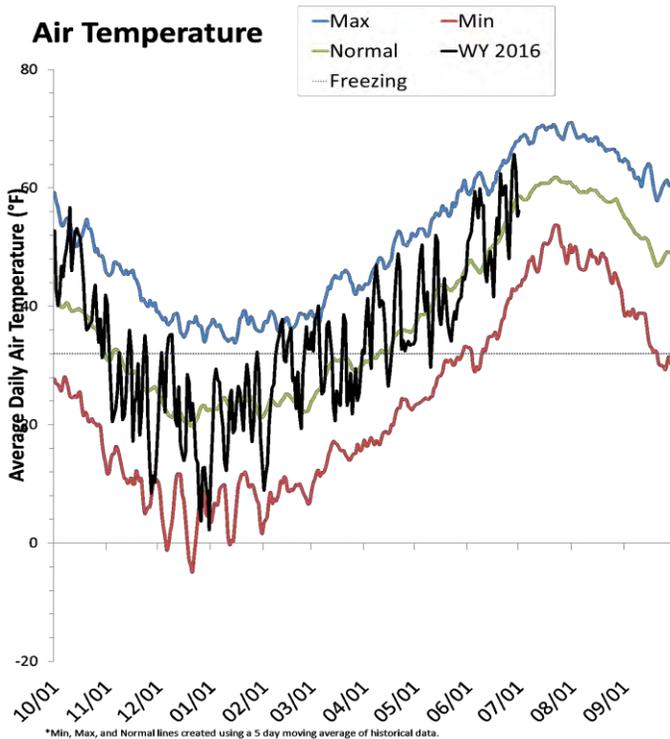
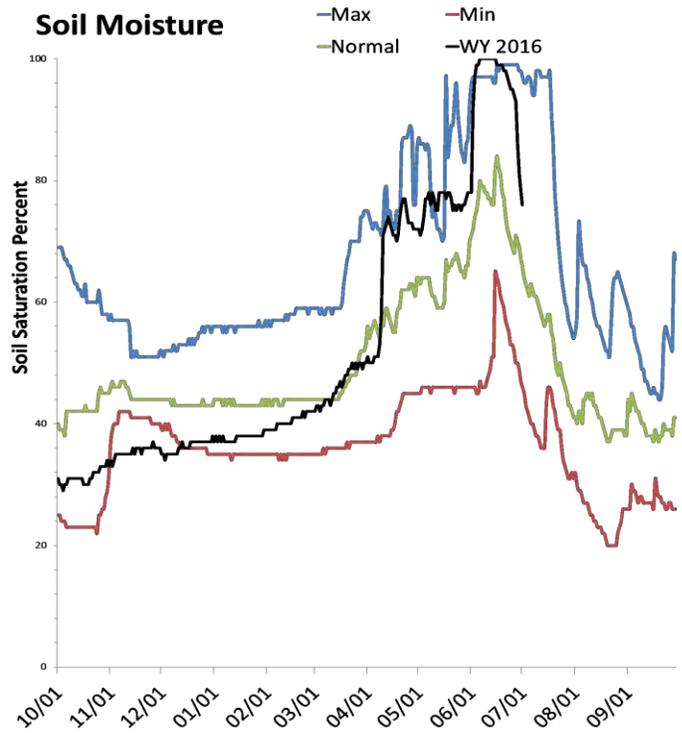
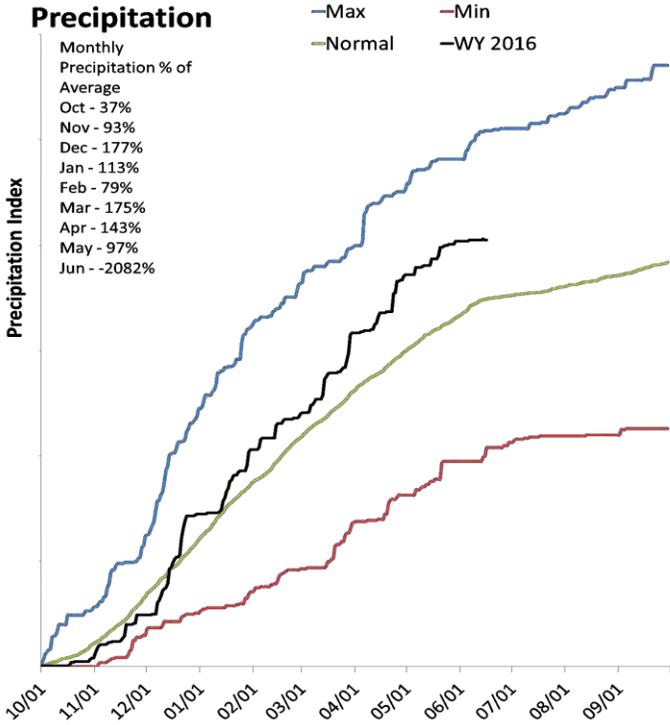
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Raft River Basin

7/1/2016

Precipitation in June was much below average at 16%, which brings the seasonal accumulation (Oct-Jun) to 116% of average. Soil moisture is at 77% compared to 71% last year.



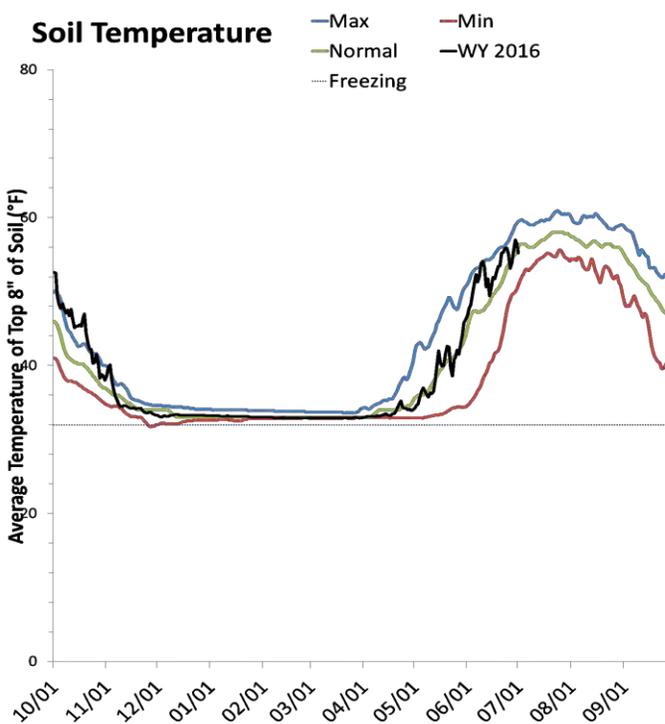
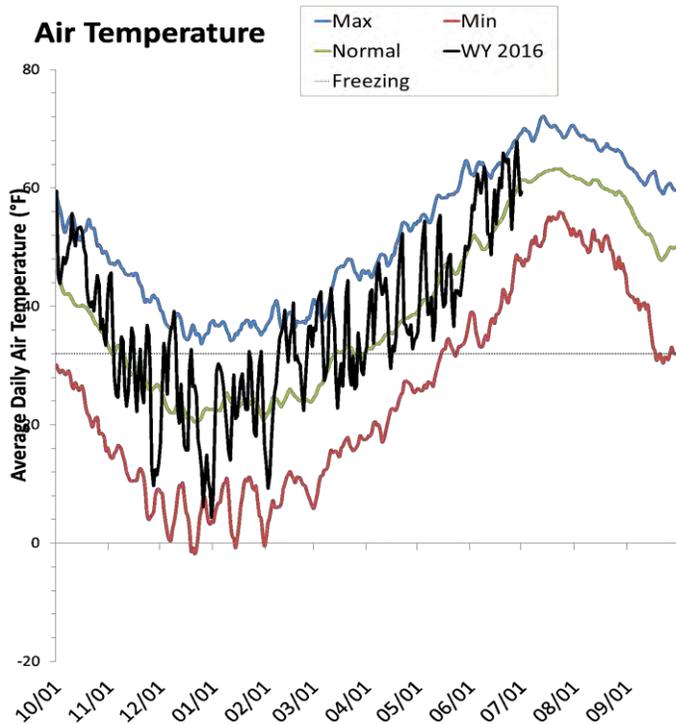
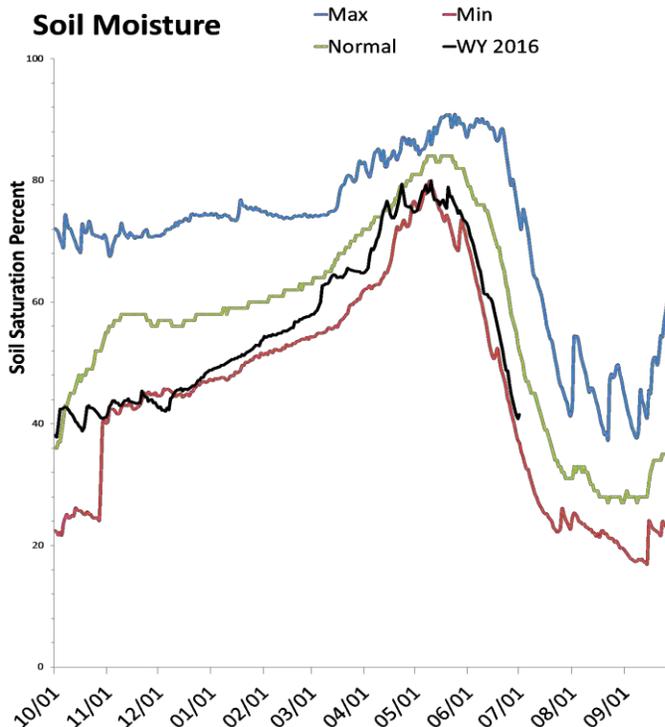
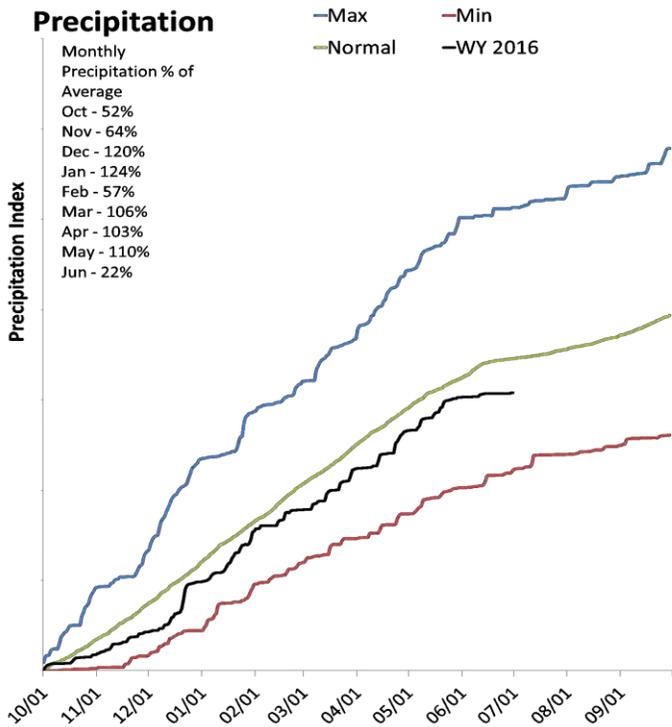
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Weber & Ogden River Basins

7/1/2016

Precipitation in June was much below average at 22%, which brings the seasonal accumulation (Oct-Jun) to 89% of average. Soil moisture is at 41% compared to 50% last year. Reservoir storage is at 74% of capacity, compared to 58% last year. The water availability index for the Ogden River is 51% and 48% for the Weber River.



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

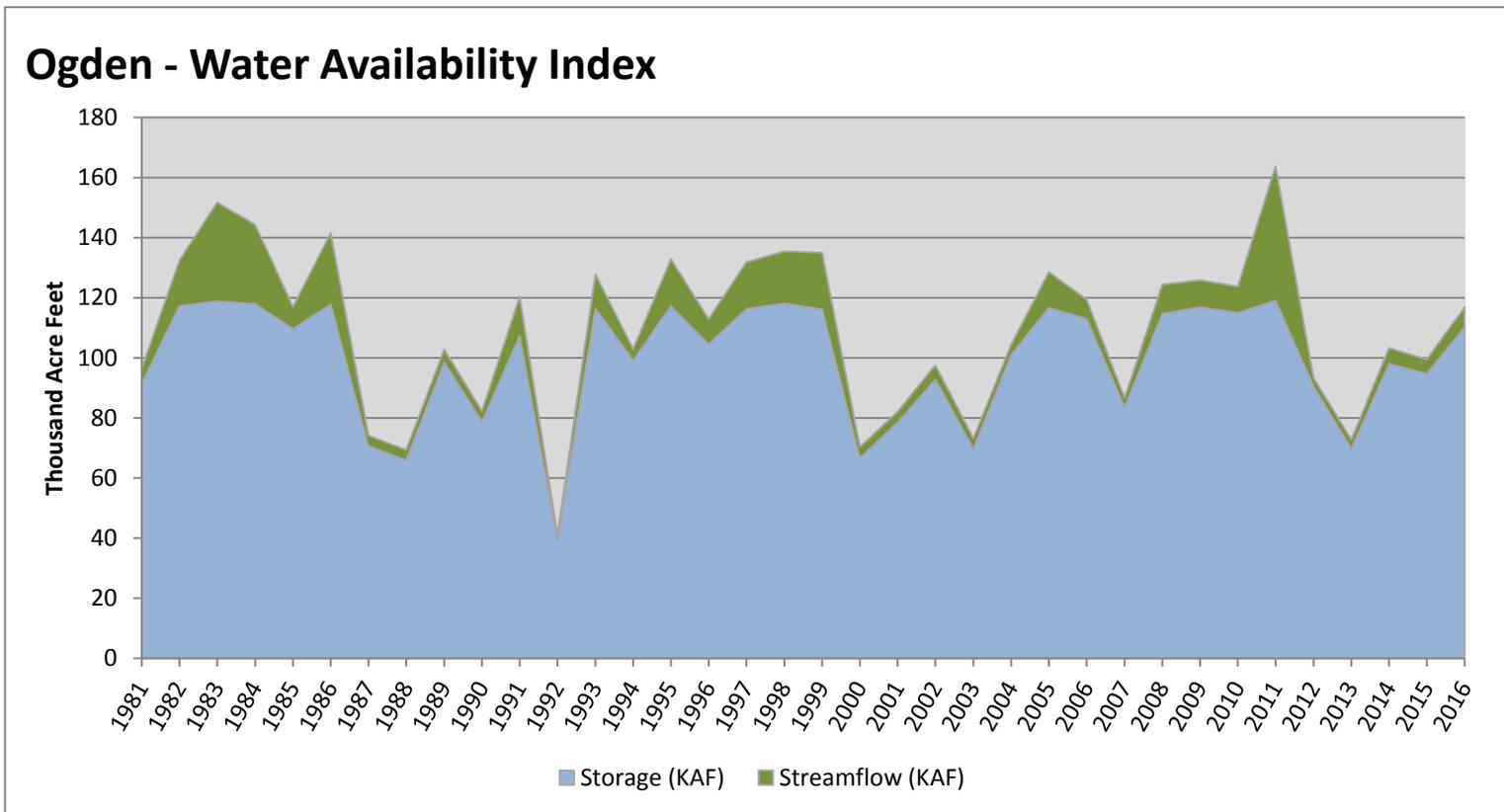
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Ogden	110.20	6.59	116.79	51	0.11	04, 96, 85, 06

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

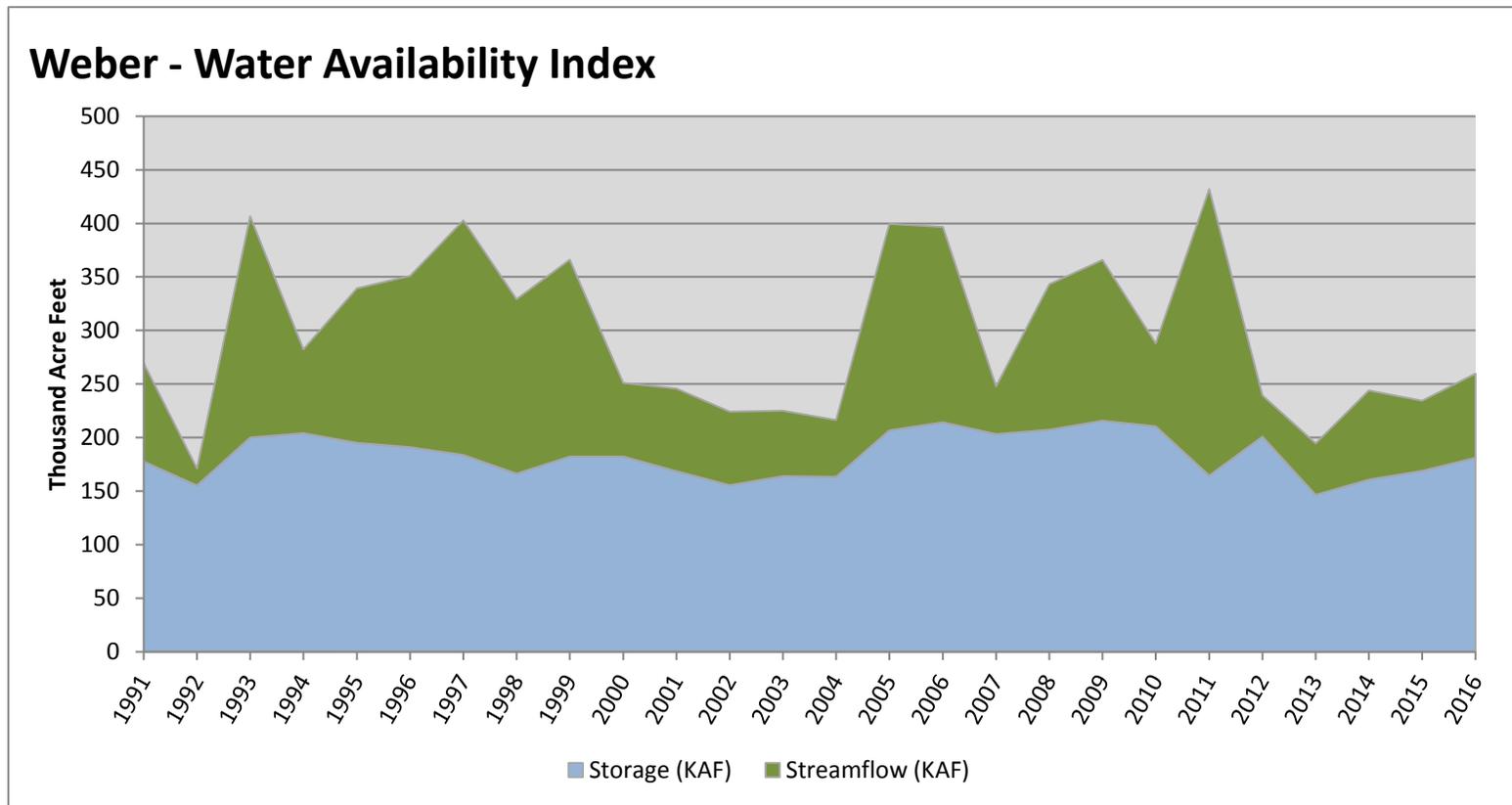


June 1, 2016

Water Availability Index

Basin or Region	May EOM [*] Storage	May Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Weber	181.15	78.53	259.68	44	-0.46	07, 00, 91, 94

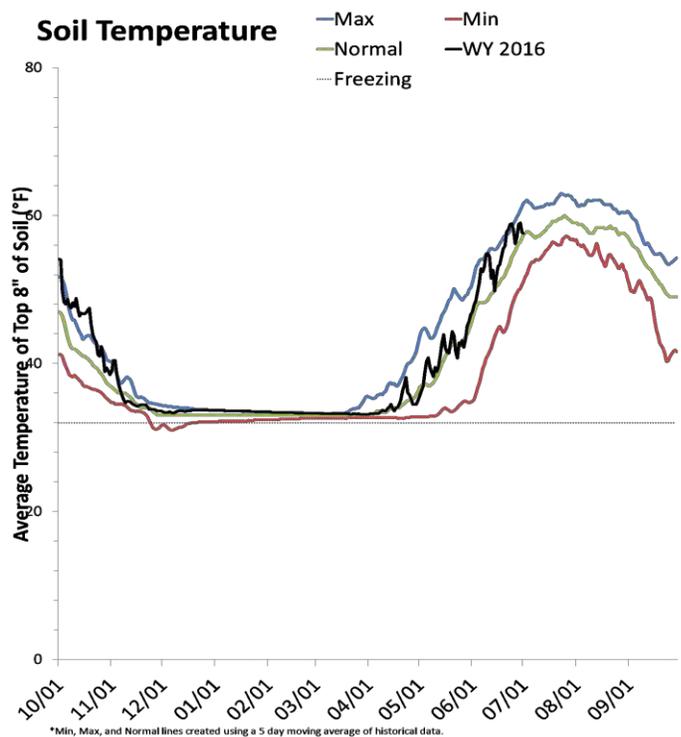
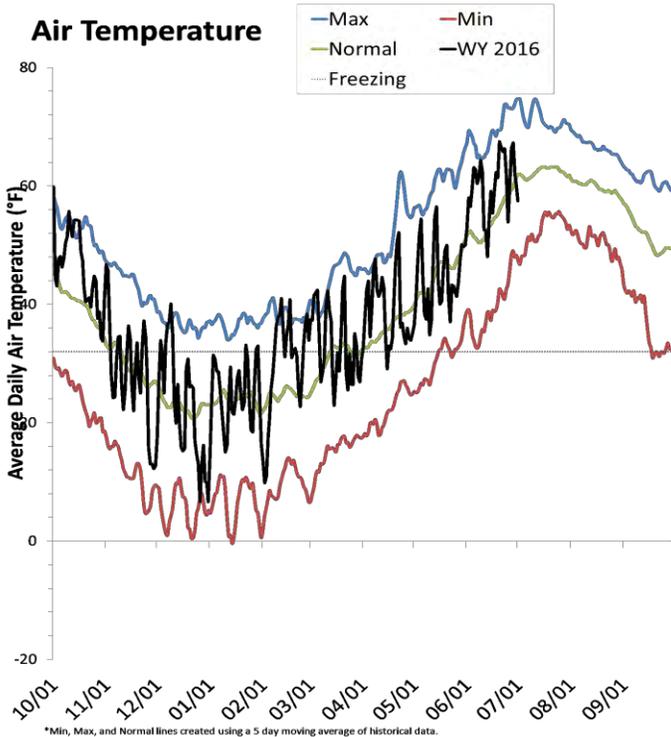
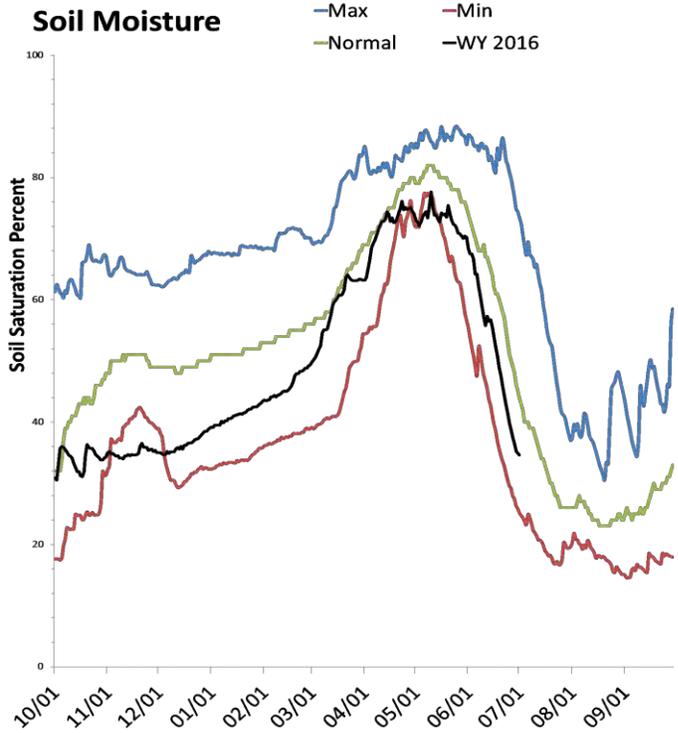
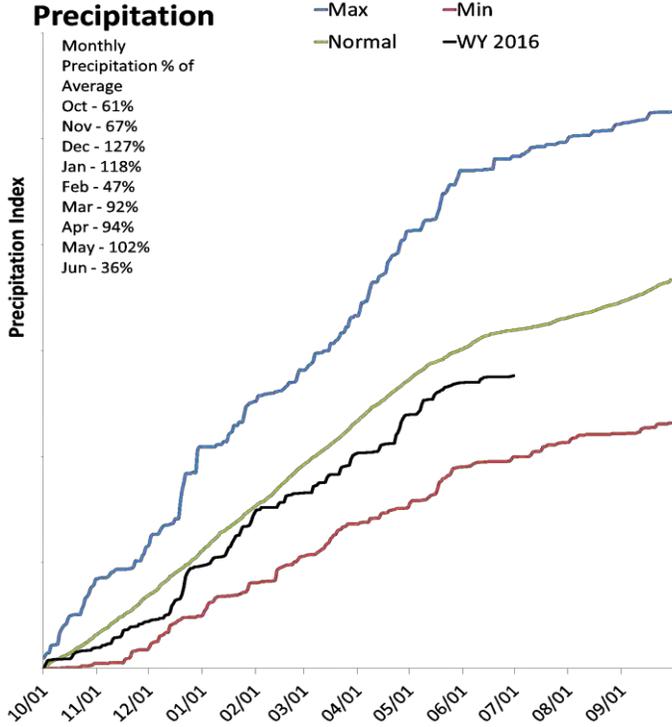
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Provo & Jordan River Basins

7/1/2016

Precipitation in June was much below average at 36%, which brings the seasonal accumulation (Oct-Jun) to 86% of average. Soil moisture is at 35% compared to 39% last year. Reservoir storage is at 68% of capacity, compared to 72% last year. The water availability index for the Provo River is 50%.



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

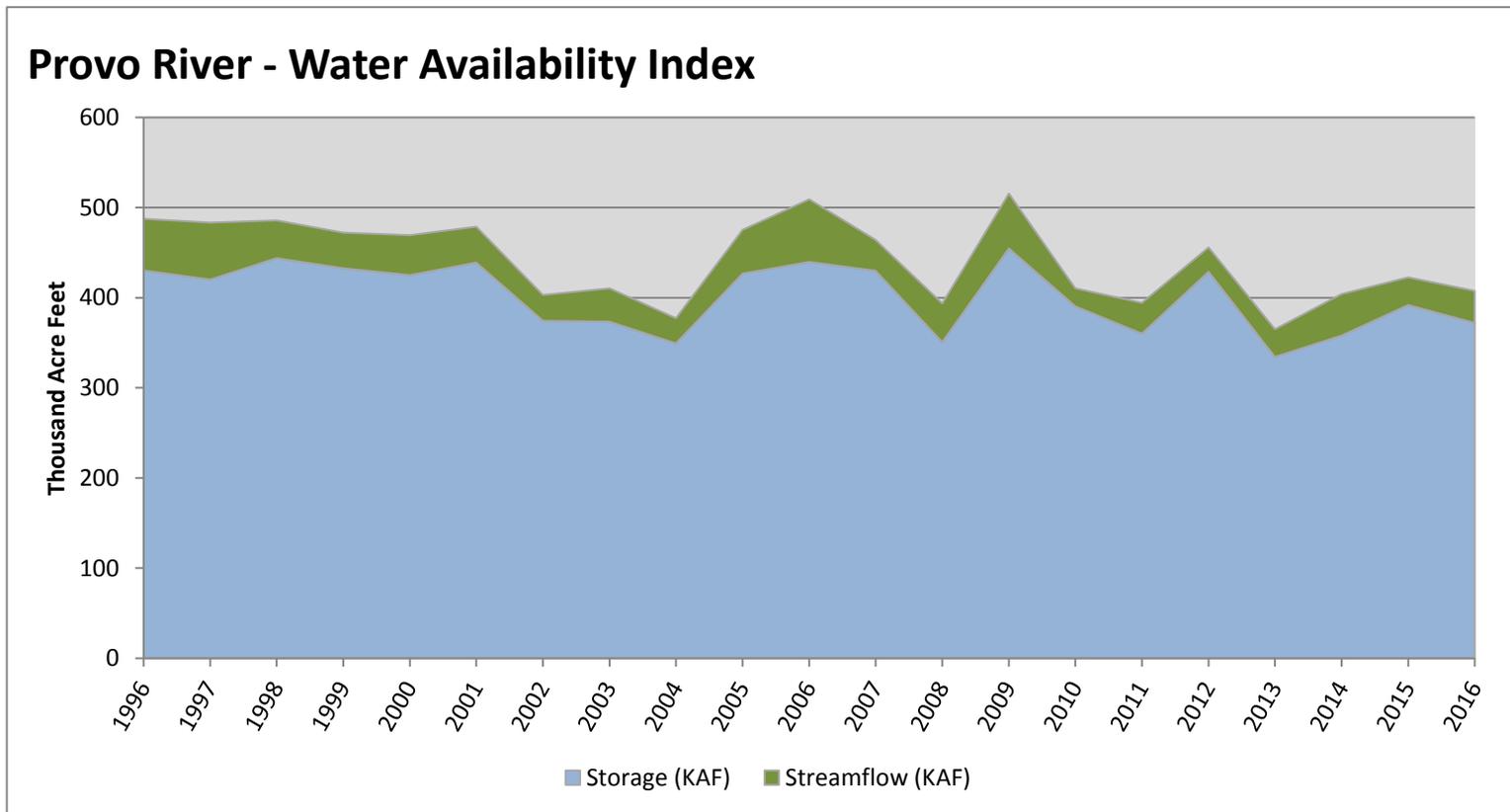
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

June 1, 2016

Water Availability Index

Basin or Region	May EOM [*] Storage	May Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Provo River	372.05	35.43	407.48	32	-1.52	02, 14, 10, 03

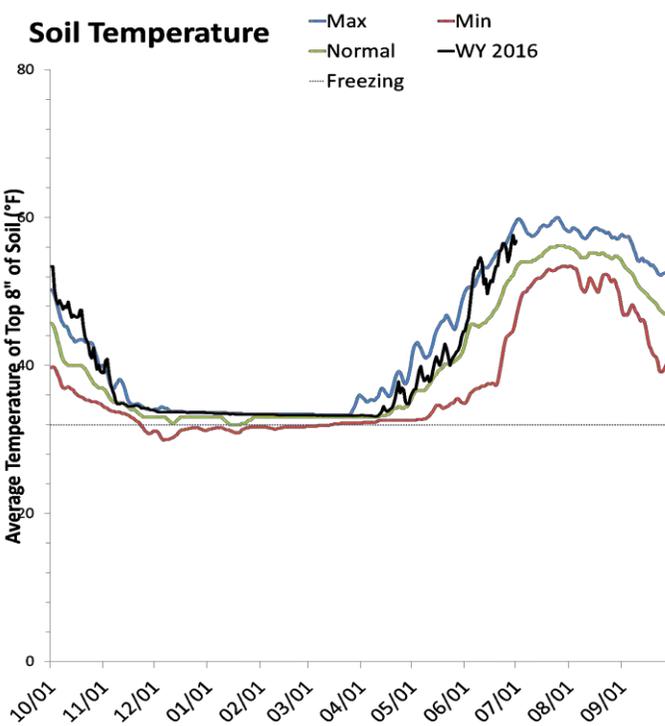
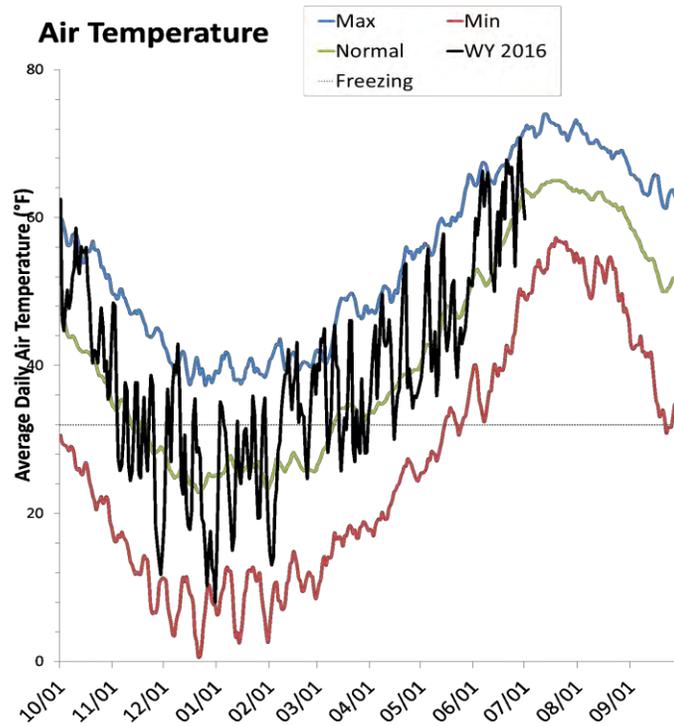
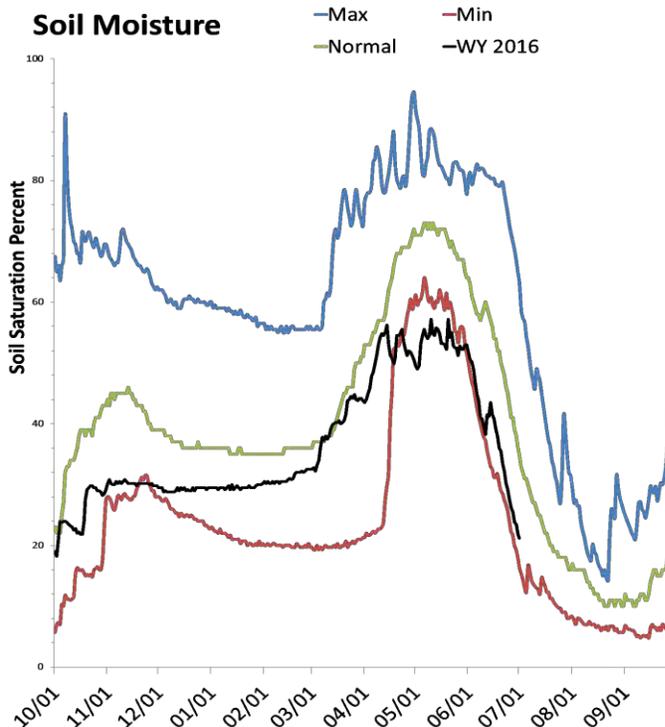
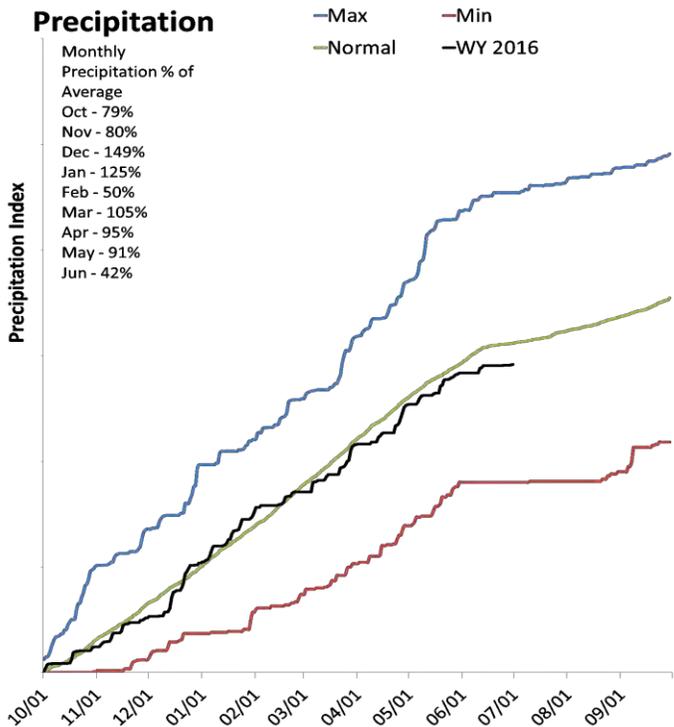
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Tooele & Vernon Creek Basins

7/1/2016

Precipitation in June was much below average at 41%, which brings the seasonal accumulation (Oct-Jun) to 93% of average. Soil moisture is at 21% compared to 33% last year. Reservoir storage is at 62% of capacity, compared to 75% last year.



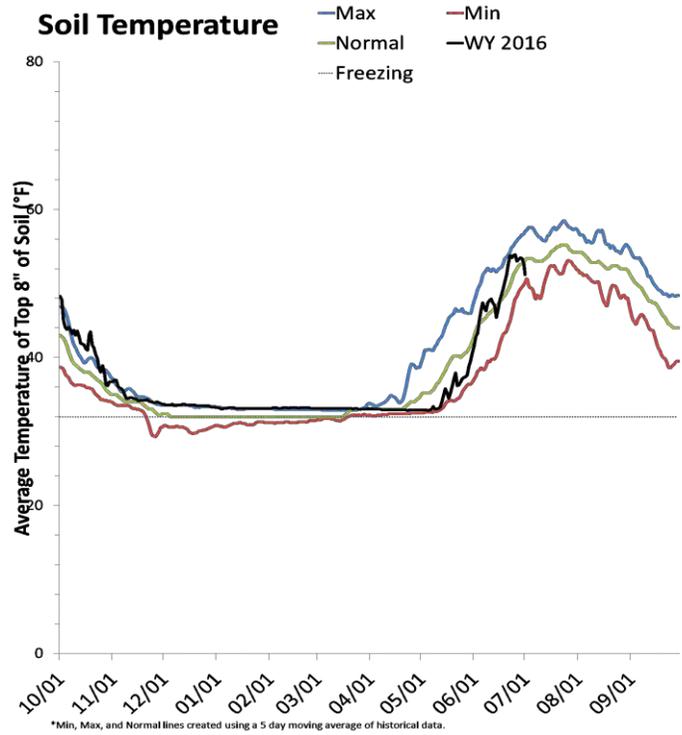
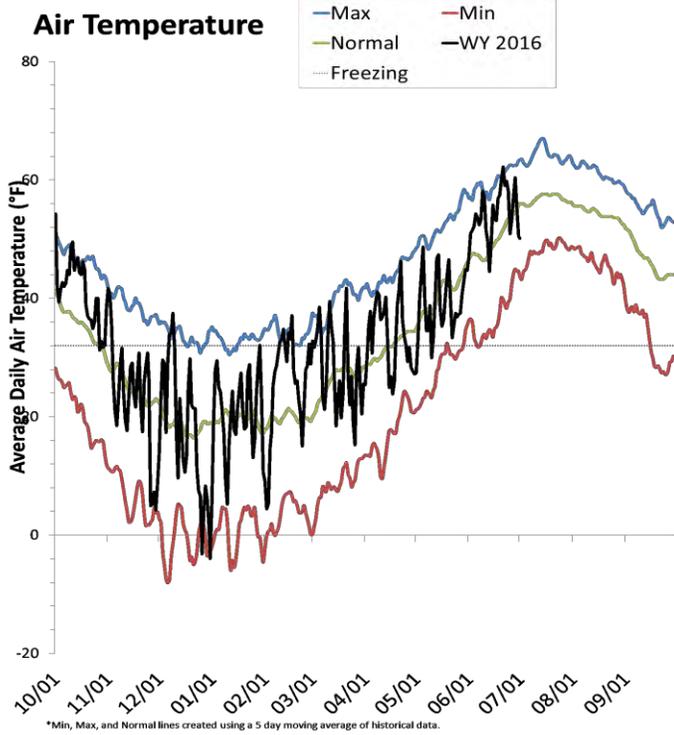
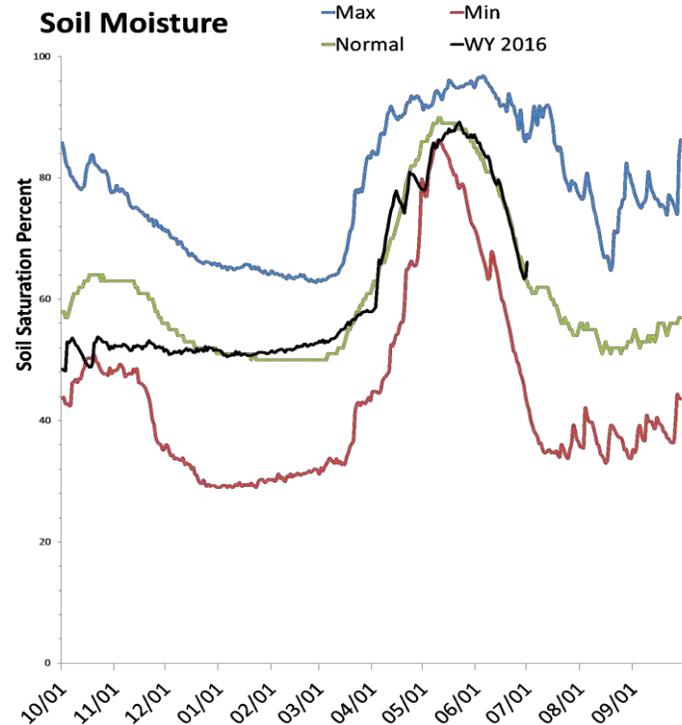
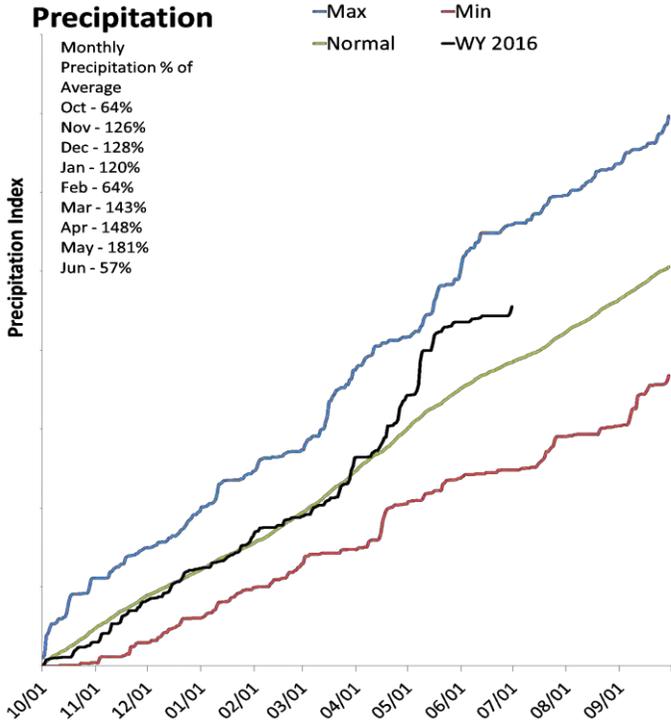
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Northeastern Uintah Basin

7/1/2016

Precipitation in June was much below average at 57%, which brings the seasonal accumulation (Oct-Jun) to 118% of average. Soil moisture is at 68% compared to 61% last year. Reservoir storage is at 90% of capacity, compared to 94% last year. The Water Availability Index for Blacks Fork is 82% and 94% for Smiths Creek.

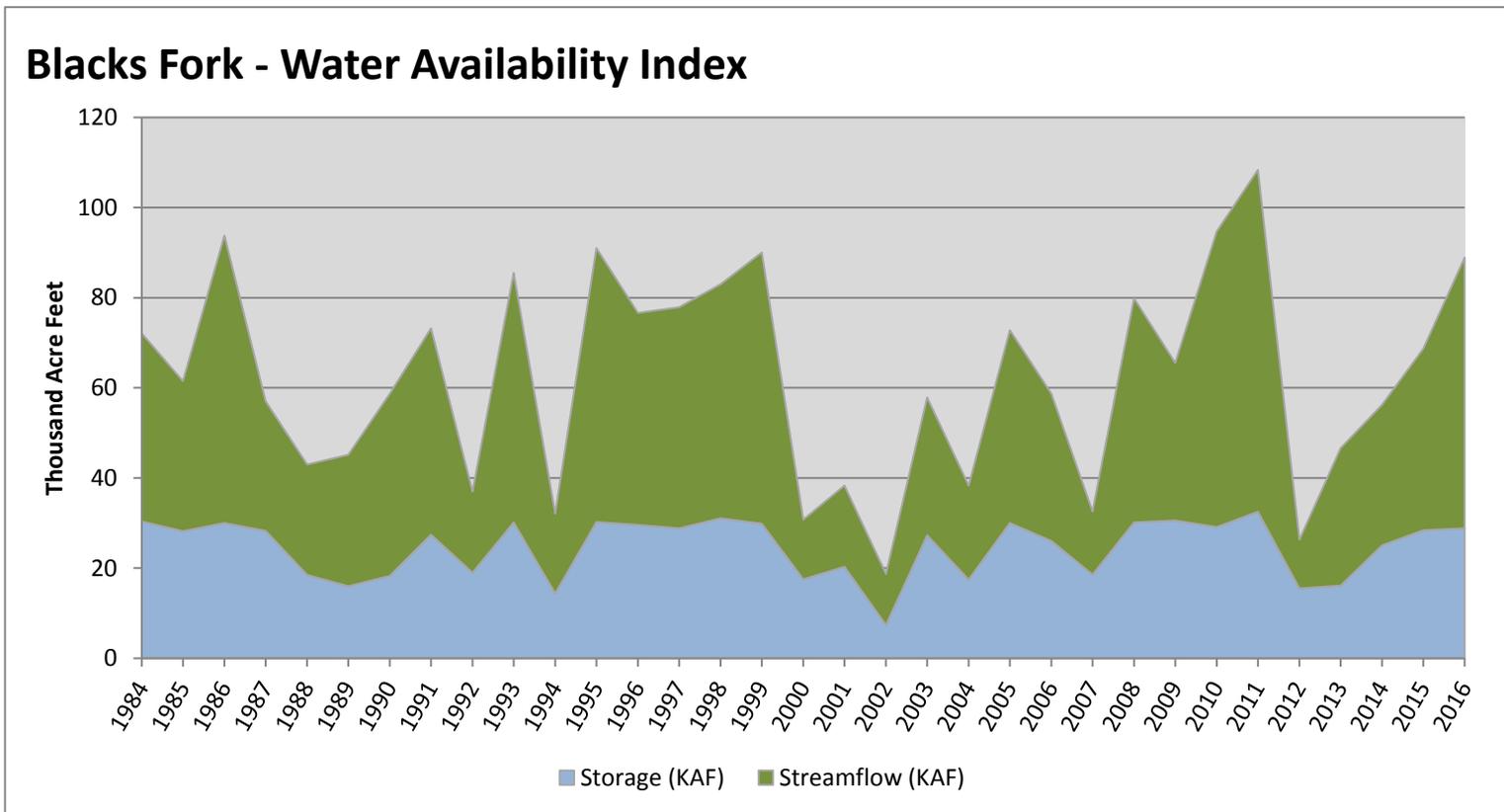


July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Blacks Fork	28.83	60.11	88.94	82	2.7	98, 93, 99, 95

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

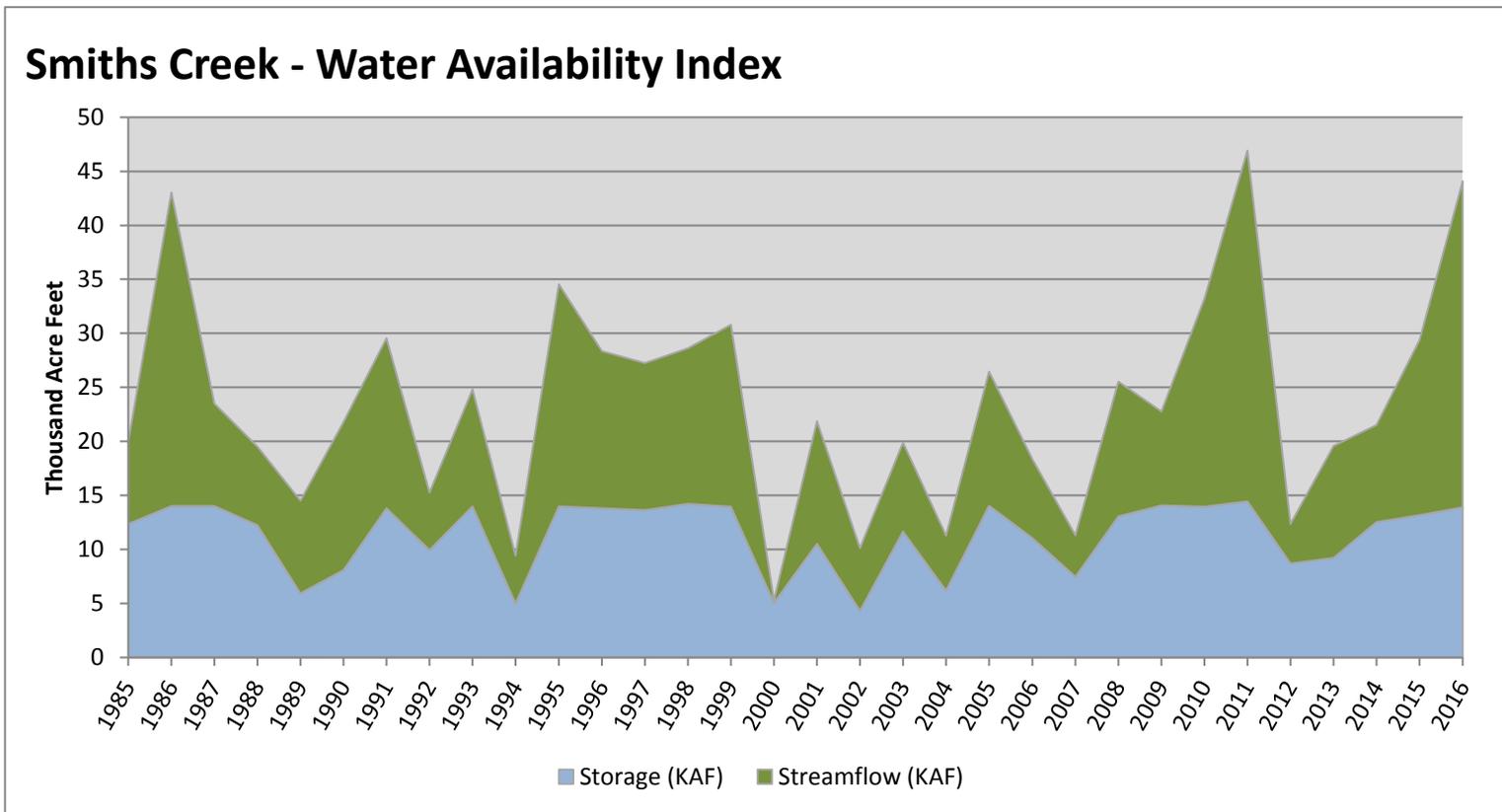


July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Smiths Creek	13.89	30.20	44.09	94	3.66	11, 86, 95, 10

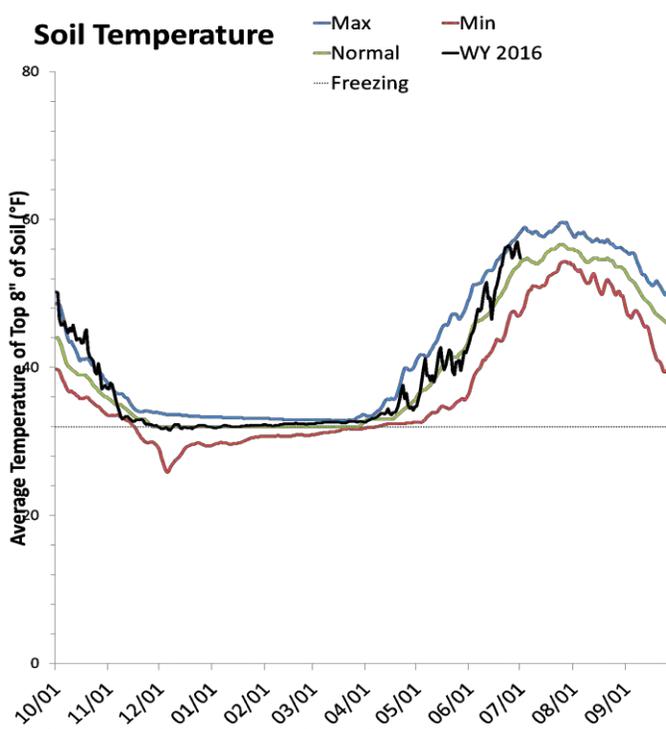
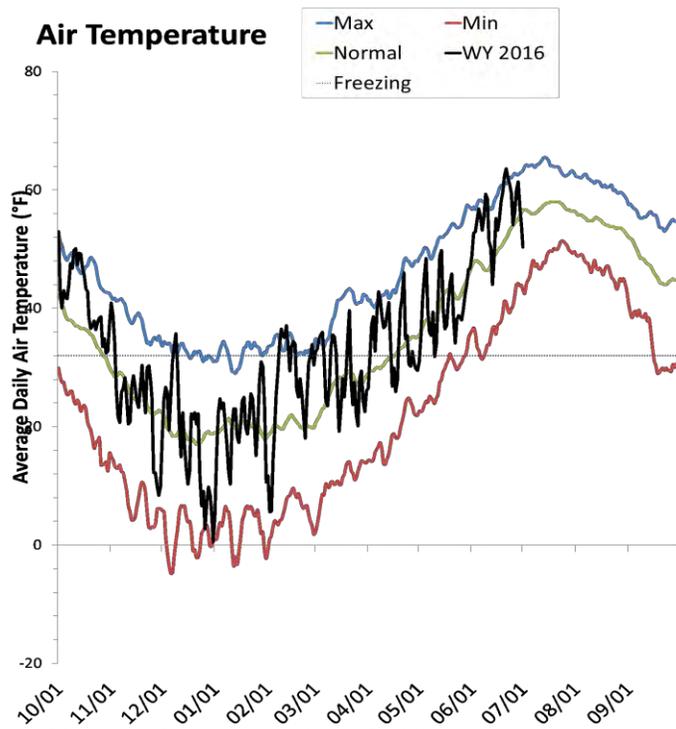
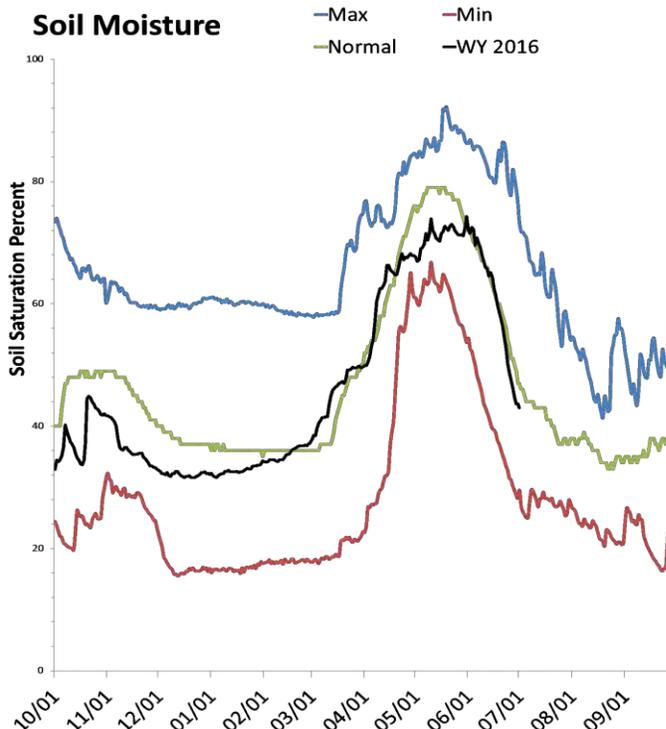
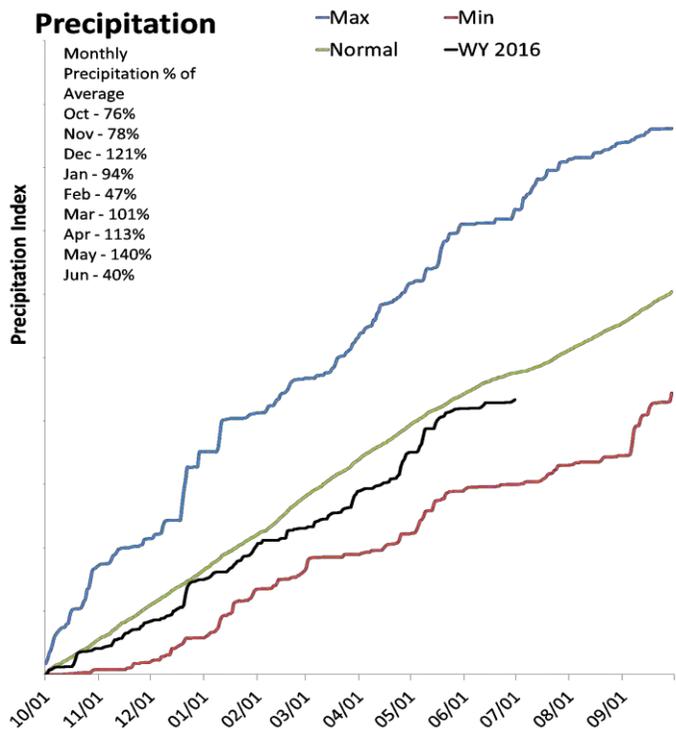
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Duchesne River Basin

7/1/2016

Precipitation in June was much below average at 40%, which brings the seasonal accumulation (Oct-Jun) to 91% of average. Soil moisture is at 46% compared to 44% last year. Reservoir storage is at 79% of capacity, compared to 80% last year. The water availability index for the Western Uintahs is 77% and 70% for the Eastern Uintahs.



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

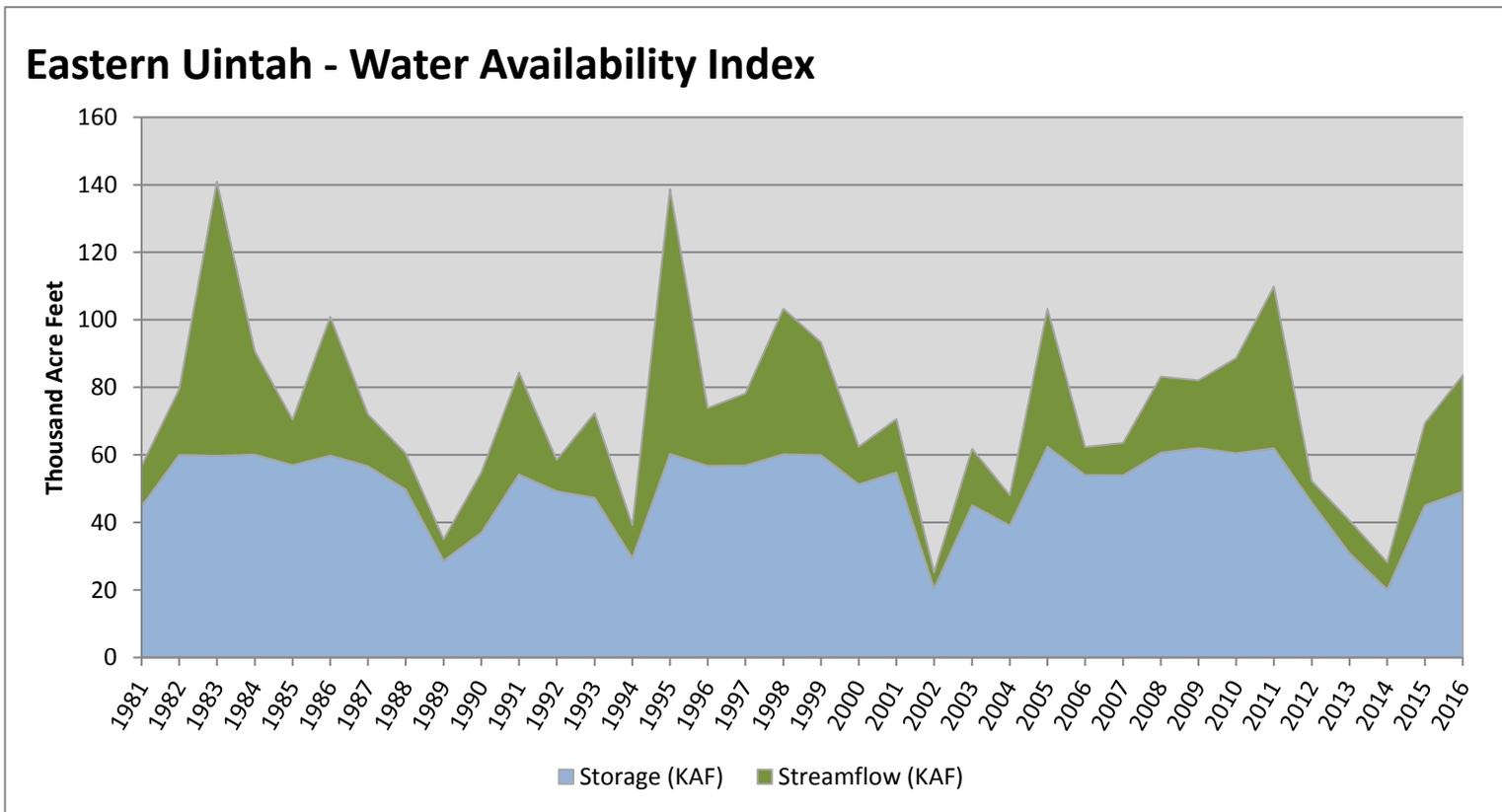
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Eastern Uintah	49.10	34.43	83.53	70	1.69	09, 08, 91, 10

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

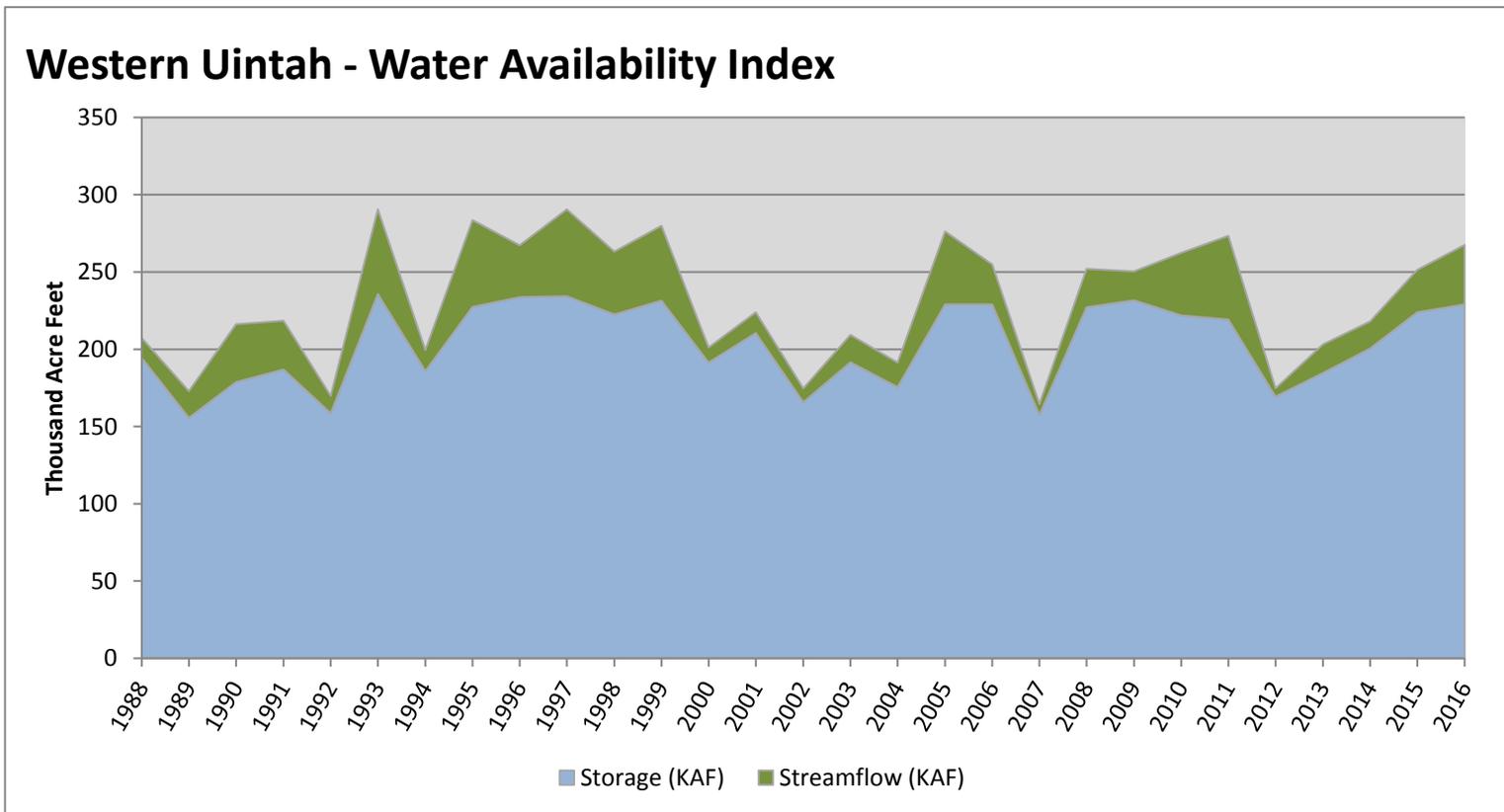


July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Western Uintah	228.94	38.48	267.42	77	2.22	98, 96, 11, 05

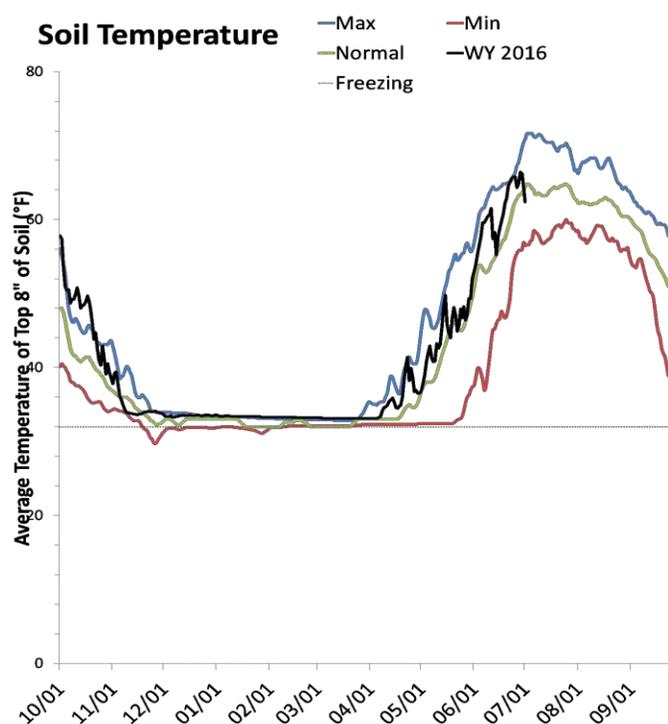
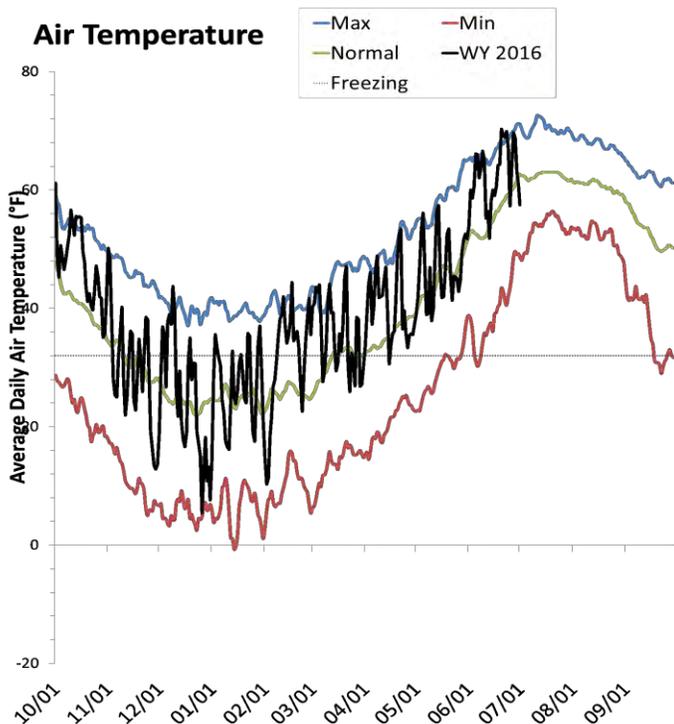
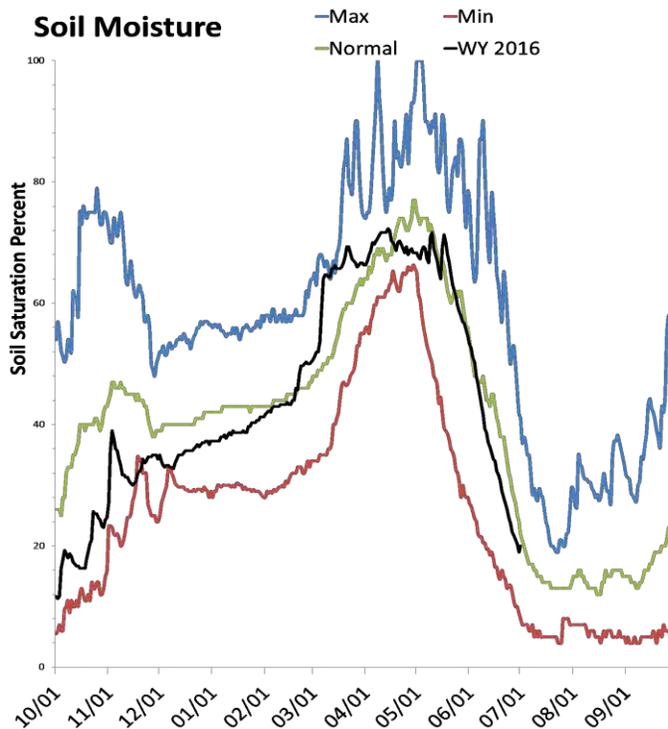
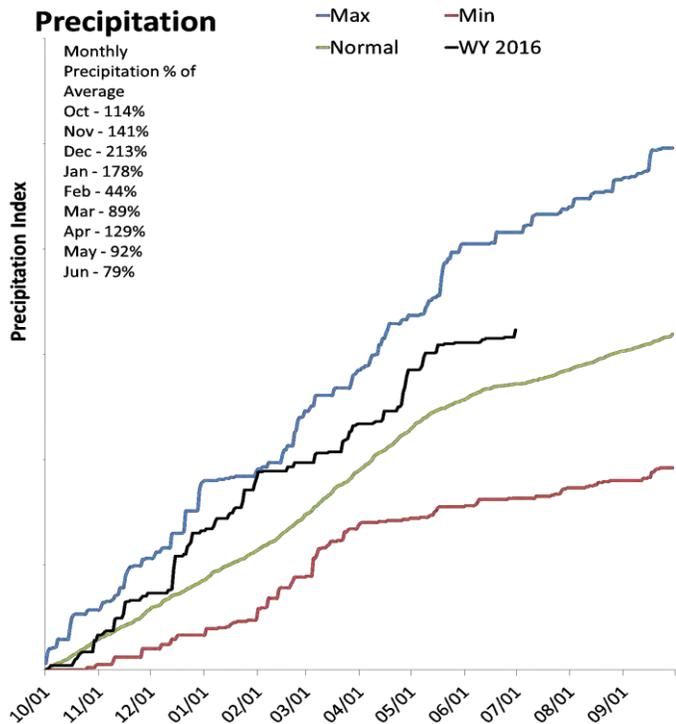
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Lower Sevier River Basin

7/1/2016

Precipitation in June was below average at 80%, which brings the seasonal accumulation (Oct-Jun) to 119% of average. Soil moisture is at 19% compared to 18% last year. Reservoir storage is at 23% of capacity, compared to 33% 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.

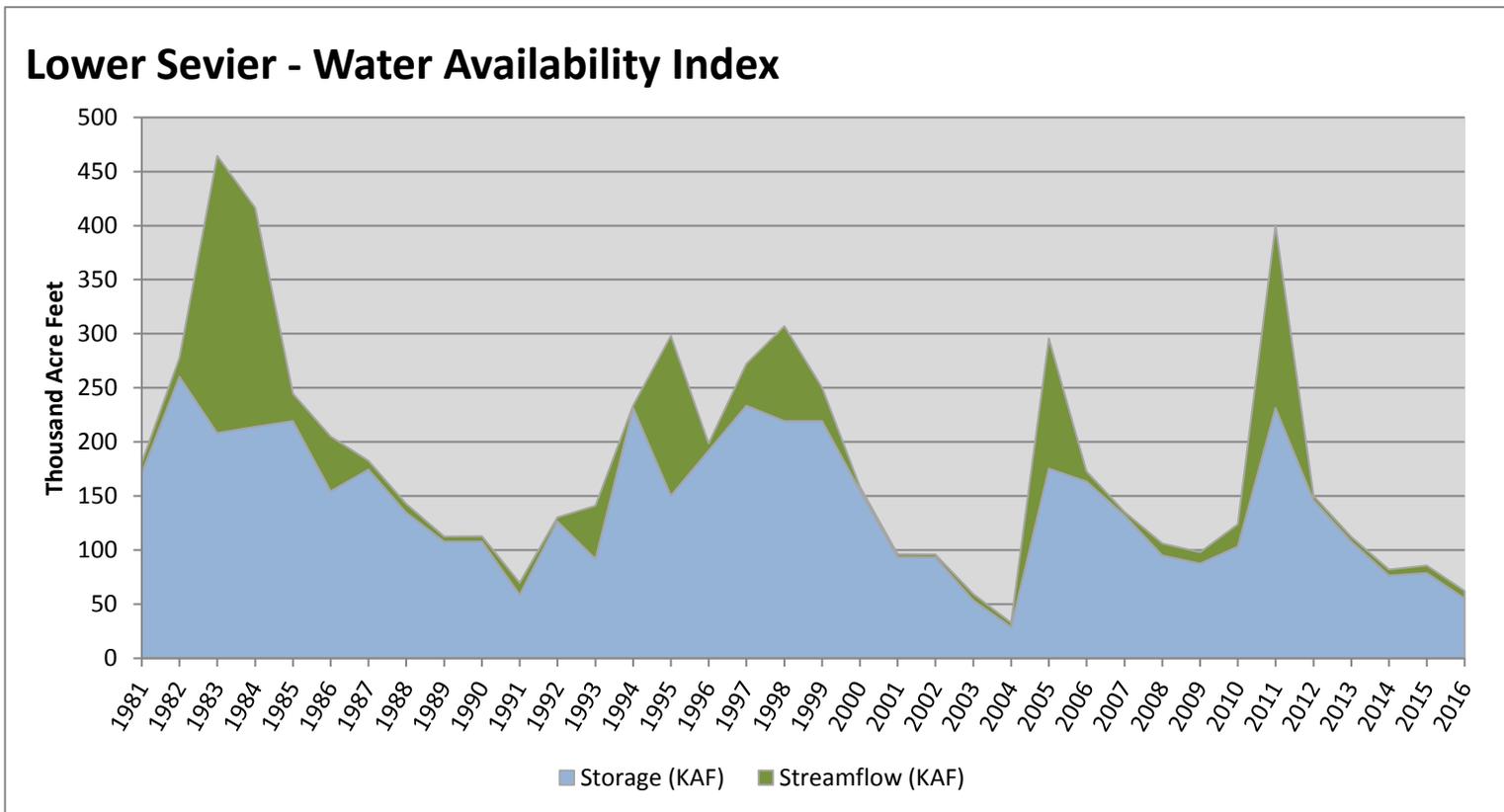
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Lower Sevier	55.20	7.09	62.29	8	-3.49	04, 03, 91, 14

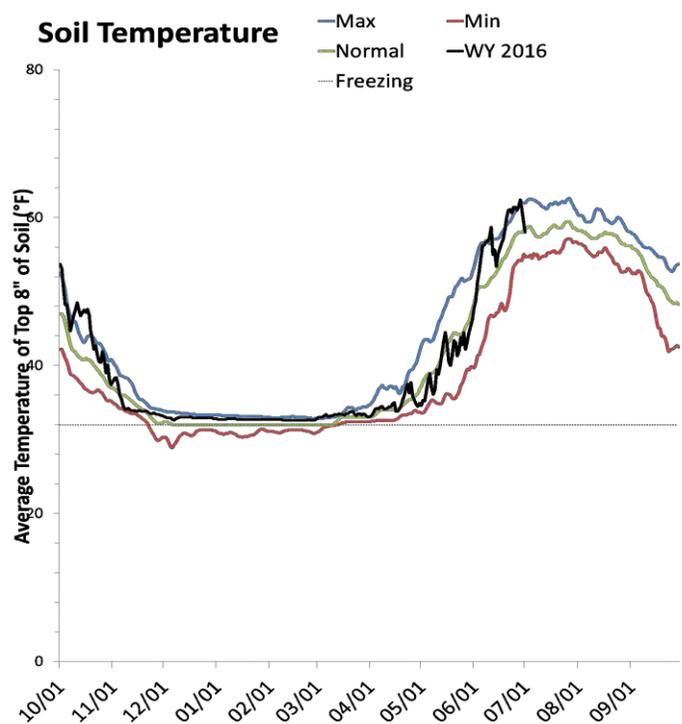
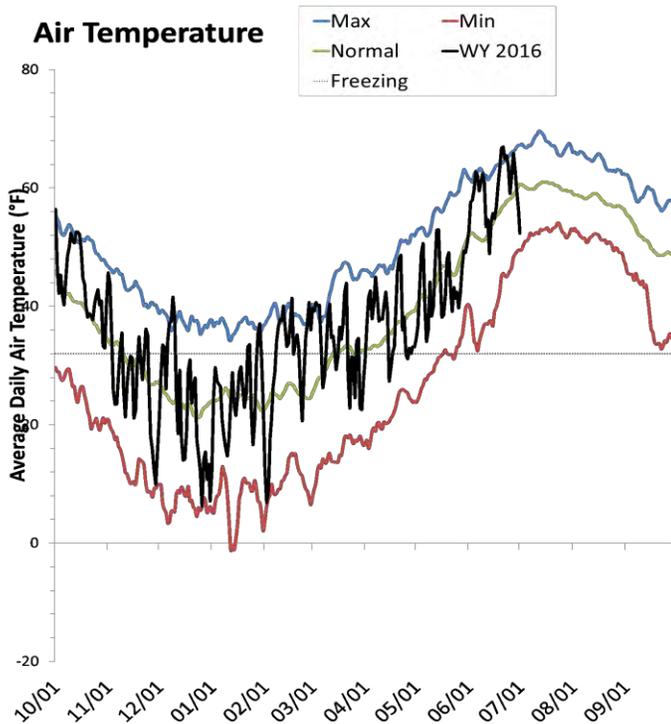
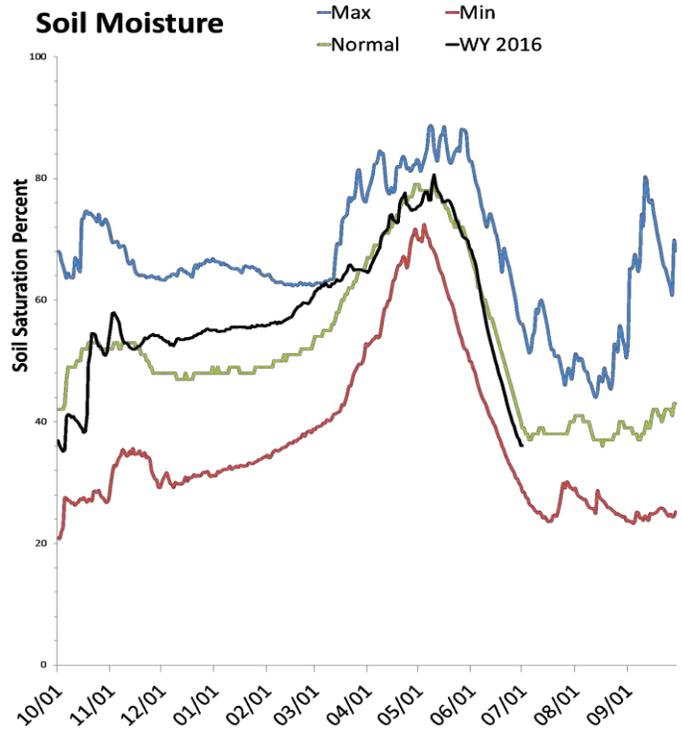
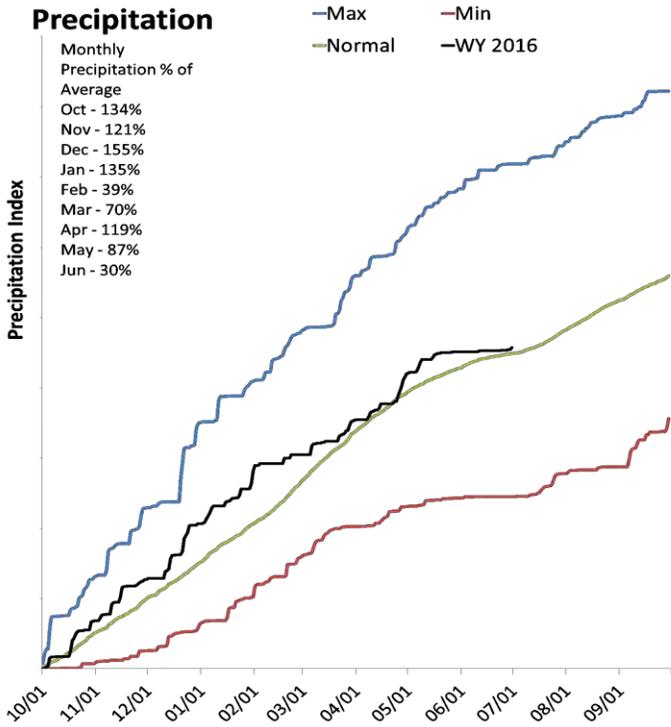
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Upper Sevier River Basin

7/1/2016

Precipitation in June was much below average at 30%, which brings the seasonal accumulation (Oct-Jun) to 102% of average. Soil moisture is at 37% compared to 36% last year. Reservoir storage is at 56% of capacity, compared to 50% last year. The water availability index for the Upper Sevier is 41%.



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

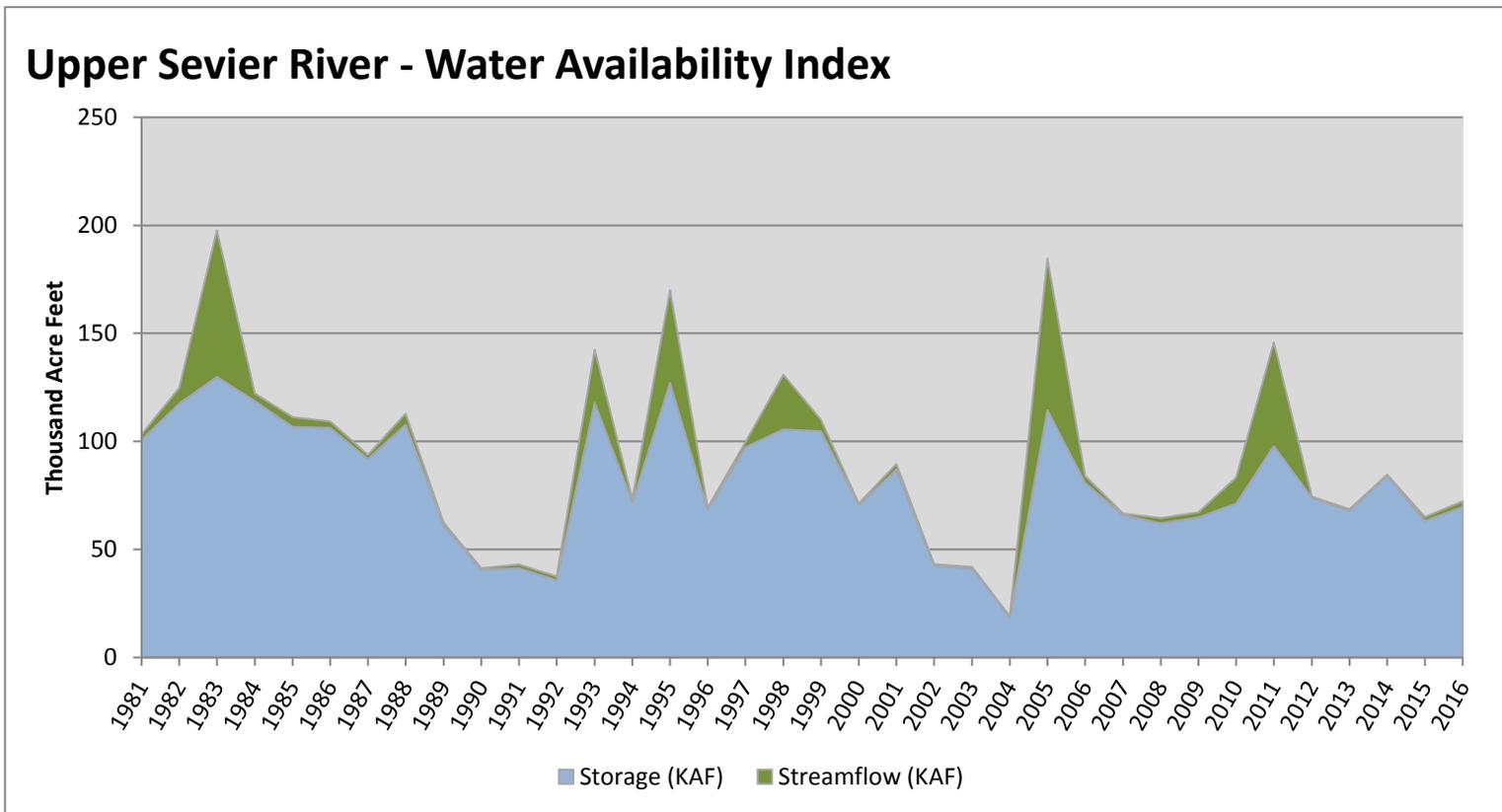
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Upper Sevier River	69.65	2.60	72.25	41	-0.79	96, 00, 94, 12

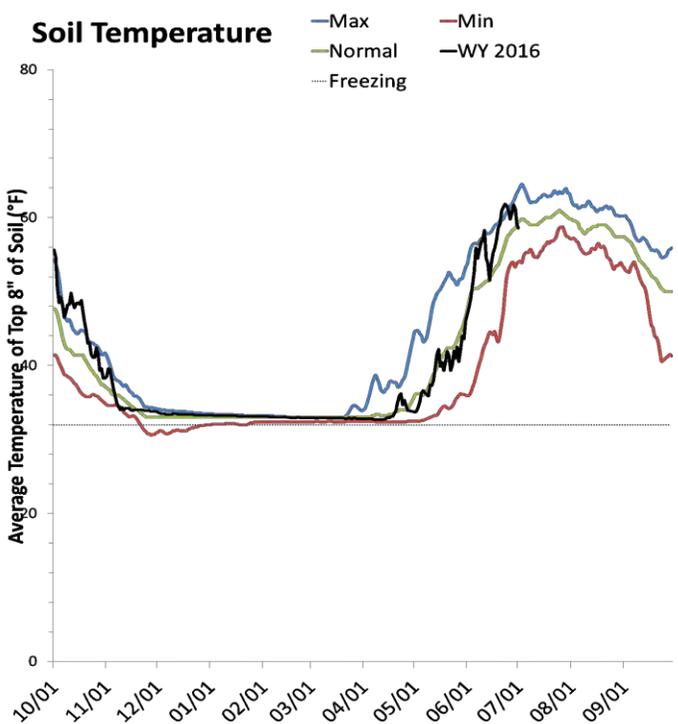
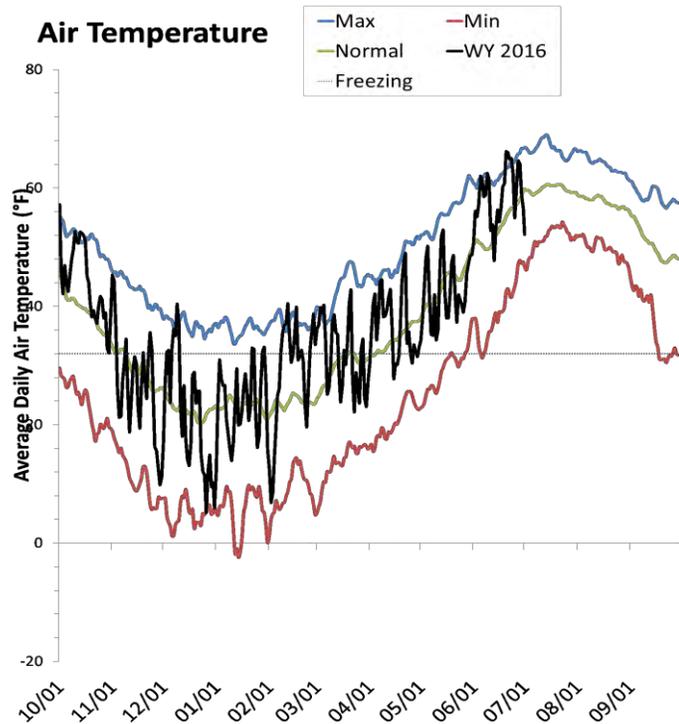
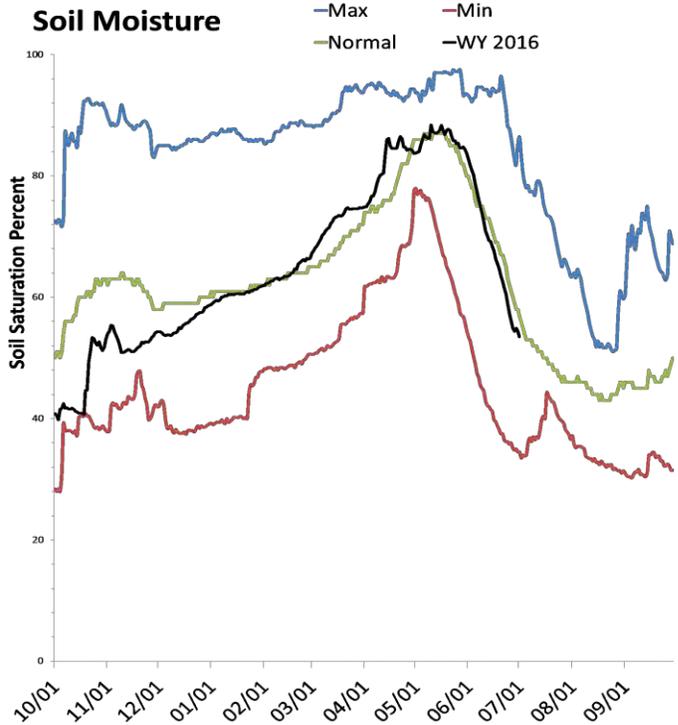
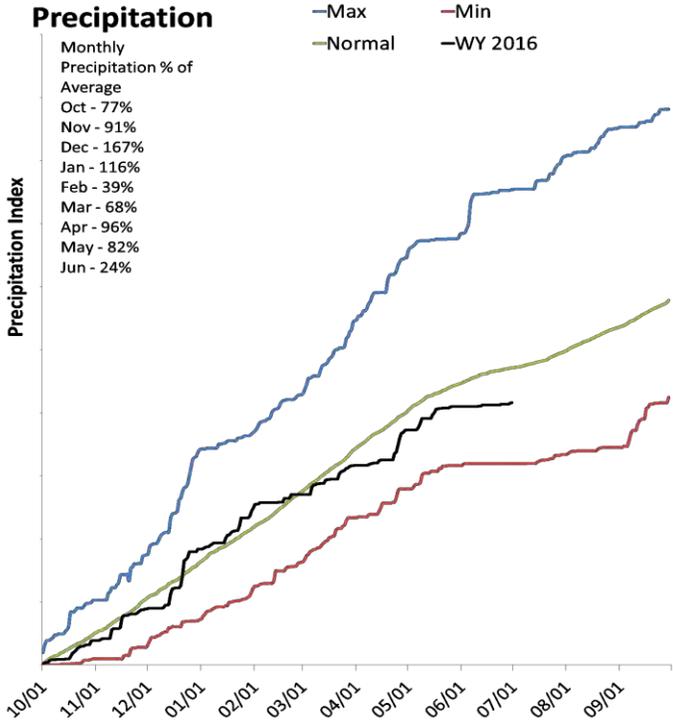
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



San Pitch River Basin

7/1/2016

Precipitation in June was much below average at 24%, which brings the seasonal accumulation (Oct-Jun) to 88% of average. Soil Moisture is at 54% compared to 50% last year. Reservoir storage is at 8% of capacity, compared to 8% 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.

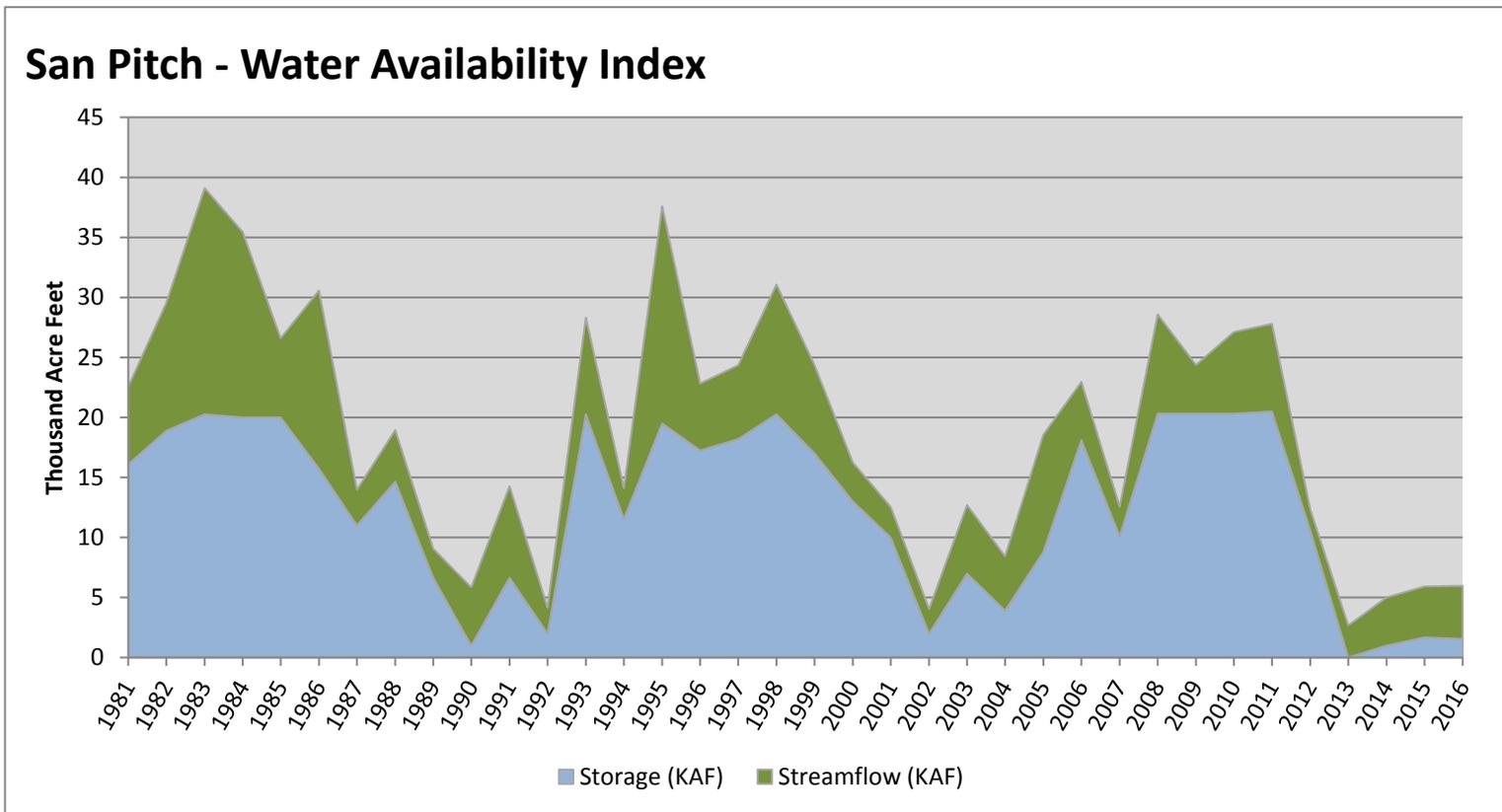
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
San Pitch	1.54	4.42	5.96	19	-2.59	90, 15, 04, 89

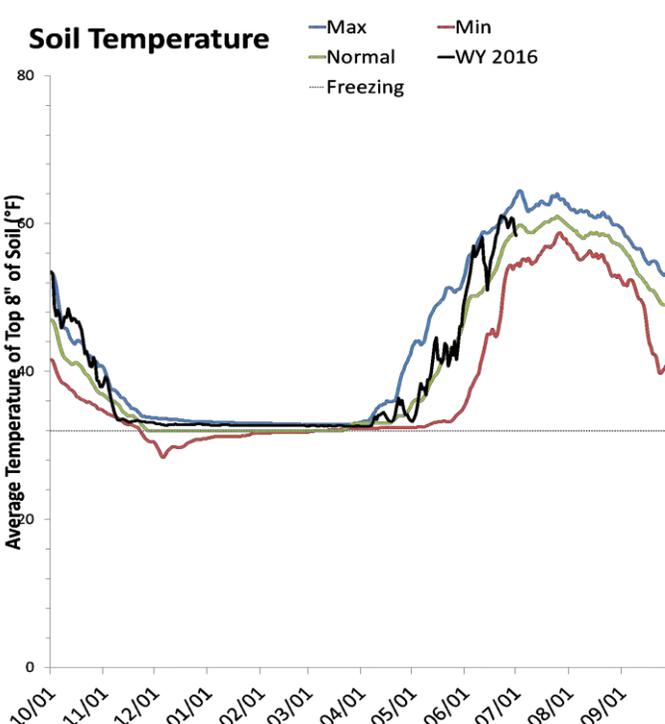
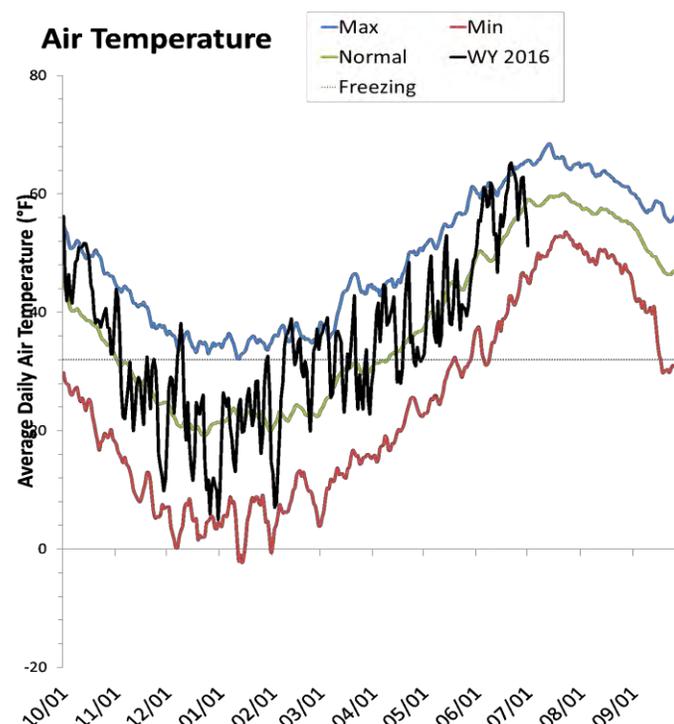
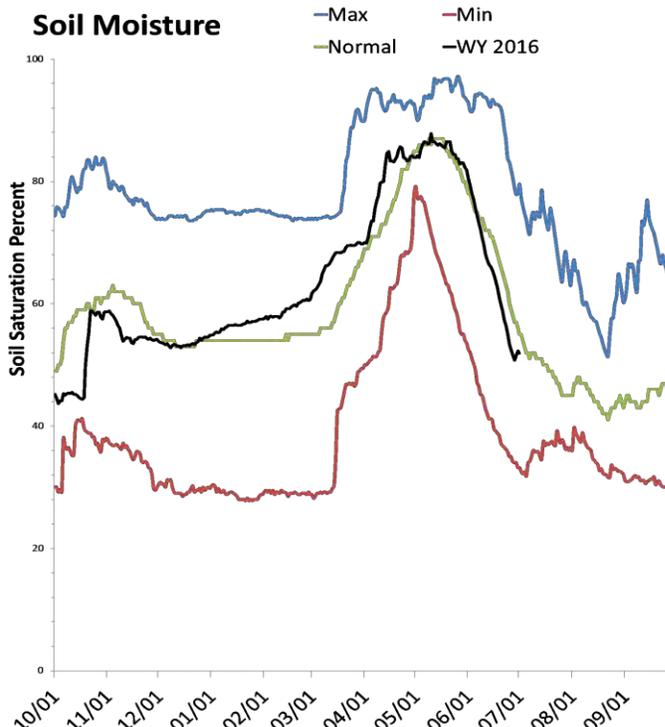
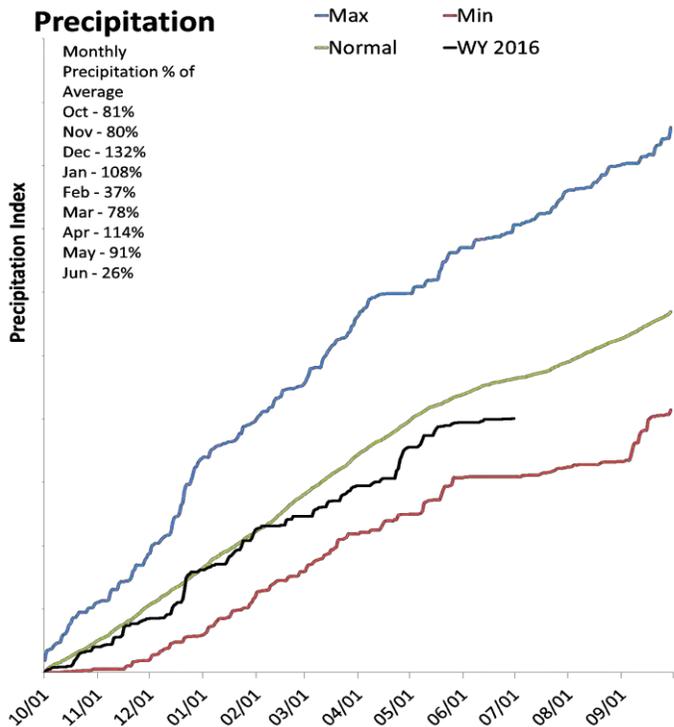
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Price & San Rafael Basins

7/1/2016

Precipitation in June was much below average at 27%, which brings the seasonal accumulation (Oct-Jun) to 87% of average. Soil moisture is at 52% compared to 50% last year. Reservoir storage is at 63% of capacity, compared to 62% last year. The water availability index for the Price River is 16%, and 35% for Joe's Valley.



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

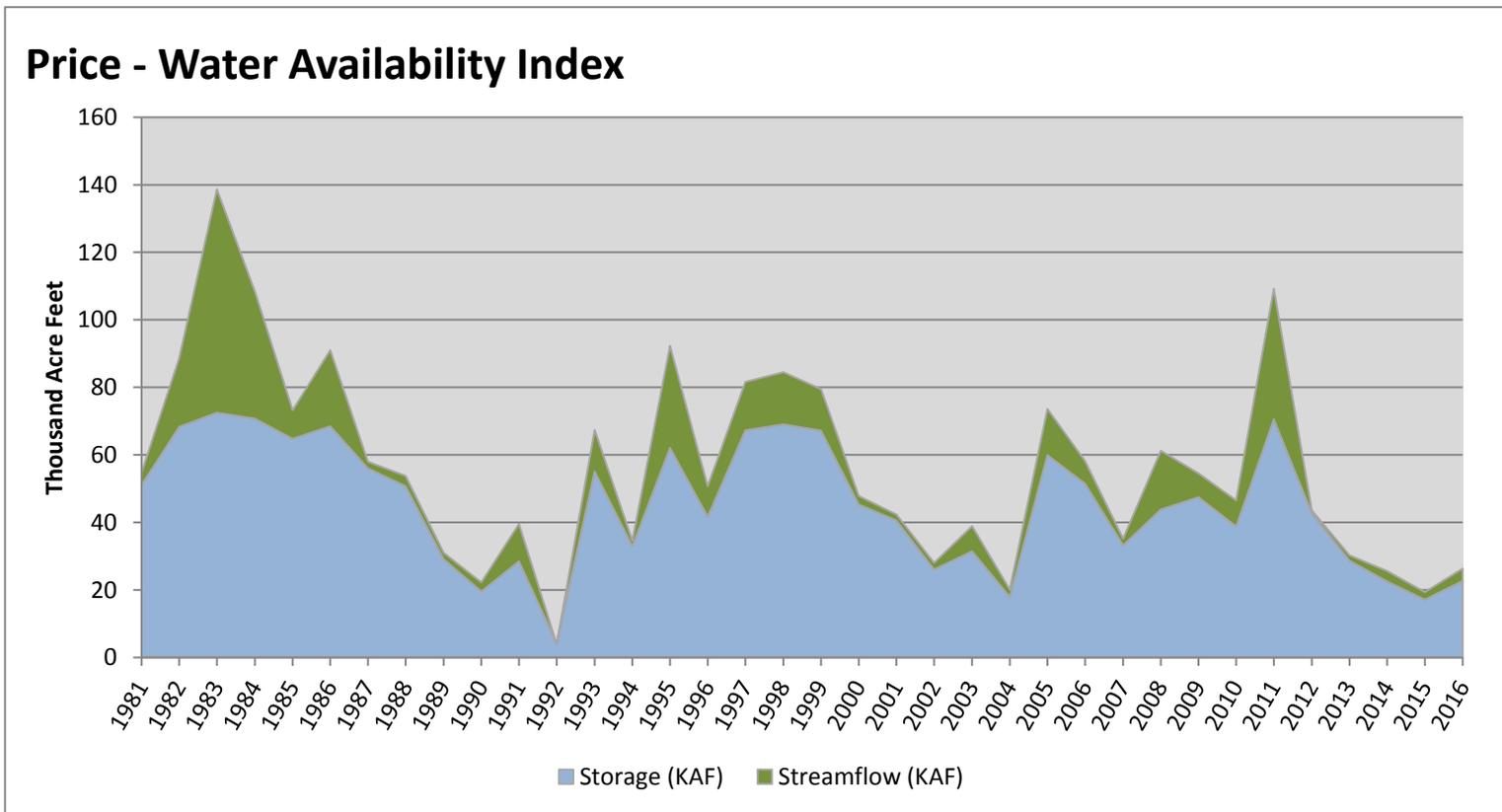
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Price	22.69	3.65	26.34	16	-2.82	90, 14, 02, 13

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

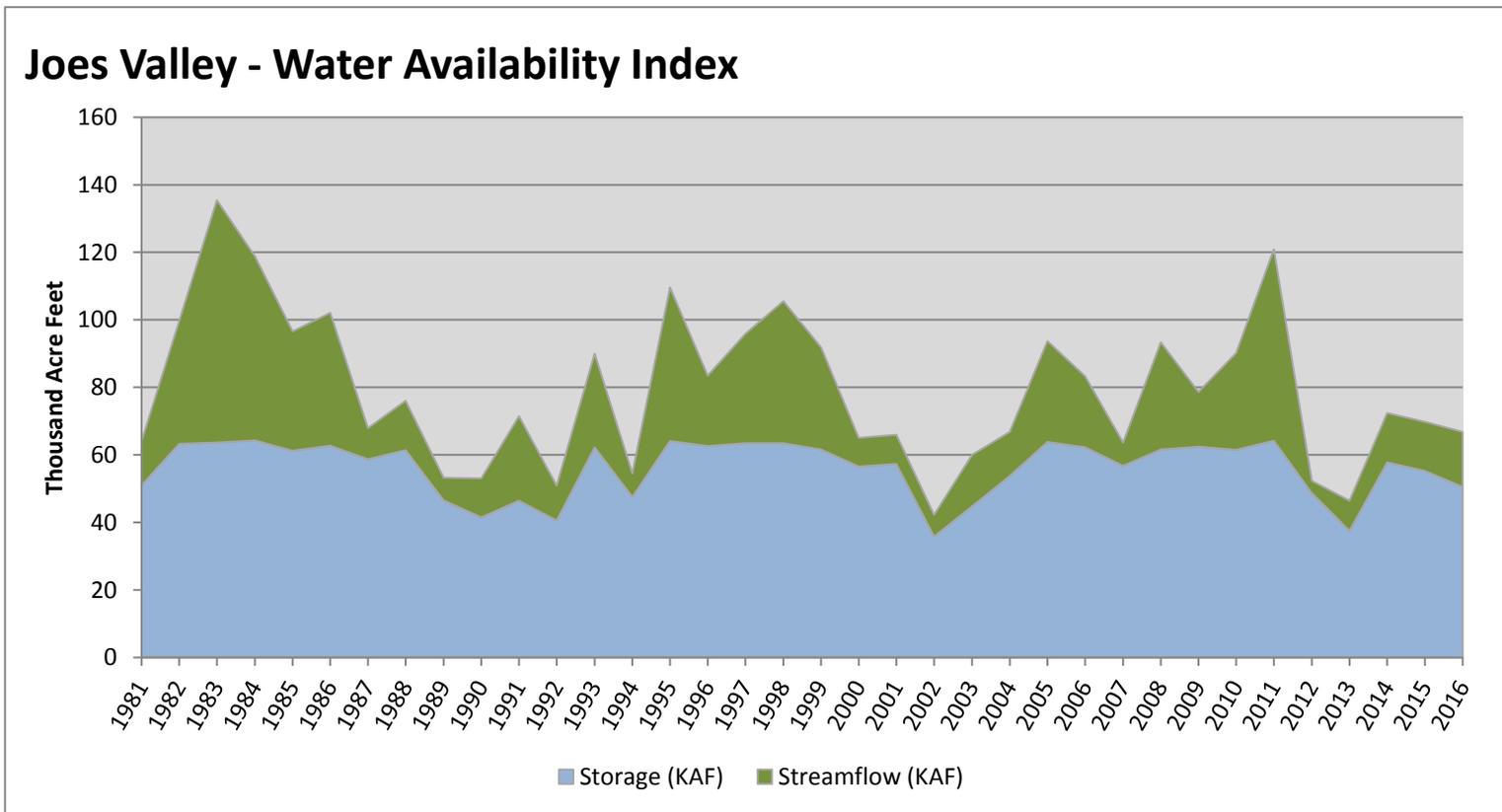


July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Joese Valley	50.56	16.23	66.79	35	-1.24	00, 01, 04, 87

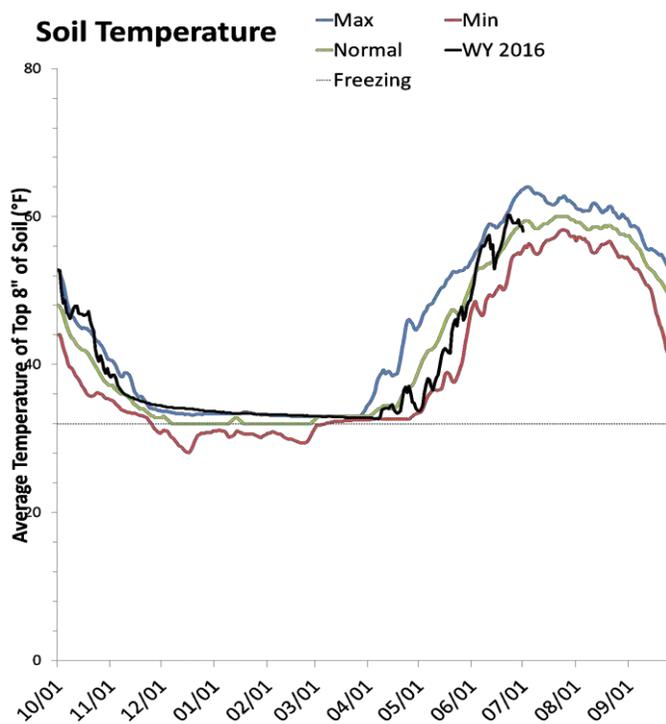
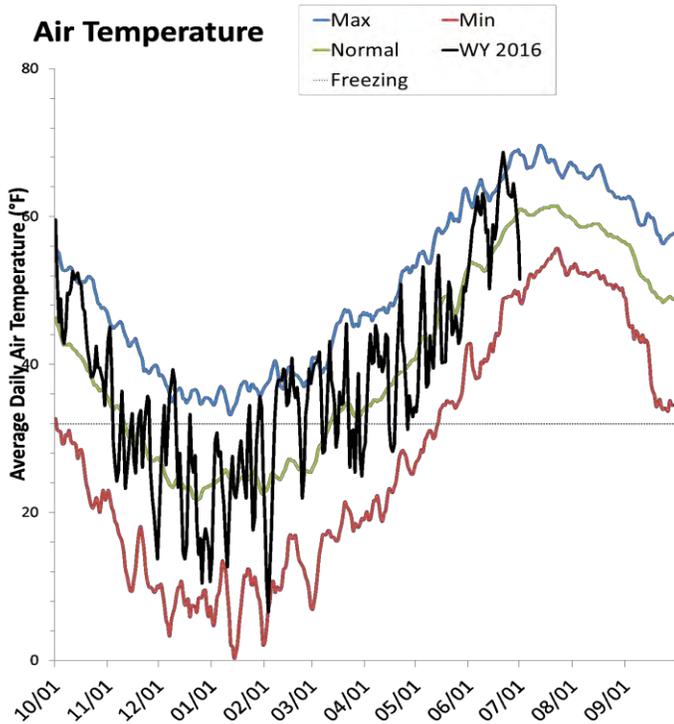
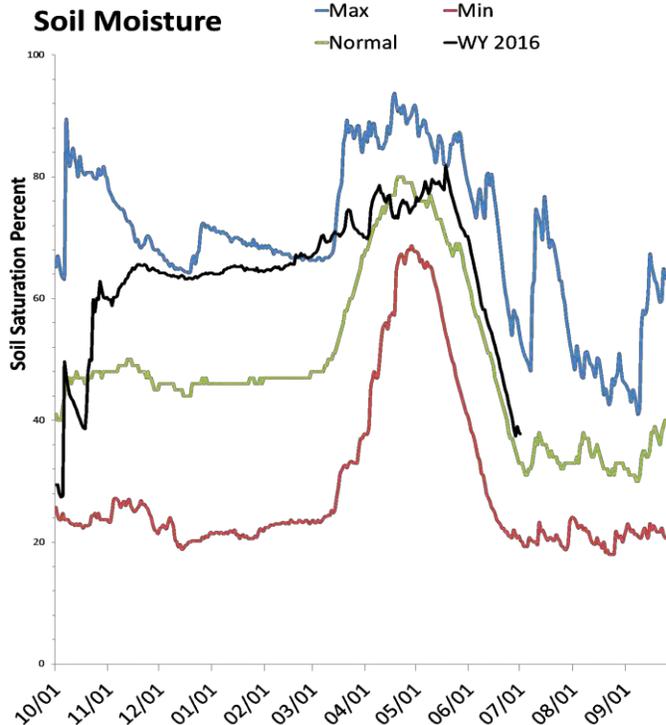
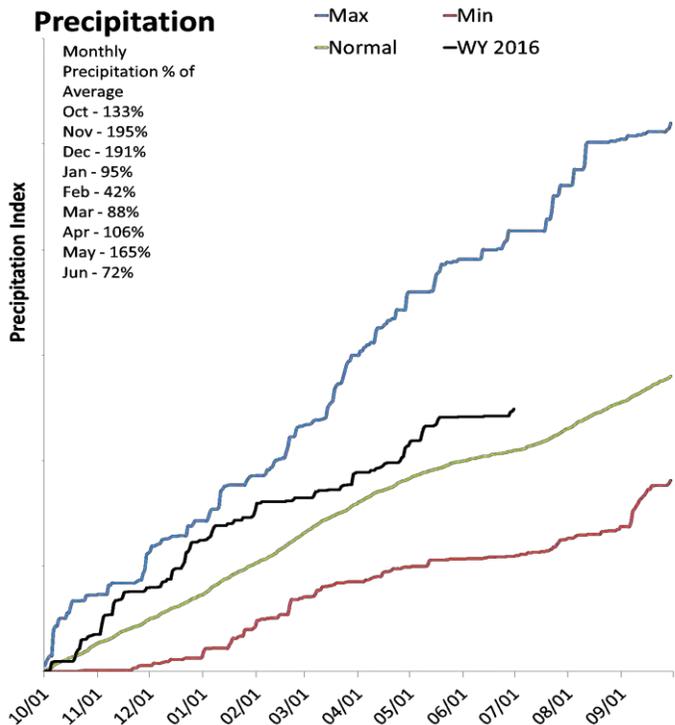
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southeastern Utah Basin

7/1/2016

Precipitation in June was below average at 76%, which brings the seasonal accumulation (Oct-Jun) to 119% of average. Soil moisture is at 42% compared to 23% last year. Reservoir storage is at 111% of capacity, compared to 100% last year. The water availability index for Moab is 87%.



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

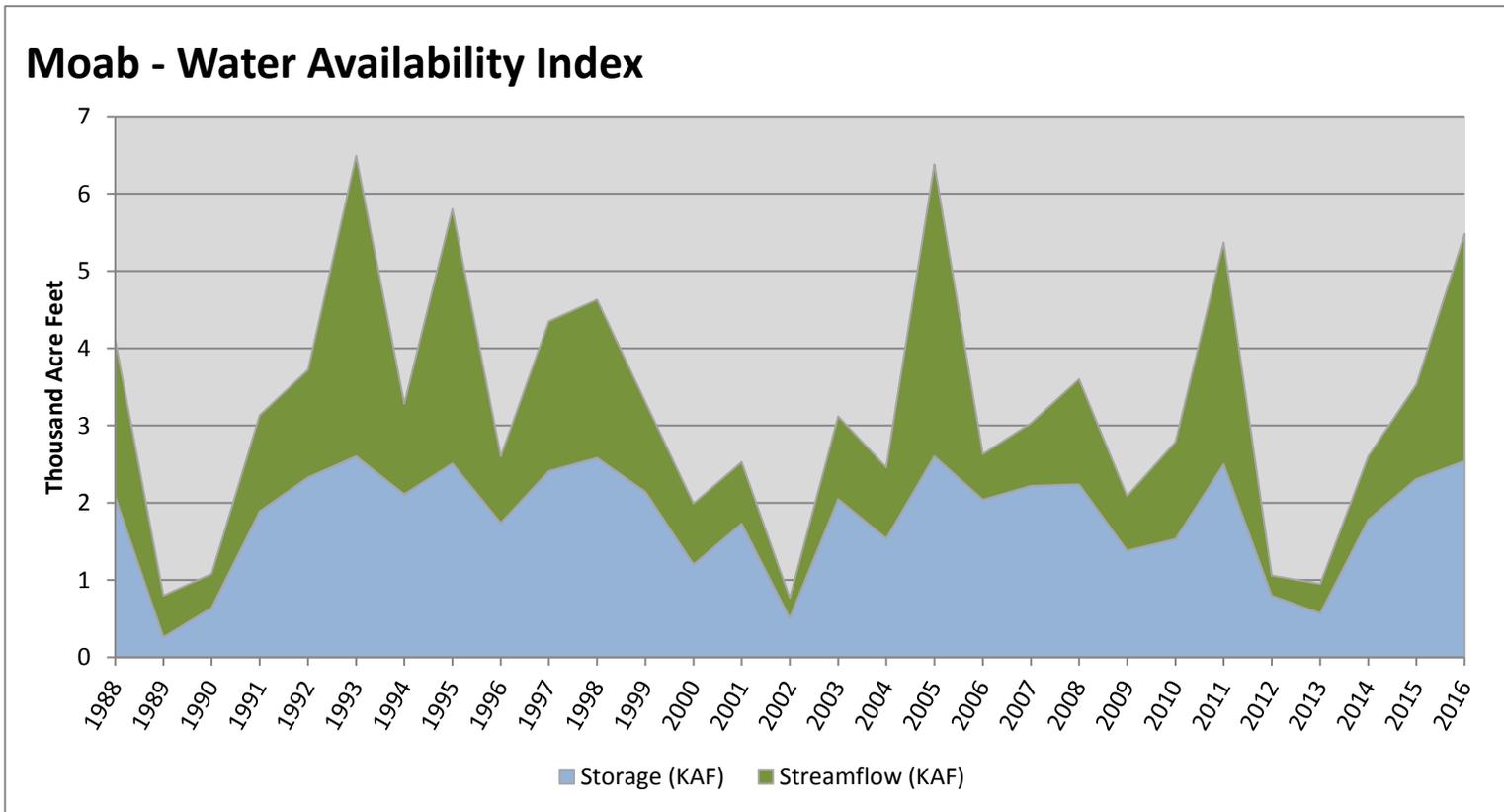
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Moab	2.54	2.94	5.48	87	3.06	98, 11, 95, 05

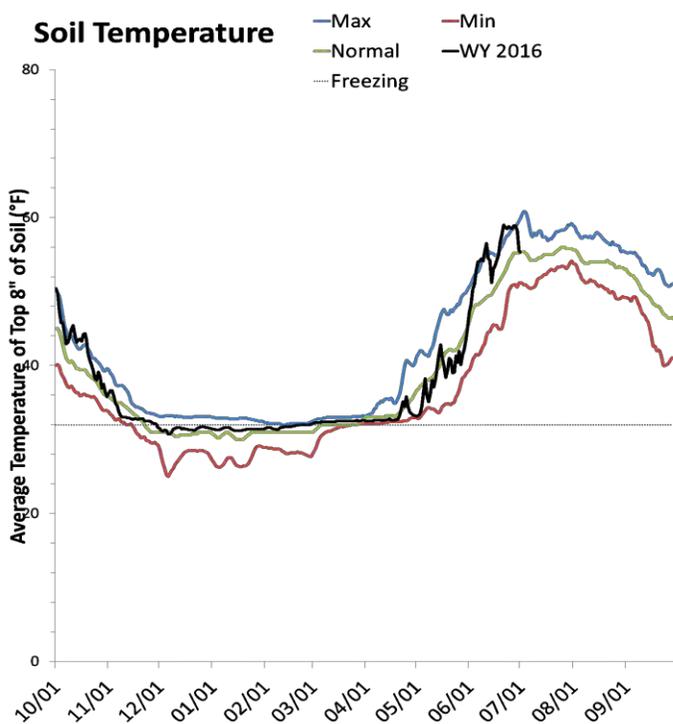
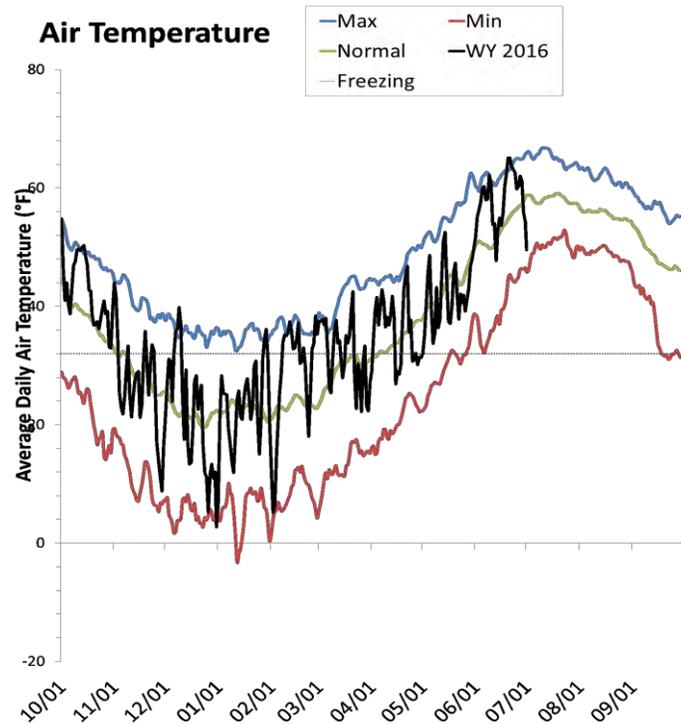
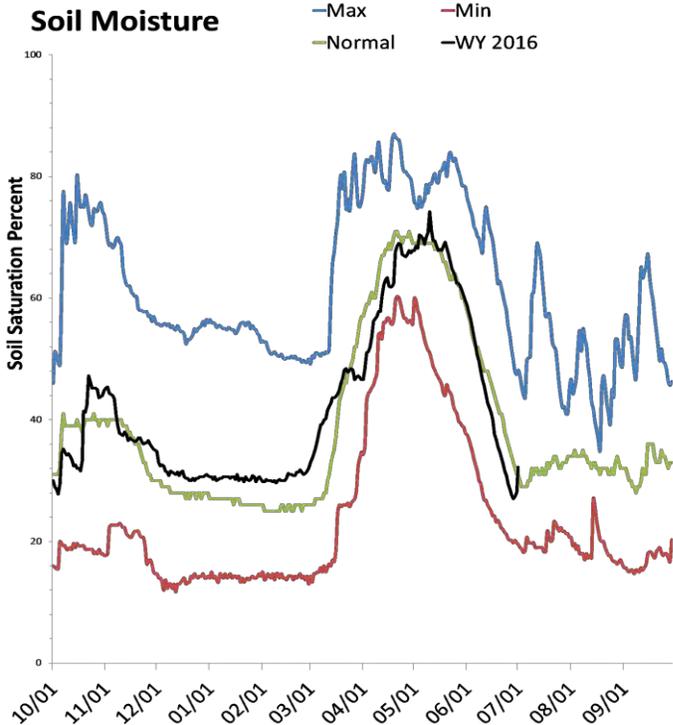
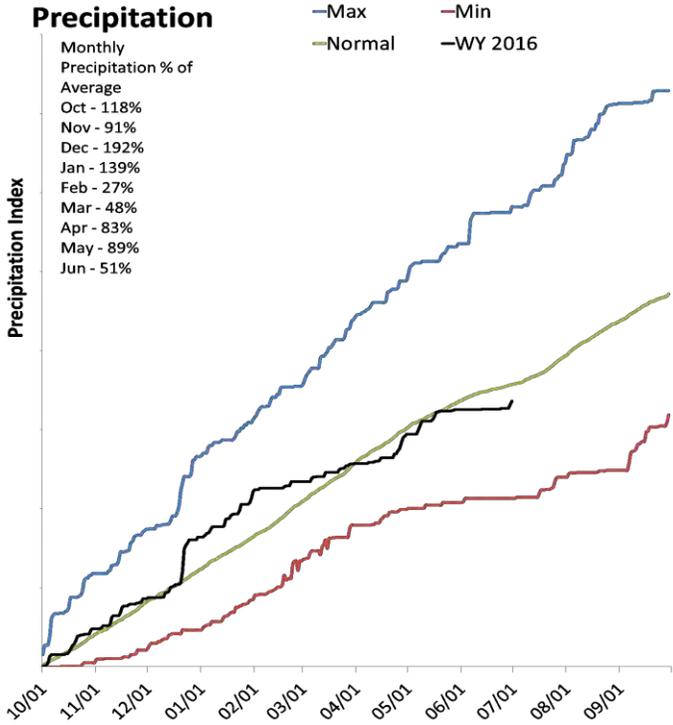
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Dirty Devil Basin

7/1/2016

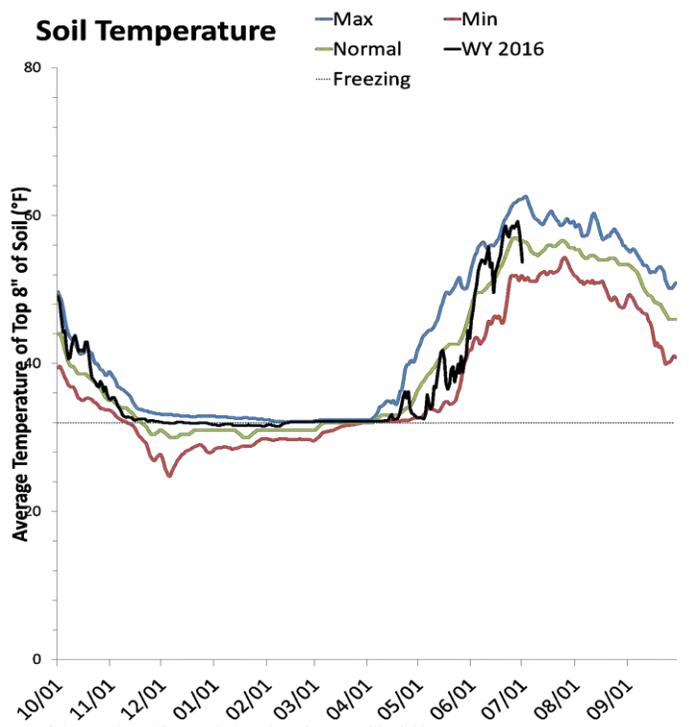
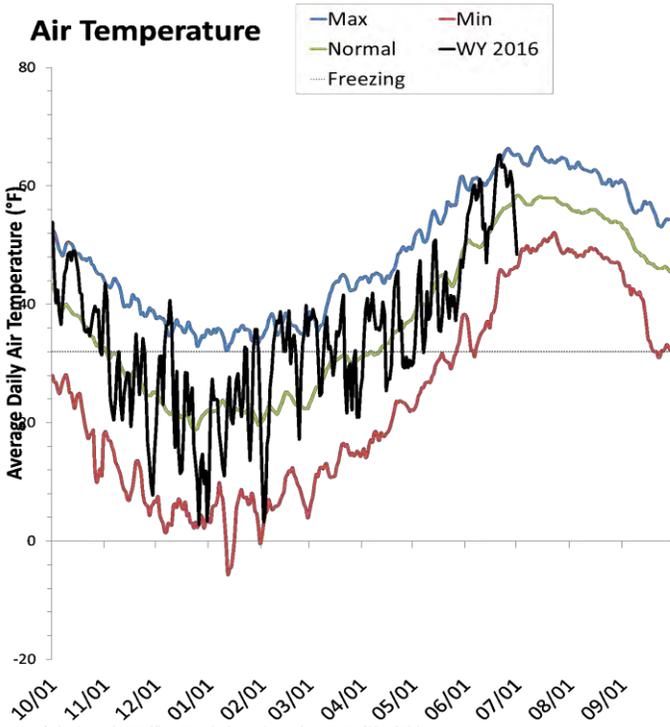
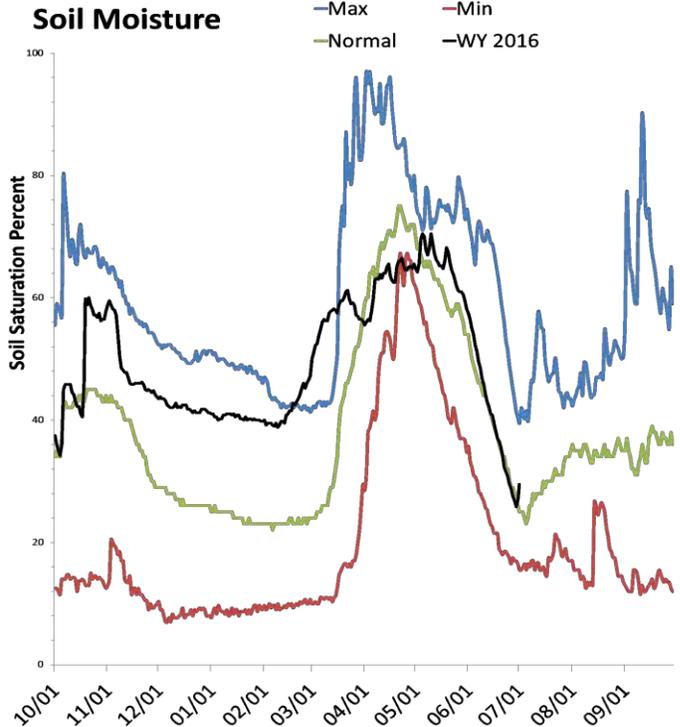
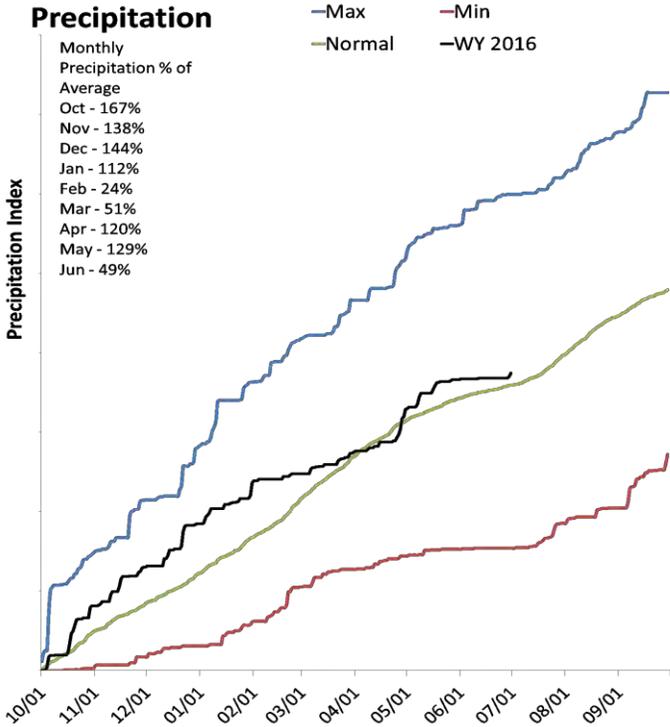
Precipitation in June was much below average at 52%, which brings the seasonal accumulation (Oct-Jun) to 94% of average. Soil moisture is at 33% compared to 32% last year.



Escalante River Basin

7/1/2016

Precipitation in June was much below average at 48%, which brings the seasonal accumulation (Oct-Jun) to 104% of average. Soil moisture is at 30% compared to 29% last year.



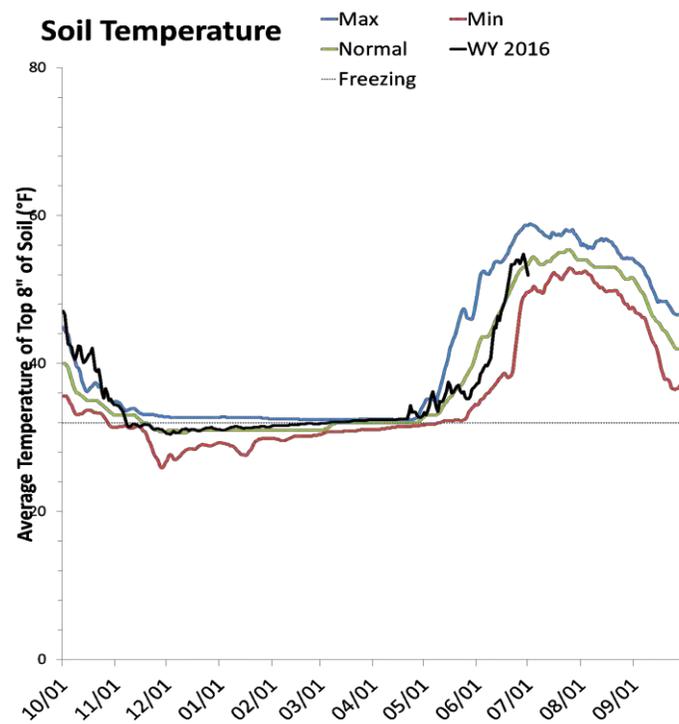
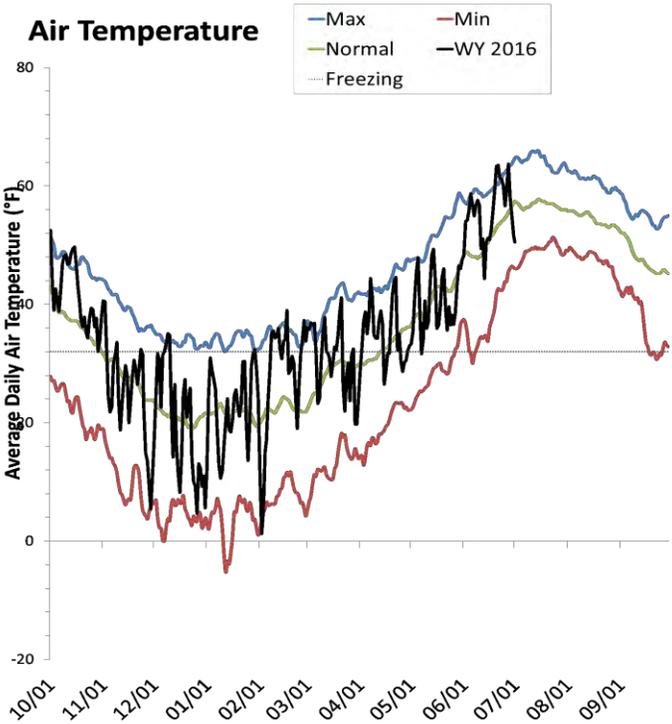
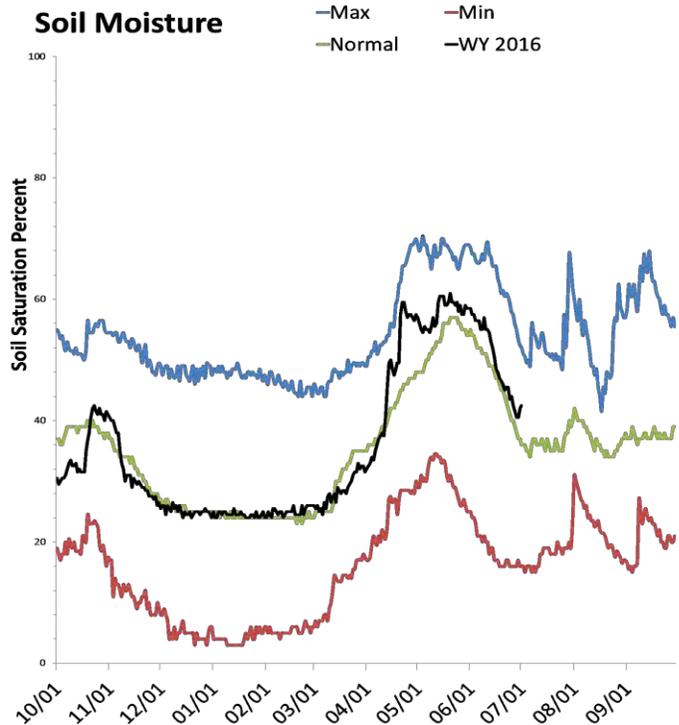
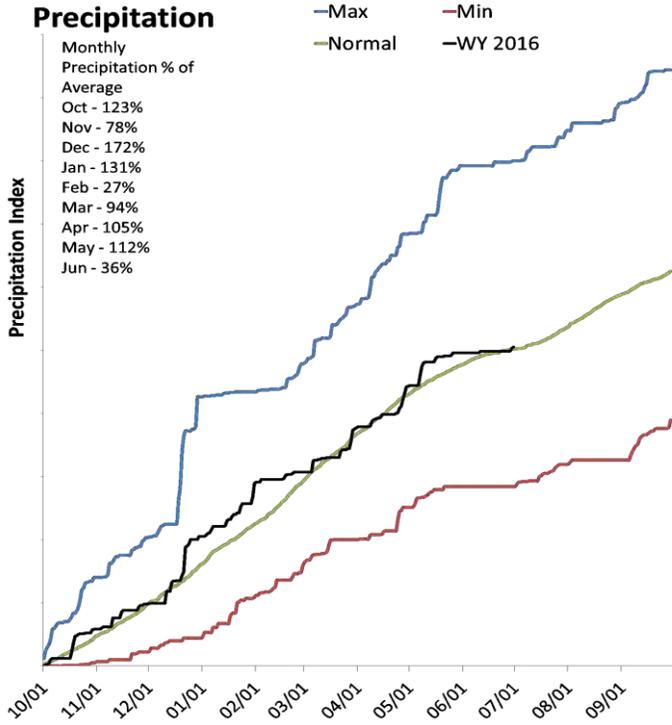
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Beaver River Basin

7/1/2016

Precipitation in June was much below average at 35%, which brings the seasonal accumulation (Oct-Jun) to 101% of average. Soil moisture is at 42% compared to 32% last year. Reservoir storage is at 35% of capacity, compared to 41% last year. The water availability index for the Beaver River is 49%.



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

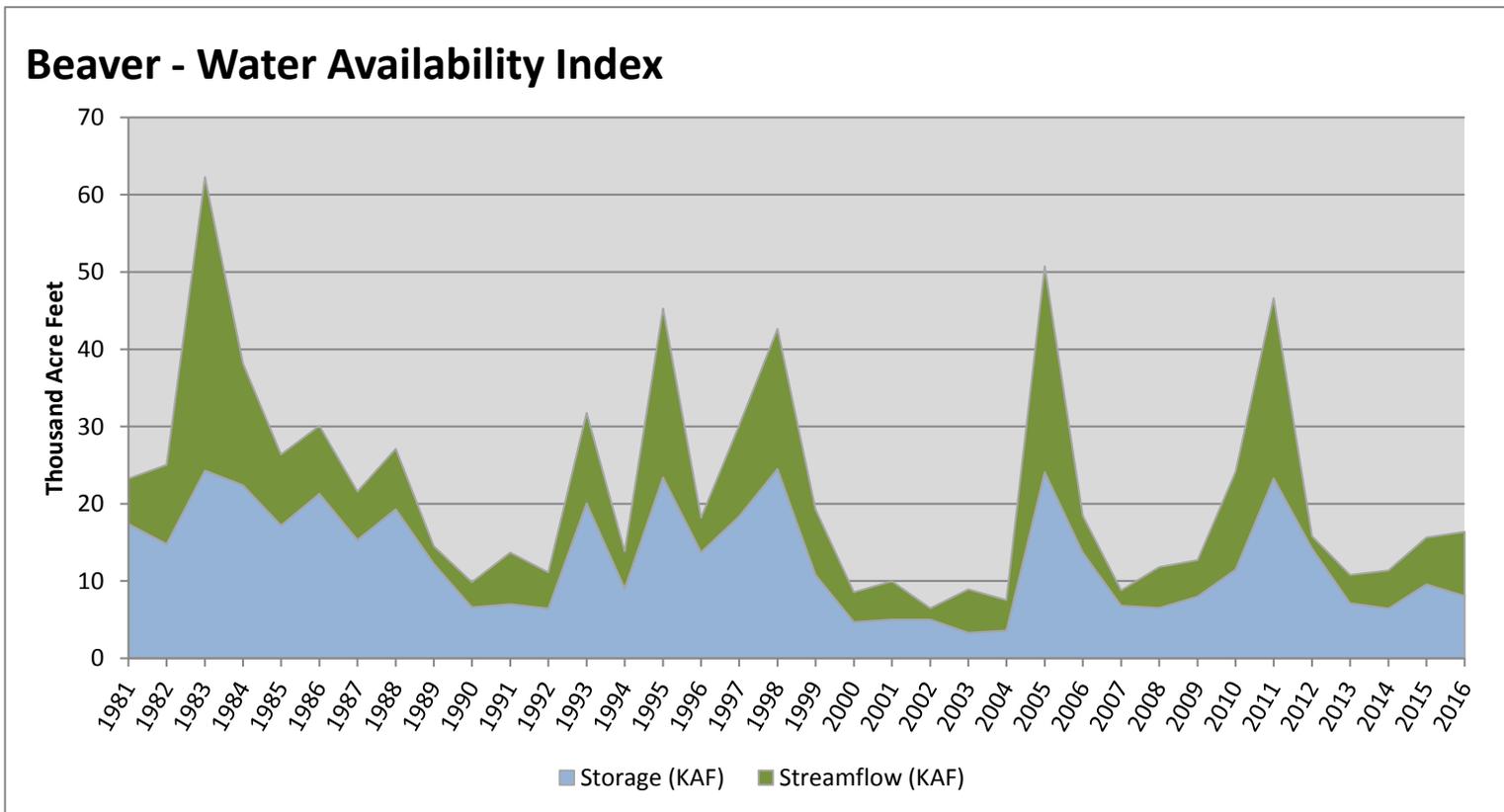
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2016

Water Availability Index

Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Beaver	8.08	8.28	16.36	49	-0.11	15, 12, 96, 06

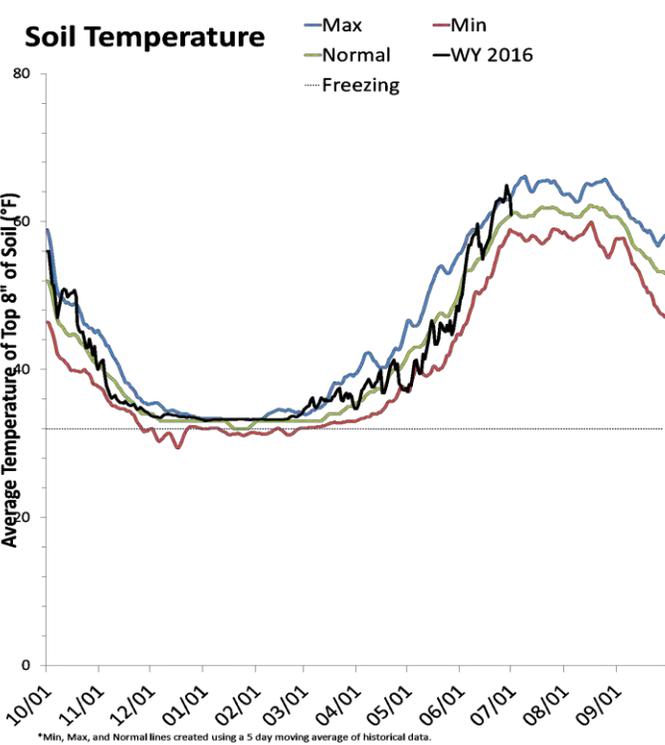
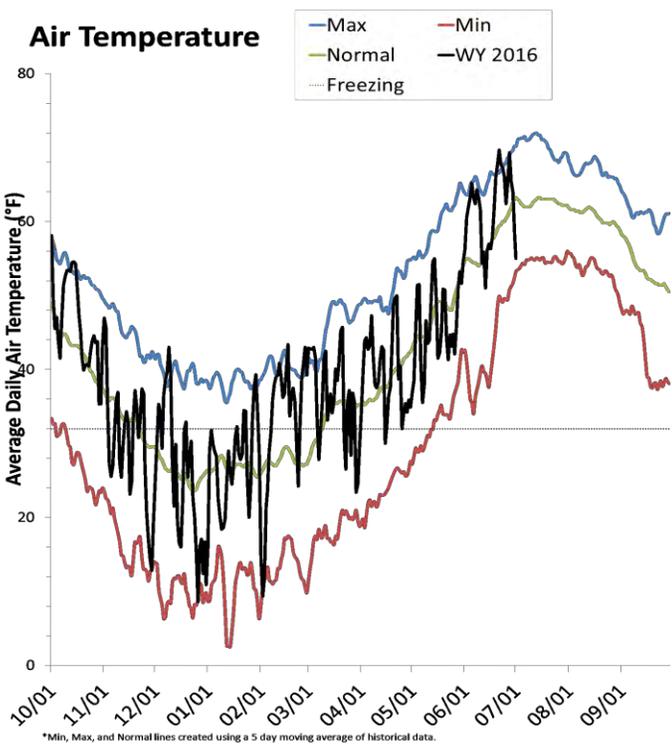
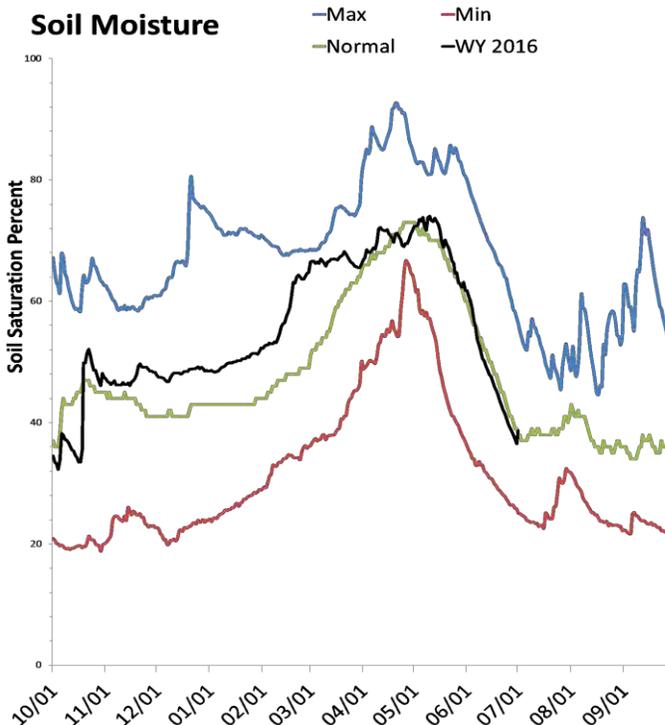
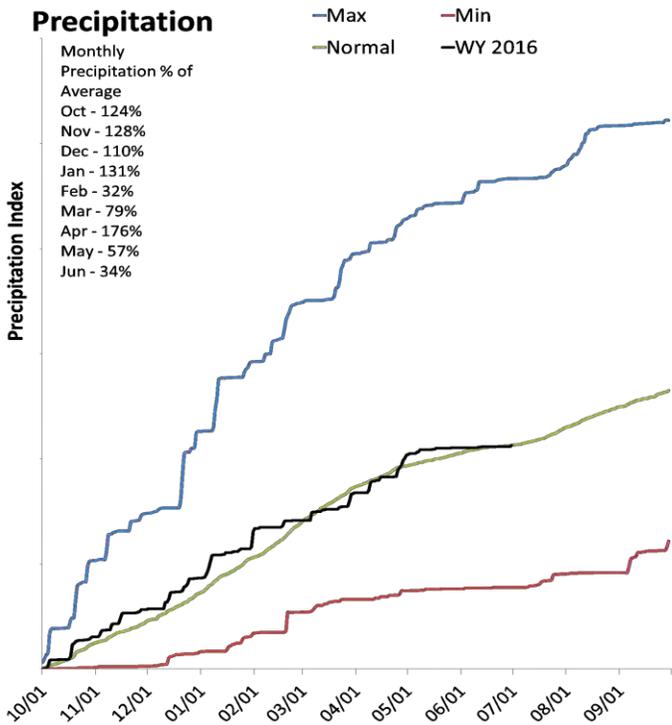
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southwestern Utah Basin

7/1/2016

Precipitation in June was much below average at 35%, which brings the seasonal accumulation (Oct-Jun) to 100% of average. Soil moisture is at 39% compared to 37% last year. Reservoir storage is at 57% of capacity, compared to 54% last year. The water availability index for the Virgin River is 50%.



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

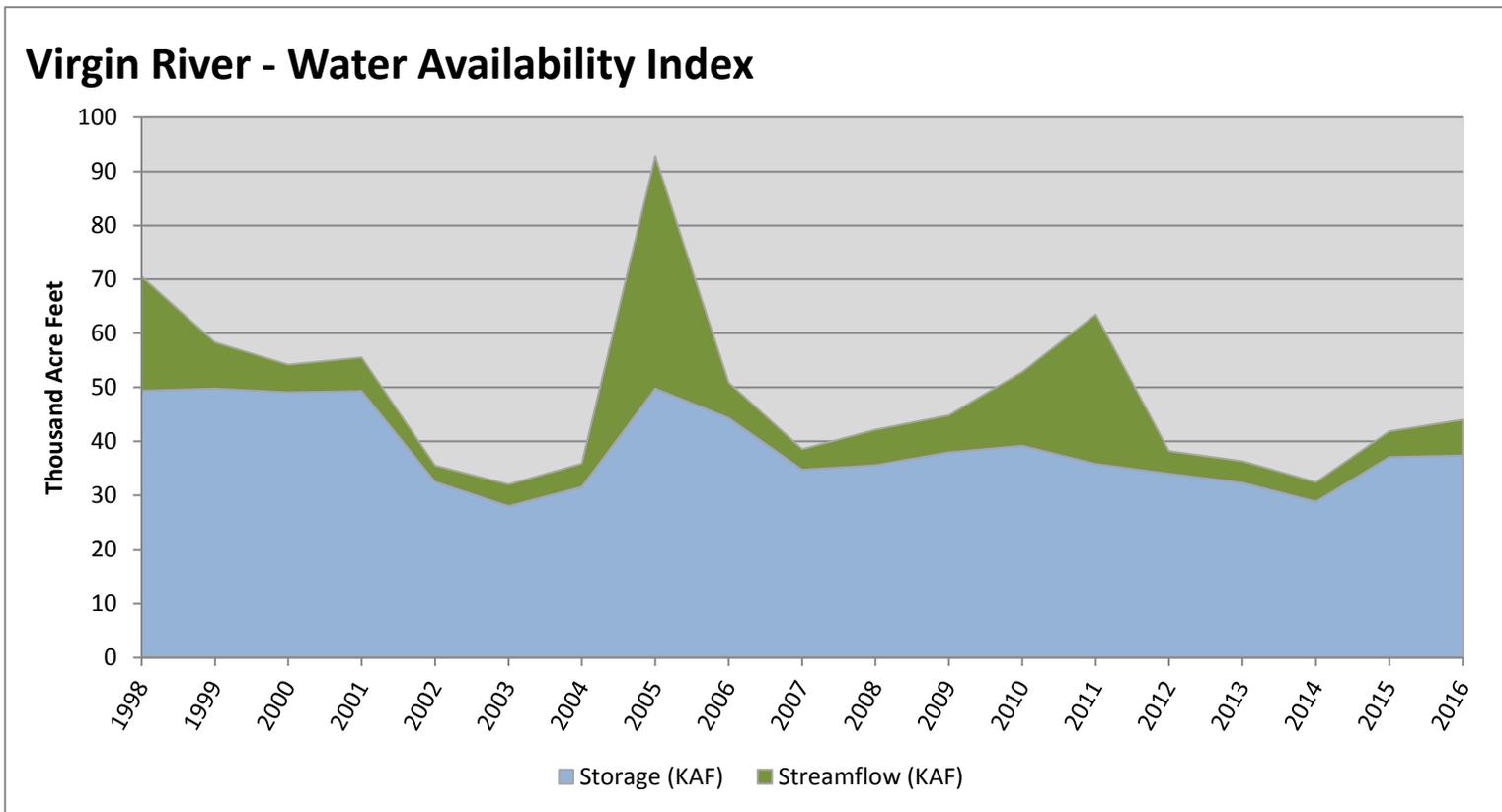
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

July 1, 2016

Water Availability Index

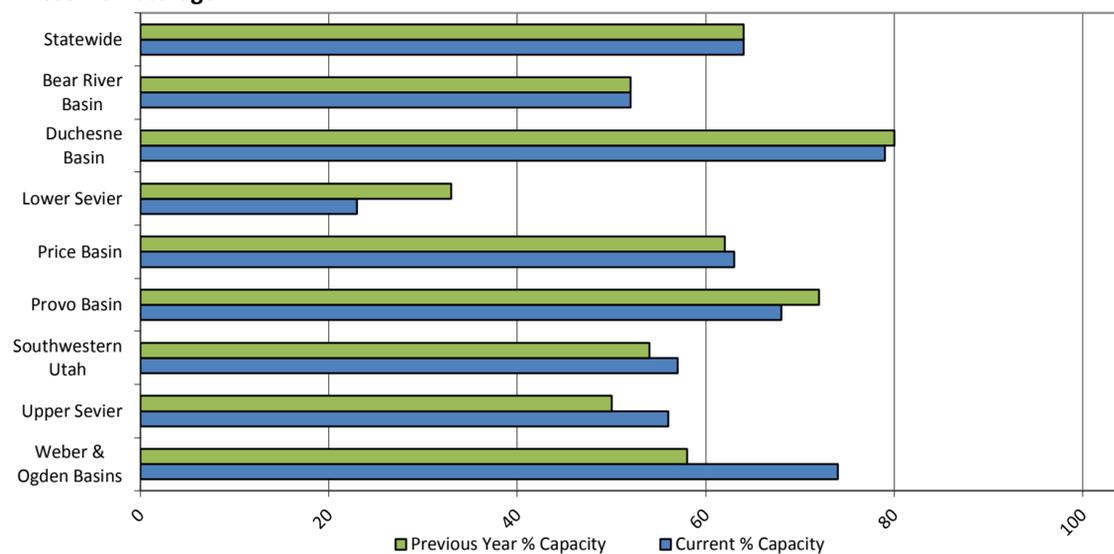
Basin or Region	Jun EOM [*] Storage	June Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Virgin River	37.42	6.61	44.03	50	0	15, 08, 09, 06

^{*}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	25.0	23.8		25.7	97%	93%			
Causey Reservoir	7.0	7.1	6.7	7.1	99%	100%	94%	105%	106%
Cleveland Lake	4.8	5.1		5.4	90%	95%			
Currant Creek Reservoir	15.3	14.8	15.2	15.5	98%	95%	98%	100%	97%
Deer Creek Reservoir	137.3	133.6	136.2	149.7	92%	89%	91%	101%	98%
East Canyon Reservoir	36.1	34.1	45.9	49.5	73%	69%	93%	79%	74%
Echo Reservoir	57.5	57.3	64.4	73.9	78%	78%	87%	89%	89%
Grantsville Reservoir	2.1	2.7	2.4	3.3	64%	83%	73%	88%	114%
Gunlock	4.0	3.8	7.3	10.4	38%	37%	70%	54%	52%
Gunnison Reservoir	1.5	1.7	14.2	20.3	8%	8%	70%	11%	12%
Huntington North Reservoir	3.9	3.2	3.4	4.2	92%	77%	81%	114%	95%
Hyrum Reservoir	11.5	12.3	13.1	15.3	75%	80%	86%	88%	94%
Joes Valley Reservoir	50.6	55.2	56.8	61.6	82%	90%	92%	89%	97%
Jordanelle Reservoir	281.5	266.5	296.7	320.0	88%	83%	93%	95%	90%
Ken's Lake	2.5	2.3	1.9	2.3	111%	100%	83%	133%	120%
Kolob Reservoir	5.5	5.5		5.6	99%	97%			
Lost Creek Reservoir	19.7	15.4	18.2	22.5	88%	69%	81%	109%	85%
Lower Enterprise	0.8	1.0	1.1	2.6	29%	38%	42%	68%	91%
Miller Flat Reservoir	4.3	5.2		5.2	83%	101%			
Millsite	15.8	15.8	15.7	16.7	95%	95%	94%	101%	101%
Minersville Reservoir	8.1	9.6	13.5	23.3	35%	41%	58%	60%	71%
Moon Lake Reservoir	37.5	36.4	33.6	35.8	105%	102%	94%	112%	108%
Otter Creek Reservoir	45.6	35.8	36.4	52.5	87%	68%	69%	125%	98%
Panguitch Lake	13.0	10.6	16.2	22.3	58%	48%	73%	80%	66%
Pineview Reservoir	103.2	87.5	93.0	110.1	94%	79%	84%	111%	94%
Piute Reservoir	24.0	27.5	45.0	71.8	33%	38%	63%	53%	61%
Porcupine Reservoir	9.8	11.5	10.6	11.3	87%	102%	94%	92%	108%
Quail Creek	33.4	33.3	29.0	40.0	84%	83%	73%	115%	115%
Red Fleet Reservoir	25.5	21.3	23.4	25.7	99%	83%	91%	109%	91%
Rockport Reservoir	50.6	46.7	56.9	60.9	83%	77%	93%	89%	82%
Sand Hollow Reservoir	45.4	36.1		50.0	91%	72%			
Scofield Reservoir	22.7	17.2	48.2	65.8	34%	26%	73%	47%	36%
Settlement Canyon Reservoir	0.6	0.6	0.8	1.0	64%	55%	82%	78%	67%
Sevier Bridge Reservoir	55.2	78.9	148.5	236.0	23%	33%	63%	37%	53%
Smith And Morehouse Reservoir	8.4	7.7	7.5	81.0	10%	9%	9%	111%	102%
Starvation Reservoir	159.7	157.4	153.2	165.3	97%	95%	93%	104%	103%
Stateline Reservoir	13.9	13.2	11.3	12.0	116%	110%	94%	123%	117%
Steinaker Reservoir	23.7	23.7	28.3	33.4	71%	71%	85%	84%	84%
Strawberry Reservoir	824.3	848.1	727.7	1105.9	75%	77%	66%	113%	117%
Upper Enterprise	0.3	0.5	3.7	10.0	3%	5%	37%	8%	14%
Upper Stillwater Reservoir	31.7	30.0	28.9	32.5	98%	92%	89%	110%	104%
Utah Lake	432.1	523.0	834.5	870.9	50%	60%	96%	52%	63%
Vernon Creek Reservoir	0.3	0.4	0.4	0.6	50%	68%	70%	71%	98%
Willard Bay	173.7	102.8	160.4	215.0	81%	48%	75%	108%	64%
Woodruff Creek	3.1	1.9	3.1	4.0	77%	48%	78%	99%	61%
Woodruff Narrows Reservoir	49.1	40.6	30.8	57.3	86%	71%	54%	159%	132%
Meeks Cabin Reservoir	28.8	28.4	24.9	32.5	89%	87%	77%	116%	114%
Bear Lake	653.0	655.7	738.2	1302.0	50%	50%	57%	88%	89%
Basin-wide Total	3478.4	3477.0	4007.3	5453.8	64%	64%	73%	87%	87%
# of reservoirs	43	43	43	43	43	43	43	43	43

Reservoir Storage



July 1, 2016

Water Availability Index

Basin or Region	Jun EOM* Storage	June Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Bear River	653	54.5	707	51	0.1	15, 01, 13, 89
Woodruff Narrows	49.1	61.5	110.6	70	1.7	08, 09, 10, 98
Little Bear	11.5	2.8	14.3	44	-0.5	04, 15, 02, 06
Ogden	110.2	6.6	116.8	51	0.1	04, 96, 85, 06
Weber	172.3	31.2	203.5	48	-0.2	04, 94, 06, 91
Provo River	418.9	28.1	446.9	50	0.0	00, 01, 08, 06
Western Uintah	228.9	38.5	267.4	77	2.2	98, 96, 11, 05
Eastern Uintah	49.1	34.4	83.5	70	1.7	09, 08, 91, 10
Blacks Fork	28.8	60.1	88.9	82	2.7	98, 93, 99, 95
Price	22.7	3.7	26.3	16	-2.8	90, 14, 02, 13
Smiths Creek	13.9	30.2	44.1	94	3.7	11, 86, 95, 10
Joes Valley	50.6	16.2	66.8	35	-1.2	00, 01, 04, 87
Moab	2.5	2.9	5.5	87	3.1	98, 11, 95, 05
Upper Sevier River	69.7	2.6	72.3	41	-0.8	96, 00, 94, 12
San Pitch	1.5	4.4	6.0	19	-2.6	90, 15, 04, 89
Lower Sevier	55.2	7.1	62.3	8	-3.5	04, 03, 91, 14
Beaver	8.1	8.3	16.4	49	-0.1	15, 12, 96, 06
Virgin River	37.4	6.6	44.0	50	0.0	15, 08, 09, 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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