

Utah Climate and Water Report

April 2016



Hoyt Peak, near Redden Mine SNOTEL

March, 2016

Photo by Jordan Clayton

Utah General Summary

April 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 also hot linked 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 always welcome: Randy.Julander@ut.usda.gov.

Current Valley Conditions (SCAN)

Valley precipitation in March averaged about one inch across the state, bringing the seasonal (Oct-Mar) total to 5.7 inches. Precipitation ranged widely across the state; from 0.3 inches in the Southeast to 2.6 inches in the North Central Region. Soil moisture remained flat across the state during March, with the exception of North Mountains and North Central regions, which received much more monthly precipitation. Statewide soil moisture is at 52%; much higher than the 30% of last year. Soil temperatures decreased slightly following the rapid warmup last month. Soils across the valley locations are well above freezing with most hovering around 40° F.

Current Mountain Conditions (SNOTEL)

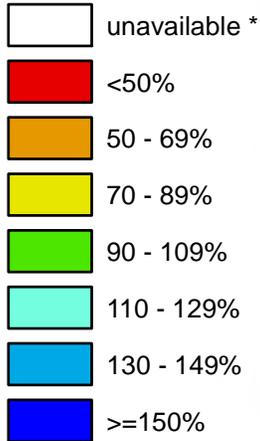
April 1 snowpack within almost all the basins across the state are between 90% and 110% with a few exceptions. The north slope of the Uintah Mountains is a about 120% and the Duchesne and Price/San Rafael basins are a little lower at about 85% of normal. With the past 4 years of drought like conditions and especially last year's April 1 values, where most areas ranged from 30% to 45% of normal, an average snowpack year is not too bad. March mountain precipitation was 102% bringing the seasonal accumulation (Oct-Mar) to 94% of average. March precipitation ranged from 51% on the Escalante to 149% on the Bear River watershed. Soil moisture is rising in response to melting snow packs but was below normal in northern Utah and above normal in the south going into the melt season. We're seeing soil moisture at lower elevations rising quickly in response to snowmelt while soil moisture levels at higher elevations are holding steady due to minimal snowmelt. Reservoir storage is at 57% of capacity compared to 62% last year. Snowmelt stream flows are expected to be below to near average for the entire state. Forecast stream flow range from 46% on the Strawberry River near Duchesne to 140% on Mill Creek near Sheley Tunnel which is near Moab. Most flow are forecast to be in the 70% to 100% range.

Utah

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

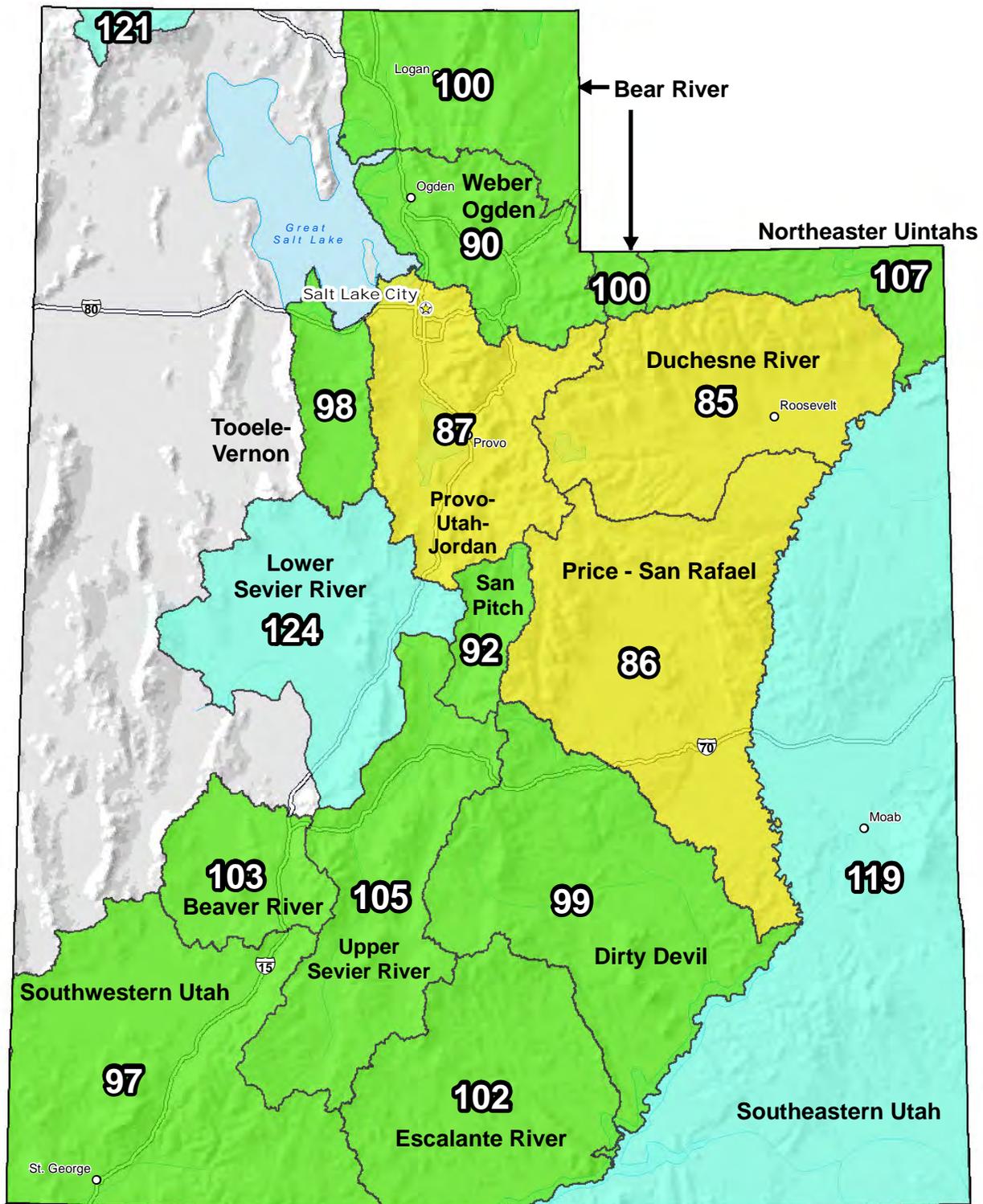
Apr 01, 2016

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**

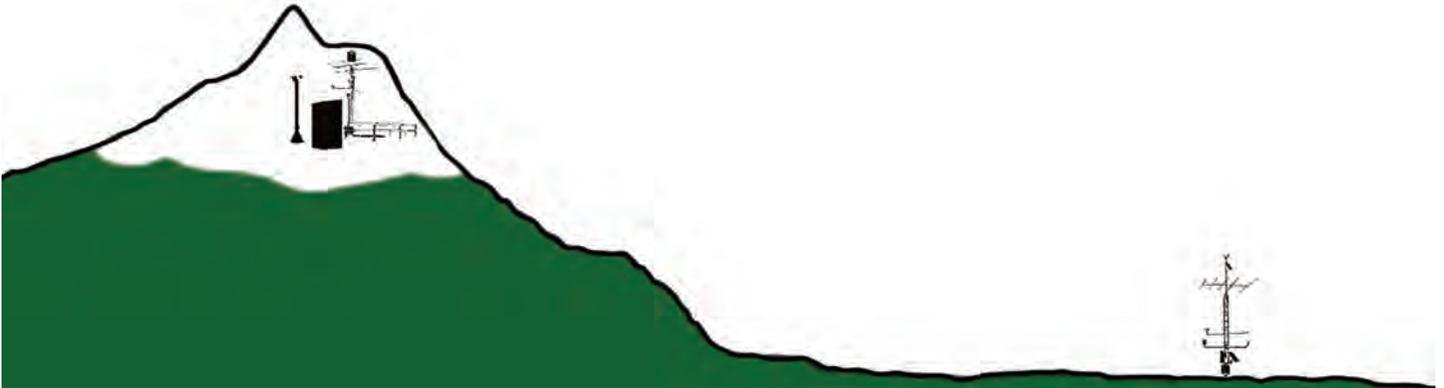


The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

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

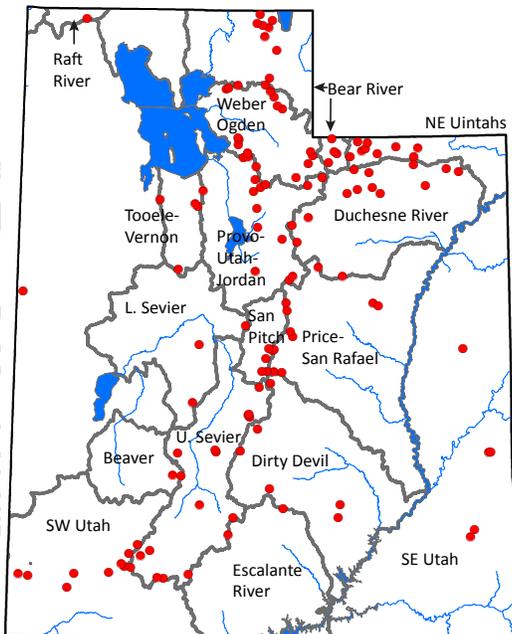
Utah Climate and Water Report

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.



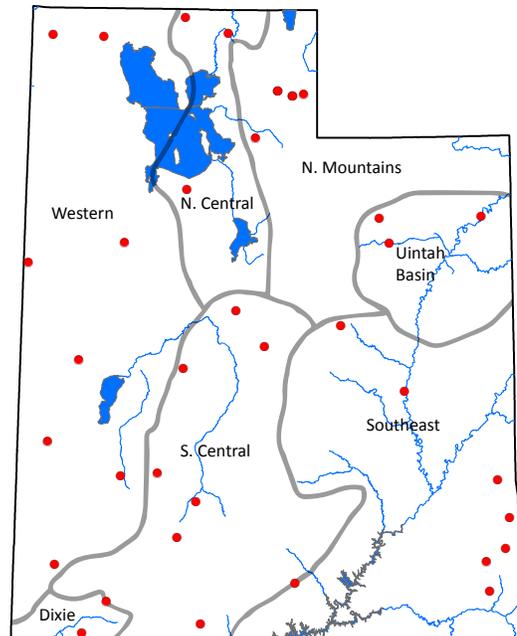
SNOTEL

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



SCAN

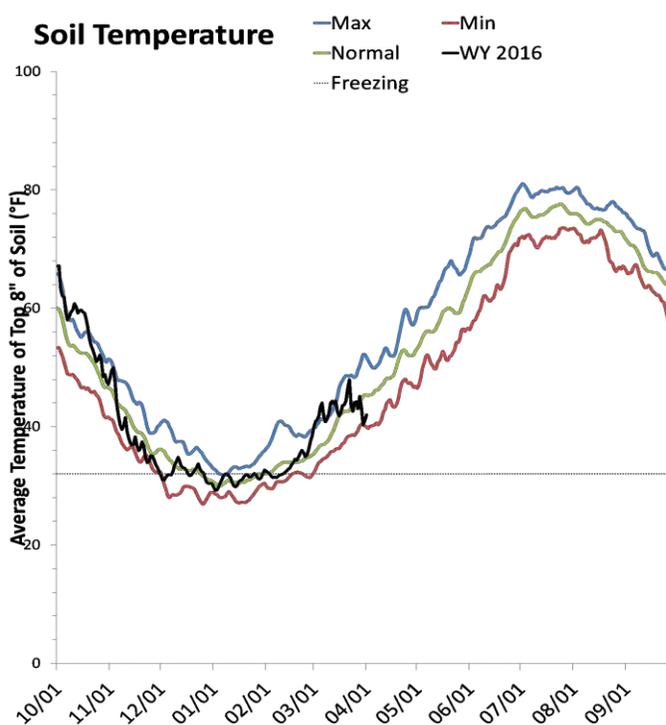
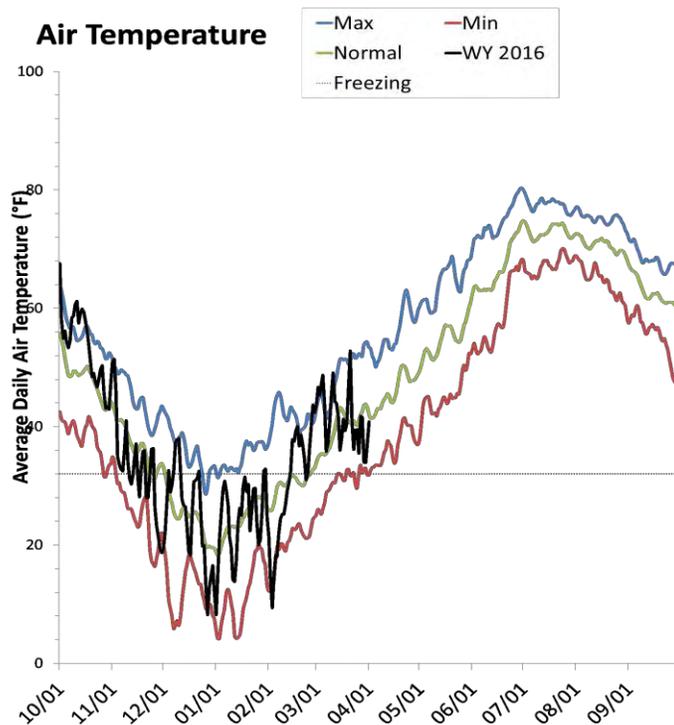
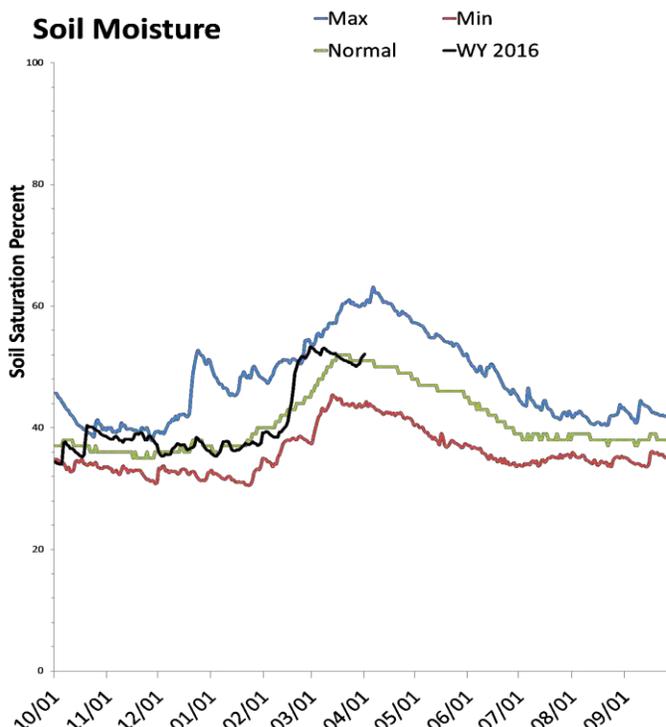
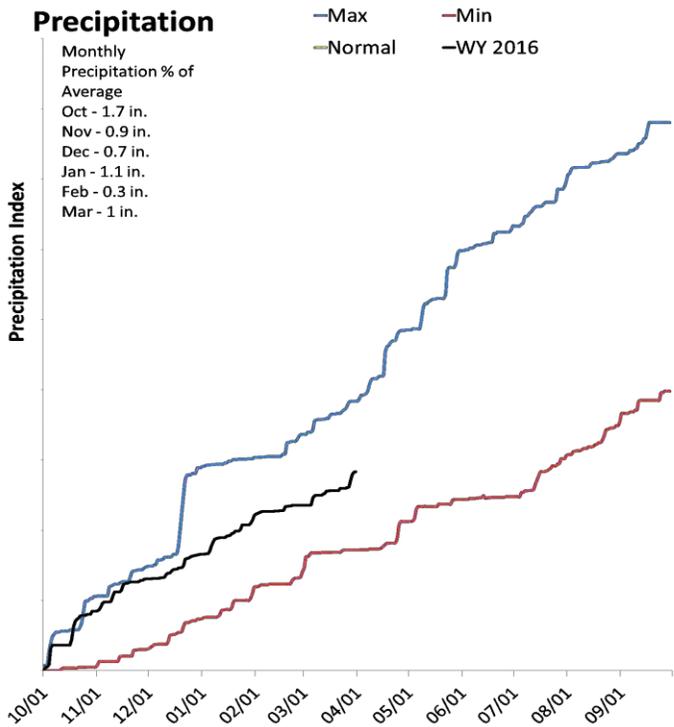
- Agricultural and range lands.
- Mid elevation (3 – 7,000 ft).
- Irrigation efficiency and rangeland productivity.
- Installed on spatially representative soils.



Statewide SCAN

4/1/2016

The average precipitation at SCAN sites within Utah was 1 inches in March, which brings the seasonal accumulation (Oct-Mar) to 5.7 inches. Soil moisture is at 52% compared to 30% last year.



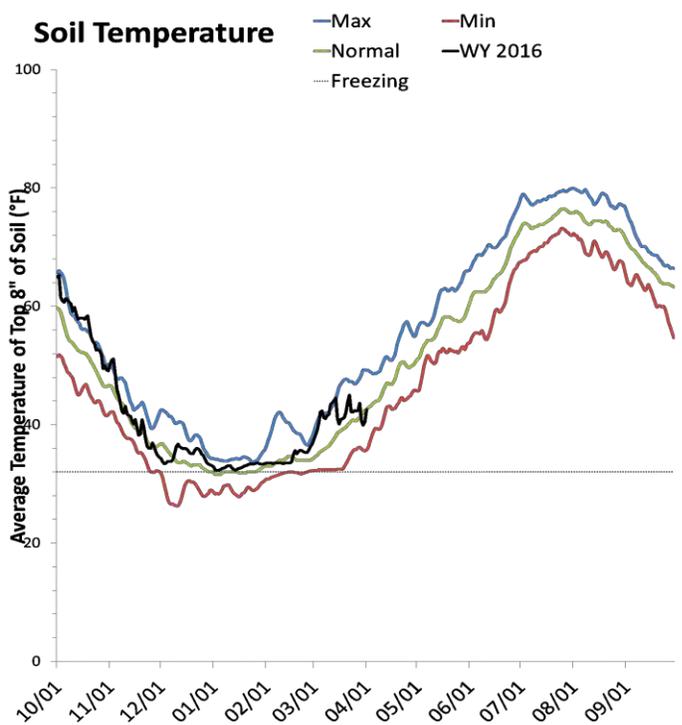
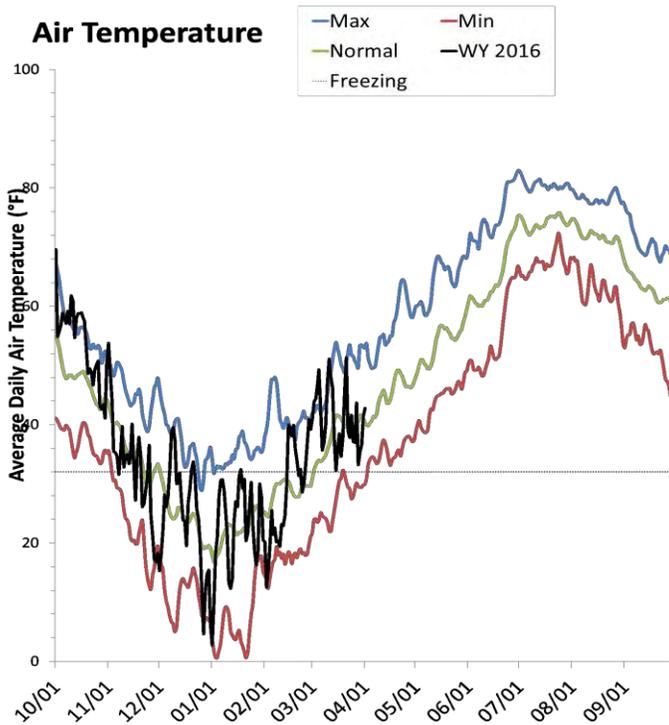
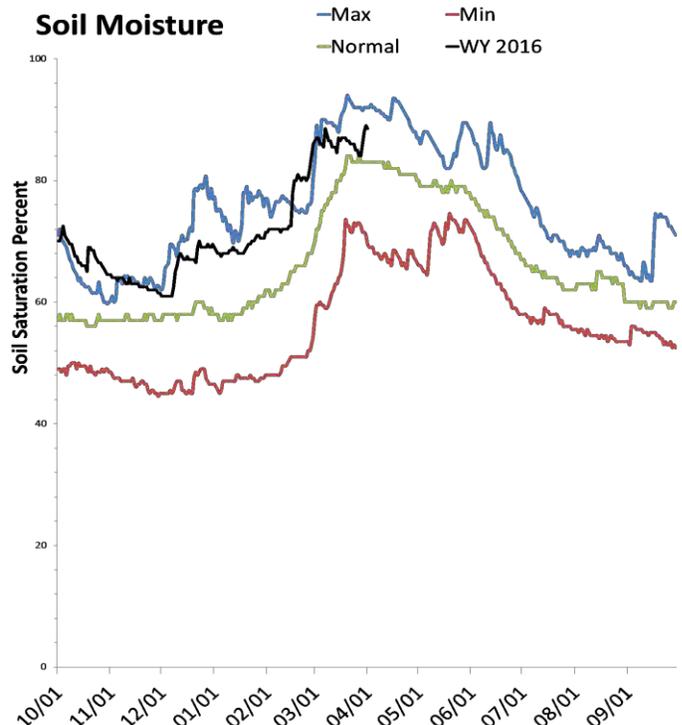
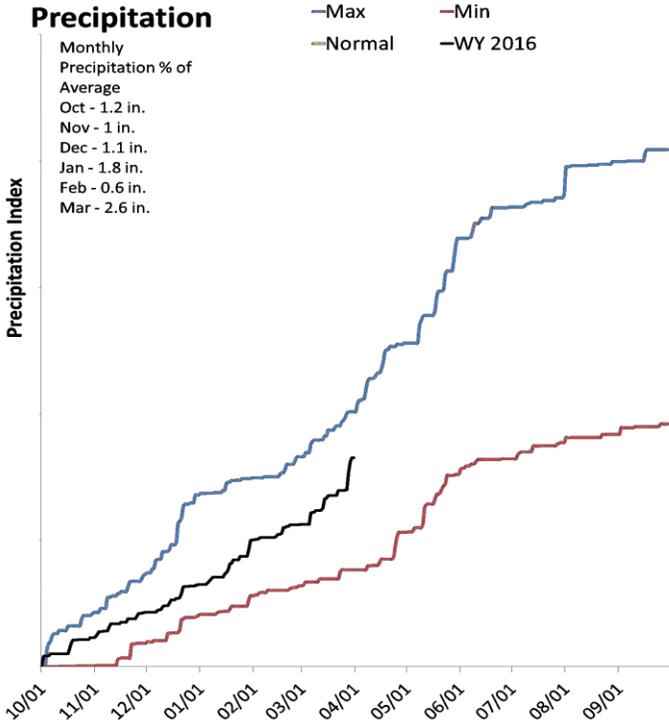
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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North Central

4/1/2016

The average precipitation in March at SCAN sites within the basin was 2.6 inches, which brings the seasonal accumulation (Oct-Mar) to 8.3 inches. Soil moisture is at 89% compared to 30% last year.



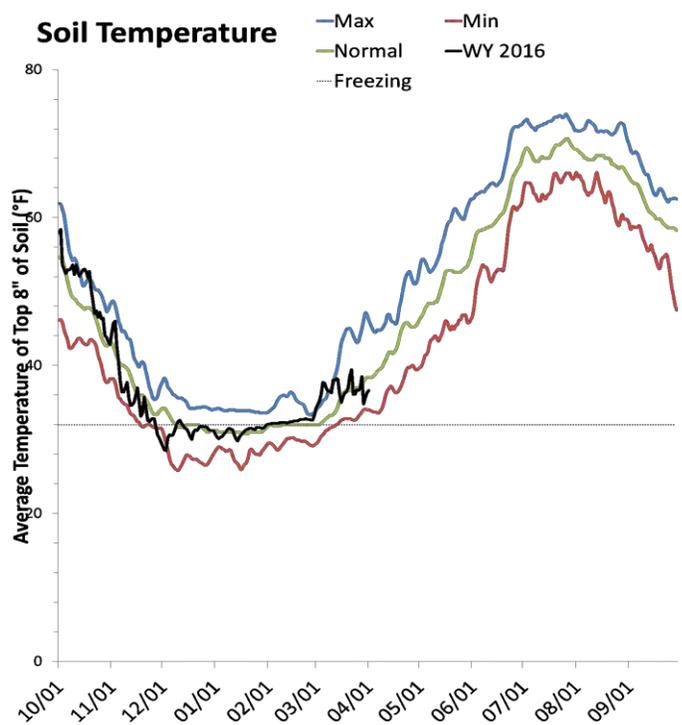
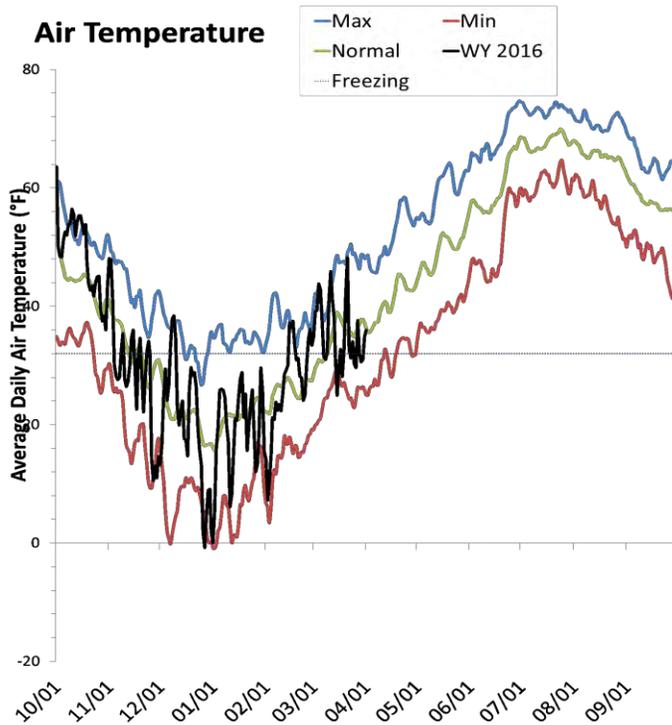
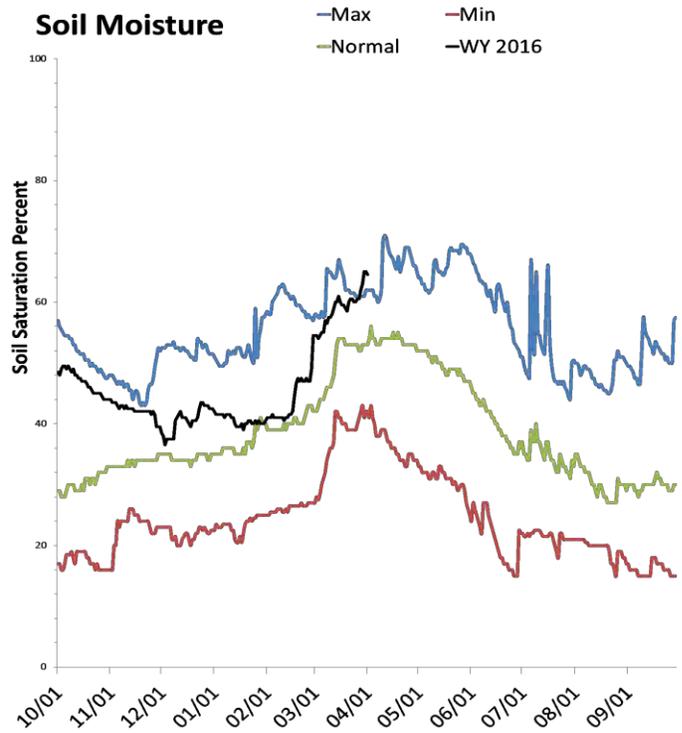
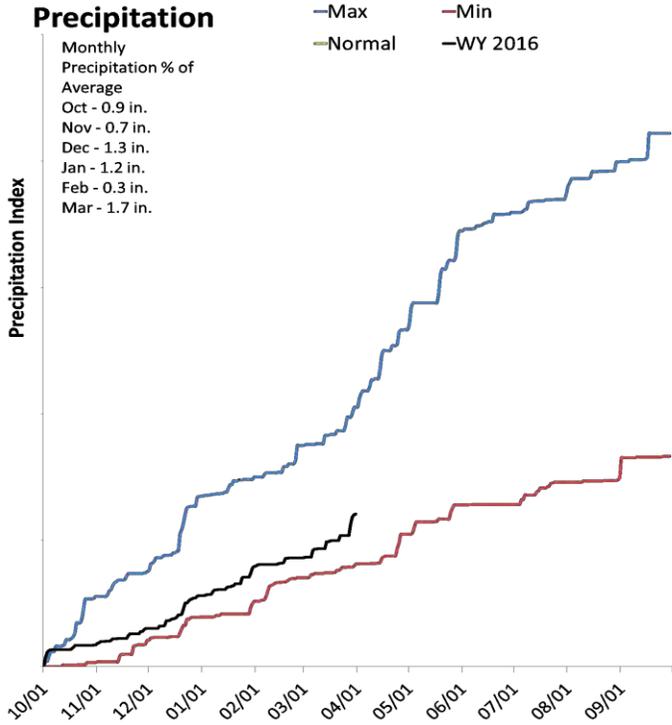
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Northern Mountains

4/1/2016

The average precipitation in March at SCAN sites within the basin was 1.7 inches, which brings the seasonal accumulation (Oct-Mar) to 6 inches. Soil moisture is at 62% compared to 30% last year.



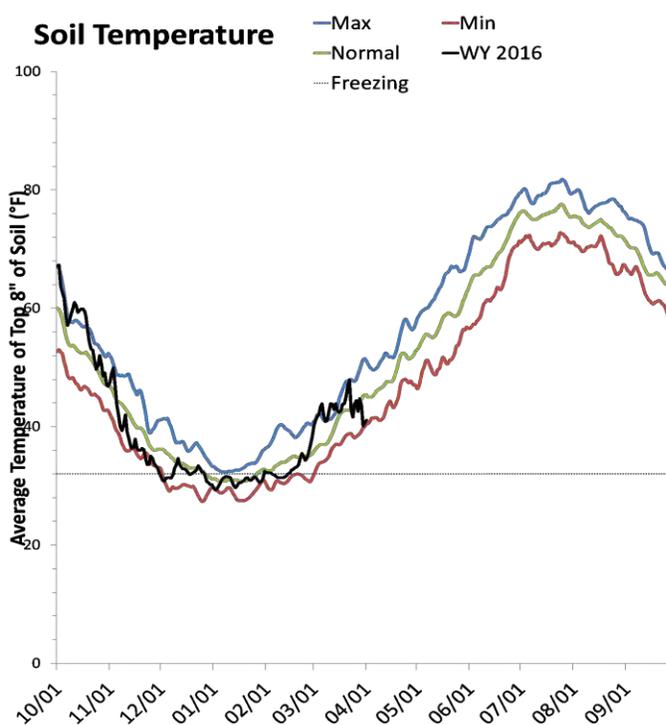
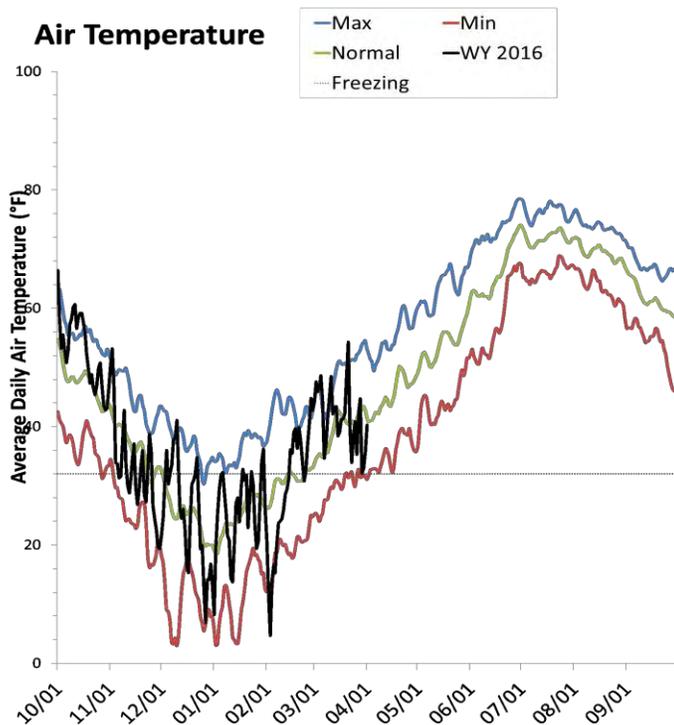
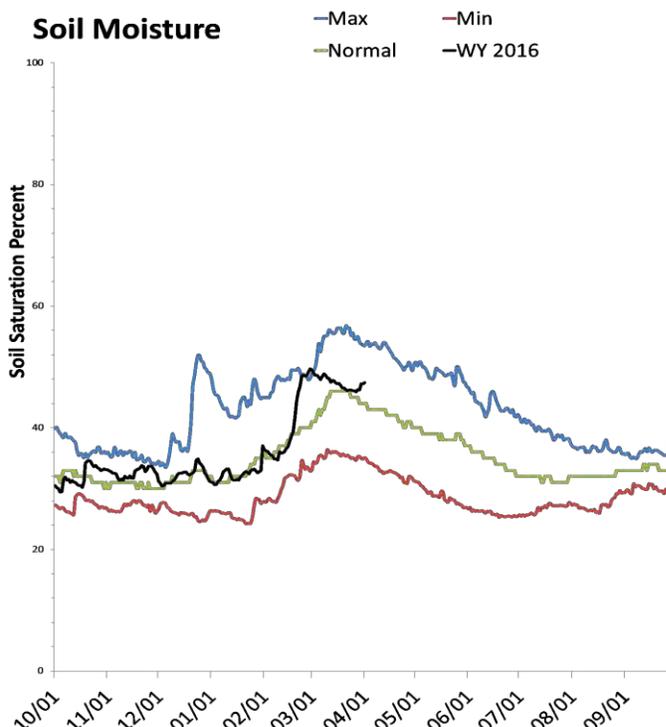
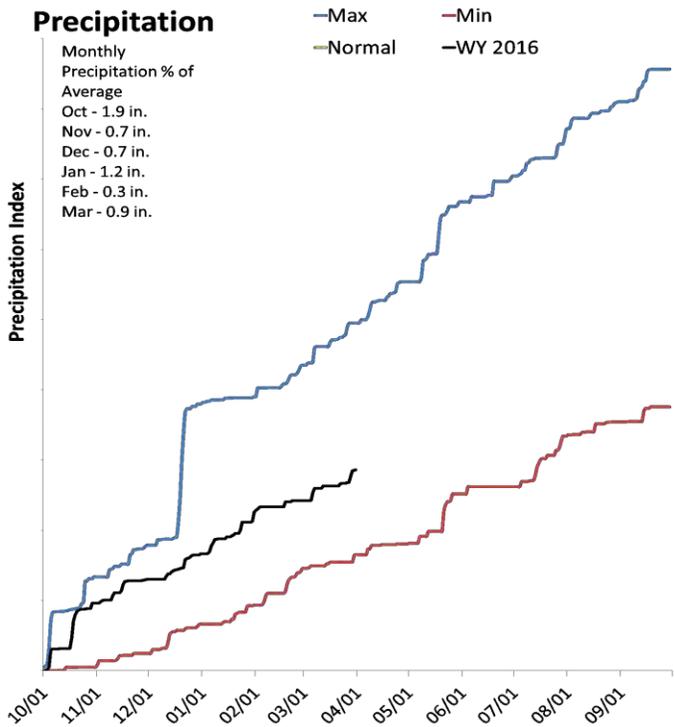
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South Central

4/1/2016

The average precipitation in March at SCAN sites within the basin was 0.9 inches, which brings the seasonal accumulation (Oct-Mar) to 5.7 inches. Soil moisture is at 47% compared to 30% last year.



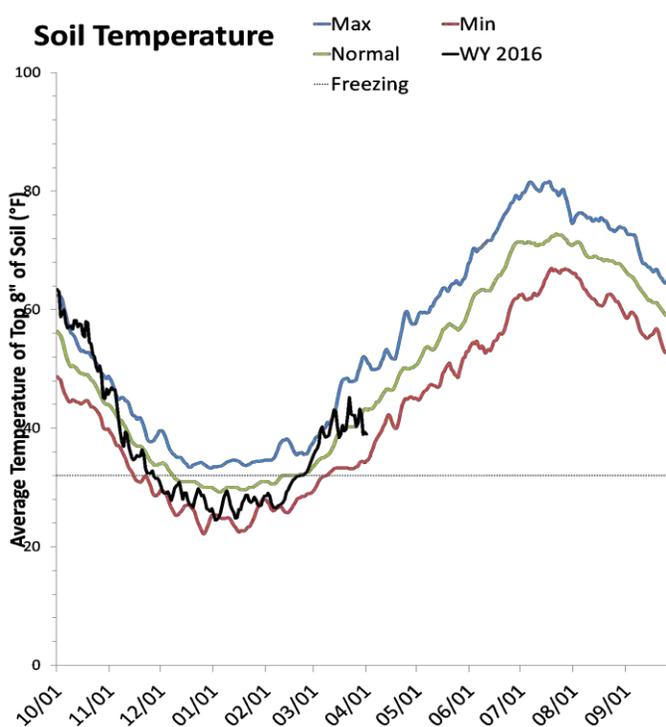
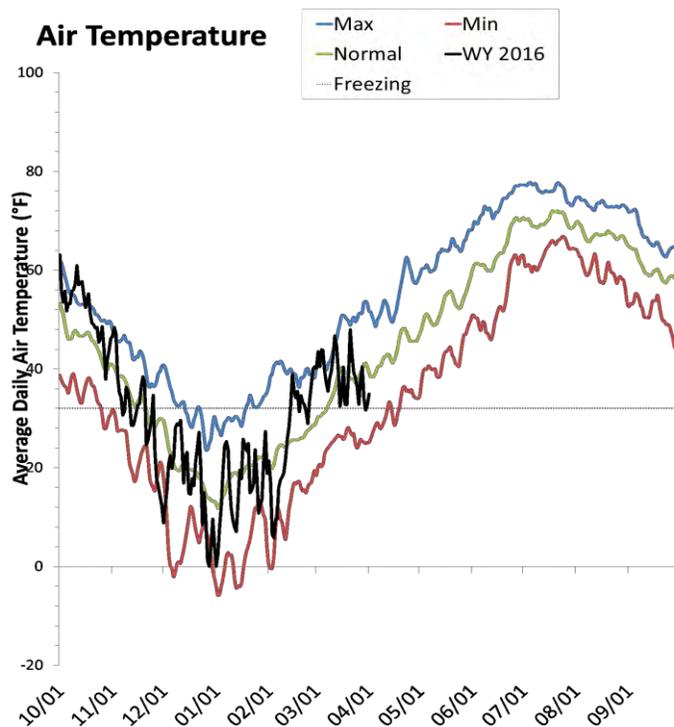
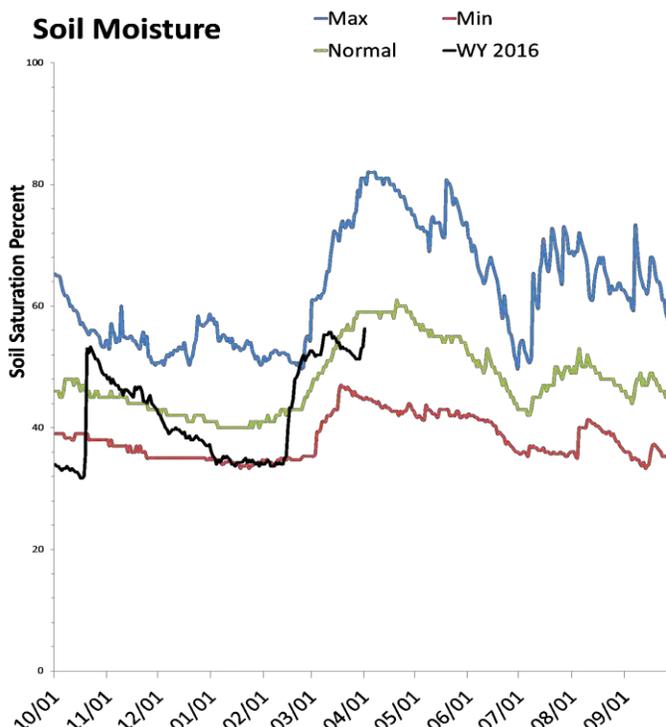
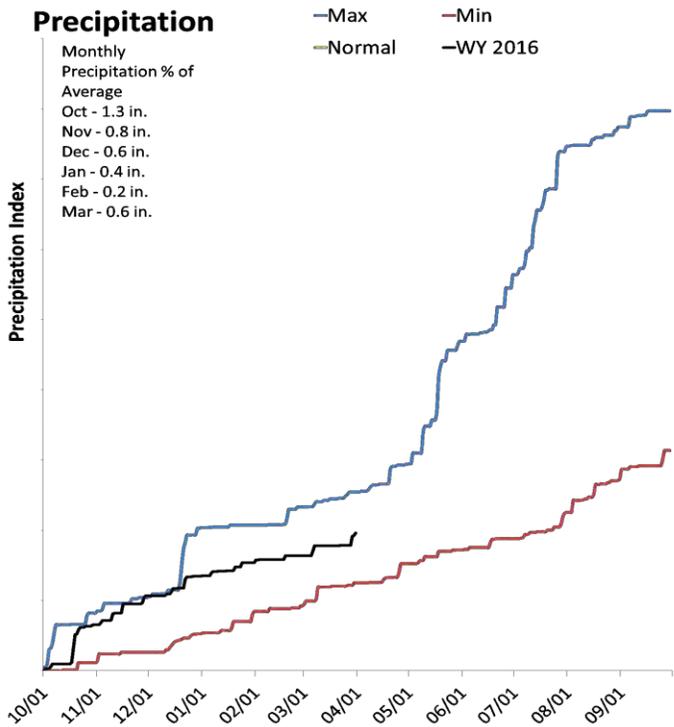
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Uintah Basin

4/1/2016

The average precipitation in March at SCAN sites within the basin was 0.6 inches, which brings the seasonal accumulation (Oct-Mar) to 3.9 inches. Soil moisture is at 54% compared to 30% last year.



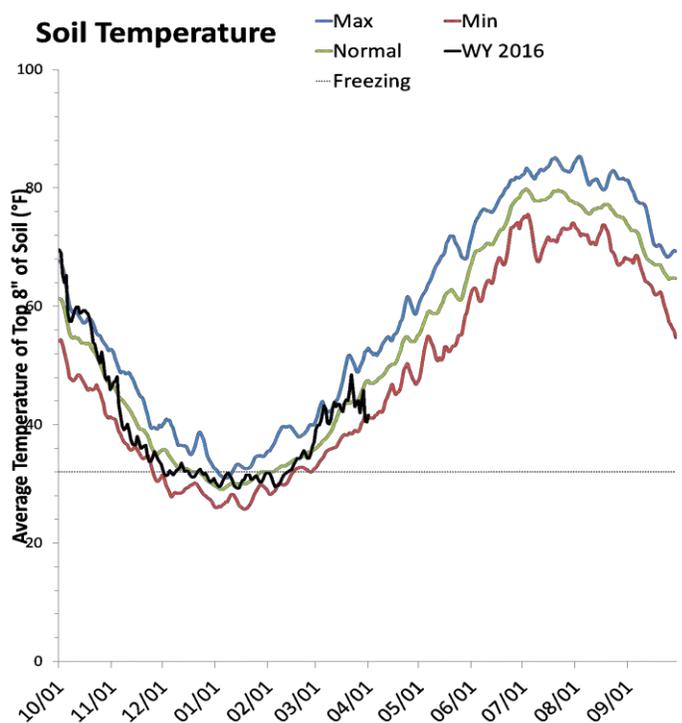
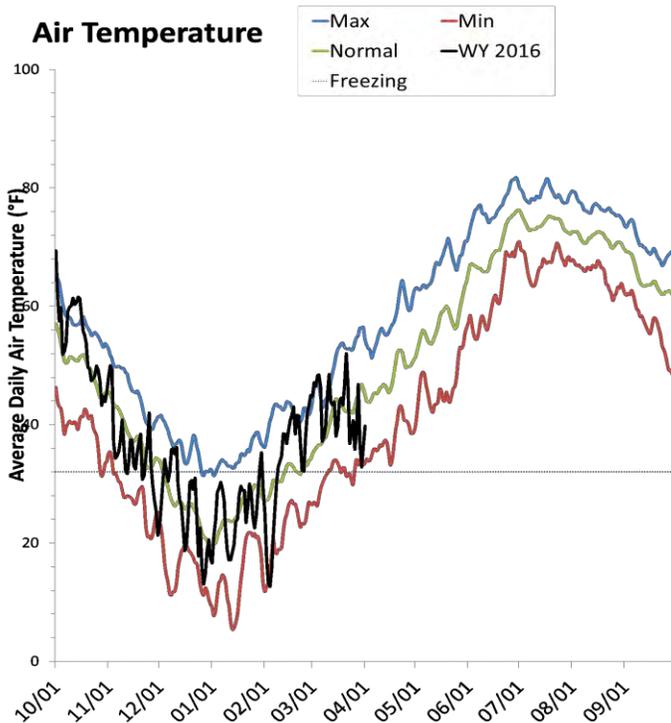
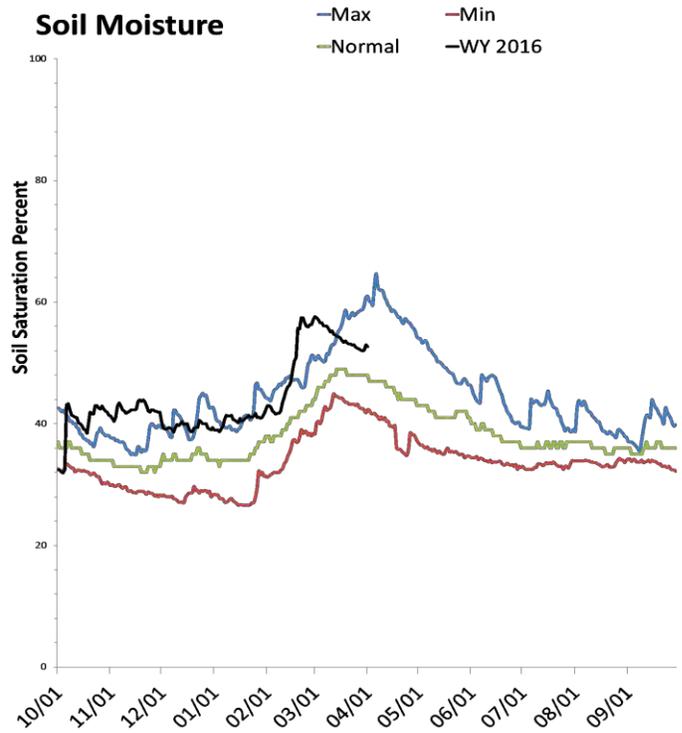
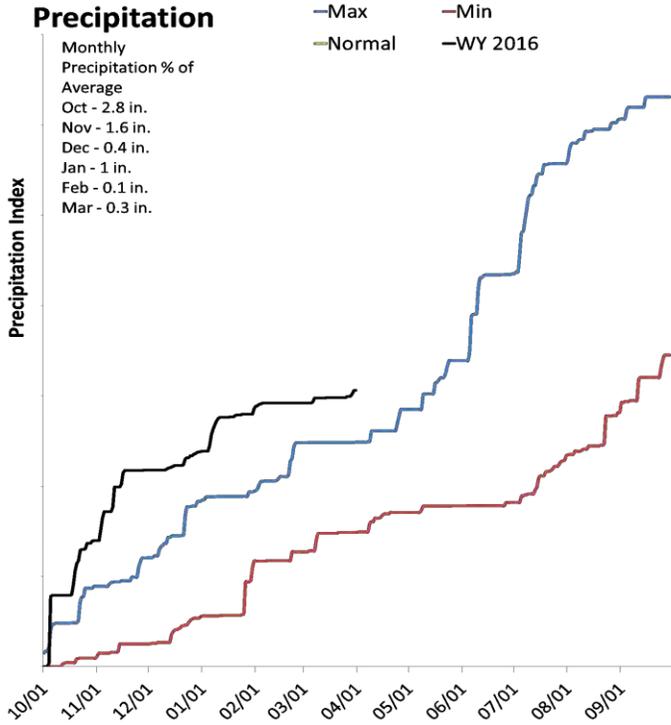
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Southeast

4/1/2016

The average precipitation in March at SCAN sites within the basin was 0.3 inches, which brings the seasonal accumulation (Oct-Mar) to 6.1 inches. Soil moisture is at 53% compared to 30% last year.



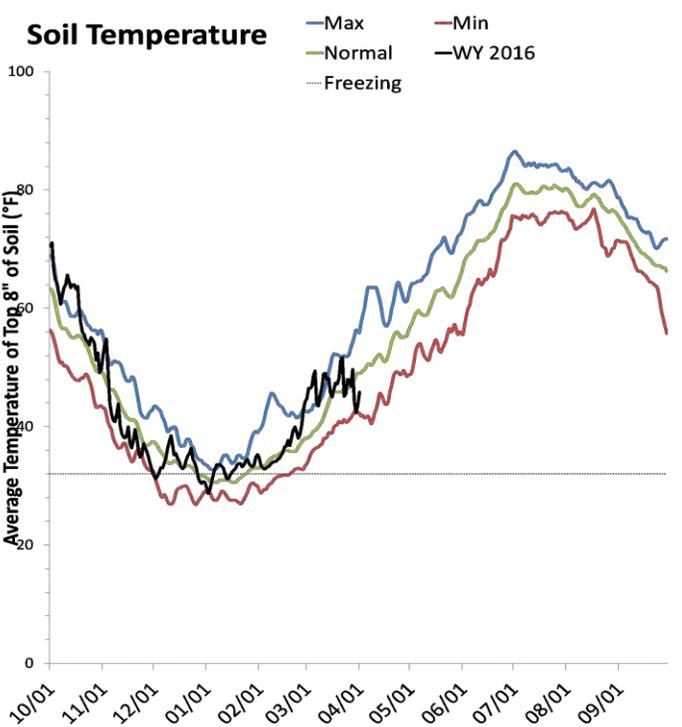
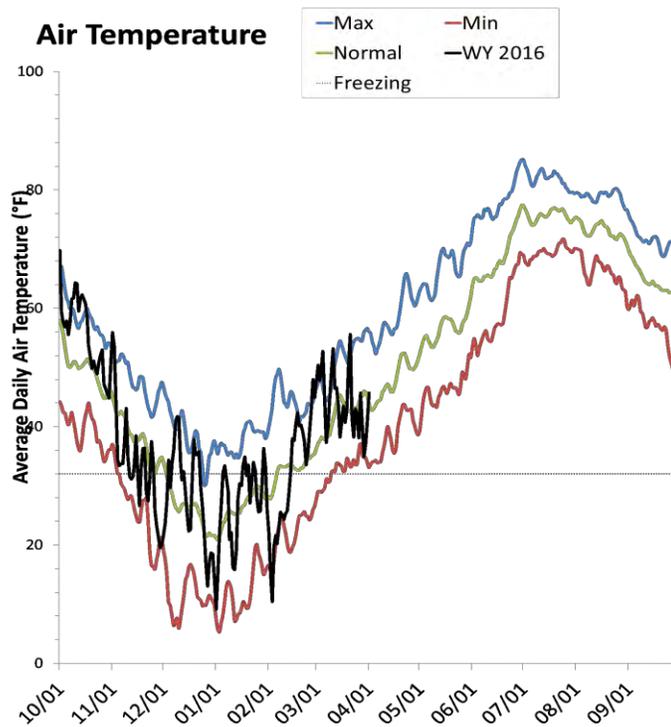
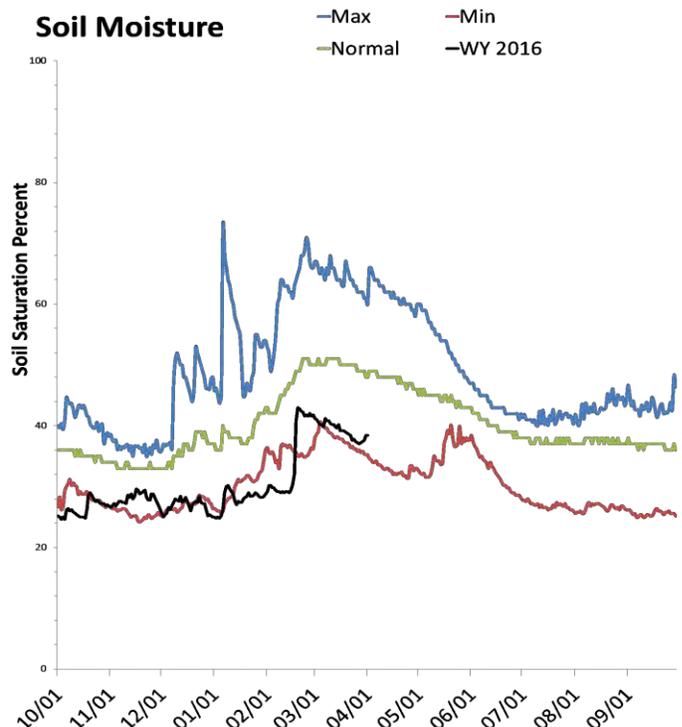
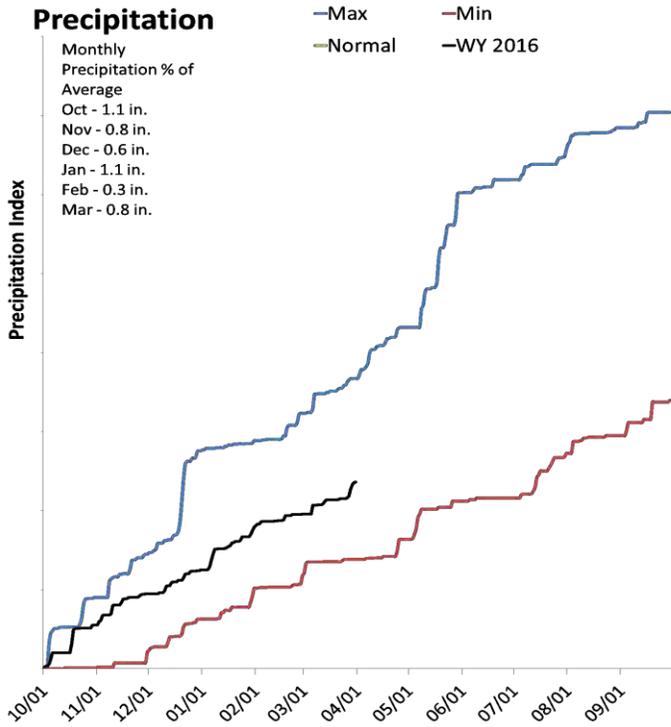
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Western and Dixie

4/1/2016

The average precipitation in March at SCAN sites within the basin was 0.8 inches, which brings the seasonal accumulation (Oct-Mar) to 4.7 inches. Soil moisture is at 39% compared to 30% last year.



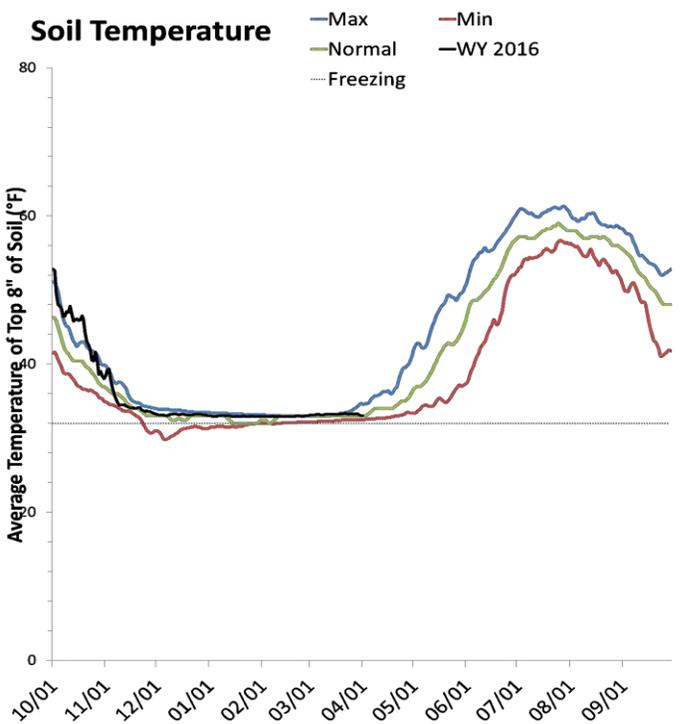
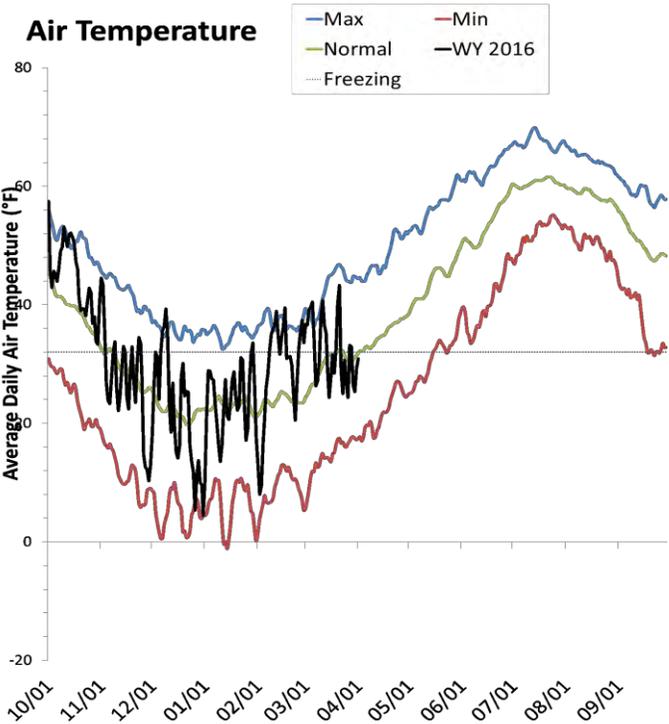
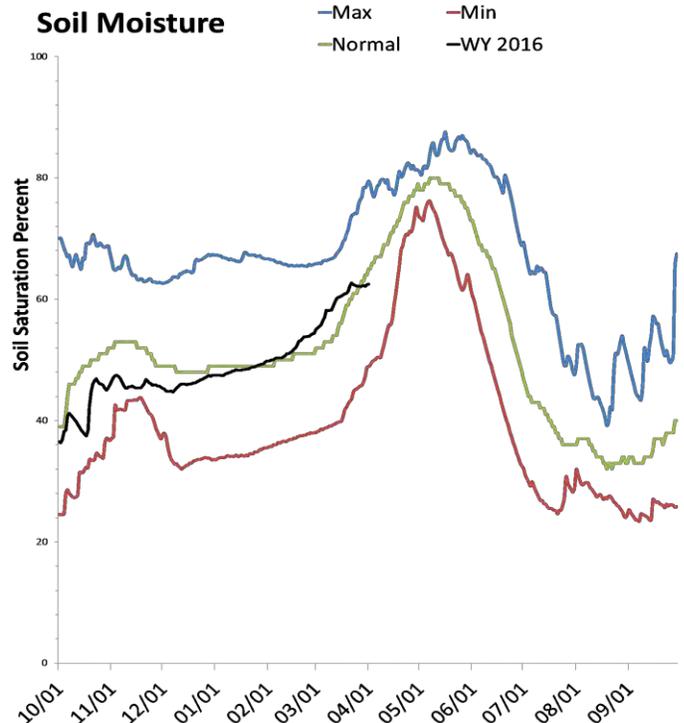
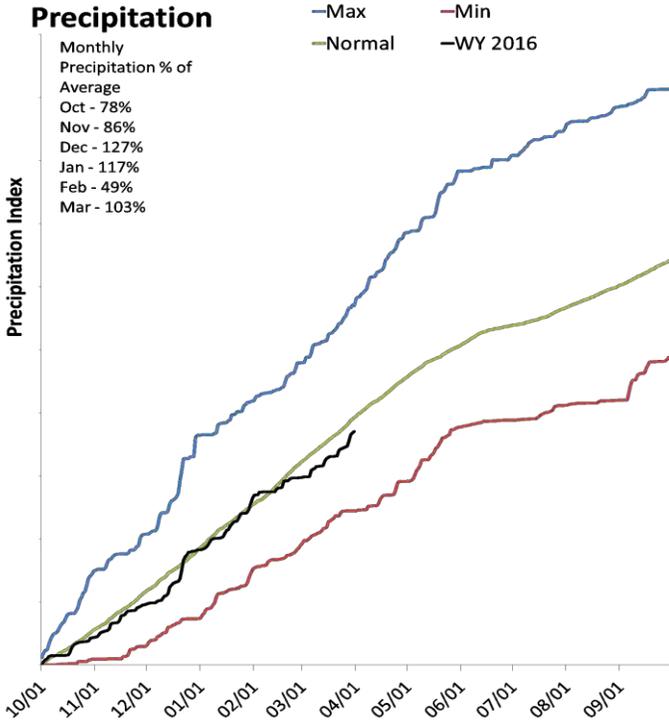
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Statewide SNOTEL

4/1/2016

Precipitation at SNOTEL sites during March was near average at 102%, which brings the seasonal accumulation (Oct-Mar) to 94% of average. Soil moisture is at 64% compared to 62% last year. Reservoir storage is at 57% of capacity, compared to 62% last year.



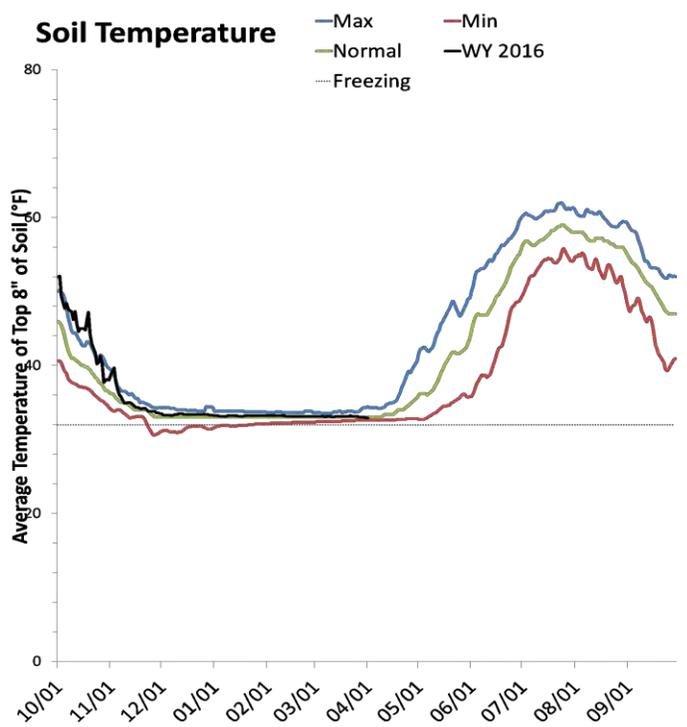
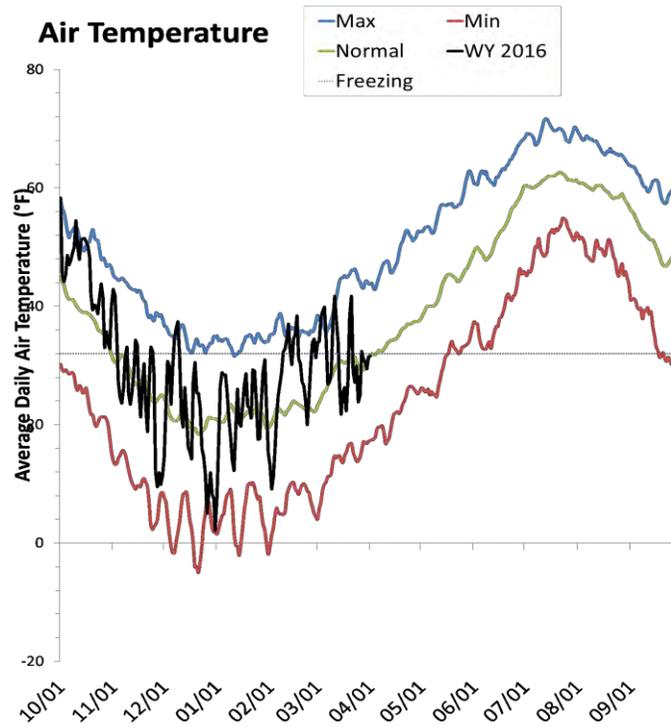
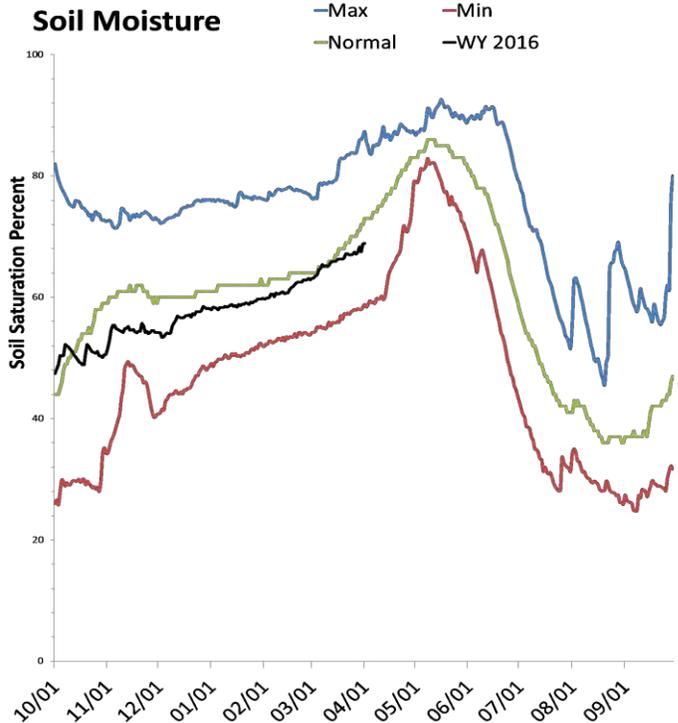
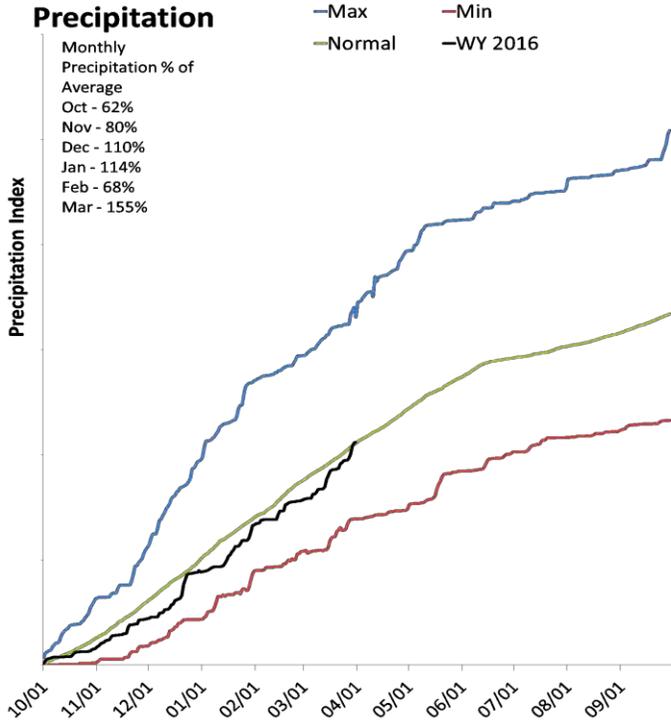
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Bear River Basin

4/1/2016

Precipitation in March was much above average at 150%, which brings the seasonal accumulation (Oct-Mar) to 100% of average. Soil moisture is at 69% compared to 67% last year. Reservoir storage is at 44% of capacity, compared to 48% last year. The water availability index for the Bear River is 43%, 59% for Woodruff Narrows and 24% for the Little Bear.



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

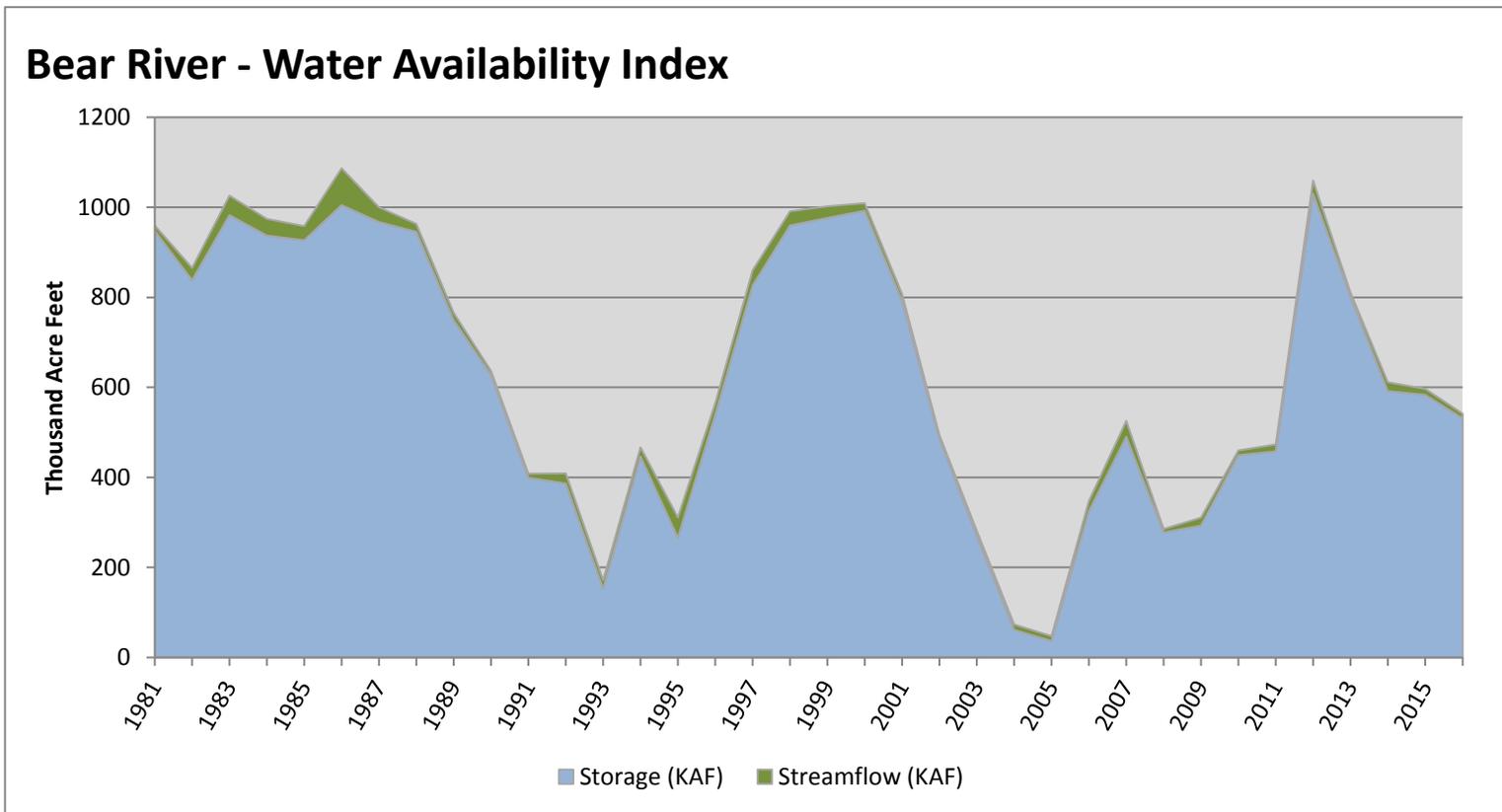
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Bear River	530.93	10.82	541.75	43	-0.56	02, 07, 96, 15

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

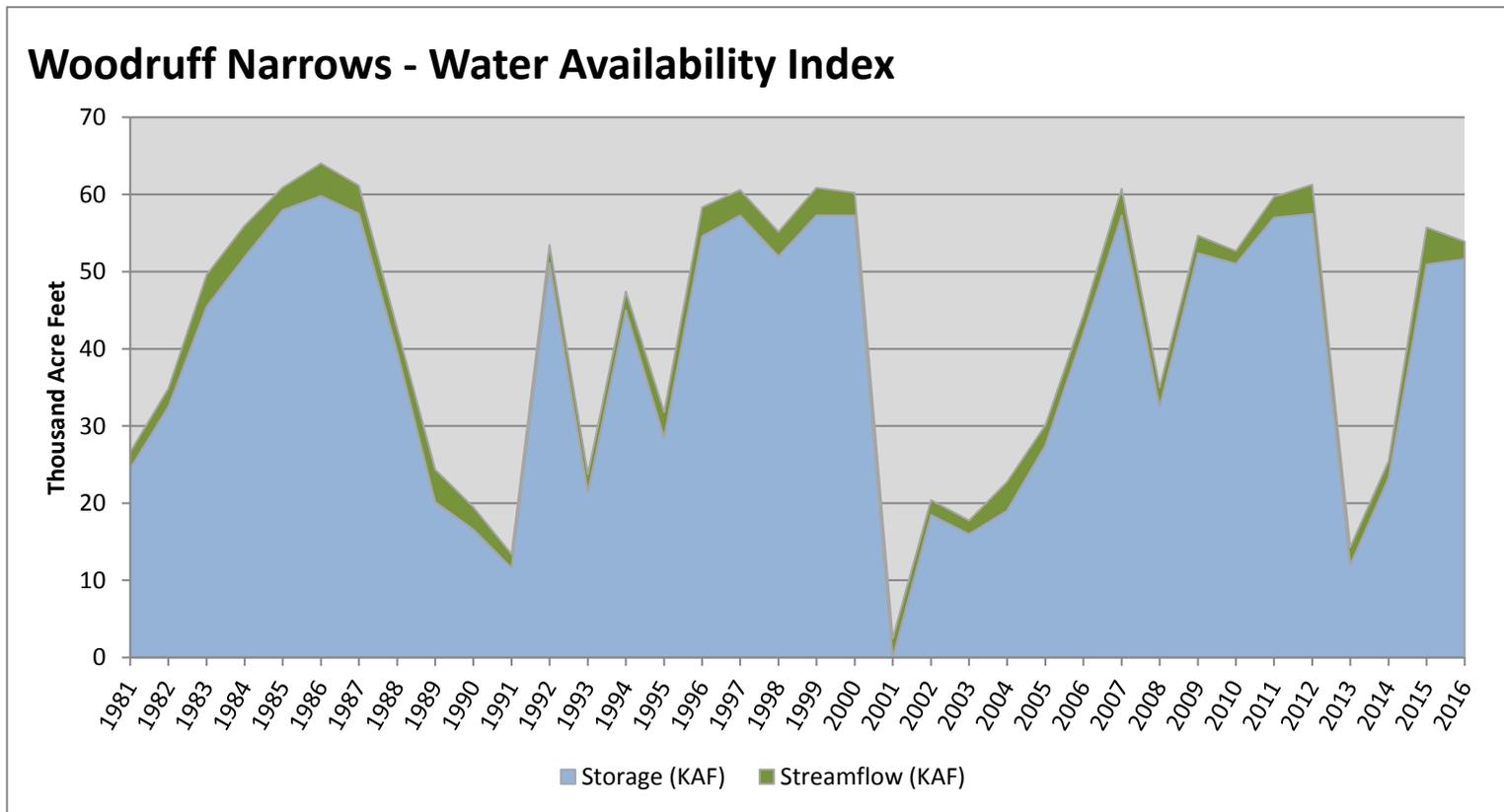


April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Woodruff Narrows	51.64	2.26	53.90	59	0.79	10, 92, 09, 98

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

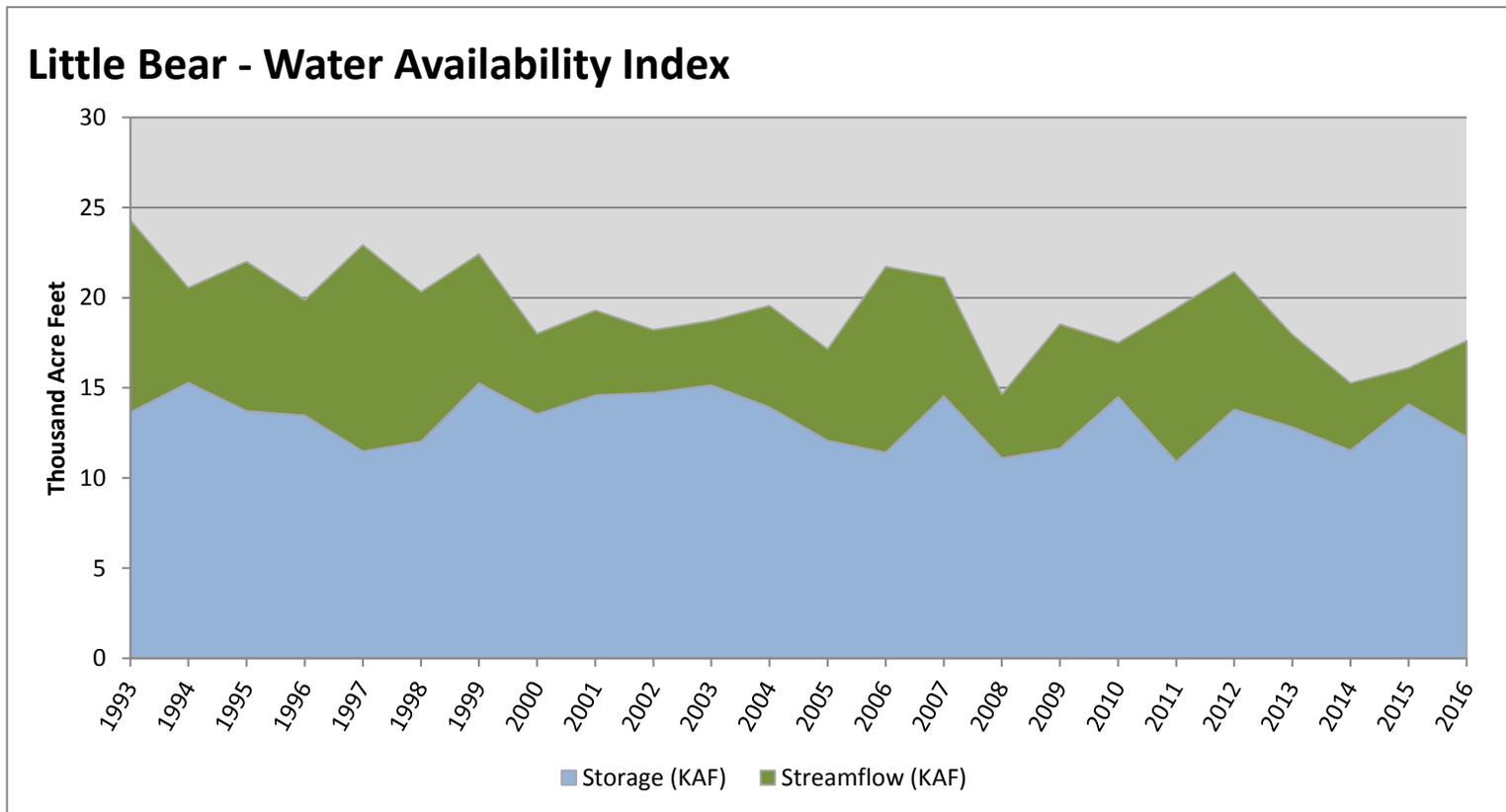


April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Little Bear	12.26	5.35	17.61	24	-2.17	05, 10, 13, 00

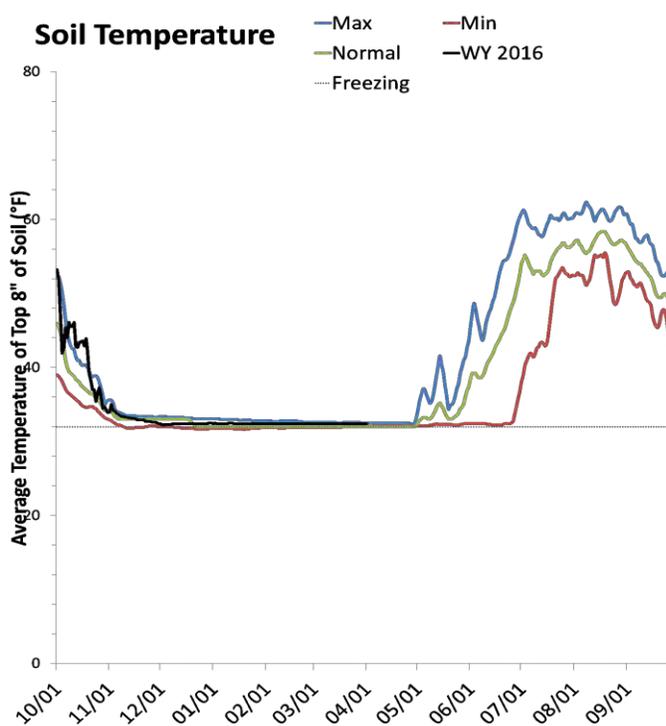
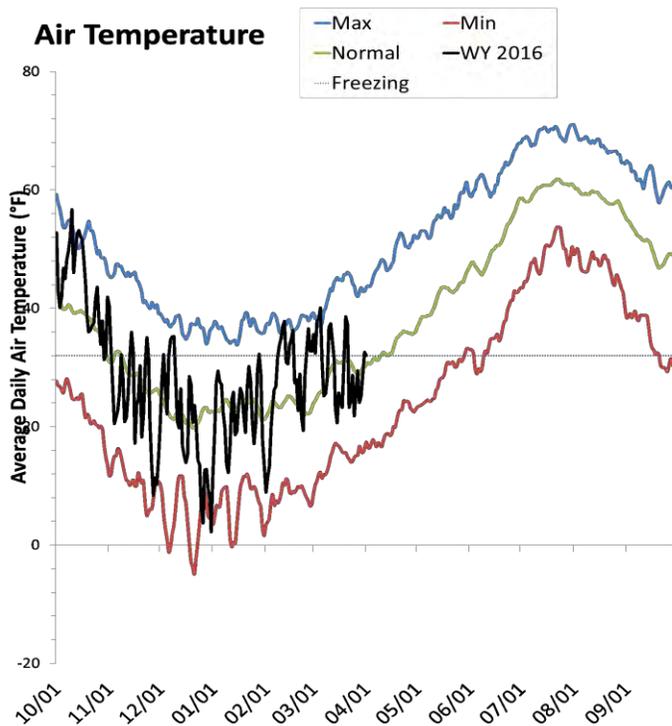
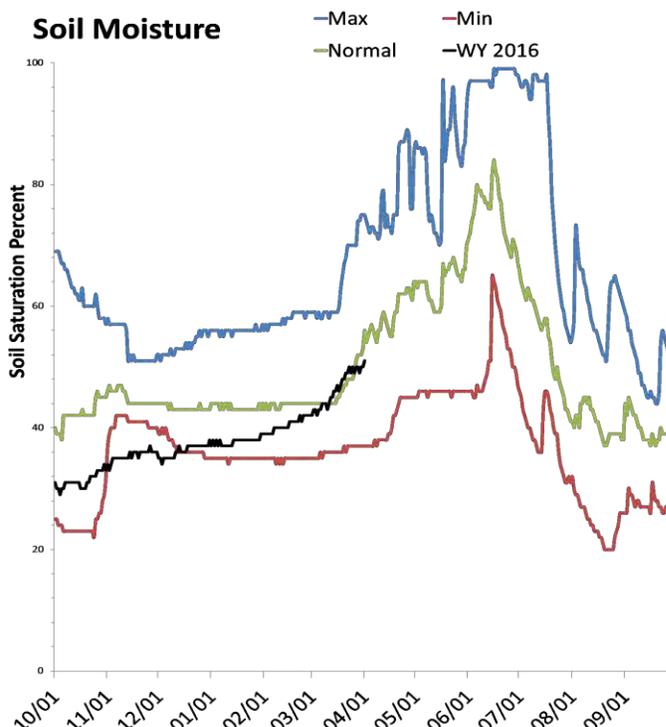
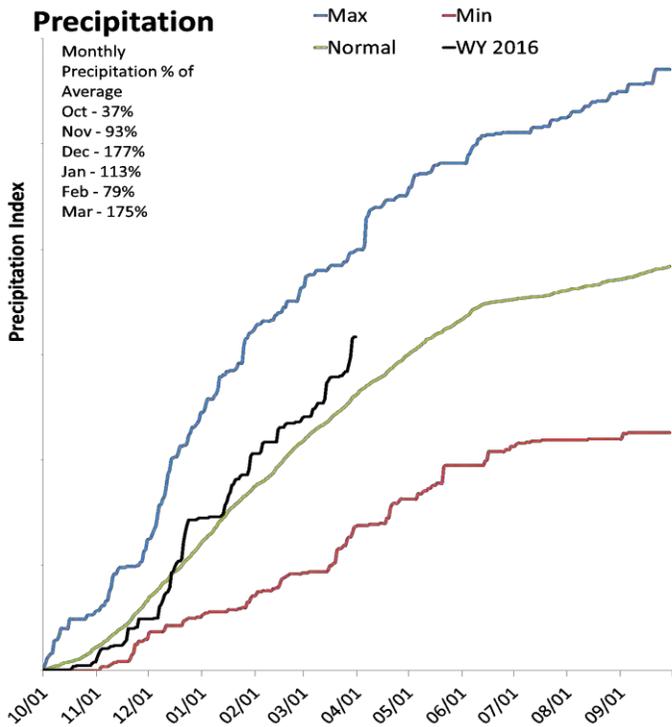
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Raft River Basin

4/1/2016

Precipitation in March was much above average at 175%, which brings the seasonal accumulation (Oct-Mar) to 121% of average. Soil moisture is at 50% compared to 30% last year.



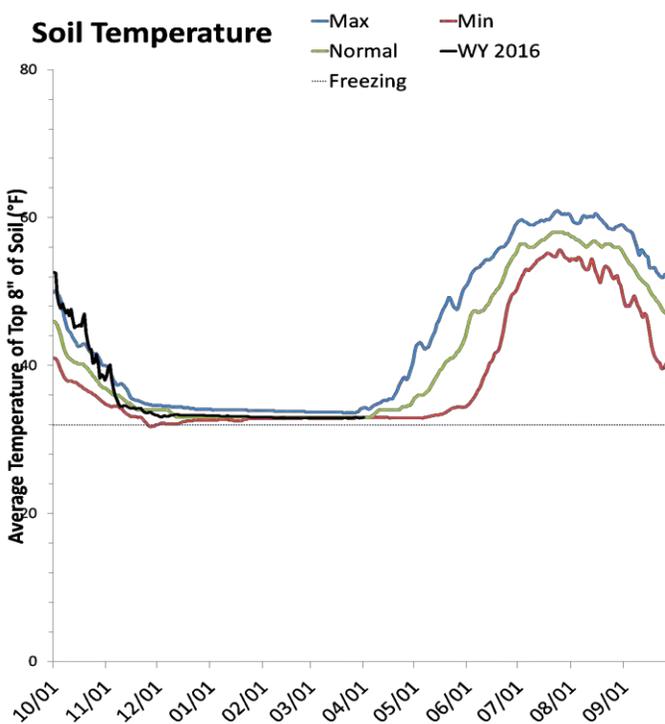
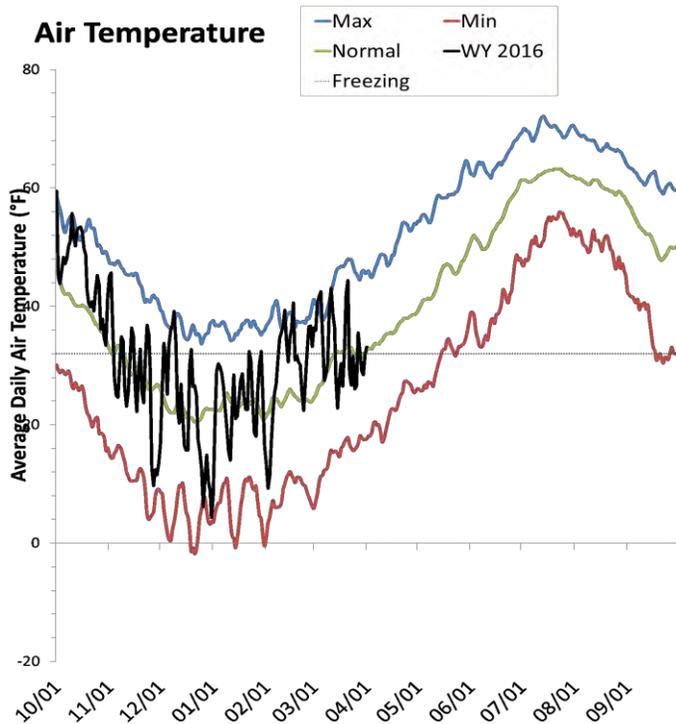
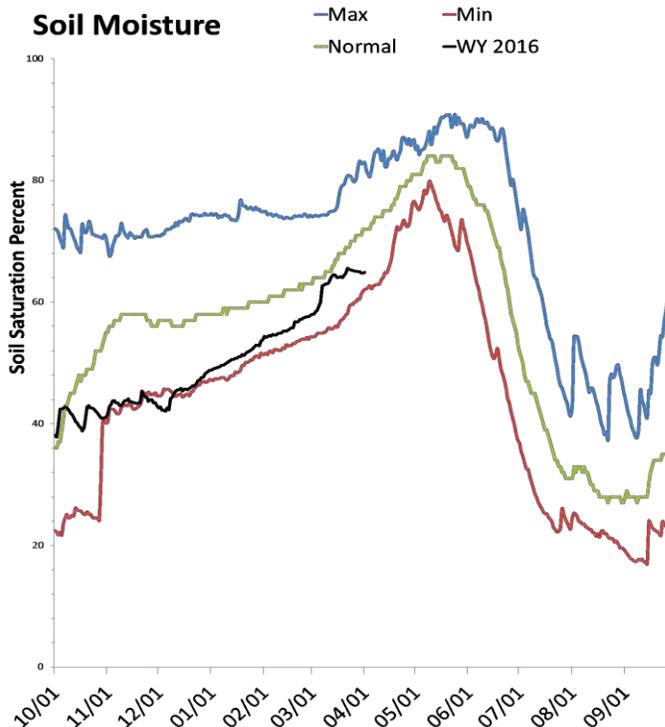
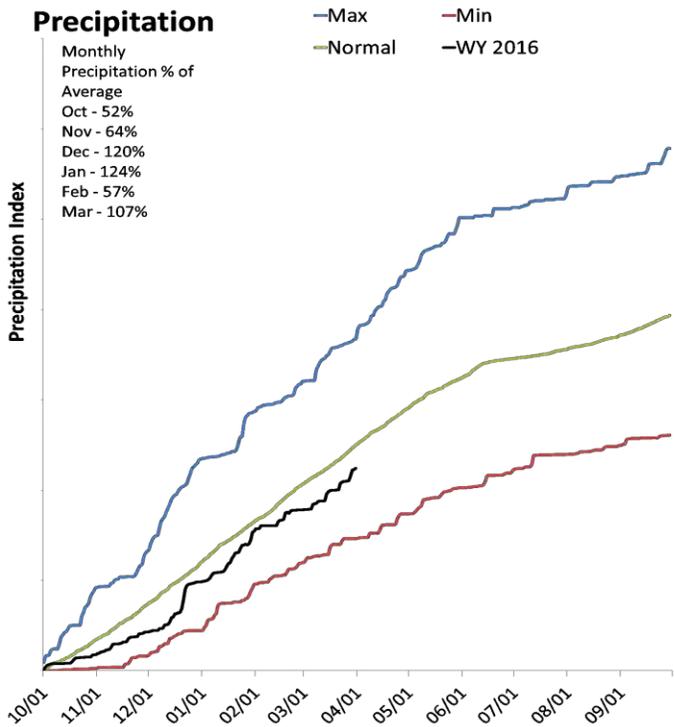
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Weber & Ogden River Basins

4/1/2016

Precipitation in March was near average at 106%, which brings the seasonal accumulation (Oct-Mar) to 90% of average. Soil moisture is at 65% compared to 66% last year. Reservoir storage is at 53% of capacity, compared to 50% last year. The water availability index for the Ogden River is 78% and 26% for the Weber River.



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

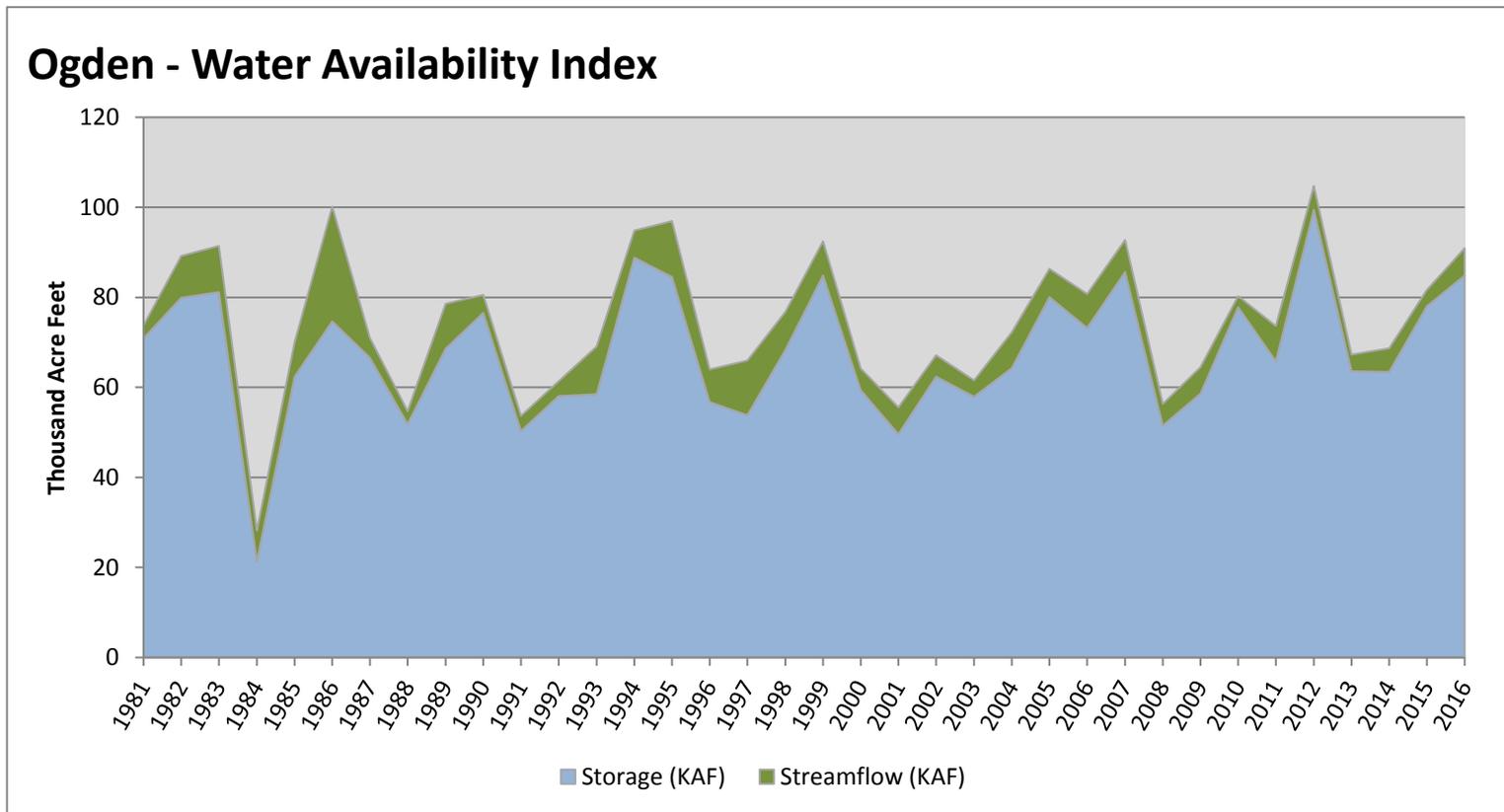
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Ogden	84.86	6.07	90.93	78	2.36	05, 82, 83, 99

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

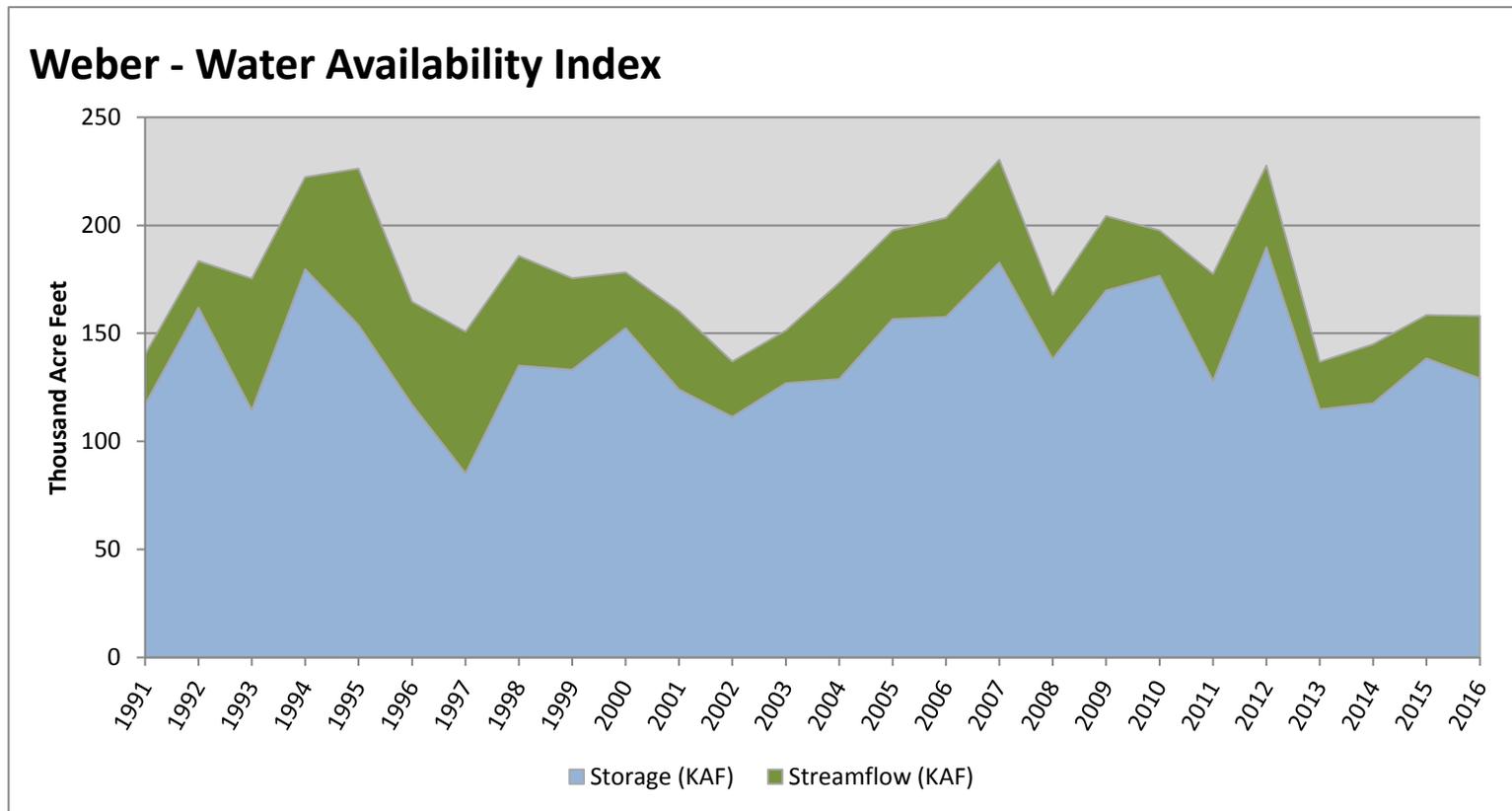


April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Weber	129.05	29.00	158.05	26	-2.01	97, 03, 15, 01

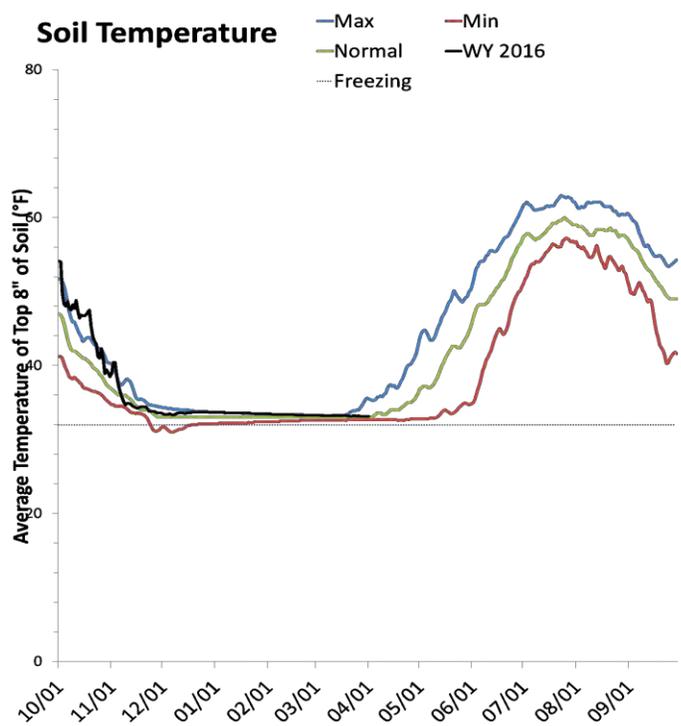
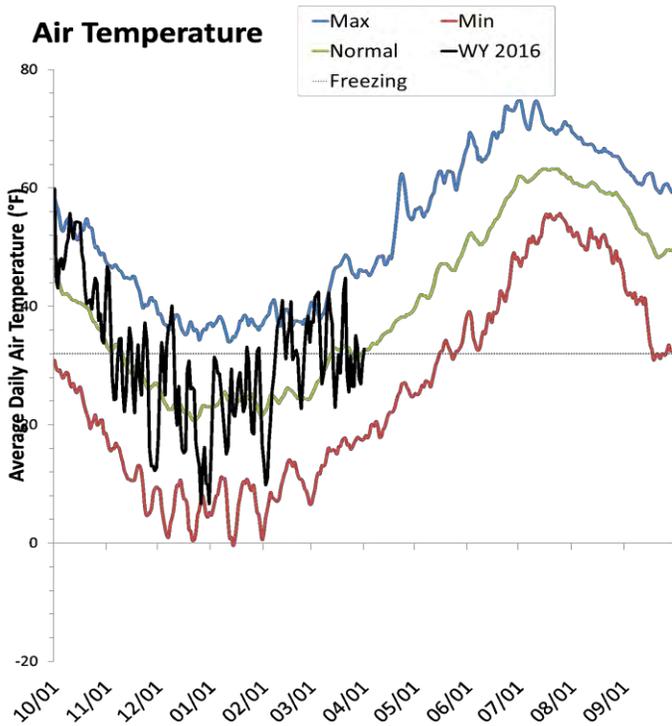
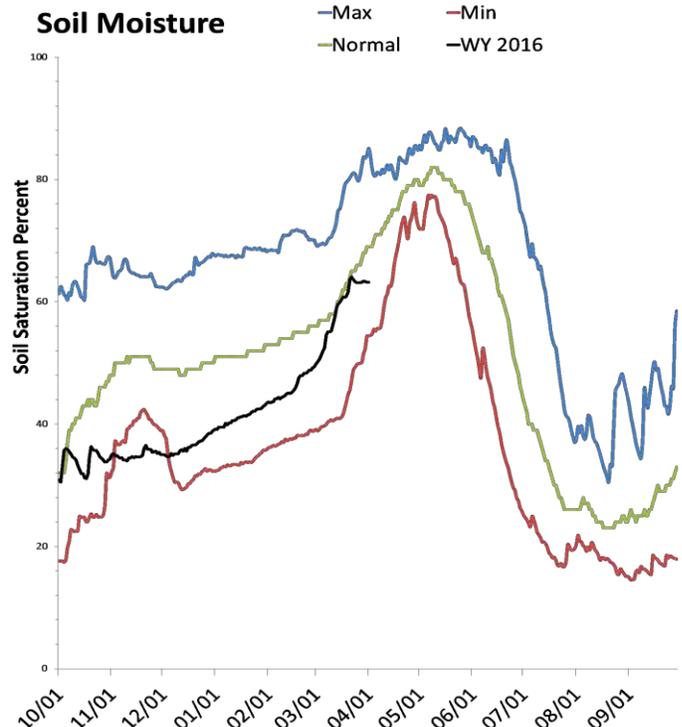
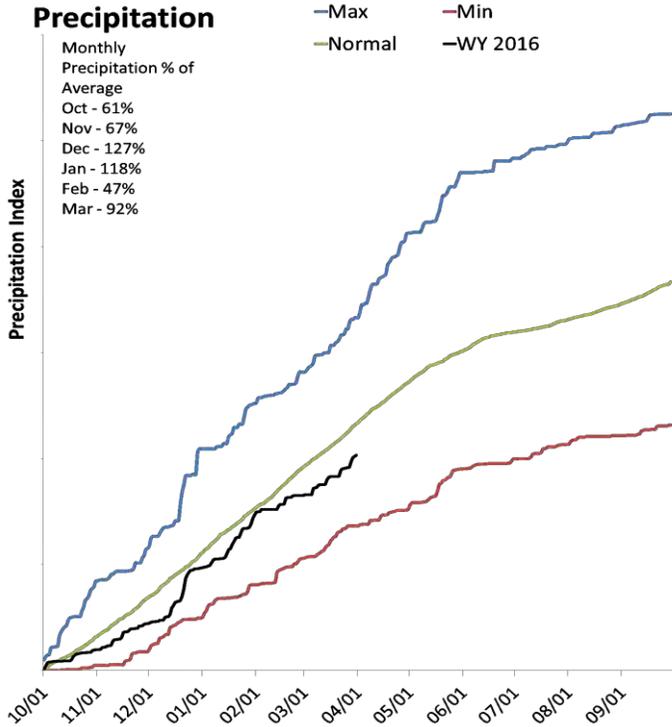
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Provo & Jordan River Basins

4/1/2016

Precipitation in March was near average at 92%, which brings the seasonal accumulation (Oct-Mar) to 87% of average. Soil moisture is at 63% compared to 70% last year. Reservoir storage is at 66% of capacity, compared to 72% last year. The water availability index for the Provo River is 18%.



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

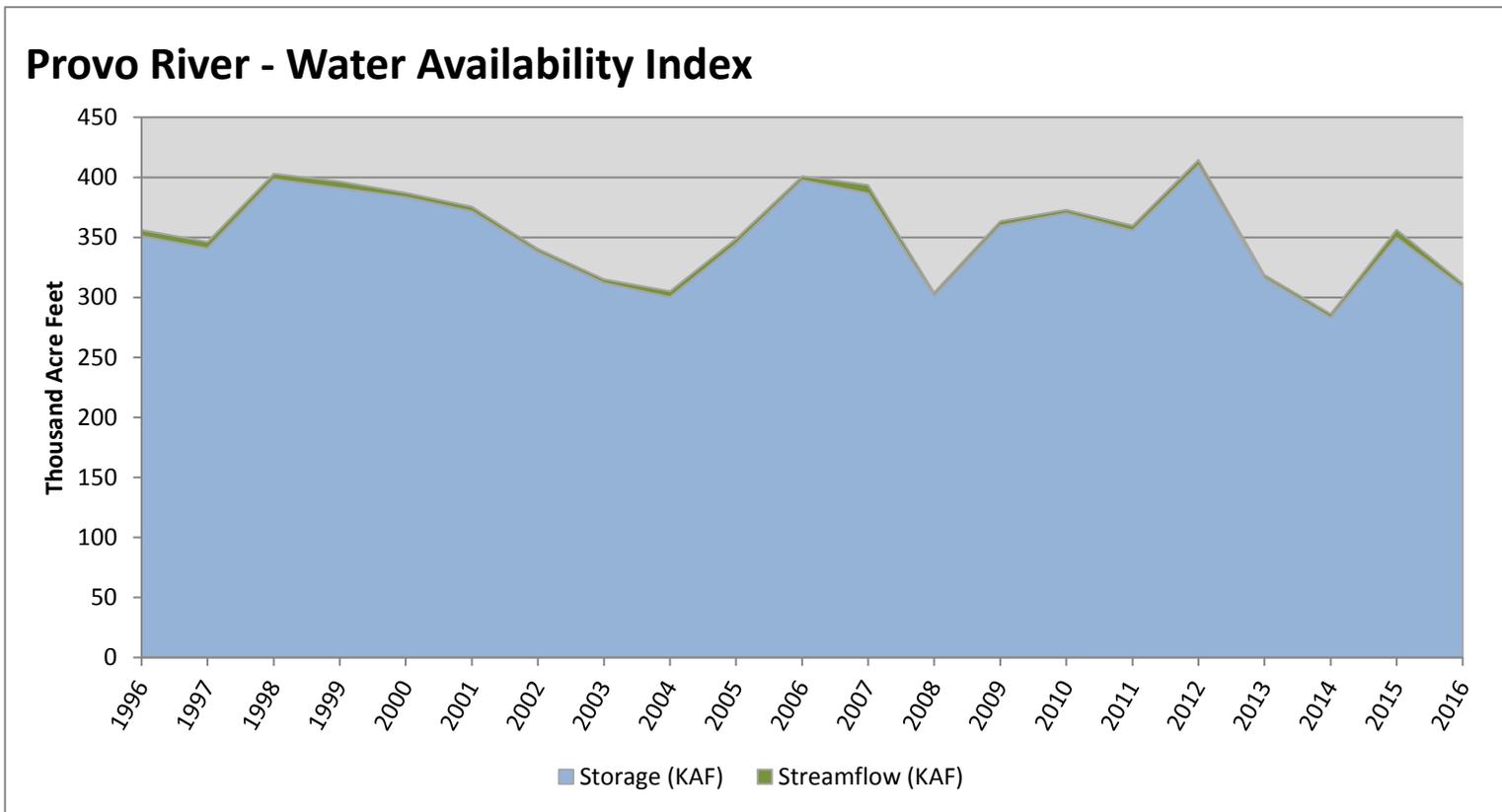
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Provo River	308.32	3.37	311.69	18	-2.65	08, 04, 03, 13

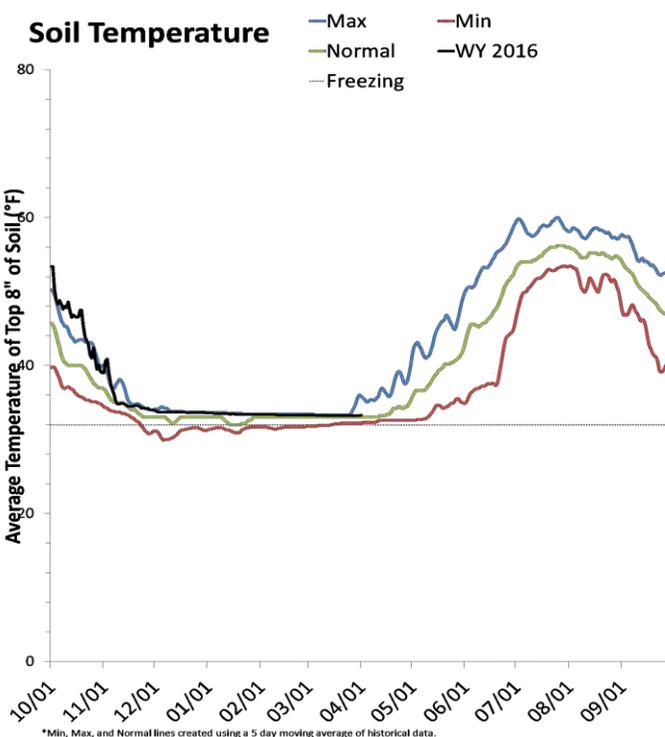
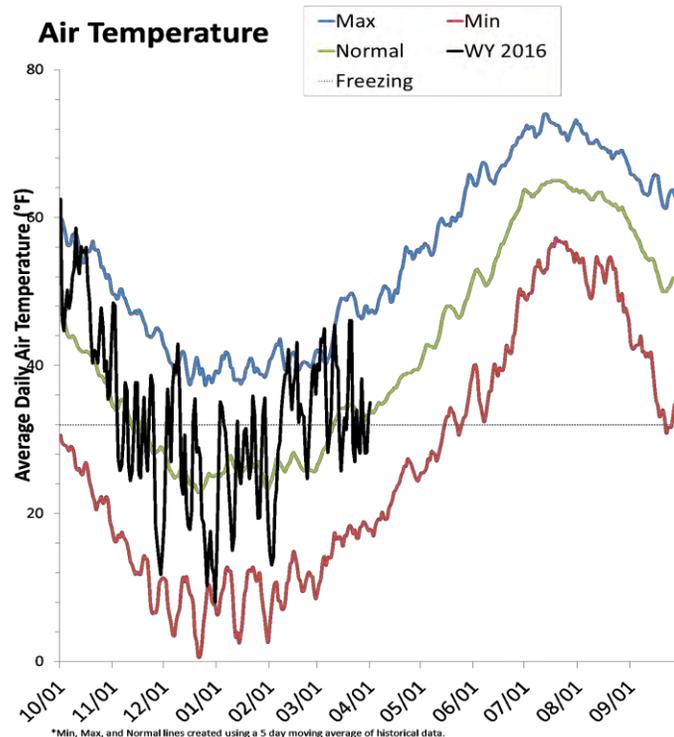
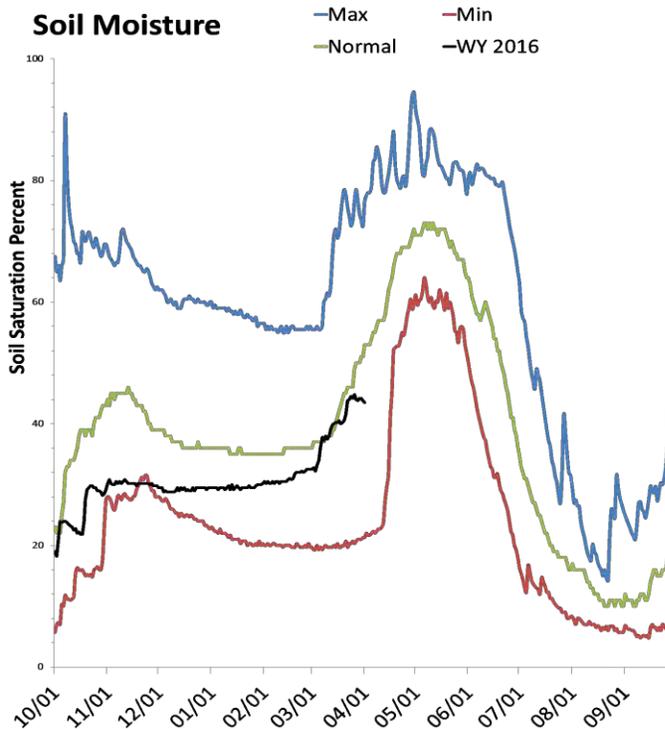
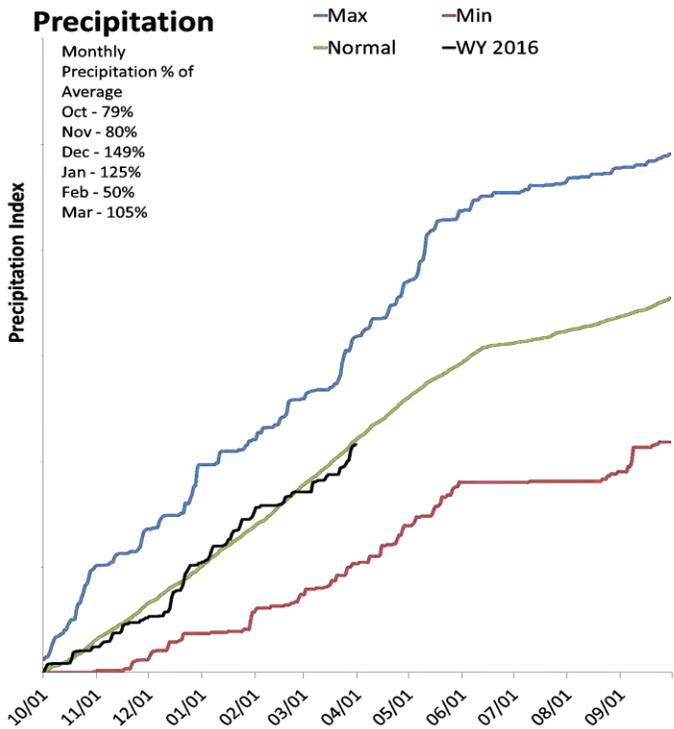
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Tooele & Vernon Creek Basins

4/1/2016

Precipitation in March was near average at 106%, which brings the seasonal accumulation (Oct-Mar) to 98% of average. Soil moisture is at 44% compared to 51% last year. Reservoir storage is at 68% of capacity, compared to 50% last year.



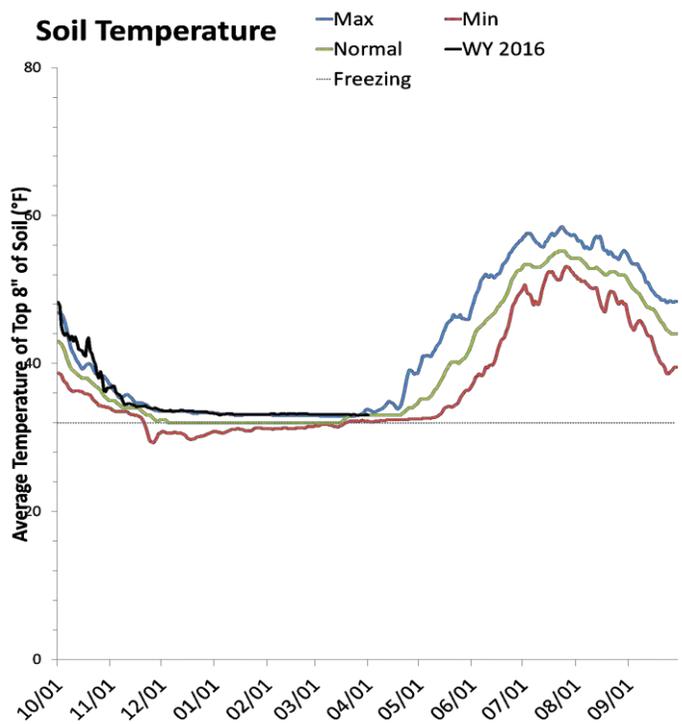
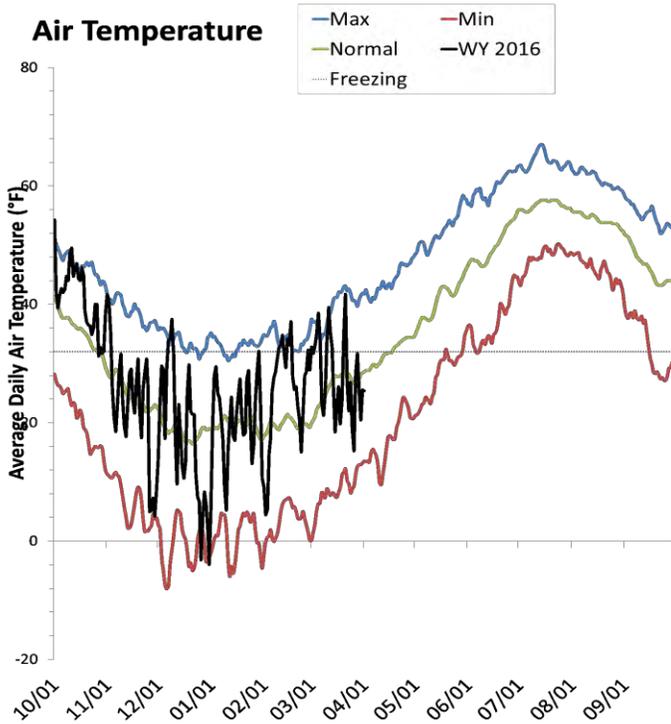
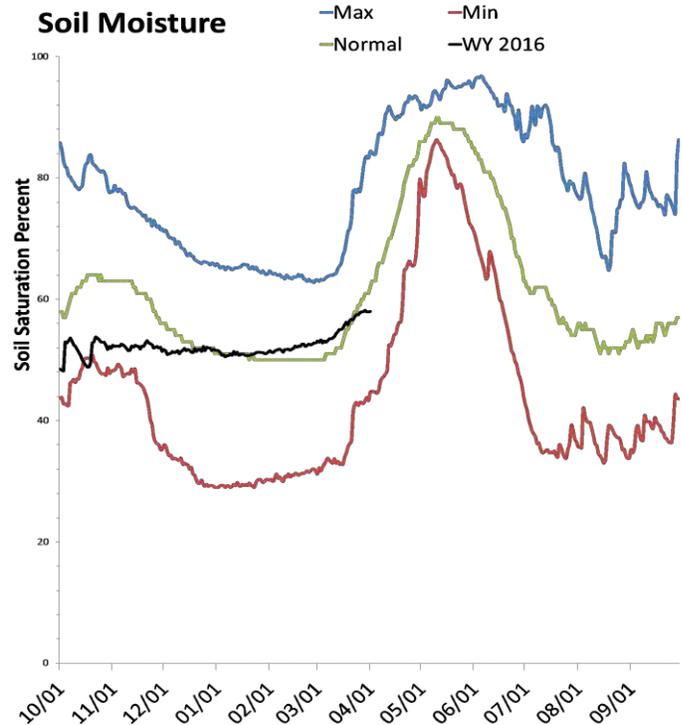
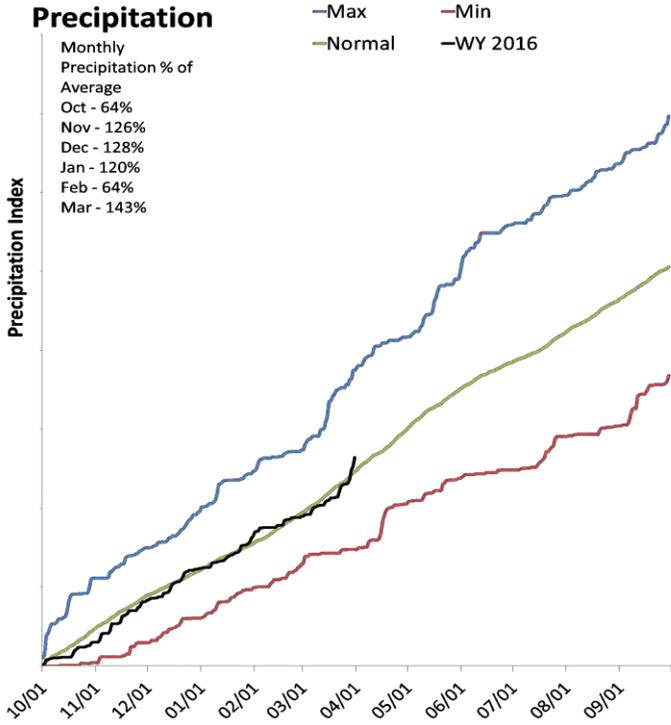
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Northeastern Uintah Basin

4/1/2016

Precipitation in March was much above average at 142%, which brings the seasonal accumulation (Oct-Mar) to 107% of average. Soil moisture is at 62% compared to 60% last year. Reservoir storage is at 84% of capacity, compared to 84% last year. The Water Availability Index for Blacks Fork is 29% and 61% for Smiths Creek.



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

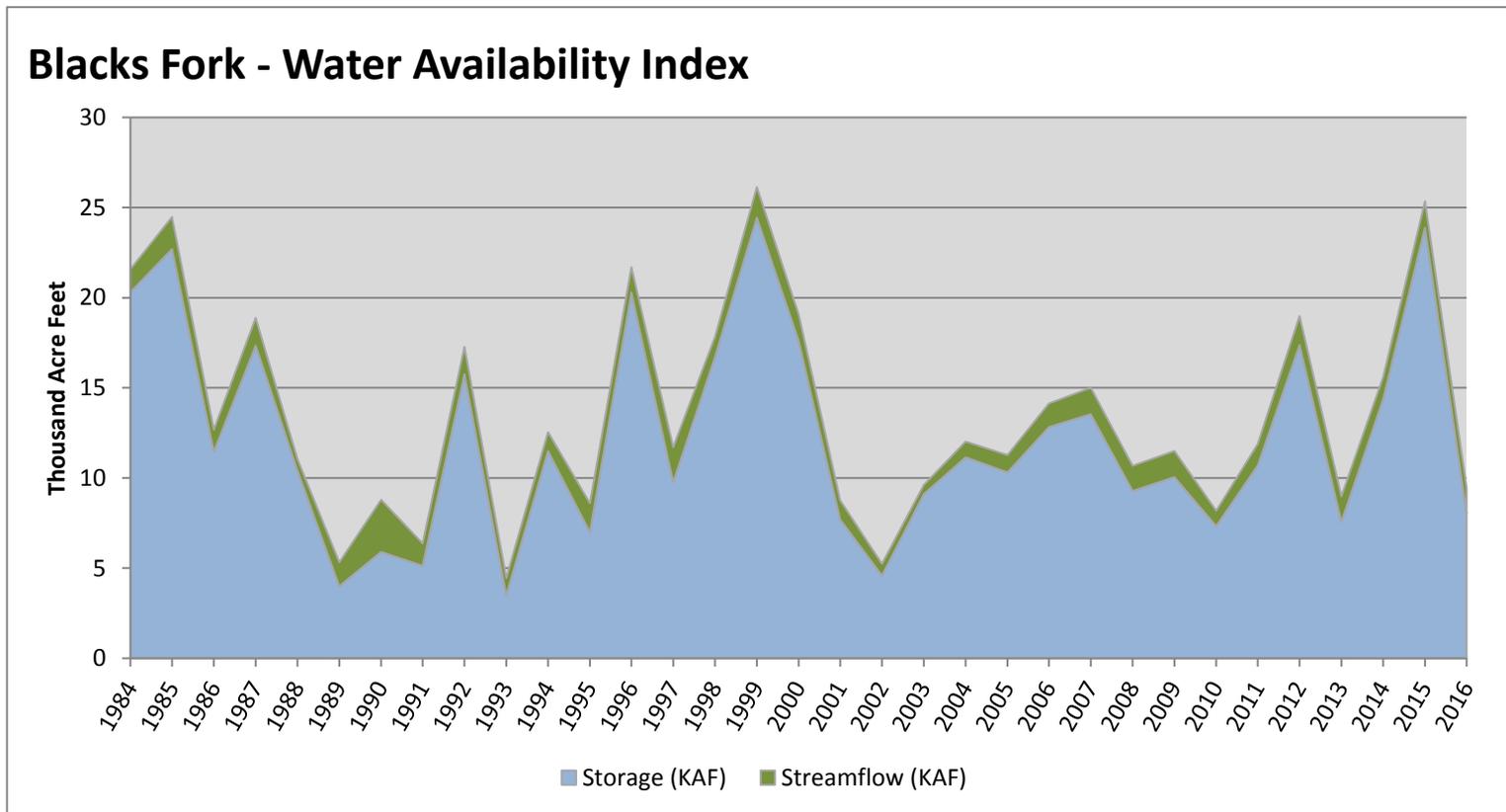
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

March 1, 2016

Water Availability Index

Basin or Region	Feb EOM [*] Storage	February Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Blacks Fork	8.02	1.43	9.45	29	-1.72	90, 13, 03, 08

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

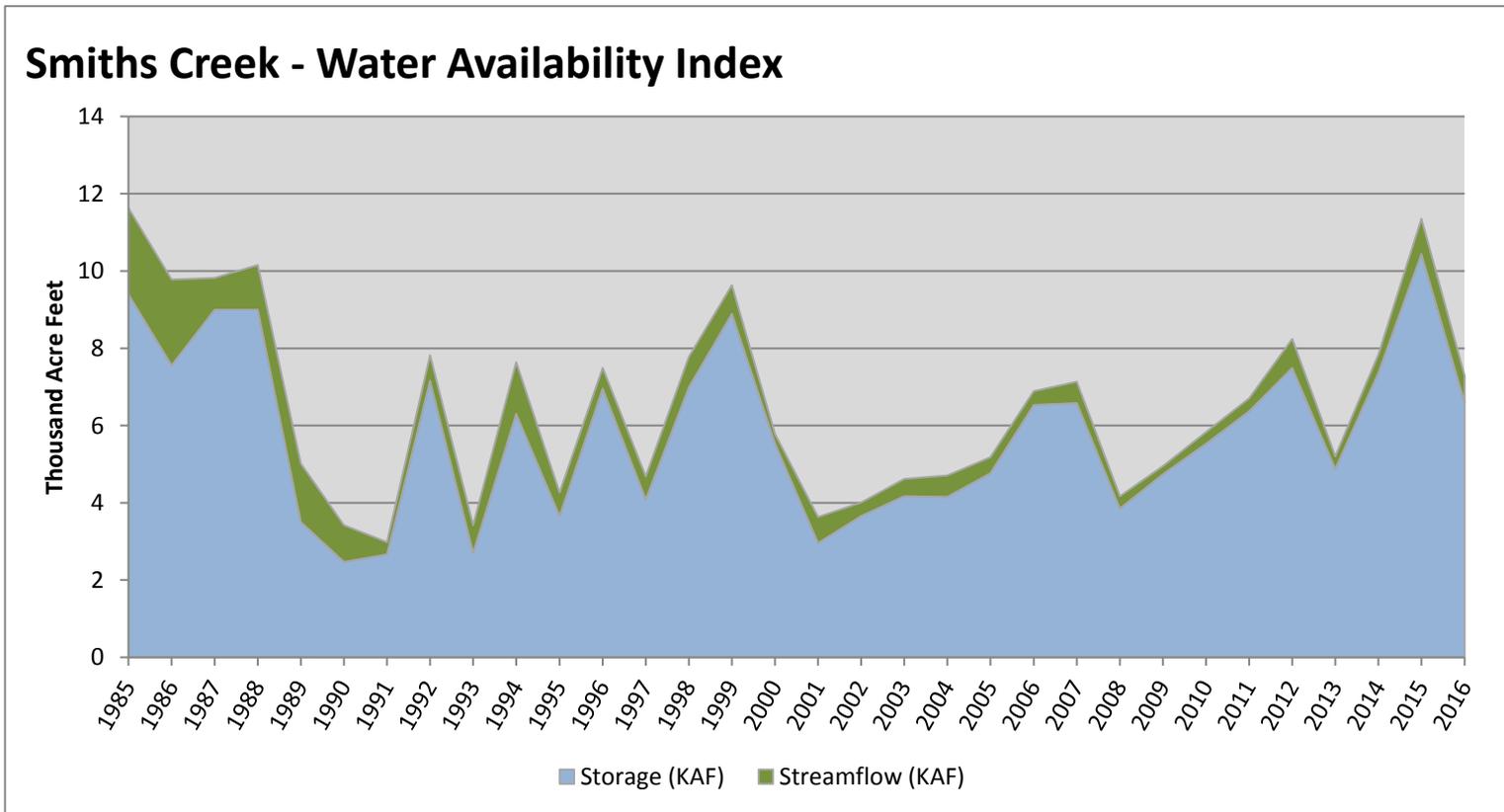


April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Smiths Creek	6.59	0.70	7.29	61	0.88	06, 07, 96, 94

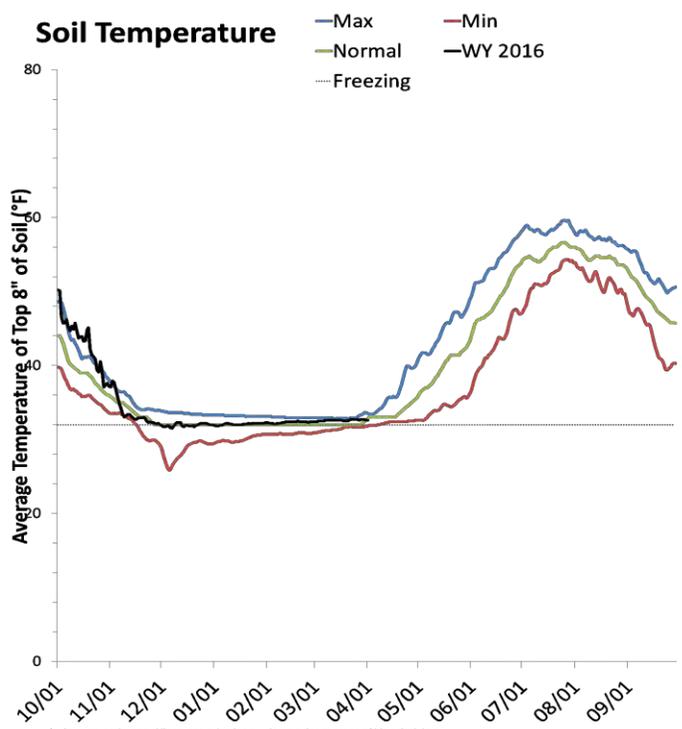
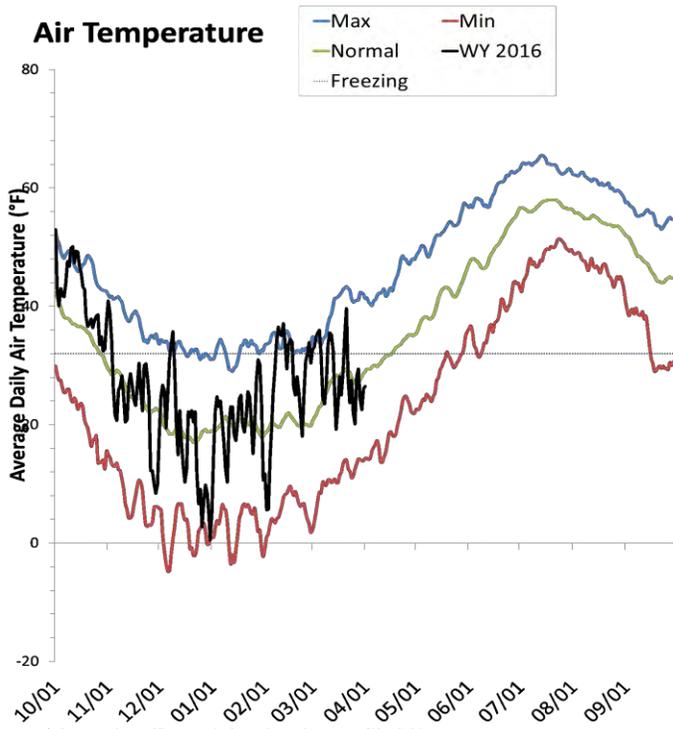
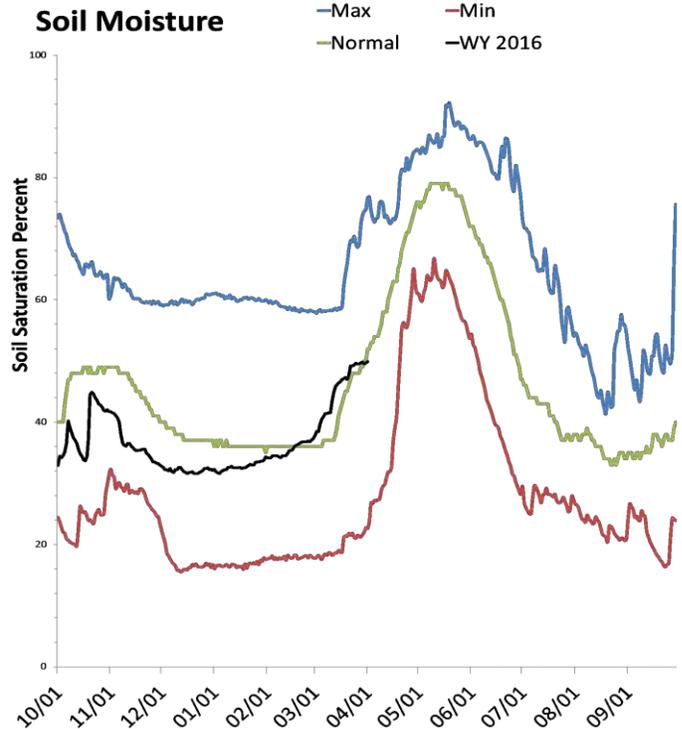
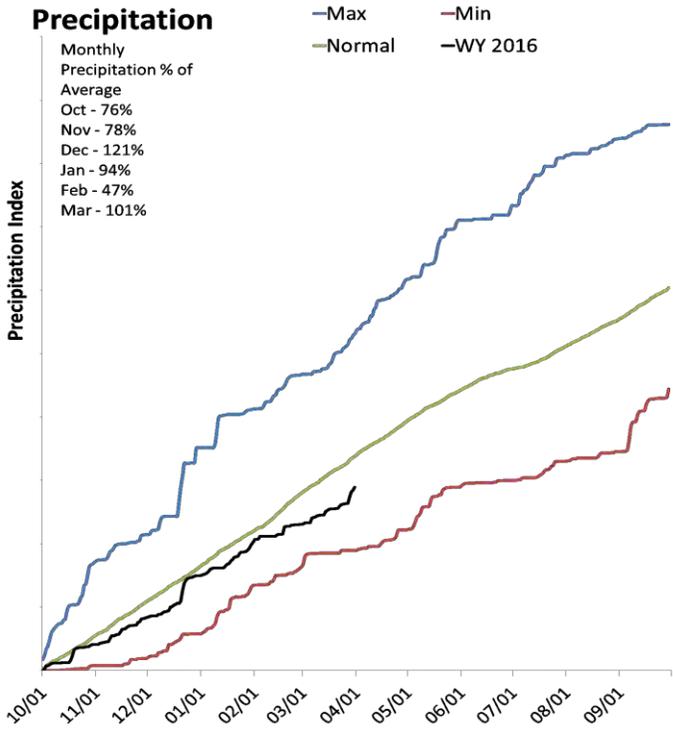
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Duchesne River Basin

4/1/2016

Precipitation in March was near average at 101%, which brings the seasonal accumulation (Oct-Mar) to 85% of average. Soil moisture is at 56% compared to 44% last year. Reservoir storage is at 73% of capacity, compared to 77% last year. The water availability index for the Western Uintahs is 70% and 30% for the Eastern Uintahs.



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

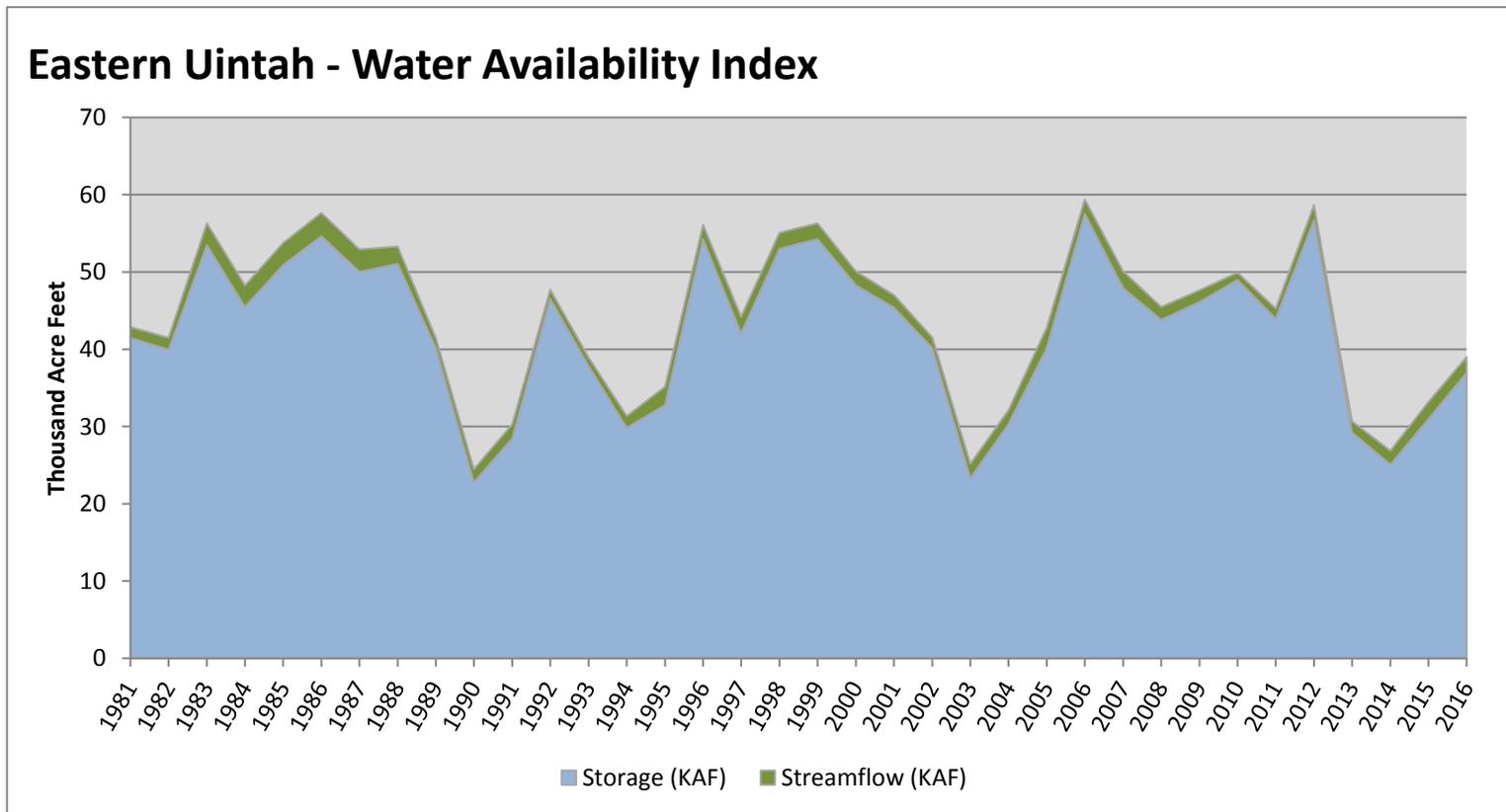
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Eastern Uintah	36.98	2.03	39.01	30	-1.69	95, 93, 89, 82

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

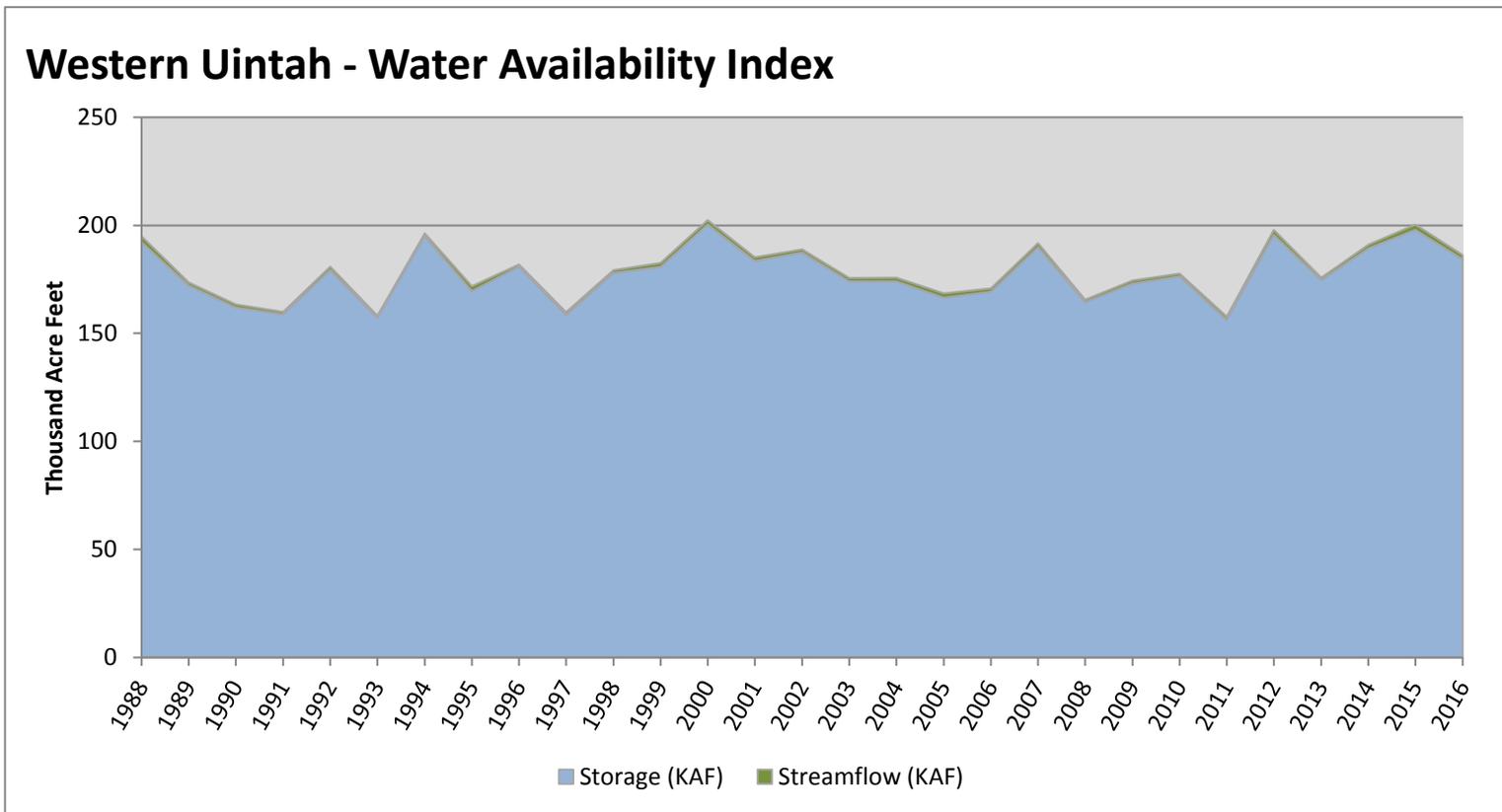


April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Western Uintah	184.28	2.00	186.28	70	1.67	99, 01, 02, 14

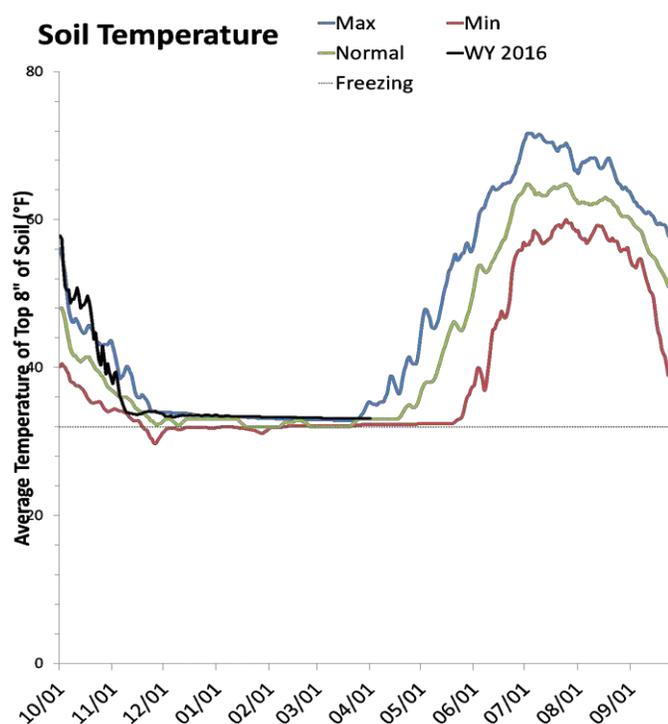
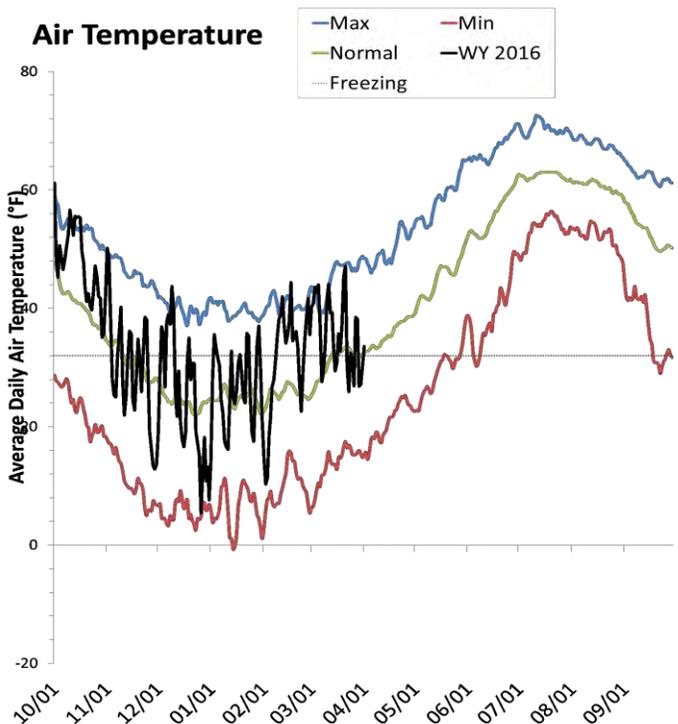
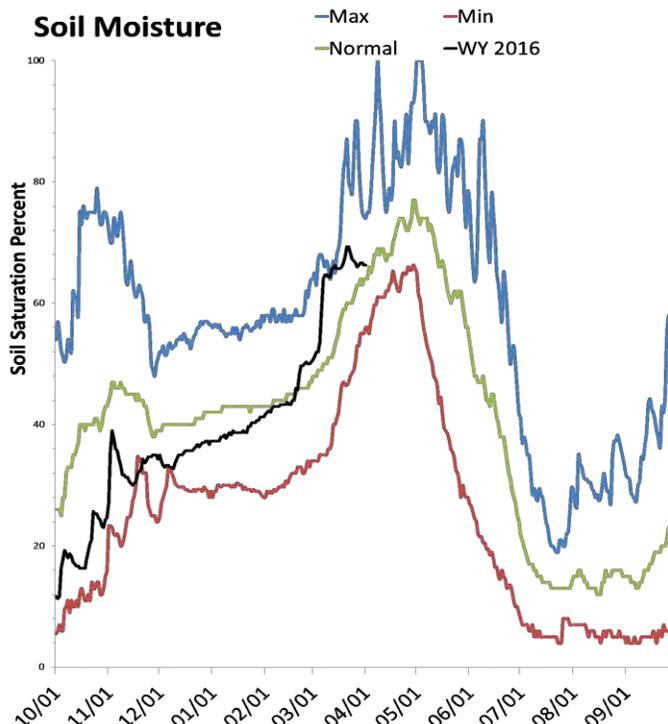
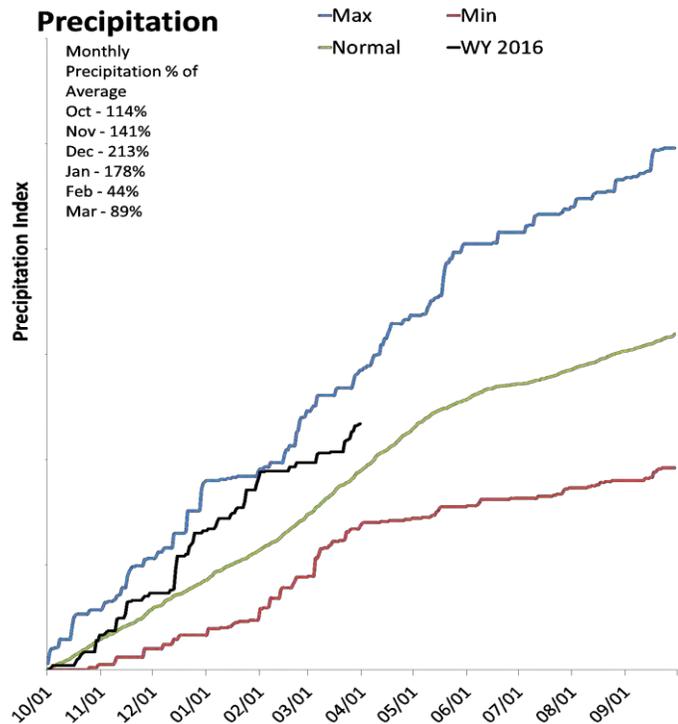
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Lower Sevier River Basin

4/1/2016

Precipitation in March was below average at 88%, which brings the seasonal accumulation (Oct-Mar) to 124% of average. Soil moisture is at 66% compared to 59% last year. Reservoir storage is at 45% of capacity, compared to 50% last year. The water availability index for the Lower Sevier is 11%.



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

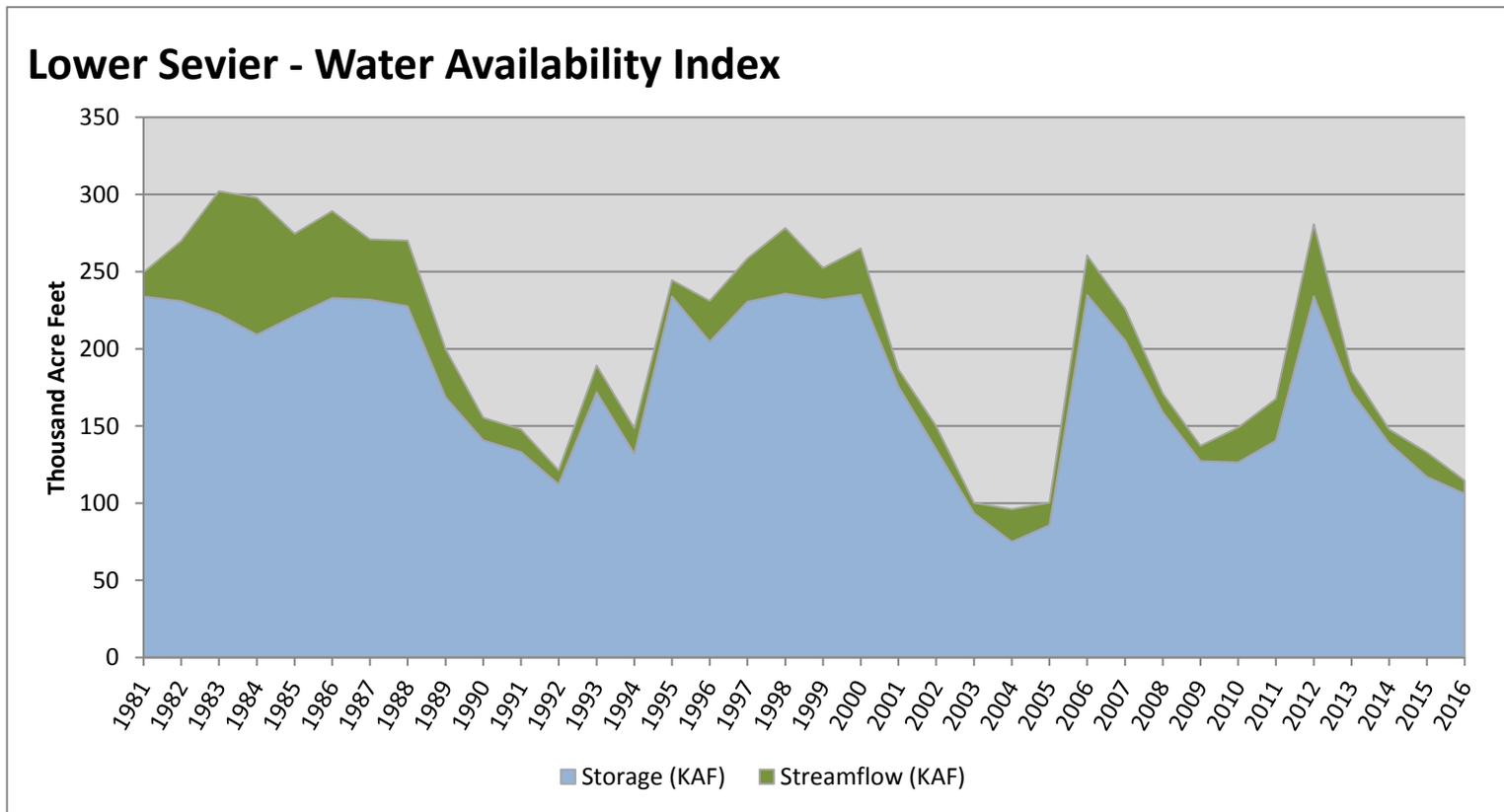
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Lower Sevier	105.99	8.59	114.58	11	-3.27	03, 05, 92, 15

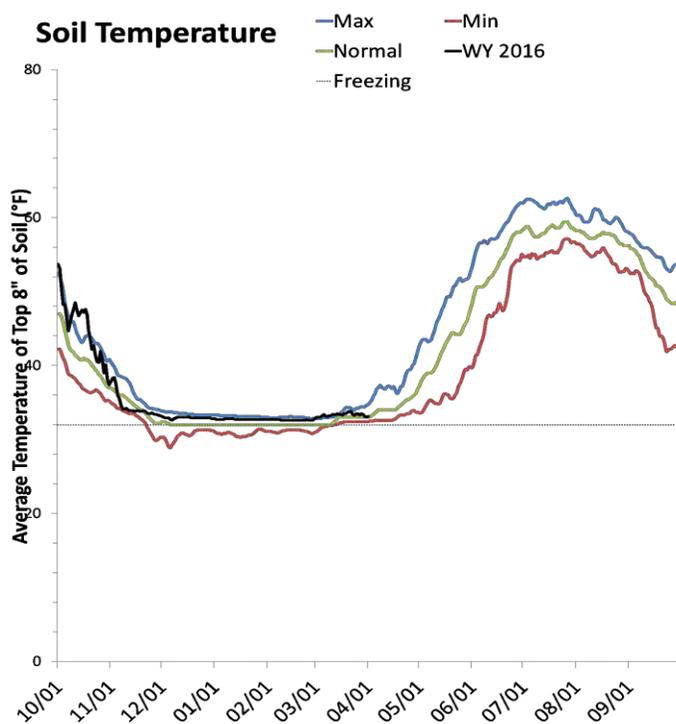
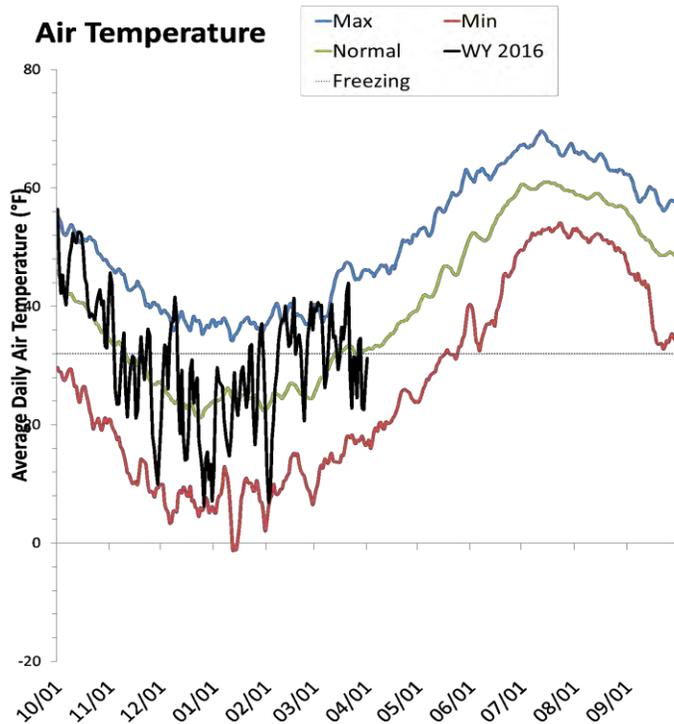
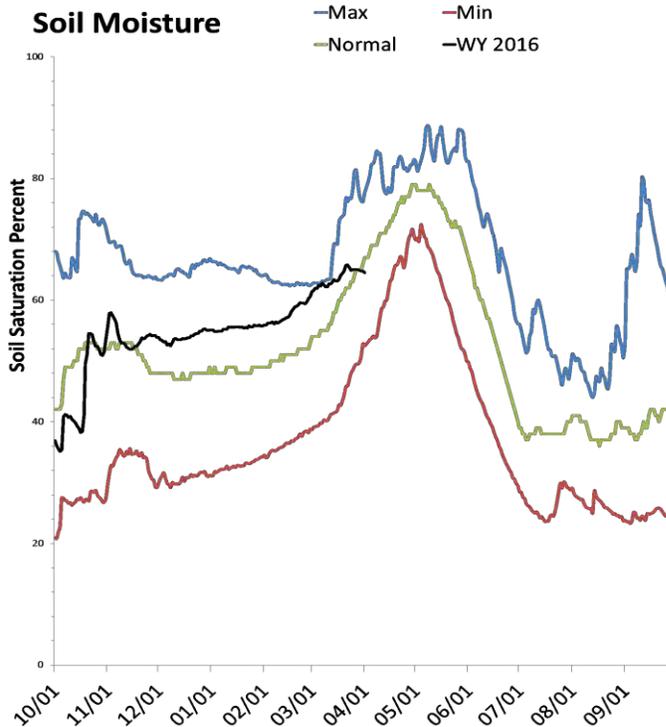
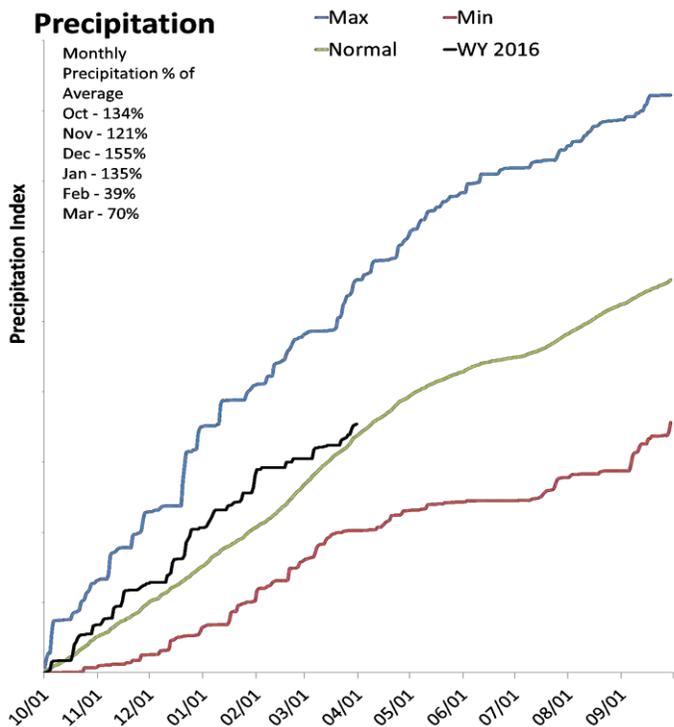
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Upper Sevier River Basin

4/1/2016

Precipitation in March was below average at 70%, which brings the seasonal accumulation (Oct-Mar) to 105% of average. Soil moisture is at 65% compared to 65% last year. Reservoir storage is at 54% of capacity, compared to 61% last year. The water availability index for the Upper Sevier is 14%.



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

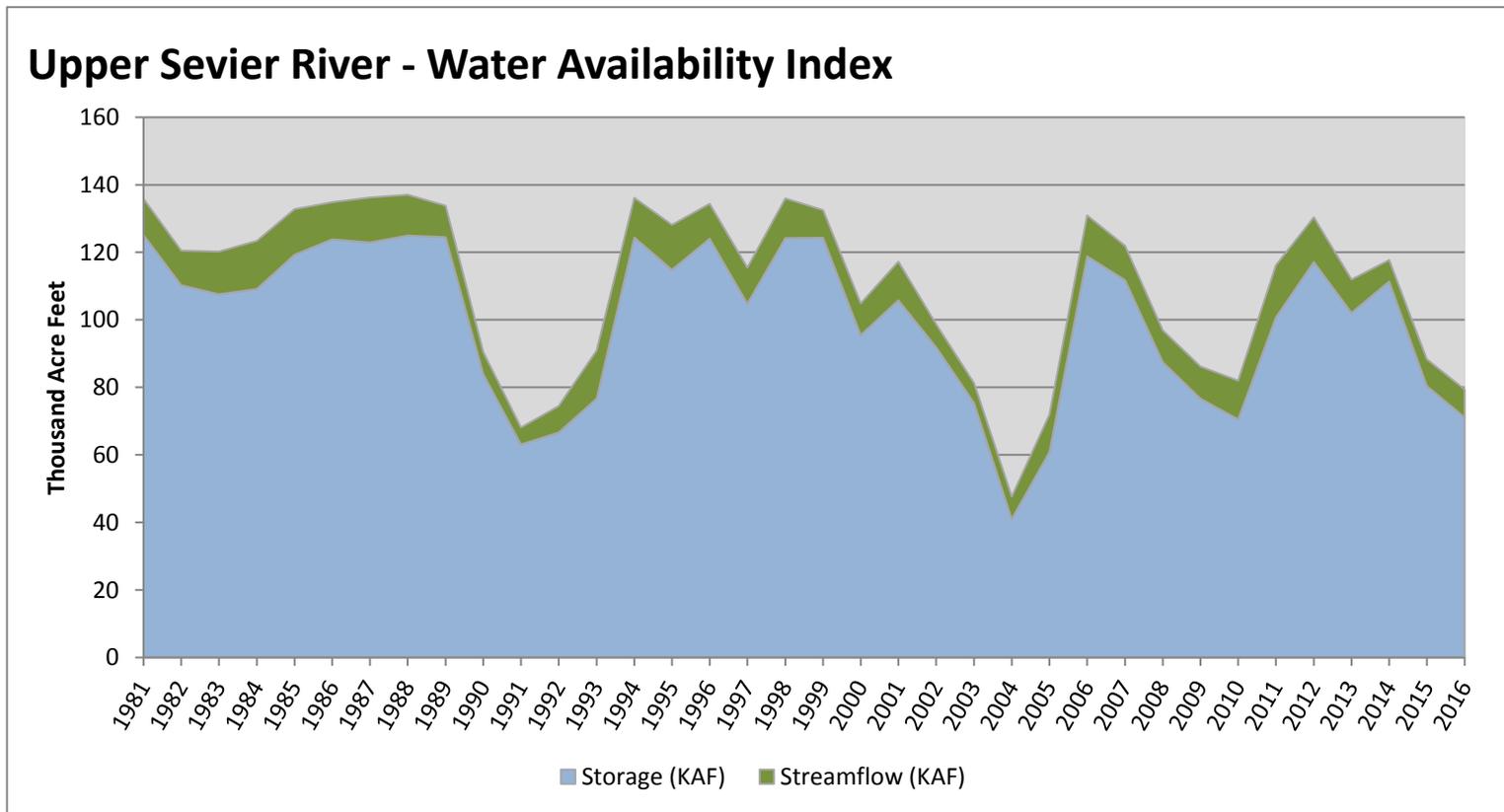
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Upper Sevier River	71.09	8.27	79.36	14	-3.04	05, 92, 03, 10

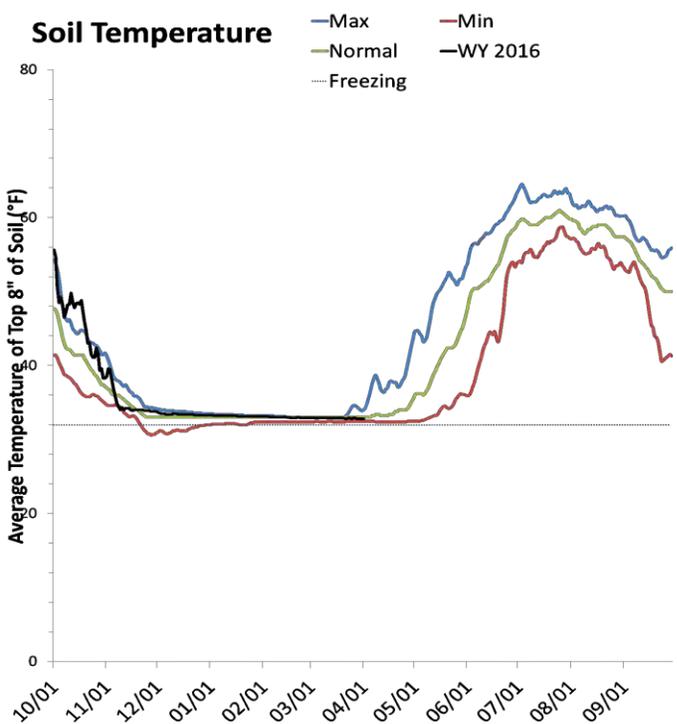
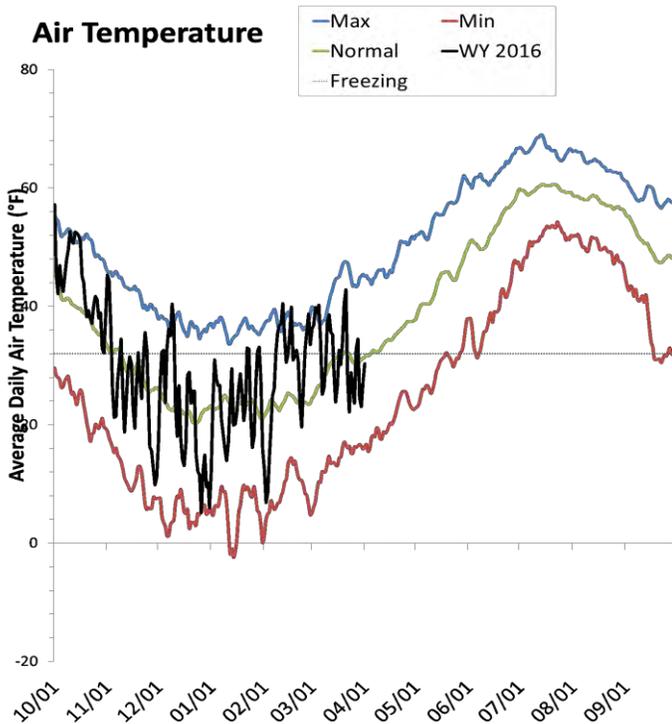
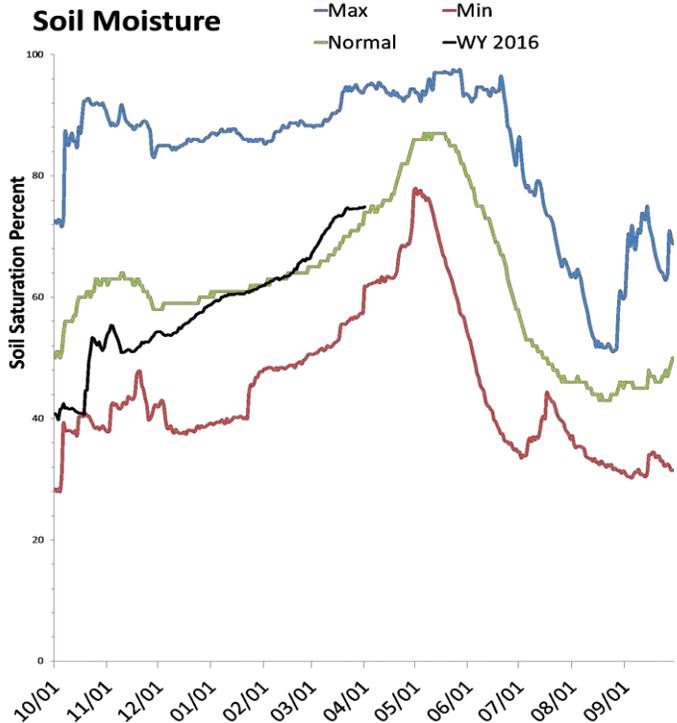
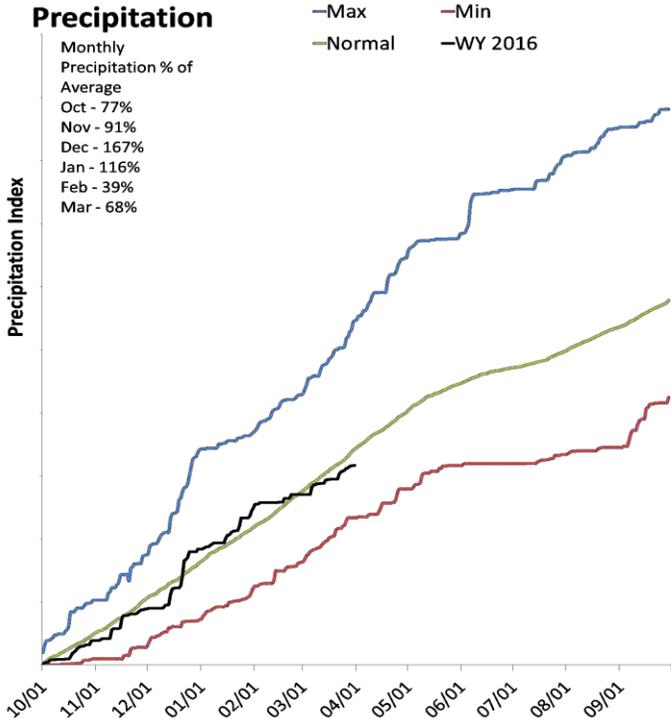
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



San Pitch River Basin

4/1/2016

Precipitation in March was much below average at 68%, which brings the seasonal accumulation (Oct-Mar) to 92% of average. Soil Moisture is at 74% compared to 66% last year. Reservoir storage is at 15% of capacity, compared to 11% last year. The water availability index for the San Pitch is 8%.



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

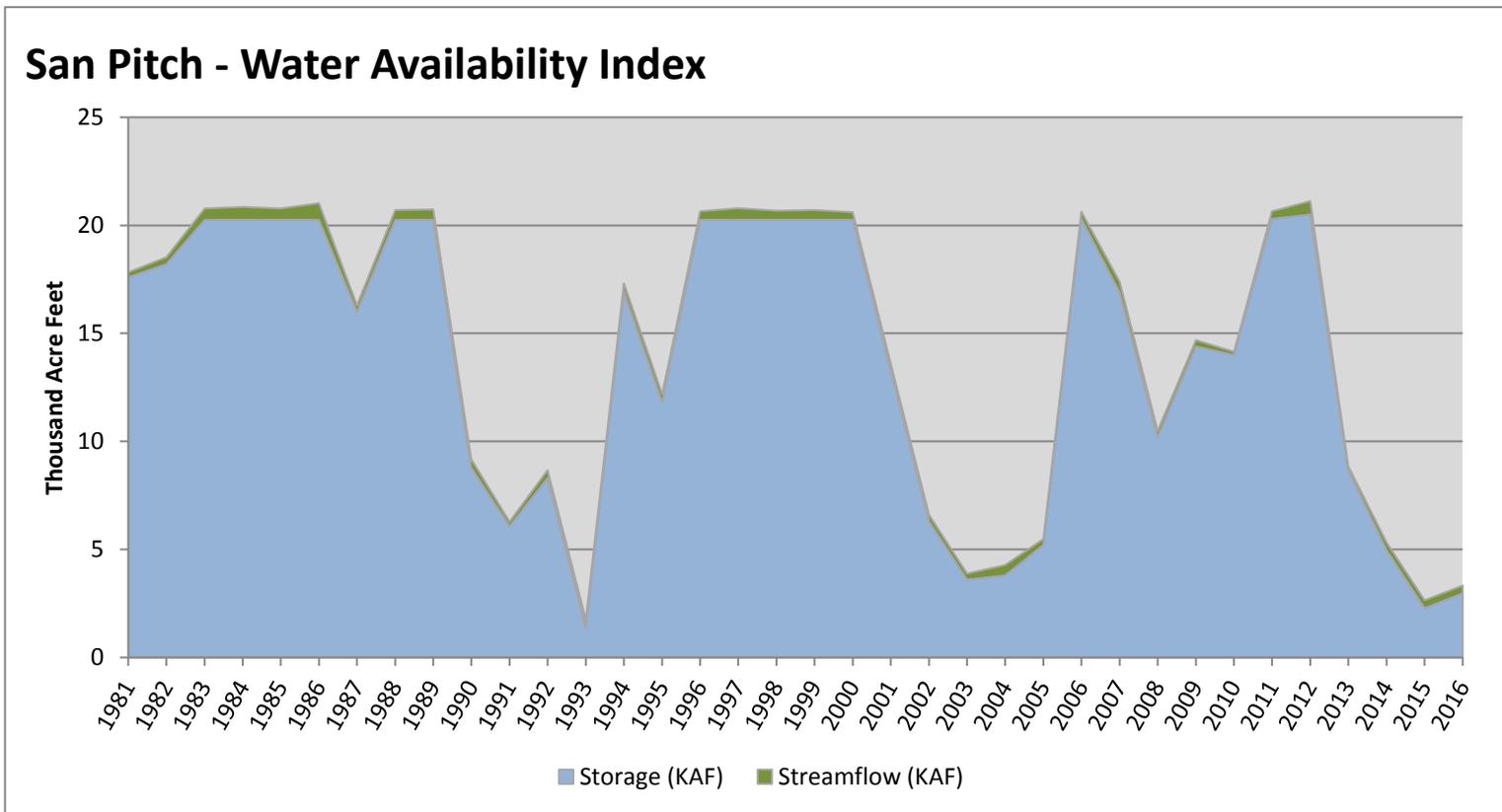
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
San Pitch	2.96	0.37	3.33	8	-3.49	93, 15, 03, 04

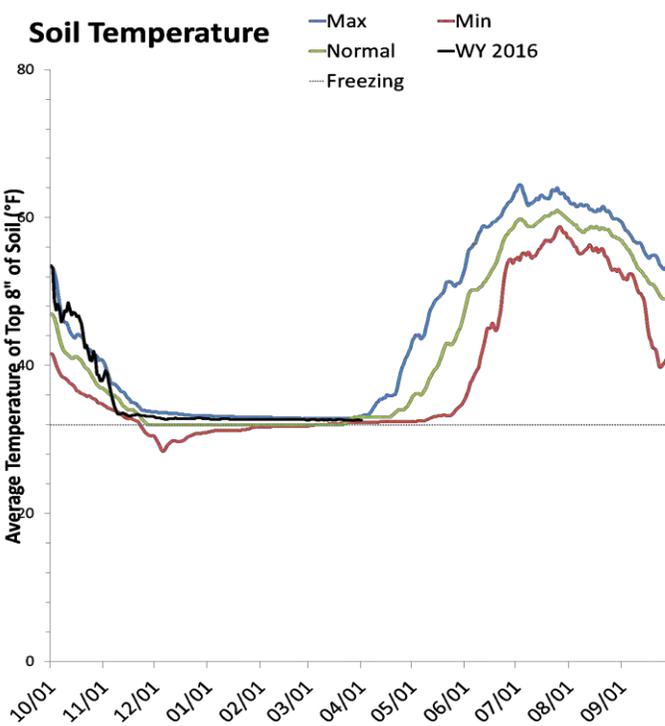
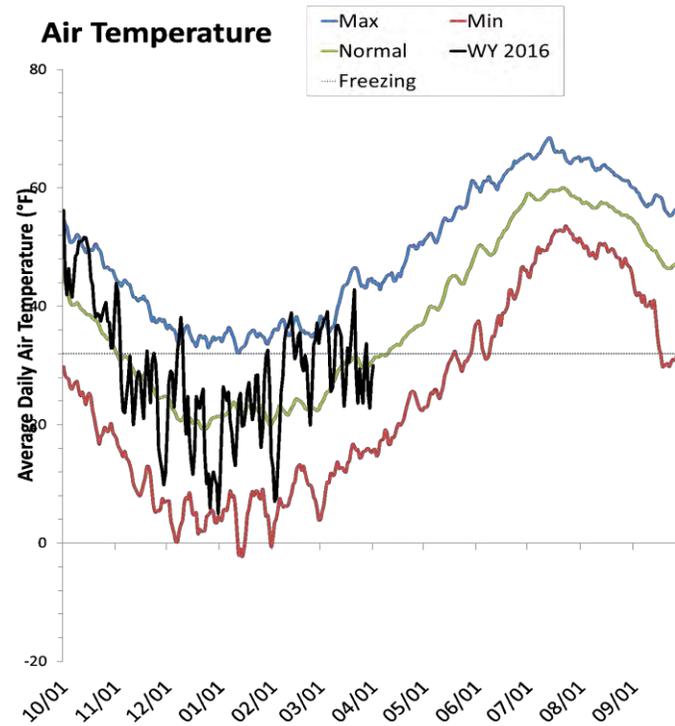
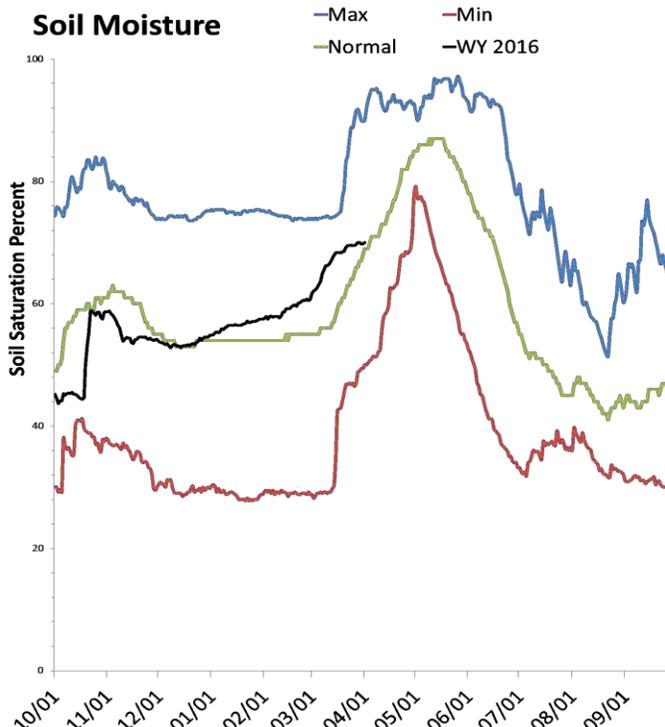
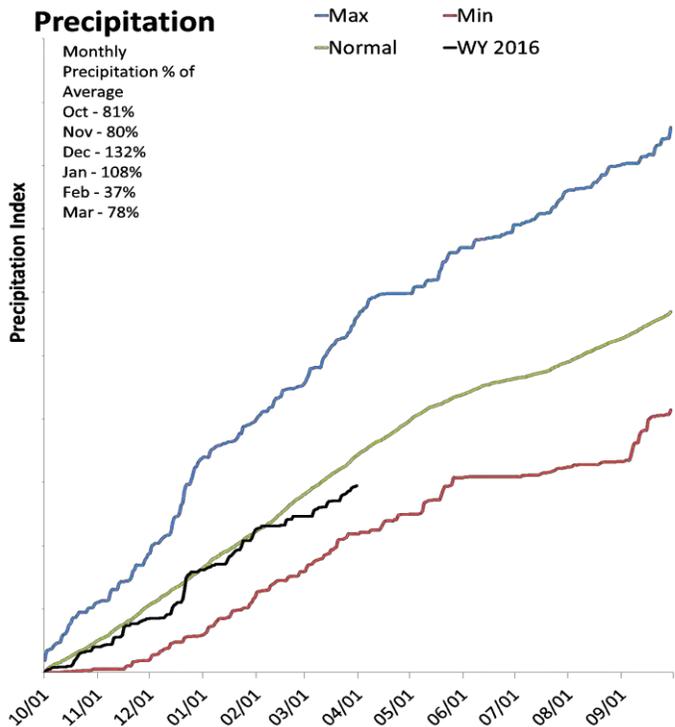
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Price & San Rafael Basins

4/1/2016

Precipitation in March was below average at 77%, which brings the seasonal accumulation (Oct-Mar) to 86% of average. Soil moisture is at 70% compared to 63% last year. Reservoir storage is at 44% of capacity, compared to 48% last year. The water availability index for the Price River is 19%, and 27% for Joe's Valley.



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

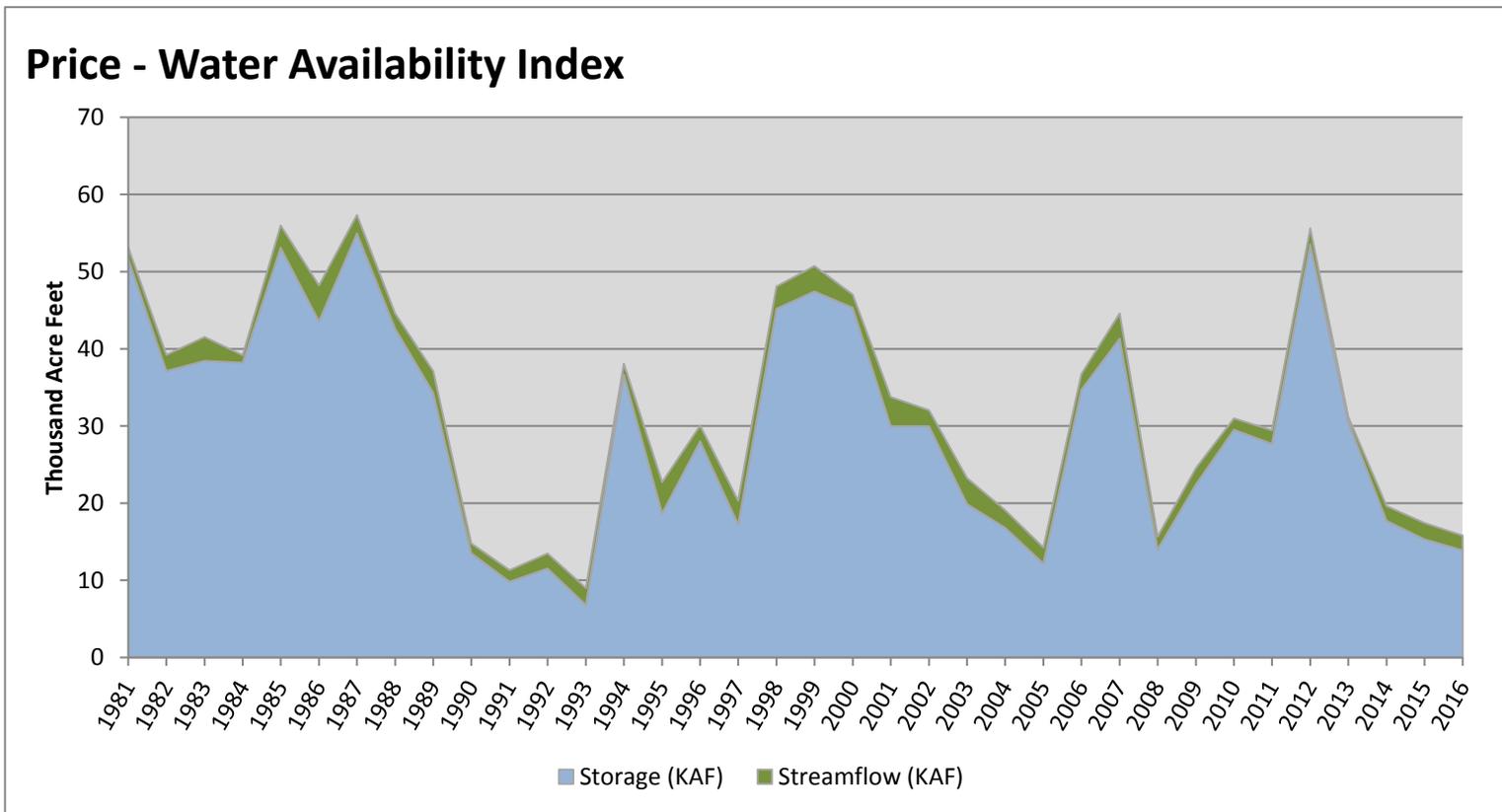
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Price	13.89	1.92	15.81	19	-2.59	90, 08, 15, 04

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

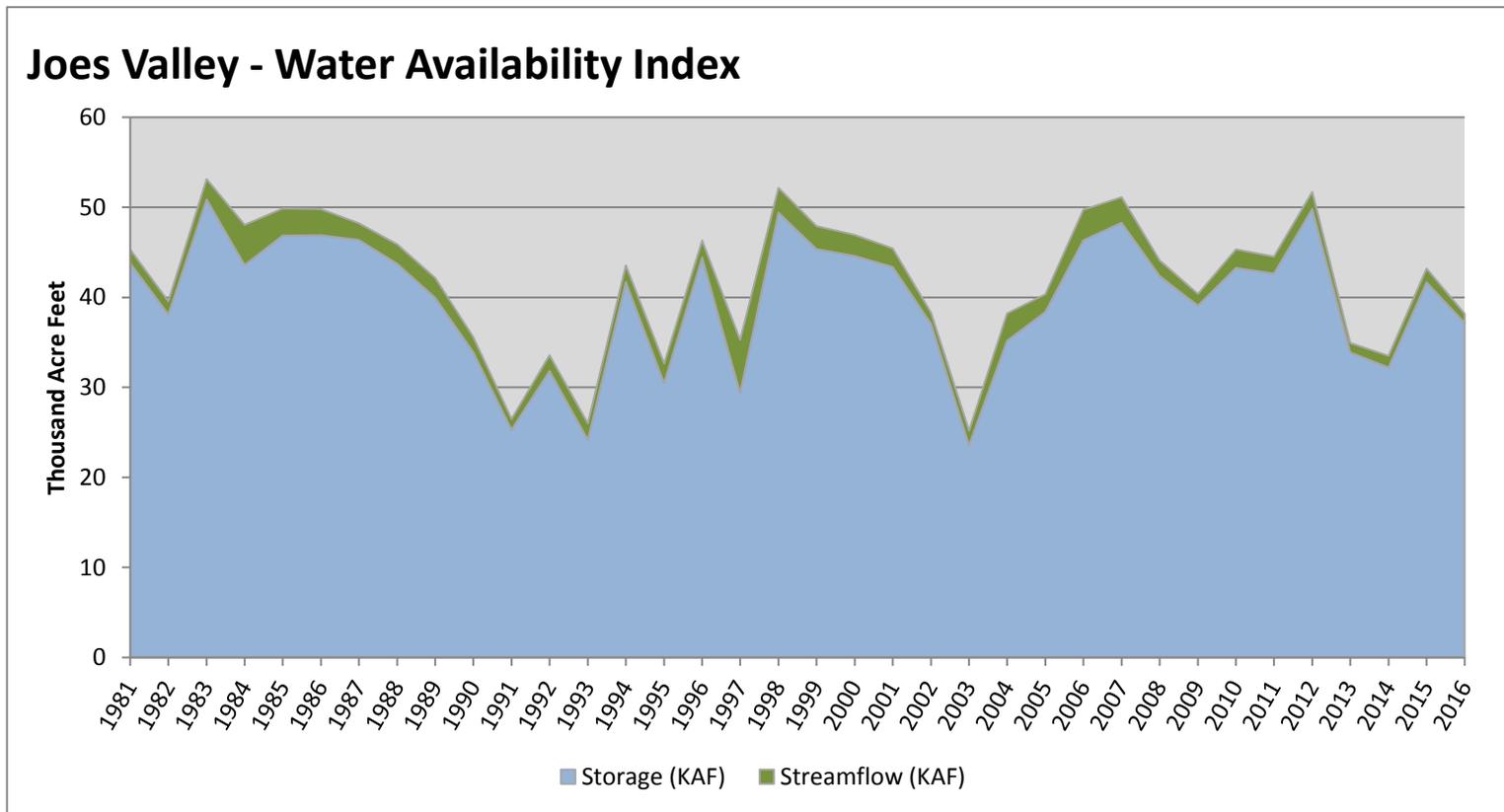


April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Joese Valley	37.18	1.00	38.18	27	-1.91	97, 90, 04, 02

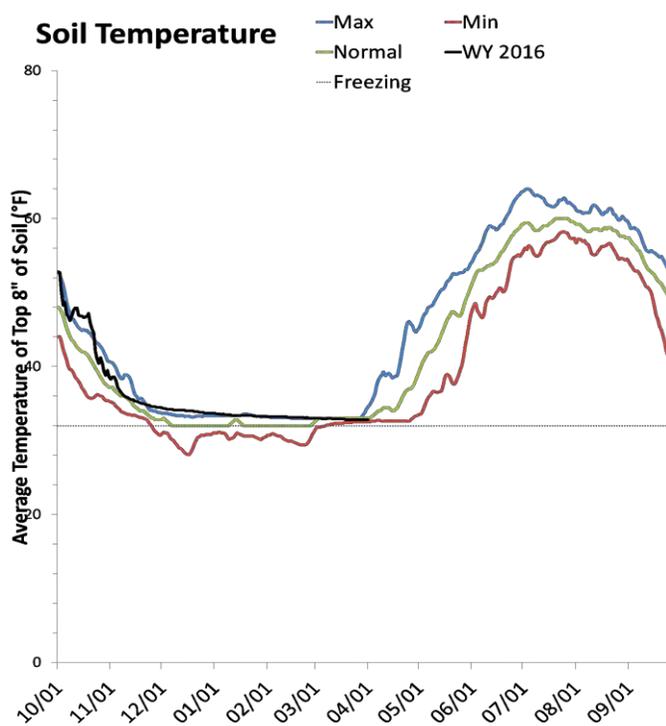
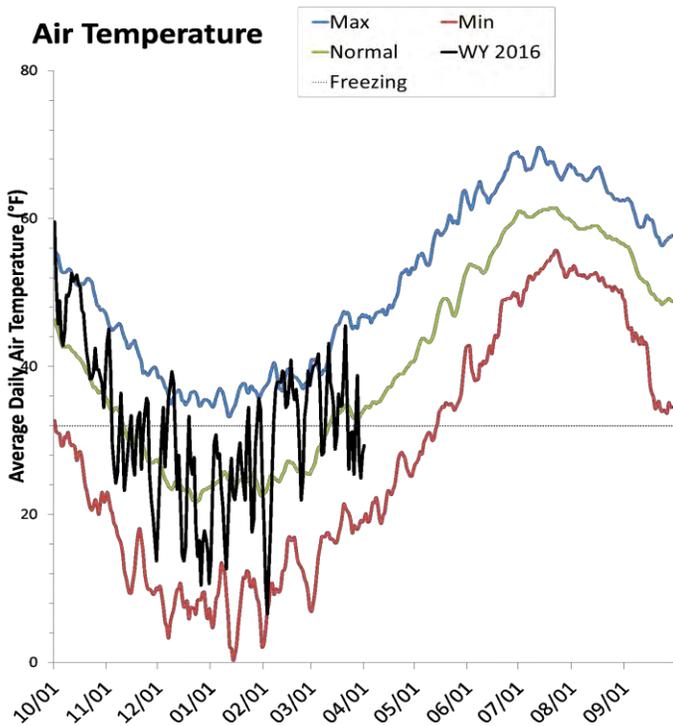
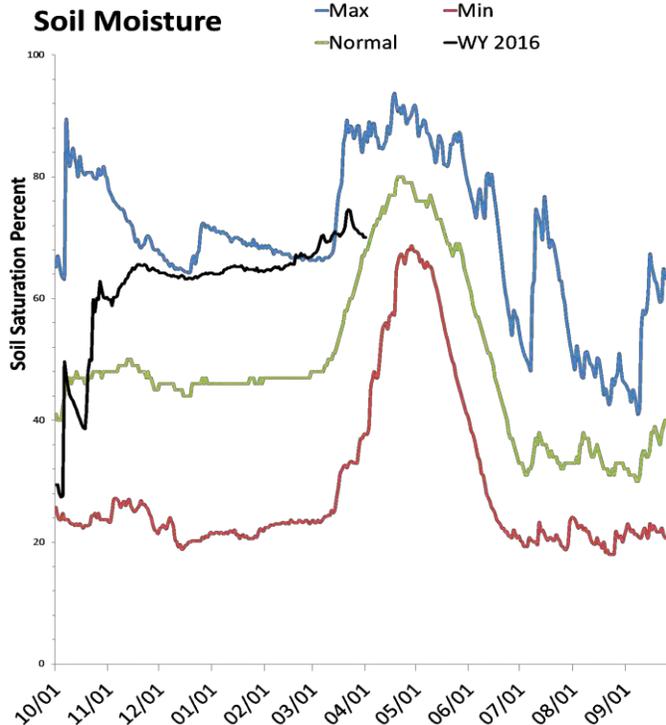
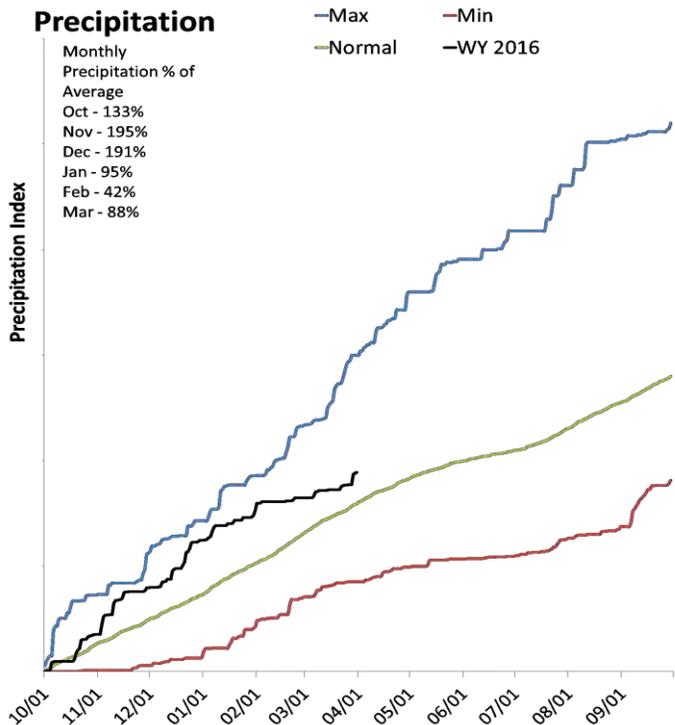
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southeastern Utah Basin

4/1/2016

Precipitation in March was below average at 88%, which brings the seasonal accumulation (Oct-Mar) to 119% of average. Soil moisture is at 80% compared to 75% last year. Reservoir storage is at 76% of capacity, compared to 65% 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.

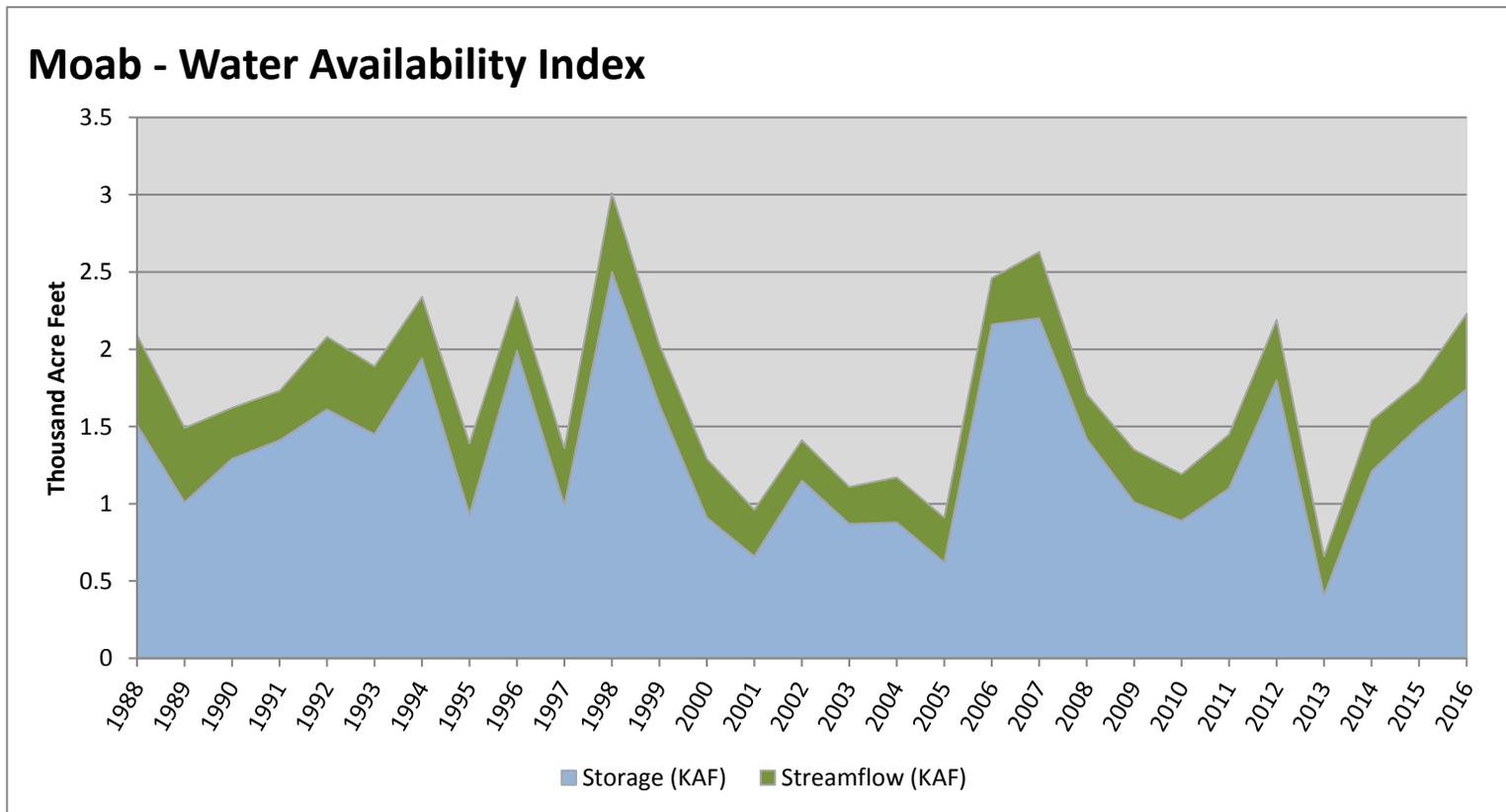
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Moab	1.74	0.49	2.23	80	2.5	88, 12, 94, 96

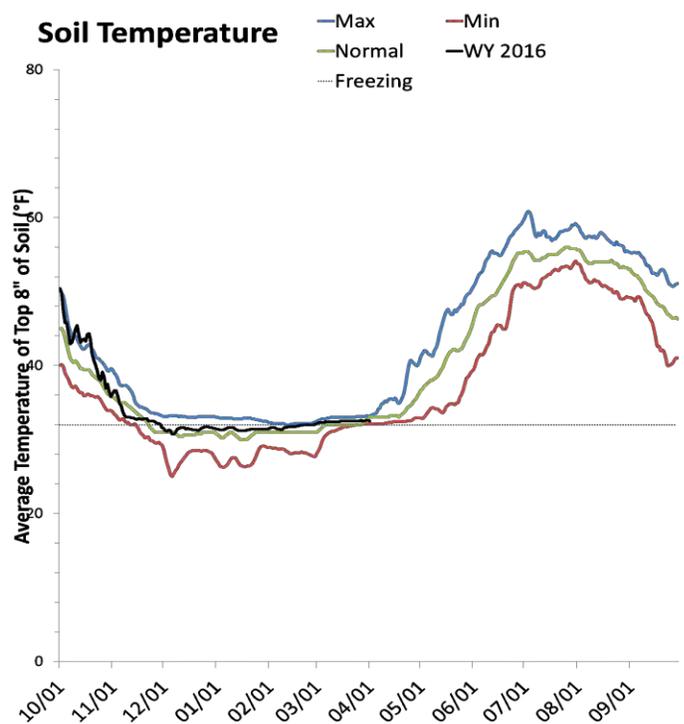
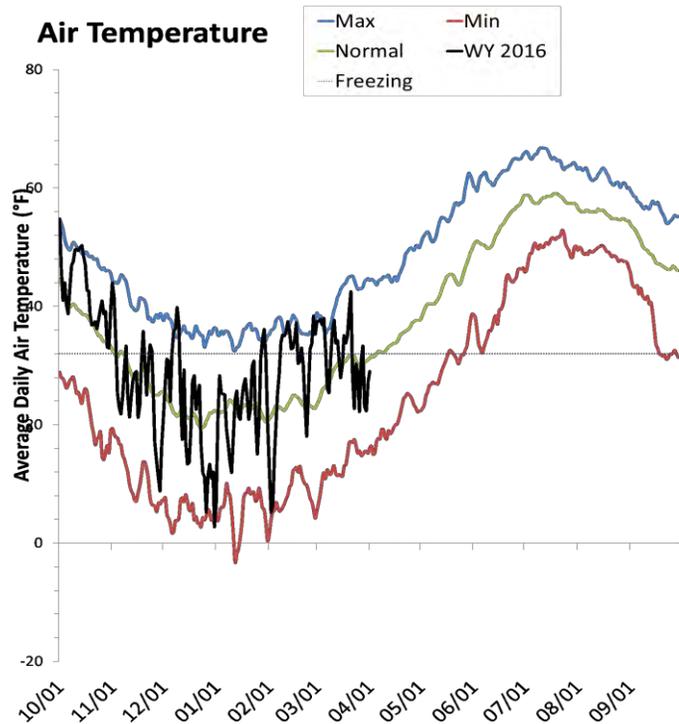
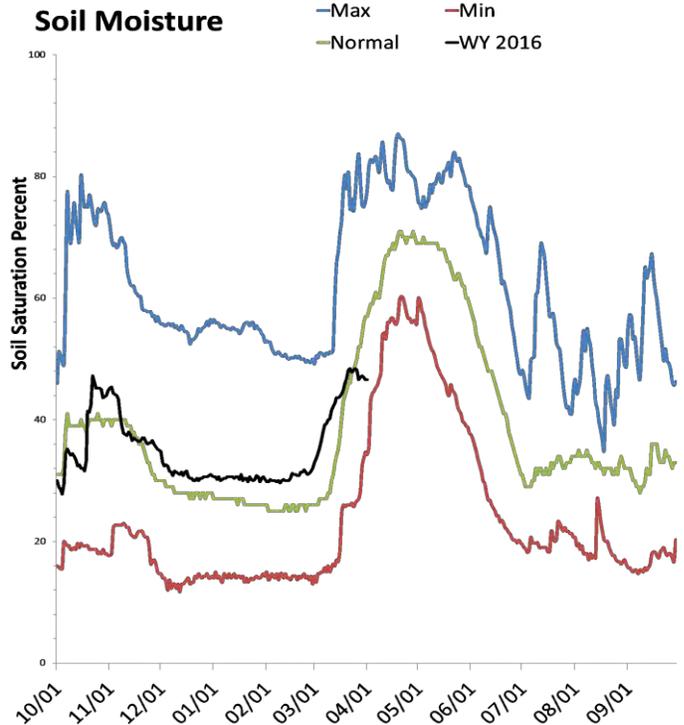
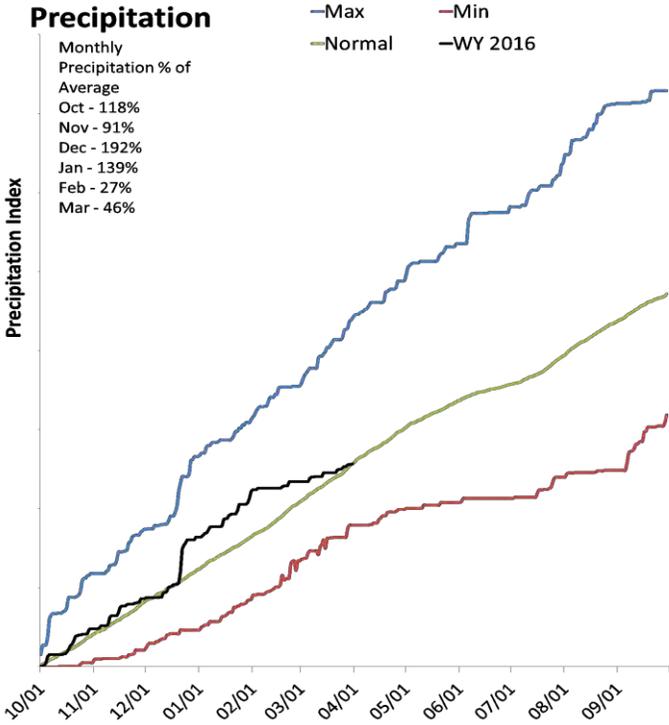
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Dirty Devil Basin

4/1/2016

Precipitation in March was much below average at 46%, which brings the seasonal accumulation (Oct-Mar) to 99% of average. Soil moisture is at 53% compared to 45% last year.



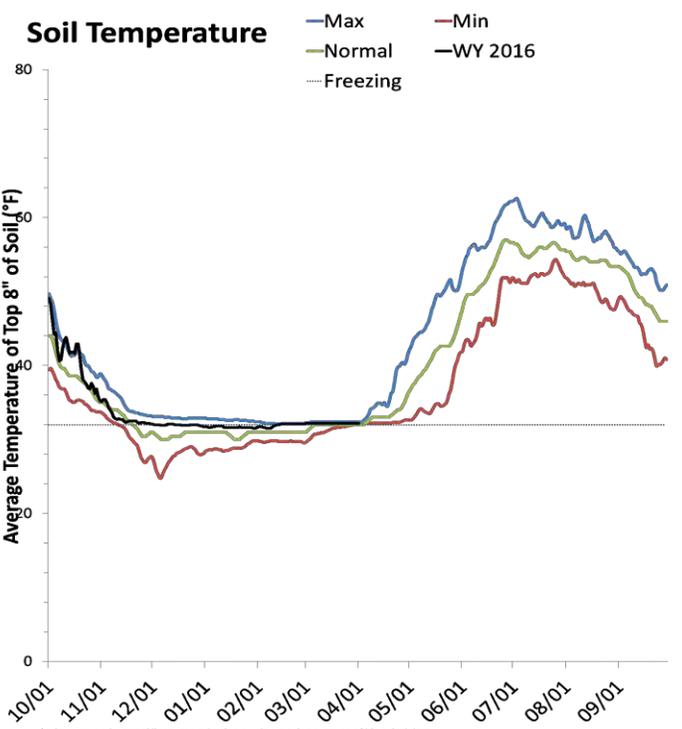
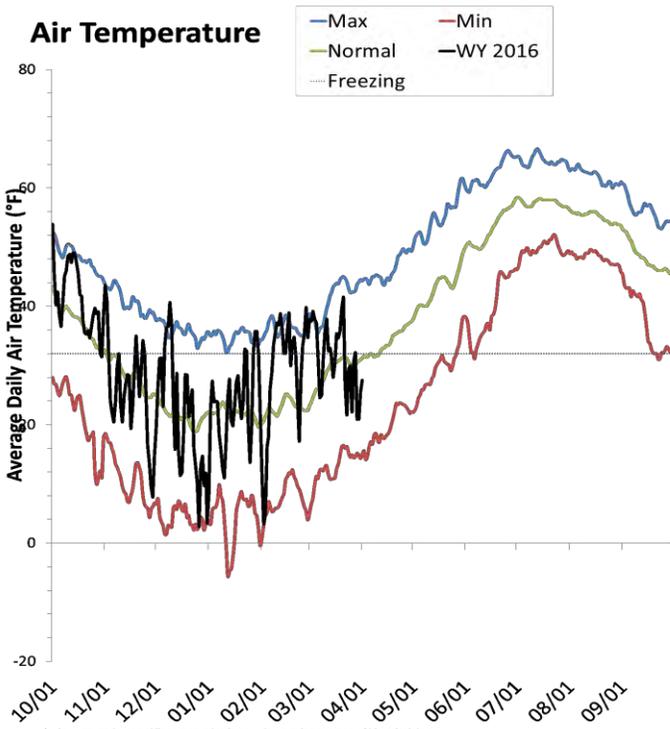
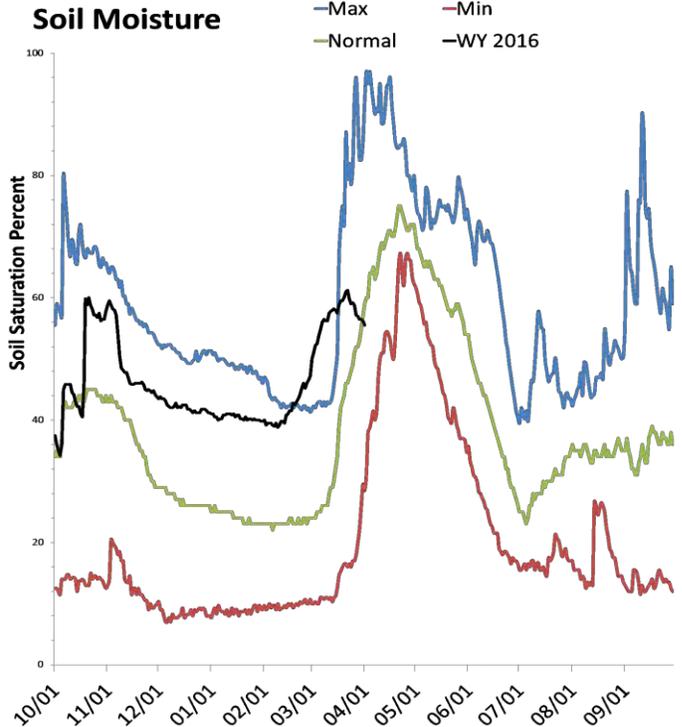
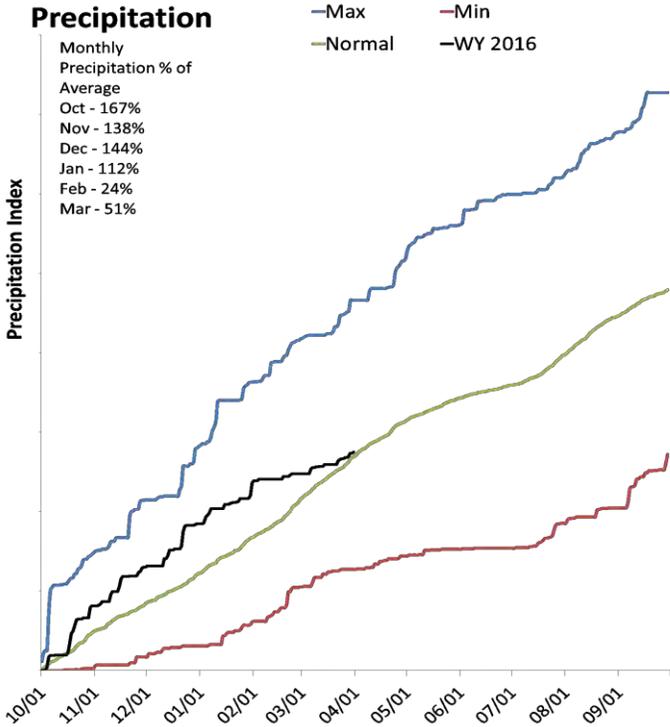
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Escalante River Basin

4/1/2016

Precipitation in March was much below average at 51%, which brings the seasonal accumulation (Oct-Mar) to 102% of average. Soil moisture is at 58% compared to 63% last year.



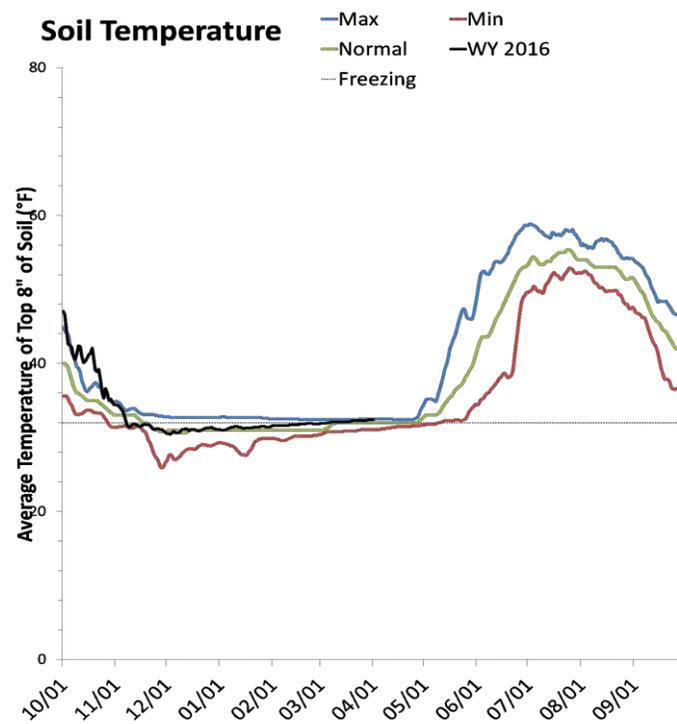
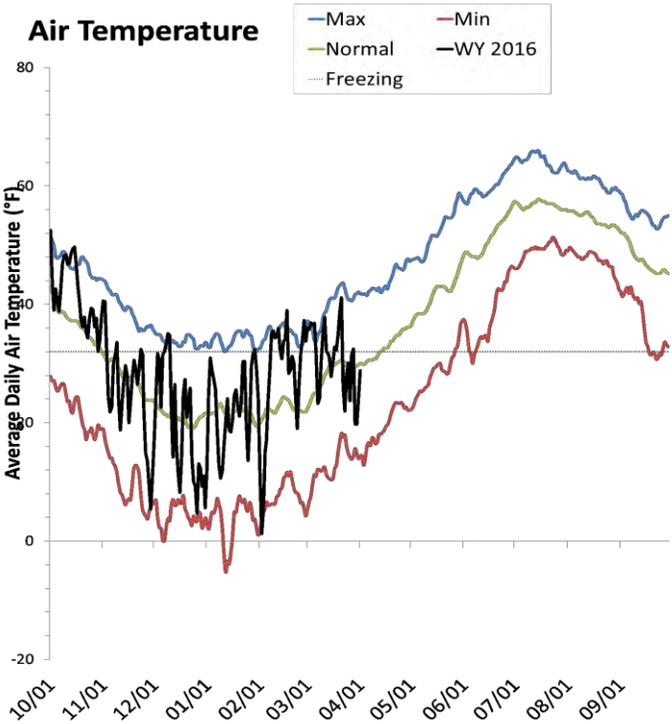
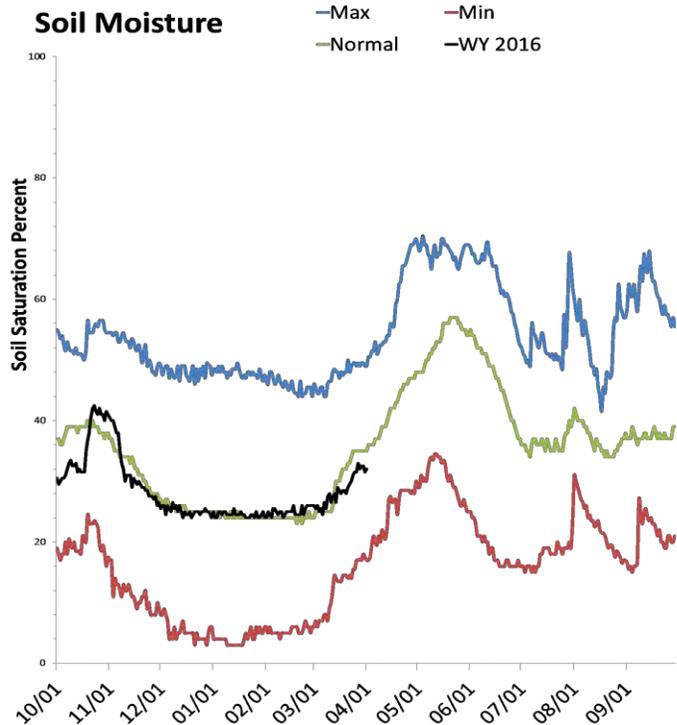
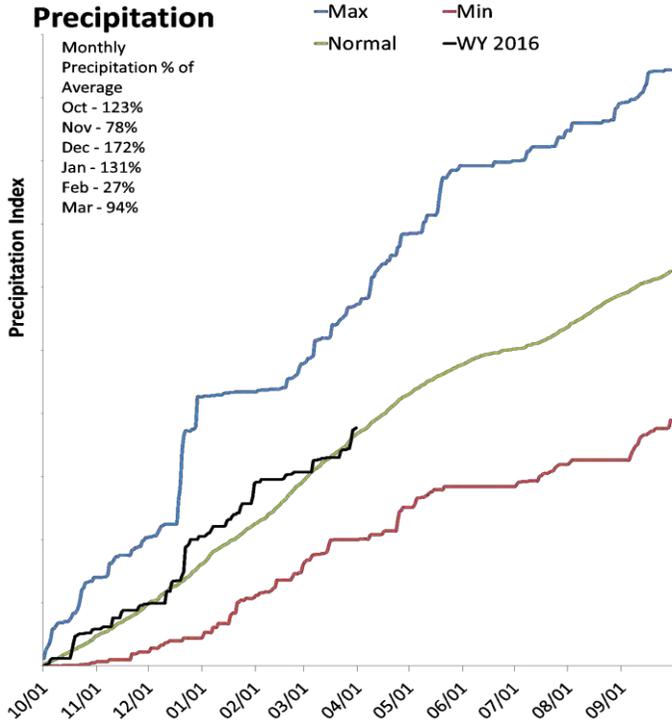
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Beaver River Basin

4/1/2016

Precipitation in March was near average at 96%, which brings the seasonal accumulation (Oct-Mar) to 103% of average. Soil moisture is at 32% compared to 42% last year. Reservoir storage is at 48% of capacity, compared to 50% last year. The water availability index for the Beaver River is 16%.



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

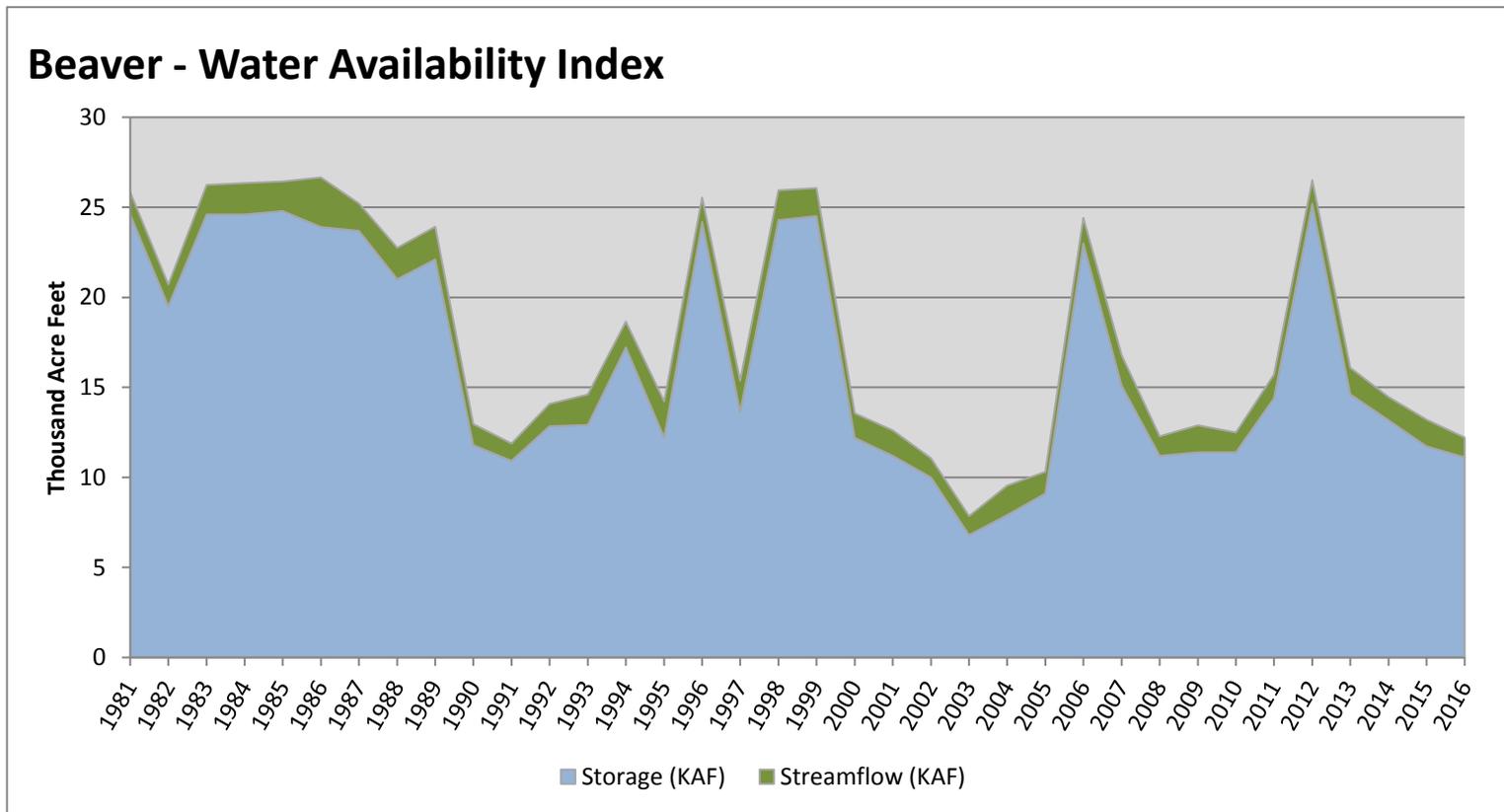
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Beaver	11.12	1.10	12.22	16	-2.82	02, 91, 08, 10

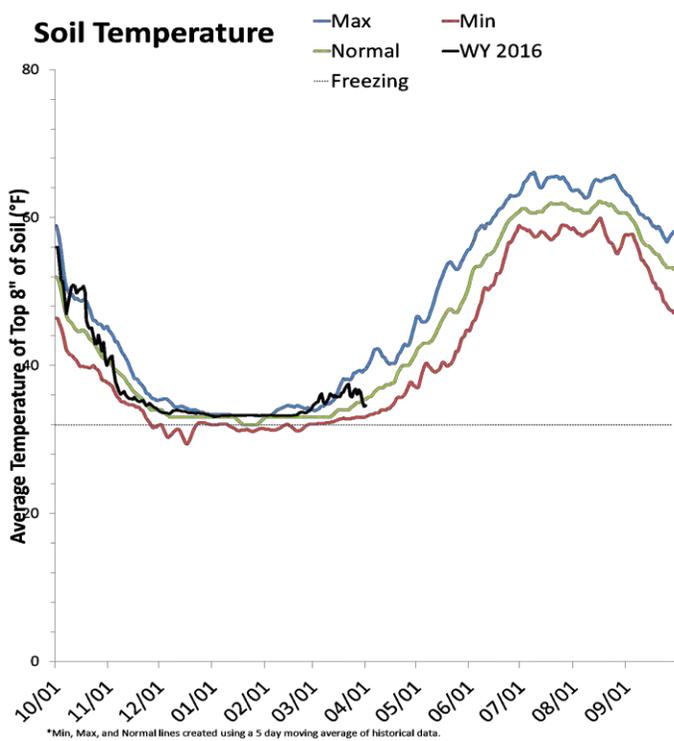
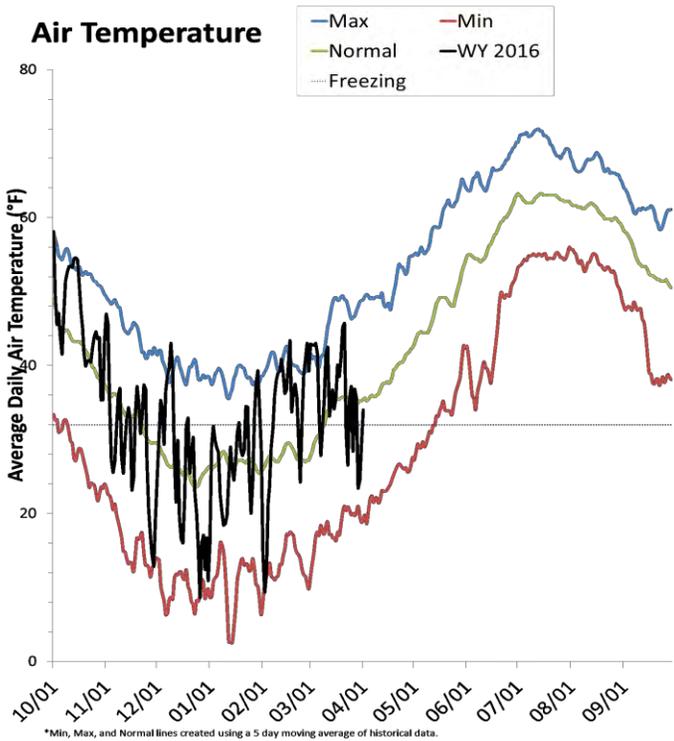
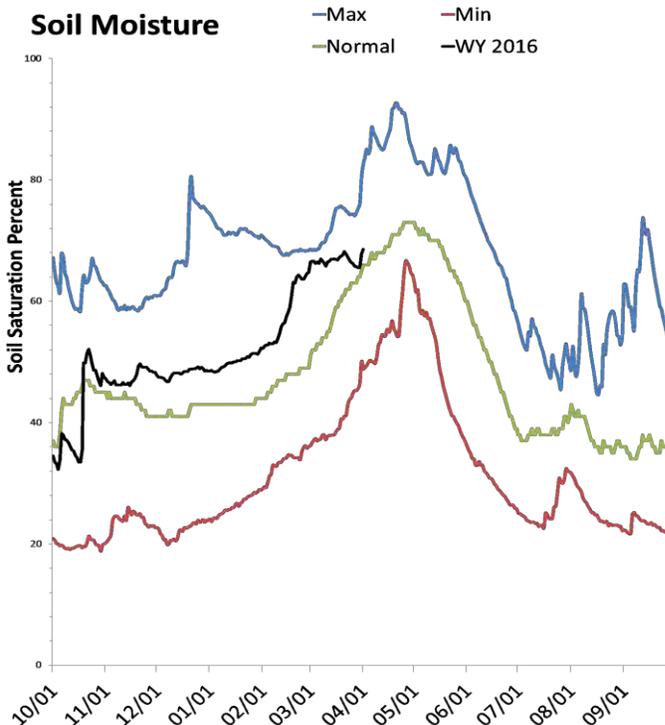
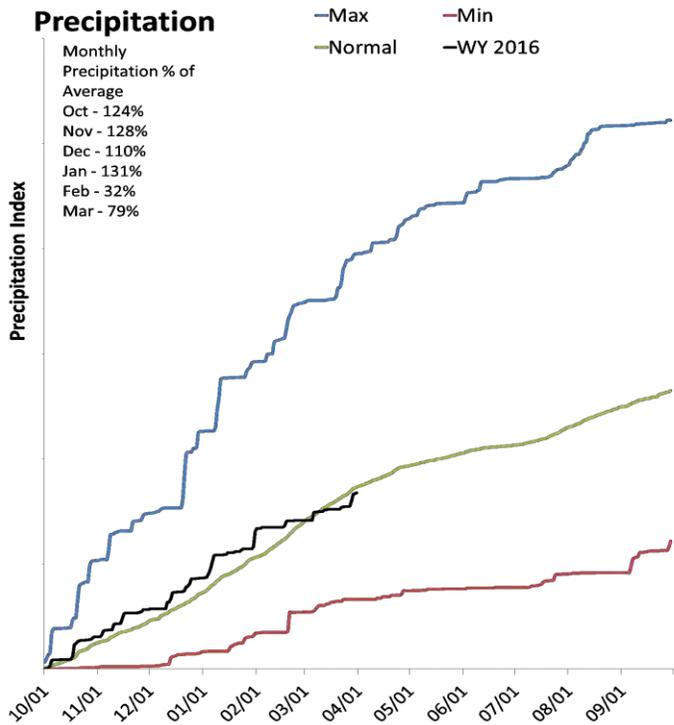
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southwestern Utah Basin

4/1/2016

Precipitation in March was below average at 79%, which brings the seasonal accumulation (Oct-Mar) to 97% of average. Soil moisture is at 72% compared to 63% last year. Reservoir storage is at 45% of capacity, compared to 45% last year. The water availability index for the Virgin River is 25%.



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

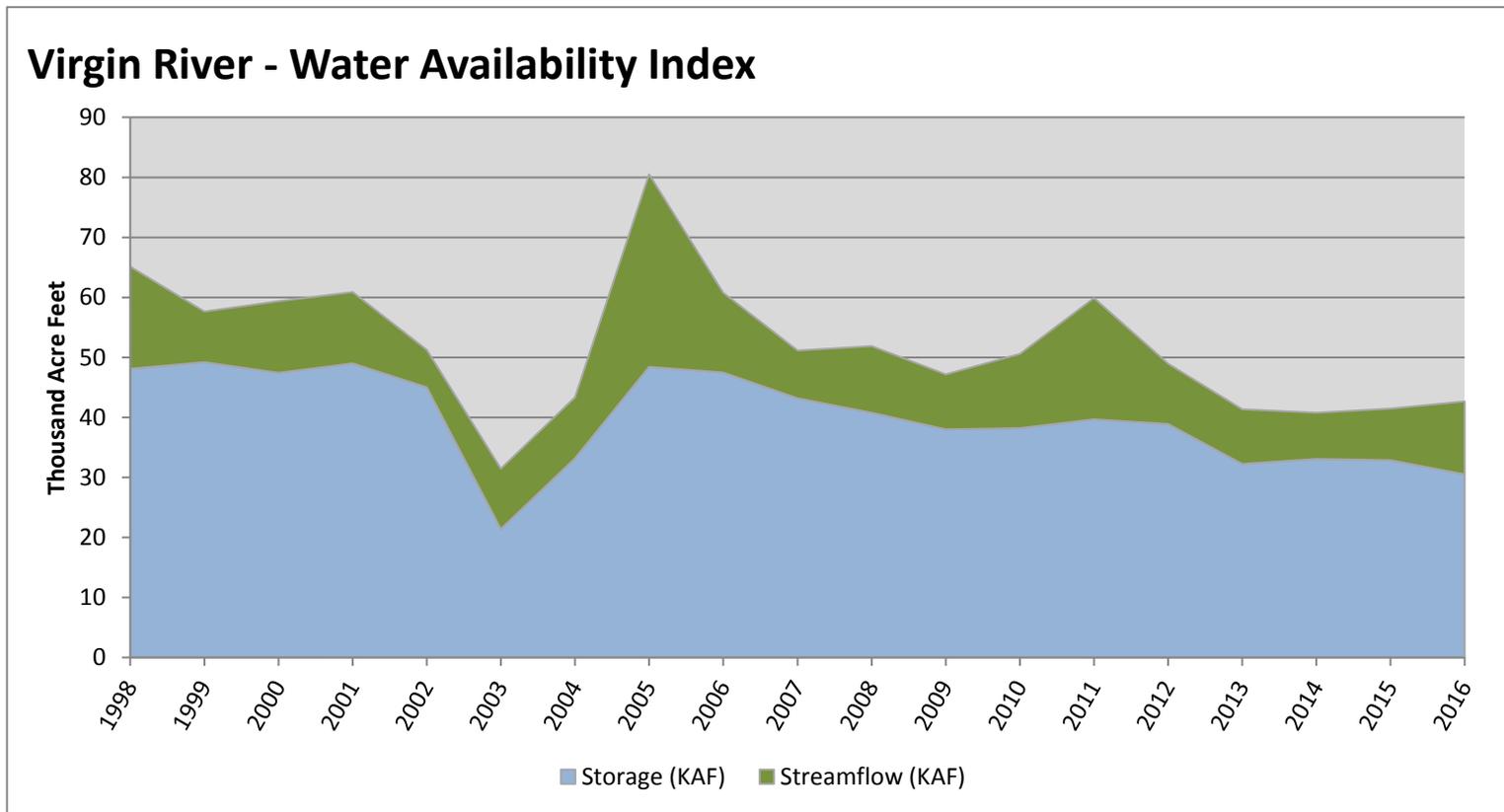
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

April 1, 2016

Water Availability Index

Basin or Region	Mar EOM [*] Storage	March Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Virgin River	30.51	12.14	42.65	25	-2.08	13, 15, 04, 09

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



April 1, 2016

Water Availability Index

Basin or Region	Mar EOM* Storage	March Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Bear River	531	10.8	542	43	-0.6	02, 07, 96, 15
Woodruff Narrows	51.6	2.3	53.9	59	0.8	10, 92, 09, 98
Little Bear	12.3	5.4	17.6	24	-2.2	05, 10, 13, 00
Ogden	84.9	6.1	90.9	78	2.4	05, 82, 83, 99
Weber	129.1	29.0	158.1	26	-2.0	97, 03, 15, 01
Provo River	308.3	3.4	311.7	18	-2.7	08, 04, 03, 13
Western Uintah	184.3	2.0	186.3	70	1.7	99, 01, 02, 14
Eastern Uintah	37.0	2.0	39.0	30	-1.7	95, 93, 89, 82
Blacks Fork	8.0	1.4	9.5	29	-1.7	90, 13, 03, 08
Price	13.9	1.9	15.8	19	-2.6	90, 08, 15, 04
Smiths Creek	6.6	0.7	7.3	61	0.9	06, 07, 96, 94
Joes Valley	37.2	1.0	38.2	27	-1.9	97, 90, 04, 02
Moab	1.7	0.5	2.2	80	2.5	88, 12, 94, 96
Upper Sevier River	71.1	8.3	79.4	14	-3.0	05, 92, 03, 10
San Pitch	3.0	0.4	3.3	8	-3.5	93, 15, 03, 04
Lower Sevier	106.0	8.6	114.6	11	-3.3	03, 05, 92, 15
Beaver	11.1	1.1	12.2	16	-2.8	02, 91, 08, 10
Virgin River	30.5	12.1	42.7	25	-2.1	13, 15, 04, 09

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

What is a Water Availability Index?

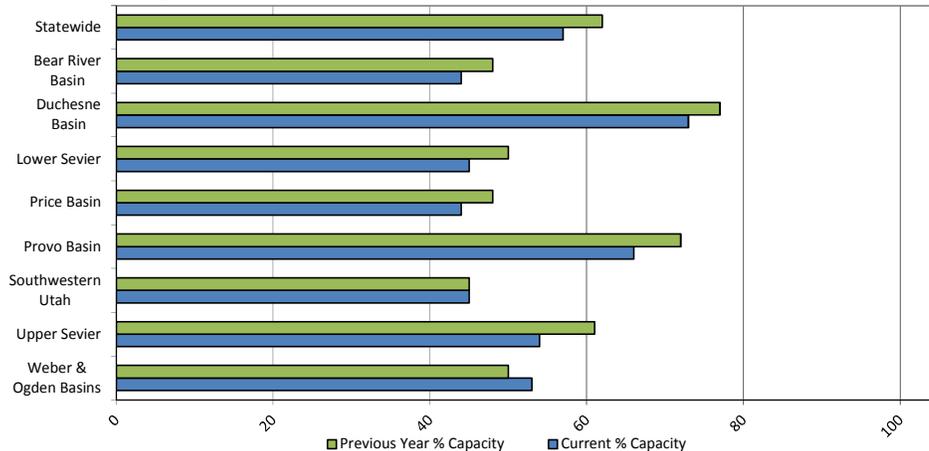
The Water Availability Index (WAI) is an observed hydrologic indicator of current surface water availability within a watershed. The index is calculated by combining current reservoir storage with the previous months streamflow. WAI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) with a value of zero (0) indicating median water supply as compared to historical analysis. WAI's are calculated in this fashion to be consistent with other hydroclimatic indicators such as the Palmer Drought Index and the Precipitation index.

Utah Snow Surveys has also chosen to display the WAI value as well as a PERCENT CHANCE OF NON-EXCEEDANCE. While this is a cumbersome name, it has the simplest application. It can be best thought of as a scale of 1 to 99 with 1 being the drought of record (driest possible conditions) and 99 being the flood of record (wettest possible conditions) and a value of 50 representing average conditions. This rating scale is a percentile rating as well, for example a WAI of 75% means that this years water supply is greater than 75% of all historical events and that only 25% of the time has it been exceeded. Conversely a WAI of 10% means that 90% of historical events have been greater than this one and that only 10% have had less total water supply. This scale is comparable between basins: a SWSI of 50% means the same relative ranking on watershed A as it does on watershed B, which may not be strictly true of the +4 to -4 scale.

For more information on the WAI go to: www.ut.nrcs.usda.gov/snow/ on the water supply page. The entire period of historical record for reservoir storage and streamflow is available.

Reservoir Storage Summary for the end of March 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	26.0	25.9		25.7	101%	101%			
Causey Reservoir	5.3	7.1	3.2	7.1	75%	100%	45%	166%	221%
Cleveland Lake	2.2	4.2		5.4	40%	77%			
Currant Creek Reservoir	14.7	15.0	14.8	15.5	95%	97%	95%	99%	102%
Deer Creek Reservoir	139.2	145.4	116.8	149.7	93%	97%	78%	119%	124%
East Canyon Reservoir	28.7	30.1	36.4	49.5	58%	61%	74%	79%	83%
Echo Reservoir	39.2	37.1	50.2	73.9	53%	50%	68%	78%	74%
Grantsville Reservoir	2.4	1.6	2.5	3.3	72%	47%	76%	95%	63%
Gunlock	2.5	3.8	6.8	10.4	24%	37%	65%	36%	56%
Gunnison Reservoir	3.0	2.3	14.7	20.3	15%	11%	72%	20%	15%
Huntington North Reservoir	4.1	4.1	3.8	4.2	98%	97%	90%	109%	107%
Hyrum Reservoir	12.3	14.1	13.0	15.3	80%	92%	85%	94%	108%
Joes Valley Reservoir	37.2	41.7	40.0	61.6	60%	68%	65%	93%	104%
Jordanelle Reservoir	169.2	204.3	239.4	320.0	53%	64%	75%	71%	85%
Ken's Lake	1.7	1.5	1.3	2.3	76%	65%	58%	131%	113%
Kolob Reservoir	2.1	3.4		5.6	38%	60%			
Lost Creek Reservoir	12.4	14.5	12.6	22.5	55%	64%	56%	99%	115%
Lower Enterprise	1.1	1.7	1.4	2.6	42%	65%	55%	77%	119%
Miller Flat Reservoir	2.0	3.5		5.2	38%	68%			
Millsite	9.5	10.8	10.4	16.7	57%	65%	62%	91%	104%
Minersville Reservoir	11.1	11.7	16.8	23.3	48%	50%	72%	66%	70%
Moon Lake Reservoir	24.2	33.6	27.3	35.8	68%	94%	76%	89%	123%
Otter Creek Reservoir	36.4	43.2	42.2	52.5	69%	82%	80%	86%	102%
Panguitch Lake	7.6	9.3	14.5	22.3	34%	42%	65%	53%	64%
Pineview Reservoir	79.5	71.0	62.8	110.1	72%	64%	57%	127%	113%
Piute Reservoir	34.7	37.1	58.2	71.8	48%	52%	81%	60%	64%
Porcupine Reservoir	9.5	9.2	8.2	11.3	84%	81%	73%	116%	112%
Quail Creek	28.0	29.1	31.1	40.0	70%	73%	78%	90%	93%
Red Fleet Reservoir	17.5	12.7	18.8	25.7	68%	49%	73%	93%	67%
Rockport Reservoir	44.7	49.9	37.6	60.9	73%	82%	62%	119%	133%
Sand Hollow Reservoir	43.6	37.7		50.0	87%	75%			
Scofield Reservoir	13.9	15.3	30.7	65.8	21%	23%	47%	45%	50%
Settlement Canyon Reservoir	0.4	0.4	0.8	1.0	42%	36%	75%	56%	48%
Sevier Bridge Reservoir	106.0	117.1	181.9	236.0	45%	50%	77%	58%	64%
Smith And Morehouse Reservoir	4.1	6.8	3.6	81.0	5%	8%	4%	113%	189%
Starvation Reservoir	158.5	162.4	149.7	165.3	96%	98%	91%	106%	109%
Stateline Reservoir	6.6	10.4	5.3	12.0	55%	87%	44%	124%	197%
Steinaker Reservoir	19.5	18.3	24.5	33.4	58%	55%	73%	80%	75%
Strawberry Reservoir	801.2	849.7	665.1	1105.9	72%	77%	60%	120%	128%
Upper Enterprise	0.5	4.8	5.3	10.0	5%	48%	53%	9%	91%
Upper Stillwater Reservoir	1.5	1.9	4.5	32.5	5%	6%	14%	34%	42%
Utah Lake	494.7	571.3	816.5	870.9	57%	66%	94%	61%	70%
Vernon Creek Reservoir	0.5	0.5	0.6	0.6	87%	84%	93%	93%	90%
Willard Bay	113.2	94.2	147.7	215.0	53%	44%	69%	77%	64%
Woodruff Creek	4.0	3.8	3.3	4.0	100%	95%	83%	121%	115%
Woodruff Narrows Reservoir	51.6	50.9	38.4	57.3	90%	89%	67%	134%	133%
Meeks Cabin Reservoir	9.5	26.6	13.4	32.5	29%	82%	41%	71%	198%
Bear Lake	530.9	583.8	611.9	1302.0	41%	45%	47%	87%	95%
Basin-wide Total	2895.2	3255.0	3457.3	5453.8	53%	60%	63%	84%	94%
# of reservoirs	43	43	43	43	43	43	43	43	43

Reservoir Storage



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Water Report**
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