

Utah Climate and Water Report

February 2016



Hals Canyon SCAN at Desert Range Experiment Station, December, 2015

Photo by Kent Sutcliffe

Utah General Summary

February 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 January averaged 1.1 inches across the state bringing the seasonal (Oct-Jan) total to 4.4 inches. Precipitation ranged from 0.4 inches in the Uintah Basin to 1.8 inches in the North central Division. Soil Moisture ranges from 29% in southern Utah to 72% in the north Central Division and statewide are near normal. Most areas are in the 30% to 40% of saturation range and with the exception of the Southeast Division, all are dryer this year than last. Soil temperatures are mostly near freezing at the 2, 4 and 8 inch levels but are showing signs of slow warming.

Current Mountain Conditions (SNOTEL)

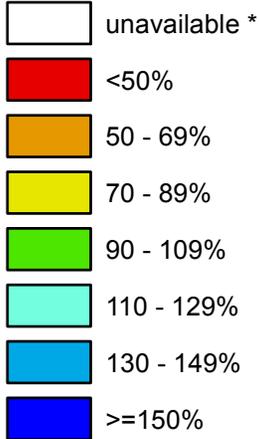
Snowpacks across the state range from near normal (95%-105%) across northern Utah to well above normal (110%-165%) in central and southern Utah. January precipitation was above normal statewide at 116% bringing the seasonal accumulation (Oct-Jan) to 104% of average. Soil moisture values across the state are below normal in northern Utah and above average in the south. Reservoir storage is somewhat less this year at 55% of capacity compared to 62% last year. Streamflow across the state at unregulated sites ranges from much below to near average. Most sites have below normal streamflow indicative of the past 4 years of drought conditions. Overall, water supply conditions are near normal in northern Utah and near to much above normal in the central and southern regions.

Utah

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

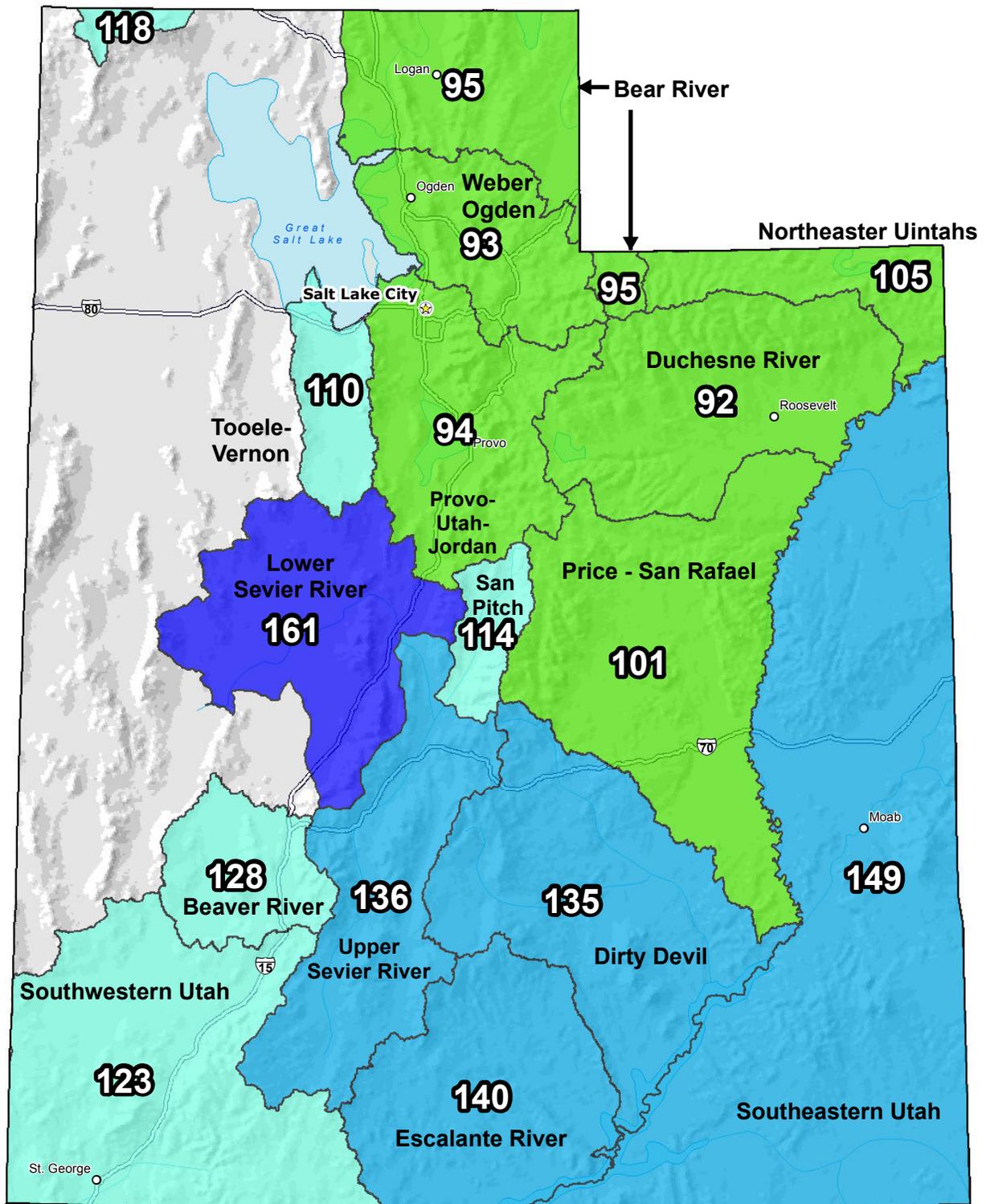
Feb 01, 2016

**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**

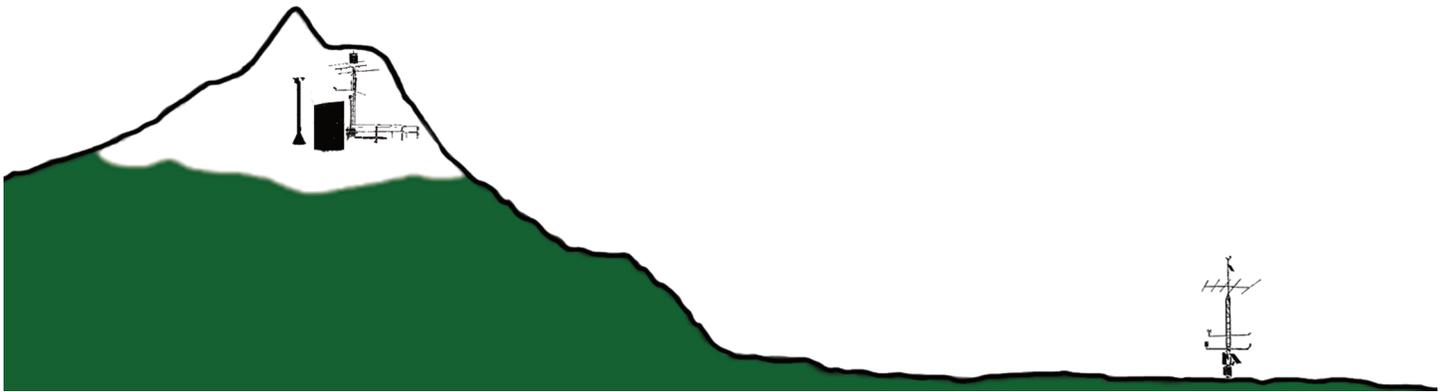


The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

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

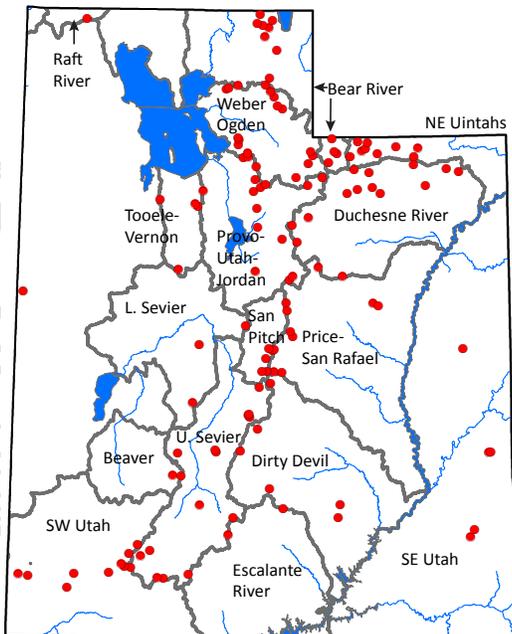
Utah Climate and Water Report

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.



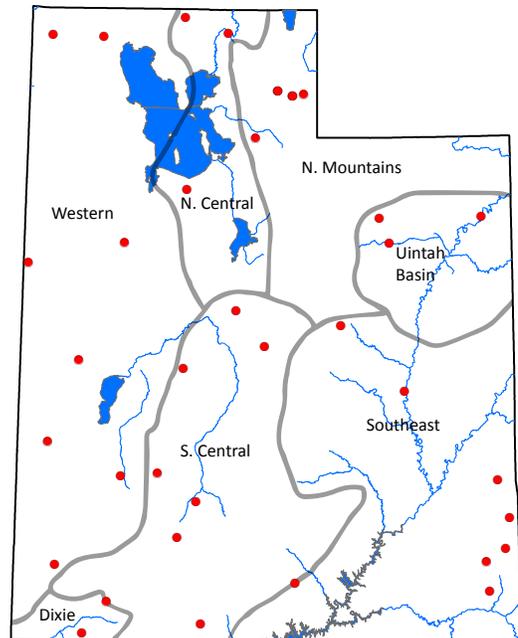
SNOTEL

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



SCAN

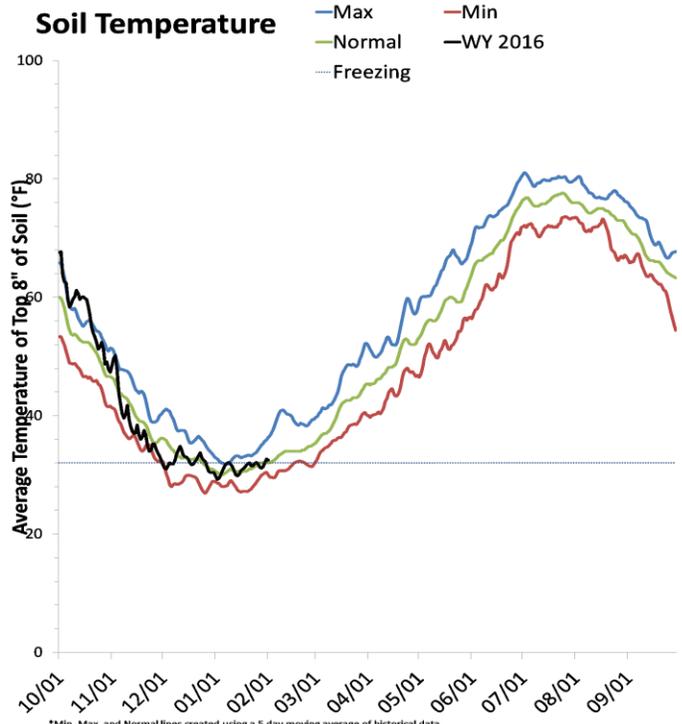
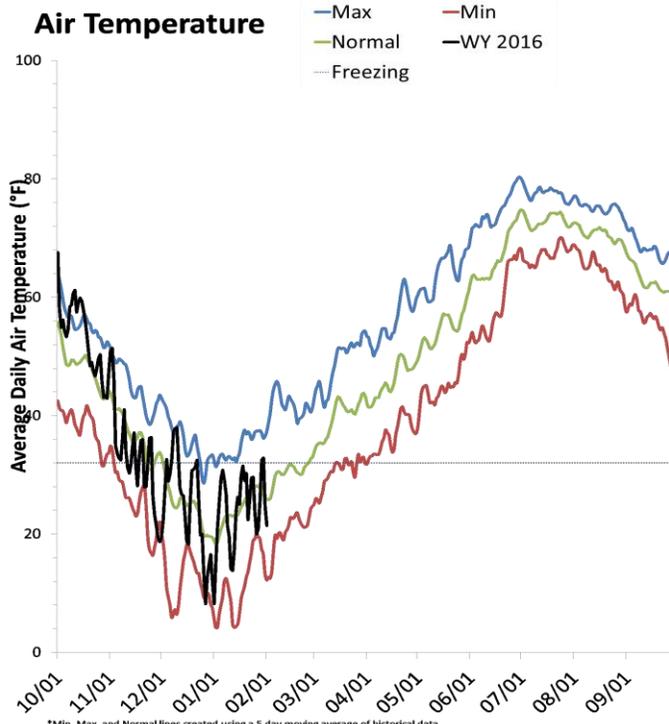
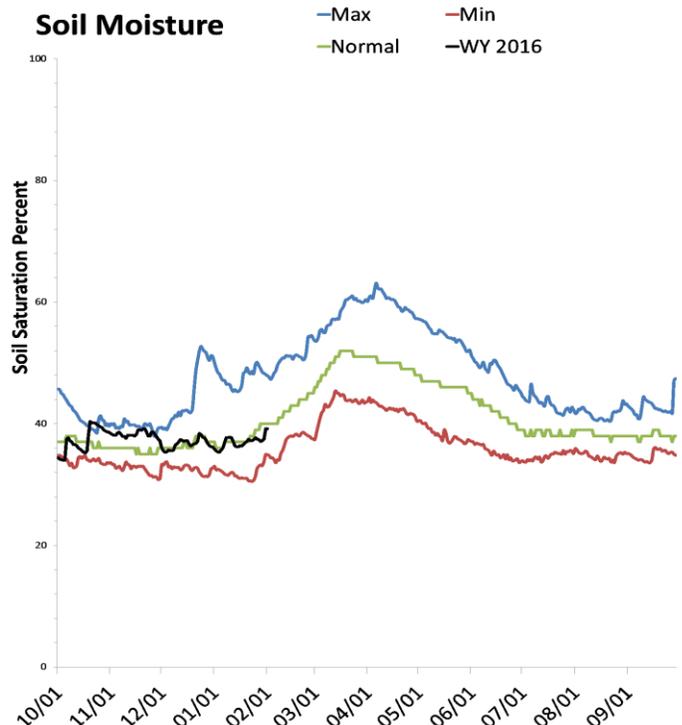
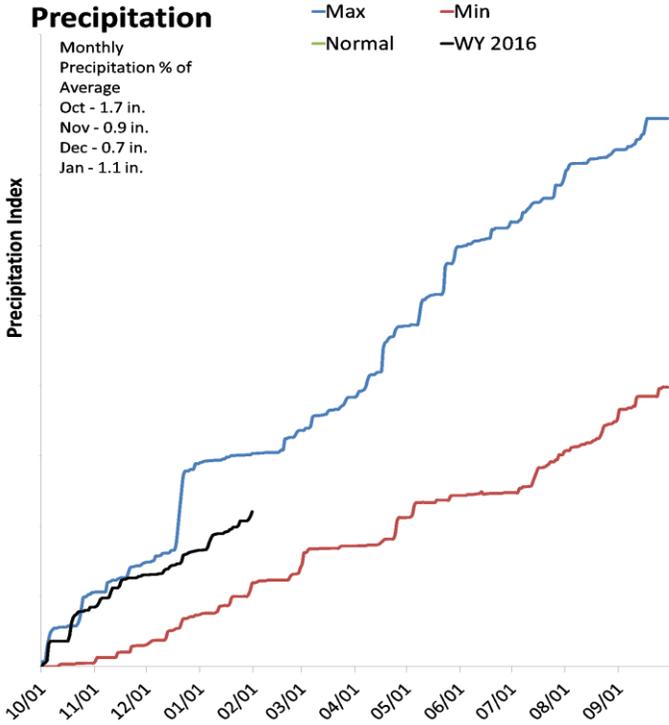
- Agricultural and range lands.
- Mid elevation (3 – 7,000 ft).
- Irrigation efficiency and rangeland productivity.
- Installed on spatially representative soils.



Statewide SCAN

2/1/2016

The average precipitation at SCAN sites within Utah was 1.1 inches in January, which brings the seasonal accumulation (Oct-Jan) to 4.4 inches. Soil moisture is at 39% compared to 45% last year.



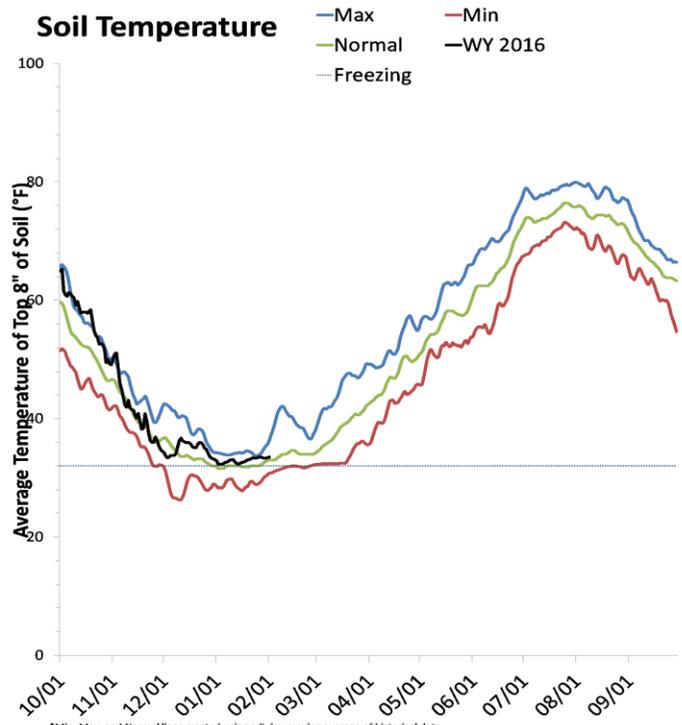
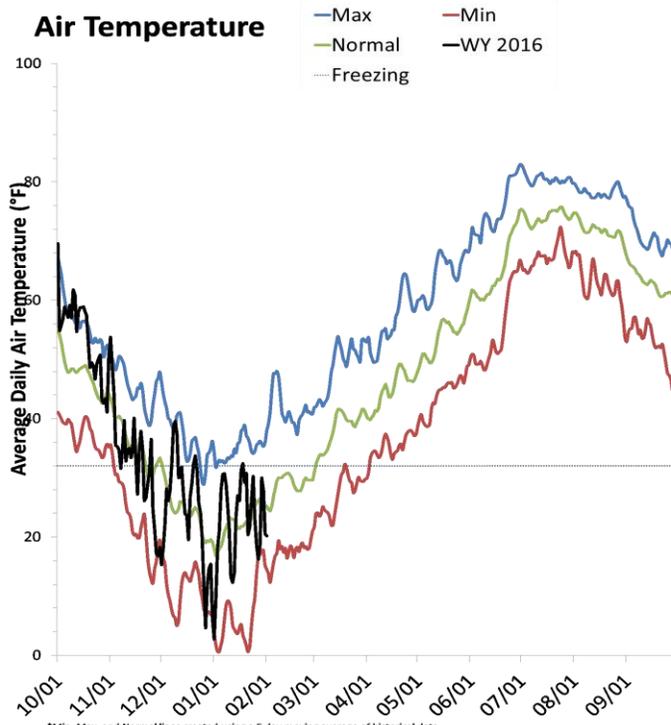
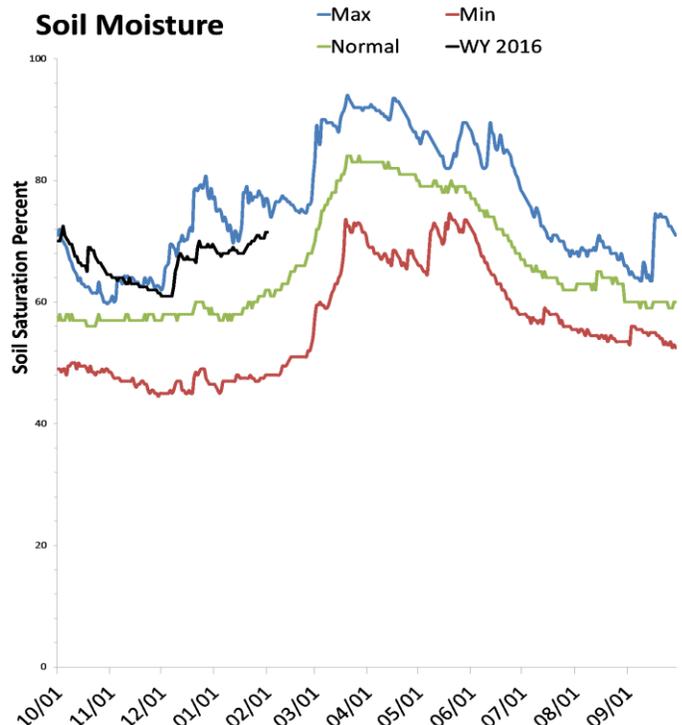
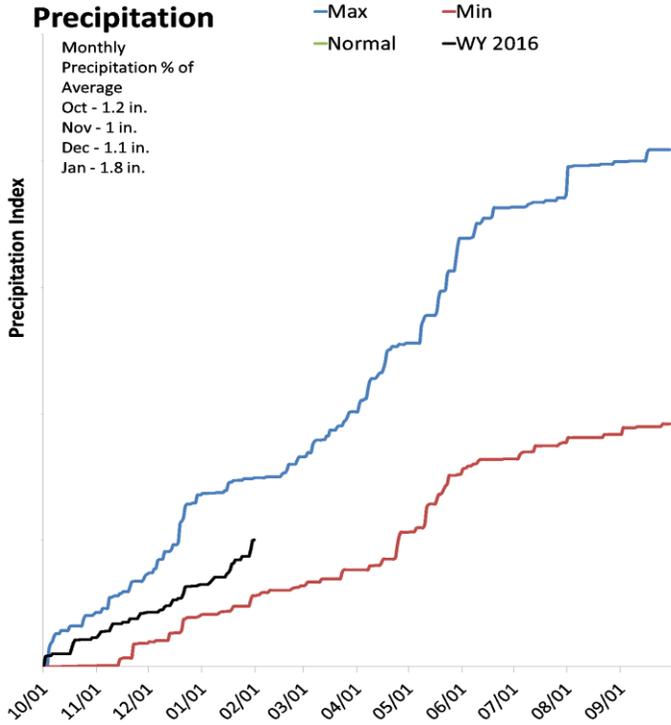
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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North Central

2/1/2016

The average precipitation in January at SCAN sites within the basin was 1.8 inches, which brings the seasonal accumulation (Oct-Jan) to 5 inches. Soil moisture is at 72% compared to 67% last year.



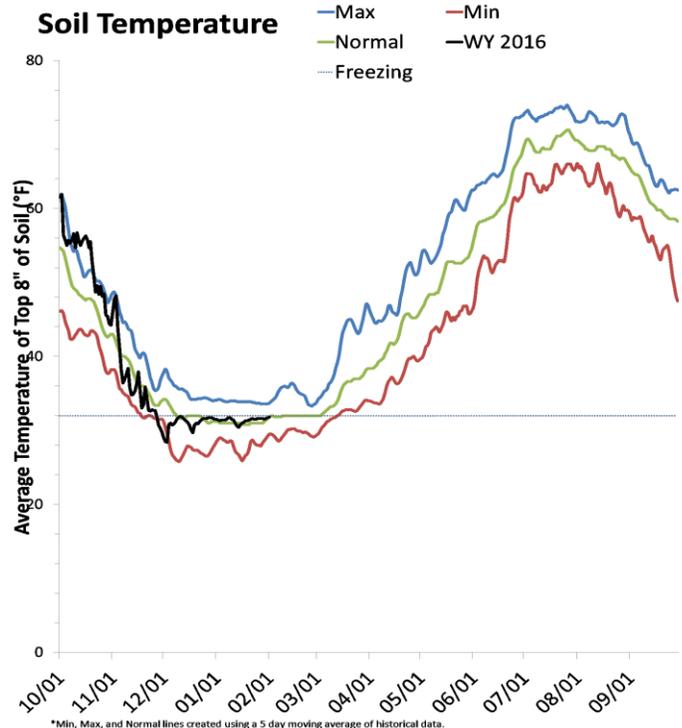
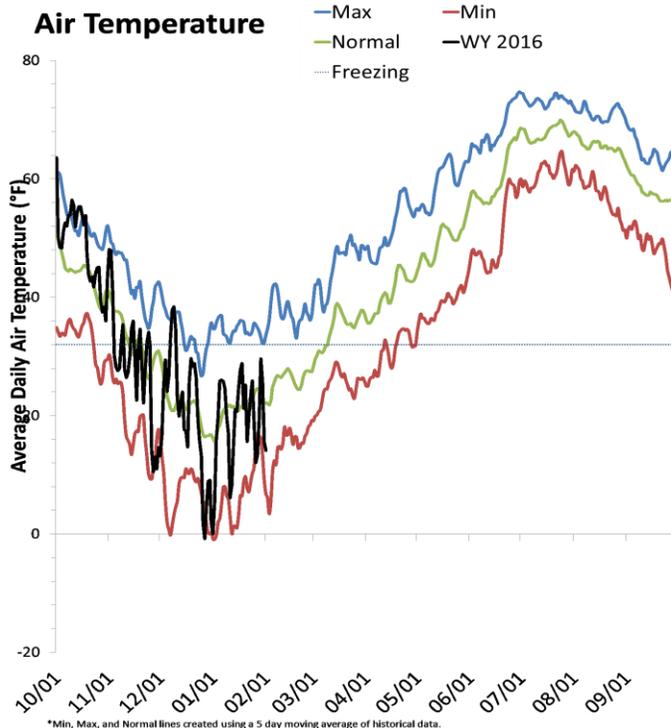
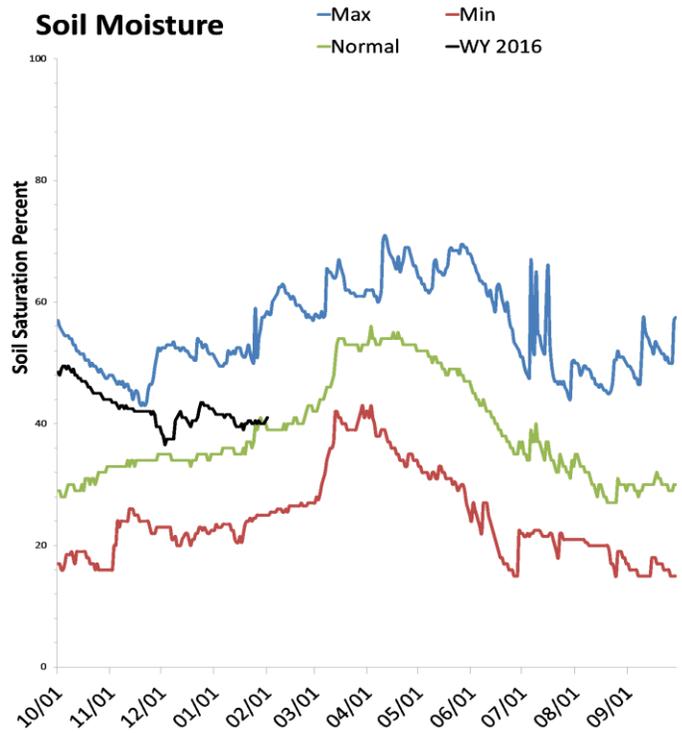
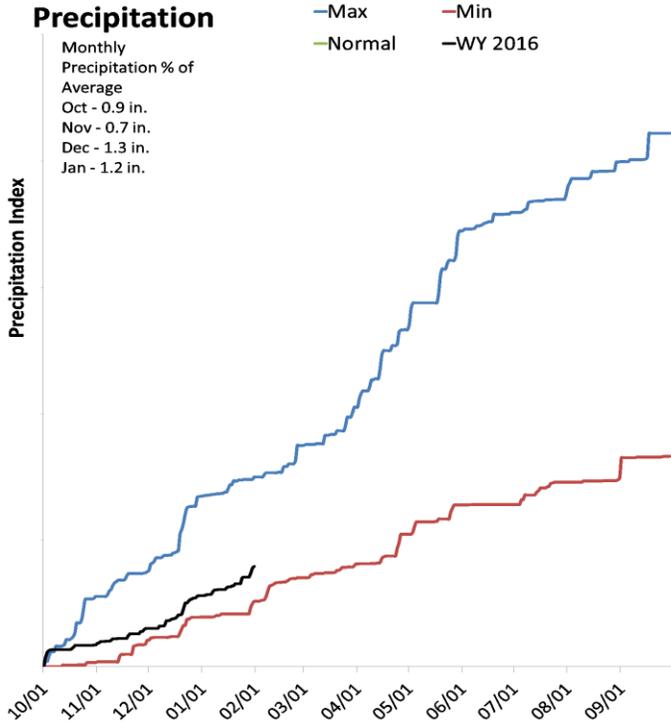
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Northern Mountains

2/1/2016

The average precipitation in January at SCAN sites within the basin was 1.2 inches, which brings the seasonal accumulation (Oct-Jan) to 4 inches. Soil moisture is at 34% compared to 47% last year.



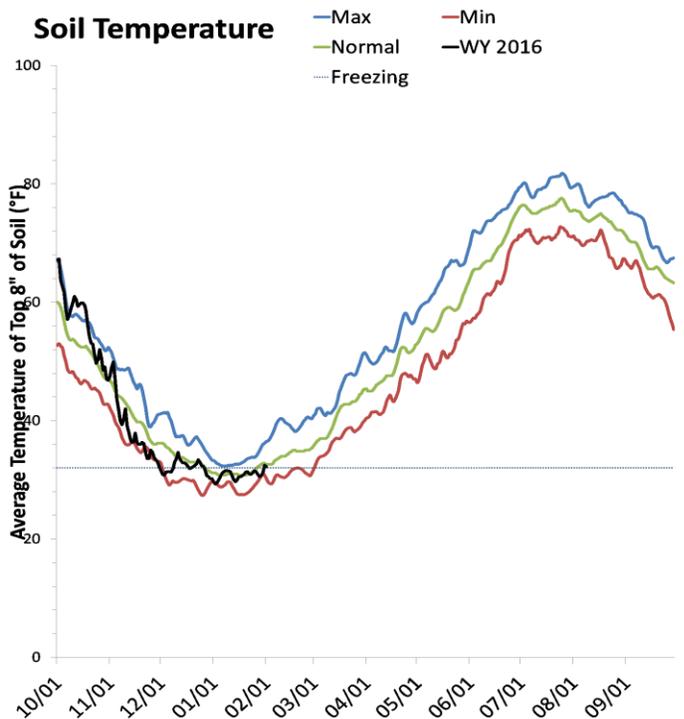
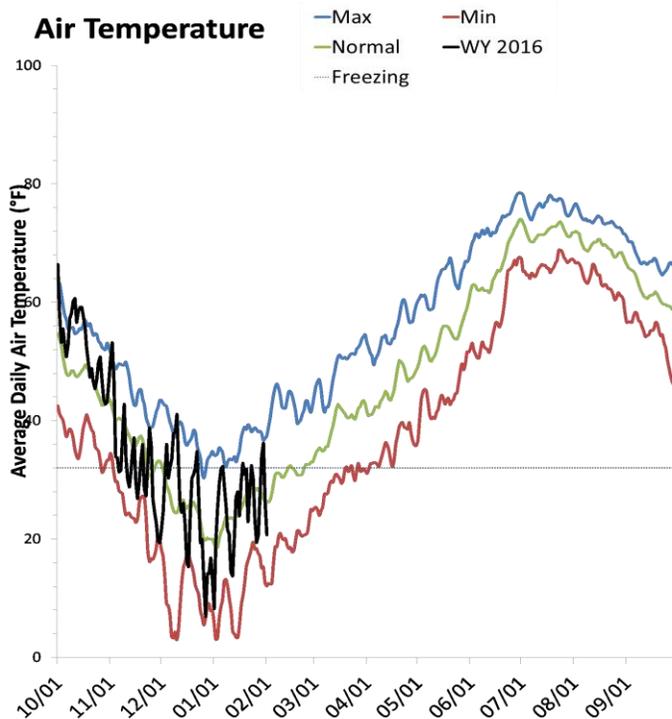
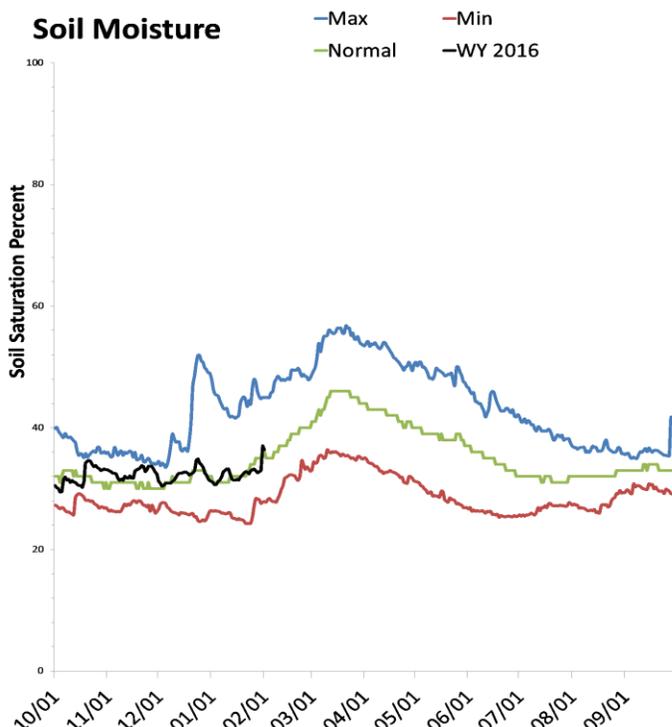
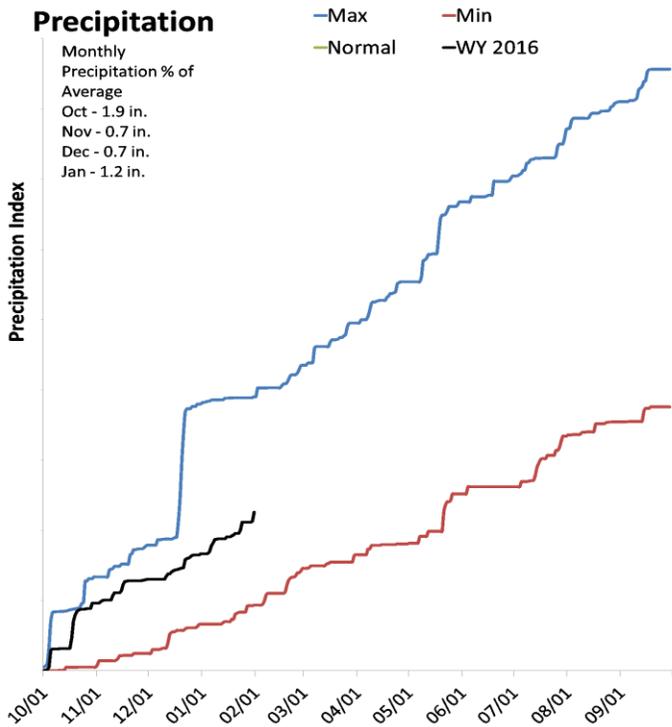
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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South Central

2/1/2016

The average precipitation in January at SCAN sites within the basin was 1.2 inches, which brings the seasonal accumulation (Oct-Jan) to 4.5 inches. Soil moisture is at 36% compared to 39% last year.



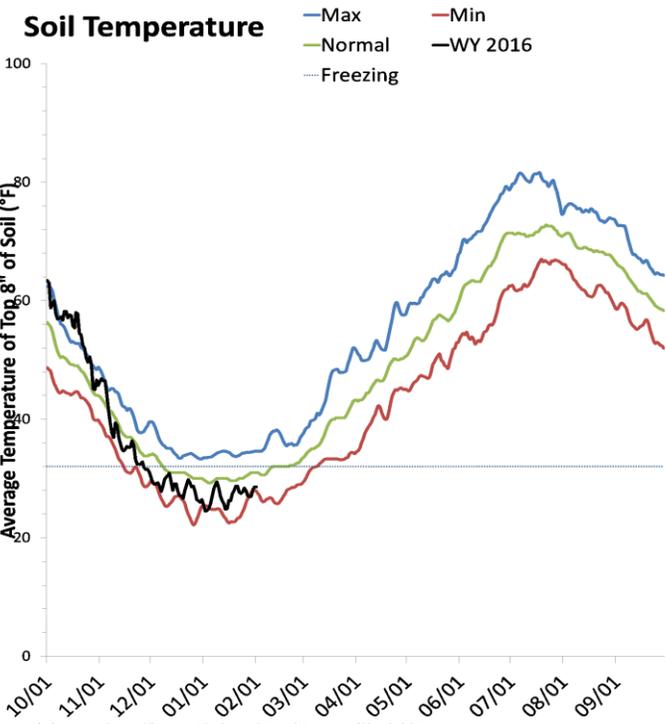
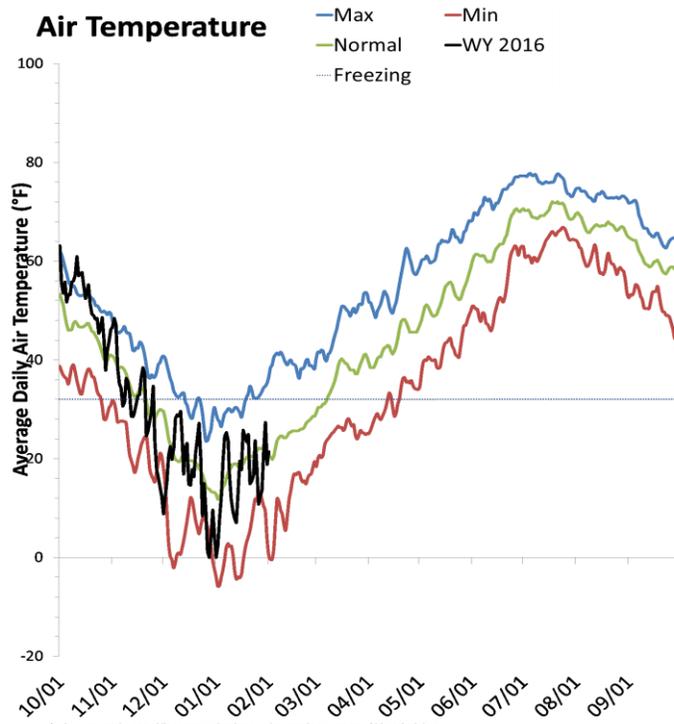
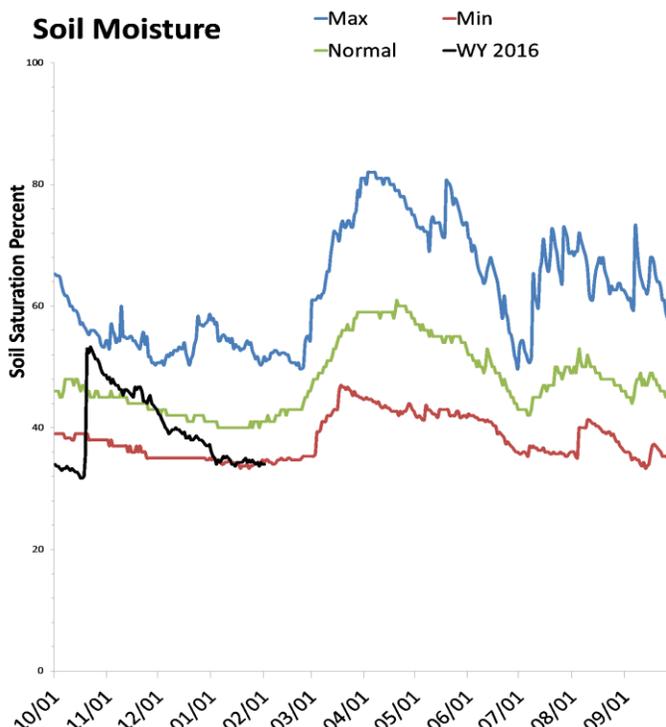
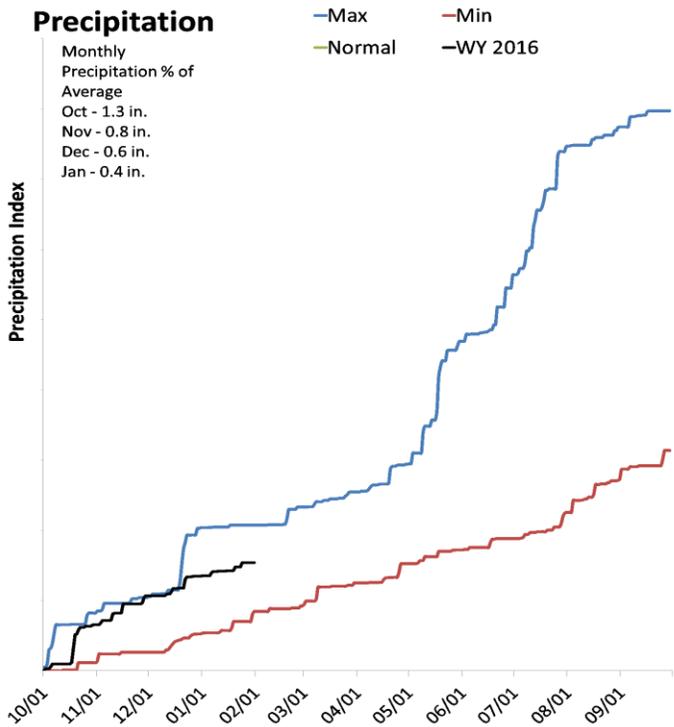
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Uintah Basin

2/1/2016

The average precipitation in January at SCAN sites within the basin was 0.4 inches, which brings the seasonal accumulation (Oct-Jan) to 3.1 inches. Soil moisture is at 34% compared to 49% last year.



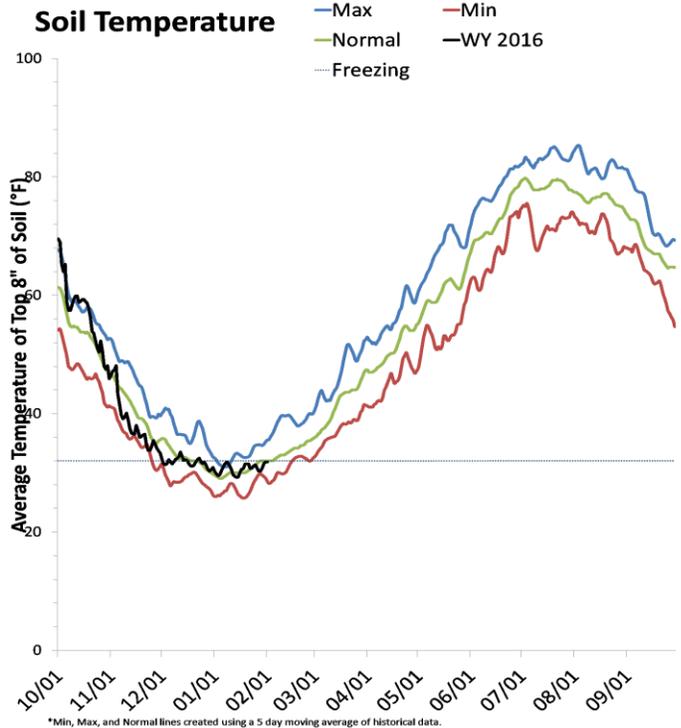
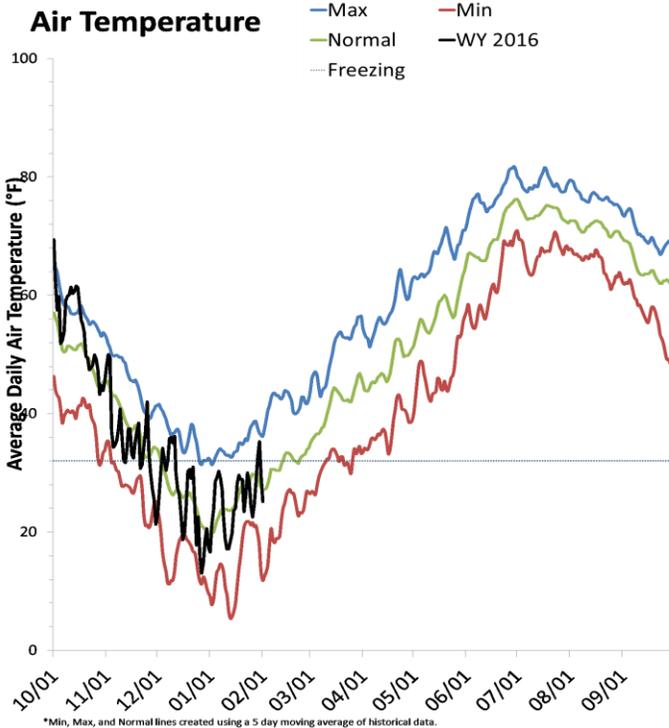
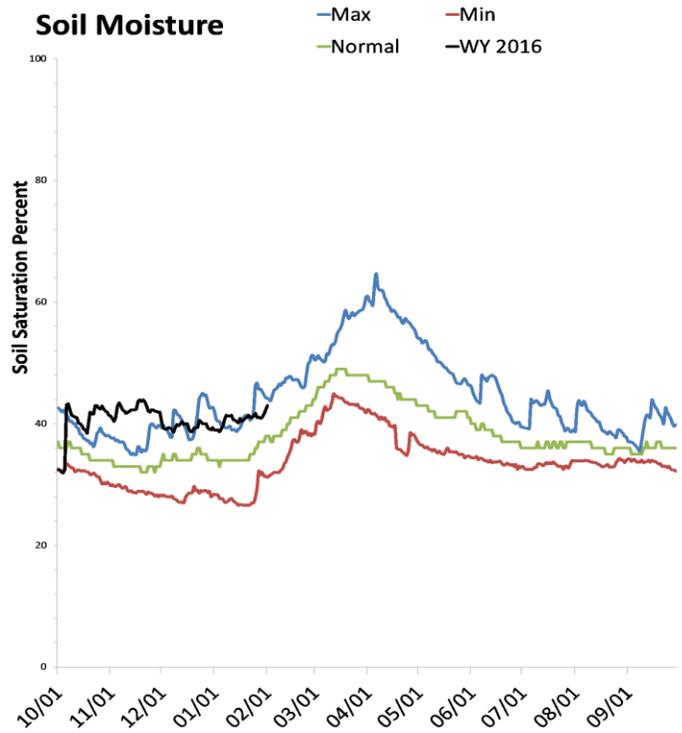
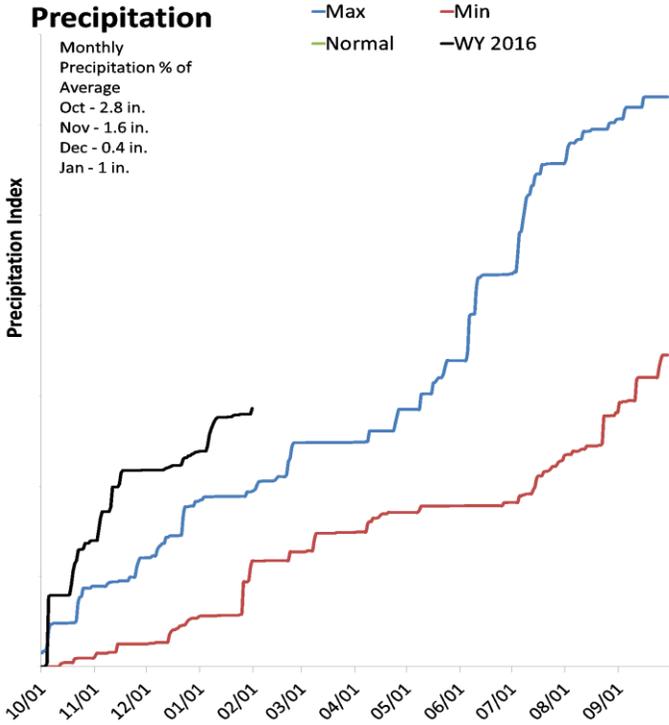
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Southeast

2/1/2016

The average precipitation in January at SCAN sites within the basin was 1 inches, which brings the seasonal accumulation (Oct-Jan) to 5.7 inches. Soil moisture is at 43% compared to 40% last year.



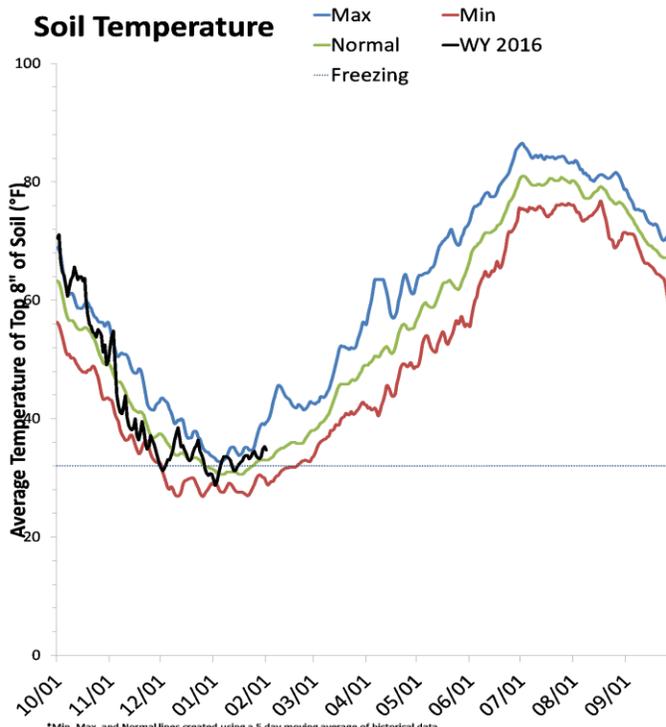
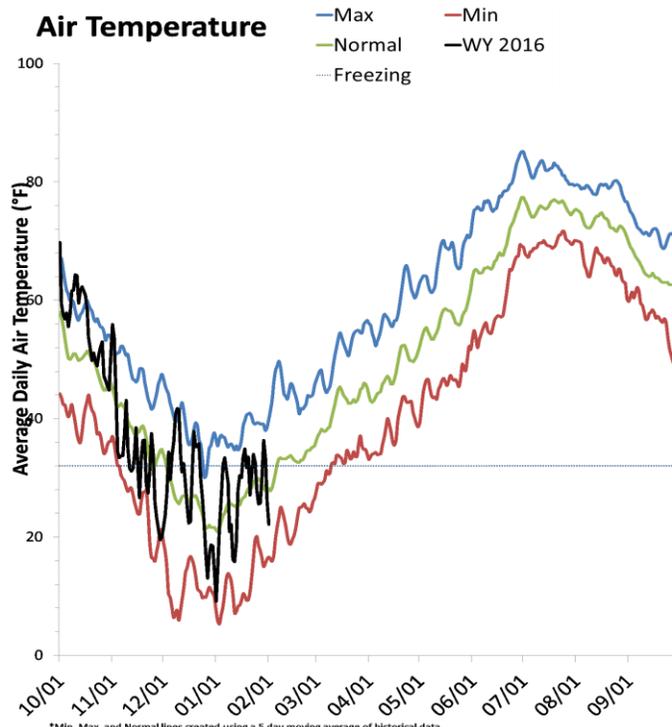
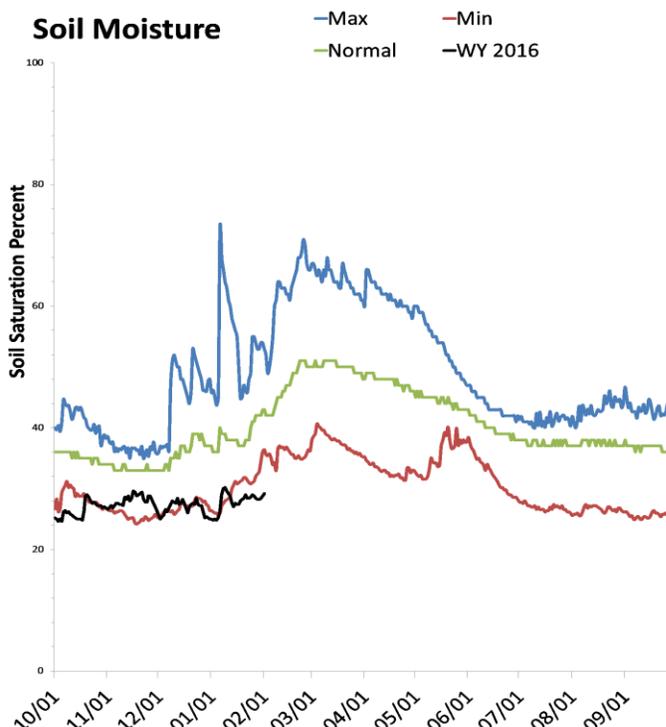
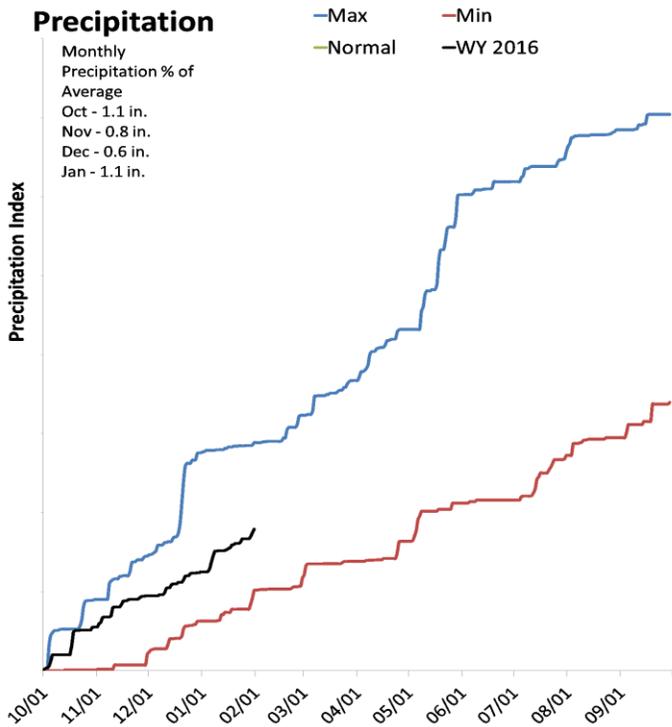
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Western and Dixie

2/1/2016

The average precipitation in January at SCAN sites within the basin was 1.1 inches, which brings the seasonal accumulation (Oct-Jan) to 3.6 inches. Soil moisture is at 29% compared to 46% last year.



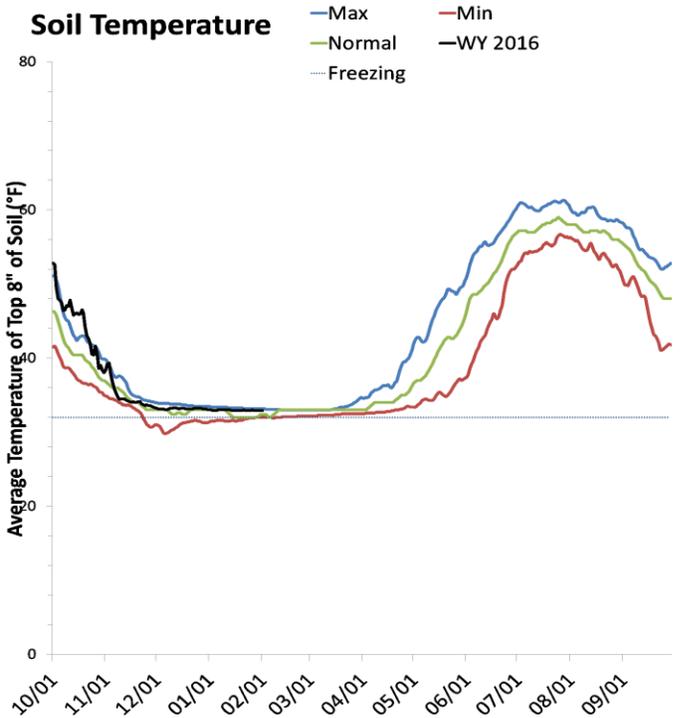
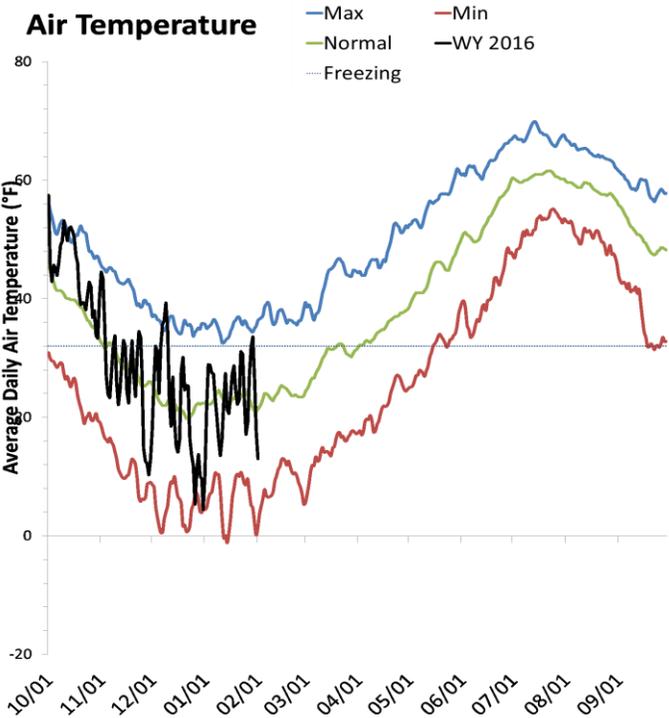
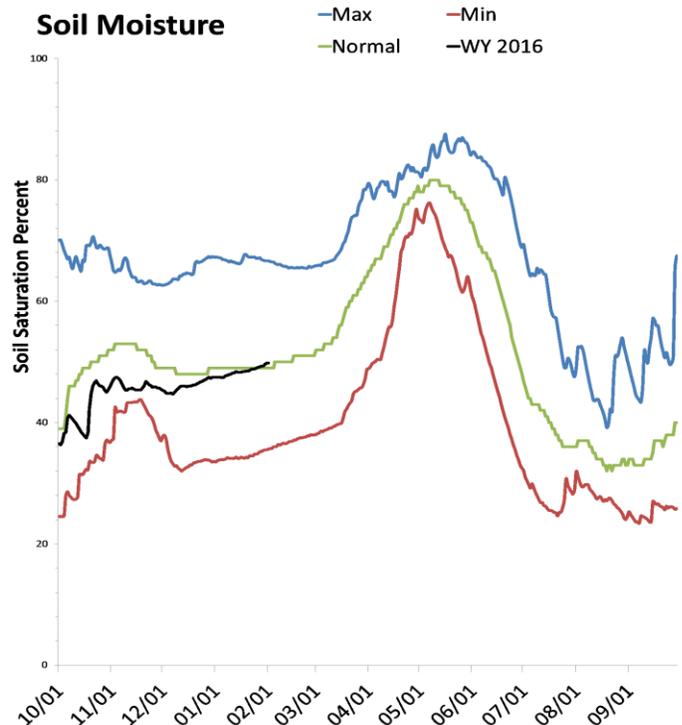
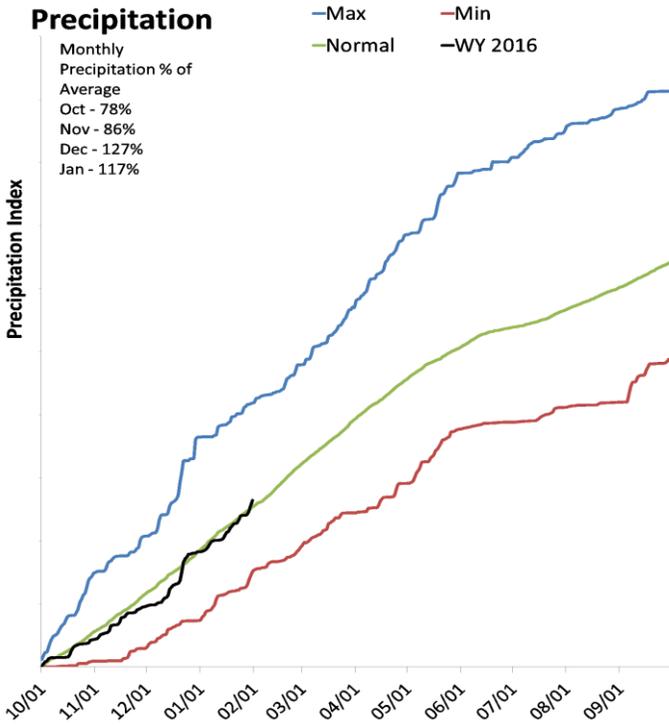
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Statewide SNOTEL

2/1/2016

Precipitation at SNOTEL sites during January was above average at 116%, which brings the seasonal accumulation (Oct-Jan) to 104% of average. Soil moisture is at 51% compared to 55% last year. Reservoir storage is at 55% of capacity, compared to 62% last year.



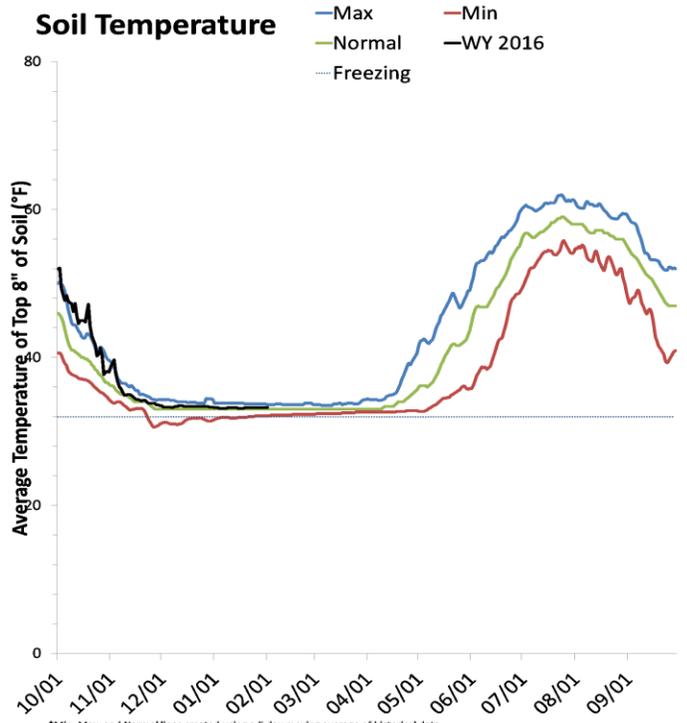
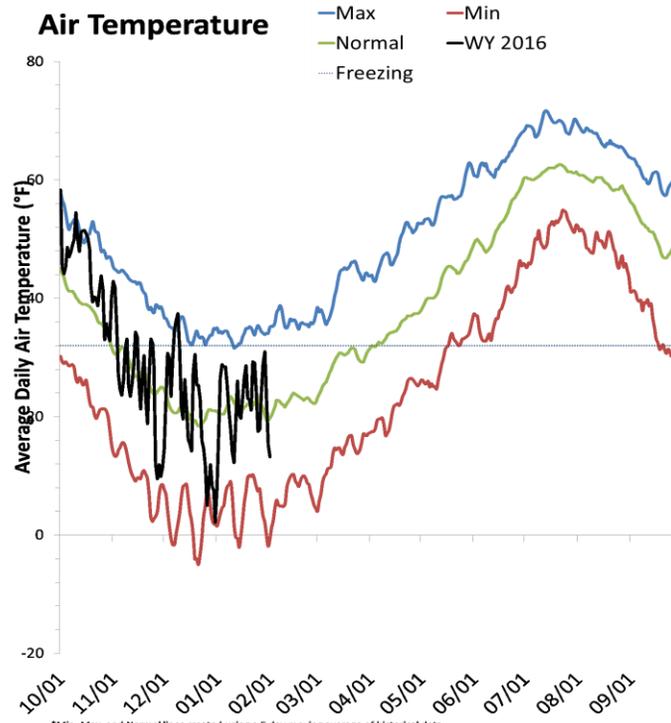
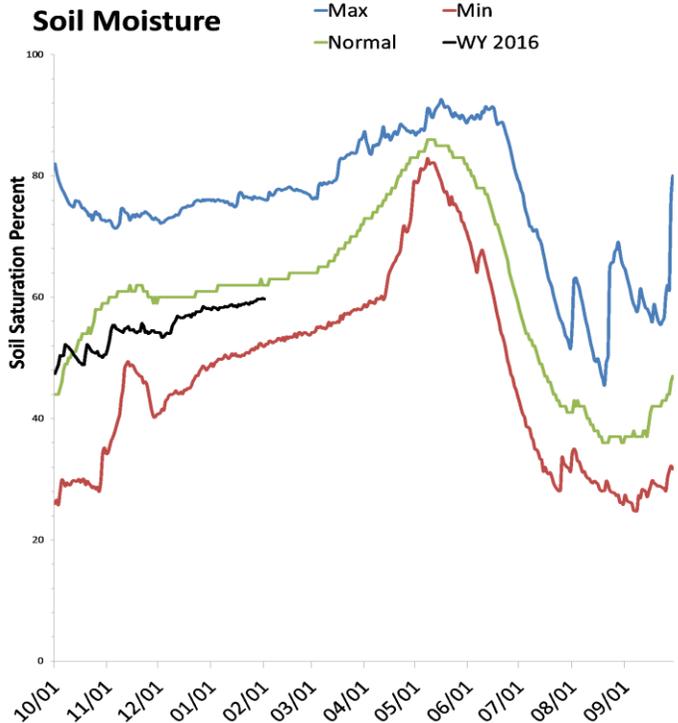
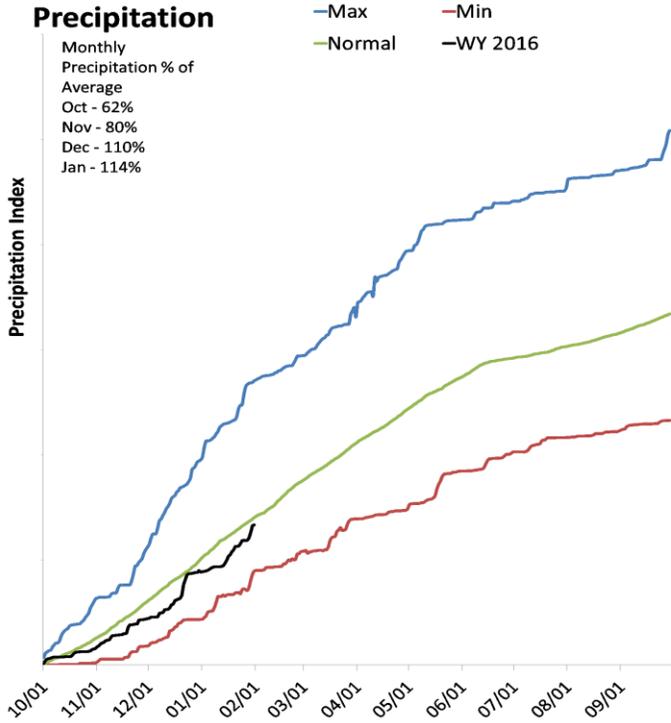
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Bear River Basin

2/1/2016

Precipitation in January was above average at 113%, which brings the seasonal accumulation (Oct-Jan) to 95% of average. Soil moisture is at 60% compared to 70% last year. Reservoir storage is at 38% of capacity, compared to 44% last year. The water availability index for the Bear River is 43%, 68% for Woodruff Narrows and 28% for the Little Bear.



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

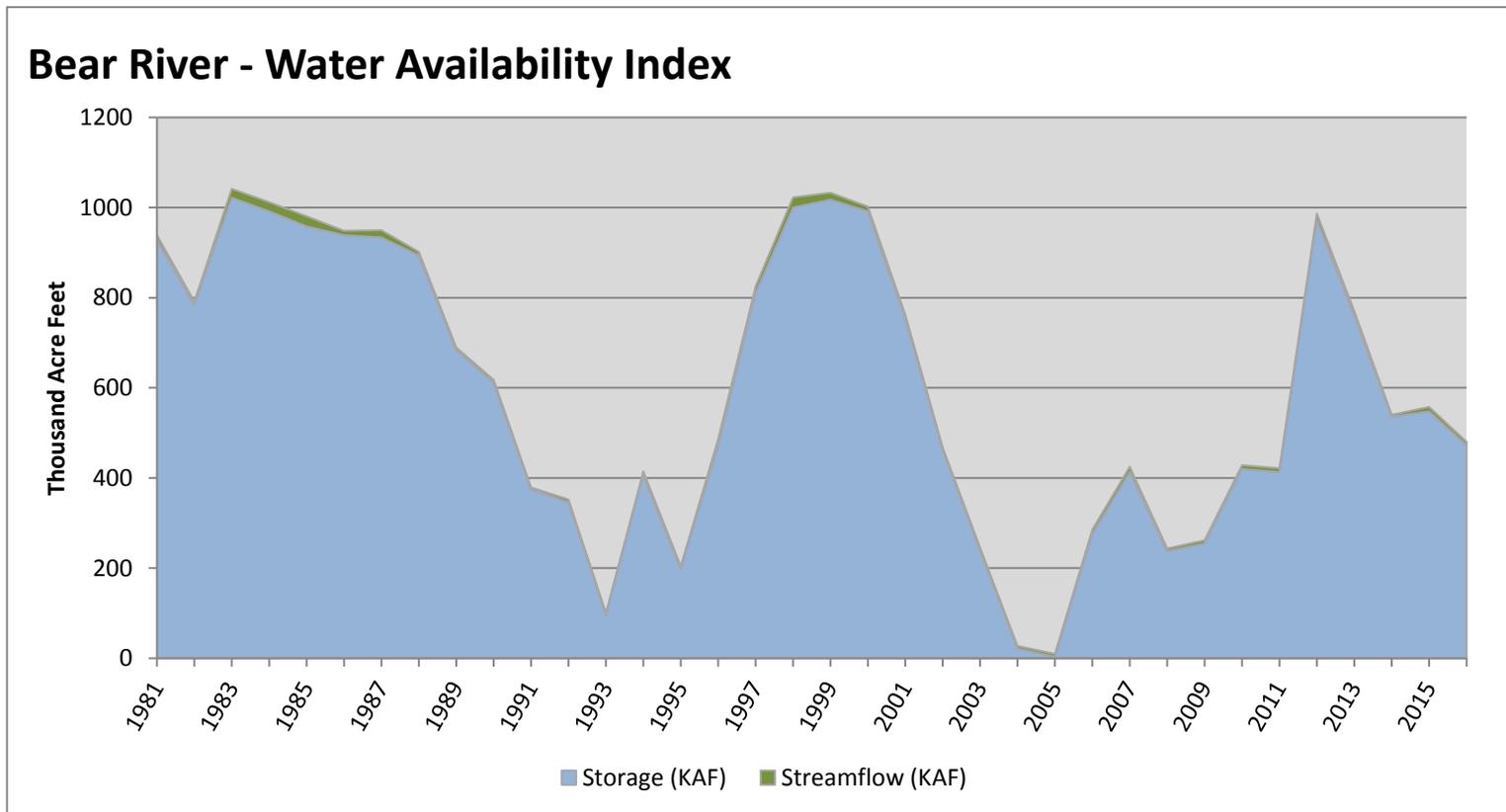
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Bear River	472.18	7.67	479.85	43	-0.56	10, 02, 96, 14

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

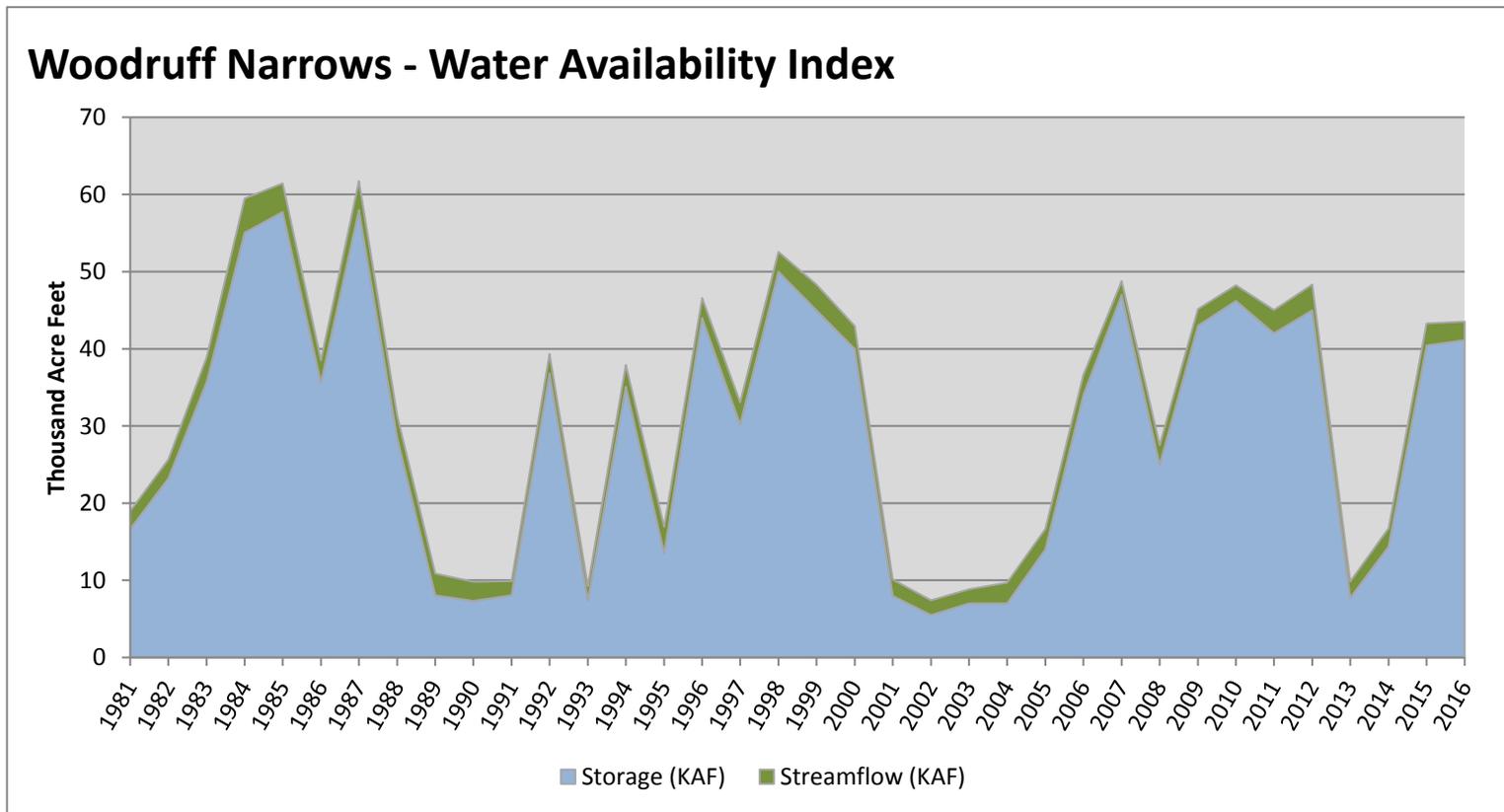


February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Woodruff Narrows	41.14	2.38	43.52	68	1.46	00, 15, 11, 09

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

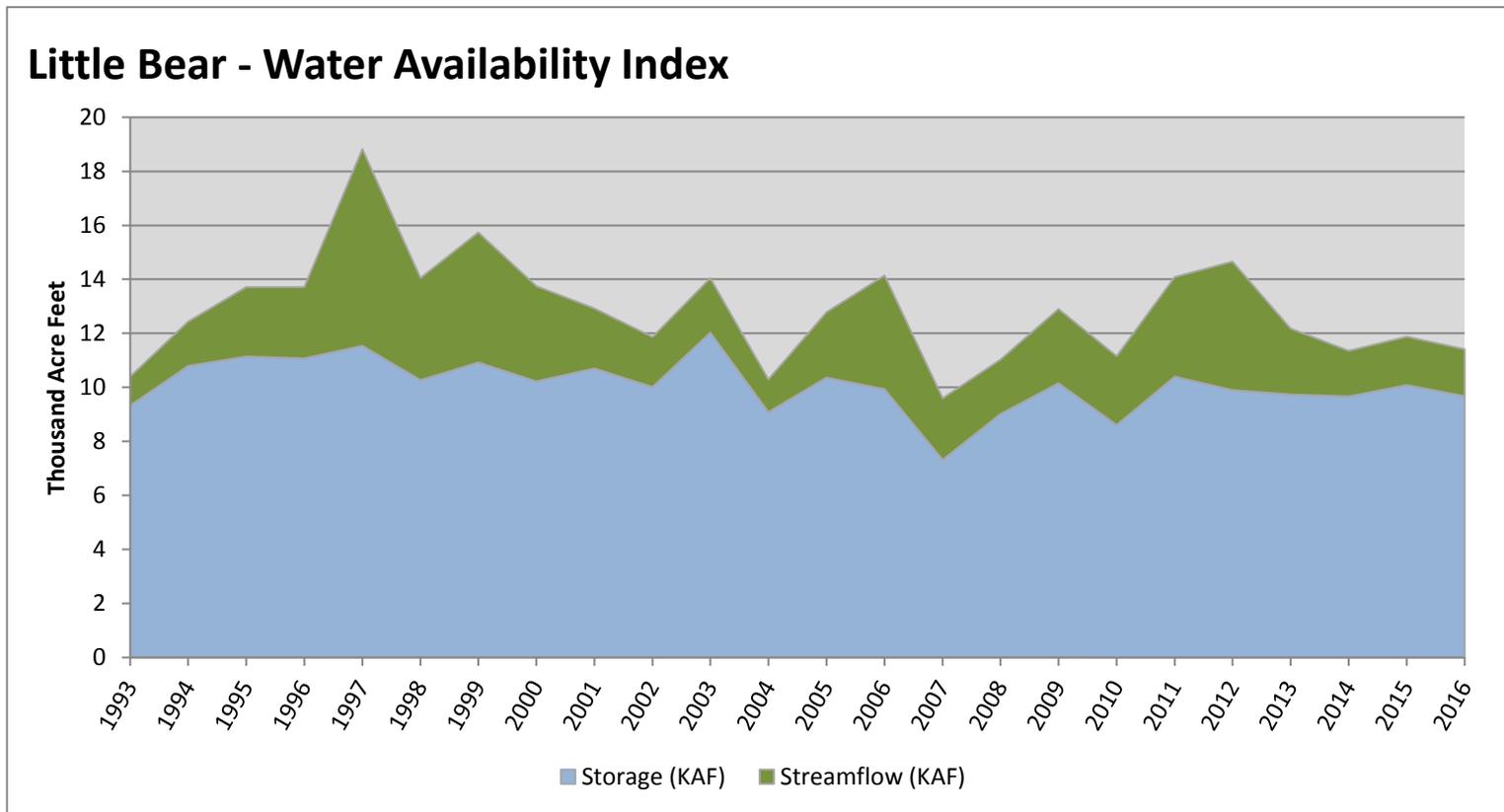


February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Little Bear	9.68	1.73	11.41	28	-1.83	10, 14, 02, 15

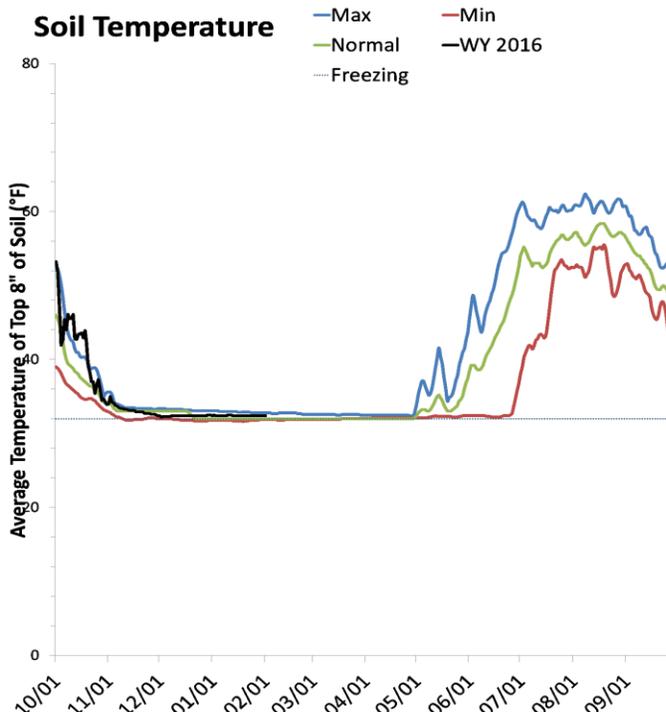
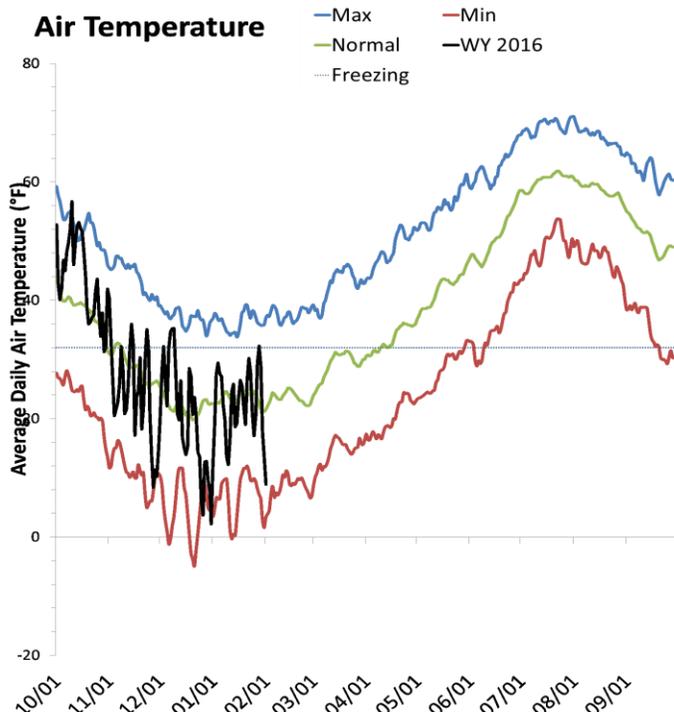
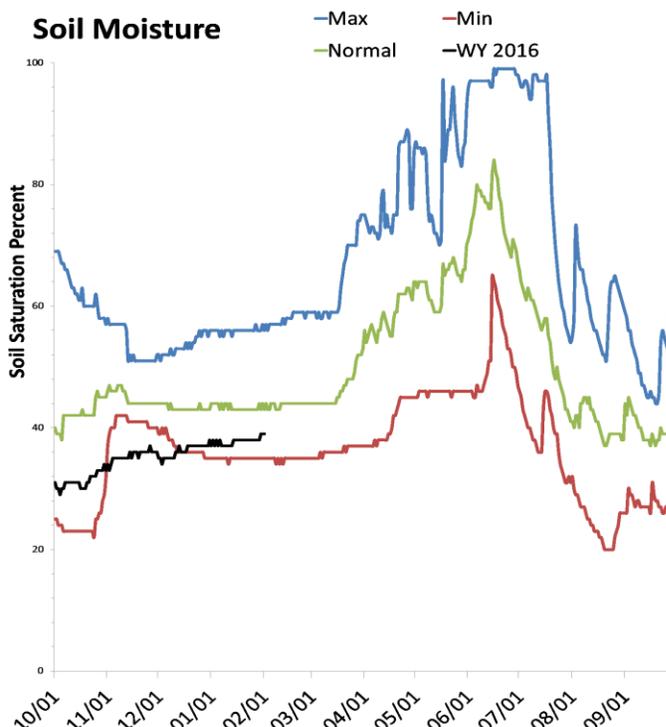
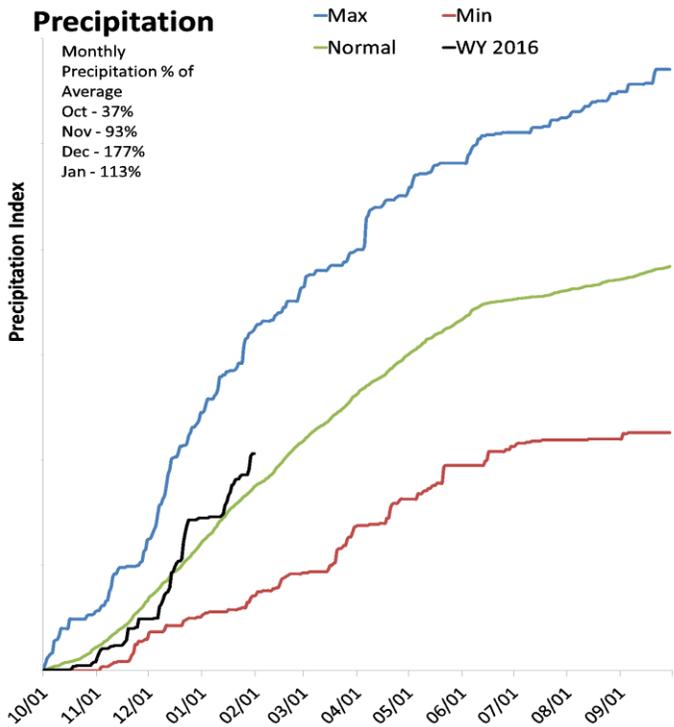
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Raft River Basin

2/1/2016

Precipitation in January was above average at 111%, which brings the seasonal accumulation (Oct-Jan) to 118% of average. Soil moisture is at 39% compared to 59% last year.



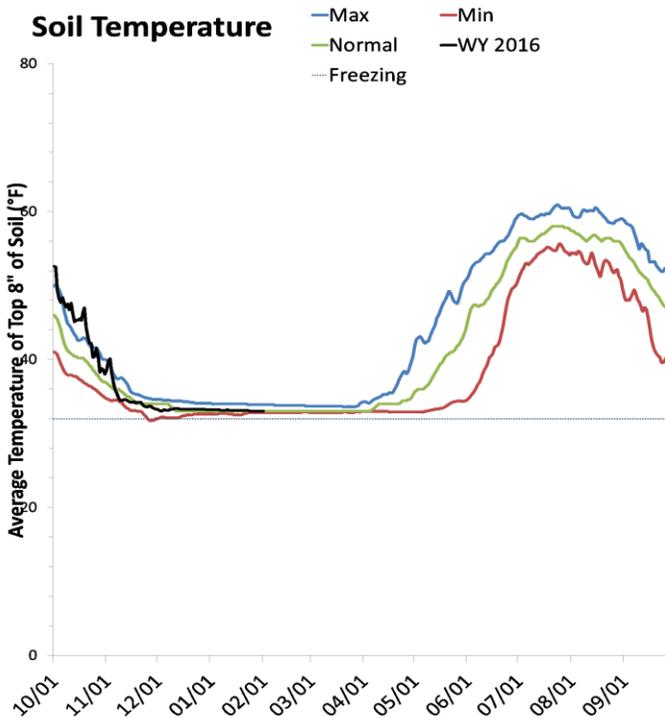
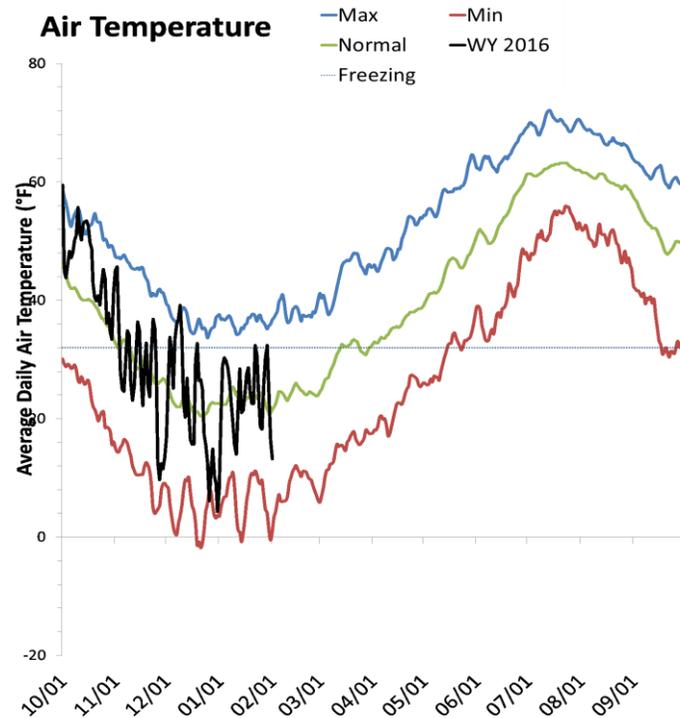
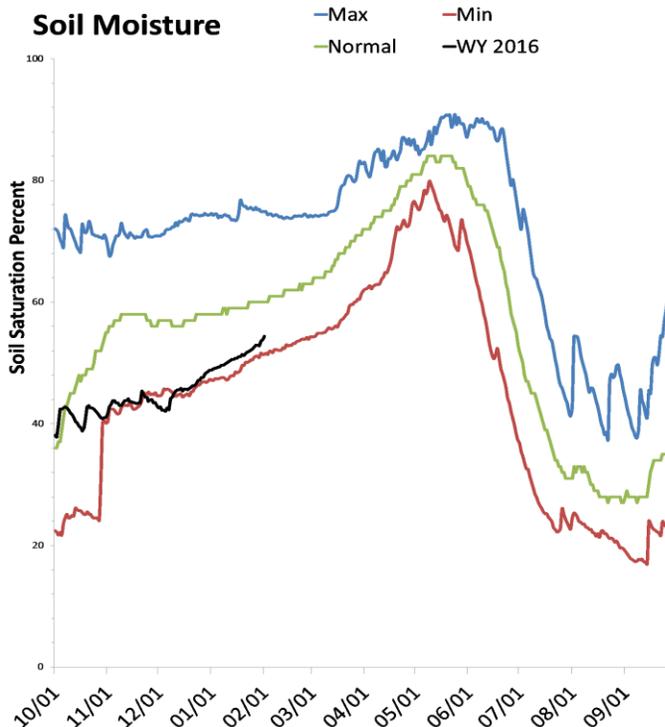
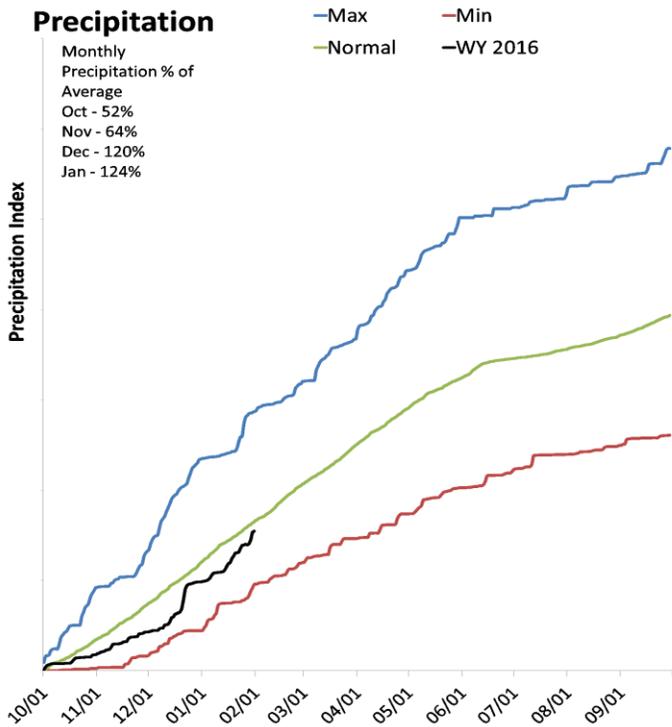
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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Weber & Ogden River Basins

2/1/2016

Precipitation in January was above average at 121%, which brings the seasonal accumulation (Oct-Jan) to 93% of average. Soil moisture is at 54% compared to 61% last year. Reservoir storage is at 46% of capacity, compared to 49% last year. The water availability index for the Ogden River is 46% and 30% for the Weber River.



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

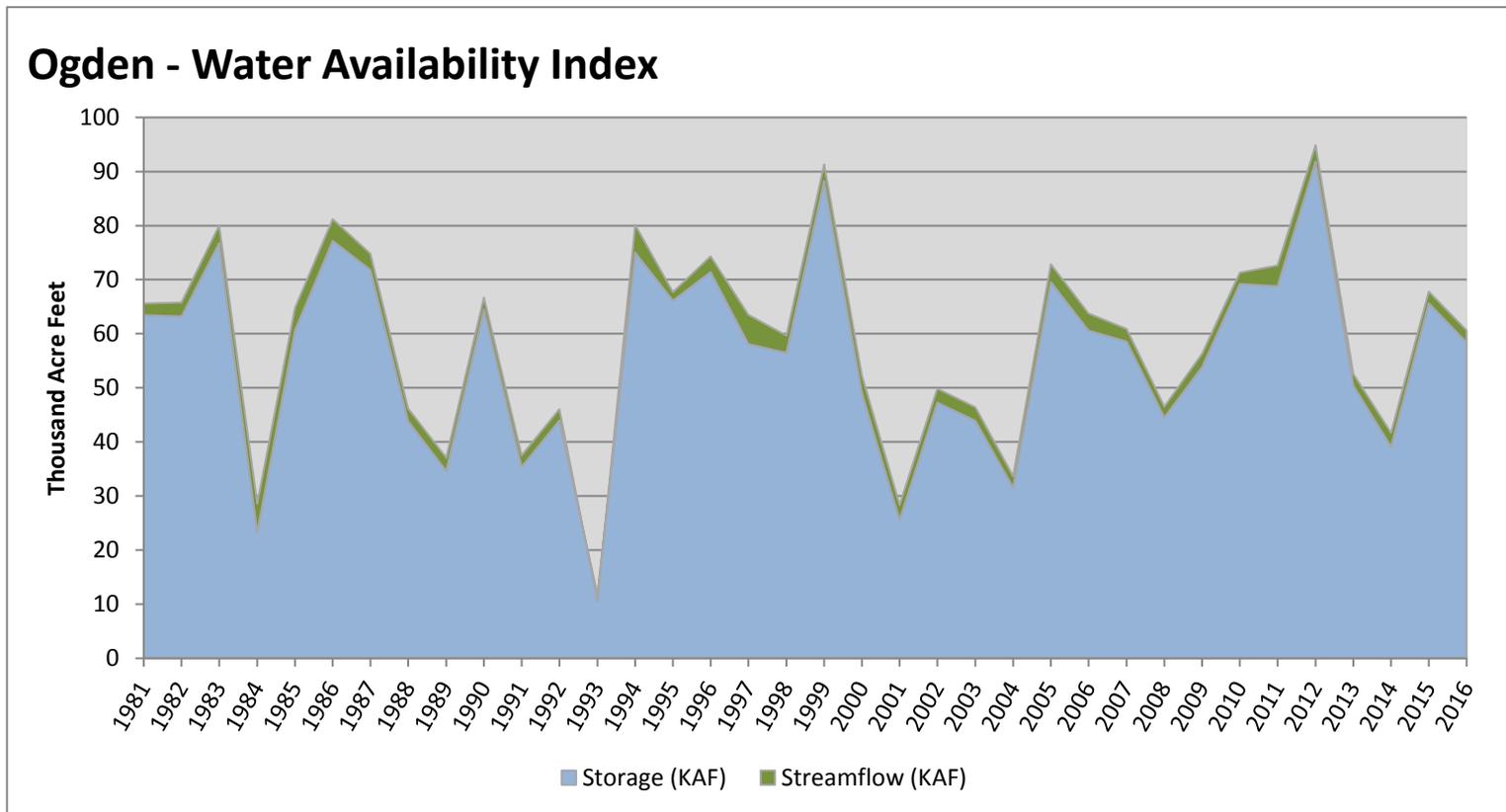
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Ogden	58.42	2.20	60.62	46	-0.34	09, 98, 07, 97

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

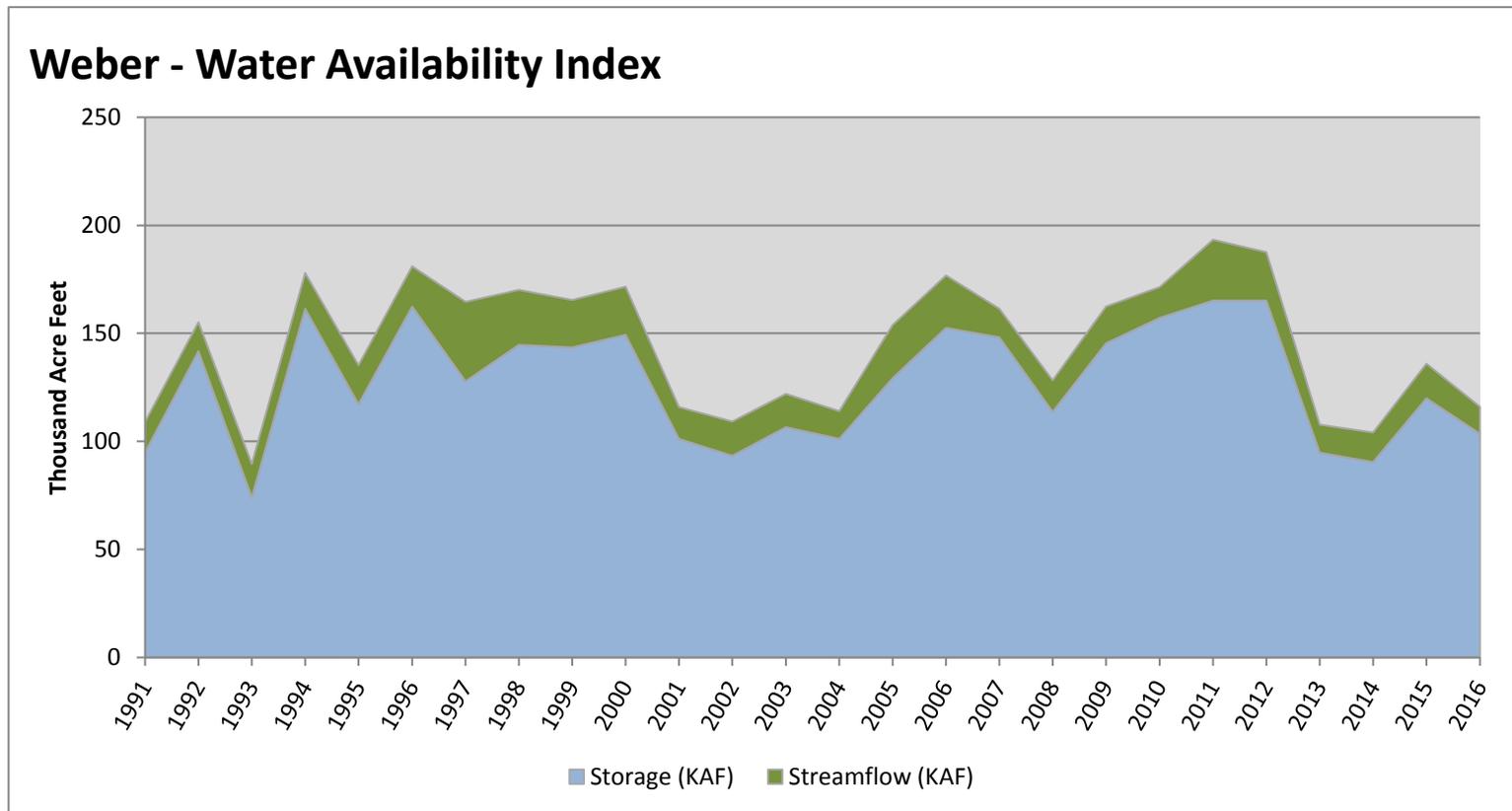


February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Weber	103.58	12.39	115.97	30	-1.7	04, 01, 03, 08

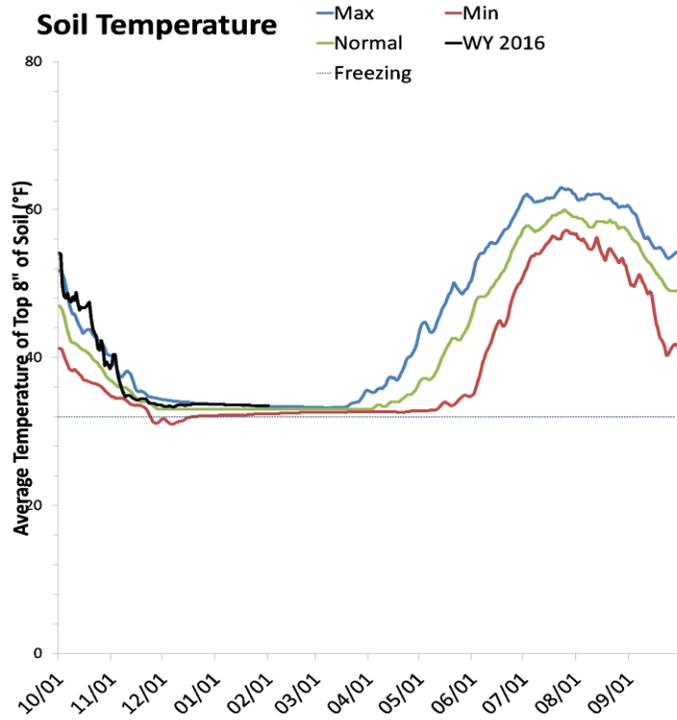
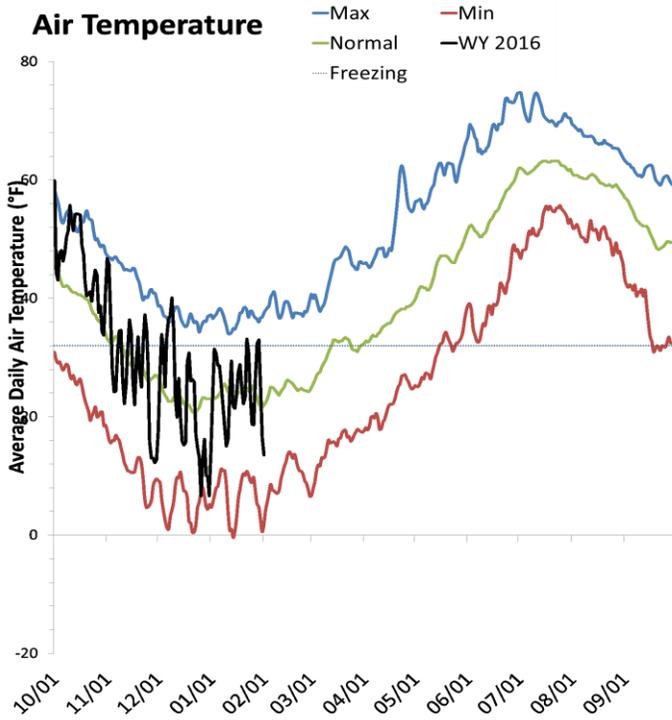
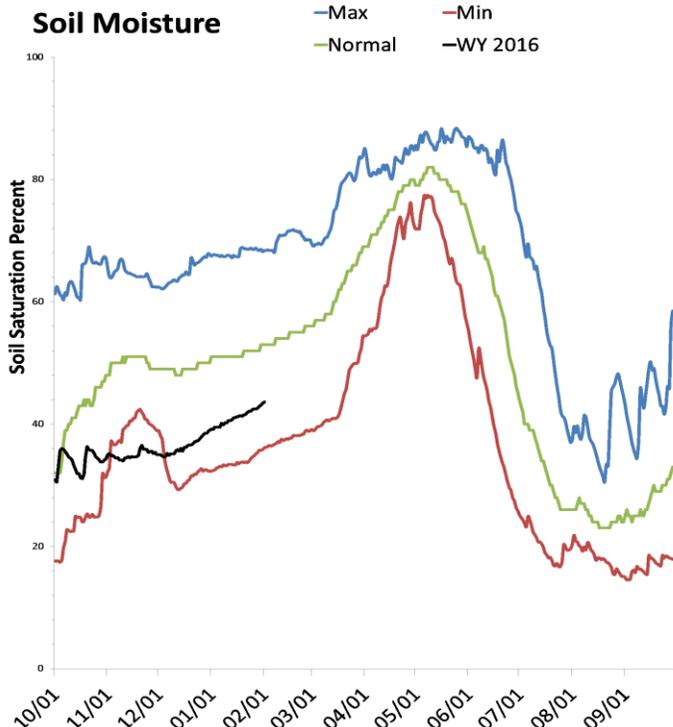
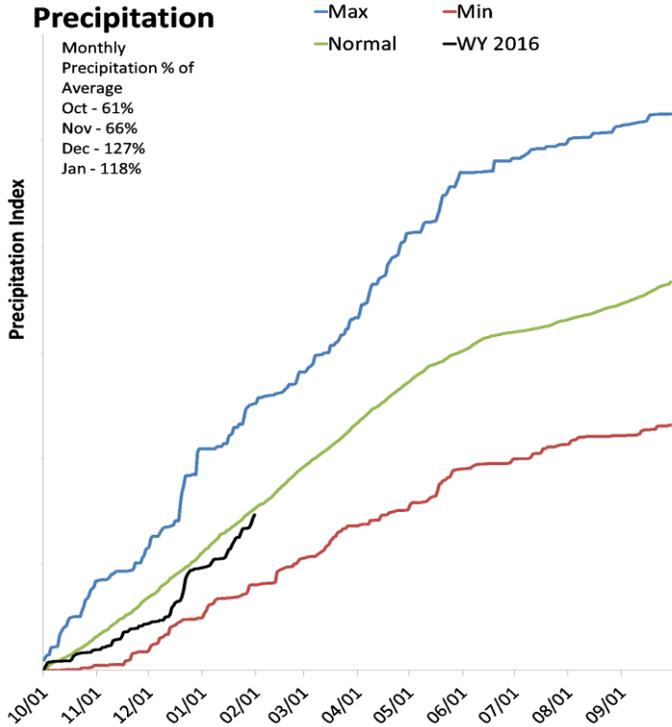
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Provo & Jordan River Basins

2/1/2016

Precipitation in January was above average at 113%, which brings the seasonal accumulation (Oct-Jan) to 95% of average. Soil moisture is at 43% compared to 59% last year. Reservoir storage is at 62% of capacity, compared to 70% last year. The water availability index for the Provo River is 14%.



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

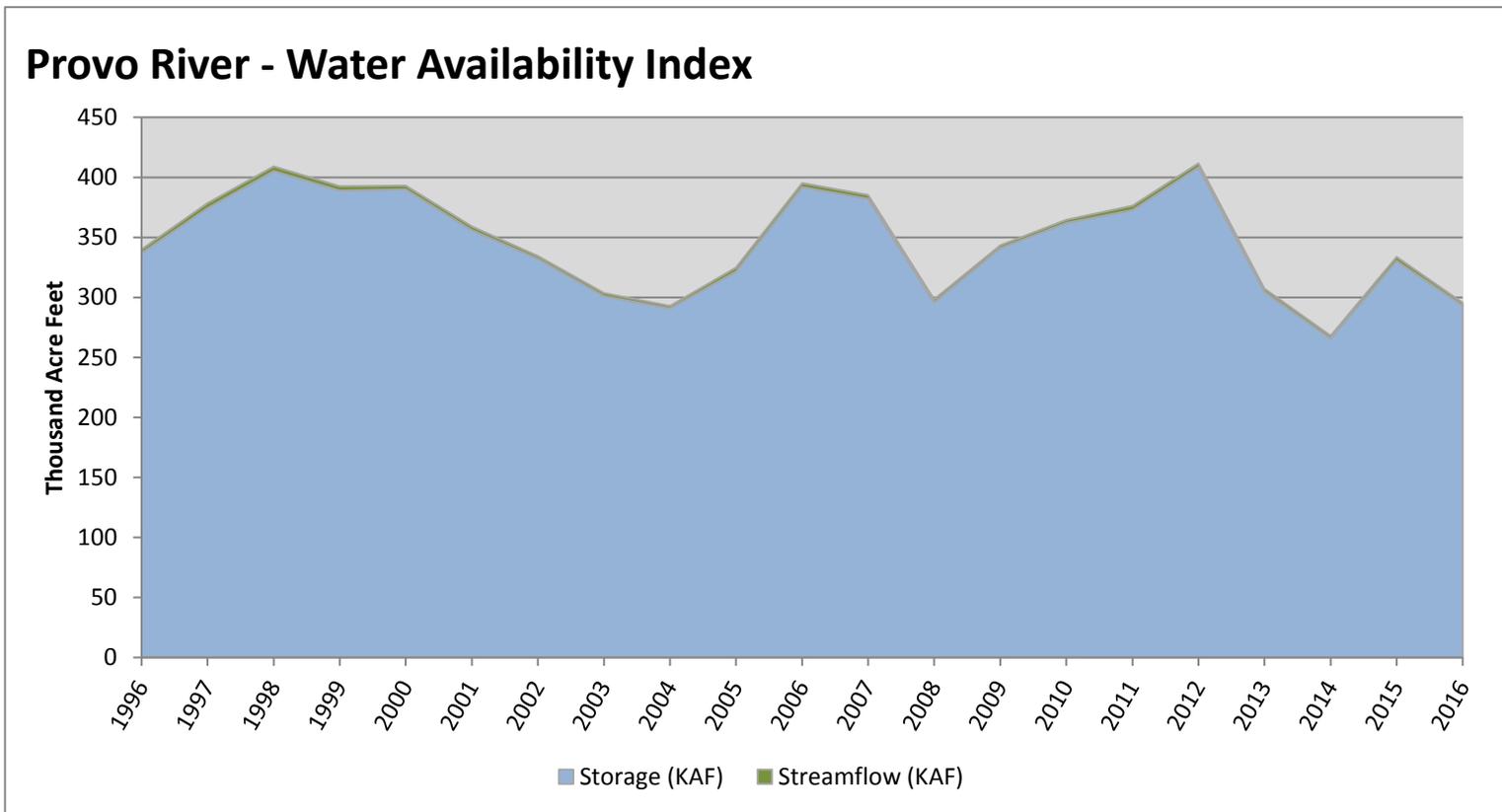
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Provo River	293.19	2.36	295.55	14	-3.03	14, 04, 08, 03

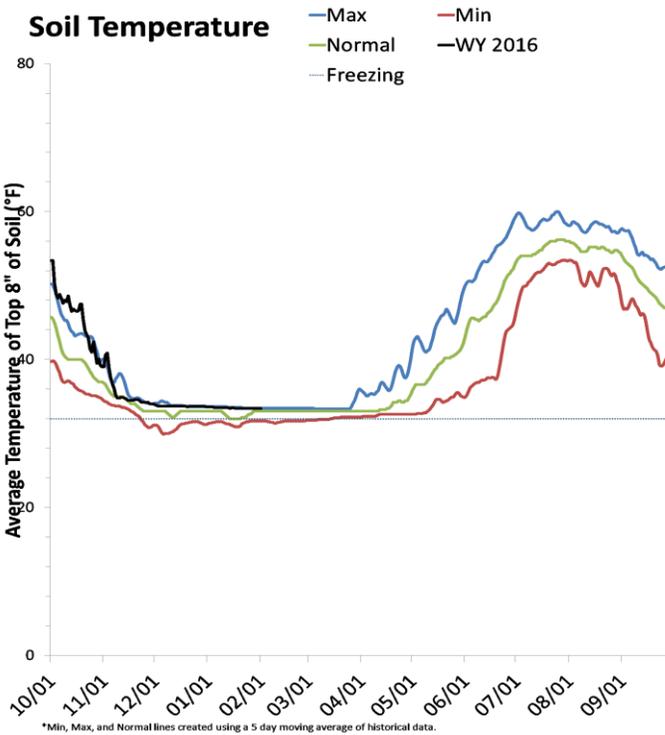
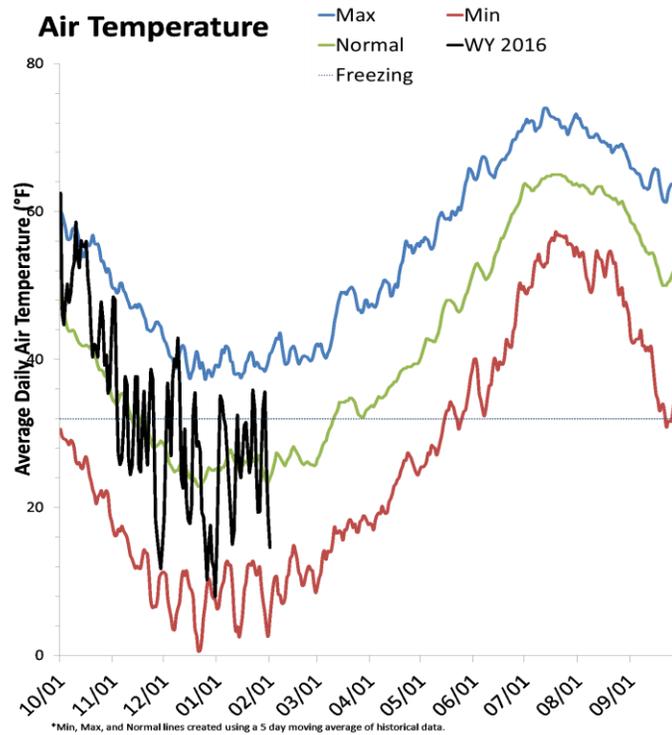
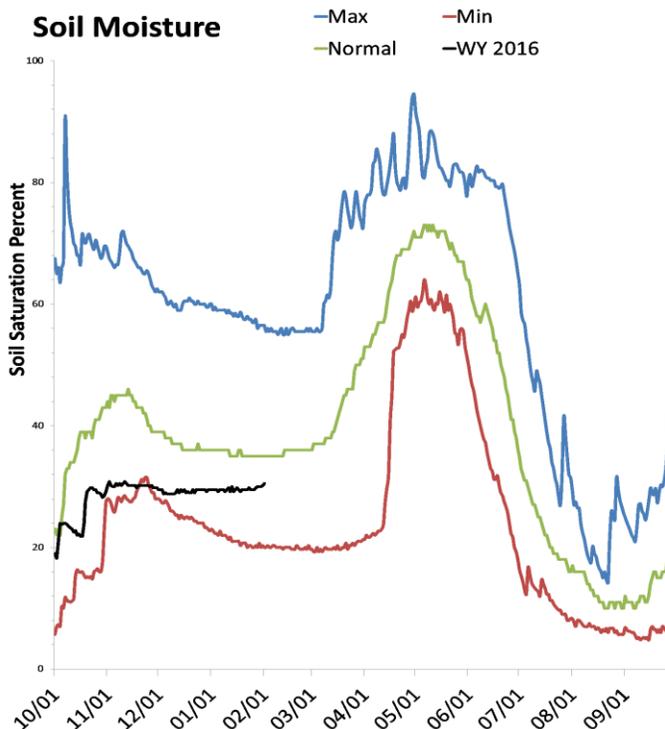
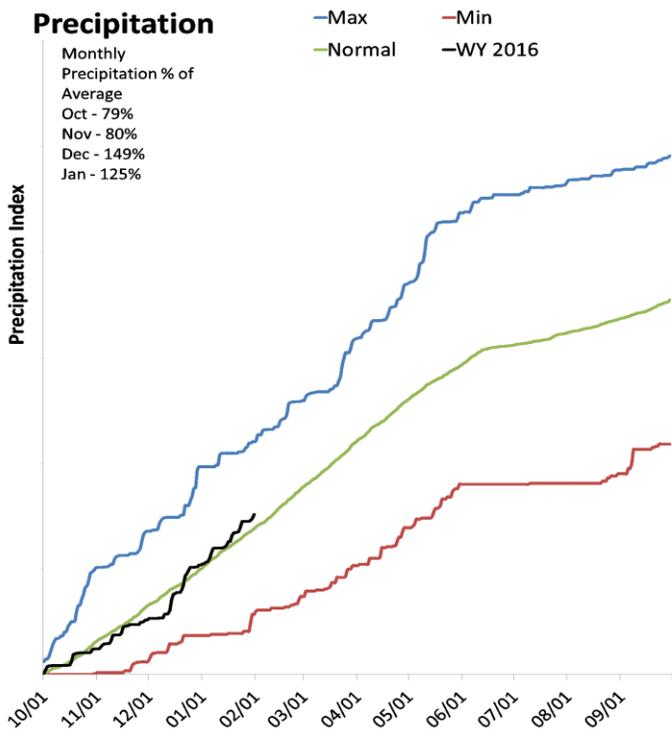
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Tooele & Vernon Creek Basins

2/1/2016

Precipitation in January was above average at 124%, which brings the seasonal accumulation (Oct-Jan) to 110% of average. Soil moisture is at 31% compared to 31% last year. Reservoir storage is at 45% of capacity, compared to 37% last year.



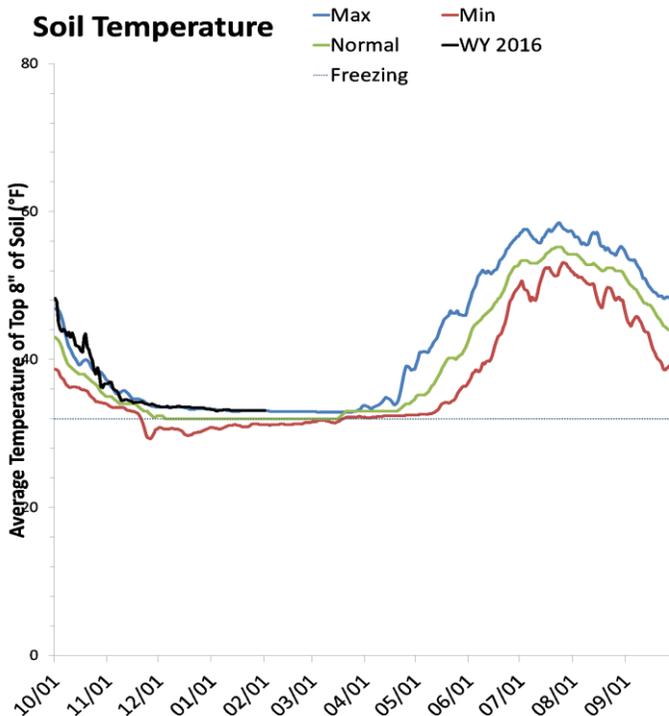
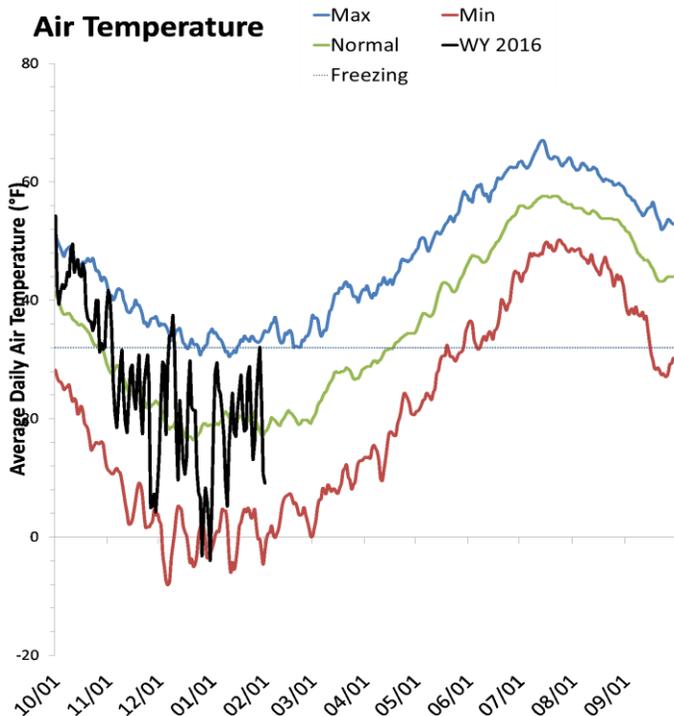
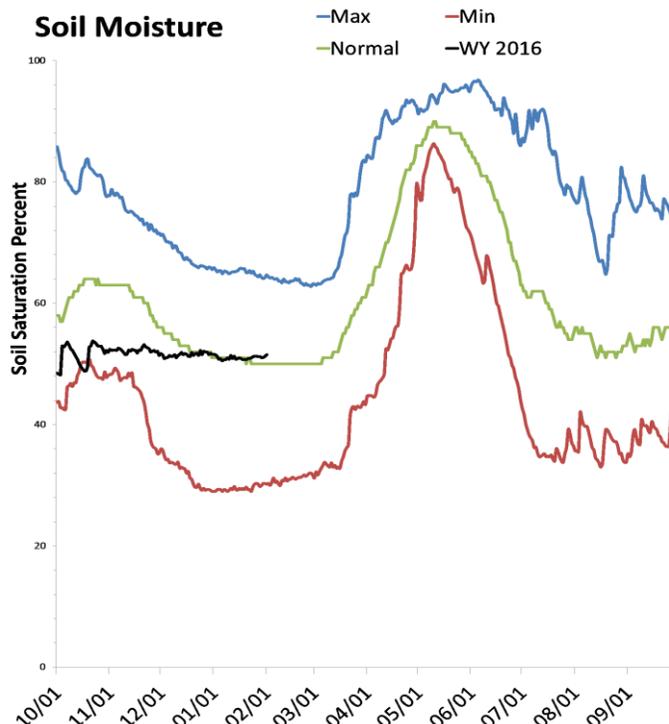
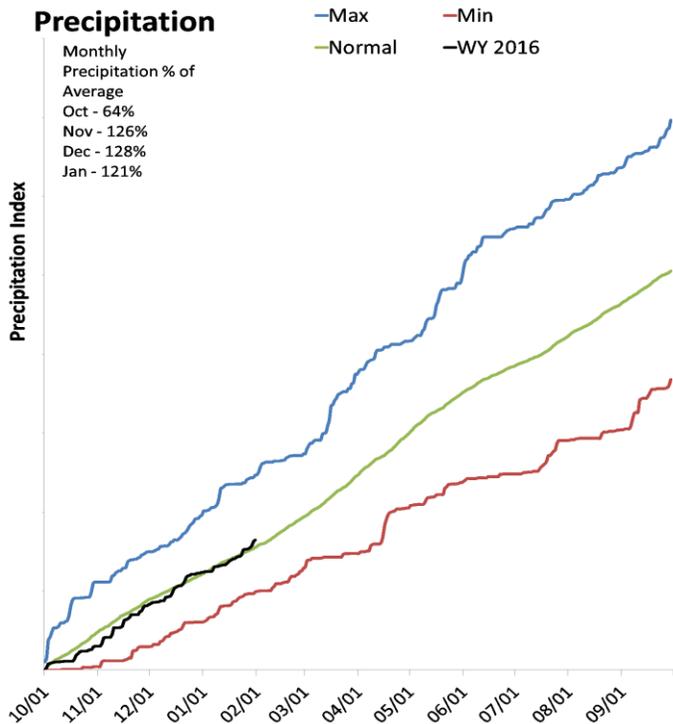
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Northeastern Uintah Basin

2/1/2016

Precipitation in January was above average at 120%, which brings the seasonal accumulation (Oct-Jan) to 106% of average. Soil moisture is at 55% compared to 60% last year. Reservoir storage is at 84% of capacity, compared to 86% 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.

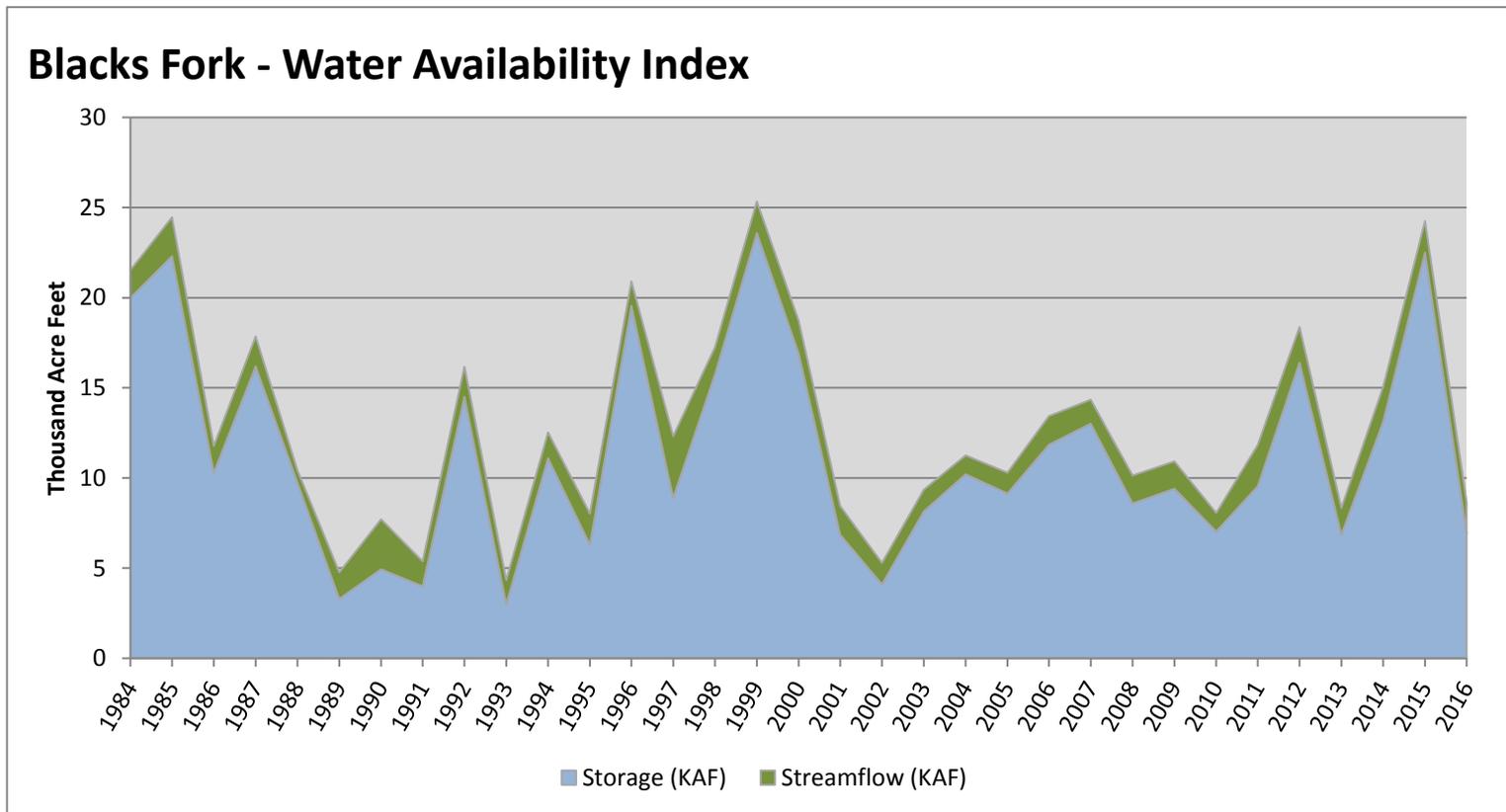
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Blacks Fork	6.93	1.74	8.67	29	-1.72	13, 01, 03, 08

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

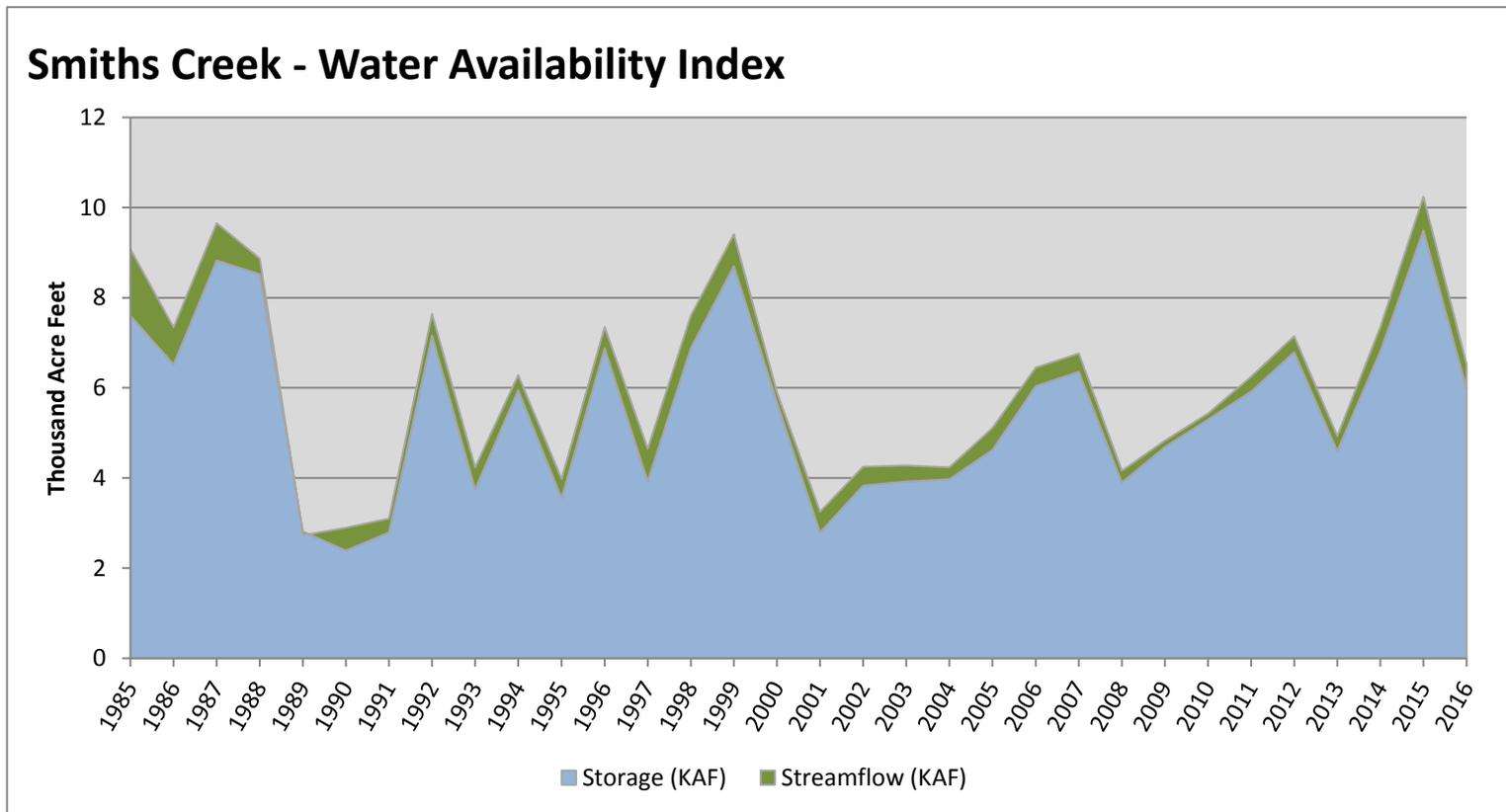


February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Smiths Creek	5.98	0.54	6.52	61	0.88	94, 06, 07, 12

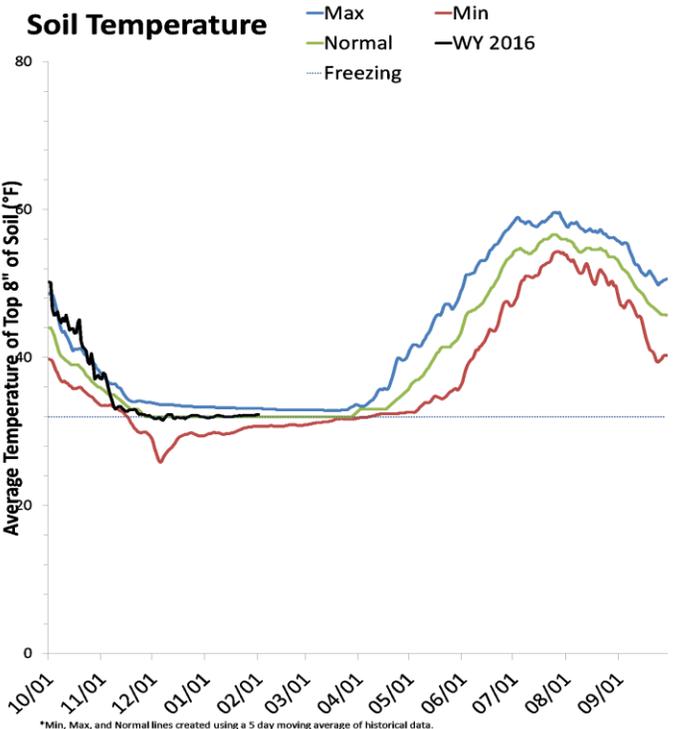
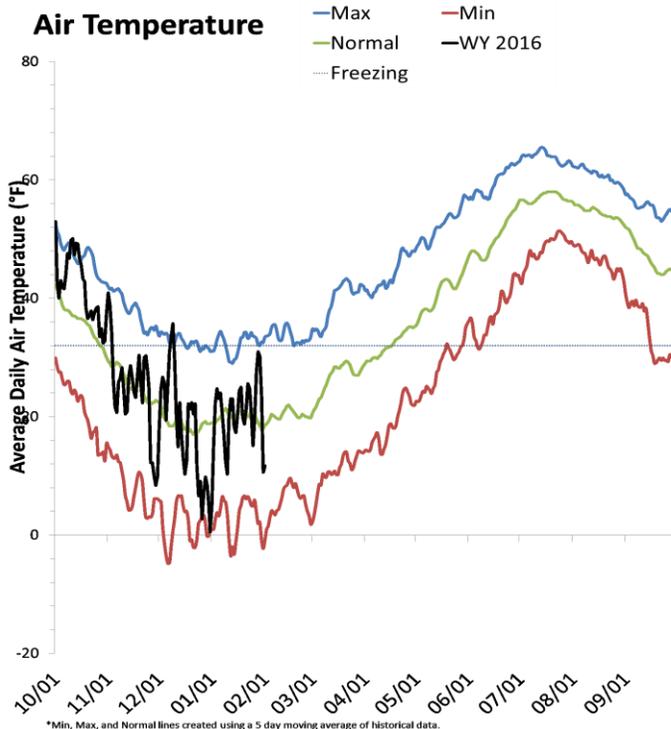
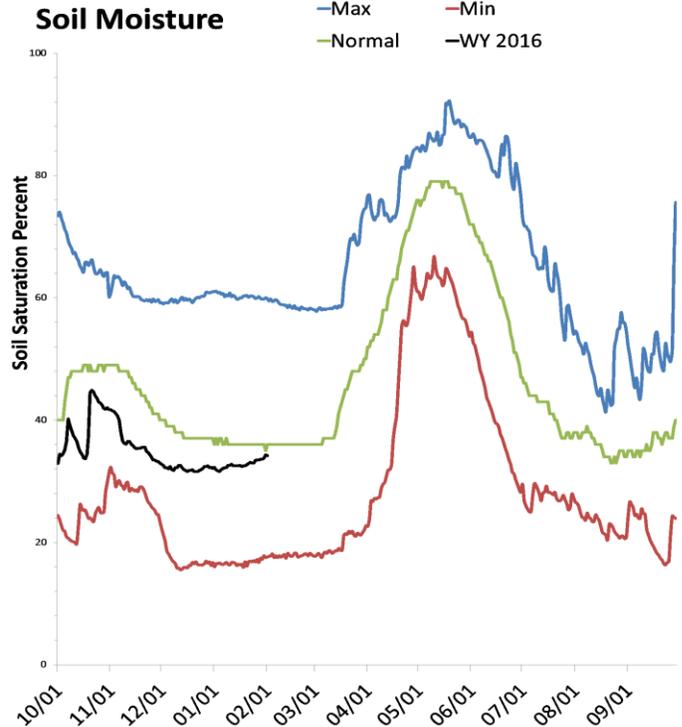
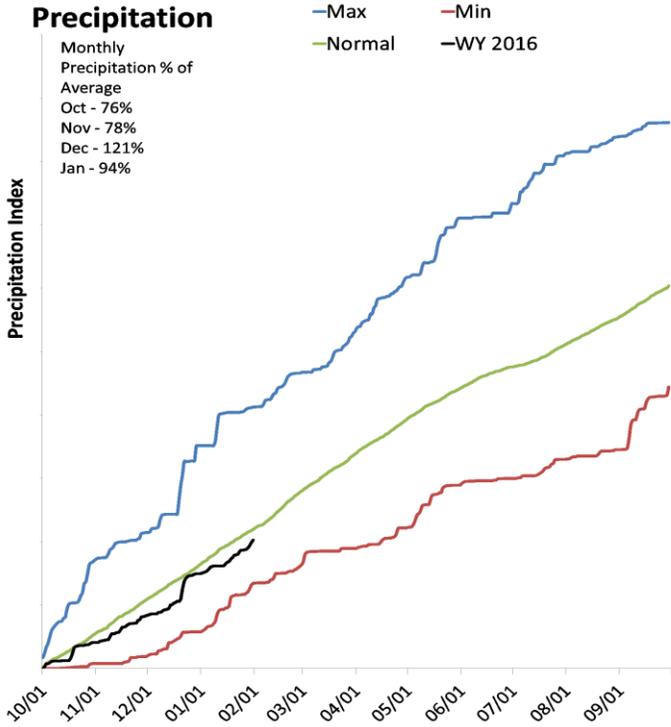
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Duchesne River Basin

2/1/2016

Precipitation in January was near average at 93%, which brings the seasonal accumulation (Oct-Jan) to 92% of average. Soil moisture is at 36% compared to 44% last year. Reservoir storage is at 73% of capacity, compared to 76% last year. The water availability index for the Western Uintahs is 73% and 30% for the Eastern Uintahs.



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

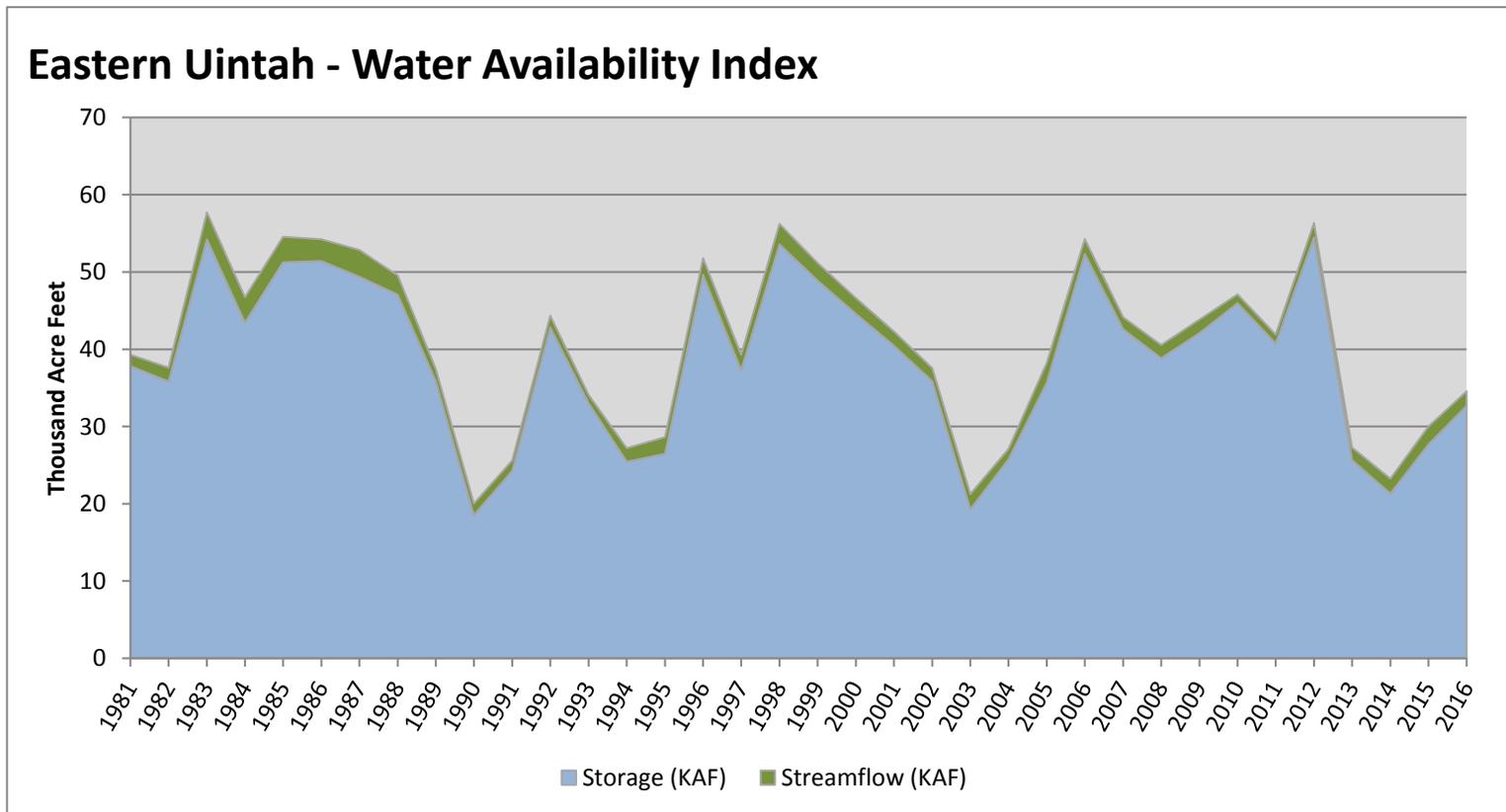
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Eastern Uintah	32.70	1.85	34.55	30	-1.69	15, 93, 89, 02

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

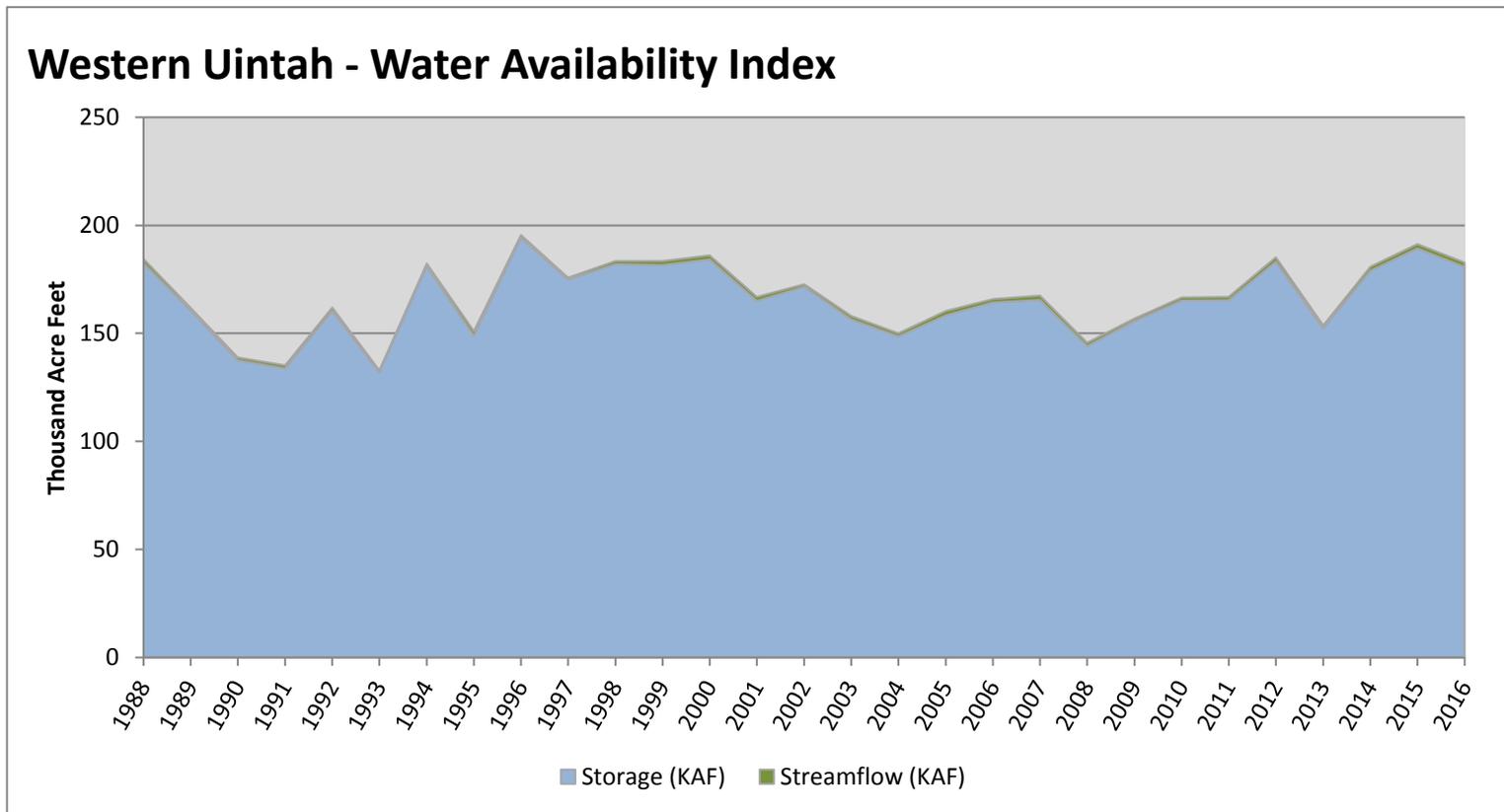


February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Western Uintah	180.79	1.97	182.76	73	1.94	14, 94, 99, 98

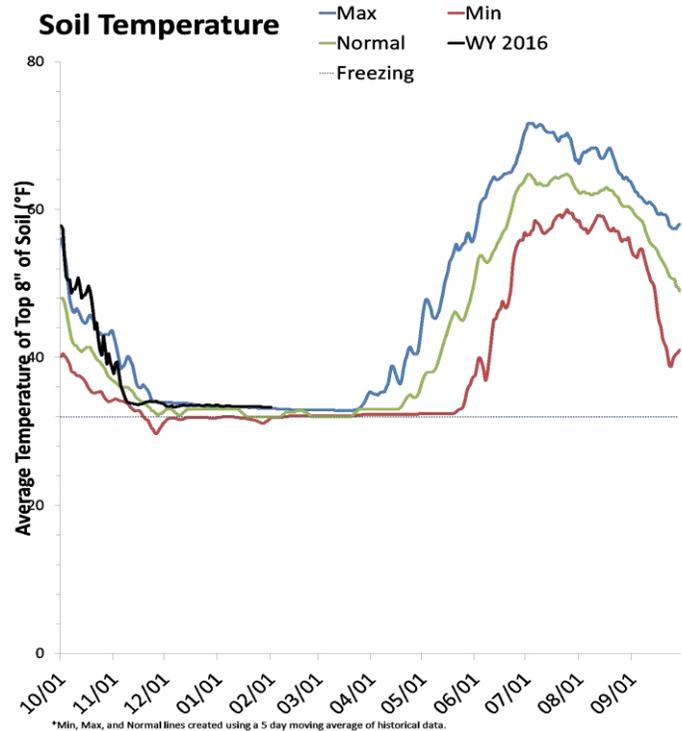
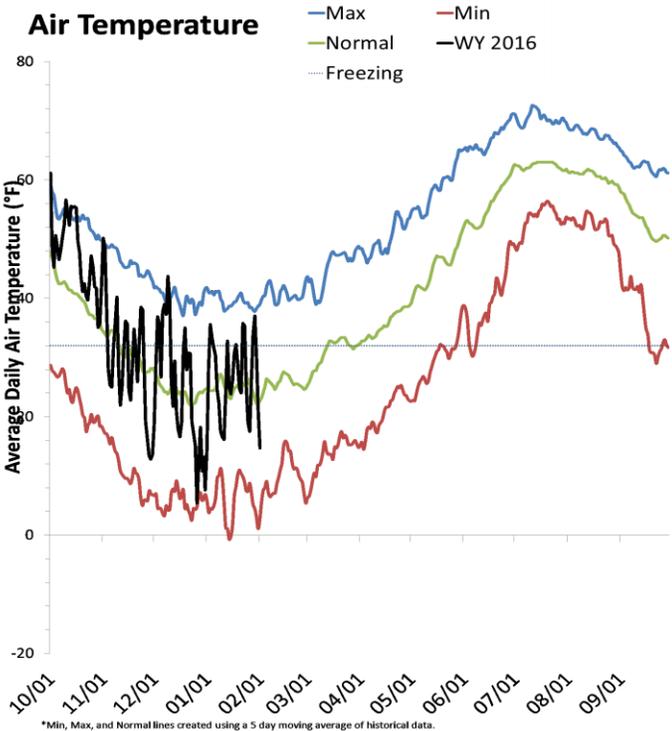
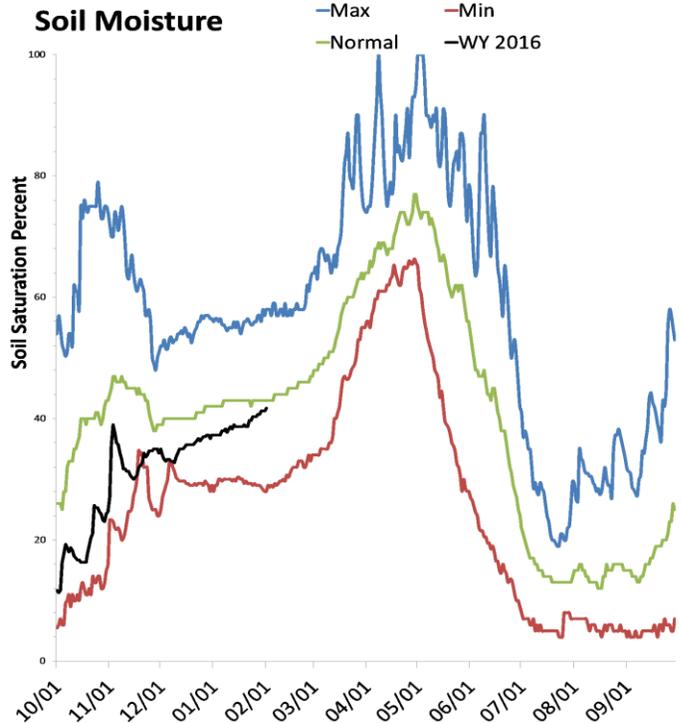
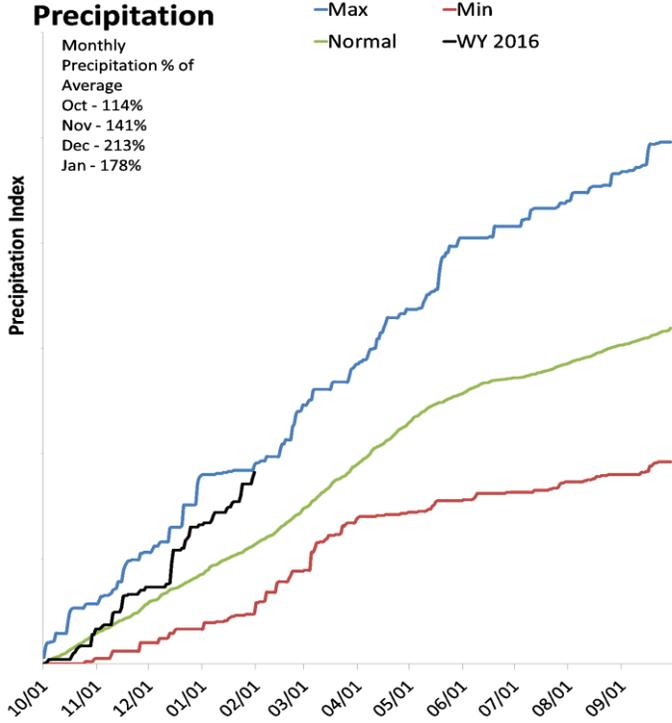
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Lower Sevier River Basin

2/1/2016

Precipitation in January was much above average at 179%, which brings the seasonal accumulation (Oct-Jan) to 161% of average. Soil moisture is at 42% compared to 38% last year. Reservoir storage is at 33% of capacity, compared to 39% last year. The water availability index for the Lower Sevier is 14%.



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

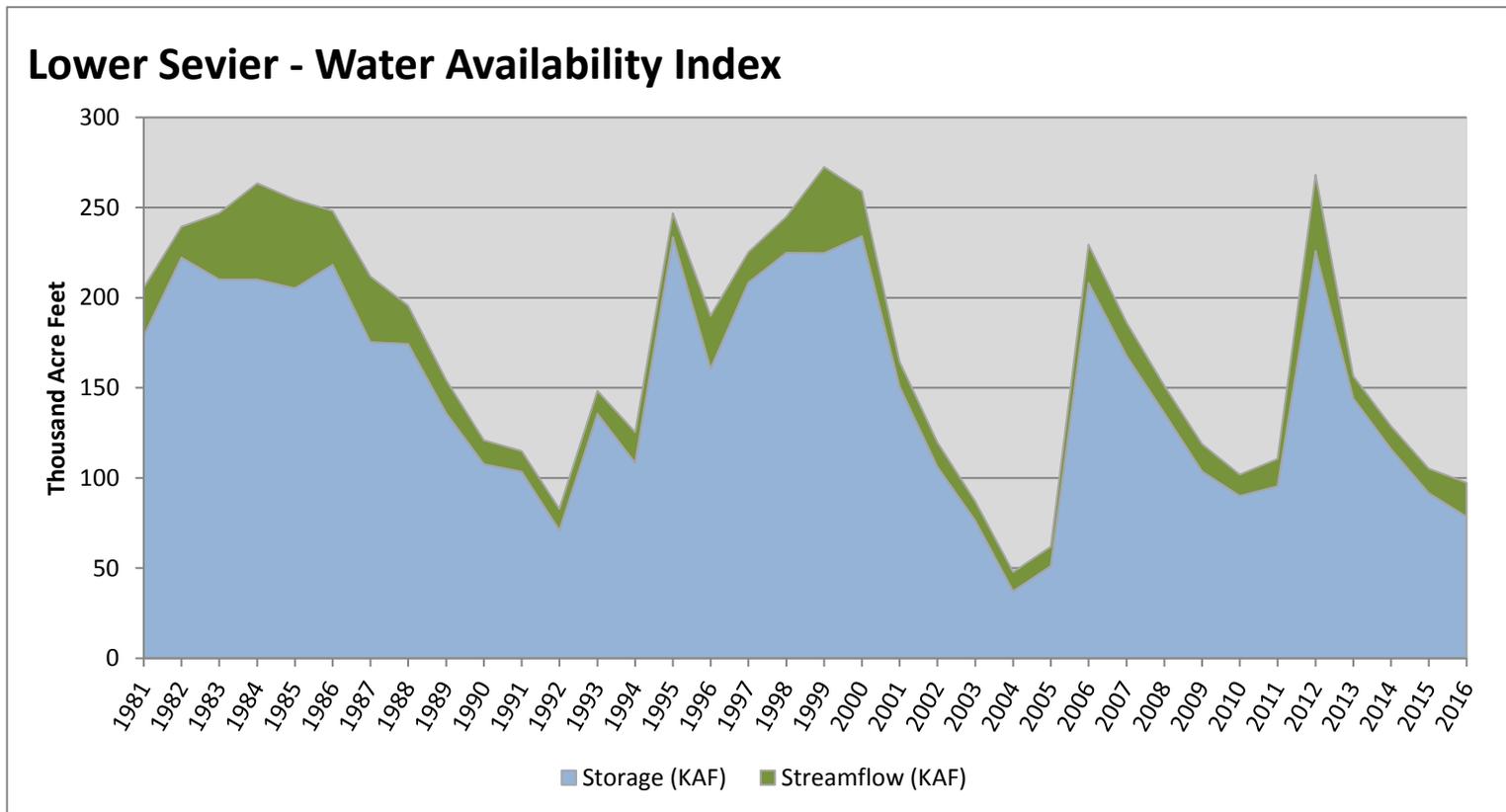
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Lower Sevier	78.61	18.83	97.44	14	-3.04	92, 03, 10, 15

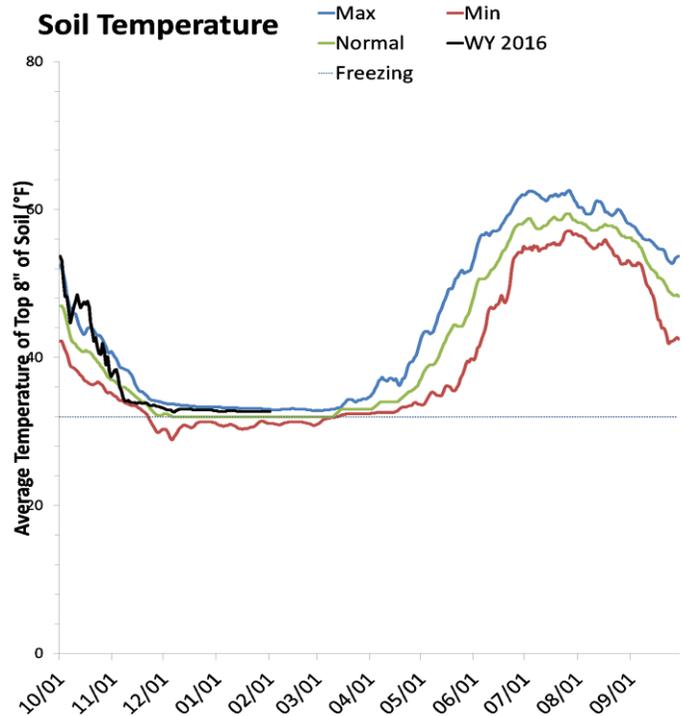
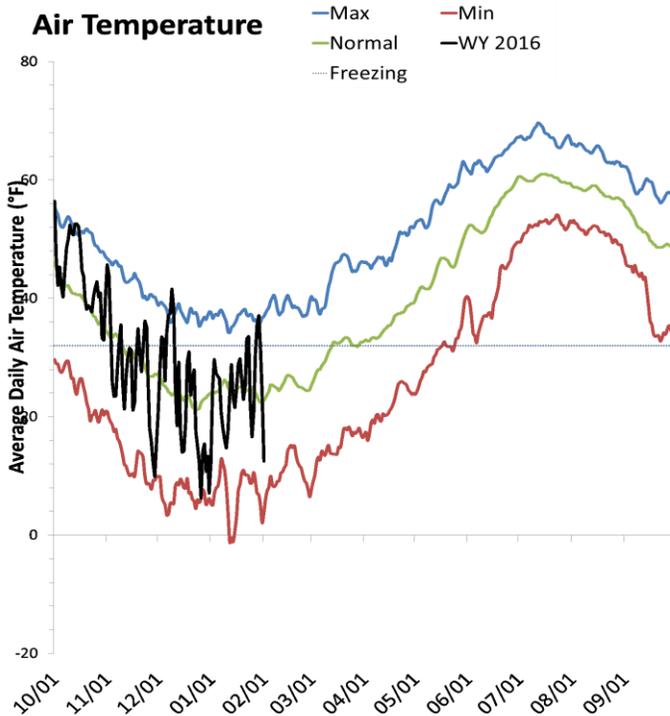
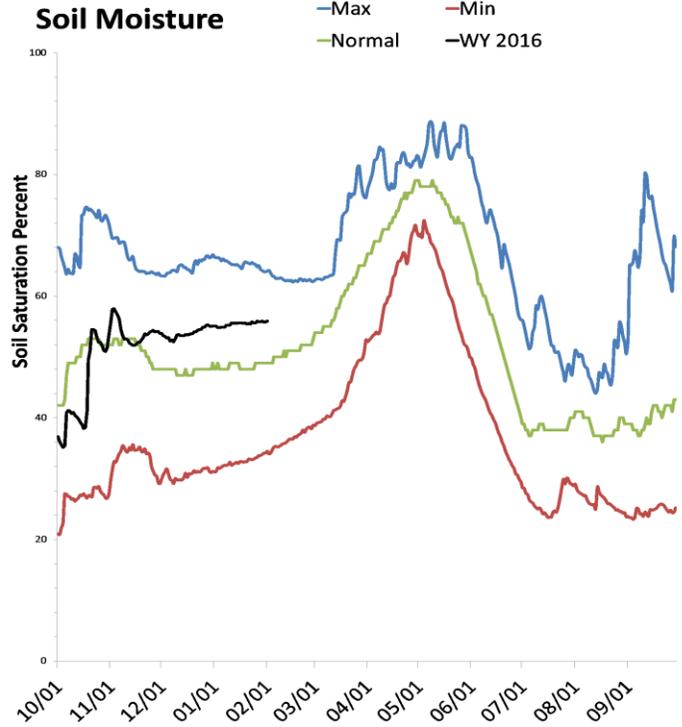
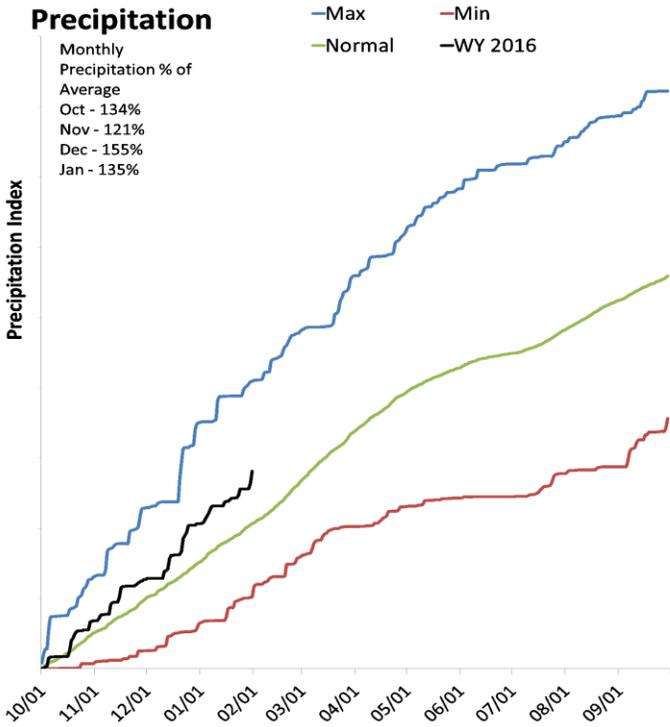
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Upper Sevier River Basin

2/1/2016

Precipitation in January was much above average at 135%, which brings the seasonal accumulation (Oct-Jan) to 136% of average. Soil moisture is at 57% compared to 49% last year. Reservoir storage is at 34% of capacity, compared to 53% last year. The water availability index for the Upper Sevier is 8%.



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

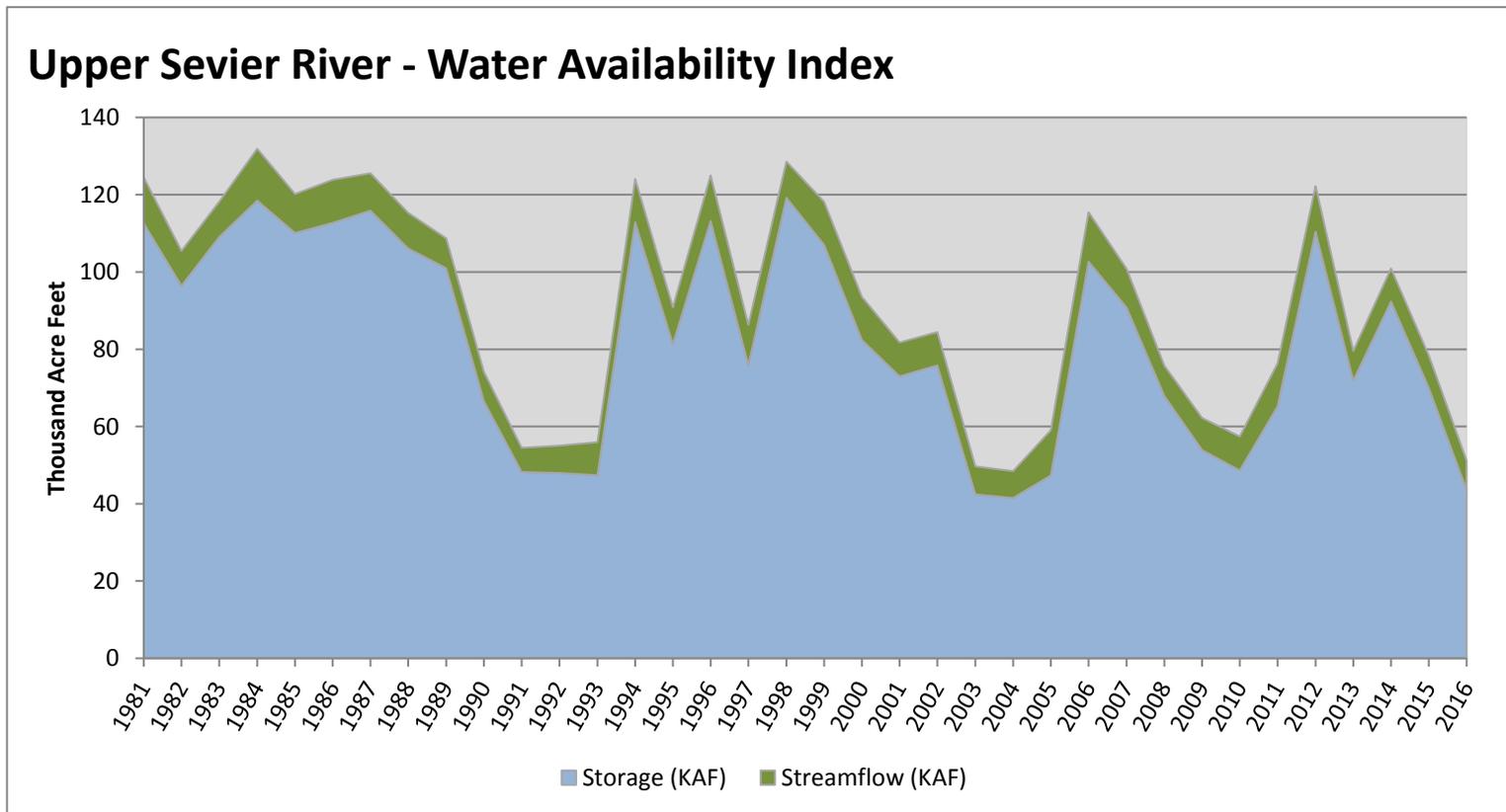
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Upper Sevier River	43.59	7.58	51.17	8	-3.49	04, 03, 91, 92

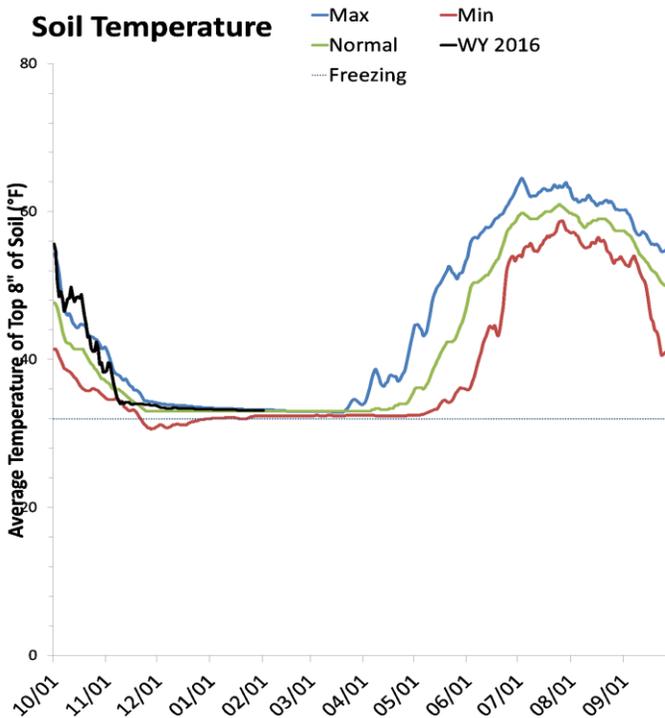
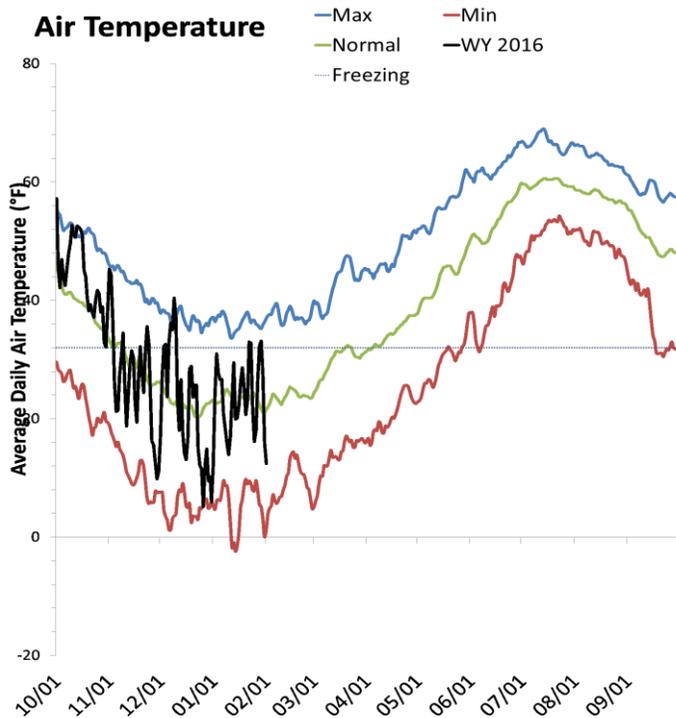
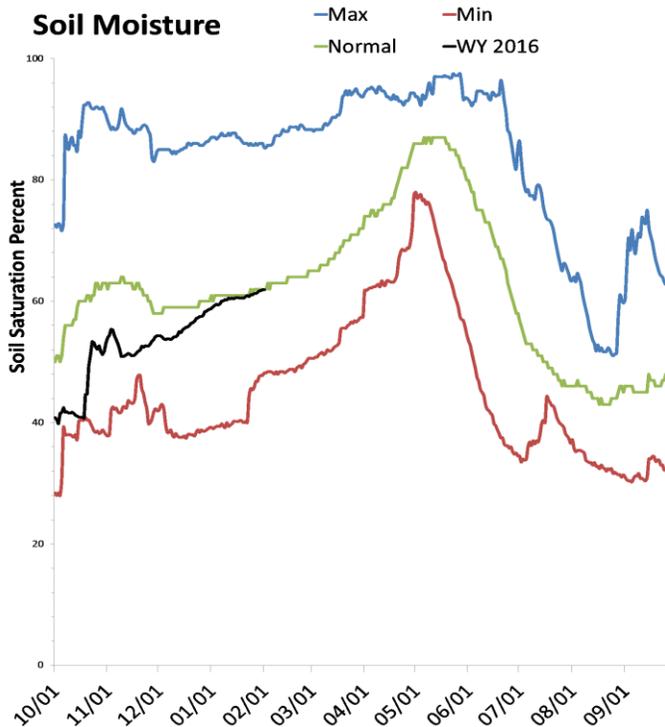
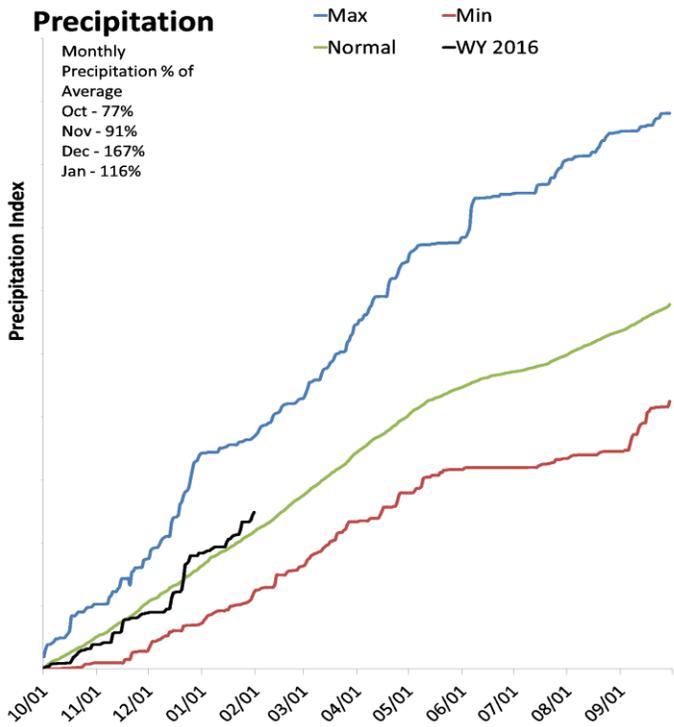
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



San Pitch River Basin

2/1/2016

Precipitation in January was above average at 116%, which brings the seasonal accumulation (Oct-Jan) to 114% of average. Soil Moisture is at 61% compared to 67% last year. Reservoir storage is at 2% of capacity, compared to 1% last year. The water availability index for the San Pitch is 5%.



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

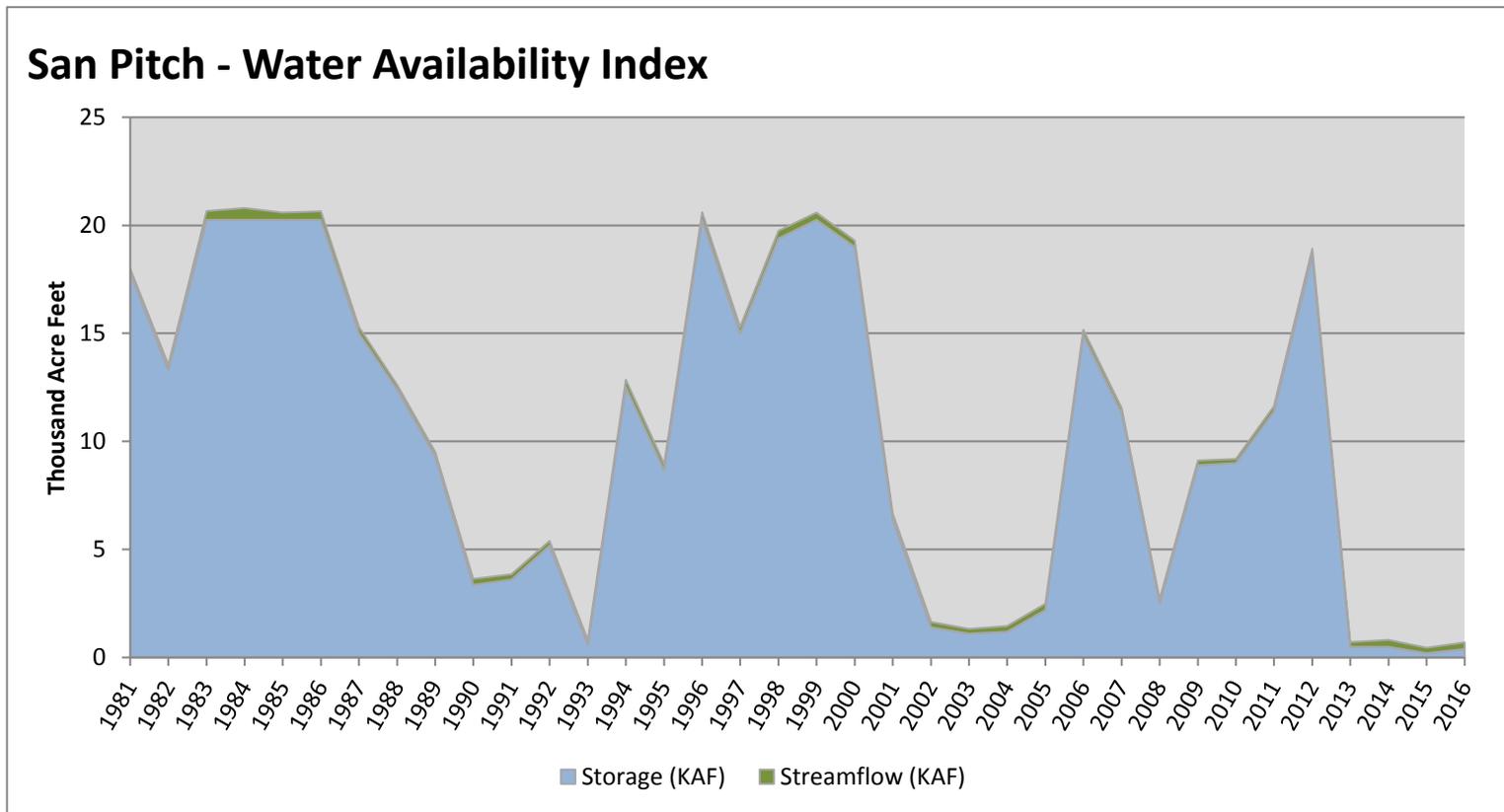
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
San Pitch	0.40	0.30	0.70	5	-3.72	15, 13, 93, 14

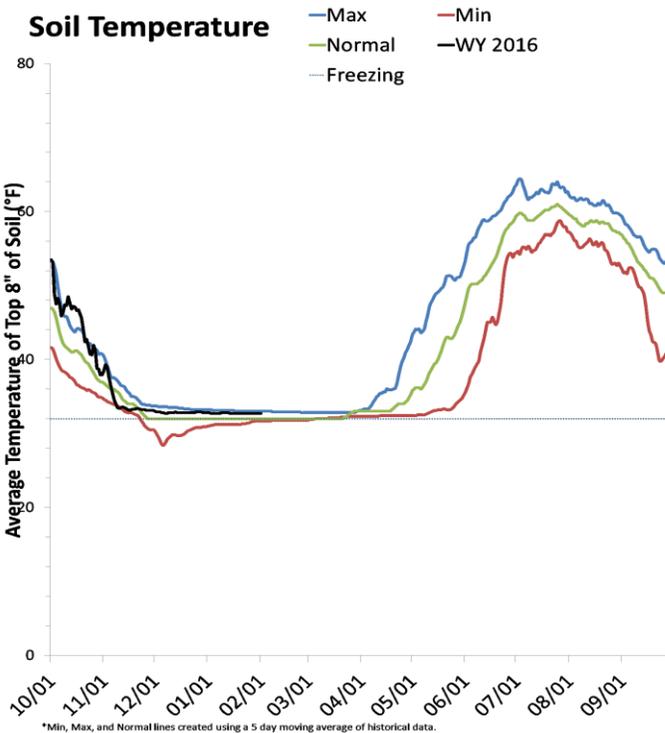
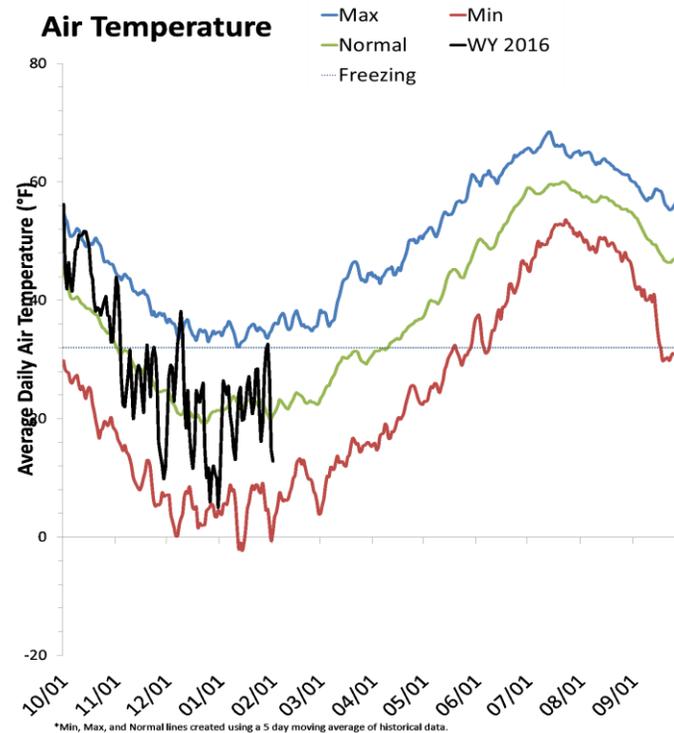
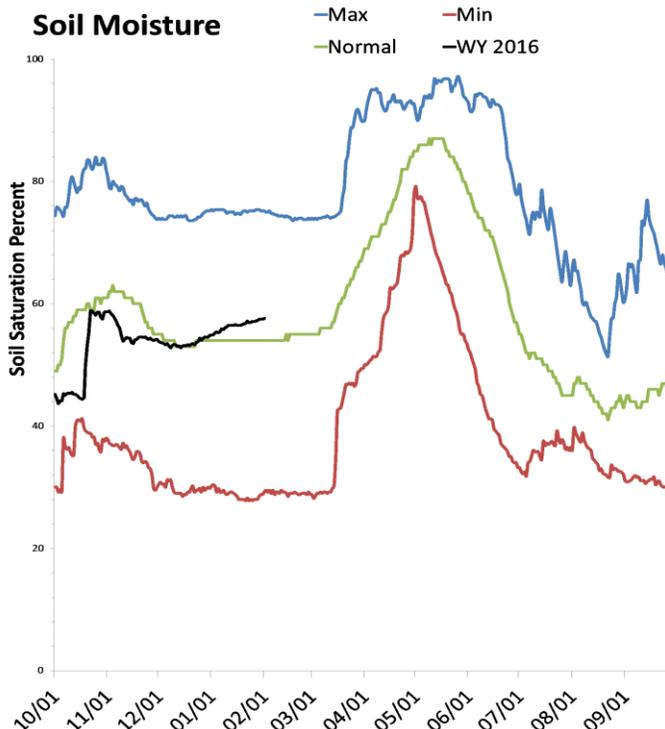
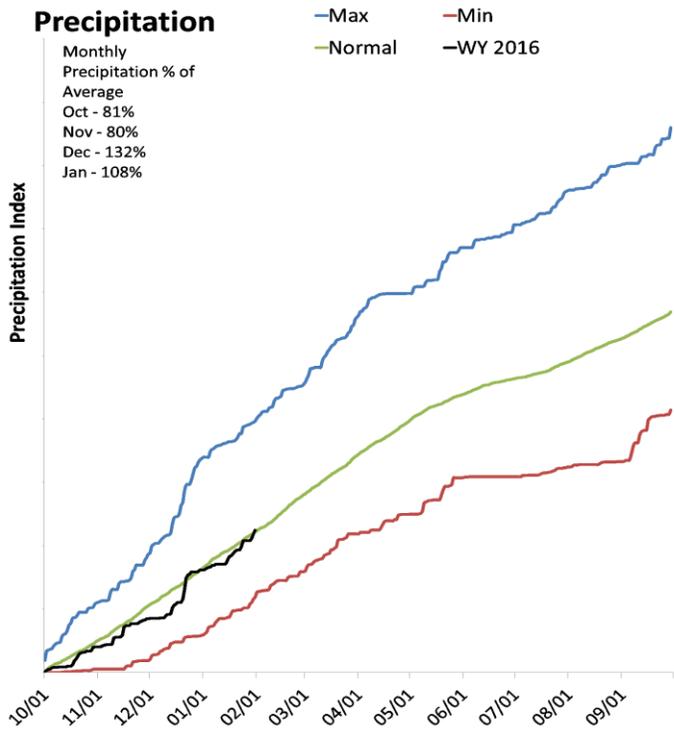
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Price & San Rafael Basins

2/1/2016

Precipitation in January was near average at 107%, which brings the seasonal accumulation (Oct-Jan) to 101% of average. Soil moisture is at 57% compared to 61% last year. Reservoir storage is at 39% of capacity, compared to 49% last year. The water availability index for the Price River is 14%, and 27% for Joe's Valley.



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

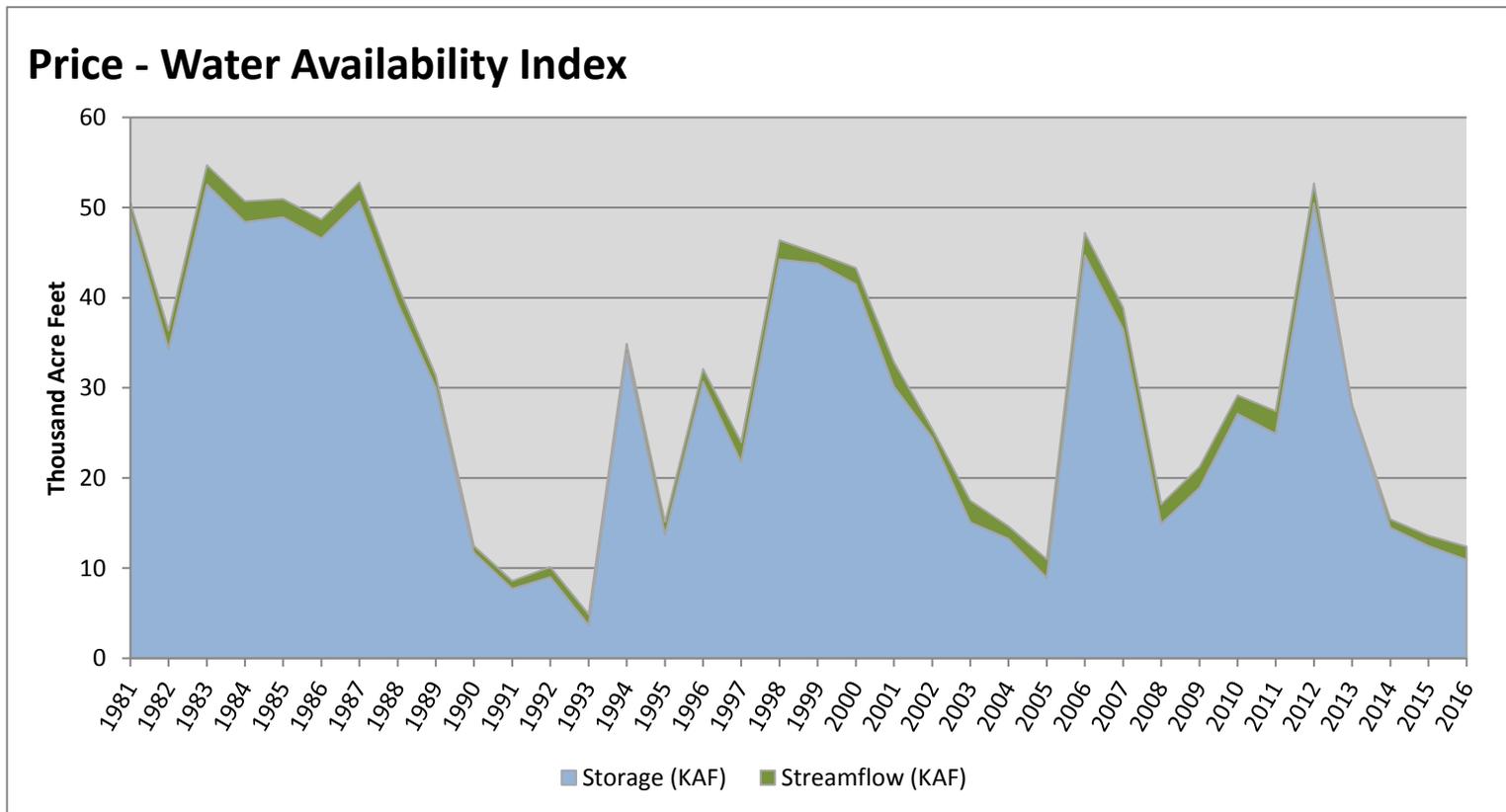
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Price	10.91	1.49	12.40	14	-3.04	92, 05, 90, 15

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

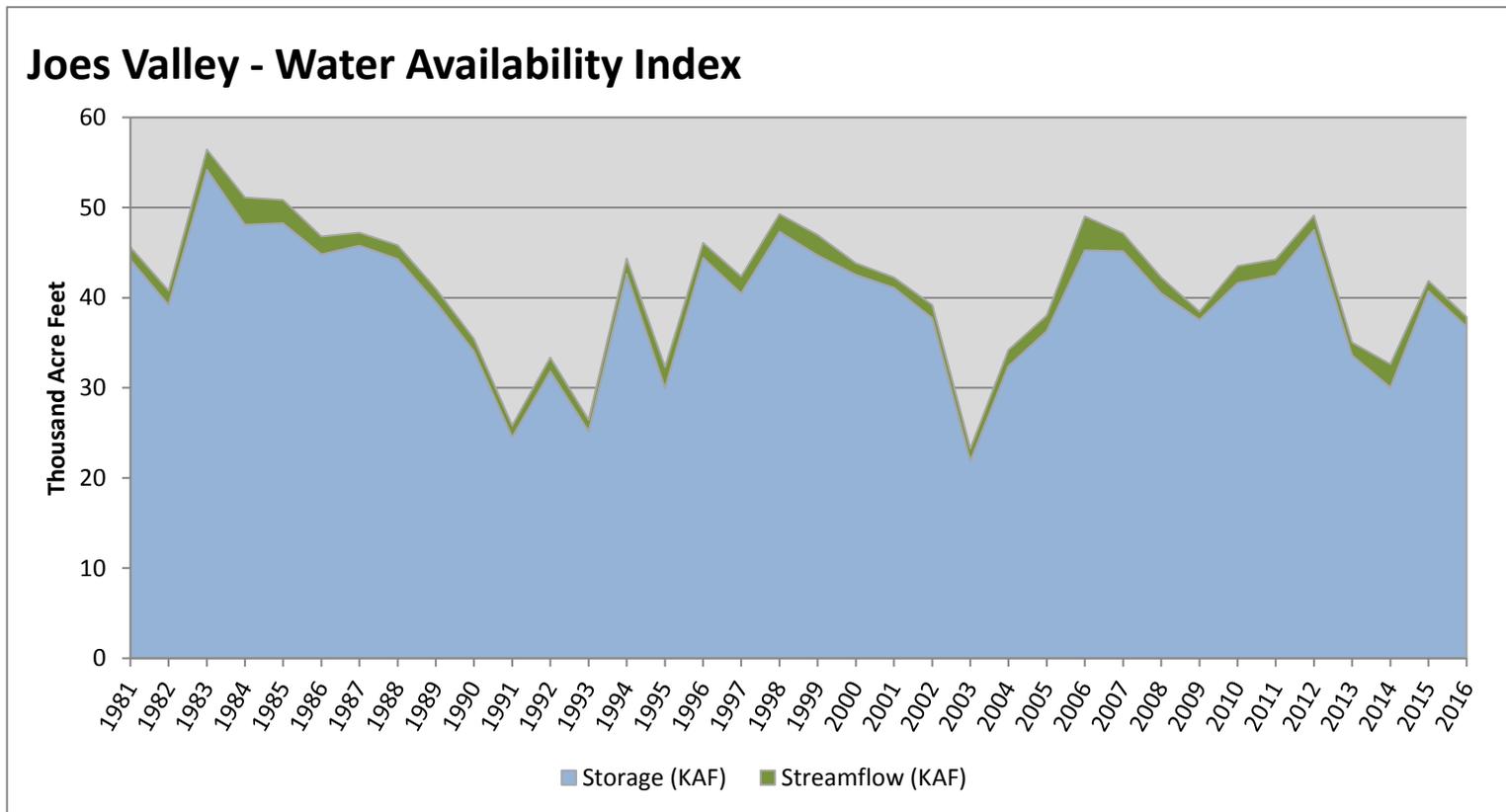


February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Joese Valley	36.79	1.06	37.85	27	-1.91	13, 90, 05, 09

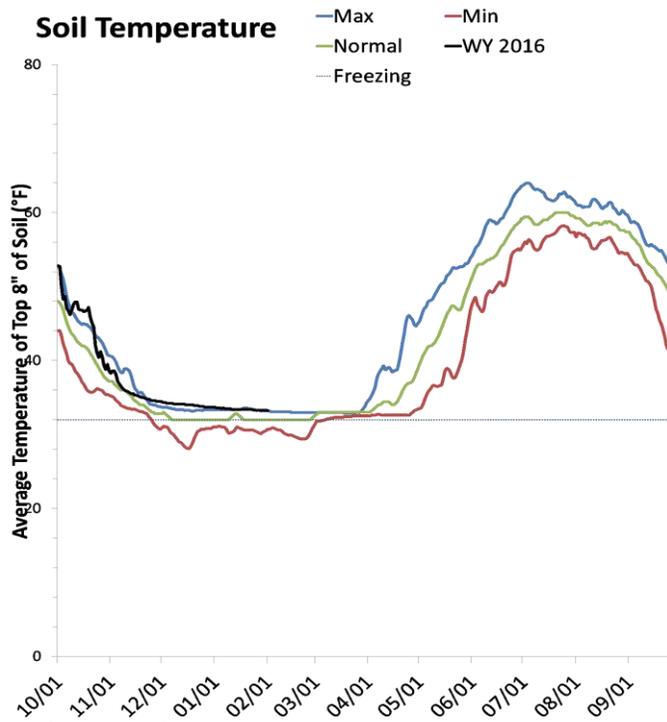
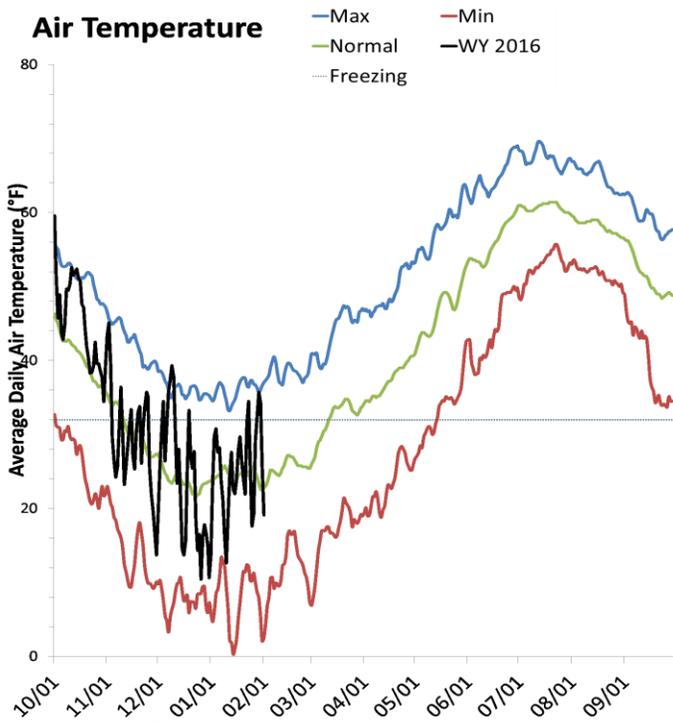
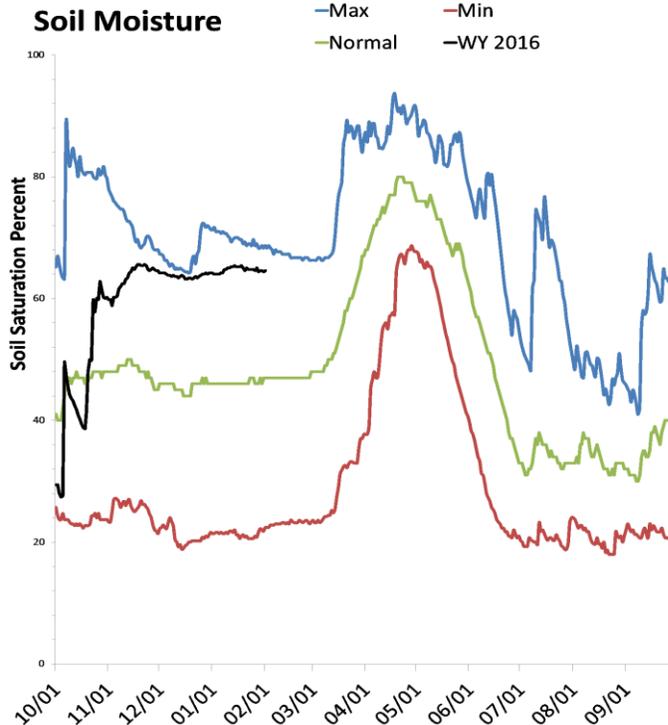
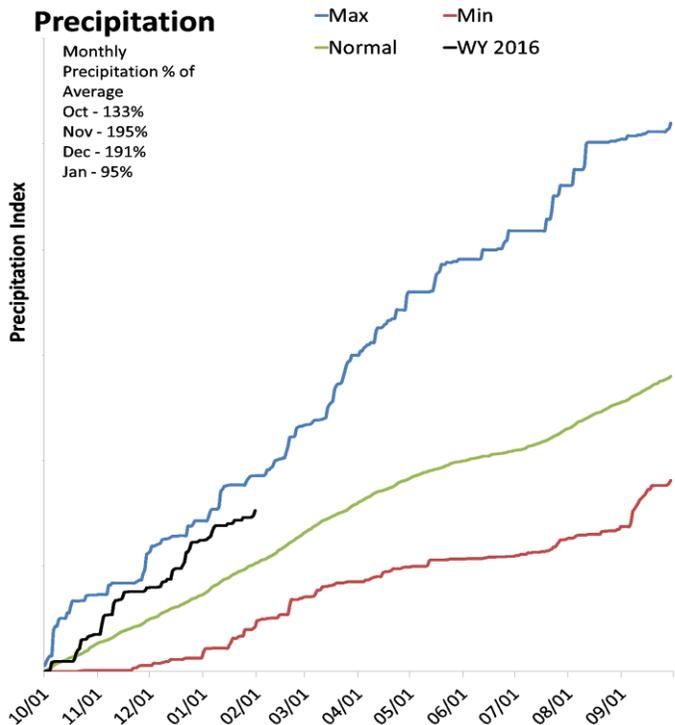
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southeastern Utah Basin

2/1/2016

Precipitation in January was near average at 96%, which brings the seasonal accumulation (Oct-Jan) to 149% of average. Soil moisture is at 73% compared to 58% last year. Reservoir storage is at 65% of capacity, compared to 59% last year. The water availability index for Moab is 77%.



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

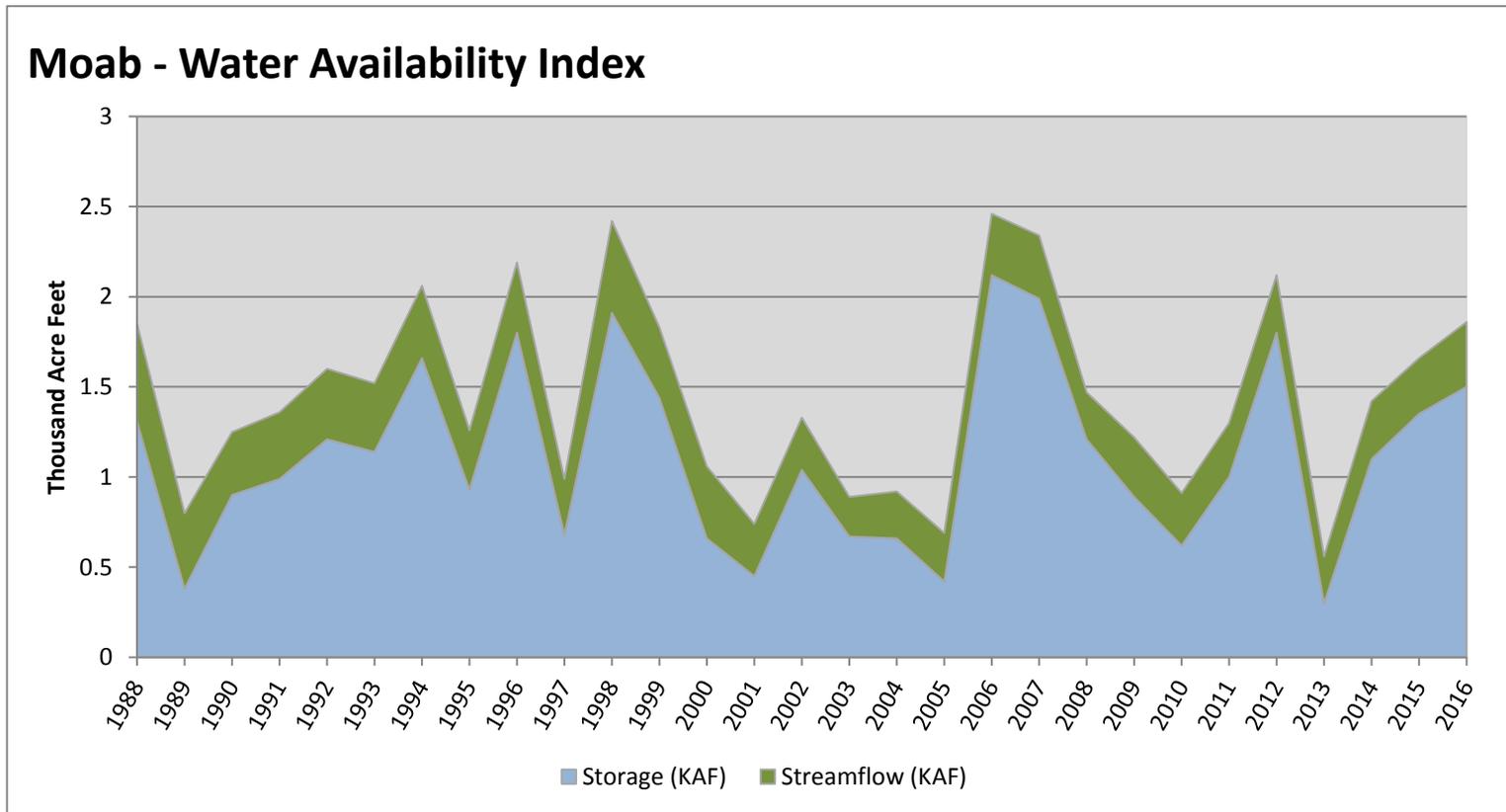
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Moab	1.50	0.36	1.86	77	2.22	99, 88, 94, 12

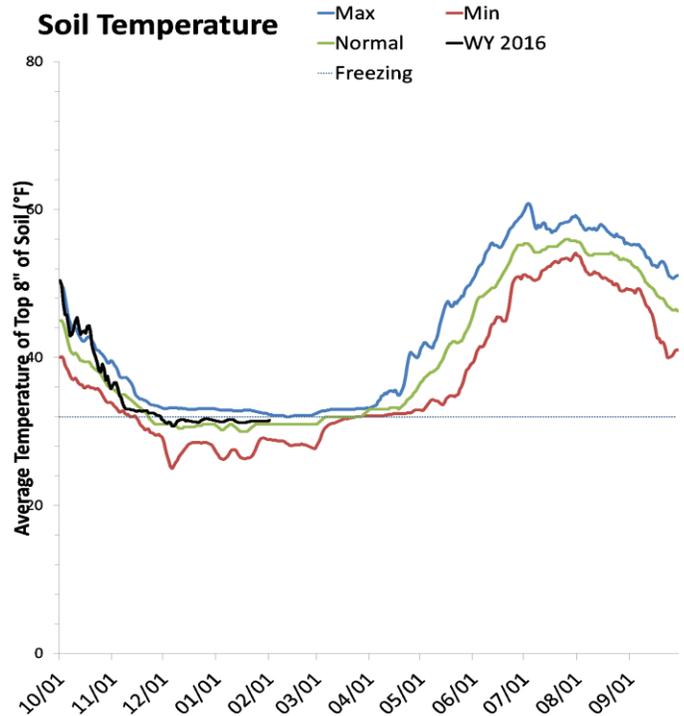
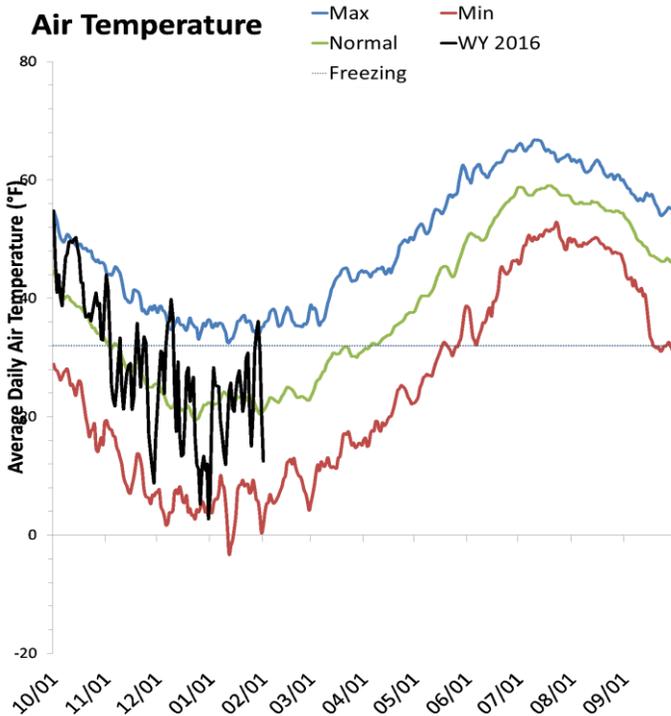
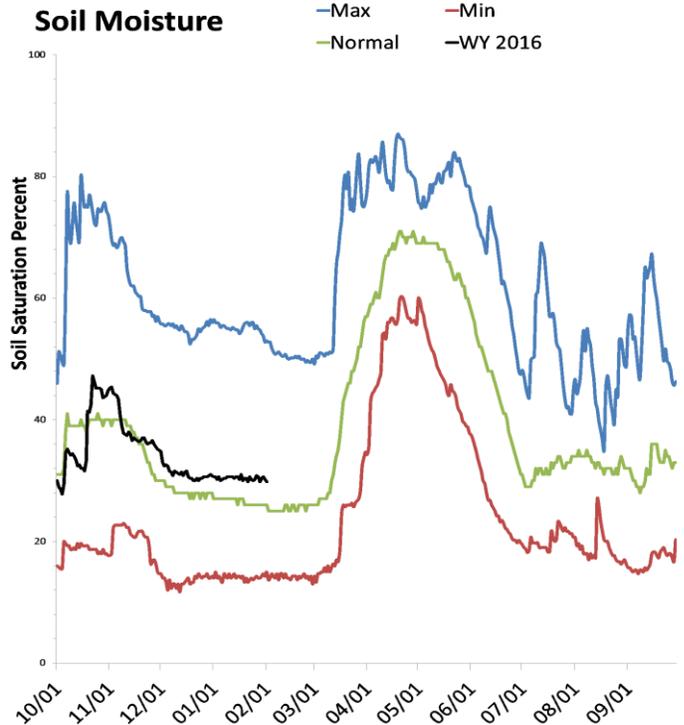
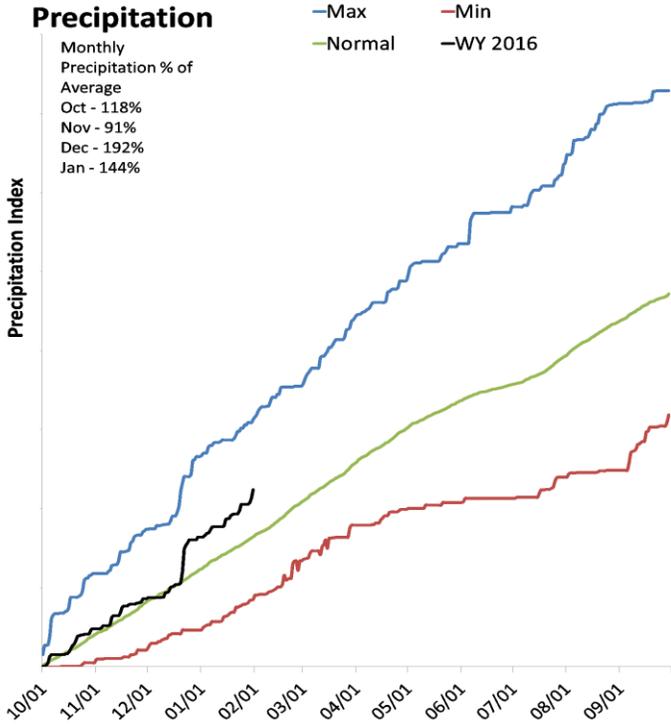
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Dirty Devil Basin

2/1/2016

Precipitation in January was much above average at 140%, which brings the seasonal accumulation (Oct-Jan) to 135% of average. Soil moisture is at 33% compared to 25% last year.



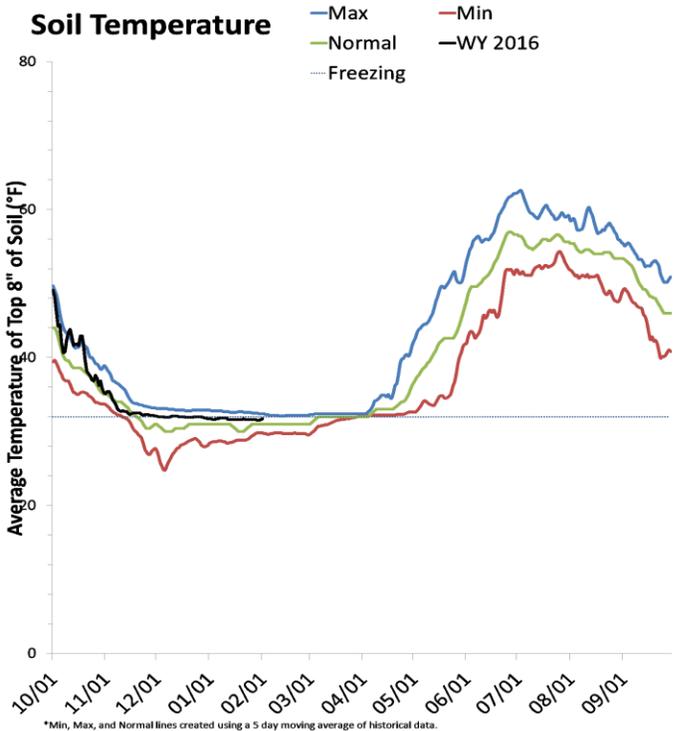
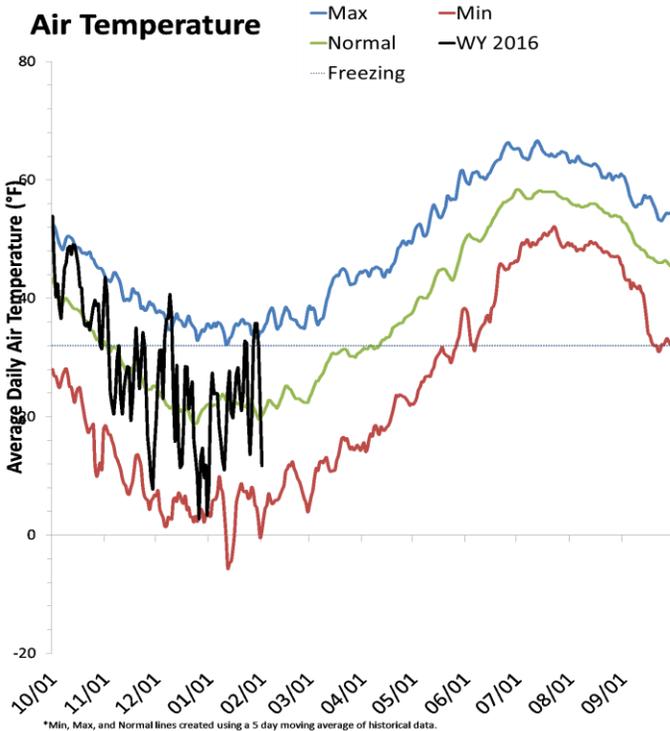
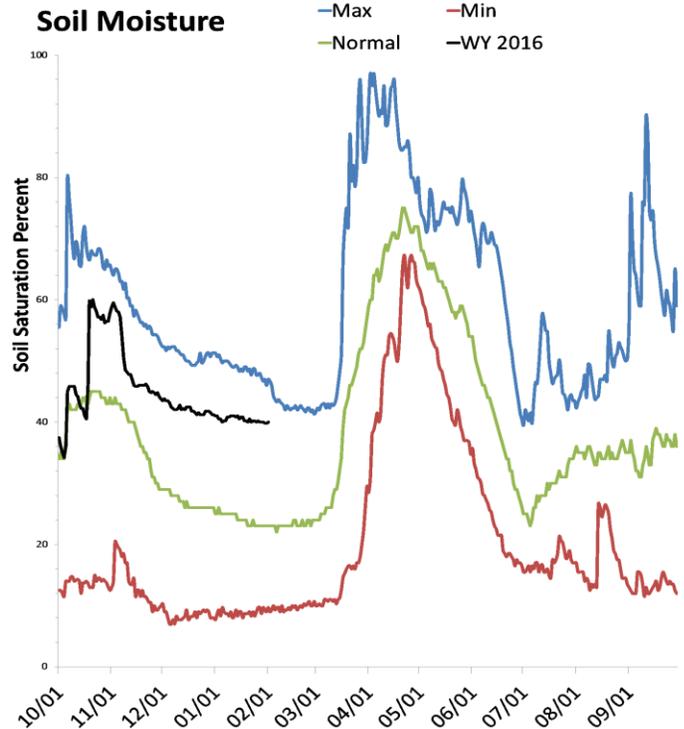
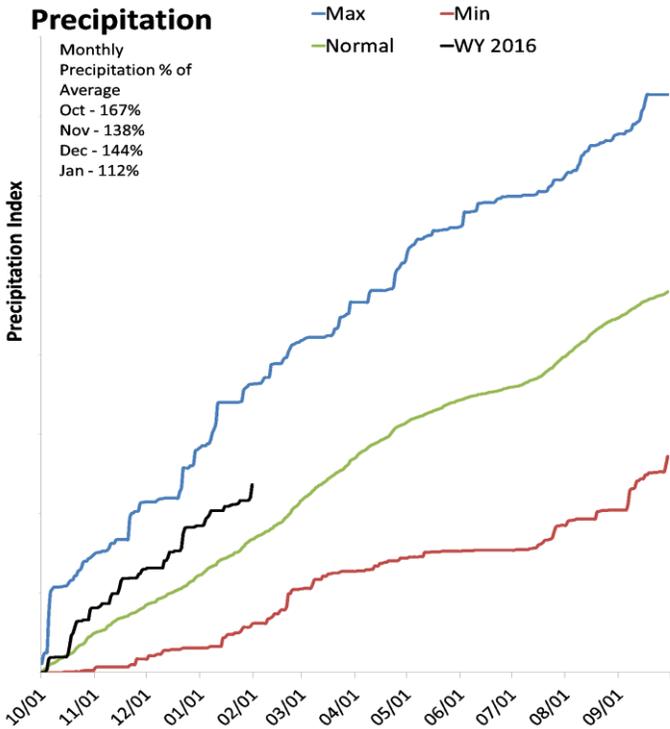
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Escalante River Basin

2/1/2016

Precipitation in January was above average at 112%, which brings the seasonal accumulation (Oct-Jan) to 140% of average. Soil moisture is at 41% compared to 24% last year.



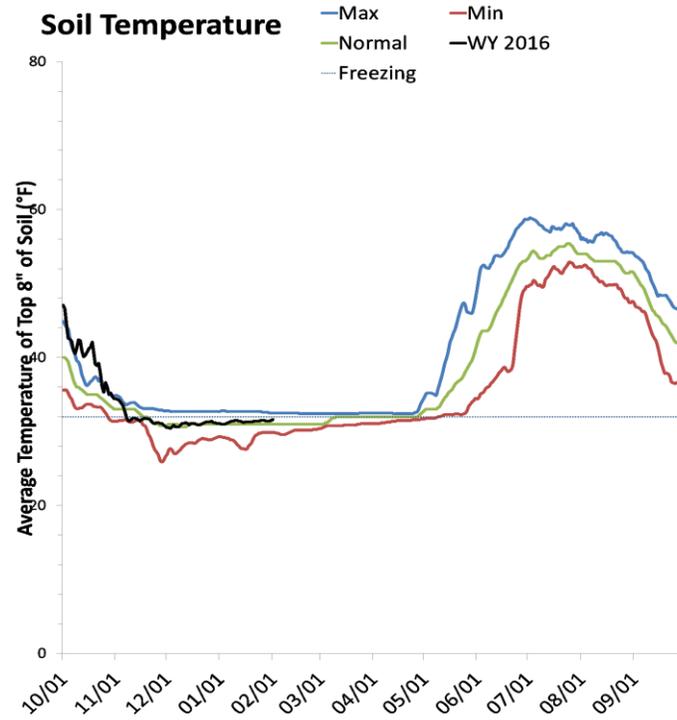
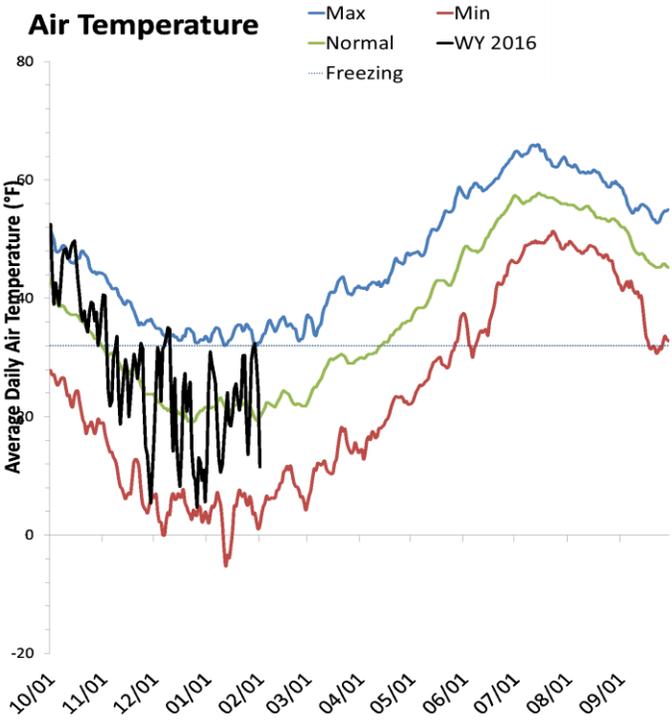
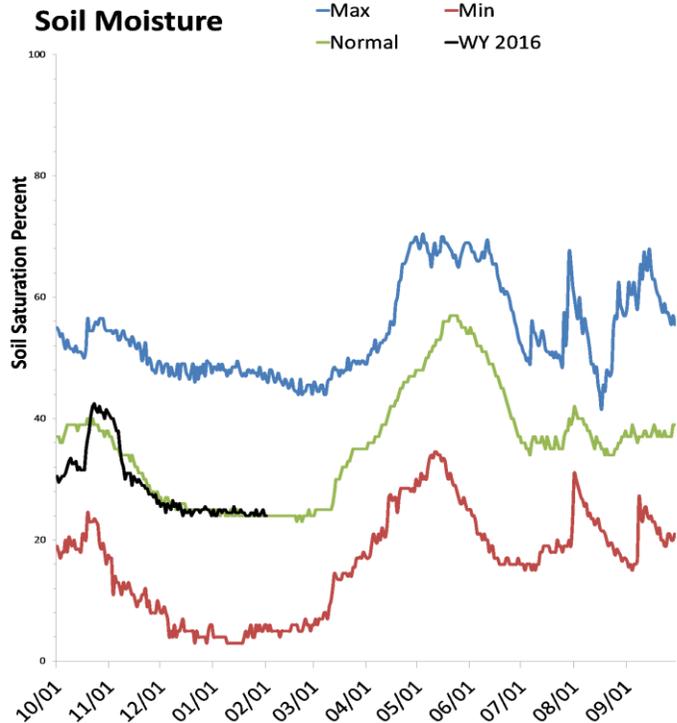
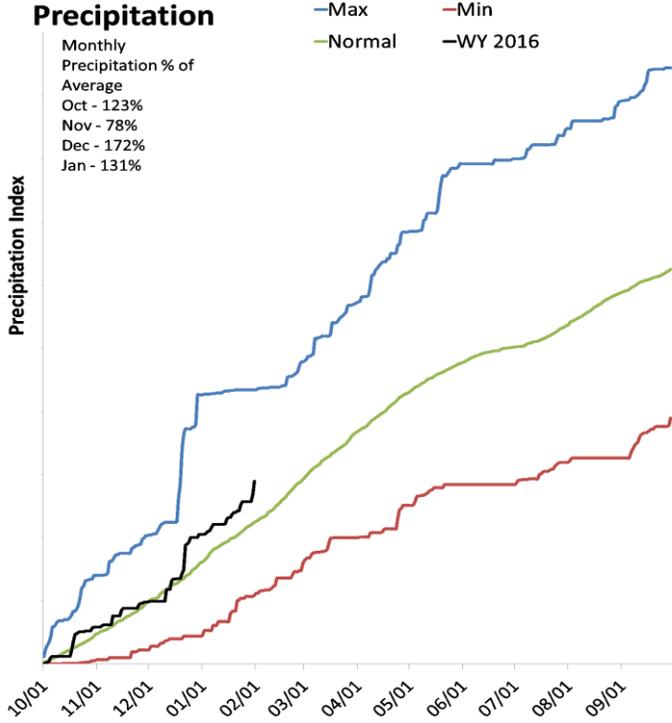
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

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

Beaver River Basin

2/1/2016

Precipitation in January was much above average at 131%, which brings the seasonal accumulation (Oct-Jan) to 128% of average. Soil moisture is at 24% compared to 25% last year. Reservoir storage is at 34% of capacity, compared to 40% last year. The water availability index for the Beaver River is 22%.



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

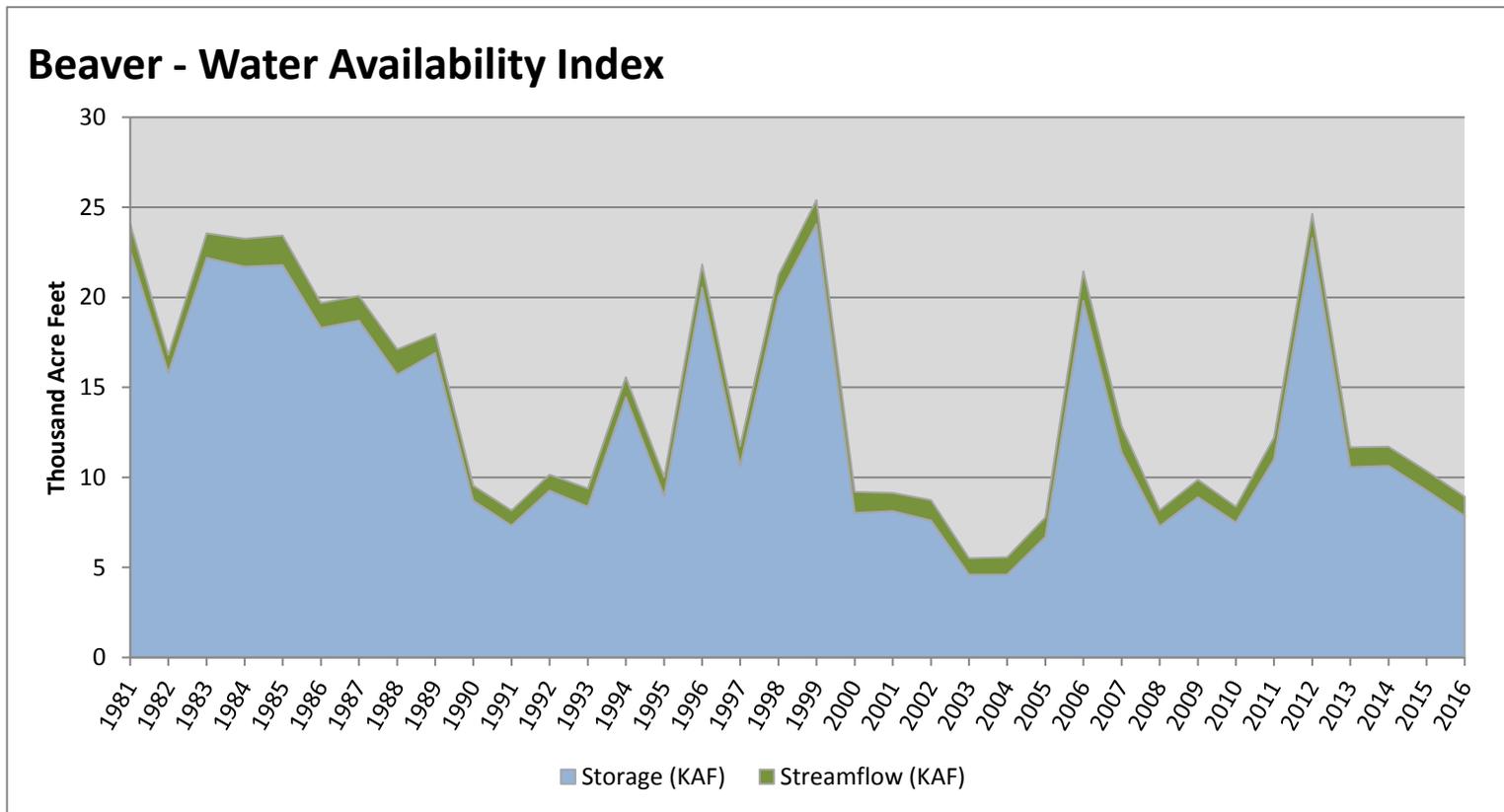
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Beaver	7.86	1.08	8.94	22	-2.36	10, 02, 01, 00

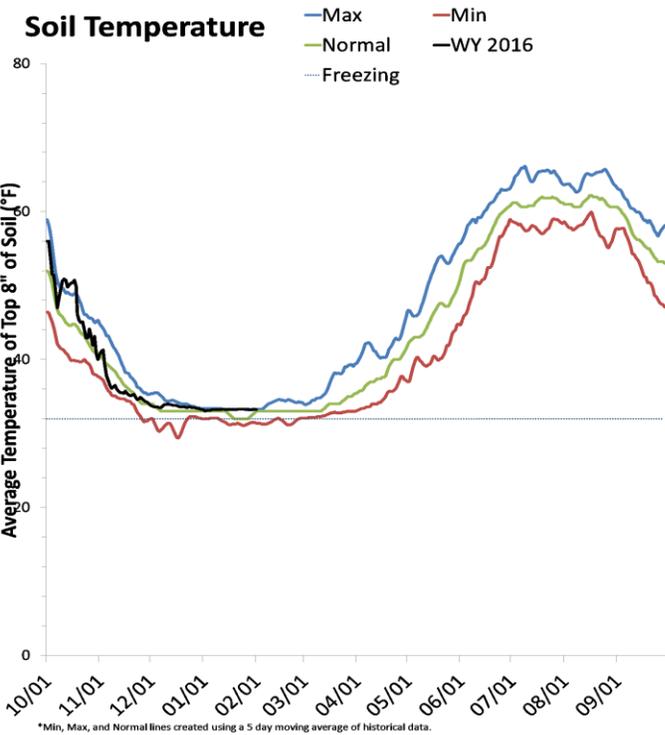
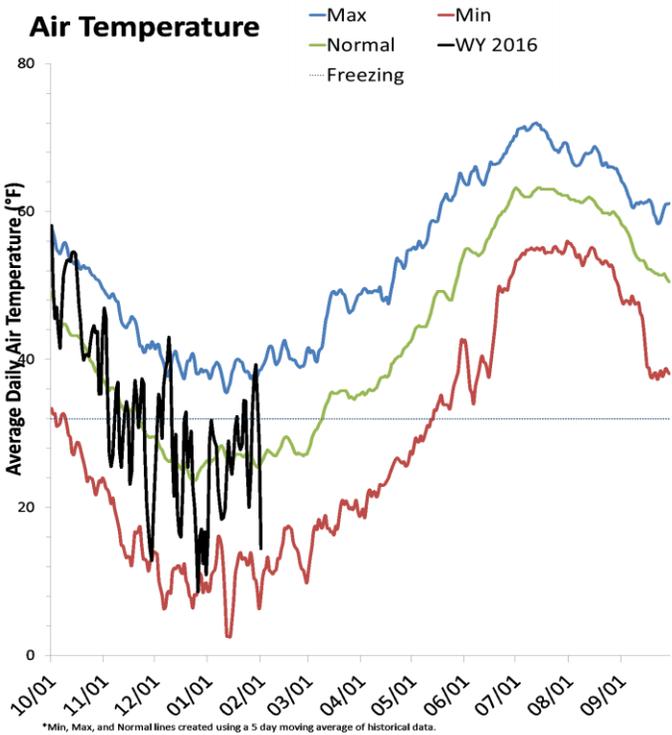
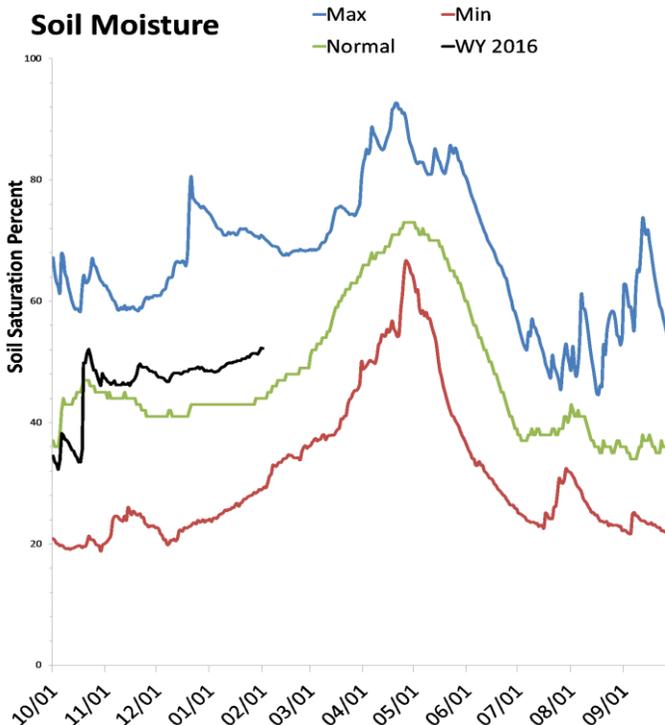
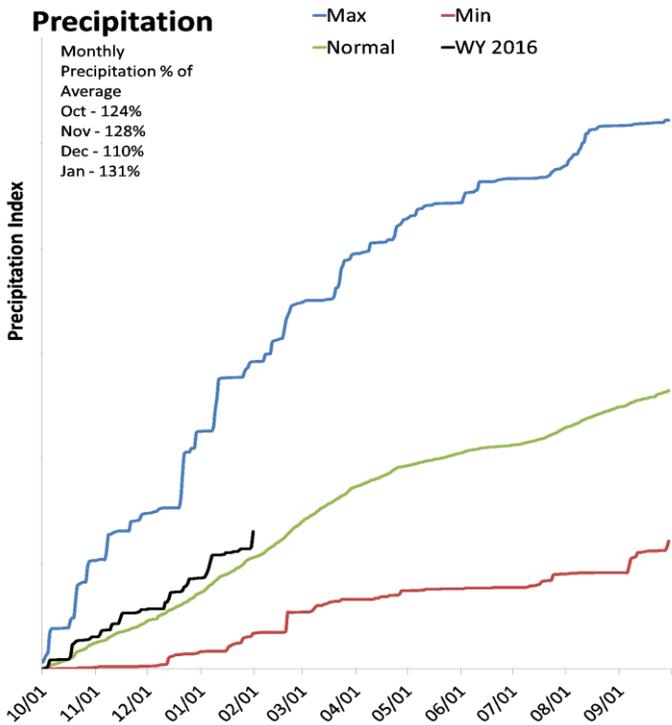
^{*}EOM, end of month; [#]WAI, Water Availability Index; [^]KAF, thousand acre-feet.



Southwestern Utah Basin

2/1/2016

Precipitation in January was much above average at 131%, which brings the seasonal accumulation (Oct-Jan) to 123% of average. Soil moisture is at 54% compared to 50% last year. Reservoir storage is at 47% of capacity, compared to 46% last year. The water availability index for the Virgin River is 20%.



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

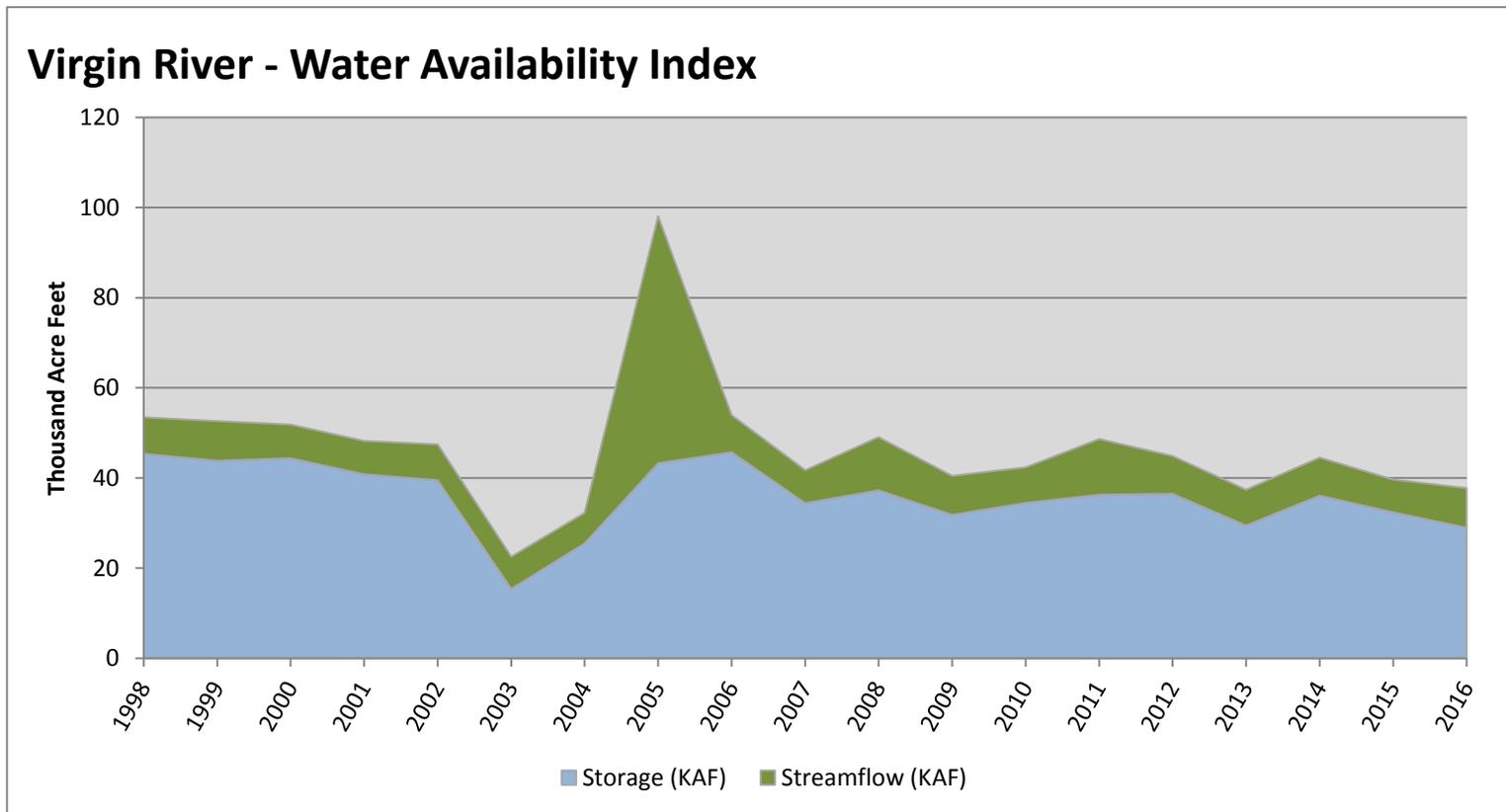
*Min, Max, and Normal lines created using a 5 day moving average of historical data.

February 1, 2016

Water Availability Index

Basin or Region	Jan EOM [*] Storage	January Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Virgin River	28.94	8.84	37.78	20	-2.5	04, 13, 15, 09

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



February 1, 2016

Water Availability Index

Basin or Region	Jan EOM* Storage	January Flow	Storage + Flow	Percentile	WAI#	Years with similar WAI
	KAF^	KAF^	KAF^	%		
Bear River	472	7.7	480	43	-0.6	10, 02, 96, 14
Woodruff Narrows	41.1	2.4	43.5	68	1.5	00, 15, 11, 09
Little Bear	9.7	1.7	11.4	28	-1.8	10, 14, 02, 15
Ogden	58.4	2.2	60.6	46	-0.3	09, 98, 07, 97
Weber	103.6	12.4	116.0	30	-1.7	04, 01, 03, 08
Provo River	293.2	2.4	295.6	14	-3.0	14, 04, 08, 03
Western Uintah	180.8	2.0	182.8	73	1.9	14, 94, 99, 98
Eastern Uintah	32.7	1.9	34.6	30	-1.7	15, 93, 89, 02
Blacks Fork	6.9	1.7	8.7	29	-1.7	13, 01, 03, 08
Price	10.9	1.5	12.4	14	-3.0	92, 05, 90, 15
Smiths Creek	6.0	0.5	6.5	61	0.9	94, 06, 07, 12
Joes Valley	36.8	1.1	37.9	27	-1.9	13, 90, 05, 09
Moab	1.5	0.4	1.9	77	2.2	99, 88, 94, 12
Upper Sevier River	43.6	7.6	51.2	8	-3.5	04, 03, 91, 92
San Pitch	0.4	0.3	0.7	5	-3.7	15, 13, 93, 14
Lower Sevier	78.6	18.8	97.4	14	-3.0	92, 03, 10, 15
Beaver	7.9	1.1	8.9	22	-2.4	10, 02, 01, 00
Virgin River	28.9	8.8	37.8	20	-2.5	04, 13, 15, 09

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

What is a Water Availability Index?

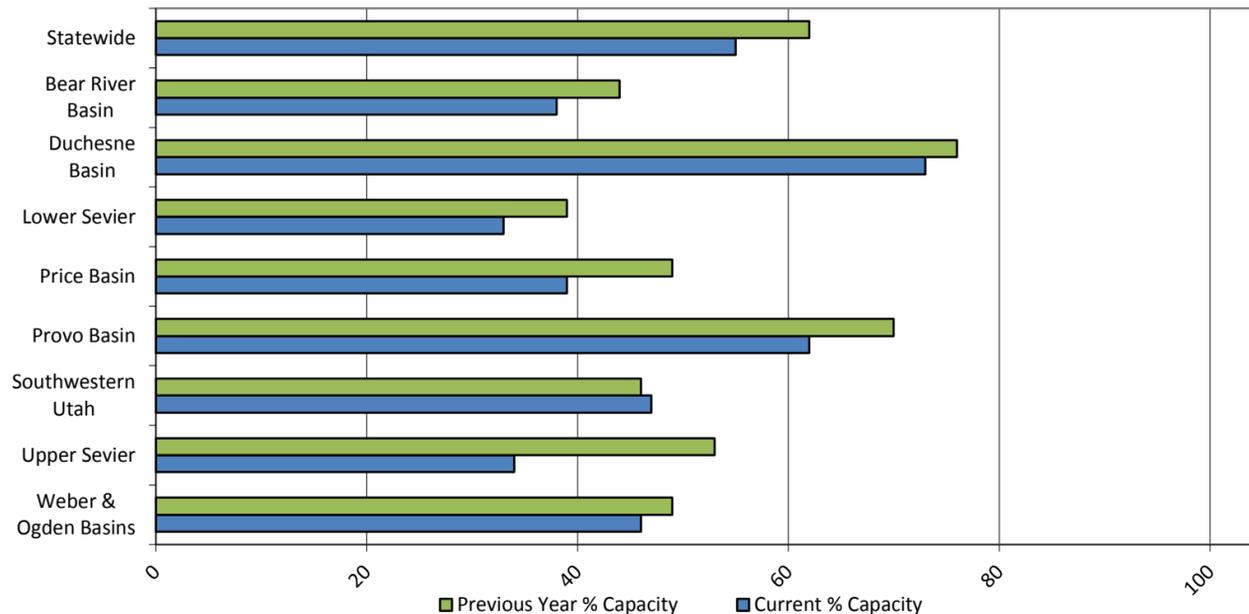
The Water Availability Index (WAI) is an observed hydrologic indicator of current surface water availability within a watershed. The index is calculated by combining current reservoir storage with the previous months streamflow. WAI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) 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 January 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	24.6	25.2		25.7	96%	98%			
Causey Reservoir	4.3	5.5	3.2	7.1	60%	77%	45%	133%	172%
Cleveland Lake	1.9	4.0		5.4	36%	74%			
Currant Creek Reservoir	14.6	14.8	14.9	15.5	94%	95%	96%	98%	99%
Deer Creek Reservoir	120.7	130.9	107.7	149.7	81%	87%	72%	112%	122%
East Canyon Reservoir	23.4	26.3	34.7	49.5	47%	53%	70%	67%	76%
Echo Reservoir	29.4	28.5	46.3	73.9	40%	39%	63%	64%	62%
Grantsville Reservoir	1.6	1.1	1.8	3.3	49%	34%	53%	93%	65%
Gunlock	2.3	4.4	6.5	10.4	22%	42%	63%	36%	67%
Gunnison Reservoir	0.4	0.2	11.4	20.3	2%	1%	56%	4%	2%
Huntington North Reservoir	3.2	4.1	2.7	4.2	75%	98%	64%	117%	153%
Hyrum Reservoir	9.7	10.1	10.2	15.3	63%	66%	67%	95%	99%
Joes Valley Reservoir	36.8	40.7	39.9	61.6	60%	66%	65%	92%	102%
Jordanelle Reservoir	172.5	199.5	242.0	320.0	54%	62%	76%	71%	82%
Ken's Lake	1.5	1.4	1.1	2.3	65%	59%	49%	132%	119%
Kolob Reservoir	2.4	2.9		5.6	43%	52%			
Lost Creek Reservoir	11.0	13.5	12.3	22.5	49%	60%	55%	90%	110%
Lower Enterprise	1.0	1.5	0.6	2.6	38%	58%	24%	159%	238%
Miller Flat Reservoir	1.8	3.3		5.2	34%	64%			
Millsite	8.0	12.5	10.1	16.7	48%	75%	60%	79%	123%
Minersville Reservoir	7.9	9.3	13.4	23.3	34%	40%	58%	59%	69%
Moon Lake Reservoir	21.6	30.6	24.4	35.8	60%	85%	68%	89%	125%
Otter Creek Reservoir	27.7	33.7	35.0	52.5	53%	64%	67%	79%	96%
Panguitch Lake	6.3	7.6	12.7	22.3	28%	34%	57%	49%	60%
Pineview Reservoir	54.2	60.2	51.4	110.1	49%	55%	47%	105%	117%
Piute Reservoir	15.9	36.3	49.2	71.8	22%	51%	69%	32%	74%
Porcupine Reservoir	6.5	7.4	6.0	11.3	58%	65%	53%	108%	123%
Quail Creek	26.6	28.0	26.0	40.0	67%	70%	65%	102%	108%
Red Fleet Reservoir	16.1	11.3	17.9	25.7	63%	44%	70%	90%	63%
Rockport Reservoir	36.2	44.8	34.5	60.9	59%	74%	57%	105%	130%
Sand Hollow Reservoir	37.1	31.6		50.0	74%	63%			
Scotfield Reservoir	10.9	12.5	29.9	65.8	17%	19%	45%	36%	42%
Settlement Canyon Reservoir	0.3	0.3	0.7	1.0	33%	33%	70%	47%	47%
Sevier Bridge Reservoir	78.6	91.6	155.7	236.0	33%	39%	66%	50%	59%
Smith And Morehouse Reservoir	3.6	6.8	3.6	81.0	4%	8%	4%	99%	190%
Starvation Reservoir	148.7	145.1	138.8	165.3	90%	88%	84%	107%	105%
Stateline Reservoir	6.0	9.5	5.4	12.0	50%	79%	45%	111%	176%
Steinaker Reservoir	16.6	16.4	21.7	33.4	50%	49%	65%	76%	75%
Strawberry Reservoir	792.0	837.4	658.4	1105.9	72%	76%	60%	120%	127%
Upper Enterprise	0.9	4.5	3.1	10.0	9%	45%	31%	29%	144%
Upper Stillwater Reservoir	10.4	13.6	8.6	32.5	32%	42%	26%	121%	158%
Utah Lake	442.5	548.3	752.5	870.9	51%	63%	86%	59%	73%
Vernon Creek Reservoir	0.3	0.3	0.5	0.6	42%	56%	78%	53%	72%
Willard Bay	91.0	85.1	133.7	215.0	42%	40%	62%	68%	64%
Woodruff Creek	2.5	1.5	2.4	4.0	61%	38%	60%	102%	63%
Woodruff Narrows Reservoir	41.1	40.4	29.0	57.3	72%	71%	51%	142%	139%
Meeks Cabin Reservoir	6.9	22.5	11.9	32.5	21%	69%	37%	58%	189%
Bear Lake	472.2	548.1	584.8	1302.0	36%	42%	45%	81%	94%
Basin-wide Total	2783.7	3148.1	3356.6	5453.8	51%	58%	62%	83%	94%
# of reservoirs	43	43	43	43	43	43	43	43	43

Reservoir Storage



Issued by

Jason Weller
Chief
Natural Resources Conservation Service
U.S. Department of Agriculture

Released by

David Brown
State Conservationist
Natural Resources Conservation Service
Salt Lake City, Utah

Prepared by

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



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



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

