

Utah Climate and Water Report

November 2015



Strawberry River, October 2015

Photo by Jordan Clayton

Utah Climate and Water Report

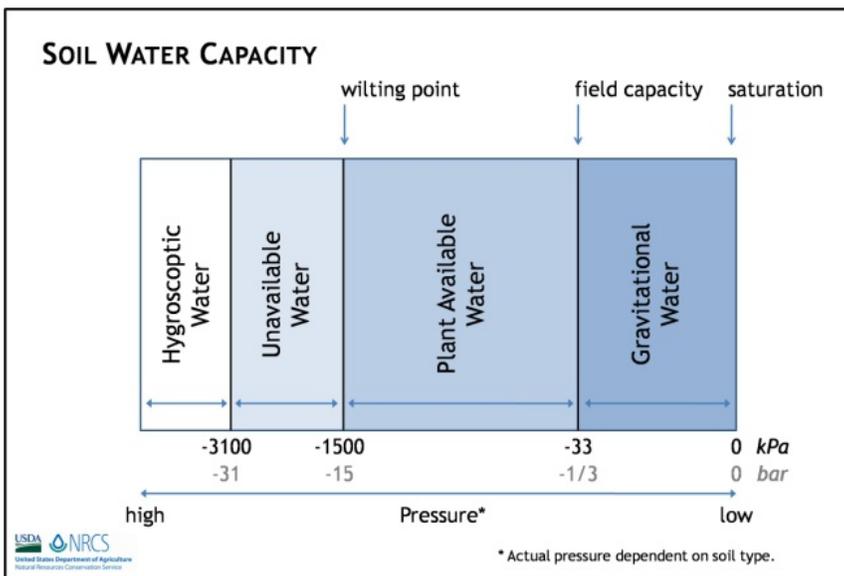
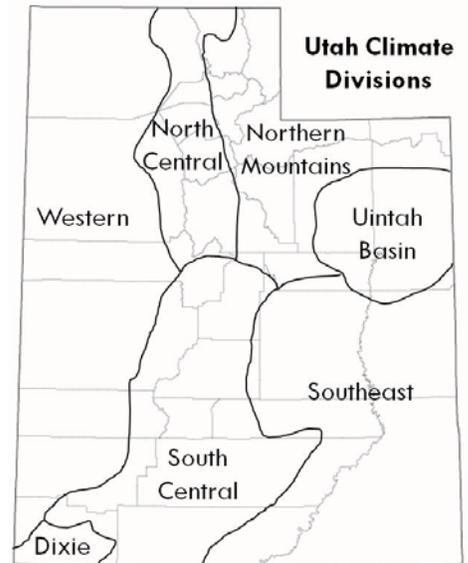
The purpose of the Climate and Water Report is to provide a snapshot of current and immediate past climatic conditions and other information useful to agricultural and water user interests in Utah. The report utilizes data from several sources that represent specific parameters (streamflow data from 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.

Climate and Water Information

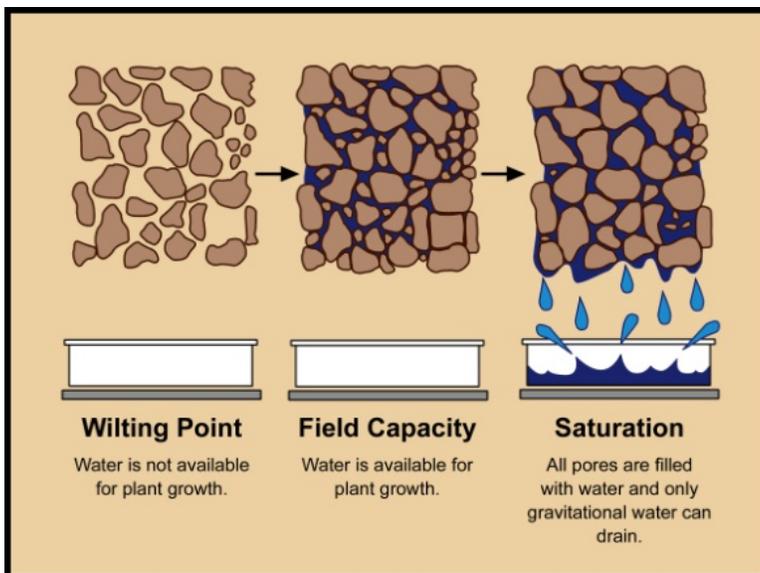
Soil Climate Analysis Network

Soil Climate Analysis Network (SCAN) stations are primarily located on low- to mid-elevation, agriculturally important landscapes that maintain representative soils. Elevations range from 3,000 to 7,000 ft. The SCAN network provides real-time soil moisture and temperature data coupled with additional climate information for use in natural resource planning, drought assessment, water resource management, and resource inventory. Stations are situated on non-irrigated, native soils, are remotely located, and collect hourly atmospheric and soils data that are available to the public online.

In order to summarize SCAN data, the 35 sites in Utah are grouped by climate divisions (North Central, Northern Mountains, Uintah Basin, Southeast, South Central, Dixie, and Western).



Explanation of soil water capacity definitions. Field capacity (FC) and wilting point (WP) are calculated in the laboratory for each soil horizon. The amount of water held between field capacity and wilting point is plant available.



Visual explanation of soil water capacity definitions.

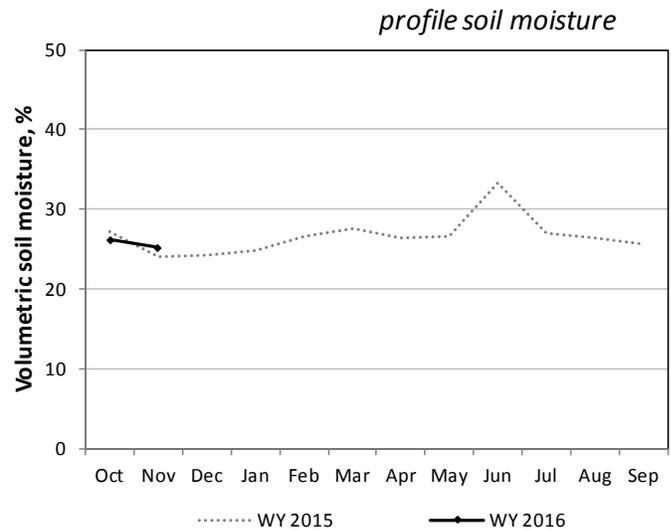
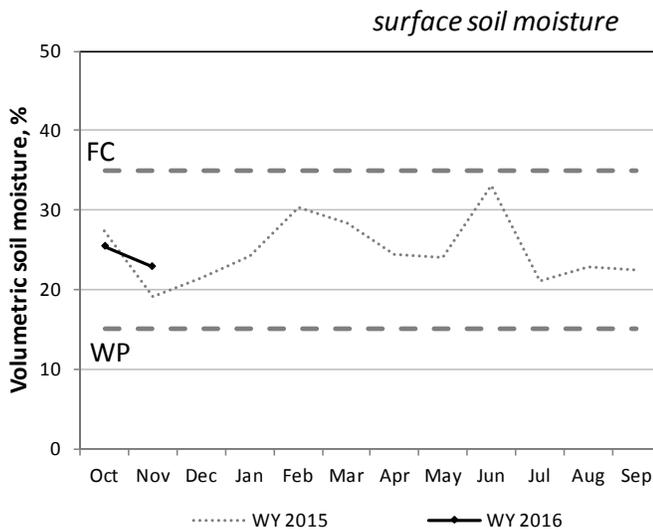
North Central

Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture				Soil Temperature											
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"						
			in.				in.				volume %				° F			
NORTH CENTRAL																		
Blue Creek	1.8	1.8	18	20	21	20	16	46	47	48	52	56						
Cache Junction	0.8	0.8	29	22	35	30	38	50	51	51	54	57						
Grantsville	0.9	0.9	8	15	24	-	-	52	52	55	59	63						

* Precipitation since October 1 (beginning of the water year). Monthly Precip is the amount of precipitation accumulated in the past month. SCAN sites utilize tipping bucket rain gauges which do not accurately measure precipitation in the form of snowfall. Soil moisture and temperature values reflect conditions measured on the first of the month.

North Central



Surface soil moisture is the weighted mean of the water content measured at depths of 2, 4, and 8 inches. **FC** is the mean field capacity, **WP** is the mean permanent wilting point for the soil surface (0 to 12 inches) at SCAN sites within the region, and **WY** is the water year lasting October through September. *Profile soil moisture* is the weighted mean of water content measured at depths of 2, 4, 8, 20, and 40 inches.

Additional data available at the SCAN website, including: hourly air temperature, relative humidity, wind speed, wind direction, barometric pressure, precipitation, solar radiation, soil temperature, and soil moisture.

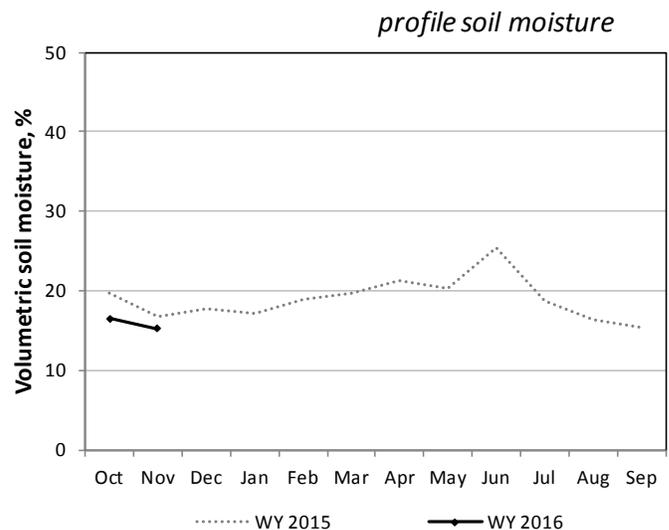
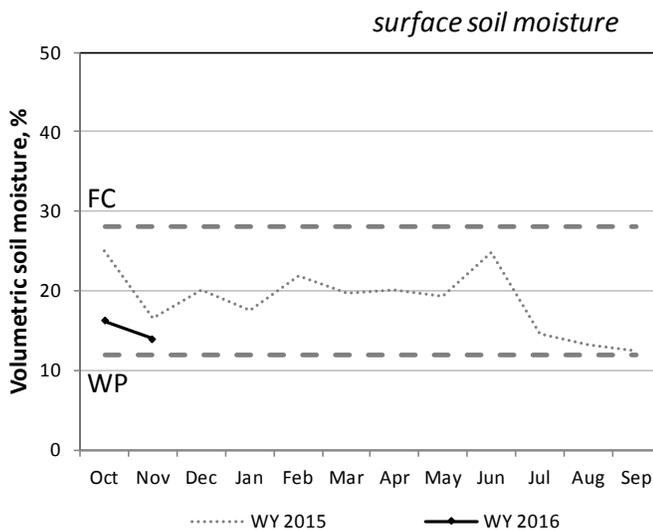
Northern Mountains

Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	<i>in.</i>	<i>in.</i>	<i>volume %</i>					<i>° F</i>				
NORTHERN MOUNTAINS												
Chicken Ridge	1.0	1.0	8	10	12	12	10	41	42	42	45	48
Buffalo Jump	0.8	0.8	8	10	9	8	-	32	32	32	-	-
Morgan	0.7	0.7	23	18	24	31	19	50	50	49	50	53

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Northern Mountains



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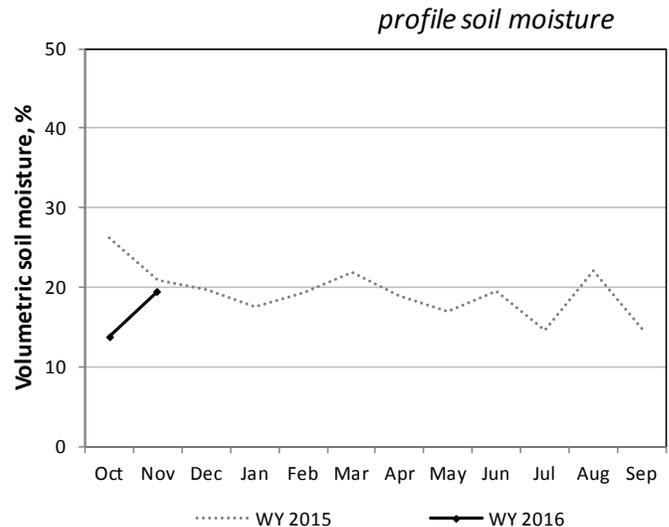
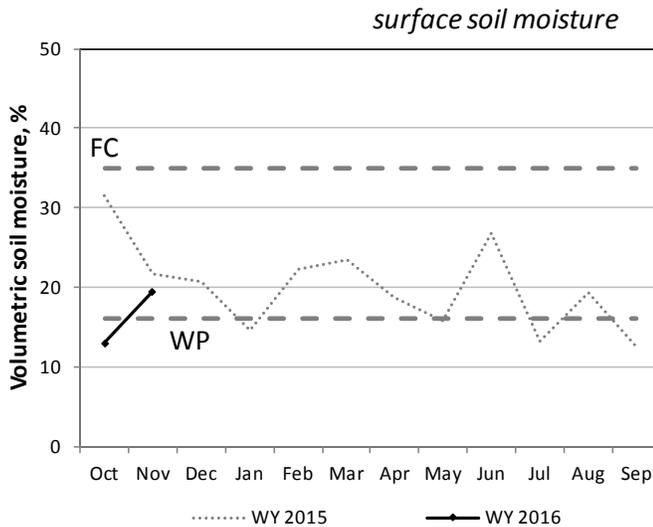
Uintah Basin

Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	<i>in.</i>	<i>in.</i>	<i>volume %</i>					<i>° F</i>				
UINTAH BASIN												
Mountain Home	1.7	1.7	14	13	12	10	6	44	43	44	47	57
Little Red Fox	1.4	1.4	22	28	40	37	40	46	47	48	52	54
Split Mountain	0.9	0.9	12	22	10	12	12	48	49	50	55	59

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Uintah Basin



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Additional data available at the SCAN website, including: hourly air temperature, relative humidity, wind speed, wind direction, barometric pressure, precipitation, solar radiation, soil temperature, and soil moisture.

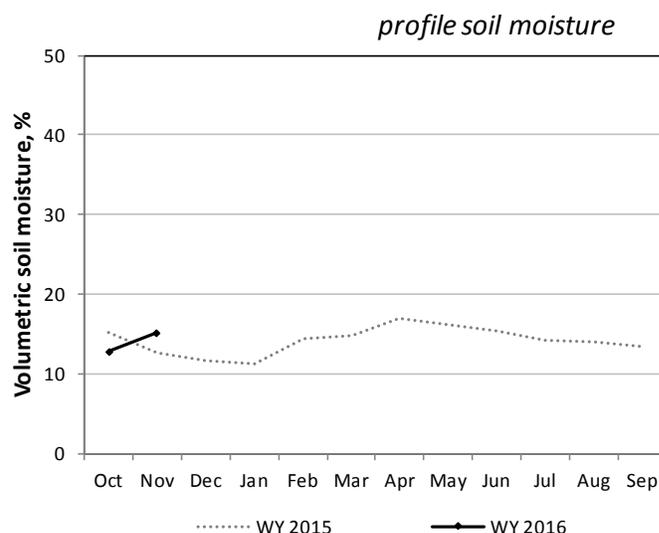
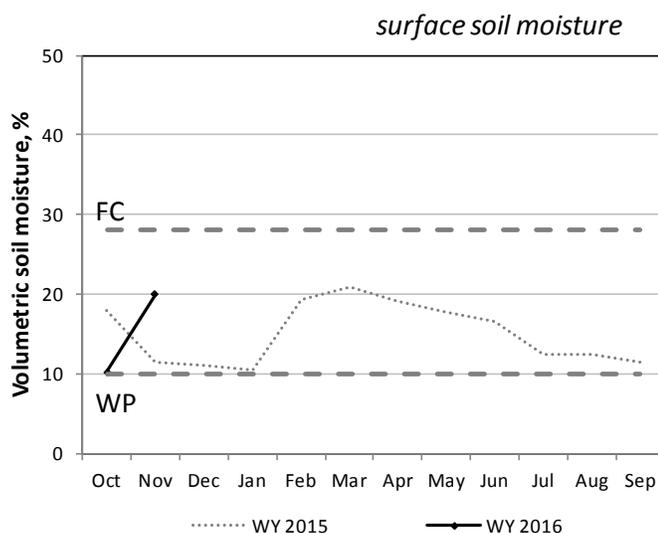
Southeast

Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	<i>in.</i>	<i>in.</i>	<i>volume %</i>					<i>° F</i>				
SOUTHEAST												
Price	2.2	2.2	10	24	29	14	18	49	48	49	54	58
Green River	2.2	2.2	25	11	7	5	7	48	48	50	56	61
Harm's Way	2.9	2.9	20	23	21	13	6	43	46	46	50	55
West Summit	3.1	3.1	24	29	25	14	17	41	42	45	48	53
Eastland	3.2	3.2	22	22	20	21	20	46	47	47	52	56
Alkali Mesa	3.0	3.0	12	13	15	16	16	46	45	50	54	56
McCracken Mesa	3.2	3.2	21	25	24	16	14	50	52	53	57	62

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Southeast



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Additional data available at the SCAN website, including: hourly air temperature, relative humidity, wind speed, wind direction, barometric pressure, precipitation, solar radiation, soil temperature, and soil moisture.

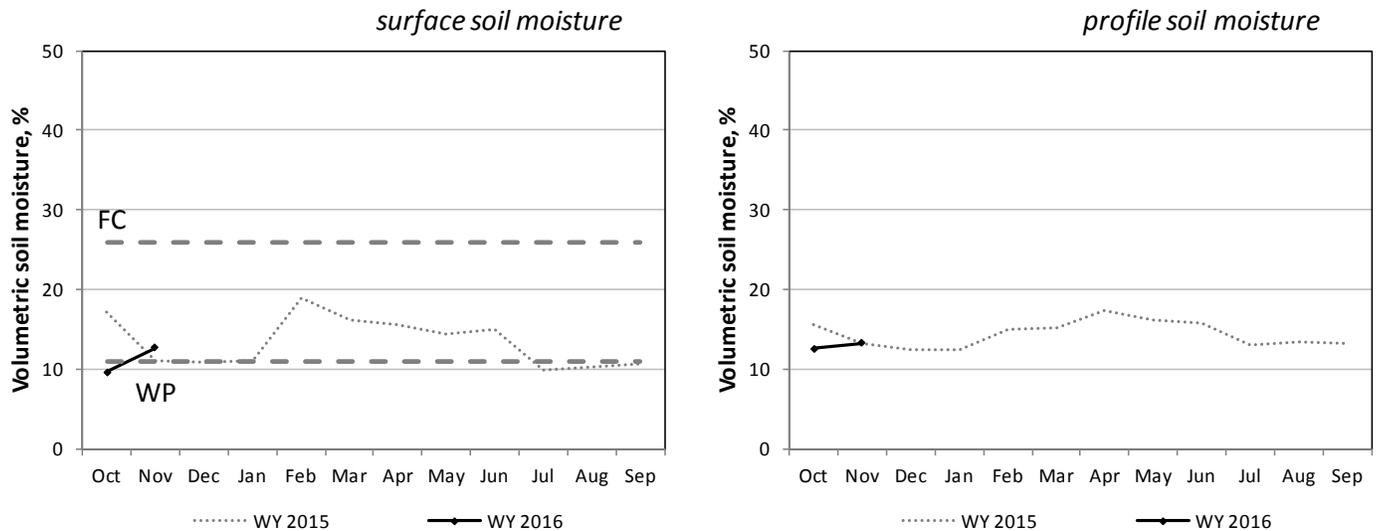
South Central

Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	<i>in.</i>	<i>in.</i>	<i>volume %</i>					<i>° F</i>				
SOUTH CENTRAL												
Nephi	1.0	1.0	19	13	12	6	4	50	50	51	56	59
Ephraim	0.7	0.7	14	21	27	34	35	50	49	50	54	57
Holden	1.3	1.3	7	8	8	11	11	52	51	53	57	63
Milford	1.2	1.2	17	16	13	25	17	47	50	52	57	61
Manderfield	1.4	1.4	25	15	11	10	5	47	48	50	53	56
Circleville	4.2	4.2	20	22	6	8	15	47	48	48	54	58
Panguitch	2.2	2.2	16	27	15	20	34	43	43	44	49	52
Cave Valley	2.5	2.5	5	6	6	0	6	49	48	48	51	53
Vermillion	4.0	4.0	4	9	9	14	8	42	41	44	47	53
Spooky	3.3	3.3	8	10	6	5	2	49	48	49	53	59

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South Central



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Additional data available at the SCAN website, including: hourly air temperature, relative humidity, wind speed, wind direction, barometric pressure, precipitation, solar radiation, soil temperature, and soil moisture.

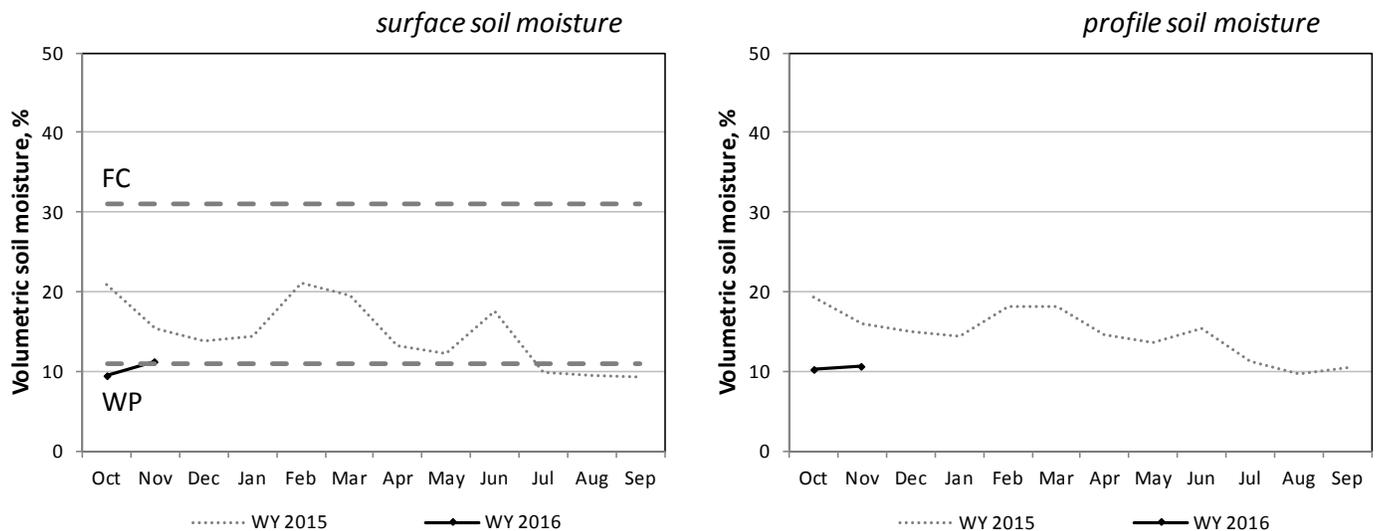
Western and Dixie

Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	<i>in.</i>	<i>in.</i>	<i>volume %</i>					<i>° F</i>				
WESTERN												
Grouse Creek	1.1	1.1	4	9	10	15	16	47	46	48	51	54
Park Valley	1.4	1.4	6	8	14	-	-	48	48	49	53	58
Goshute	1.2	1.2	-	-	-	-	-	46	47	49	51	57
Dugway	0.5	0.5	-	-	-	-	-	56	57	58	62	66
Tule Valley	1.4	1.4	19	14	23	14	12	52	52	54	56	64
Hal's Canyon	1.4	1.4	8	10	9	11	9	52	50	49	57	62
Enterprise	0.9	0.9	6	19	18	13	14	49	51	52	57	61
DIXIE												
Sand Hollow	1.0	1.0	3	3	4	1	0	58	59	60	62	68

* Precipitation since October 1 (beginning of the water year). Monthly Precip is the amount of precipitation accumulated in the past month. SCAN sites utilize tipping bucket rain gauges which do not accurately measure precipitation in the form of snowfall. Soil moisture and temperature values reflect conditions measured on the first of the month.

Western & Dixie



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Additional data available at the SCAN website, including: hourly air temperature, relative humidity, wind speed, wind direction, barometric pressure, precipitation, solar radiation, soil temperature, and soil moisture.

Utah Hydrologic Summary

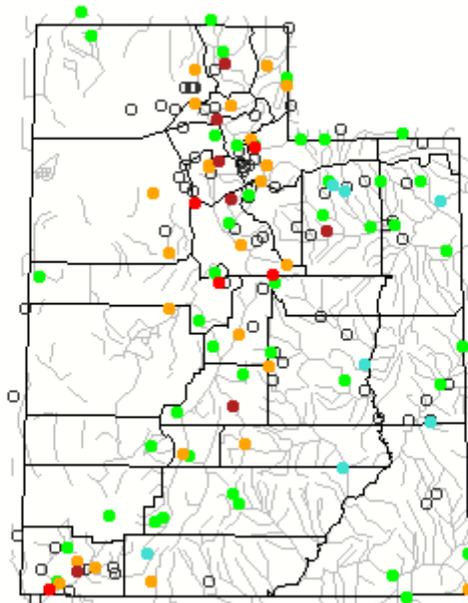
November 1, 2015

Current Conditions

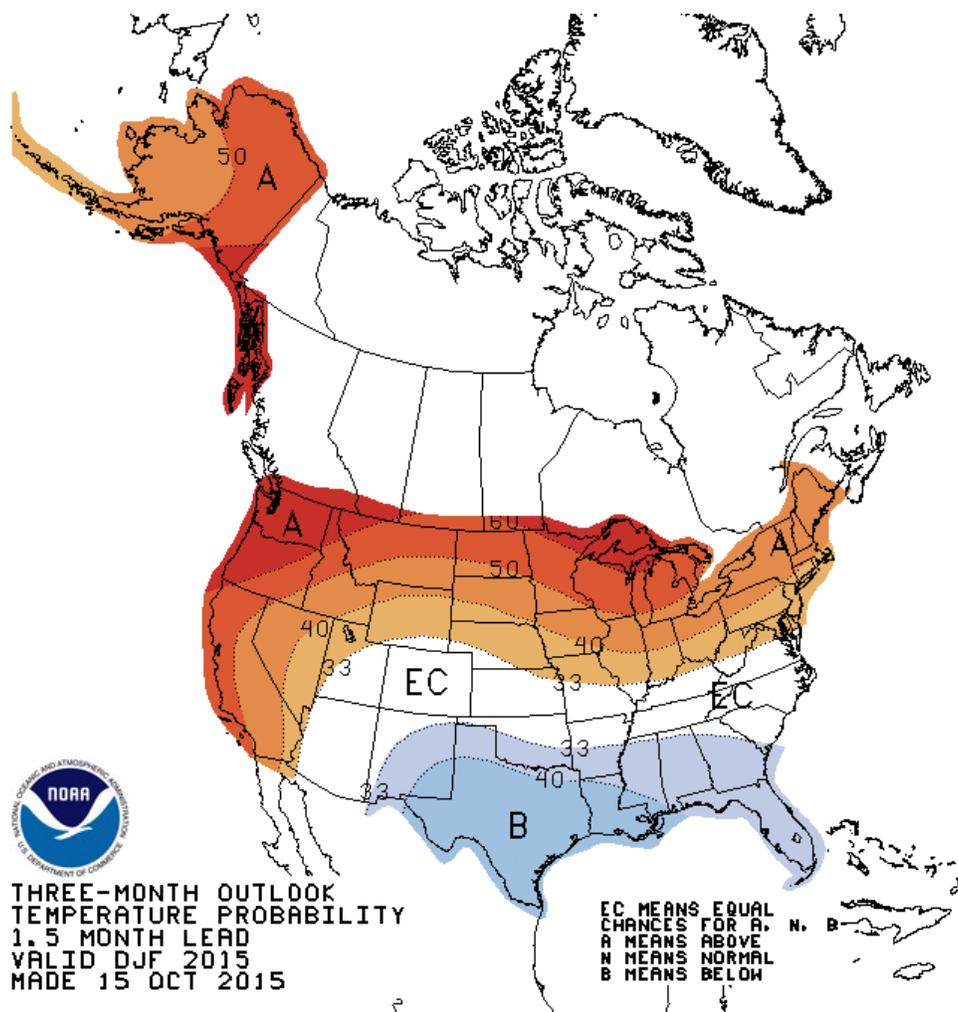
Current runoff, as shown in the USGS graphic below, is mostly below and much below normal for non-regulated stream flow (points in yellow and red) across many areas of Utah with most other sites near normal. October precipitation was much above average in southern Utah and below normal in central and northern Utah. Soil moisture going into the winter months is near normal across most of the state. While soil moisture is not nearly as good as last year, at least soils are not bone dry and with the most recent precipitation should be improving. Reservoir storage is slightly lower than last year, near 52% of capacity across the state compared to 56% last year. Reservoir storage could and likely should be much lower but exceptional May and July precipitation reduced consumption and increased streamflow substantially and the combination of the two saved water in Utah's reservoirs.

Current Utah Stream Flow - Courtesy US Geological Survey

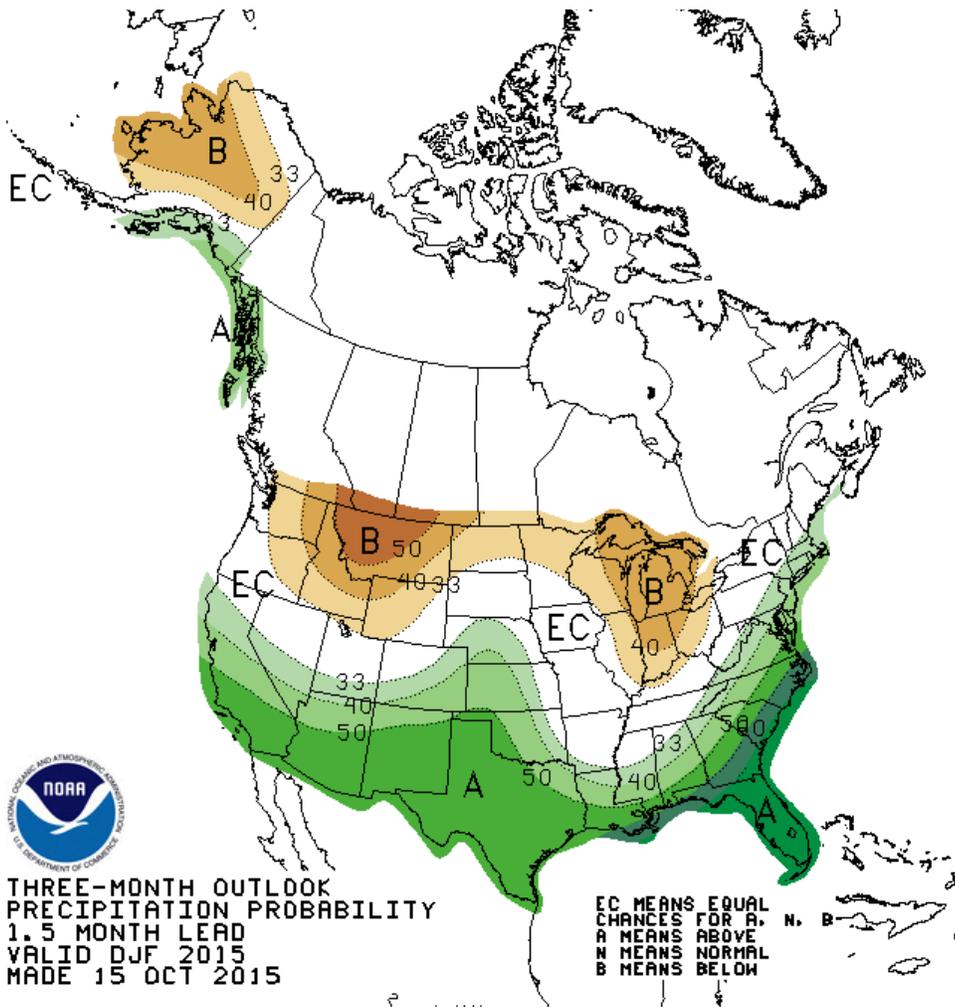
Wednesday, November 04, 2015 08:30ET



Explanation - Percentile classes							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not ranked



Climate Prediction Center's temperature forecast for December through February – consistent with the projected impacts of El Niño: warmer in the north and cooler in the south.



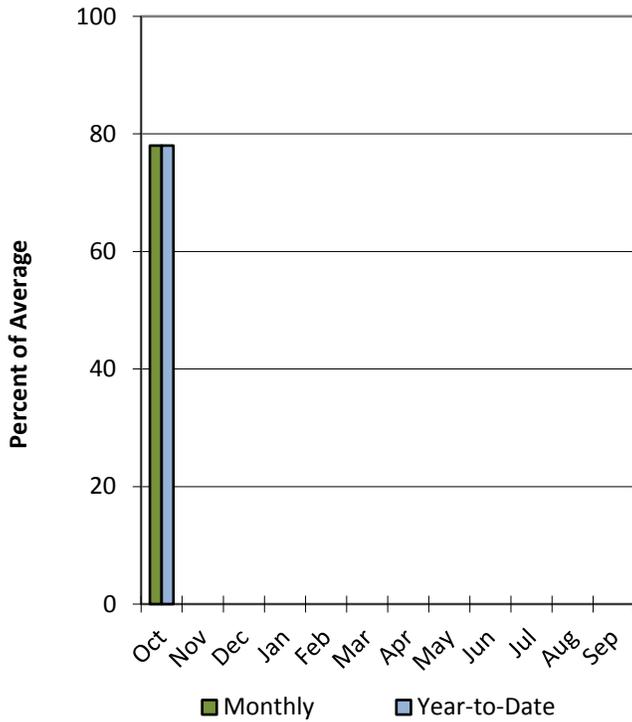
The Climate Prediction Center's precipitation forecast for December through February: dry in the north and wetter in the south, again consistent with the predicted El Niño. The general tendency would be that southern Utah may do very well in terms of precipitation whereas northern Utah has little or no predictability either to dry or wet.

Statewide Utah

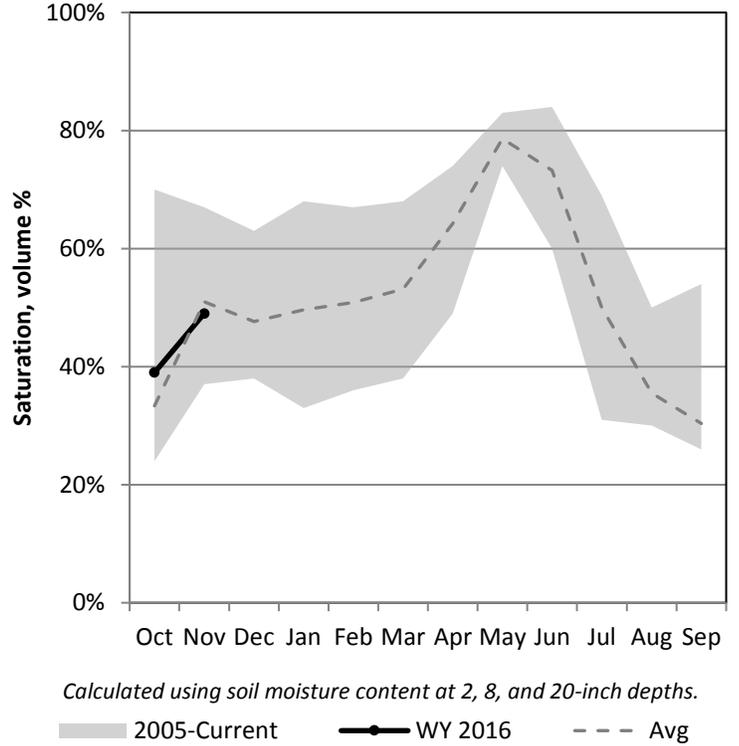
11/1/2015

Precipitation in October was below average at 78%, which brings the seasonal accumulation (Oct-Oct) to 78% of average. Soil moisture is at 49% compared to 58% last year. Reservoir storage is at 52% of capacity, compared to 56% last year.

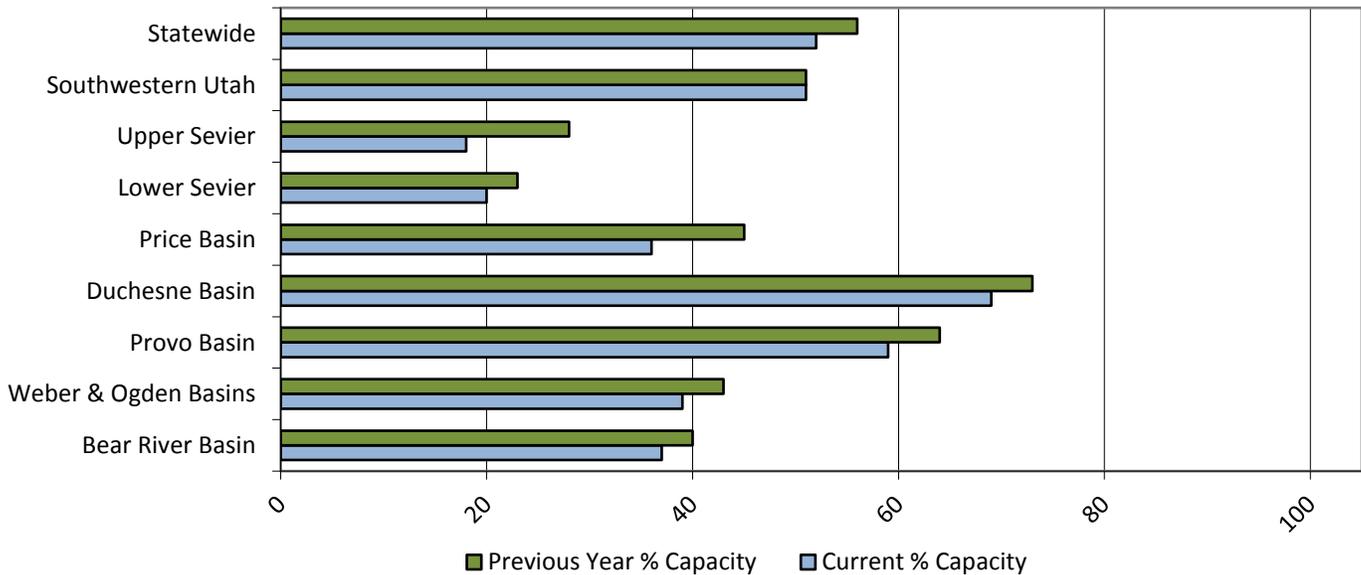
Precipitation



Soil Moisture



Reservoir Storage

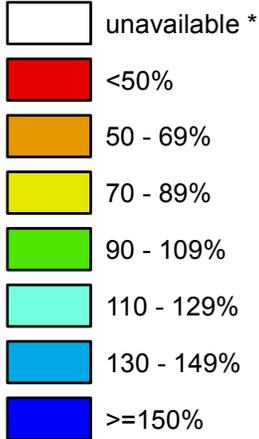


Utah

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

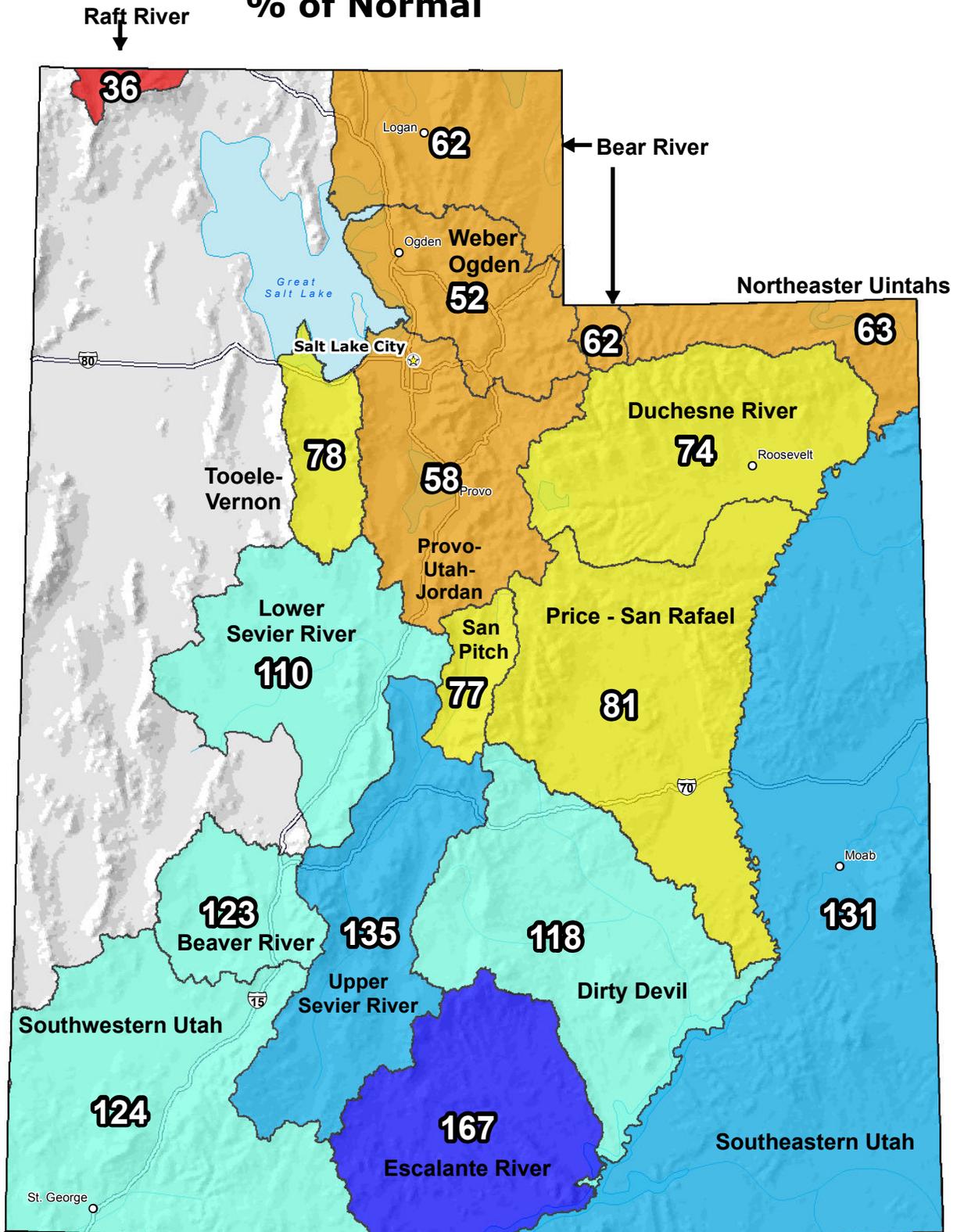
Nov 01, 2015

**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).

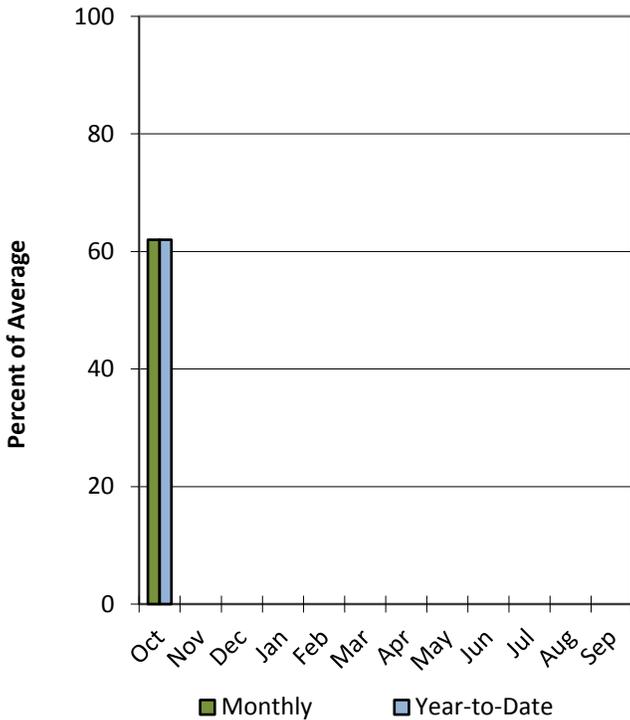
Prepared by:
USDA/NRCS National Water and Climate Center
Portland, Oregon
<http://www.wcc.nrcs.usda.gov>

Bear River Basin

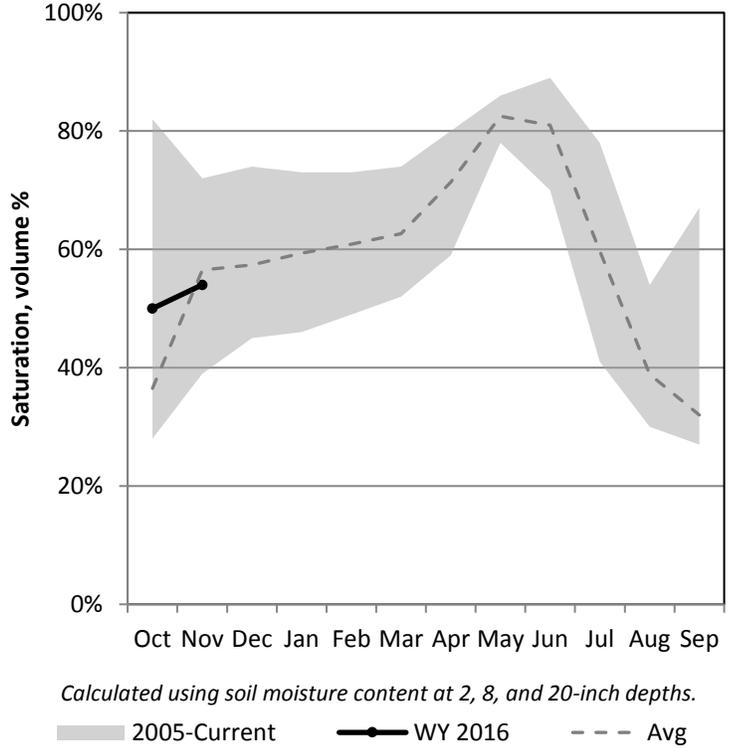
11/1/2015

Precipitation in October was much below average at 62%, which brings the seasonal accumulation (Oct-Oct) to 62% of average. Soil moisture is at 54% compared to 57% last year. Reservoir storage is at 37% of capacity, compared to 40% last year. The water availability index for the Bear River is 47%, 64% for Woodruff Narrows and 13% for the Little Bear.

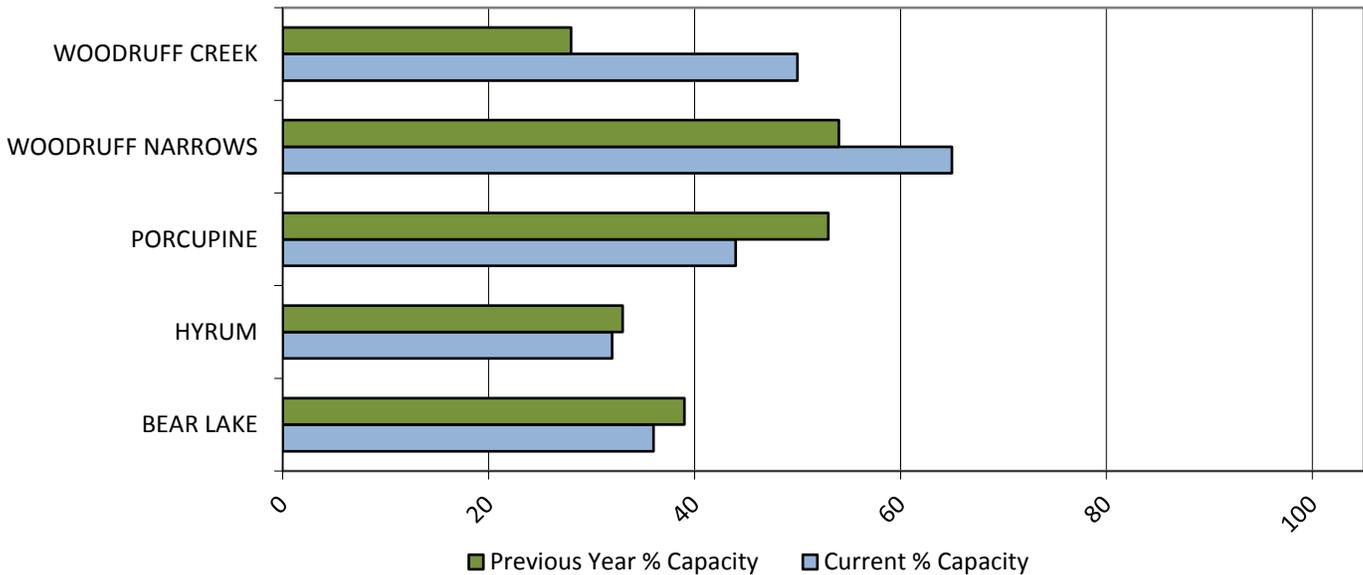
Precipitation



Soil Moisture



Reservoir Storage

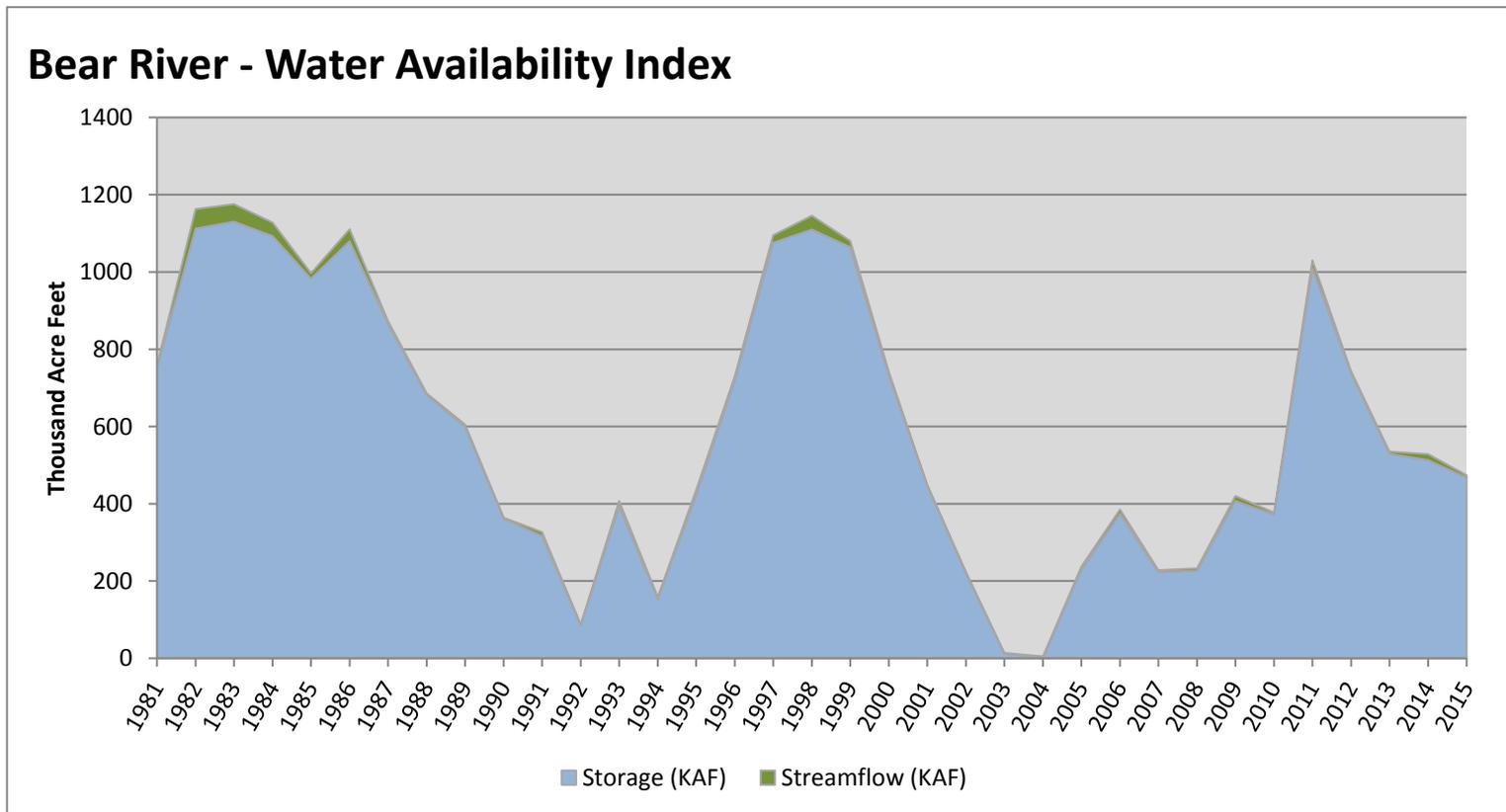


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Bear River	467.67	6.41	474.08	47	-0.23	95, 01, 14, 13

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

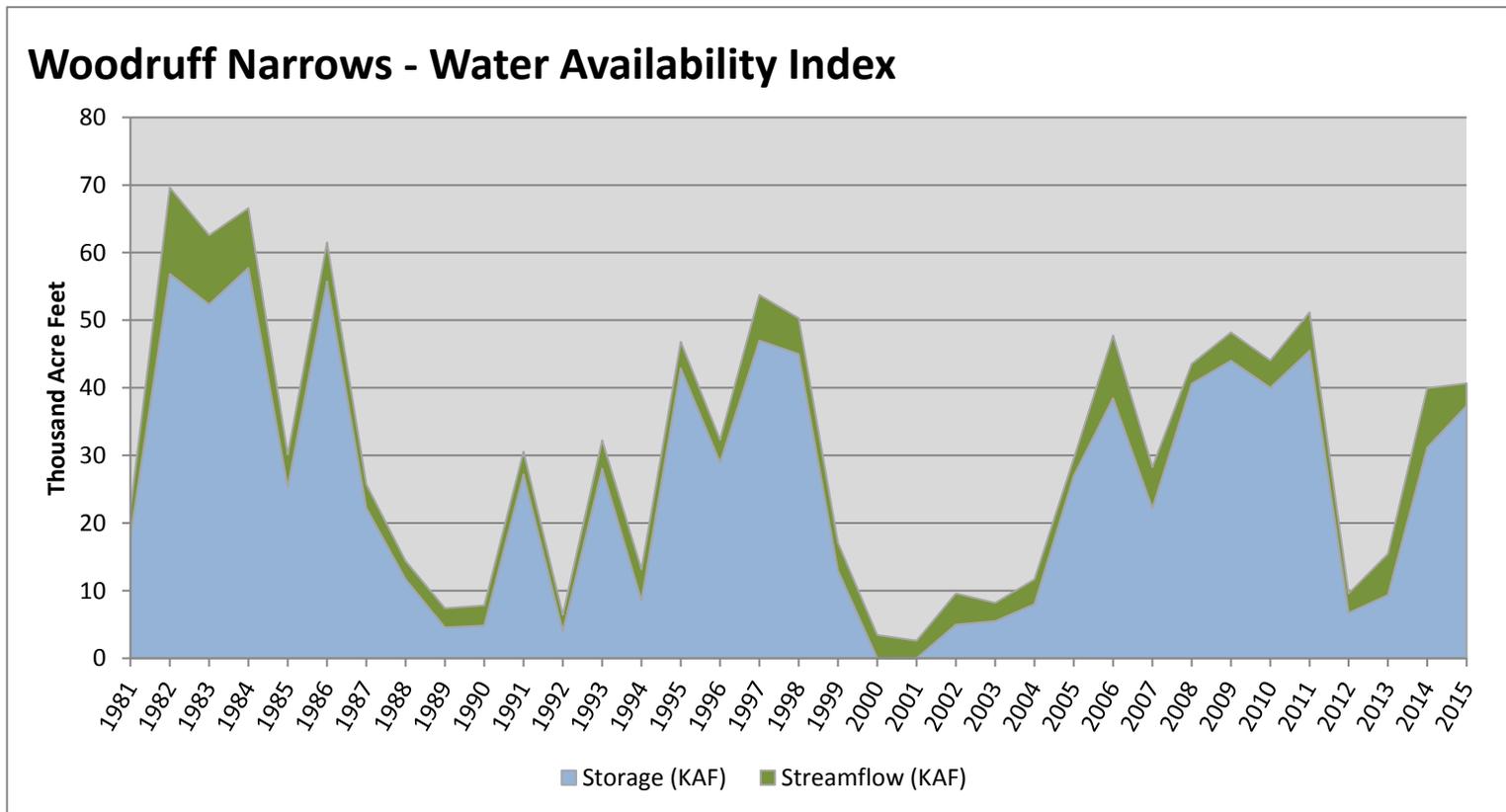


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Woodruff Narrows	37.38	3.31	40.69	64	1.16	96, 14, 08, 10

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

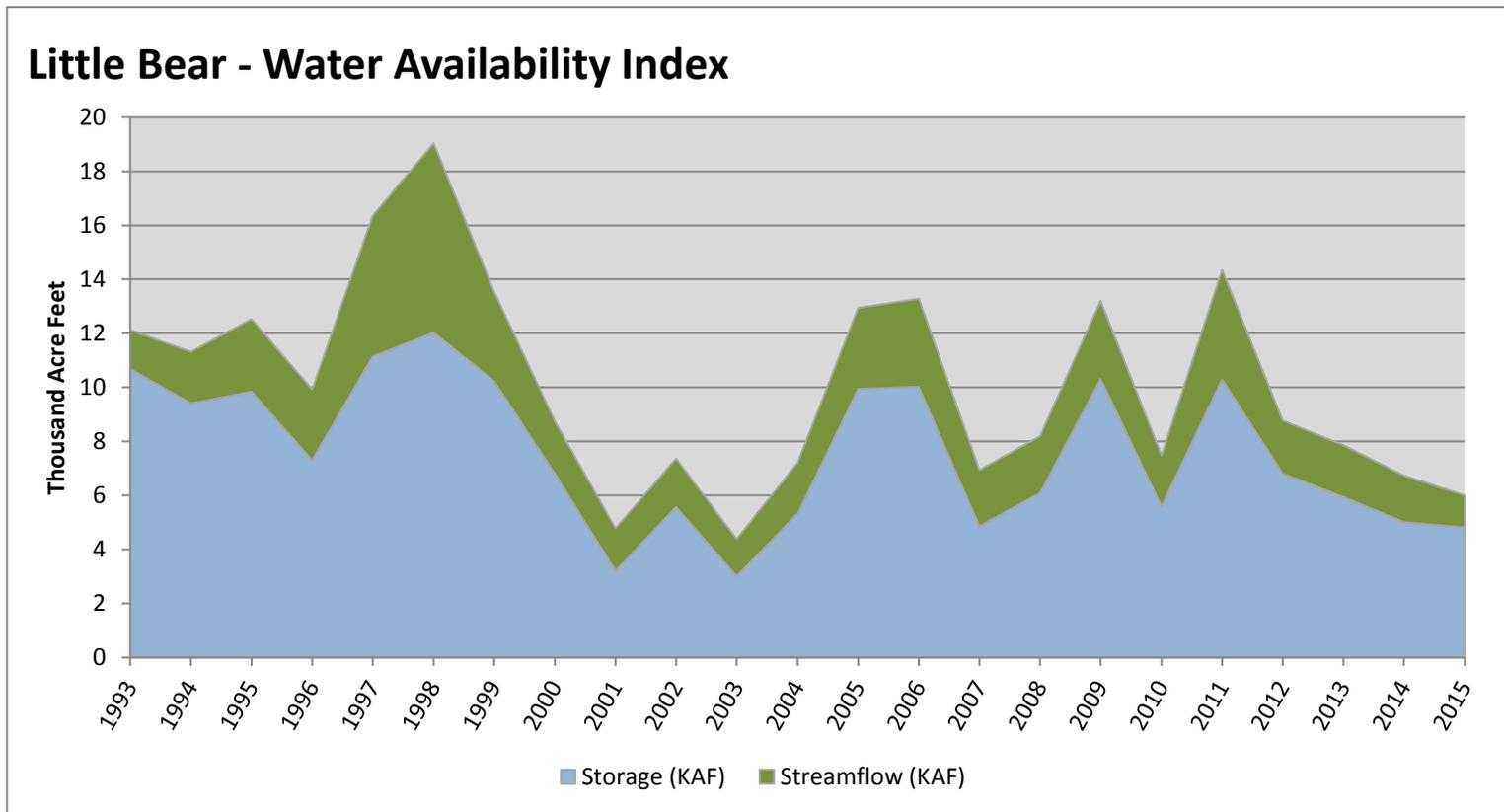


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Little Bear	4.82	1.18	6.00	13	-3.13	03, 01, 14, 07

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

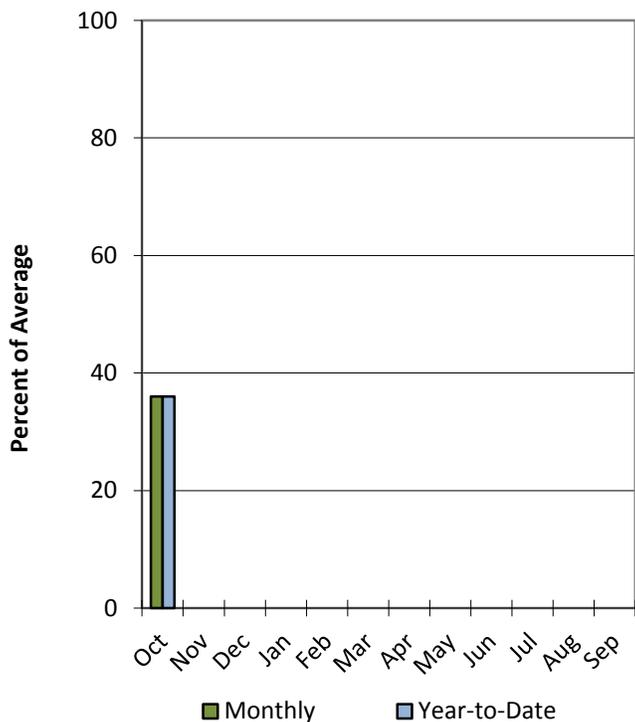


Raft River Basin

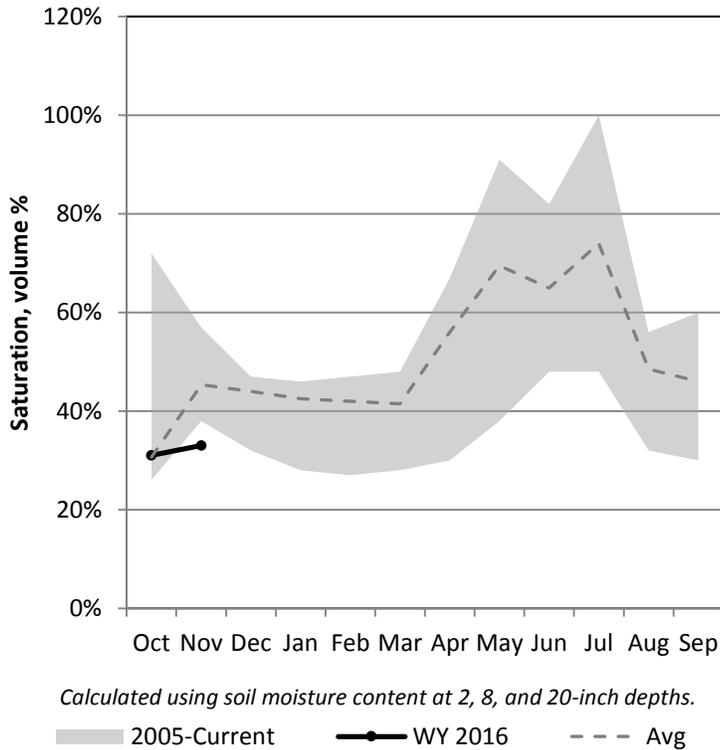
11/1/2015

Precipitation in October was much below average at 36%, which brings the seasonal accumulation (Oct-Oct) to 36% of average. Soil moisture is at 33% compared to 52% last year.

Precipitation



Soil Moisture

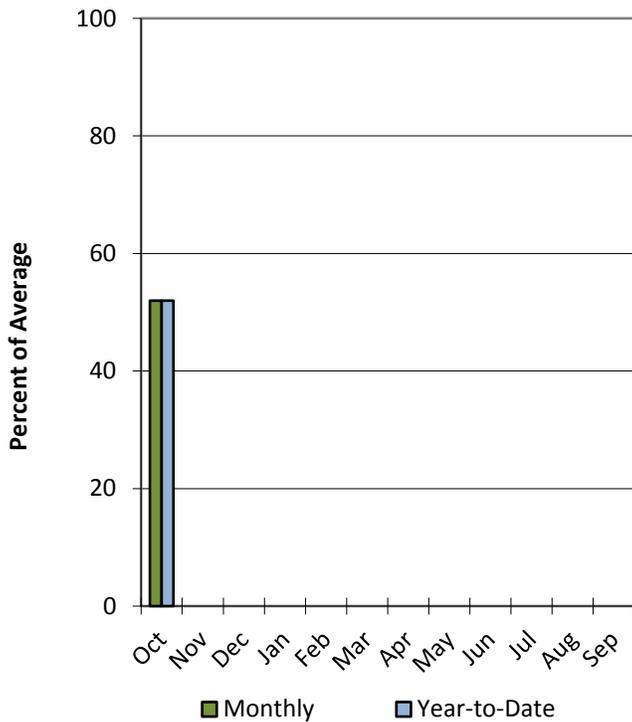


Weber & Ogden River Basins

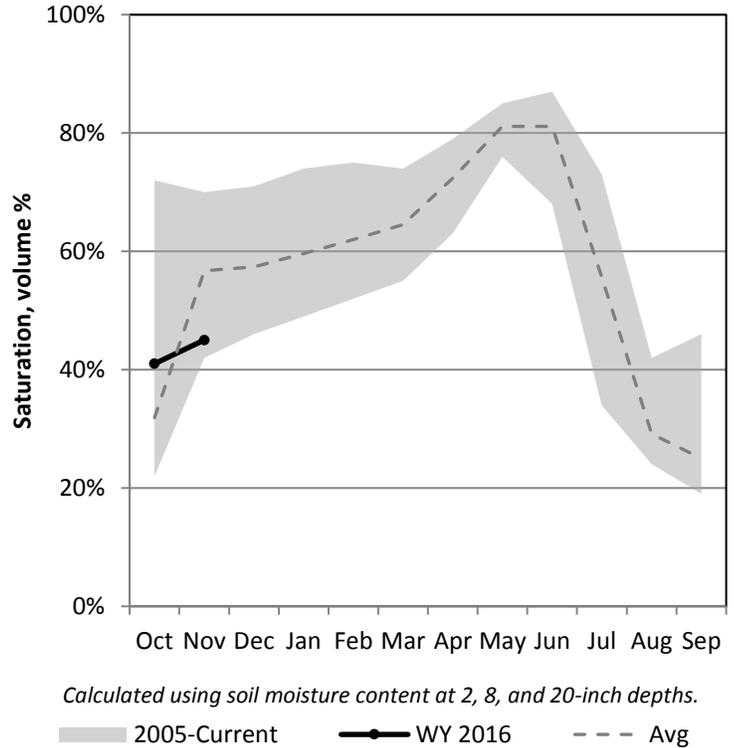
11/1/2015

Precipitation in October was much below average at 52%, which brings the seasonal accumulation (Oct-Oct) to 52% of average. Soil moisture is at 45% compared to 44% last year. Reservoir storage is at 39% of capacity, compared to 43% last year. The water availability index for the Ogden River is 39% and 27% for the Weber River.

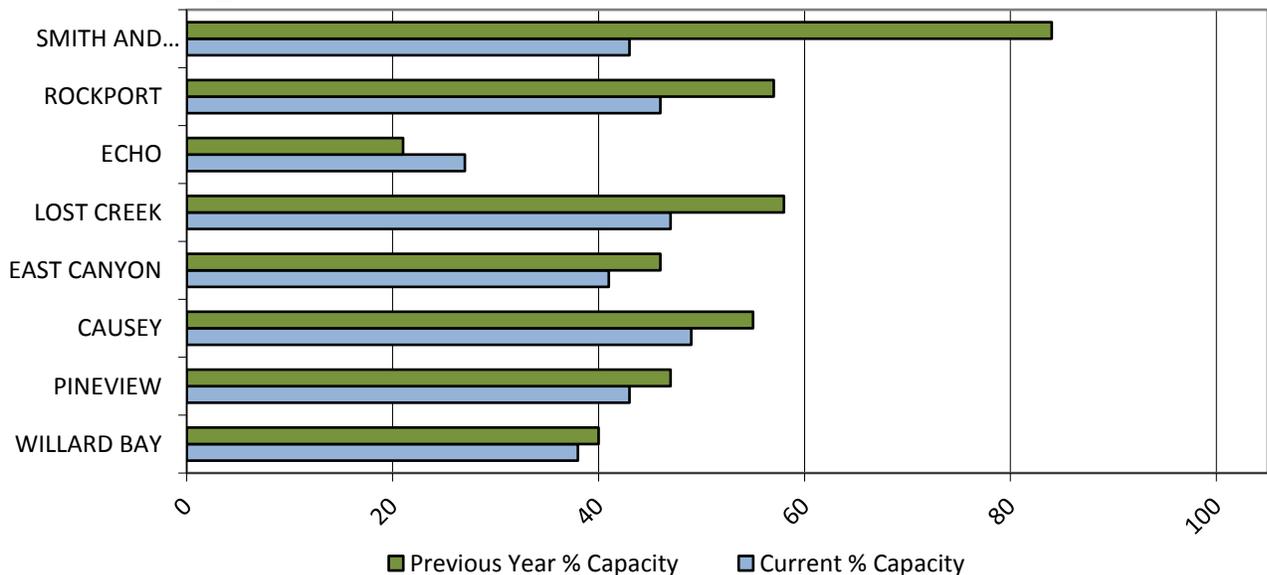
Precipitation



Soil Moisture



Reservoir Storage

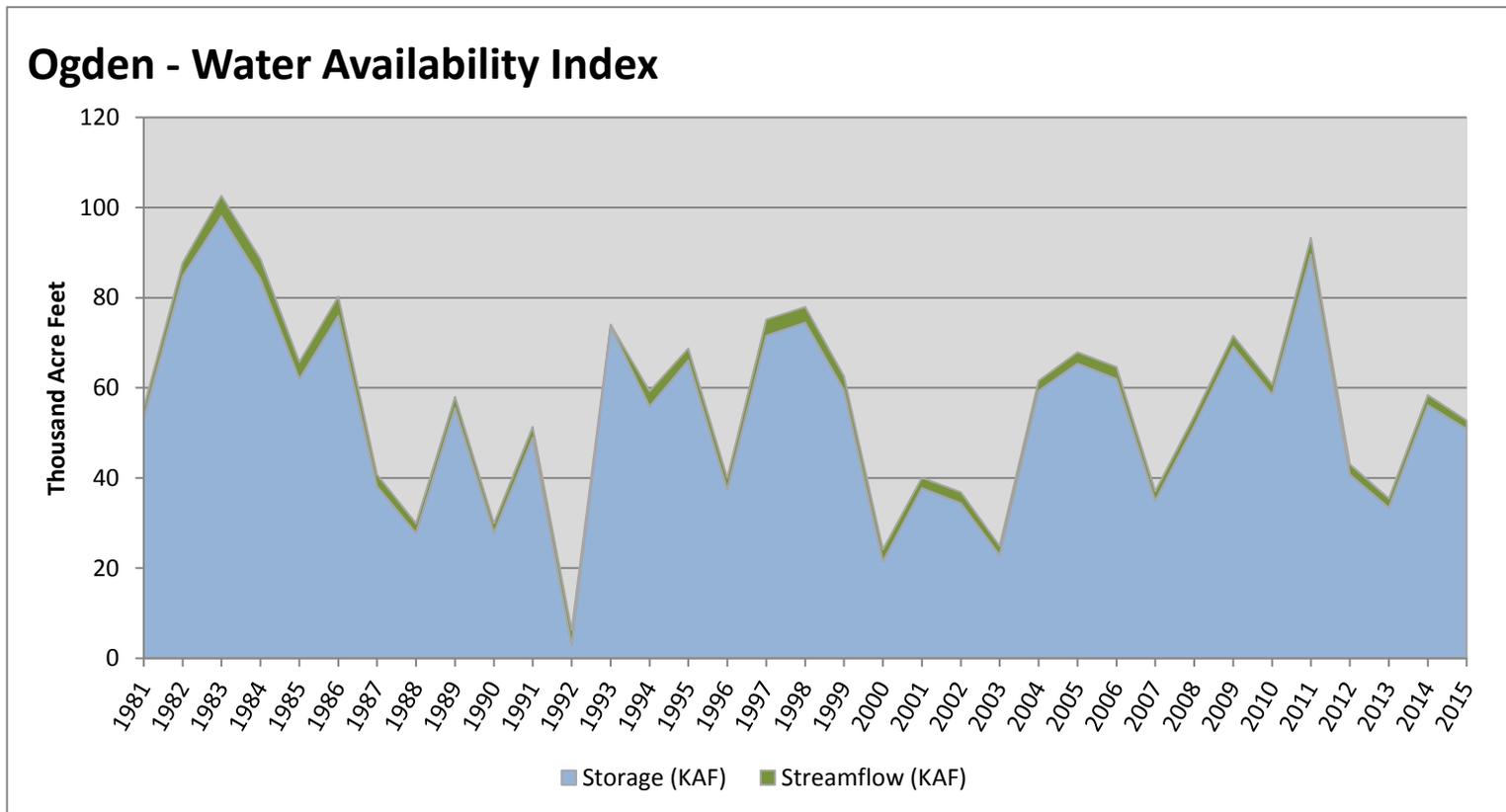


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Ogden	50.90	1.87	52.77	39	-0.93	12, 91, 08, 81

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

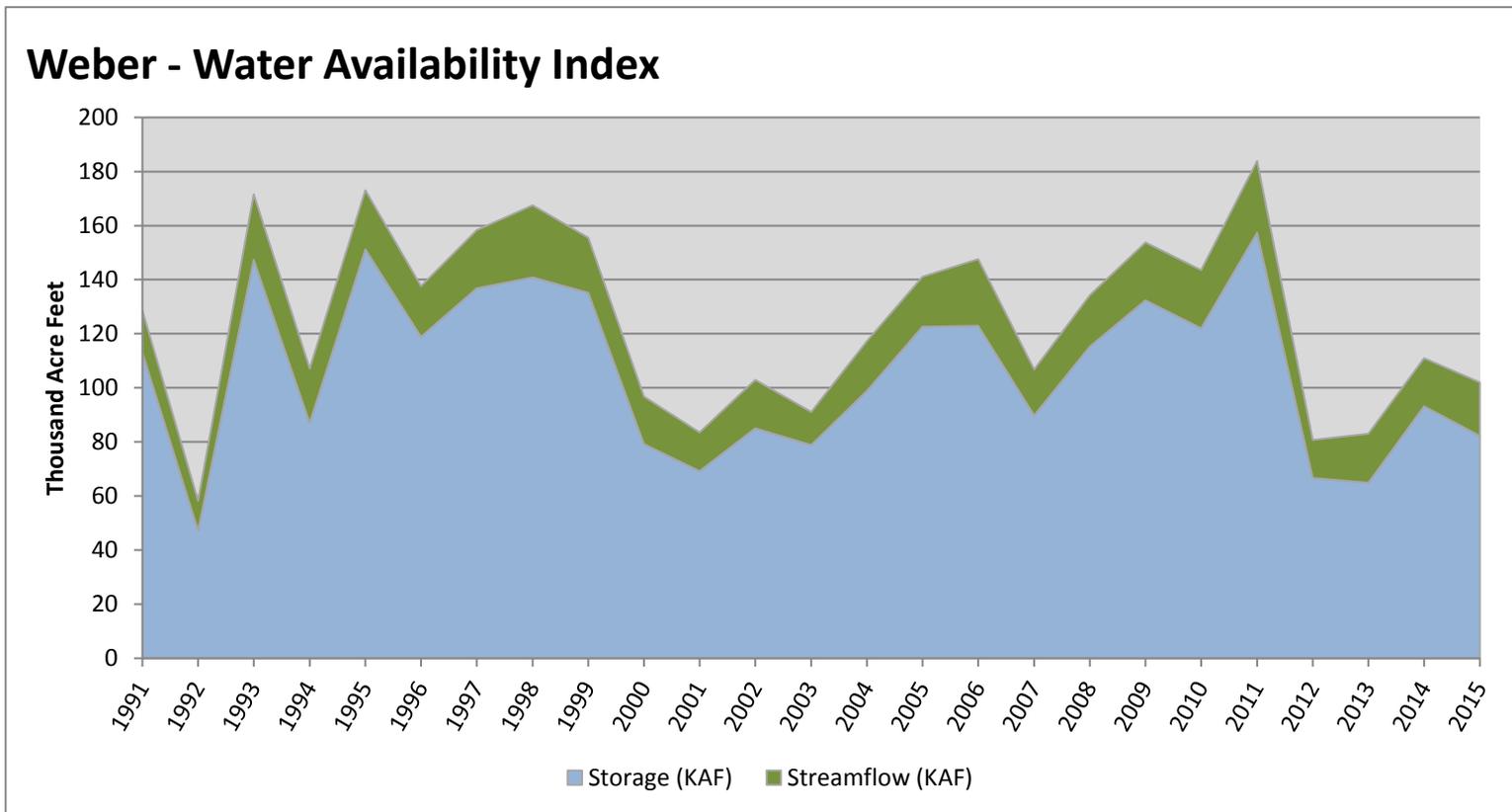


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Weber	82.26	19.75	102.01	27	-1.92	03, 00, 02, 07

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

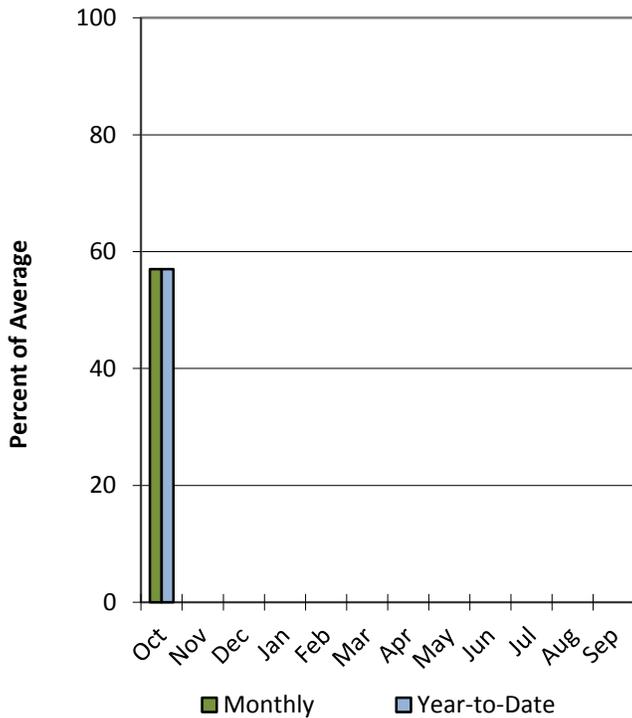


Provo & Jordan River Basins

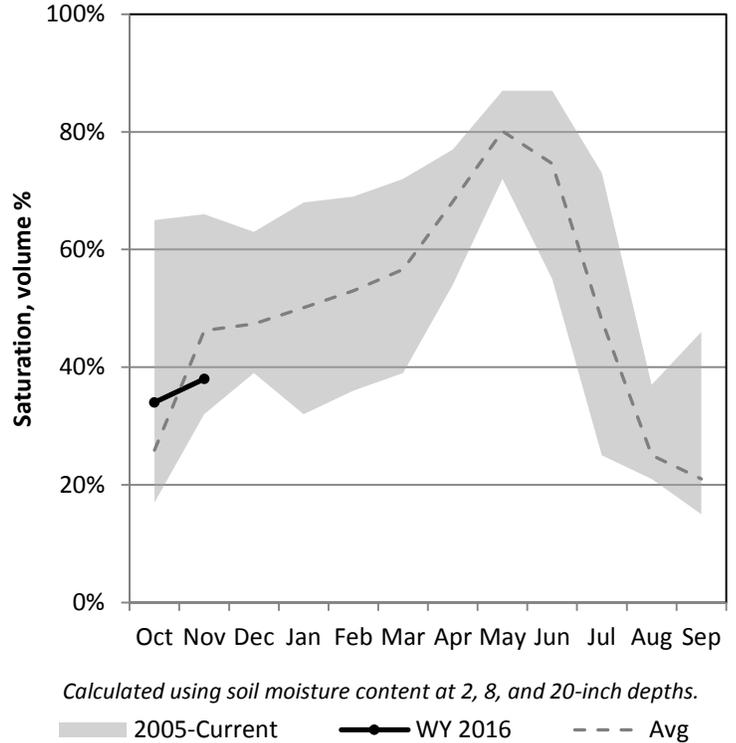
11/1/2015

Precipitation in October was much below average at 57%, which brings the seasonal accumulation (Oct-Oct) to 57% of average. Soil moisture is at 38% compared to 58% last year. Reservoir storage is at 59% of capacity, compared to 64% last year. The water availability index for the Provo River is 14%.

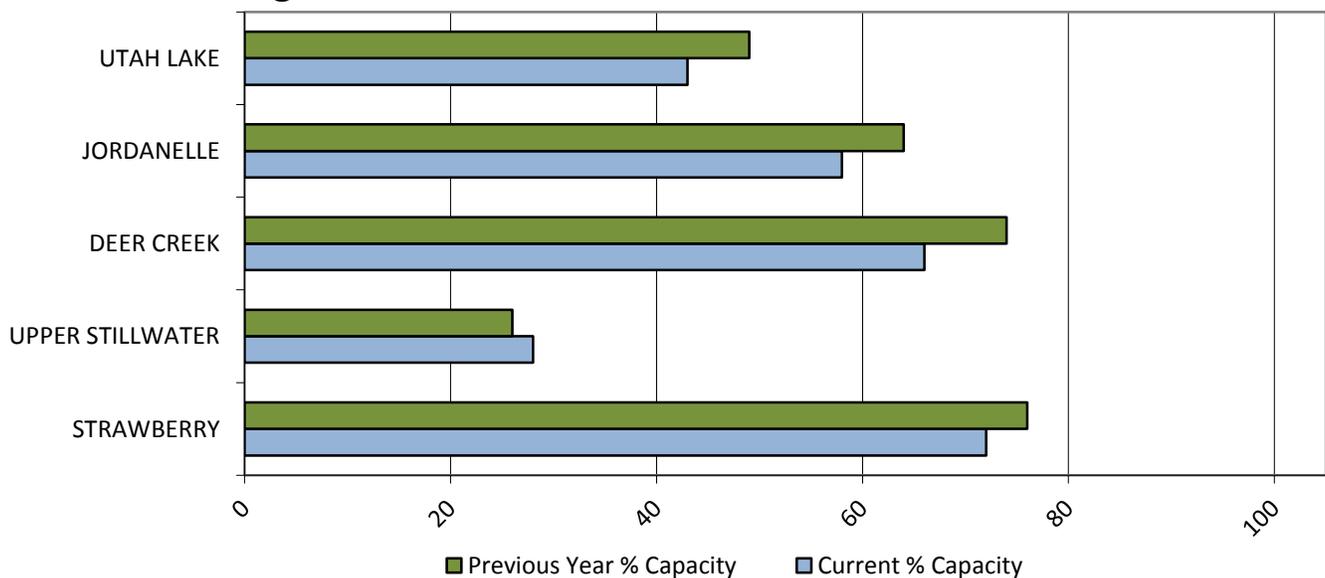
Precipitation



Soil Moisture



Reservoir Storage

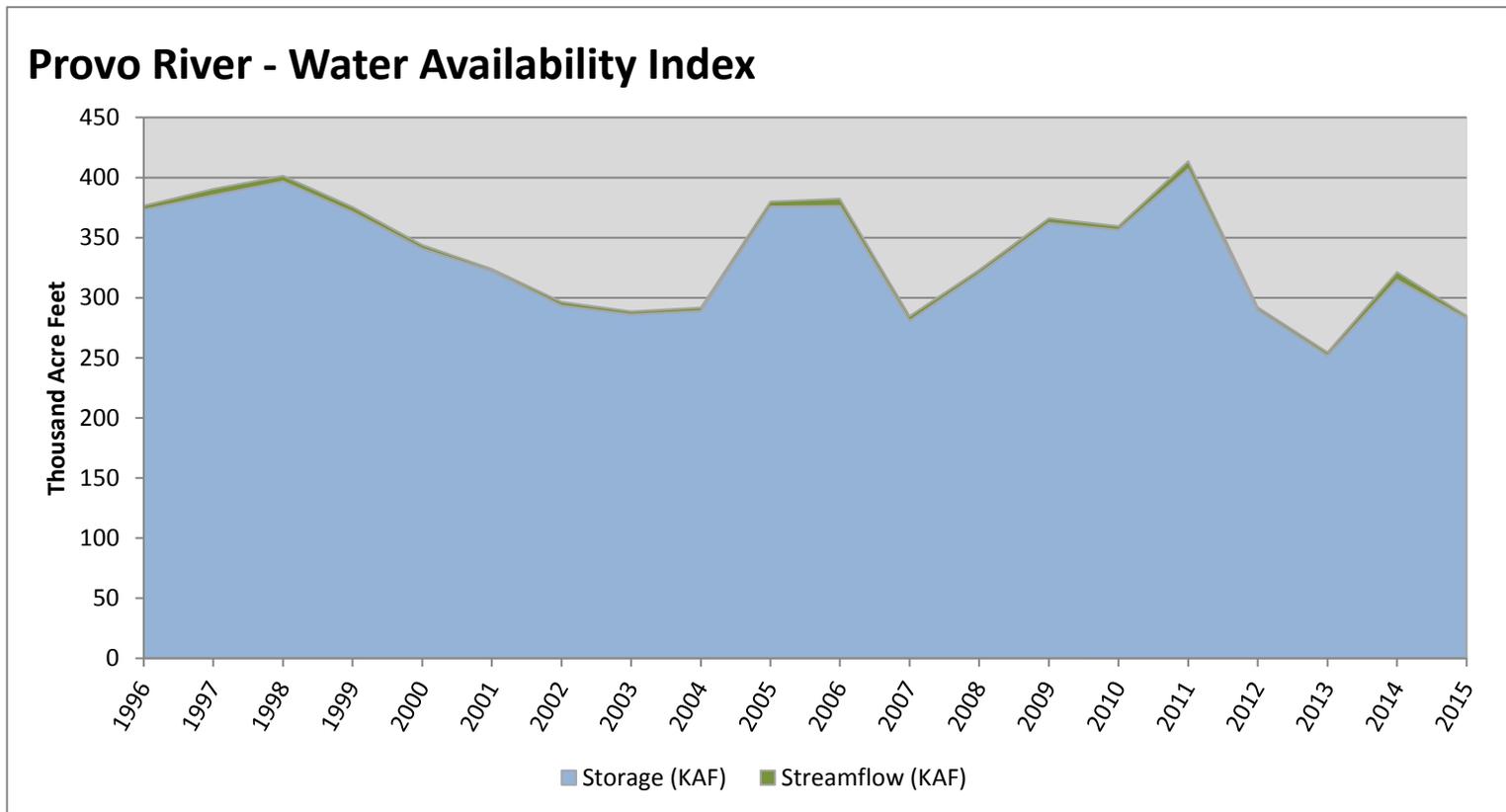


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Provo River	282.68	2.34	285.02	14	-2.98	13, 07, 03, 04

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

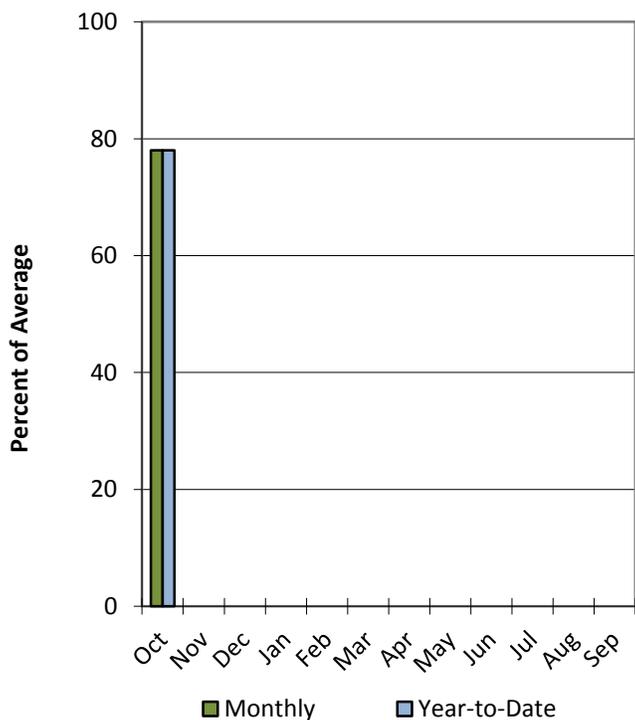


Tooele & Vernon Creek Basins

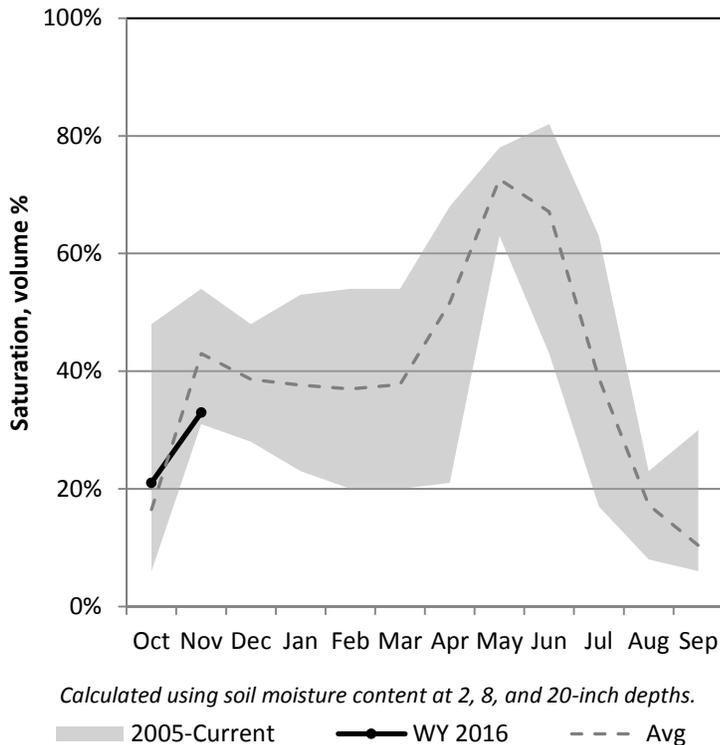
11/1/2015

Precipitation in October was below average at 78%, which brings the seasonal accumulation (Oct-Oct) to 78% of average. Soil moisture is at 33% compared to 44% last year. Reservoir storage is at 27% of capacity, compared to 23% last year.

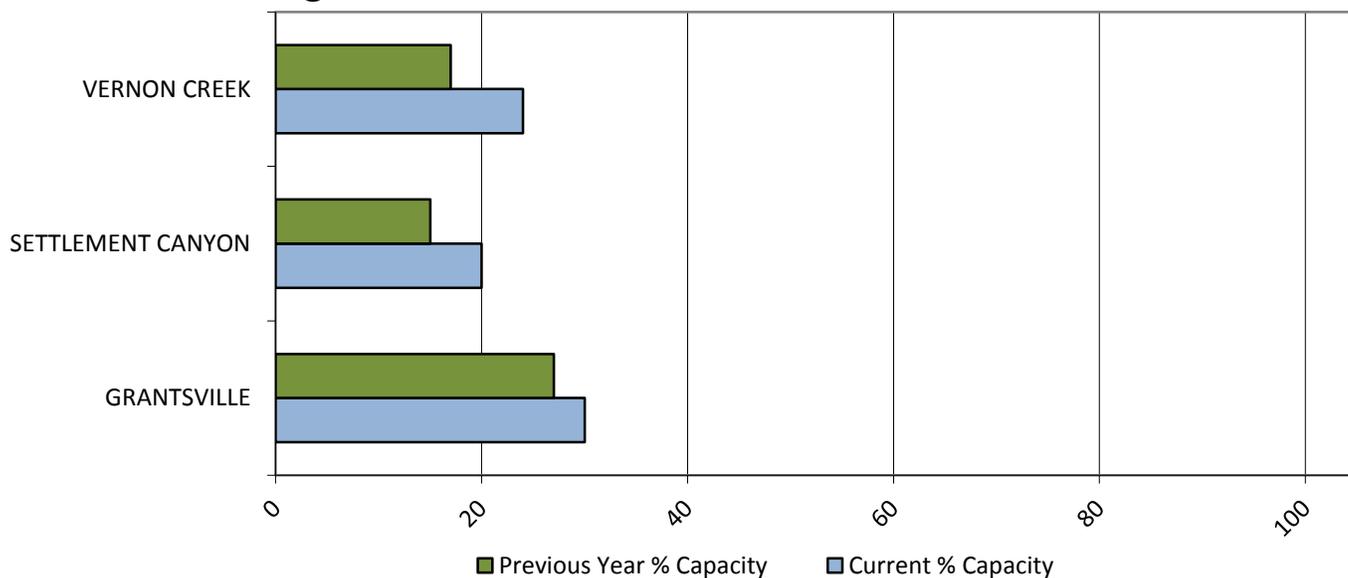
Precipitation



Soil Moisture



Reservoir Storage

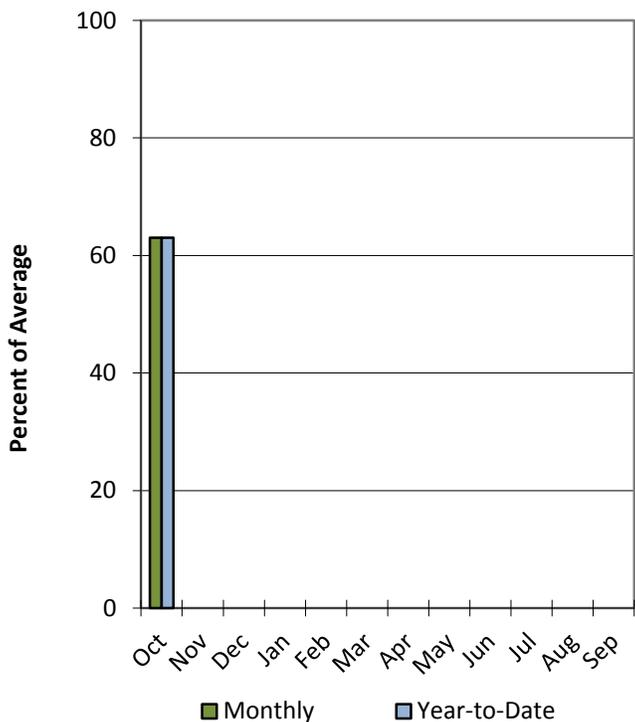


Northeastern Uintah Basin

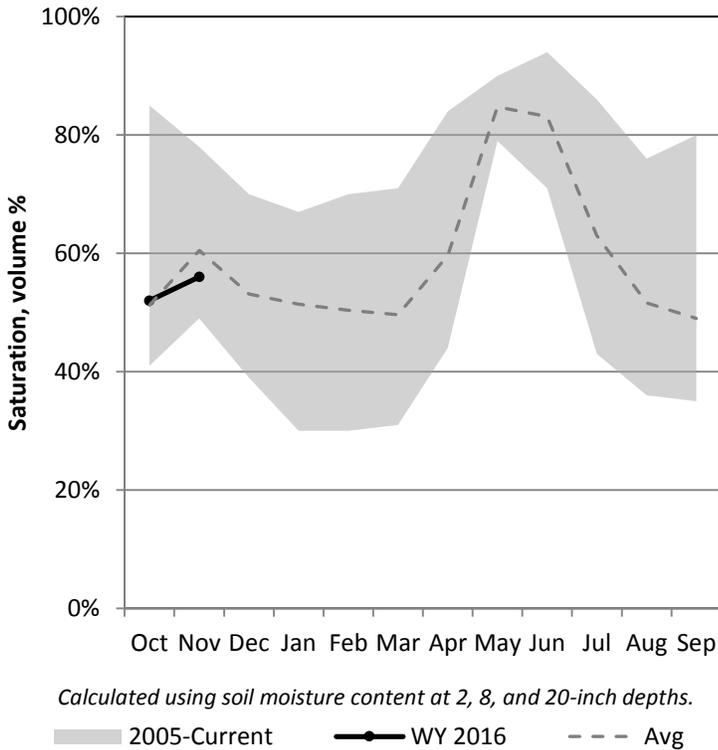
11/1/2015

Precipitation in October was much below average at 63%, which brings the seasonal accumulation (Oct-Oct) to 63% of average. Soil moisture is at 56% compared to 76% last year. Reservoir storage is at 89% of capacity, compared to 88% last year. The Water Availability Index for Blacks Fork is 27% and 47% for Smiths Creek.

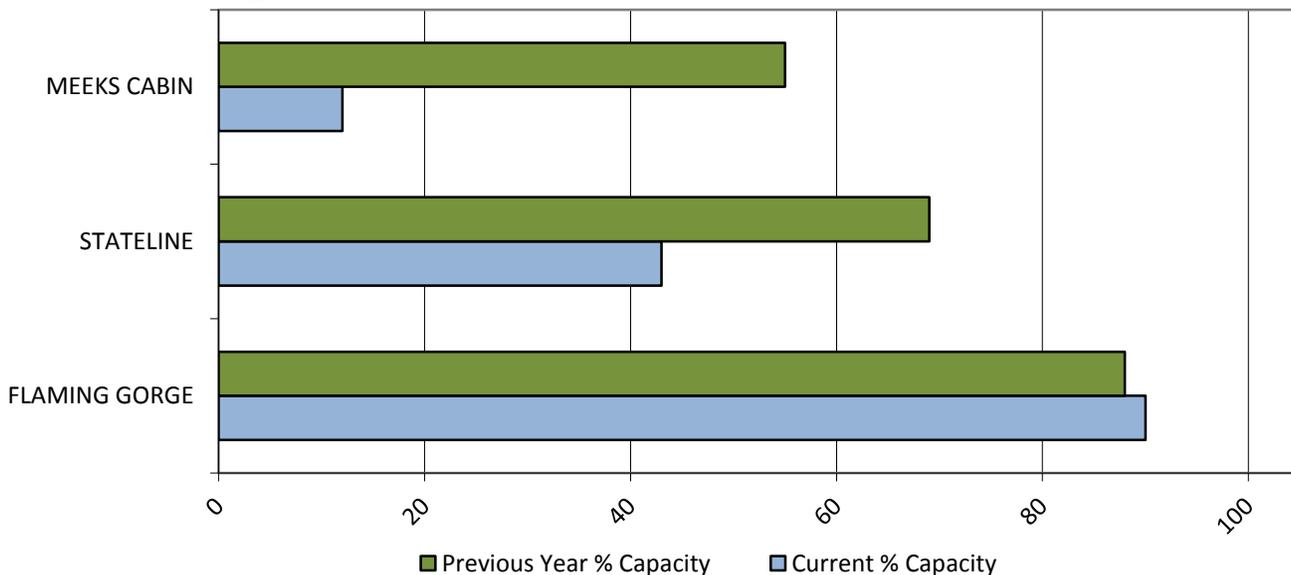
Precipitation



Soil Moisture



Reservoir Storage

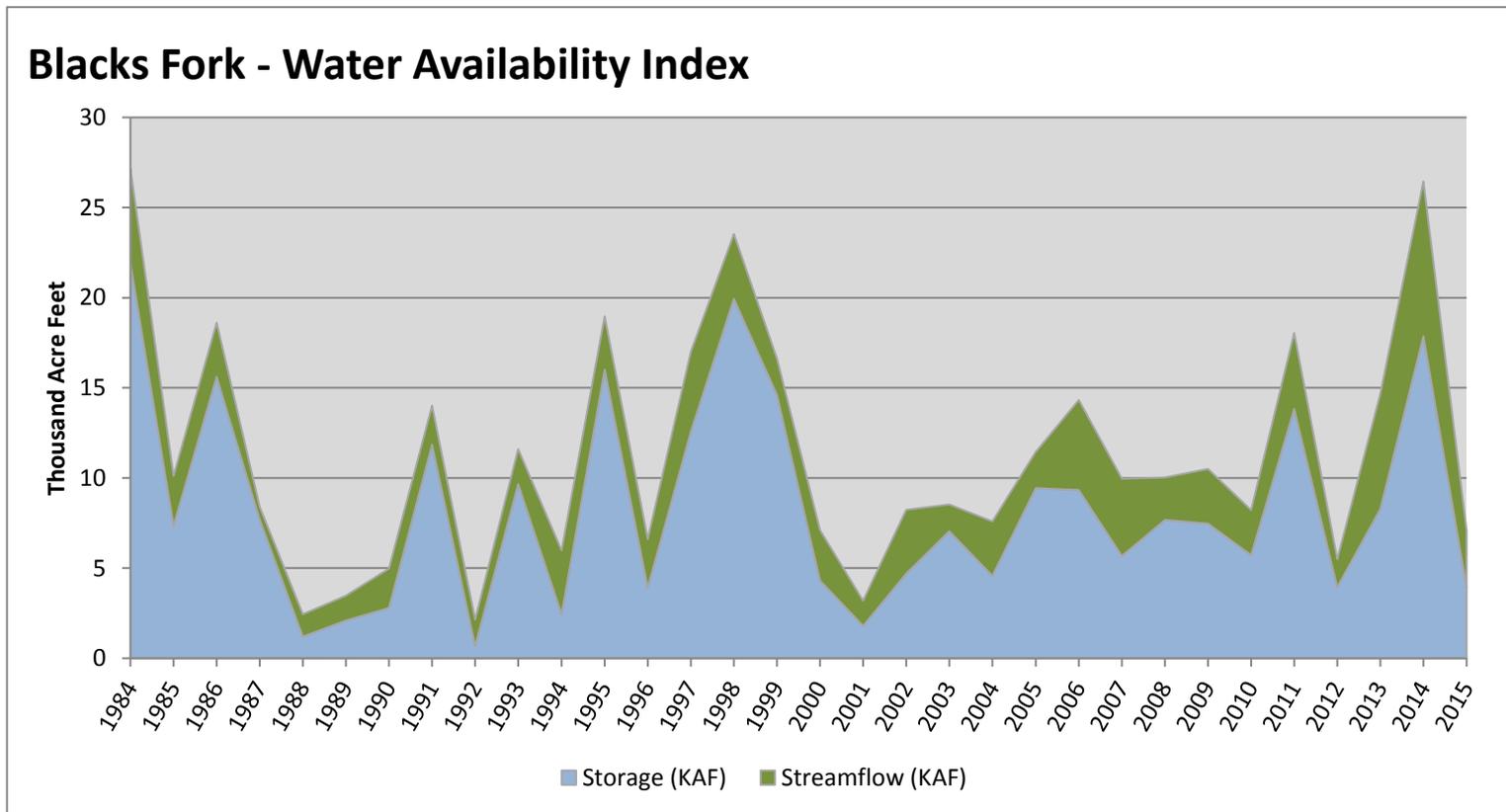


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Blacks Fork	3.92	3.16	7.08	27	-1.89	94, 96, 00, 04

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

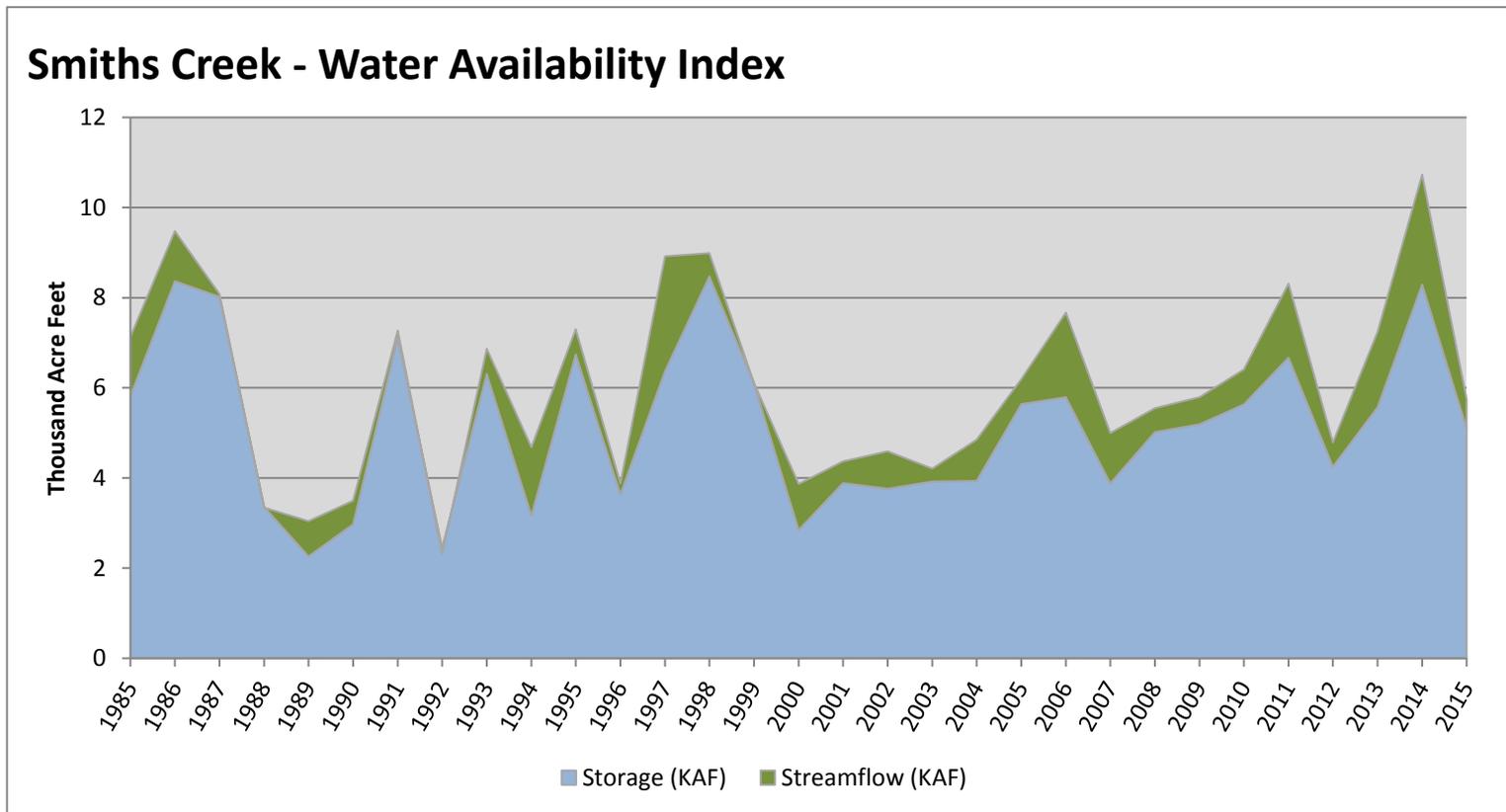


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Smiths Creek	5.10	0.65	5.75	47	-0.26	07, 08, 09, 99

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

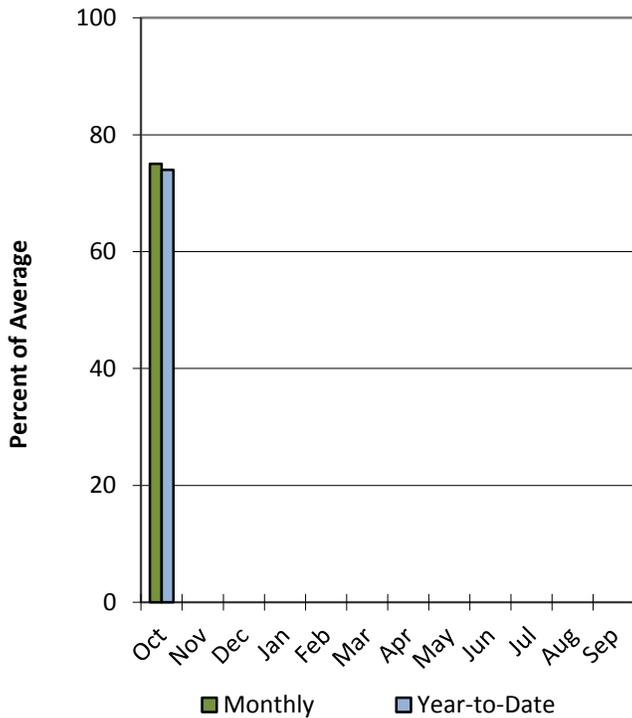


Duchesne River Basin

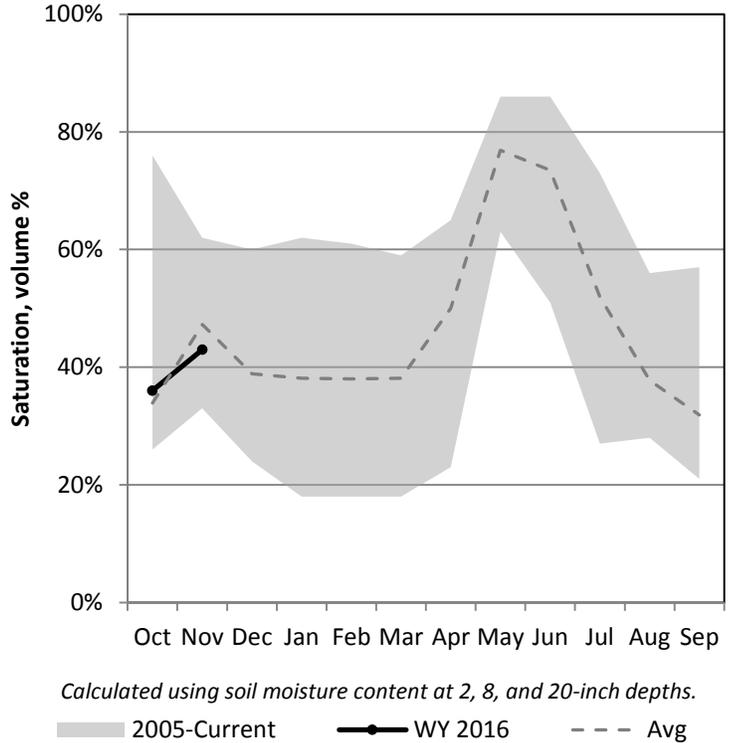
11/1/2015

Precipitation in October was below average at 75%, which brings the seasonal accumulation (Oct-Oct) to 74% of average. Soil moisture is at 43% compared to 60% last year. Reservoir storage is at 69% of capacity, compared to 73% last year. The water availability index for the Western Uintahs is 59% and 31% for the Eastern Uintahs.

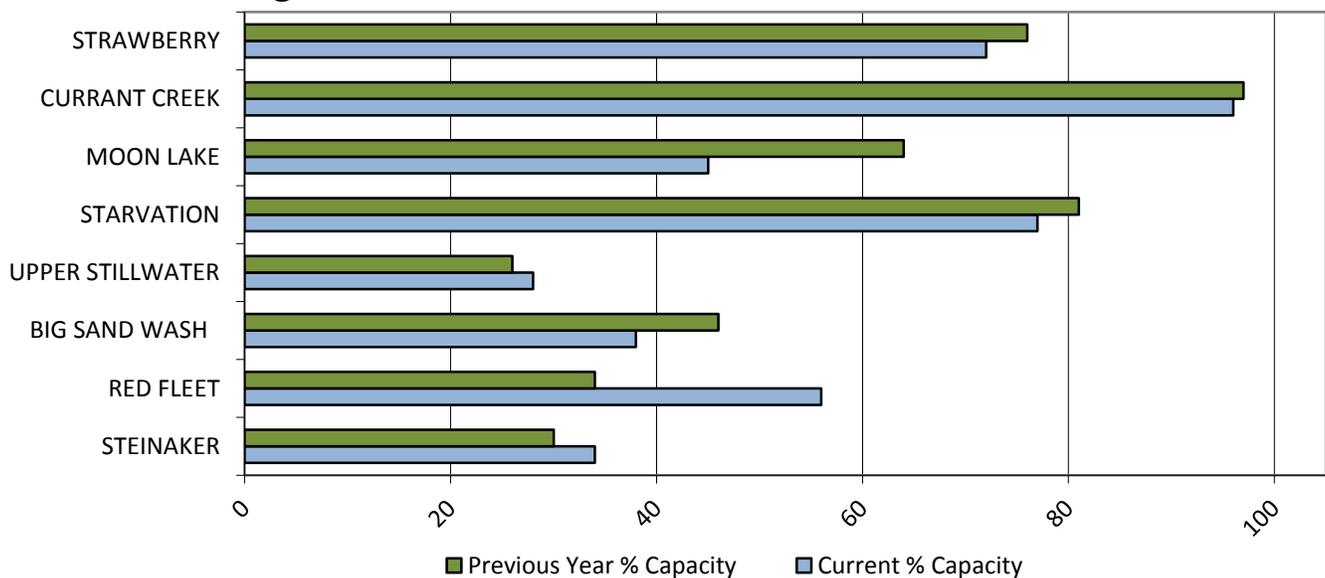
Precipitation



Soil Moisture



Reservoir Storage

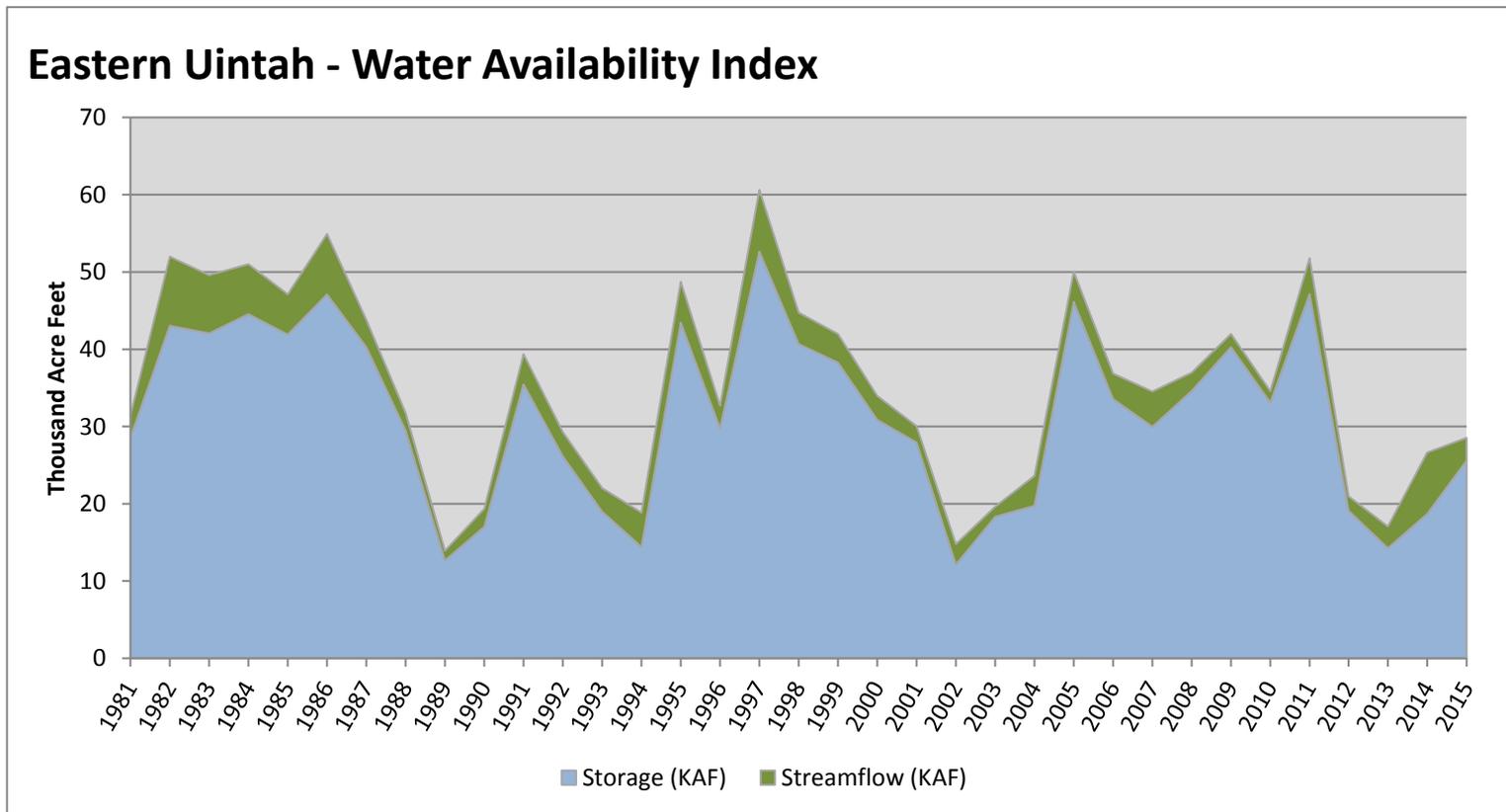


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Eastern Uintah	25.60	2.95	28.55	31	-1.62	04, 14, 92, 01

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

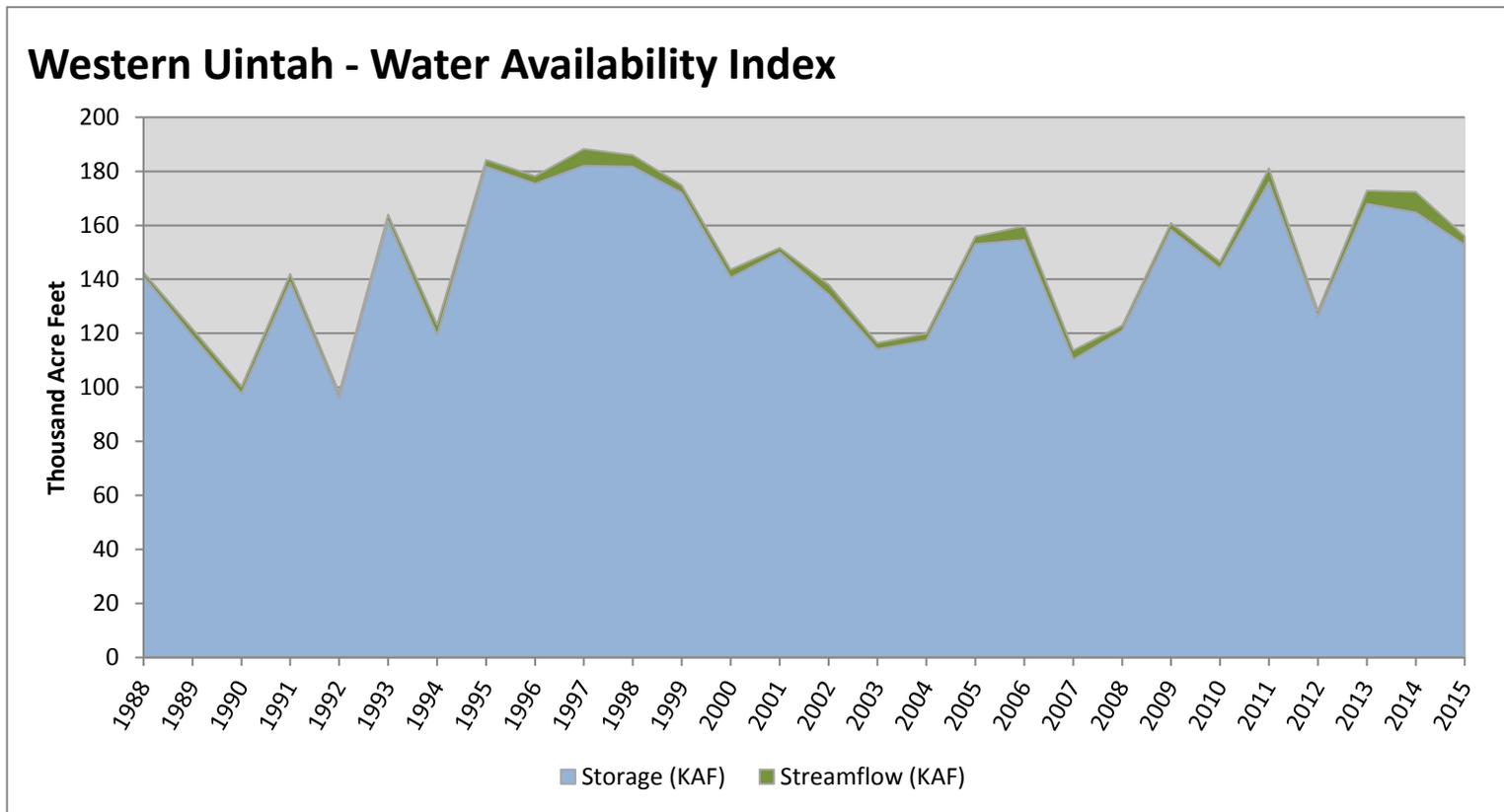


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Western Uintah	152.69	3.26	155.95	59	0.72	01, 05, 06, 09

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

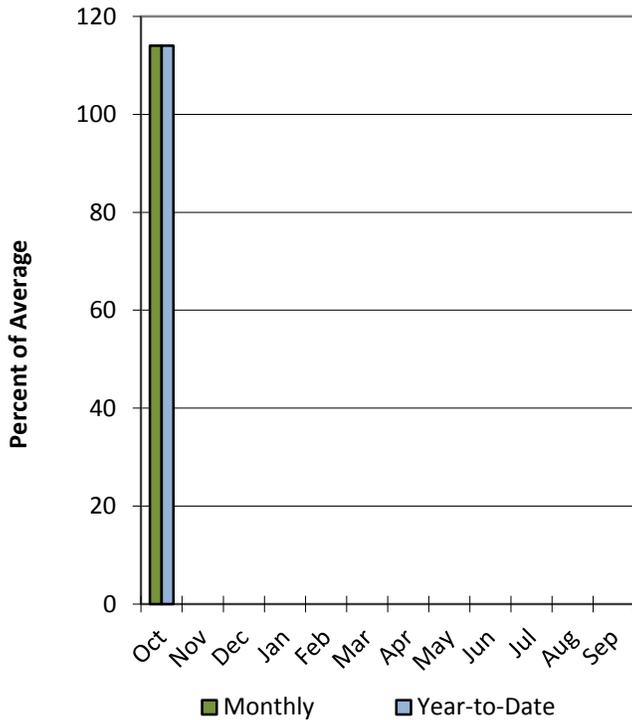


Lower Sevier River Basin

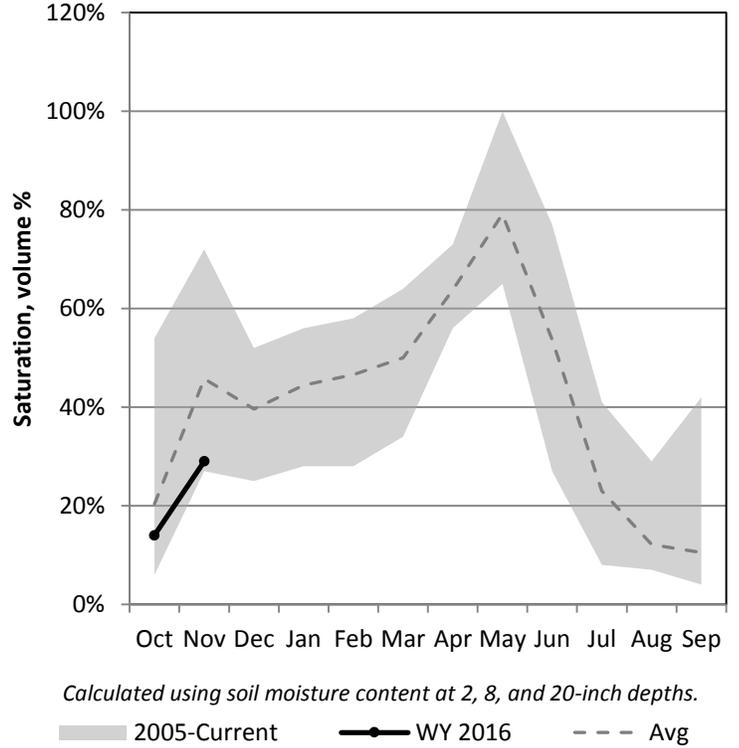
11/1/2015

Precipitation in October was above average at 114%, which brings the seasonal accumulation (Oct-Oct) to 114% of average. Soil moisture is at 29% compared to 46% last year. Reservoir storage is at 20% of capacity, compared to 23% last year. The water availability index for the Lower Sevier is 11%.

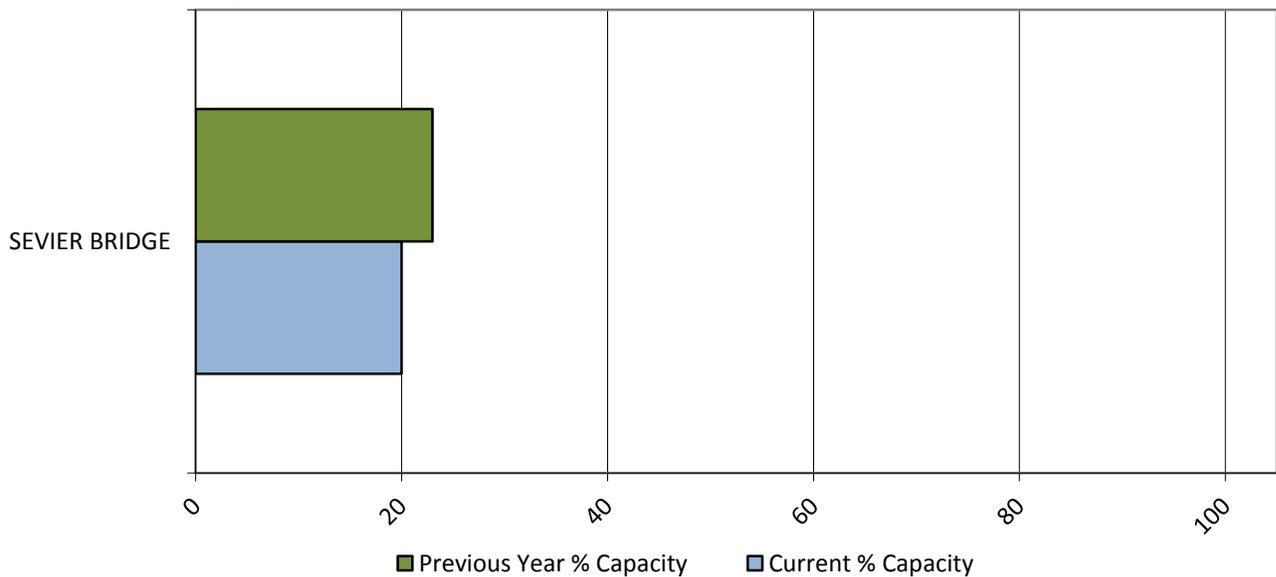
Precipitation



Soil Moisture



Reservoir Storage

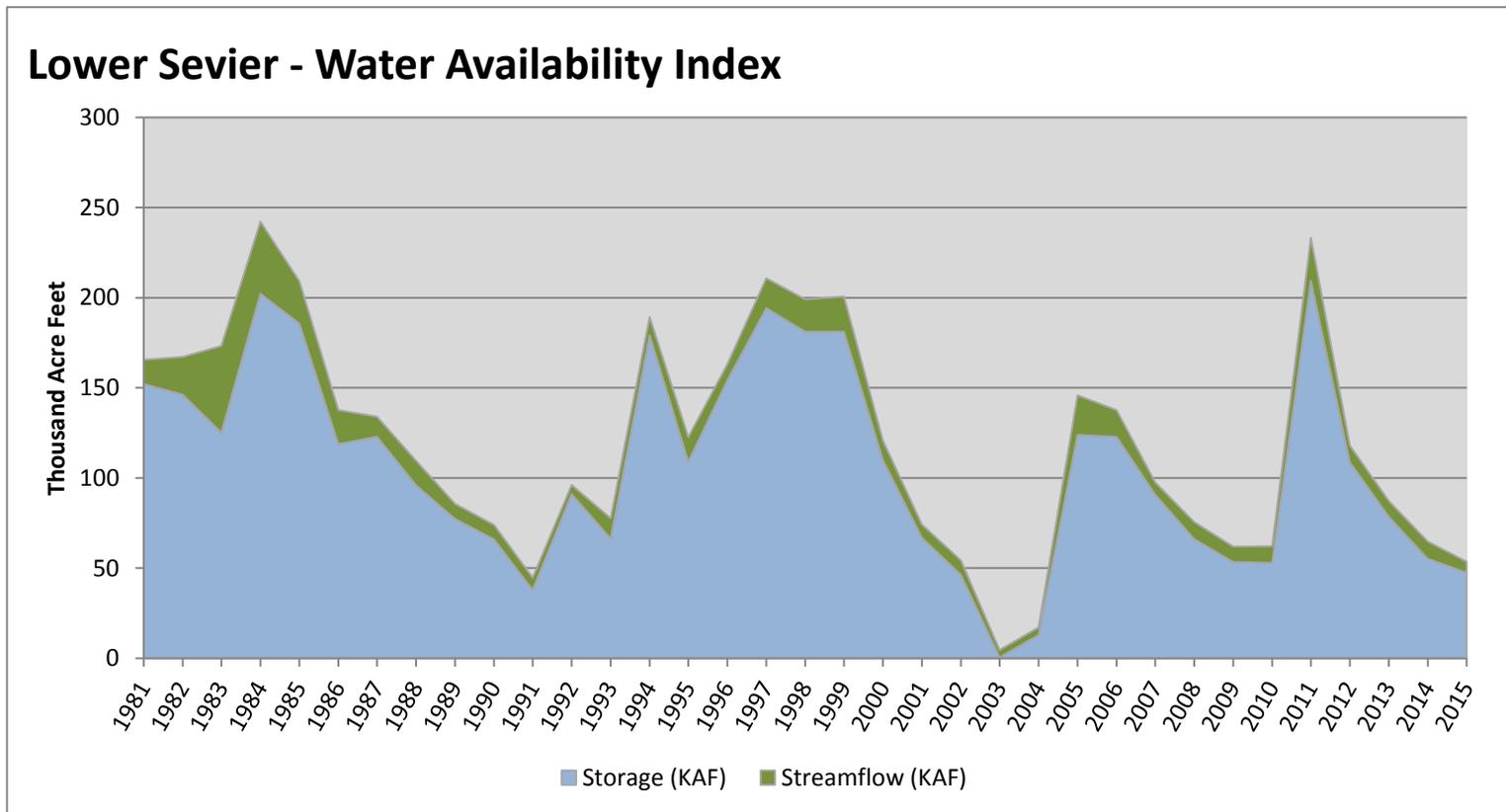


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Lower Sevier	47.42	6.10	53.52	11	-3.24	04, 91, 02, 09

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

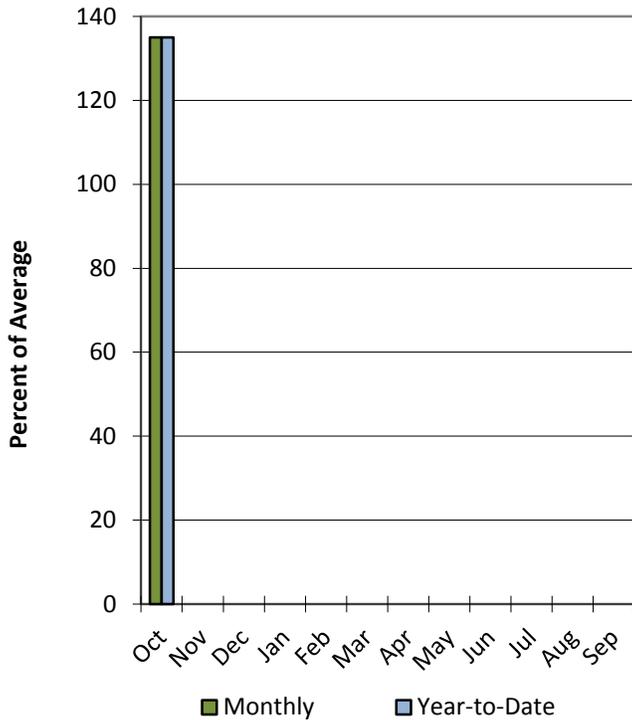


Upper Sevier River Basin

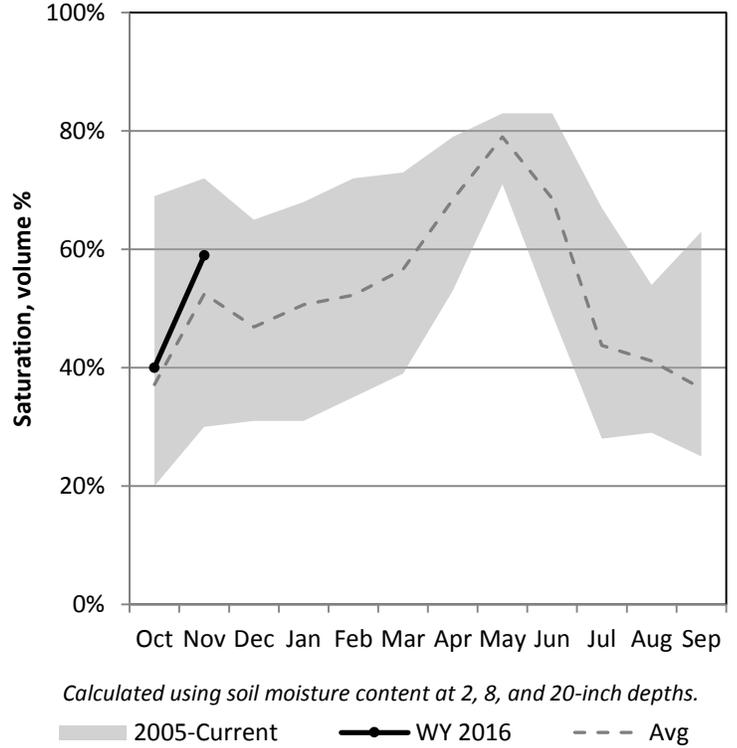
11/1/2015

Precipitation in October was much above average at 135%, which brings the seasonal accumulation (Oct-Oct) to 135% of average. Soil moisture is at 59% compared to 62% last year. Reservoir storage is at 18% of capacity, compared to 28% last year. The water availability index for the Upper Sevier is 22%.

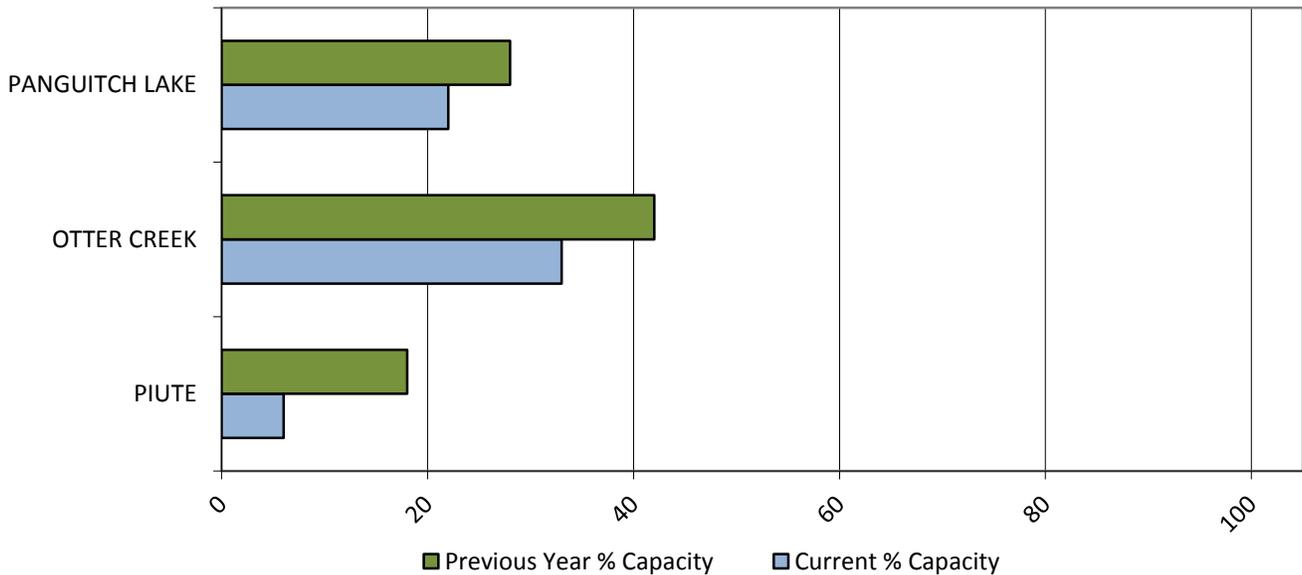
Precipitation



Soil Moisture



Reservoir Storage

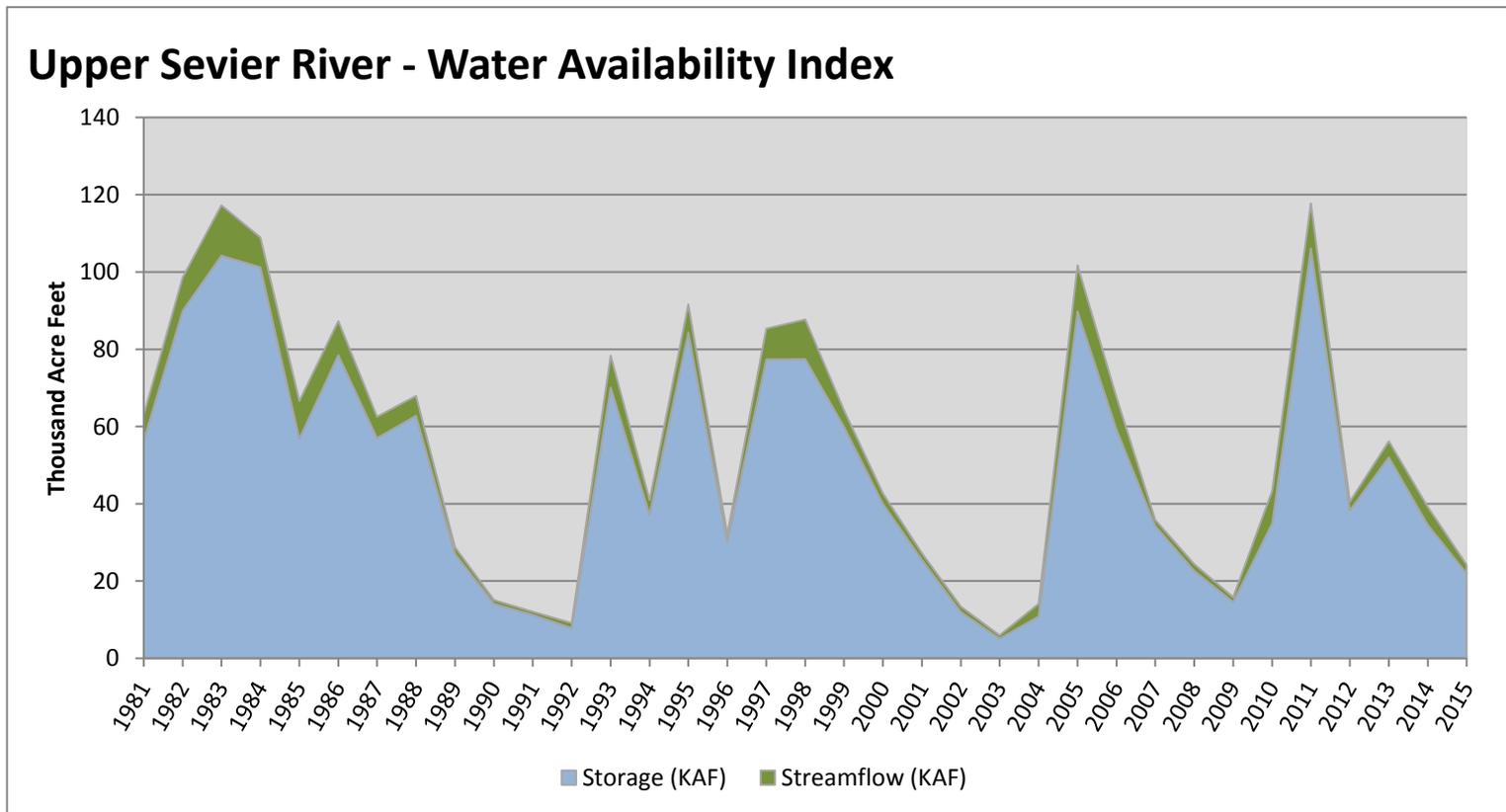


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Upper Sevier River	21.94	2.26	24.20	22	-2.31	90, 09, 08, 01

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

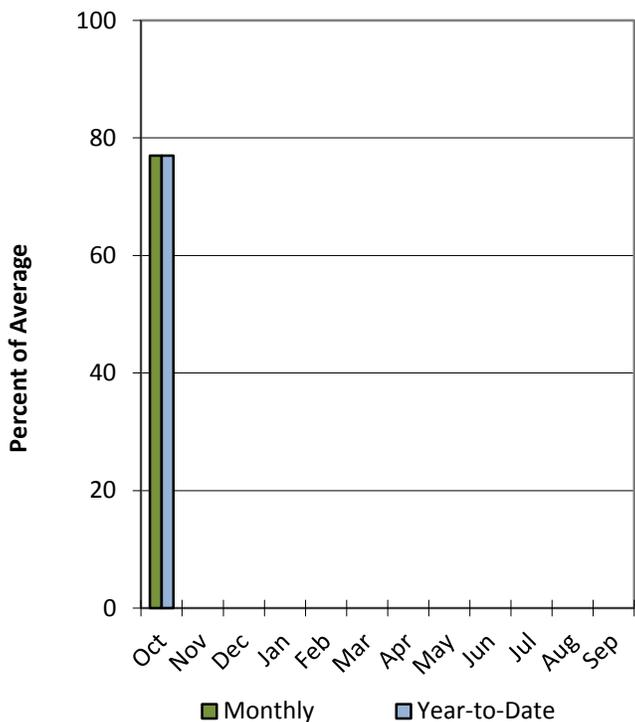


San Pitch River Basin

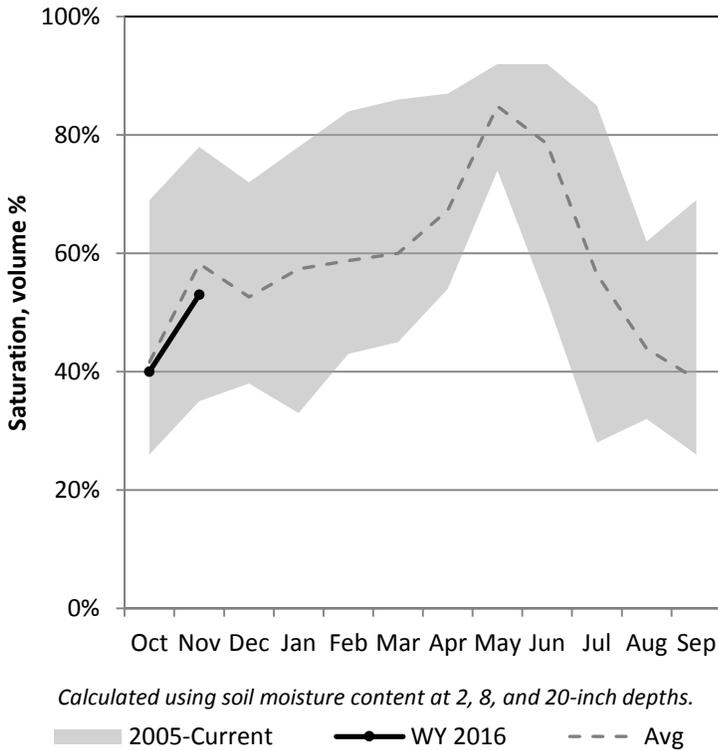
11/1/2015

Precipitation in October was below average at 77%, which brings the seasonal accumulation (Oct-Oct) to 77% of average. Soil Moisture is at 53% compared to 75% last year. Reservoir storage is at 0% of capacity, compared to 0% last year. The water availability index for the San Pitch is 22%.

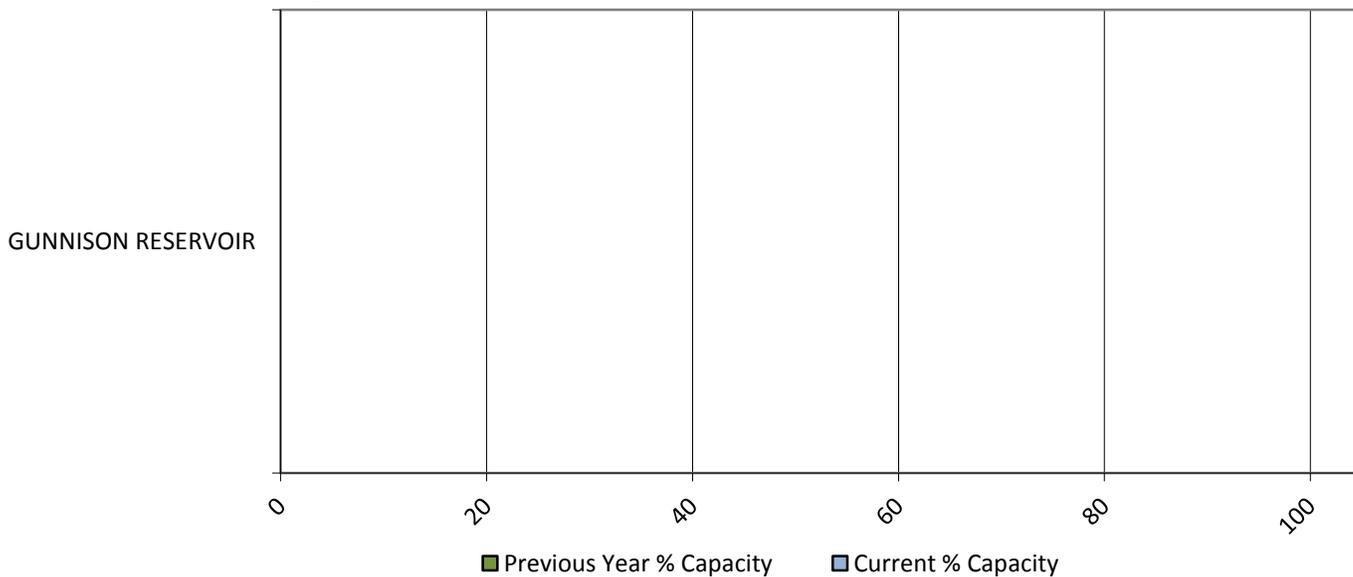
Precipitation



Soil Moisture



Reservoir Storage

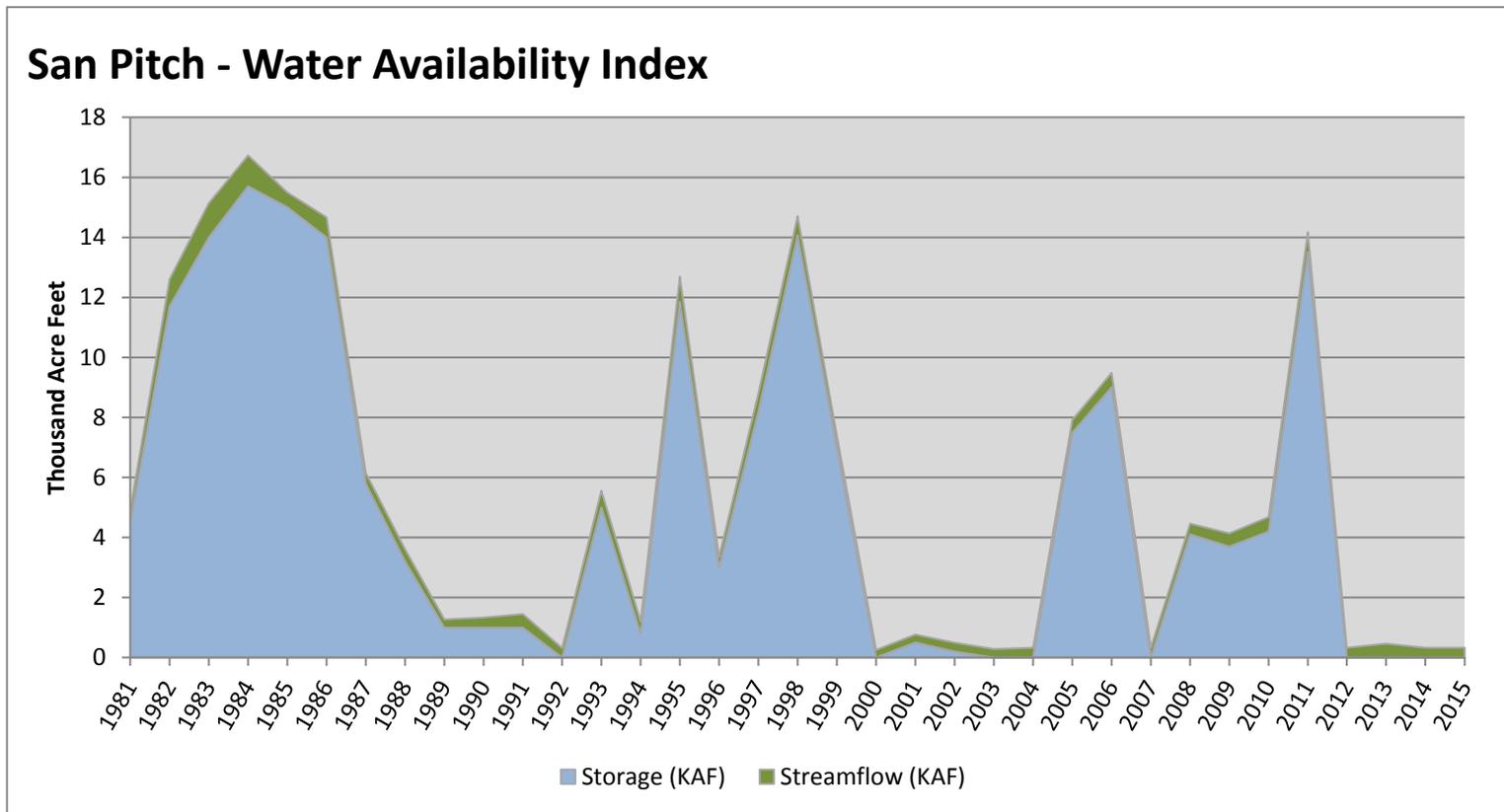


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
San Pitch	0.00	0.33	0.33	22	-2.31	12, 14, 13, 02

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

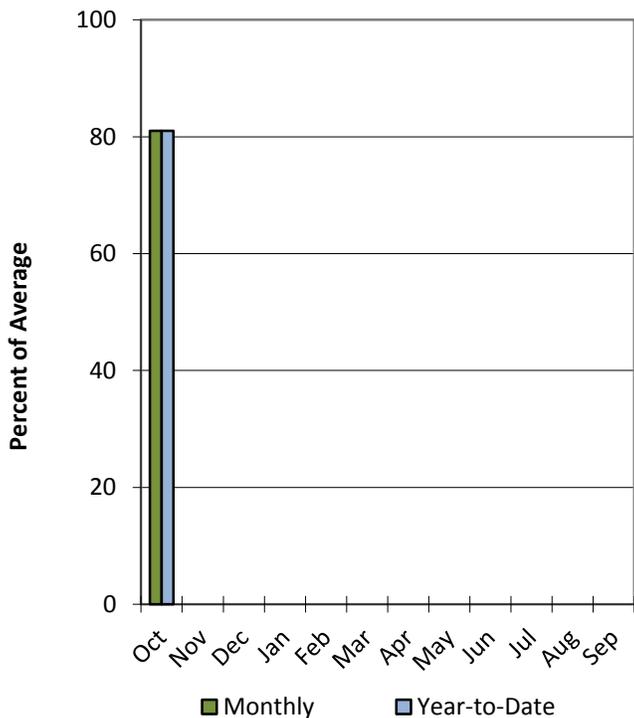


Price & San Rafael Basins

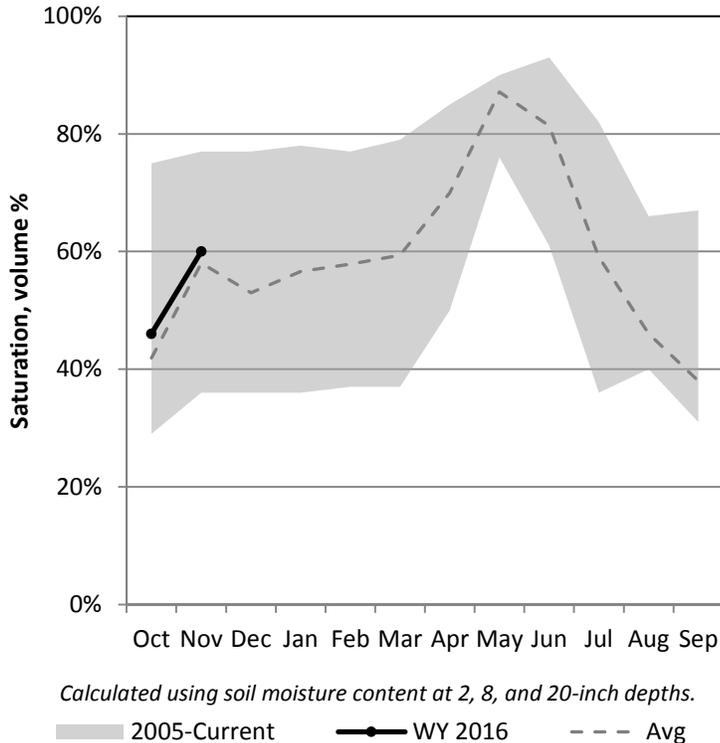
11/1/2015

Precipitation in October was below average at 81%, which brings the seasonal accumulation (Oct-Oct) to 81% of average. Soil moisture is at 60% compared to 74% last year. Reservoir storage is at 36% of capacity, compared to 45% last year. The water availability index for the Price River is 14%, and 31% for Joe's Valley.

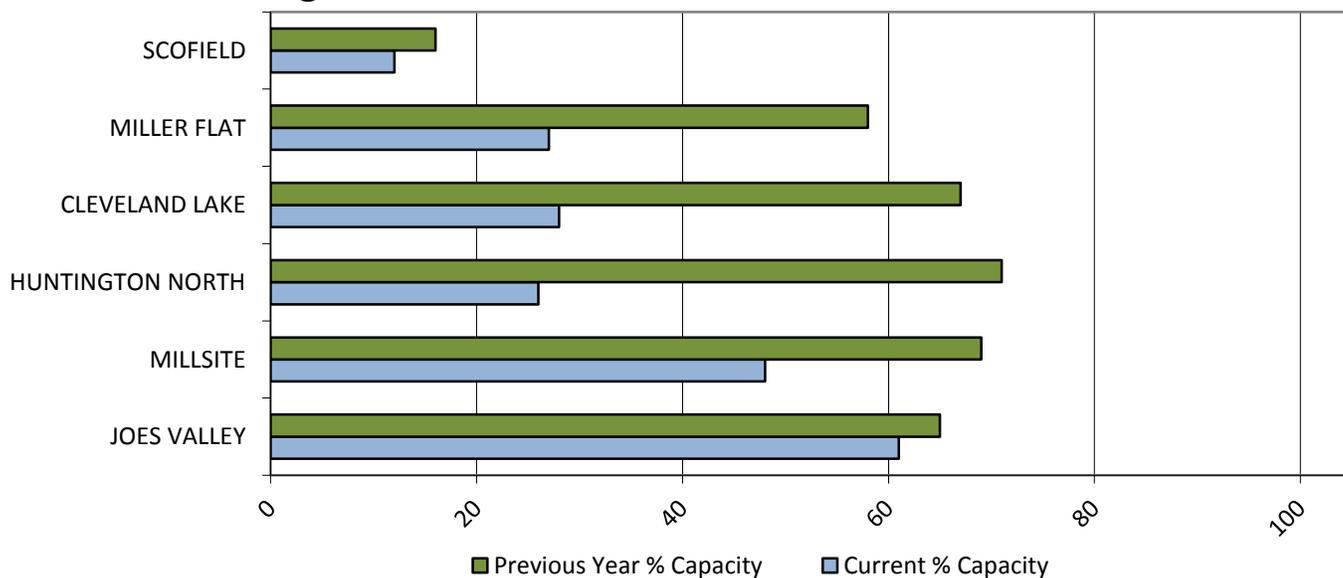
Precipitation



Soil Moisture



Reservoir Storage

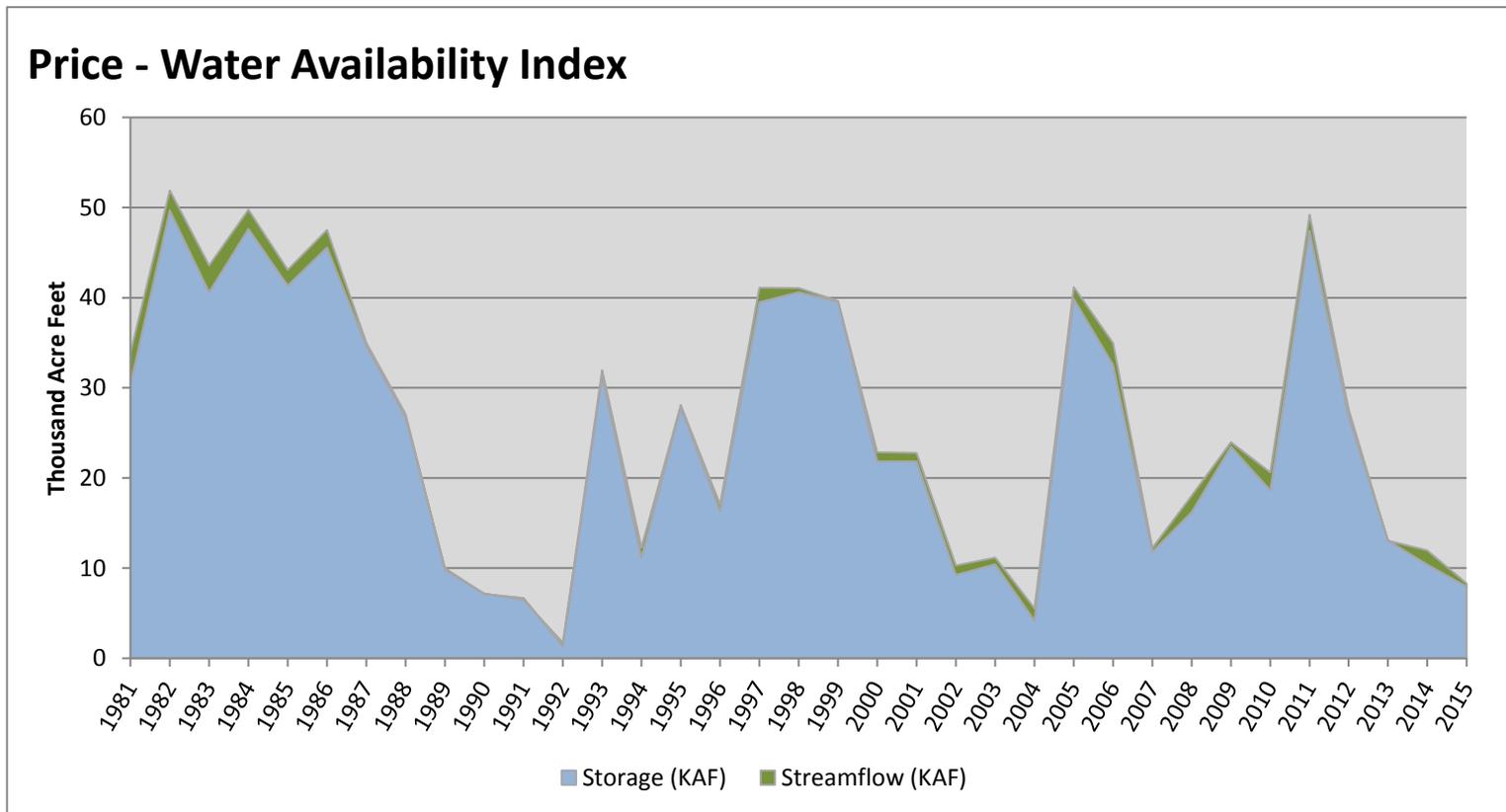


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Price	7.95	0.34	8.29	14	-3.01	91, 90, 89, 02

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

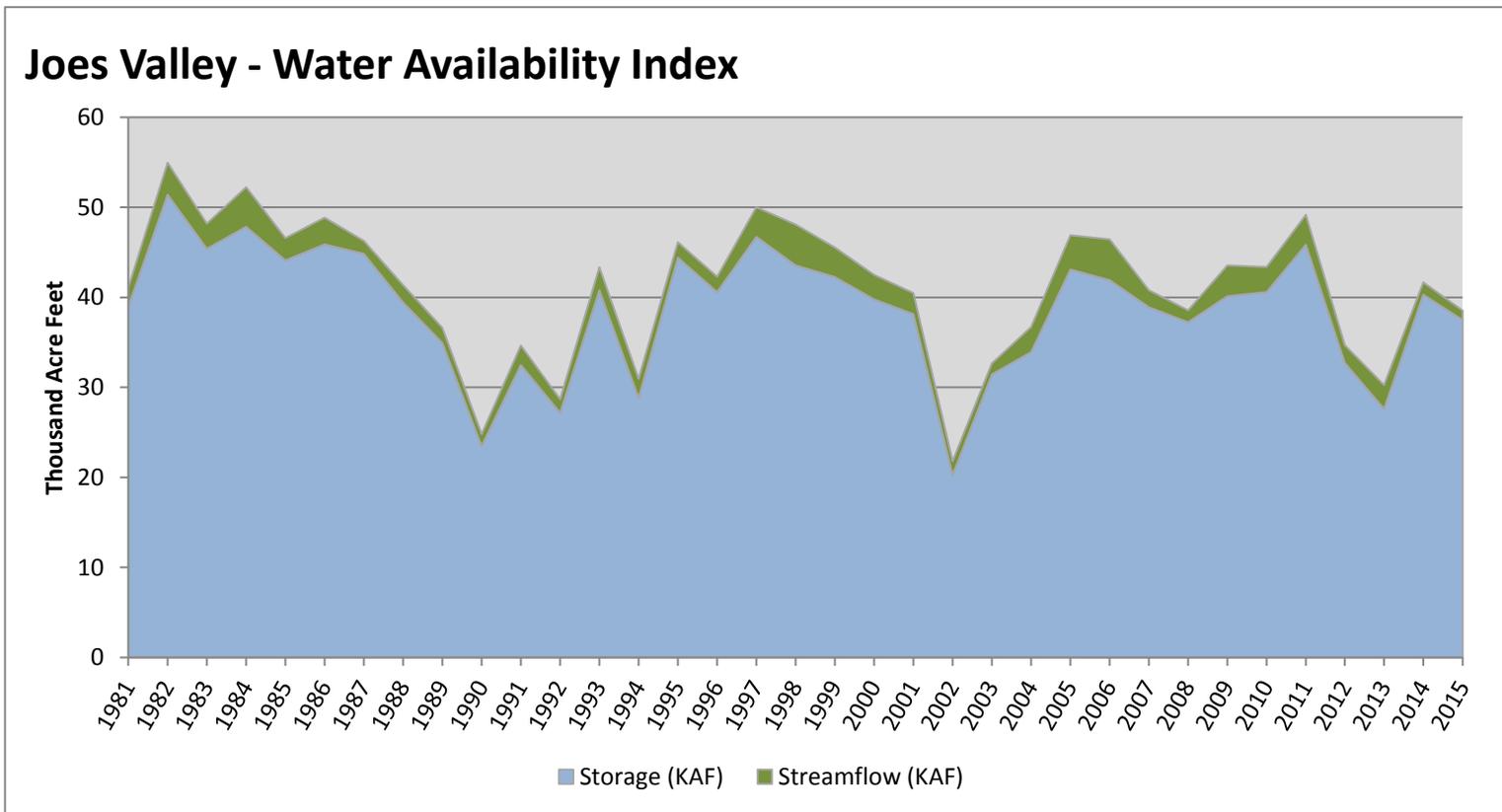


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Joese Valley	37.47	1.04	38.51	31	-1.62	89, 04, 08, 01

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

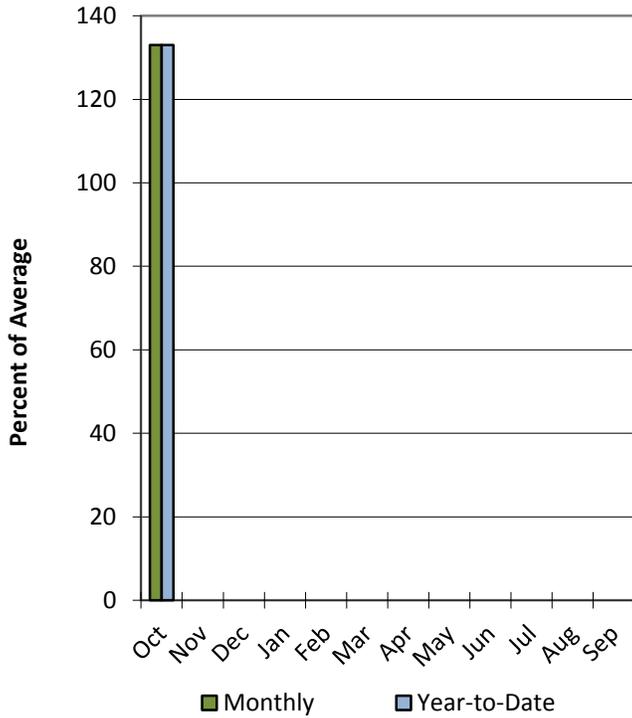


Southeastern Utah Basin

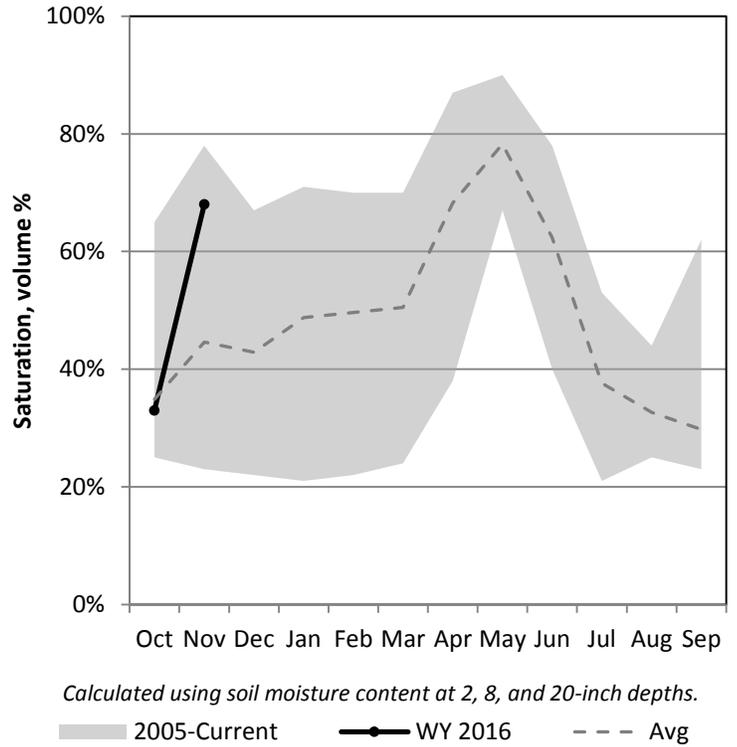
11/1/2015

Precipitation in October was much above average at 133%, which brings the seasonal accumulation (Oct-Oct) to 133% of average. Soil moisture is at 68% compared to 67% last year. Reservoir storage is at 50% of capacity, compared to 47% last year. The water availability index for Moab is 72%.

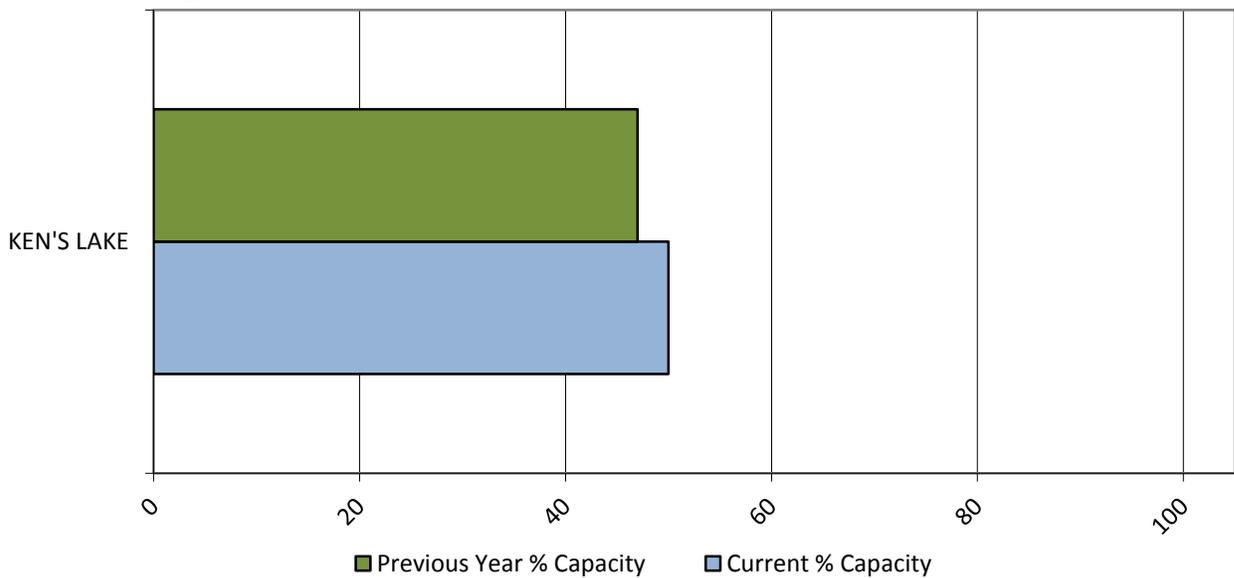
Precipitation



Soil Moisture



Reservoir Storage

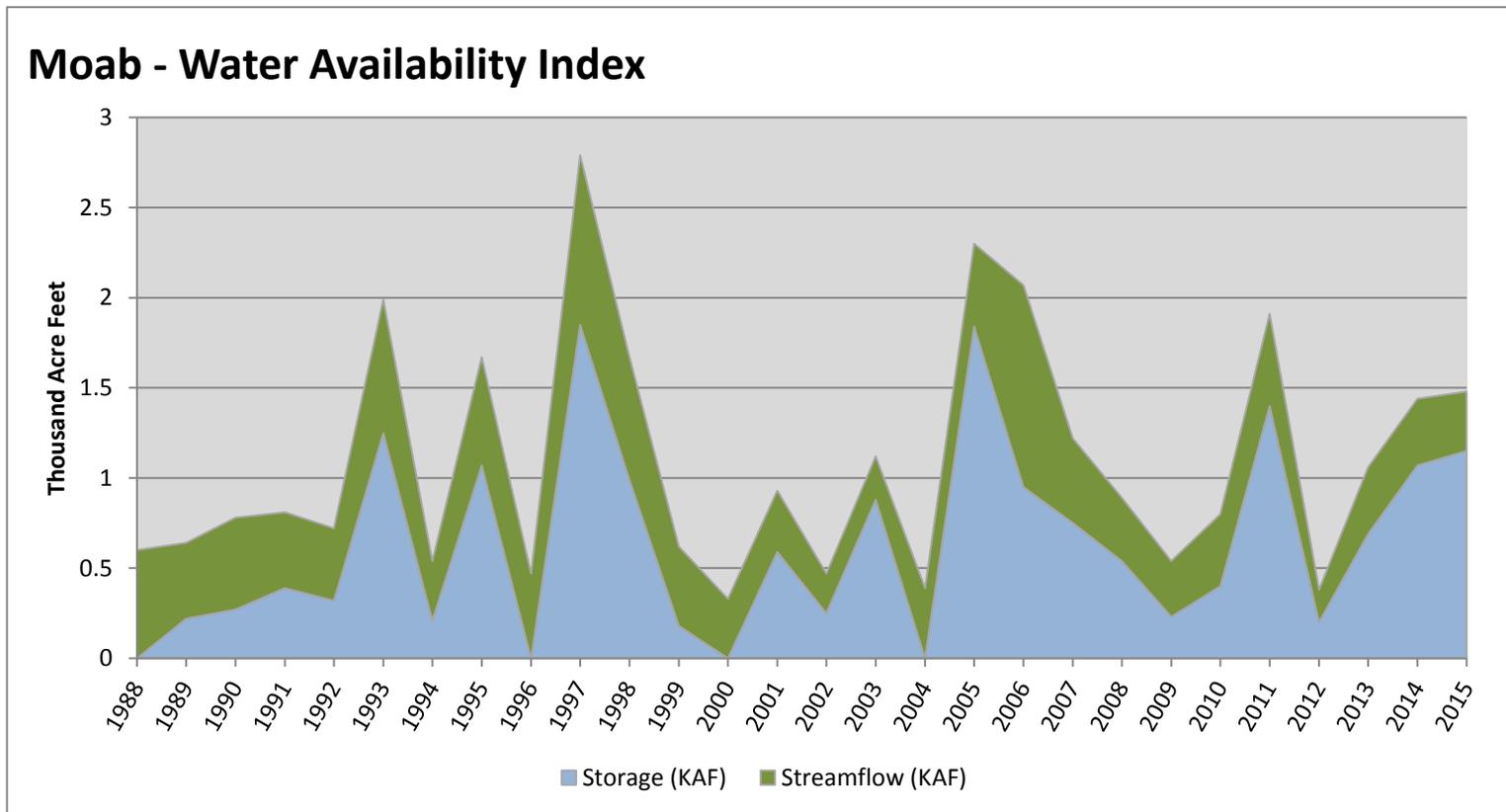


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Moab	1.15	0.33	1.48	72	1.87	07, 14, 95, 98

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

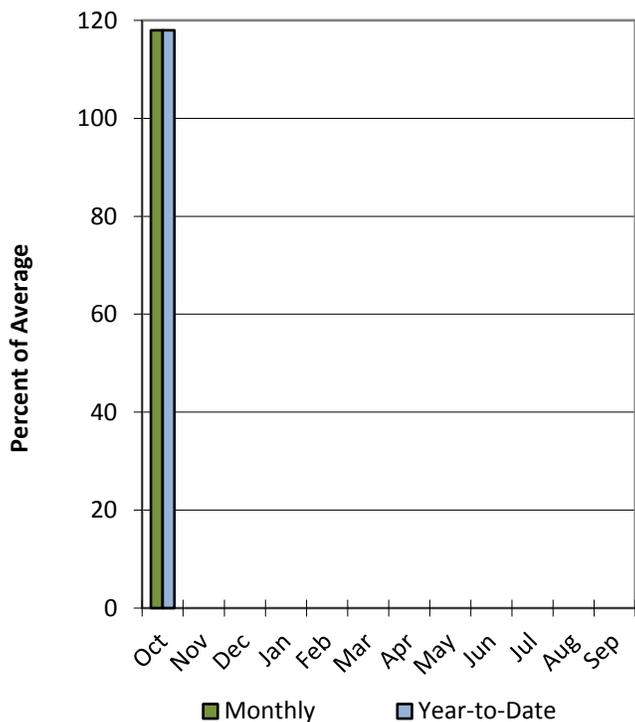


Dirty Devil Basin

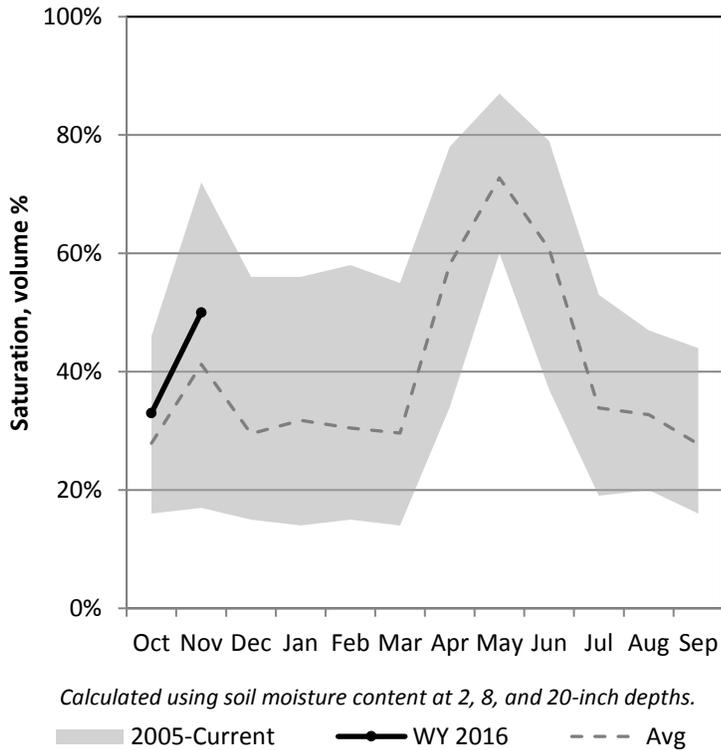
11/1/2015

Precipitation in October was above average at 118%, which brings the seasonal accumulation (Oct-Oct) to 118% of average. Soil moisture is at 50% compared to 42% last year.

Precipitation



Soil Moisture

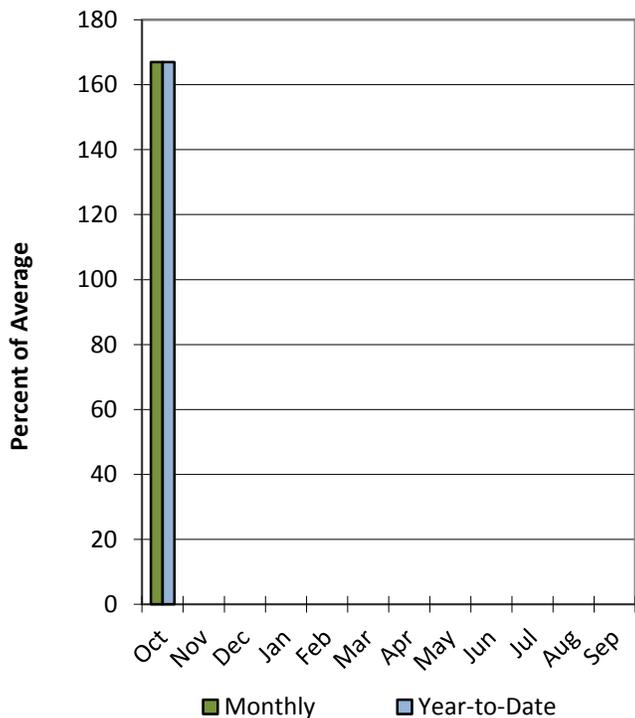


Escalante River Basin

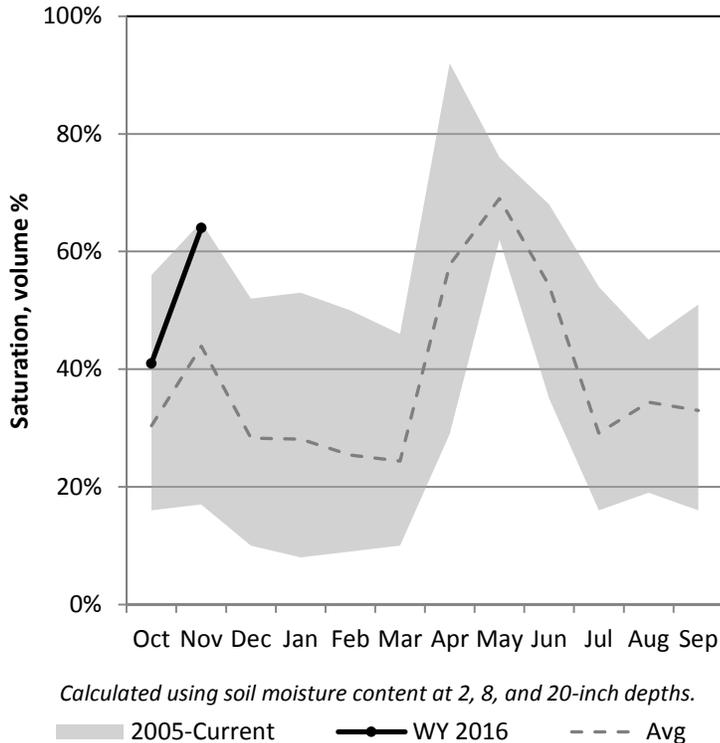
11/1/2015

Precipitation in October was much above average at 167%, which brings the seasonal accumulation (Oct-Oct) to 167% of average. Soil moisture is at 64% compared to 53% last year.

Precipitation



Soil Moisture

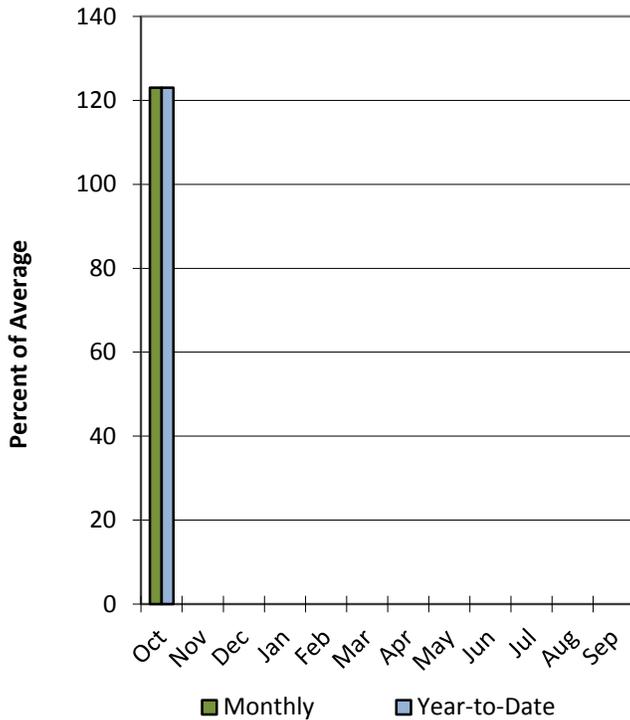


Beaver River Basin

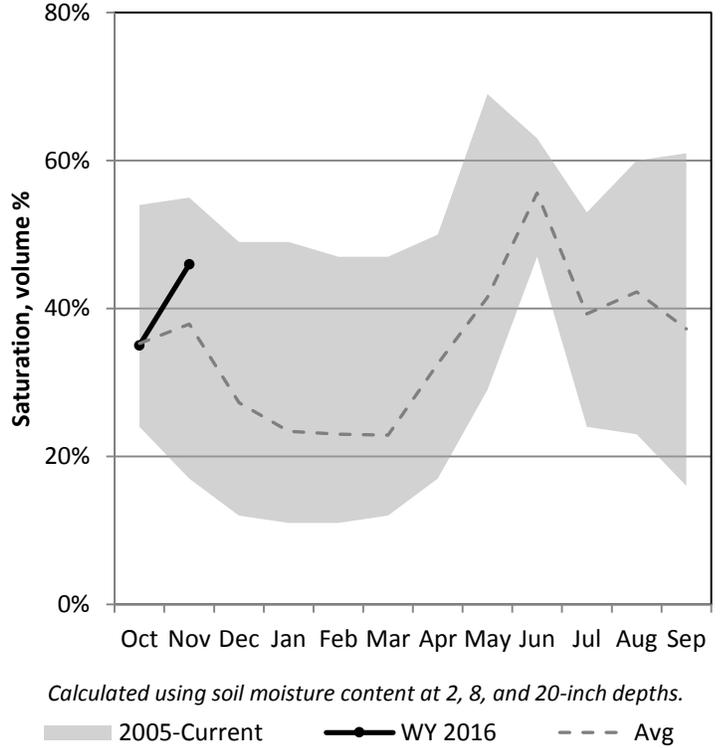
11/1/2015

Precipitation in October was above average at 123%, which brings the seasonal accumulation (Oct-Oct) to 123% of average. Soil moisture is at 46% compared to 49% last year. Reservoir storage is at 11% of capacity, compared to 18% last year. The water availability index for the Beaver River is 17%.

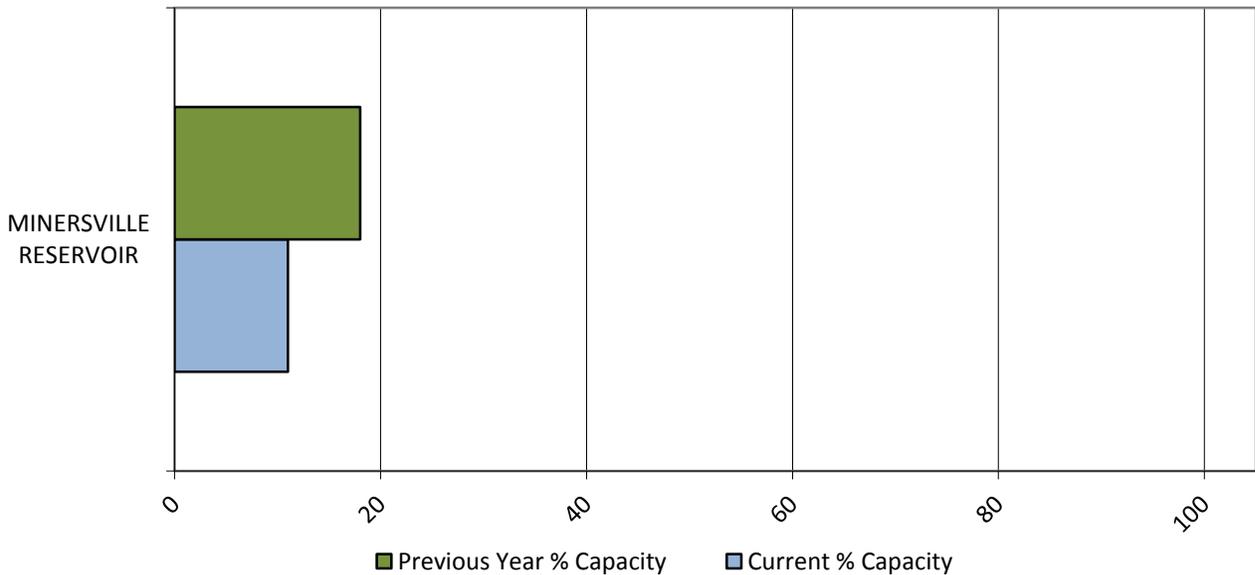
Precipitation



Soil Moisture



Reservoir Storage

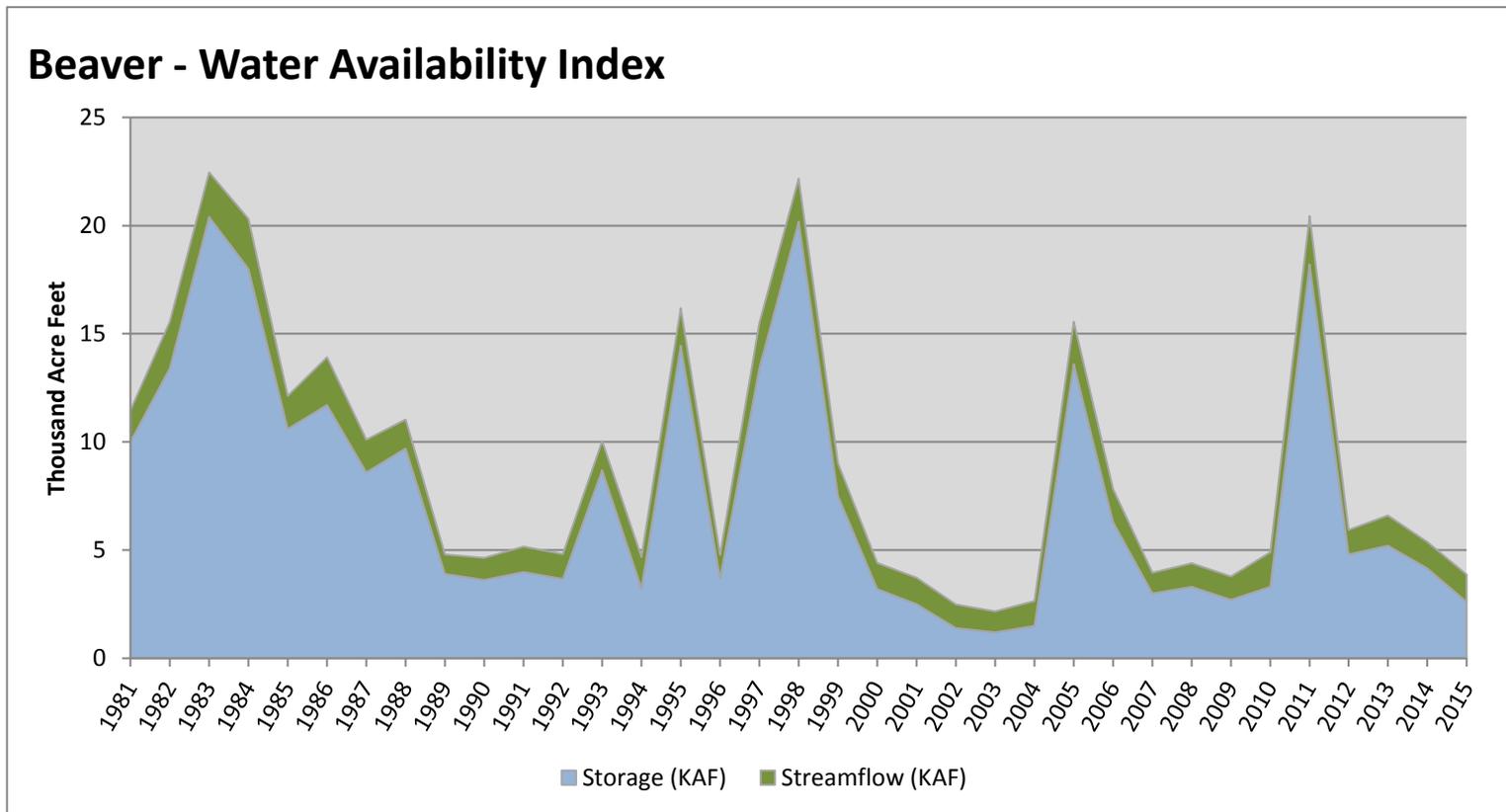


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Beaver	2.60	1.27	3.87	17	-2.78	01, 09, 07, 08

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

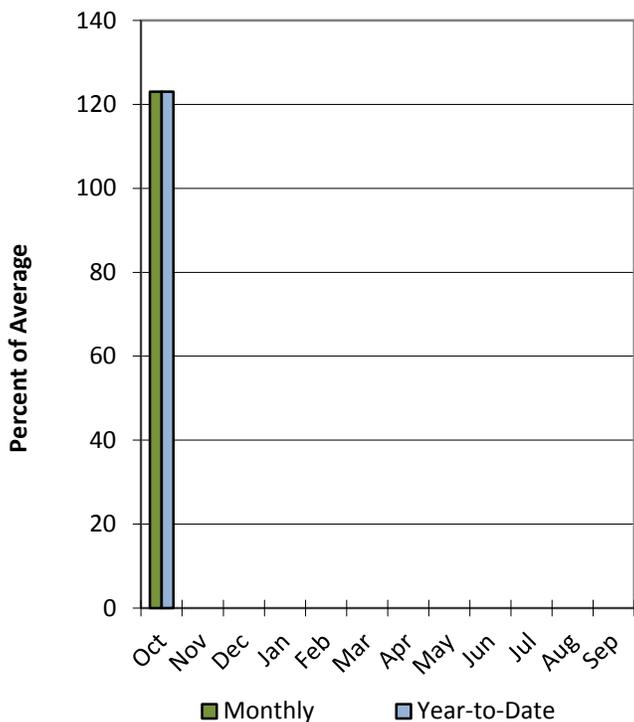


Southwestern Utah Basin

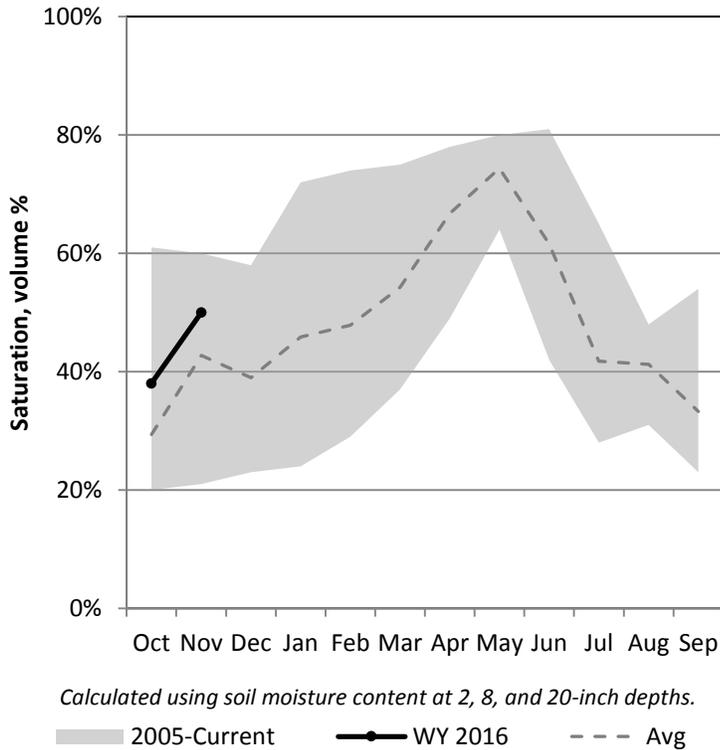
11/1/2015

Precipitation in October was above average at 123%, which brings the seasonal accumulation (Oct-Oct) to 123% of average. Soil moisture is at 50% compared to 55% last year. Reservoir storage is at 51% of capacity, compared to 51% last year. The water availability index for the Virgin River is 53%.

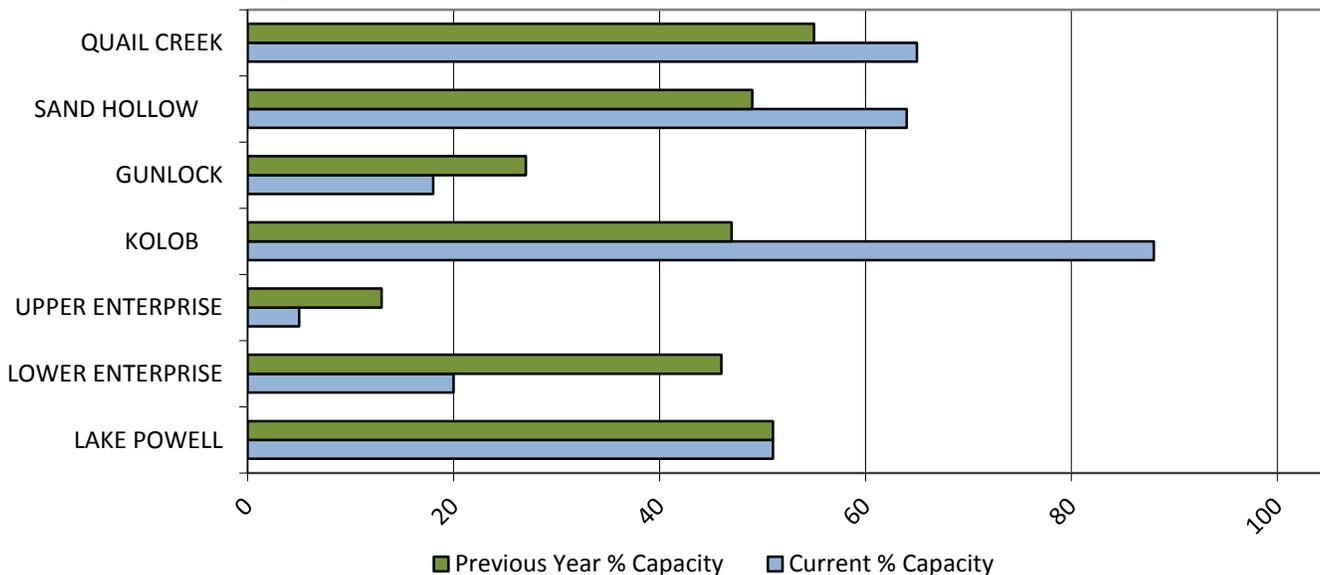
Precipitation



Soil Moisture



Reservoir Storage

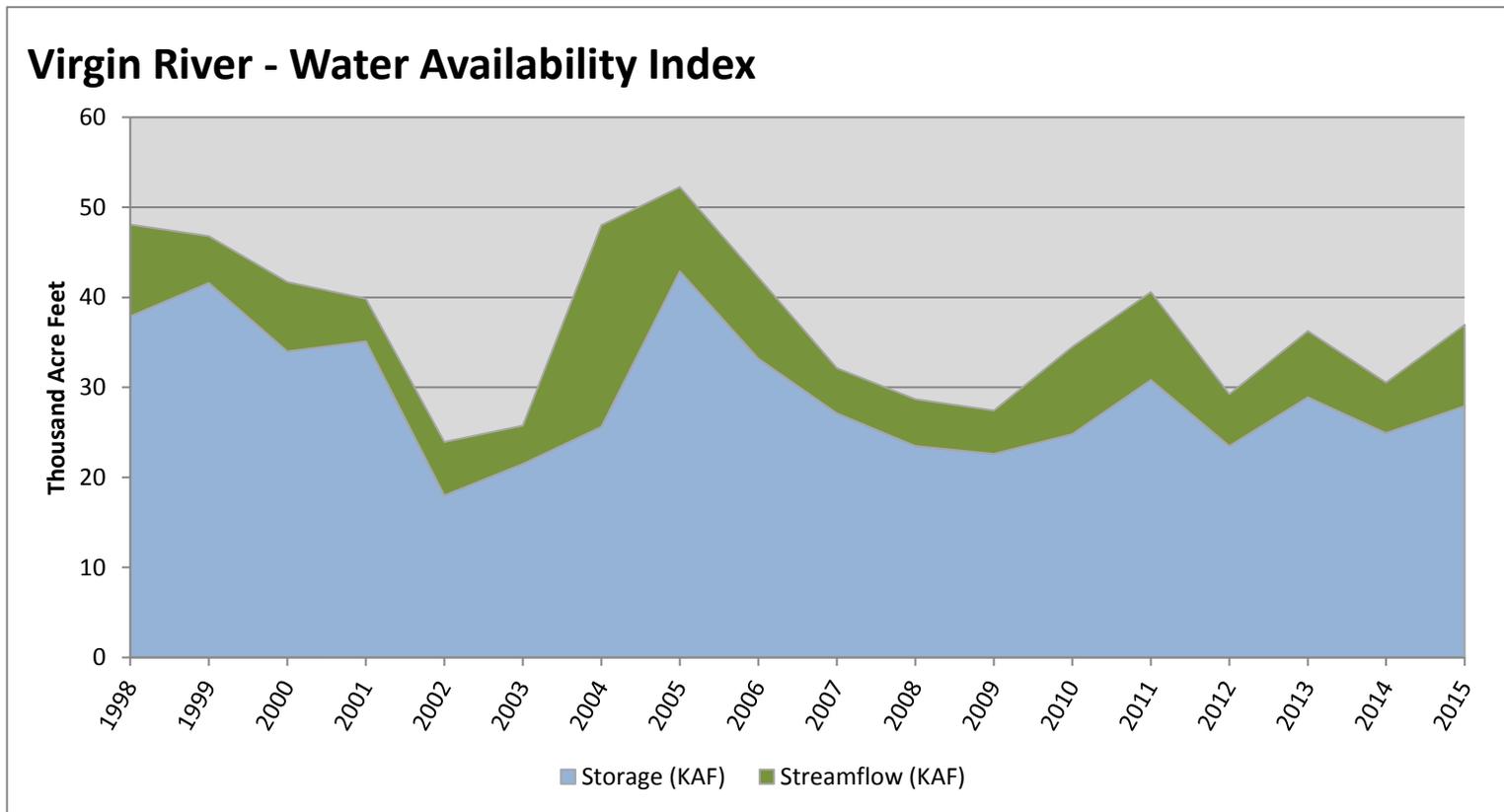


November 1, 2015

Water Availability Index

Basin or Region	Oct EOM [*] Storage	October Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Virgin River	27.92	9.03	36.95	53	0.22	10, 13, 01, 11

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



November 1, 2015

Water Availability Index

Basin or Region	Oct EOM* Storage	October Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Bear River	468	6.4	474	47	-0.2	95, 01, 14, 13
Woodruff Narrows	37.4	3.3	40.7	64	1.2	96, 14, 08, 10
Little Bear	4.8	1.2	6.0	13	-3.1	03, 01, 14, 07
Ogden	50.9	1.9	52.8	39	-0.9	12, 91, 08, 81
Weber	82.3	19.8	102.0	27	-1.9	03, 00, 02, 07
Provo River	282.7	2.3	285.0	14	-3.0	13, 07, 03, 04
Western Uintah	152.7	3.3	156.0	59	0.7	01, 05, 06, 09
Eastern Uintah	25.6	3.0	28.6	31	-1.6	04, 14, 92, 01
Blacks Fork	3.9	3.2	7.1	27	-1.9	94, 96, 00, 04
Price	8.0	0.3	8.3	14	-3.0	91, 90, 89, 02
Smiths Creek	5.1	0.7	5.8	47	-0.3	07, 08, 09, 99
Joes Valley	37.5	1.0	38.5	31	-1.6	89, 04, 08, 01
Moab	1.2	0.3	1.5	72	1.9	07, 14, 95, 98
Upper Sevier River	21.9	2.3	24.2	22	-2.3	90, 09, 08, 01
San Pitch	0.0	0.3	0.3	22	-2.3	12, 14, 13, 02
Lower Sevier	47.4	6.1	53.5	11	-3.2	04, 91, 02, 09
Beaver	2.6	1.3	3.9	17	-2.8	01, 09, 07, 08
Virgin River	27.9	9.0	37.0	53	0.2	10, 13, 01, 11

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

What is a Water Availability Index?

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

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

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

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

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