

Utah Climate and Water Report

September 2015



**Smokey sunrise from Mt. Pennell SNOTEL, installed
August 18, 2015**

Photo by Kent Sutcliffe

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.

Report Content

1) Climate and Water Information – Soil Climate Analysis Network

- a) Utah SCAN Water Year Precipitation
- b) North Central
- c) Northern Mountains
- d) Uintah Basin
- e) Southeast
- f) South Central
- g) Western and Dixie

2) General Hydrological Conditions

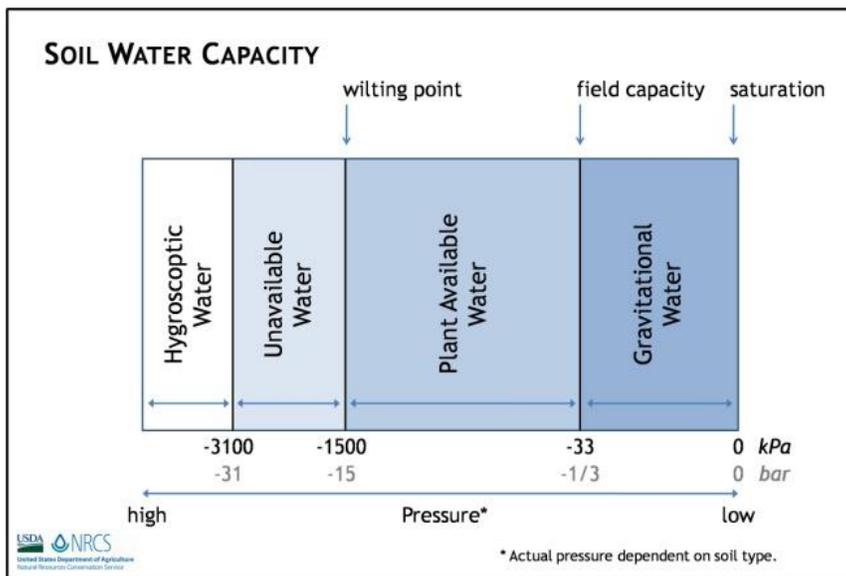
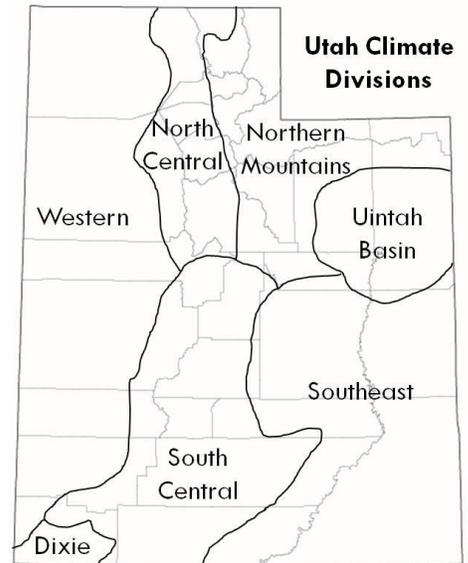
- a) SNOTEL Water Year to Date Precipitation
- b) Bear River Basin
 - Water Availability Index
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 - Water Availability Index
- d) Utah Lake, Jordan River, and Tooele Valley Basins
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- h) E. Garfield, Kane, Washington, and Iron Co.
 - Water Availability Index

Climate and Water Information

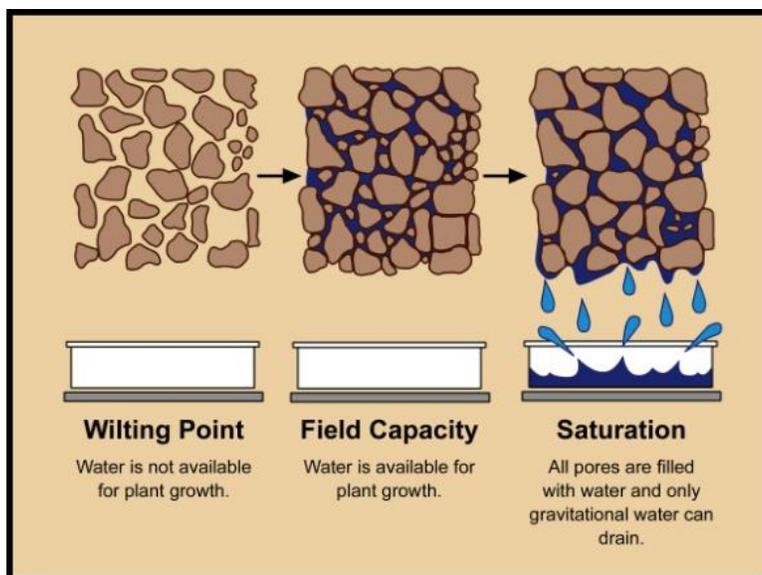
Soil Climate Analysis Network

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.

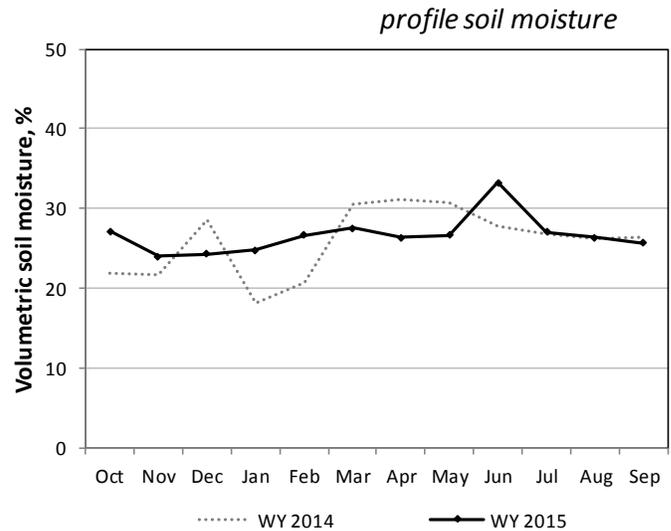
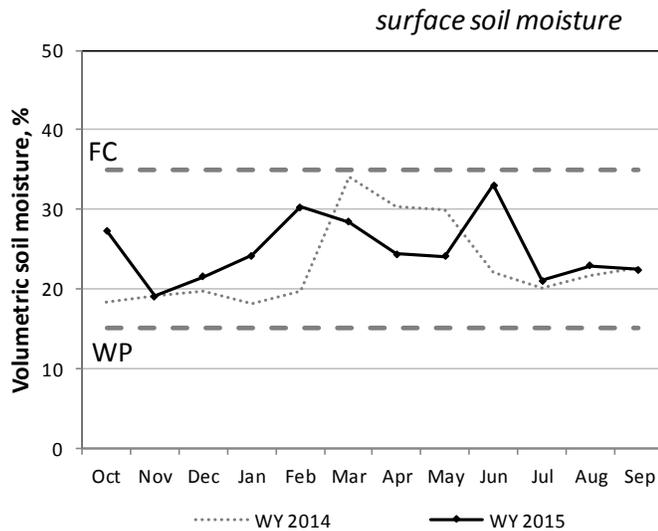
North Central

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"
	<i>in.</i>	<i>in.</i>	<i>volume %</i>					<i>° F</i>				
NORTH CENTRAL												
Blue Creek	13.7	0.7	6	11	21	22	16	75	75	74	72	67
Cache Junction	18.7	0.8	32	28	40	31	39	67	68	67	65	63
Grantsville	10.2	0.7	0	11	26	-	-	83	79	77	73	70

* 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.

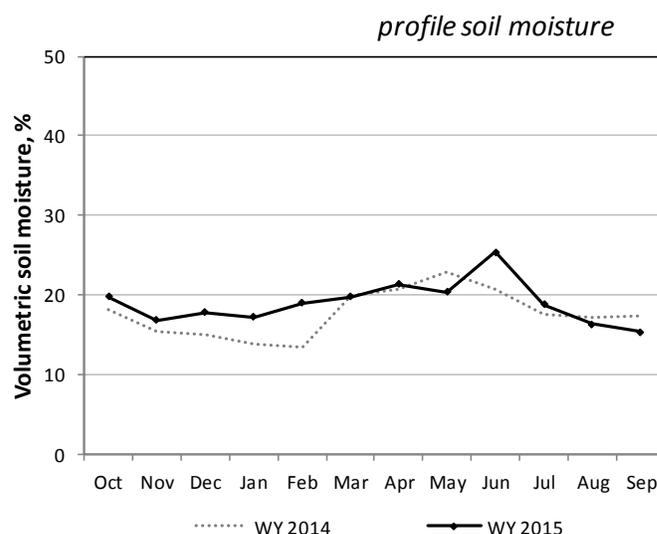
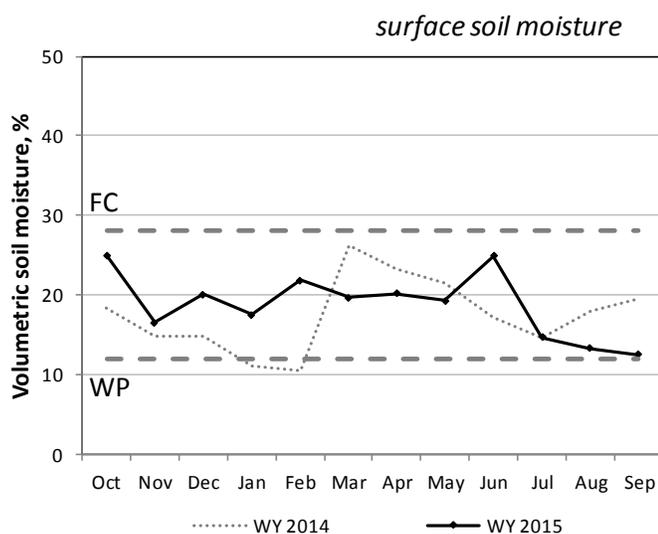
Northern Mountains

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	15.5	1.2	1	6	7	12	10	62	62	61	60	57
Buffalo Jump	12.4	0.9	7	10	9	9	-	65	66	65	63	-
Morgan	15.9	1.9	23	20	25	32	21	78	77	75	72	67

* 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.

Northern Mountains



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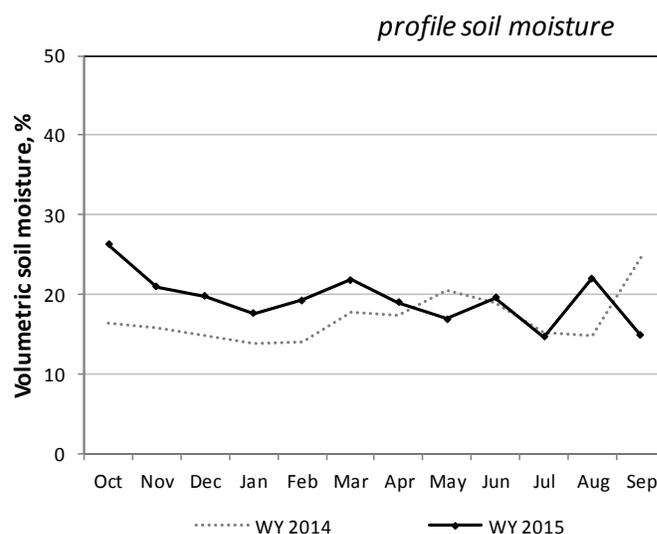
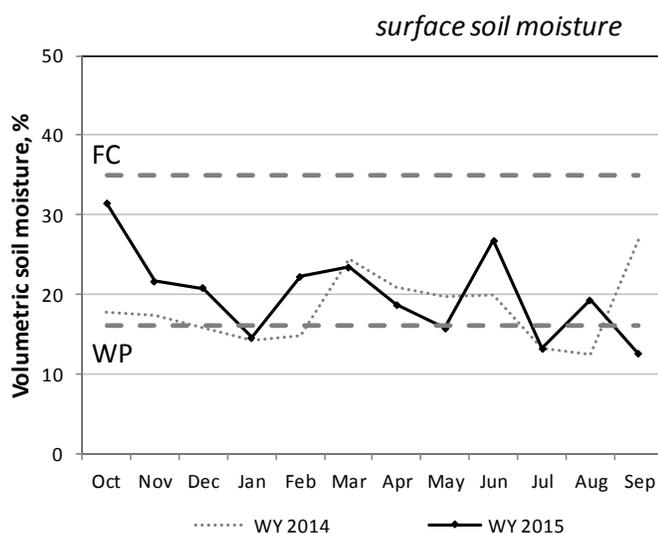
Uintah Basin

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>volume %</i>					<i>° F</i>				
UINTAH BASIN												
Mountain Home	11.7	1.8	2	10	13	12	7	70	66	65	64	66
Little Red Fox	9.6	1.2	8	19	23	26	24	65	67	67	66	65
Split Mountain	7.5	0.2	2	12	11	14	13	82	80	78	77	73

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Uintah Basin



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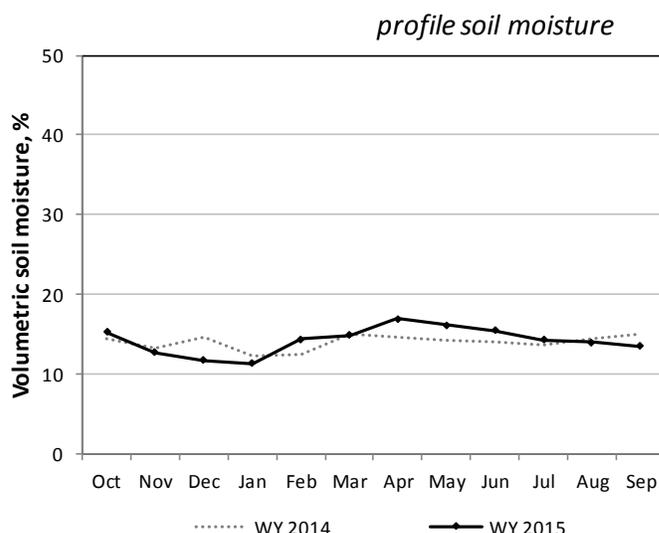
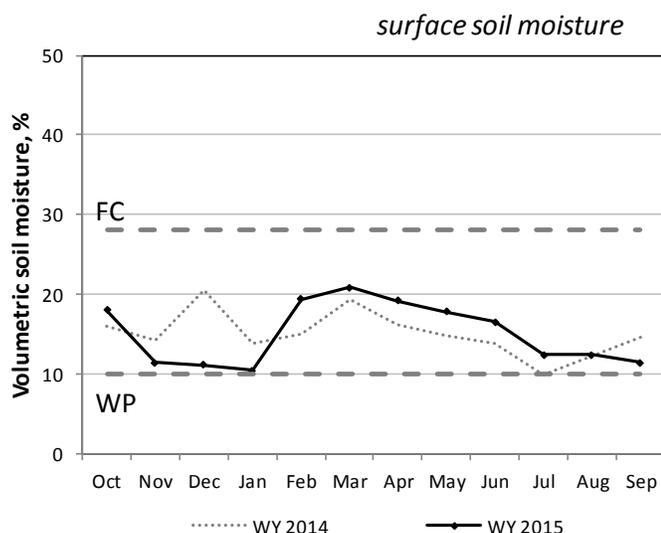
Southeast

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"
			volume %					° F				
SOUTHEAST												
Price	8.8	1.6	3	12	17	17	21	72	72	72	73	71
Green River	6.7	0.4	8	6	8	6	9	77	78	78	78	77
Harm's Way	13.7	1.3	6	12	14	14	6	69	70	71	70	67
West Summit	12.8	0.9	8	13	15	16	18	69	70	71	68	66
Eastland	16.0	0.9	7	10	10	23	20	74	72	72	69	66
Alkali Mesa	14.5	1.0	5	8	15	17	18	76	75	75	74	73
McCracken Mesa	12.4	0.8	9	12	16	17	14	77	78	78	76	74

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Southeast



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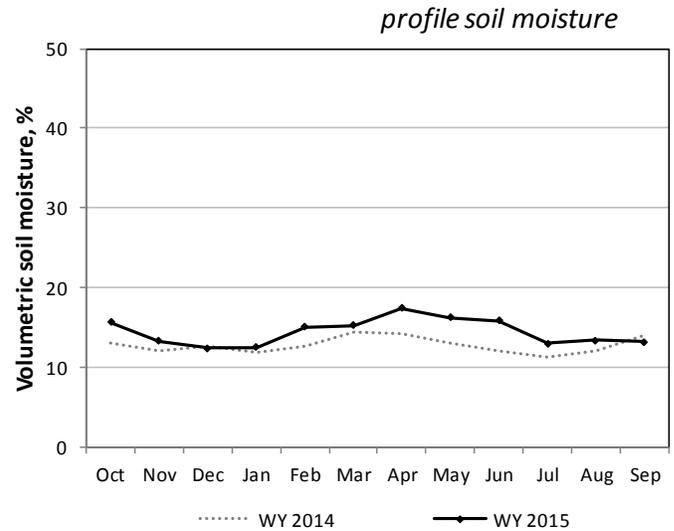
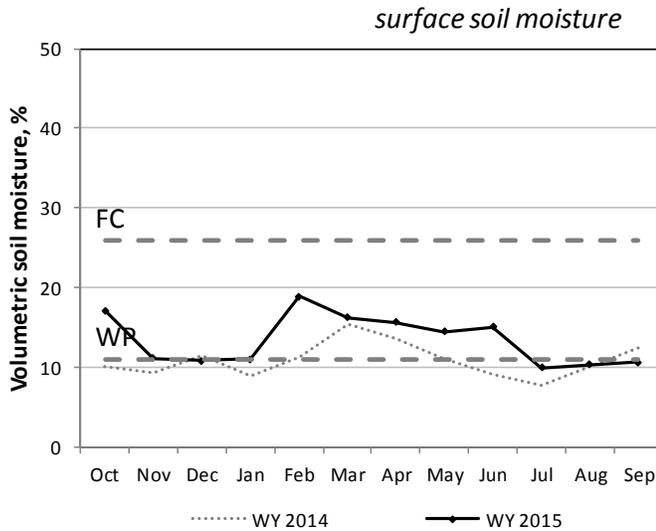
South Central

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	11.1	1.8	15	17	15	7	6	74	73	73	72	68
Ephraim	10.2	1.0	13	26	31	36	36	73	71	70	70	66
Holden	6.5	0.2	4	4	8	12	13	81	81	80	78	74
Milford	7.9	0.6	6	14	16	28	18	77	75	74	72	69
Manderfield	9.6	0.9	16	12	13	11	5	70	70	70	70	66
Cirleville	7.2	0.9	8	7	6	10	16	66	69	69	69	65
Panguitch	9.5	1.9	14	21	14	22	36	63	63	62	61	57
Cave Valley	14.4	1.4	1	2	1	0	1	77	76	75	73	69
Vermillion	14.4	3.6	3	9	8	5	9	67	67	67	66	65
Spooky	10.0	1.6	2	3	2	13	2	80	76	76	73	74

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South Central



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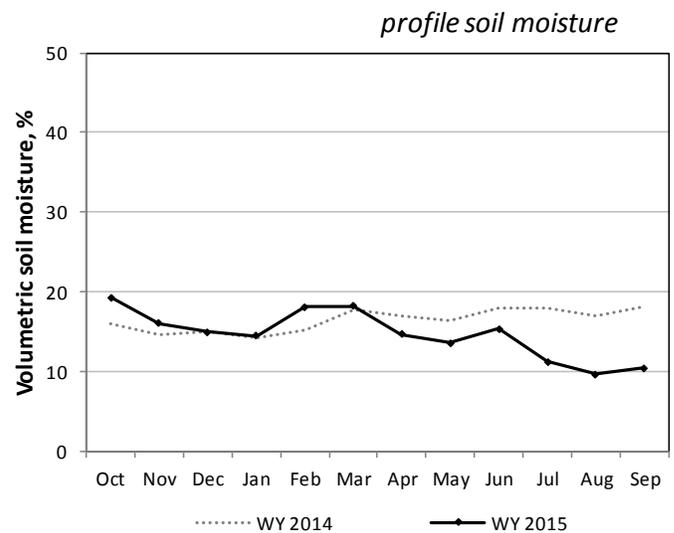
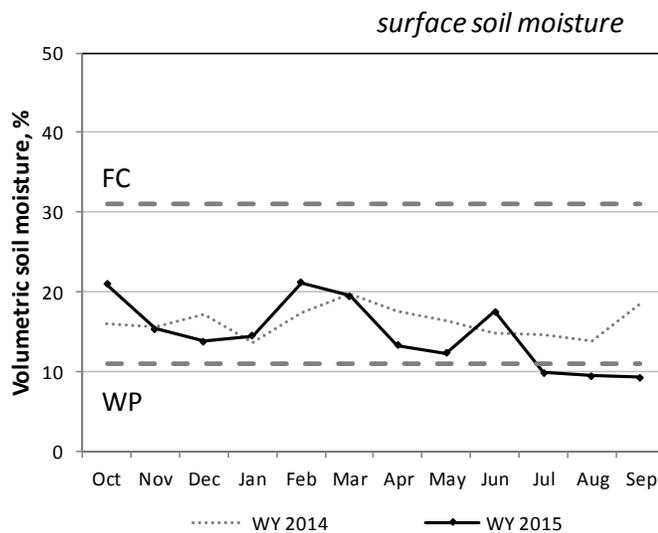
Western and Dixie

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	13.1	1.1	1	7	11	16	16	70	68	69	67	66
Park Valley	9.8	0.7	0	0	12	-	-	74	74	73	73	69
Goshute	8.0	0.7	-	-	-	-	-	72	72	73	71	68
Dugway	7.9	0.1	-	-	-	-	-	83	82	82	79	74
Tule Valley	5.1	0.9	13	12	21	14		86	85	84	83	86
Hal's Canyon	5.7	0.5	2	6	9	12	10	80	79	78	76	73
Enterprise	10.1	0.4	5	20	21	14	15	78	76	76	75	71
DIXIE												
Sand Hollow	6.3	0.8	1	1	2	1	0	91	89	88	86	82

* 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



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.

Utah Hydrologic Summary

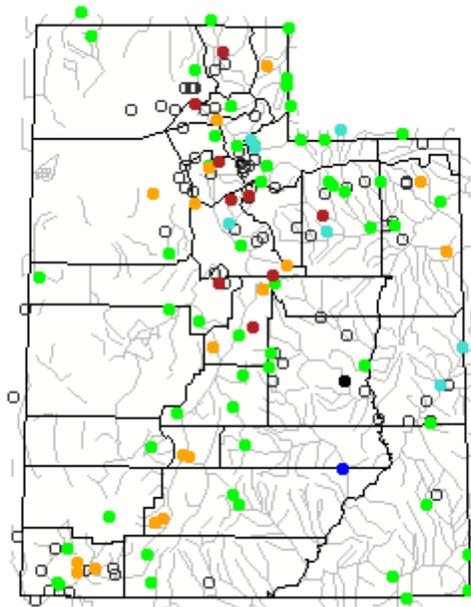
September 1, 2015

Current Conditions

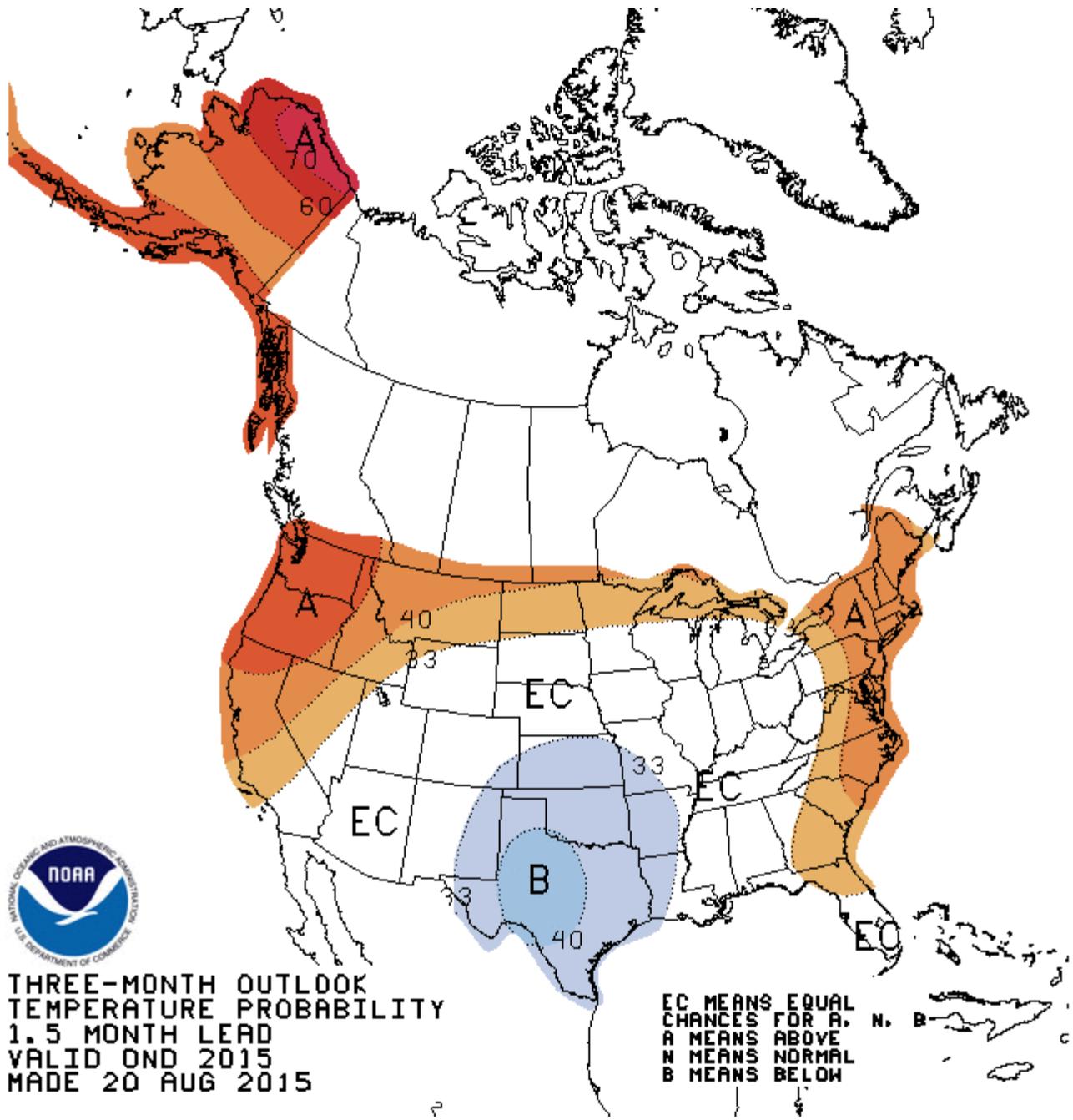
Make it 4 years in a row – for above average August precipitation. This August precipitation was greatest in northern Utah ranging from 115% across the Uinta’s to 153% on the Provo. Southern Utah was below to near normal with the southeast and Beaver Basin receiving the lowest amounts at about 70%. There was a very strong south to north gradient in August precipitation with the south below normal and the north above. Seasonal precipitation statewide is still below normal at 84% of average. Streamflow at sites with no or minimal regulation are still flowing at exceptionally low levels – nearly all are below the 25 percentile and many are below the 10th percentile. August precipitation has been very beneficial to agriculture across the state but has done little to augment streamflow and reservoir storage. Soil moisture values continue to decline and are, in general, much dryer that last year. They are, however, in most areas near or slightly above average. Reservoir storage for the entire state is at 55% of capacity – down 5% from last month and similar to the 57% of last year.

Current Utah Streamflow - Courtesy US Geological Survey

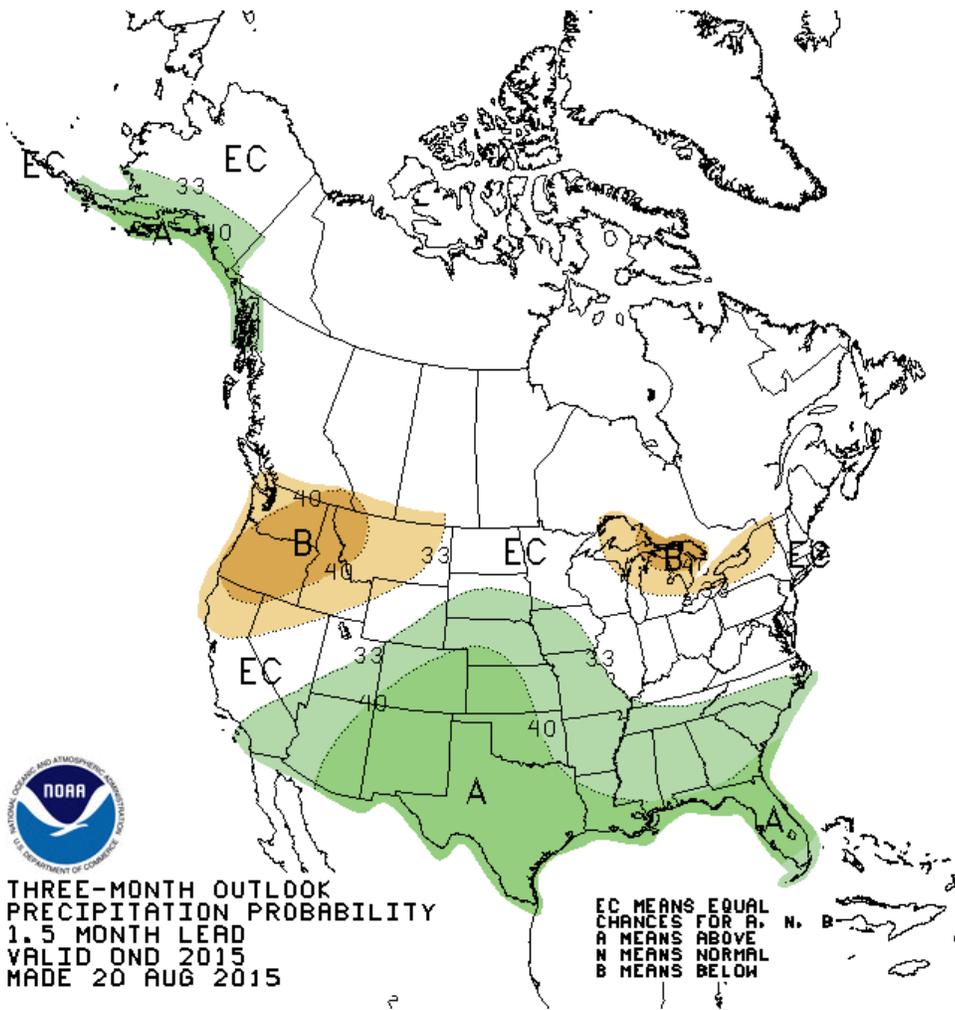
Wednesday, September 02, 2015 10:00ET



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



The temperature outlook for the period of October-December is near normal across the state. (Climate Prediction Center)



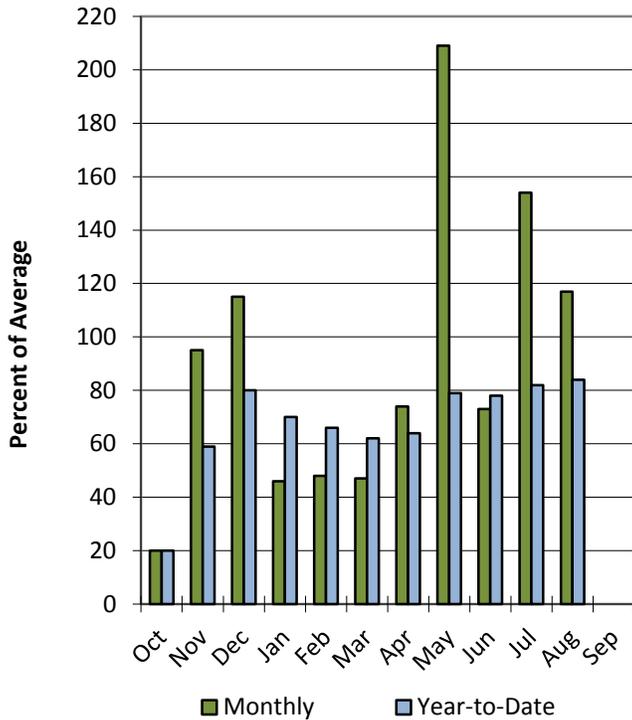
The precipitation outlook for the period of October-December is near normal in northern Utah and above normal is the south. (Climate Prediction Center) This is consistent with a typical el nino pattern.

Statewide Utah

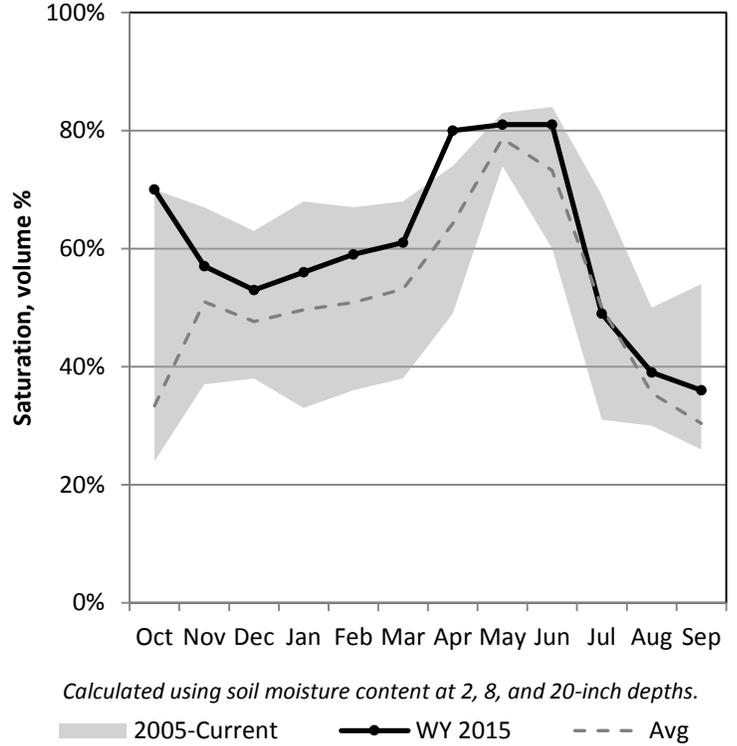
9/1/2015

Precipitation in August was above average at 117%, which brings the seasonal accumulation (Oct-Aug) to 84% of average. Soil moisture is at 36% compared to 50% last year. Reservoir storage is at 55% of capacity, compared to 57% last year.

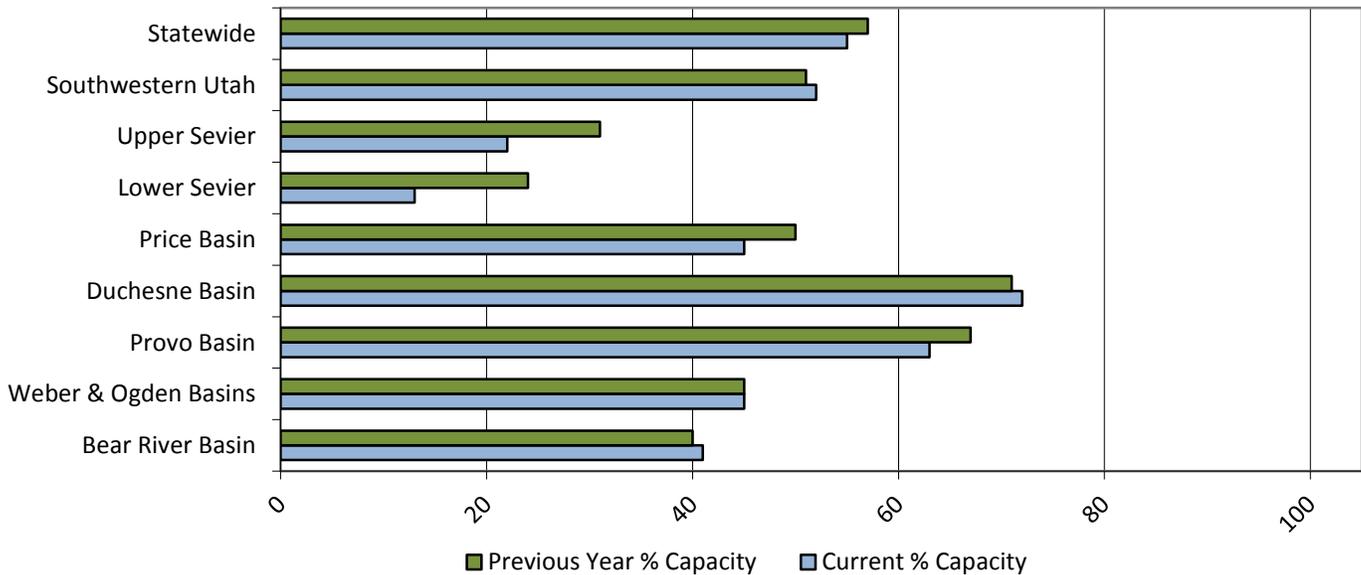
Precipitation



Soil Moisture



Reservoir Storage

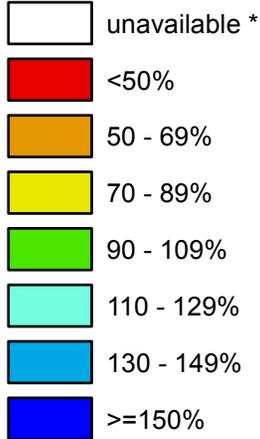


Utah

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

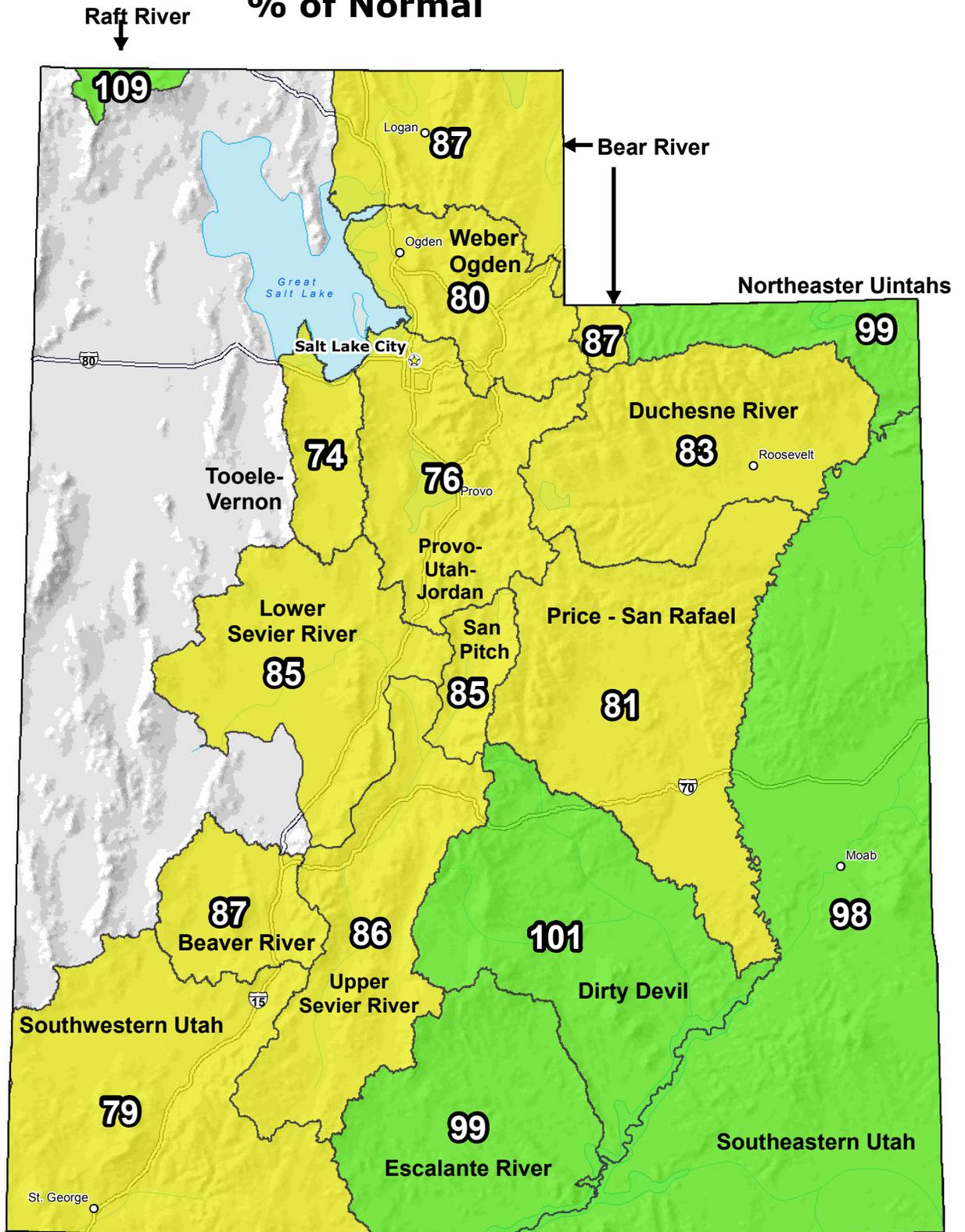
Sep 01, 2015

**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).

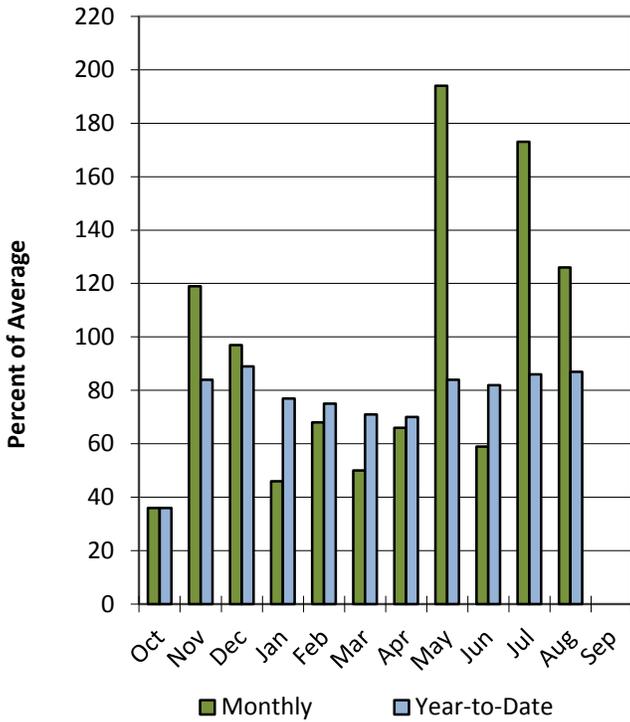
Prepared by:
USDA/NRCS National Water and Climate Center
Portland, Oregon
<http://www.wcc.nrcs.usda.gov>

Bear River Basin

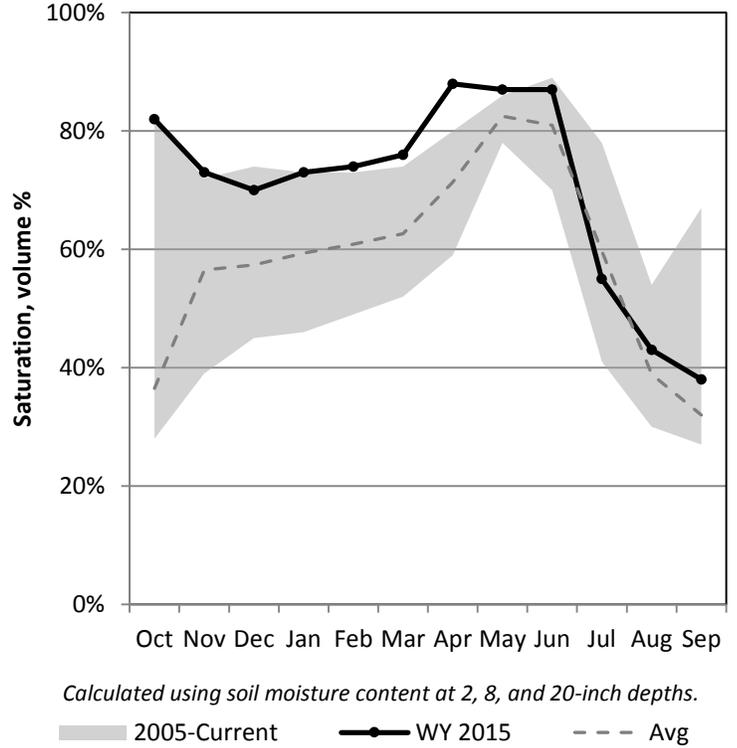
9/1/2015

Precipitation in August was above average at 126%, which brings the seasonal accumulation (Oct-Aug) to 87% of average. Soil moisture is at 38% compared to 67% last year. Reservoir storage is at 41% of capacity, compared to 40% last year. The water availability index for the Bear River is 47%, 64% for Woodruff Narrows and 50% for the Little Bear.

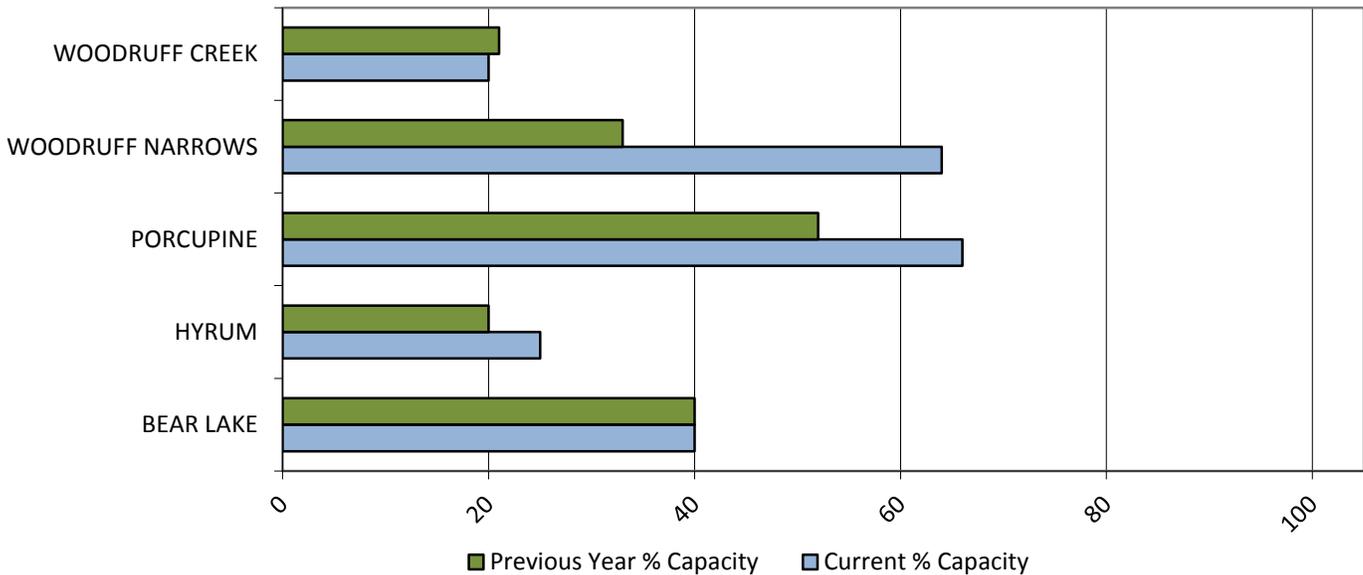
Precipitation



Soil Moisture



Reservoir Storage

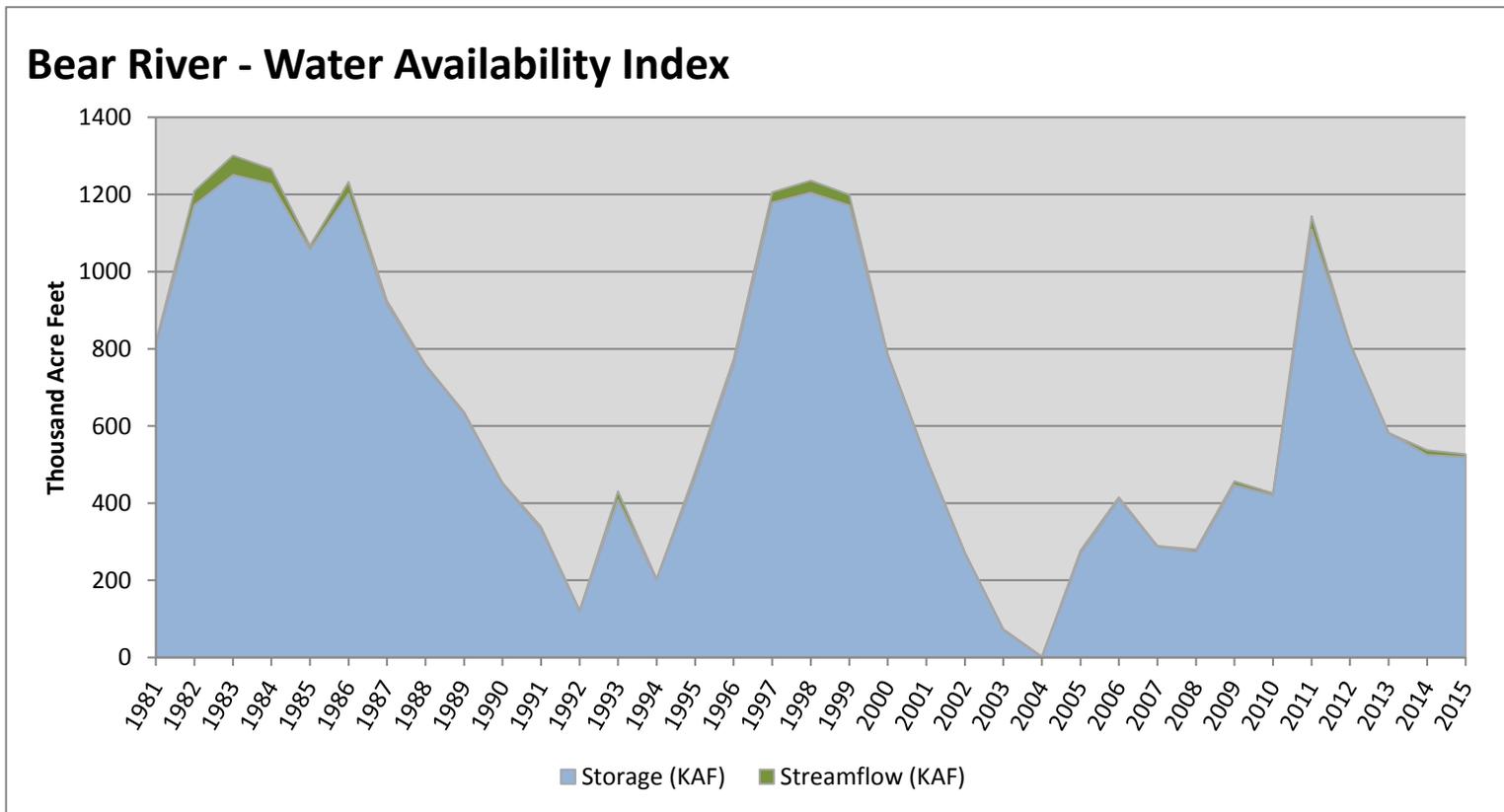


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Bear River	519.12	7.48	526.60	47	-0.23	95, 01, 14, 13

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

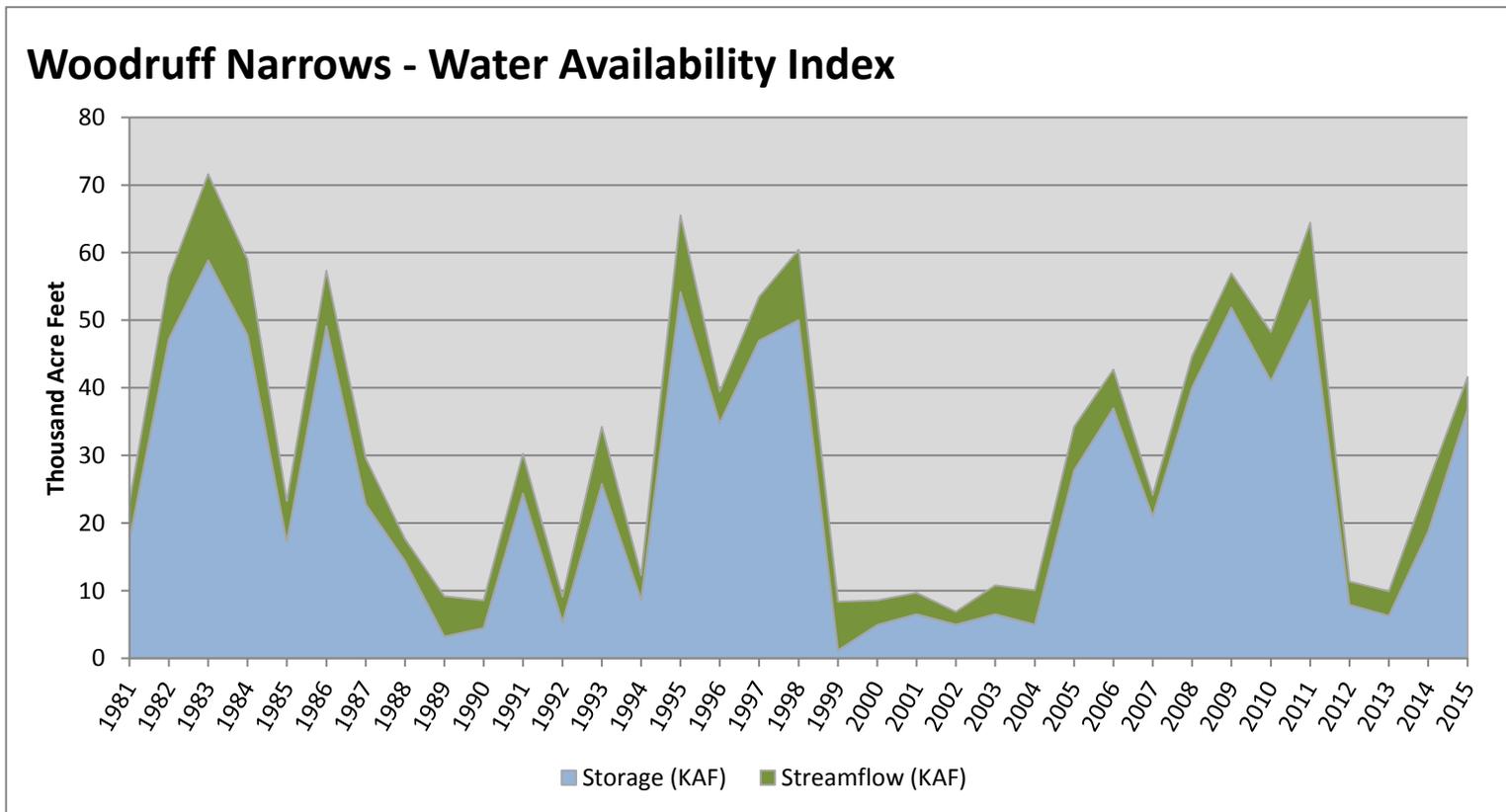


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Woodruff Narrows	36.83	4.77	41.60	64	1.16	05, 96, 06, 08

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

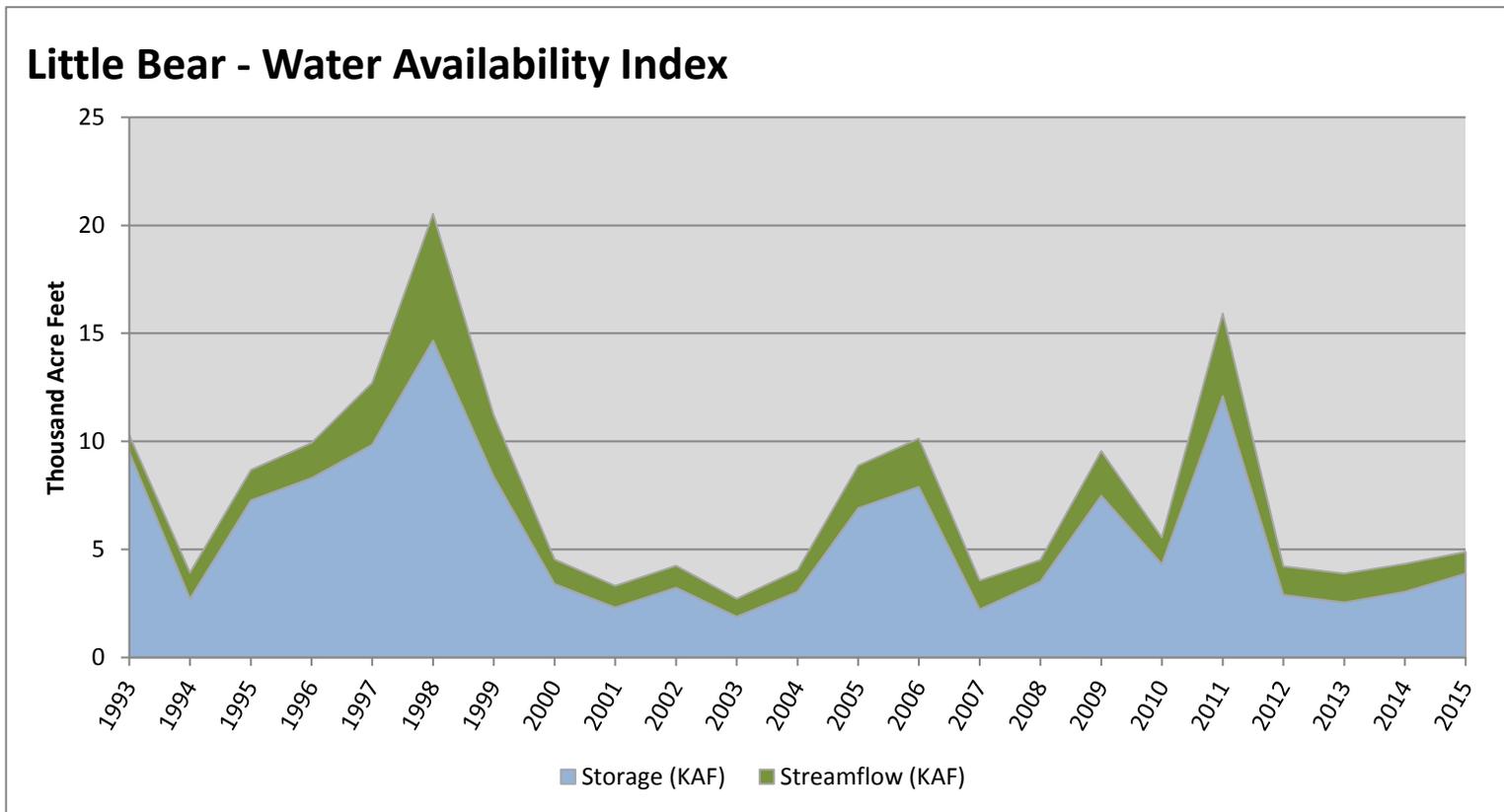


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Little Bear	3.89	0.99	4.88	50	0	08, 00, 10, 95

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

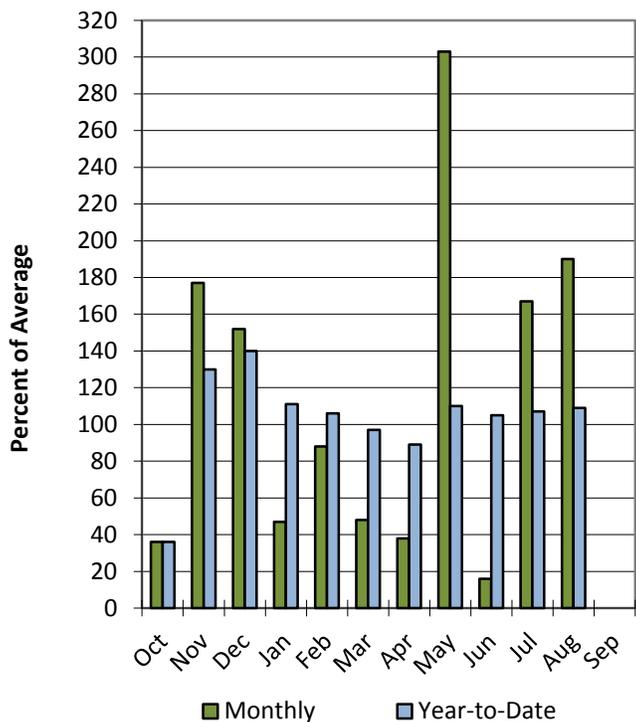


Raft River Basin

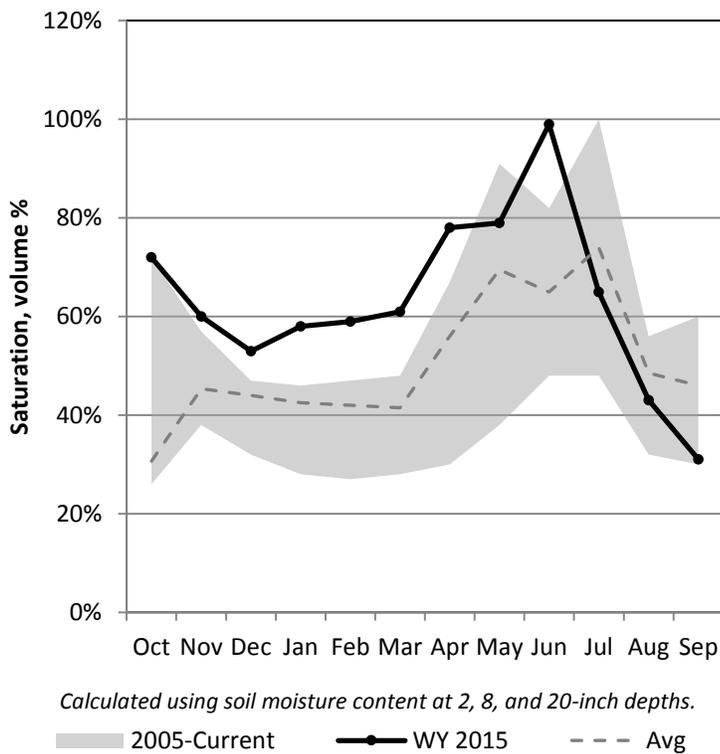
9/1/2015

Precipitation in August was much above average at 190%, which brings the seasonal accumulation (Oct-Aug) to 109% of average. Soil moisture is at 31% compared to 61% last year.

Precipitation



Soil Moisture

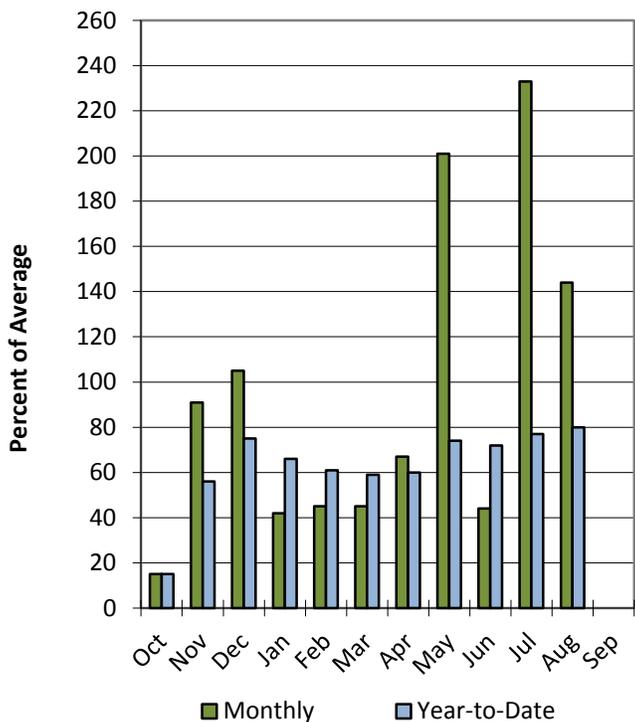


Weber & Ogden River Basins

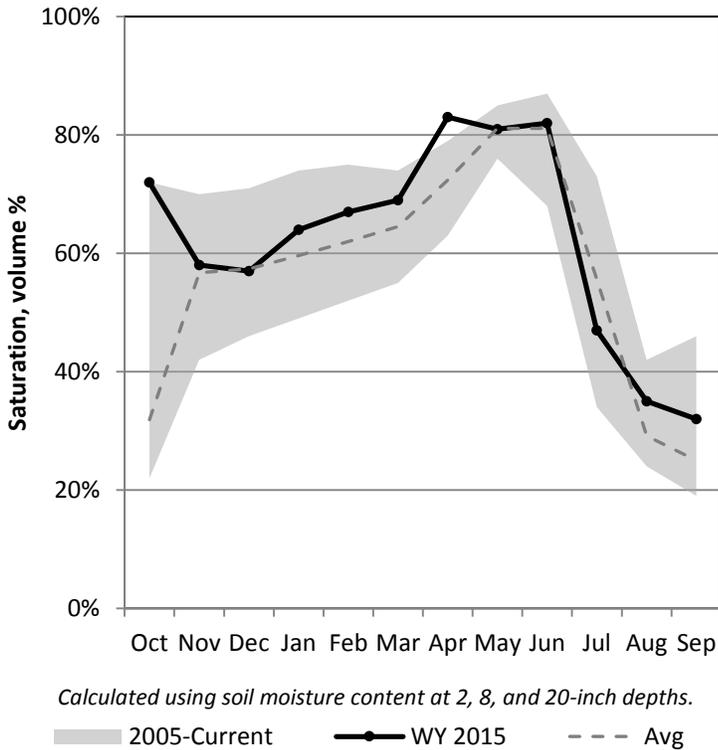
9/1/2015

Precipitation in August was much above average at 144%, which brings the seasonal accumulation (Oct-Aug) to 80% of average. Soil moisture is at 32% compared to 46% last year. Reservoir storage is at 45% of capacity, compared to 45% last year. The water availability index for the Ogden River is 47% and 35% for the Weber River.

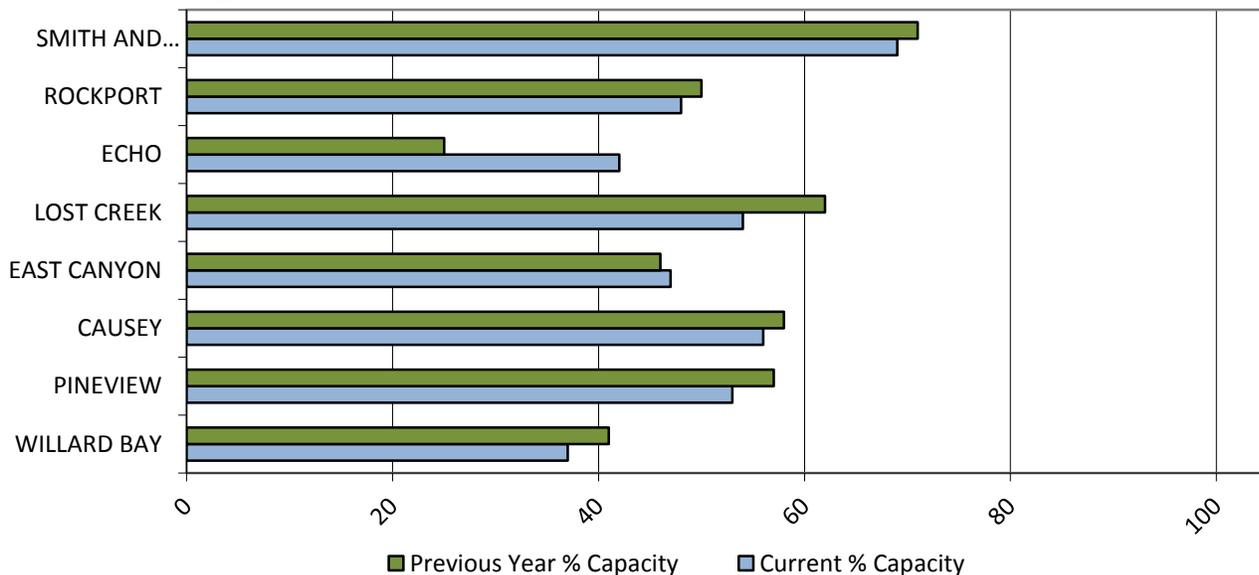
Precipitation



Soil Moisture



Reservoir Storage

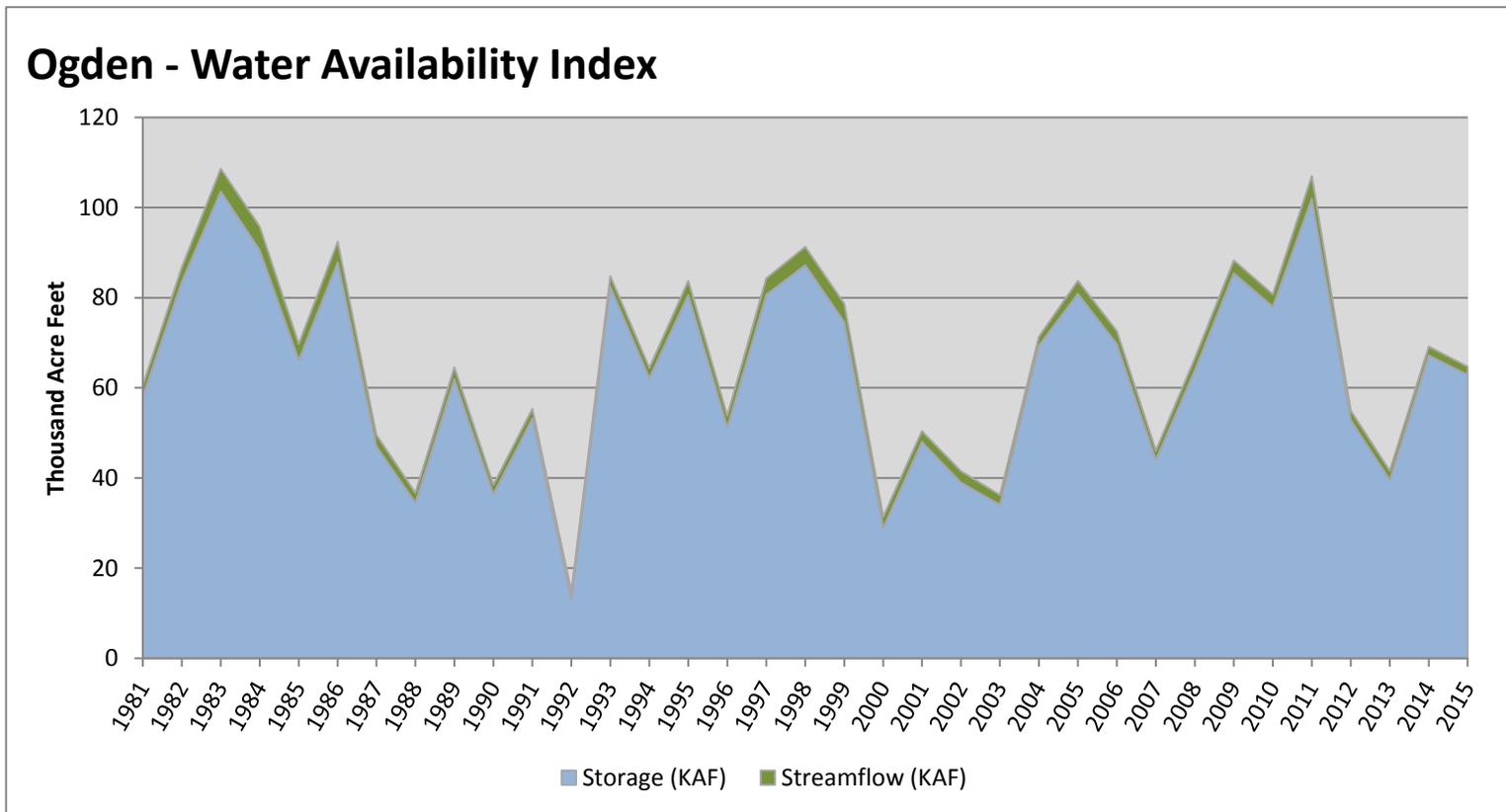


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Ogden	62.86	1.84	64.70	47	-0.23	94, 89, 08, 14

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

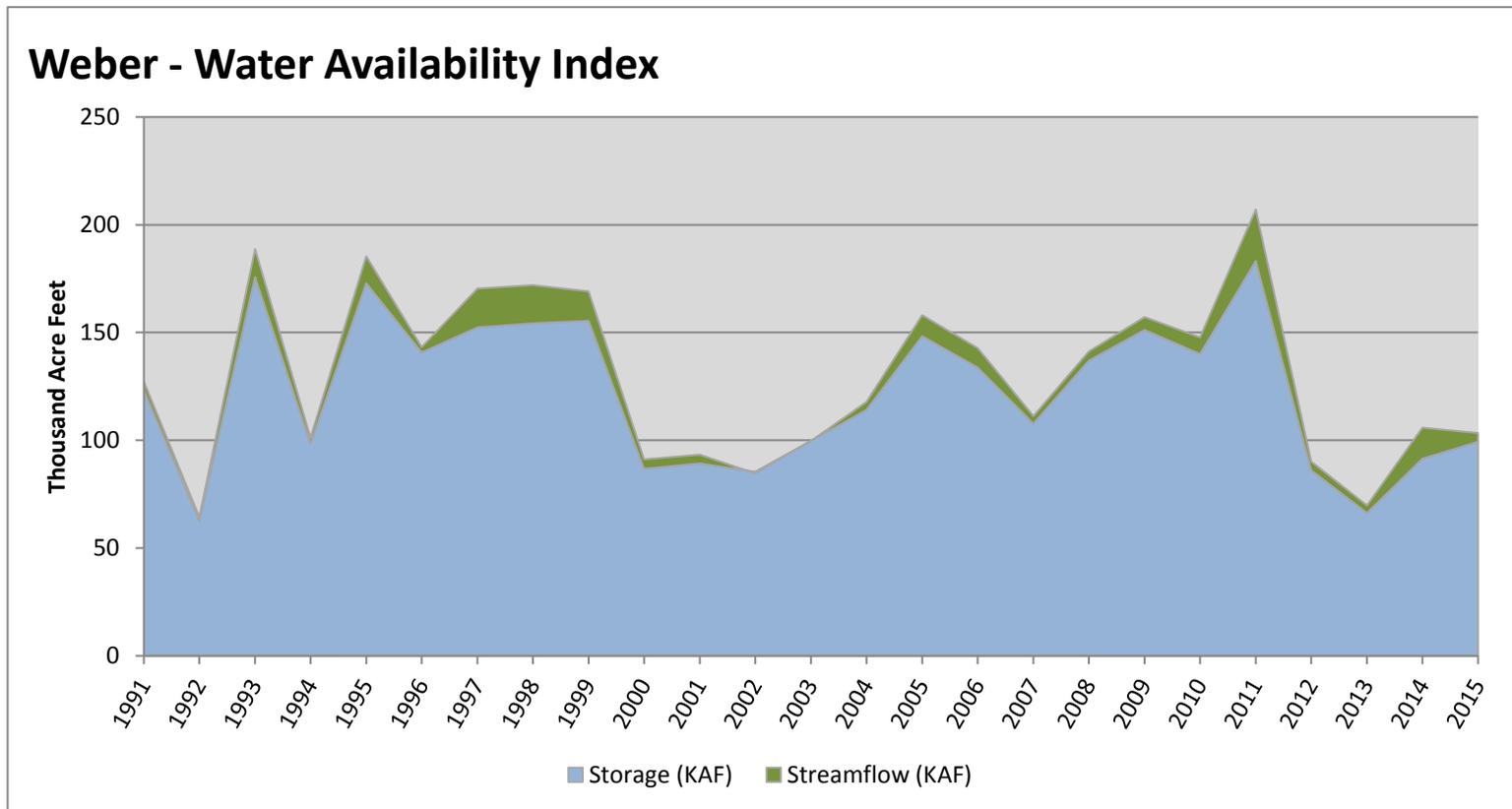


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Weber	99.37	4.06	103.43	35	-1.28	03, 94, 14, 07

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

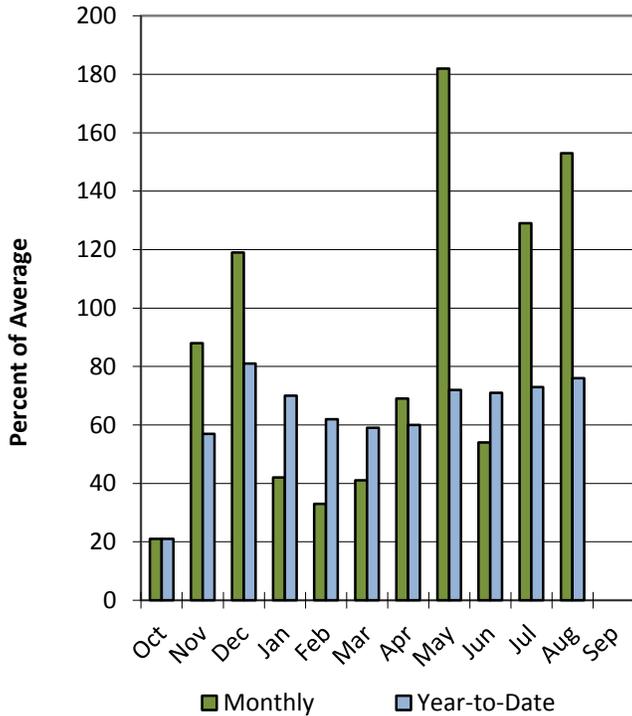


Provo & Jordan River Basins

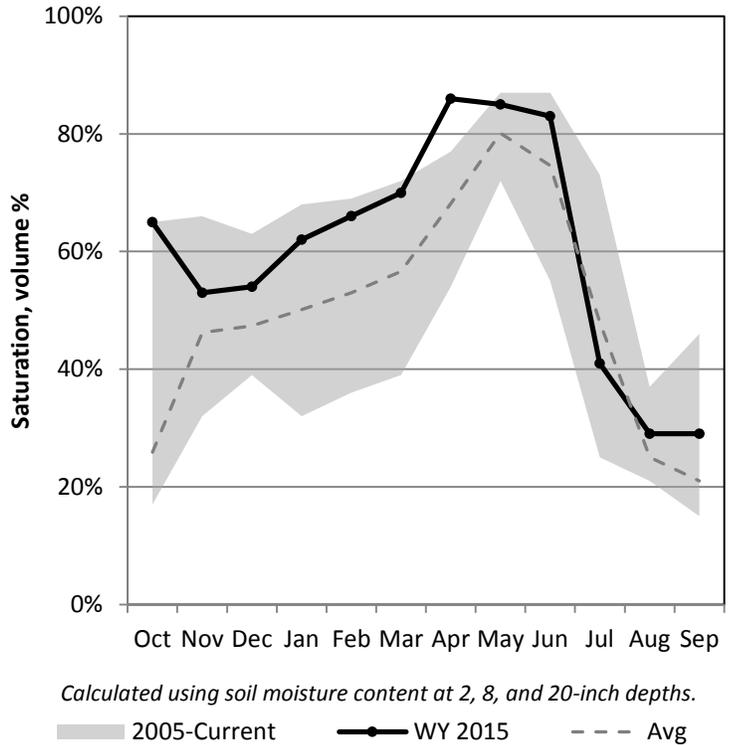
9/1/2015

Precipitation in August was much above average at 153%, which brings the seasonal accumulation (Oct-Aug) to 76% of average. Soil moisture is at 29% compared to 45% last year. Reservoir storage is at 63% of capacity, compared to 67% last year. The water availability index for the Provo River is 33%.

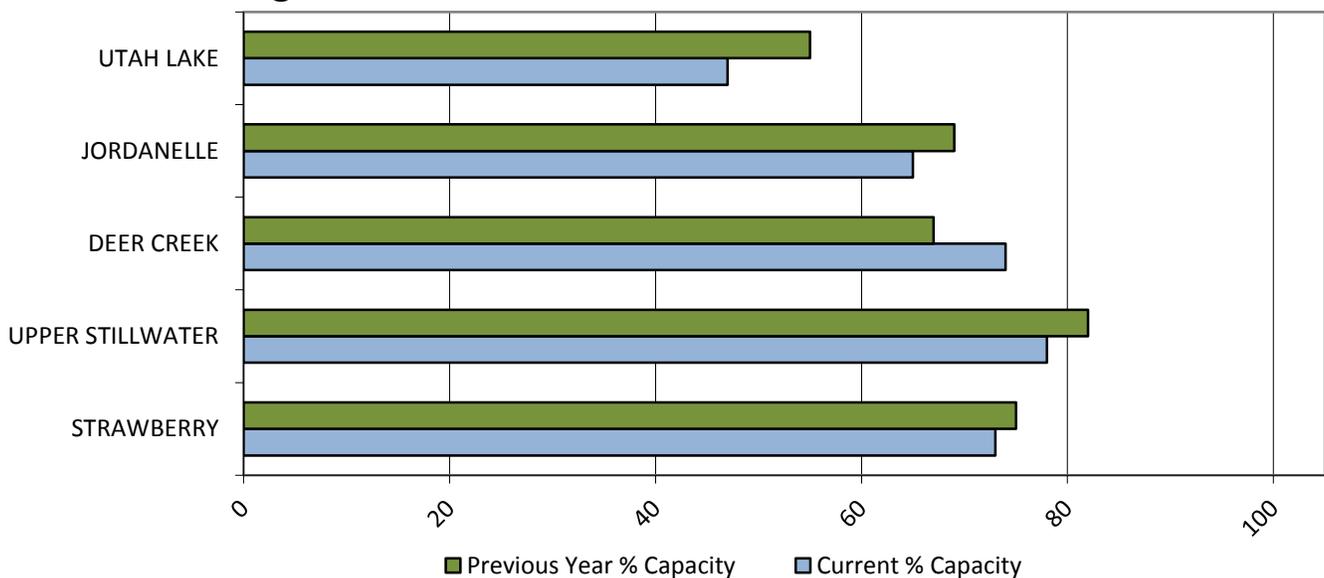
Precipitation



Soil Moisture



Reservoir Storage

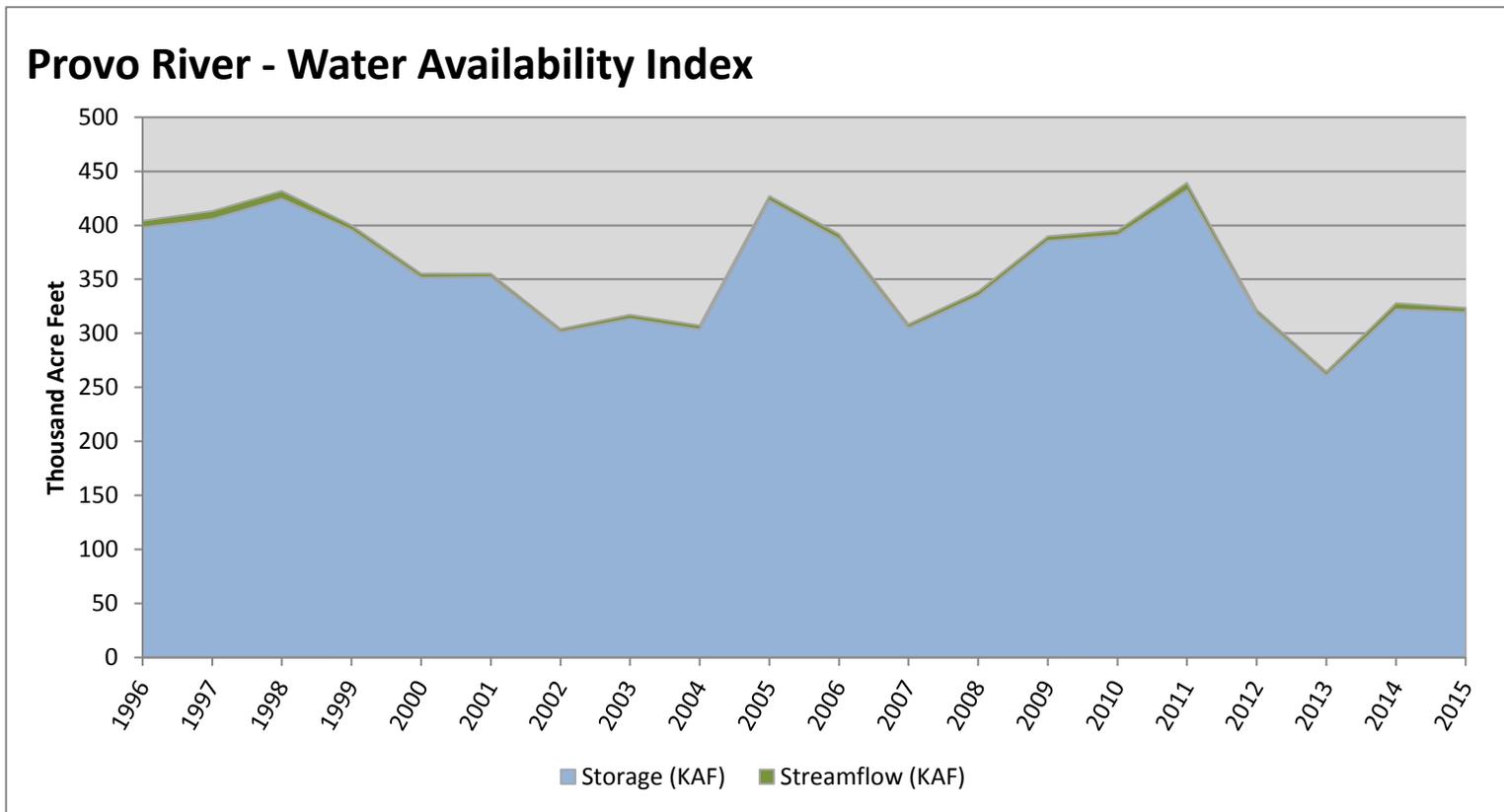


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Provo River	319.73	3.88	323.61	33	-1.39	03, 12, 14, 08

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

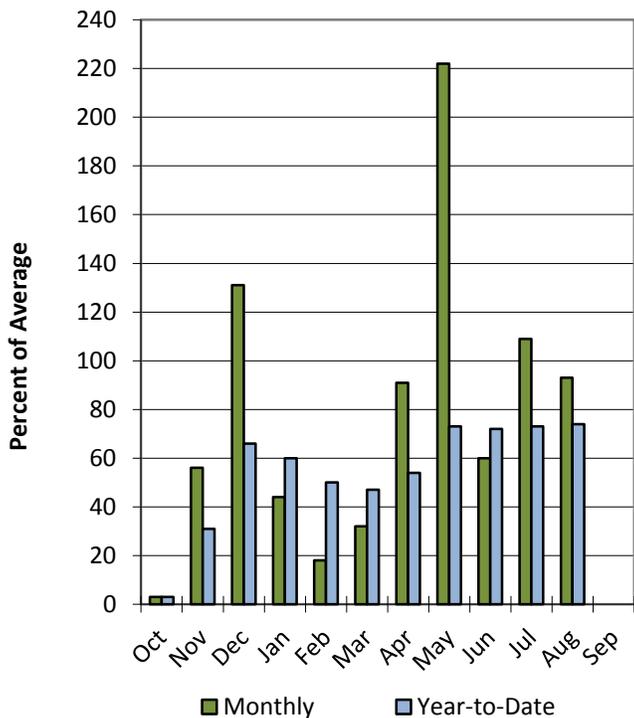


Tooele & Vernon Creek Basins

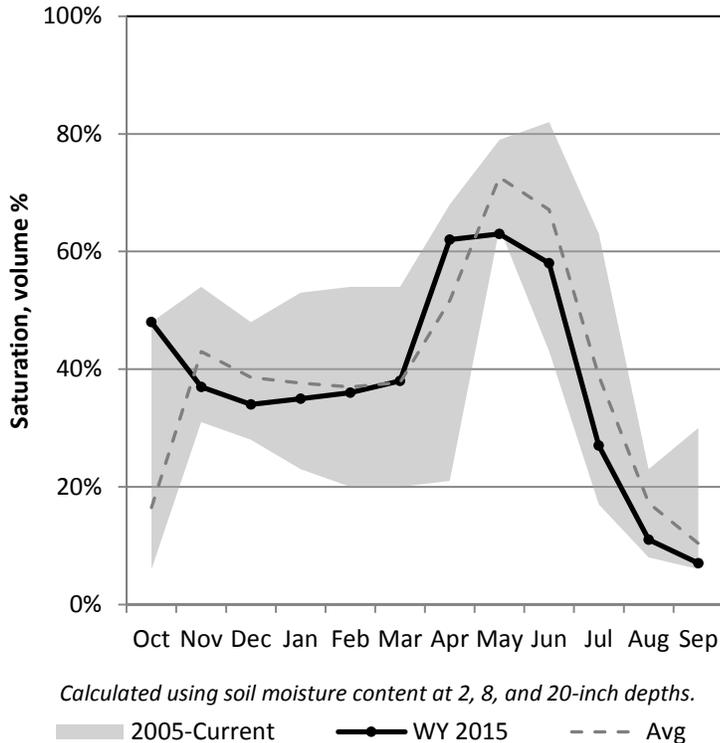
9/1/2015

Precipitation in August was near average at 93%, which brings the seasonal accumulation (Oct-Aug) to 74% of average. Soil moisture is at 7% compared to 25% last year. Reservoir storage is at 46% of capacity, compared to 27% last year.

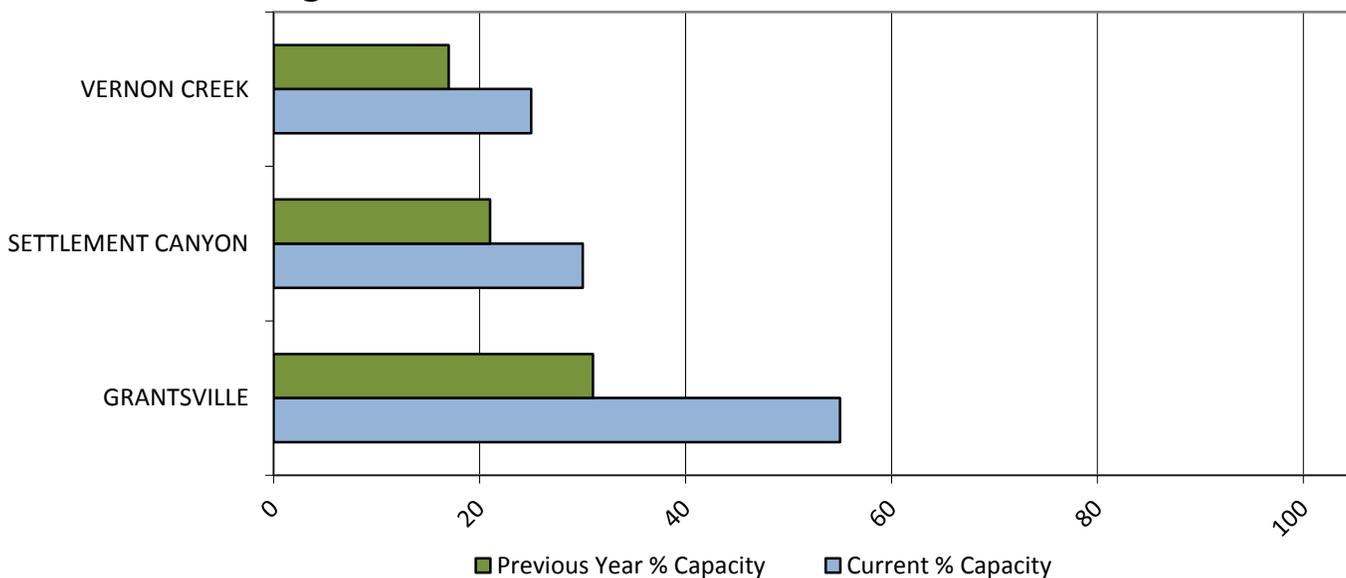
Precipitation



Soil Moisture



Reservoir Storage

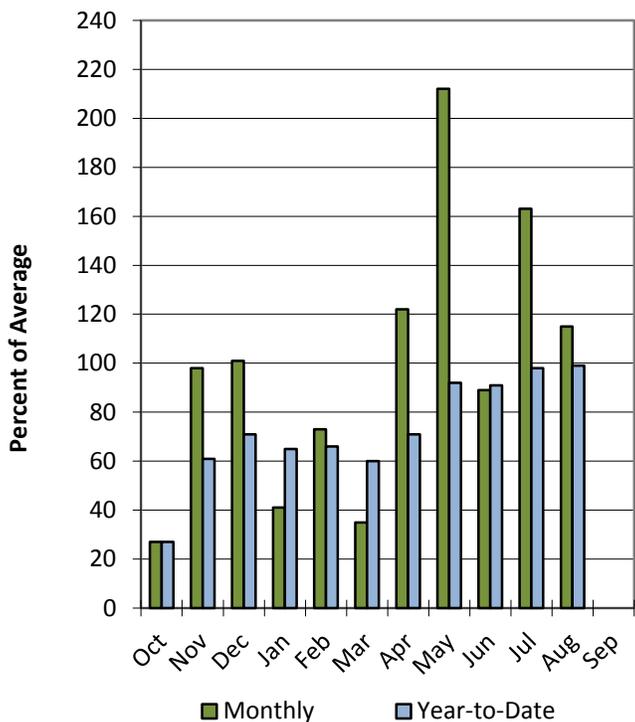


Northeastern Uintah Basin

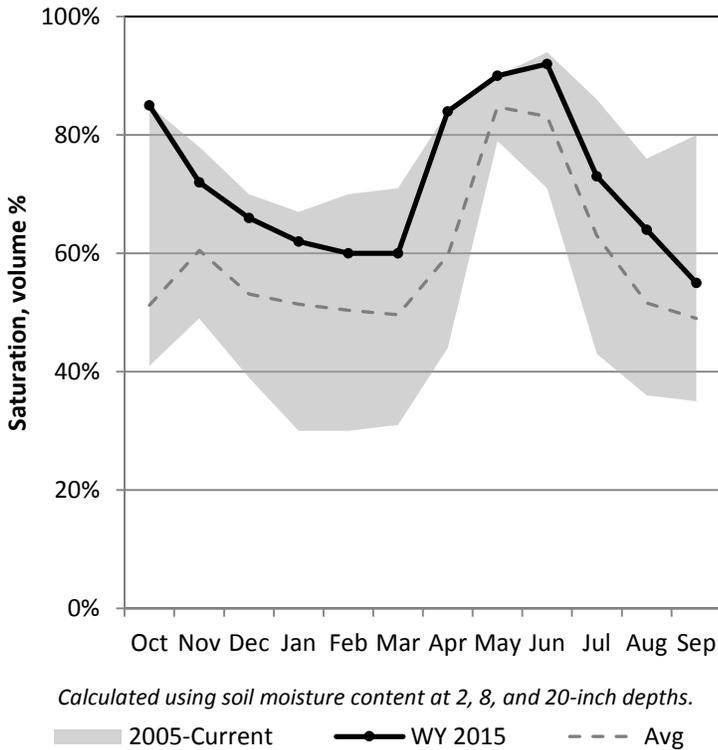
9/1/2015

Precipitation in August was above average at 115%, which brings the seasonal accumulation (Oct-Aug) to 99% of average. Soil moisture is at 55% compared to 80% last year. Reservoir storage is at 93% of capacity, compared to 87% last year. The Water Availability Index for Blacks Fork is 48% and 53% for Smiths Creek.

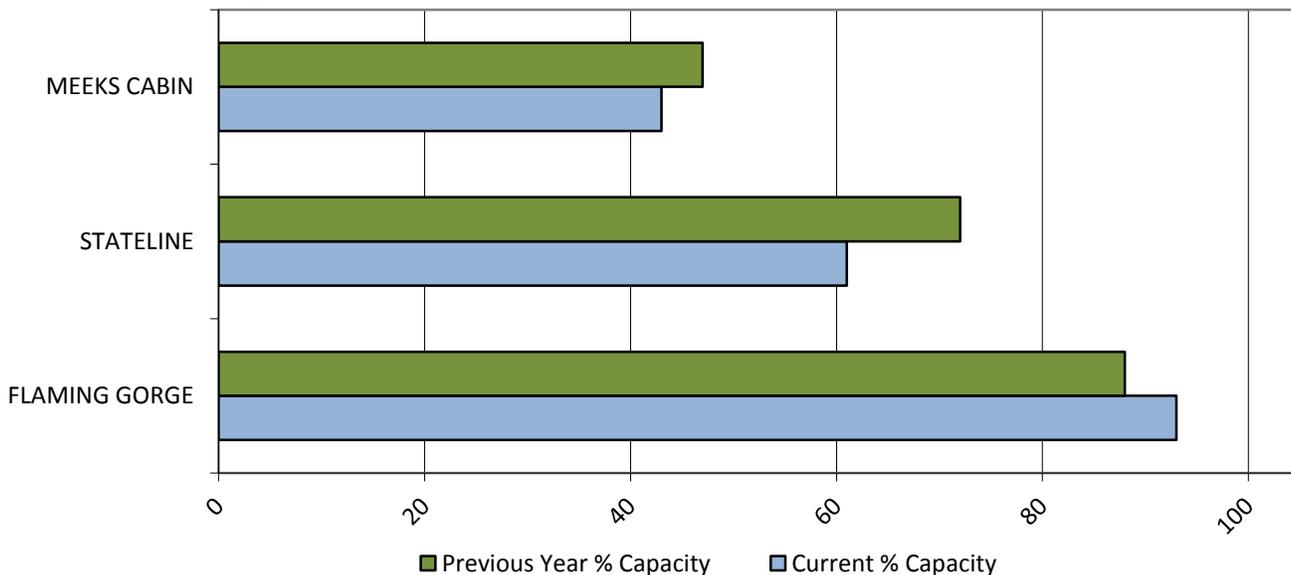
Precipitation



Soil Moisture



Reservoir Storage

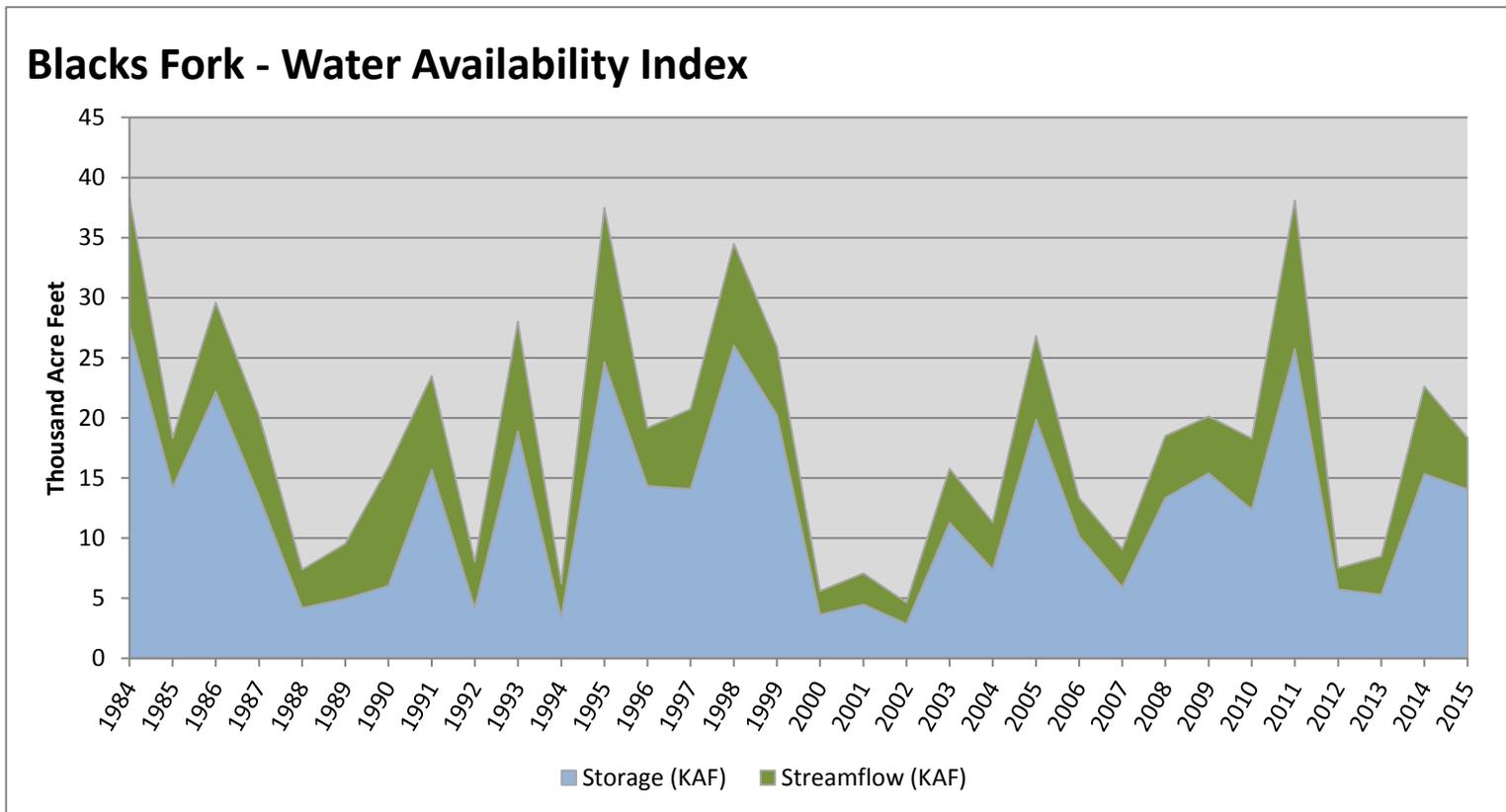


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Blacks Fork	14.05	4.30	18.35	48	-0.13	90, 10, 85, 08

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

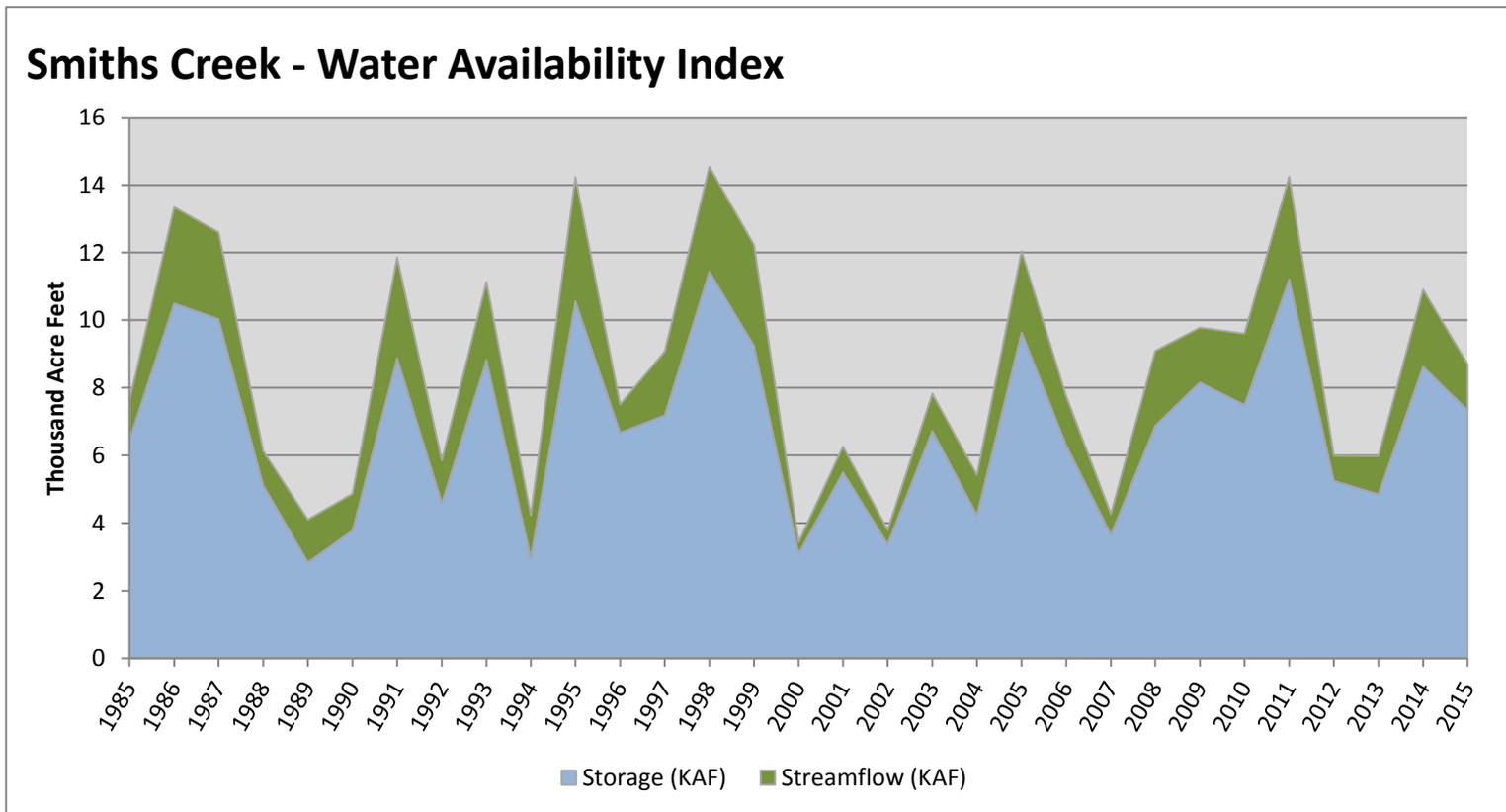


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Smiths Creek	7.33	1.37	8.70	53	0.26	06, 03, 97, 08

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

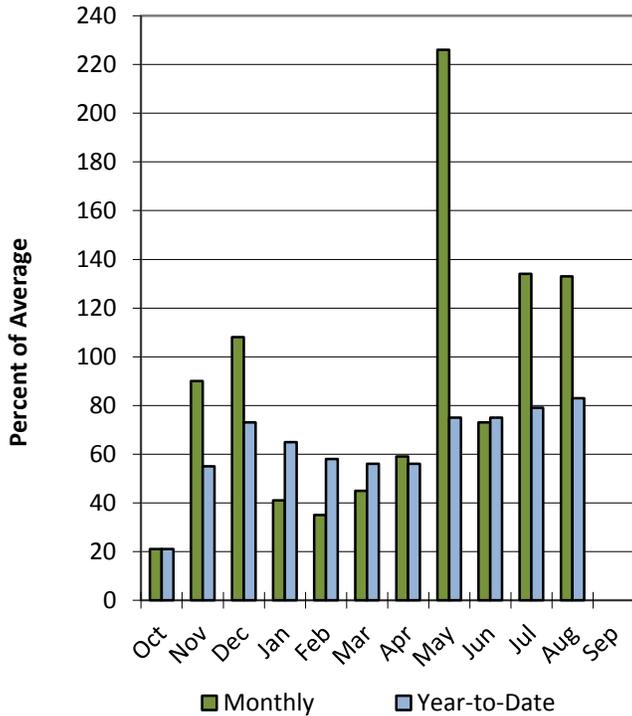


Duchesne River Basin

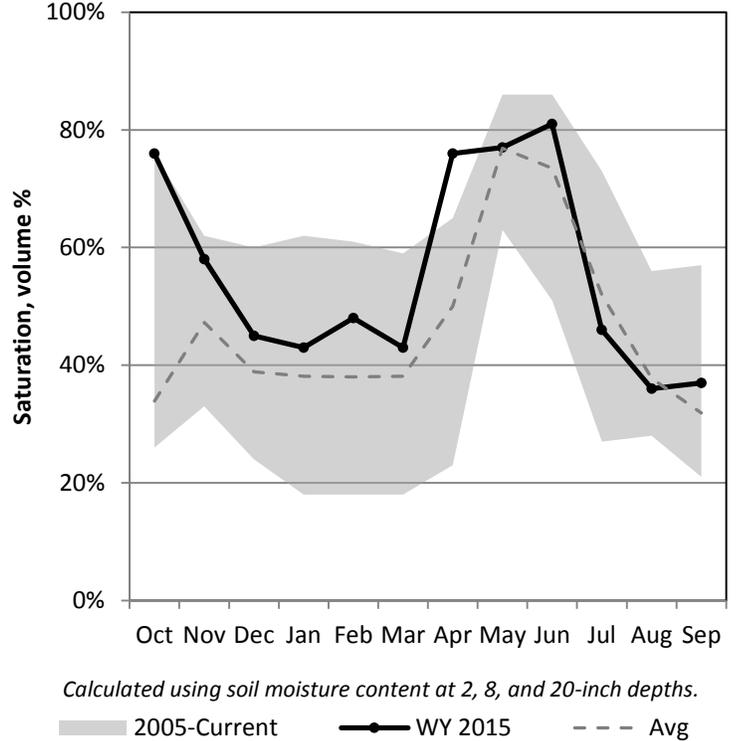
9/1/2015

Precipitation in August was much above average at 133%, which brings the seasonal accumulation (Oct-Aug) to 83% of average. Soil moisture is at 37% compared to 57% last year. Reservoir storage is at 72% of capacity, compared to 71% last year. The water availability index for the Western Uintahs is 72% and 36% for the Eastern Uintahs.

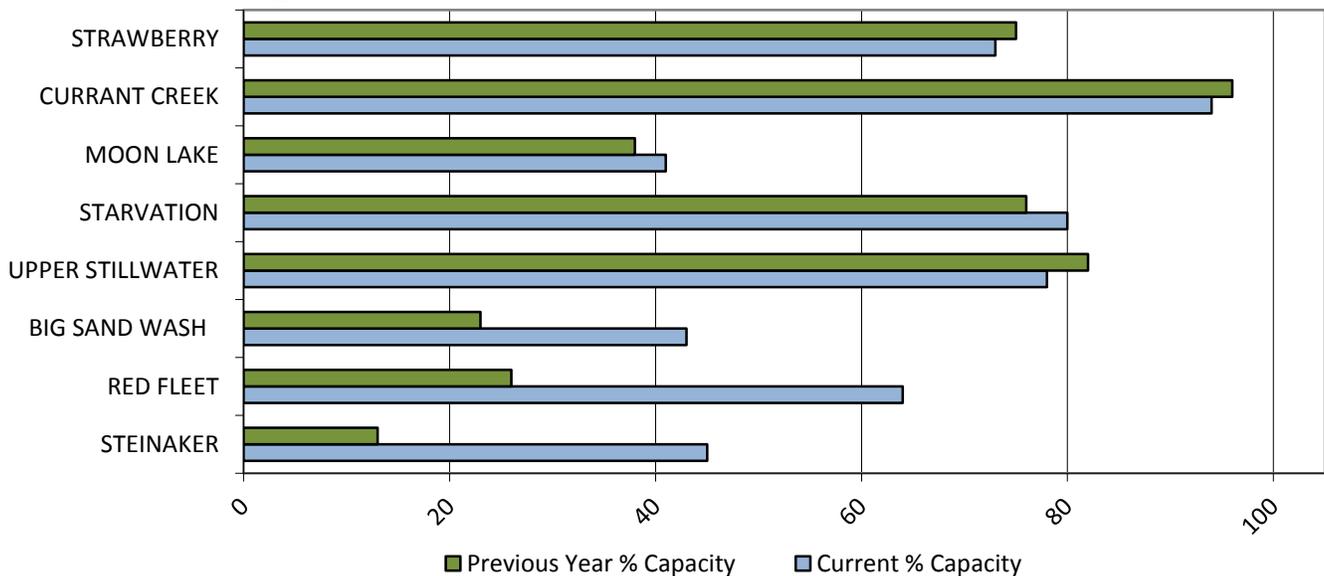
Precipitation



Soil Moisture



Reservoir Storage

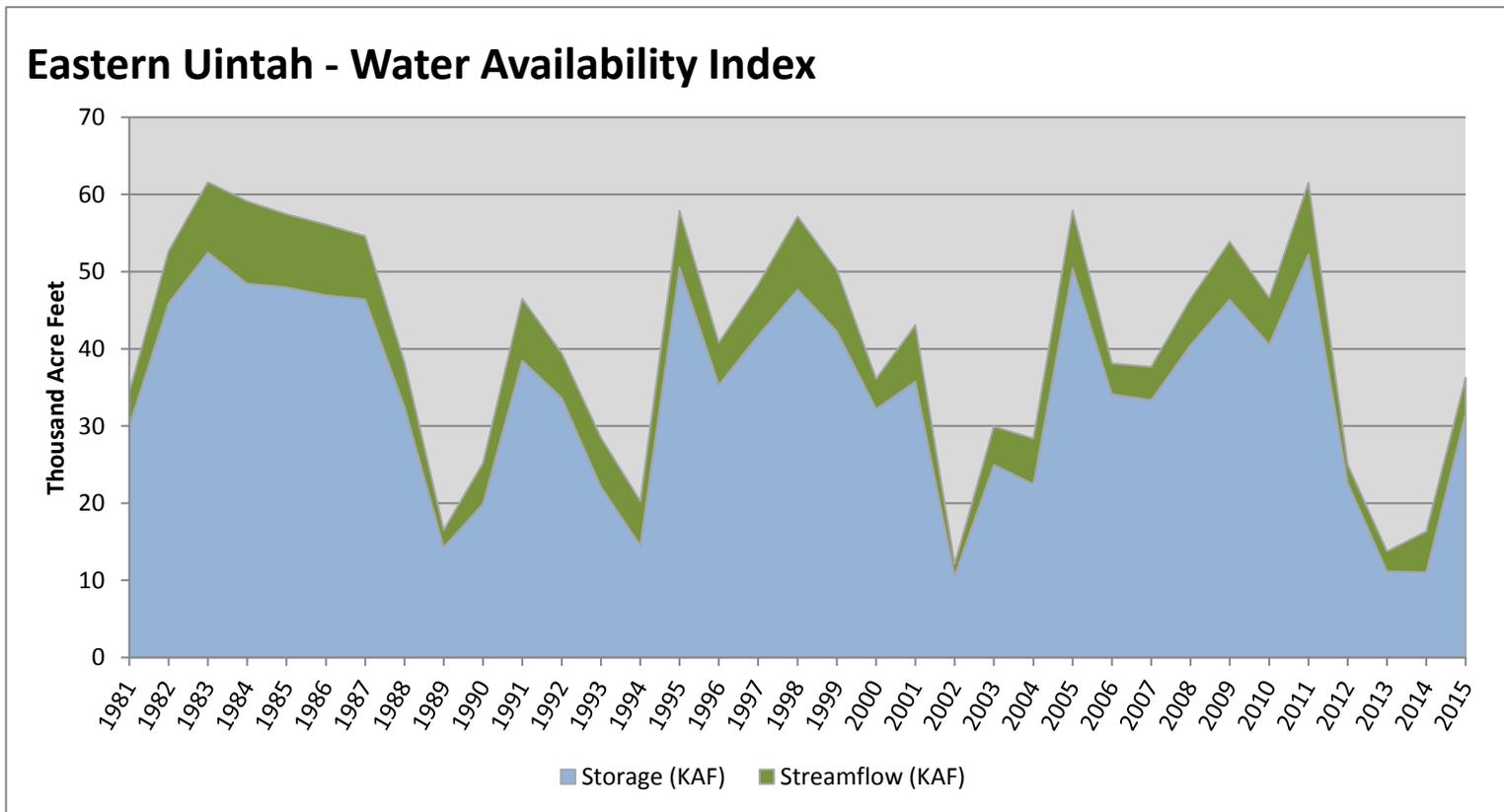


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Eastern Uintah	31.65	4.58	36.23	36	-1.16	81, 00, 07, 06

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

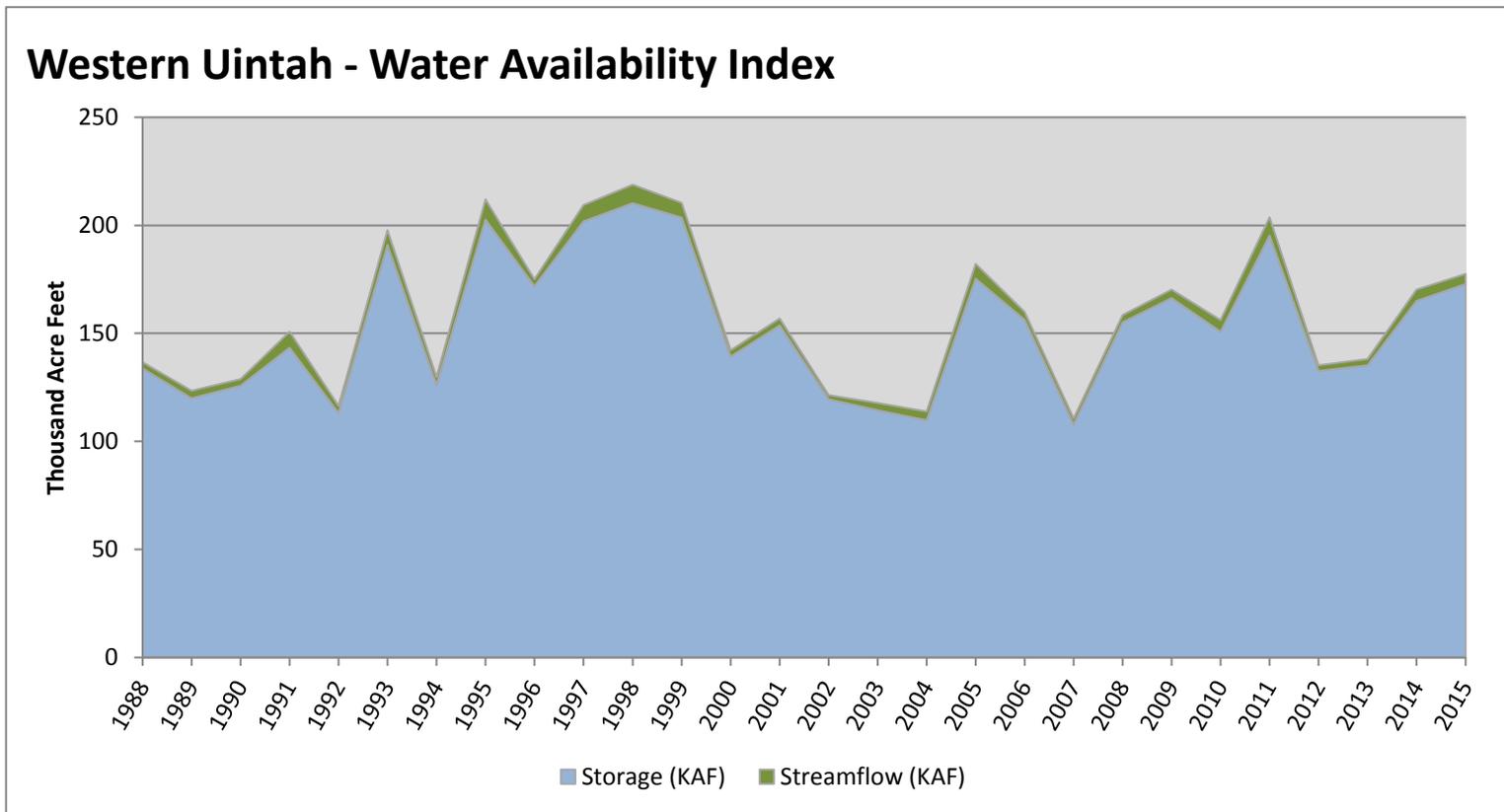


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Western Uintah	172.86	4.62	177.48	72	1.87	14, 96, 05, 93

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

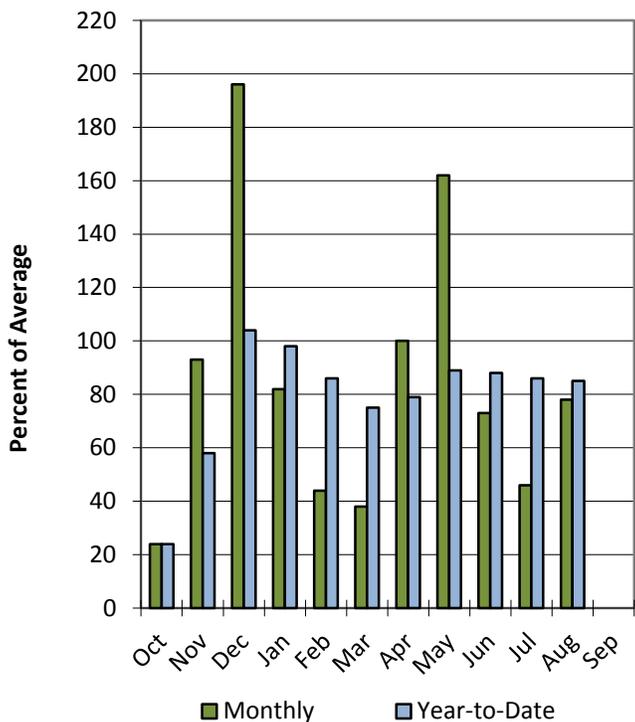


Lower Sevier River Basin

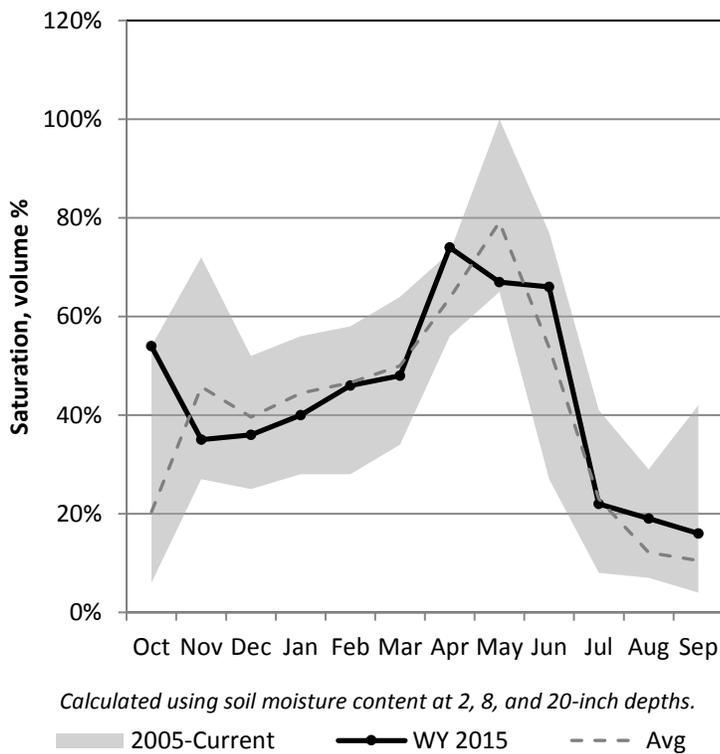
9/1/2015

Precipitation in August was below average at 78%, which brings the seasonal accumulation (Oct-Aug) to 85% of average. Soil moisture is at 16% compared to 31% last year. Reservoir storage is at 13% of capacity, compared to 24% last year. The water availability index for the Lower Sevier is 14%.

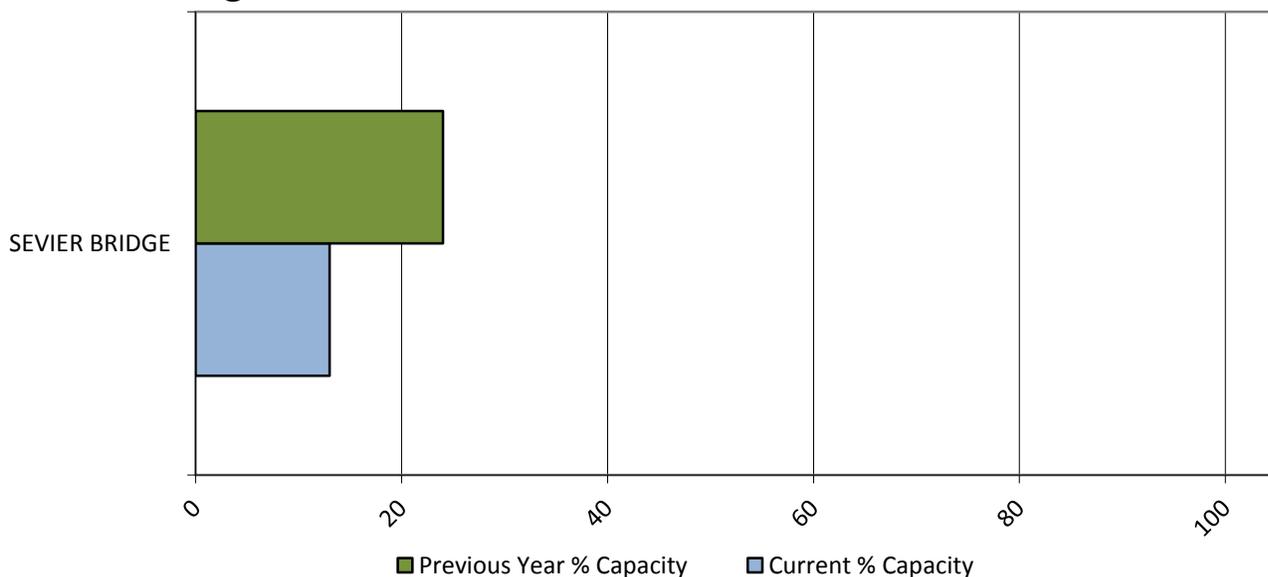
Precipitation



Soil Moisture



Reservoir Storage

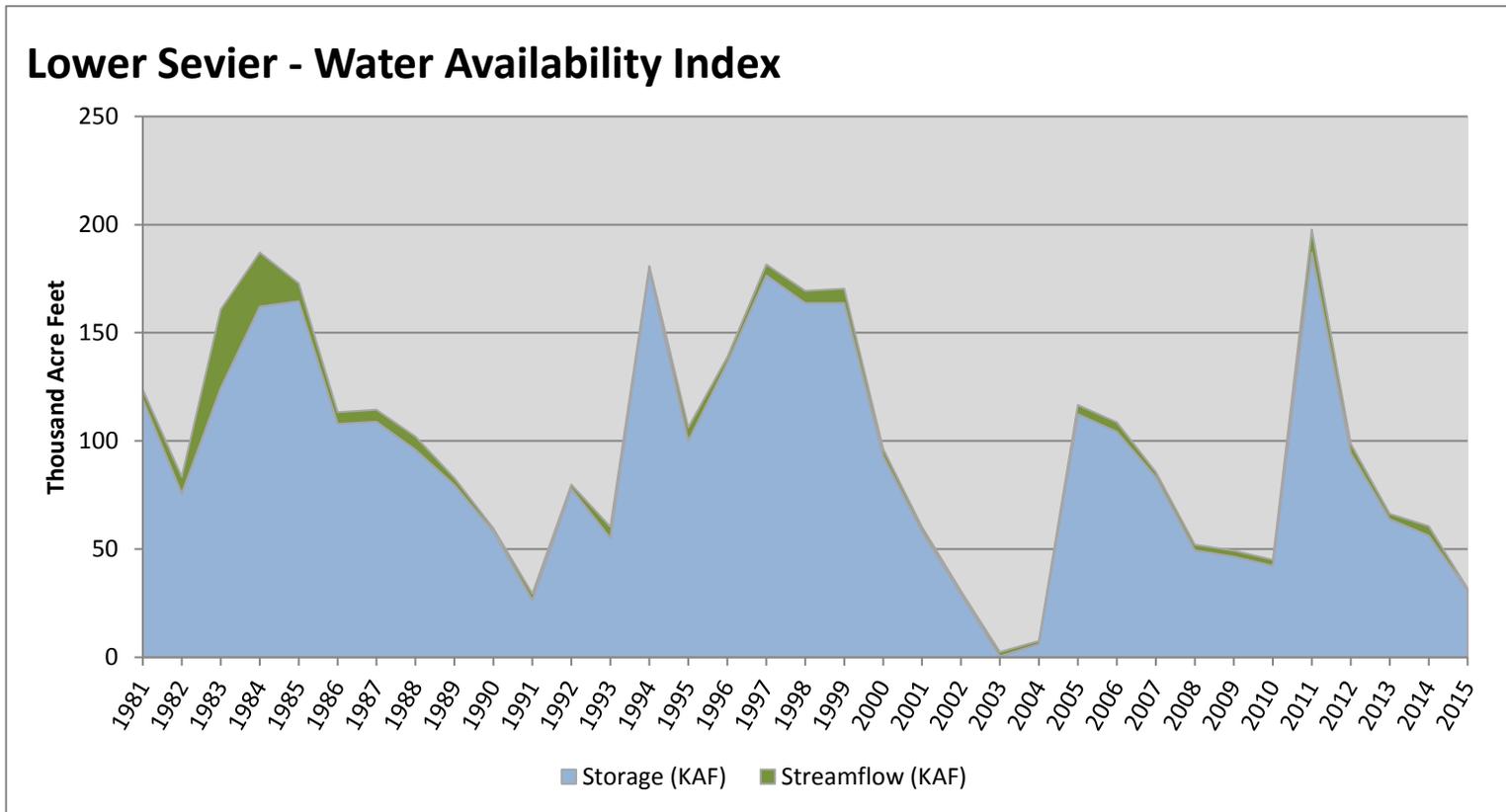


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Lower Sevier	31.02	0.83	31.85	14	-3.01	91, 02, 10, 09

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

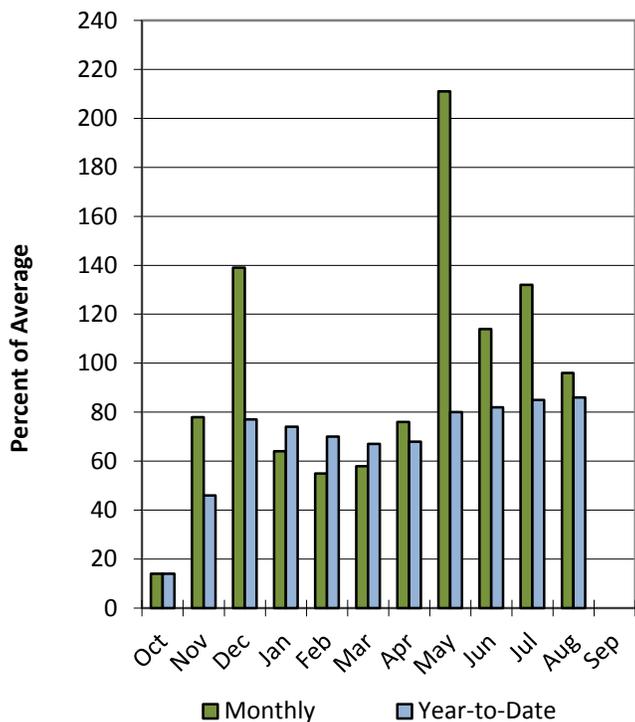


Upper Sevier River Basin

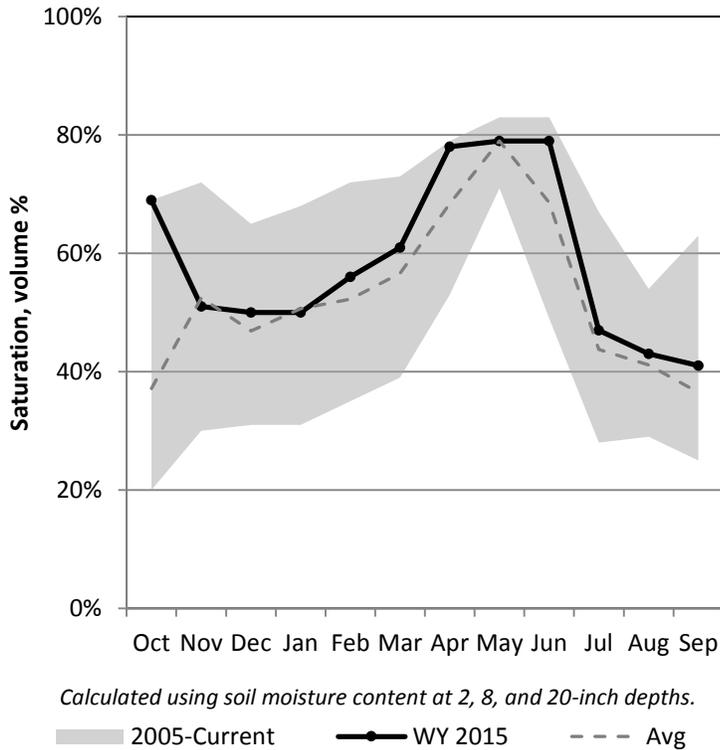
9/1/2015

Precipitation in August was near average at 96%, which brings the seasonal accumulation (Oct-Aug) to 86% of average. Soil moisture is at 41% compared to 48% last year. Reservoir storage is at 22% of capacity, compared to 31% last year. The water availability index for the Upper Sevier is 25%.

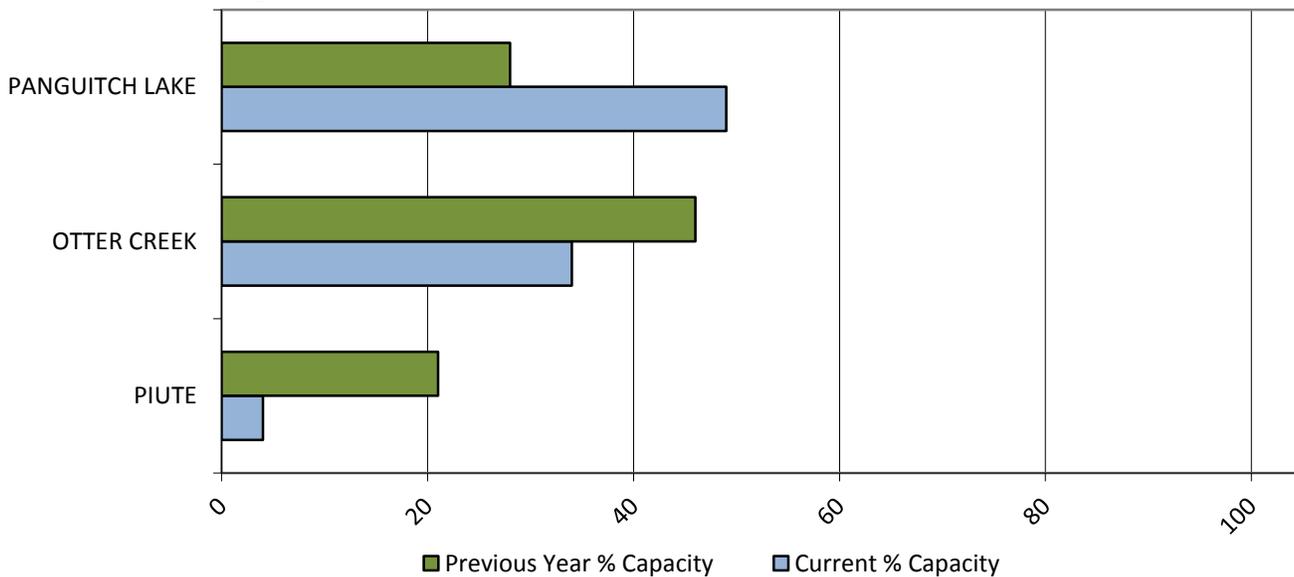
Precipitation



Soil Moisture



Reservoir Storage

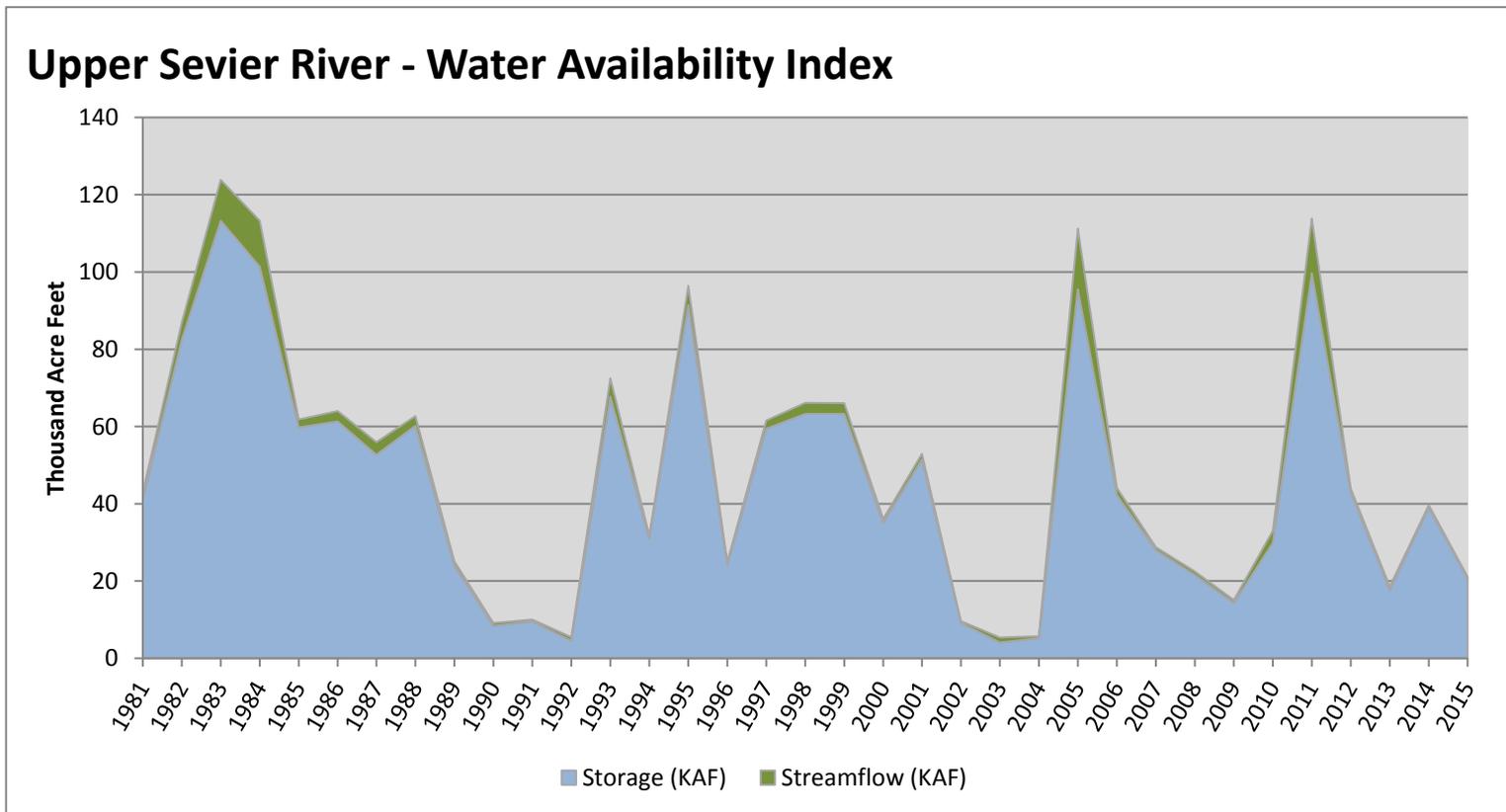


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Upper Sevier River	20.58	0.53	21.11	25	-2.08	09, 13, 08, 96

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

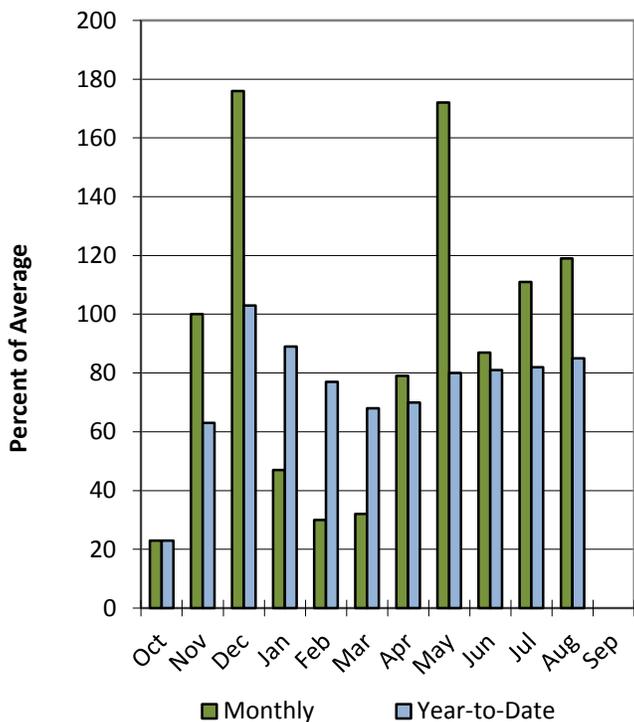


San Pitch River Basin

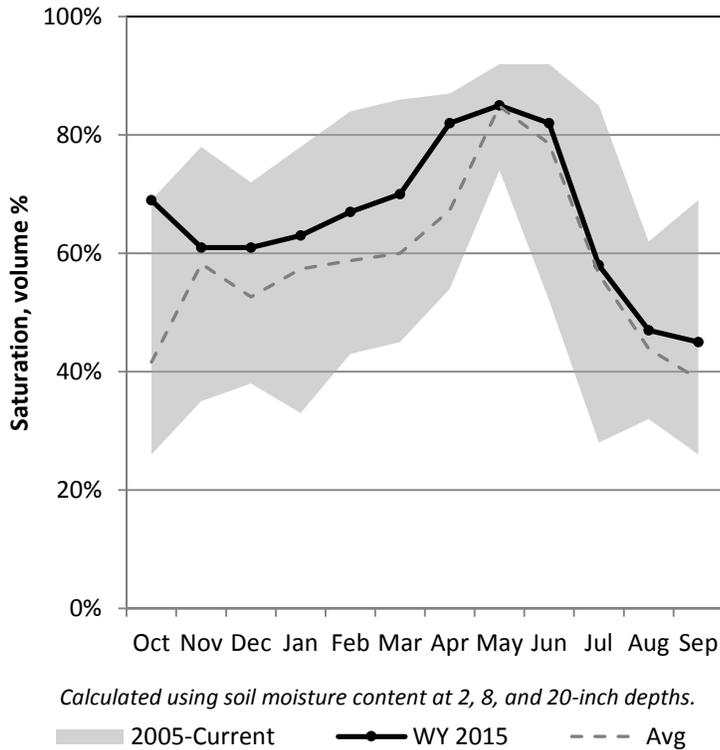
9/1/2015

Precipitation in August was above average at 119%, which brings the seasonal accumulation (Oct-Aug) to 85% of average. Soil Moisture is at 45% compared to 49% last year. Reservoir storage is at 0% of capacity, compared to 0% last year. The water availability index for the San Pitch is 17%.

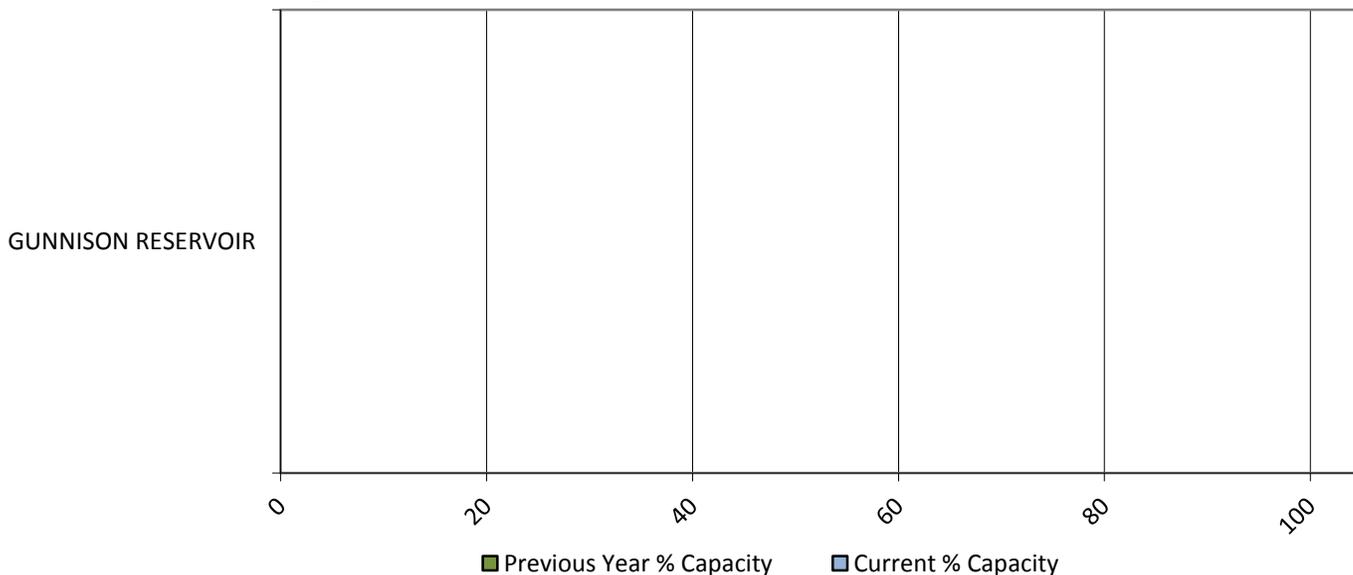
Precipitation



Soil Moisture



Reservoir Storage

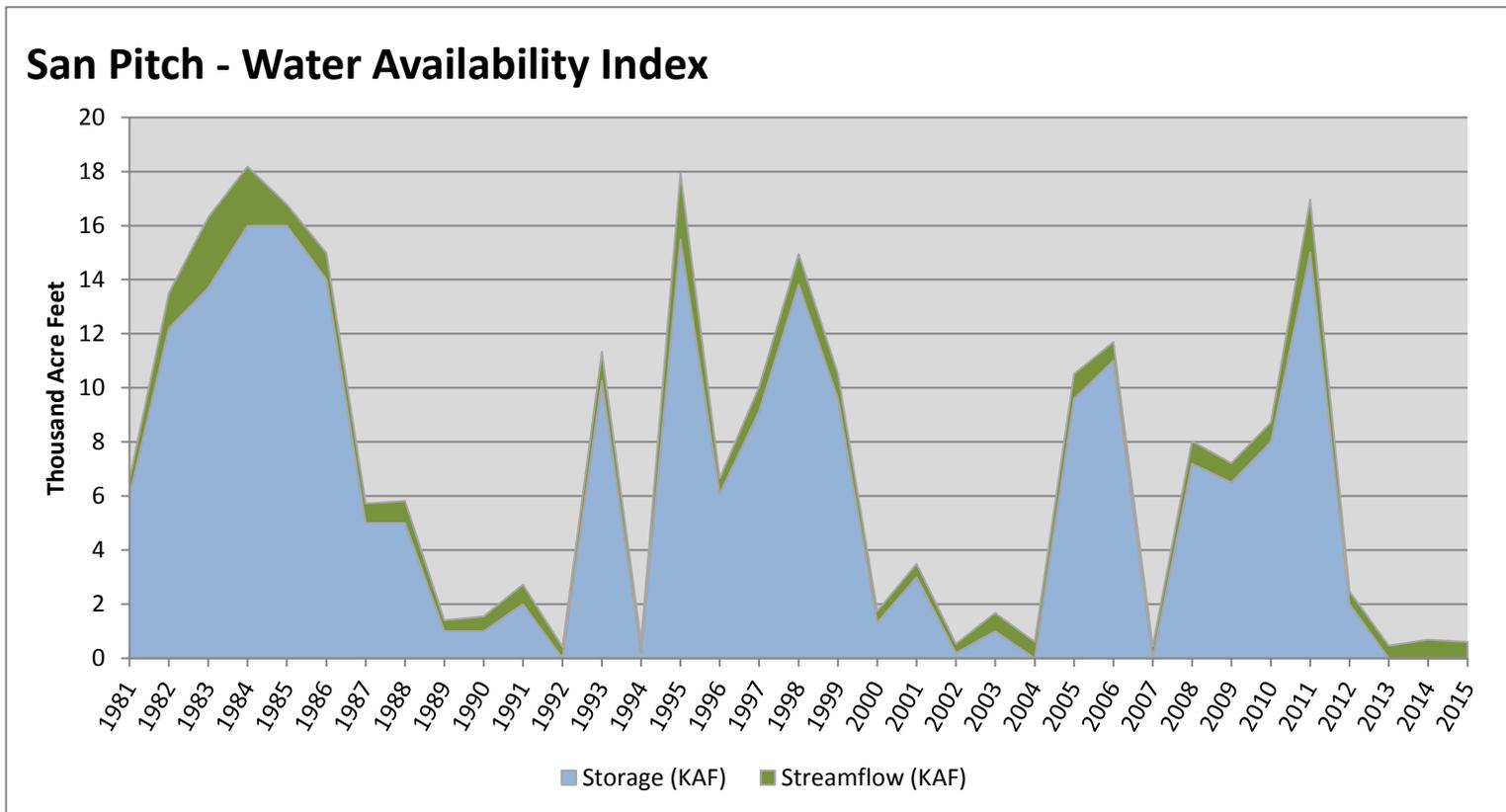


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
San Pitch	0.00	0.60	0.60	17	-2.78	02, 04, 94, 14

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

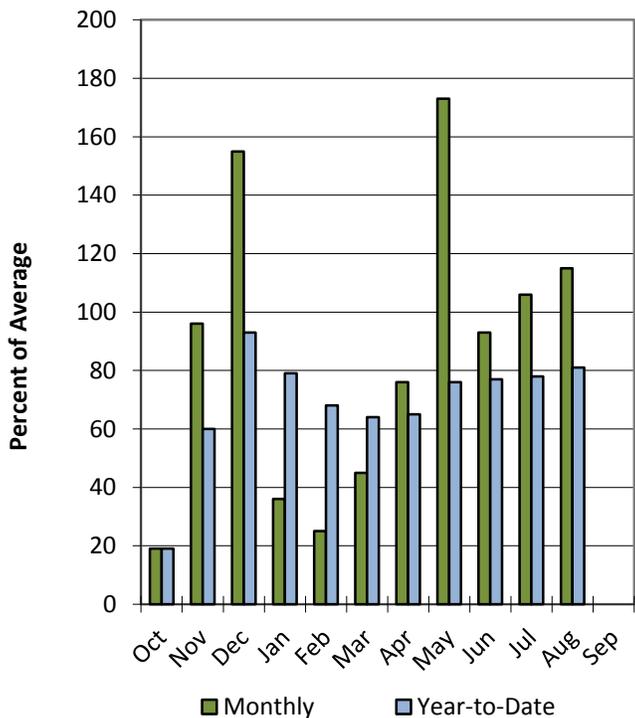


Price & San Rafael Basins

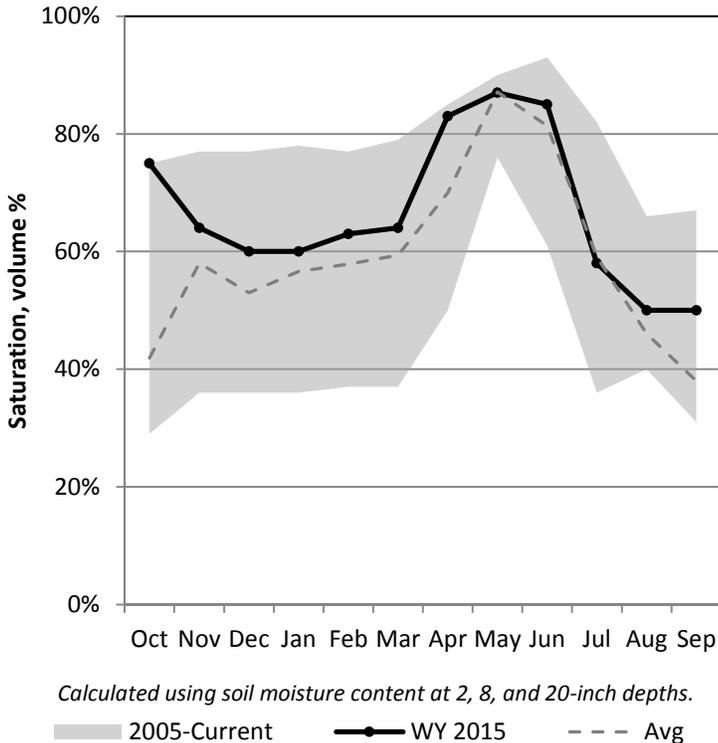
9/1/2015

Precipitation in August was above average at 115%, which brings the seasonal accumulation (Oct-Aug) to 81% of average. Soil moisture is at 50% compared to 55% last year. Reservoir storage is at 45% of capacity, compared to 50% last year. The water availability index for the Price River is 14%, and 33% for Joe's Valley.

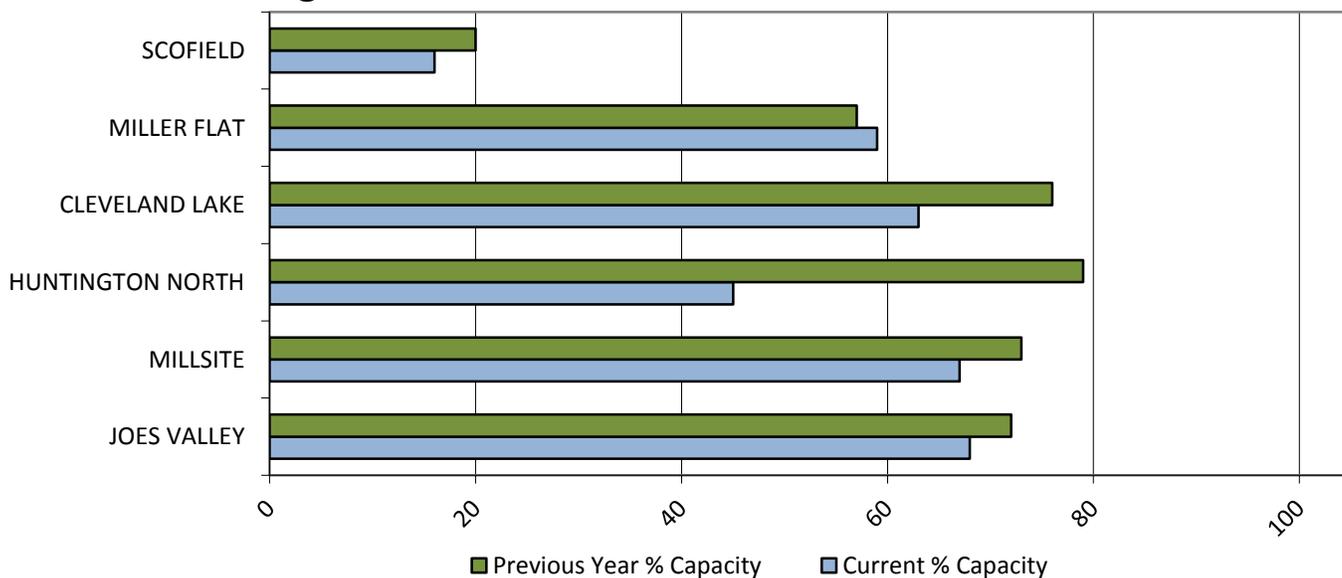
Precipitation



Soil Moisture



Reservoir Storage

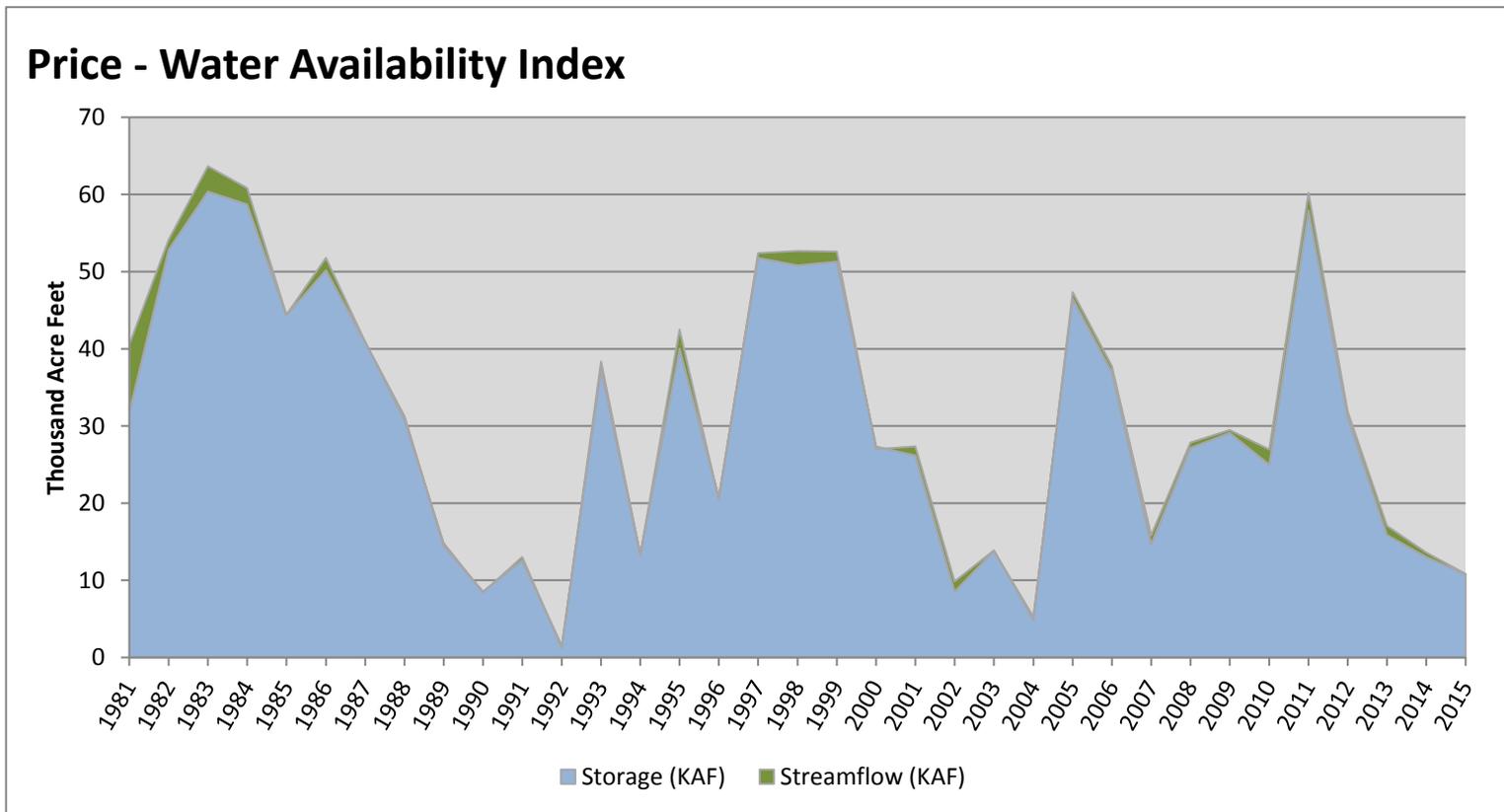


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Price	10.74	0.09	10.83	14	-3.01	90, 02, 91, 94

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

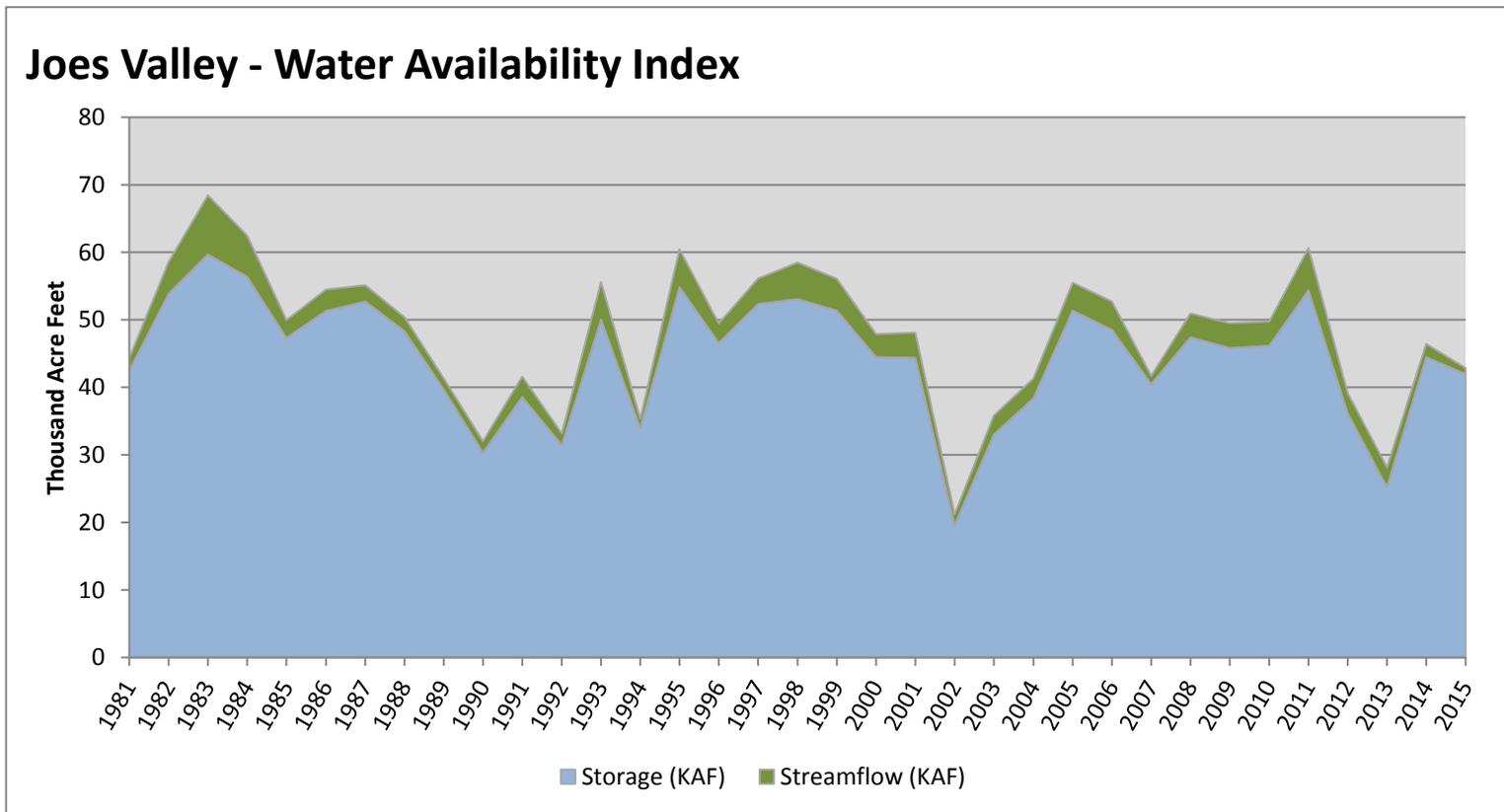


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Joese Valley	41.99	0.86	42.85	33	-1.39	91, 07, 81, 14

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

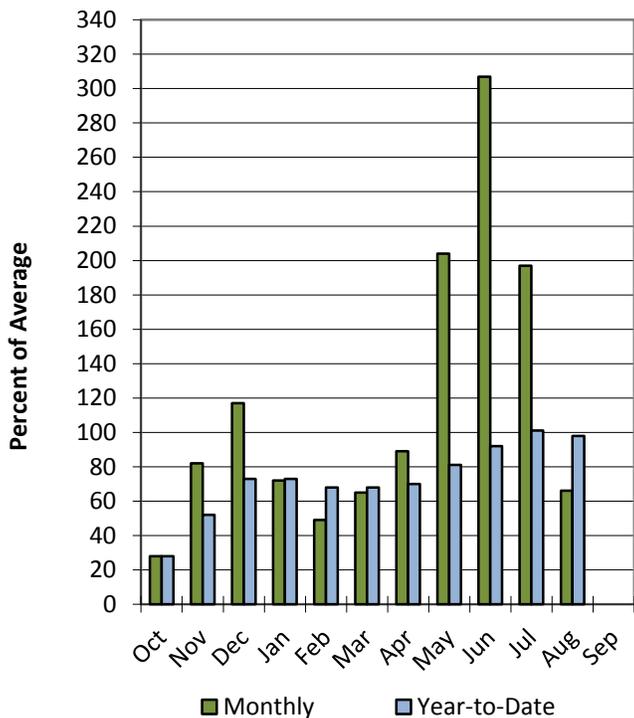


Southeastern Utah Basin

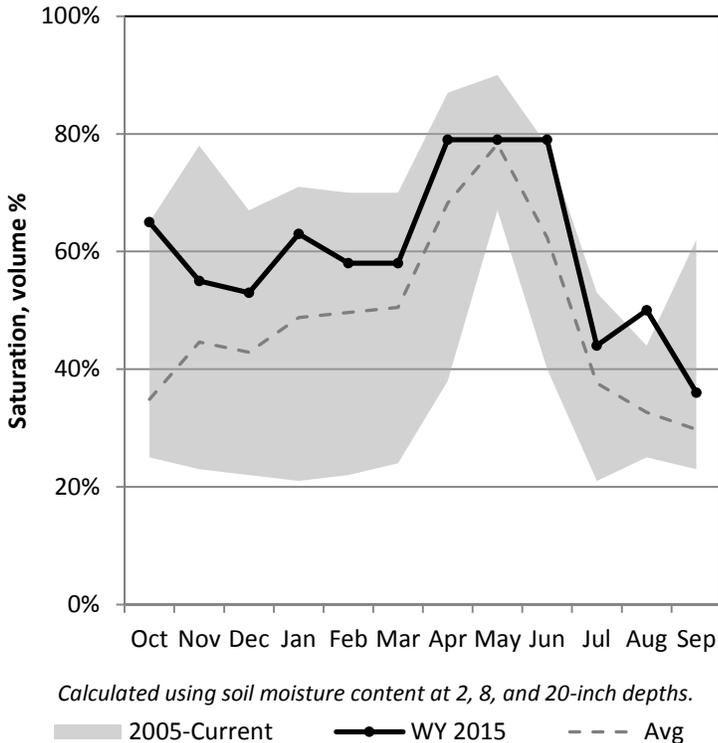
9/1/2015

Precipitation in August was much below average at 66%, which brings the seasonal accumulation (Oct-Aug) to 98% of average. Soil moisture is at 36% compared to 48% last year. Reservoir storage is at 59% of capacity, compared to 54% last year. The water availability index for Moab is 69%.

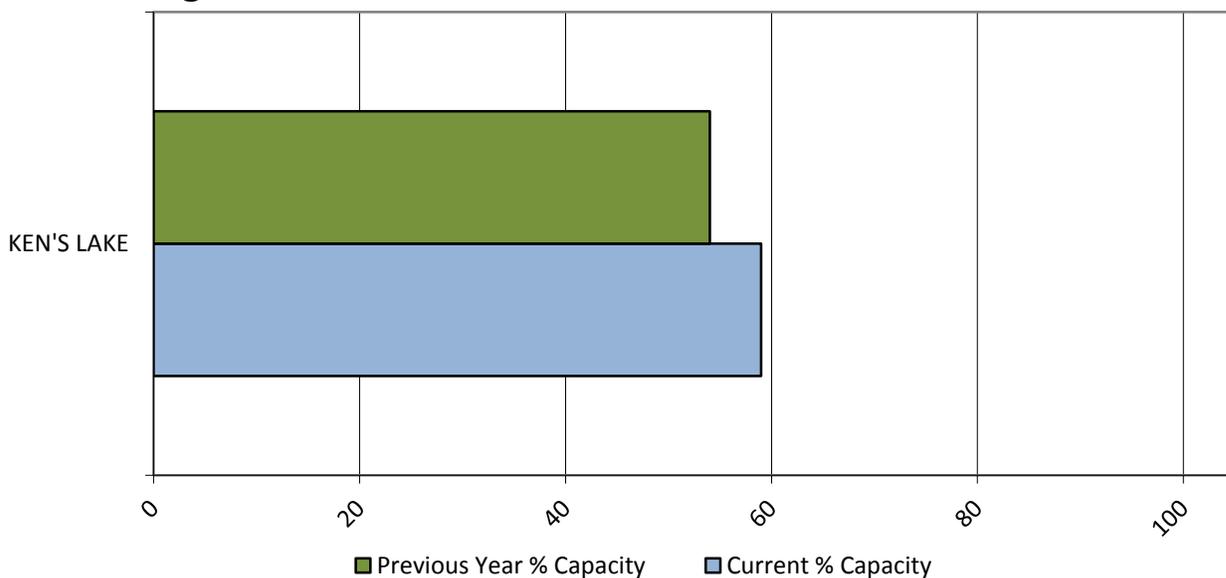
Precipitation



Soil Moisture



Reservoir Storage

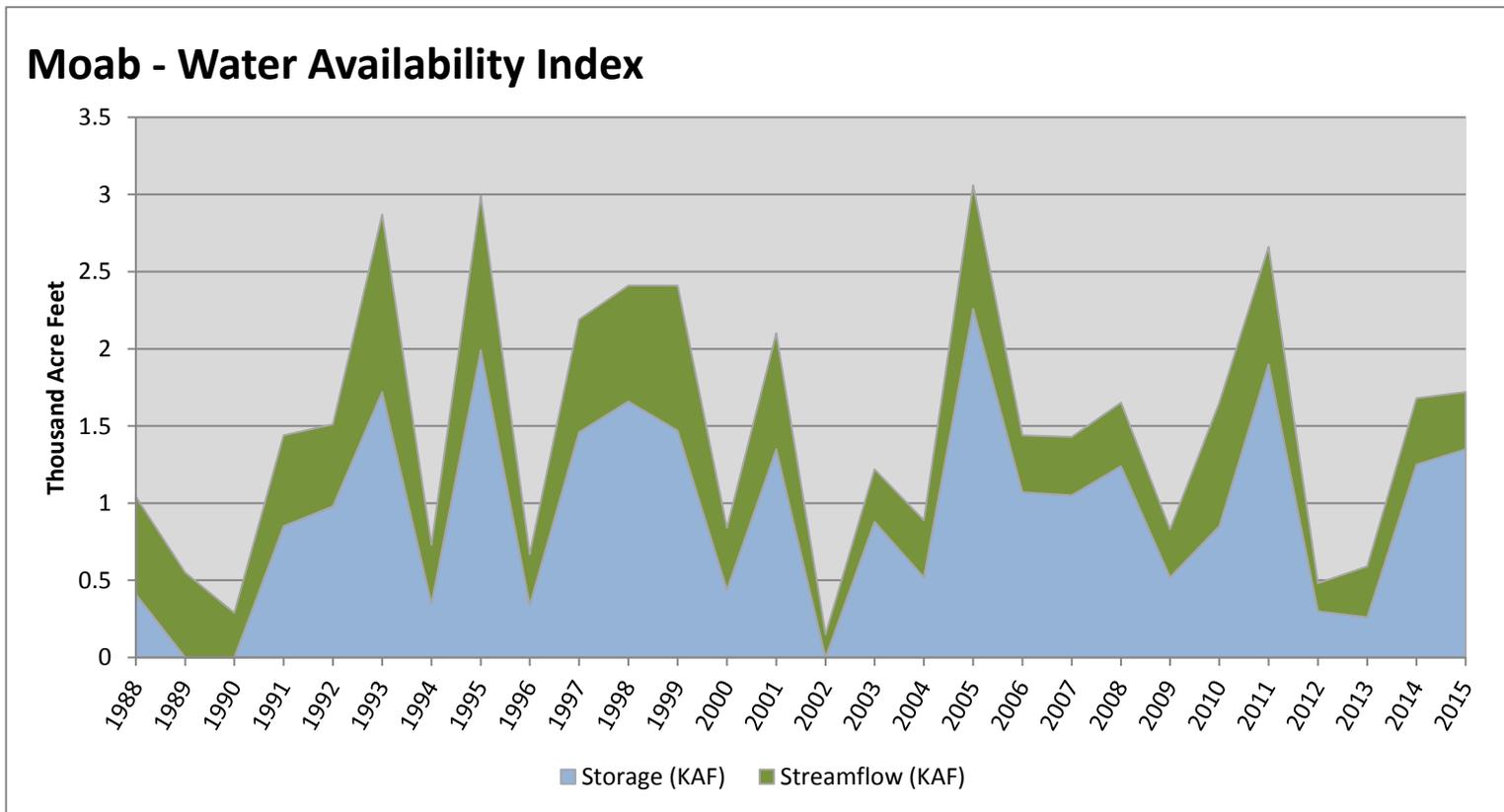


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Moab	1.35	0.37	1.72	69	1.58	10, 14, 01, 97

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

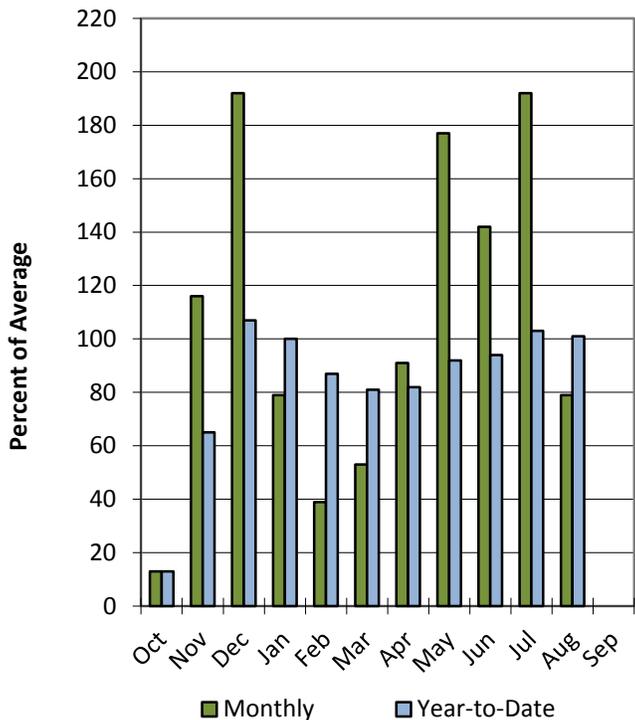


Dirty Devil Basin

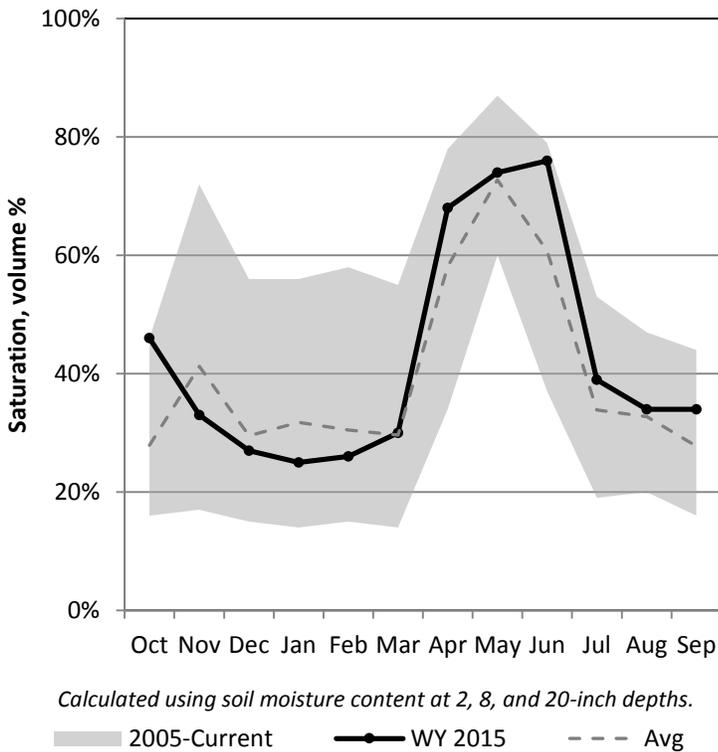
9/1/2015

Precipitation in August was below average at 79%, which brings the seasonal accumulation (Oct-Aug) to 101% of average. Soil moisture is at 34% compared to 34% last year.

Precipitation



Soil Moisture

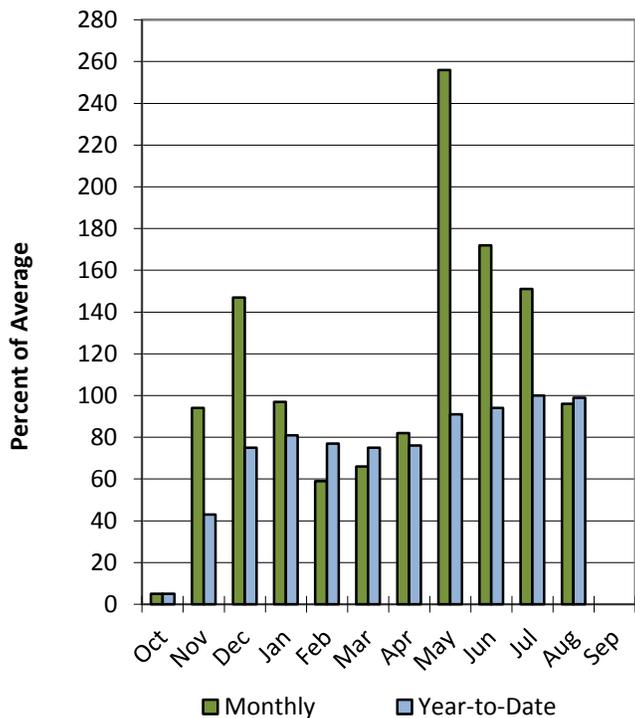


Escalante River Basin

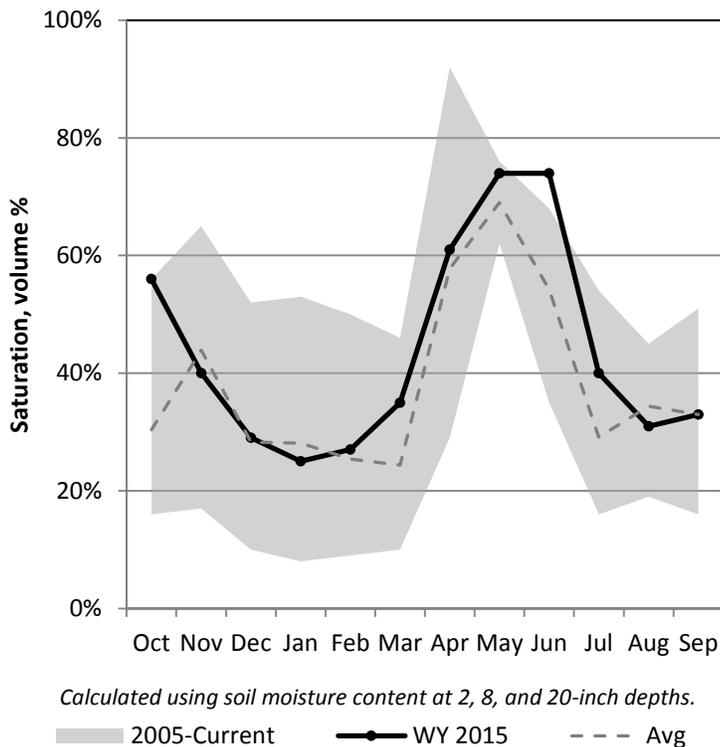
9/1/2015

Precipitation in August was near average at 96%, which brings the seasonal accumulation (Oct-Aug) to 99% of average. Soil moisture is at 33% compared to 35% last year.

Precipitation



Soil Moisture

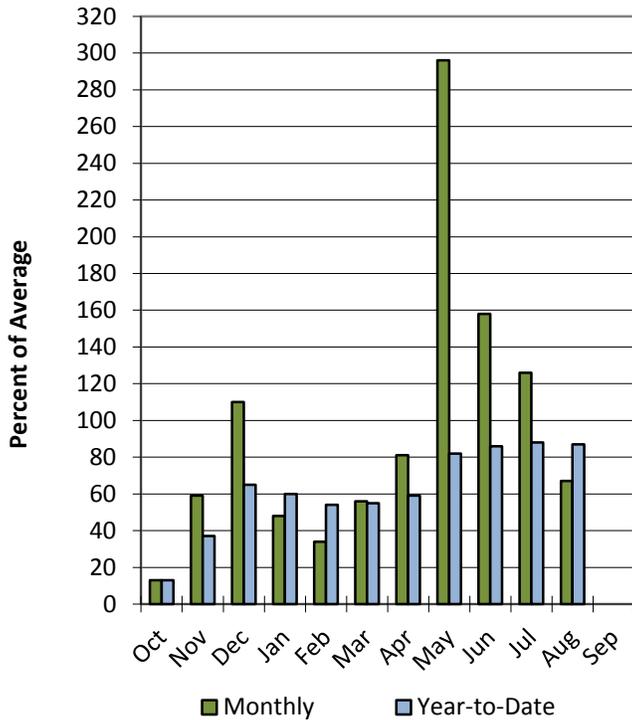


Beaver River Basin

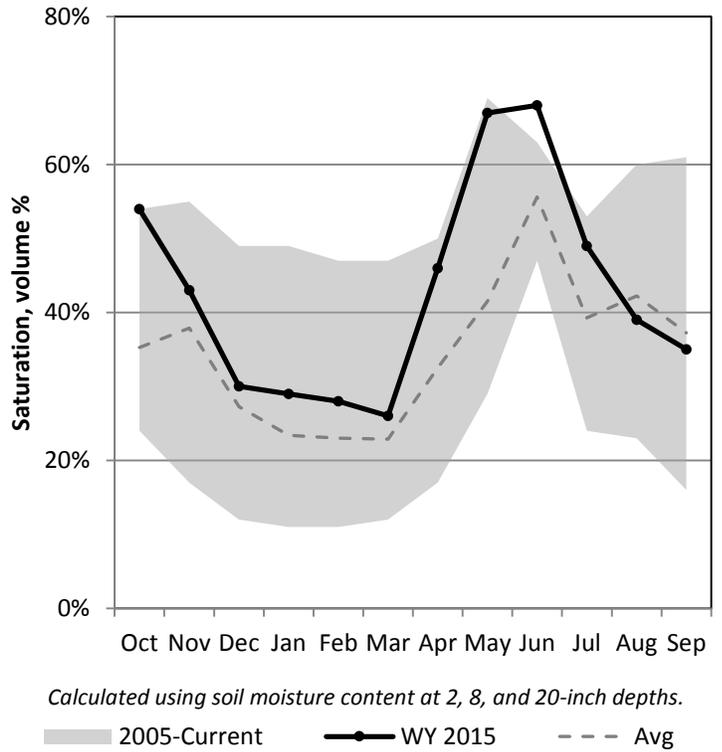
9/1/2015

Precipitation in August was much below average at 67%, which brings the seasonal accumulation (Oct-Aug) to 87% of average. Soil moisture is at 35% compared to 35% last year. Reservoir storage is at 16% of capacity, compared to 17% last year. The water availability index for the Beaver River is 44%.

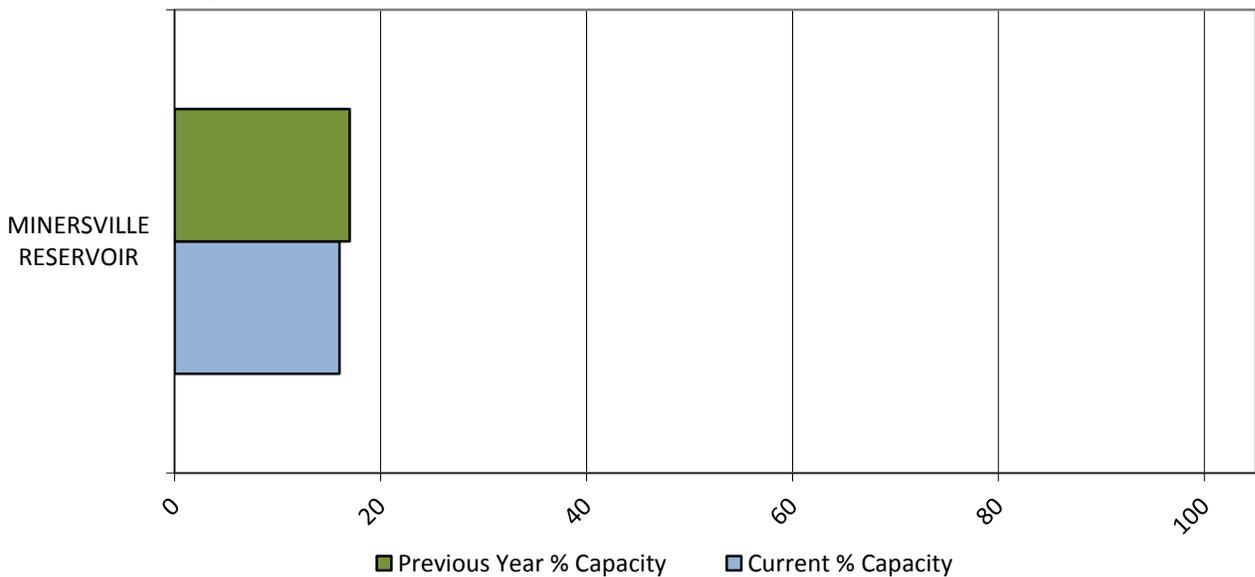
Precipitation



Soil Moisture



Reservoir Storage

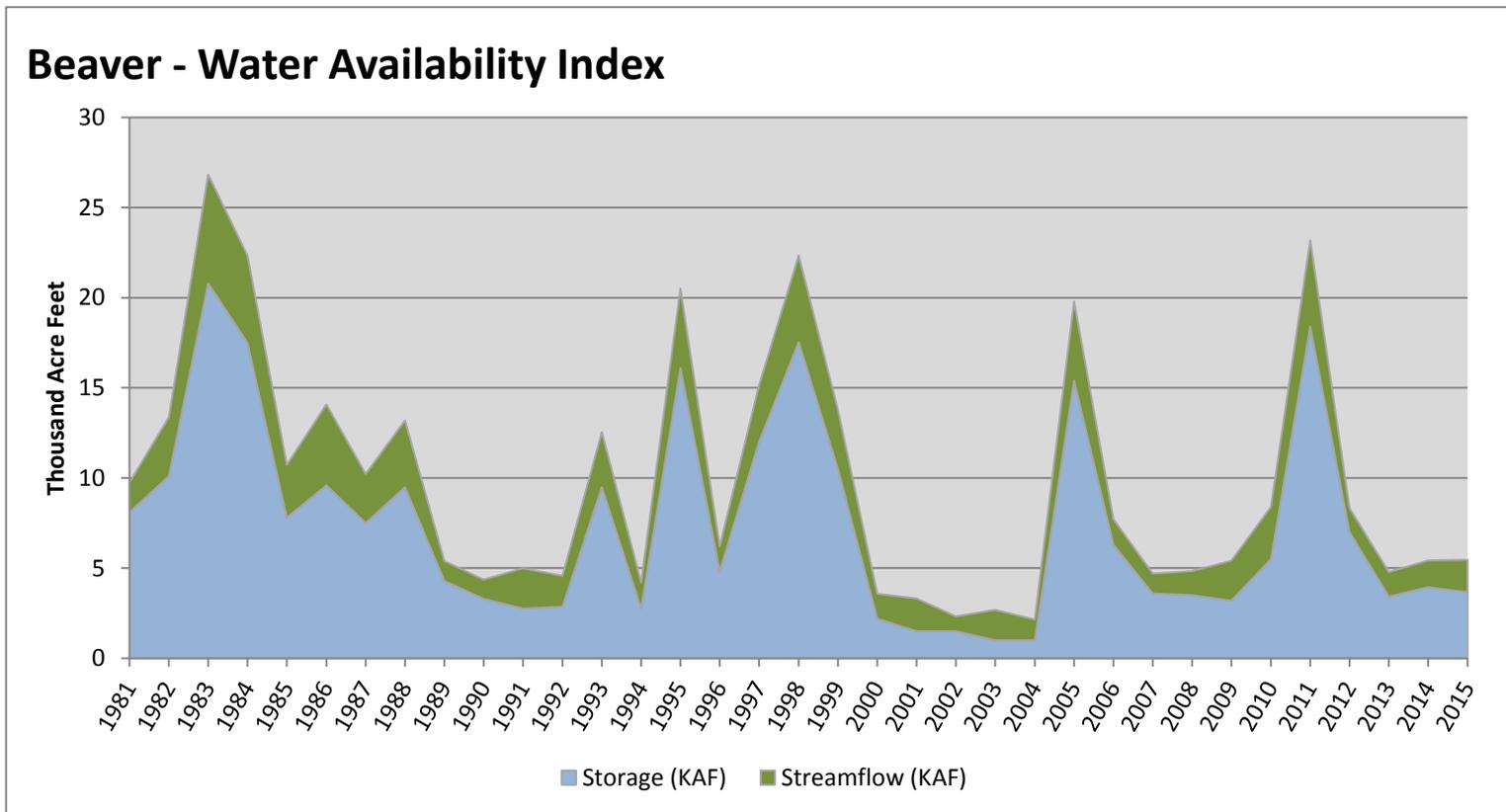


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Beaver	3.66	1.80	5.46	44	-0.46	09, 14, 96, 06

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

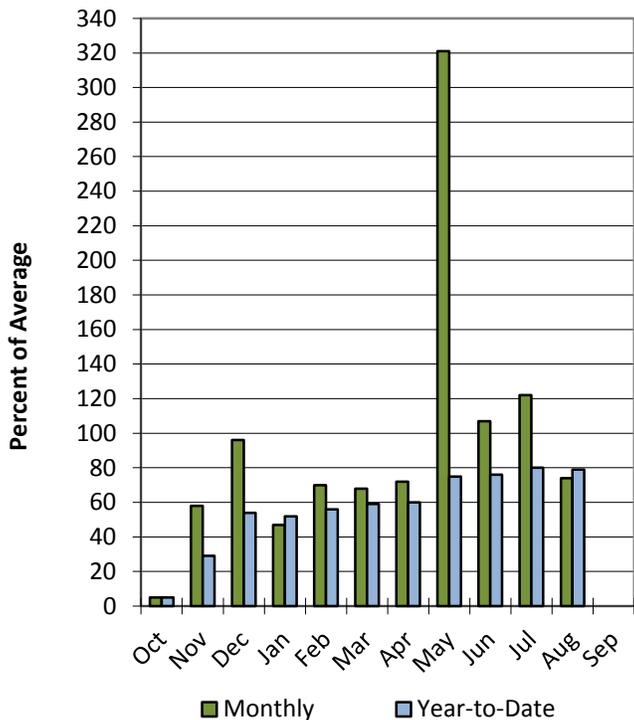


Southwestern Utah Basin

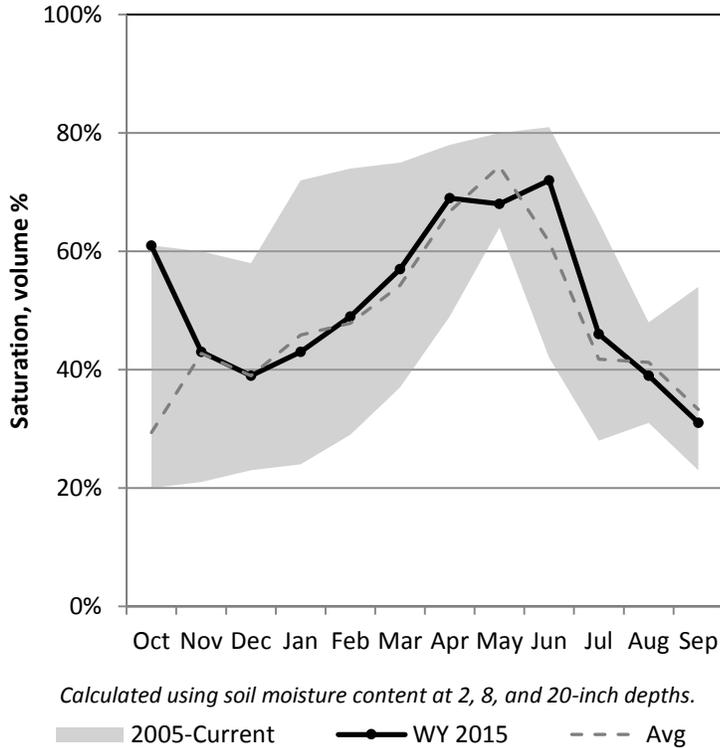
9/1/2015

Precipitation in August was below average at 74%, which brings the seasonal accumulation (Oct-Aug) to 79% of average. Soil moisture is at 31% compared to 38% last year. Reservoir storage is at 52% of capacity, compared to 51% last year. The water availability index for the Virgin River is 53%.

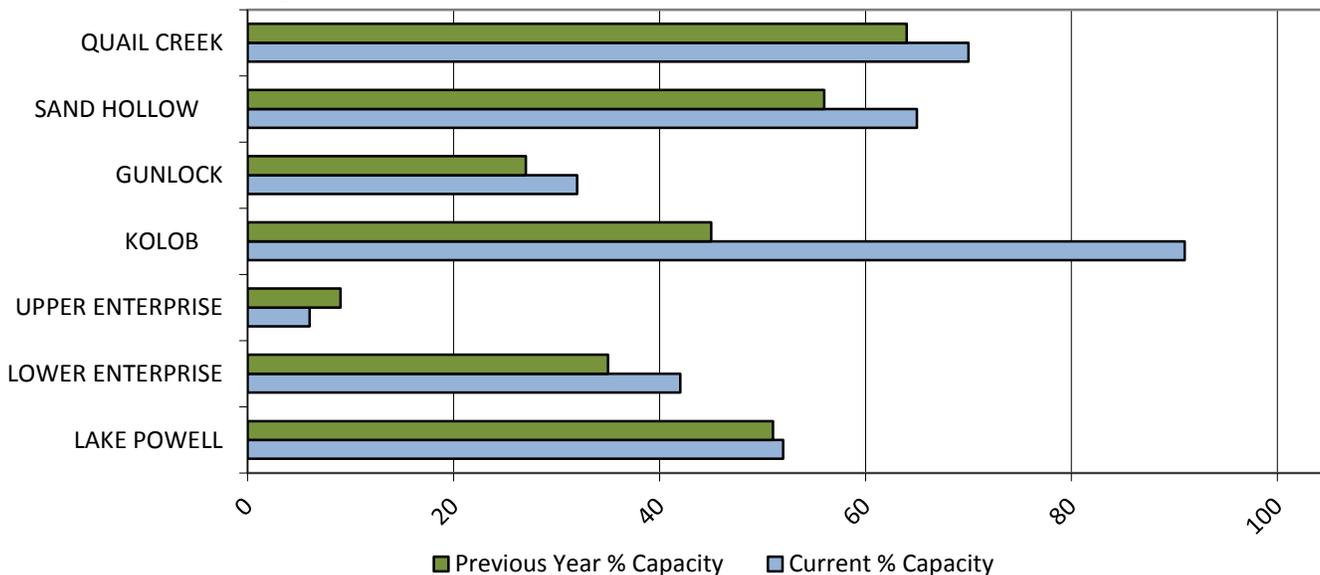
Precipitation



Soil Moisture



Reservoir Storage

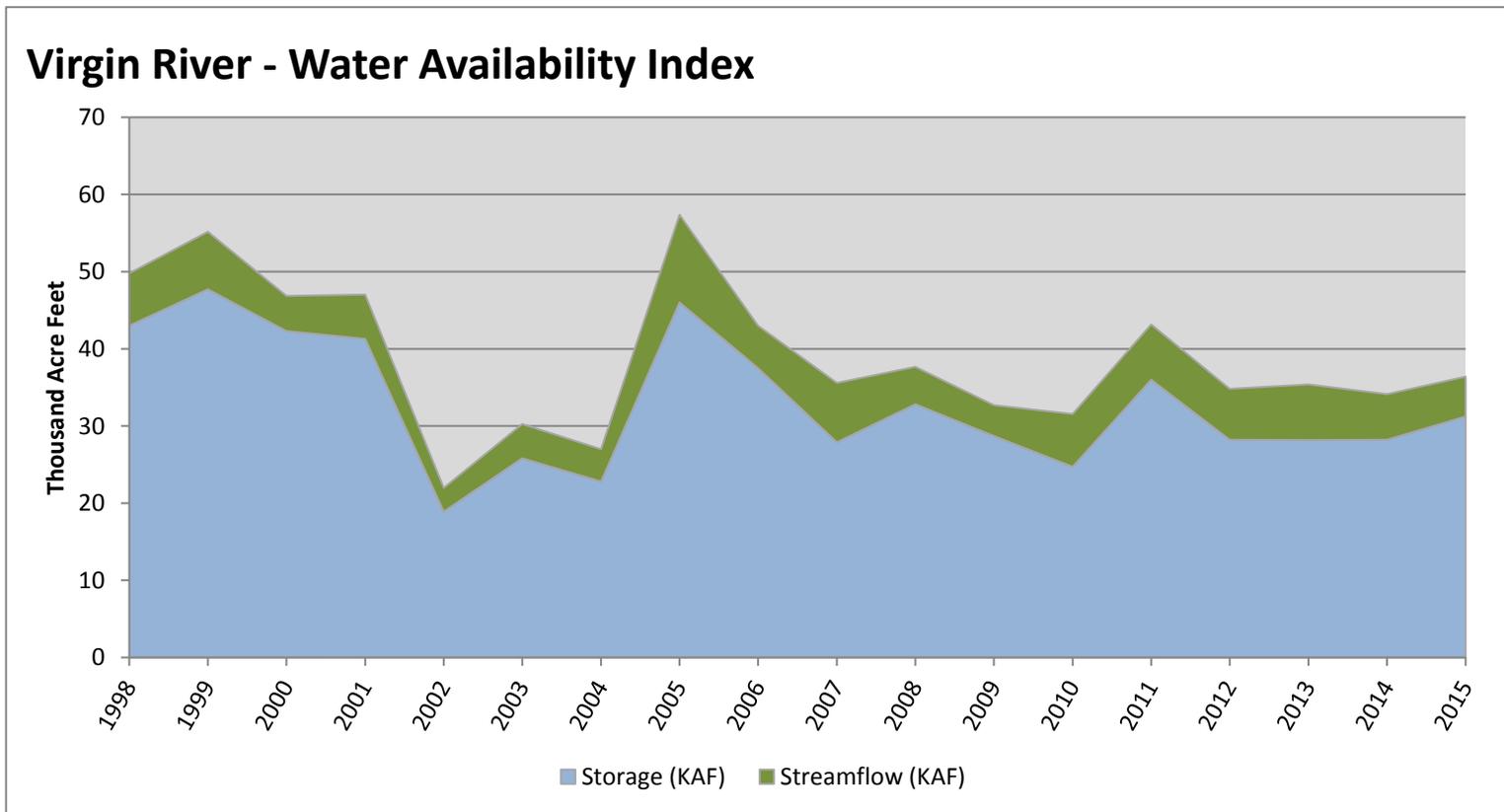


September 1, 2015

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Virgin River	31.24	5.15	36.39	53	0.22	13, 07, 08, 06

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



September 1, 2015

Water Availability Index

Basin or Region	Aug EOM* Storage	August Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Bear River	519	7.5	527	47	-0.2	95, 01, 14, 13
Woodruff Narrows	36.8	4.8	41.6	64	1.2	05, 96, 06, 08
Little Bear	3.9	1.0	4.9	50	0.0	08, 00, 10, 95
Ogden	62.9	1.8	64.7	47	-0.2	94, 89, 08, 14
Weber	99.4	4.1	103.4	35	-1.3	03, 94, 14, 07
Provo River	319.7	3.9	323.6	33	-1.4	03, 12, 14, 08
Western Uintah	172.9	4.6	177.5	72	1.9	14, 96, 05, 93
Eastern Uintah	31.7	4.6	36.2	36	-1.2	81, 00, 07, 06
Blacks Fork	14.1	4.3	18.4	48	-0.1	90, 10, 85, 08
Price	10.7	0.1	10.8	14	-3.0	90, 02, 91, 94
Smiths Creek	7.3	1.4	8.7	53	0.3	06, 03, 97, 08
Joes Valley	42.0	0.9	42.9	33	-1.4	91, 07, 81, 14
Moab	1.4	0.4	1.7	69	1.6	10, 14, 01, 97
Upper Sevier River	20.6	0.5	21.1	25	-2.1	09, 13, 08, 96
San Pitch	0.0	0.6	0.6	17	-2.8	02, 04, 94, 14
Lower Sevier	31.0	0.8	31.9	14	-3.0	91, 02, 10, 09
Beaver	3.7	1.8	5.5	44	-0.5	09, 14, 96, 06
Virgin River	31.2	5.2	36.4	53	0.2	13, 07, 08, 06

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

What is a Water Availability Index?

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

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

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

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

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