

Utah Climate and Water Report

September 2014



Lakefork Basin from Porcupine Pass
August 2014. Photo by Beau Uriona

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

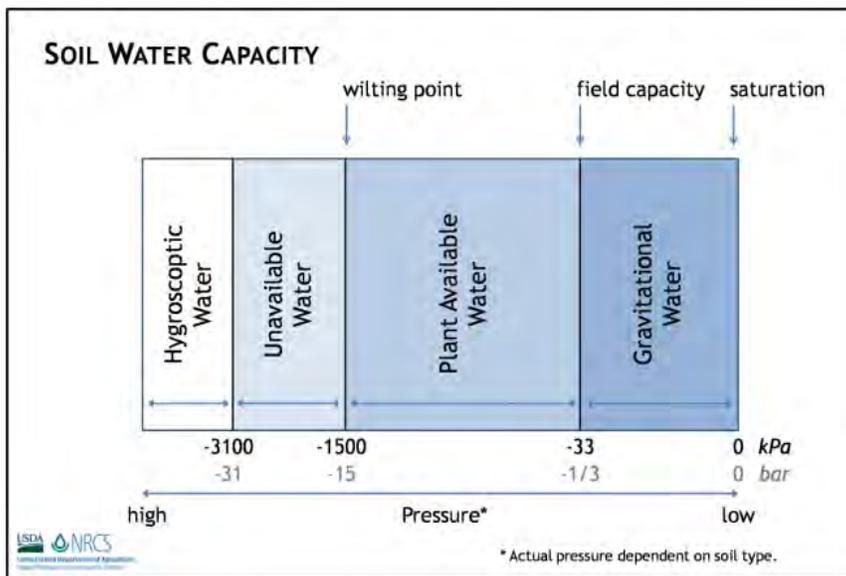
- a) SNOTEL Water Year to Date Precipitation
- b) Bear River Basin
 - Water Availability Index
- c) Weber and Ogden River Basins
 - Water Availability Index
- d) Utah Lake, Jordan River, and Tooele Valley Basins
 - Water Availability Index
- e) Uintah Basin
 - Water Availability Index
- f) Southeast River Basins
 - Water Availability Index
- g) Sevier and Beaver River Basins
 - Water Availability Index
- h) E. Garfield, Kane, Washington, and Iron Co.
 - Water Availability Index

Climate and Water Information

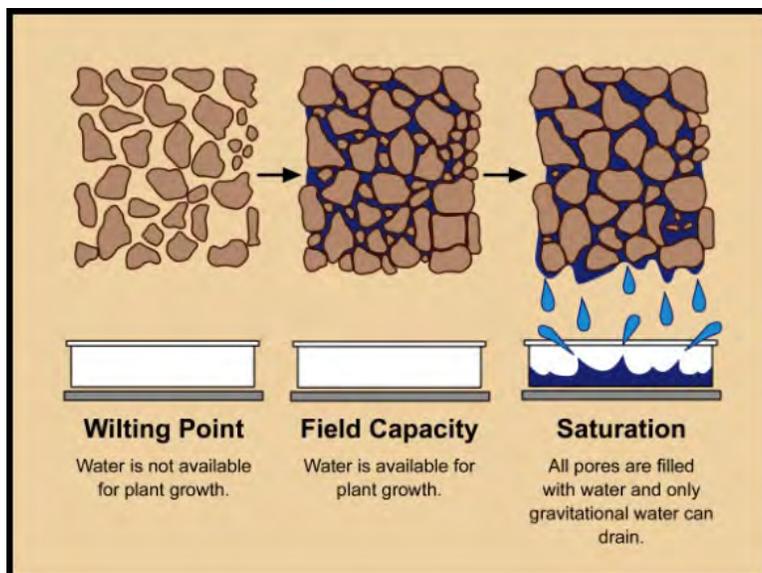
Soil Climate Analysis Network

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.



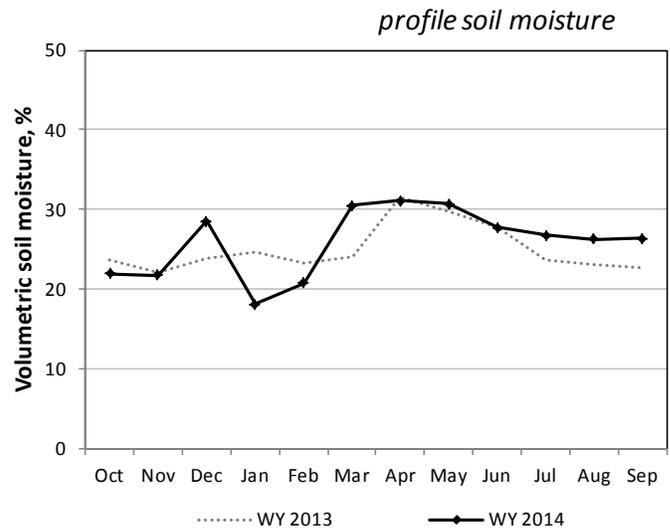
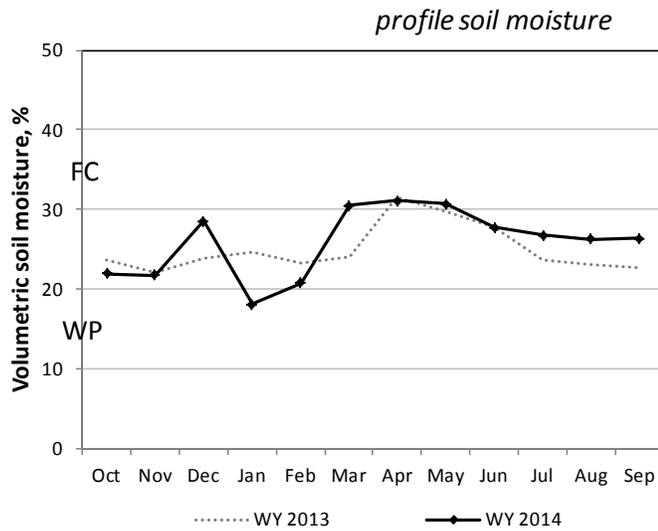
Visual explanation of soil water capacity definitions.

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	12.5	2.4	16	16	22	24	20	65	69	69	66	64
Cache Junction	16.5	2.2	25	27	31	29	36	63	66	65	64	62
Grantsville	10.3	2.2	8	19	27	29		68	71	74	70	69

* 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.



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.

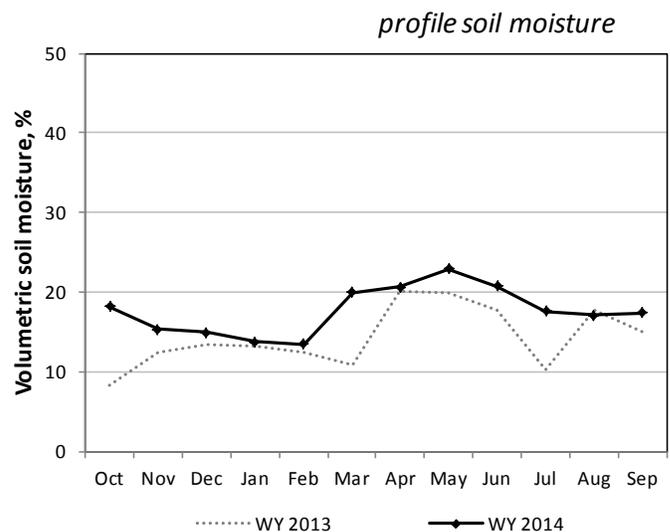
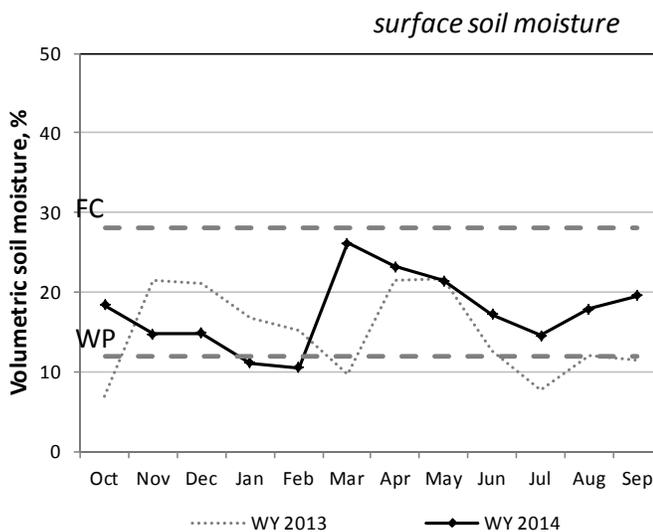
Northern Mountains

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	11.1	3.1	14	16	20	12	11	53	55	57	56	55
Buffalo Jump	10.4	2.3	15	20	16	8	-	57	60	60	59	-
Morgan	16.7	2.5	25	21	27	32	20	68	68	70	66	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.

Northern Mountains



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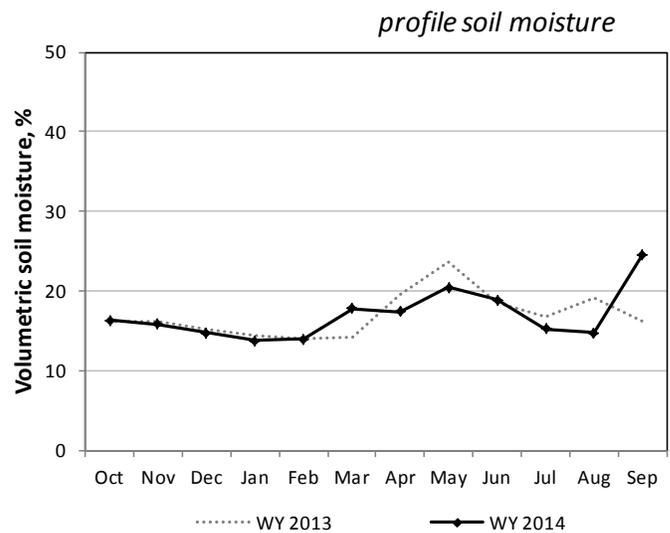
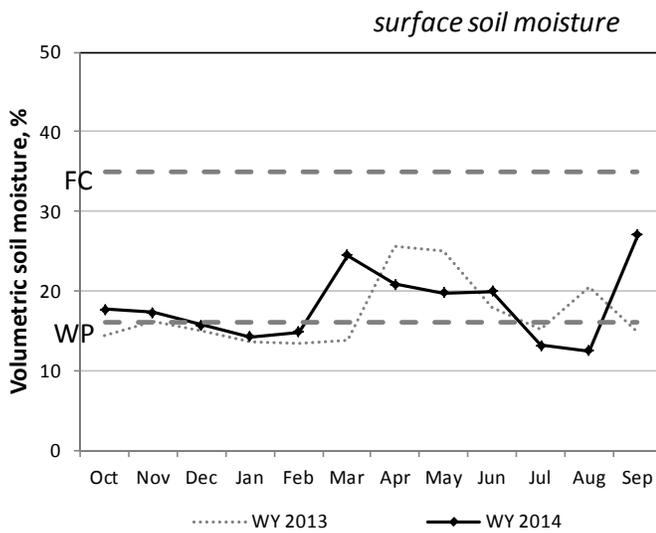
Uintah Basin

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	8.0	3.1	24	20	16	14	7	63	63	64	60	64
Little Red Fox	6.6	3.3	24	34	44	42	42	54	64	64	64	63
Split Mountain	8.1	2.8	16	31	28	22	13	64	68	71	70	69

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Uintah Basin



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.

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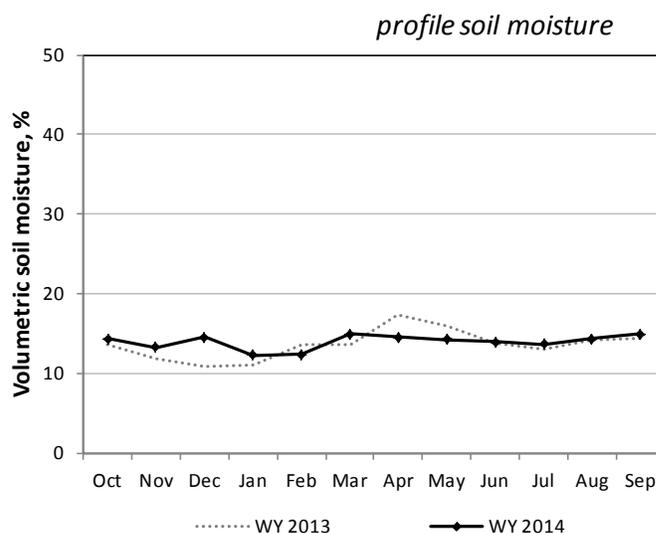
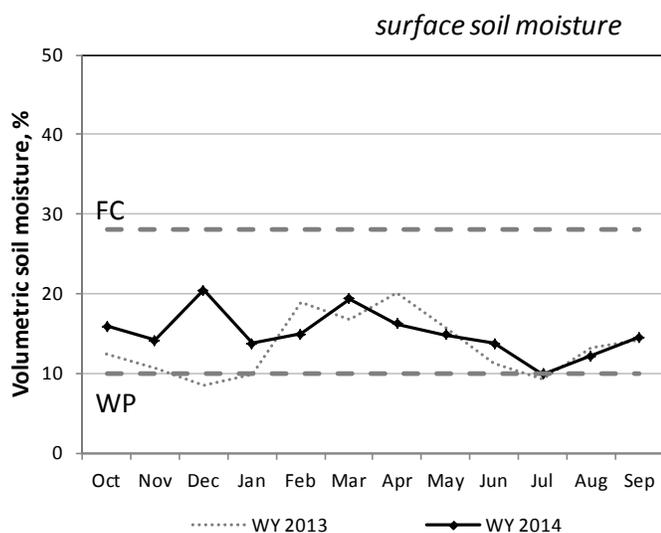
Southeast

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"
			in.					in.				
			volume %					° F				
SOUTHEAST												
Price	6.9	2.7	2	15	17	17	20	64	71	73	69	68
Green River	5.7	1.4	16	12	9	7	10	73	75	76	74	74
Harm's Way	11.3	1.9	7	1	14	14	6	69	64	70	67	64
West Summit	10.4	3.5	20	26	27	15	17	62	64	67	63	62
Eastland	8.5	2.0	10	10	10	23	21	67	69	69	66	66
Alkali Mesa	9.5	3.9	9	14		19	25	70	73	75	71	70
McCracken Mesa	7.9	1.6	9	19	15	16	14	71	77	78	73	72

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Southeast



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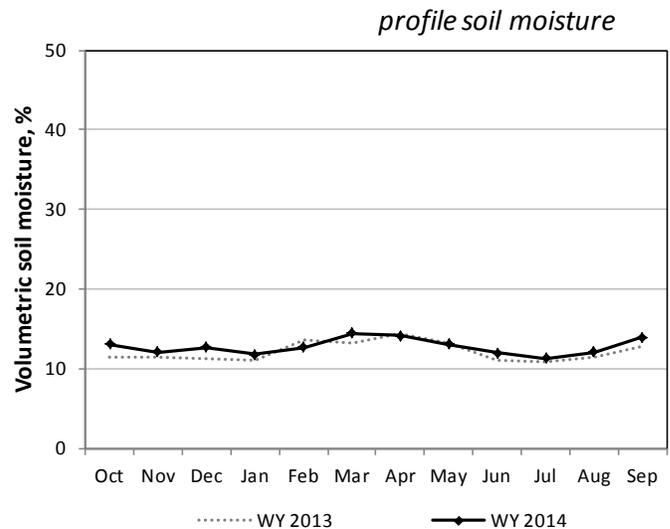
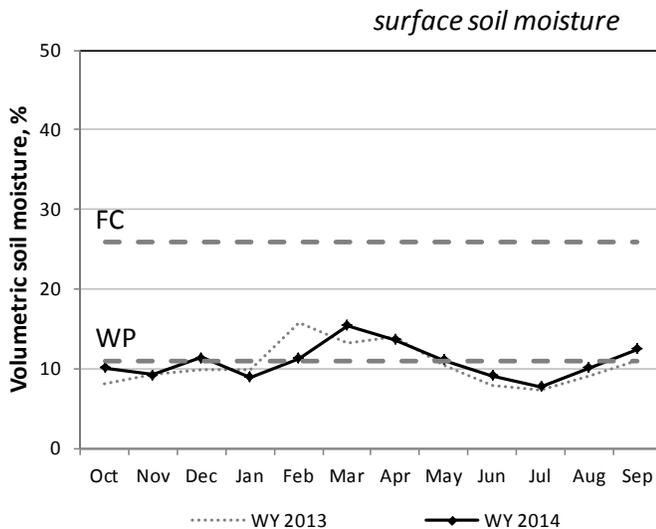
South Central

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	10.8	1.6	21	22	18	7	6	68	69	70	68	66
Ephraim	9.2	1.6	27	36	35	42	38	66	69	70	68	66
Holden	7.9	1.4	6	8	1	12	14	70	72	73	71	71
Milford	6.9	1.5	19	26	21	30	18	71	74	72	70	68
Manderfield	10.4	1.9	5	13	12	12	5	66	69	67	65	63
Cirleville	6.0	1.2	3	12	7	9	16	69	72	72	66	64
Panguitch	7.8	1.8	9	19	13	20	30	59	60	59	57	56
Cave Valley	11.3	3.2	1	6	6	5	1	66	69	72	70	66
Vermillion	12.3	3.1	0	8	8	4	8	61	63	68	65	62
Spooky	6.1	1.4	4	4	4	12	2	79	78	79	73	72

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South Central



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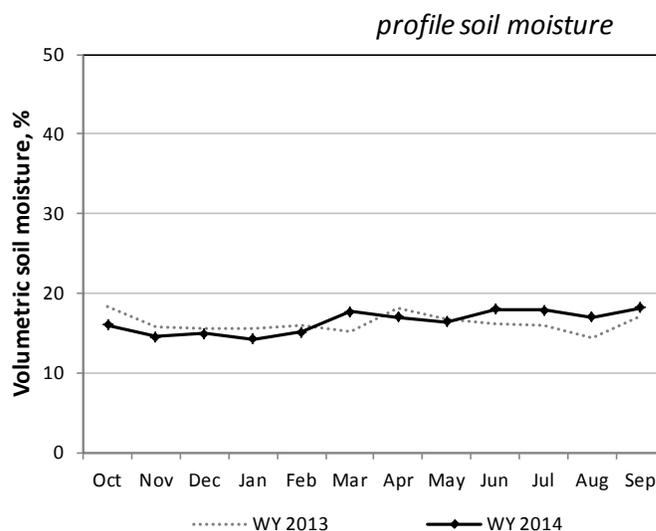
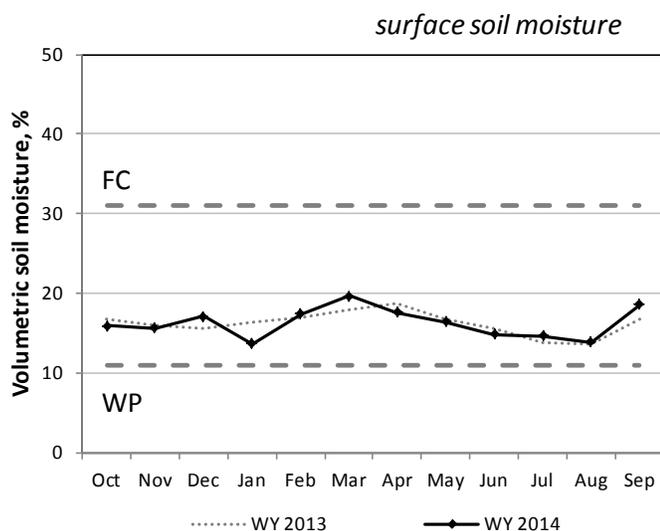
Western and Dixie

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	12.9	3.5	9	20	13	17	17	59	63	66	63	62
Park Valley	8.1	1.5	6	8	14	47	22	64	66	69	68	67
Goshute	10.5	2.6	16	1	58	38	30	64	68	70	66	65
Dugway	6.1	1.4	23	29	39		16	68	72	74	71	70
Tule Valley	5.0	0.9	14	15	26	14	10	71	79	84	81	78
Hal's Canyon	5.9	2.6	8	11	18	12	10	70	73	77	71	69
Enterprise	8.4	2.2	7	30	25	15	16	71	77	77	73	69
DIXIE												
Sand Hollow	8.4	2.2	0	4	4	5	0	82	84	86	83	79

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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.

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Utah Hydrologic Summary

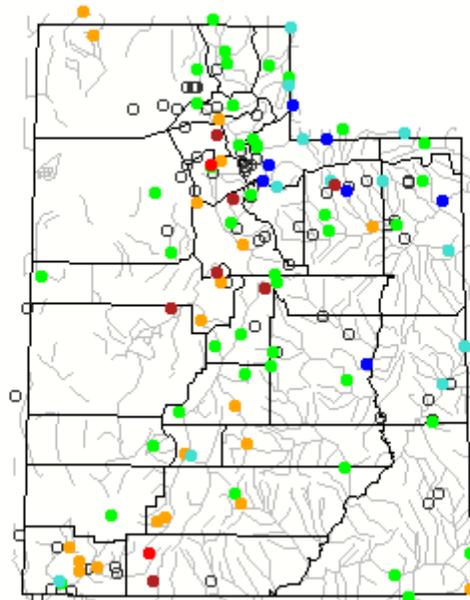
September 1, 2014

Current Conditions

Make it 3 years in a row – for above average August precipitation. This August precipitation was particularly large in northern Utah ranging from over 200% across the Uinta’s to 309% on the Bear. Southern Utah also had much above average precipitation in the 150 to 165% range. Total amounts range from 1 inch to nearly 7 inches of rain over the past month with many sites in the 3 to 6 inch range. Stream flow across Utah has improved substantially in response to impressive precipitation in the past few weeks – very similar to 2013 and 2012. Soil moisture values have rebounded significantly across the state with northern Utah at exceptionally high values, central Utah well above average and southwestern Utah near average. This is a very positive development - should soils go into winter in this above normal condition, it would be better for potential runoff next spring. Reservoir storage for the entire state is at 57% of capacity – down 3% from last month and similar to the 56% of last year.

Current Utah Streamflow - Courtesy US Geological Survey

Tuesday, September 02, 2014 12:00ET



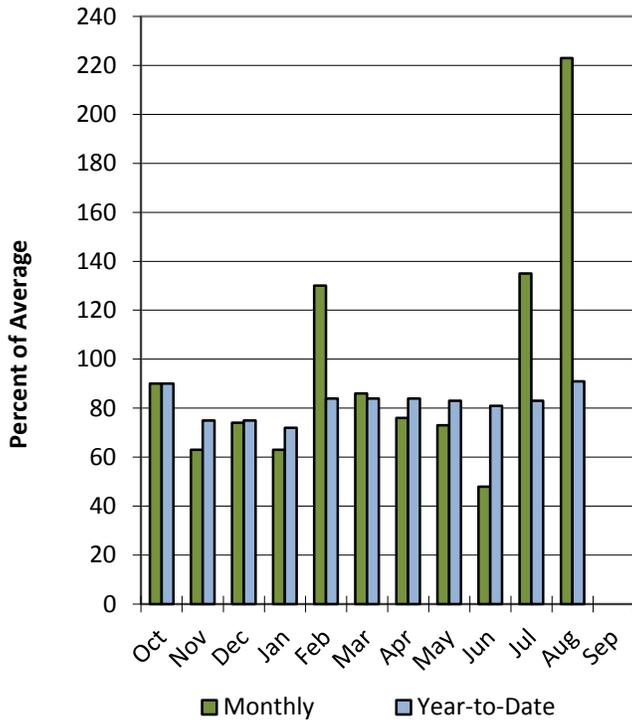
Explanation - Percentile classes							
●	●	●	●	●	●	●	
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not ranked

Statewide Utah

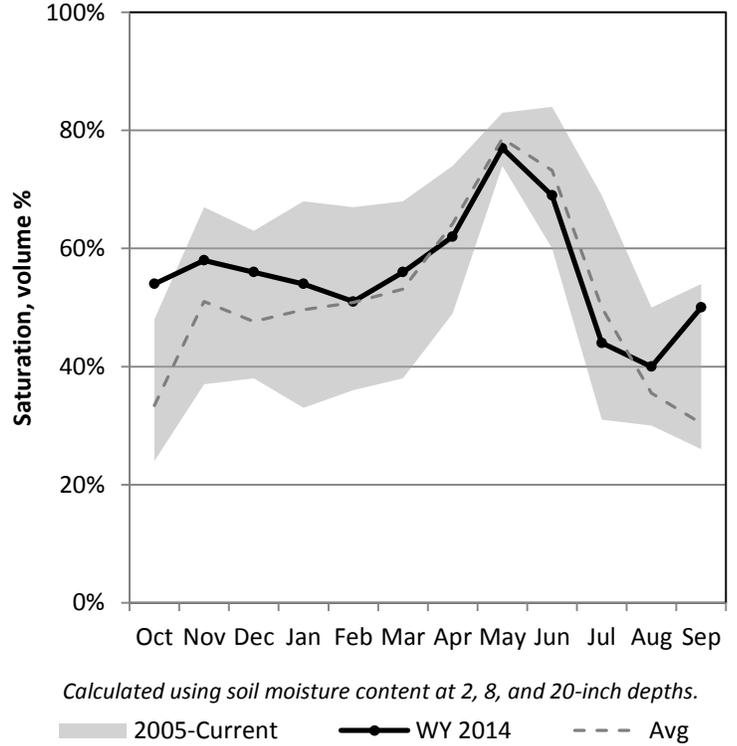
9/1/2014

Precipitation in August was much above average at 223%, which brings the seasonal accumulation (Oct-Aug) to 91% of average. Soil moisture is at 50% compared to 41% last year. Reservoir storage is at 57% of capacity, compared to 56% last year.

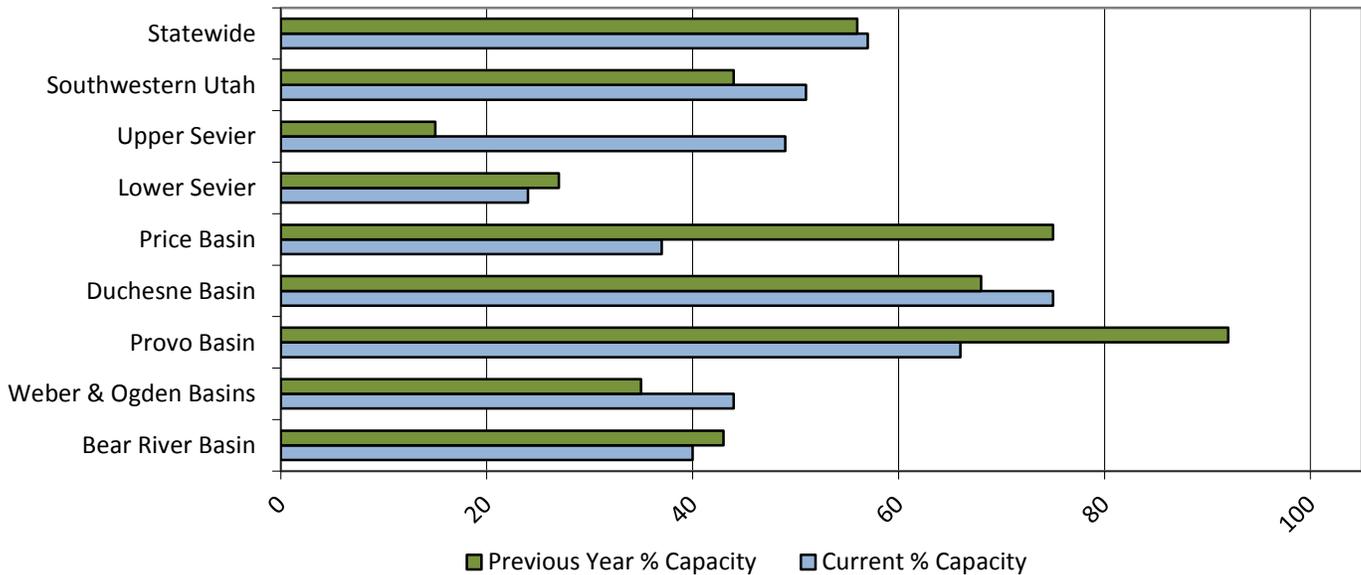
Precipitation



Soil Moisture



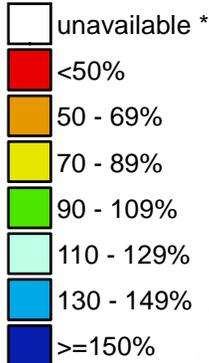
Reservoir Storage



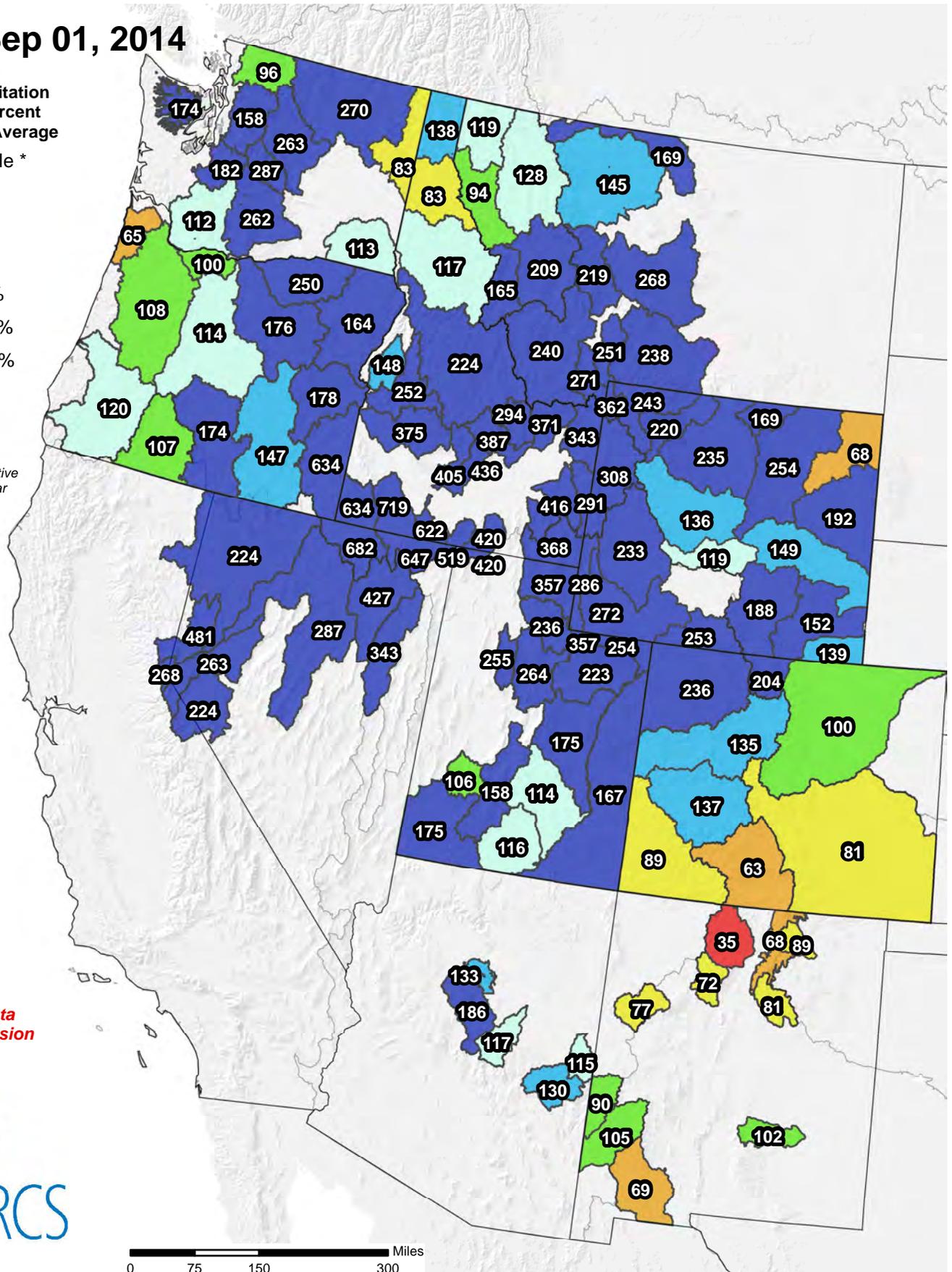
Westwide SNOTEL Current Month to Date Precipitation % of Normal

Sep 01, 2014

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

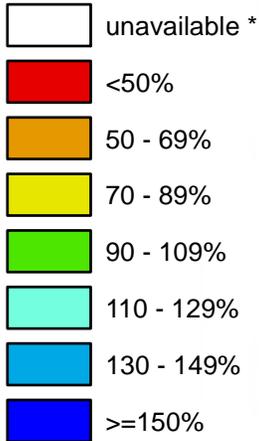
Prepared by:
 USDA/NRCS National Water and Climate Center
 Portland, Oregon
<http://www.wcc.nrcs.usda.gov>

Utah

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

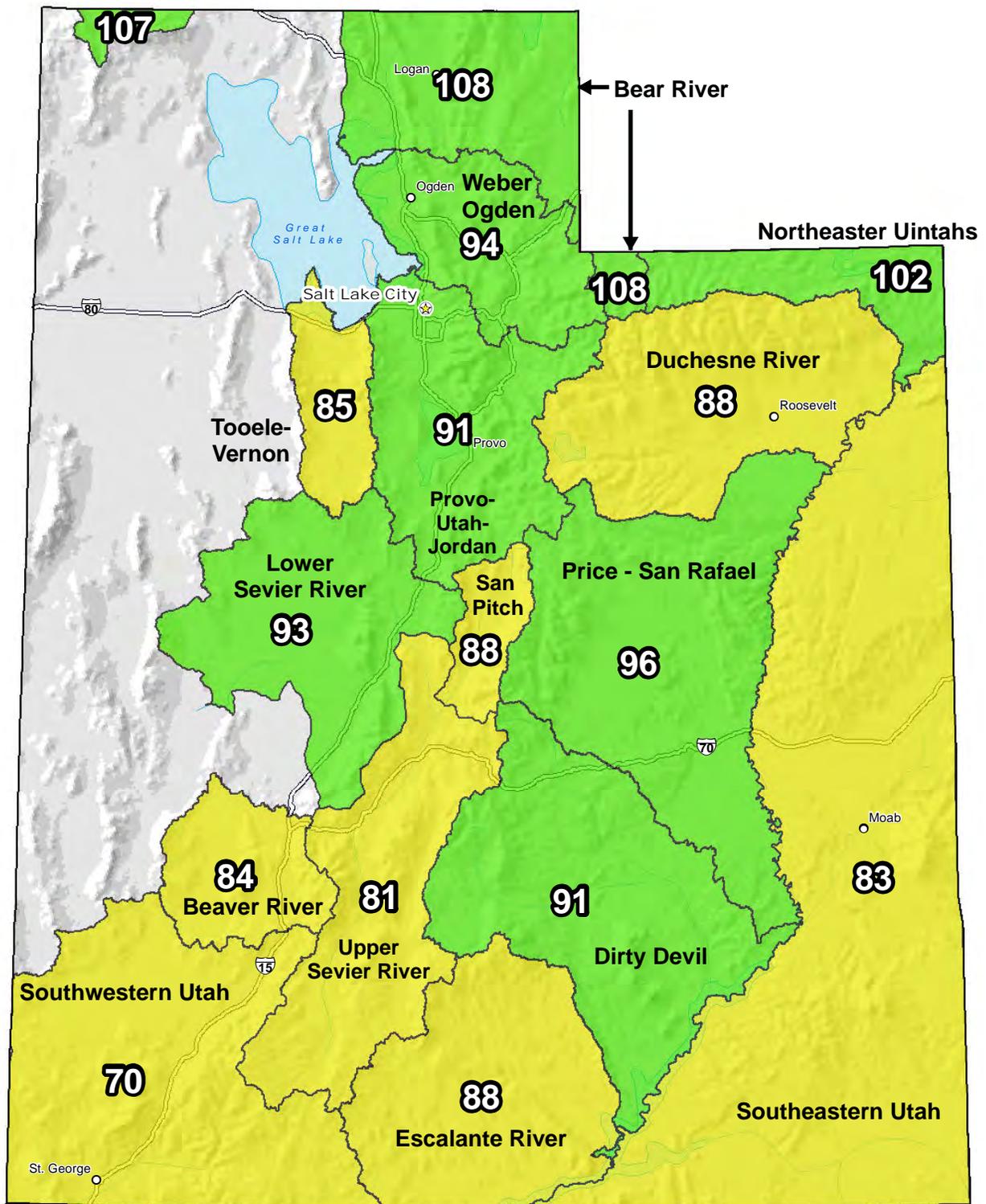
Sep 02, 2014

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).

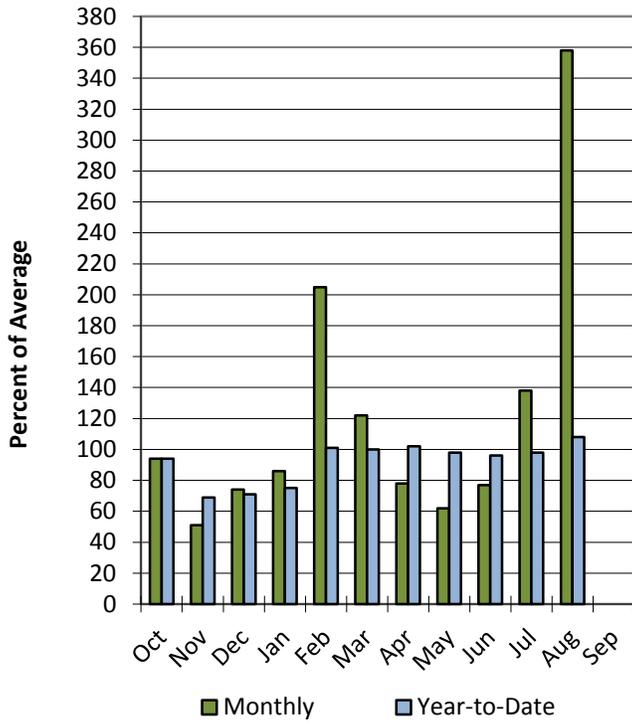
Prepared by:
USDA/NRCS National Water and Climate Center
Portland, Oregon
<http://www.wcc.nrcs.usda.gov>

Bear River Basin

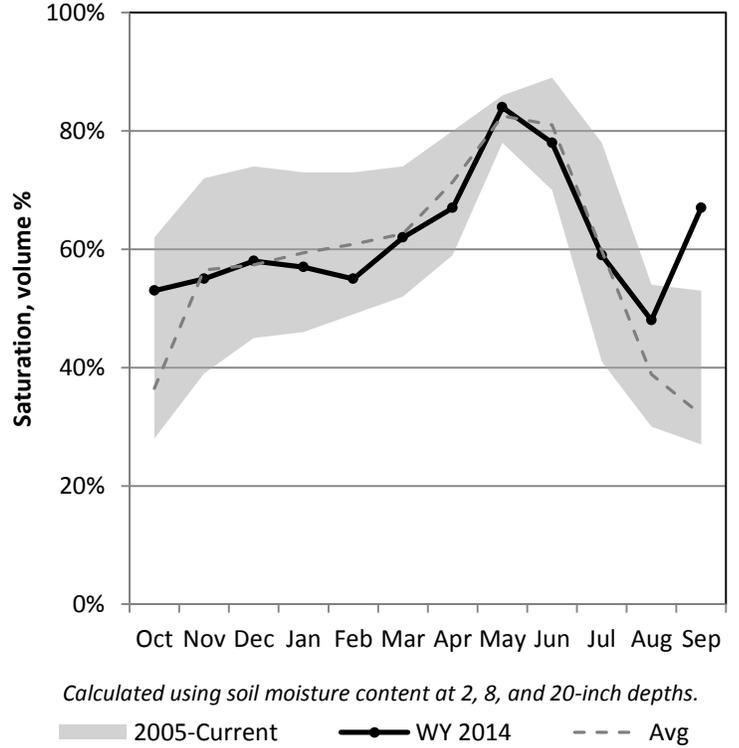
9/1/2014

Precipitation in August was much above average at 358%, which brings the seasonal accumulation (Oct-Aug) to 108% of average. Soil moisture is at 67% compared to 30% last year. Reservoir storage is at 40% of capacity, compared to 43% last year. The water availability index for the Bear River is 49%.

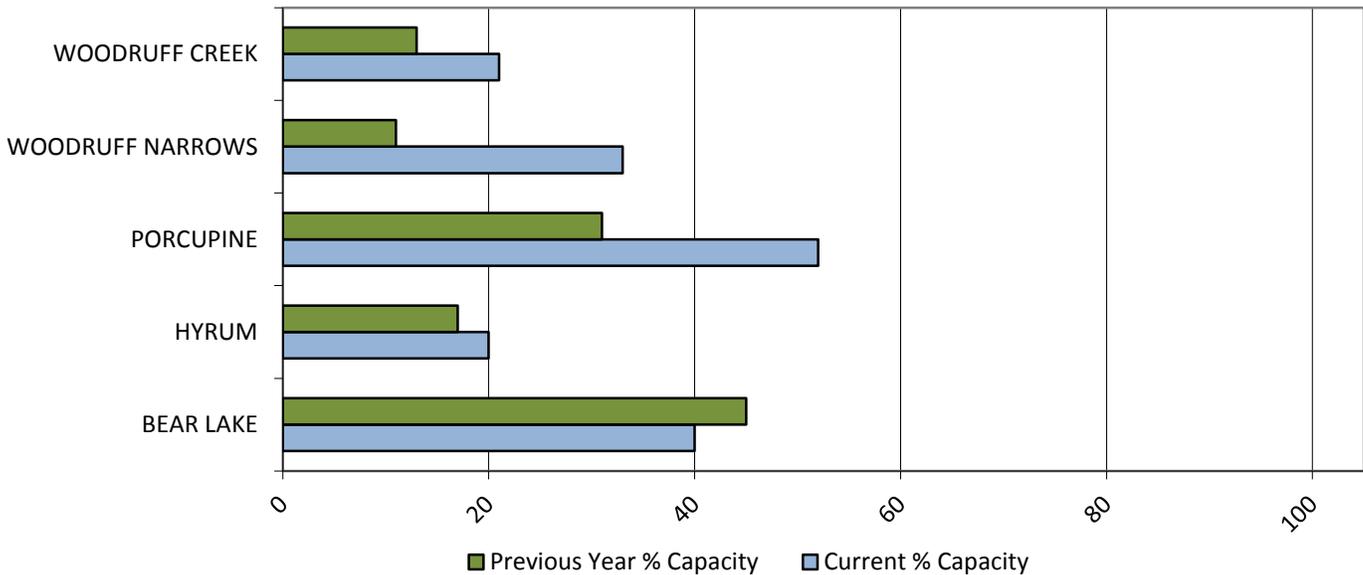
Precipitation



Soil Moisture



Reservoir Storage

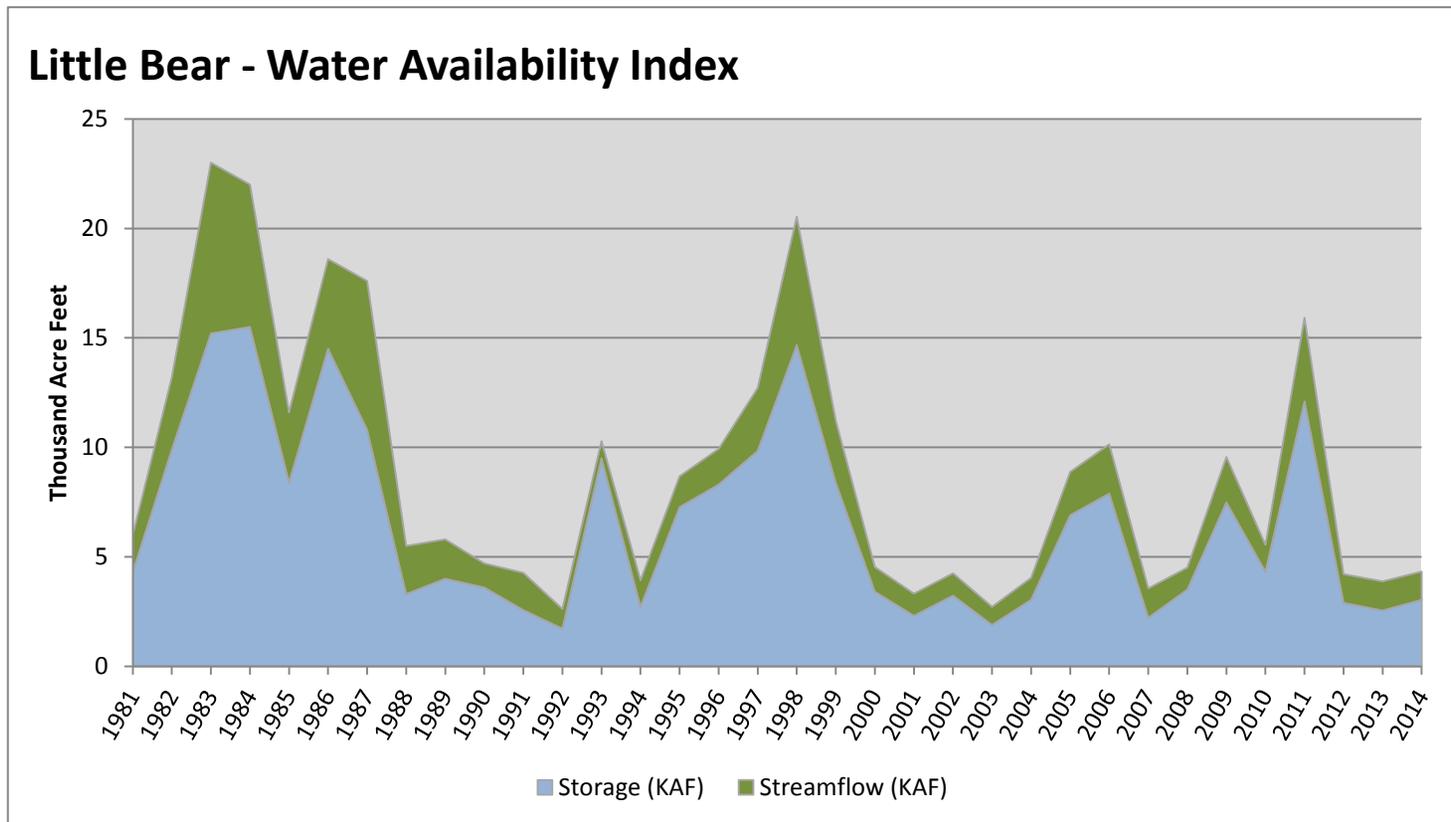


September, 1 2014

Water Availability Index

Basin or Region	Aug EOM* Storage	August Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Little Bear	3.04	1.29	4.33	31	-1.55	02, 91, 08, 00

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

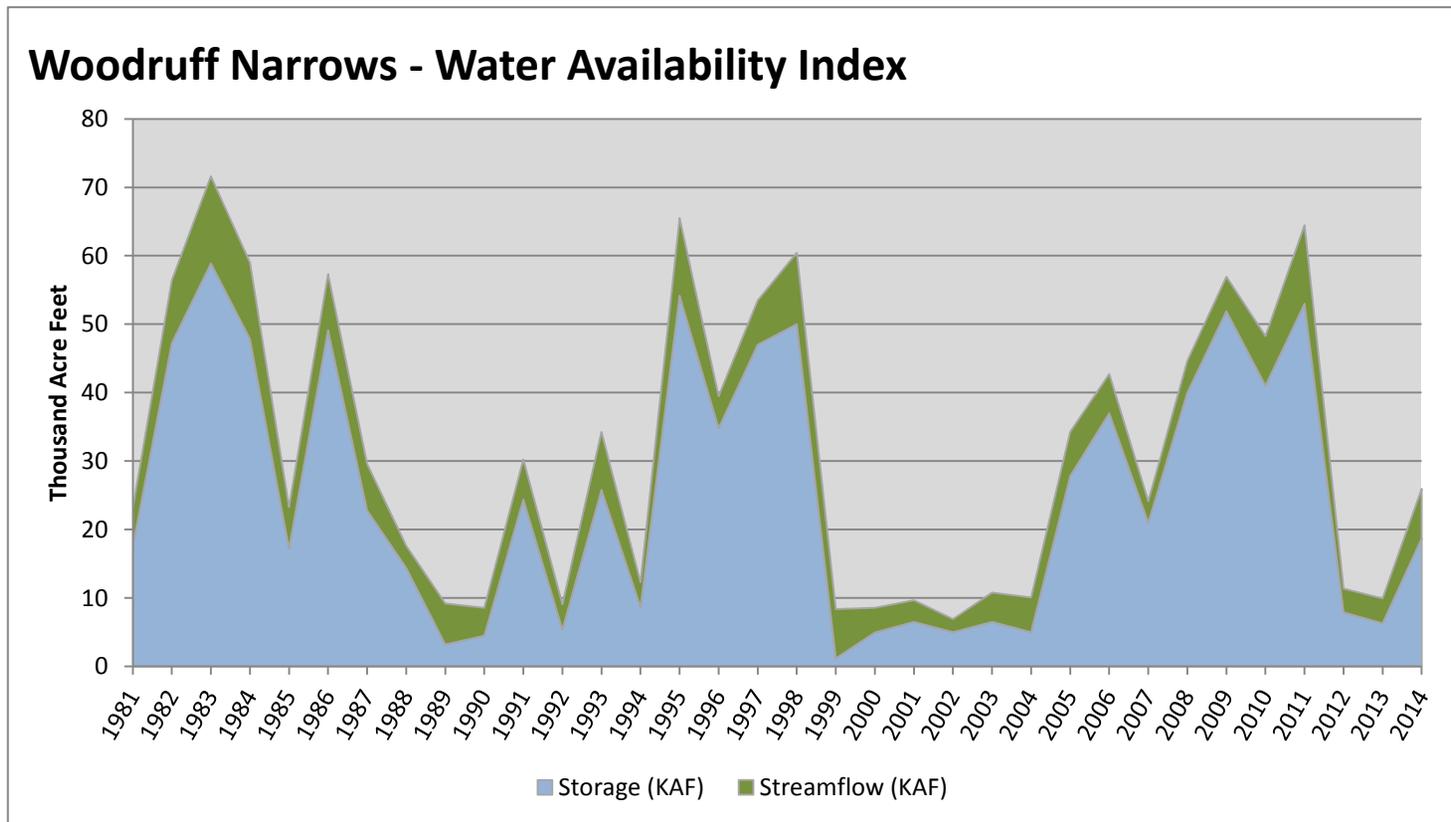


September, 1 2014

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Woodruff Narrows	18.70	7.25	25.95	49	-0.12	85, 07, 87, 91

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

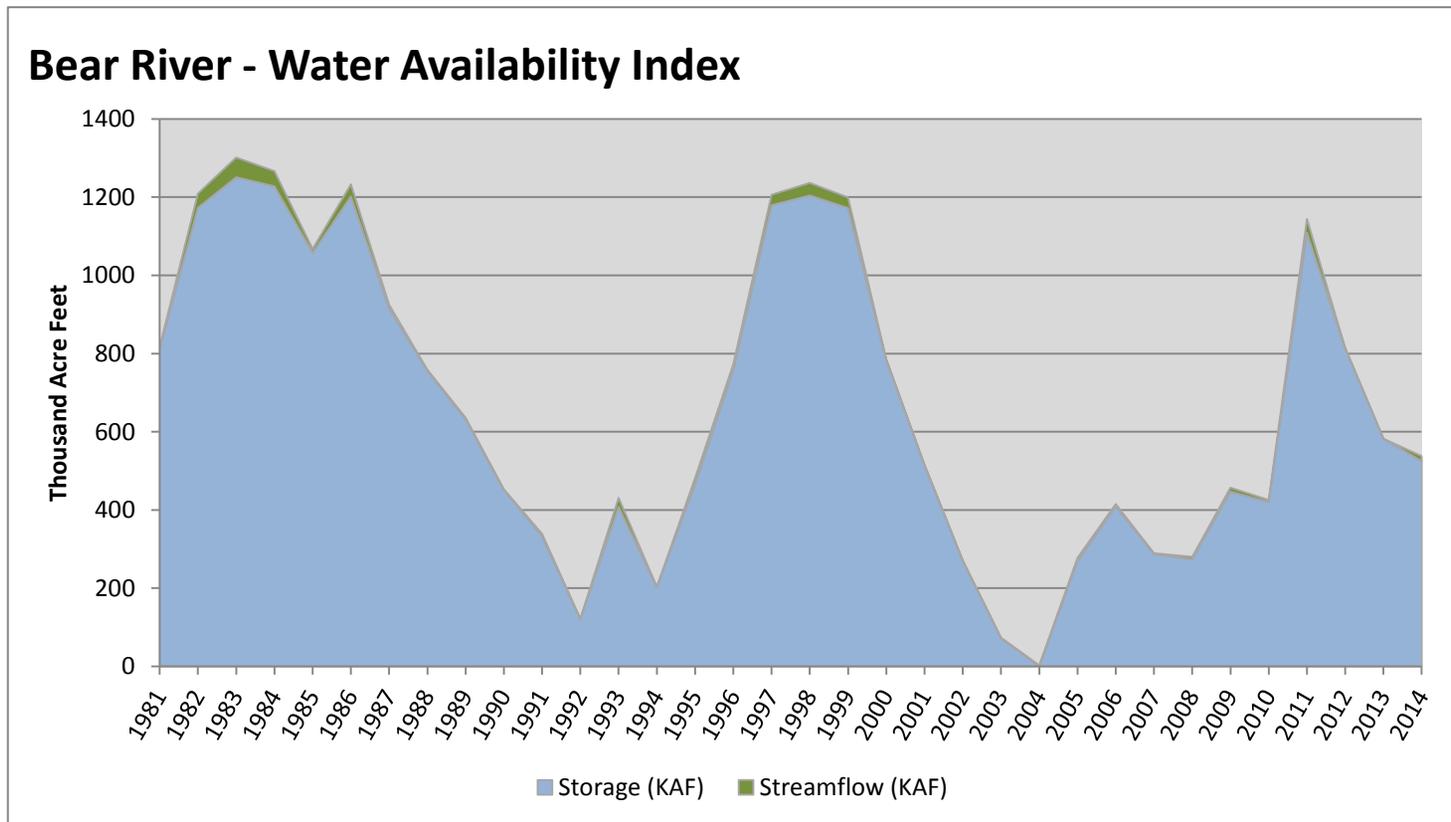


September, 1 2014

Water Availability Index

Basin or Region	Aug EOM* Storage	August Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Bear River	525.02	12.77	537.79	49	-0.12	95, 01, 13, 89

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

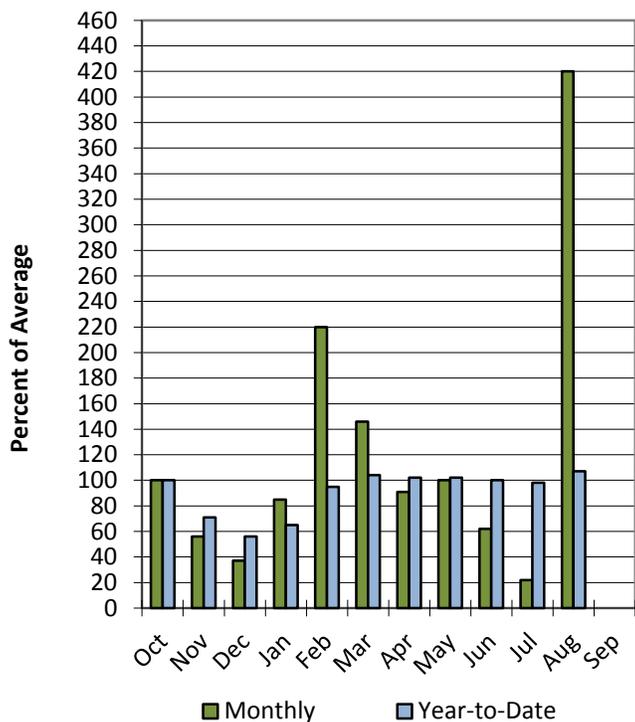


Raft River Basin

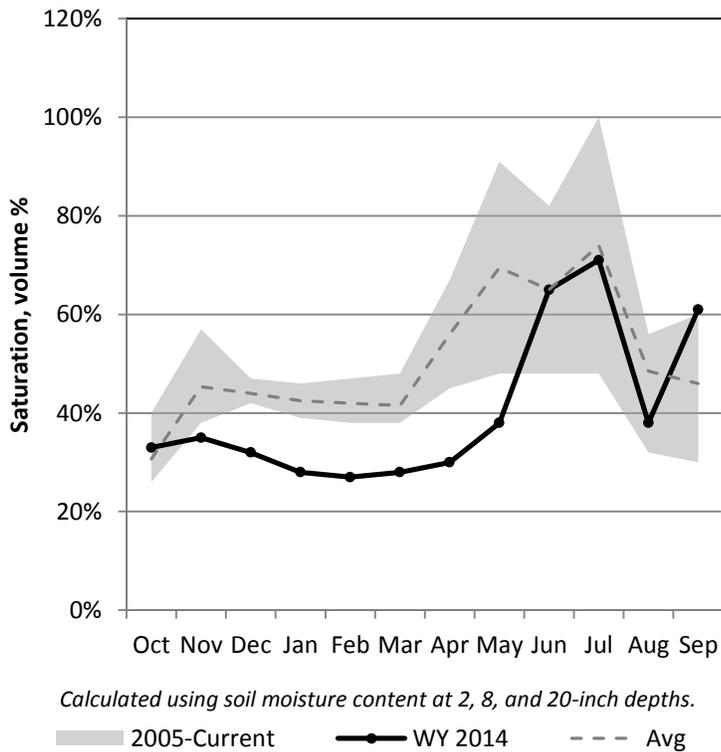
9/1/2014

Precipitation in August was much above average at 420%, which brings the seasonal accumulation (Oct-Aug) to 107% of average. Soil moisture is at 61% compared to 27% last year.

Precipitation



Soil Moisture

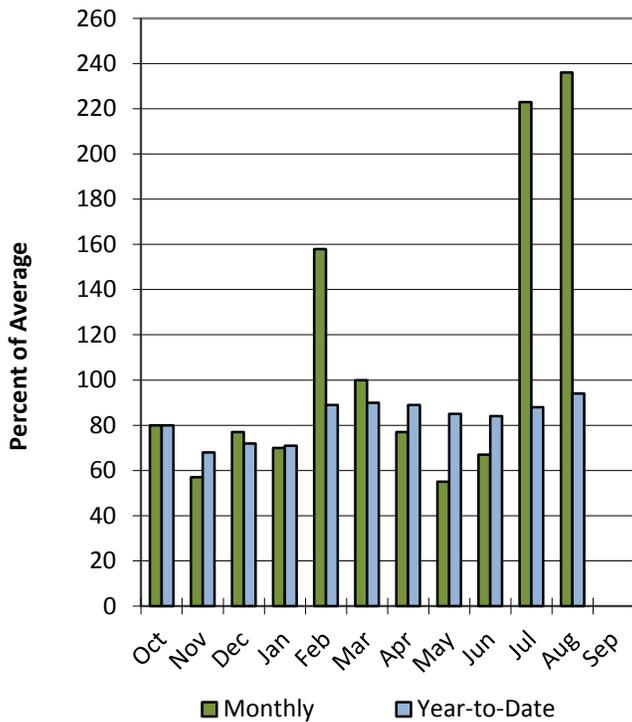


Weber & Ogden River Basins

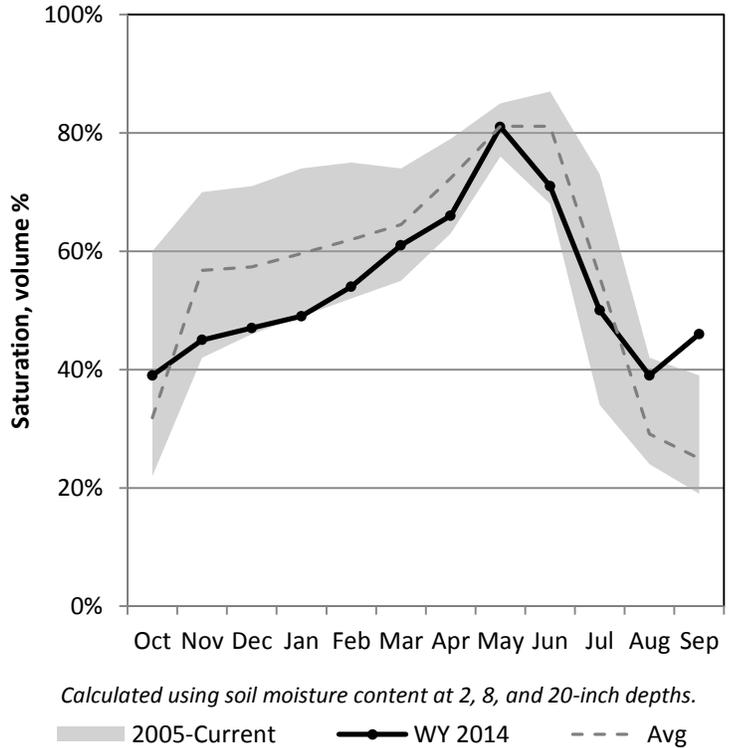
9/1/2014

Precipitation in August was much above average at 236%, which brings the seasonal accumulation (Oct-Aug) to 94% of average. Soil moisture is at 46% compared to 24% last year. Reservoir storage is at 44% of capacity, compared to 35% last year. The water availability index for the Ogden River is 51% and 38% for the Weber River.

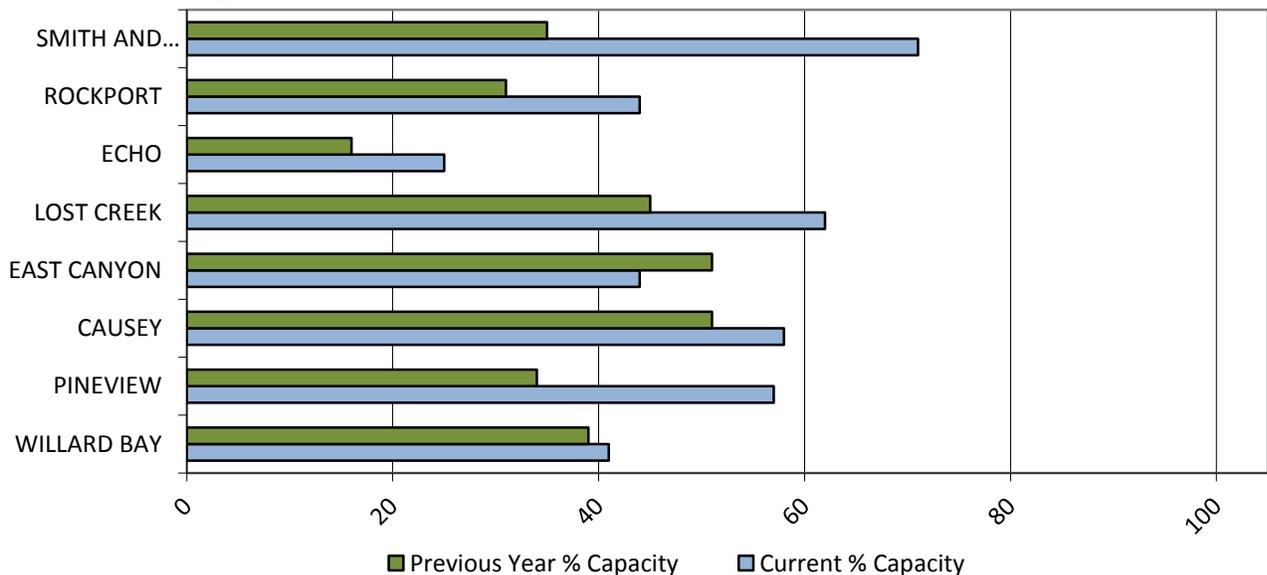
Precipitation



Soil Moisture



Reservoir Storage

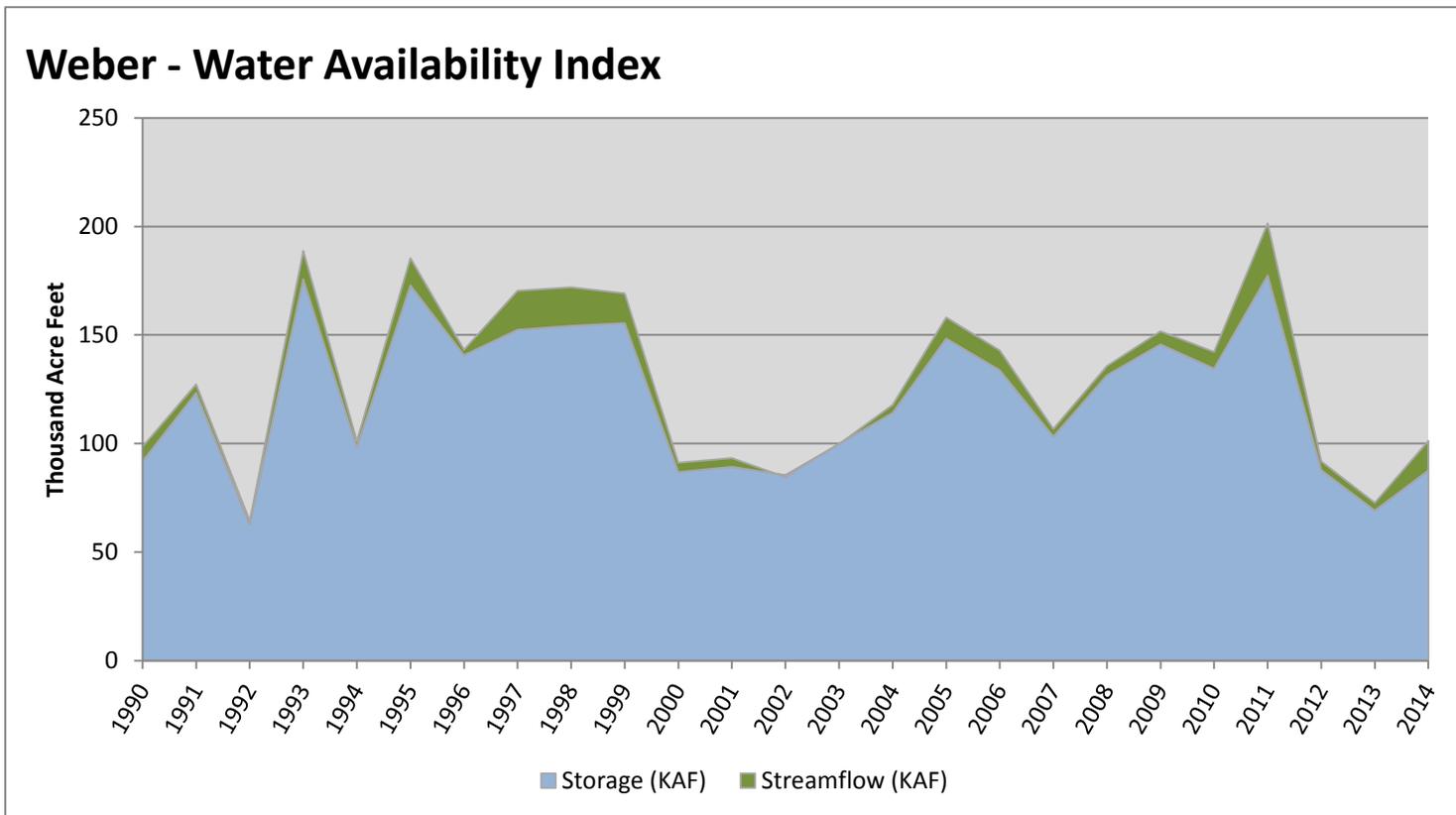


September, 1 2014

Water Availability Index

Basin or Region	Aug EOM* Storage	August Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Weber	87.68	13.59	101.27	38	-0.96	03, 94, 07, 04

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

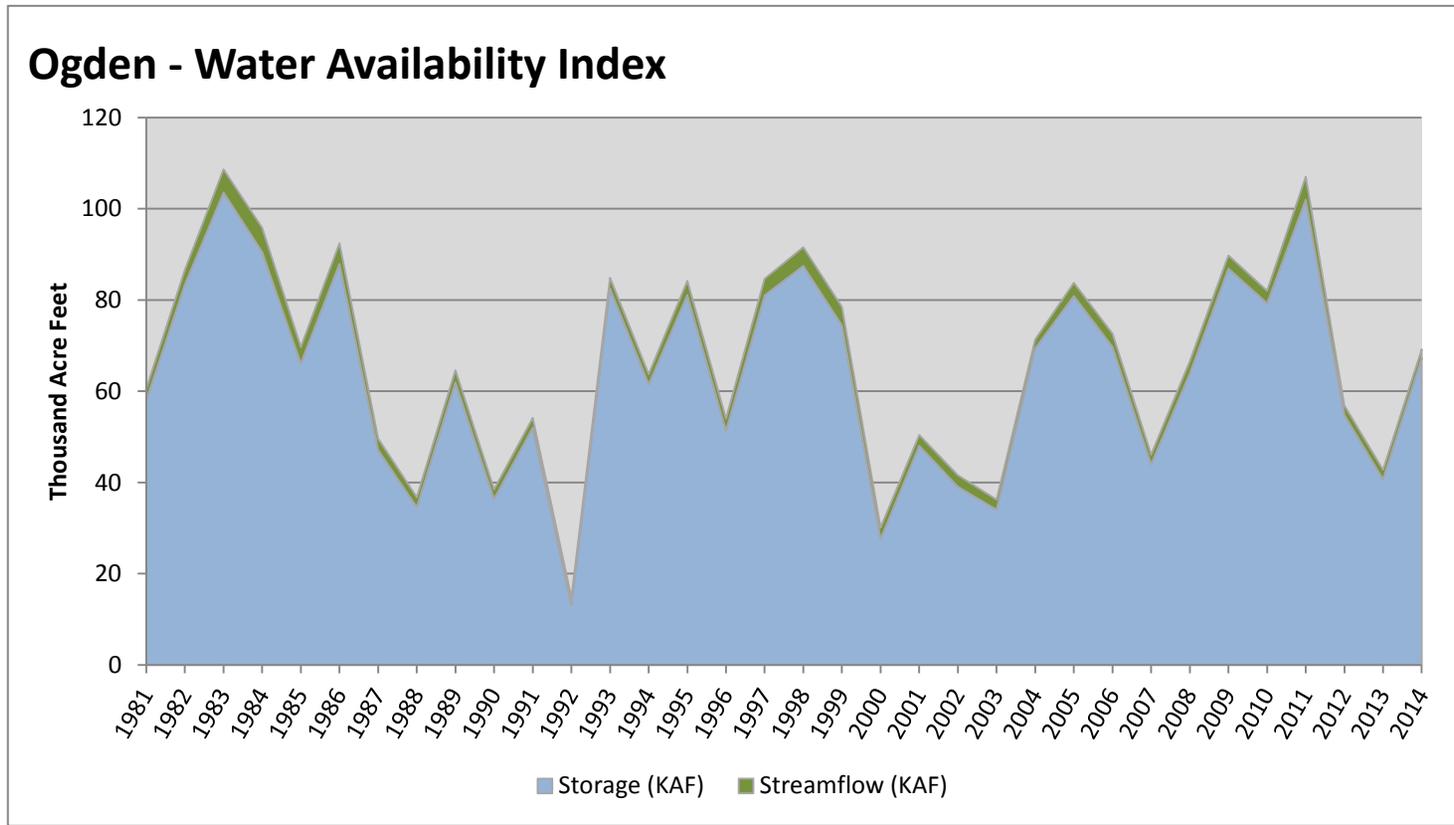


September, 1 2014

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Ogden	67.23	1.94	69.17	51	0.12	89, 08, 85, 04

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

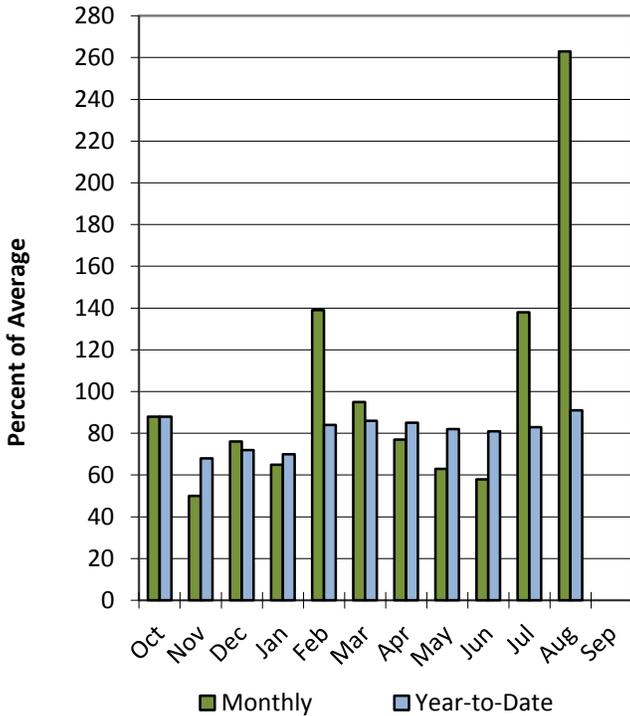


Provo & Jordan River Basins

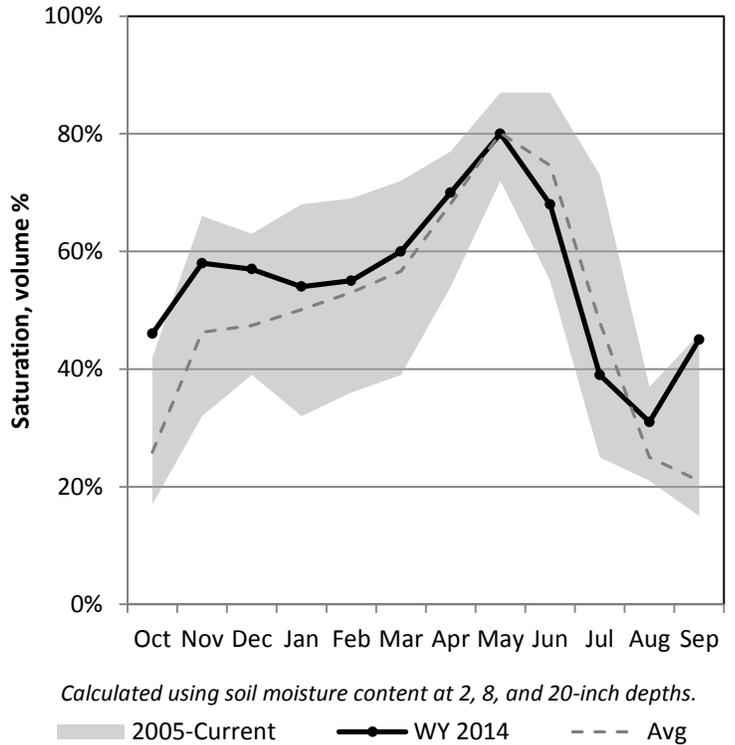
9/1/2014

Precipitation in August was much above average at 263%, which brings the seasonal accumulation (Oct-Aug) to 91% of average. Soil moisture is at 45% compared to 26% last year. Reservoir storage is at 66% of capacity, compared to 68% last year. The water availability index for the Provo River is 30%.

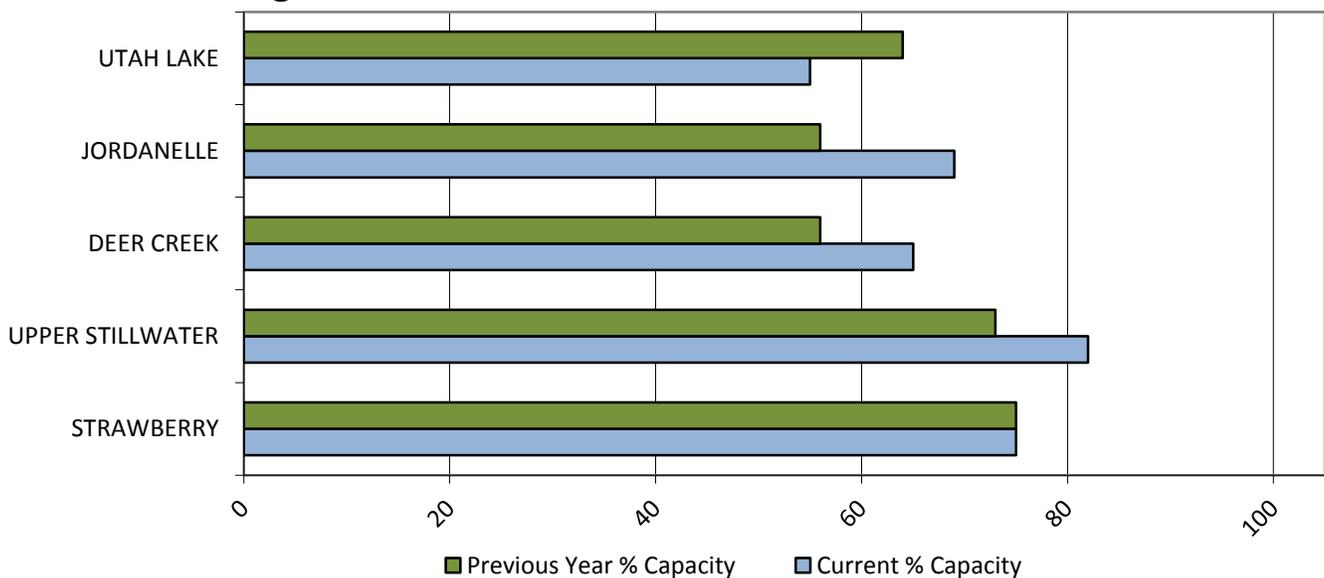
Precipitation



Soil Moisture



Reservoir Storage

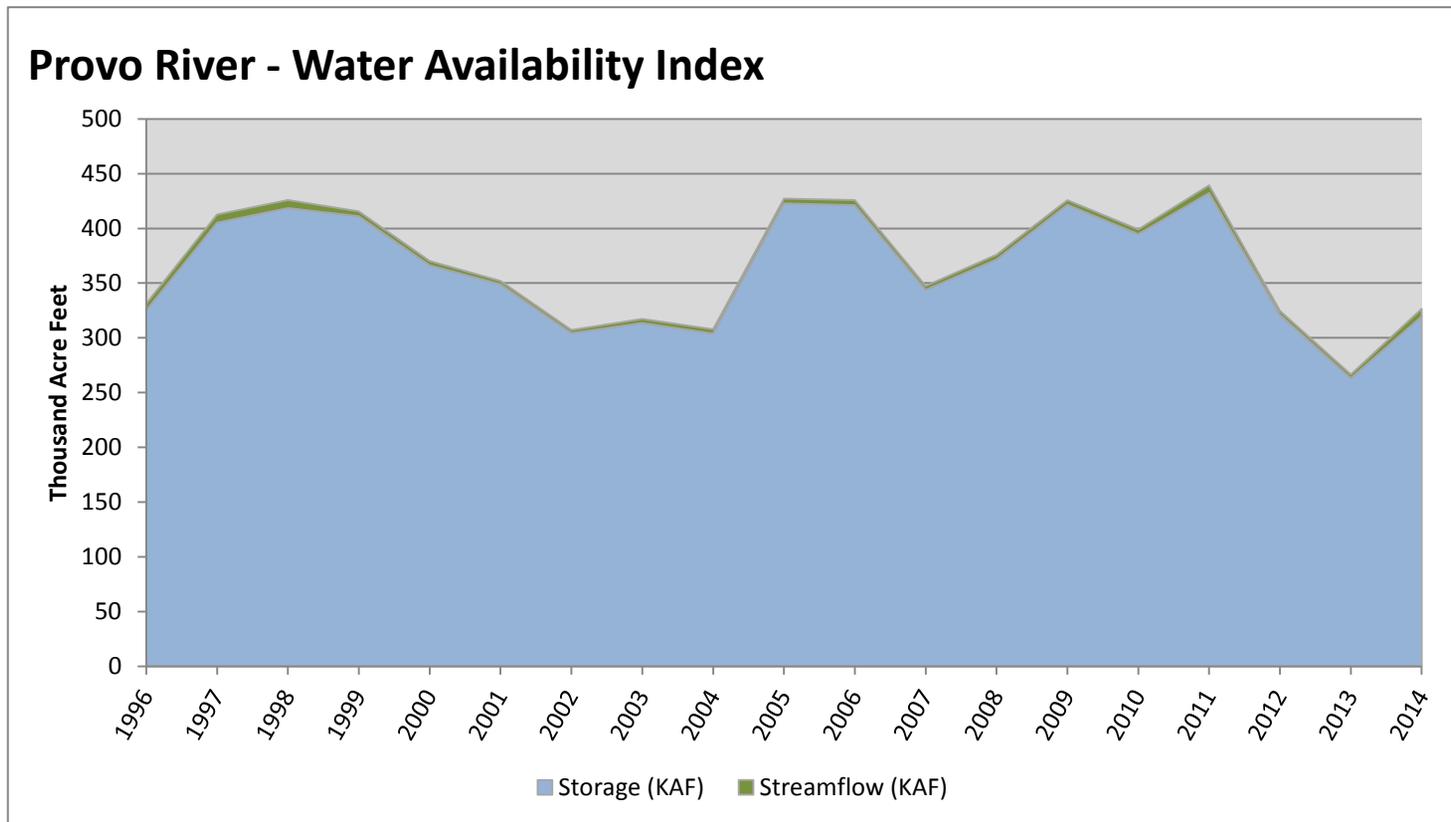


September, 1 2014

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Provo River	319.61	6.97	326.58	30	-1.67	03, 12, 96, 07

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

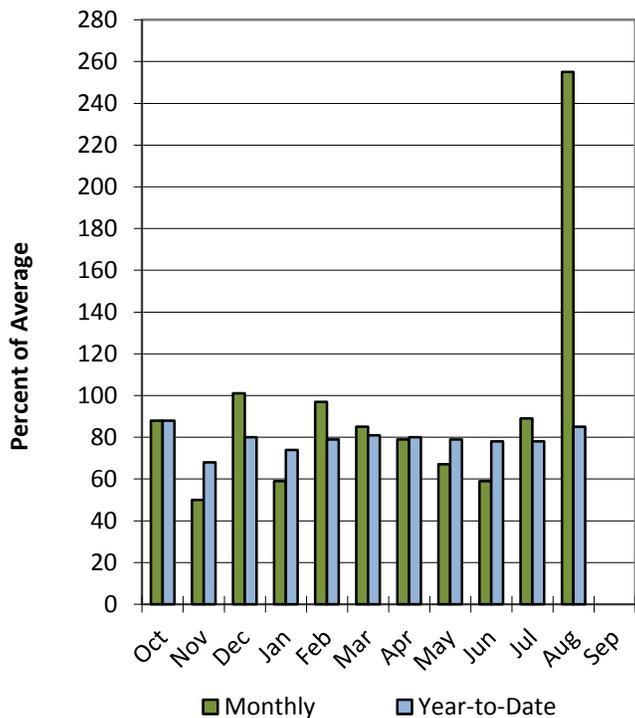


Tooele & Vernon Creek Basins

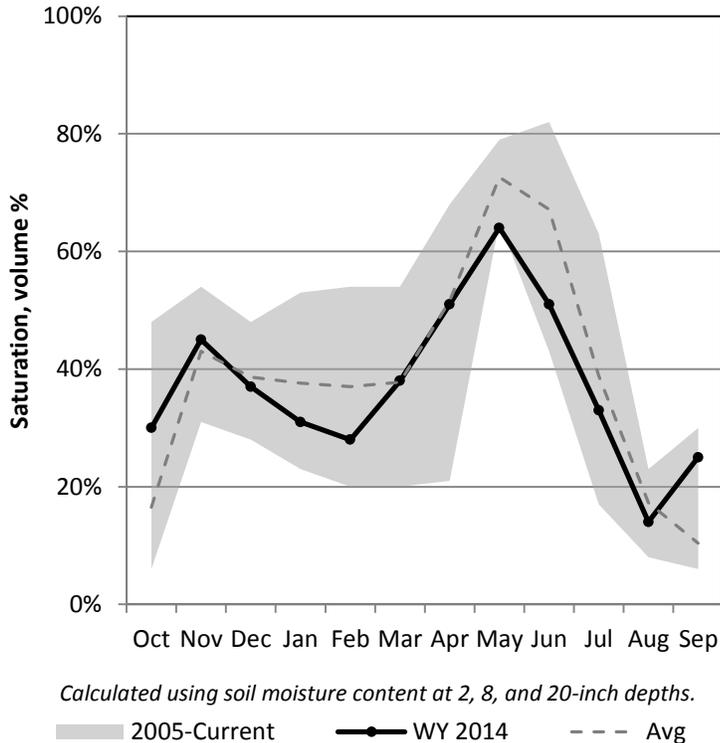
9/1/2014

Precipitation in August was much above average at 255%, which brings the seasonal accumulation (Oct-Aug) to 85% of average. Soil moisture is at 25% compared to 7% last year. Reservoir storage is at 27% of capacity, compared to 19% last year.

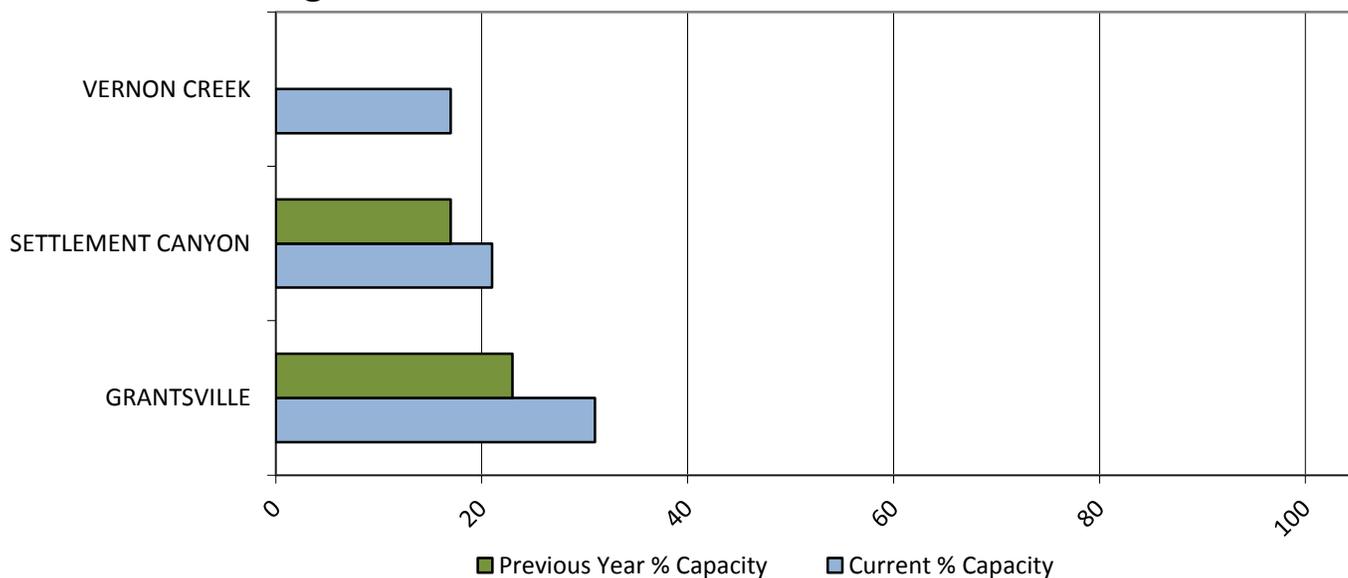
Precipitation



Soil Moisture



Reservoir Storage

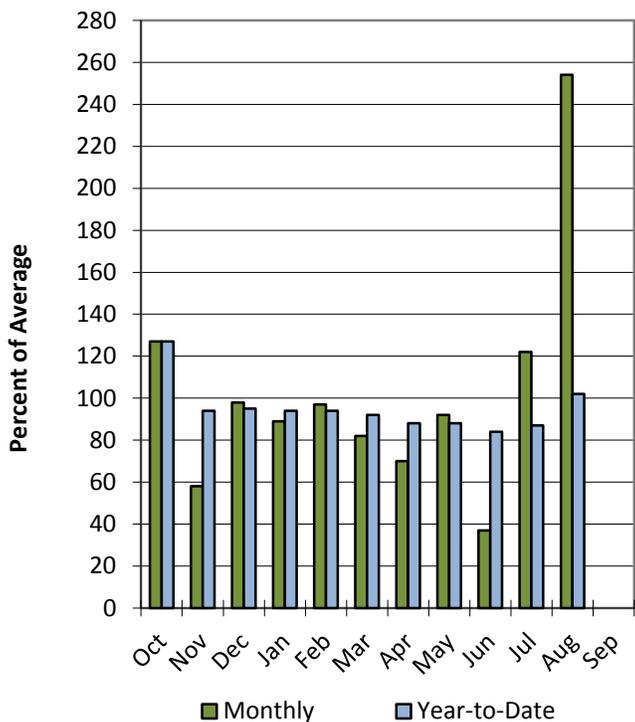


Northeastern Uintah Basin

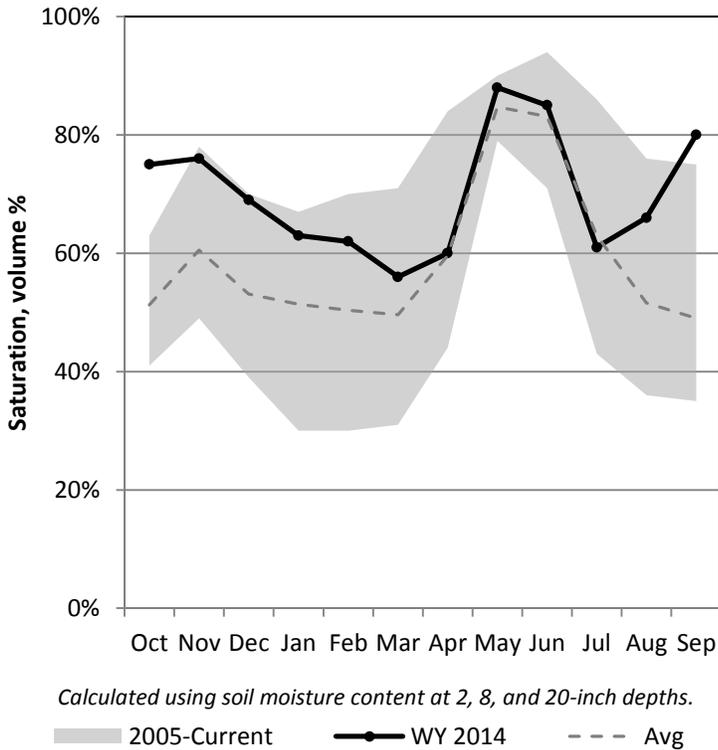
9/1/2014

Precipitation in August was much above average at 254%, which brings the seasonal accumulation (Oct-Aug) to 102% of average. Soil moisture is at 80% compared to 57% last year. Reservoir storage is at 87% of capacity, compared to 75% last year.

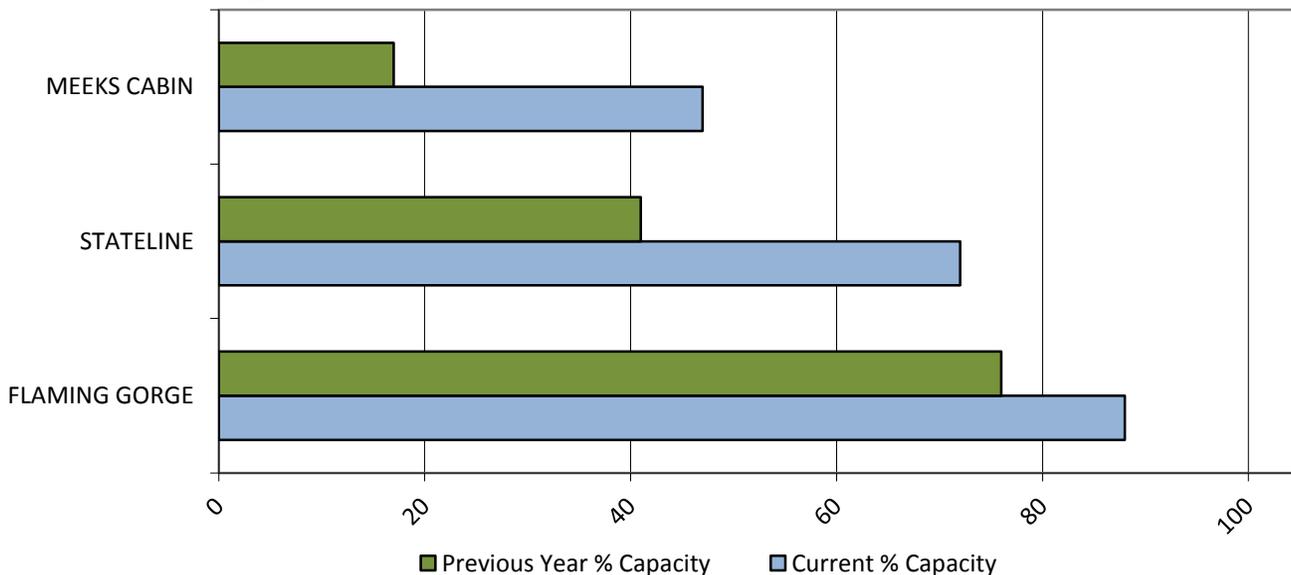
Precipitation



Soil Moisture



Reservoir Storage

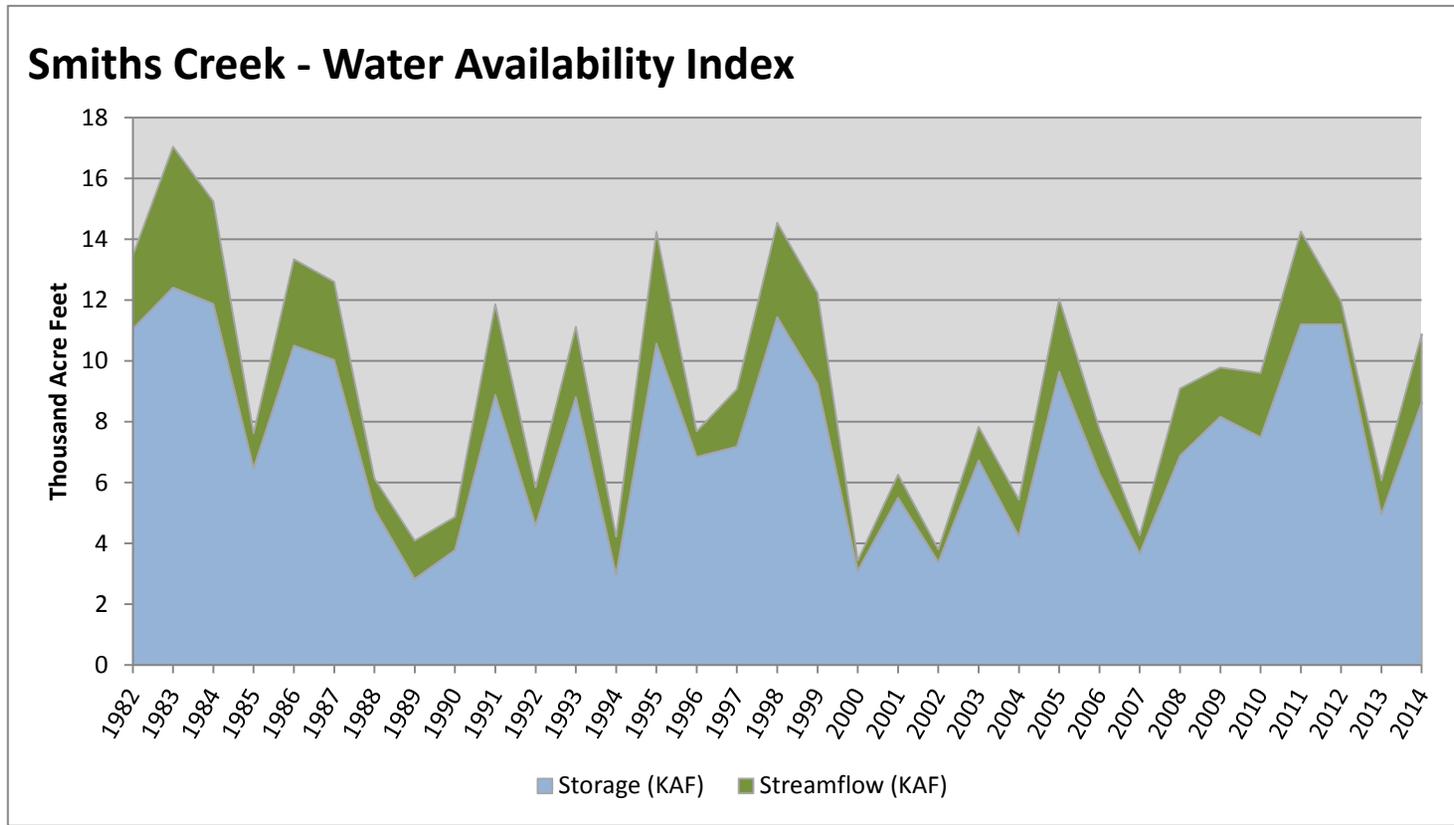


September, 1 2014

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Smiths Creek	8.63	2.25	10.88	59	0.74	10, 09, 93, 91

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



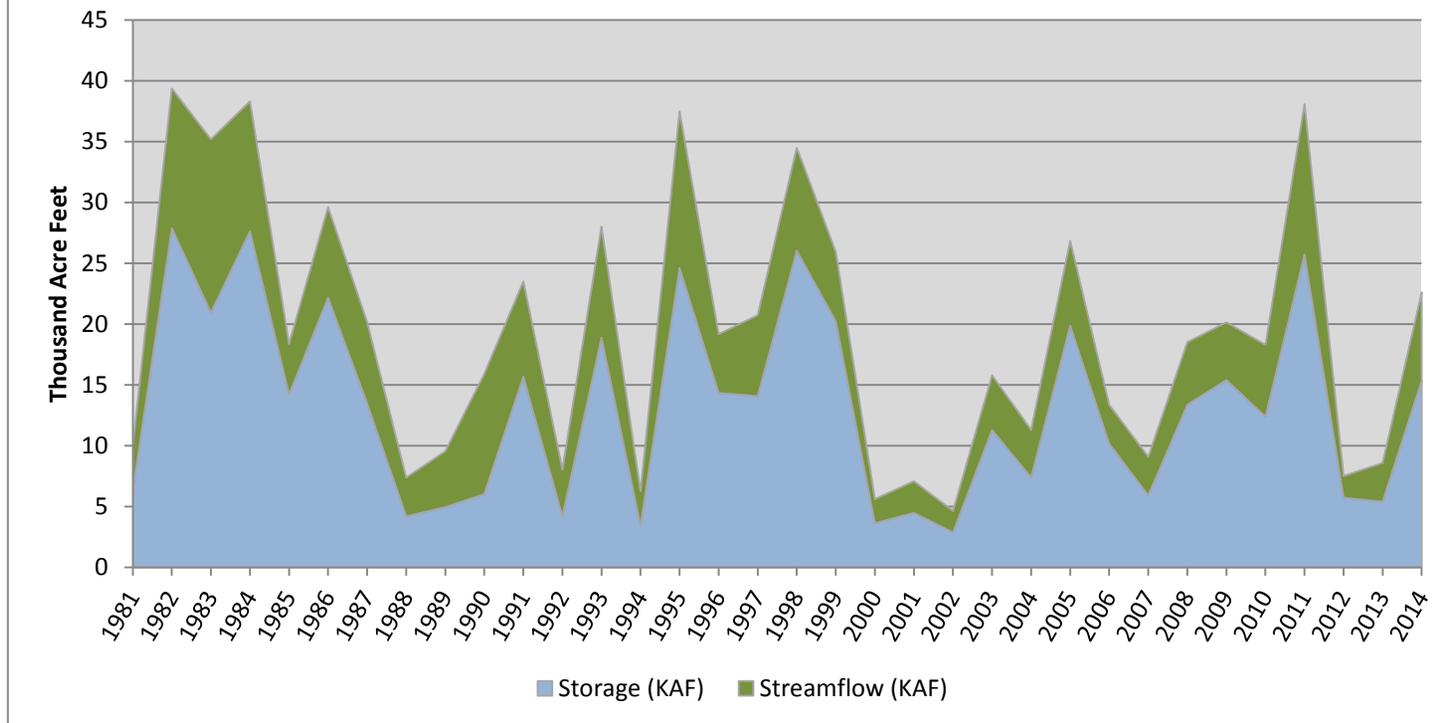
September, 1 2014

Water Availability Index

Basin or Region	Aug EOM* Storage	August Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Blacks Fork	15.35	7.26	22.61	66	1.31	87, 97, 91, 99

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

Blacks Fork - Water Availability Index

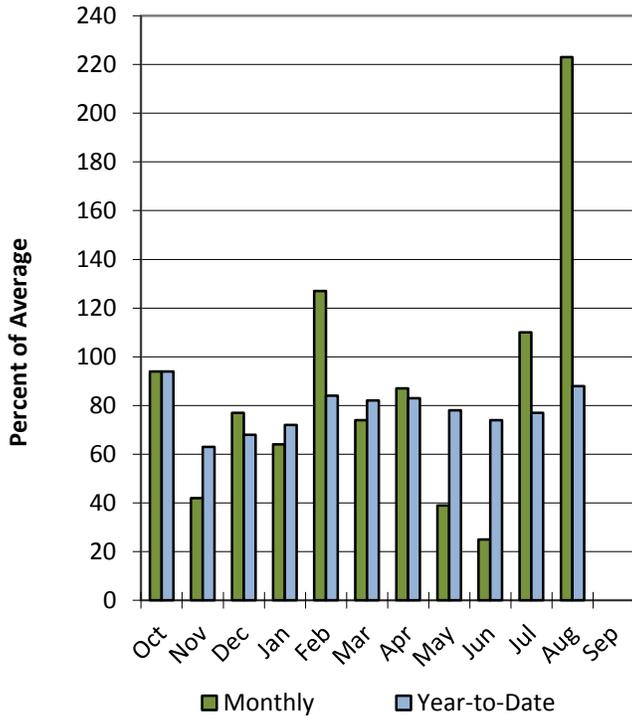


Duchesne River Basin

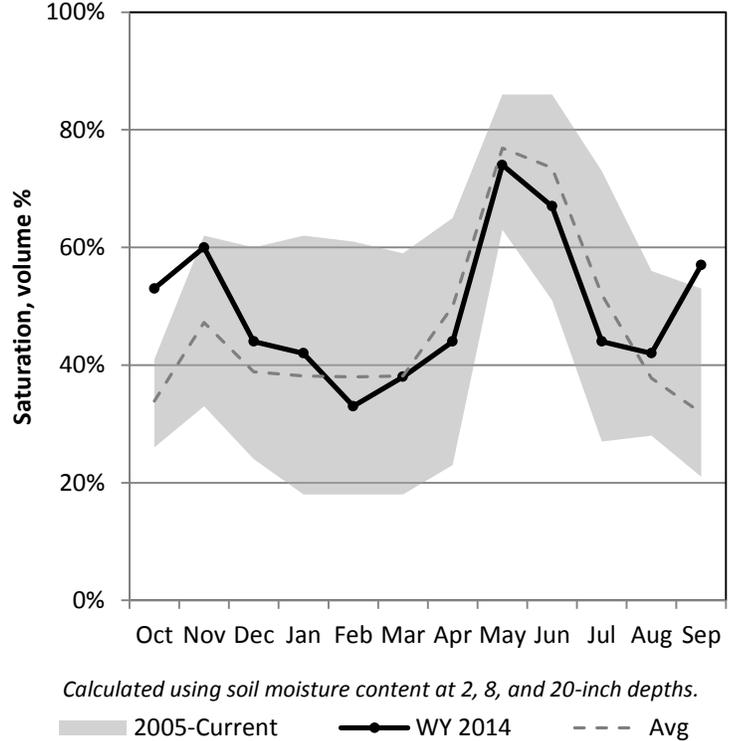
9/1/2014

Precipitation in August was much above average at 223%, which brings the seasonal accumulation (Oct-Aug) to 88% of average. Soil moisture is at 57% compared to 35% last year. Reservoir storage is at 71% of capacity, compared to 69% last year. The water availability index for the Western Uintahs is 64% and 9% for the Eastern Uintahs.

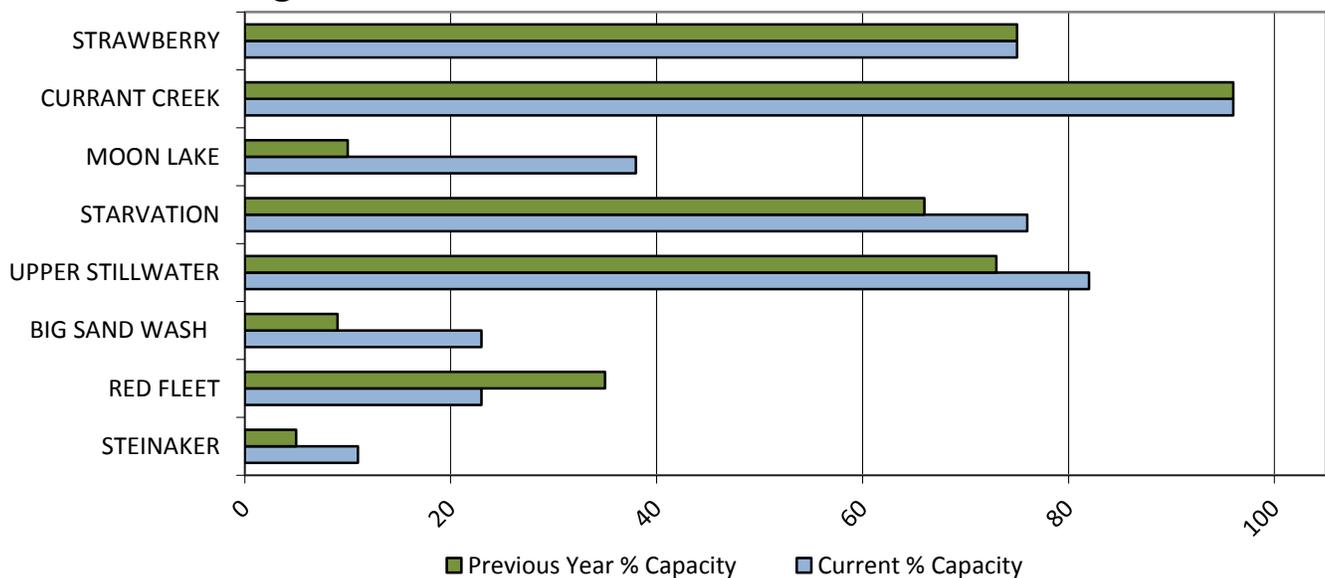
Precipitation



Soil Moisture



Reservoir Storage

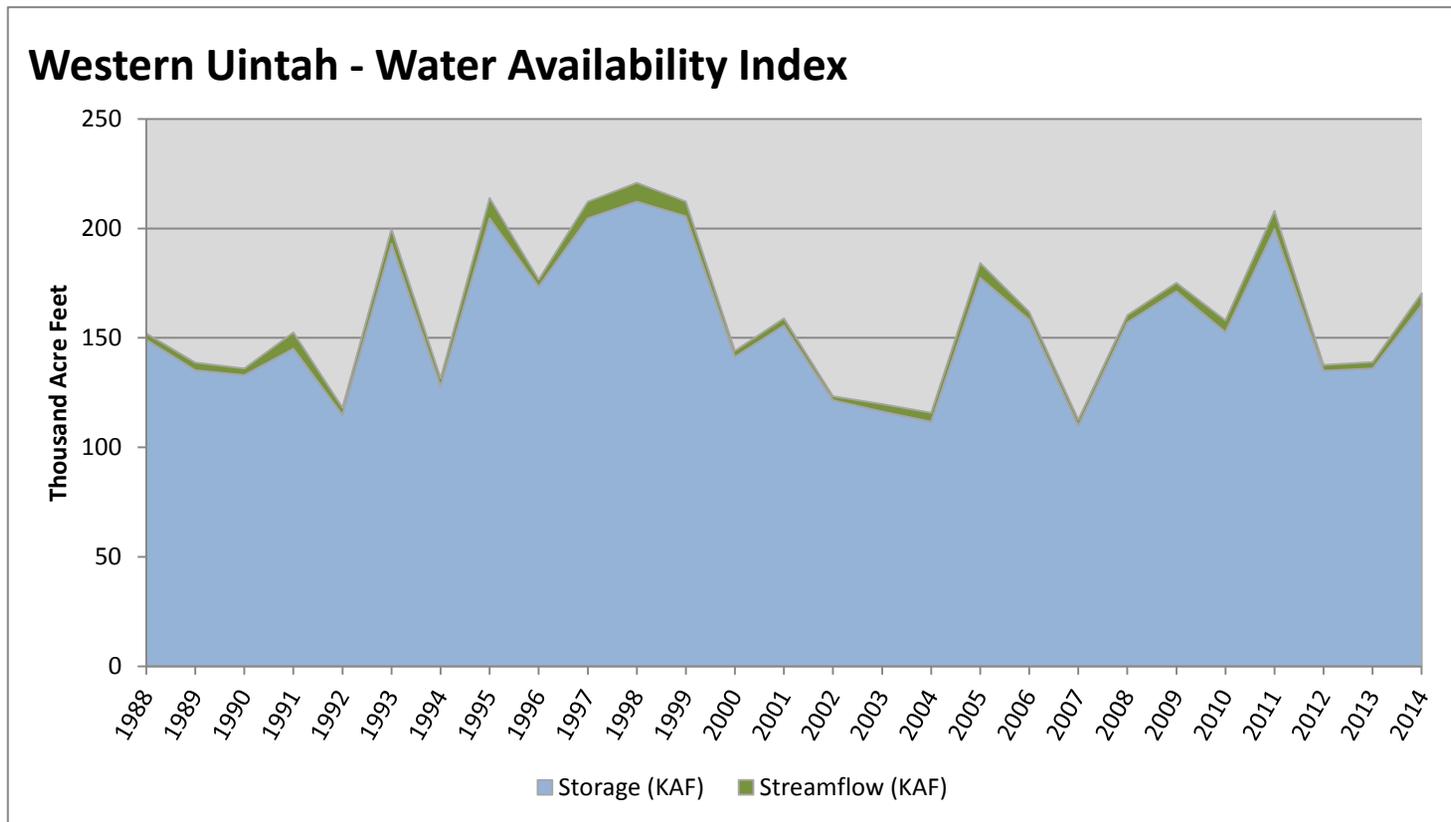


September, 1 2014

Water Availability Index

Basin or Region	Aug EOM* Storage	August Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Western Uintah	164.98	5.40	170.38	64	1.19	08, 06, 09, 96

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

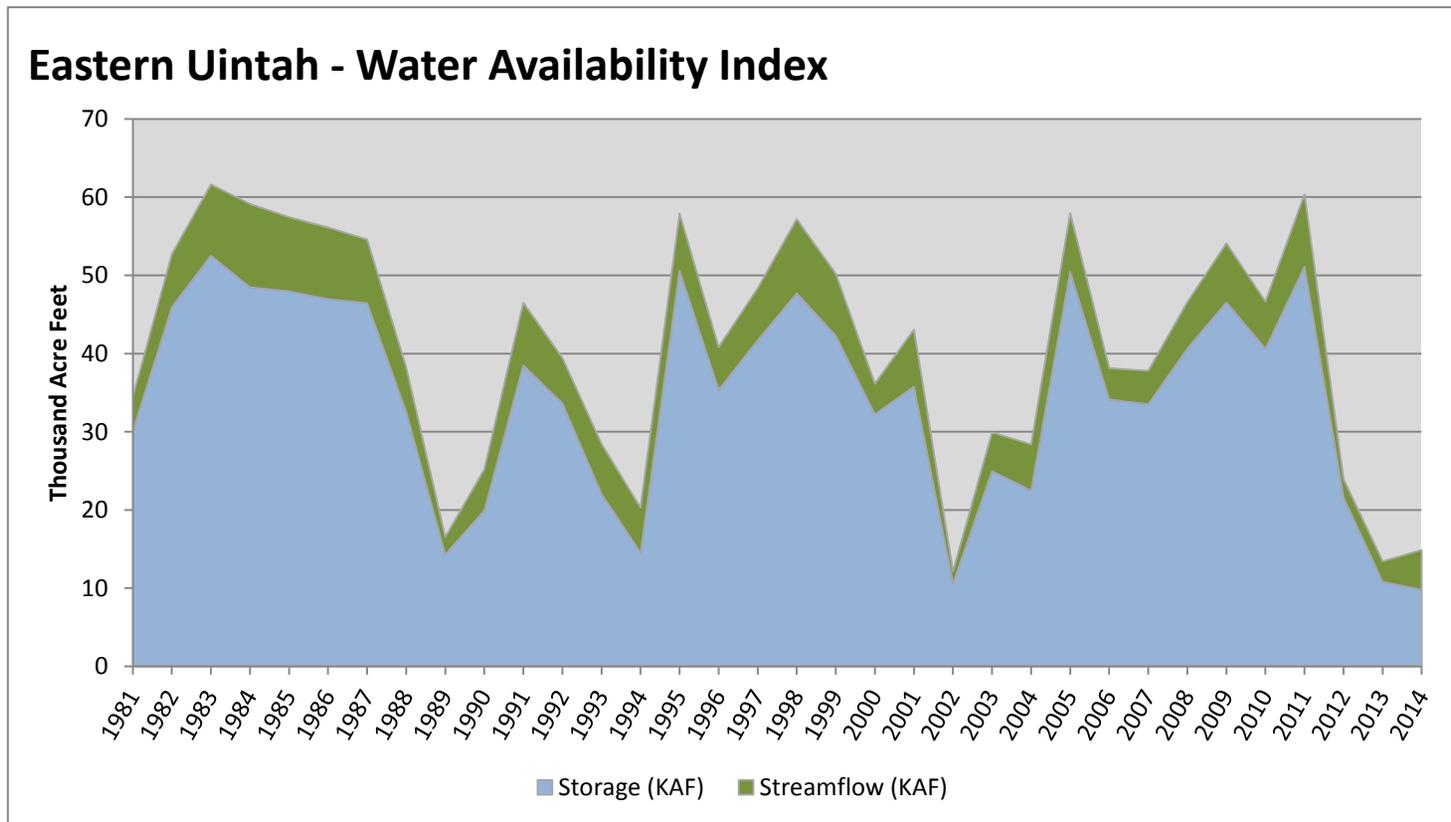


September, 1 2014

Water Availability Index

Basin or Region	Aug EOM* Storage	August Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Eastern Uintah	9.80	5.08	14.88	9	-3.45	02, 13, 89, 94

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

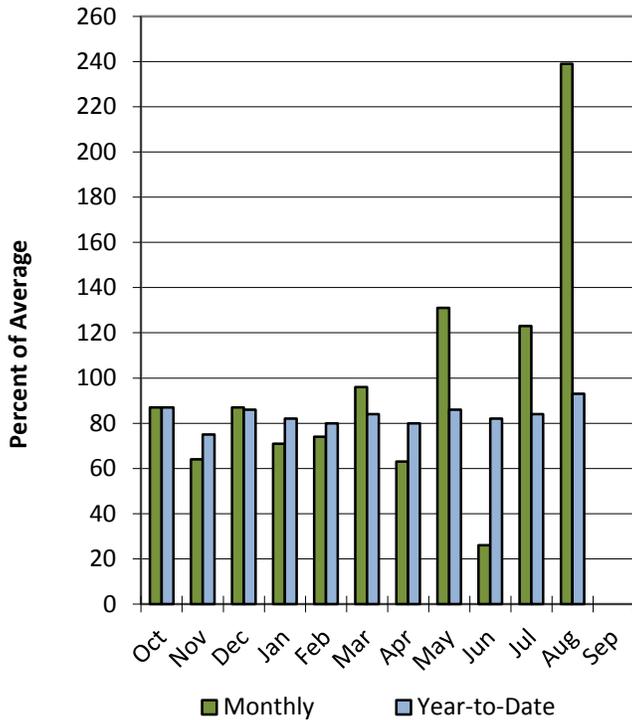


Lower Sevier River Basin

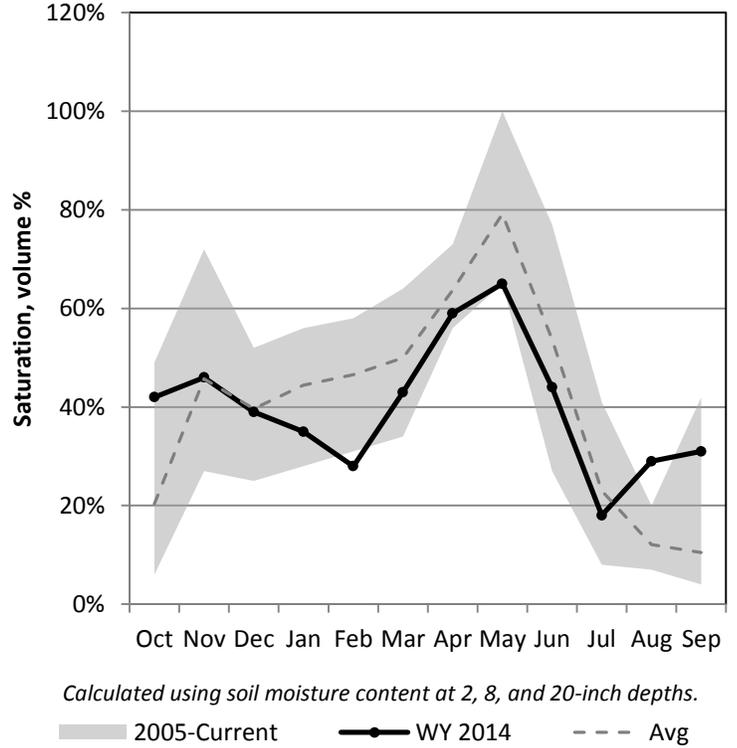
9/1/2014

Precipitation in August was much above average at 239%, which brings the seasonal accumulation (Oct-Aug) to 93% of average. Soil moisture is at 31% compared to 21% last year. Reservoir storage is at 24% of capacity, compared to 27% last year. The water availability index for the Lower Sevier is 31%.

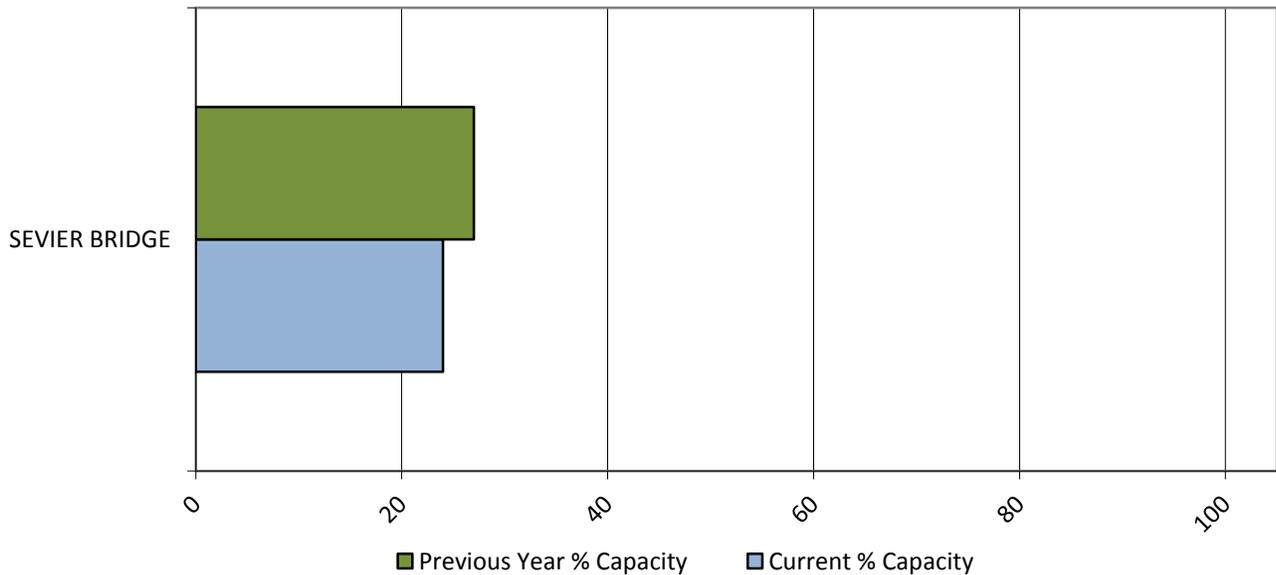
Precipitation



Soil Moisture



Reservoir Storage

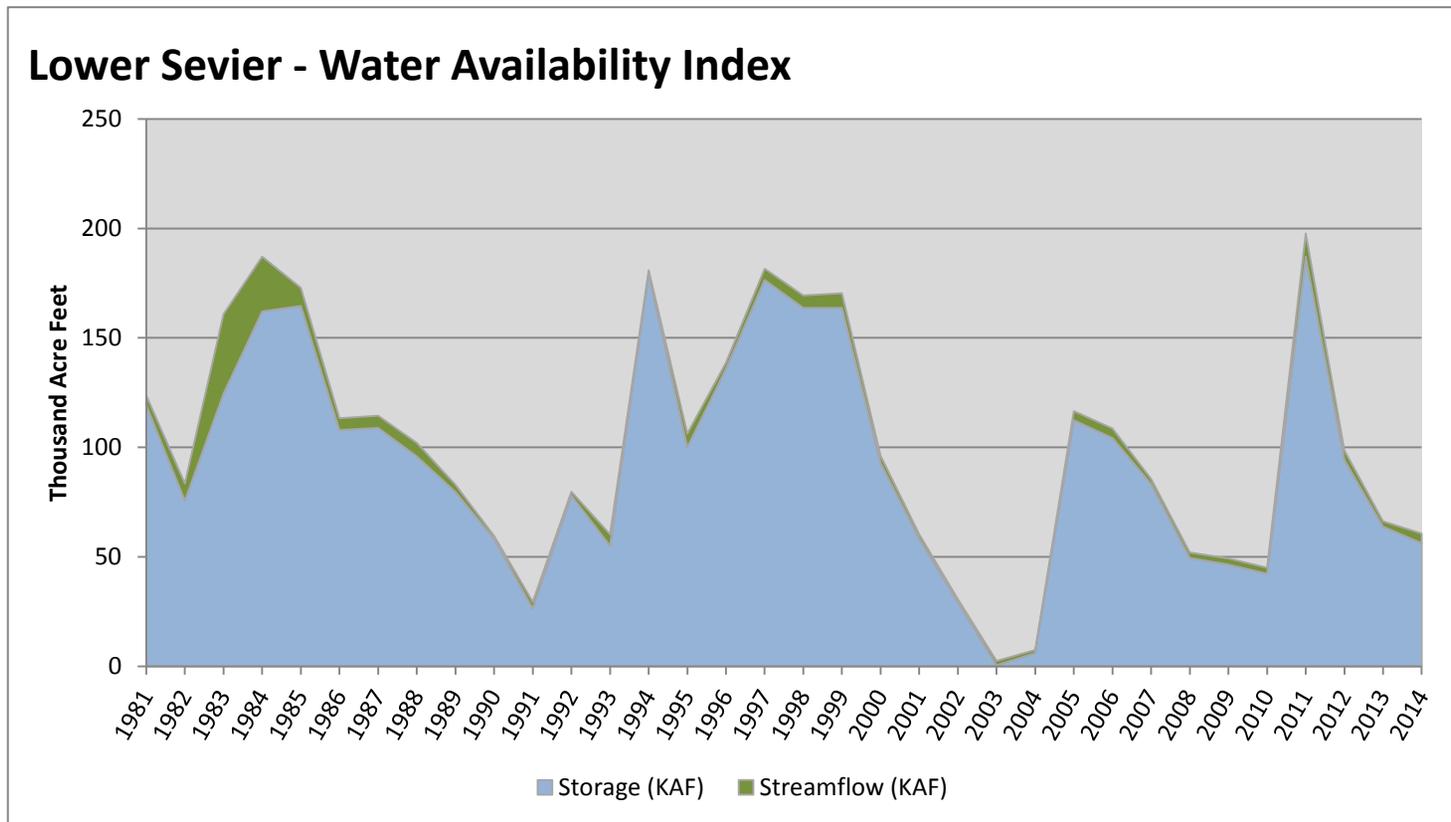


September, 1 2014

Water Availability Index

Basin or Region	Aug EOM* Storage	August Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Lower Sevier	56.28	4.39	60.67	31	-1.55	01, 93, 13, 92

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

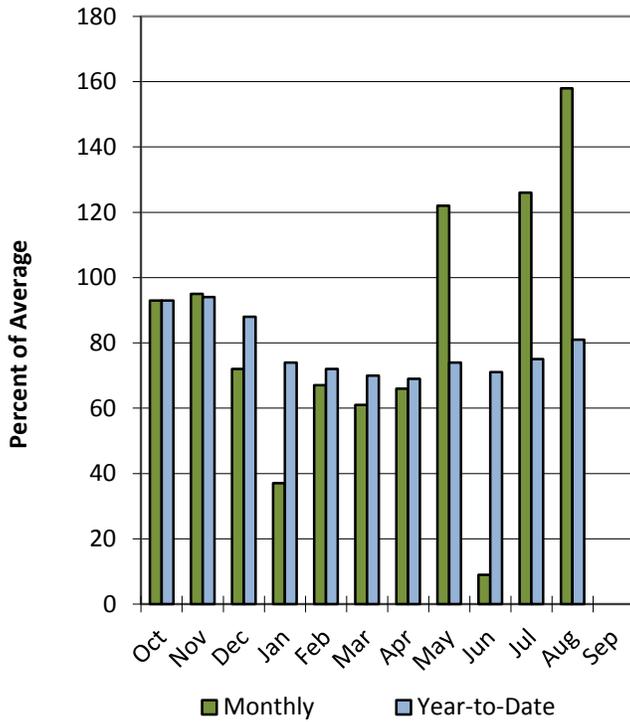


Upper Sevier River Basin

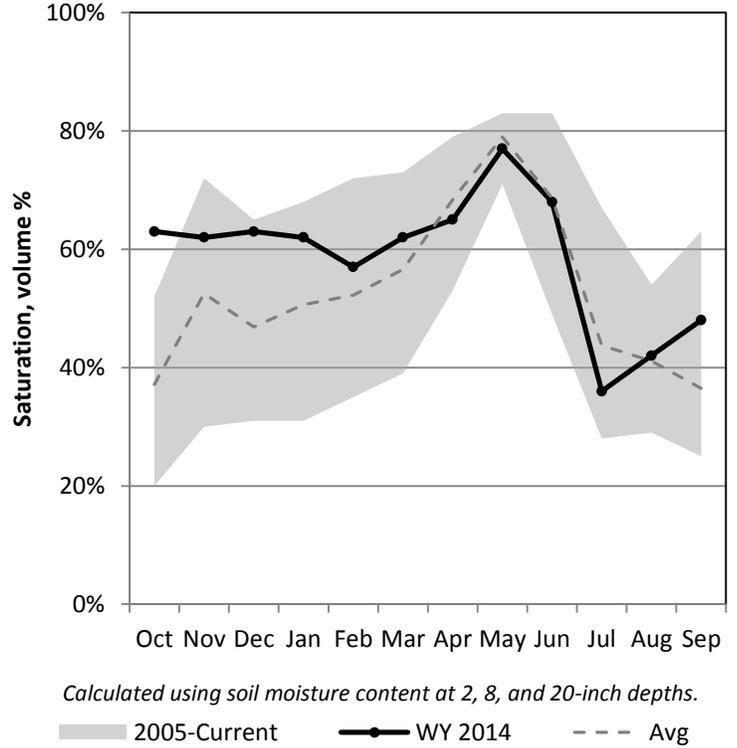
9/1/2014

Precipitation in August was much above average at 158%, which brings the seasonal accumulation (Oct-Aug) to 81% of average. Soil moisture is at 48% compared to 56% last year. Reservoir storage is at 49% of capacity, compared to 15% last year. The water availability index for the Upper Sevier is 71%.

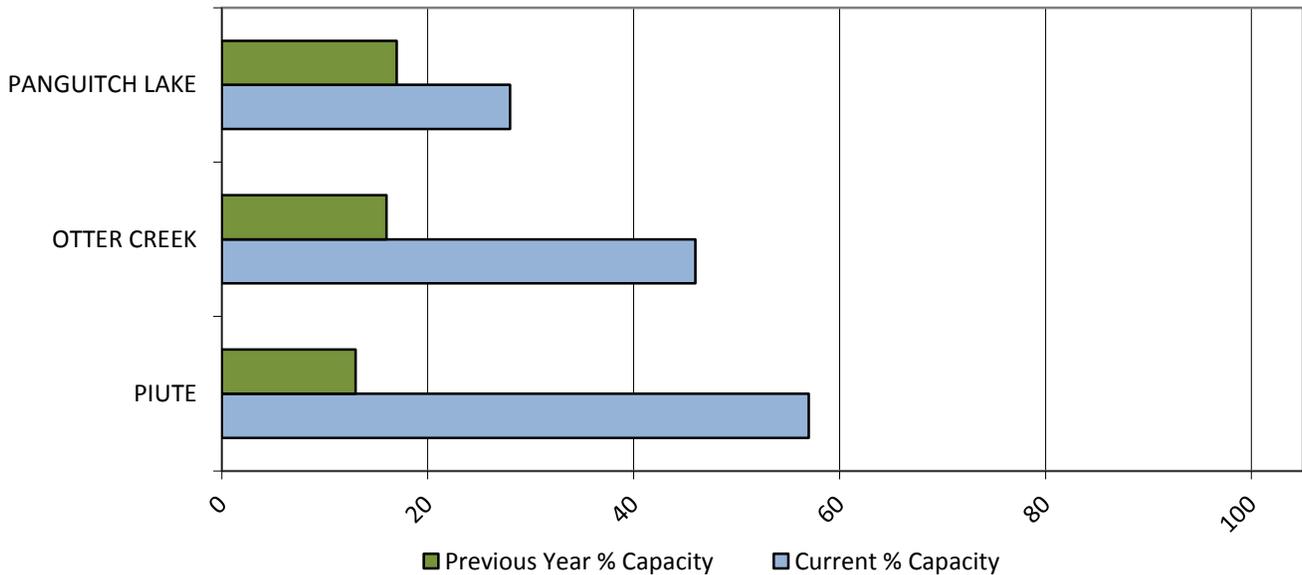
Precipitation



Soil Moisture



Reservoir Storage

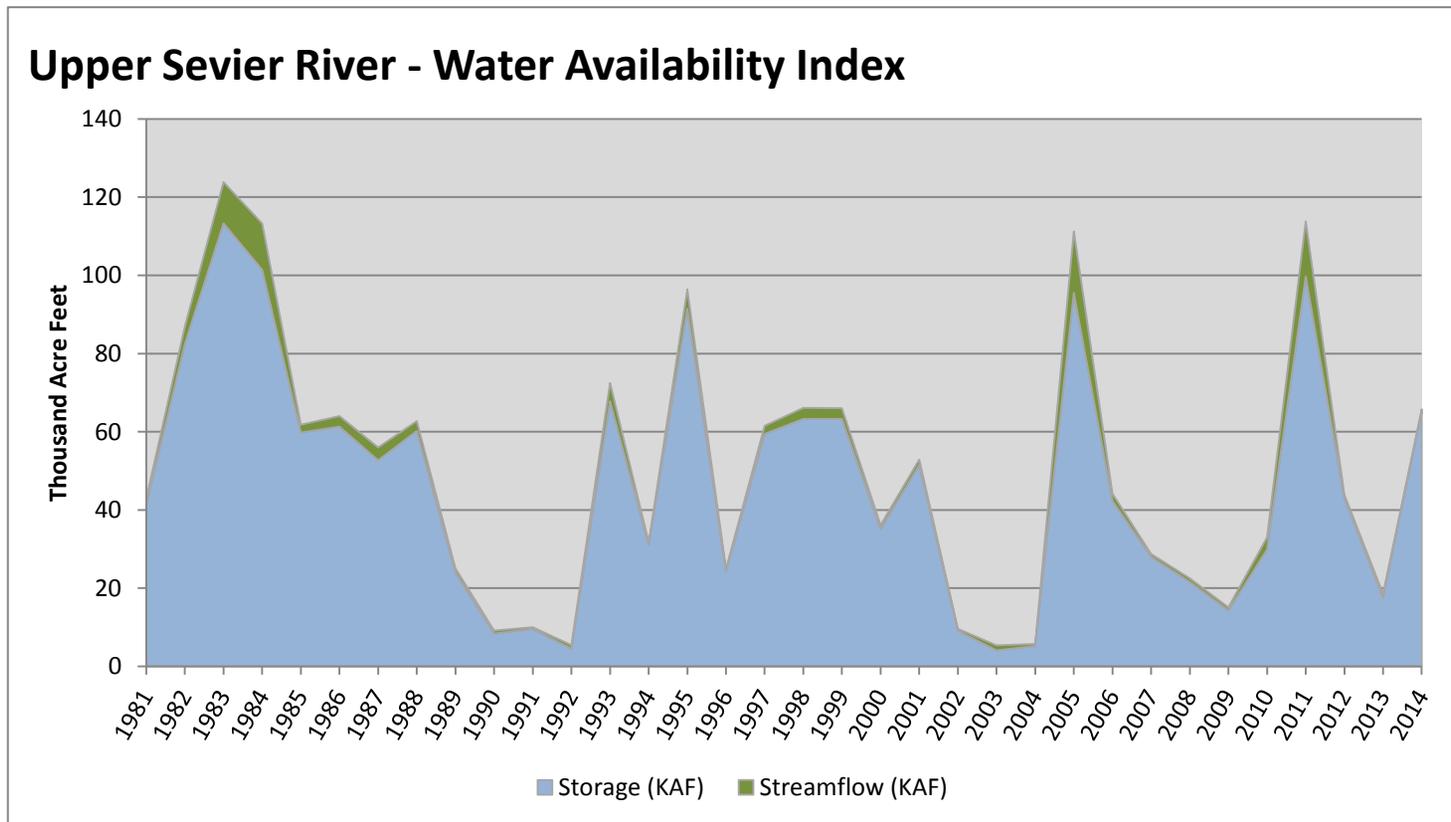


September, 1 2014

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	65.06	0.69	65.75	71	1.79	88, 86, 99, 98

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

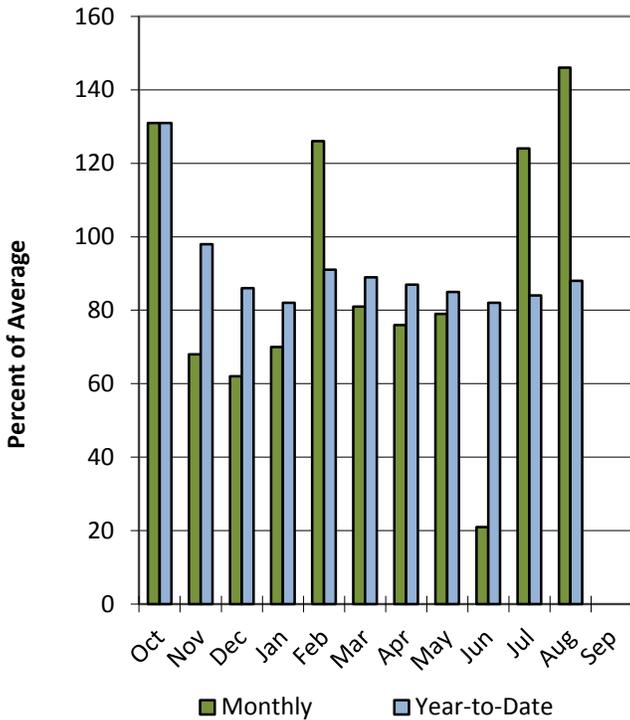


San Pitch River Basin

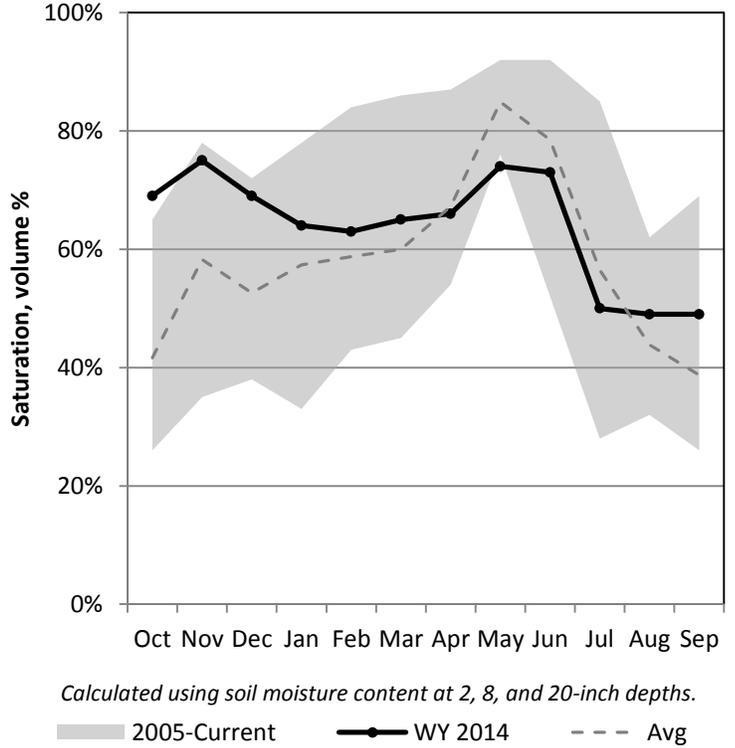
9/1/2014

Precipitation in August was much above average at 146%, which brings the seasonal accumulation (Oct-Aug) to 88% of average. Soil Moisture is at 49% compared to 62% last year. Reservoir storage is at 0% of capacity, compared to 0% last year. The water availability index for the San Pitch is 20%.

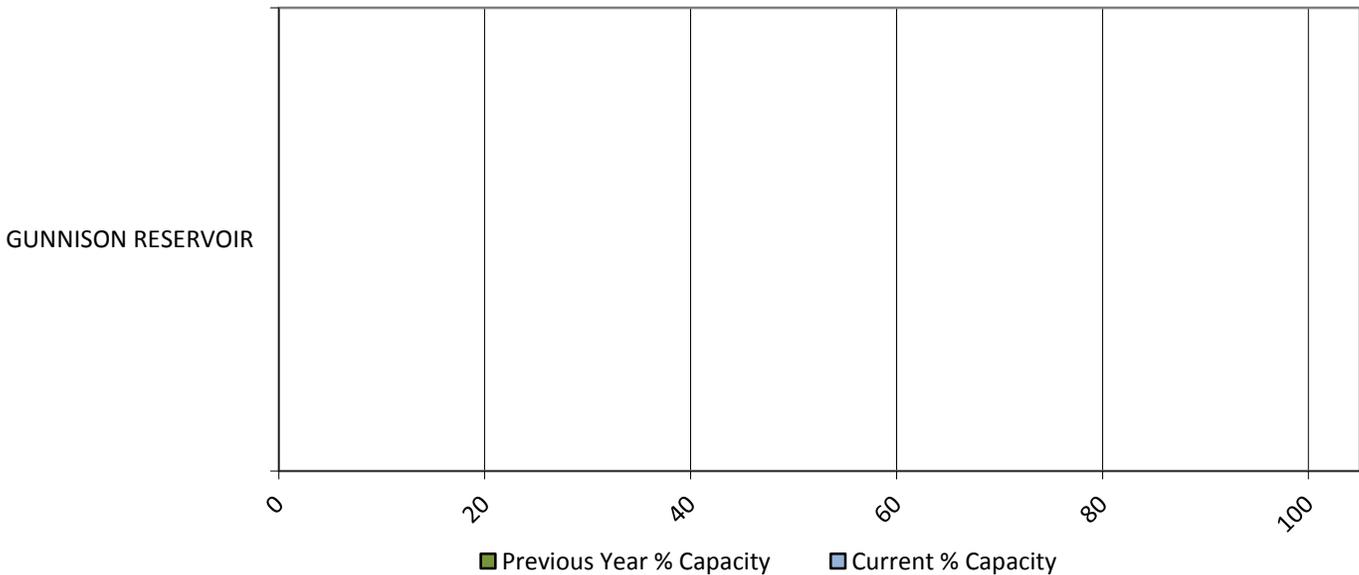
Precipitation



Soil Moisture



Reservoir Storage



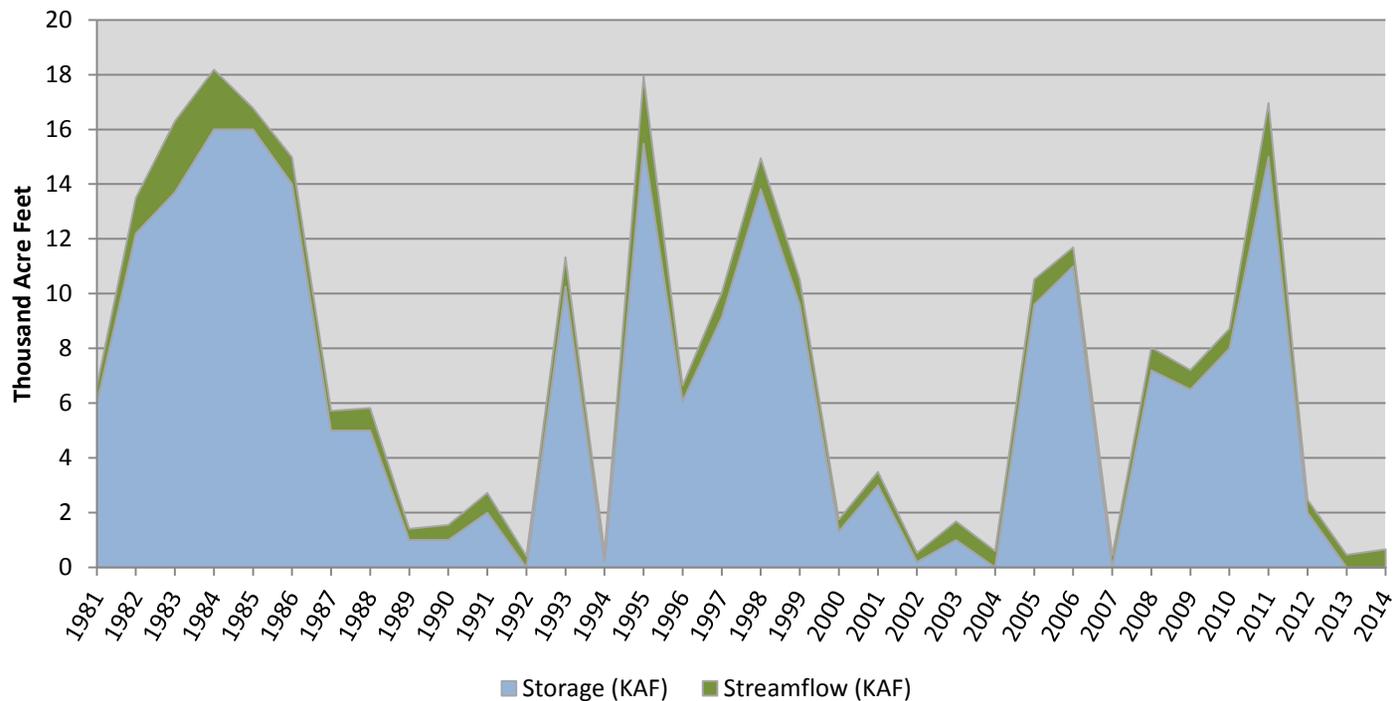
September, 1 2014

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	0.66	0.66	20	-2.5	04, 94, 89, 90

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

San Pitch - Water Availability Index

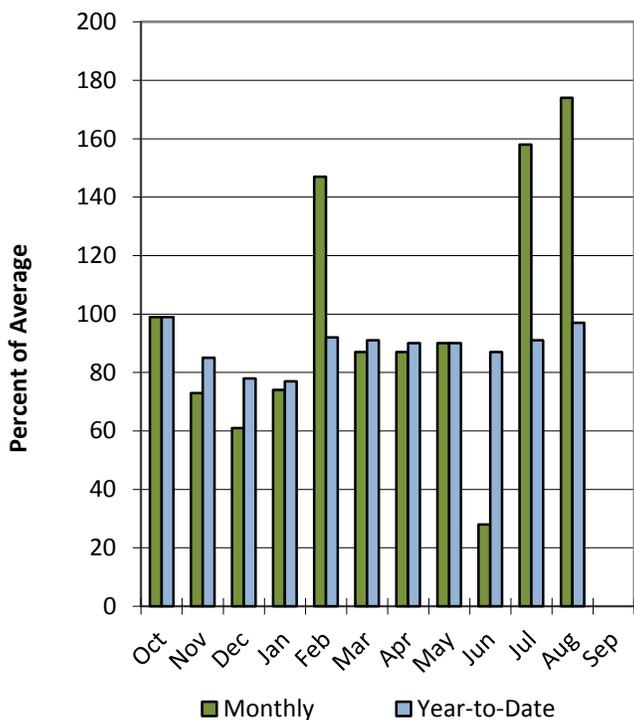


Price & San Rafael Basins

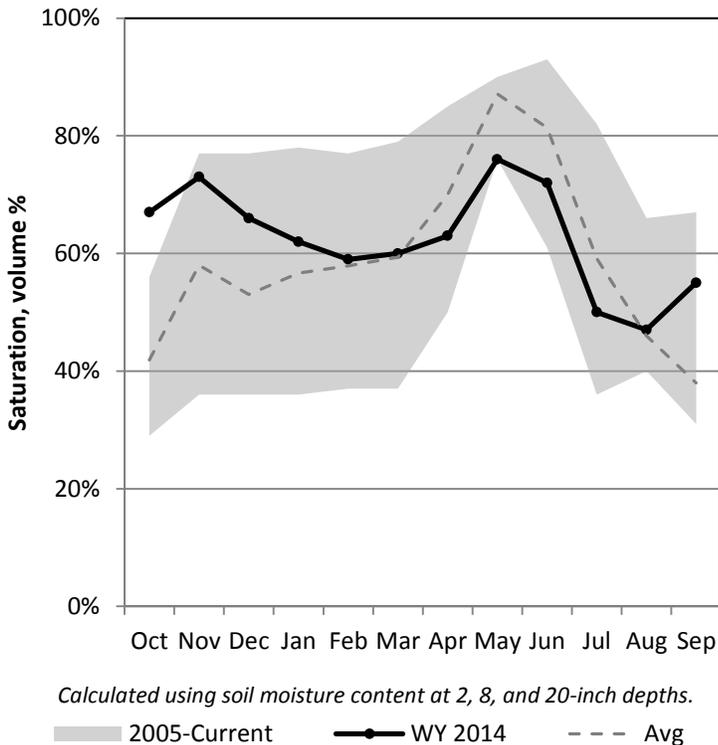
9/1/2014

Precipitation in August was much above average at 174%, which brings the seasonal accumulation (Oct-Aug) to 97% of average. Soil moisture is at 55% compared to 64% last year. Reservoir storage is at 50% of capacity, compared to 37% last year. The water availability index for the Price River is 59%, and 37% for Joe's Valley.

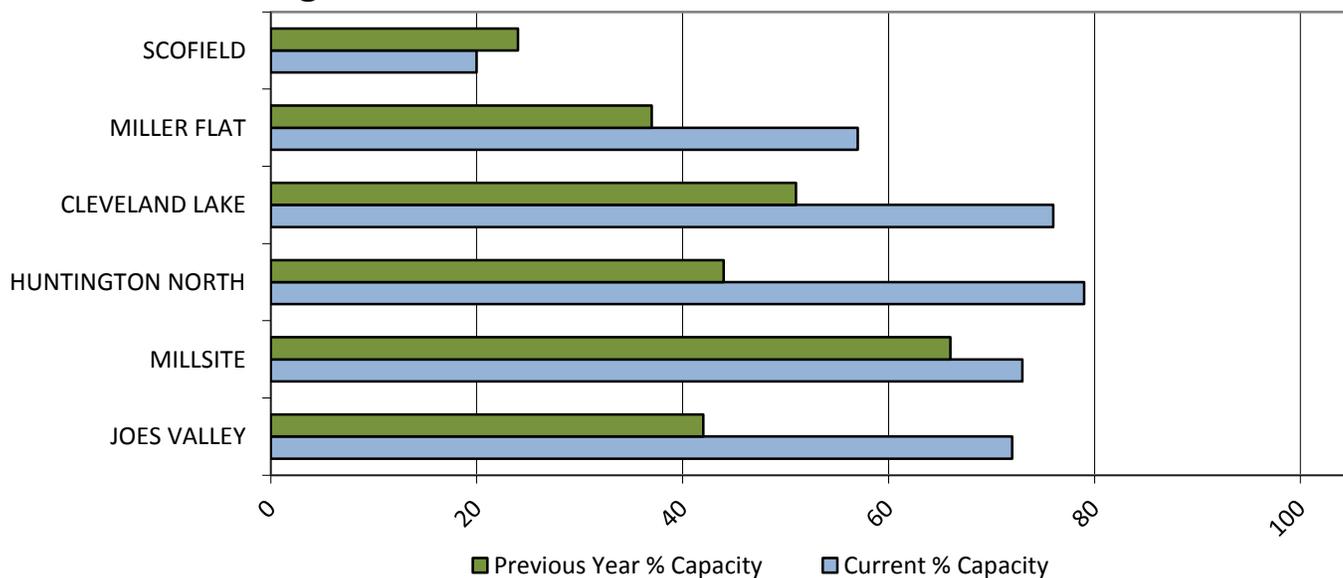
Precipitation



Soil Moisture



Reservoir Storage

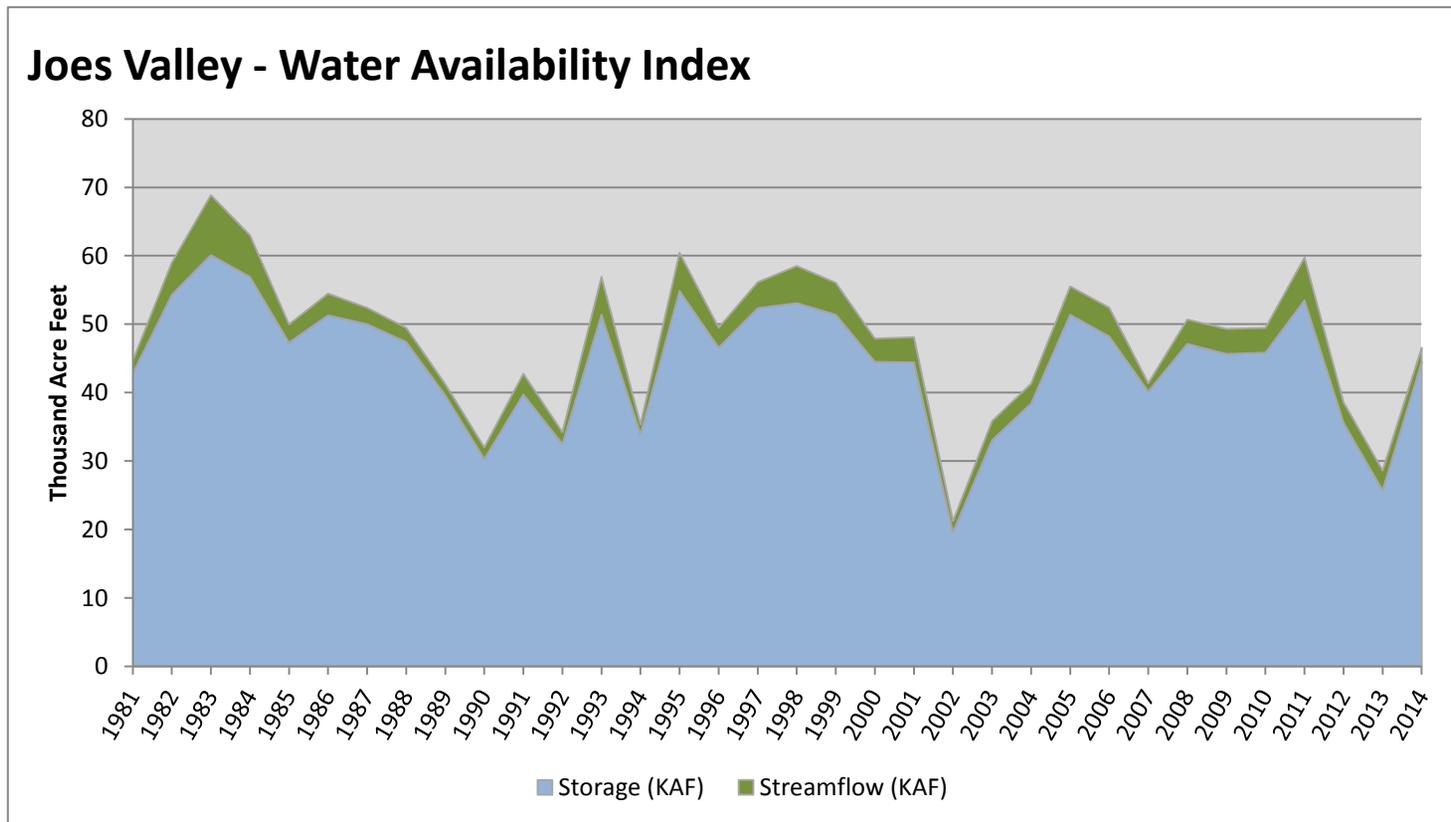


September, 1 2014

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Joese Valley	44.47	2.08	46.55	37	-1.07	91, 81, 00, 01

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

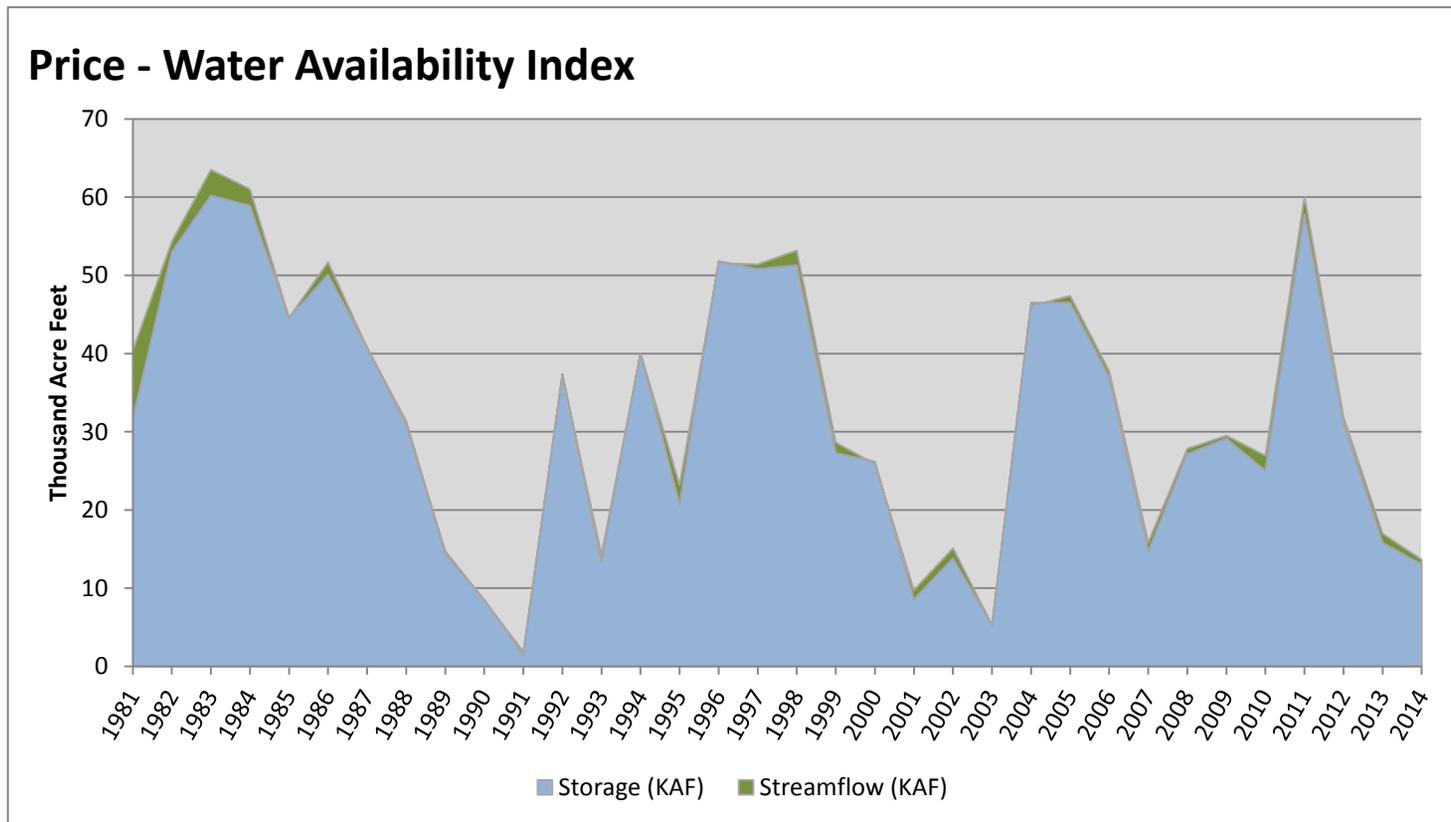


September, 1 2014

Water Availability Index

Basin or Region	Aug EOM* Storage	August Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Price	13.04	0.62	13.66	14	-2.98	90, 01, 93, 89

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

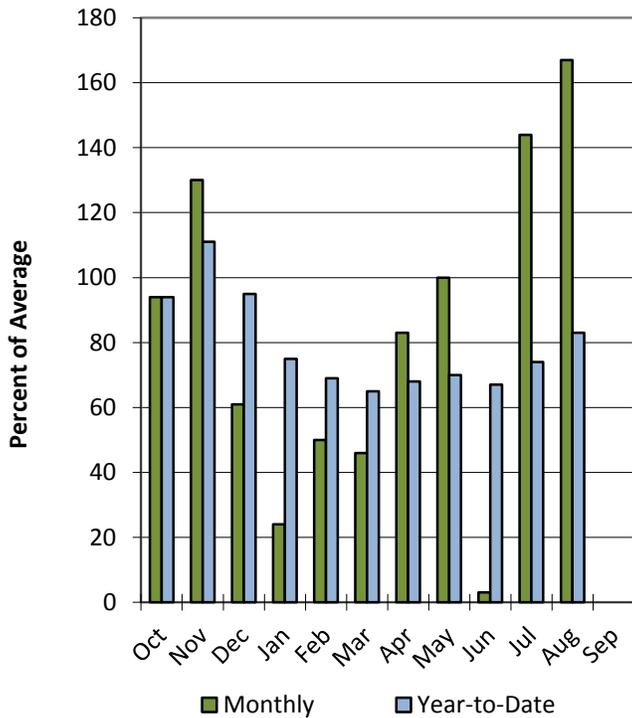


Southeastern Utah Basin

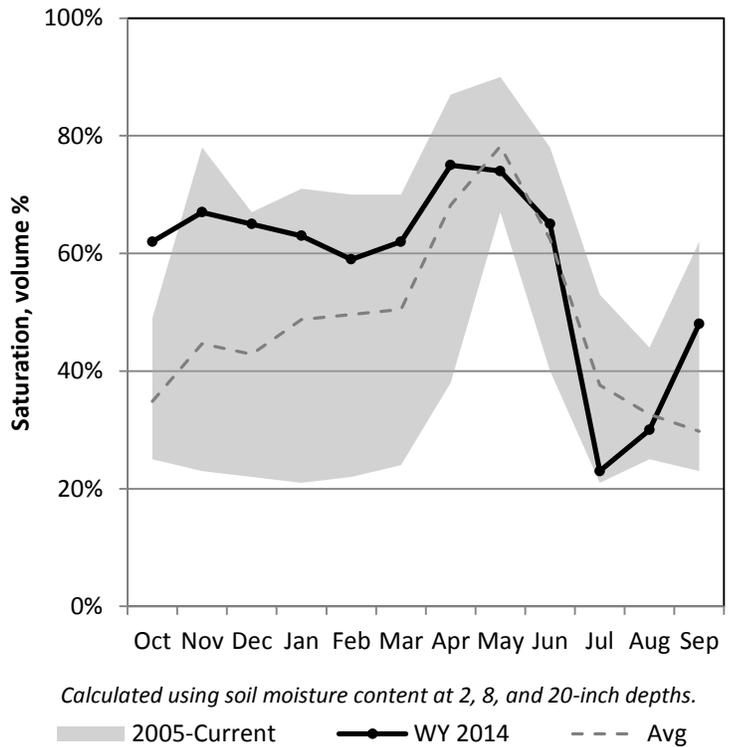
9/1/2014

Precipitation in August was much above average at 167%, which brings the seasonal accumulation (Oct-Aug) to 83% of average. Soil moisture is at 48% compared to 45% last year. Reservoir storage is at 54% of capacity, compared to 11% last year. The water availability index for Moab is 68%.

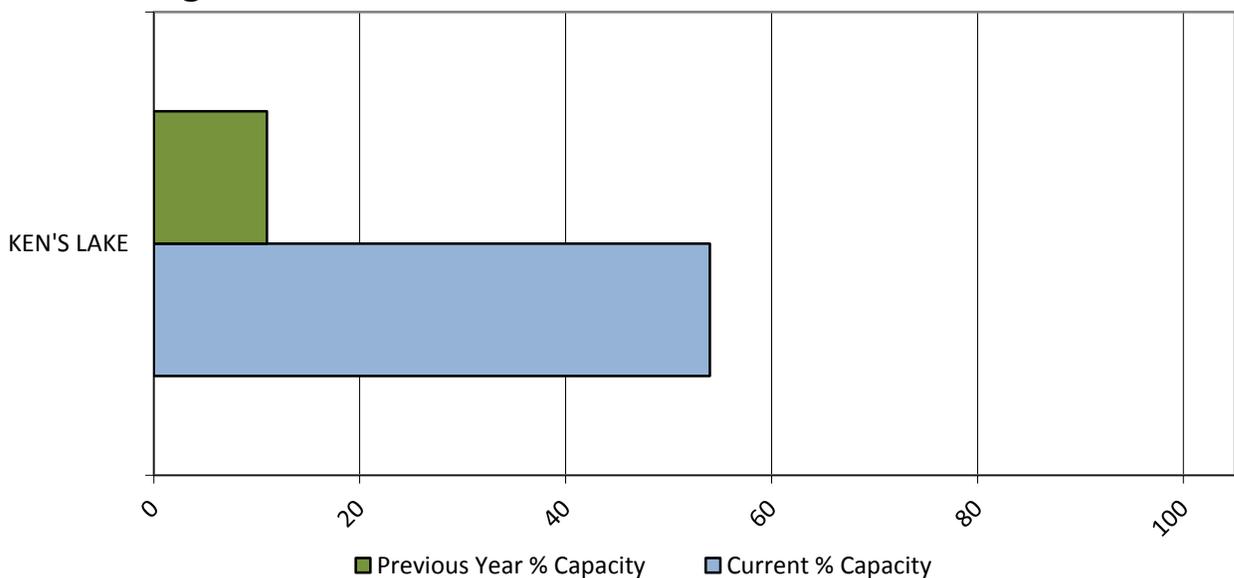
Precipitation



Soil Moisture



Reservoir Storage



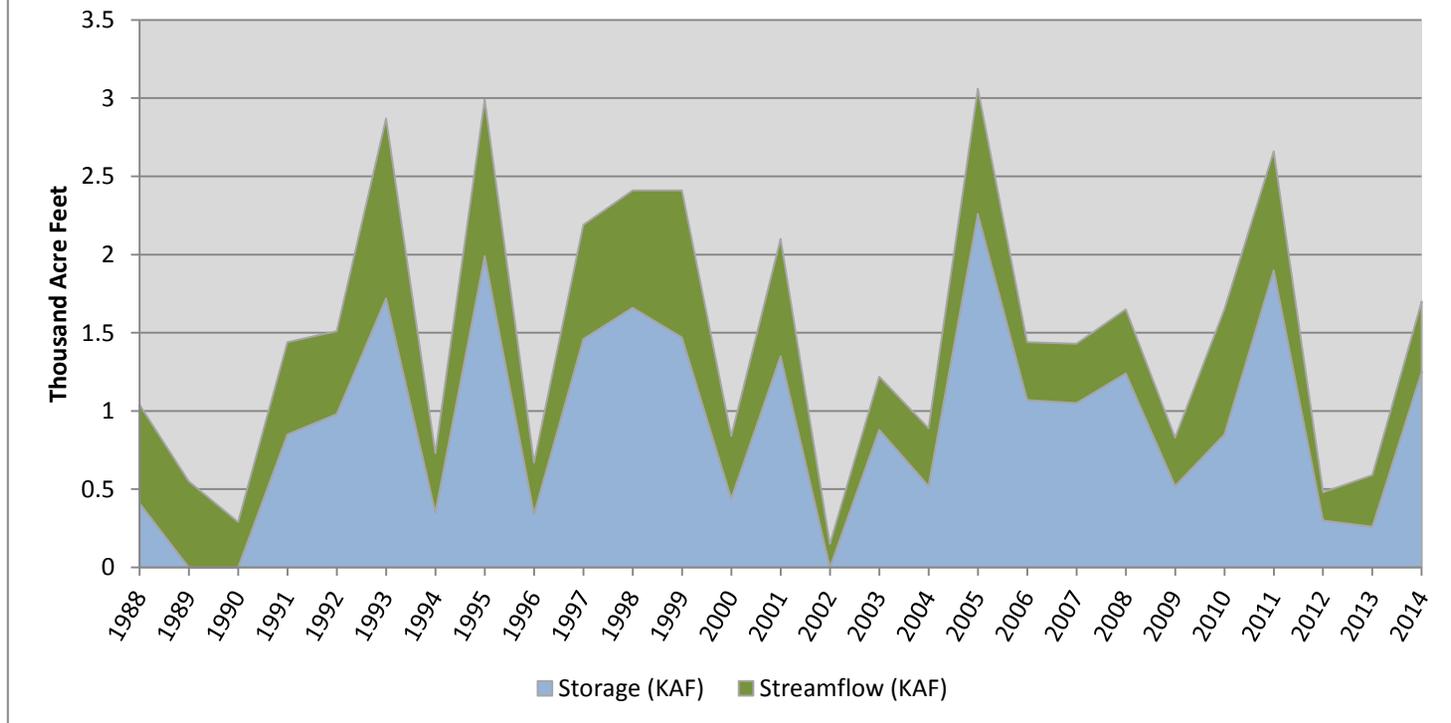
September, 1 2014

Water Availability Index

Basin or Region	Aug EOM* Storage	August Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Moab	1.25	0.45	1.70	68	1.49	08, 10, 01, 97

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

Moab - Water Availability Index

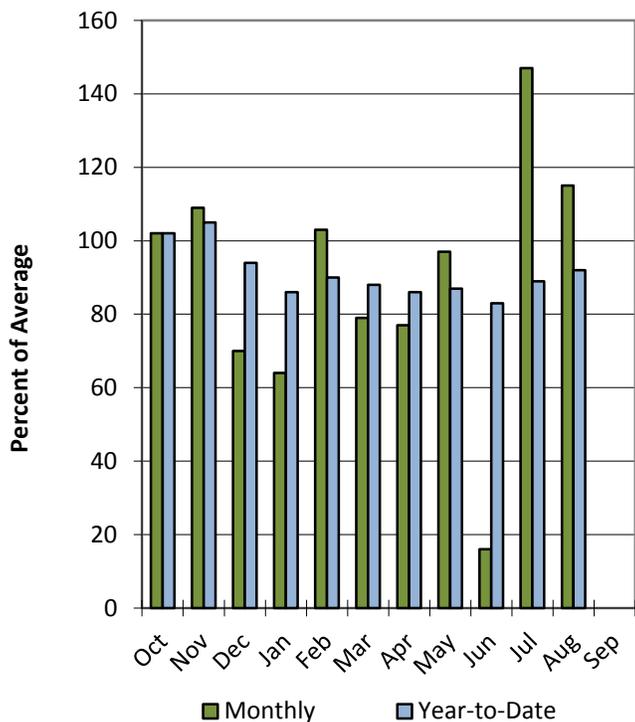


Dirty Devil Basin

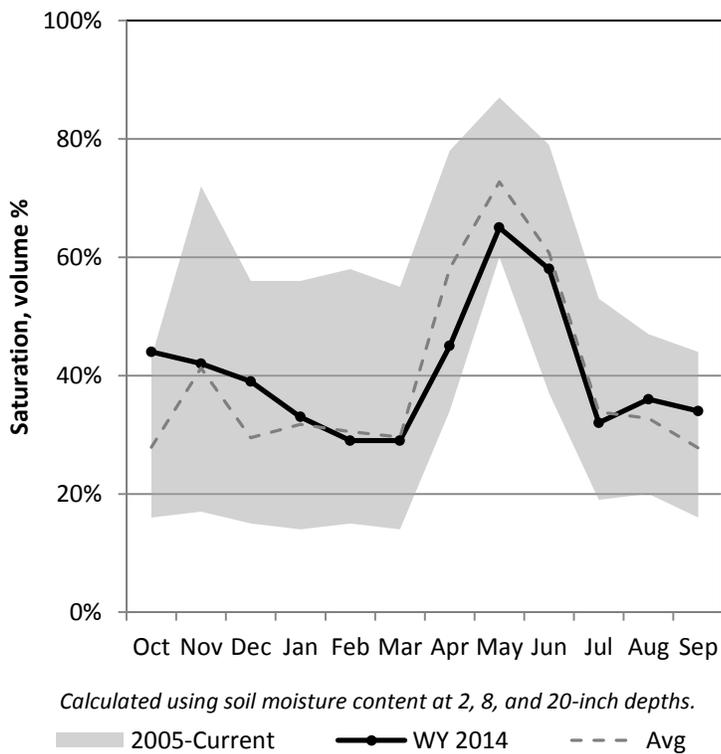
9/1/2014

Precipitation in August was above average at 115%, which brings the seasonal accumulation (Oct-Aug) to 92% of average. Soil moisture is at 34% compared to 55% last year.

Precipitation



Soil Moisture

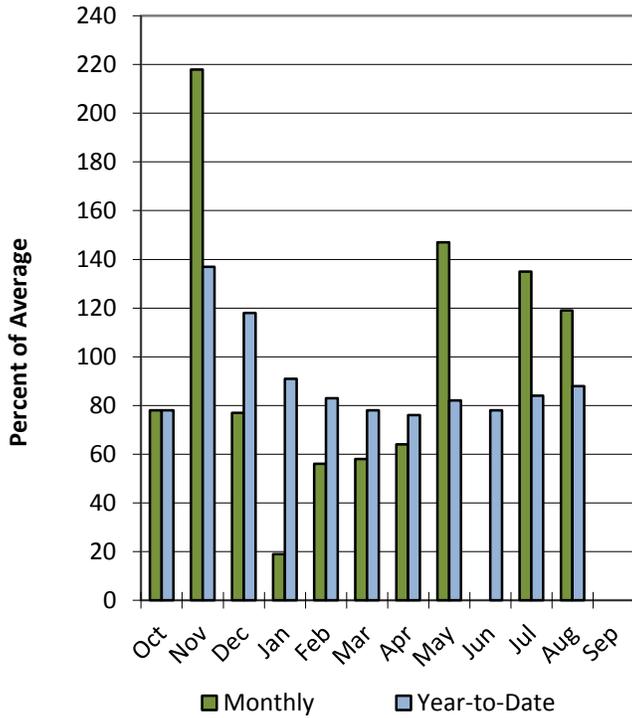


Escalante River Basin

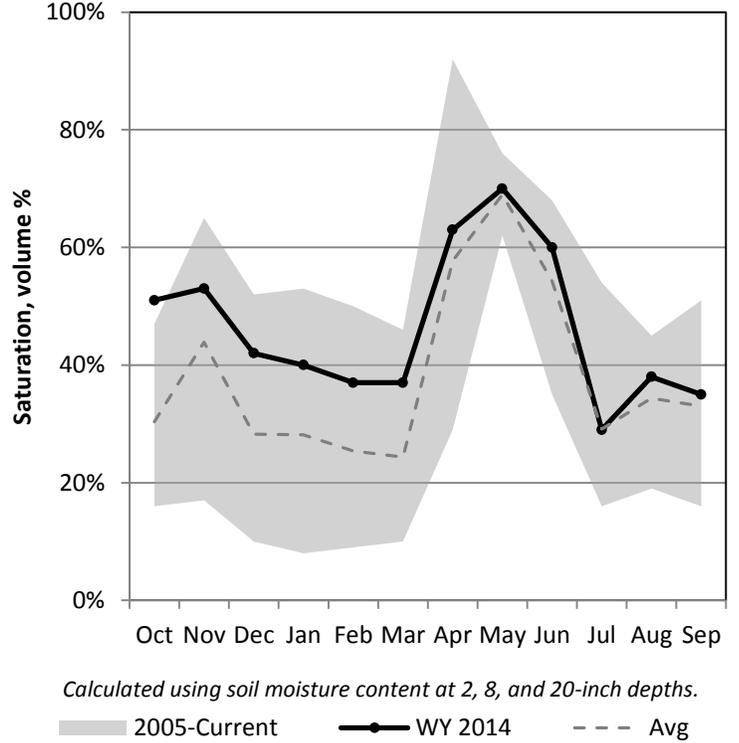
9/1/2014

Precipitation in August was above average at 119%, which brings the seasonal accumulation (Oct-Aug) to 88% of average. Soil moisture is at 35% compared to 56% last year.

Precipitation



Soil Moisture

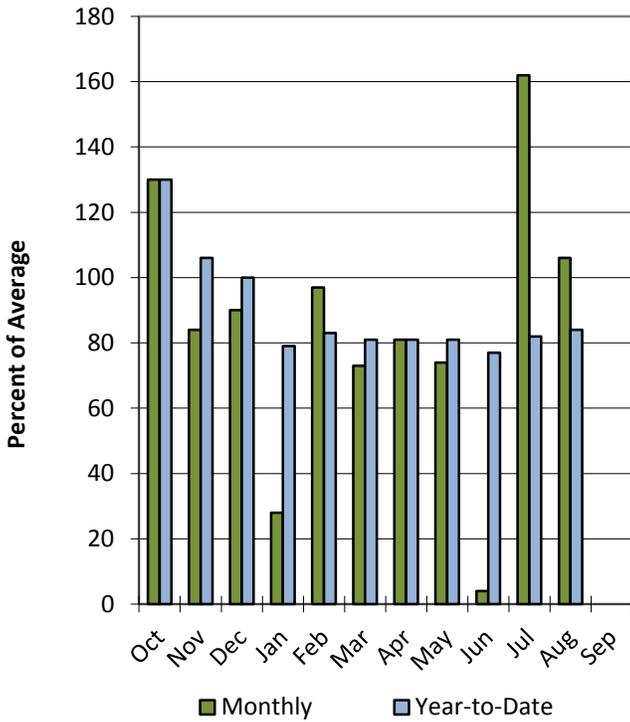


Beaver River Basin

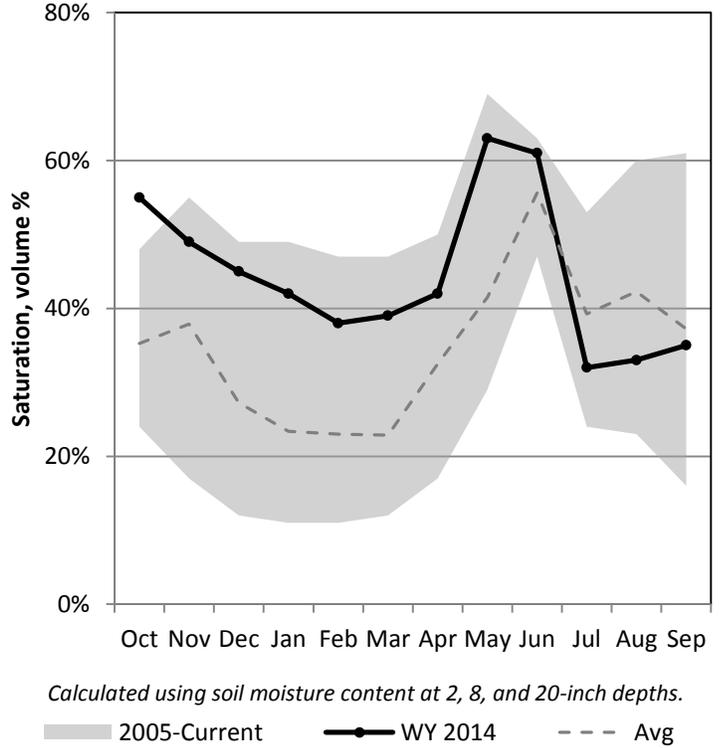
9/1/2014

Precipitation in August was near average at 106%, which brings the seasonal accumulation (Oct-Aug) to 84% of average. Soil moisture is at 35% compared to 59% last year. Reservoir storage is at 17% of capacity, compared to 15% last year. The water availability index for the Beaver River is 43%.

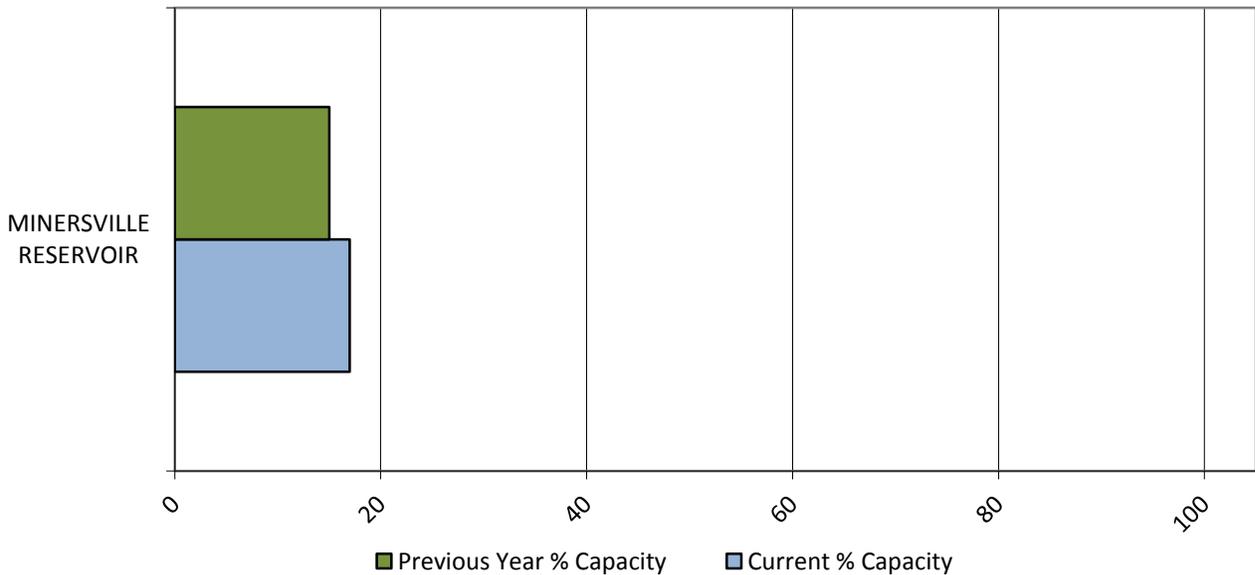
Precipitation



Soil Moisture



Reservoir Storage

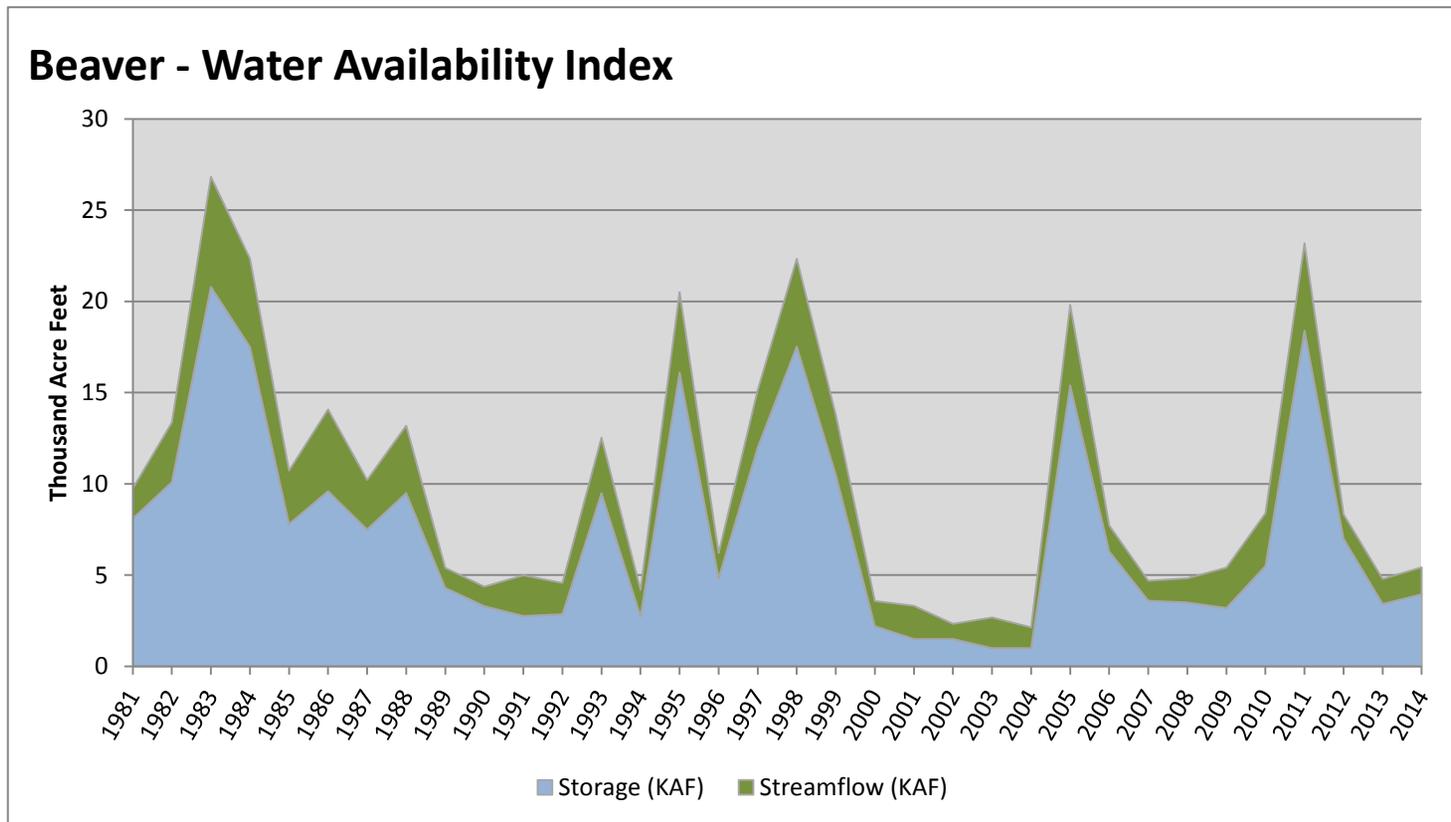


September, 1 2014

Water Availability Index

Basin or Region	Aug EOM* Storage	August Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Beaver	3.95	1.48	5.43	43	-0.6	89, 09, 96, 06

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

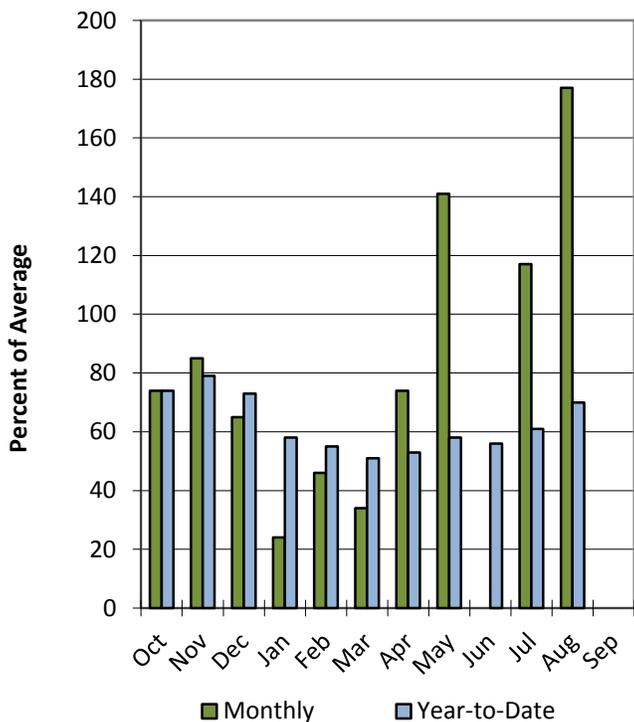


Southwestern Utah Basin

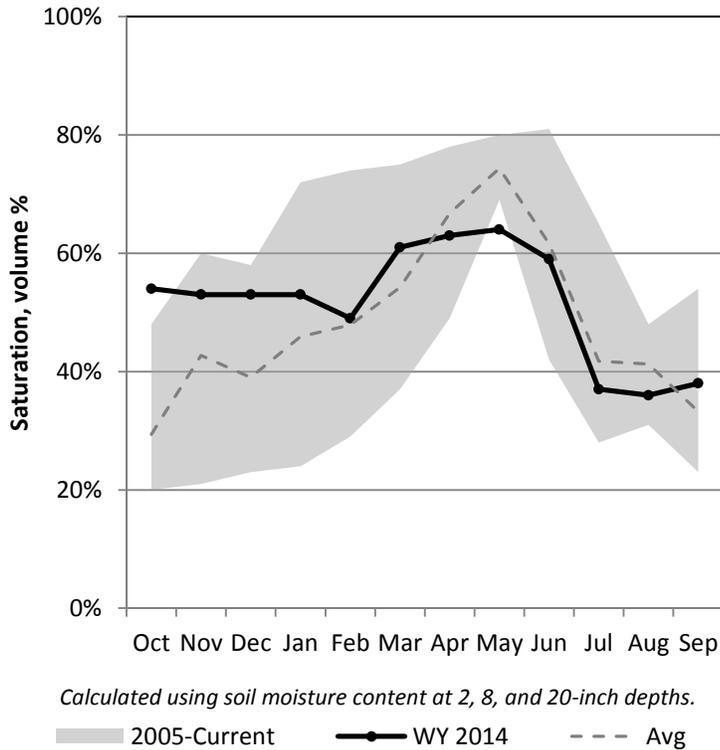
9/1/2014

Precipitation in August was much above average at 177%, which brings the seasonal accumulation (Oct-Aug) to 70% of average. Soil moisture is at 38% compared to 69% last year. Reservoir storage is at 51% of capacity, compared to 44% last year. The water availability index for the Virgin River is 33%.

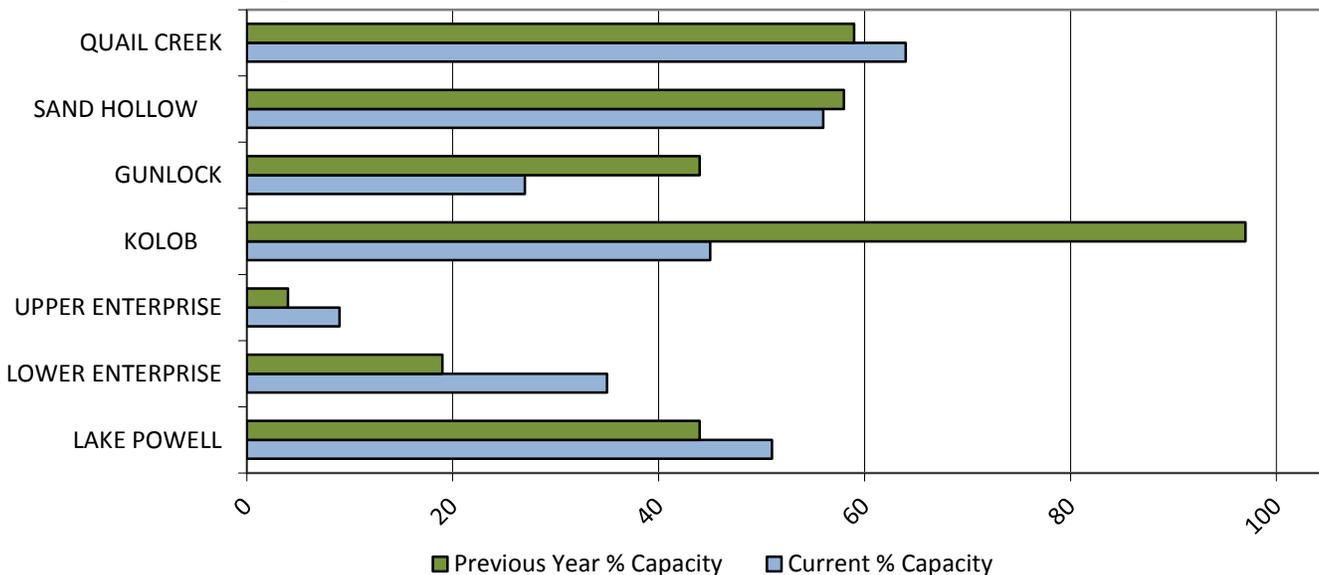
Precipitation



Soil Moisture



Reservoir Storage

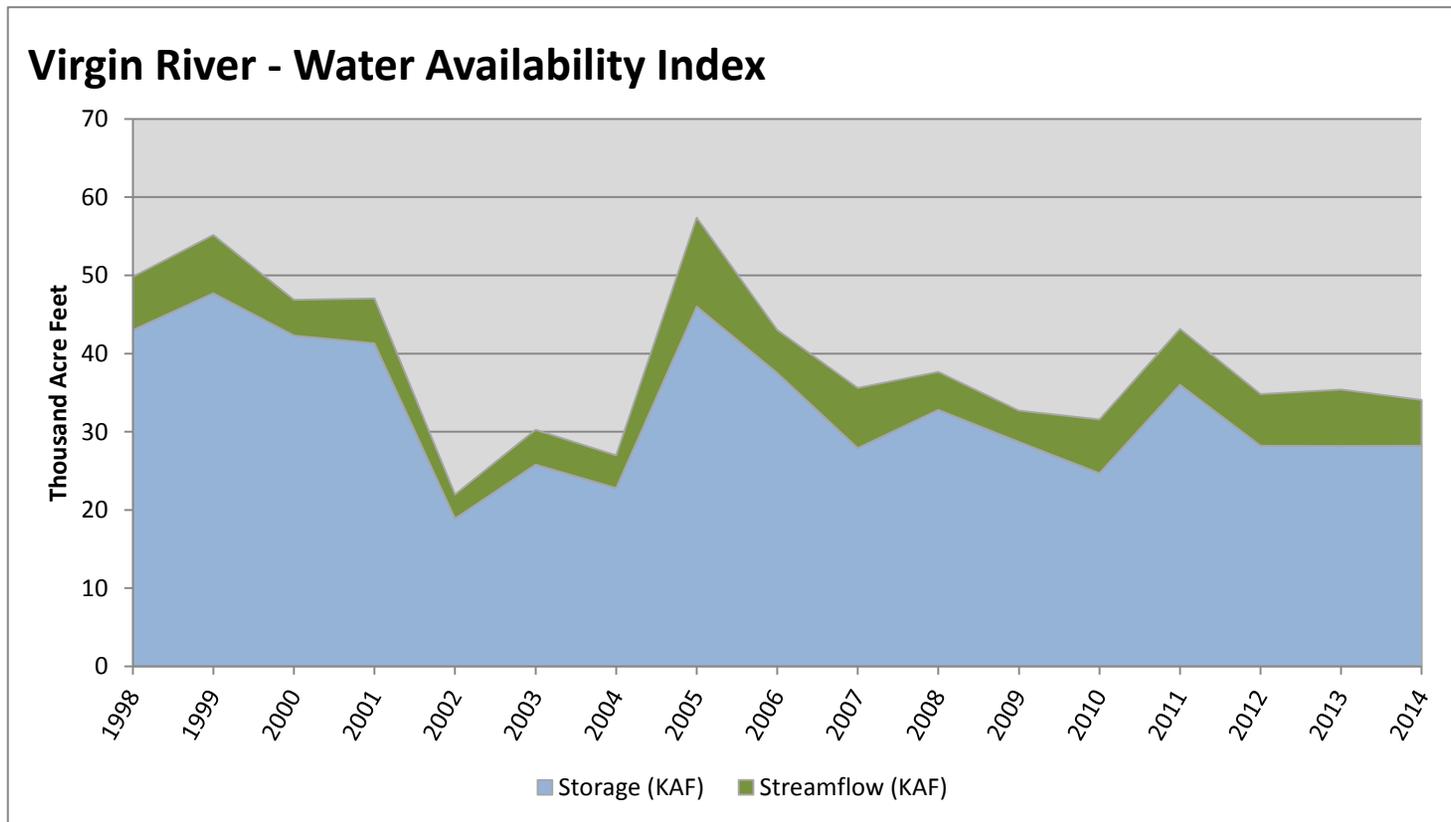


September, 1 2014

Water Availability Index

Basin or Region	Aug EOM [*] Storage	August Flow	Storage + Flow	Percentile	WAI [#]	Years with similiar WAI
	KAF [^]	KAF [^]	KAF [^]	%		
Virgin River	28.21	5.85	34.06	33	-1.39	10, 09, 12, 13

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



September, 1 2014

Water Availability Index

Basin or Region	Aug EOM* Storage	August Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Bear River	525	12.8	538	49.00	-0.1	95, 01, 13, 89
Woodruff Narrows	18.7	7.3	26.0	49.0	-0.1	85, 07, 87, 91
Little Bear	3.0	1.3	4.3	31.0	-1.6	02, 91, 08, 00
Ogden	67.2	1.9	69.2	51.0	0.1	89, 08, 85, 04
Weber	87.7	13.6	101.3	38.0	-1.0	03, 94, 07, 04
Provo River	319.6	7.0	326.6	30.0	-1.7	03, 12, 96, 07
Western Uintah	165.0	5.4	170.4	64.0	1.2	08, 06, 09, 96
Eastern Uintah	9.8	5.1	14.9	9.0	-3.5	02, 13, 89, 94
Blacks Fork	15.4	7.3	22.6	66.0	1.3	87, 97, 91, 99
Price	13.0	0.6	13.7	14.0	-3.0	90, 01, 93, 89
Smiths Creek	8.6	2.3	10.9	59.0	0.7	10, 09, 93, 91
Joes Valley	44.5	2.1	46.6	37.0	-1.1	91, 81, 00, 01
Moab	1.3	0.5	1.7	68.0	1.5	08, 10, 01, 97
Upper Sevier River	65.1	0.7	65.8	71.0	1.8	88, 86, 99, 98
San Pitch	0.0	0.7	0.7	20.0	-2.5	04, 94, 89, 90
Lower Sevier	56.3	4.4	60.7	31.0	-1.6	01, 93, 13, 92
Beaver	4.0	1.5	5.4	43.0	-0.6	89, 09, 96, 06
Virgin River	28.2	5.9	34.1	33.0	-1.4	10, 09, 12, 13

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

What is a Water Availability Index?

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

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

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

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

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