

# Utah Climate and Water Report

June 2015



Grantsville Reservoir, June 2015

Photo by Jordan Clayton

# Utah Climate and Water Report

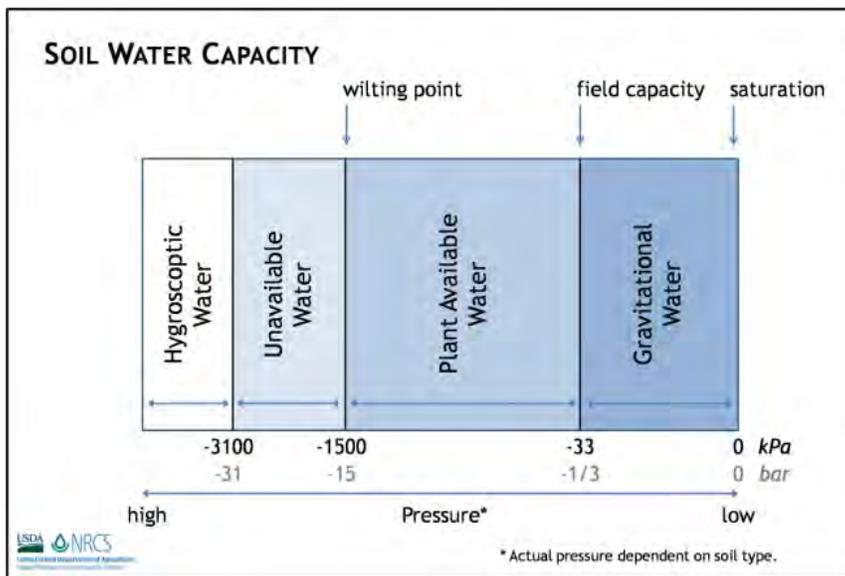
The purpose of the Climate and Water Report is to provide a snapshot of current and immediate past climatic conditions and other information useful to agricultural and water user interests in Utah. The report utilizes data from several sources that represent specific parameters (streamflow data from the United States Geological Survey, reservoir data from the Bureau of Reclamation, and other sources), geography including high elevation United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Snowpack Telemetry (SNOTEL) data, and agriculturally important data from the USDA-NRCS Soil Climate Analysis Network (SCAN). Data on precipitation, soil moisture, soil temperature, reservoir storage, and streamflow are analyzed and presented. These data analyses can be used to increase irrigation efficiency and agricultural production. As with all data and analyses, there are limitations due to data quality, quantity, and spatial application.

# Climate and Water Information

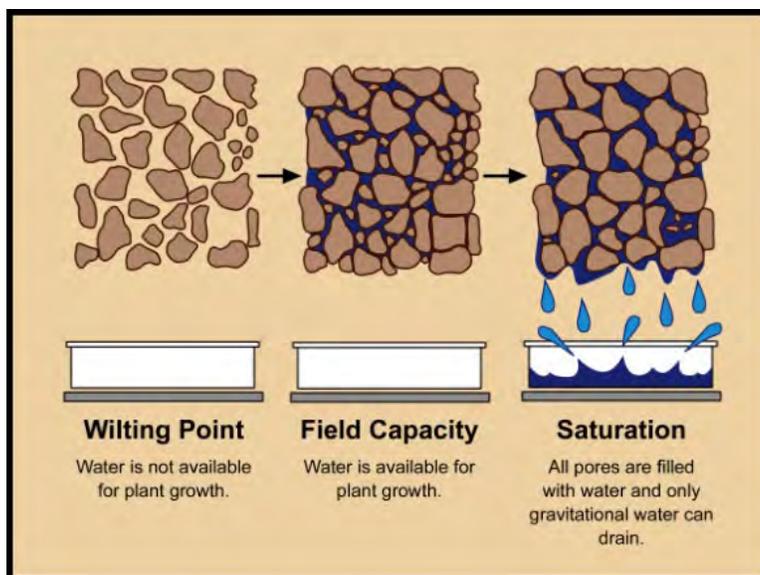
## Soil Climate Analysis Network

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

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



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



**Visual explanation of soil water capacity definitions.**

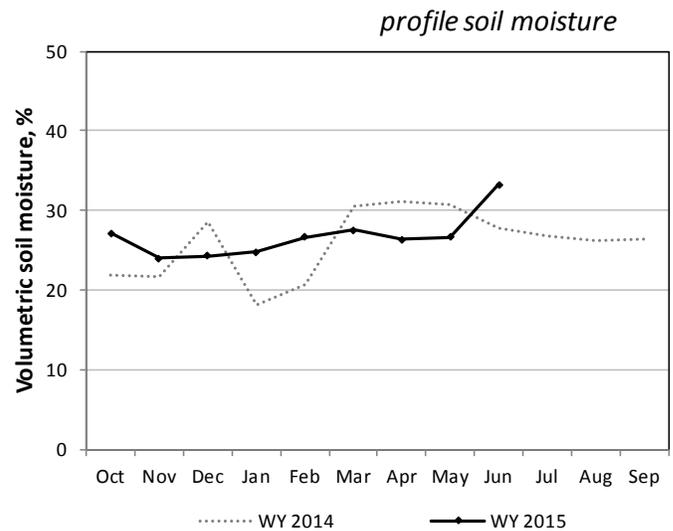
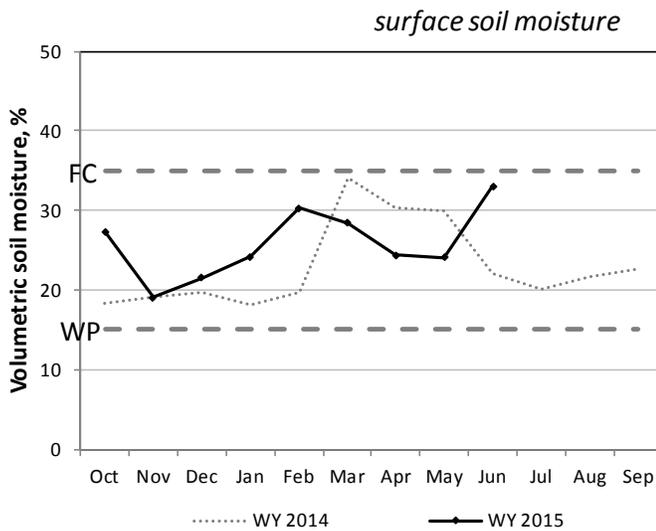
# North Central

## Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	<i>in.</i>	<i>in.</i>	<i>volume %</i>					<i>° F</i>				
<b>NORTH CENTRAL</b>												
Blue Creek	10.6	5.5	32	32	40	36	18	64	62	60	56	53
Cache Junction	15.8	8.5	41	35	45	38	41	58	58	54	51	51
Grantsville	7.6	4.0	14	20	26	-	-	73	70	67	60	57

\* 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.**

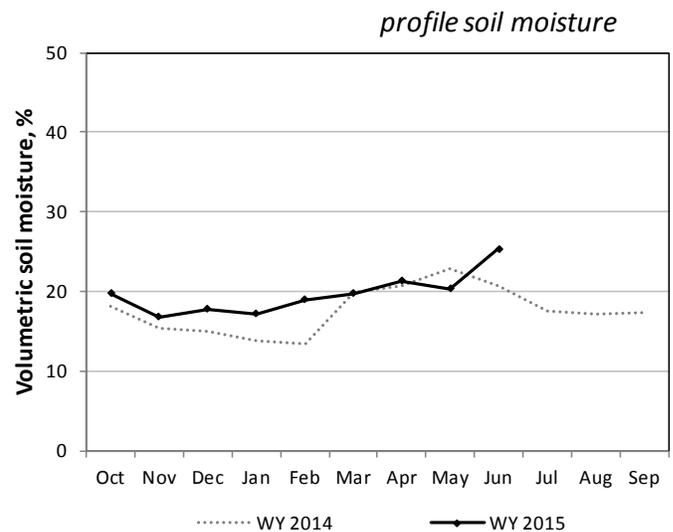
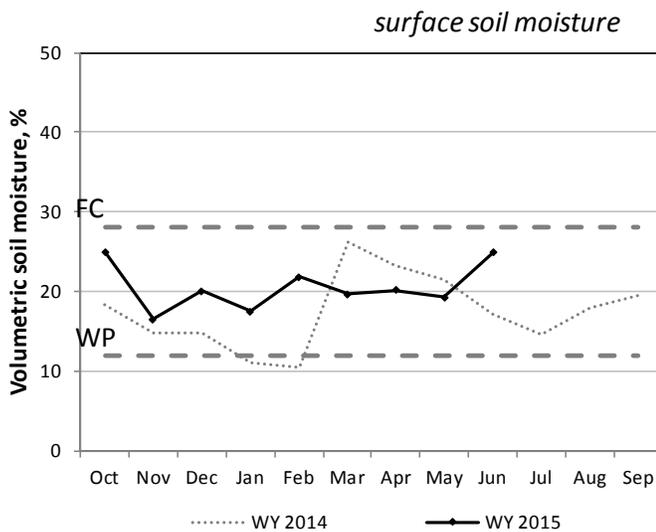
# Northern Mountains

## 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>				
<b>NORTHERN MOUNTAINS</b>												
Chicken Ridge	11.2	6.8	20	22	27	27	26	53	52	51	47	45
Buffalo Jump	8.7	4.7	18	24	22	20	-	57	57	55	50	-
Morgan	11.5	4.2	30	25	30	35	21	69	66	62	57	53

\* 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



*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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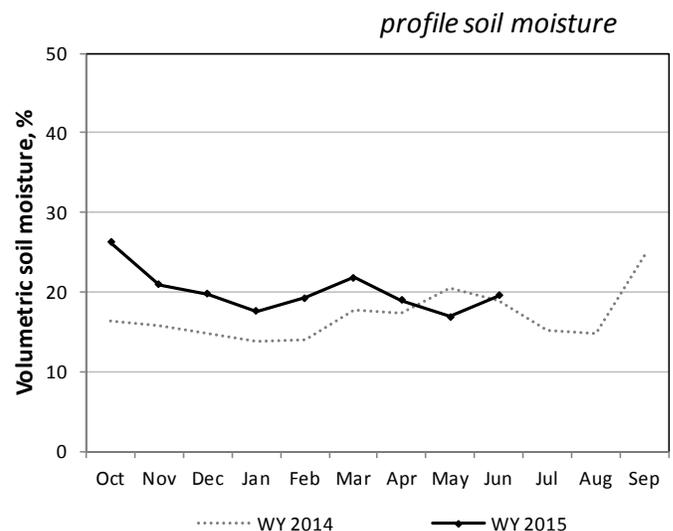
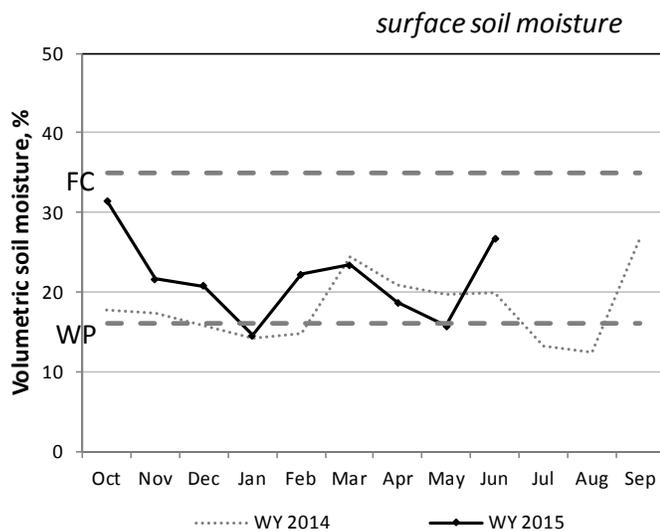
# Uintah Basin

## 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>				
<b>UINTAH BASIN</b>												
Mountain Home	7.4	4.2	22	24	26	12	6	65	60	57	53	55
Little Red Fox	6.0	3.0	18	29	35	28	27	69	65	63	57	53
Split Mountain	5.9	3.0	19	32	27	14	13	72	72	68	63	57

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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.

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

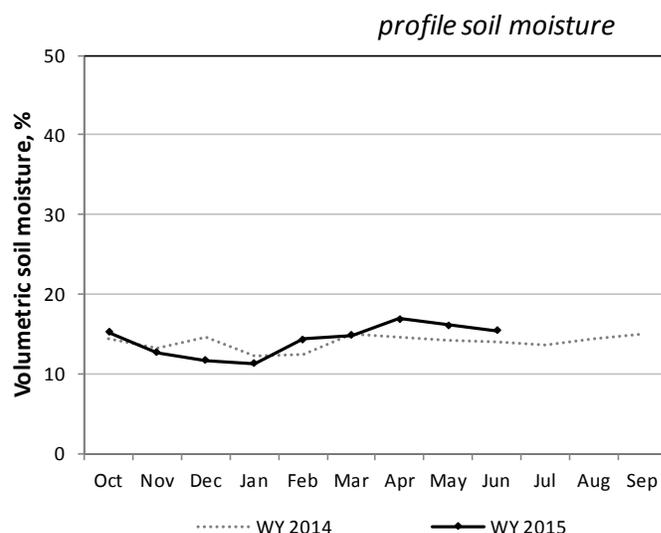
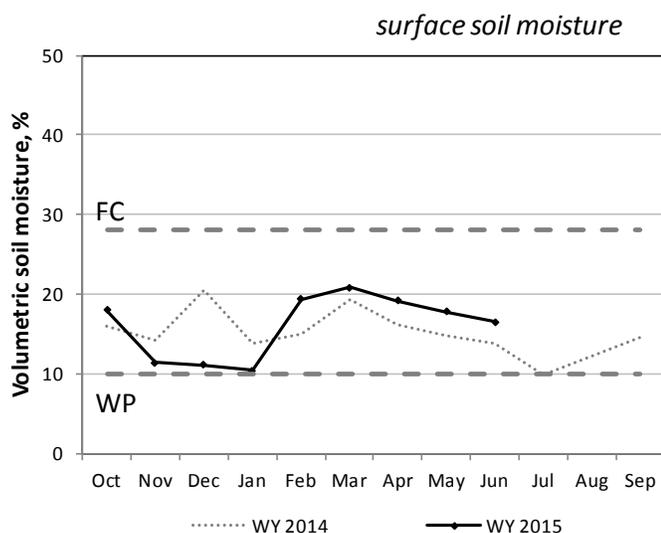
# Southeast

## Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
			in.					in.				
			volume %					° F				
<b>SOUTHEAST</b>												
Price	4.5	1.7	2	15	20	16	19	73	70	68	62	57
Green River	4.1	1.5	15	10	10	6	8	75	76	72	66	62
Harm's Way	7.6	2.2	12	16	16	16	6	67	65	62	57	53
West Summit	7.0	2.8	23	28	26	21	17	67	66	62	57	53
Eastland	8.6	3.8	24	23	24	32	29	62	60	60	55	53
Alkali Mesa	8.4	2.7	13	10	16	18	18	68	69	66	61	58
McCracken Mesa	6.3	1.3	16	24	18	19	15	74	72	71	63	60

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## Southeast



*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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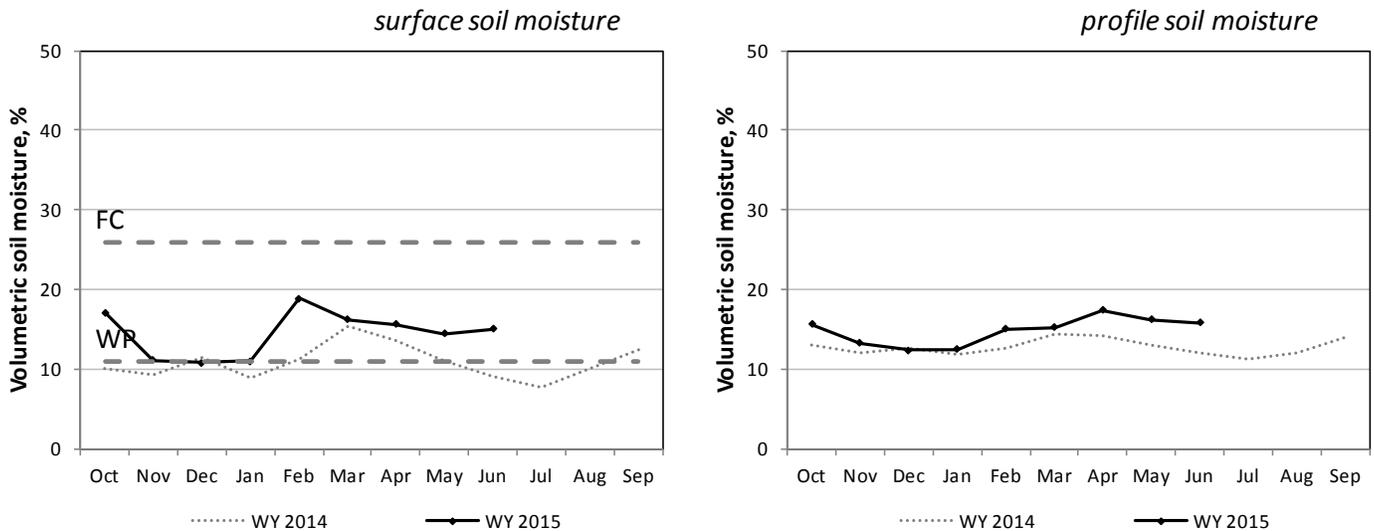
# South Central

## 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>				
<b>SOUTH CENTRAL</b>												
Nephi	8.6	3.3	24	25	22	8	2	66	64	63	59	55
Ephraim	6.9	2.8	33	38	38	40	36	64	61	59	55	51
Holden	5.0	1.1	7	7	9	14	13	71	72	69	63	59
Milford	6.3	3.1	23	29	27	30	17	67	65	62	58	55
Manderfield	7.6	3.9	26	22	14	12	5	64	60	59	55	52
Circleville	4.9	2.2	13	23	9	14	14	62	63	59	54	51
Panguitch	6.0	1.7	8	18	14	22	32	53	53	51	49	46
Cave Valley	11.3	3.5	1	6	6	5	8	73	71	69	64	59
Vermillion	8.4	1.3	0	3	4	12	17	73	67	63	58	53
Spooky	5.9	0.7	1	3	3	18	2	78	73	71	64	62

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### South 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.**

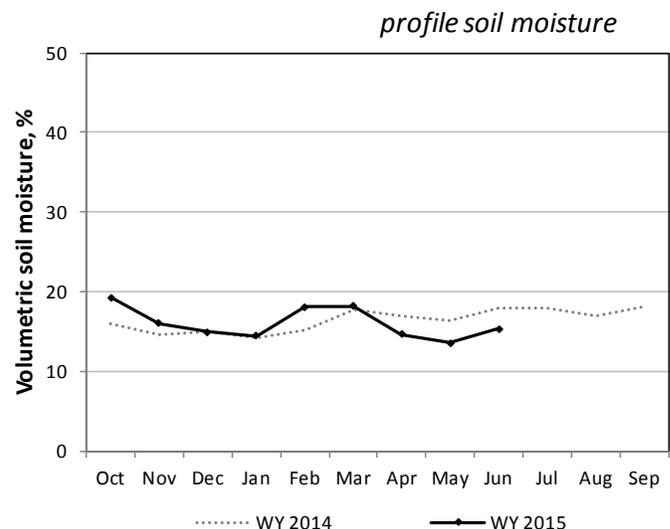
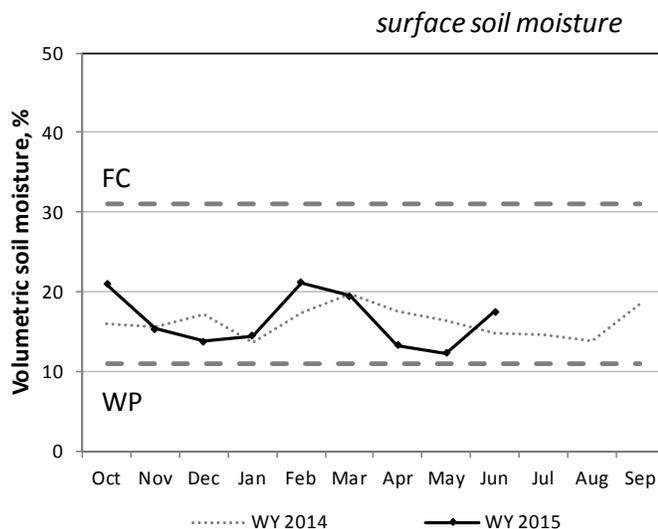
# Western and Dixie

## 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>				
<b>WESTERN</b>												
Grouse Creek	10.7	5.2	13	23	26	30	31	64	61	59	55	52
Park Valley	7.6	5.2	11	16	27	-	-	70	66	63	59	54
Goshute	5.5	3.1	-	-	-	-	-	68	67	64	58	53
Dugway	7.2	4.5	-	-	-	-	-	77	75	73	65	60
Tule Valley	3.8	1.8	21	21	21	18	9	85	81	77	71	65
Hal's Canyon	4.2	2.1	9	12	13	11	9	74	74	71	62	57
Enterprise	8.7	3.7	12	37	34	19	16	70	68	66	60	55
<b>DIXIE</b>												
Sand Hollow	8.7	0.6	0	1	0	1	0	91	87	83	76	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.

### 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.

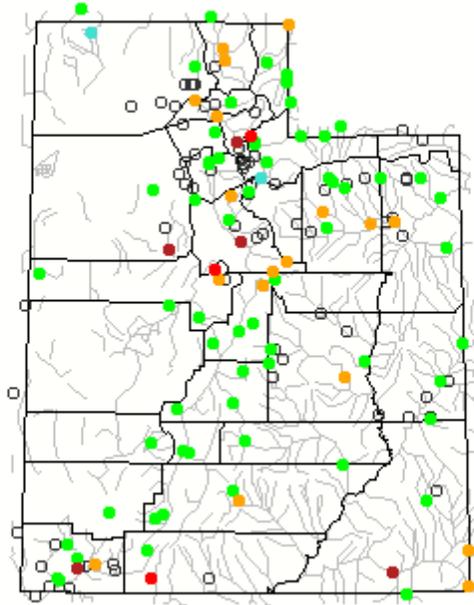
# Utah Hydrologic Summary

June 1, 2015

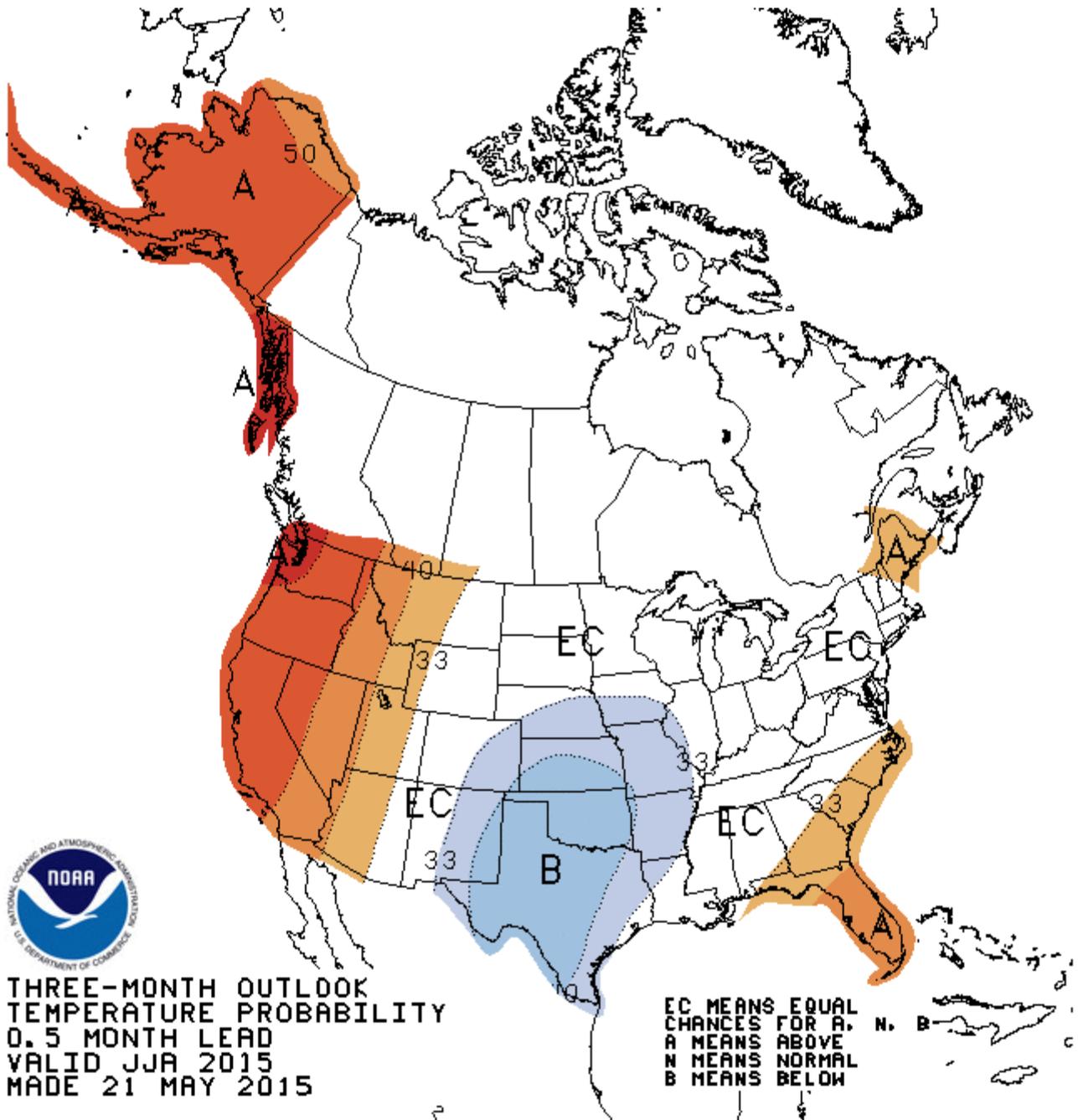
May was just the month we really needed in February or March to put a lot of snow in the mountains and increase spring runoff. However, water – whether from the sky or from the reservoir is welcome at most any time and these storms came in the nick of time. Precipitation for the month is generally between 150% to well over 200% of normal. This rainfall has had a huge positive impact on agriculture across the state. A bumper first crop of alfalfa is virtually guaranteed, small grains like winter wheat and barley are flourishing, forage production in range and forest lands is doing well. Rains have had additional benefits such as reducing irrigation demand which in turn has saved a significant amount of water in our reservoirs that can be used later in the summer. Streamflow, which typically shows only a brief response to late spring and summer rains has had a stronger than normal response putting even more water into reservoir storage. The combination of a little additional flow with a month's worth of water saved adds up to nearly 2 months of water earned. These rains came at an opportune time and have made a difference. If the pattern of the past three years continues where Utah has had above average precipitation in July and August, this year may actually turn out well. Time will tell on that account. Current runoff at unregulated stream flow points shows normal conditions across most areas of the state. (Most regulated stream flow is near normal reflecting reservoir releases.) Snow packs are mostly melted out with only a few of the highest elevation sites with any snow left. May precipitation was exceptional and well above average statewide with many sites in the 200% plus range. Reservoir storage is 67% of capacity compared to 69% last year. Reservoir storage in some areas such as the San Pitch (3% of capacity) are very low. The National Climate Prediction Center forecasts for Utah suggest warmer and wetter conditions for most of Utah over the summer months. (see figures on next page) Based on all available water supply data, (reservoir storage, observed stream flow, climate forecasts, etc.) short term drought has been substantially reduced but longer term conditions into the summer months may still have water shortages.

# Current Utah Stream Flow - Courtesy US Geological Survey

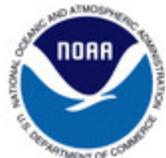
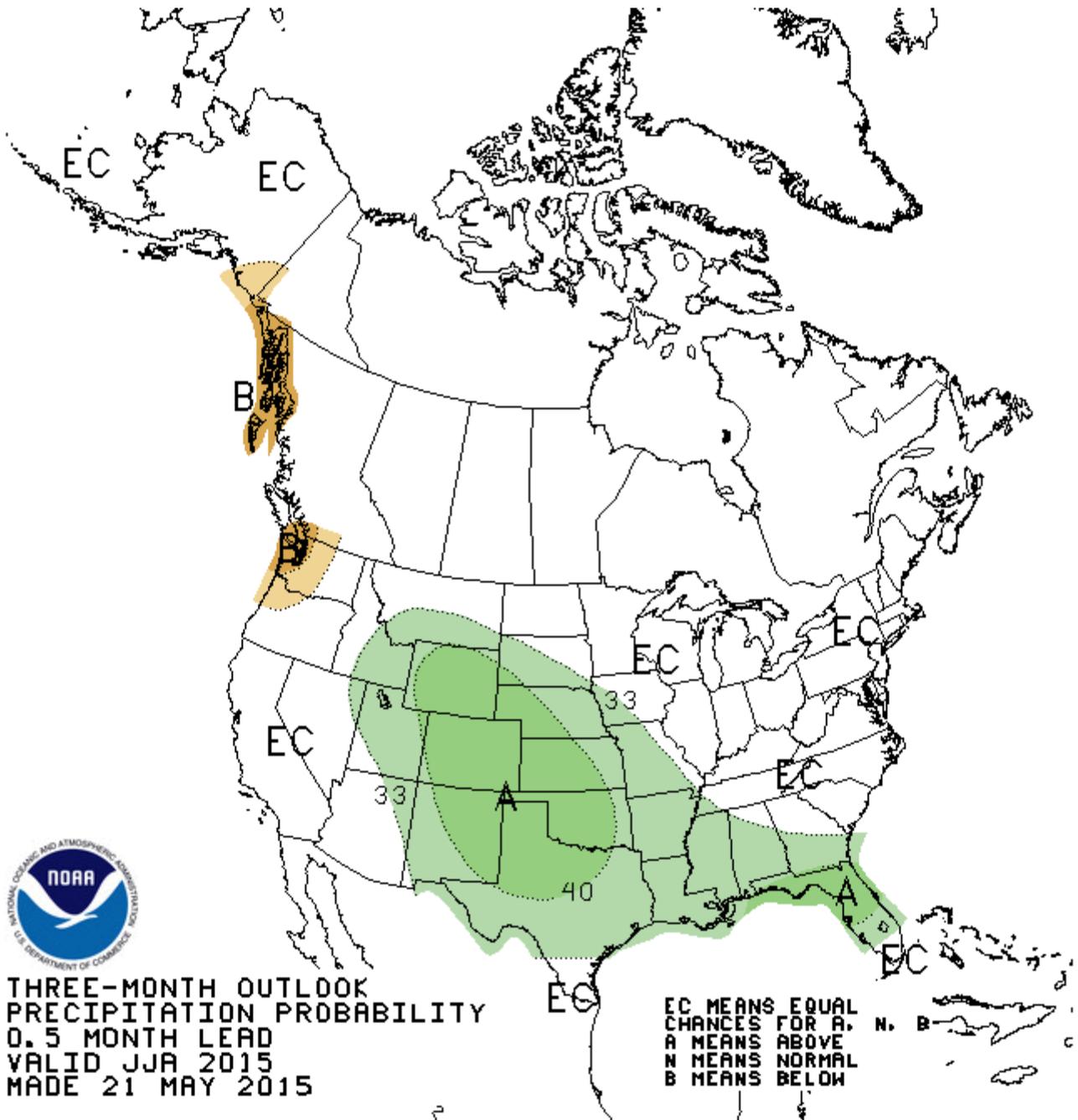
Monday, June 01, 2015 11:30ET



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



**THREE-MONTH OUTLOOK**  
**TEMPERATURE PROBABILITY**  
**0.5 MONTH LEAD**  
**VALID JJA 2015**  
**MADE 21 MAY 2015**



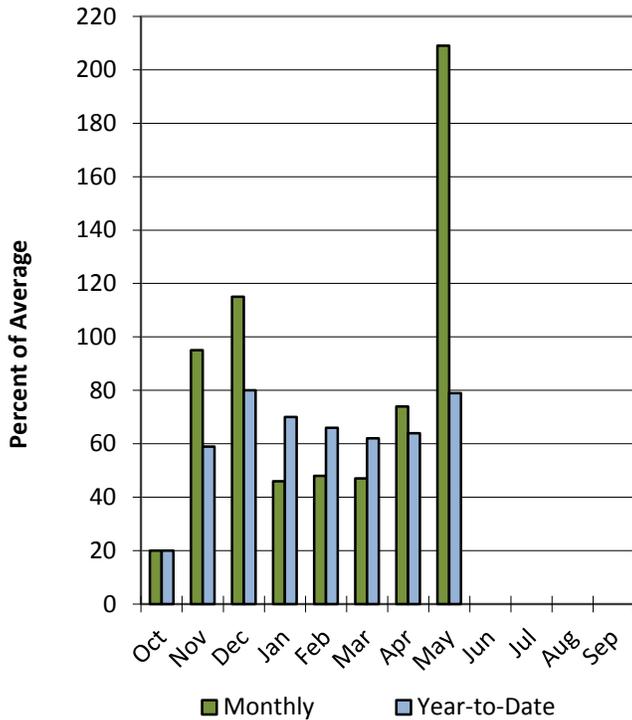
THREE-MONTH OUTLOOK  
 PRECIPITATION PROBABILITY  
 0.5 MONTH LEAD  
 VALID JJA 2015  
 MADE 21 MAY 2015

# Statewide Utah

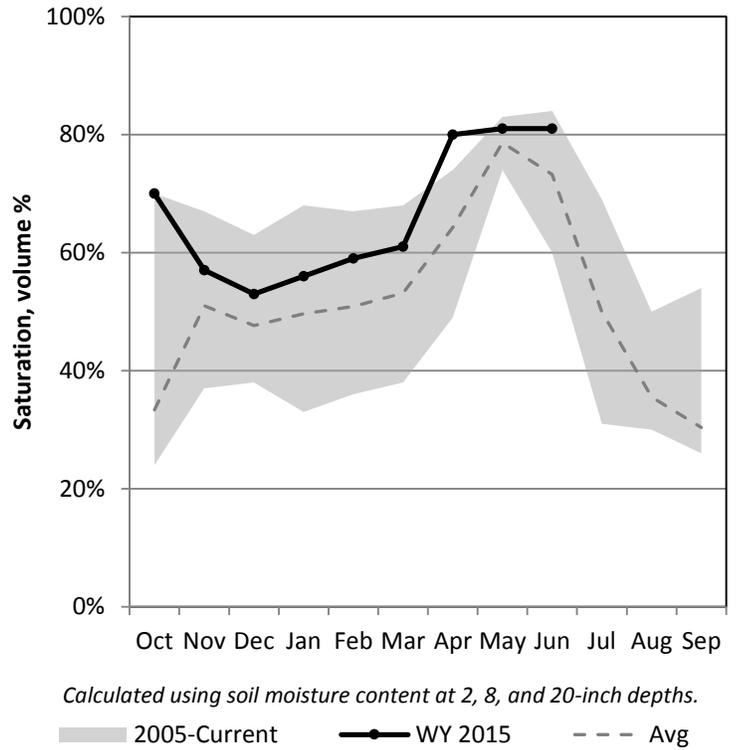
6/1/2015

Precipitation in May was much above average at 209%, which brings the seasonal accumulation (Oct-May) to 79% of average. Soil moisture is at 81% compared to 69% last year. Reservoir storage is at 67% of capacity, compared to 69% last year.

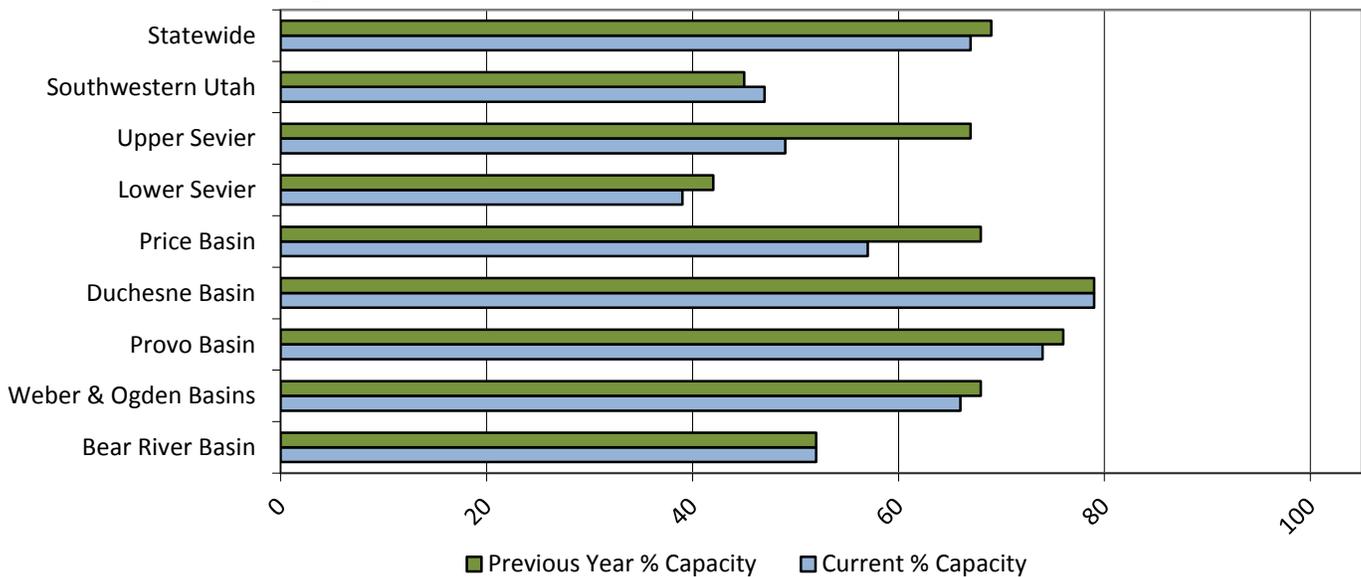
## Precipitation



## Soil Moisture



## Reservoir Storage

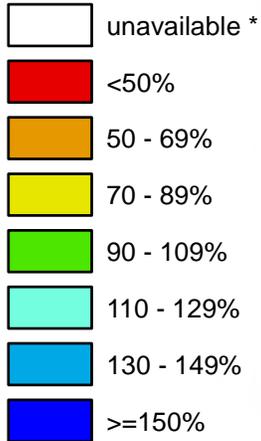


# Utah

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

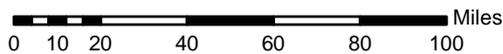
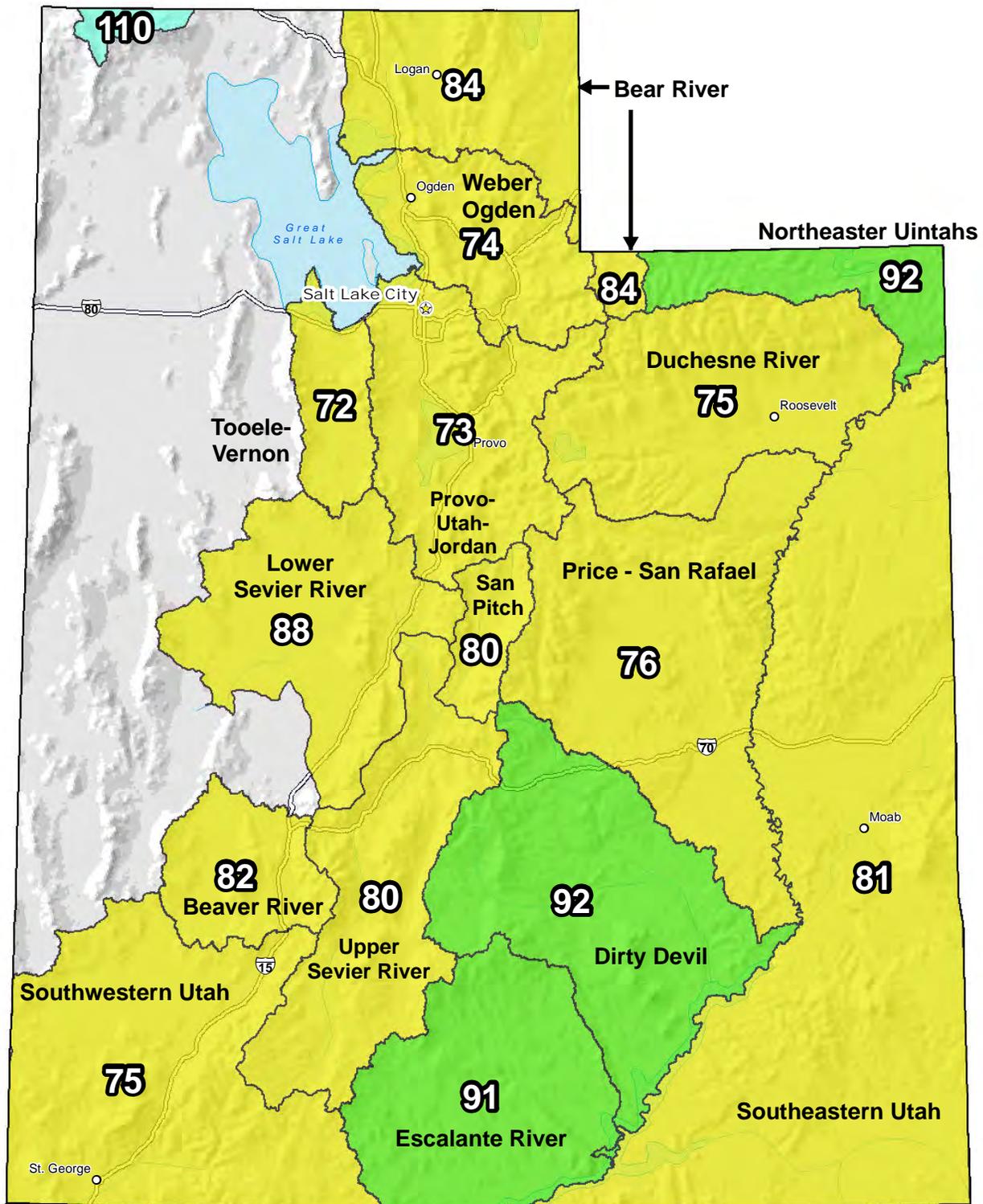
Jun 01, 2015

**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**



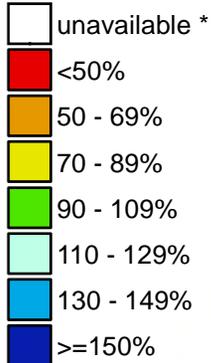
The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

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

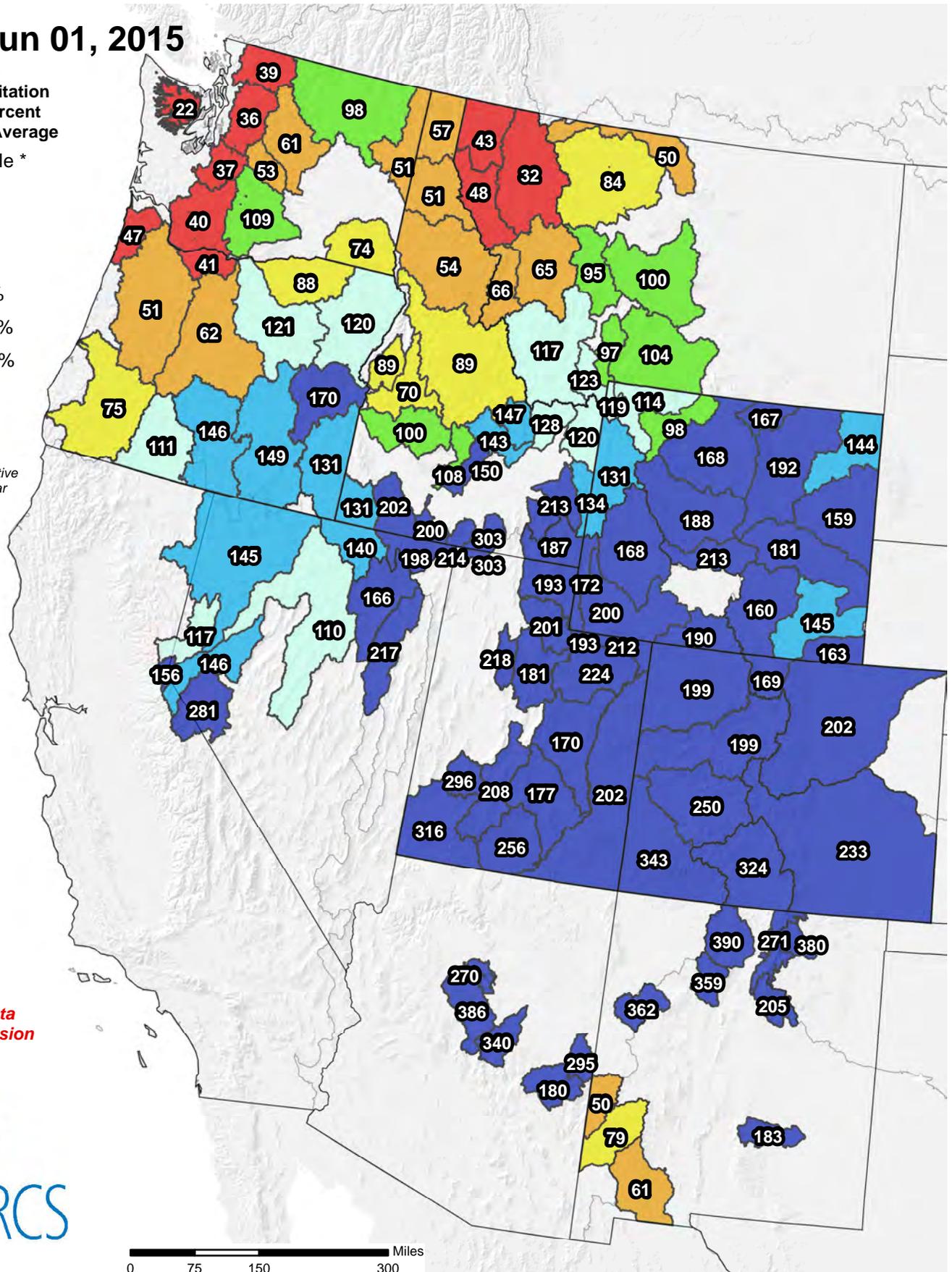
# Westwide SNOTEL Current Month to Date Precipitation % of Normal

## Jun 01, 2015

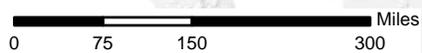
Current Month to Date Precipitation Basin-wide Percent of 1981-2010 Average



\* 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).

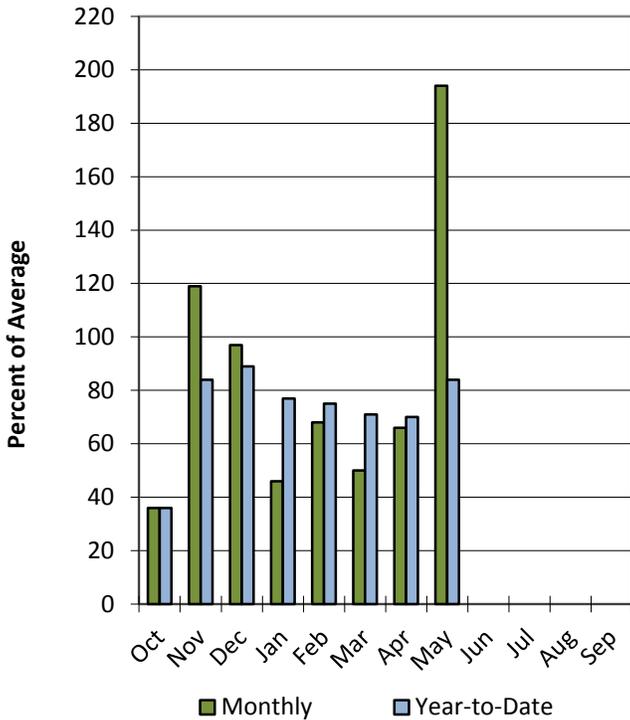
Prepared by:  
 USDA/NRCS National Water and Climate Center  
 Portland, Oregon  
<http://www.wcc.nrcs.usda.gov>

# Bear River Basin

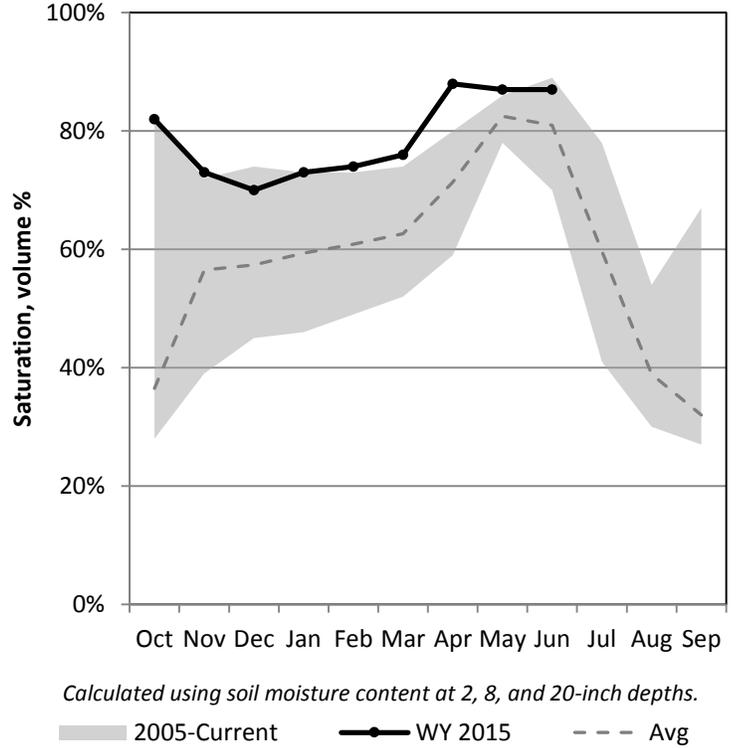
6/1/2015

Precipitation in May was much above average at 194%, which brings the seasonal accumulation (Oct-May) to 84% of average. Soil moisture is at 87% compared to 78% last year. Reservoir storage is at 52% of capacity, compared to 52% last year. The water availability index for the Bear River is 47%, 44% for Woodruff Narrows and 8% for the Little Bear.

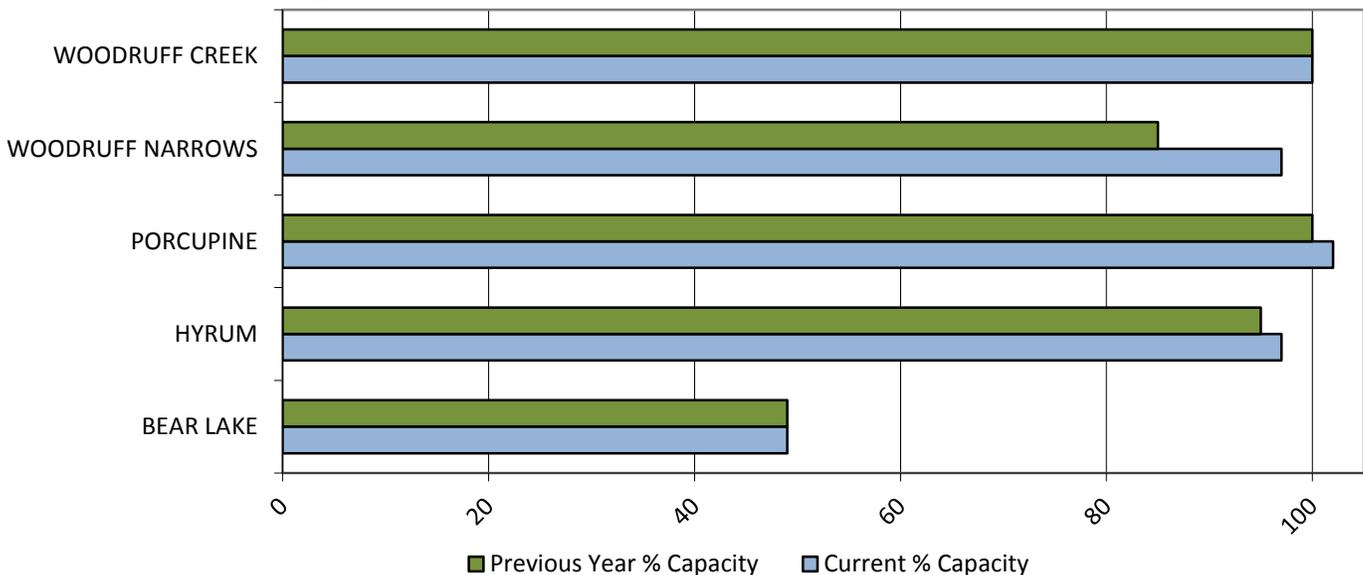
## Precipitation



## Soil Moisture



## Reservoir Storage

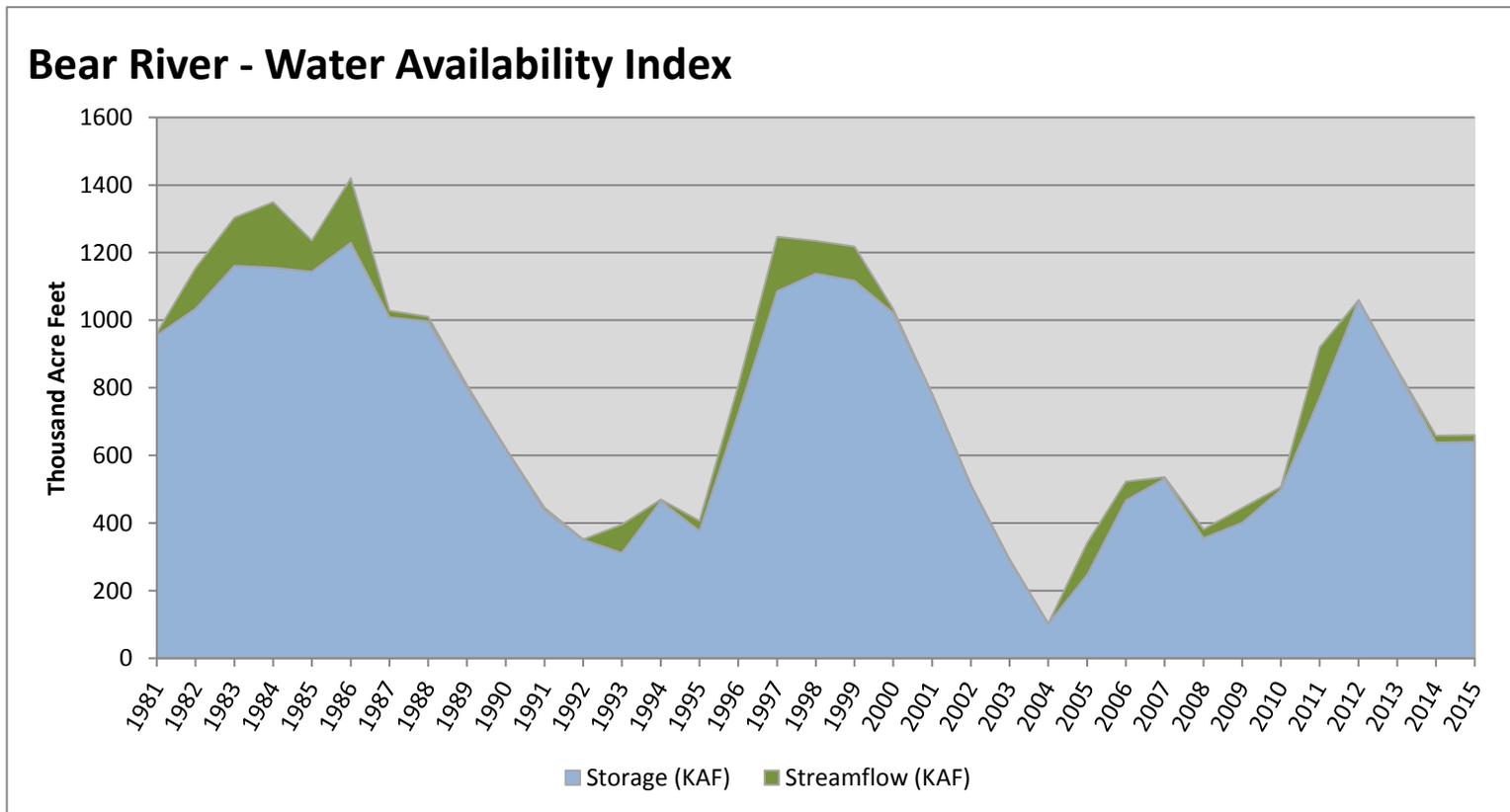


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Bear River</b>	<b>640.33</b>	<b>20.11</b>	<b>660.44</b>	<b>47</b>	<b>-0.23</b>	<b>90, 14, 01, 96</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

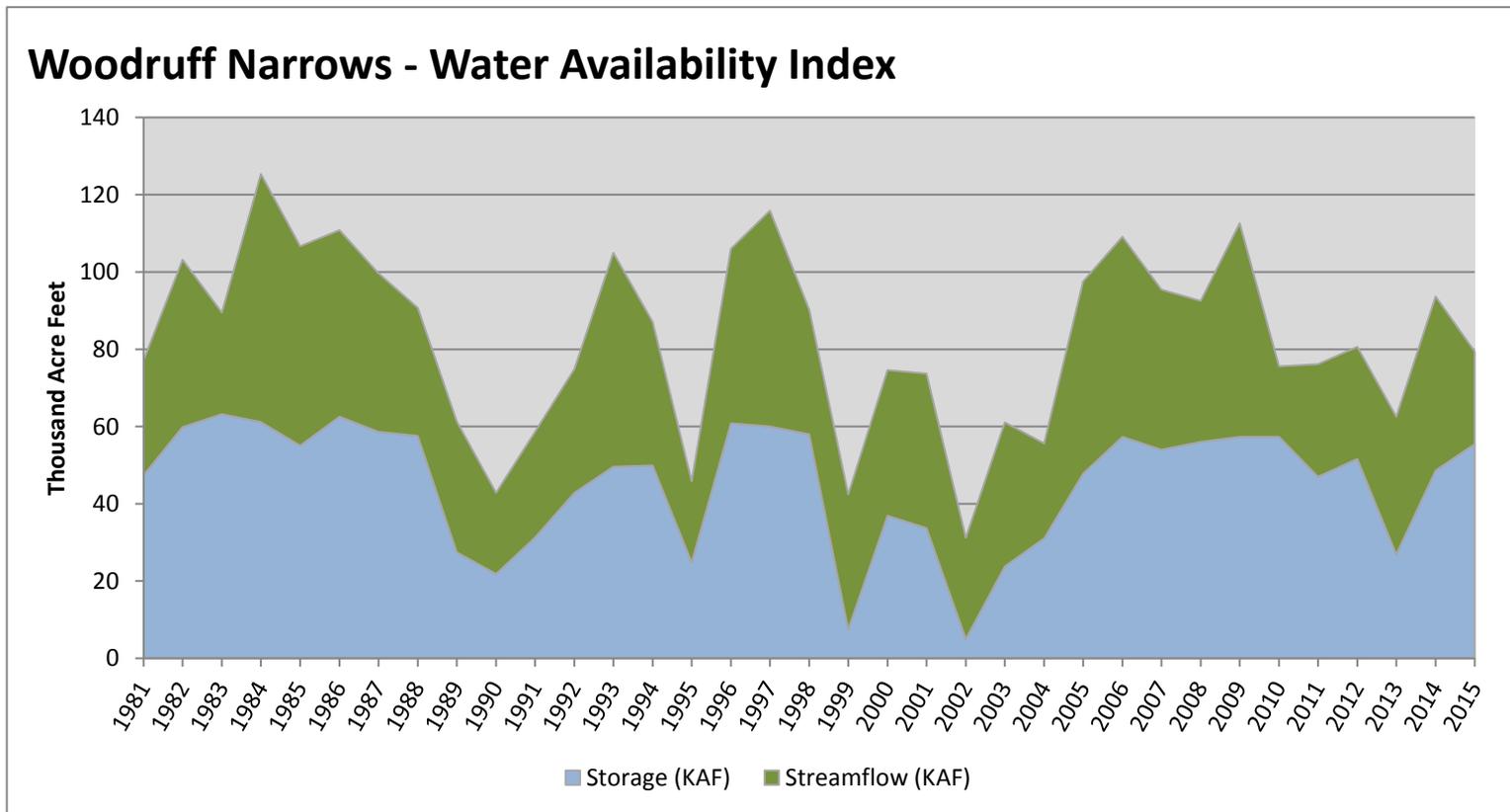


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Woodruff Narrows</b>	<b>55.45</b>	<b>23.97</b>	<b>79.42</b>	<b>44</b>	<b>-0.46</b>	<b>11, 81, 12, 94</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

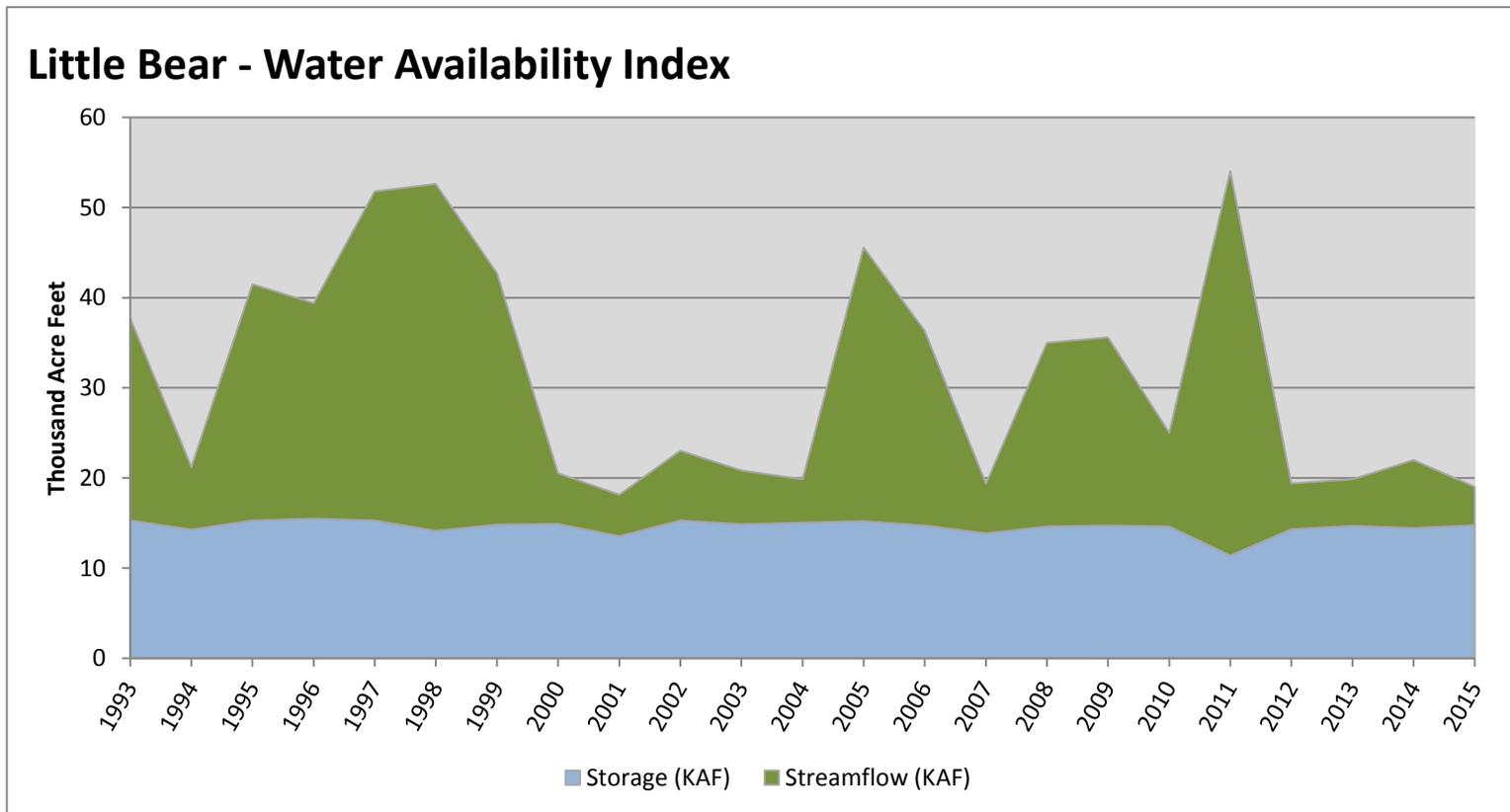


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Little Bear</b>	<b>14.77</b>	<b>4.25</b>	<b>19.02</b>	<b>8</b>	<b>-3.47</b>	<b>01, 07, 12, 13</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

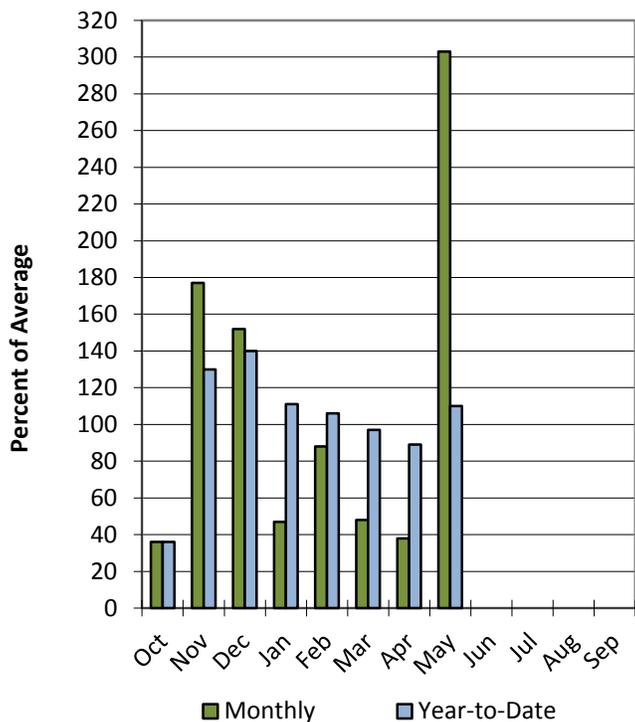


# Raft River Basin

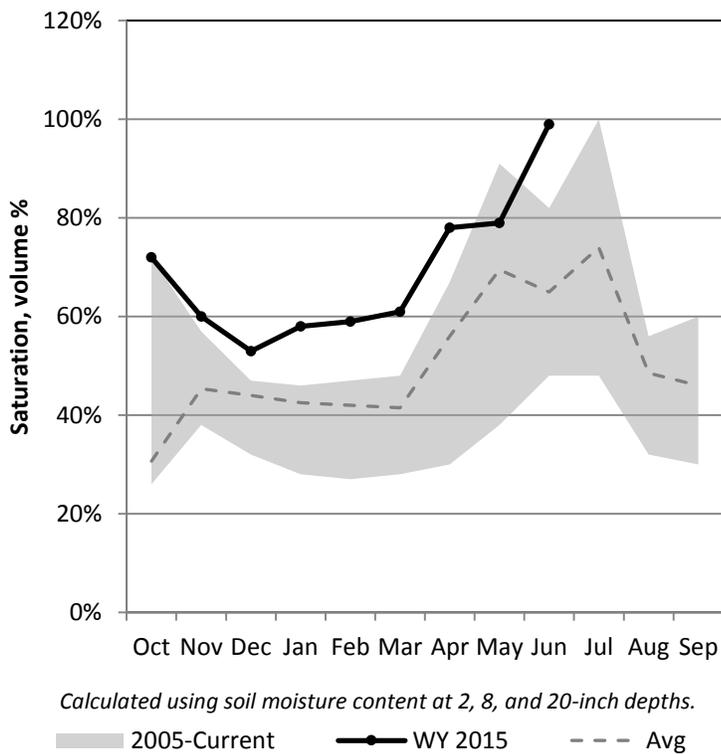
6/1/2015

Precipitation in May was much above average at 303%, which brings the seasonal accumulation (Oct-May) to 110% of average. Soil moisture is at 99% compared to 65% last year.

## Precipitation



## Soil Moisture

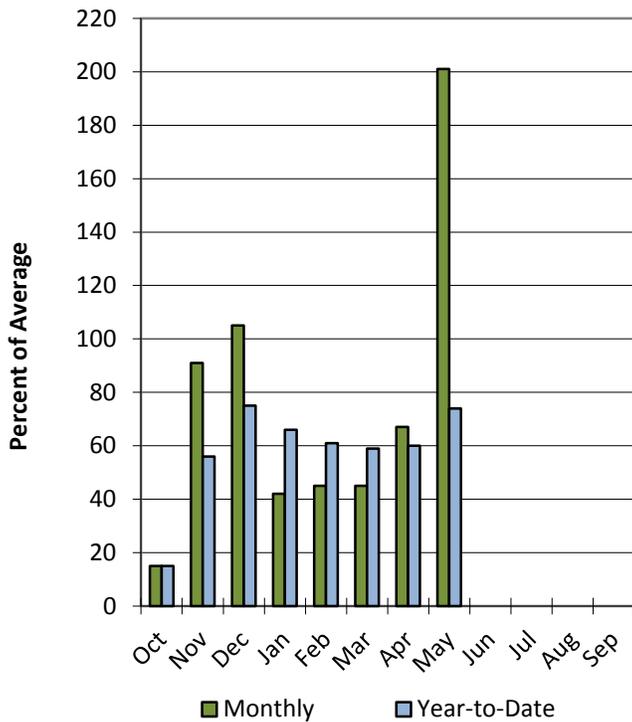


# Weber & Ogden River Basins

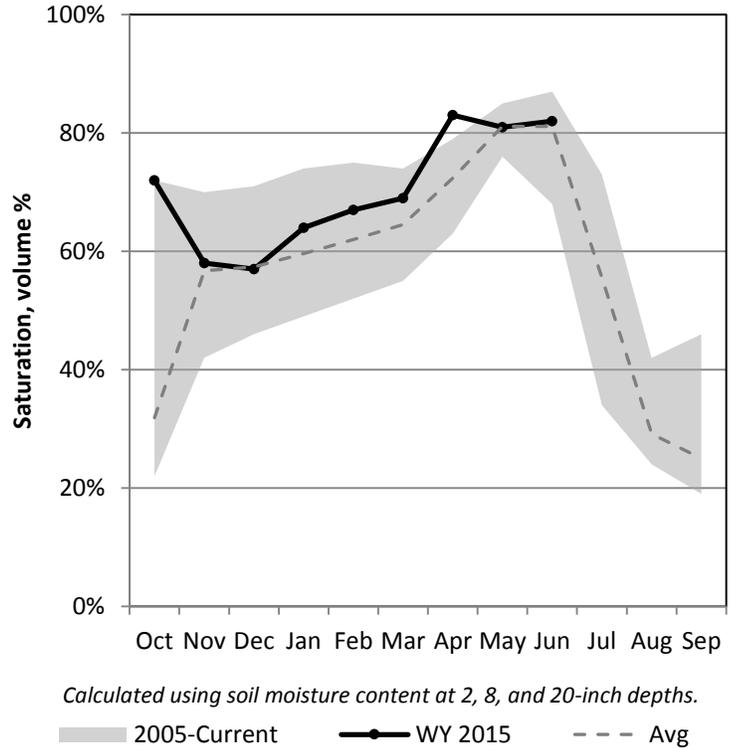
6/1/2015

Precipitation in May was much above average at 201%, which brings the seasonal accumulation (Oct-May) to 74% of average. Soil moisture is at 82% compared to 71% last year. Reservoir storage is at 66% of capacity, compared to 68% last year. The water availability index for the Ogden River is 28% and 31% for the Weber River.

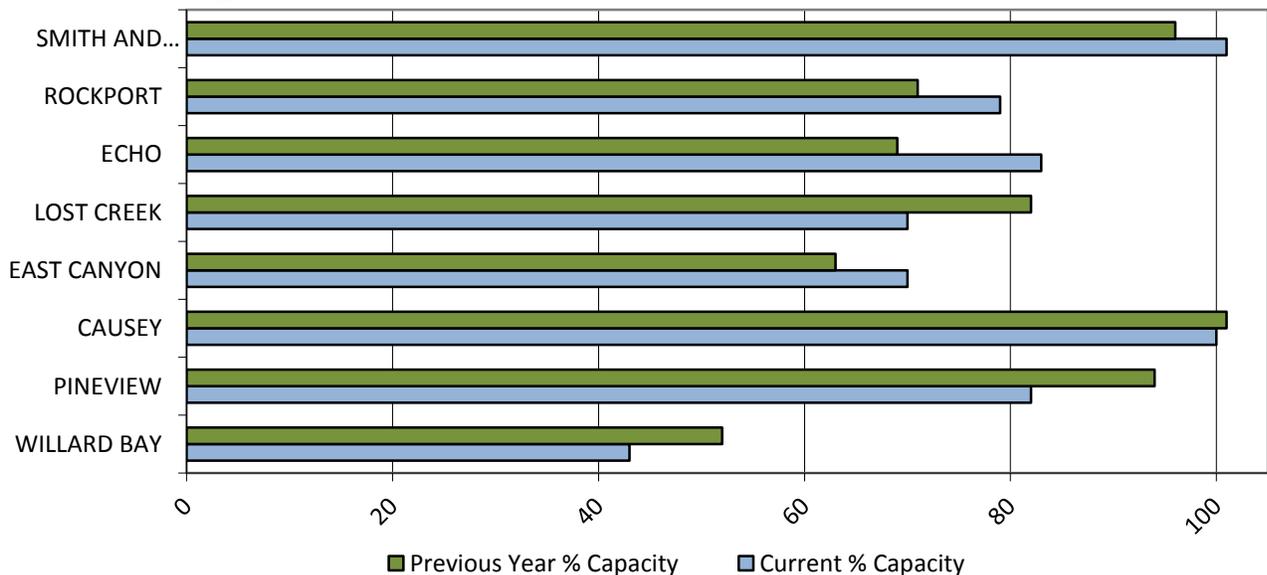
## Precipitation



## Soil Moisture



## Reservoir Storage

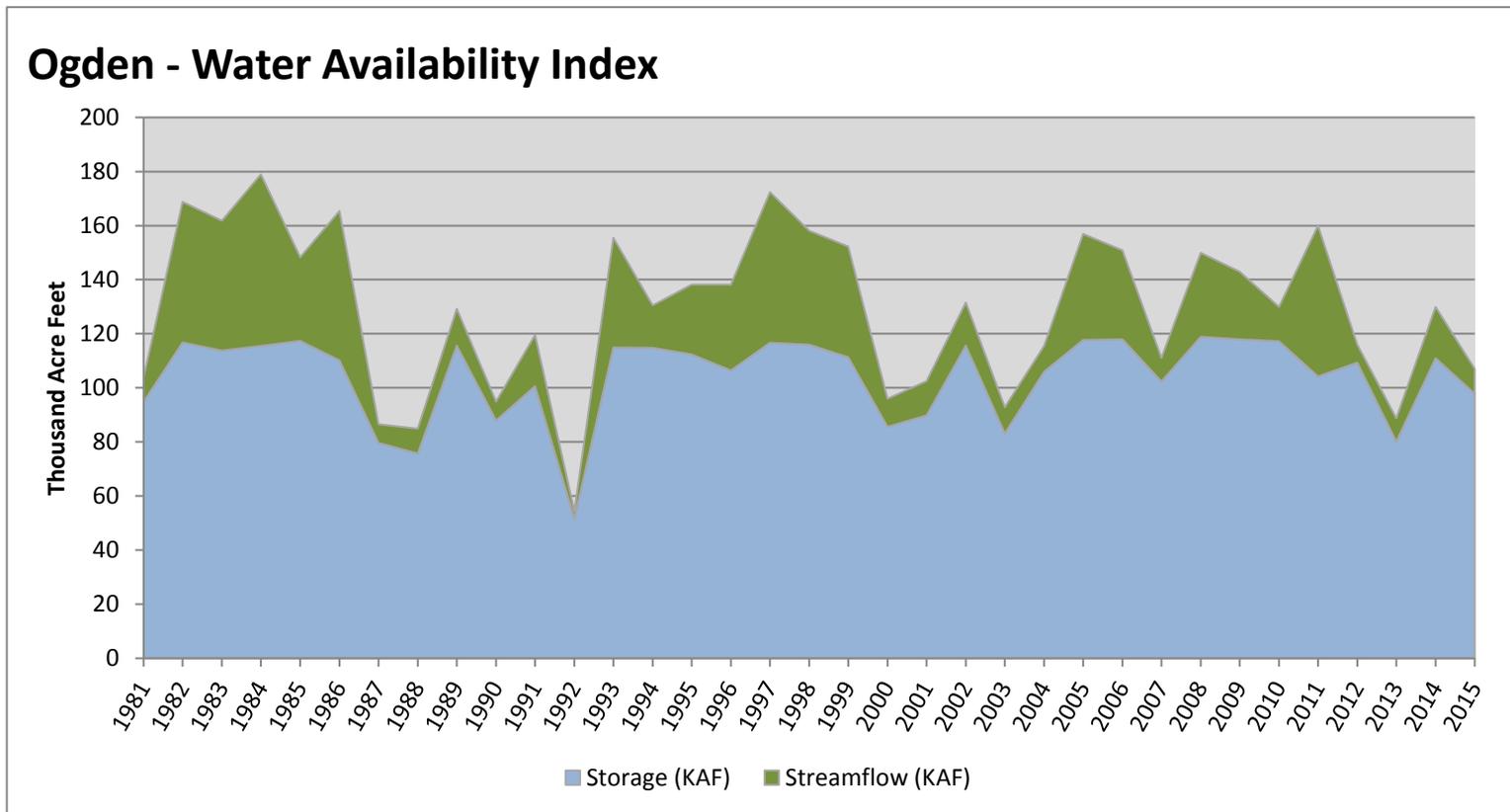


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Ogden</b>	<b>97.87</b>	<b>9.10</b>	<b>106.97</b>	<b>28</b>	<b>-1.85</b>	<b>01, 81, 07, 04</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

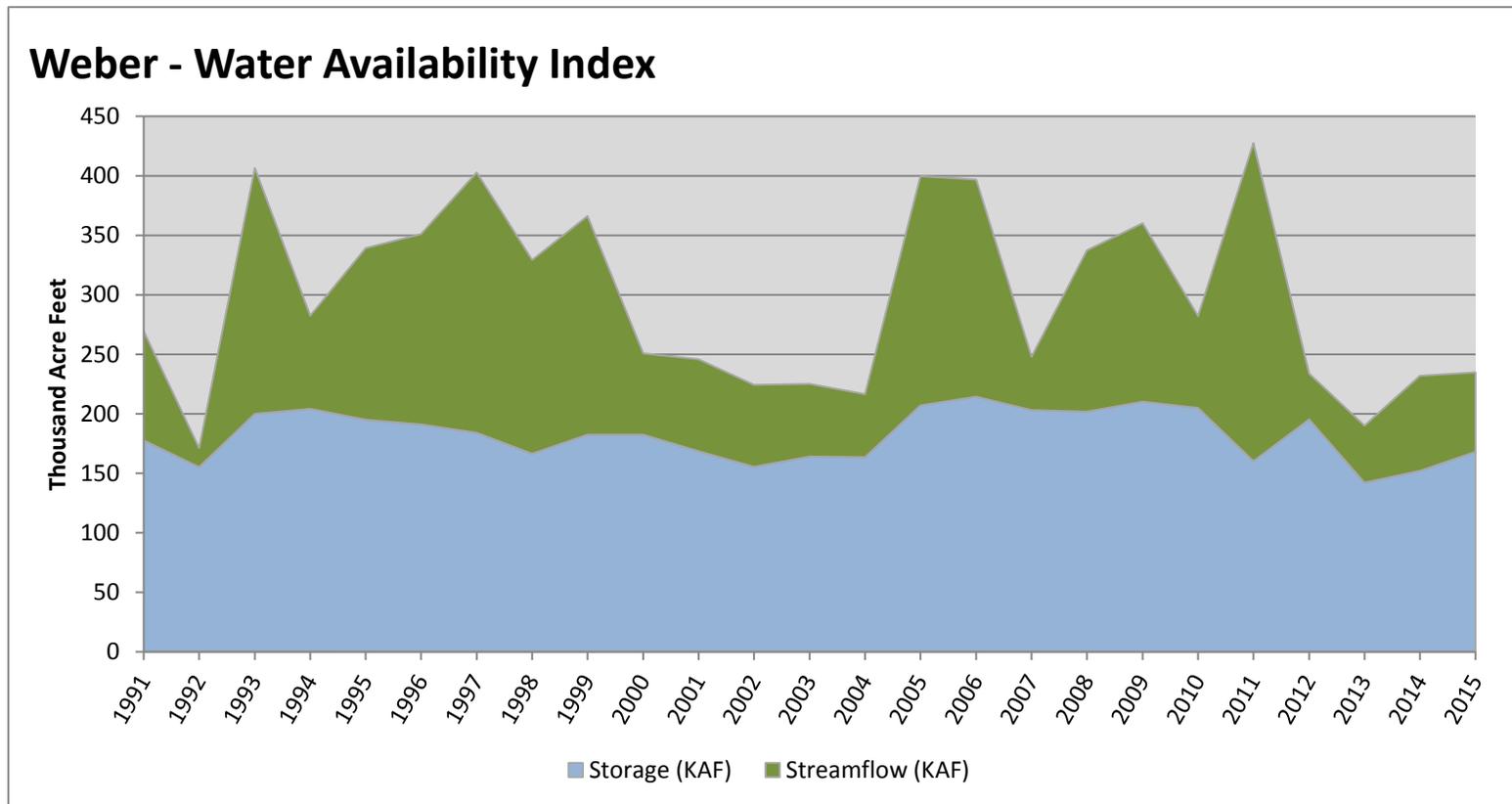


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Weber</b>	<b>168.11</b>	<b>66.57</b>	<b>234.68</b>	<b>31</b>	<b>-1.6</b>	<b>14, 12, 01, 07</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

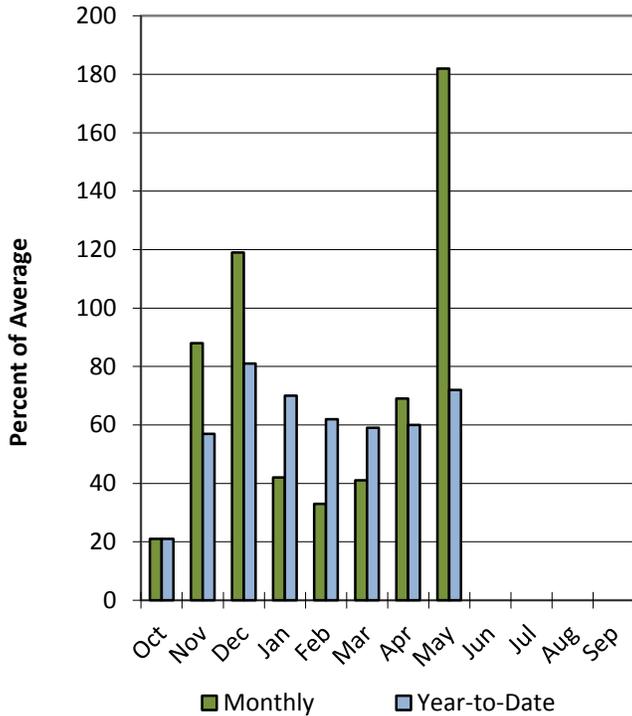


# Provo & Jordan River Basins

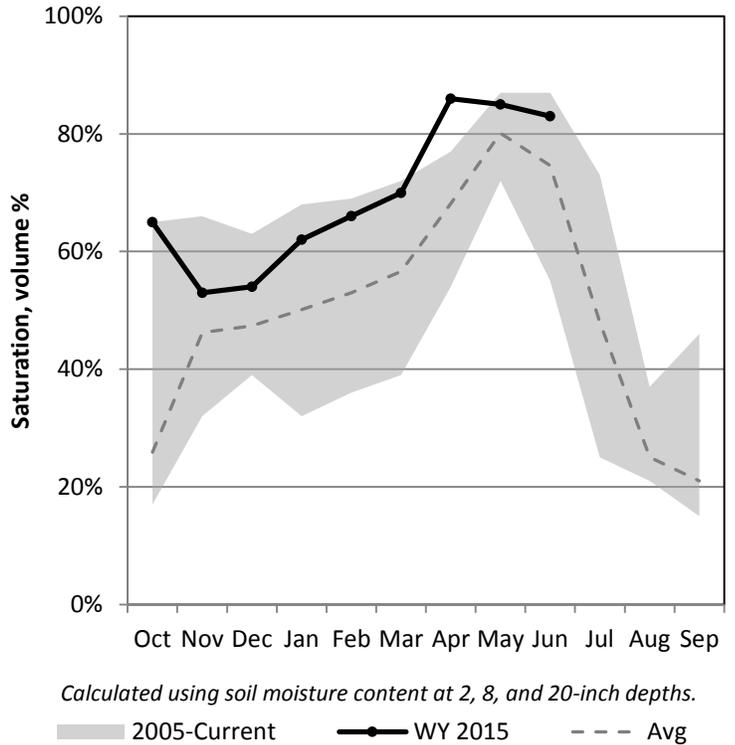
6/1/2015

Precipitation in May was much above average at 182%, which brings the seasonal accumulation (Oct-May) to 72% of average. Soil moisture is at 83% compared to 68% last year. Reservoir storage is at 74% of capacity, compared to 76% last year. The water availability index for the Provo River is 48%.

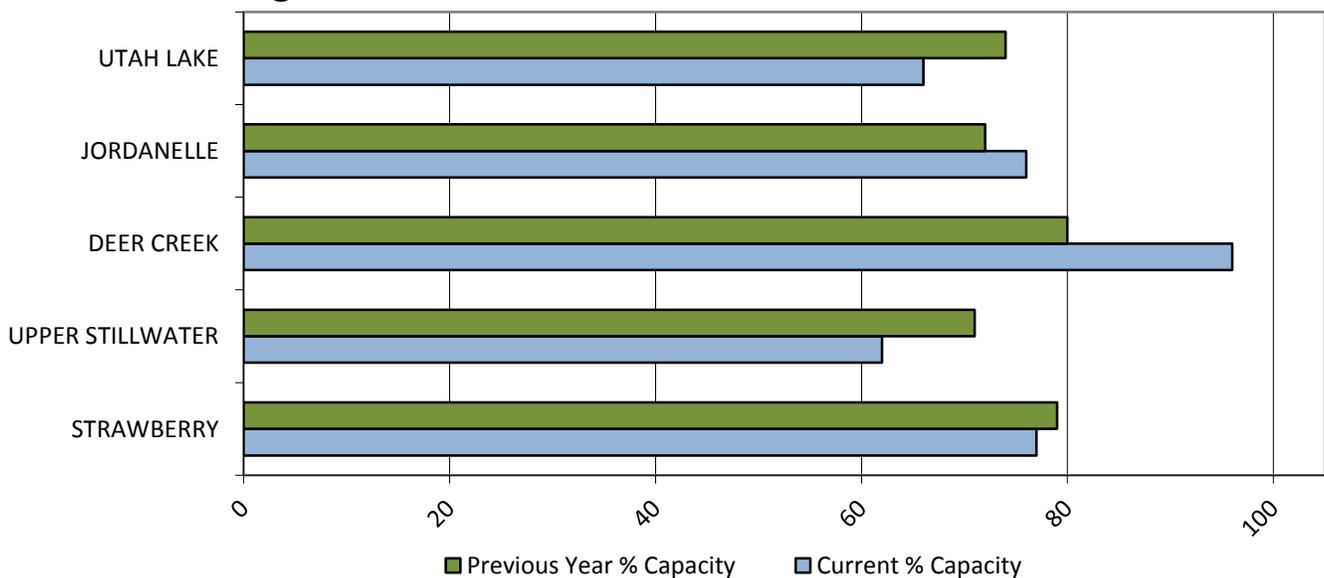
## Precipitation



## Soil Moisture



## Reservoir Storage

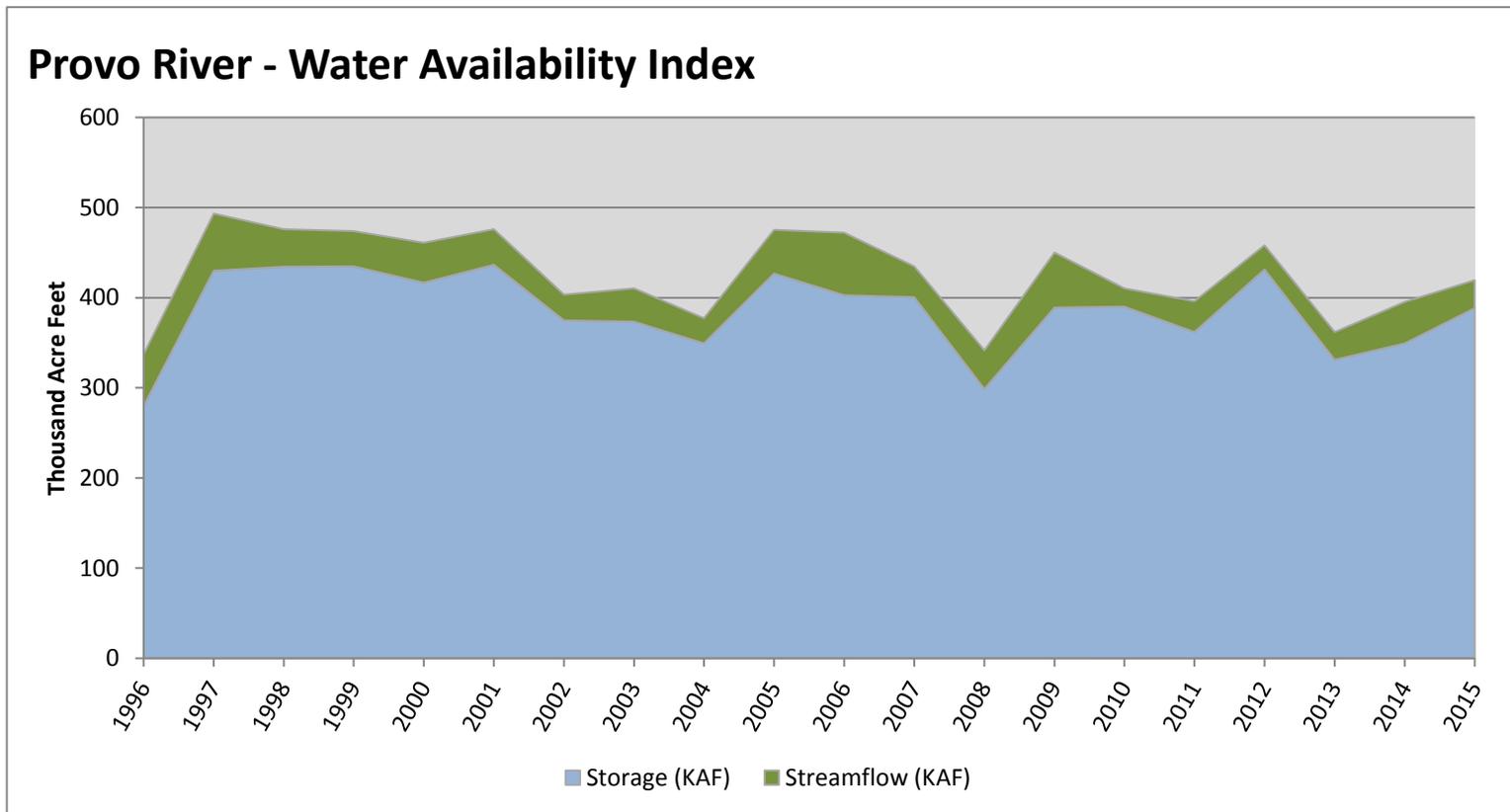


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Provo River</b>	<b>388.57</b>	<b>30.73</b>	<b>419.30</b>	<b>48</b>	<b>-0.2</b>	<b>10, 03, 07, 09</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

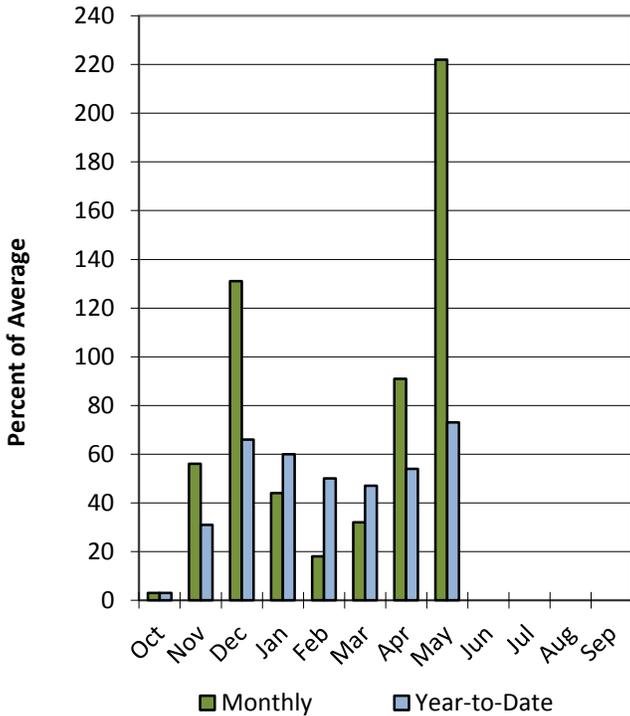


# Tooele & Vernon Creek Basins

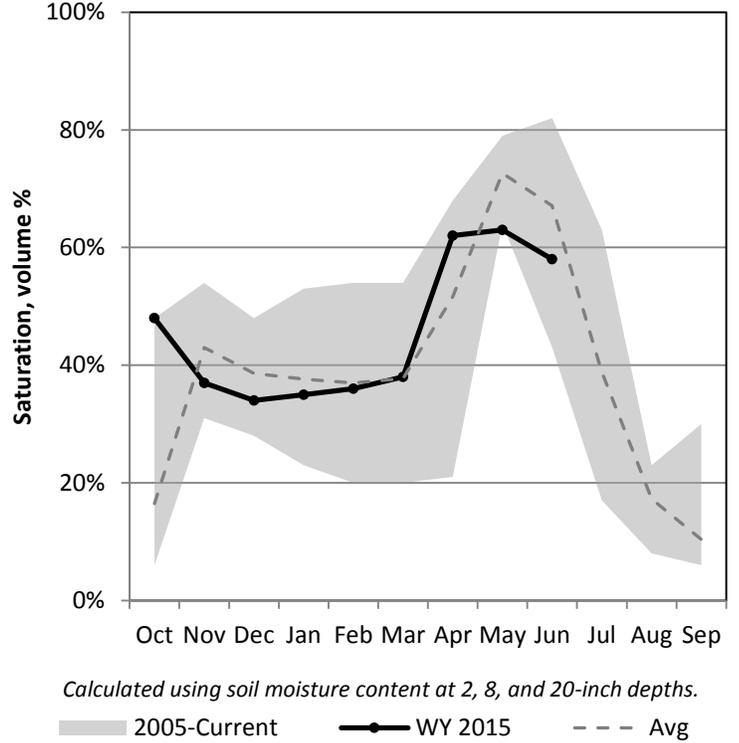
6/1/2015

Precipitation in May was much above average at 222%, which brings the seasonal accumulation (Oct-May) to 73% of average. Soil moisture is at 58% compared to 51% last year. Reservoir storage is at 72% of capacity, compared to 76% last year.

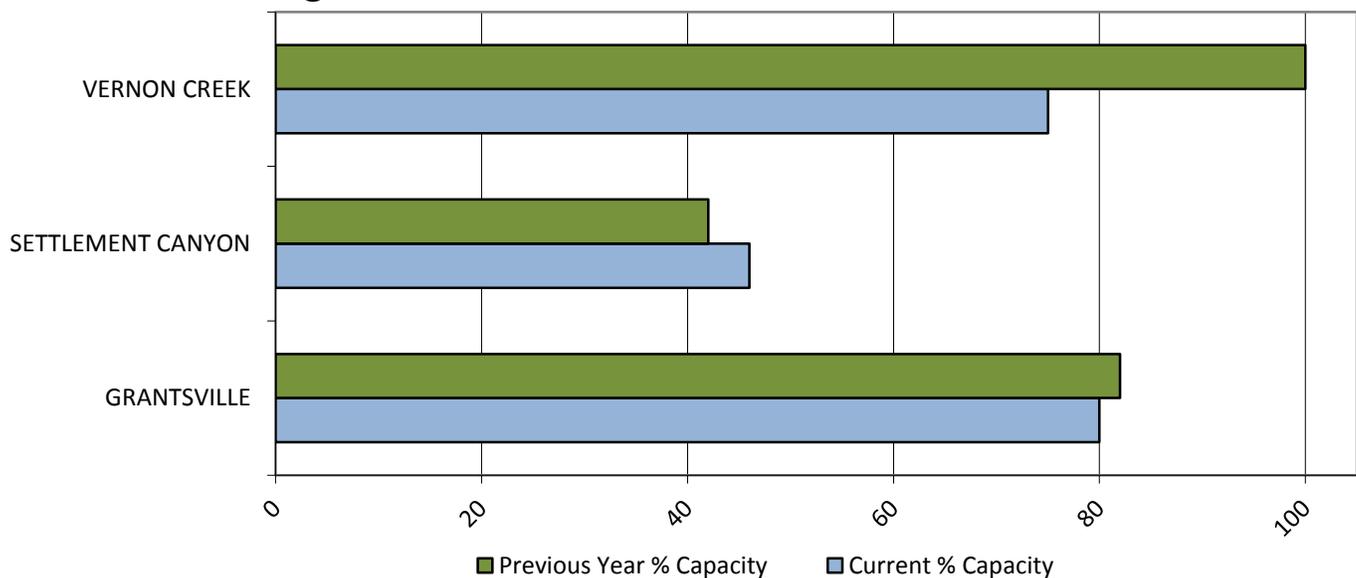
## Precipitation



## Soil Moisture



## Reservoir Storage

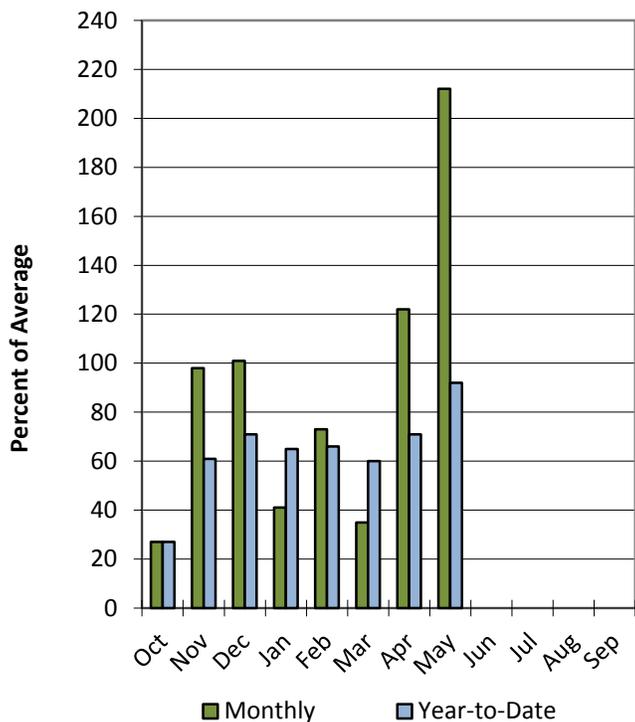


# Northeastern Uintah Basin

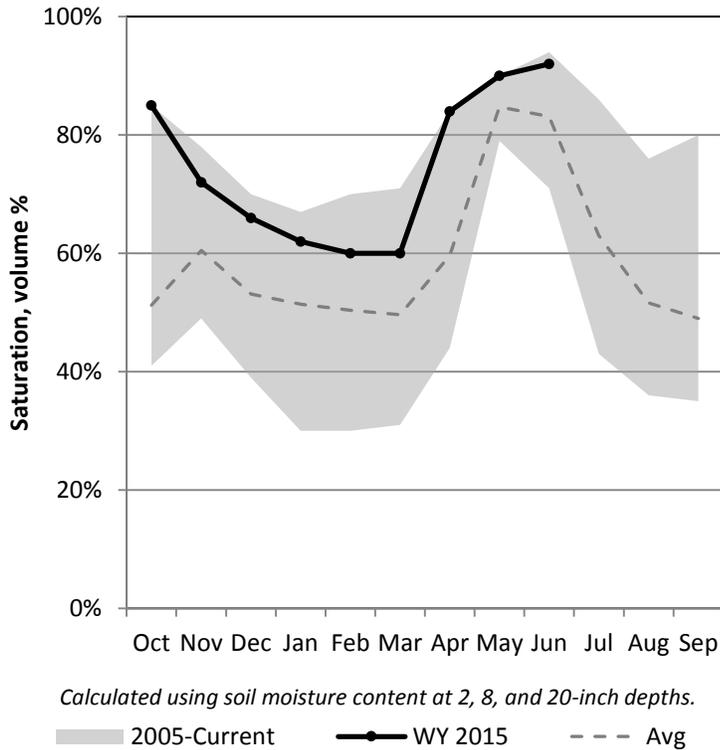
6/1/2015

Precipitation in May was much above average at 212%, which brings the seasonal accumulation (Oct-May) to 92% of average. Soil moisture is at 92% compared to 85% last year. Reservoir storage is at 85% of capacity, compared to 85% last year. The Water Availability Index for Blacks Fork is 39% and 69% for Smiths Creek.

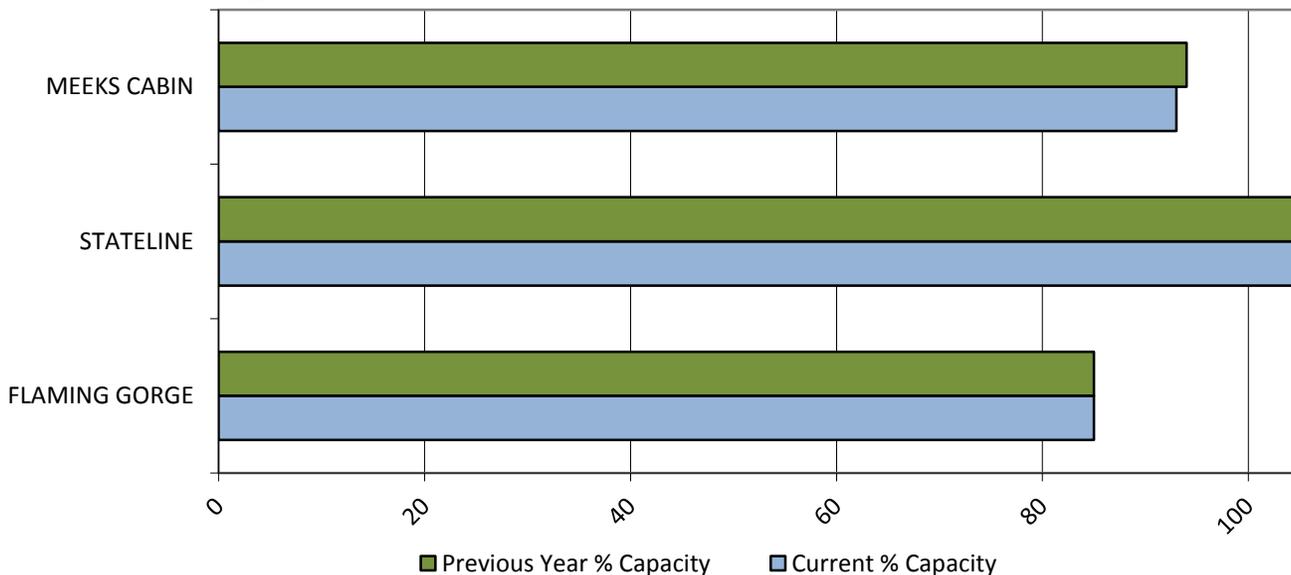
## Precipitation



## Soil Moisture



## Reservoir Storage

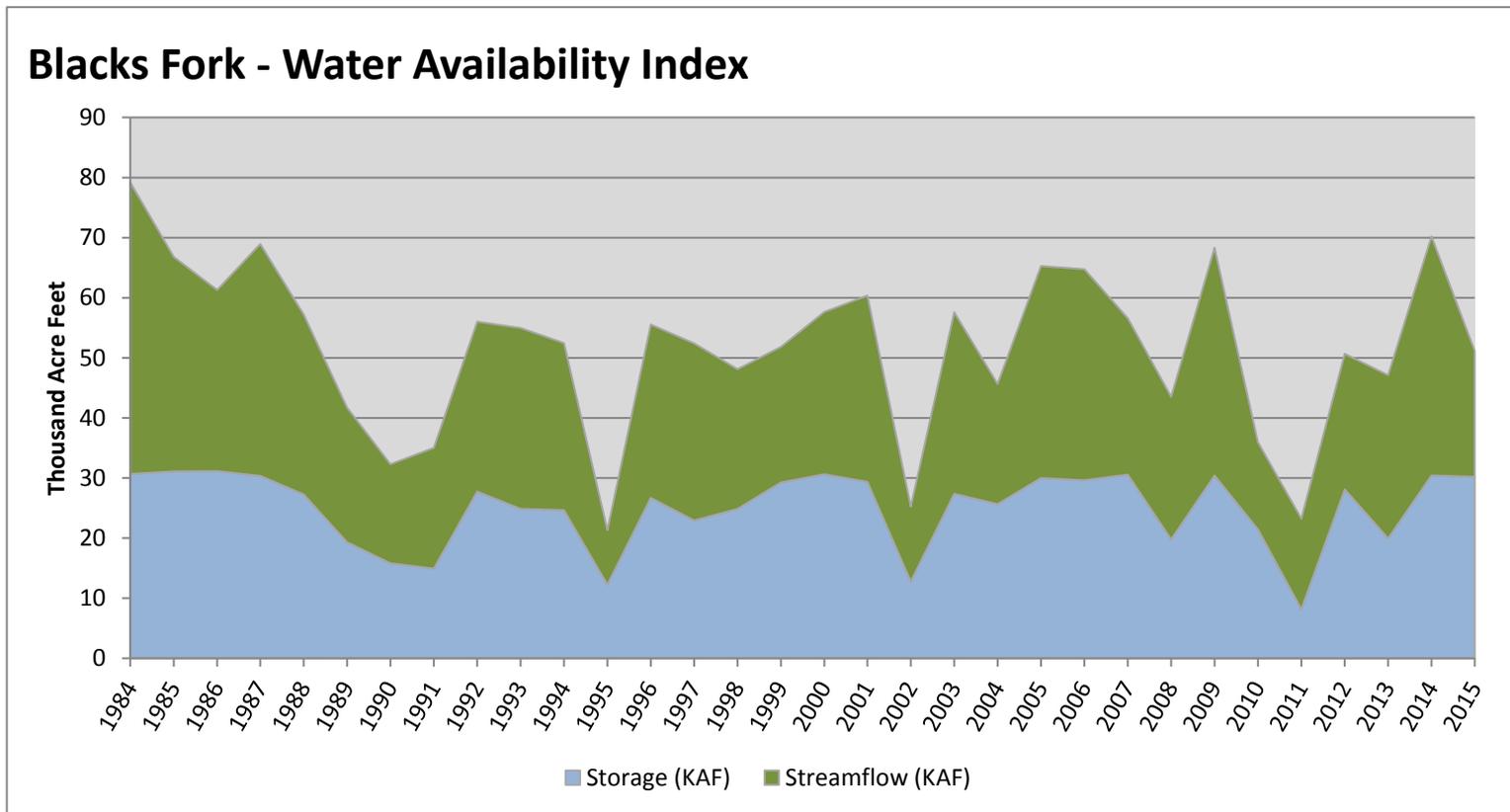


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Blacks Fork</b>	<b>30.20</b>	<b>20.92</b>	<b>51.12</b>	<b>39</b>	<b>-0.88</b>	<b>98, 12, 99, 97</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

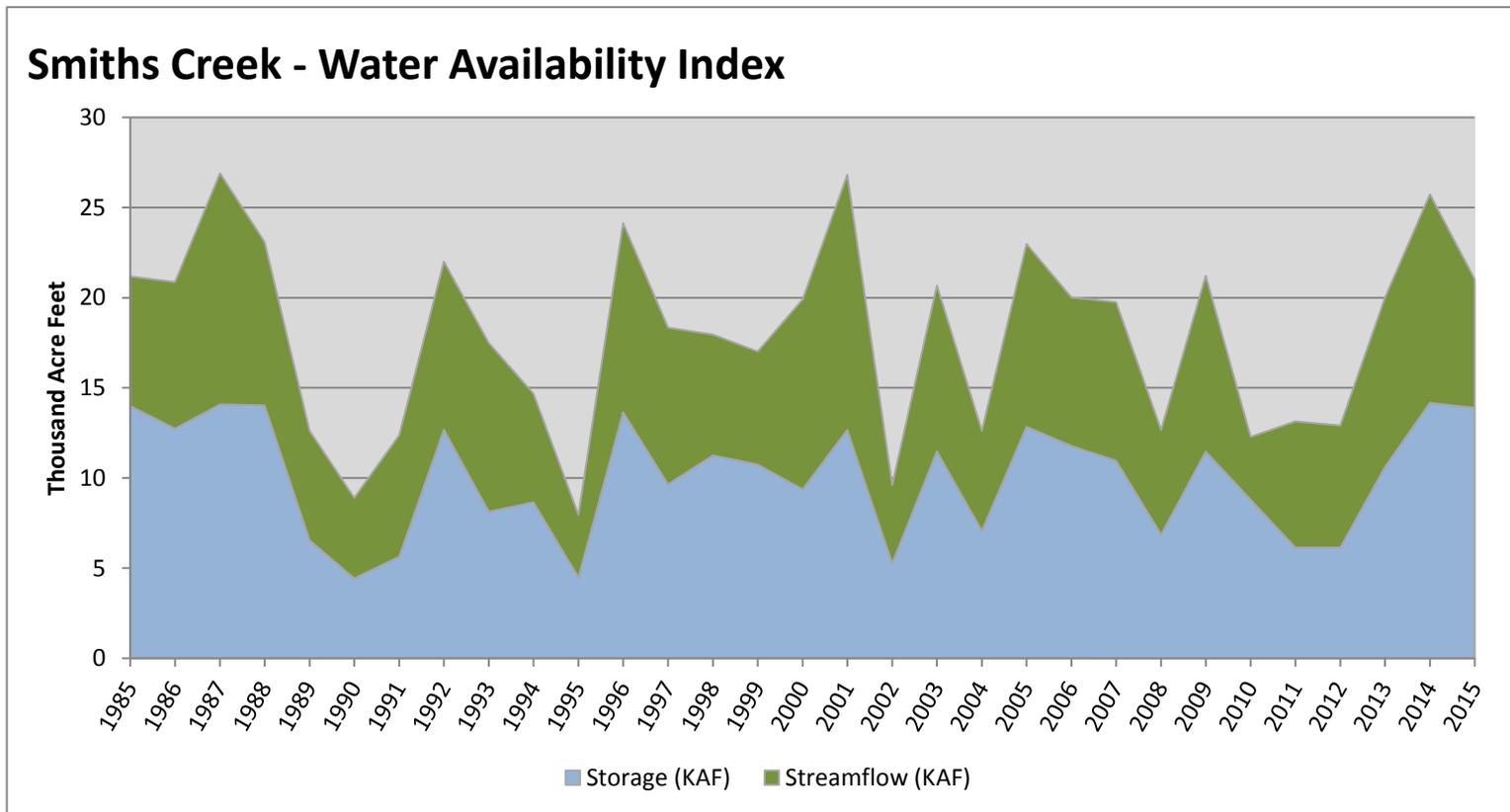


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Smiths Creek</b>	<b>13.89</b>	<b>7.14</b>	<b>21.03</b>	<b>69</b>	<b>1.56</b>	<b>03, 86, 85, 09</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

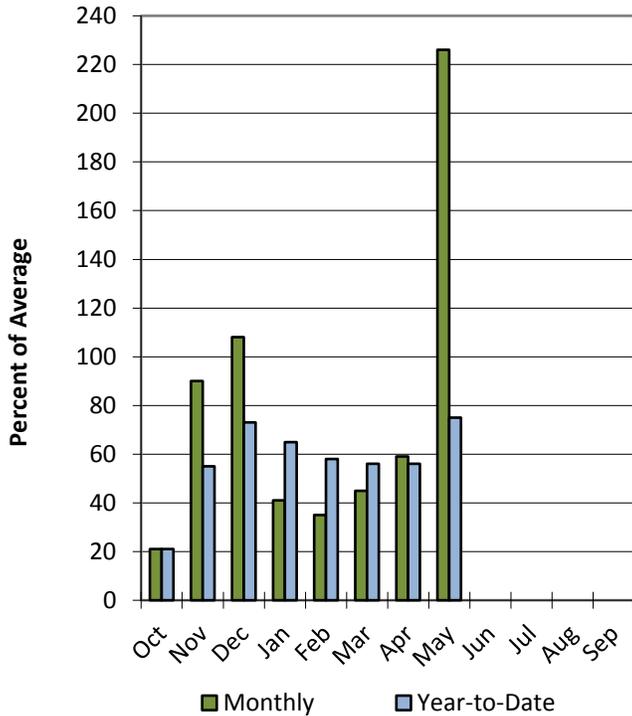


# Duchesne River Basin

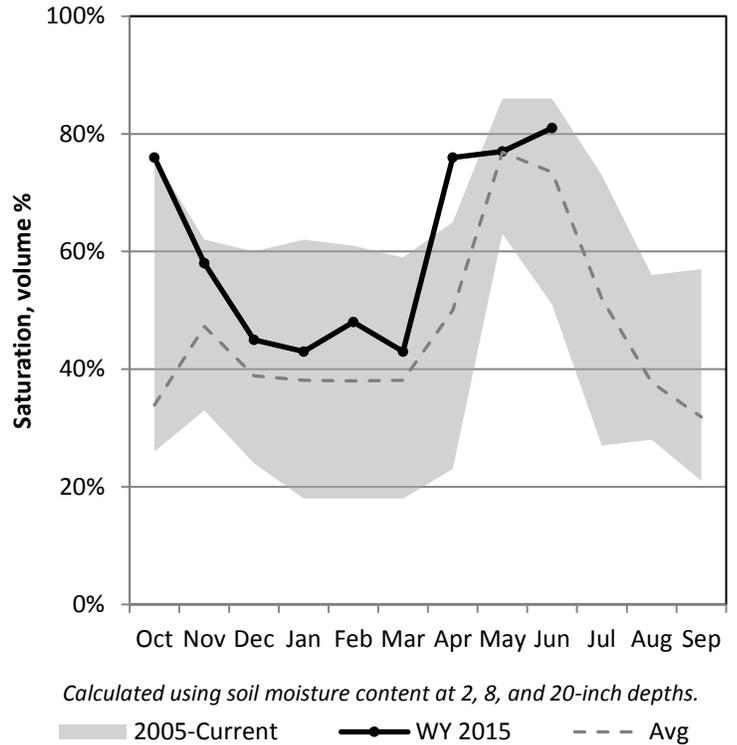
6/1/2015

Precipitation in May was much above average at 226%, which brings the seasonal accumulation (Oct-May) to 75% of average. Soil moisture is at 81% compared to 67% last year. Reservoir storage is at 79% of capacity, compared to 79% last year. The water availability index for the Western Uintahs is 69% and 17% for the Eastern Uintahs.

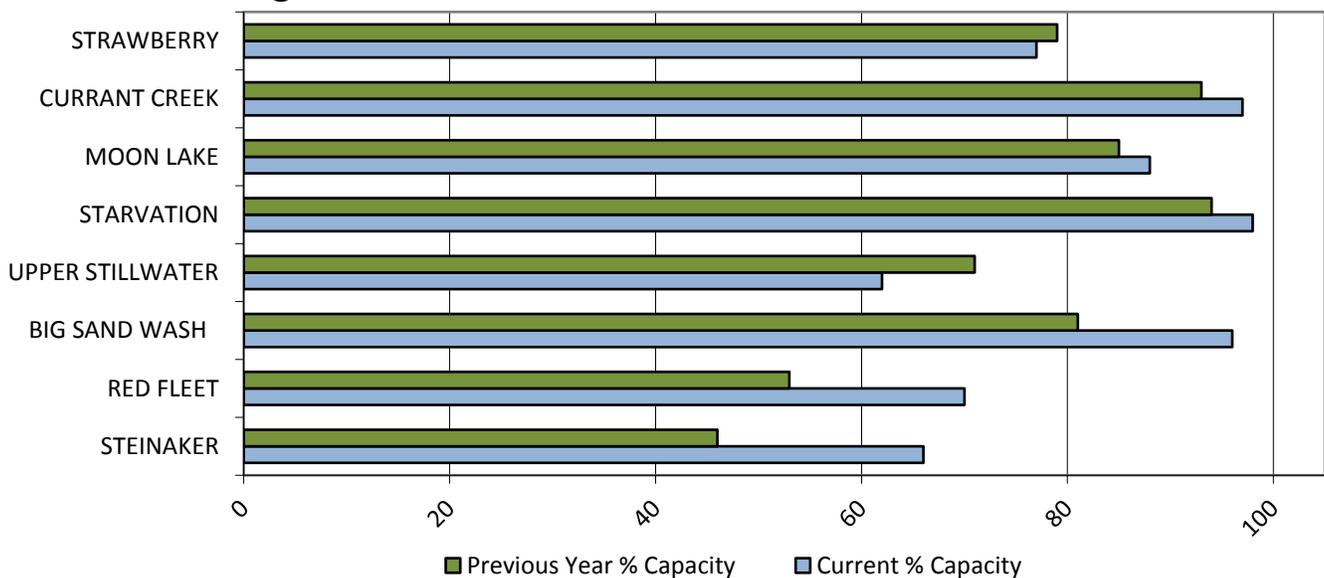
## Precipitation



## Soil Moisture



## Reservoir Storage

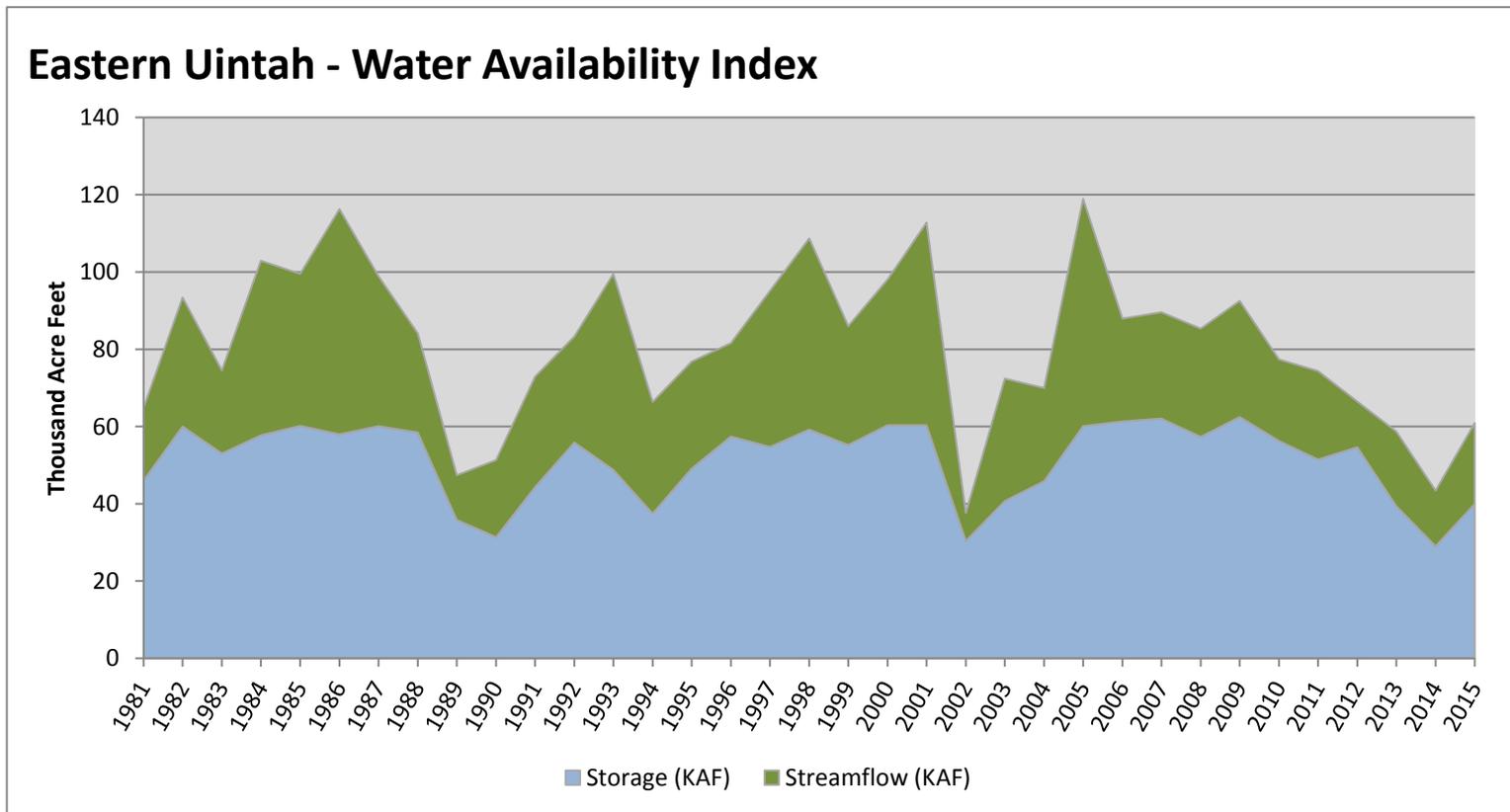


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Eastern Uintah</b>	<b>40.00</b>	<b>20.90</b>	<b>60.90</b>	<b>17</b>	<b>-2.78</b>	<b>90, 13, 81, 94</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

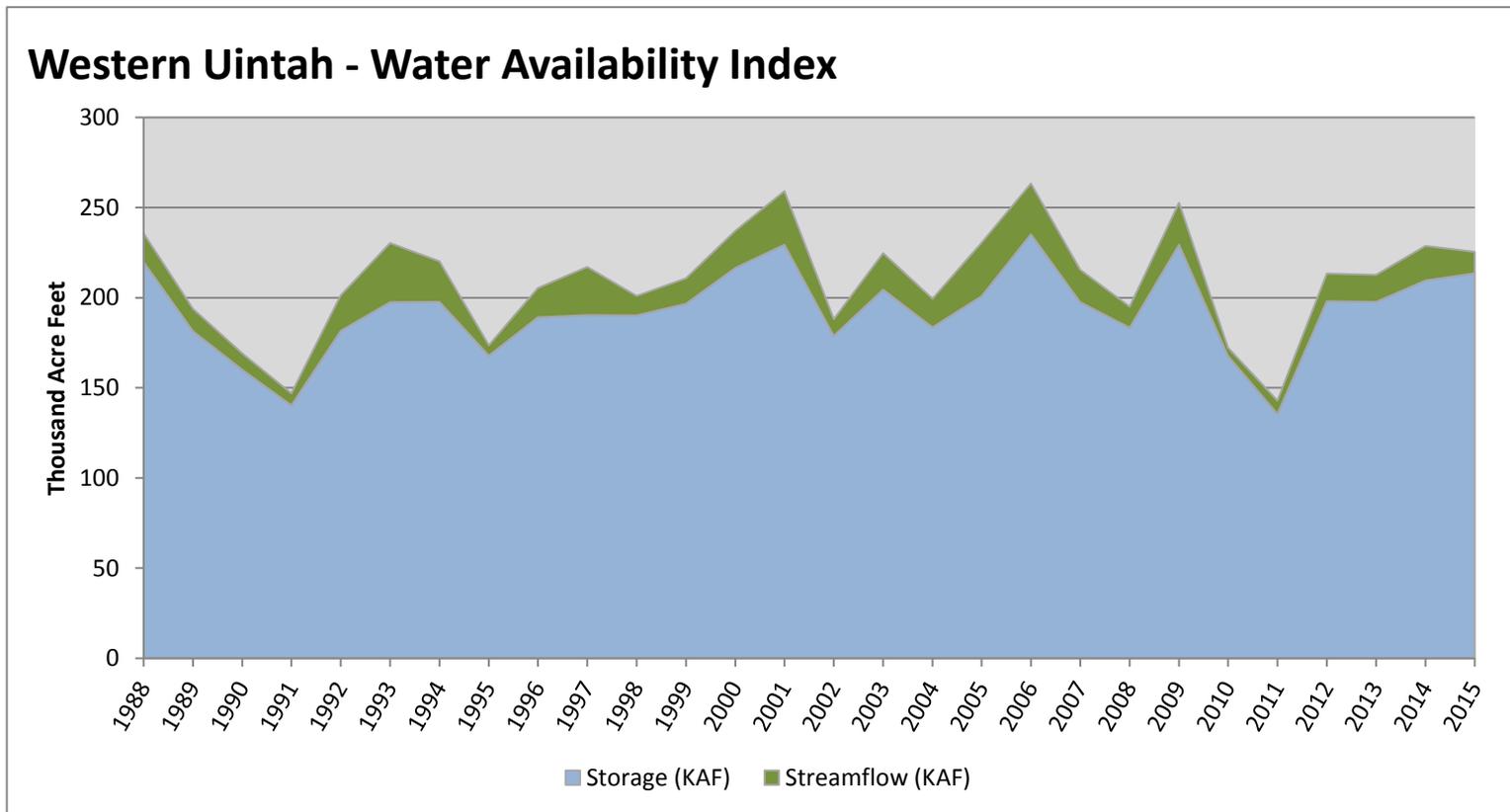


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Western Uintah</b>	<b>213.54</b>	<b>11.86</b>	<b>225.40</b>	<b>69</b>	<b>1.58</b>	<b>94, 03, 14, 93</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

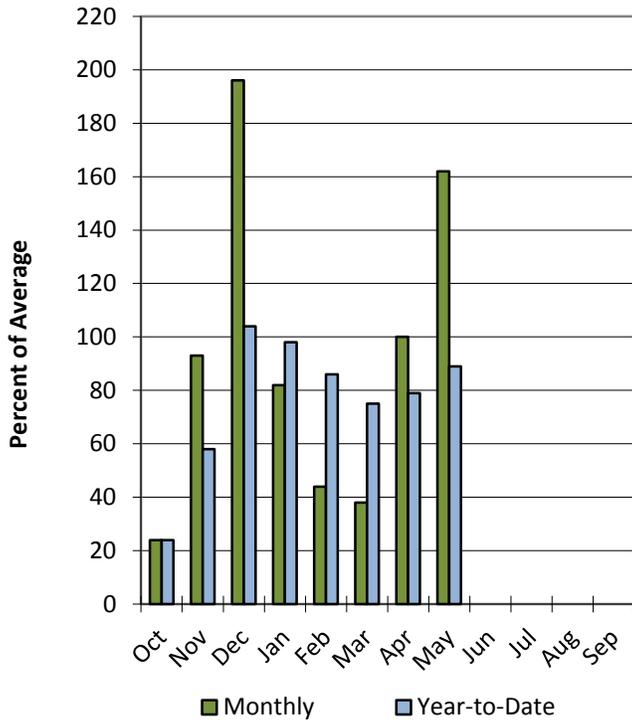


# Lower Sevier River Basin

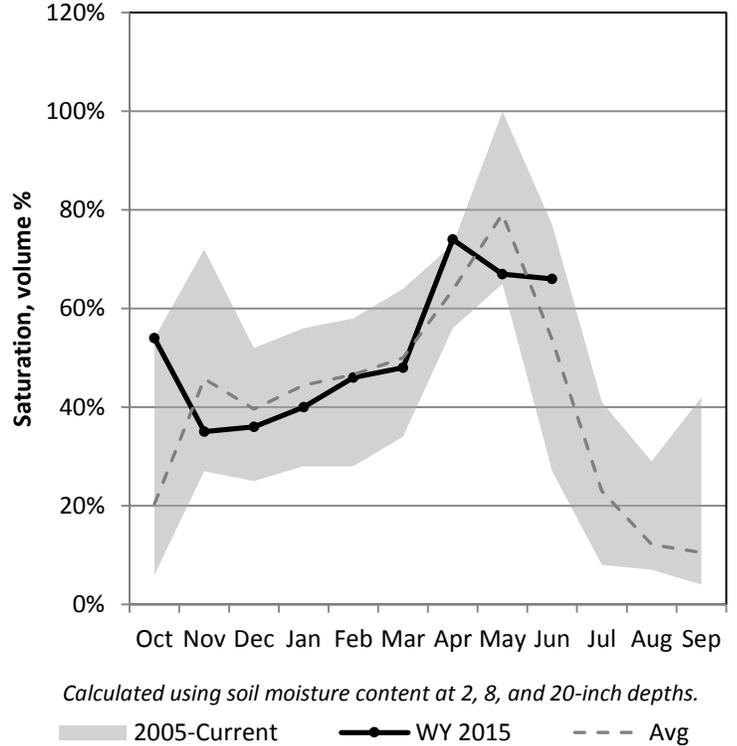
6/1/2015

Precipitation in May was much above average at 162%, which brings the seasonal accumulation (Oct-May) to 89% of average. Soil moisture is at 66% compared to 44% last year. Reservoir storage is at 39% of capacity, compared to 42% last year. The water availability index for the Lower Sevier is 14%.

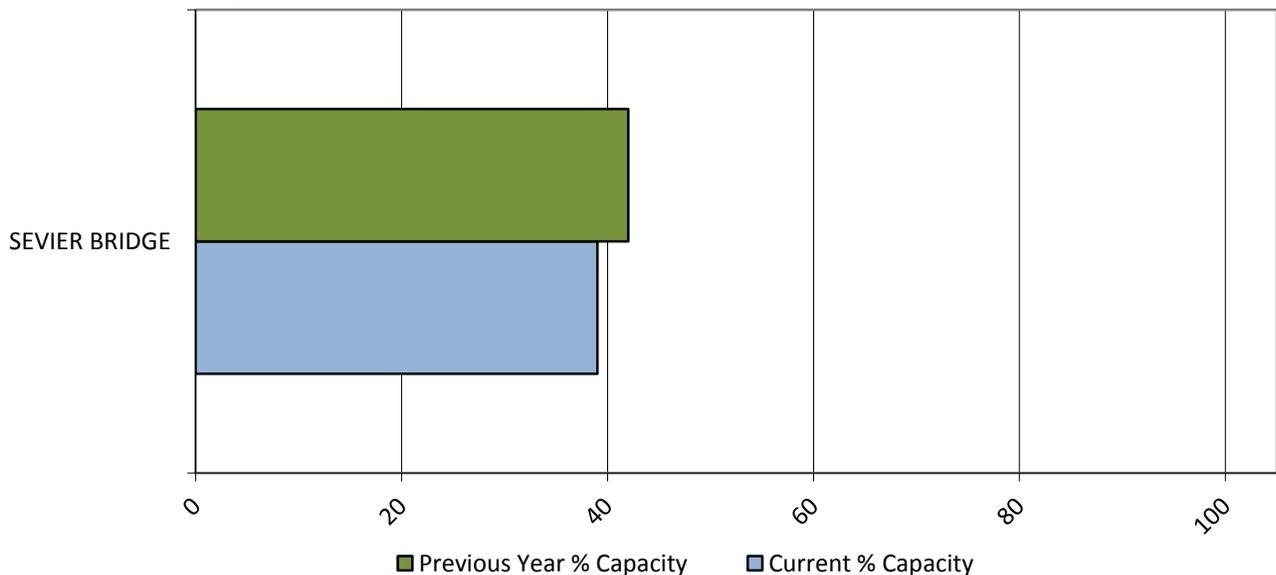
## Precipitation



## Soil Moisture



## Reservoir Storage

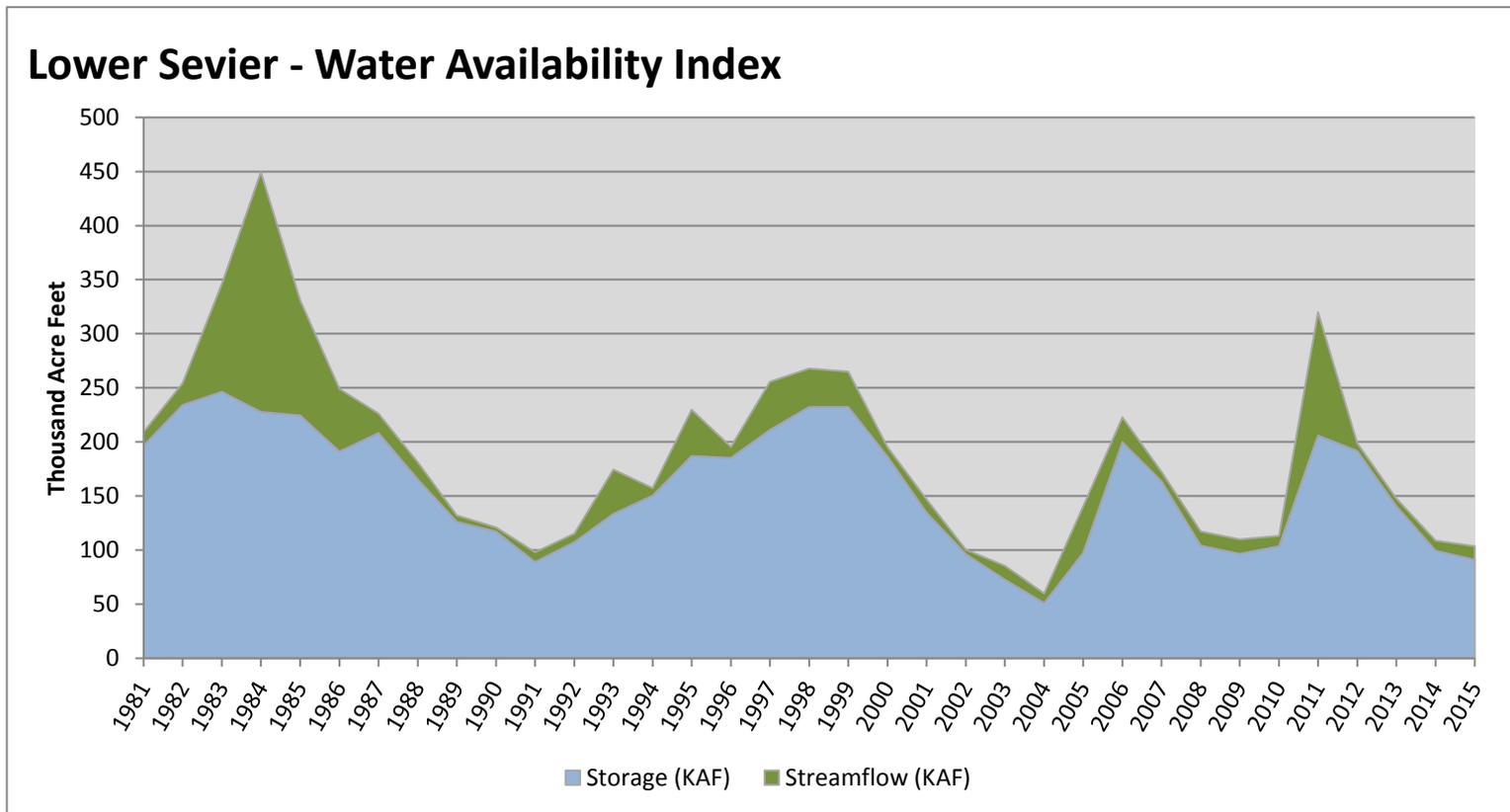


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Lower Sevier</b>	<b>91.15</b>	<b>12.33</b>	<b>103.48</b>	<b>14</b>	<b>-3.01</b>	<b>91, 02, 14, 09</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

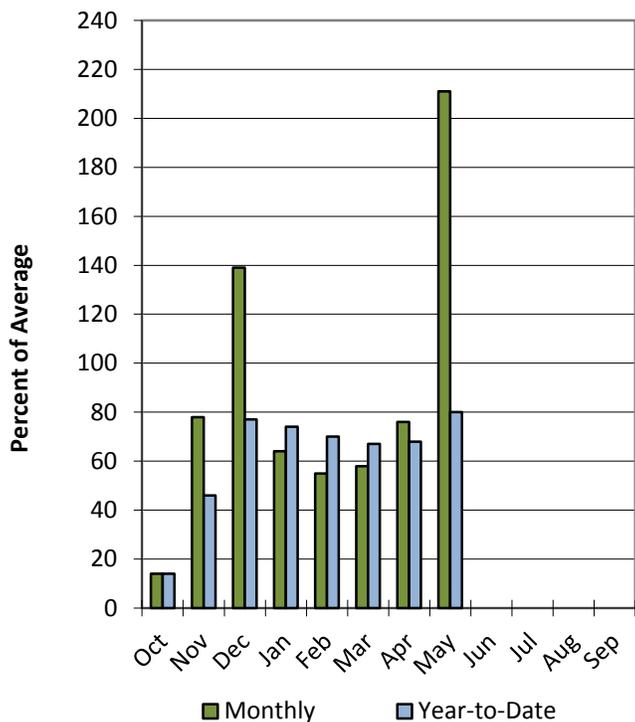


# Upper Sevier River Basin

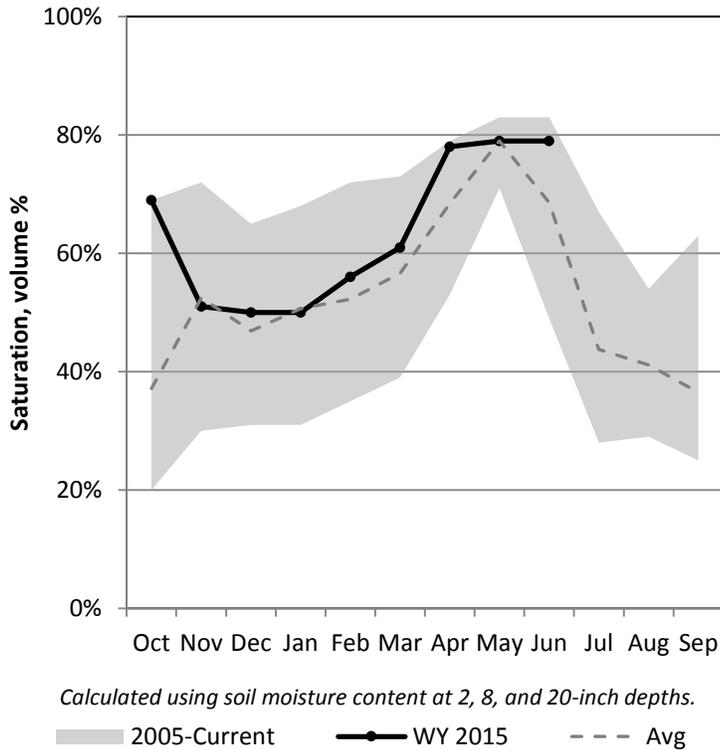
6/1/2015

Precipitation in May was much above average at 211%, which brings the seasonal accumulation (Oct-May) to 80% of average. Soil moisture is at 79% compared to 68% last year. Reservoir storage is at 49% of capacity, compared to 67% last year. The water availability index for the Upper Sevier is 19%.

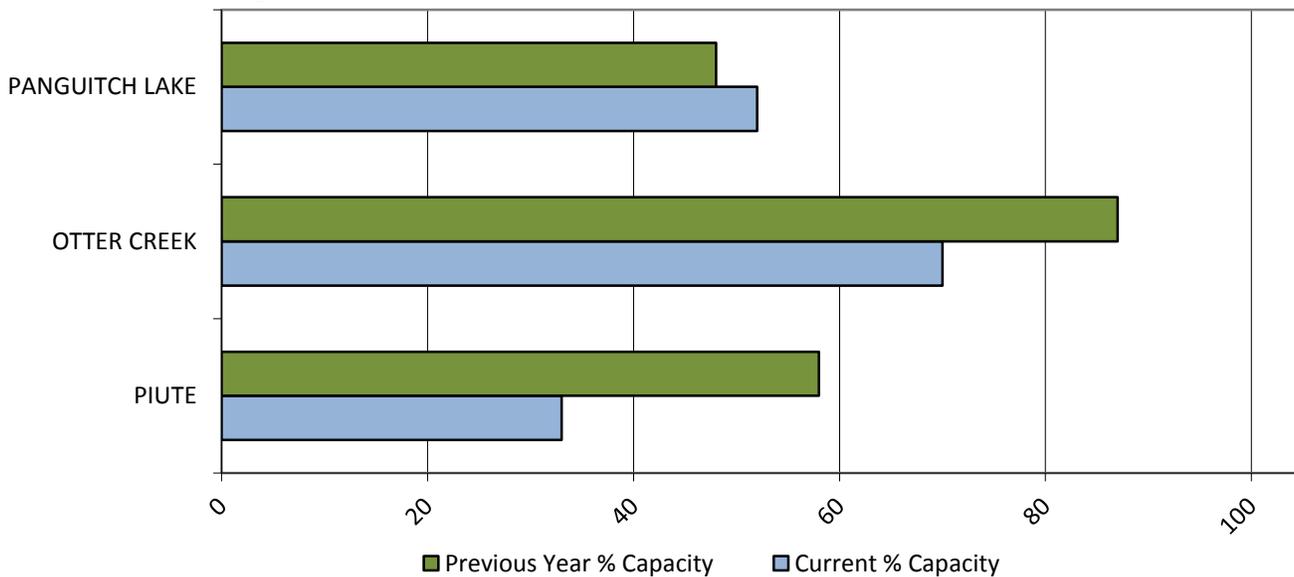
## Precipitation



## Soil Moisture



## Reservoir Storage

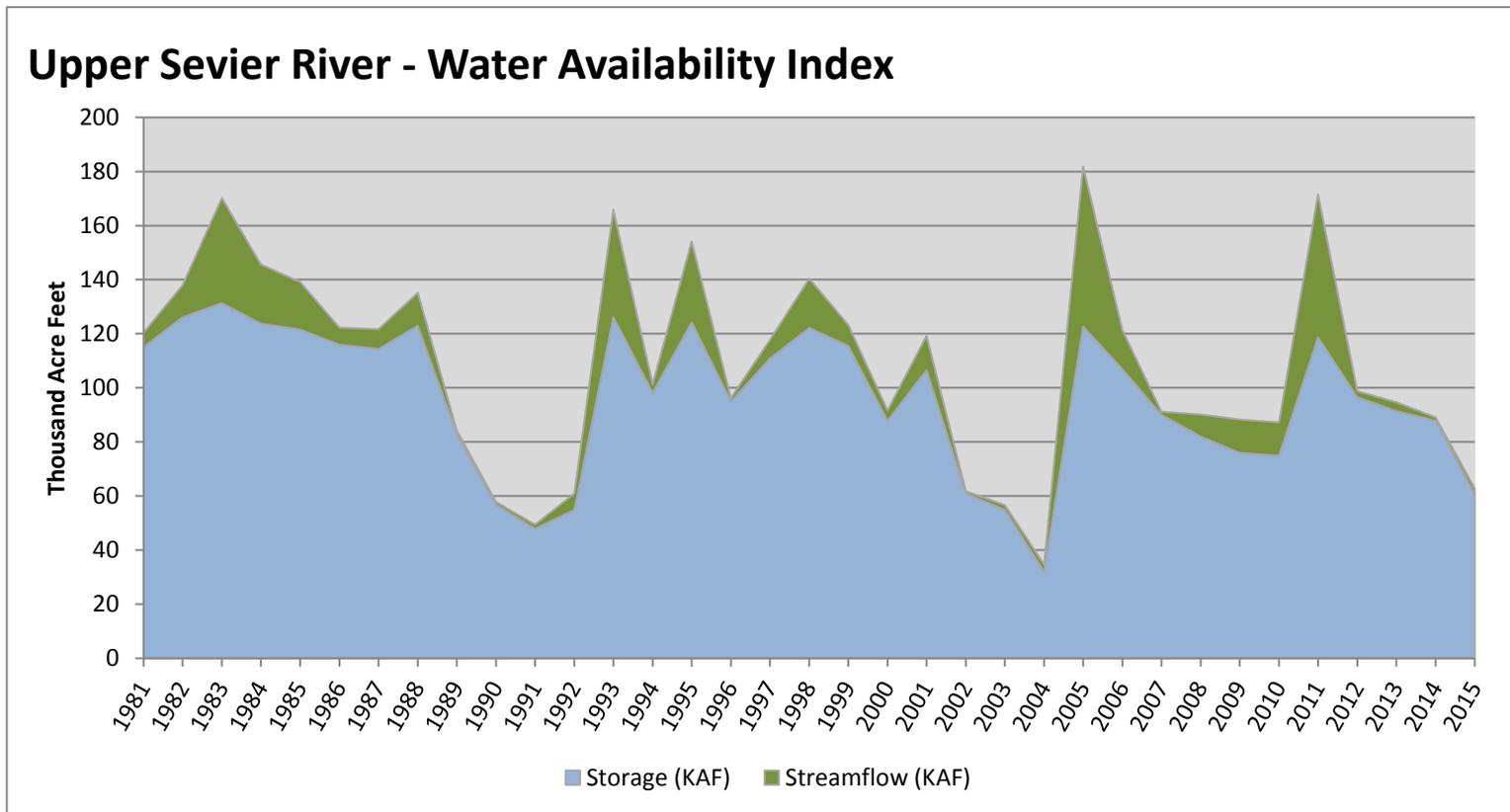


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Upper Sevier River</b>	<b>60.64</b>	<b>2.20</b>	<b>62.84</b>	<b>19</b>	<b>-2.55</b>	<b>92, 02, 89, 10</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

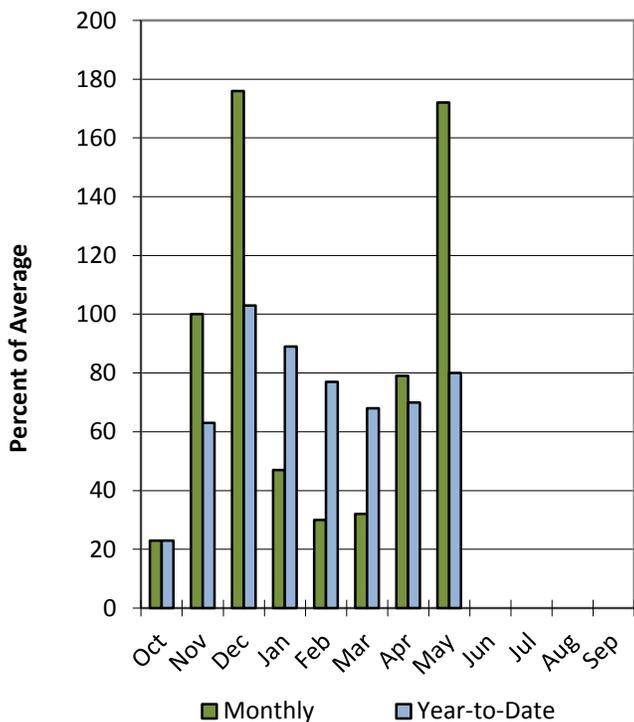


# San Pitch River Basin

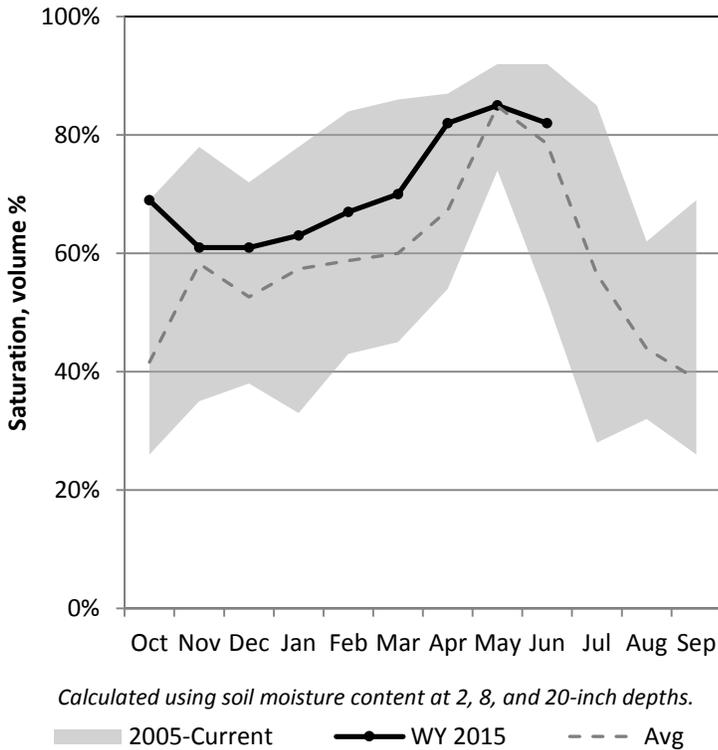
6/1/2015

Precipitation in May was much above average at 172%, which brings the seasonal accumulation (Oct-May) to 80% of average. Soil Moisture is at 82% compared to 73% last year. Reservoir storage is at 3% of capacity, compared to 22% last year. The water availability index for the San Pitch is 6%.

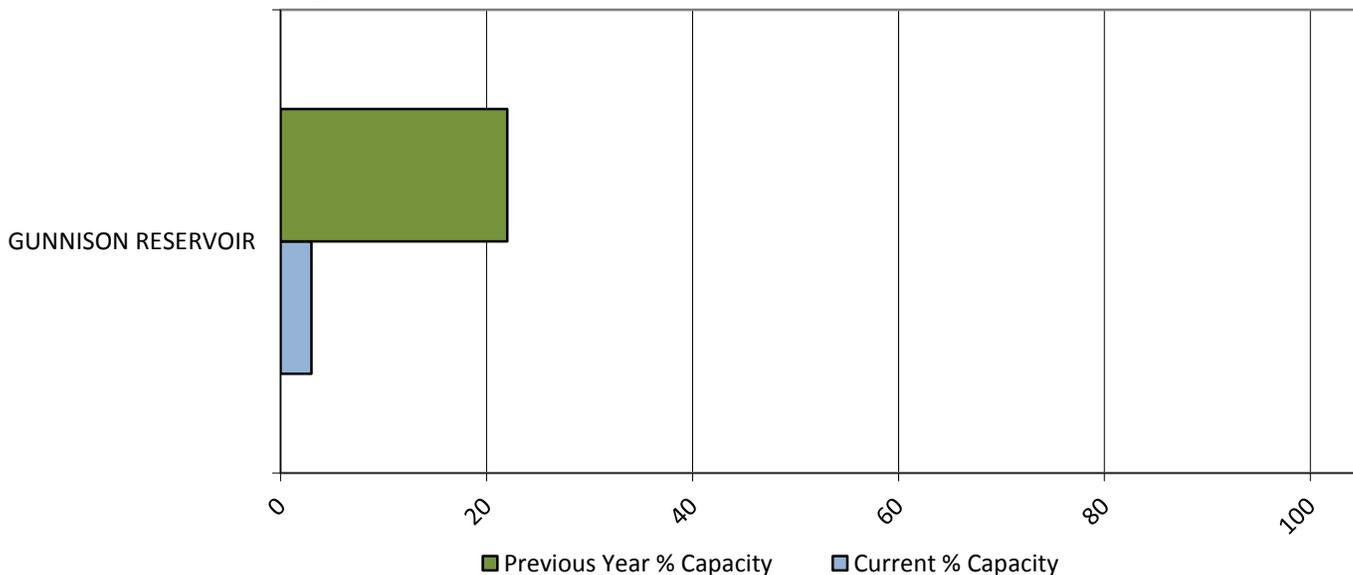
## Precipitation



## Soil Moisture



## Reservoir Storage

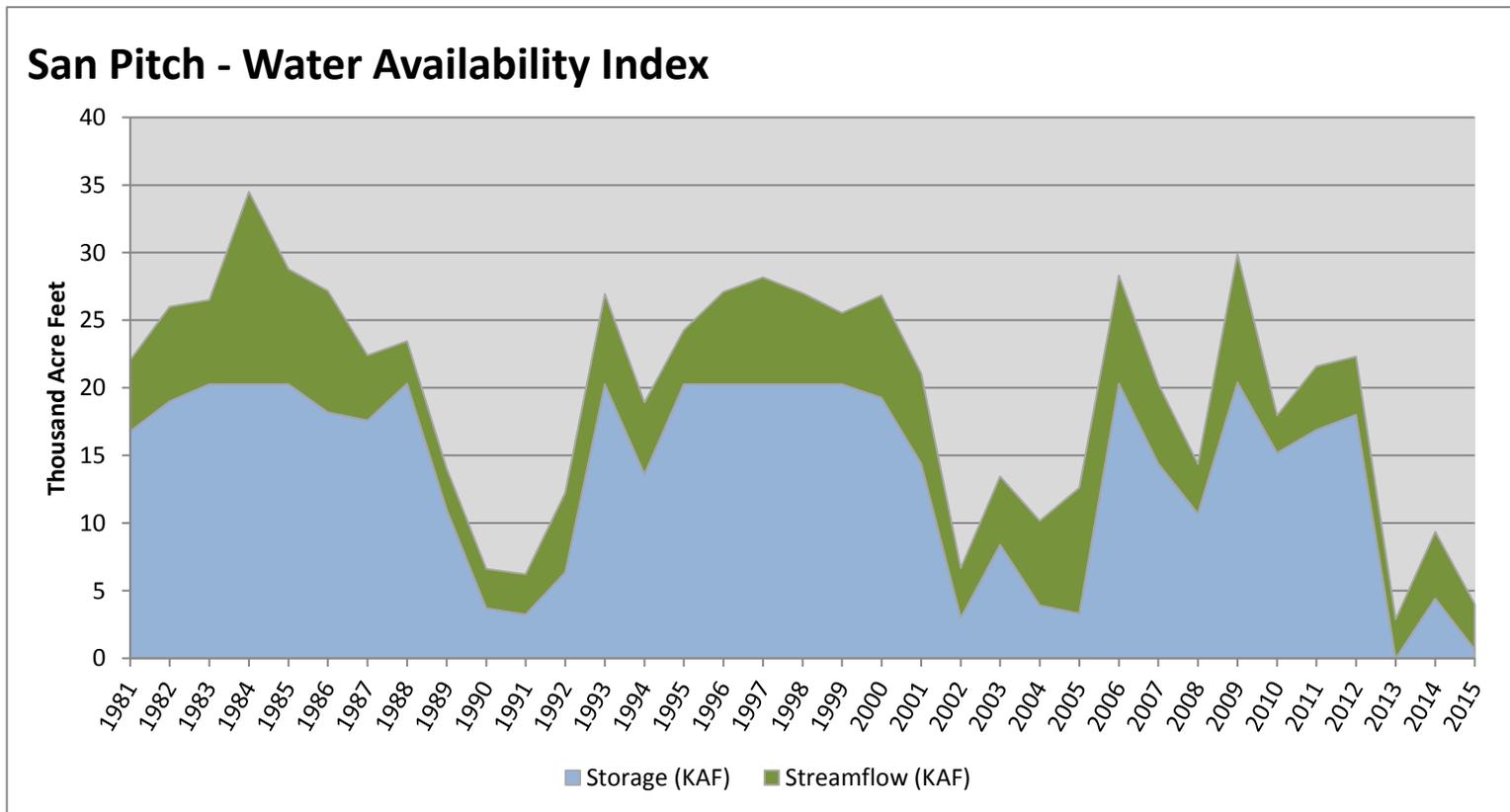


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>San Pitch</b>	<b>0.65</b>	<b>3.35</b>	<b>4.00</b>	<b>6</b>	<b>-3.7</b>	<b>13, 91, 90, 02</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

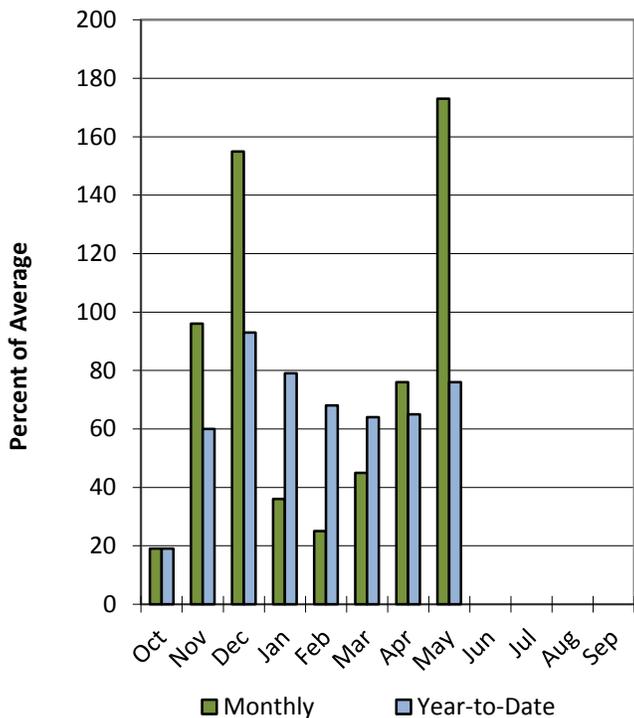


# Price & San Rafael Basins

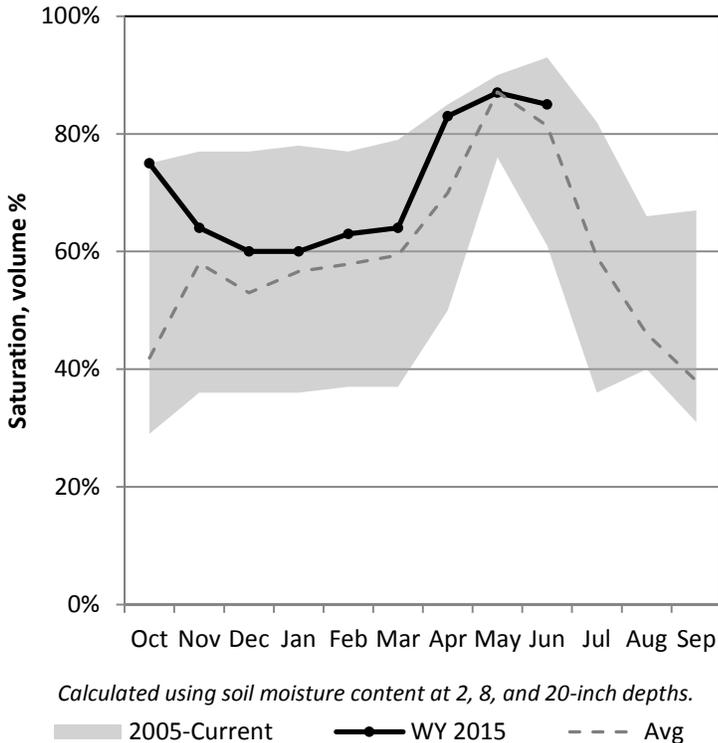
6/1/2015

Precipitation in May was much above average at 173%, which brings the seasonal accumulation (Oct-May) to 76% of average. Soil moisture is at 85% compared to 72% last year. Reservoir storage is at 57% of capacity, compared to 68% last year. The water availability index for the Price River is 3%, and 22% for Joe's Valley.

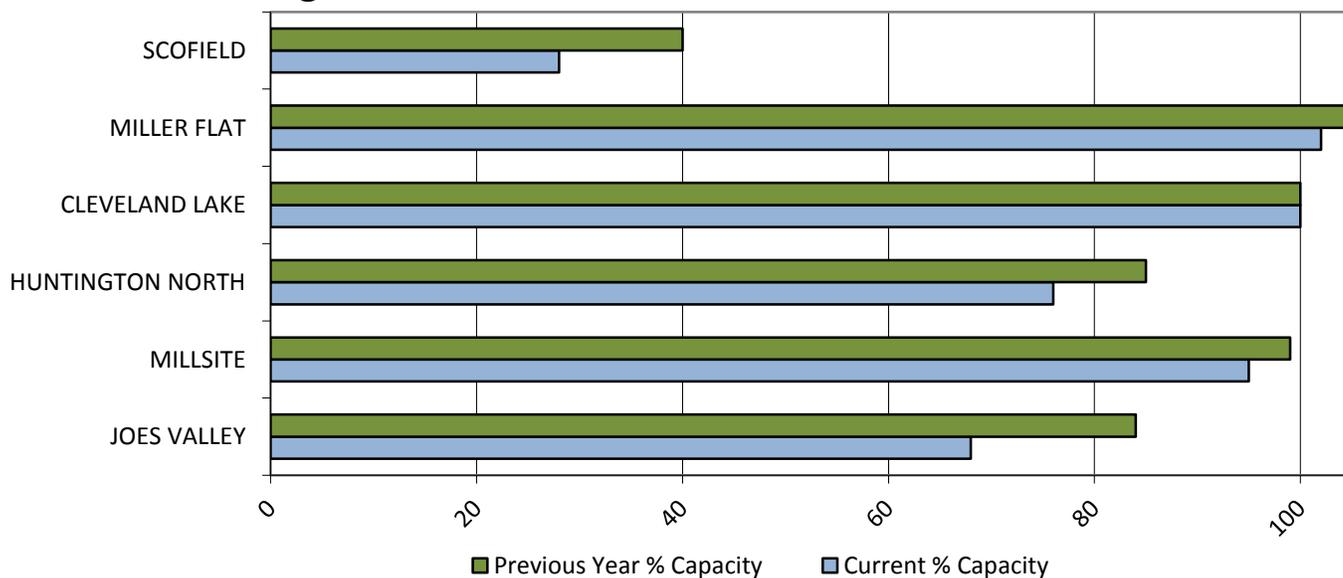
## Precipitation



## Soil Moisture



## Reservoir Storage

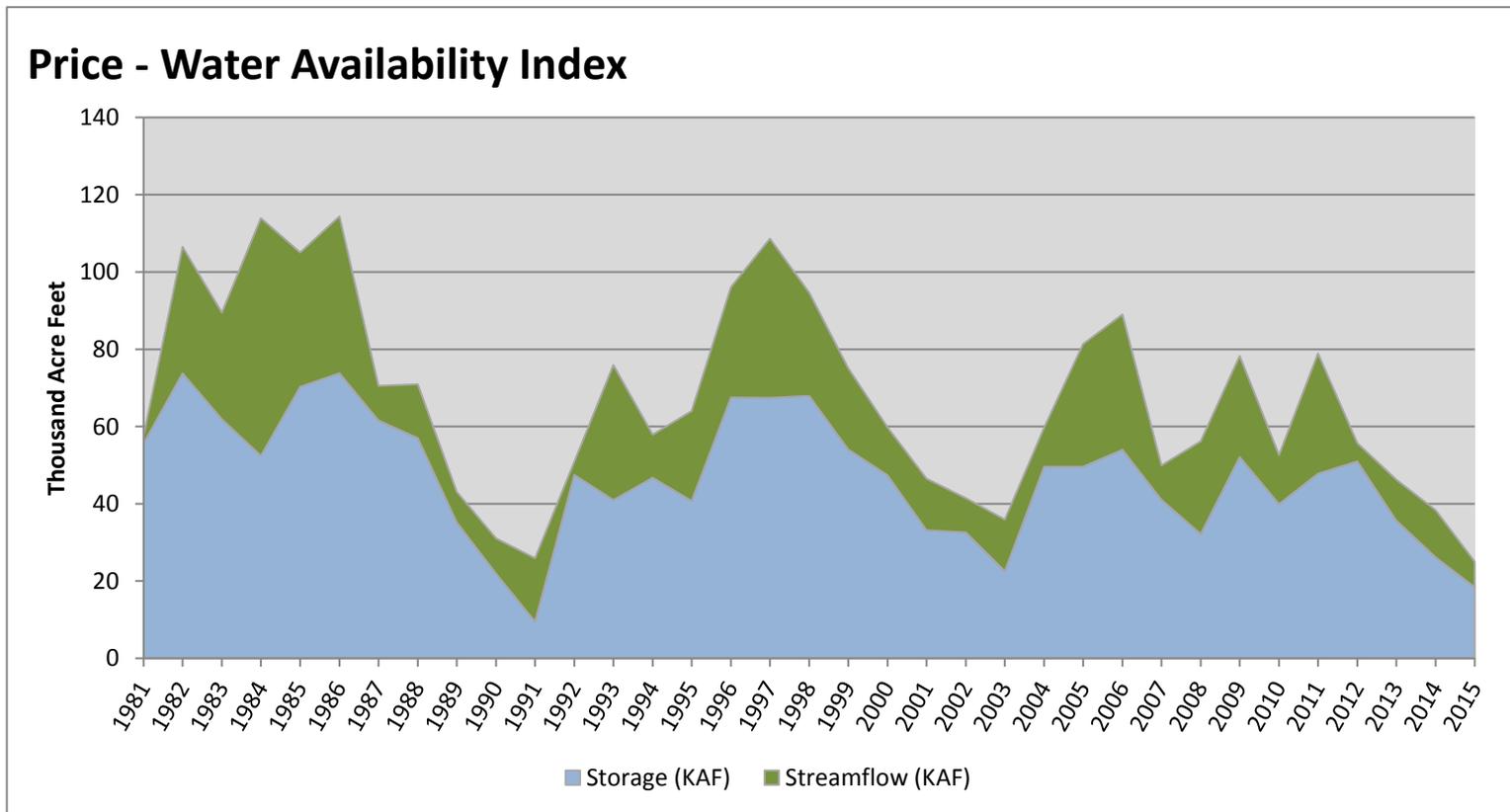


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Price</b>	<b>18.37</b>	<b>6.62</b>	<b>24.99</b>	<b>3</b>	<b>-3.94</b>	<b>91, 90, 03, 14</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

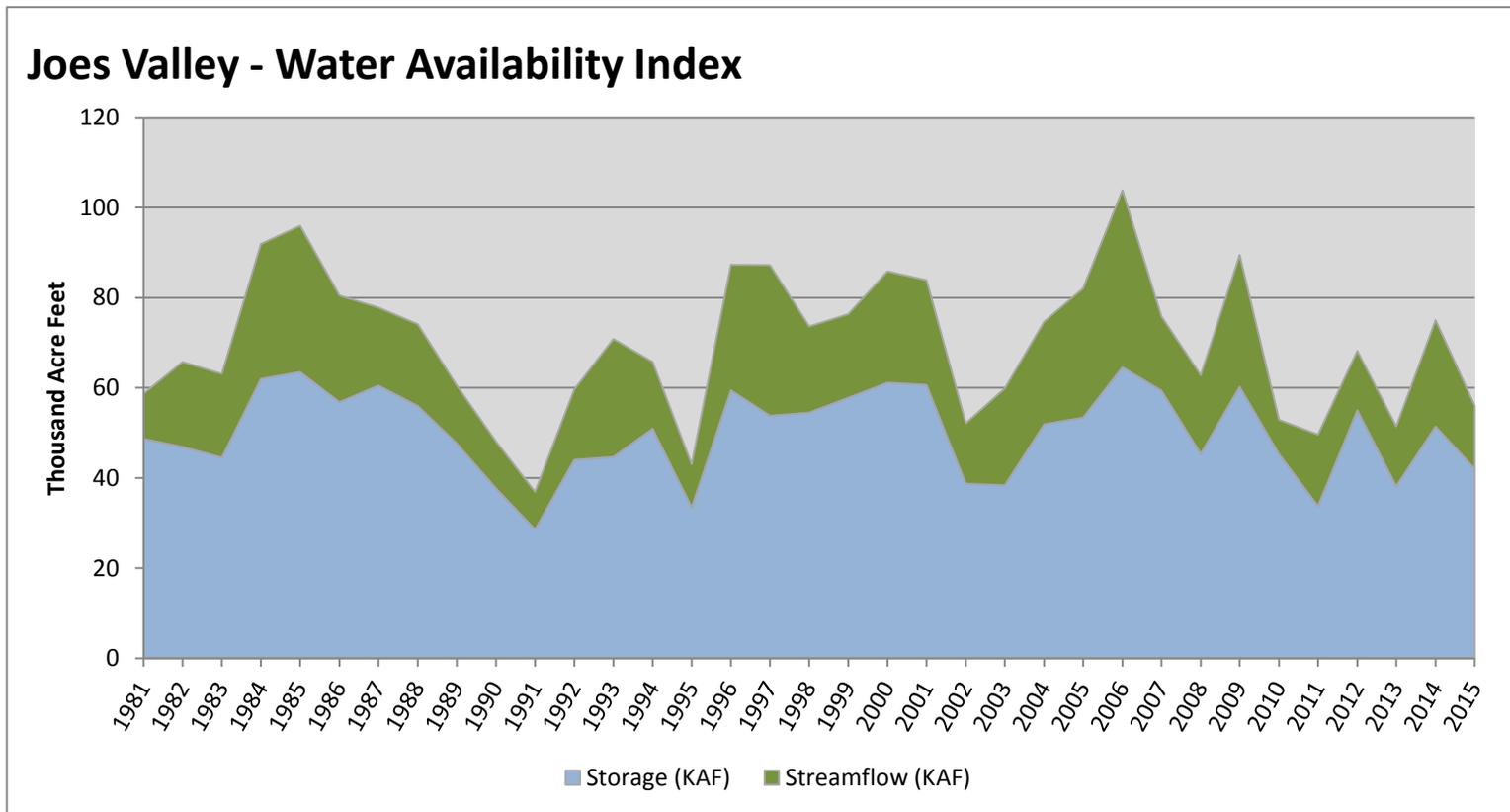


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Joes Valley</b>	<b>42.02</b>	<b>14.02</b>	<b>56.04</b>	<b>22</b>	<b>-2.31</b>	<b>02, 10, 81, 92</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

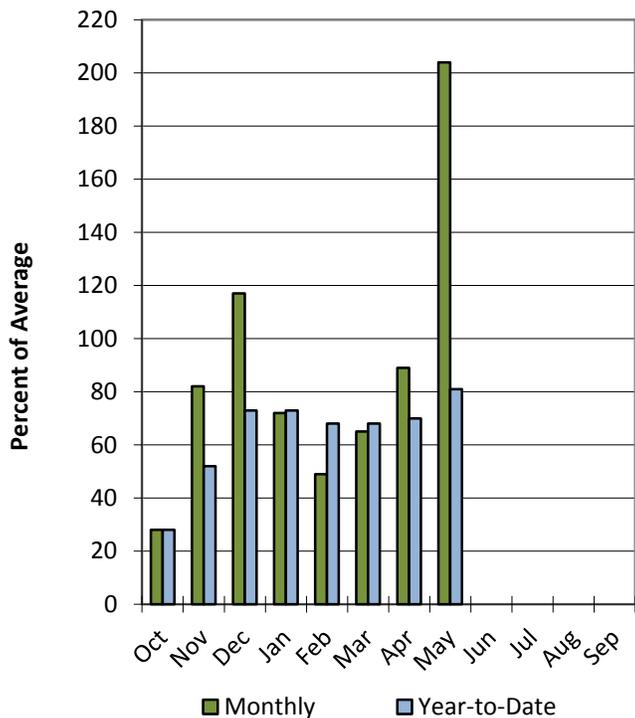


# Southeastern Utah Basin

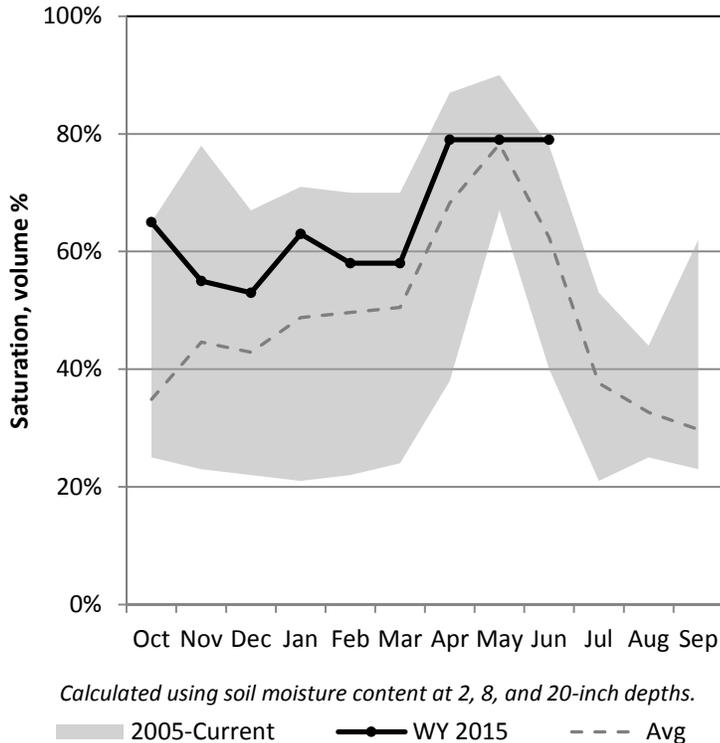
6/1/2015

Precipitation in May was much above average at 204%, which brings the seasonal accumulation (Oct-May) to 81% of average. Soil moisture is at 79% compared to 65% last year. Reservoir storage is at 72% of capacity, compared to 74% last year. The water availability index for Moab is 24%.

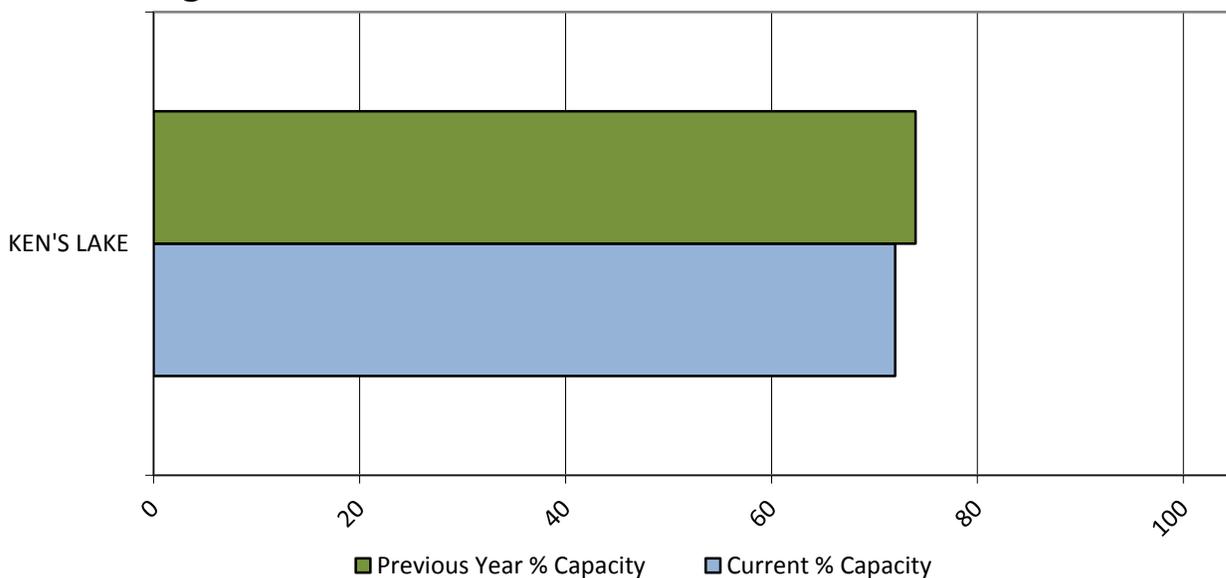
## Precipitation



## Soil Moisture



## Reservoir Storage

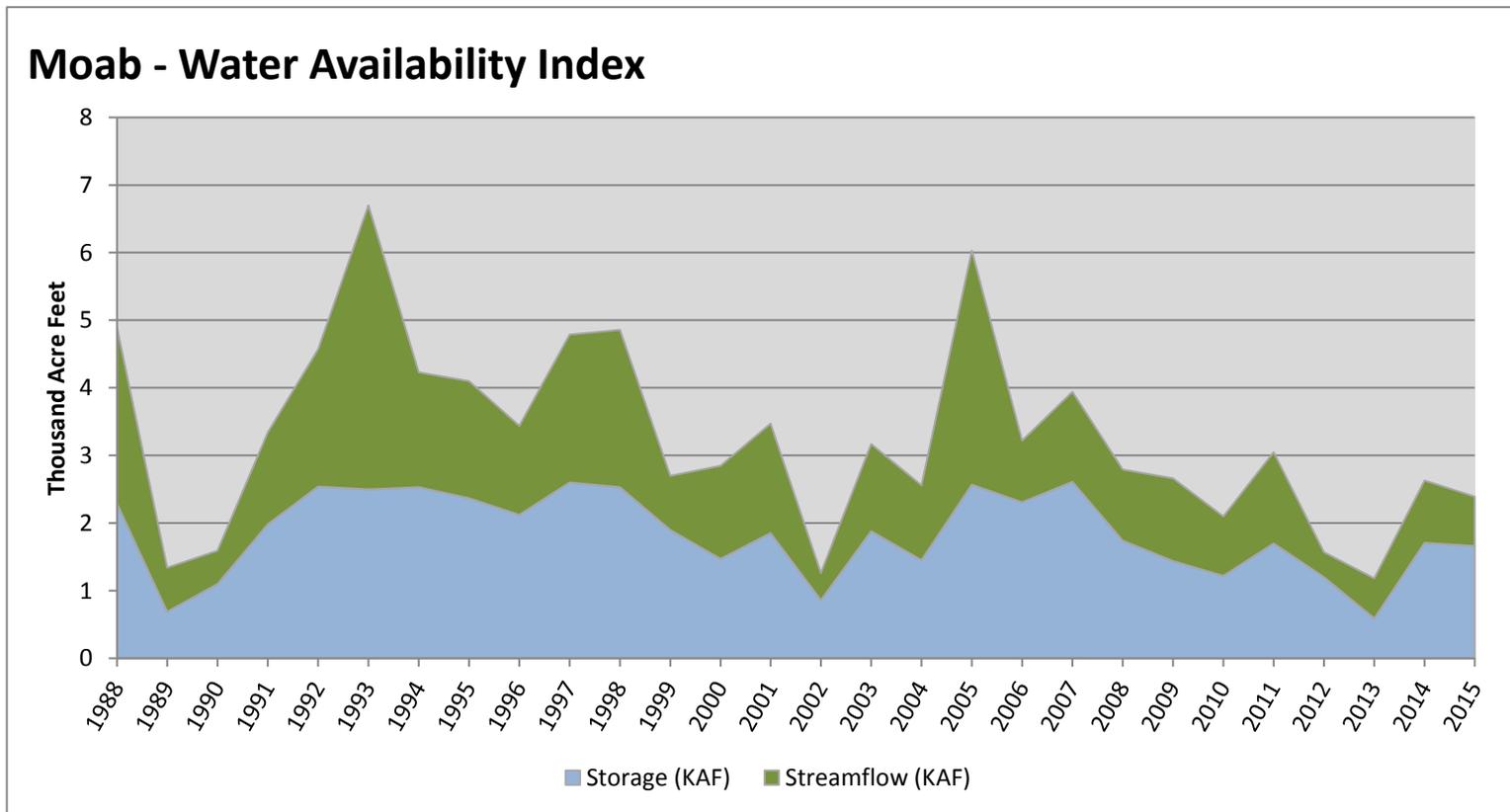


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Moab</b>	<b>1.66</b>	<b>0.73</b>	<b>2.39</b>	<b>24</b>	<b>-2.16</b>	<b>90, 10, 04, 14</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

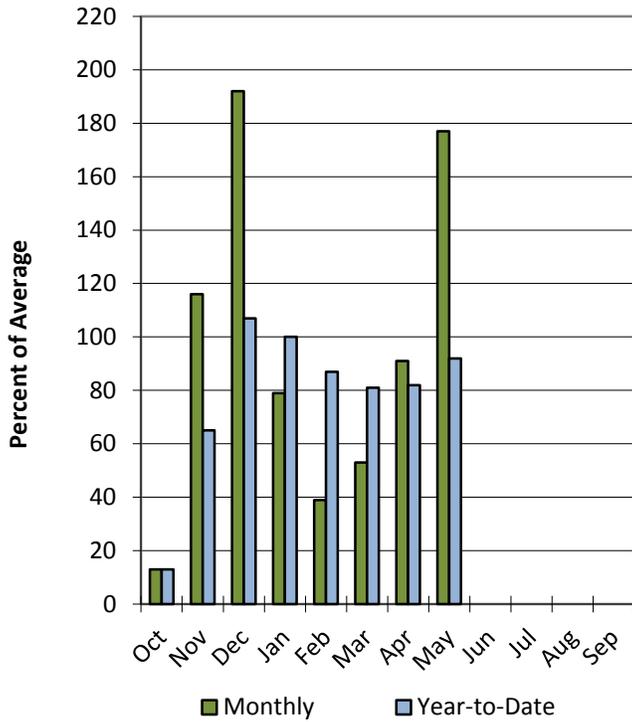


# Dirty Devil Basin

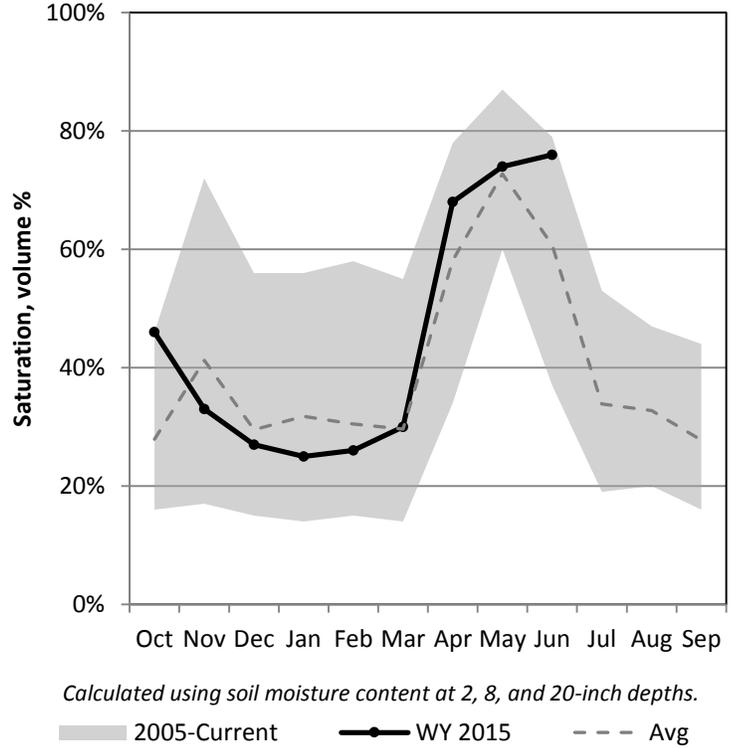
6/1/2015

Precipitation in May was much above average at 177%, which brings the seasonal accumulation (Oct-May) to 92% of average. Soil moisture is at 76% compared to 58% last year.

## Precipitation



## Soil Moisture

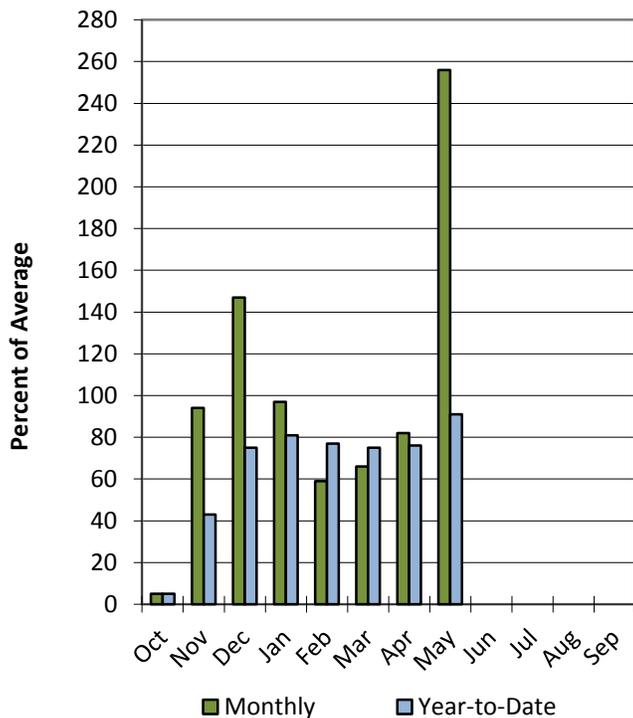


# Escalante River Basin

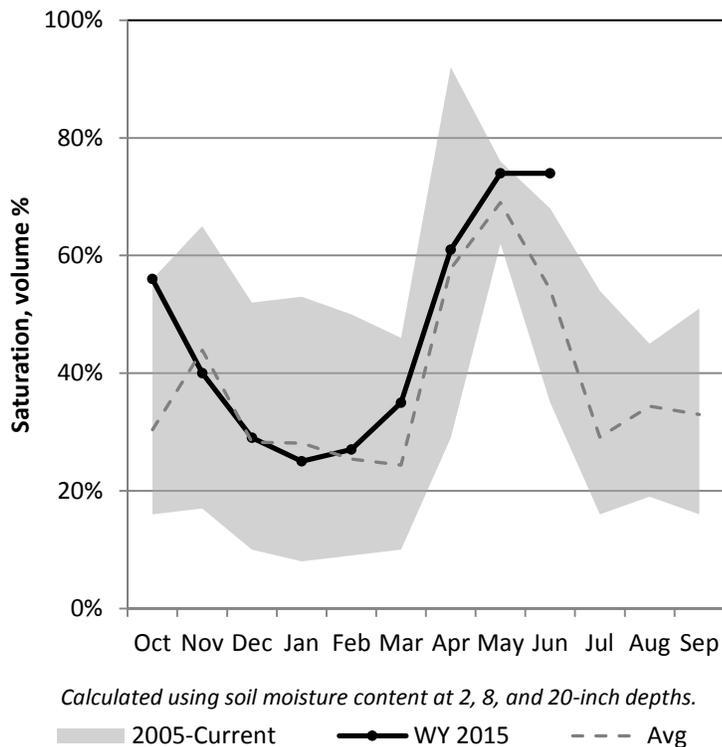
6/1/2015

Precipitation in May was much above average at 256%, which brings the seasonal accumulation (Oct-May) to 91% of average. Soil moisture is at 74% compared to 60% last year.

## Precipitation



## Soil Moisture

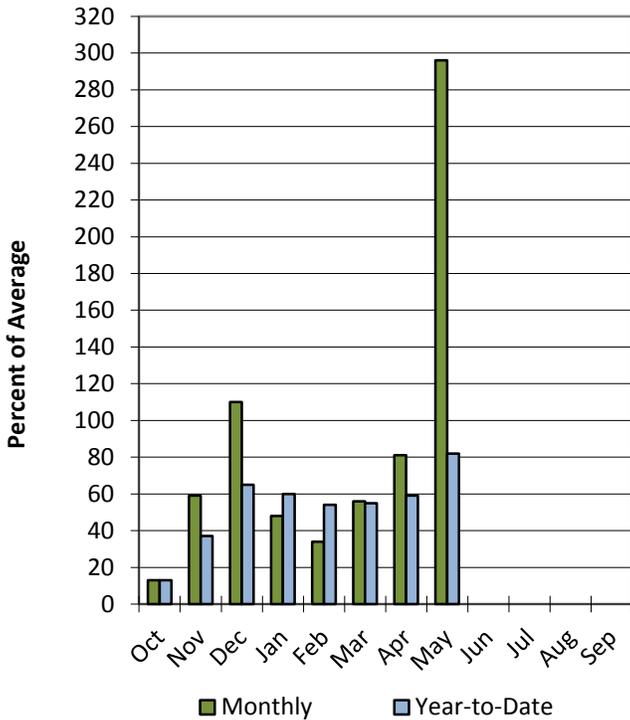


# Beaver River Basin

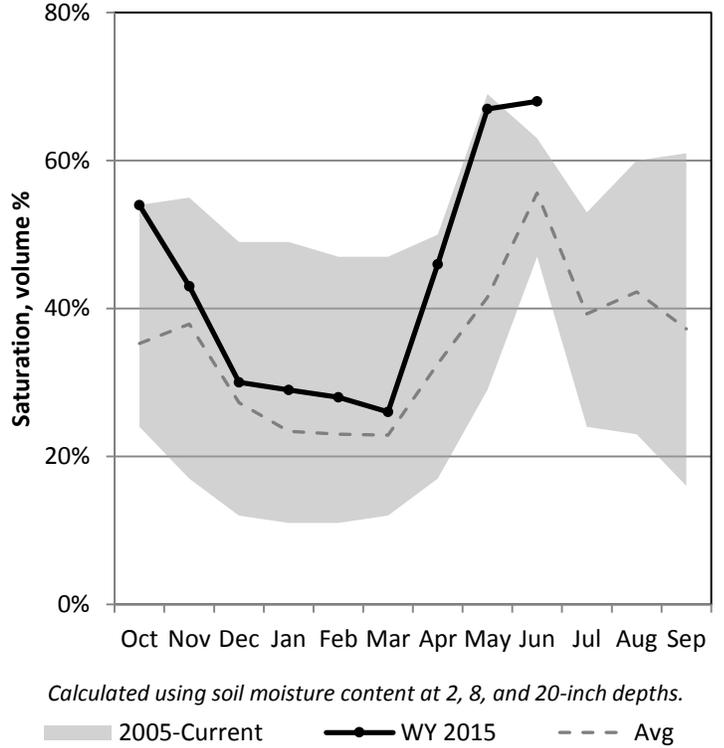
6/1/2015

Precipitation in May was much above average at 296%, which brings the seasonal accumulation (Oct-May) to 82% of average. Soil moisture is at 68% compared to 61% last year. Reservoir storage is at 48% of capacity, compared to 35% last year. The water availability index for the Beaver River is 39%.

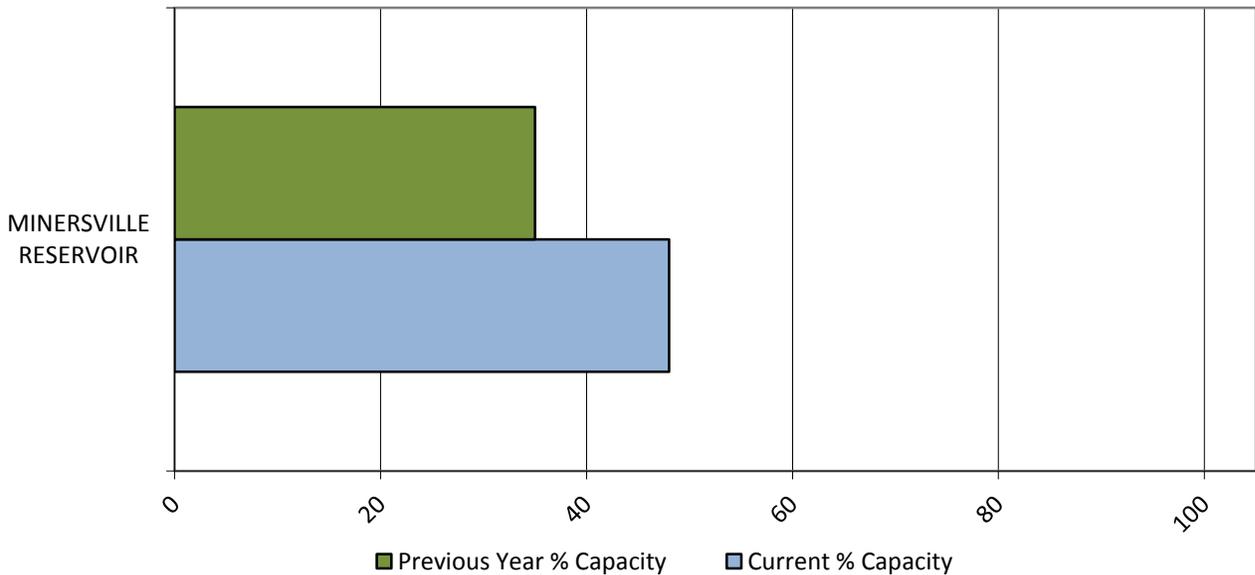
## Precipitation



## Soil Moisture



## Reservoir Storage

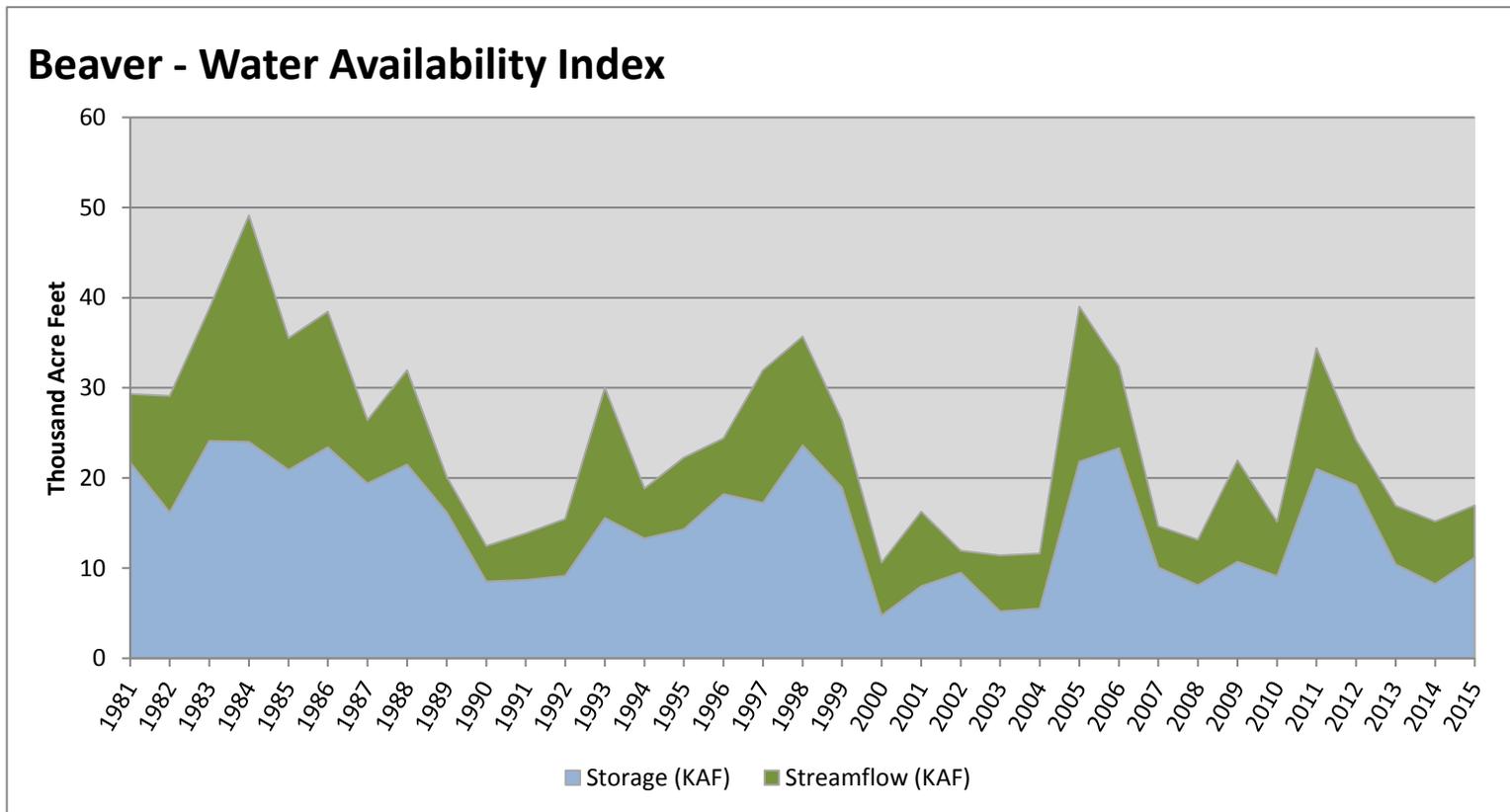


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Beaver</b>	<b>11.18</b>	<b>5.78</b>	<b>16.96</b>	<b>39</b>	<b>-0.93</b>	<b>01, 13, 94, 89</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.

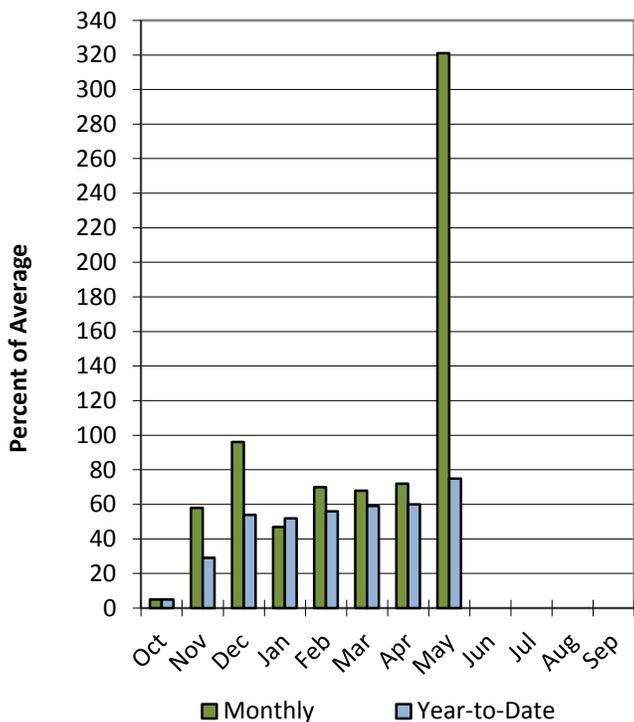


# Southwestern Utah Basin

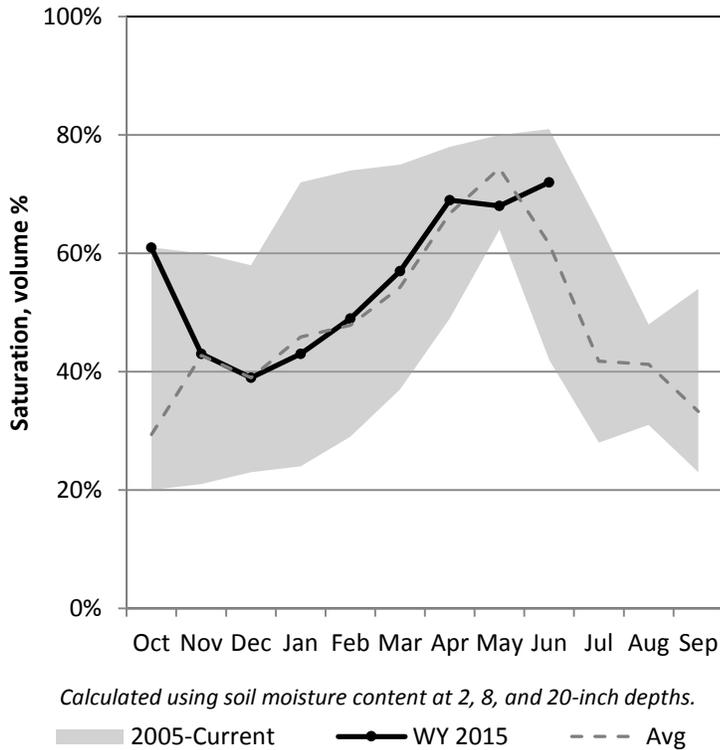
6/1/2015

Precipitation in May was much above average at 321%, which brings the seasonal accumulation (Oct-May) to 75% of average. Soil moisture is at 72% compared to 59% last year. Reservoir storage is at 47% of capacity, compared to 45% last year. The water availability index for the Virgin River is 42%.

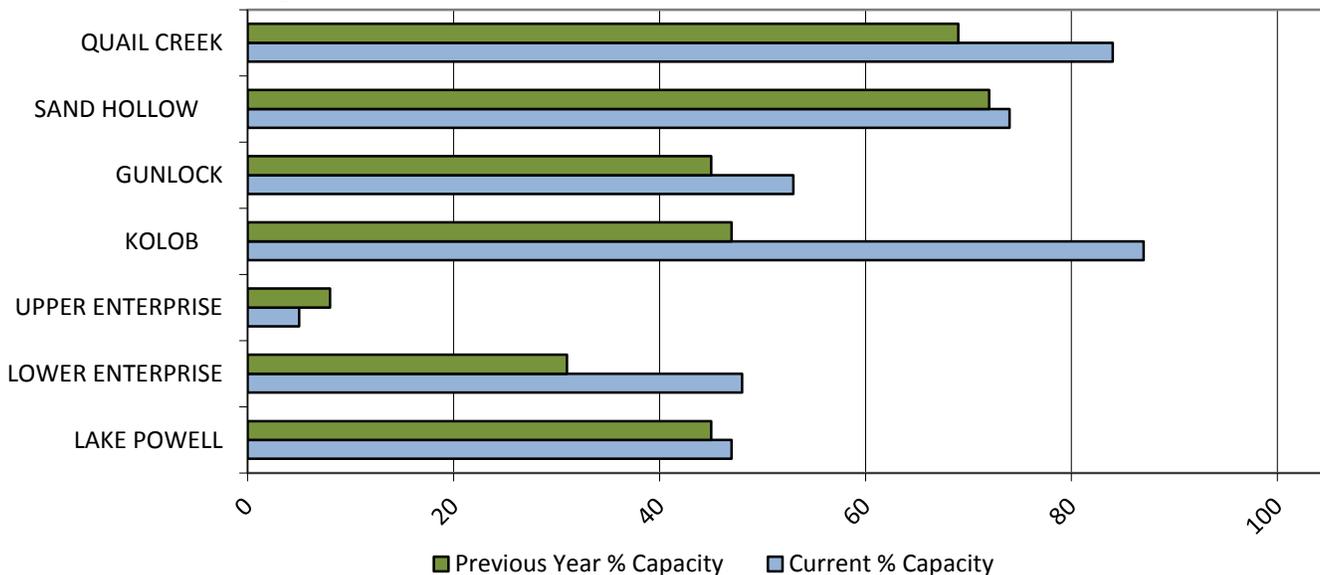
## Precipitation



## Soil Moisture



## Reservoir Storage

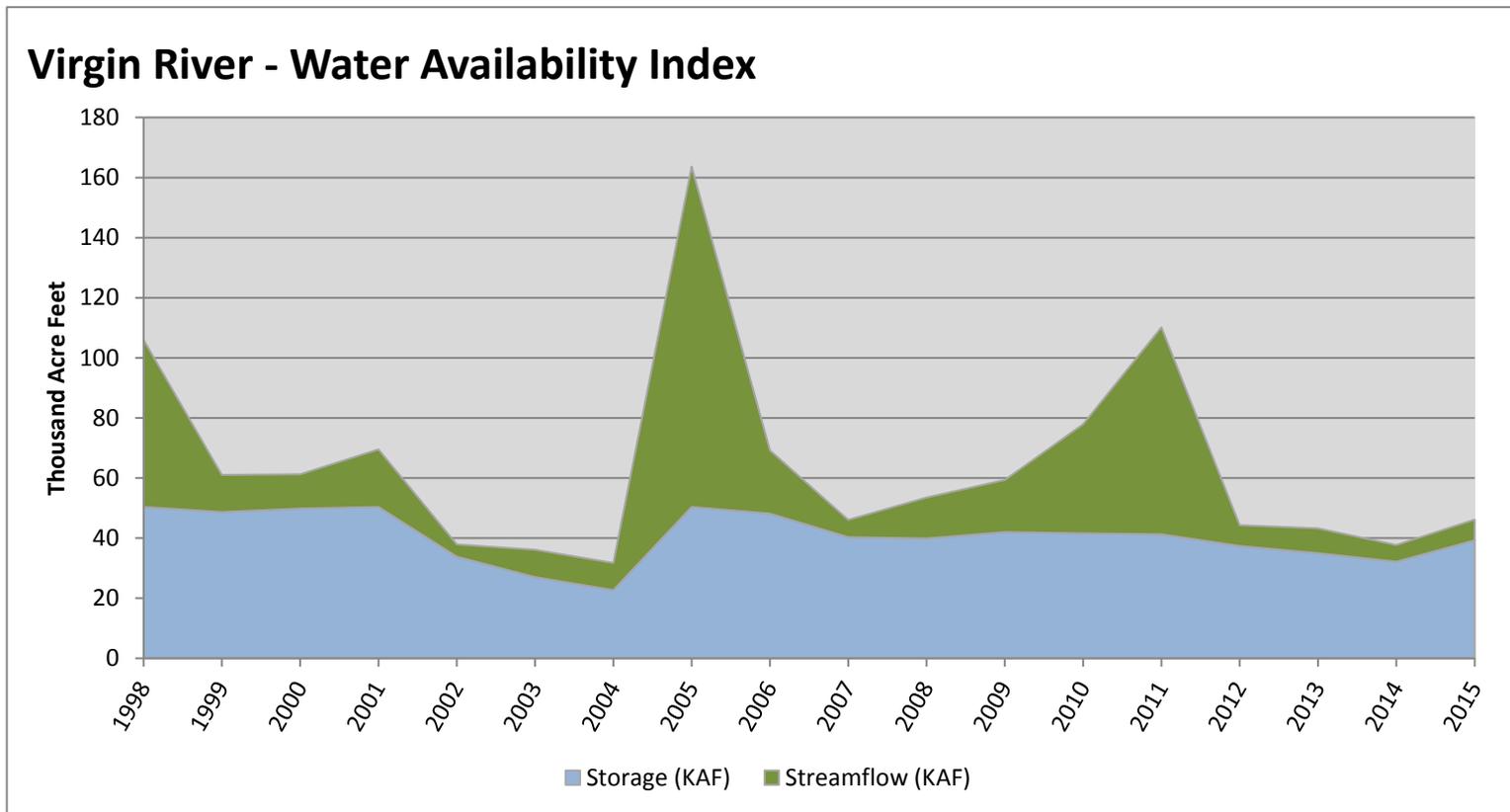


June 1, 2015

## Water Availability Index

Basin or Region	May EOM <sup>*</sup> Storage	May Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Virgin River</b>	<b>39.23</b>	<b>6.98</b>	<b>46.21</b>	<b>42</b>	<b>-0.66</b>	<b>12, 07, 08, 09</b>

<sup>\*</sup>EOM, end of month; <sup>#</sup>WAI, Water Availability Index; <sup>^</sup>KAF, thousand acre-feet.



June 1, 2015

## Water Availability Index

Basin or Region	May EOM* Storage	May Flow	Storage + Flow	Percentile	WAI#	Years with similiar WAI
	KAF^	KAF^	KAF^	%		
Bear River	640	20.1	660	47	-0.2	90, 14, 01, 96
Woodruff Narrows	55.5	24.0	79.4	44	-0.5	11, 81, 12, 94
Little Bear	14.8	4.3	19.0	8	-3.5	01, 07, 12, 13
Ogden	97.9	9.1	107.0	28	-1.9	01, 81, 07, 04
Weber	168.1	66.6	234.7	31	-1.6	14, 12, 01, 07
Provo River	388.6	30.7	419.3	48	-0.2	10, 03, 07, 09
Western Uintah	213.5	11.9	225.4	69	1.6	94, 03, 14, 93
Eastern Uintah	40.0	20.9	60.9	17	-2.8	90, 13, 81, 94
Blacks Fork	30.2	20.9	51.1	39	-0.9	98, 12, 99, 97
Price	18.4	6.6	25.0	3	-3.9	91, 90, 03, 14
Smiths Creek	13.9	7.1	21.0	69	1.6	03, 86, 85, 09
Joes Valley	42.0	14.0	56.0	22	-2.3	02, 10, 81, 92
Moab	1.7	0.7	2.4	24	-2.2	90, 10, 04, 14
Upper Sevier River	60.6	2.2	62.8	19	-2.6	92, 02, 89, 10
San Pitch	0.7	3.4	4.0	6	-3.7	13, 91, 90, 02
Lower Sevier	91.2	12.3	103.5	14	-3.0	91, 02, 14, 09
Beaver	11.2	5.8	17.0	39	-0.9	01, 13, 94, 89
Virgin River	39.2	7.0	46.2	42	-0.7	12, 07, 08, 09

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

### What is a Water Availability Index?

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

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

For more information on the WAI go to: [www.ut.nrcs.usda.gov/snow/](http://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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