

# Utah Climate and Water Report

November 2014



Sunrise at a new SNOTEL site at Lonesome Beaver in the Henry Mountains,  
installed October 2014

Photo by Randy Julander

# Utah Climate and Water Report

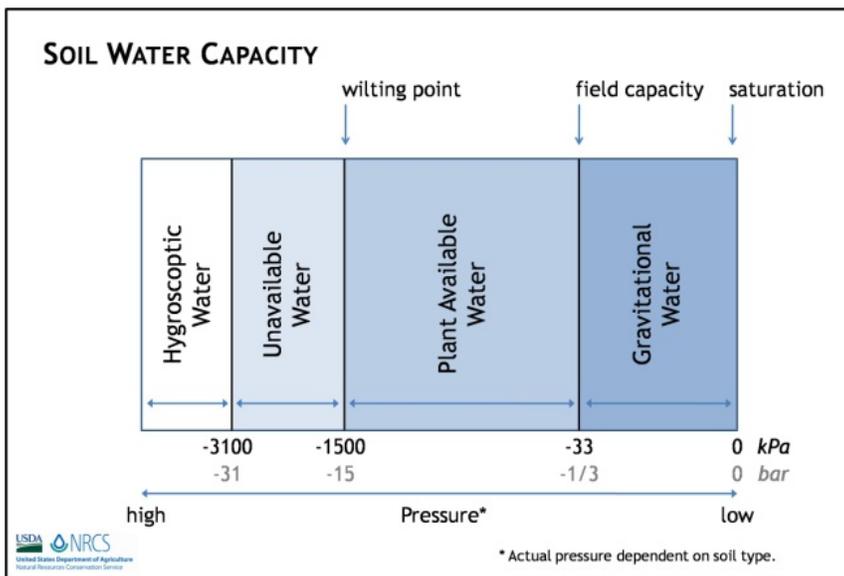
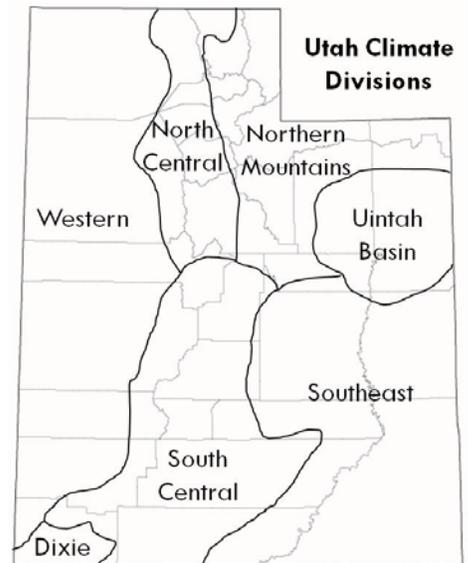
The purpose of the Climate and Water Report is to provide a snapshot of current and immediate past climatic conditions and other information useful to agricultural and water user interests in Utah. The report utilizes data from several sources that represent specific parameters (streamflow data from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

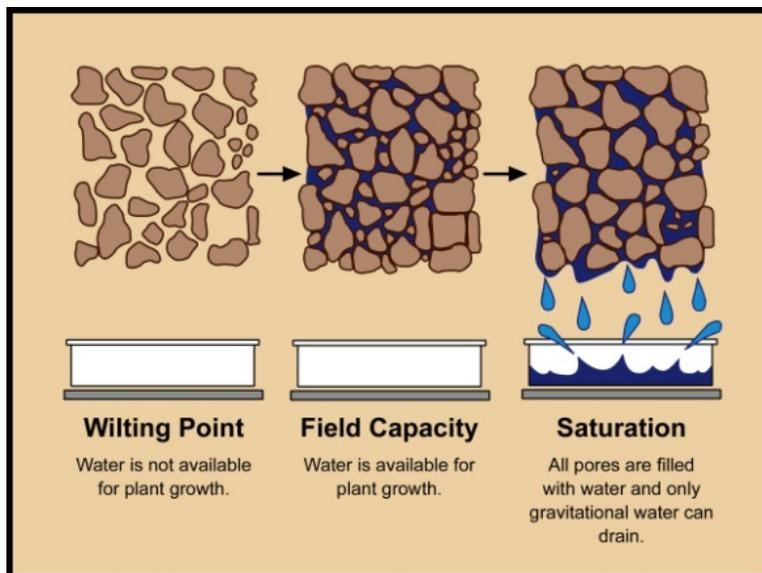
## Soil Climate Analysis Network

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.**

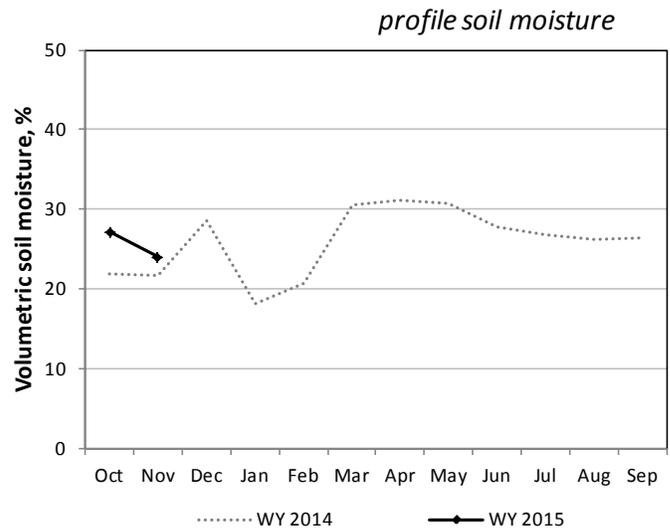
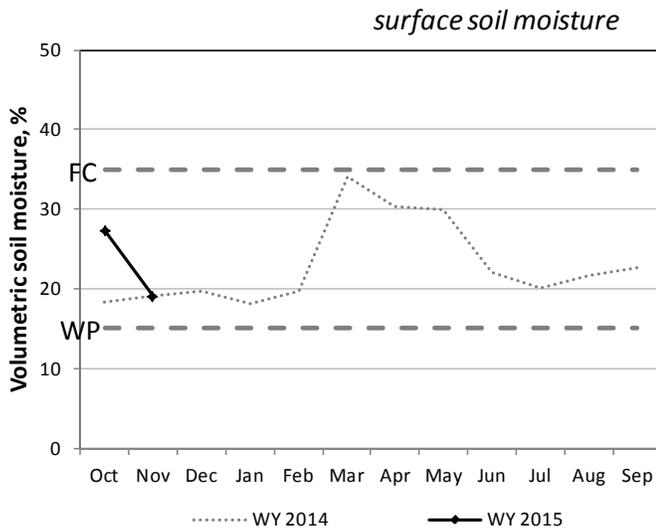
# North Central

## 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	0.0	0.0	14	16	20	22	18	49	50	51	52	55
Cache Junction	0.1	0.1	18	16	28	27	36	47	49	49	52	55
Grantsville	0.0	0.0	2	16	26	26		56	56	57	59	62

\* 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.**

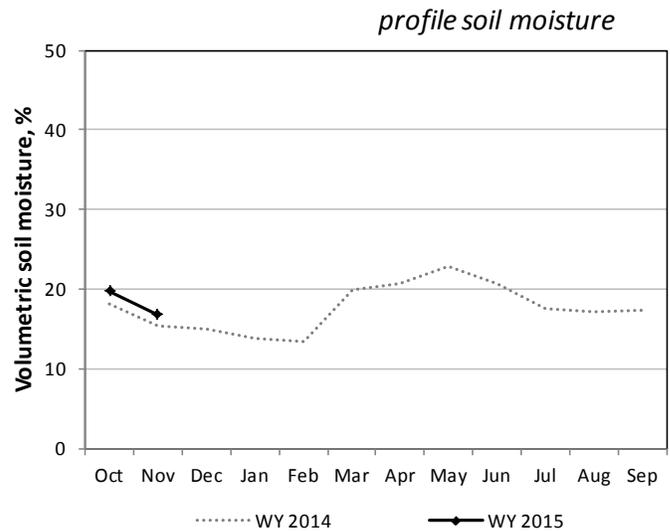
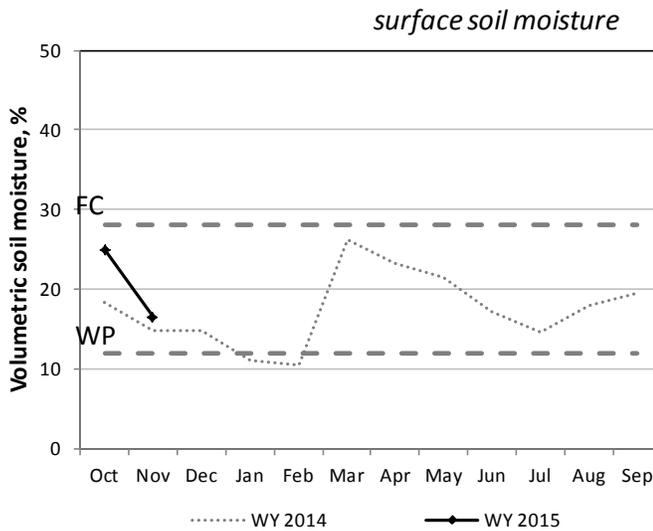
# Northern Mountains

## 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	0.2	0.2	8	13	16	14	11	45	46	46	46	47
Buffalo Jump	0.2	0.2	8	12	14	9	-	46	46	46	47	-
Morgan	0.1	0.1	25	20	26	33	19	54	53	52	50	52

\* 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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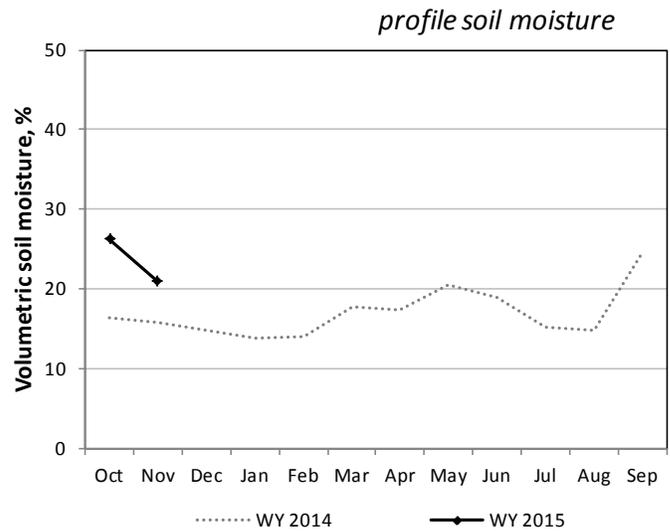
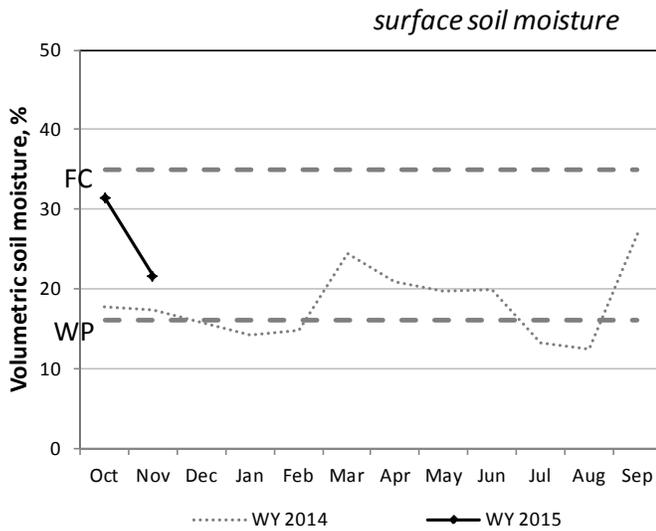
# Uintah Basin

## 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	0.3	0.3	12	14	22	12	5	50	46	47	48	56
Little Red Fox	0.2	0.2	9	29	38	36	39	43	48	50	51	53
Split Mountain	0.3	0.3	12	21	21	20	12	44	47	49	51	56

\* 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.

### 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.**

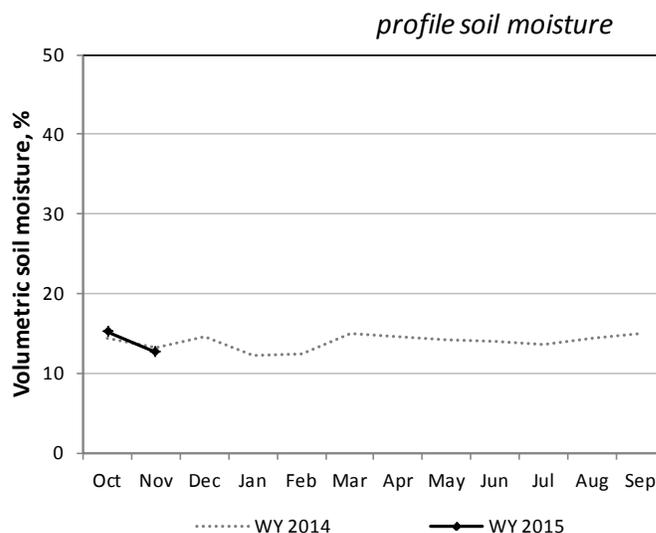
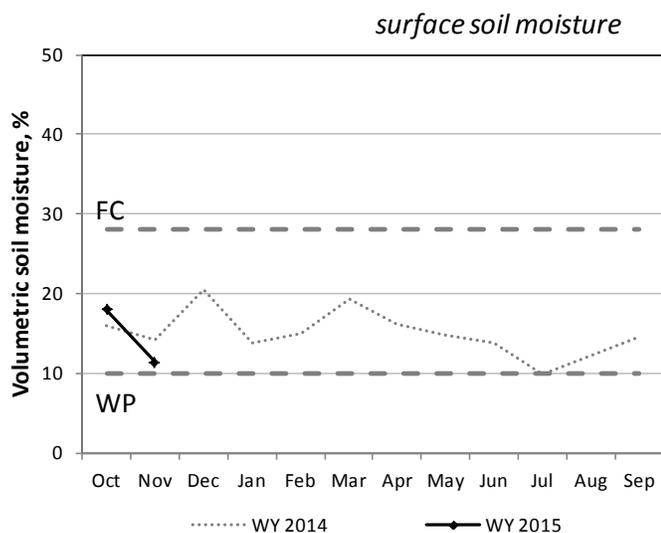
# Southeast

## 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"
			volume %					° F				
<b>SOUTHEAST</b>												
Price	0.1	0.1	1	13	18	15	18	48	51	53	55	57
Green River	0.2	0.2	13	10	8	6	8	50	50	52	55	60
Harm's Way	0.3	0.3	6	1	13	13	6	52	51	53	54	56
West Summit	0.2	0.2	10	16	15	14	16	47	48	50	49	53
Eastland	0.2	0.2	8	10	10	22	20	53	53	53	54	56
Alkali Mesa	0.2	0.2	5	8		16	17	55	55	58	57	57
McCracken Mesa	0.1	0.1	8	15	16	16	14	58	59	58	59	63

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

## 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.

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

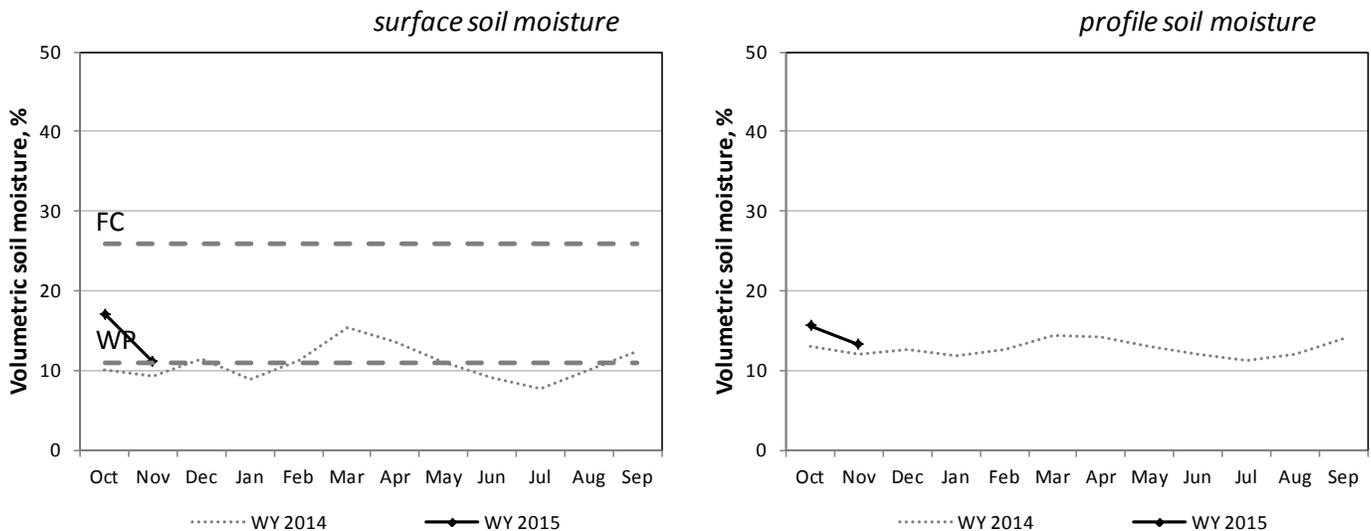
# South Central

## Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	<i>in.</i>	<i>in.</i>	<i>volume %</i>					<i>° F</i>				
<b>SOUTH CENTRAL</b>												
Nephi	0.1	0.1	12	15	14	7	3	53	53	54	55	58
Ephraim	0.3	0.3	20	30	31	38	37	50	51	51	52	55
Holden	0.5	0.5	4	5	0	13	13	56	56	56	57	61
Milford	0.0	0.0	15	22	23	28	18	53	54	53	56	59
Manderfield	0.0	0.0	16	16	14	11	5	53	54	54	54	55
Cirleville	0.0	0.0	9	18	13	8	15	50	52	51	53	57
Panguitch	0.1	0.1	6	18	13	20	32	43	43	42	46	50
Cave Valley	0.0	0.0	1	1	3	3	5	54	54	55	55	55
Vermillion	0.0	0.0	0	2	4	8	8	47	47	49	50	54
Spooky	0.0	0.0	0	1	2	12	2	53	56	58	61	63

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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.**

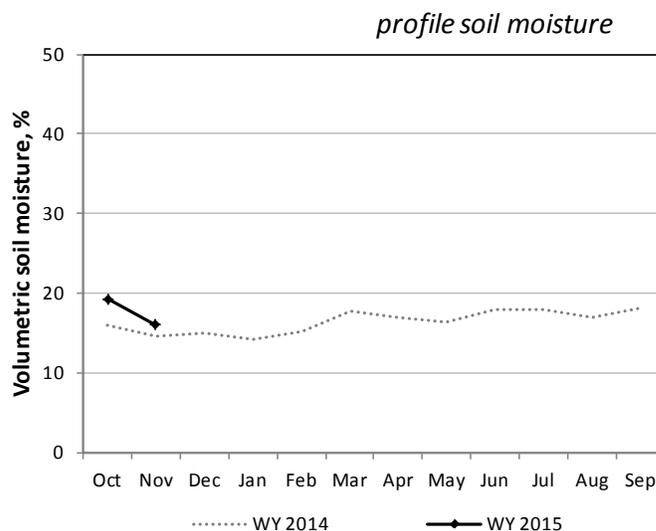
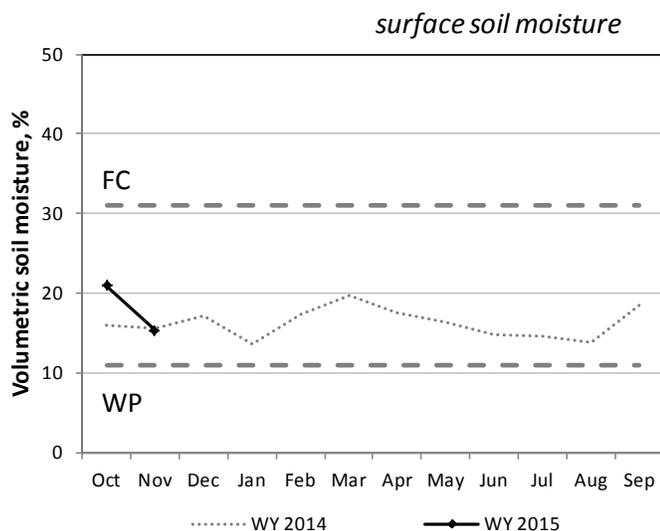
# Western and Dixie

## 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	0.0	0.0	2	11	11	15	16	47	48	50	51	53
Park Valley	0.0	0.0	2	5	14	39	26	51	51	51	53	57
Goshute	0.0	0.0	16	1	46	29	30	53	53	53	52	56
Dugway	0.0	0.0	26	32	38		13	55	56	55	56	57
Tule Valley	0.0	0.0	11	12	23	13	10	62	62	62	61	64
Hal's Canyon	0.2	0.2	1	5	10	11	10	53	55	56	57	61
Enterprise	0.0	0.0	6	27	25	14	16	52	56	57	57	61
<b>DIXIE</b>												
Sand Hollow	0.0	0.0	0	1	0	1	0	64	66	66	65	69

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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.

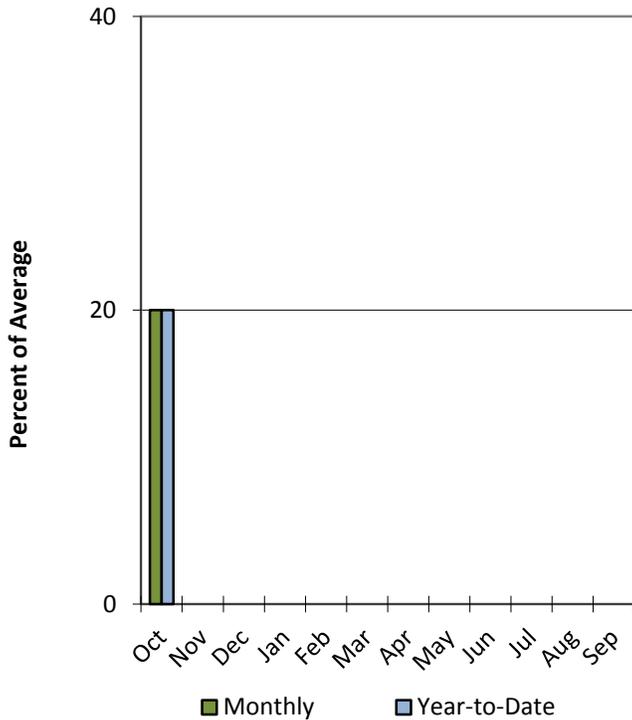
**Additional data available at the SCAN website, including: hourly air temperature, relative humidity, wind speed, wind direction, barometric pressure, precipitation, solar radiation, soil temperature, and soil moisture.**

# Statewide Utah

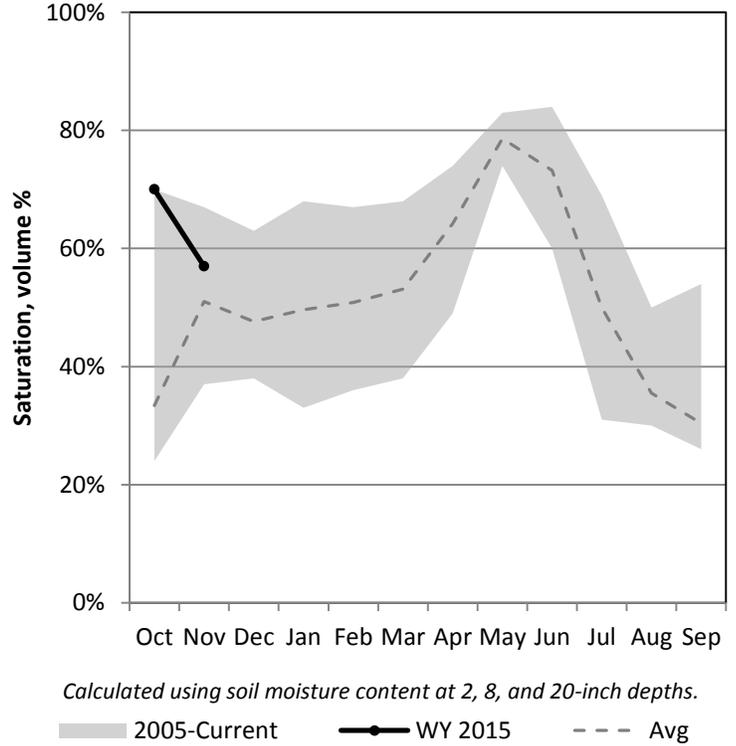
11/1/2014

Precipitation in October was much below average at 20%, which brings the seasonal accumulation (Oct-Oct) to 20% of average. Soil moisture is at 57% compared to 58% last year. Reservoir storage is at 74% of capacity, compared to 56% last year.

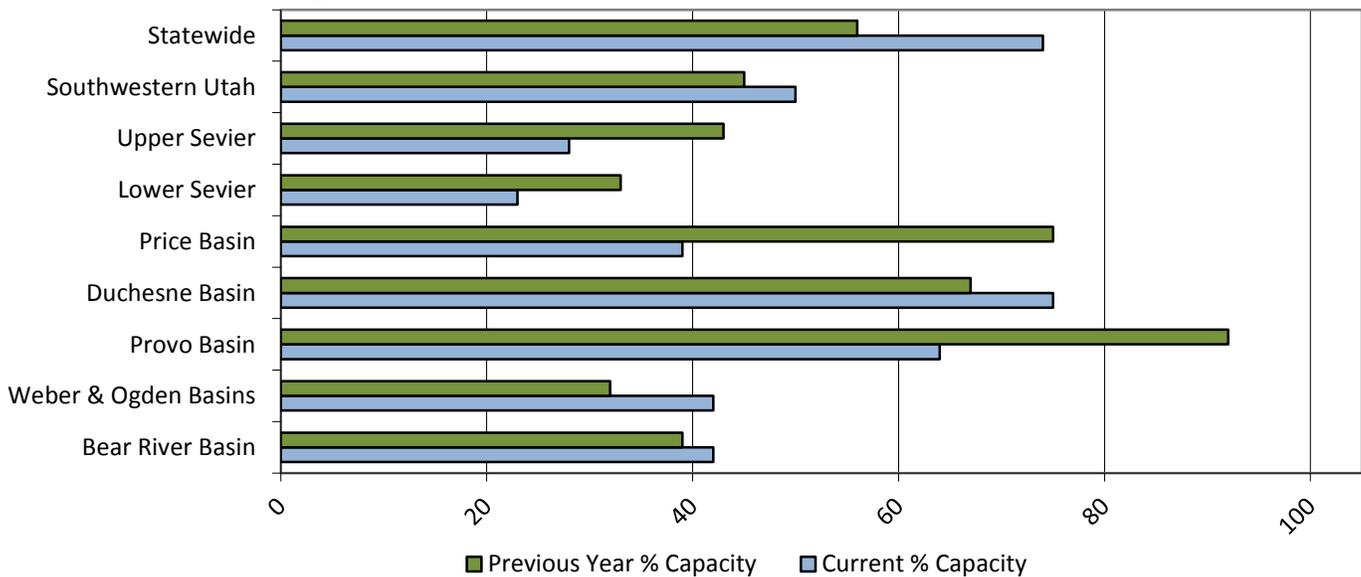
## Precipitation



## Soil Moisture



## Reservoir Storage



# Utah Hydrologic Summary

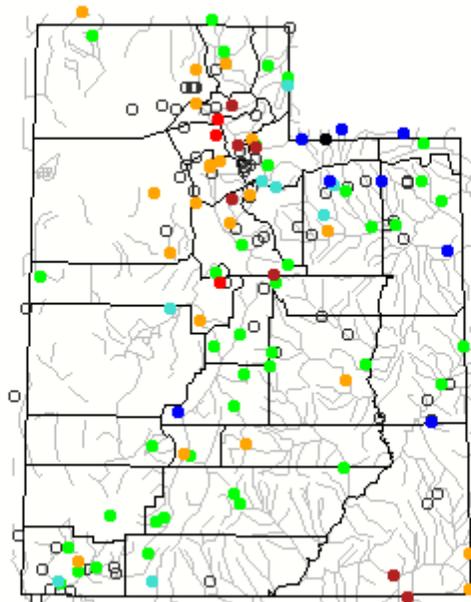
November 1, 2014

## Current Conditions

Current runoff, as shown in the USGS graphic below, is mostly near and above average for non-regulated stream flow across many areas of Utah. Much above average fall precipitation improved stream flow across the state substantially. Soil moisture going into the winter months is well above average across northern and central Utah and near normal in the south. This is good news for potential runoff next spring as soils will be primed for runoff should Utah get a decent snowpack season. Reservoir storage is higher than last year, near 76% of capacity across the state.

### Current Utah Stream Flow - Courtesy US Geological Survey

Monday, November 03, 2014 09:30ET



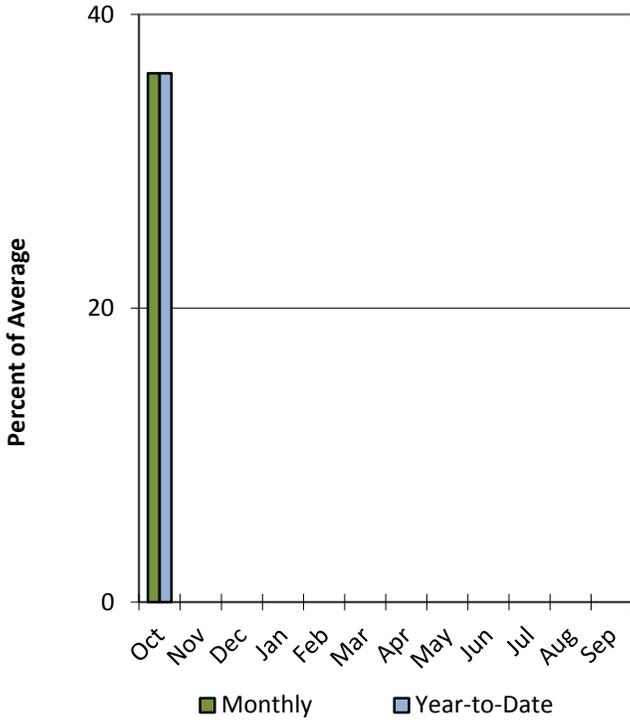
Explanation - Percentile classes							
							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not ranked

# Bear River Basin

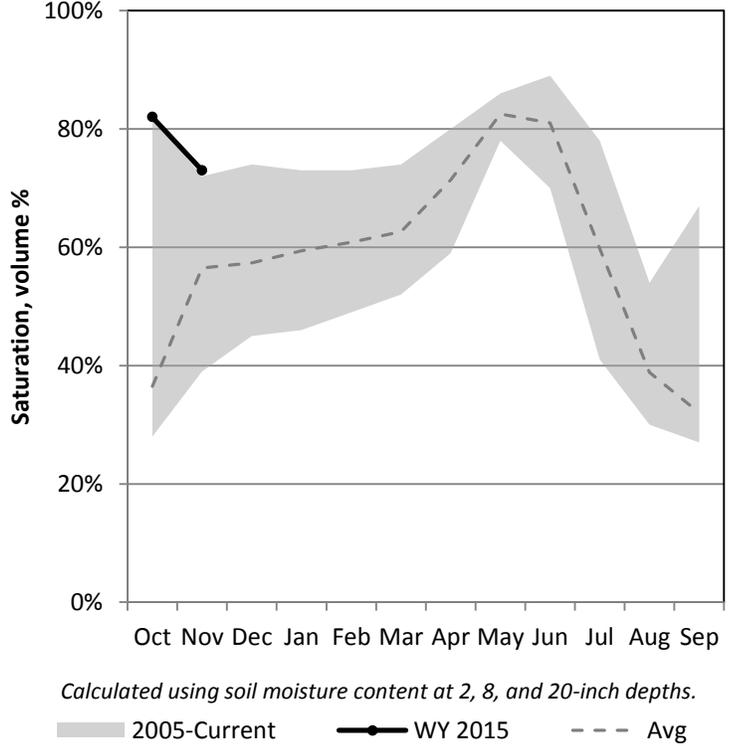
11/1/2014

Precipitation in October was much below average at 36%, which brings the seasonal accumulation (Oct-Oct) to 36% of average. Soil moisture is at 73% compared to 57% last year. Reservoir storage is at 42% of capacity, compared to 39% last year. The water availability index for the Bear River is 51%.

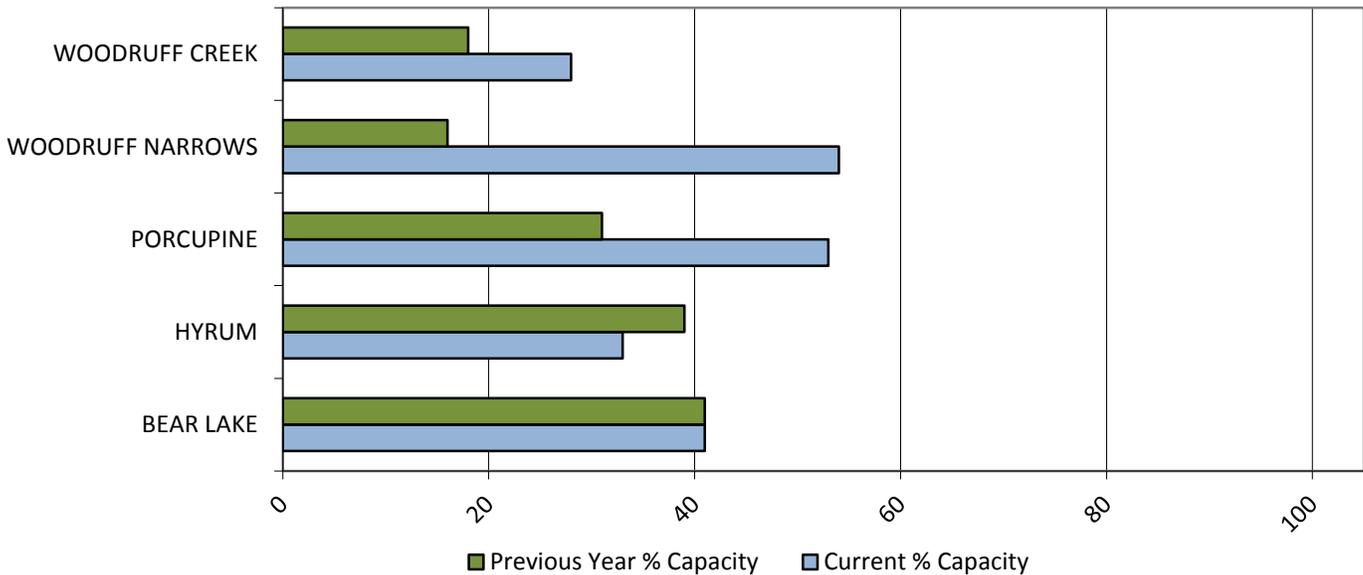
## Precipitation



## Soil Moisture



## Reservoir Storage

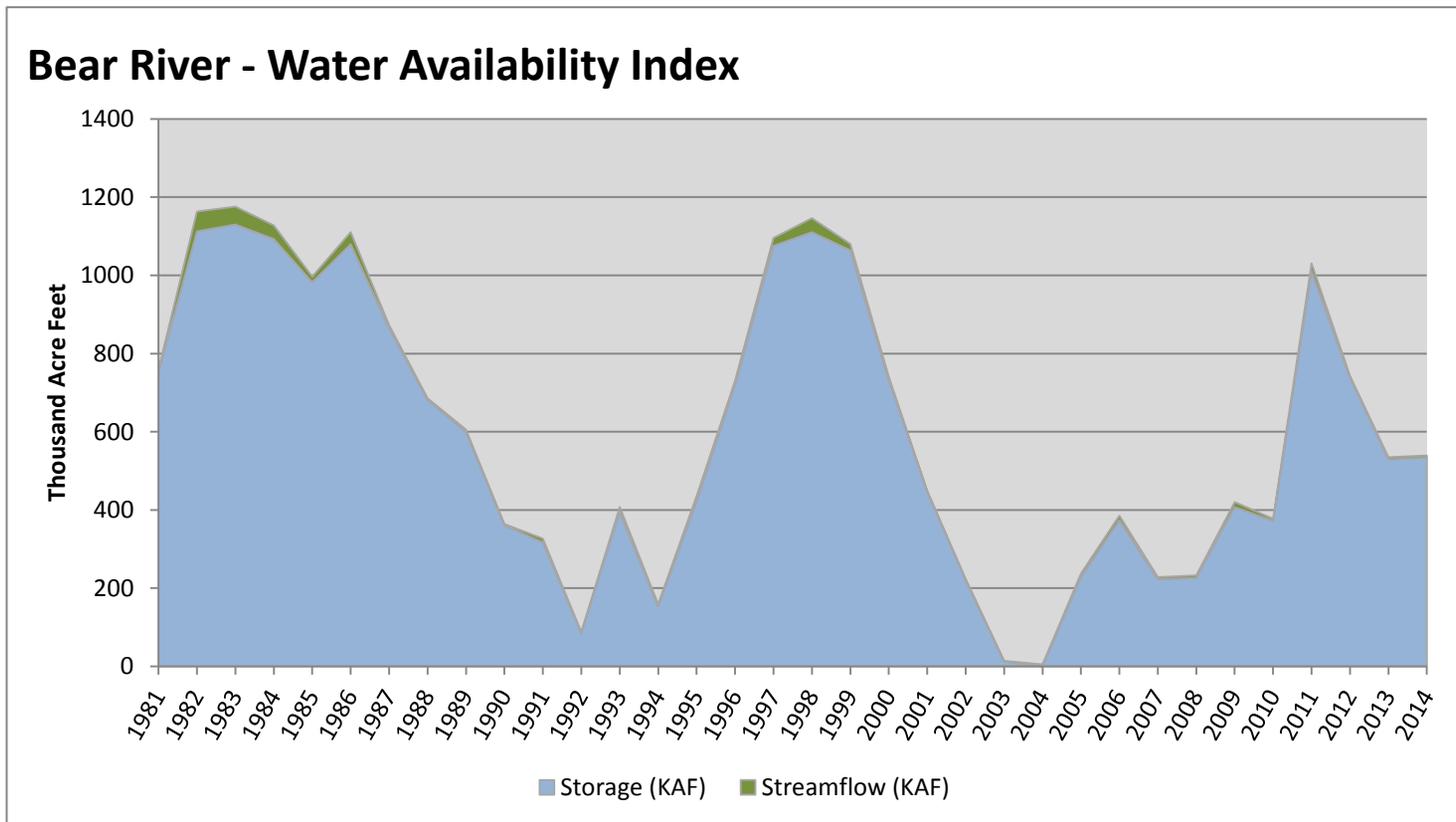


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October 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>533.62</b>	<b>5.62</b>	<b>539.24</b>	<b>51</b>	<b>0.12</b>	<b>01, 13, 89, 88</b>

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

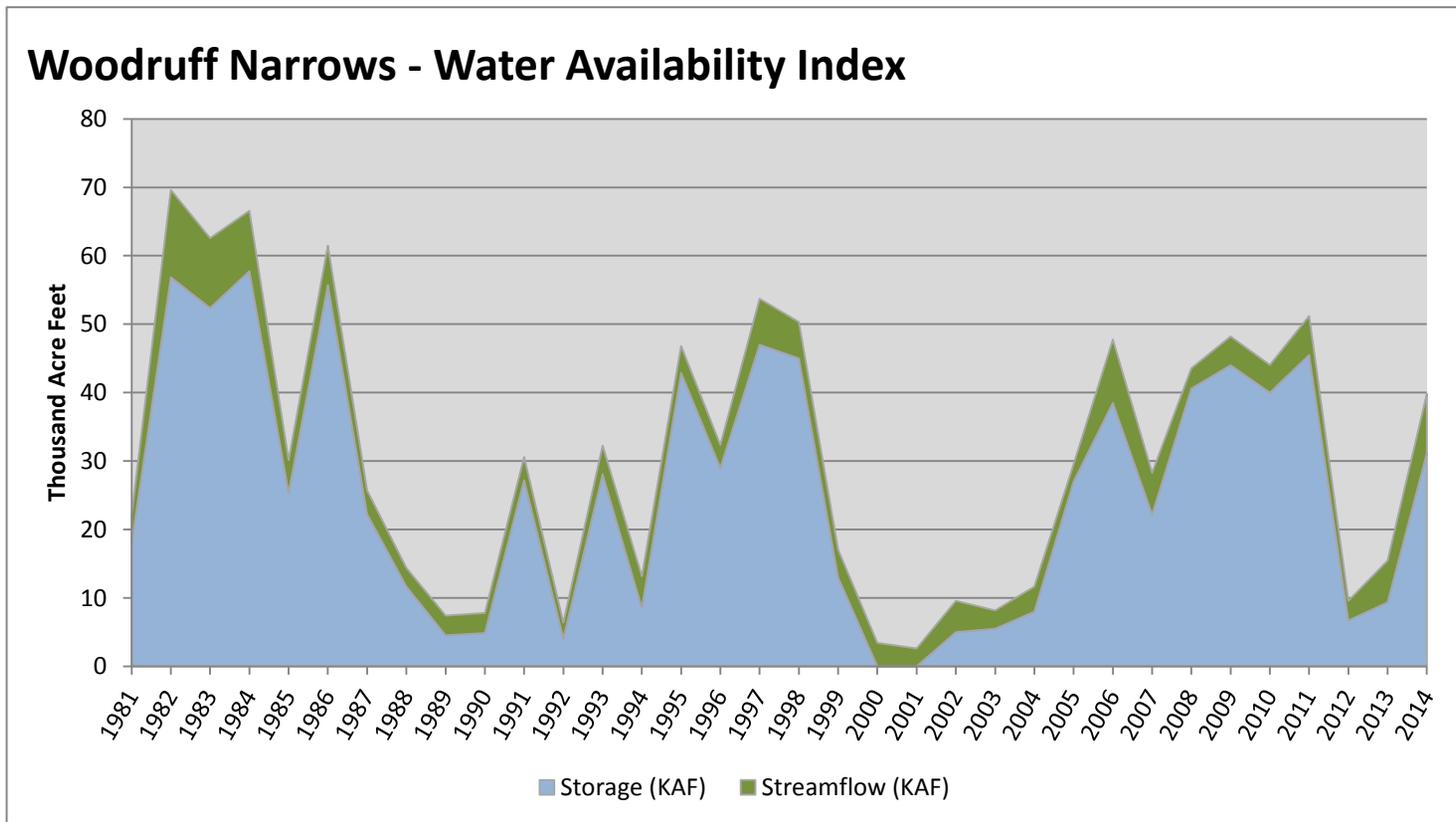


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October 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>31.16</b>	<b>8.67</b>	<b>39.83</b>	<b>63</b>	<b>1.07</b>	<b>93, 96, 08, 10</b>

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

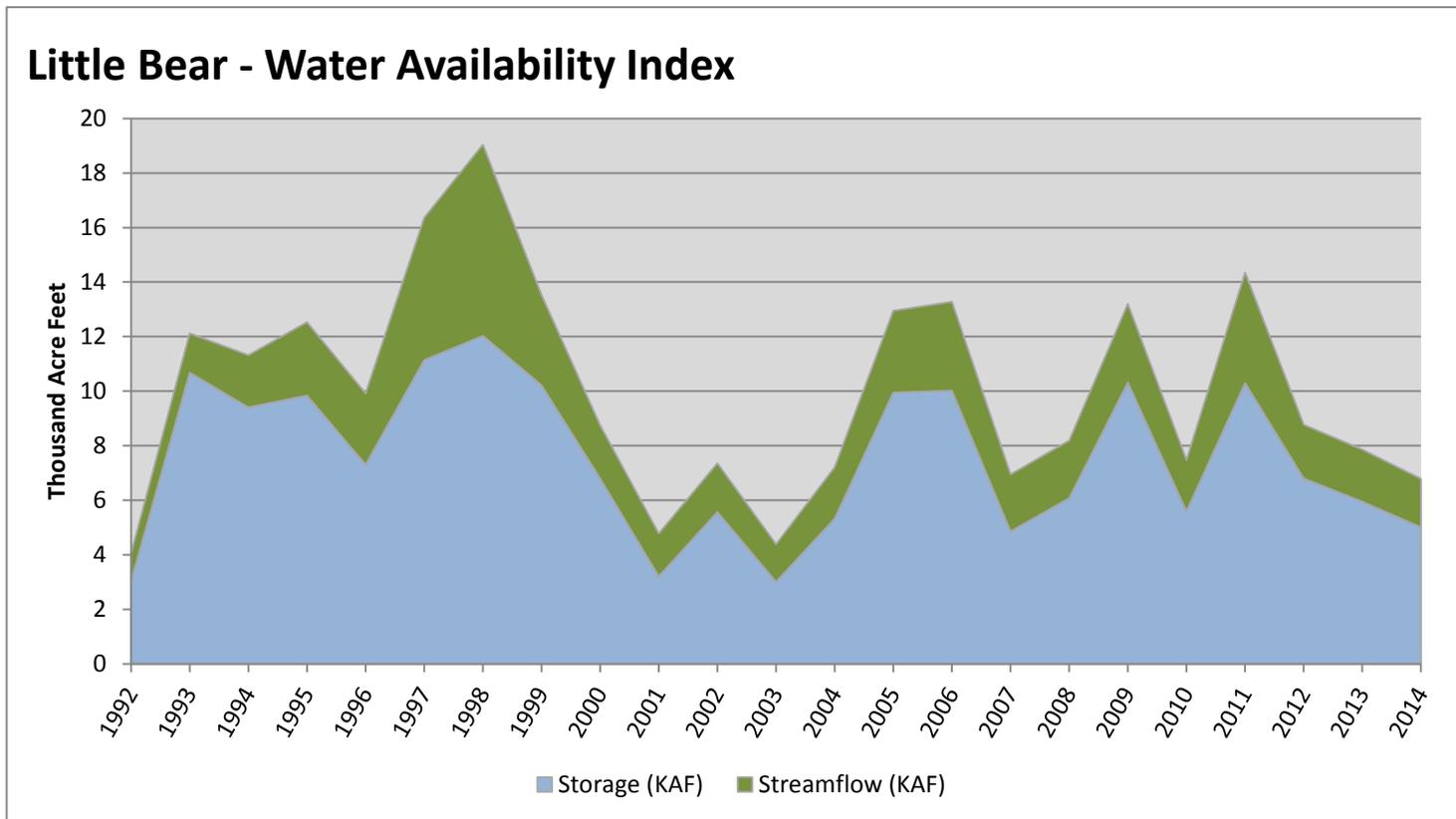


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October 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>5.01</b>	<b>1.78</b>	<b>6.79</b>	<b>17</b>	<b>-2.78</b>	<b>03, 01, 07, 04</b>

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

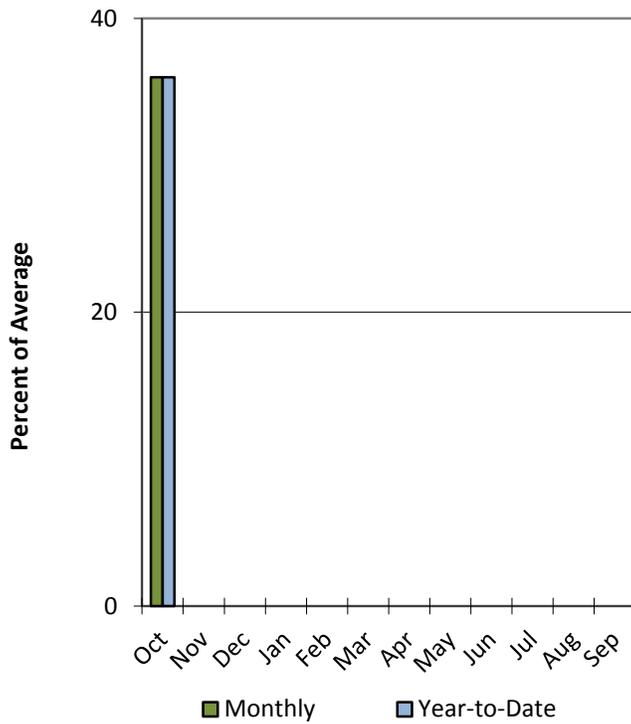


# Raft River Basin

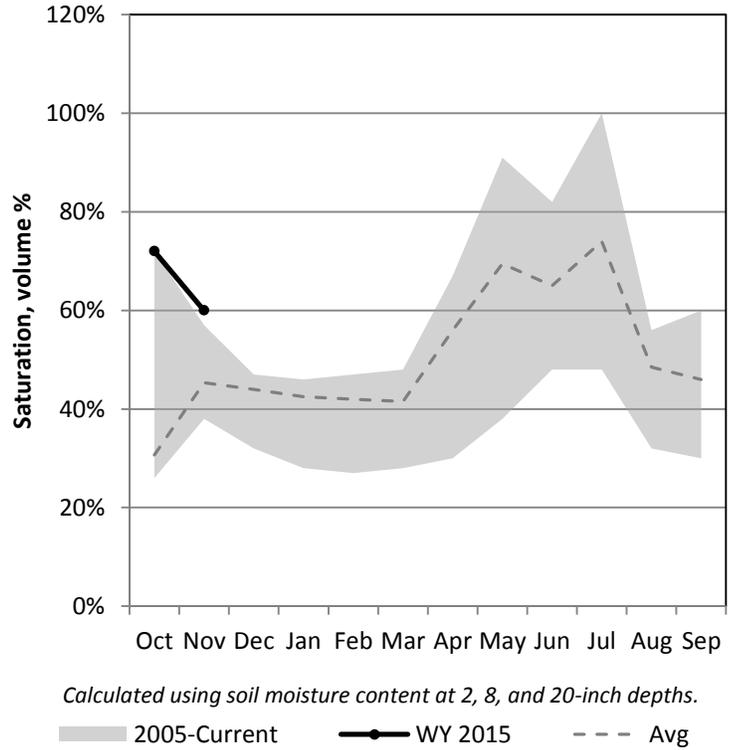
11/1/2014

Precipitation in October was much below average at 36%, which brings the seasonal accumulation (Oct-Oct) to 36% of average. Soil moisture is at 60% compared to 52% last year.

## Precipitation



## Soil Moisture

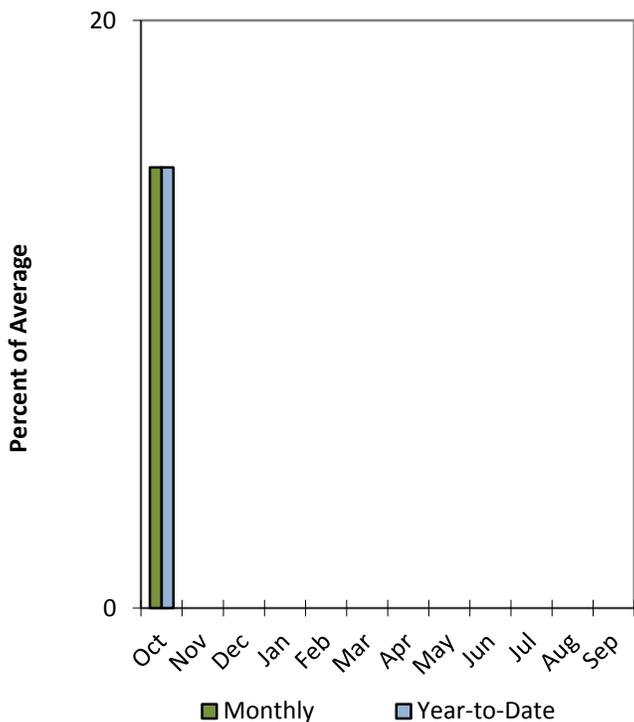


# Weber & Ogden River Basins

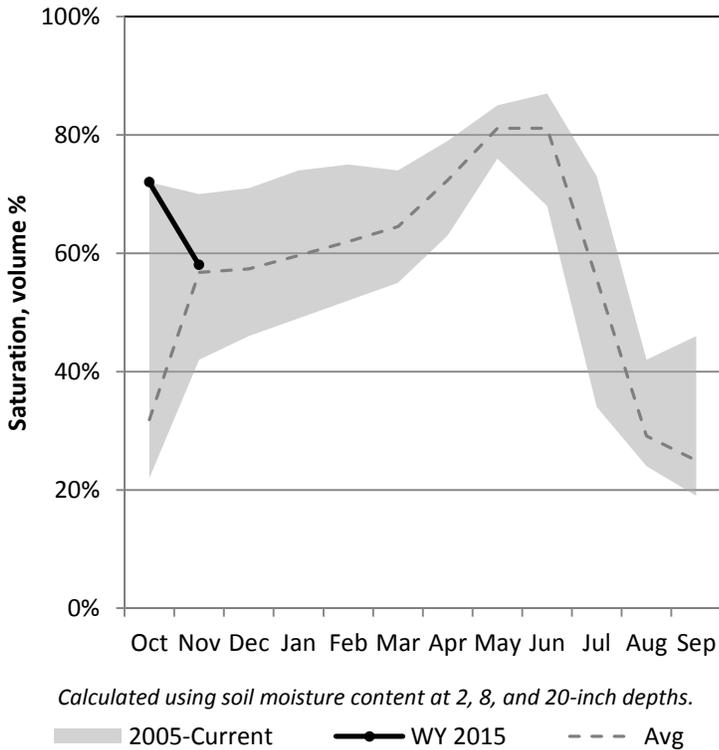
11/1/2014

Precipitation in October was much below average at 15%, which brings the seasonal accumulation (Oct-Oct) to 15% of average. Soil moisture is at 58% compared to 44% last year. Reservoir storage is at 42% of capacity, compared to 32% last year. The water availability index for the Ogden River is 51% and 42% for the Weber River.

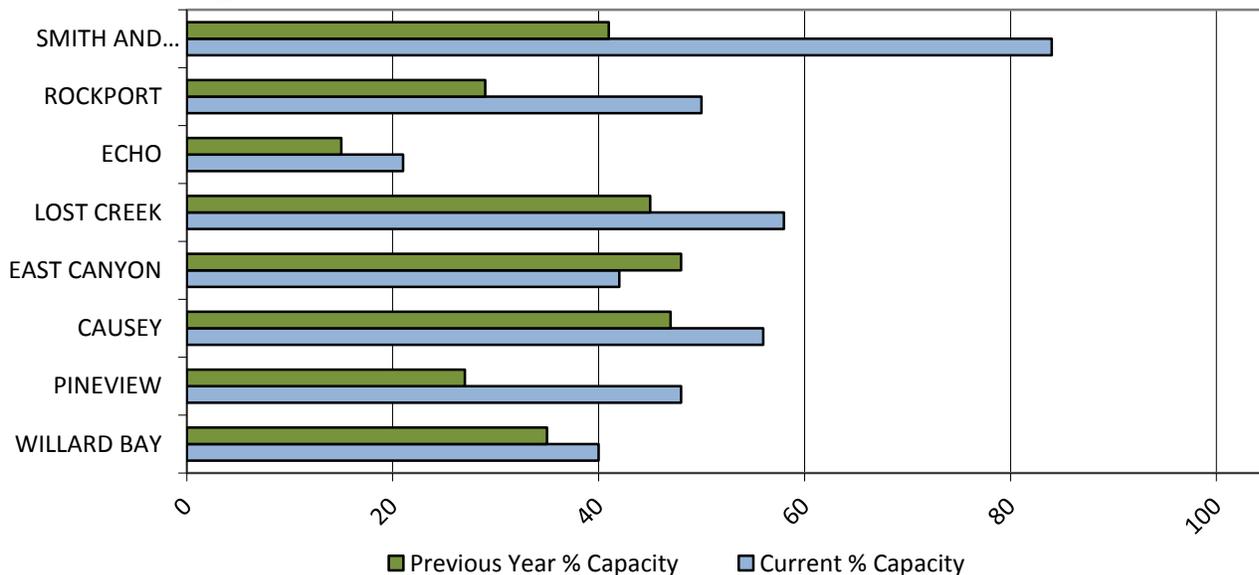
## Precipitation



## Soil Moisture



## Reservoir Storage

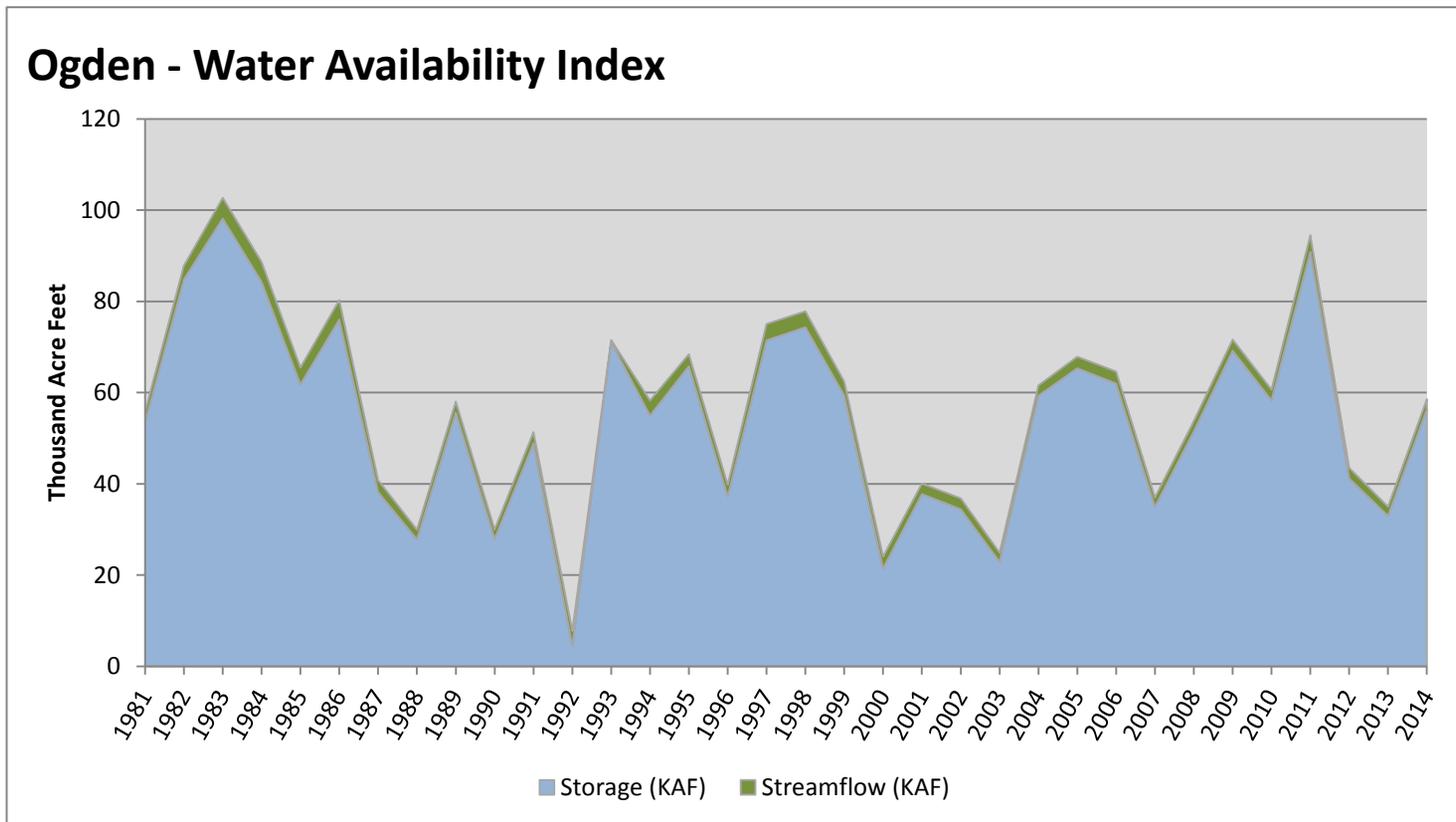


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Ogden</b>	<b>56.34</b>	<b>2.22</b>	<b>58.56</b>	<b>51</b>	<b>0.12</b>	<b>89, 94, 10, 04</b>

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

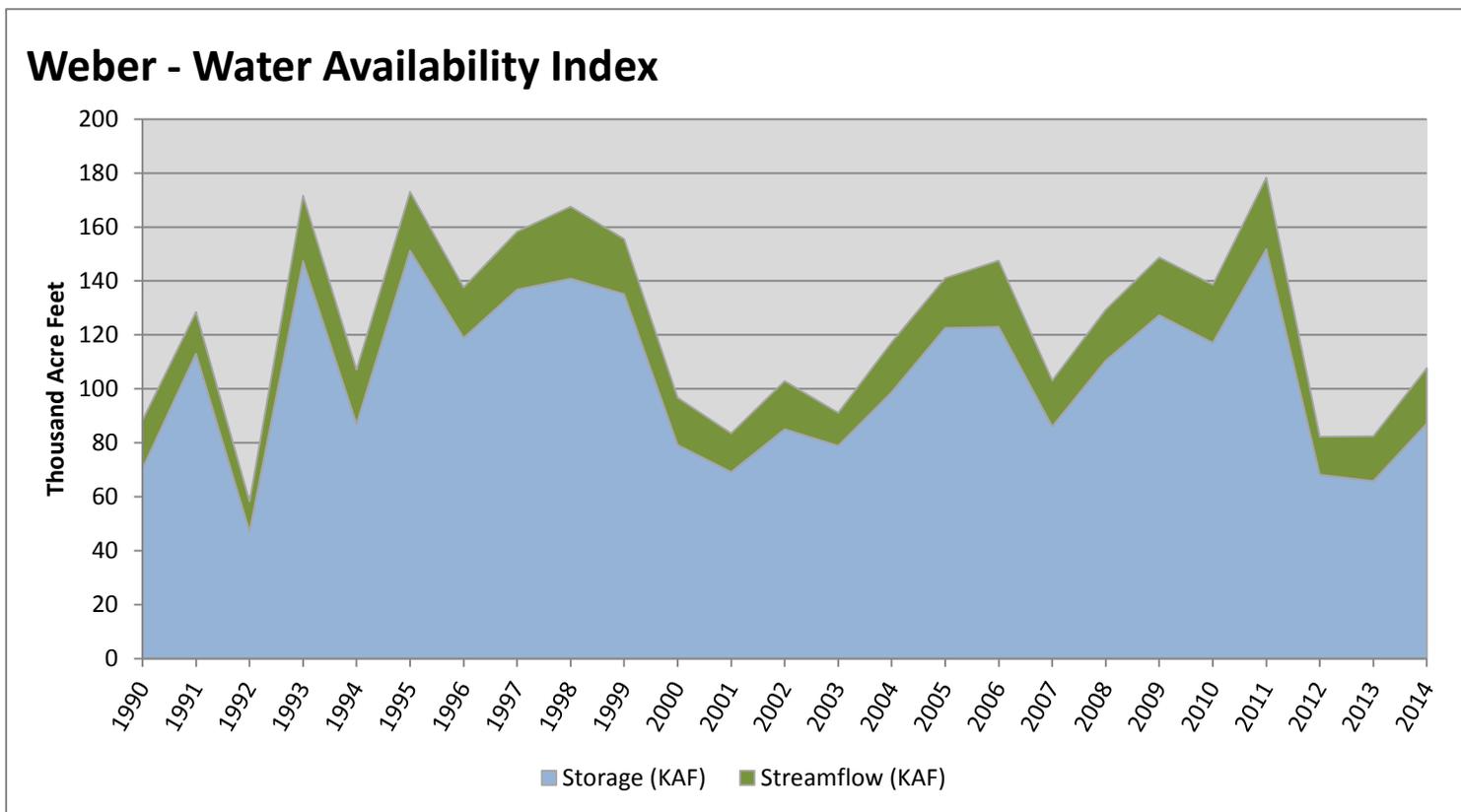


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Weber</b>	<b>87.19</b>	<b>20.52</b>	<b>107.71</b>	<b>42</b>	<b>-0.64</b>	<b>07, 94, 04, 91</b>

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

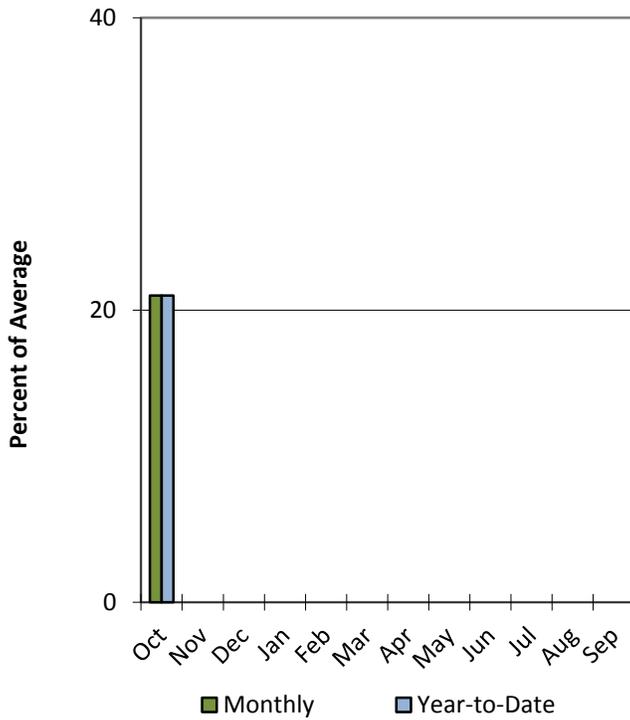


# Provo & Jordan River Basins

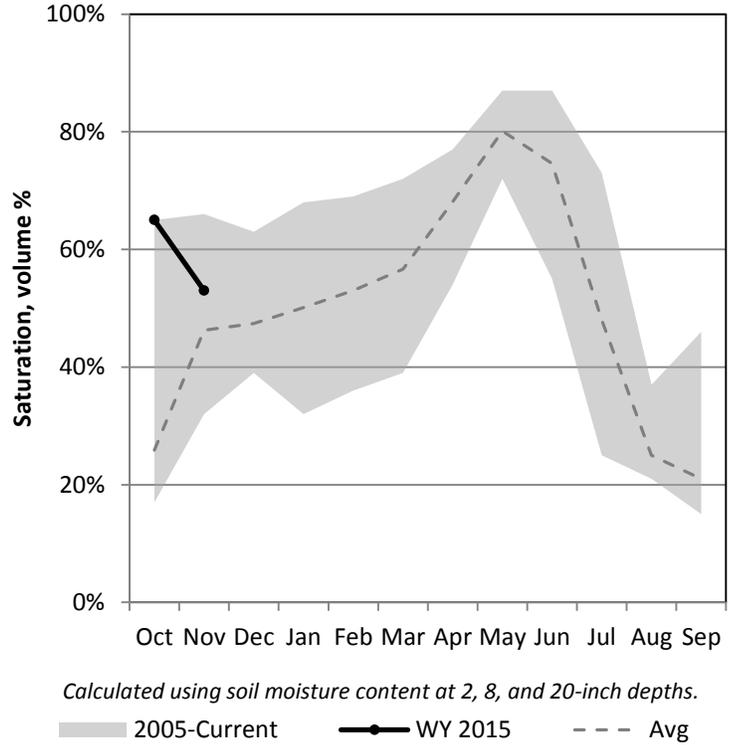
11/1/2014

Precipitation in October was much below average at 21%, which brings the seasonal accumulation (Oct-Oct) to 21% of average. Soil moisture is at 53% compared to 58% last year. Reservoir storage is at 64% of capacity, compared to 67% last year. The water availability index for the Provo River is 40%.

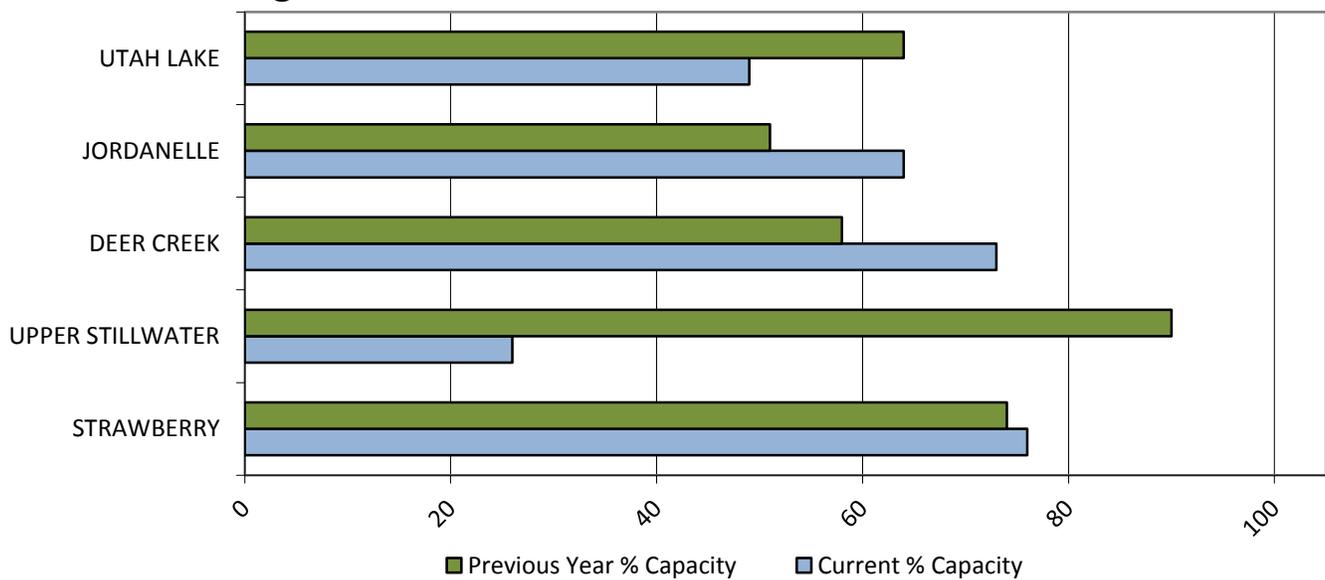
## Precipitation



## Soil Moisture



## Reservoir Storage

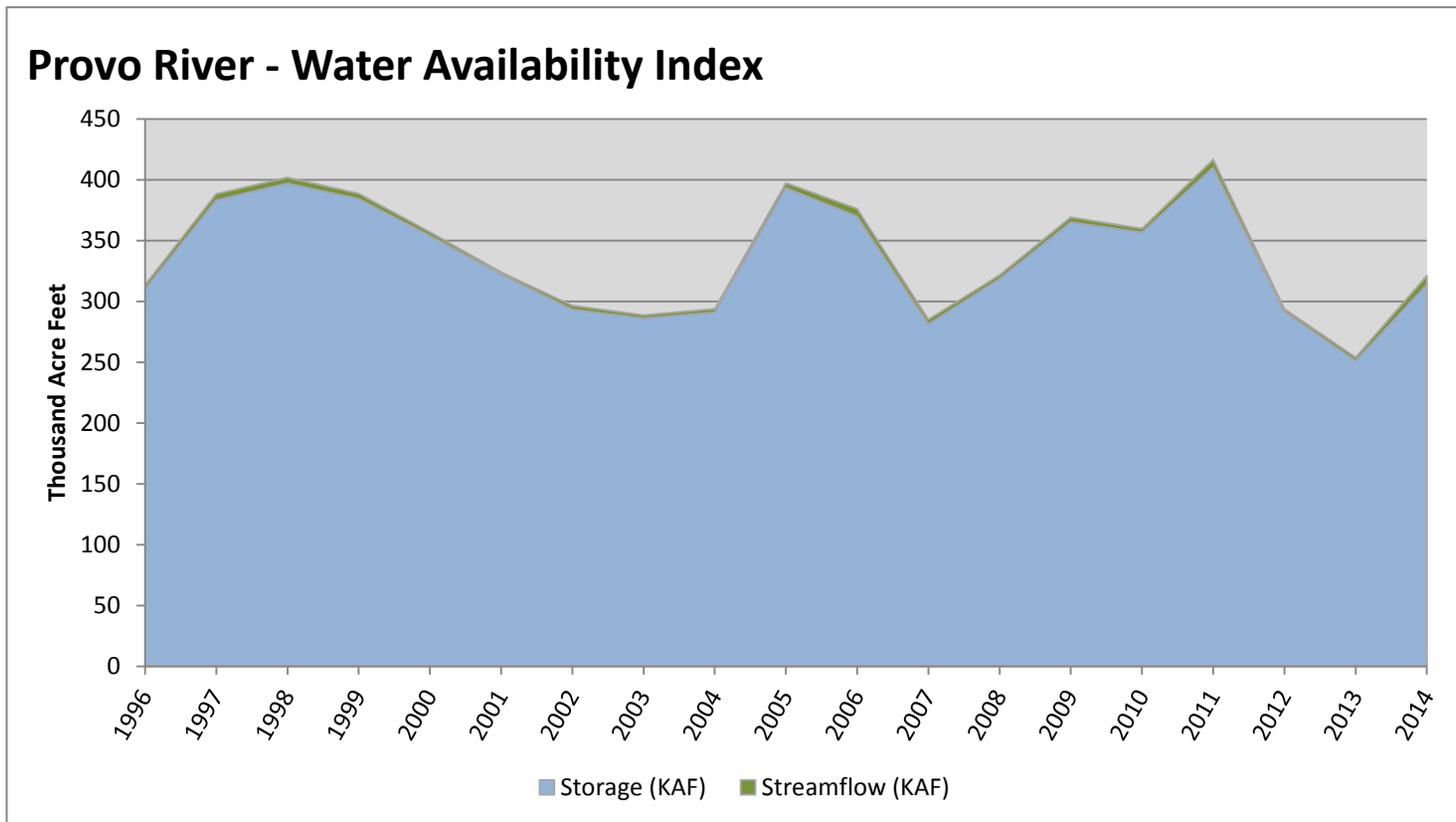


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October 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>313.84</b>	<b>7.25</b>	<b>321.09</b>	<b>40</b>	<b>-0.83</b>	<b>02, 96, 08, 01</b>

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

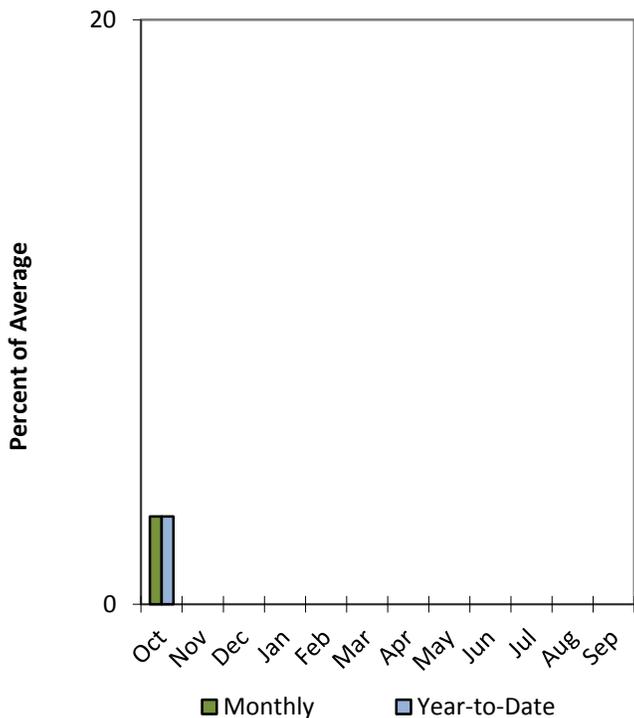


# Tooele & Vernon Creek Basins

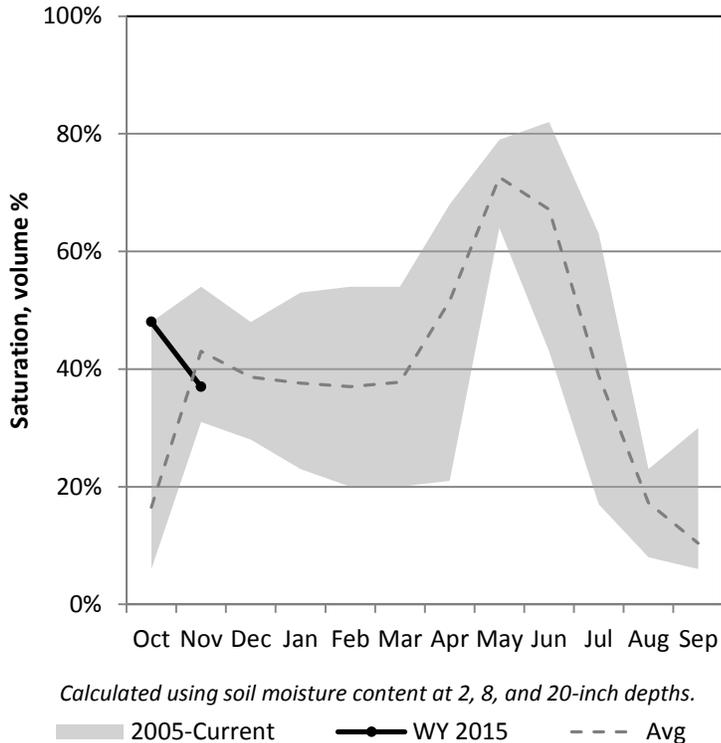
11/1/2014

Precipitation in October was much below average at 3%, which brings the seasonal accumulation (Oct-Oct) to 3% of average. Soil moisture is at 37% compared to 44% last year. Reservoir storage is at 23% of capacity, compared to 21% last year.

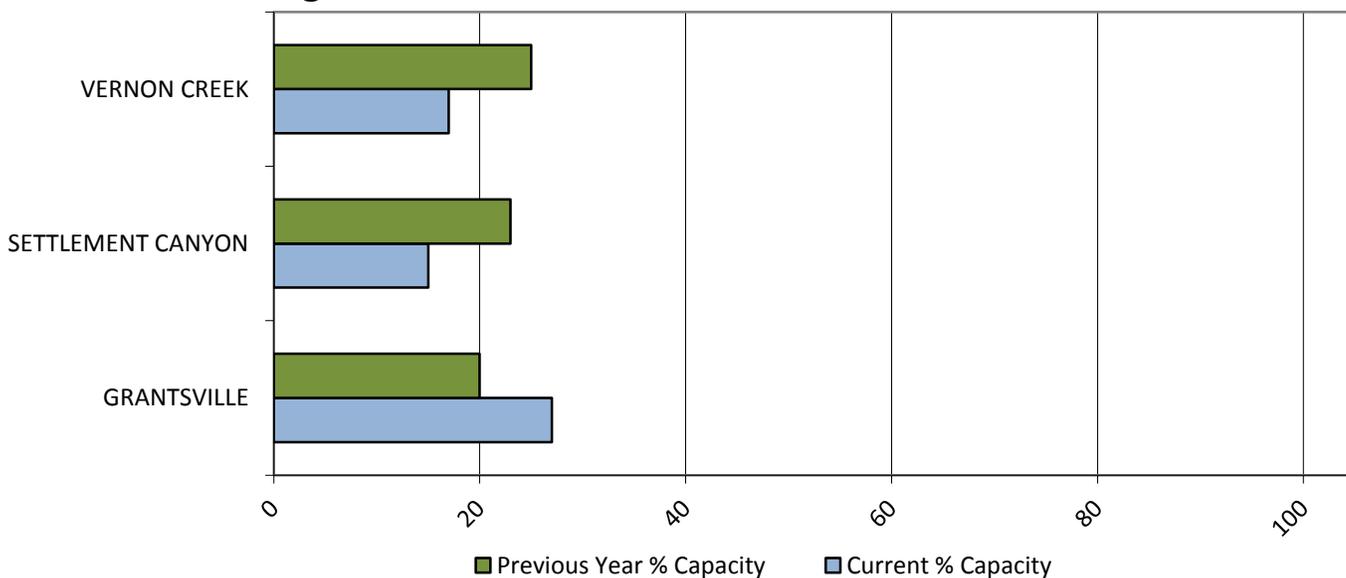
## Precipitation



## Soil Moisture



## Reservoir Storage

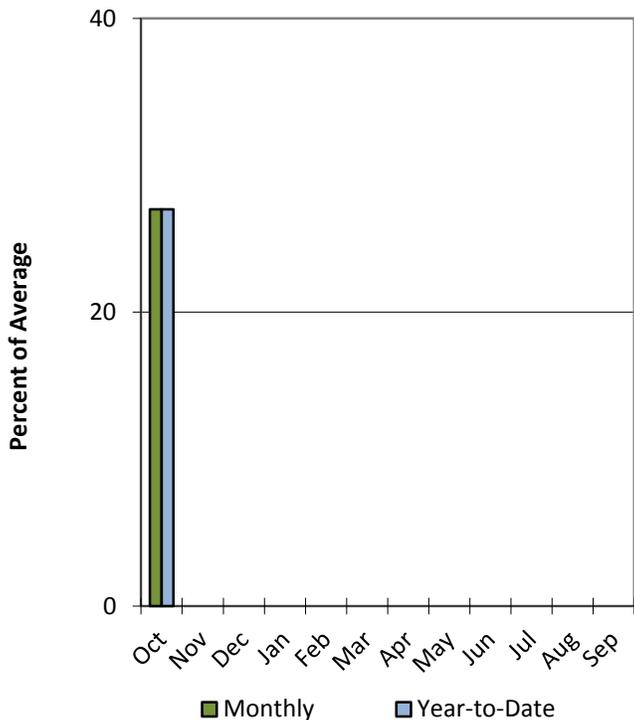


# Northeastern Uintah Basin

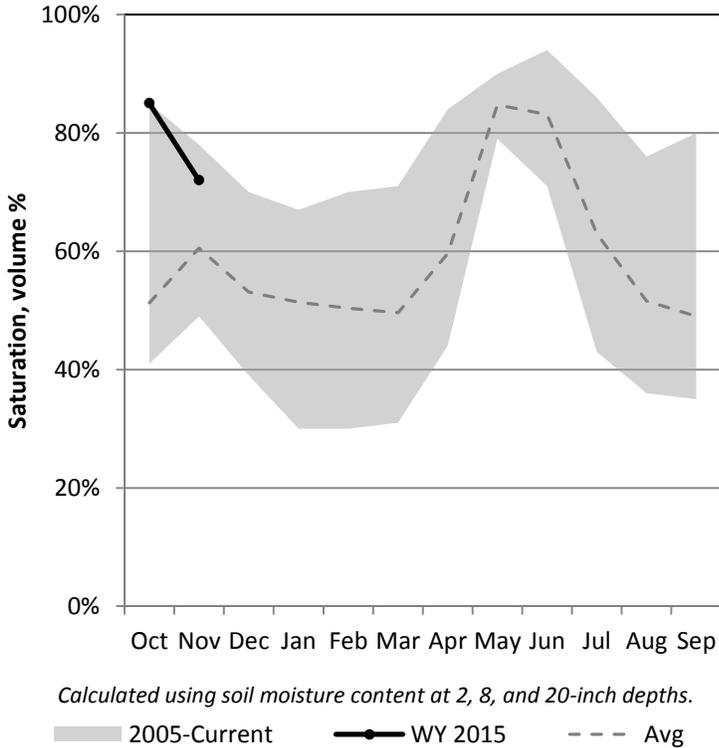
11/1/2014

Precipitation in October was much below average at 27%, which brings the seasonal accumulation (Oct-Oct) to 27% of average. Soil moisture is at 72% compared to 76% last year. Reservoir storage is at 88% of capacity, compared to 75% last year.

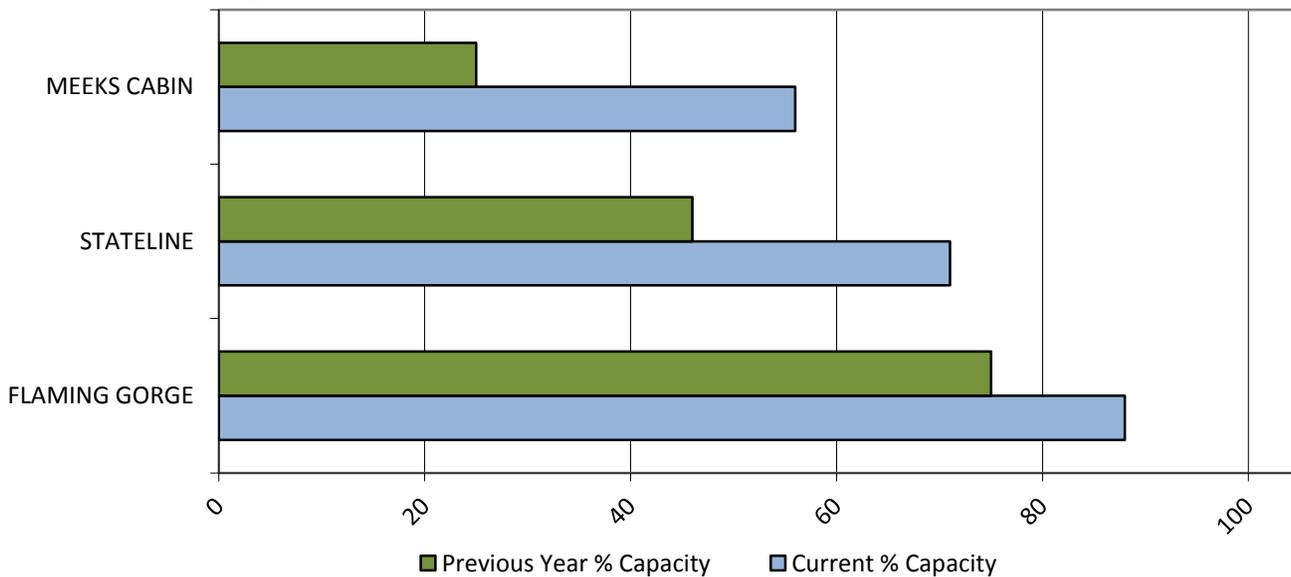
## Precipitation



## Soil Moisture



## Reservoir Storage

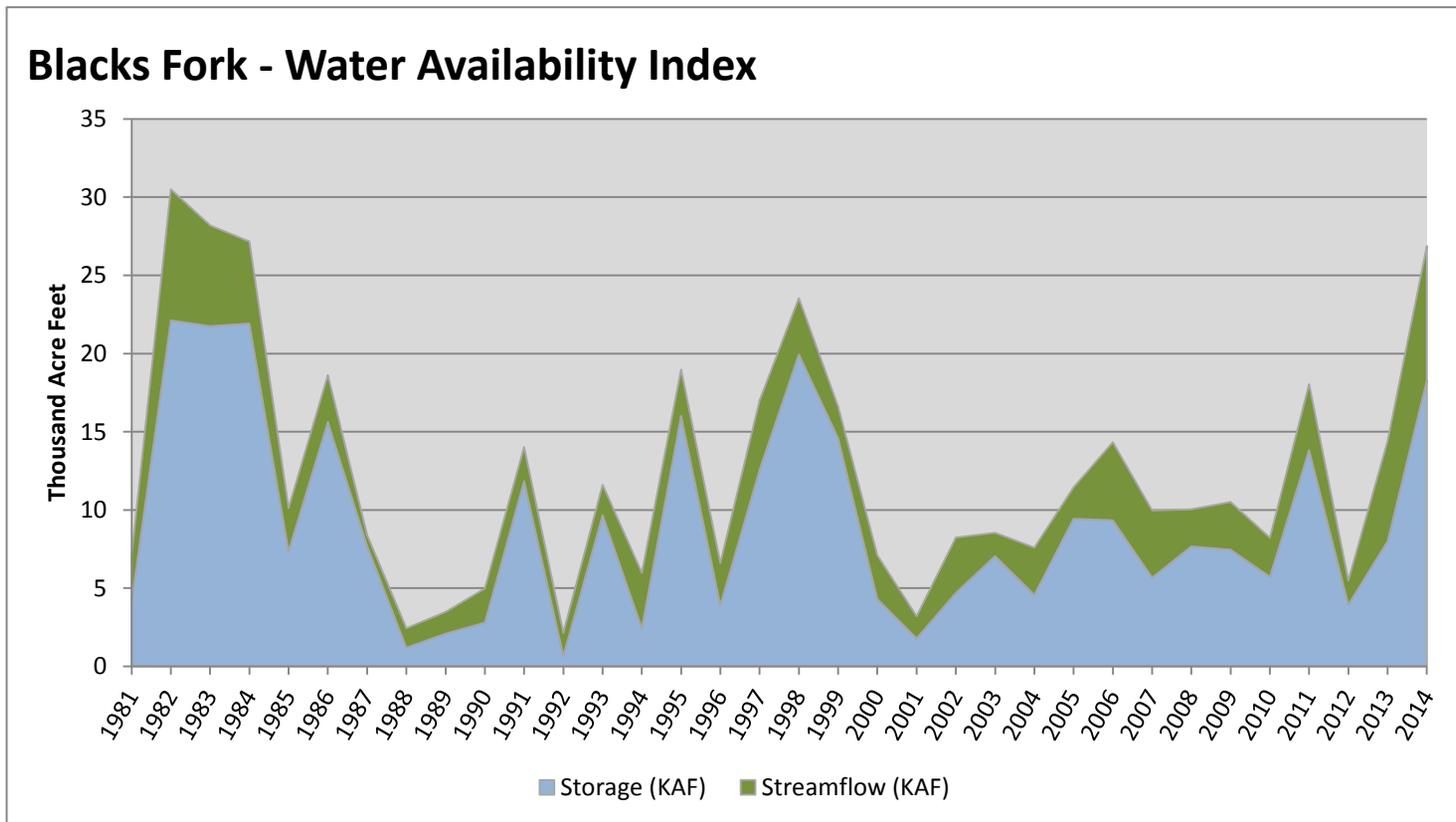


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October 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>18.30</b>	<b>8.58</b>	<b>26.88</b>	<b>89</b>	<b>3.21</b>	<b>95, 98, 84, 83</b>

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

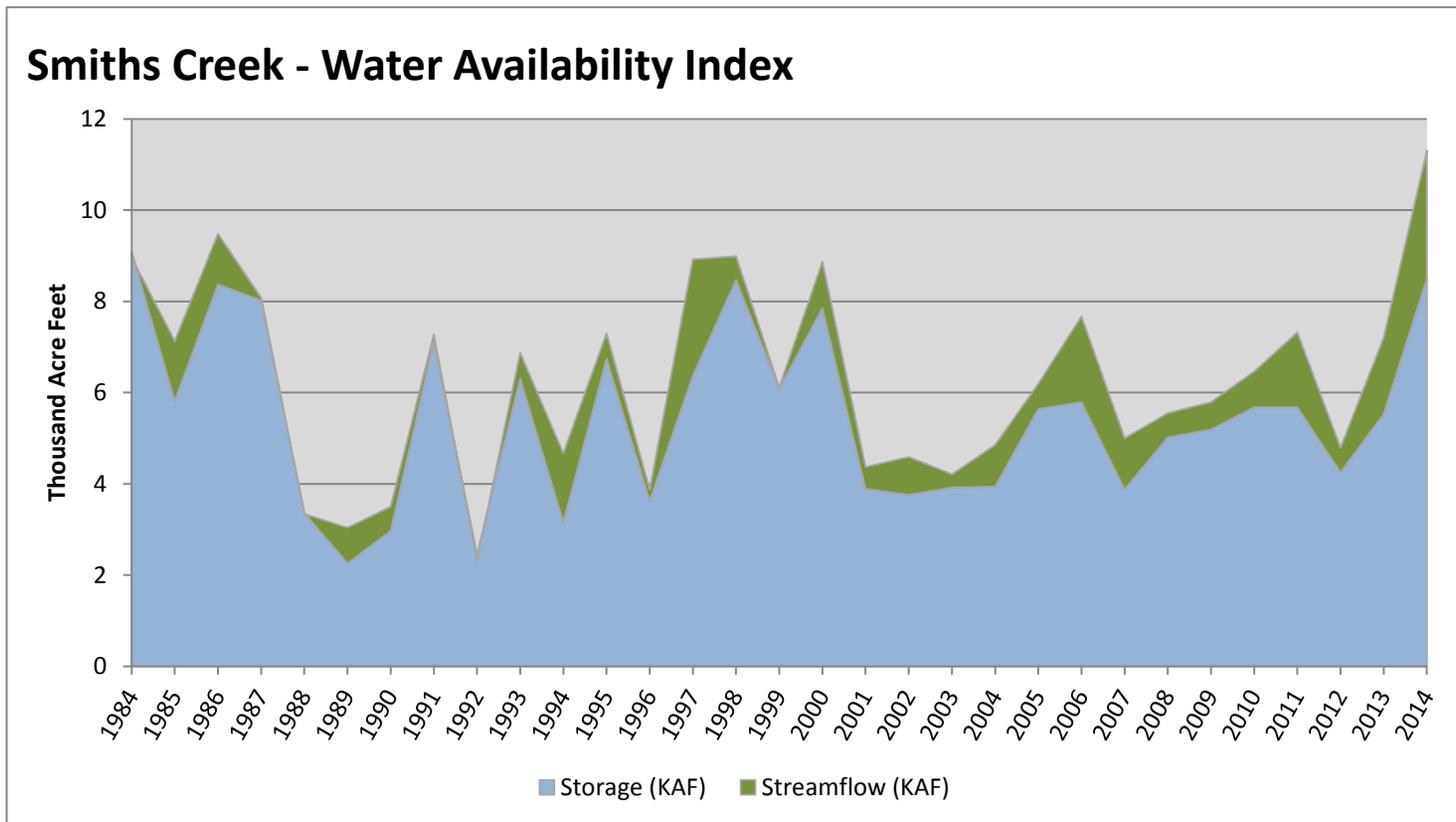


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October 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>8.50</b>	<b>2.80</b>	<b>11.30</b>	<b>97</b>	<b>3.91</b>	<b>86, 98, 84, 97</b>

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

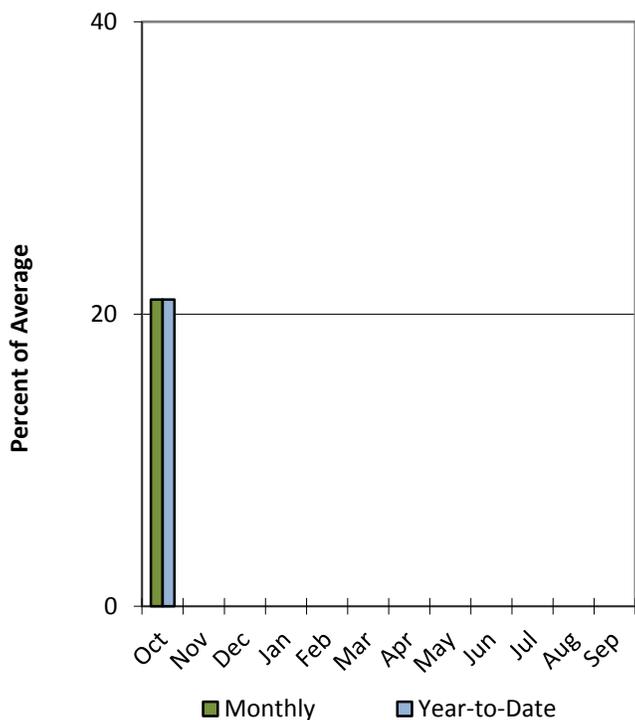


# Duchesne River Basin

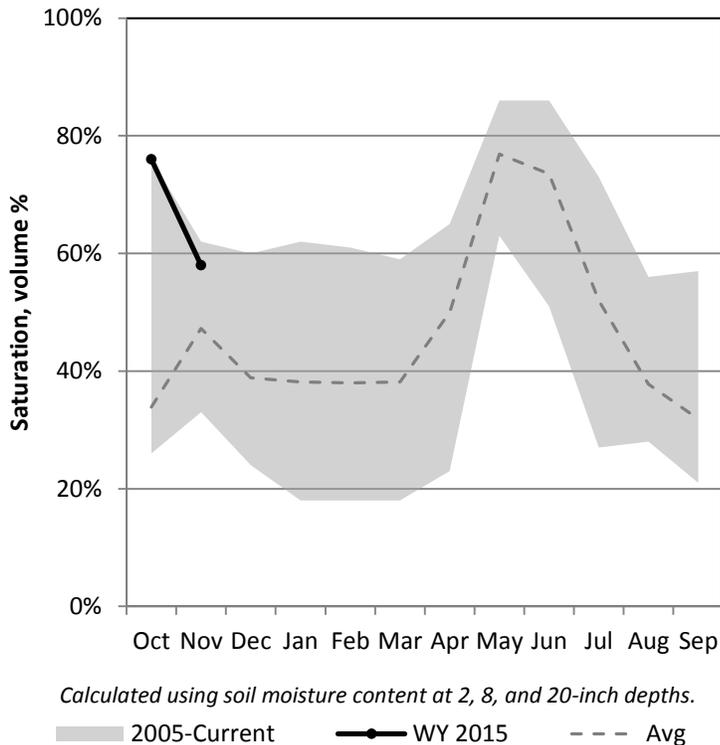
11/1/2014

Precipitation in October was much below average at 21%, which brings the seasonal accumulation (Oct-Oct) to 21% of average. Soil moisture is at 58% compared to 60% last year. Reservoir storage is at 157% of capacity, compared to 70% last year. The water availability index for the Western Uintahs is 75% and 29% for the Eastern Uintahs.

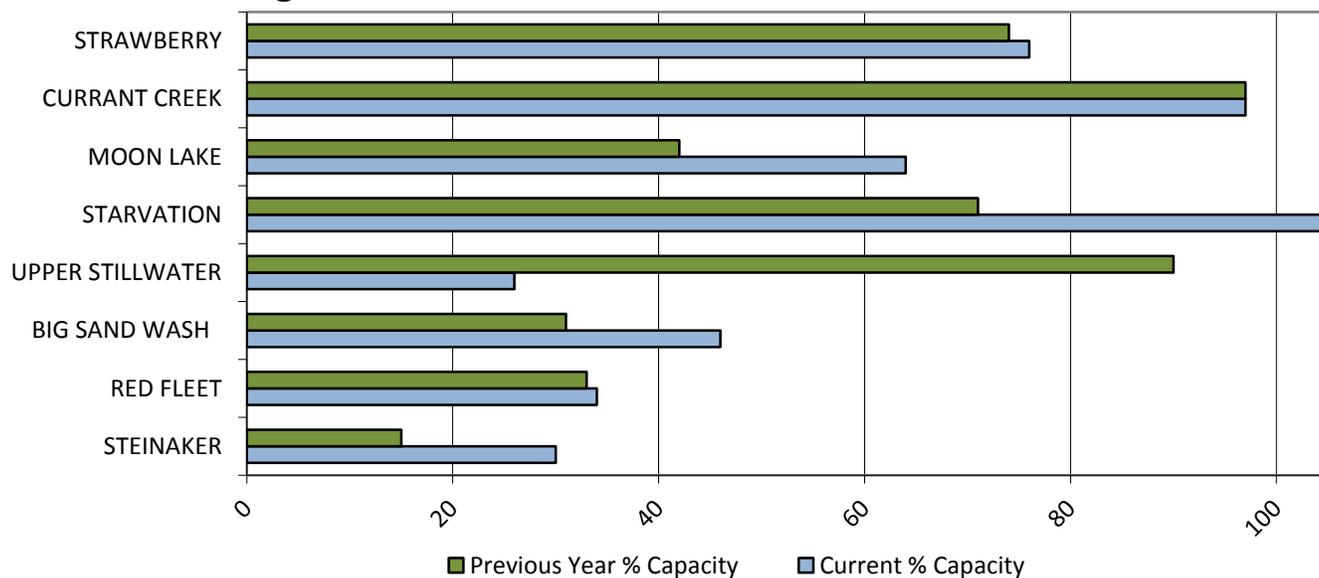
## Precipitation



## Soil Moisture



## Reservoir Storage

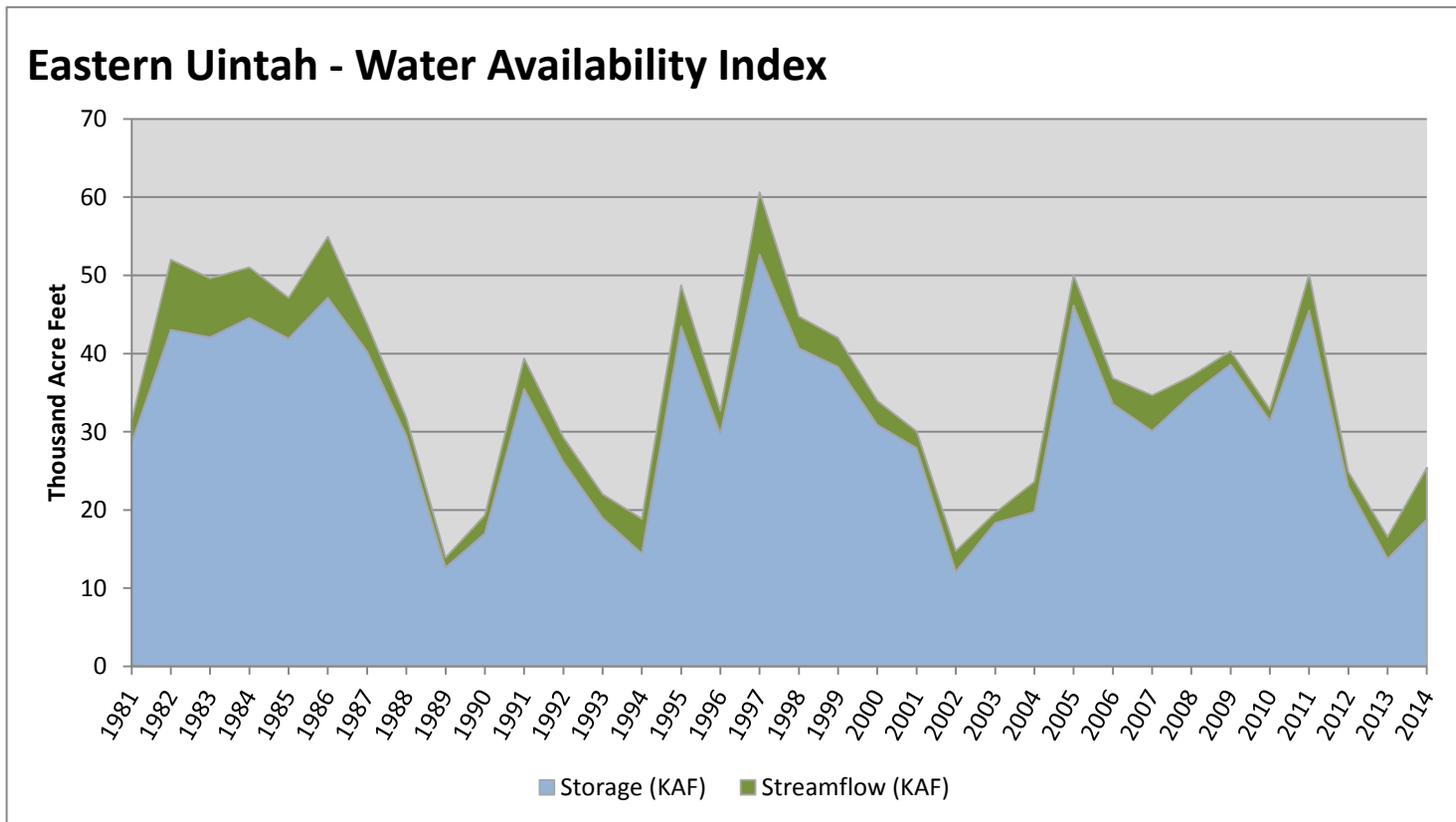


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October 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>18.76</b>	<b>6.64</b>	<b>25.40</b>	<b>29</b>	<b>-1.79</b>	<b>04, 12, 92, 01</b>

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

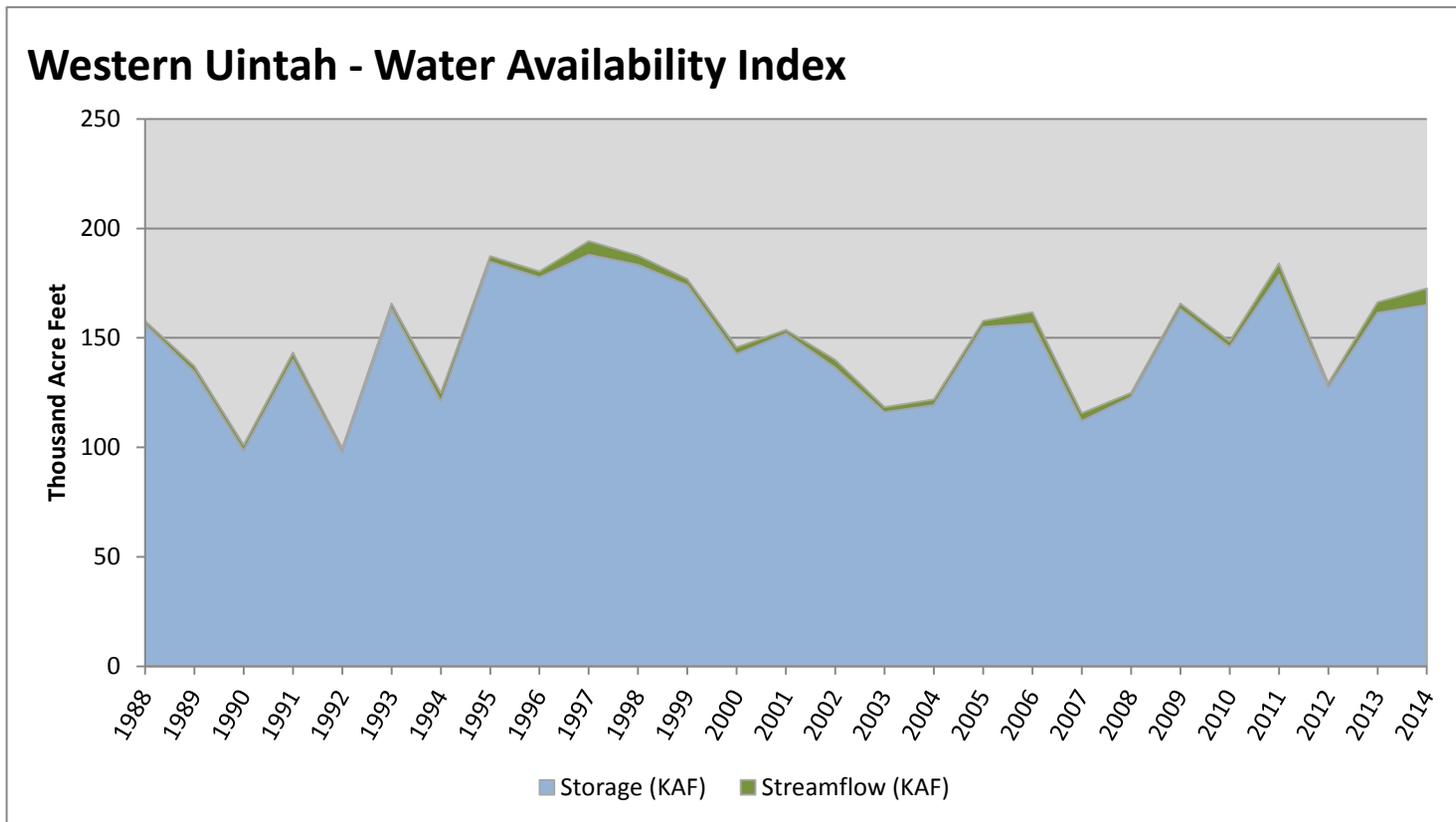


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October 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>165.01</b>	<b>7.60</b>	<b>172.61</b>	<b>75</b>	<b>2.08</b>	<b>93, 13, 99, 96</b>

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

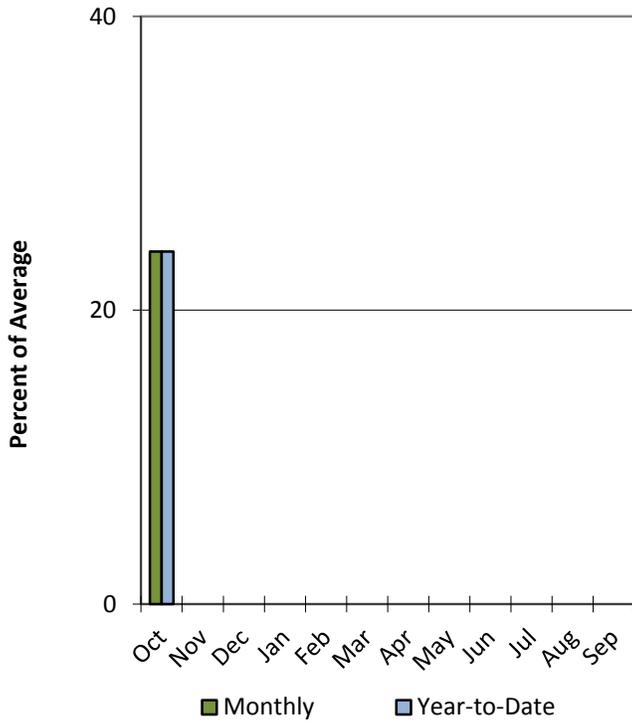


# Lower Sevier River Basin

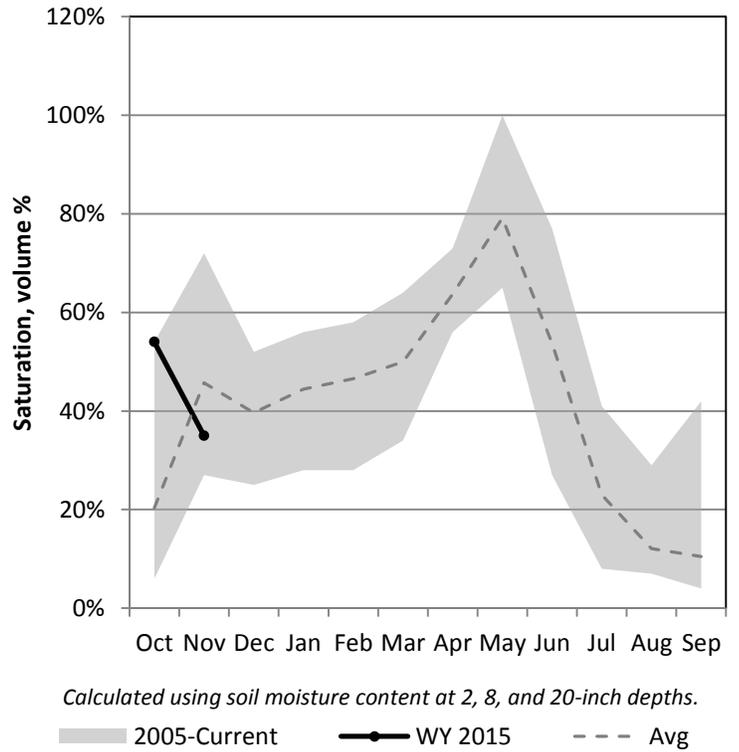
11/1/2014

Precipitation in October was much below average at 24%, which brings the seasonal accumulation (Oct-Oct) to 24% of average. Soil moisture is at 35% compared to 46% last year. Reservoir storage is at 23% of capacity, compared to 33% last year. The water availability index for the Lower Sevier is 20%.

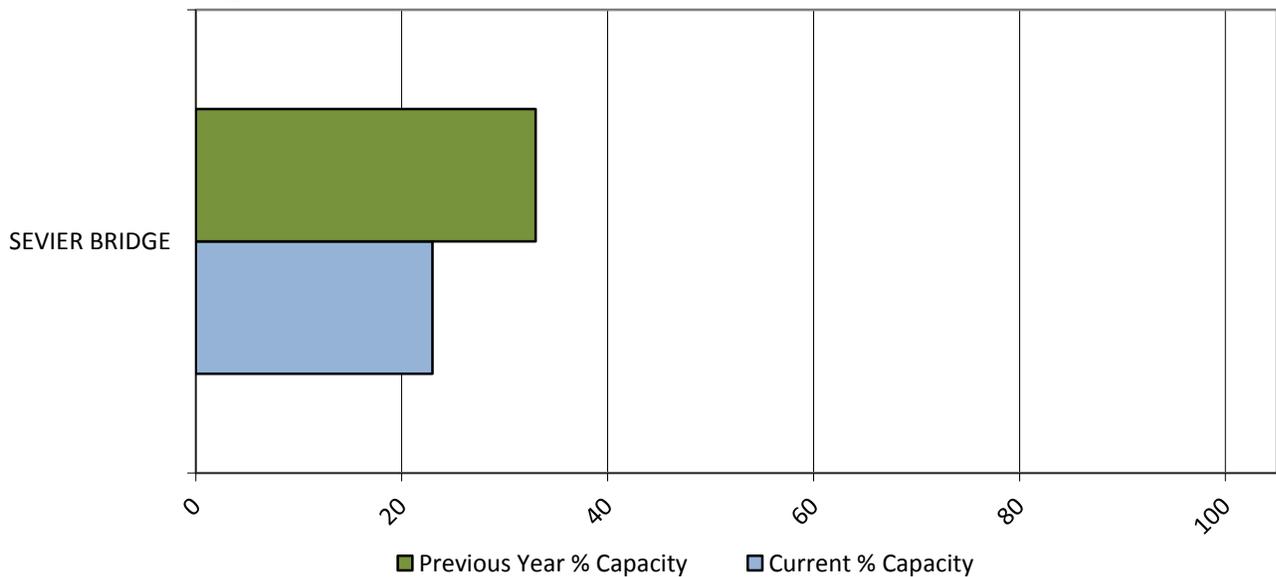
## Precipitation



## Soil Moisture



## Reservoir Storage

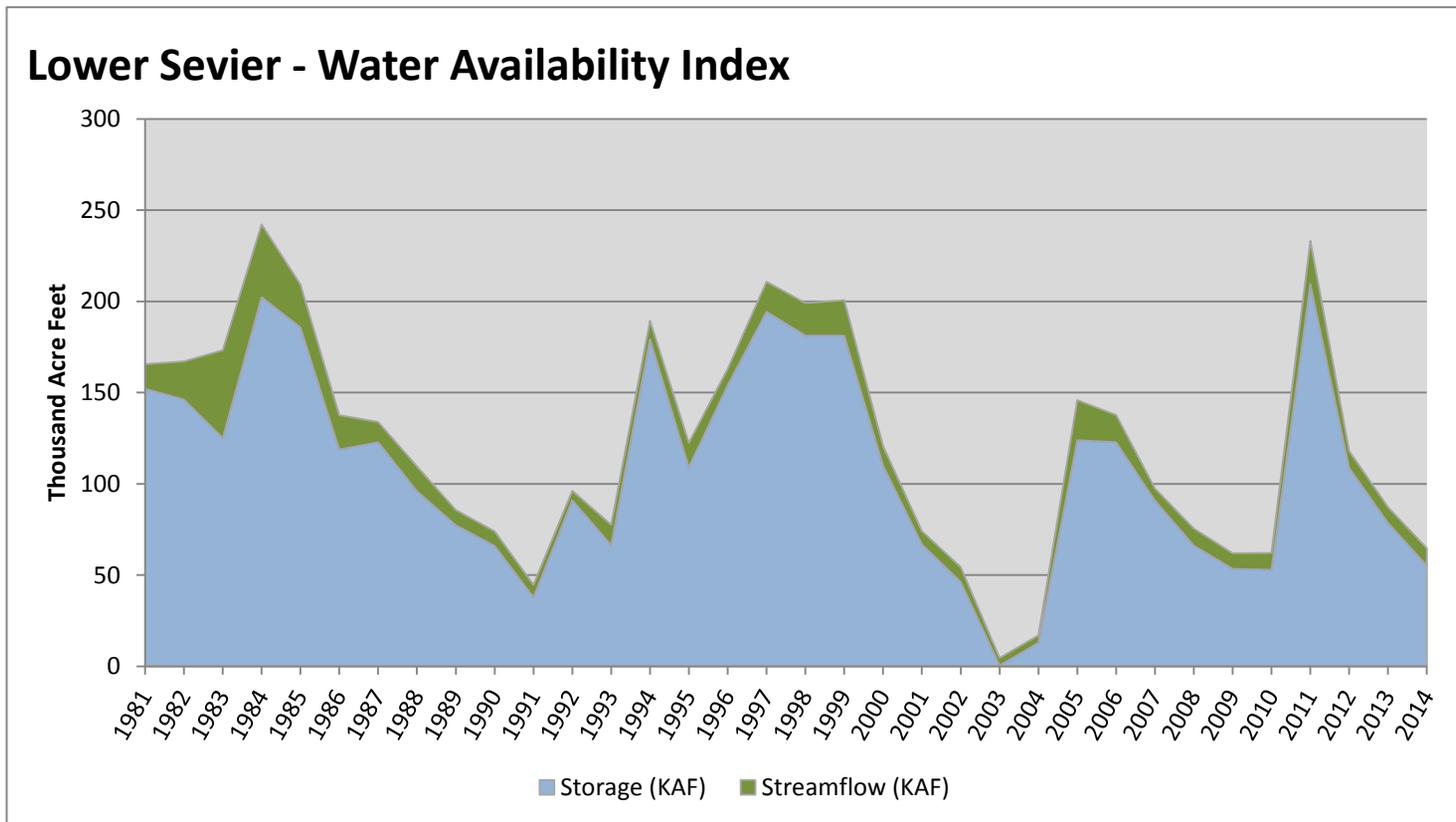


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October 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>55.11</b>	<b>9.58</b>	<b>64.69</b>	<b>20</b>	<b>-2.5</b>	<b>09, 10, 90, 01</b>

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

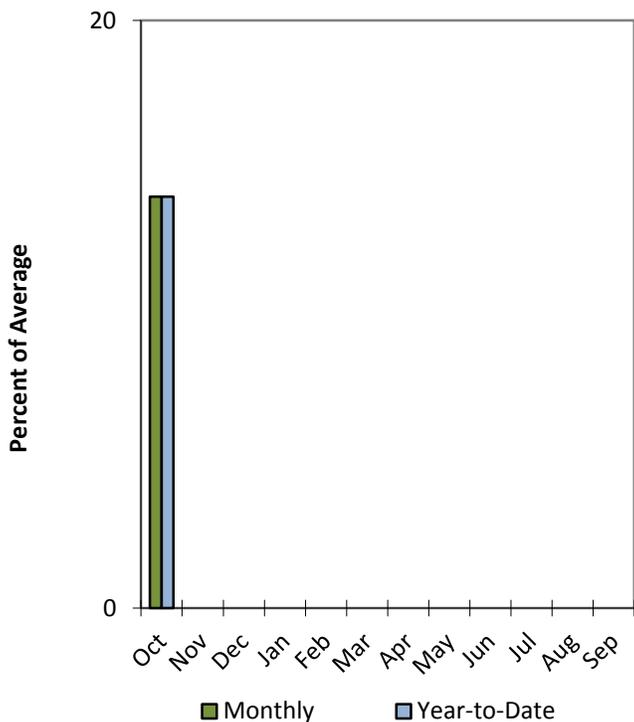


# Upper Sevier River Basin

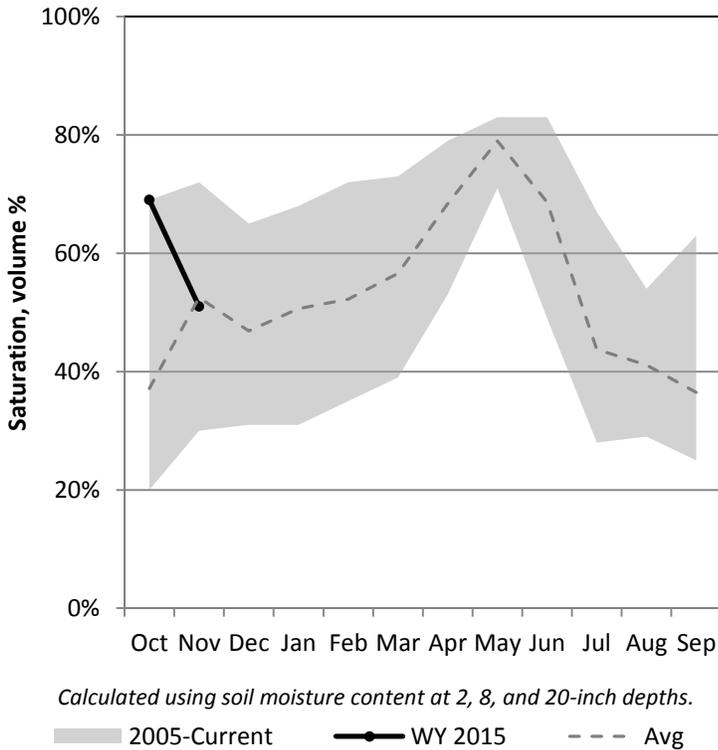
11/1/2014

Precipitation in October was much below average at 14%, which brings the seasonal accumulation (Oct-Oct) to 14% of average. Soil moisture is at 51% compared to 62% last year. Reservoir storage is at 28% of capacity, compared to 43% last year. The water availability index for the Upper Sevier is 37%.

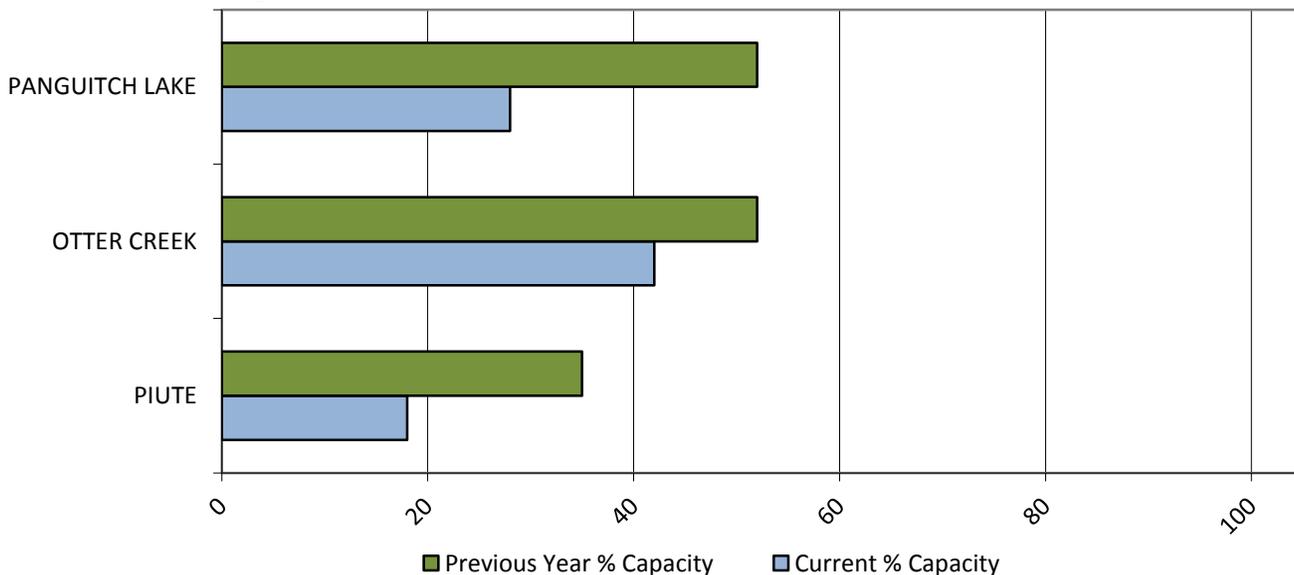
## Precipitation



## Soil Moisture



## Reservoir Storage

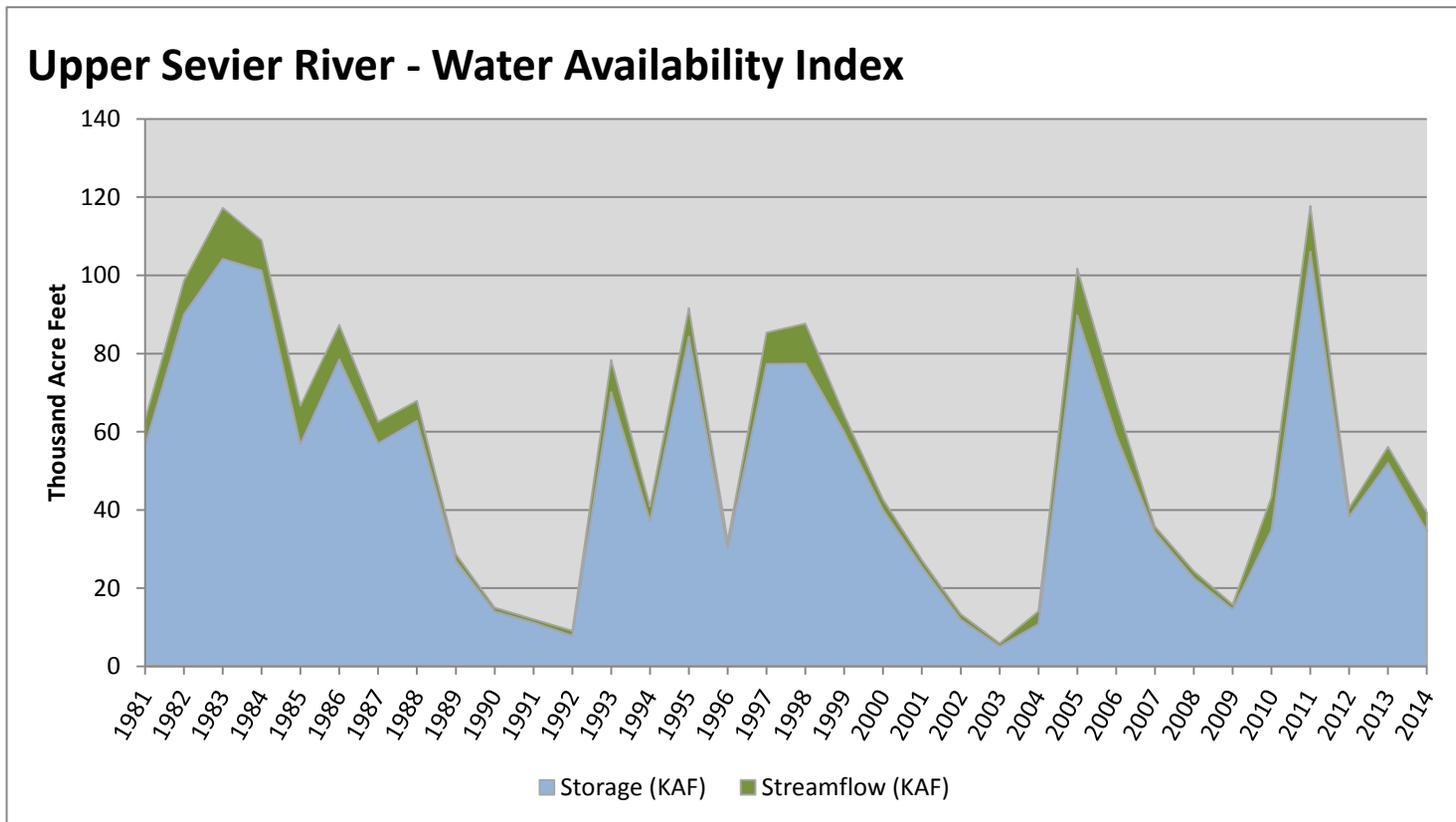


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October 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>34.56</b>	<b>4.76</b>	<b>39.32</b>	<b>37</b>	<b>-1.07</b>	<b>96, 07, 12, 94</b>

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

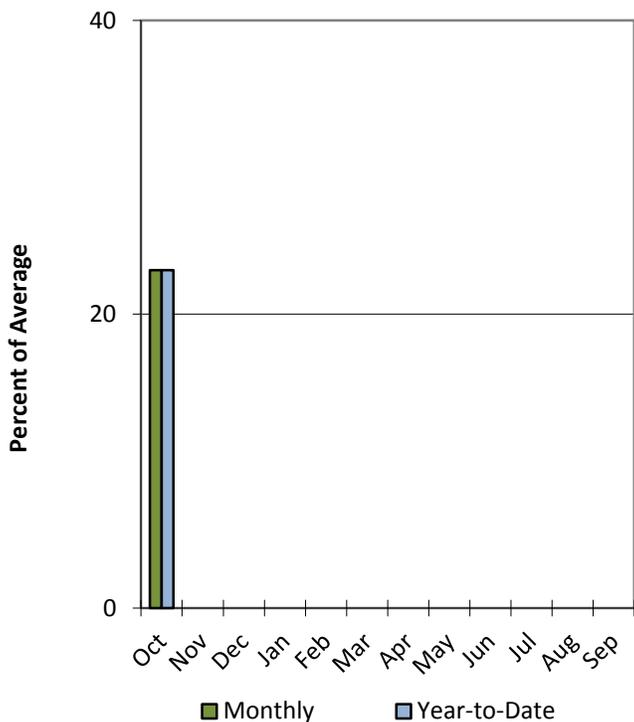


# San Pitch River Basin

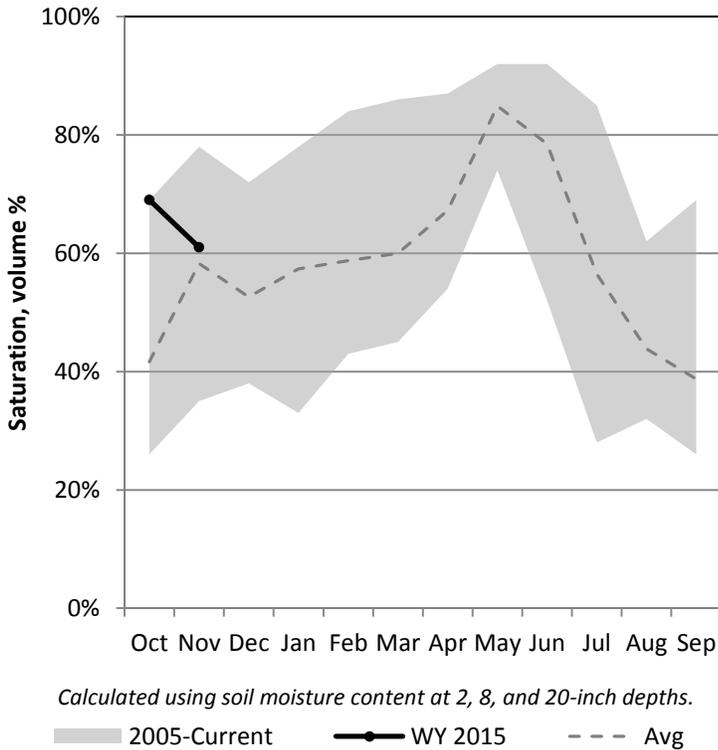
11/1/2014

Precipitation in October was much below average at 23%, which brings the seasonal accumulation (Oct-Oct) to 23% of average. Soil Moisture is at 61% compared to 75% last year. Reservoir storage is at 0% of capacity, compared to 0% last year. The water availability index for the San Pitch is 20%.

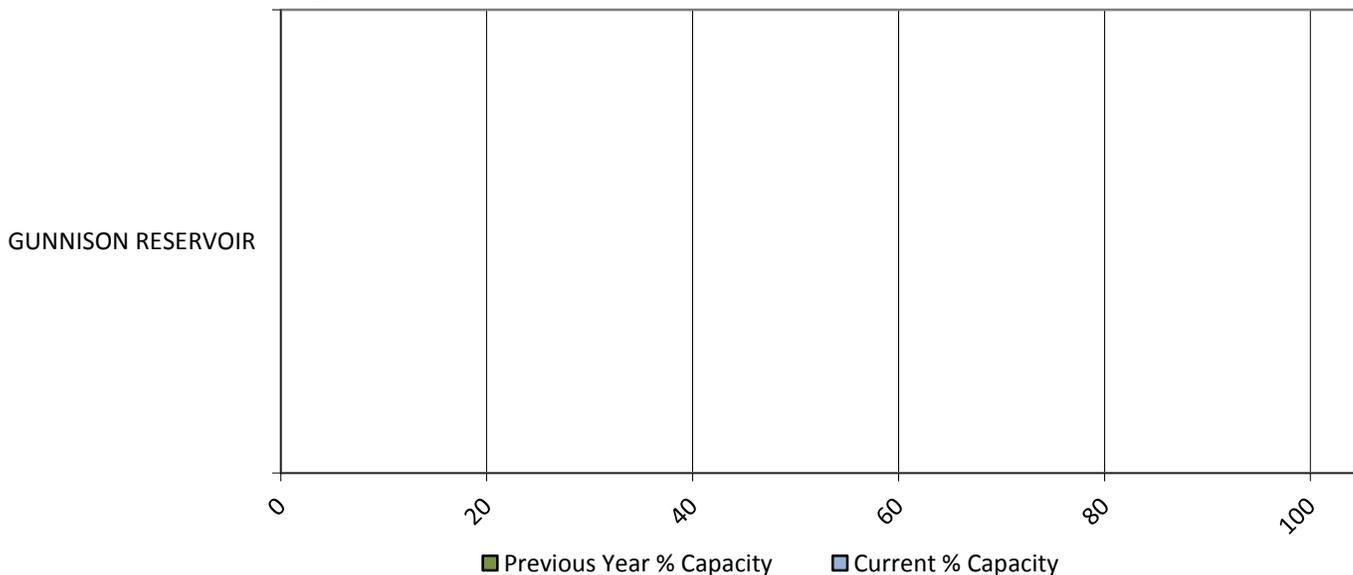
## Precipitation



## Soil Moisture



## Reservoir Storage

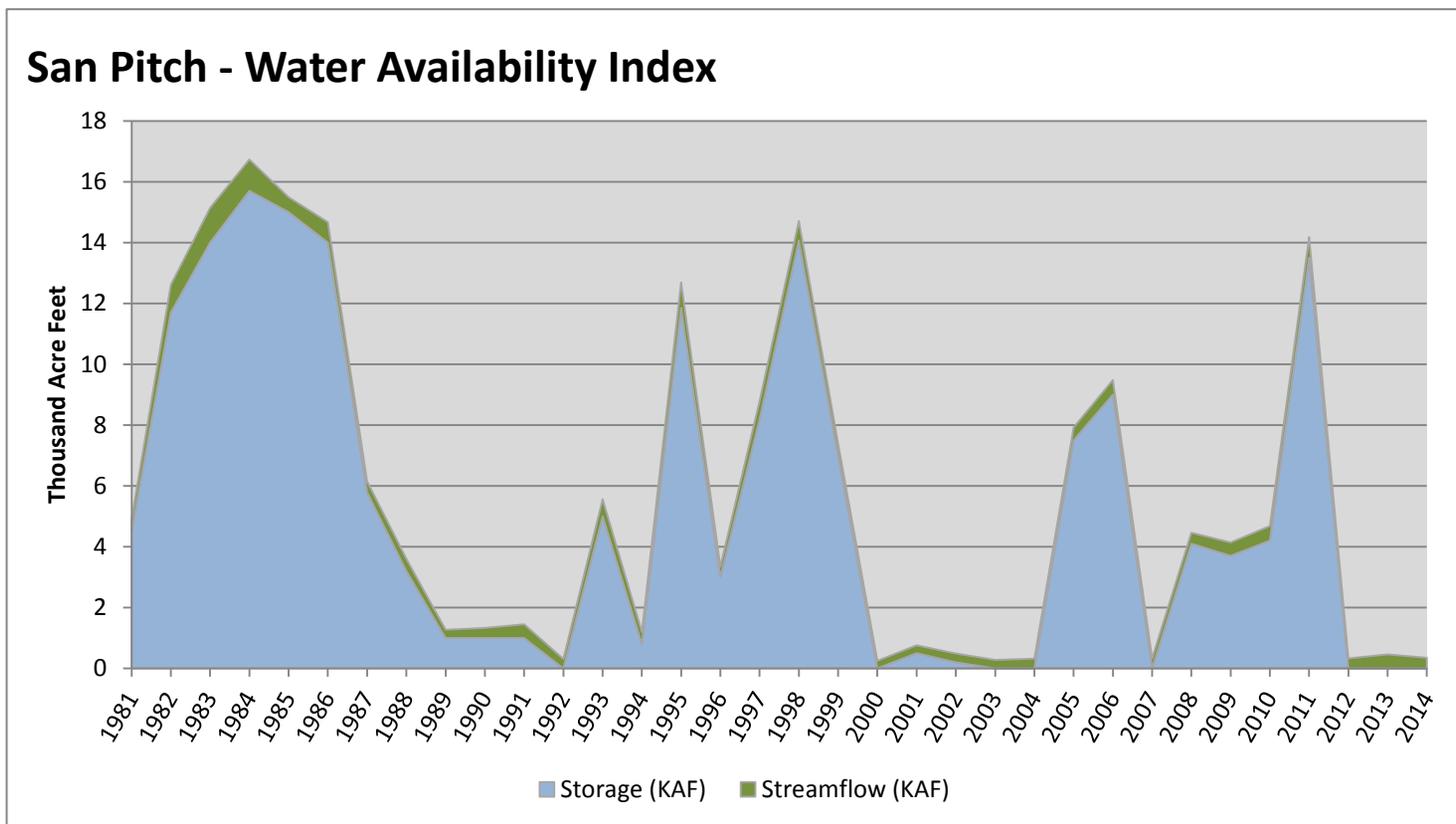


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October 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>0.00</b>	<b>0.35</b>	<b>0.35</b>	<b>20</b>	<b>-2.5</b>	<b>07, 12, 13, 02</b>

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

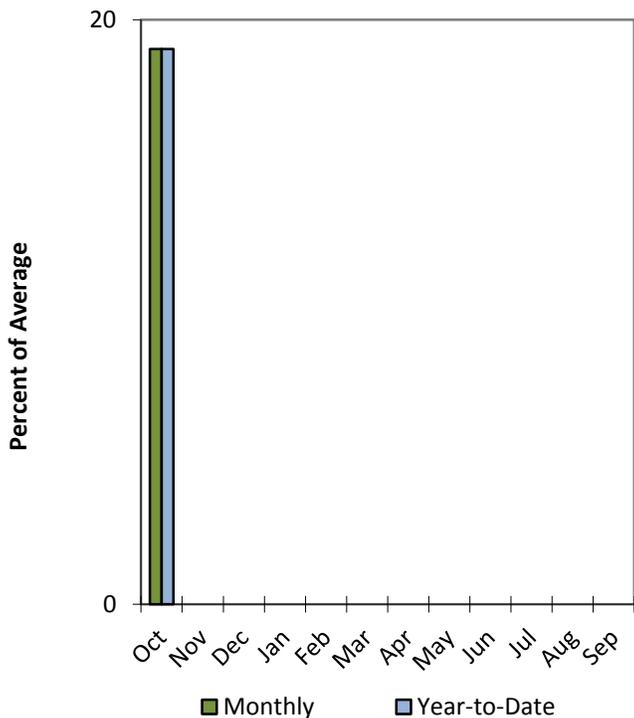


# Price & San Rafael Basins

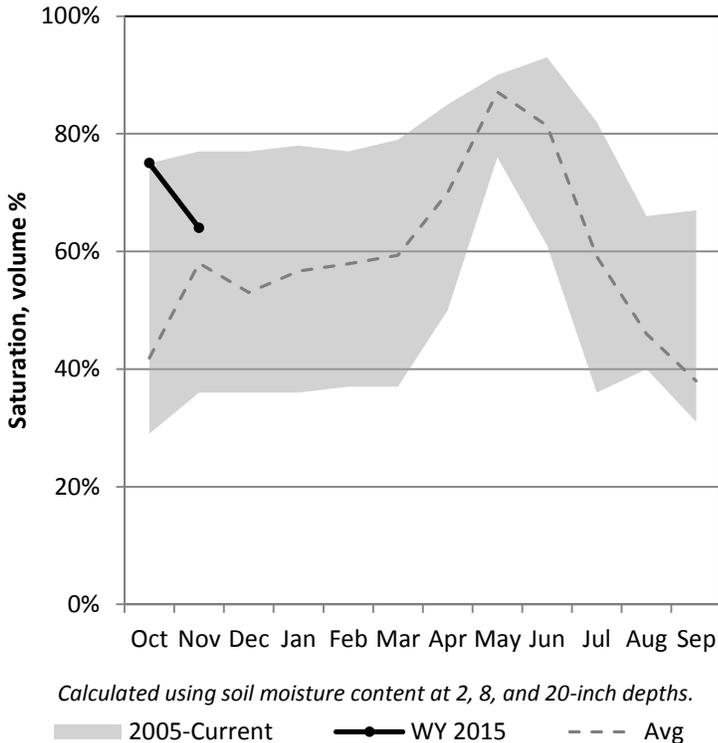
11/1/2014

Precipitation in October was much below average at 19%, which brings the seasonal accumulation (Oct-Oct) to 19% of average. Soil moisture is at 64% compared to 74% last year. Reservoir storage is at 48% of capacity, compared to 39% last year. The water availability index for the Price River is 97%, and 46% for Joe's Valley.

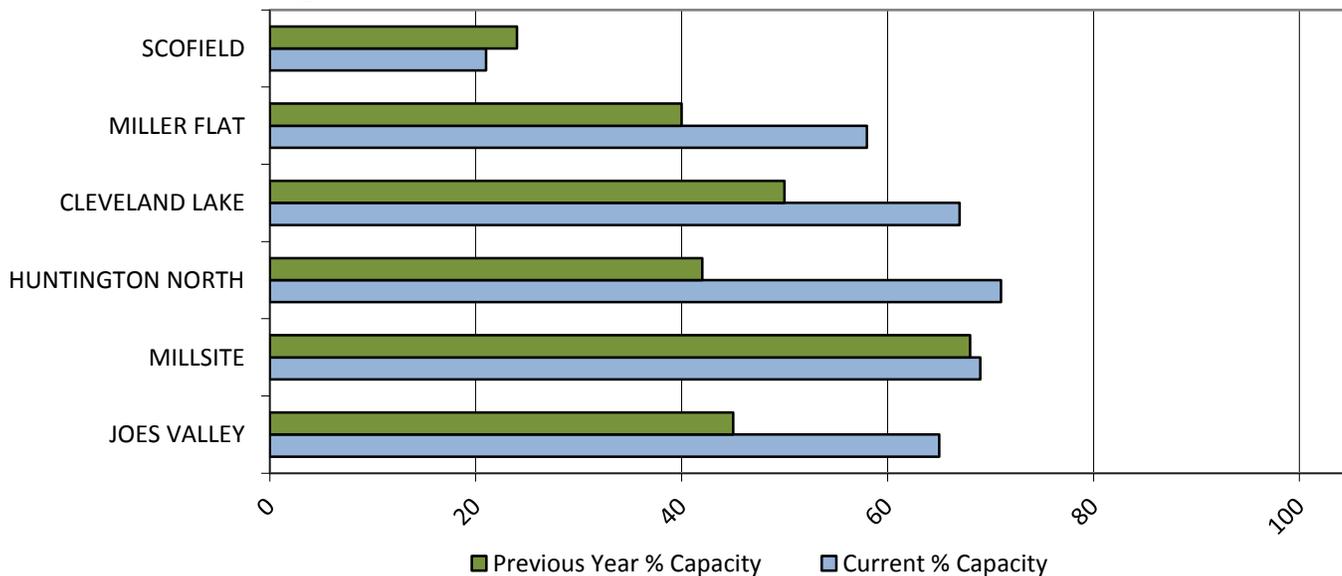
## Precipitation



## Soil Moisture



## Reservoir Storage

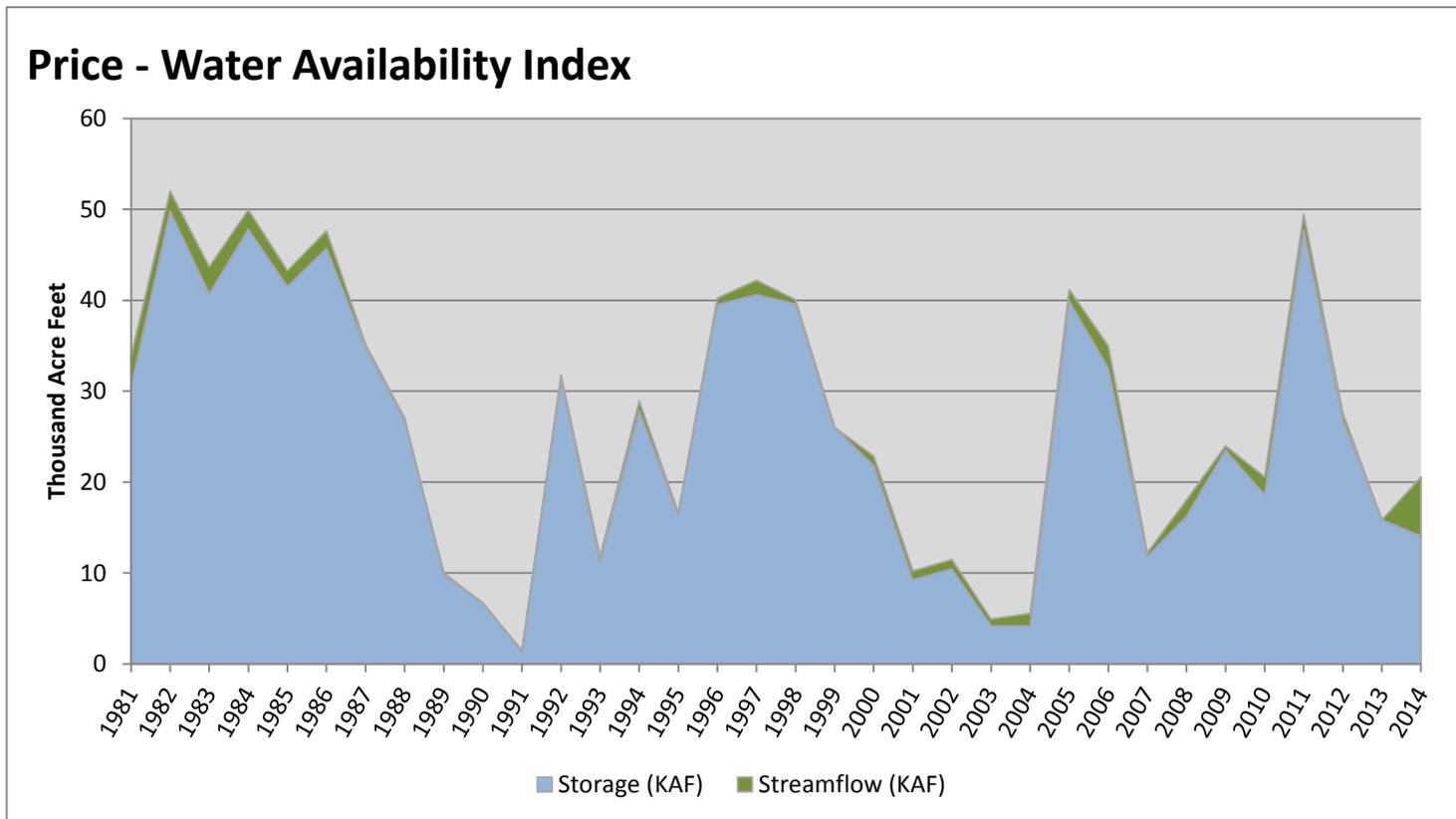


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Price</b>	<b>14.05</b>	<b>6.51</b>	<b>20.56</b>	<b>37</b>	<b>-1.07</b>	<b>95, 08, 10, 00</b>

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

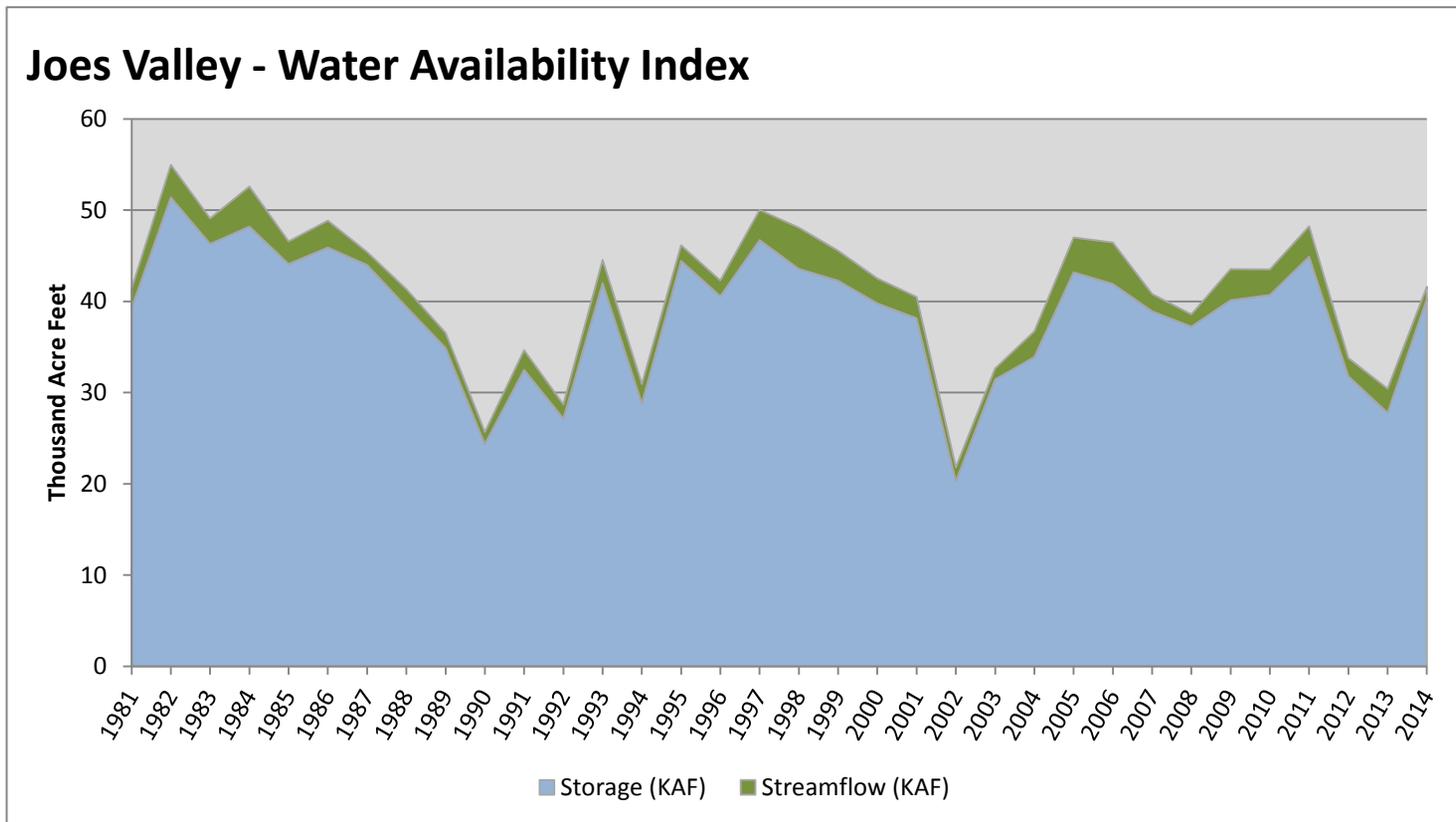


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October 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>40.29</b>	<b>1.31</b>	<b>41.60</b>	<b>46</b>	<b>-0.36</b>	<b>88, 81, 96, 00</b>

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

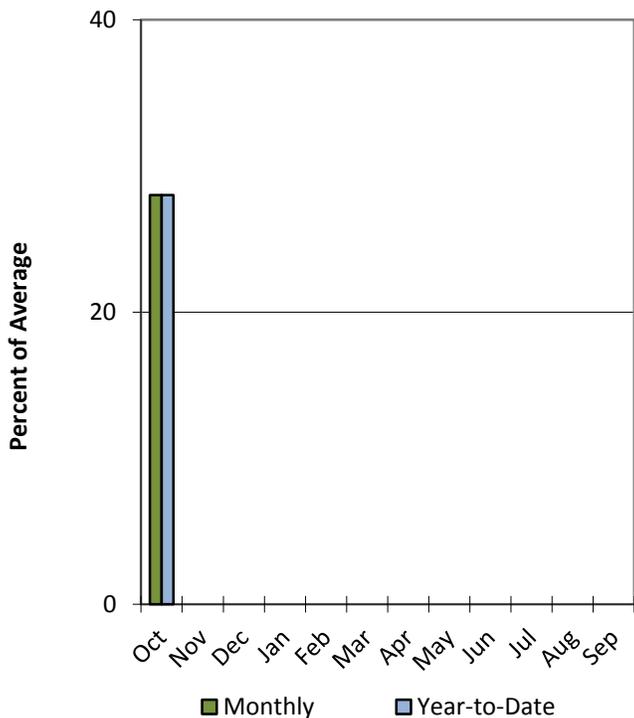


# Southeastern Utah Basin

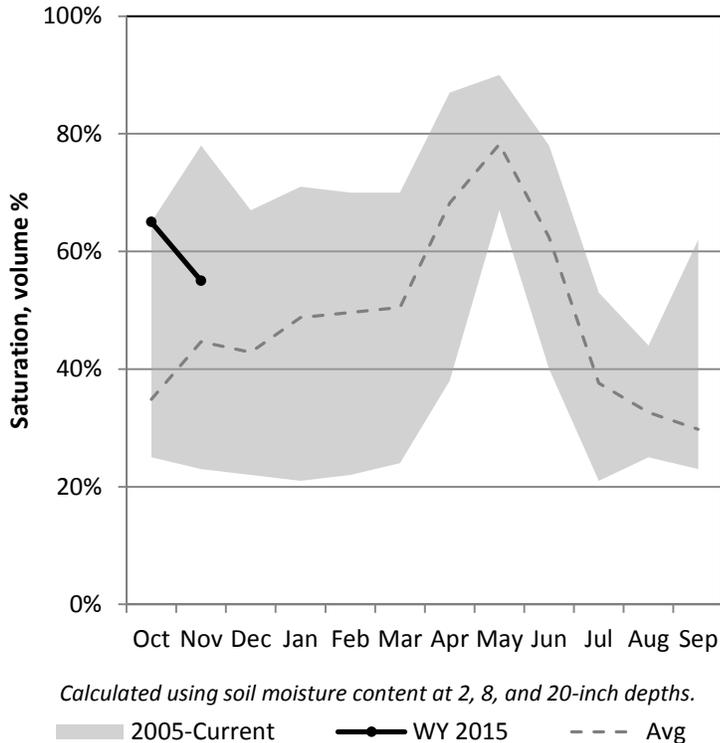
11/1/2014

Precipitation in October was much below average at 28%, which brings the seasonal accumulation (Oct-Oct) to 28% of average. Soil moisture is at 55% compared to 67% last year. Reservoir storage is at 47% of capacity, compared to 30% last year. The water availability index for Moab is 71%.

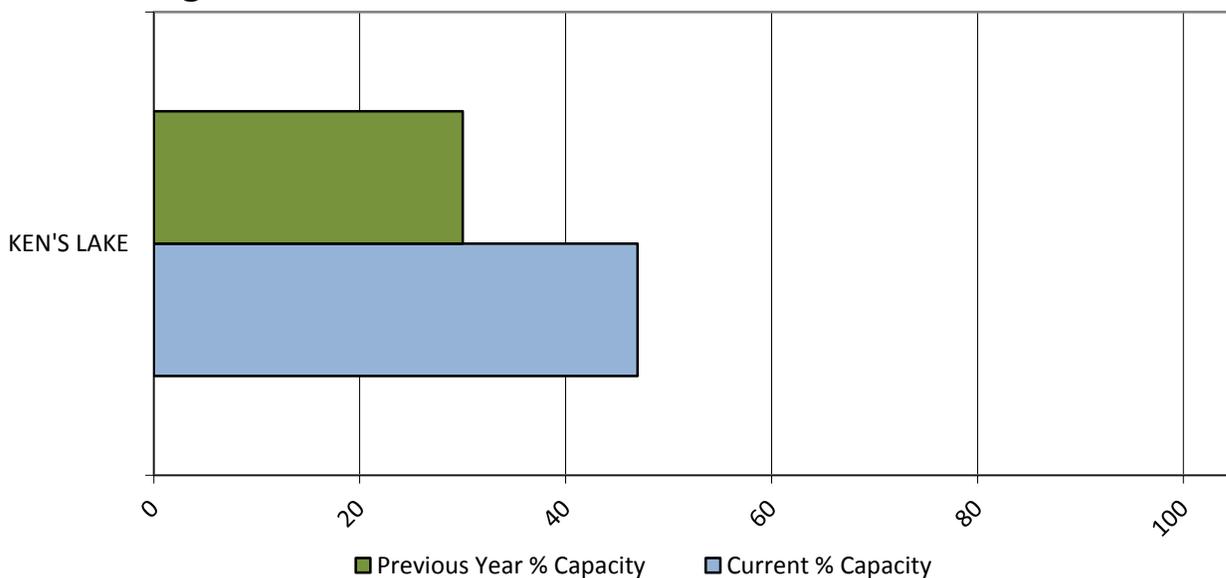
## Precipitation



## Soil Moisture



## Reservoir Storage

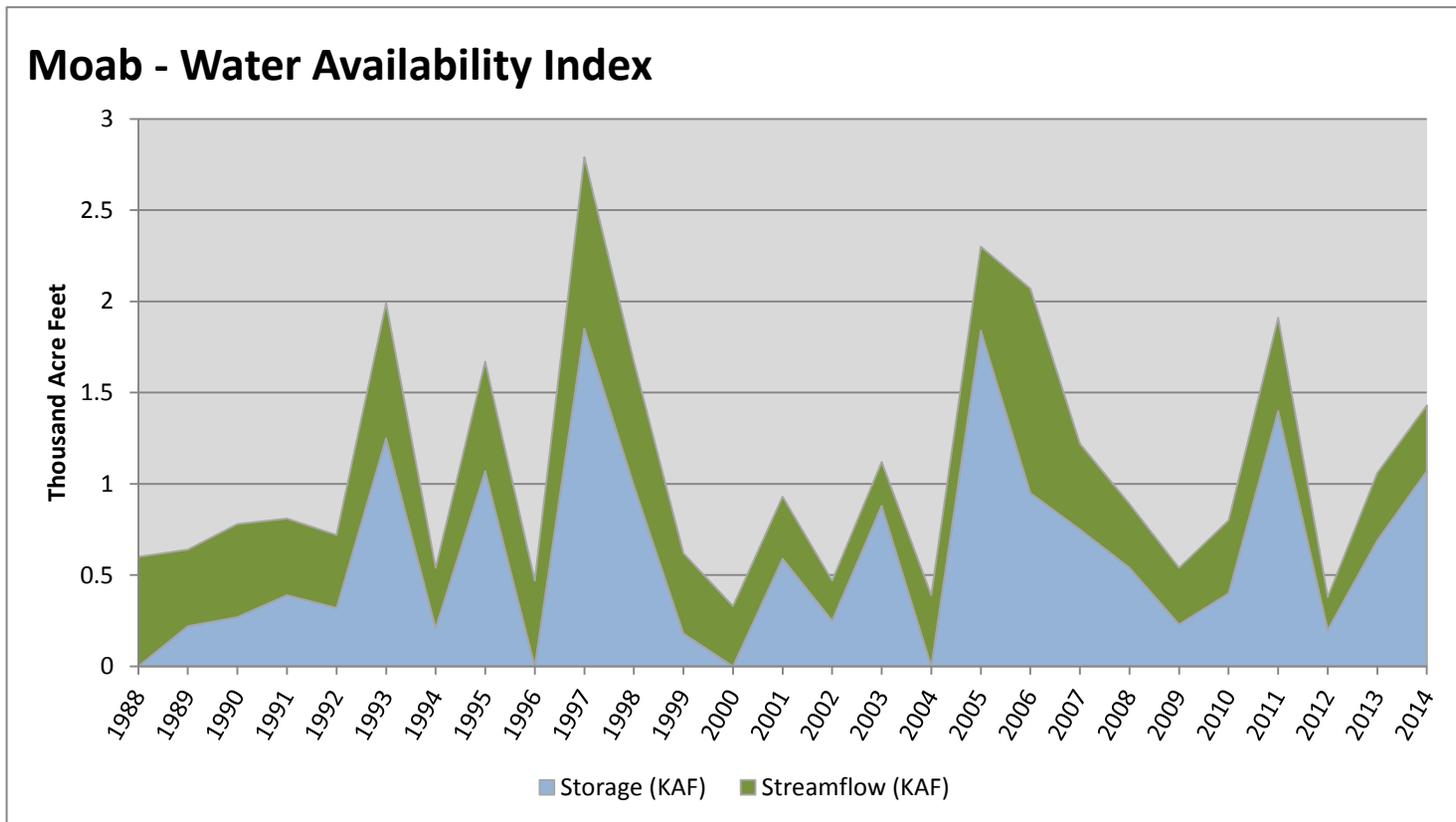


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Moab</b>	<b>1.07</b>	<b>0.36</b>	<b>1.43</b>	<b>71</b>	<b>1.79</b>	<b>03, 07, 95, 98</b>

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

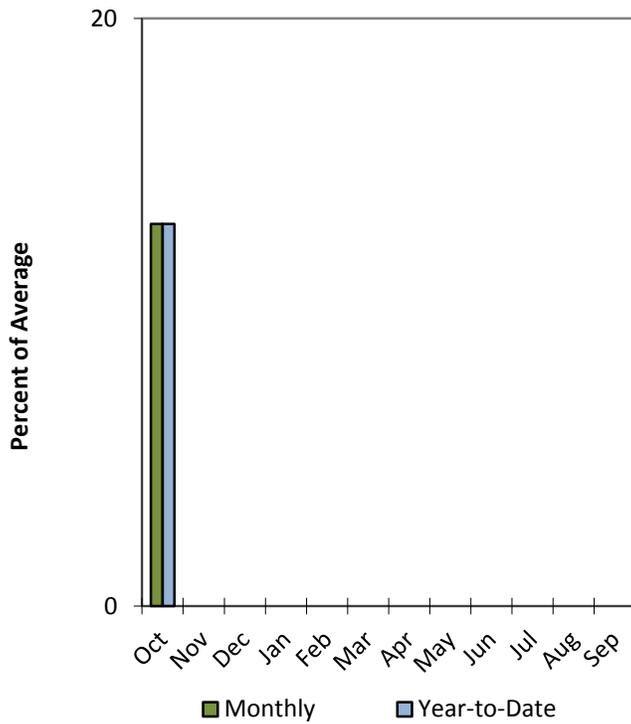


# Dirty Devil Basin

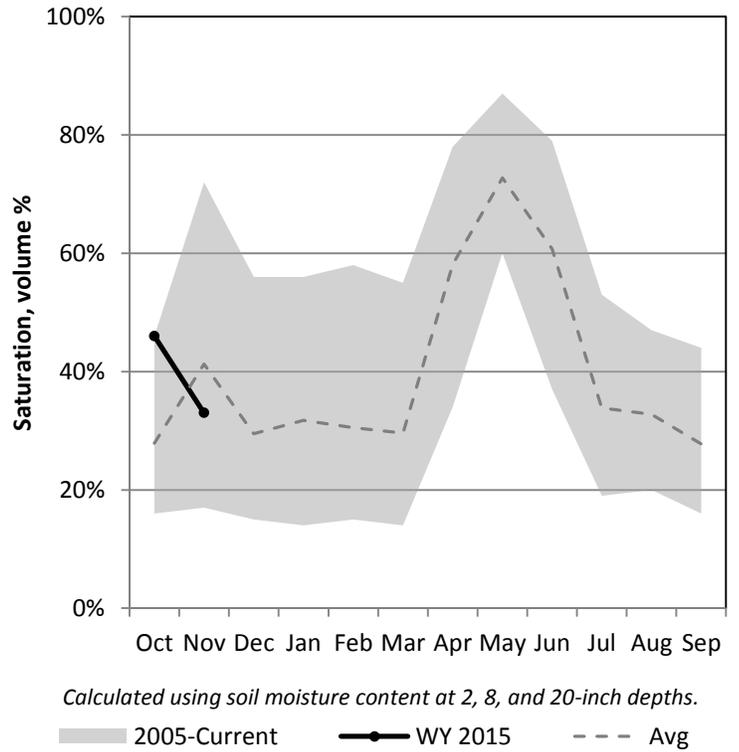
11/1/2014

Precipitation in October was much below average at 13%, which brings the seasonal accumulation (Oct-Oct) to 13% of average. Soil moisture is at 33% compared to 42% last year.

## Precipitation



## Soil Moisture

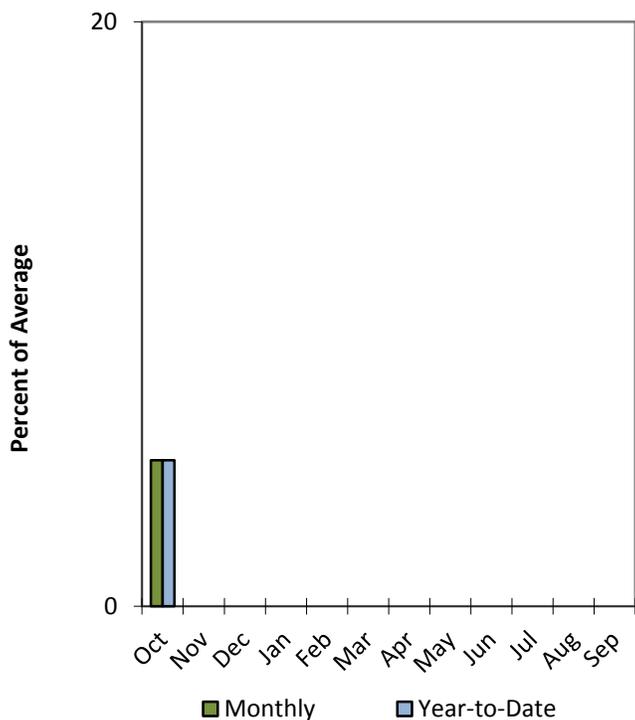


# Escalante River Basin

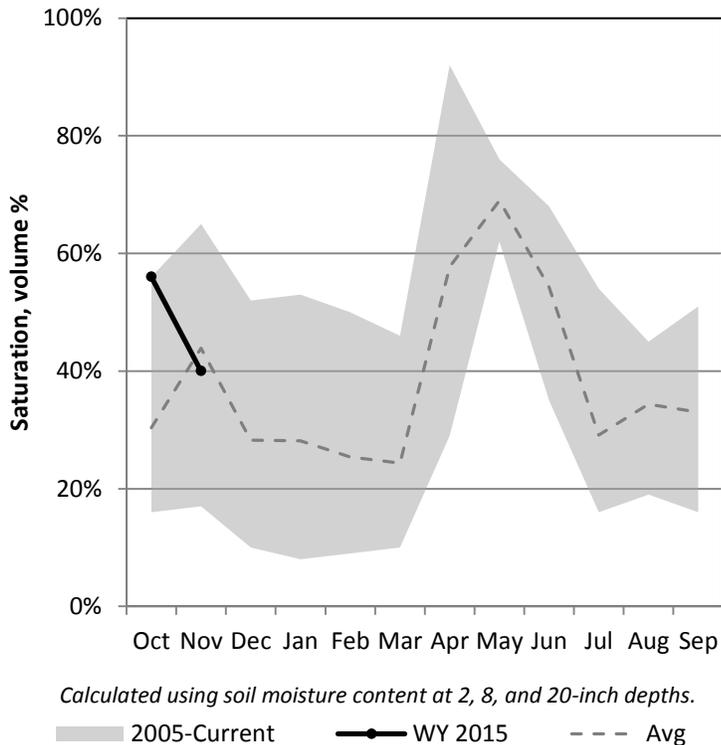
11/1/2014

Precipitation in October was much below average at 5%, which brings the seasonal accumulation (Oct-Oct) to 5% of average. Soil moisture is at 40% compared to 53% last year.

## Precipitation



## Soil Moisture

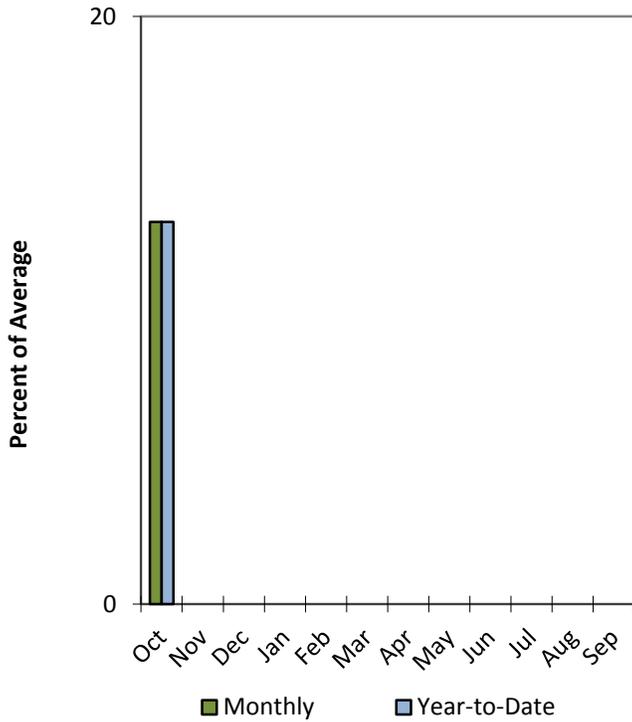


# Beaver River Basin

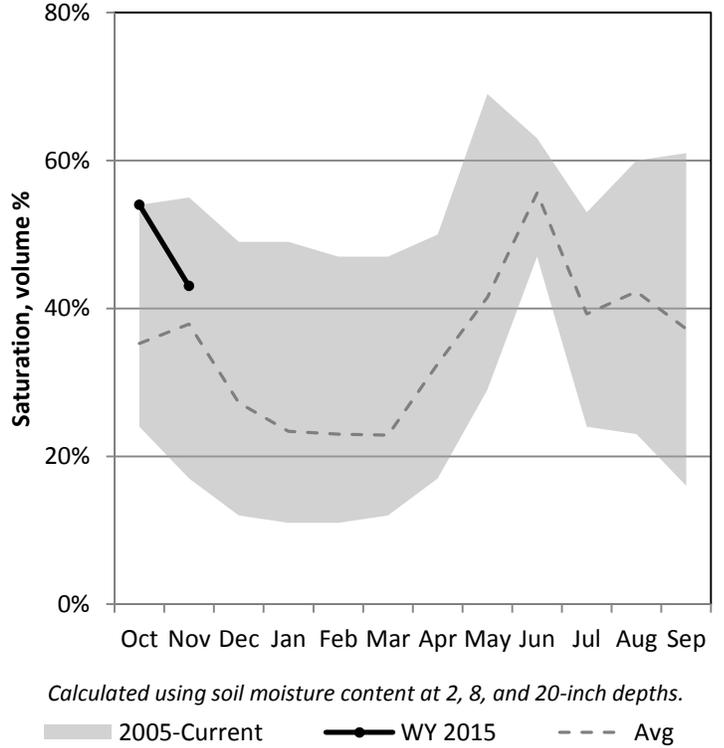
11/1/2014

Precipitation in October was much below average at 13%, which brings the seasonal accumulation (Oct-Oct) to 13% of average. Soil moisture is at 43% compared to 49% last year. Reservoir storage is at 18% of capacity, compared to 22% last year. The water availability index for the Beaver River is 46%.

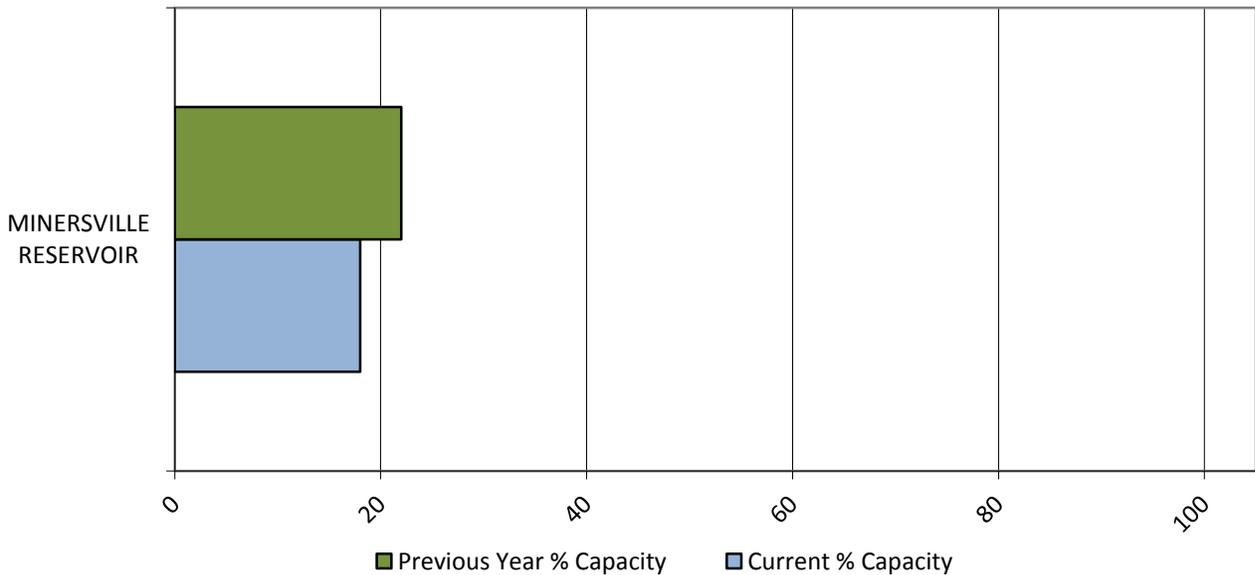
## Precipitation



## Soil Moisture



## Reservoir Storage

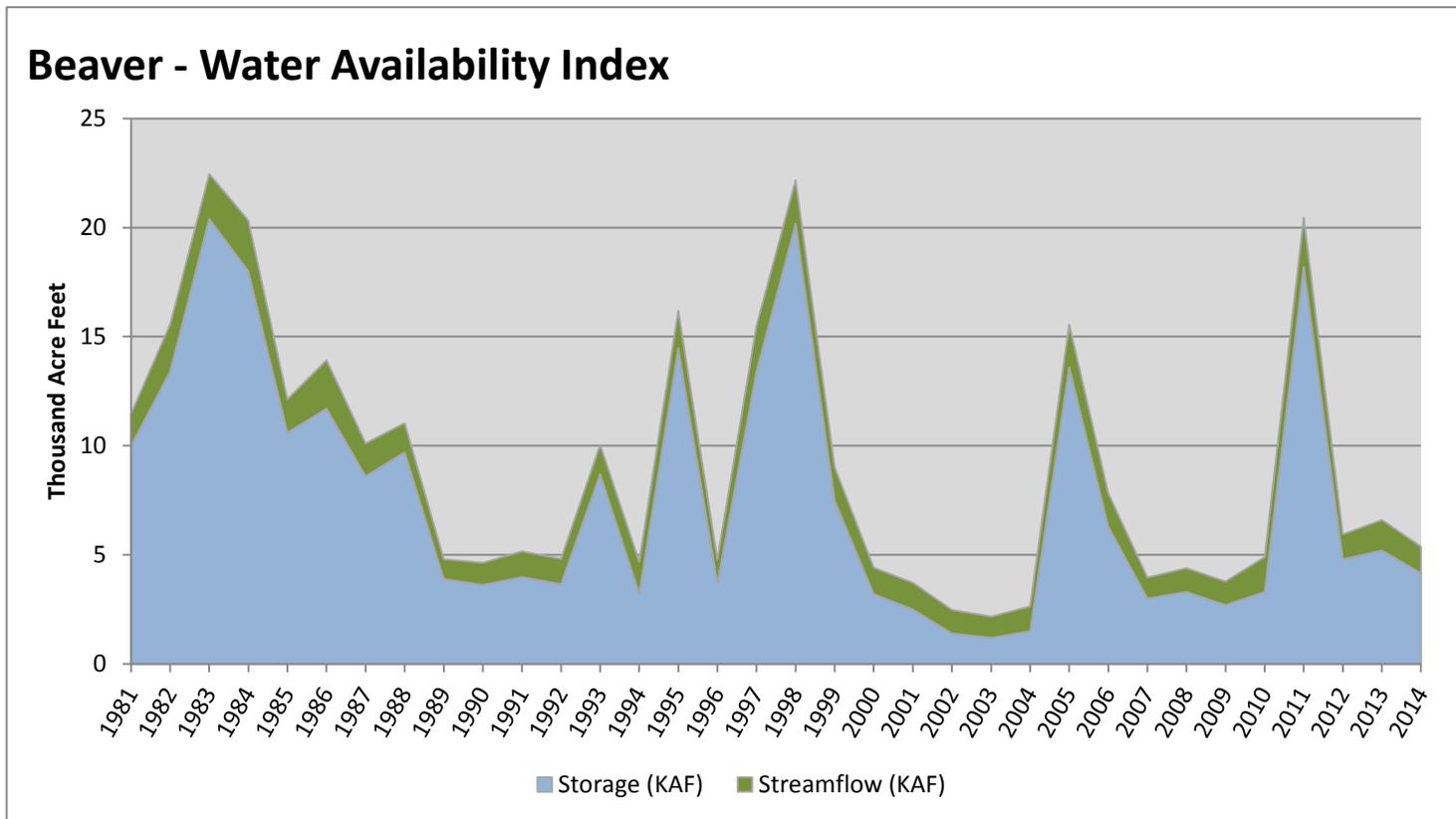


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October Flow	Storage + Flow	Percentile	WAI <sup>#</sup>	Years with similiar WAI
	KAF <sup>^</sup>	KAF <sup>^</sup>	KAF <sup>^</sup>	%		
<b>Beaver</b>	<b>4.16</b>	<b>1.22</b>	<b>5.38</b>	<b>46</b>	<b>-0.36</b>	<b>10, 91, 12, 13</b>

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

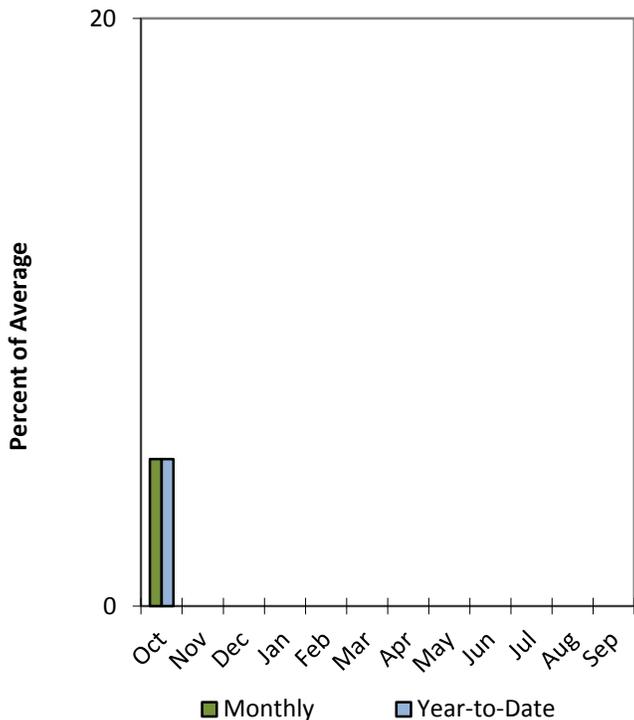


# Southwestern Utah Basin

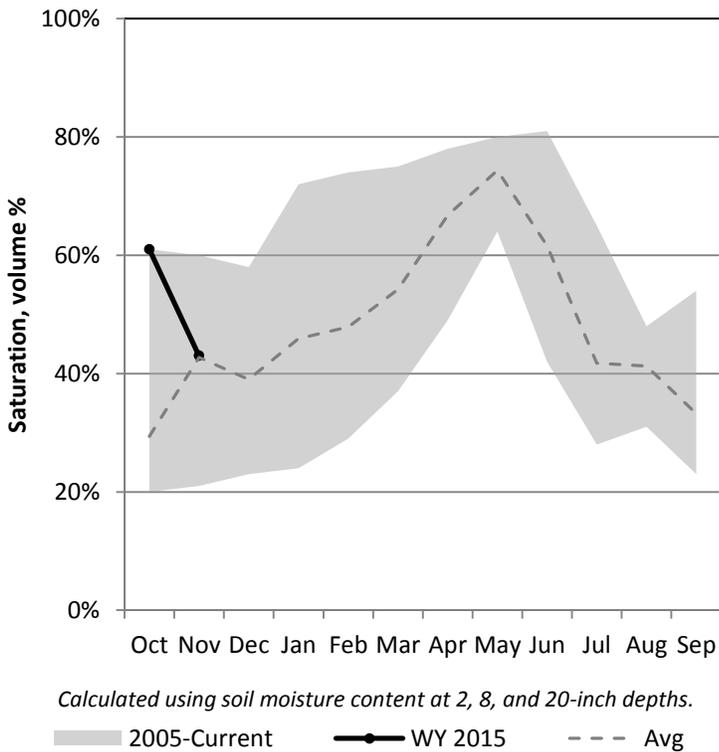
11/1/2014

Precipitation in October was much below average at 5%, which brings the seasonal accumulation (Oct-Oct) to 5% of average. Soil moisture is at 43% compared to 55% last year. Reservoir storage is at 50% of capacity, compared to 45% last year. The water availability index for the Virgin River is 33%.

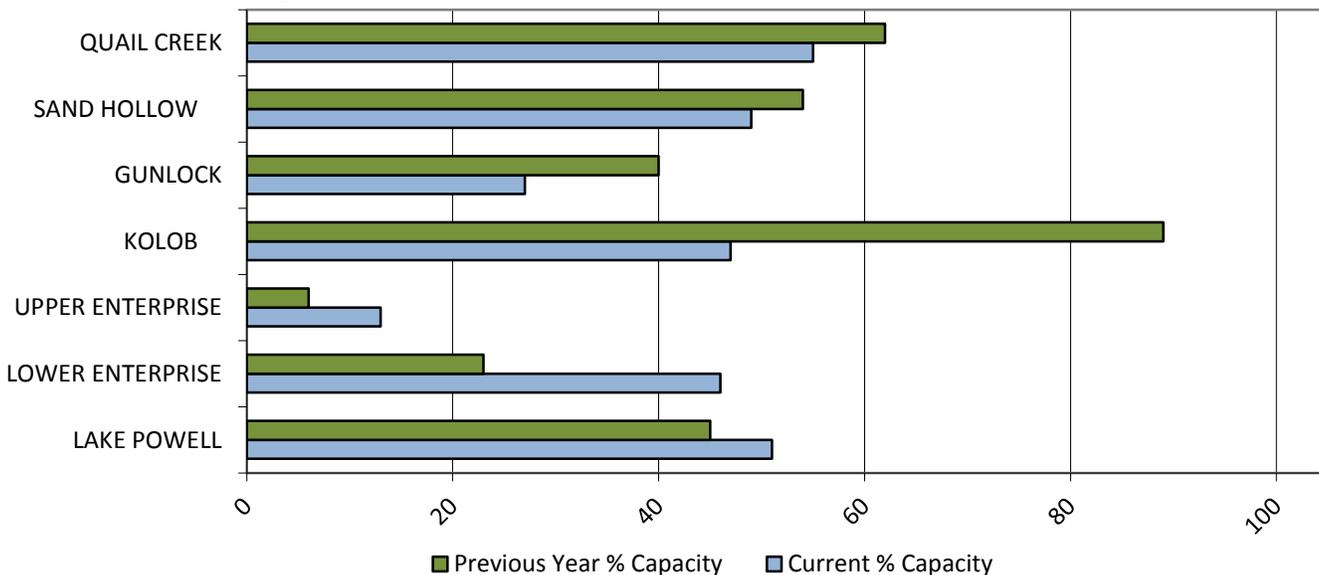
## Precipitation



## Soil Moisture



## Reservoir Storage

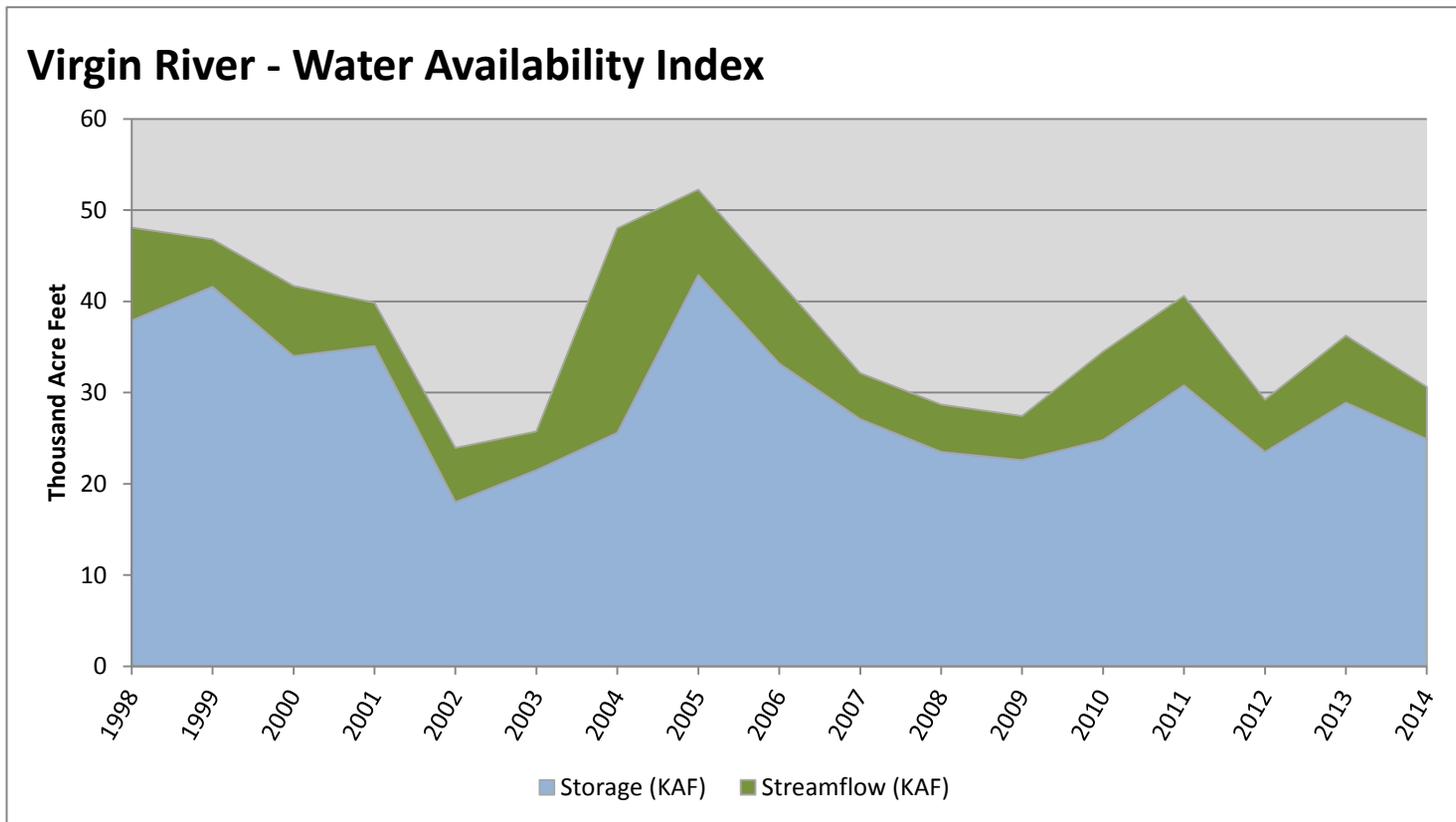


November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM <sup>*</sup> Storage	October 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>24.91</b>	<b>5.71</b>	<b>30.62</b>	<b>33</b>	<b>-1.39</b>	<b>08, 12, 07, 10</b>

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



November 1, 2014

## Water Availability Index

Basin or Region	Oct EOM* Storage	October Flow	Storage + Flow	Percentile	WAI#	Years with similar WAI
	KAF^	KAF^	KAF^	%		
<b>Bear River</b>	<b>534</b>	<b>5.6</b>	<b>539</b>	<b>51.00</b>	<b>0.1</b>	<b>01, 13, 89, 88</b>
<b>Woodruff Narrows</b>	<b>31.2</b>	<b>8.7</b>	<b>39.8</b>	<b>63.0</b>	<b>1.1</b>	<b>93, 96, 08, 10</b>
<b>Little Bear</b>	<b>5.0</b>	<b>1.8</b>	<b>6.8</b>	<b>17.0</b>	<b>-2.8</b>	<b>03, 01, 07, 04</b>
<b>Ogden</b>	<b>56.3</b>	<b>2.2</b>	<b>58.6</b>	<b>51.0</b>	<b>0.1</b>	<b>89, 94, 10, 04</b>
<b>Weber</b>	<b>87.2</b>	<b>20.5</b>	<b>107.7</b>	<b>42.0</b>	<b>-0.6</b>	<b>07, 94, 04, 91</b>
<b>Provo River</b>	<b>313.8</b>	<b>7.3</b>	<b>321.1</b>	<b>40.0</b>	<b>-0.8</b>	<b>02, 96, 08, 01</b>
<b>Western Uintah</b>	<b>165.0</b>	<b>7.6</b>	<b>172.6</b>	<b>75.0</b>	<b>2.1</b>	<b>93, 13, 99, 96</b>
<b>Eastern Uintah</b>	<b>18.8</b>	<b>6.6</b>	<b>25.4</b>	<b>29.0</b>	<b>-1.8</b>	<b>04, 12, 92, 01</b>
<b>Blacks Fork</b>	<b>18.3</b>	<b>8.6</b>	<b>26.9</b>	<b>89.0</b>	<b>3.2</b>	<b>95, 98, 84, 83</b>
<b>Price</b>	<b>14.1</b>	<b>6.5</b>	<b>20.6</b>	<b>37.0</b>	<b>-1.1</b>	<b>95, 08, 10, 00</b>
<b>Smiths Creek</b>	<b>8.5</b>	<b>2.8</b>	<b>11.3</b>	<b>97.0</b>	<b>3.9</b>	<b>86, 98, 84, 97</b>
<b>Joes Valley</b>	<b>40.3</b>	<b>1.3</b>	<b>41.6</b>	<b>46.0</b>	<b>-0.4</b>	<b>88, 81, 96, 00</b>
<b>Moab</b>	<b>1.1</b>	<b>0.4</b>	<b>1.4</b>	<b>71.0</b>	<b>1.8</b>	<b>03, 07, 95, 98</b>
<b>Upper Sevier River</b>	<b>34.6</b>	<b>4.8</b>	<b>39.3</b>	<b>37.0</b>	<b>-1.1</b>	<b>96, 07, 12, 94</b>
<b>San Pitch</b>	<b>0.0</b>	<b>0.4</b>	<b>0.4</b>	<b>20.0</b>	<b>-2.5</b>	<b>07, 12, 13, 02</b>
<b>Lower Sevier</b>	<b>55.1</b>	<b>9.6</b>	<b>64.7</b>	<b>20.0</b>	<b>-2.5</b>	<b>09, 10, 90, 01</b>
<b>Beaver</b>	<b>4.2</b>	<b>1.2</b>	<b>5.4</b>	<b>46.0</b>	<b>-0.4</b>	<b>10, 91, 12, 13</b>
<b>Virgin River</b>	<b>24.9</b>	<b>5.7</b>	<b>30.6</b>	<b>33.0</b>	<b>-1.4</b>	<b>08, 12, 07, 10</b>

\*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/](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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