NRCS
Natural Resources Conservation Service

Utah Climate and Water Report

November, 2011

View From Jones Corral SNOTEL near Antimony, Utah

Photos by Beau Uriona, USDA-NRCS

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.

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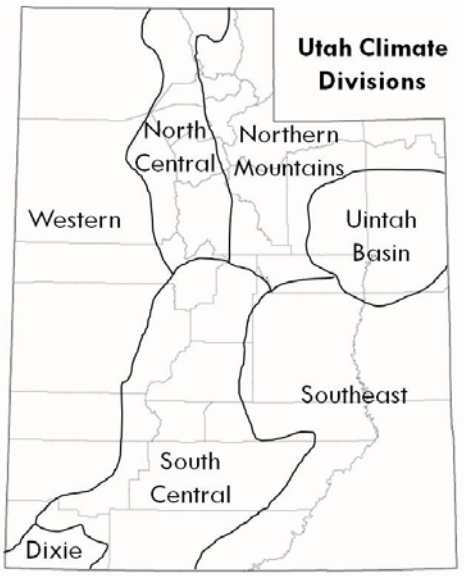
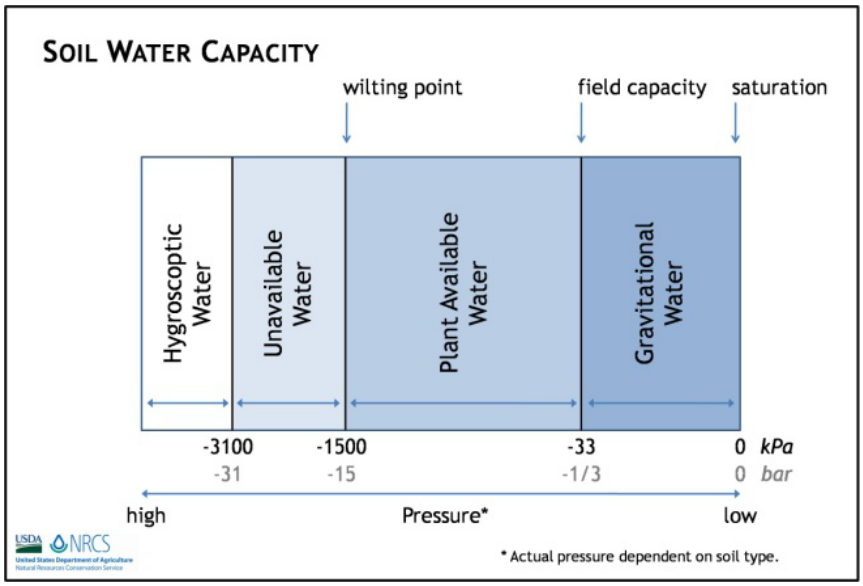
Climate and Water Information

Soil Climate Analysis Network

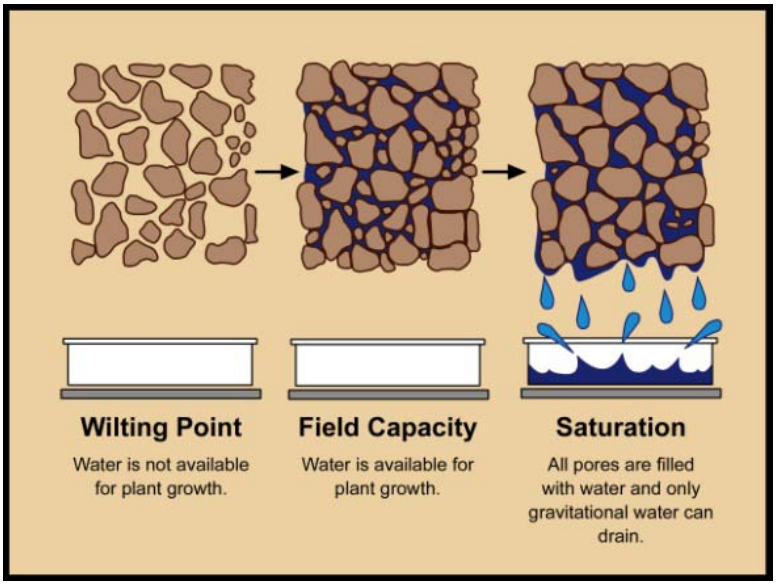
Soil Climate Analysis Network (SCAN) stations are primarily located on low- to mid-elevation, agriculturally important landscapes that maintain representative soils. Elevations range from 3,000 to 7,000 ft. The SCAN network provides real-time soil moisture and temperature data coupled with additional 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).





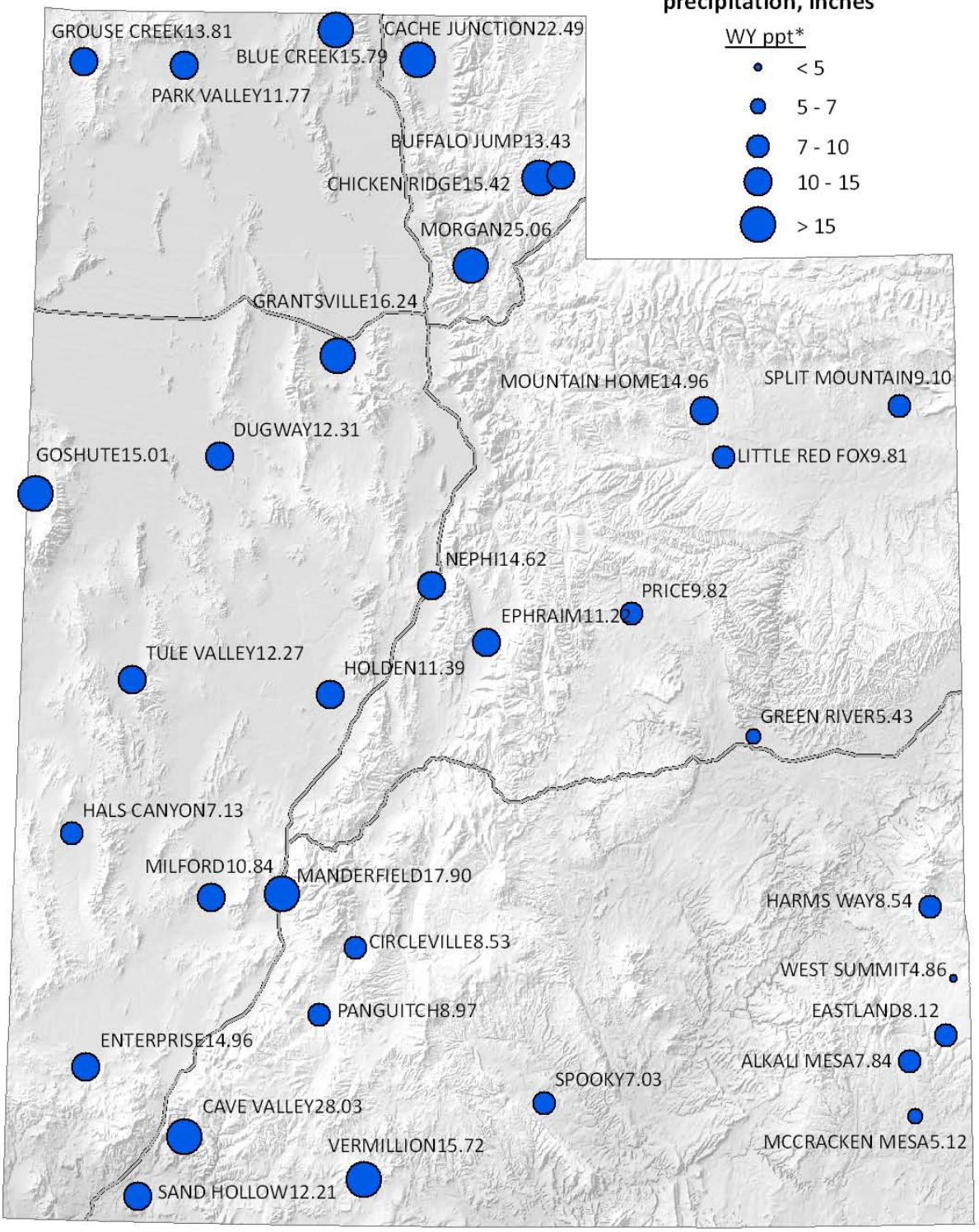
Explanation of soil water capacity definitions. Field capacity (FC) and wilting point (WP) are calculated in the laboratory for each soil horizon. The amount of water held between field capacity and wilting point is plant available.



Visual explanation of soil water capacity definitions.

Utah SCAN Water Year Precipitation *

updated July 1, 2011



*since October 1, 2010. Data based on the first reading of the day.
**since May 1, 2011

Provisional Data Subject to Revision

Prepared by the USDA/NRCS Utah DCO
Salt Lake City, Utah
http://www.wcc.nrcs.usda.gov/scan/Utah/utah.html
Science contact: Karen Vaughan
(karen.vaughan@ut.usda.gov)

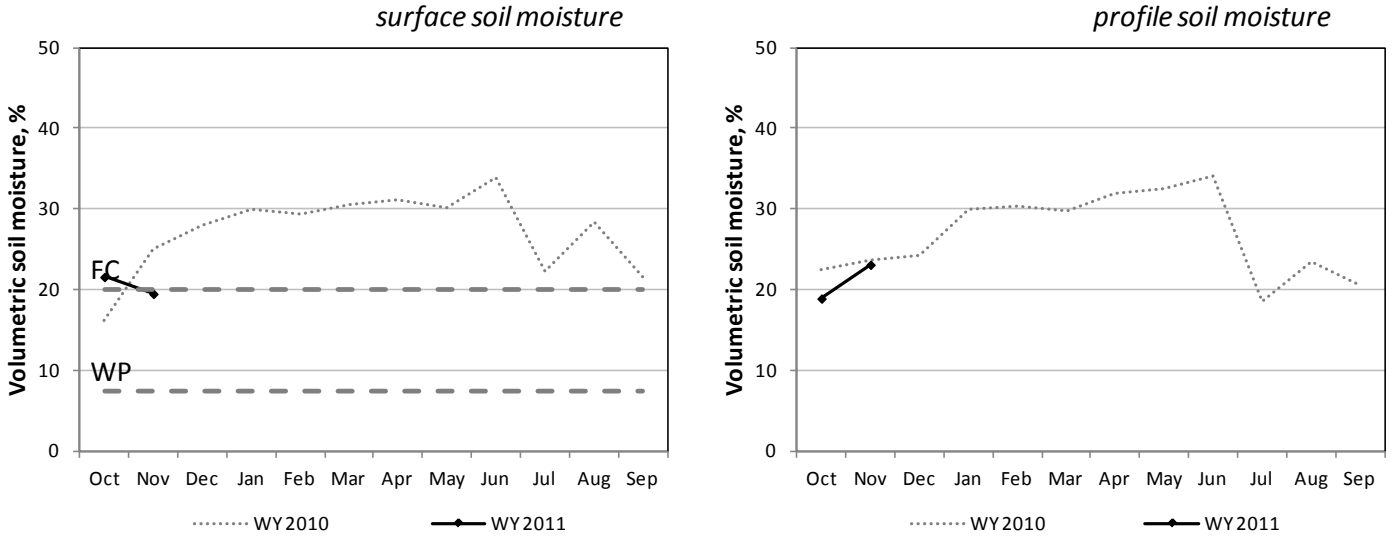
North Central

Soil Climate Analysis Network (SCAN)

Site name	County	Precip to Date*	Monthly Precip	Avg Air Temp	Soil Moisture					Soil Temperature				
					2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
		in.	*in.*	*°F*	*volume %*					*°F*				
NORTH CENTRAL														
Blue Creek	*Box Elder*	2.2	2.2	42	23	23	24	23	20	42	44	46	49	54
Cache Junction	*Cache*	1.6	1.6	40	18	20	25	24	28	42	44	44	48	53
Grantsville	*Tooele*	1.0	1.0	45	8	2	22	26	26	45	48	51	58	64

*since October 1, 2010. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. 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

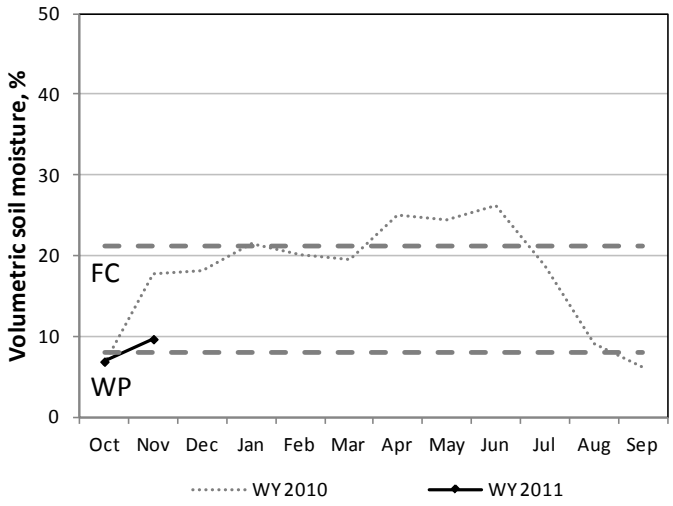
Soil Climate Analysis Network (SCAN)

Site name	County	Precip to Date*	Monthly Precip	Avg Air Temp	Soil Moisture					Soil Temperature				
					2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
		in.	*in.*	*°F*	*volume %*					*°F*				
NORTHERN MOUNTAINS														
Chicken Ridge	*Morgan*	1.2	1.2	6	5	5	11	6	11	38	39	38	38	38
Buffalo Jump	*Rich*	0.6	0.6	42	8	10	11	8	-	42	43	44	47	-
Morgan	*Morgan*	0.8	0.8	38	7	9	13	9	7	43	43	46	47	50

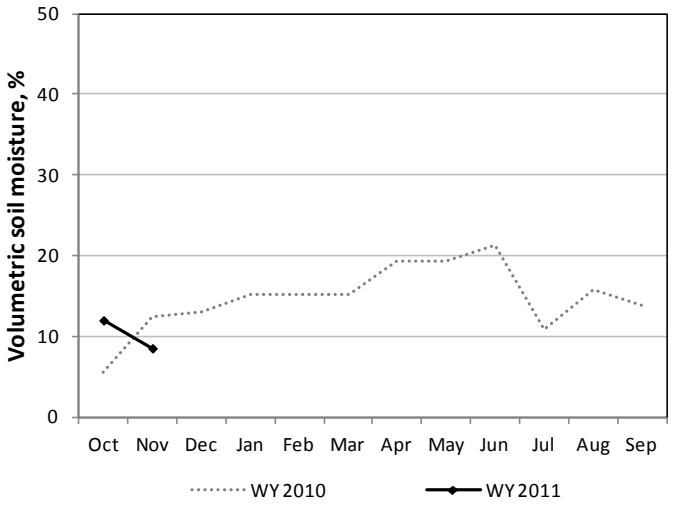
*since October 1, 2010. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

Northern Mountains

surface soil moisture



profile soil moisture



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

Uintah Basin

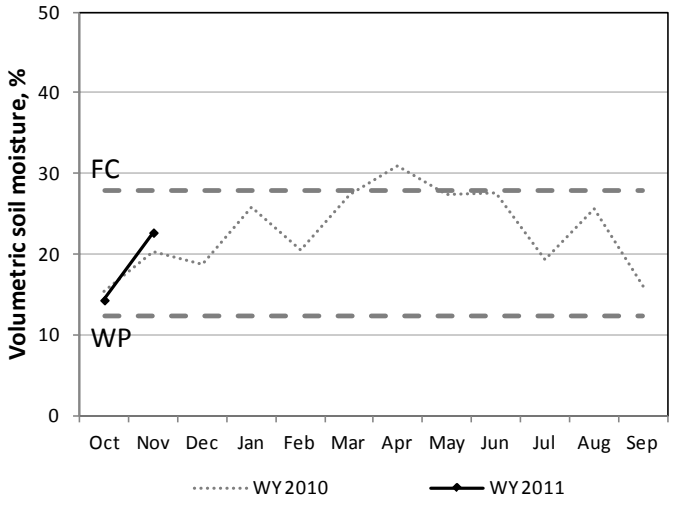
Soil Climate Analysis Network (SCAN)

Site name	County	Precip to Date*	Monthly Precip	Avg Air Temp	Soil Moisture					Soil Temperature				
					2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
		in.	*in.*	*°F*	*volume %*					*°F*				
UINTAH BASIN														
Mountain Home	*Duchesne*	2.0	2.0	39	31	33	23	18	11	38	39	41	44	48
Little Red Fox	*Duchesne*	1.4	1.4	37	10	26	29	35	42	37	43	45	47	52
Split Mountain	*Uintah*	1.5	1.5	38	10	24	17	11	12	37	41	44	49	56

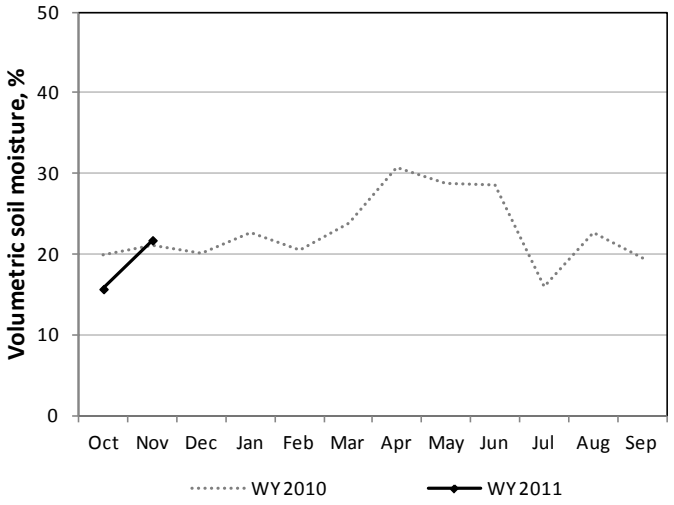
*since October 1, 2010. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

Uintah Basin

surface soil moisture



profile soil moisture



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

Southeast

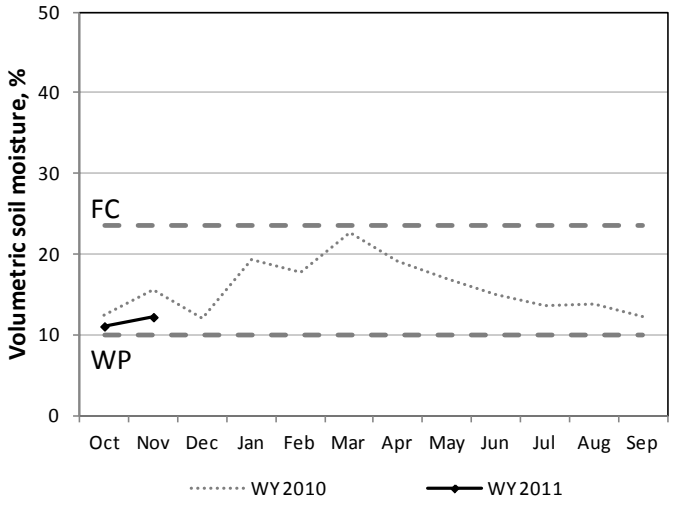
Soil Climate Analysis Network (SCAN)

Site name	County	Precip to Date*	Monthly Precip	Avg Air Temp	Soil Moisture					Soil Temperature				
					2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
		in.	*in.*	*^{o}F*	*volume %*					*^{o}F*				
SOUTHEAST														
Price	*Carbon*	1.6	1.6	42	2	16	19	16	20	42	47	49	53	57
Green River	*Emery*	1.0	1.0	39	14	13	8	5	8	41	43	47	52	60
Harm's Way	*San Juan*	0.9	0.9	41	7	3	13	14	7	47	40	48	50	54
West Summit	*San Juan*	0.7	0.7	42	11	15	13	14	18	36	39	45	46	52
Eastland	*San Juan*	#N/A	N/A	#N/A	###	###	###	###	###	###	###	###	###	###
Alkali Mesa	*San Juan*	1.5	1.5	49	9	10	15	18	13	45	43	49	53	56
McCracken Mesa	*San Juan*	1.1	1.1		19	13	12	15	13	47	51	52	56	61

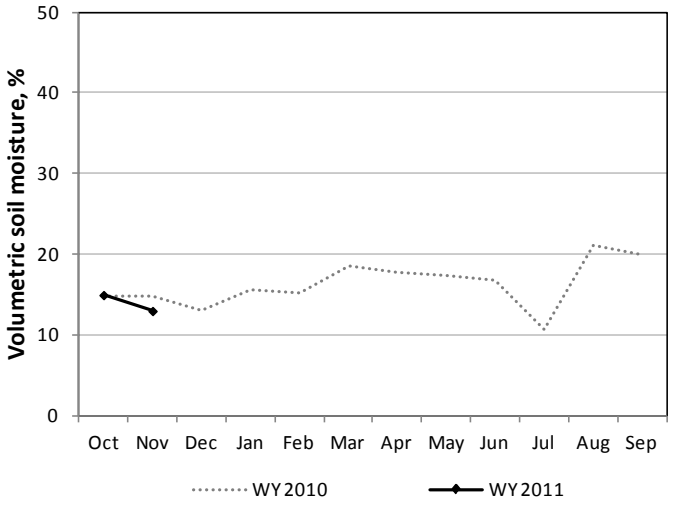
*since October 1, 2010. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

Southeast

surface soil moisture



profile soil moisture



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

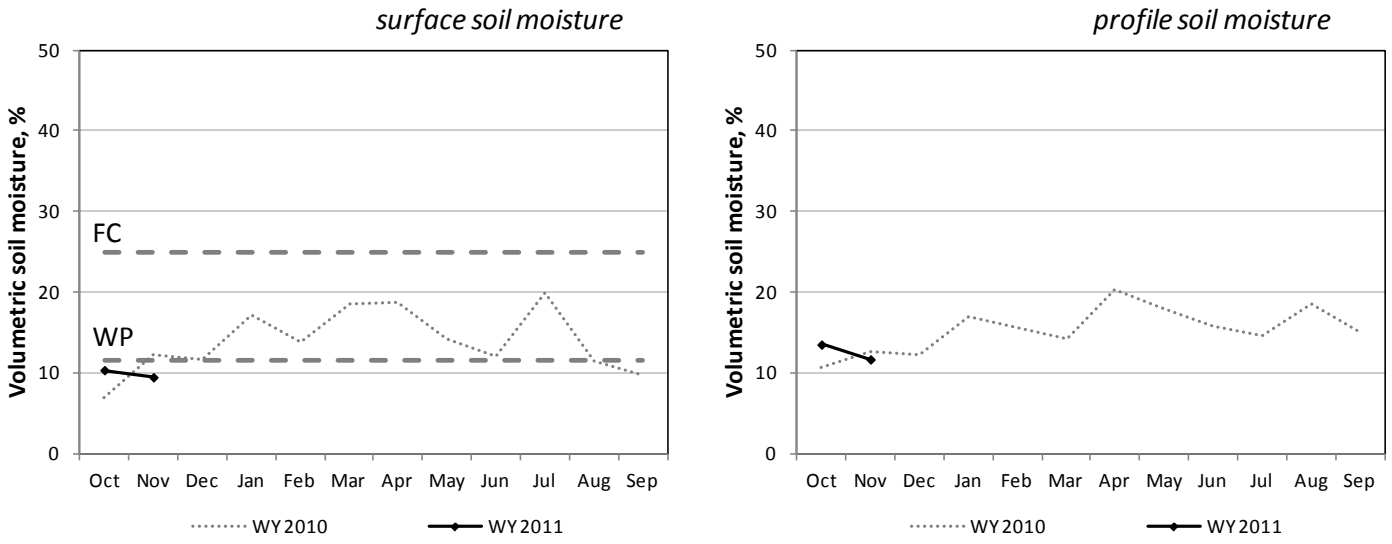
South Central

Soil Climate Analysis Network (SCAN)

Site name	County	Precip to Date*	Monthly Precip	Avg Air Temp	Soil Moisture					Soil Temperature				
					2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
		in.	*in.*	*°F*	*volume %*					*°F*				
SOUTH CENTRAL														
Nephi	*Juab*	1.7	1.7	45	15	18	18	8	1	46	47	48	51	56
Ephraim	*Sanpete*	0.9	0.9	39	6	13	17	15	35	38	44	46	49	54
Holden	*Millard*	1.4	1.4	44	5	6	6	13	14	46	47	49	52	58
Milford	*Beaver*	1.2	1.2	40	15	18	15	27	17	44	48	49	54	59
Manderfield	*Beaver*	1.9	1.9	42	4	19	12	11	5	43	47	47	49	52
Circleville	*Piute*	1.0	1.0	39	24	9	11	8	8	43	41	43	50	32
Panguitch	*Garfield*	1.3	1.3	37	8	16	12	20	36	34	35	37	44	49
Cave Valley	*Washington*	2.2	2.2	44	0	2	3	5	7	43	46	48	50	51
Vermillion	*Kane*	1.3	1.3	49	2	1	2	3	8	37	39	44	47	52
Spooky	*Kane*	N/A	N/A	49	2	3	2	12	2	49	47	51	55	58

*since October 1, 2010. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

South Central



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

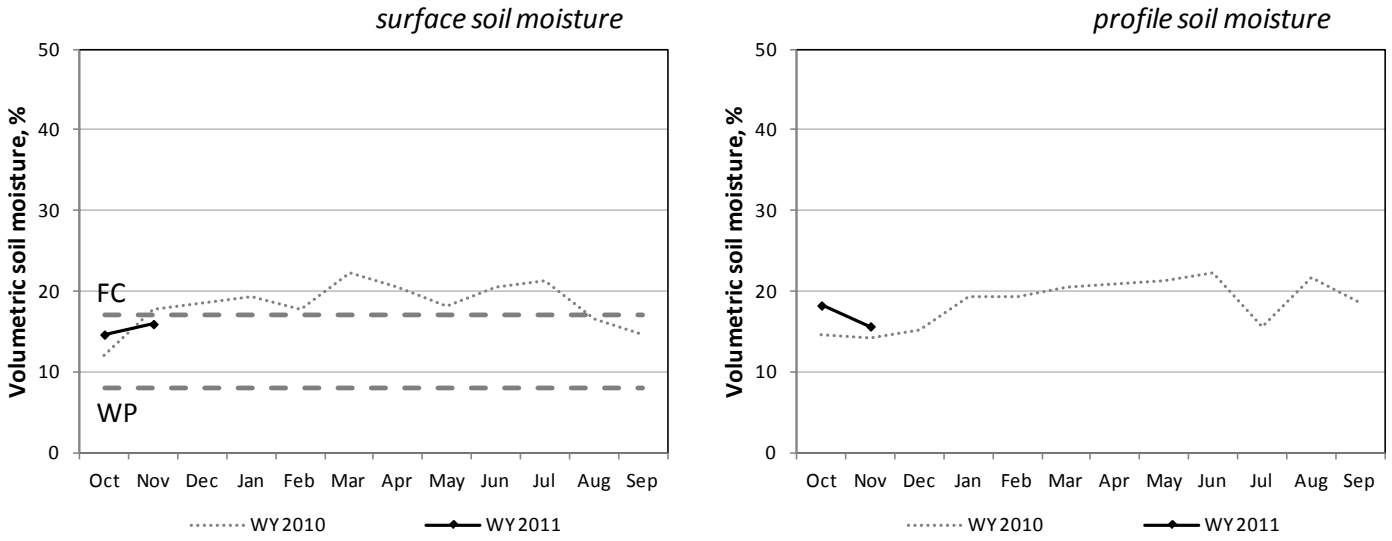
Western and Dixie

Soil Climate Analysis Network (SCAN)

Site name	County	Precip to Date*	Monthly Precip	Avg Air Temp	Soil Moisture					Soil Temperature				
					2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
		in.	*in.*	*°F*	*volume %*					*°F*				
WESTERN														
Grouse Creek	*Box Elder*	1.6	1.6	41	4	16	12	16	16	42	46	48	49	53
Park Valley	*Box Elder*	1.1	1.1	42	3	7	13	18	26	42	45	48	52	57
Goshute	*Tooele*	0.6	0.6	41	8	21	46	34	35	38	43	49	49	55
Dugway	*Tooele*	0.7	0.7	43	16	25	34	nd	11	43	47	49	53	55
Tule Valley	*Millard*	0.8	0.8	47	18	19	27	17	10	44	51	55	56	61
Hal's Canyon	*Millard*	1.6	1.6	44	2	10	11	9	9	43	47	49	53	59
Enterprise	*Washington*	1.3	1.3	42	8	22	20	14	15	44	51	51	53	59
DIXIE														
Sand Hollow	*Washington*	1.3	1.3	58	0	2	4	4	0	50	57	58	60	65

*since October 1, 2010, (nd) no data. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

Western & Dixie



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

2010 Minimum Soil Temperatures at Utah SCAN sites

Minimum soil temperatures and number of days less than or equal to 32°F.

Site Name	2-inch		4-inch		8-inch		20-inch		40-inch	
	min. temp	#	min. temp	#	min. temp	#	min. temp	#	min. temp	#
	°F	days	°F	days	°F	days	°F	days	°F	days
Alkali Mesa	23	34	22	45	29	5	34	0	36	0
Blue Creek	20	64	24	26	26	22	33	0	38	0
Buffalo Jump	19	125	24	121	26	113	31	68	R	
Cache Junction	22	83	24	54	27	50	34	0	38	0
Chicken Ridge	23	133	26	102	26	92	33	0	35	0
Circleville	19	82	21	96	21	127	29	29	37	0
Dugway	15	56	21	39	26	28	35	0	37	0
Eastland	28	38	31	23	32	0	34	0	36	0
Enterprise	23	52	29	32	30	27	34	0	40	0
Ephraim	18	105	26	56	30	6	35	0	38	0
Grantsville	22	65	27	42	32	7	38	0	46	0
Green River	15	99	16	94	21	89	27	44	35	0
Holden	26	27	27	29	29	21	33	0	41	0
Lightning Ridge	32	12	34	0	33	0	33	0	35	0
Little Red Fox	28	43	29	44	30	41	33	0	36	0
McCracken Mesa	26	55	31	8	33	0	36	0	40	0
Milford	22	43	27	26	29	11	36	0	42	0
Morgan	24	80	26	82	27	56	32	1	34	0
Mountain Home	25	27	28	19	30	11	34	0	38	0
Nephi	24	34	27	22	30	6	36	0	39	0
Panguitch	25	53	28	35	29	29	33	0	38	0
Price	15	79	21	71	25	50	32	0	37	0
Sand Hollow	33	0	36	0	40	0	43	0	46	0
Split Mountain	18	53	20	52	23	51	28	41	34	0
West Summit	20	53	22	55	28	6	33	0	36	0

min. temp, minimum temperature recorded; #, number of days less than or equal to 32°F; R, bedrock; site installation not complete in time to calculate 2010 frost depth at Harm's Way, Goshute, Hal's Canyon, Tule Valley, Vermillion, Cave Valley, Grouse Creek, Spooky, Manderfield, and Park Valley.

Utah Hydrologic Summary

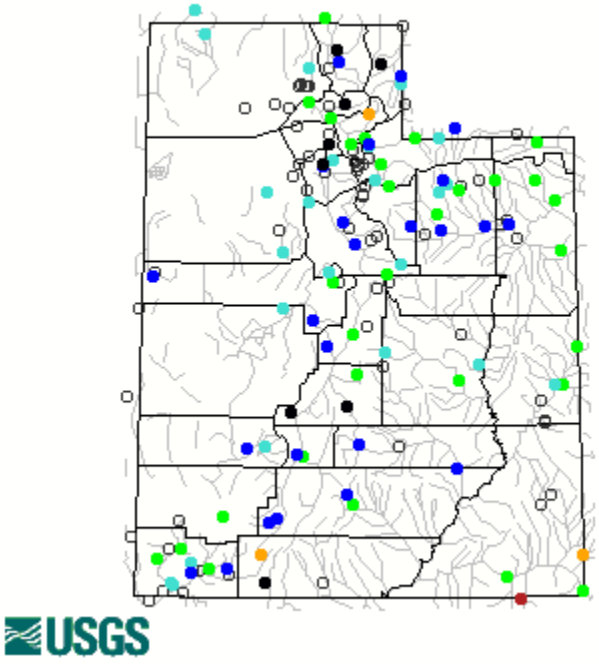
November 1, 2011

Current Conditions

Soil moisture is near average in northern Utah, above average in the south and much lower than the record high values seen last year. Precipitation in northern Utah ranged from near to much above normal (94%-171%) and was above to much above normal in southern Utah (122%-161%) for October. Snowpack's across the state are just beginning to form with recent storms. Reservoir storage is exceptionally high (85% of capacity compared to 60% last year) across the state with many reservoirs capable of filling prior to next year's snowmelt runoff. Current streamflow is average to well above average across the state. The climate outlook for this winter given the existing La Nina is for average to above snowpack's in northern Utah and likely much dryer conditions in southern Utah. All things considered – good soil moisture and excellent reservoir storage – the water supply outlook across the state is very good.

Current Utah Streamflow - Courtesy US Geological Survey

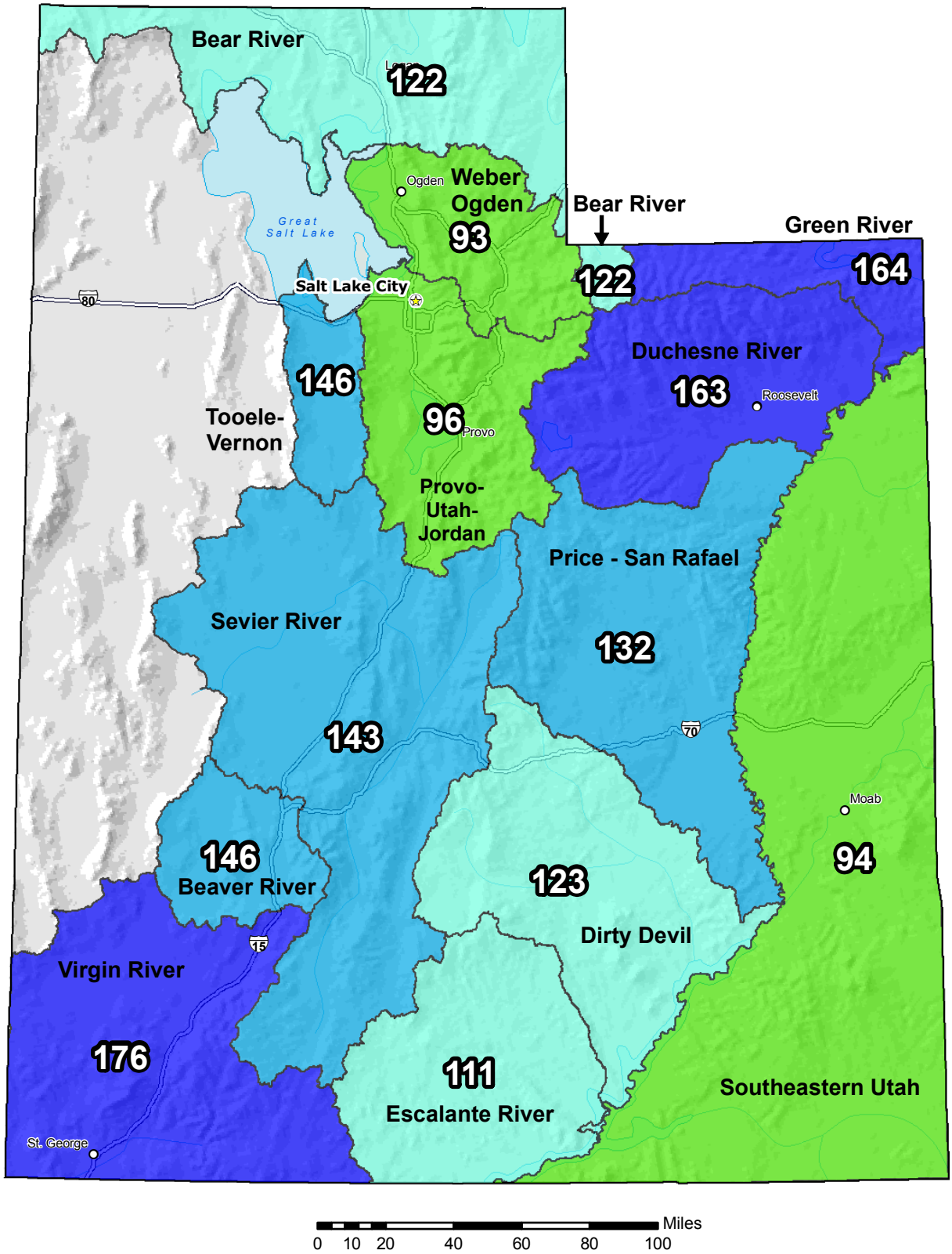
Wed., Nov. 02, 2011 09:30ET



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

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

Nov 01, 2011



Water Year (Oct 1) to Date Precipitation Basin-wide Percent of 1971-2000 Normal

- unavailable *
- <50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- >=150%

* *Data unavailable at time of posting or measurement is not representative at this time of year*

Provisional Data Subject to Revision

USDA NRCS

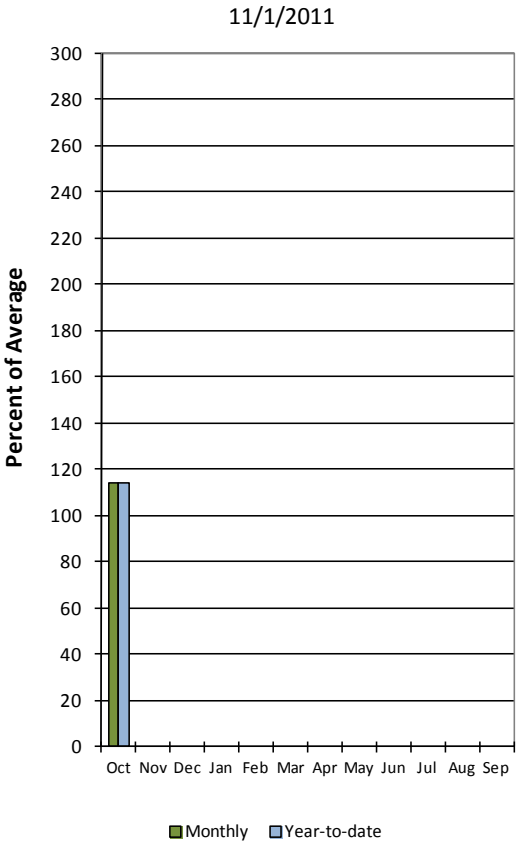
The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by the USDA/NRCS National Water and Climate Center
Portland, Oregon http://www.wcc.nrcs.usda.gov/gis/
Based on data from http://www.wcc.nrcs.usda.gov/reports/
Science contact: Jim.Marron@por.usda.gov 503 414 3047

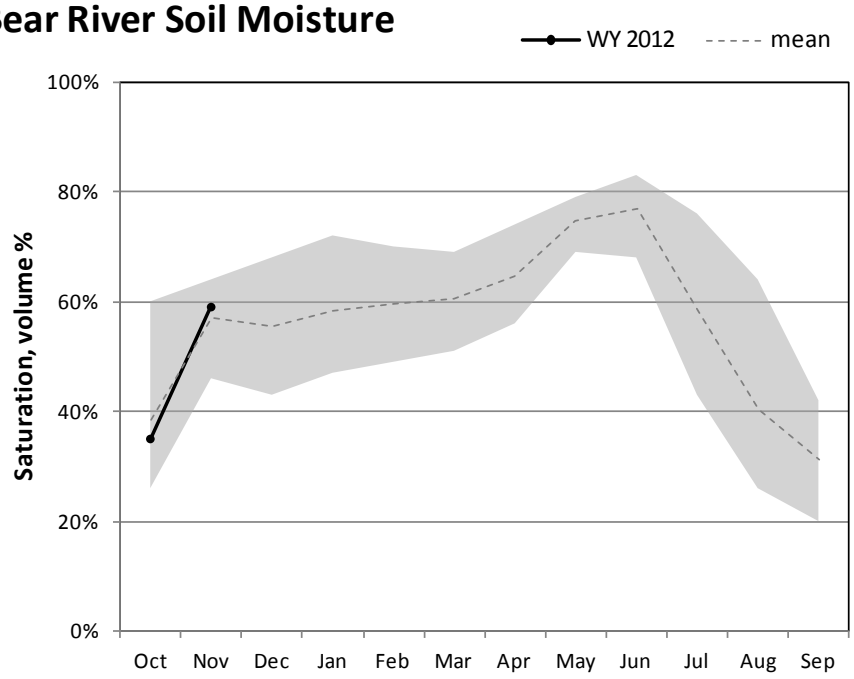
Bear River Basin
November 1, 2011

Precipitation in October was above average at 114%. Reservoir storage is near average at 78% of capacity, which is 48% higher than this time last year. Soil moisture is at 59% compared to 64% last year.

Bear River Precipitation

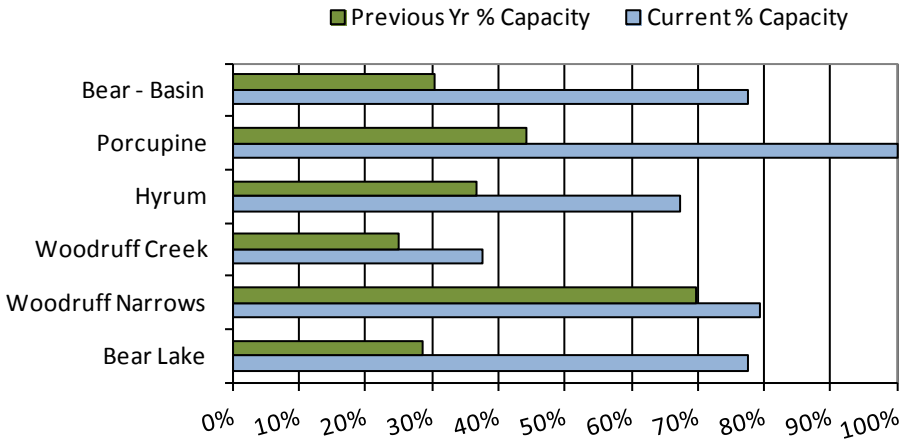


Bear River Soil Moisture



Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

November Bear River Reservoir Storage

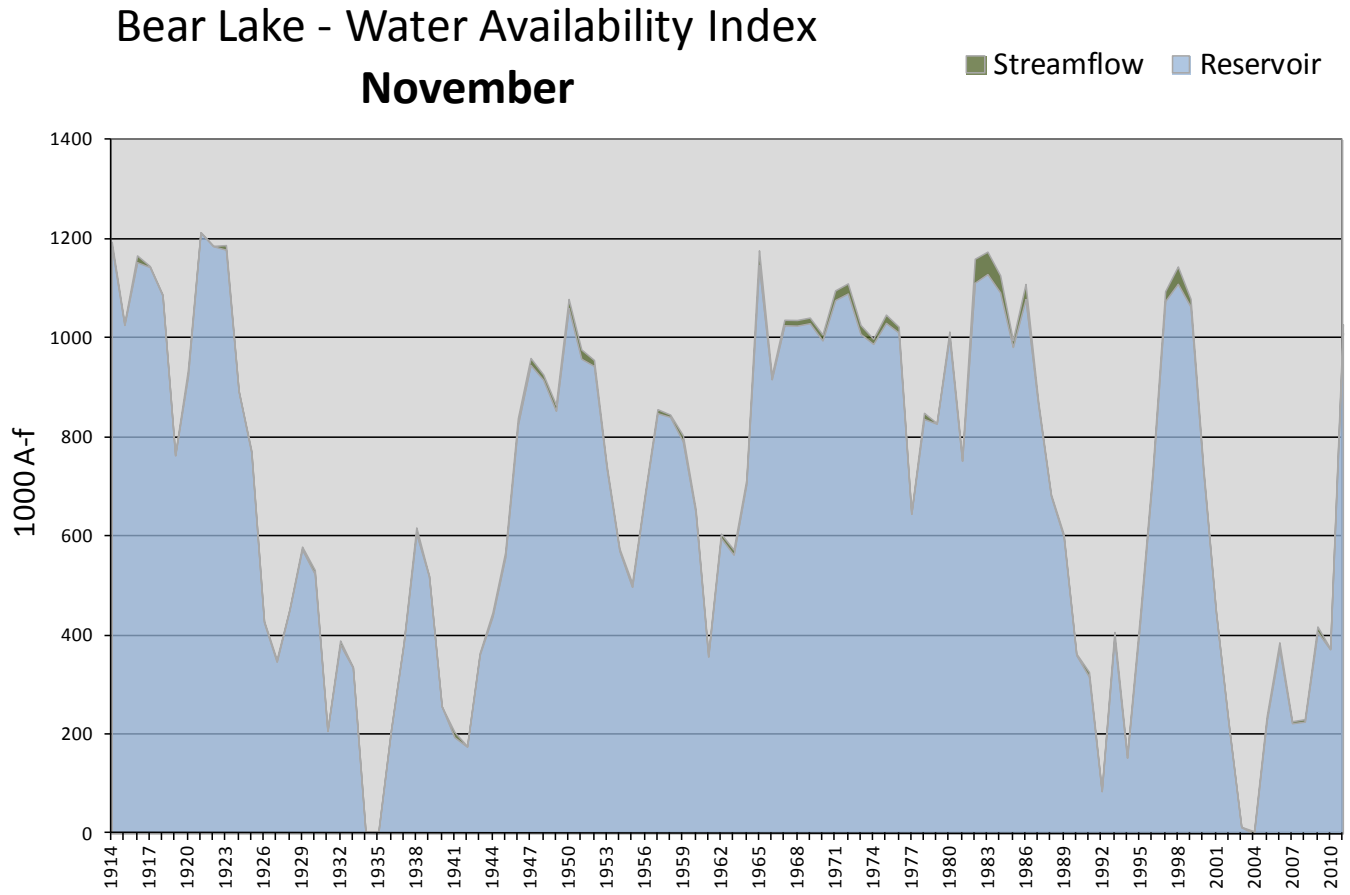


November 1, 2011

Water Availability Index

Basin or Region	October EOM* Bear Lake	October accumulated inflow to Bear Lake (*observed*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Bear River	**1010**	**18**	**1028**	**2.15**	**76**	**68, 15, 73, 76**

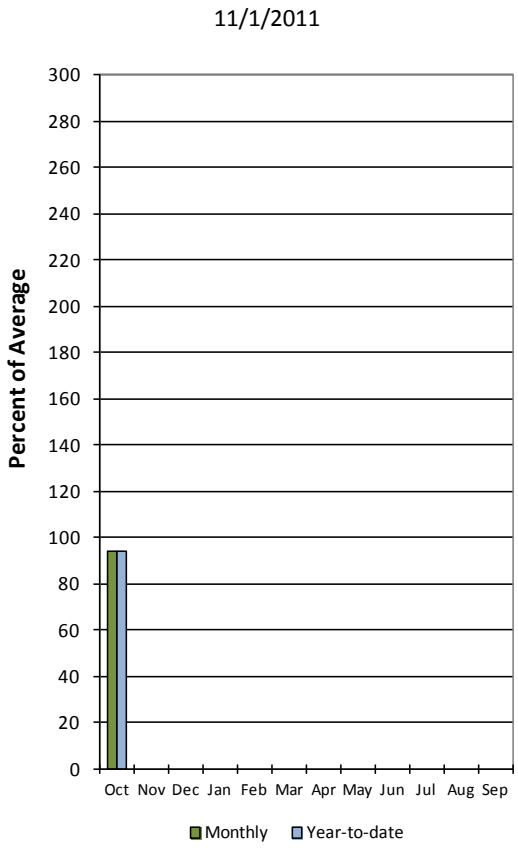
**EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.*



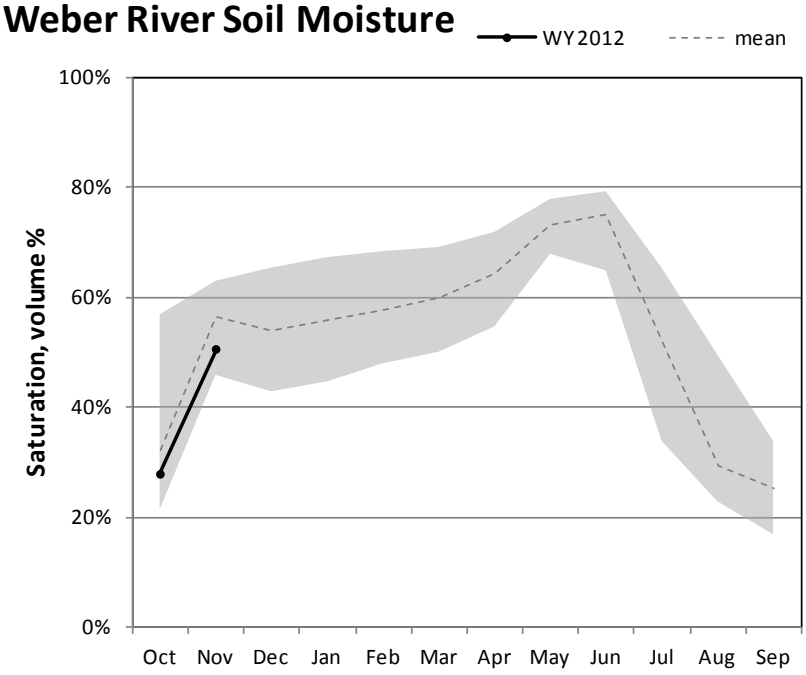
Weber and Ogden River Basin
November 1, 2011

Precipitation in October, first month of the 2012 water year, was average at 94%. Reservoir storage is at 80% of capacity, which is 16% higher than this time last year. Soil moisture is at 51% compared to 63% last year.

Weber River Precipitation

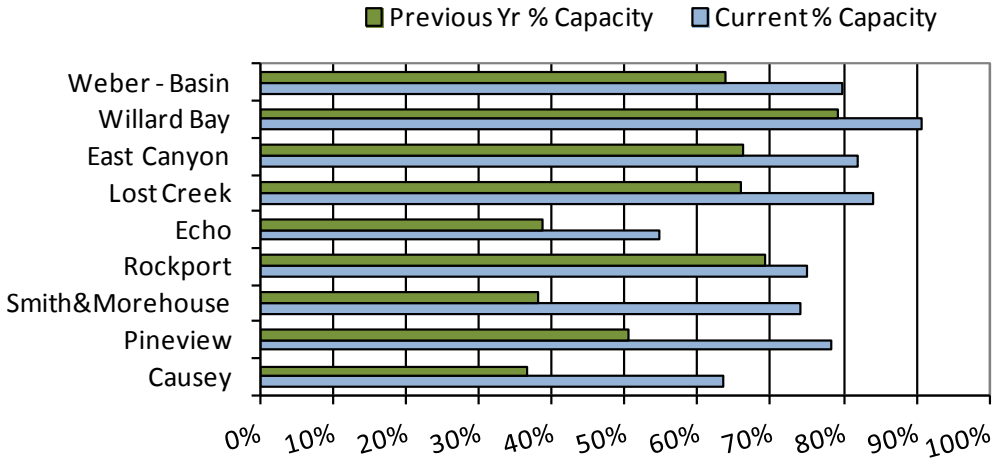


Weber River Soil Moisture



Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

November Weber Basin Reservoir Storage

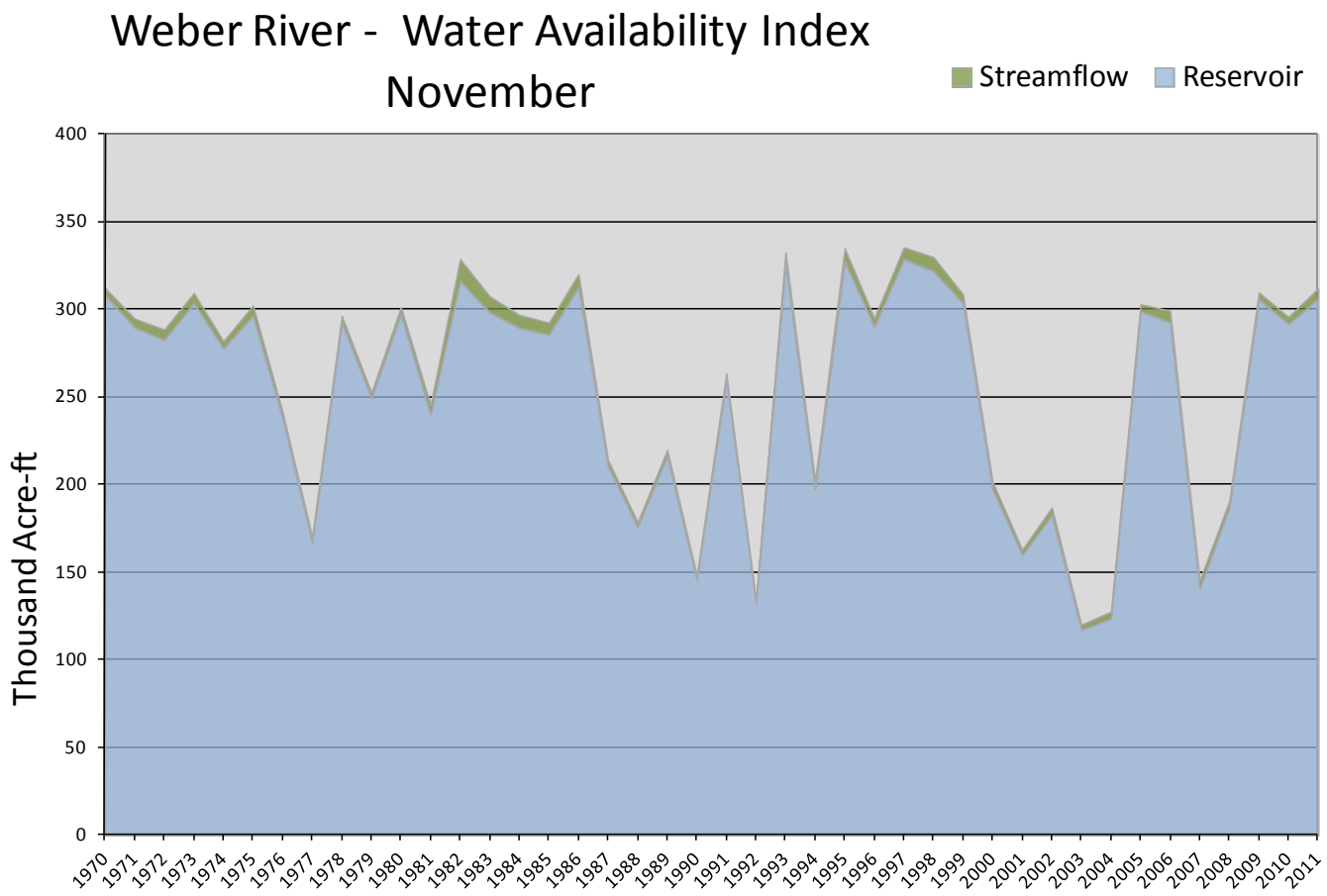


November 1, 2011

Water Availability Index

Basin or Region	October EOM* Reservoirs	October accumulated flow at Weber near Oakley (*observed*)	Reservoirs + Streamflow	WAI[#]	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Weber River	**306**	**5.9**	**312**	**2.62**	**81**	**73, 09, 70, 86**

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

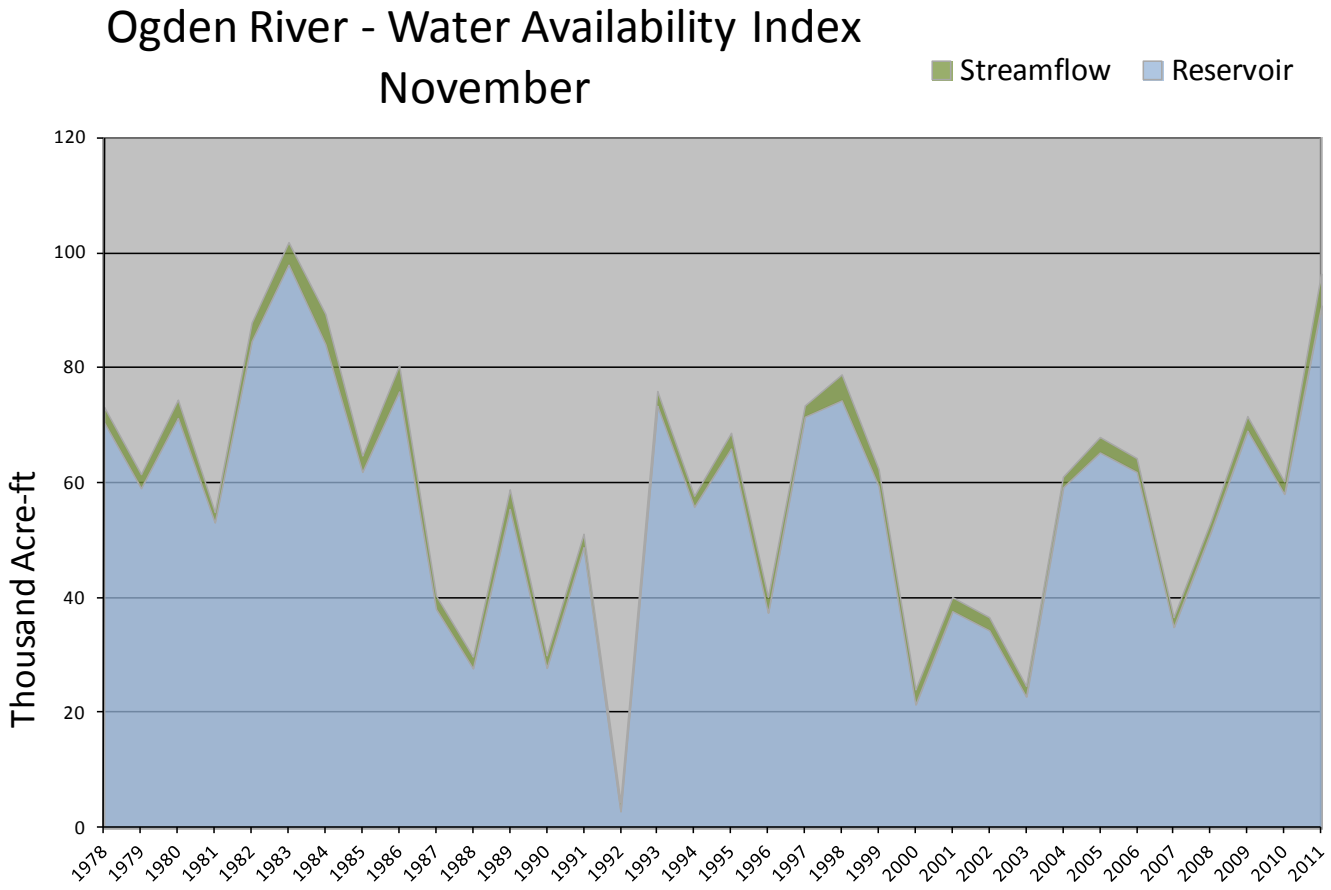


November 1, 2011

Water Availability Index

Basin or Region	October EOM* Pine View & Causey	October accumulated flow at South Fork Ogden (*observed*)	Reservoir + Streamflow	WAI[#]	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Ogden River	**90.8**	**5.7**	**96.5**	**3.69**	**94**	**83, 84, 82, 86**

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

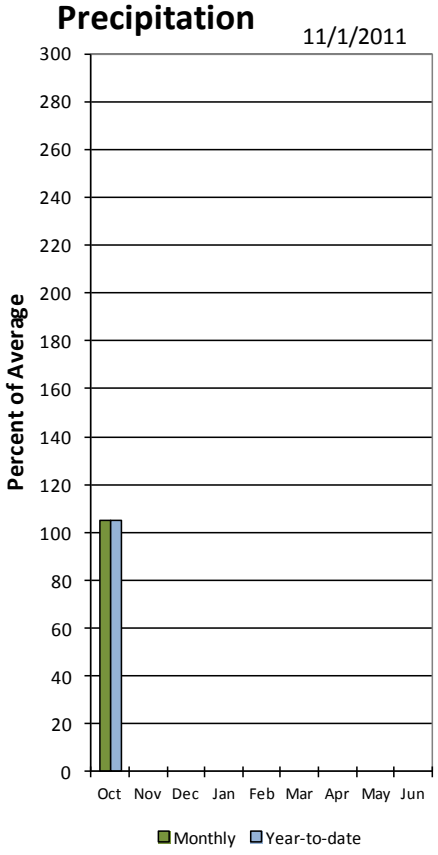


Utah Lake, Jordan River, & Tooele Valley Basins

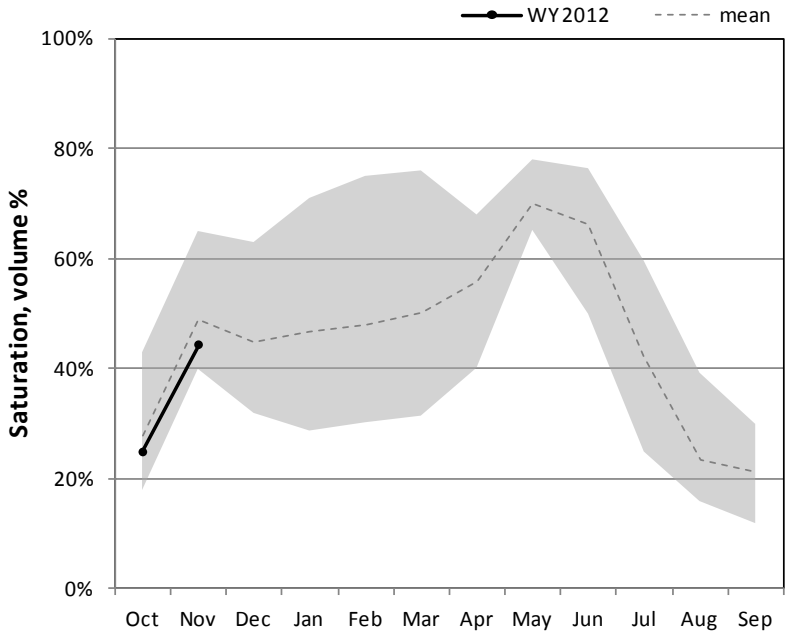
November 1, 2011

Precipitation in October was near average at 105%. Reservoir storage is at 93% of capacity, which is 11% more than this time last year. Soil moisture is at 44% compared to 52% last year at this time.

Jordan/Provo River Precipitation

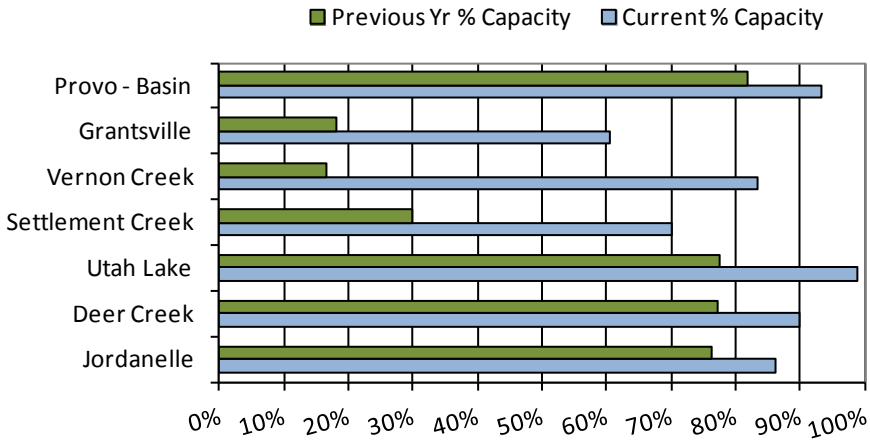


Jordan / Provo River Soil Moisture



Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

November Provo River Reservoir Storage

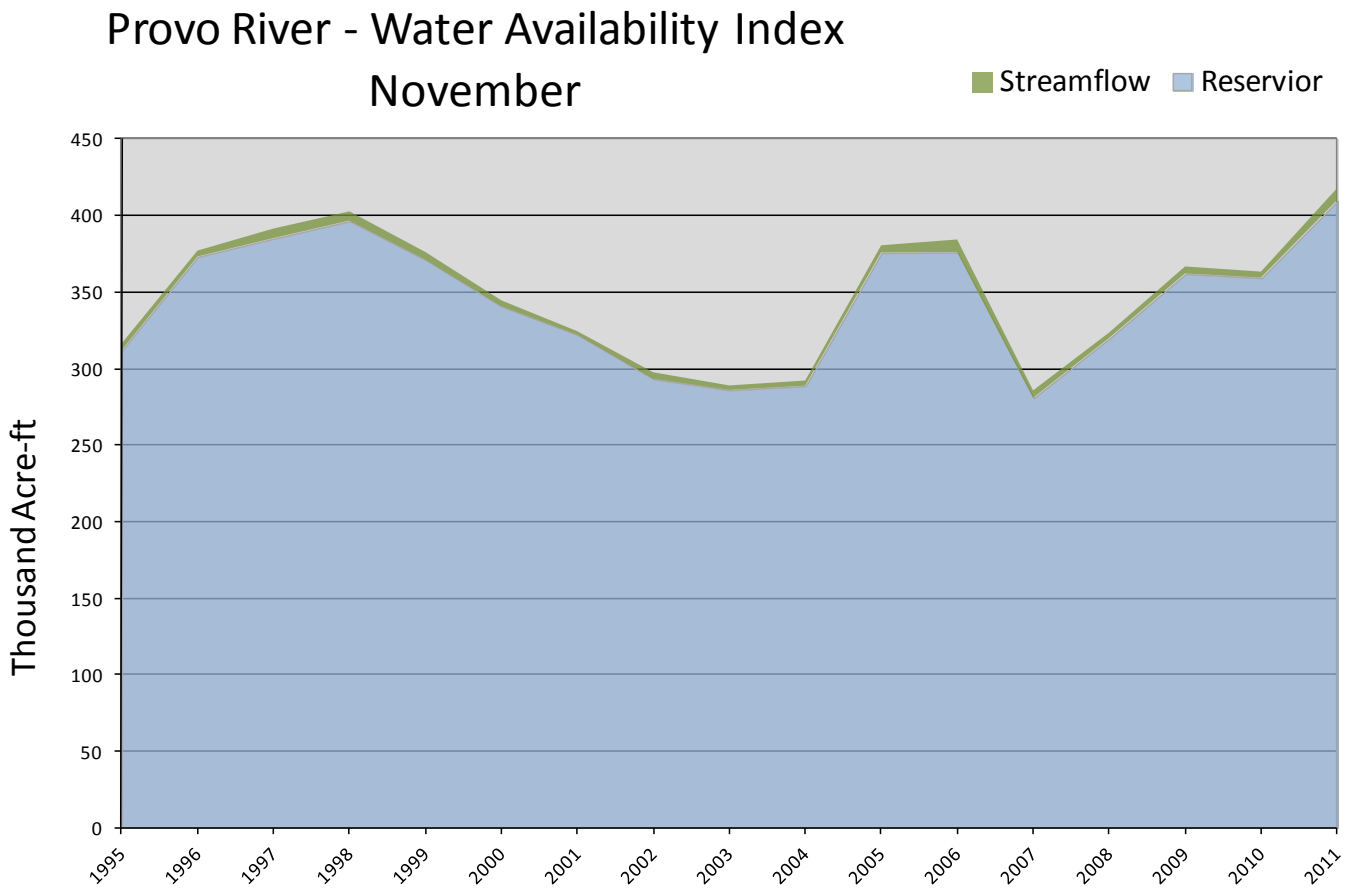


November 1, 2011

Water Availability Index

Basin or Region	October EOM* Deer Creek, Jordanelle	October accumulated flow Provo River at Woodland (*observed*)	Reservoir + Streamflow	WAI[#]	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Provo	**410**	**7.8**	**418**	**3.70**	**94%**	**98, 97, 06, 05**

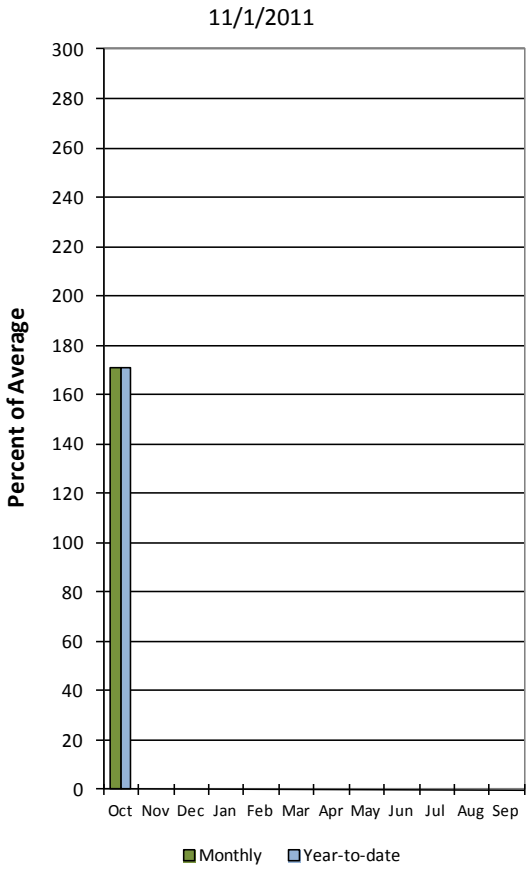
**EOM, end of month; [#] WAI, water availability index; ^KAF, thousand acre-feet.*



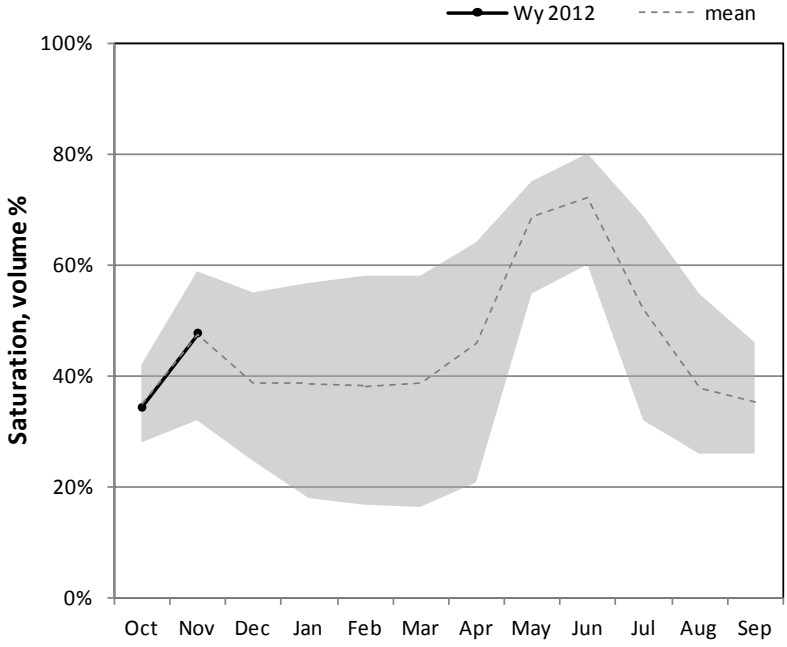
Uintah Basin and Dagget SCDs
November 1, 2011

Precipitation in October, first month of the 2012 water year, was much above average at 171%. Reservoir storage is at 88% of capacity, 2% higher than this time last year. Soil moisture is at 48% compared to 59% last year.

Uintah Precipitation

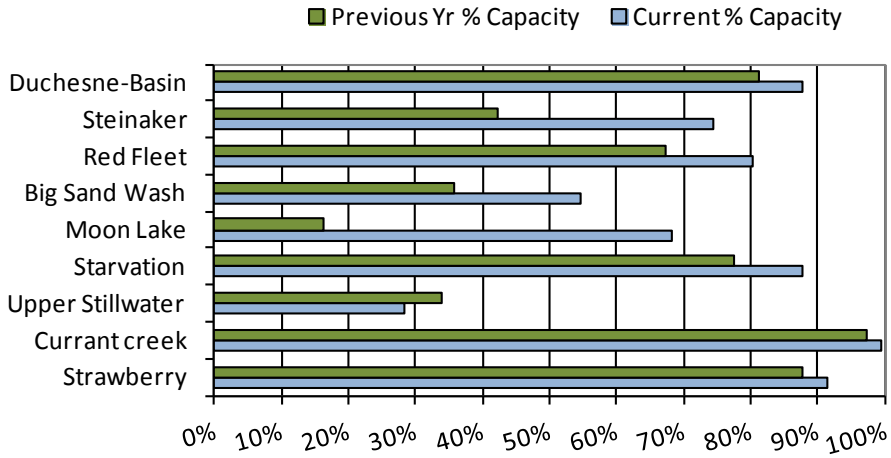


Uintah Basin Soil Moisture



Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

November Uintah Basin Reservoir Storage

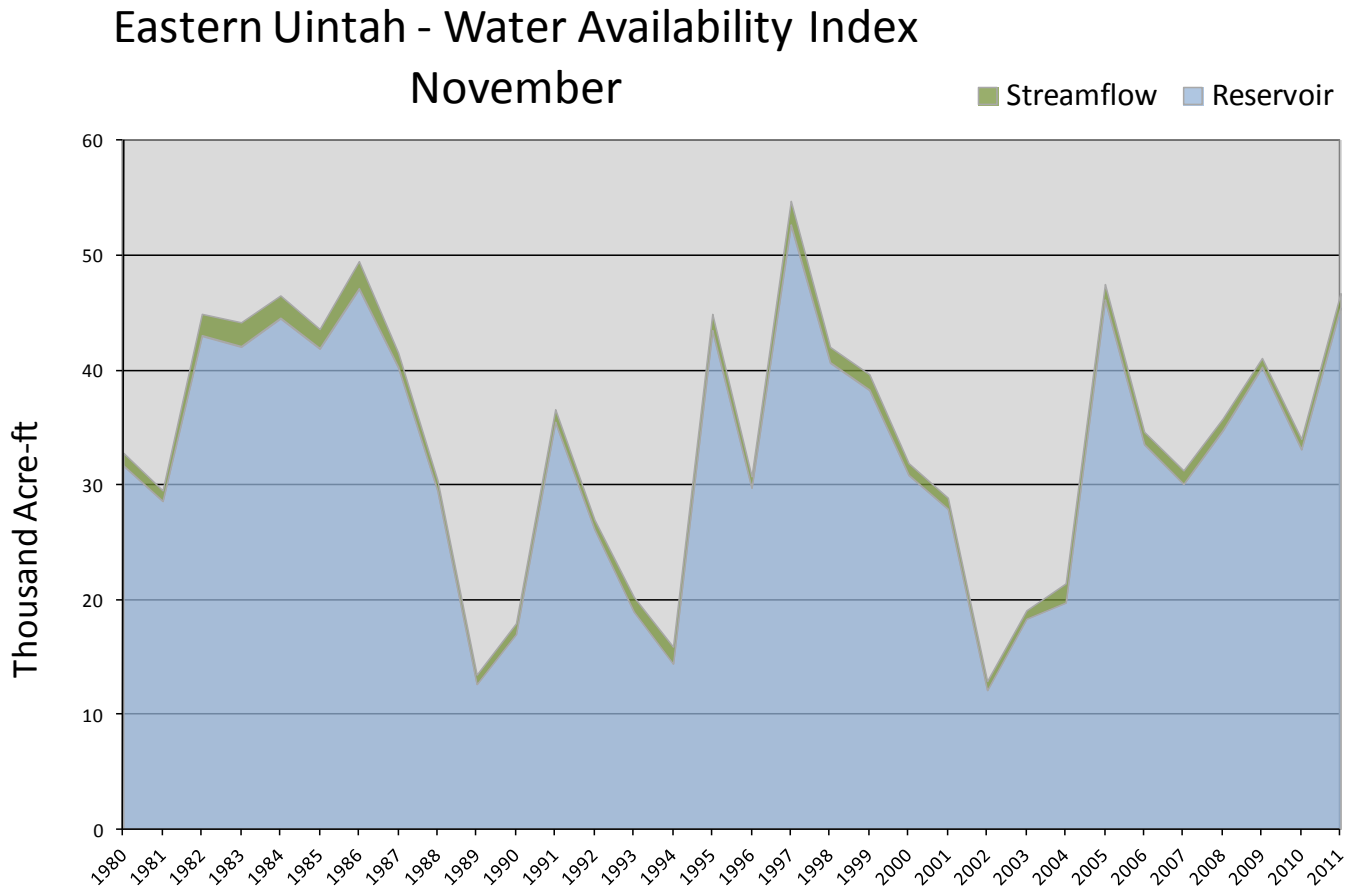


November 1, 2011

Water Availability Index

Basin or Region	October EOM* Red Fleet and Steinaker	October accumulated flow Big Brush Creek (*observed*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Eastern Uintah	**45.5**	**1.2**	**46.7**	**3.16**	**88**	**86, 05, 84, 82**

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

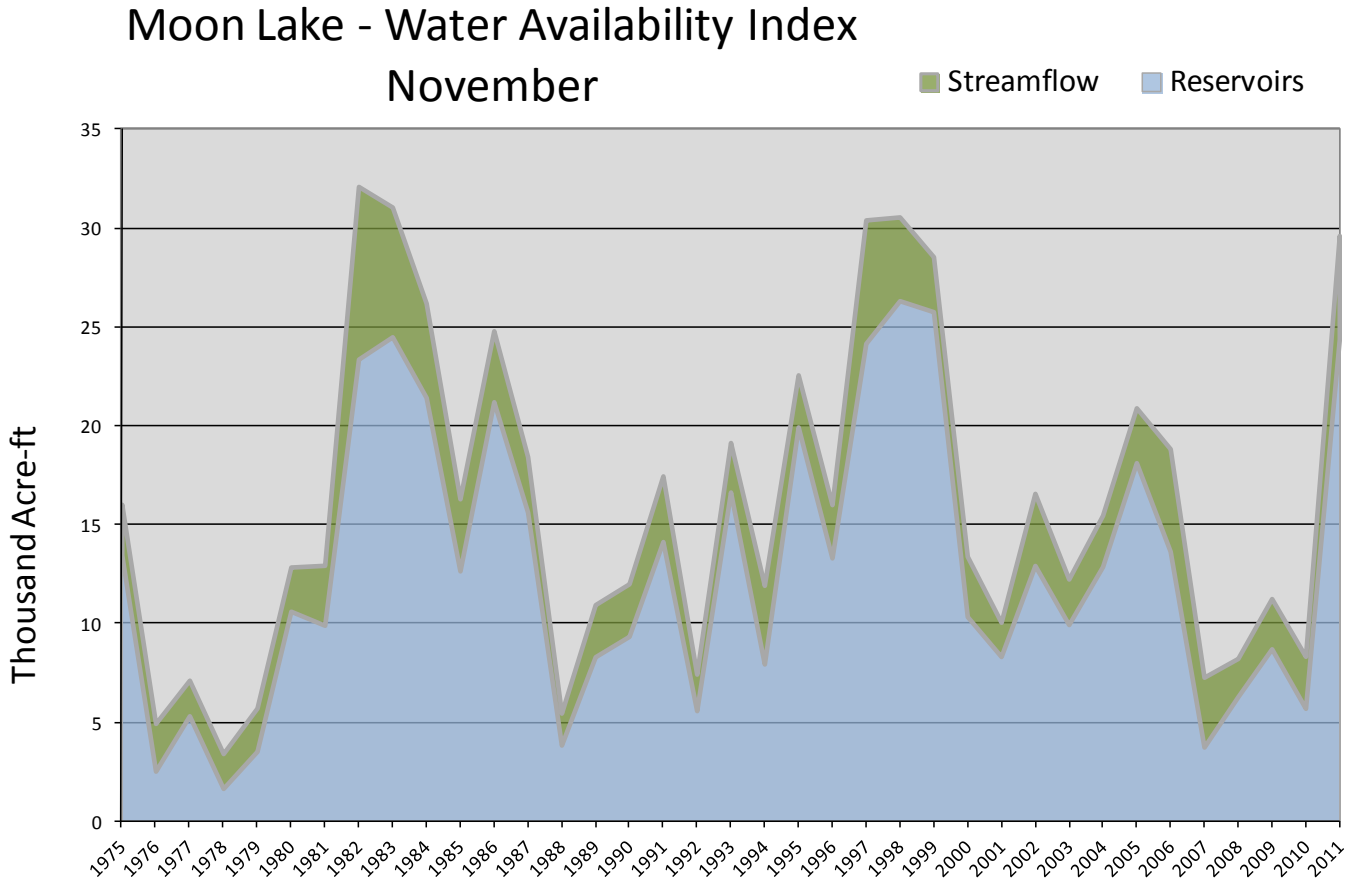


November 1, 2011

Water Availability Index

Basin or Region	Octoter EOM* Moon Lake	October accumulated flow Lake Fork Creek above Moon Lake (*observed*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Moon Lake	**24.4**	**5.2**	**29.6**	**3.07**	**87**	**98, 97, 99, 84**

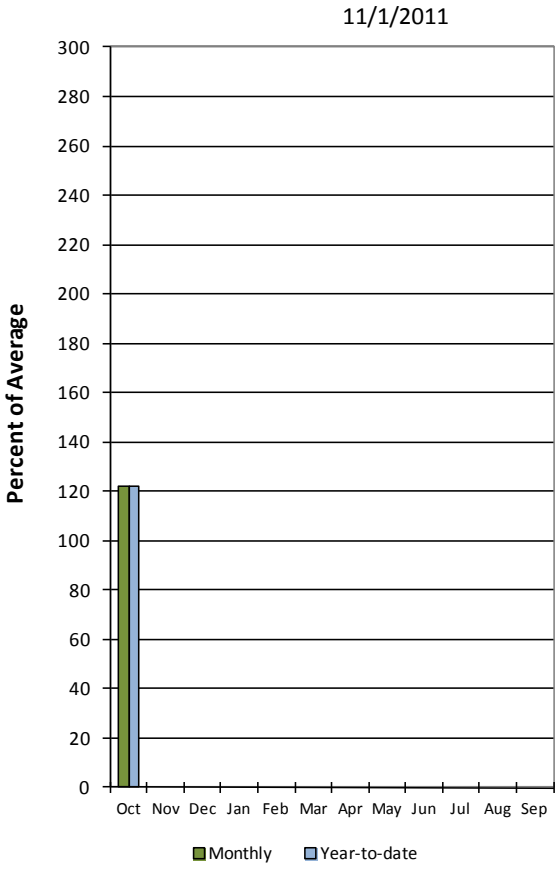
**EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.*



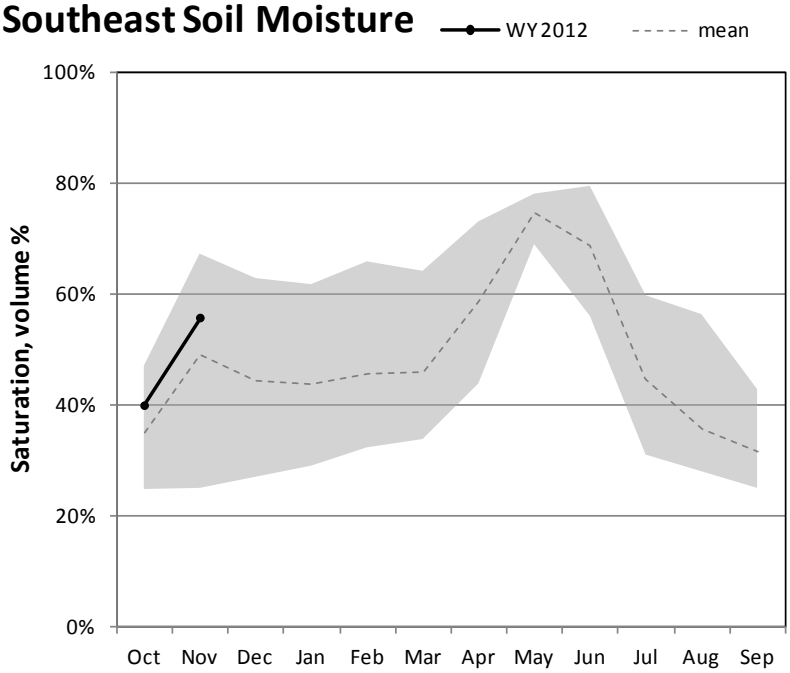
Southeast – Carbon, Emery, Wayne, Grand, and San Juan Counties
November 1, 2011

Precipitation in October, the first month of the 2012 water year was above average at 122%. Reservoir storage is at 73% of capacity, which is 27% higher at this time last year. Soil moisture is at 56% compared to 67% last year.

Southeast Utah Precipitation

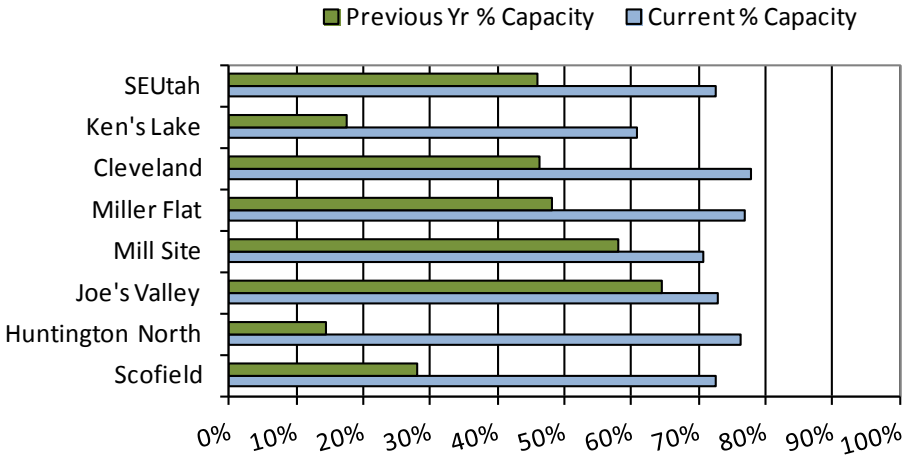


Southeast Soil Moisture



Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

November Southeast Utah Reservoir Storage

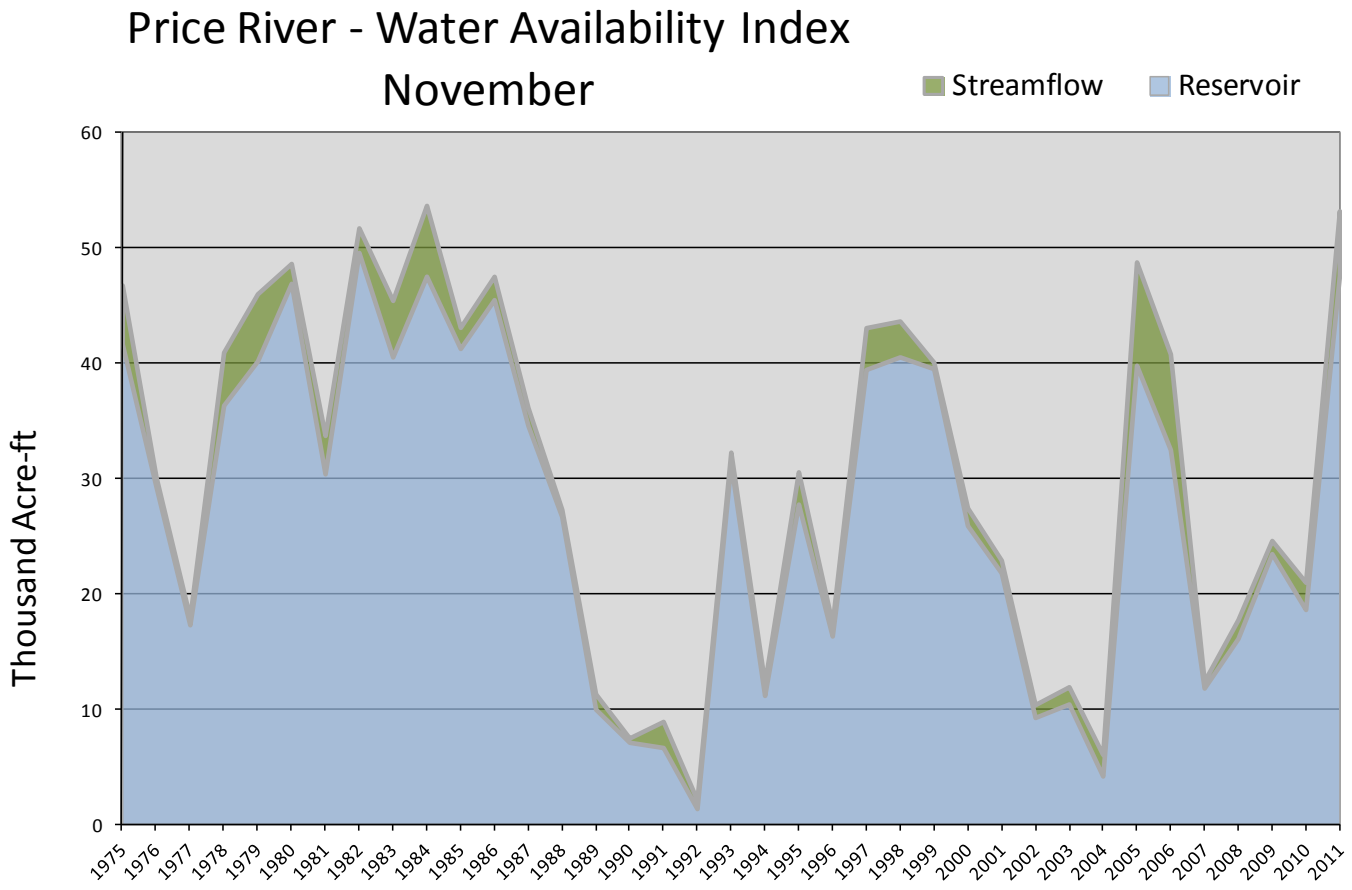


November 1, 2011

Water Availability Index

Basin or Region	October EOM* Scofield	October accumulated inflow to Scofield (*calculated*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Price River	**47.7**	**5.6**	**53.3**	**3.73**	**95**	**80, 05, 82, 84**

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

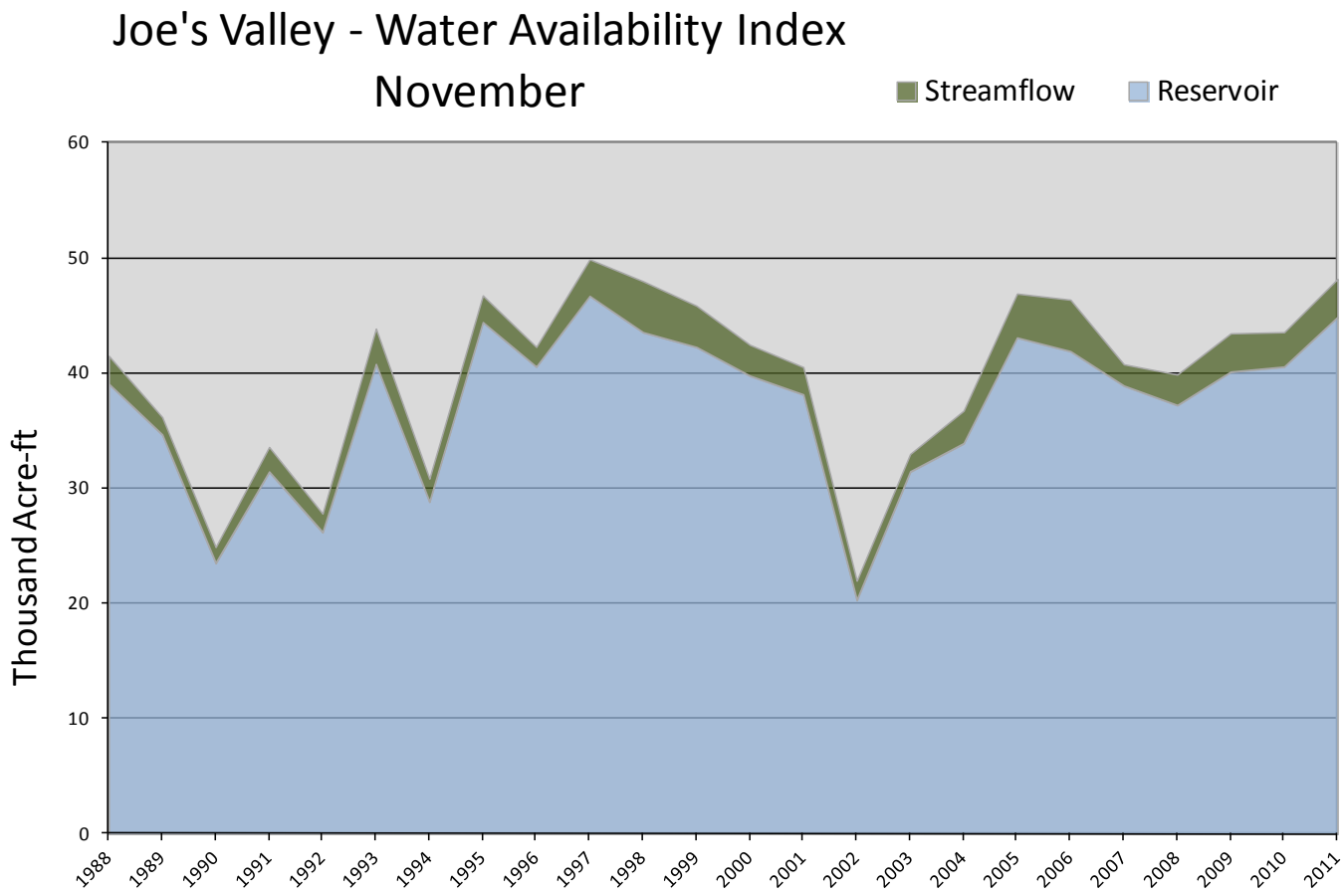


November 1, 2011

Water Availability Index

Basin or Region	October EOM* Joe's Valley	October accumulated inflow to Joe's Valley (*calculated*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Joe's Valley	**44.9**	**3.3**	**48.2**	**3.50**	**92**	**95, 05, 98, 97**

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

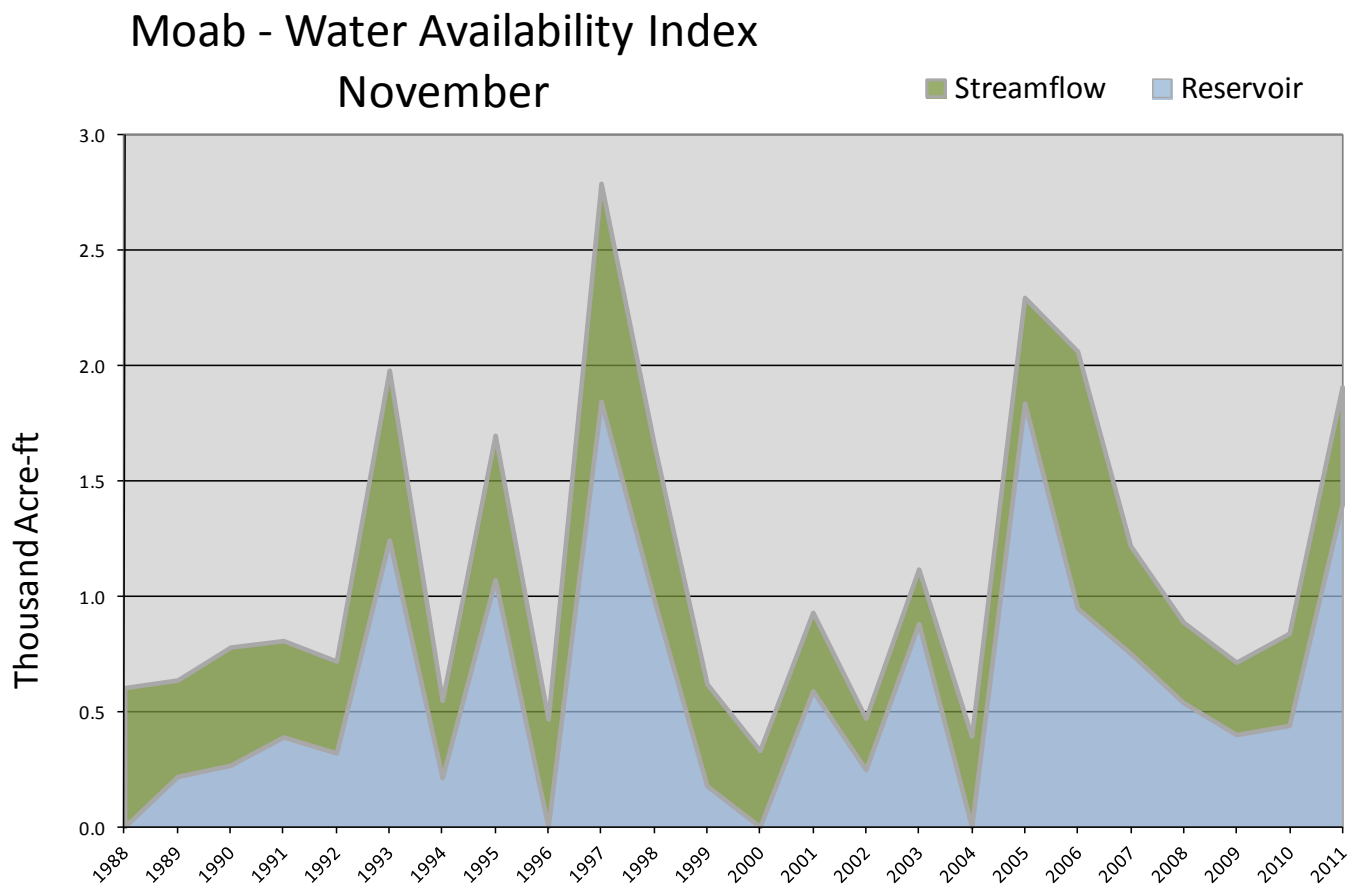


November 1, 2011

Water Availability Index

Basin or Region	October EOM* Ken's Lake Reservoir	October accumulated flow Mill Creek at Sheley (*observed*)	Reservoir + Streamflow	WAI[#]	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Moab	**1.4**	**0.5**	**1.9**	**2.50**	**80**	**98, 95, 93, 06**

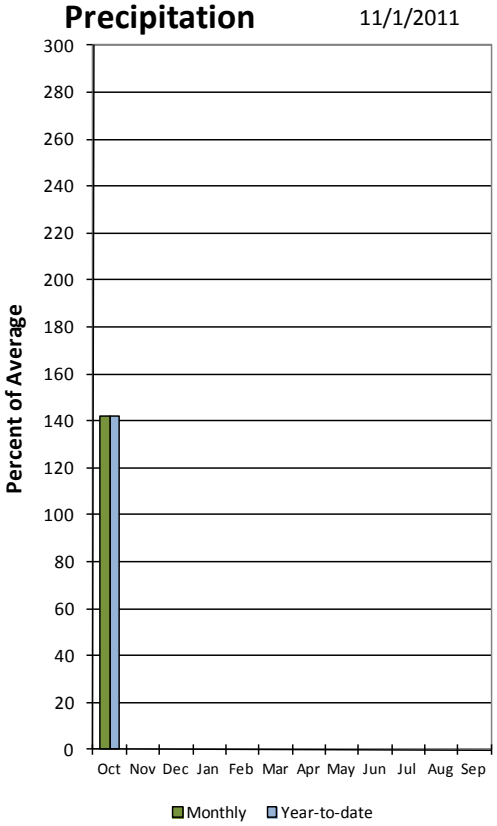
**EOM, end of month; [#] WAI, water availability index; ^KAF, thousand acre-feet.*



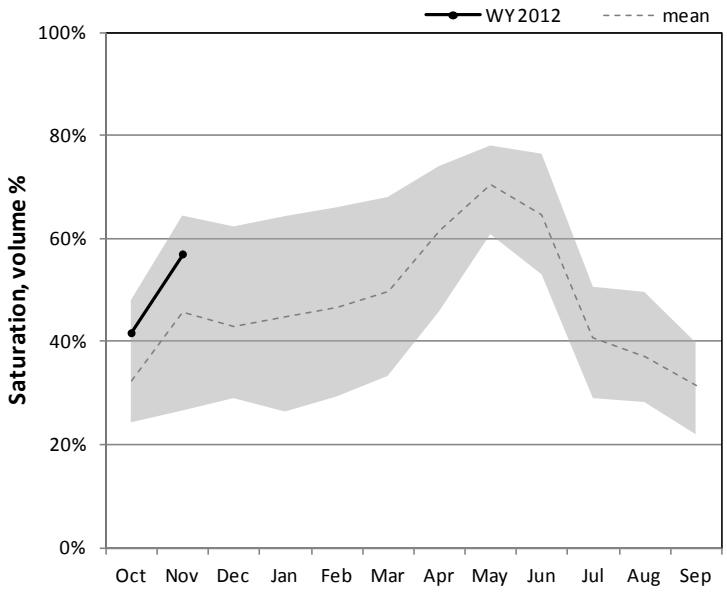
Sevier and Beaver River Basins
November 1, 2011

Precipitation in October was much above average at 142%. Reservoir storage is high at 82% of capacity, compared to 27% of capacity last year. Soil moisture is at 57% of saturation compared to 64% last year. Water Availability Indexes for the Sevier/Beaver are extremely high – 85% to 96%.

Sevier /Beaver River Precipitation

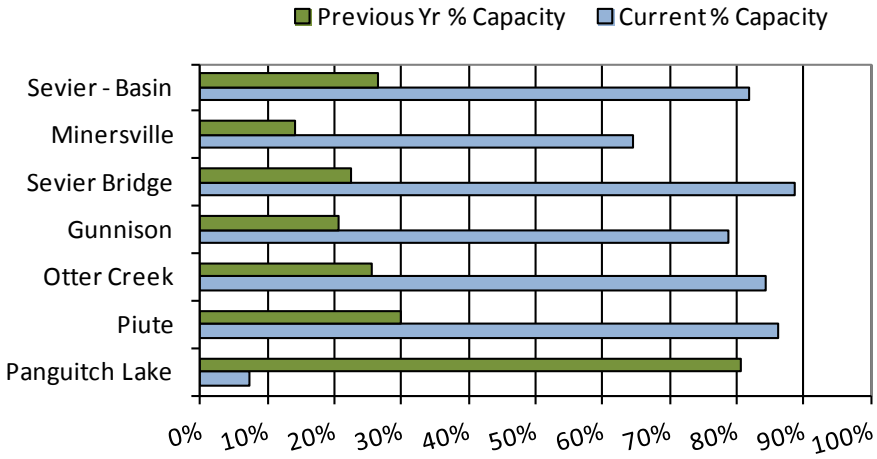


Sevier / Beaver River Soil Moisture



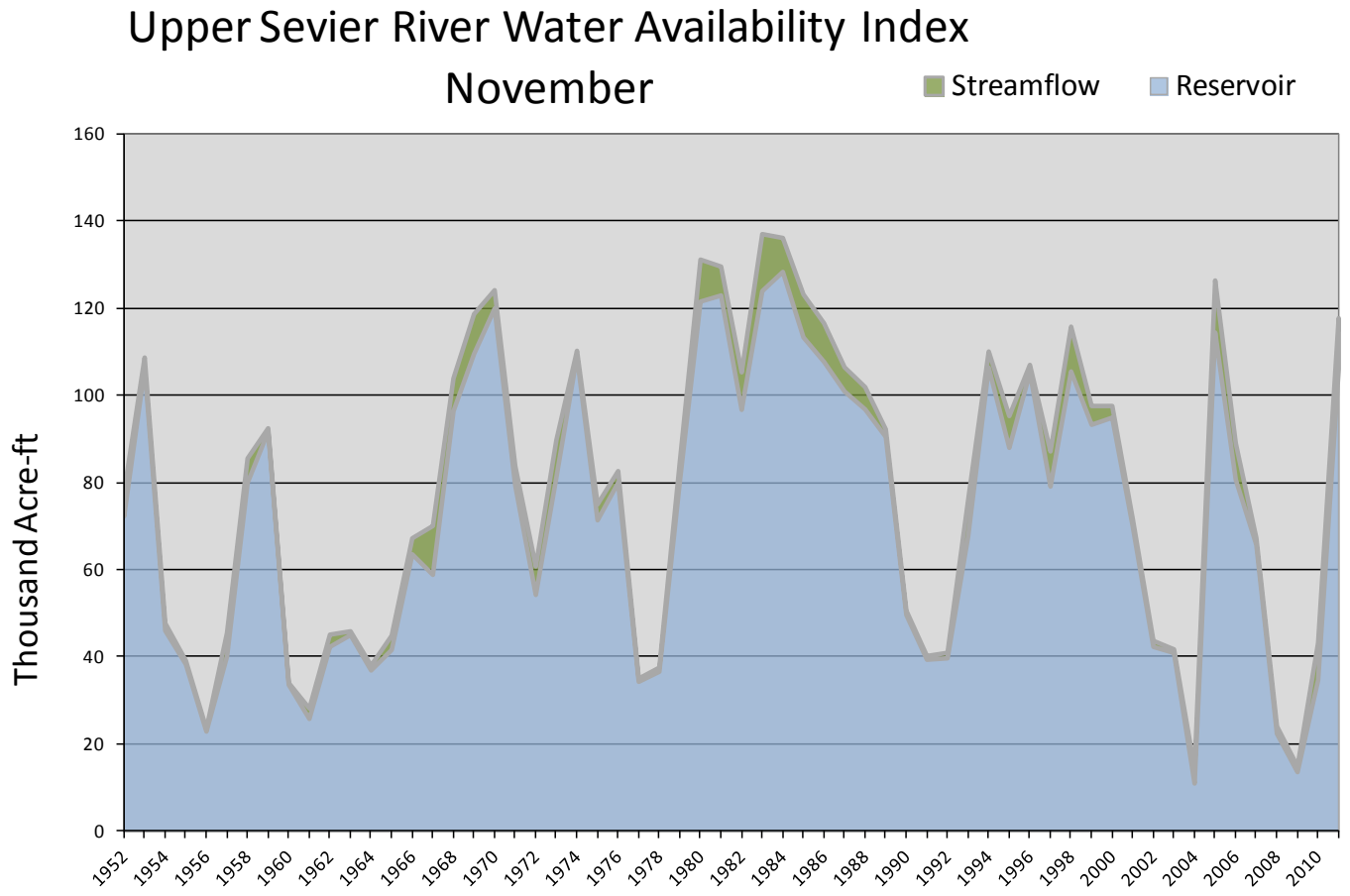
Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

November Sevier River Reservoir Storage



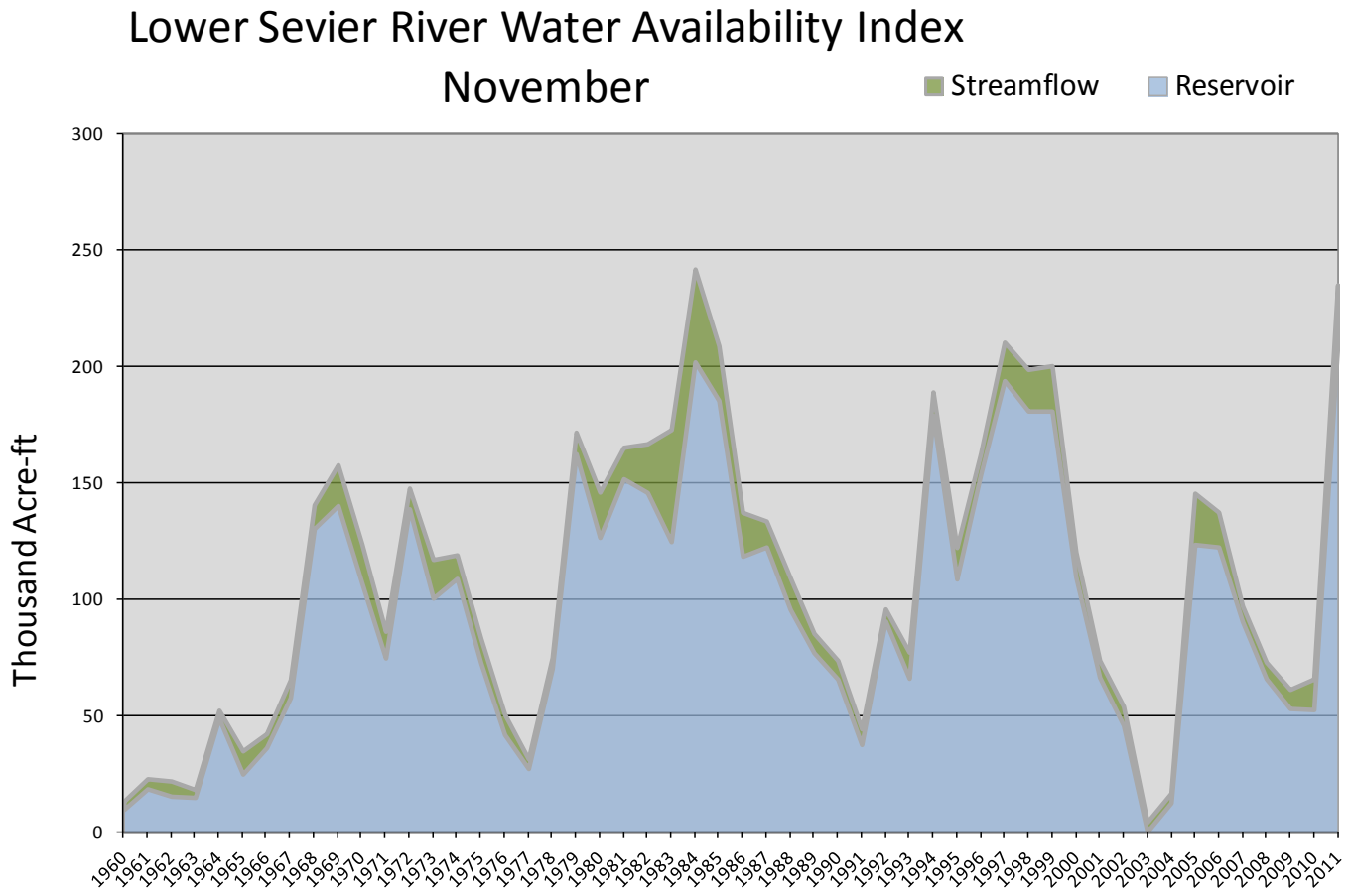
November 1, 2011	**Water Availability Index**					
Basin or Region	October EOM* Otter Creek and Piute	October accumulated flow at Kingston (*observed*)	Reservoir + Streamflow	WAI[#]	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Upper Sevier River	**106.1**	**11.7**	**117.8**	**2.94**	**85**	**98,86,69,85**

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



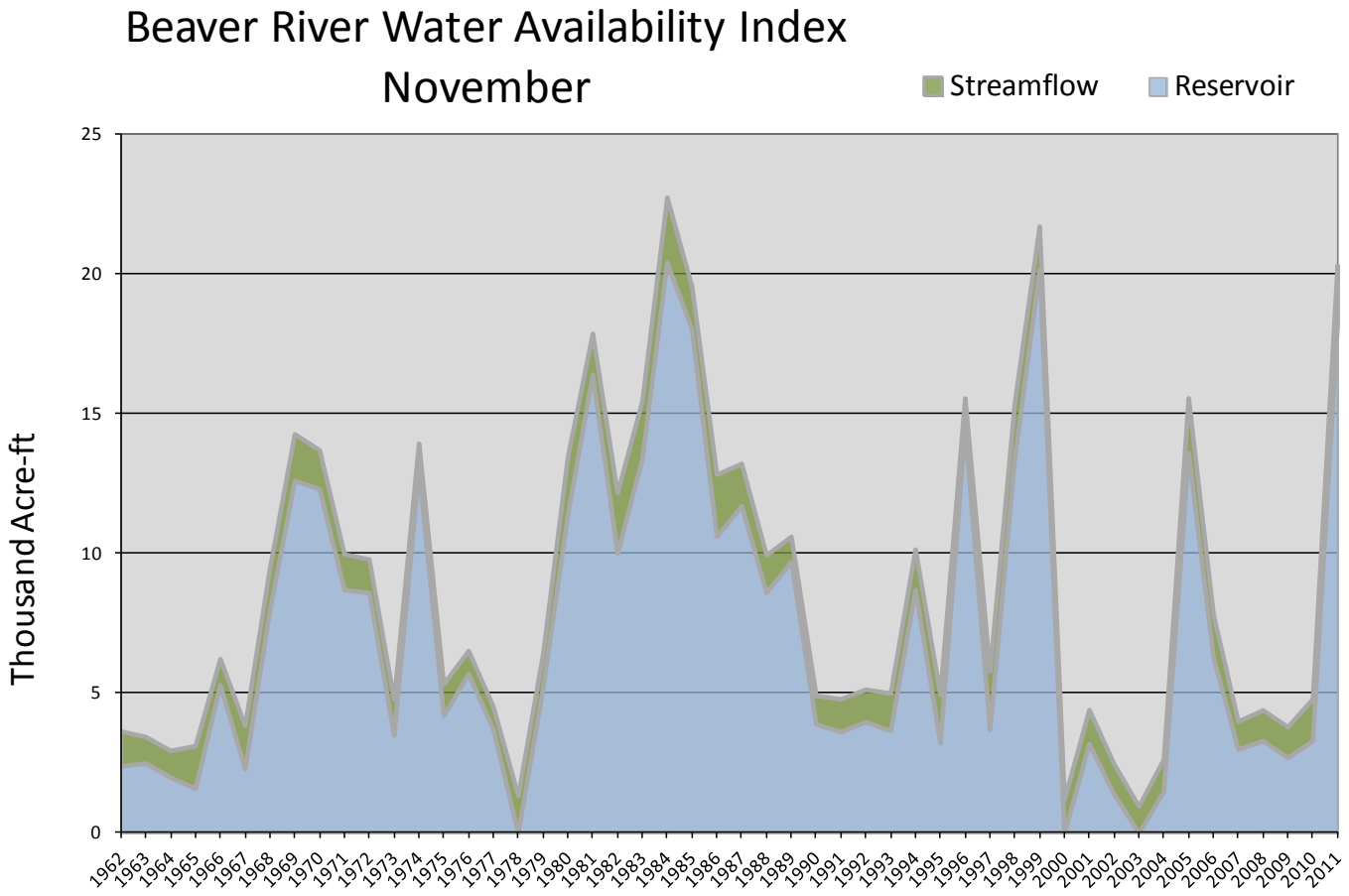
November 1, 2011	**Water Availability Index**					
Basin or Region	October EOM* Sevier Bridge	October accumulated flow Sevier at Gunnsion (*observed*)	Reservoir + Streamflow	WAI[#]	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Lower Sevier River	**209**	**26.0**	**235**	**3.85**	**96**	**85,97,84**

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



November 1, 2011	**Water Availability Index**					
Basin or Region	October EOM* Minersville Reservoir	October accumulated flow Beaver River at Beaver (*observed*)	Reservoir + Streamflow	WAI[#]	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Beaver	**18.2**	**2.1**	**20.3**	**3.68**	**94**	**81,85,99,84**

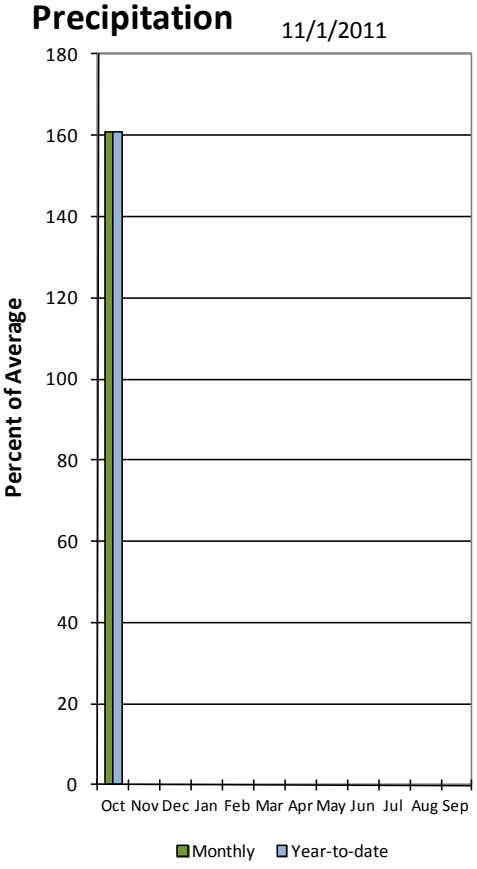
**EOM, end of month; [#] WAI, water availability index; ^KAF, thousand acre-feet.*



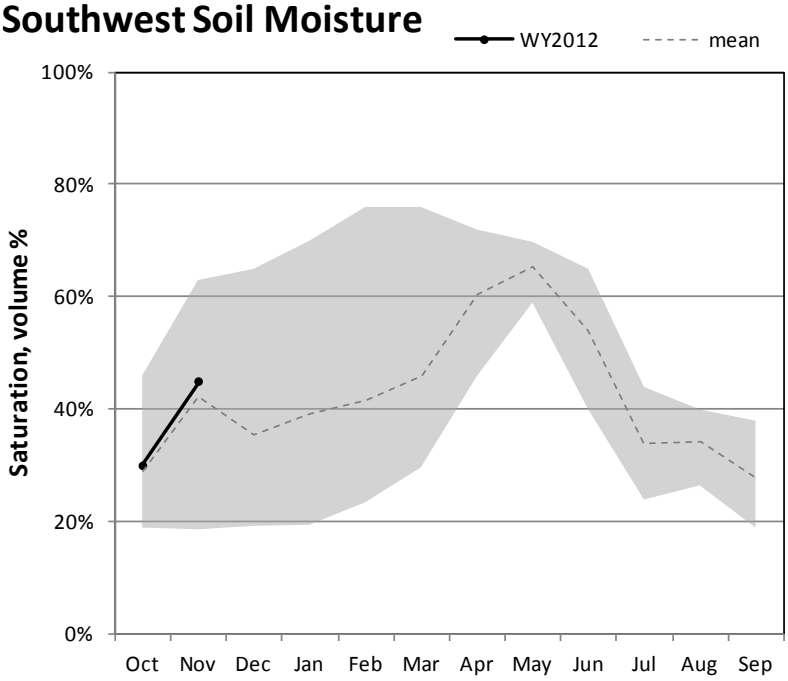
Southwest – E. Garfield, Kane, Washington, & Iron Counties
November 1, 2011

Precipitation in October was much above average at 161%. Reservoir storage is low at 76% of capacity, 17% higher than last year at this time. Soil moisture is at 45% compared to 54% at this time last year.

Southwest Utah Precipitation

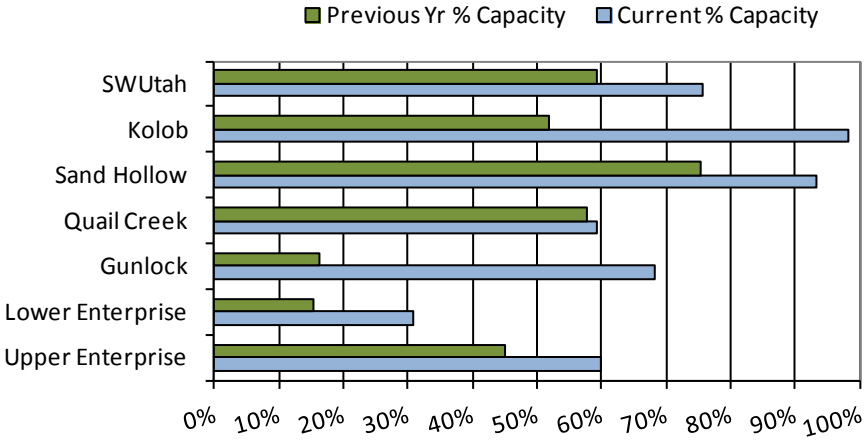


Southwest Soil Moisture



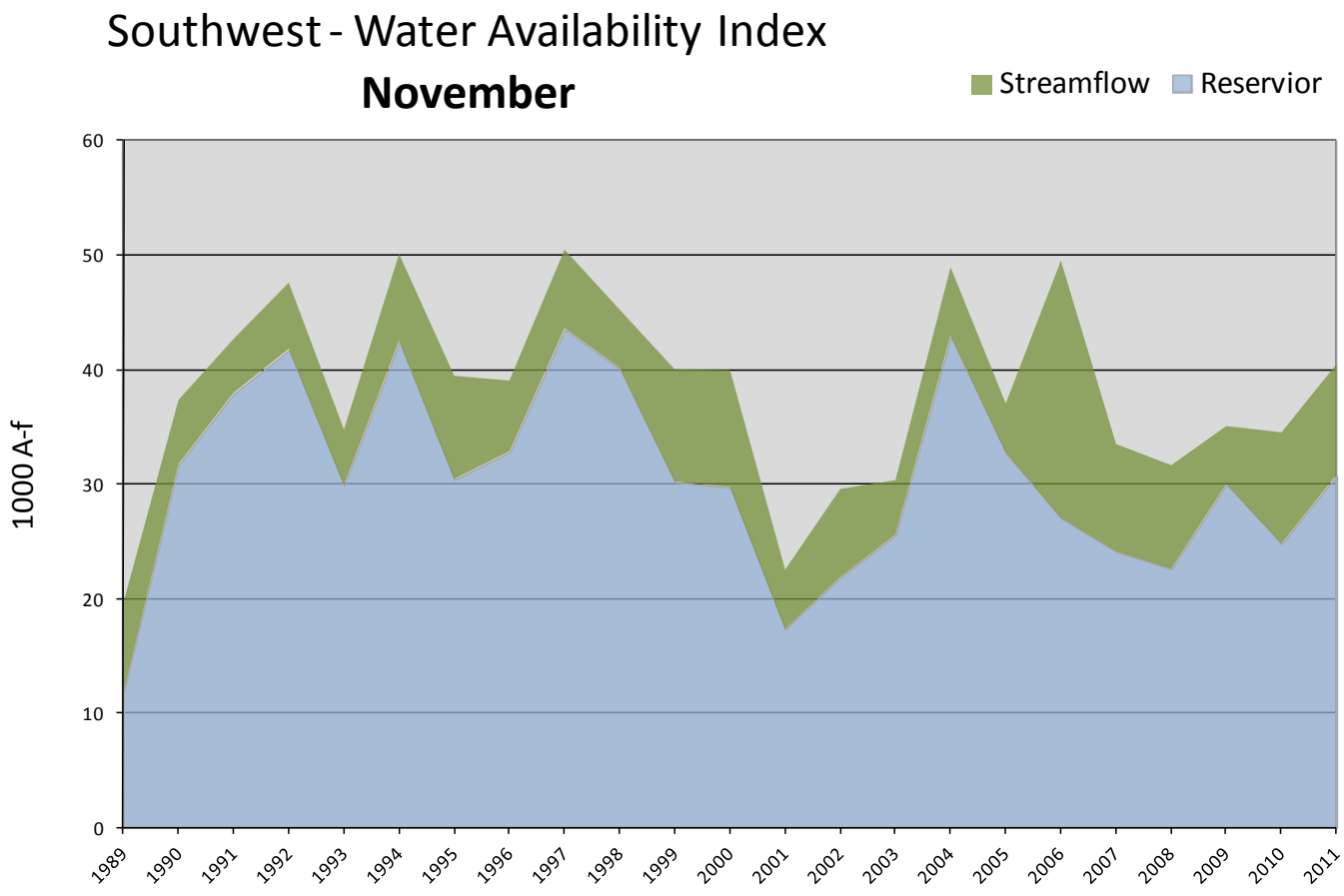
Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

Nov. Southwest Utah Reservoir Storage



November 1, 2011		**Water Availability Index**				
Basin or Region	October EOM* Reservoir	October accumulated flow Virgin and Santa Clara Rivers (*observed*)	Reservoir + Streamflow	WAI[#]	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Southwest	**31**	**10**	**40**	**1.39**	**67%**	**98, 91, 99, 00**

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



Issued by

David White
Chief
Natural Resources Conservation Service
U.S. Department of Agriculture

Released by

John Wilson
Acting State Conservationist
Natural Resources Conservation Service
Salt Lake City, Utah

Prepared by
Snow Survey Staff
Randall Julander, Supervisor
Troy Brosten, Assistant Supervisor
Beau Uriona, Hydrologist
Bob Nault, Electronics Technician

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Snow Survey, NRCS, USDA
245 North Jimmy Doolittle Road
Salt Lake City, UT 84116
(801) 524-5213

Utah Climate and Water Report

Natural Resources Conservation Service
Salt Lake City, UT