

Utah Climate and Water Report

April, 2013



Oak Creek Canyon, Utah, March 26, 2013, site of Clay Springs Fire

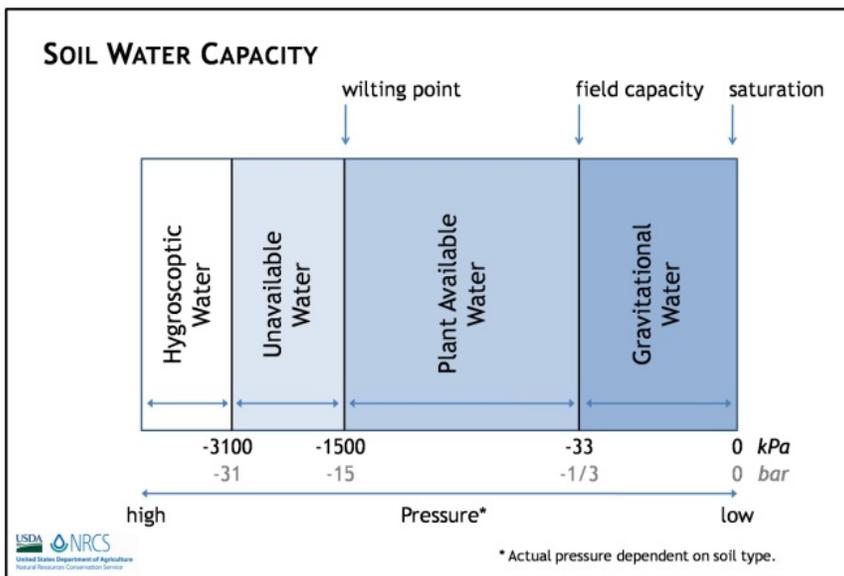
Photo by Beau Uriona, NRCS

Climate and Water Information

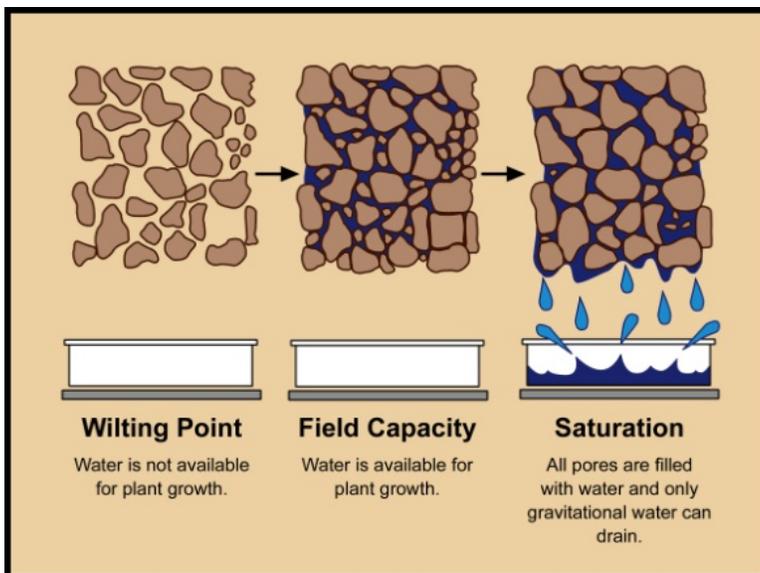
Soil Climate Analysis Network

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

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



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



Visual explanation of soil water capacity definitions.

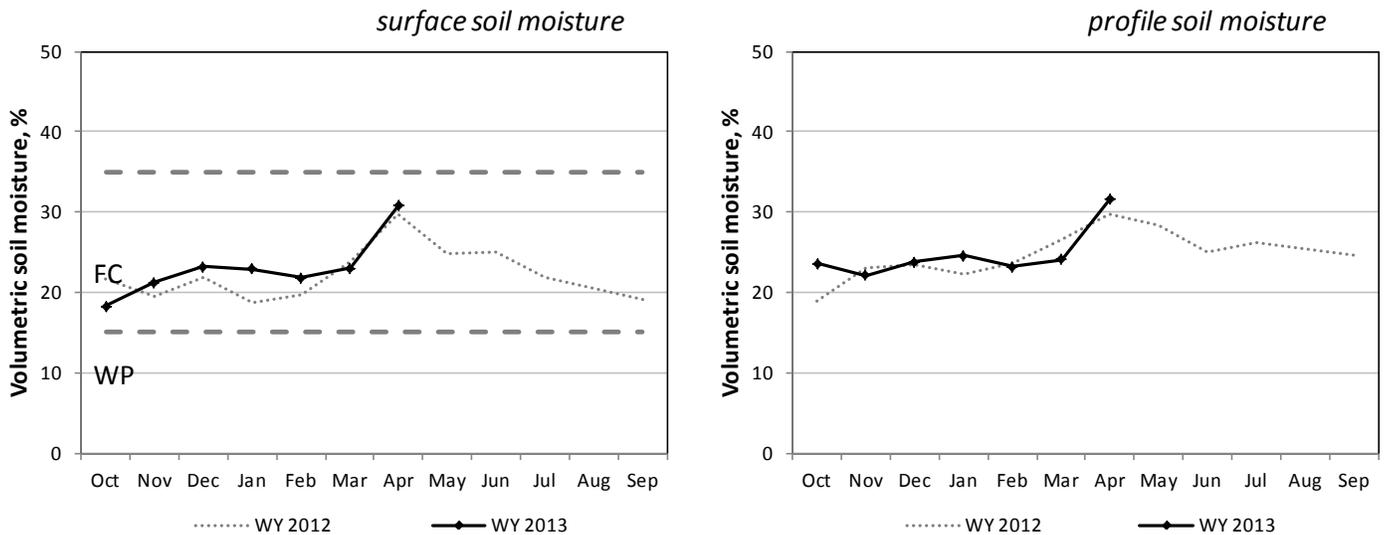
North Central

Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	<i>in.</i>	<i>in.</i>	<i>volume %</i>					<i>°F</i>				
NORTH CENTRAL												
Blue Creek	3.9	0.2	28	31	38	36	16	47	48	47	43	41
Cache Junction	7.3	0.5	35	34	43	36	39	42	42	39	38	37
Grantsville	4.1	0.4	12	18	25	37	52	53	51	47		

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

North Central



Surface soil moisture is the weighted mean of the water content measured at depths of 2, 4, and 8 inches. **FC** is the mean field capacity, **WP** is the mean permanent wilting point for the soil surface (0 to 12 inches) at SCAN sites within the region, and **WY** is the water year lasting October through September. *Profile soil moisture* is the weighted mean of water content measured at depths of 2, 4, 8, 20, and 40 inches.

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

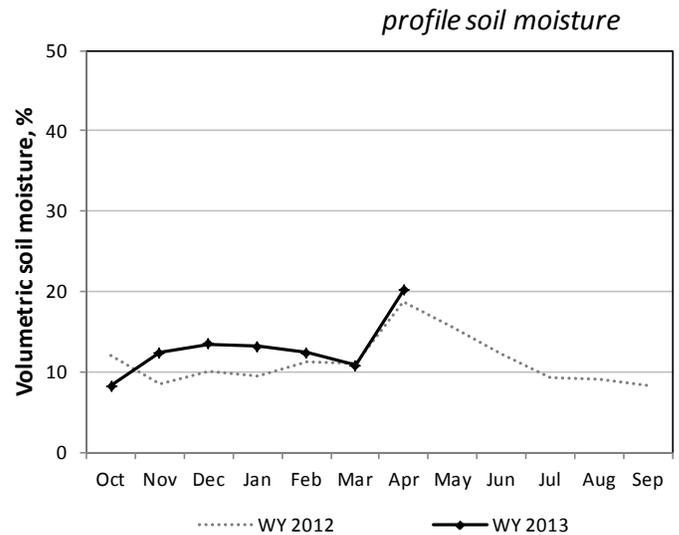
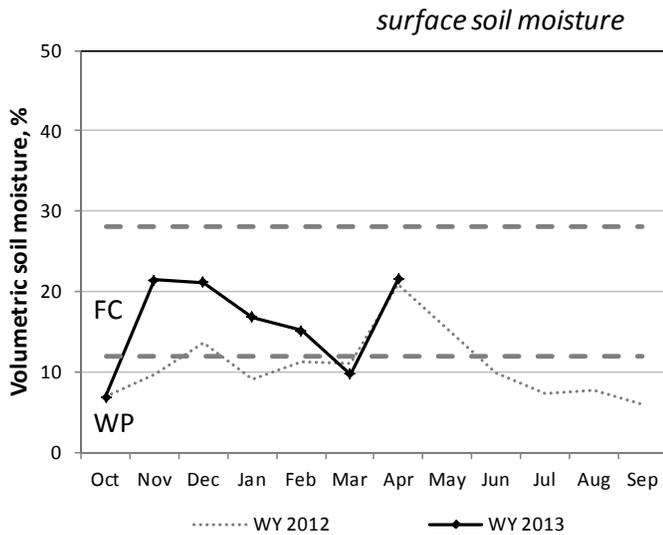
Northern Mountains

Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	<i>in.</i>	<i>in.</i>	<i>volume %</i>					<i>°F</i>				
NORTHERN MOUNTAINS												
Chicken Ridge	5.2	0.4	23	26	28	26	22	35	35	36	36	36
Buffalo Jump	4.6	0.3	14	18	17	9	-	43	44	42	38	-
Morgan												

* 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.

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.

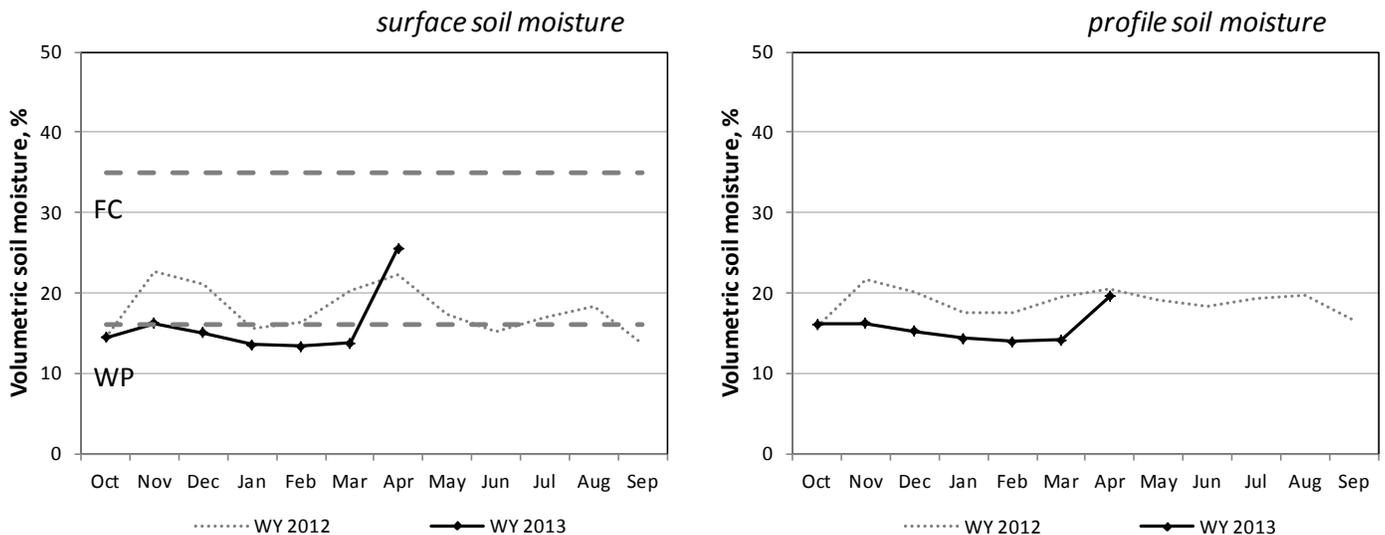
Uintah Basin

Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	<i>in.</i>	<i>in.</i>	<i>volume %</i>					<i>°F</i>				
UINTAH BASIN												
Mountain Home	2.8	0.6	24	34	35	18	9	43	44	43	42	41
Little Red Fox	2.0	0.7	5	27	29	21	22	49	52	51	46	42
Split Mountain	3.0	0.5	12	28	25	21	11	47	50	49	46	42

* 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.

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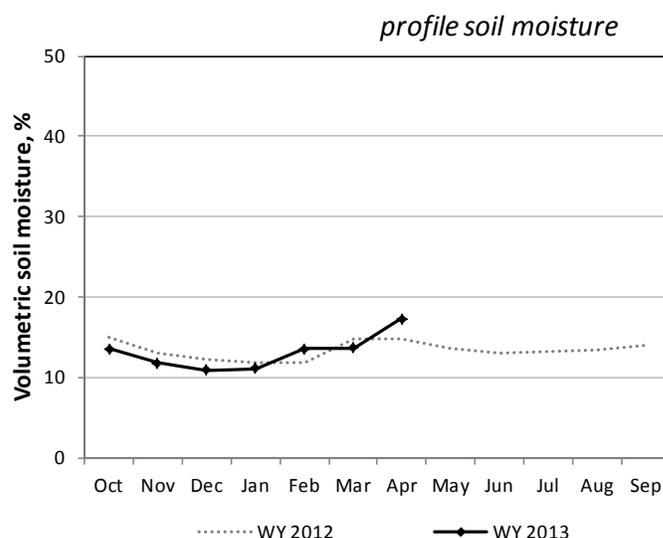
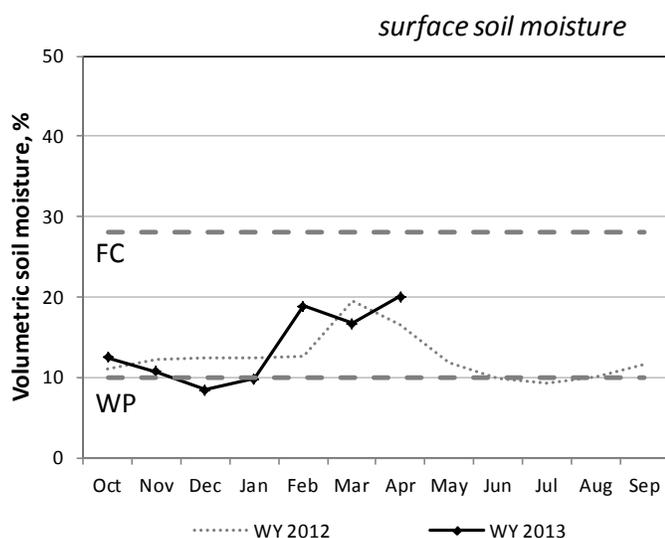
Southeast

Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
			volume %					°F				
SOUTHEAST												
Price	3.0	0.8	0	20	24	14	16	54	55	55	49	46
Green River	1.5	0.2	9	15	14	5	8	56	57	57	52	48
Harm's Way	2.5	0.2	17	0	26	27	13	54	52	52	47	43
West Summit	2.3	0.1	21	27	27	26	16	46	47	48	43	41
Eastland	2.9	0.2	22	21	24	33	34	46	46	47	43	42
Alkali Mesa	4.1	0.7	19	20	27	19	12	51	51	51	47	43
McCracken Mesa	4.5	0.8	18	27	26	25	12	56	57	57	50	49

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Southeast



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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.

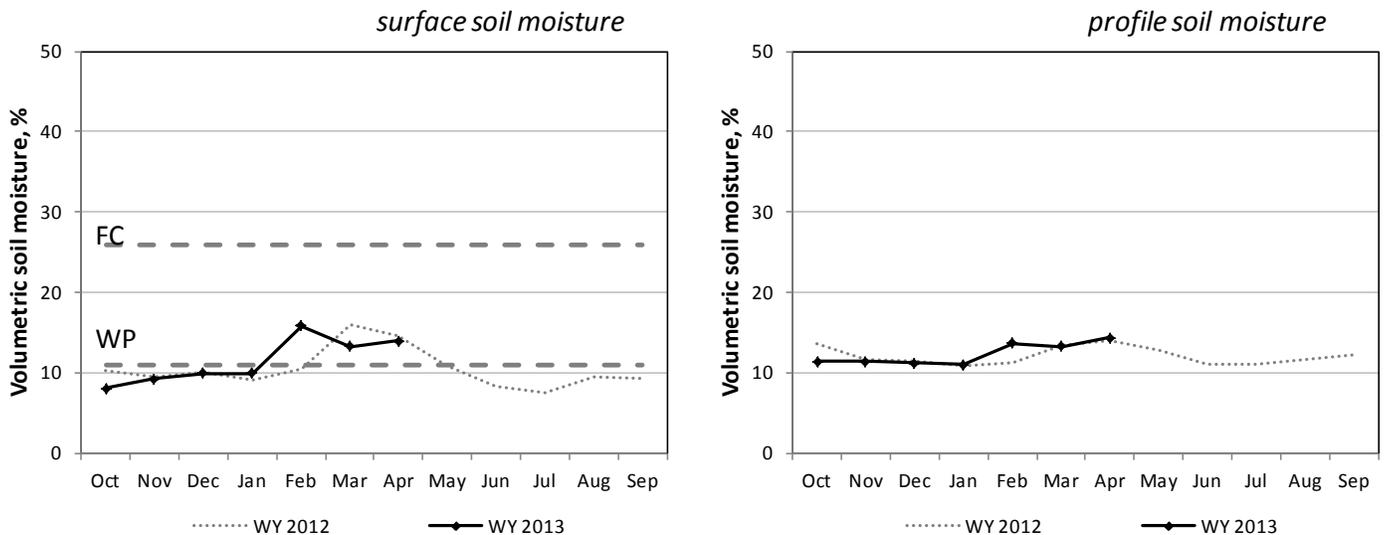
South Central

Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	<i>in.</i>	<i>in.</i>	<i>volume %</i>					<i>° F</i>				
SOUTH CENTRAL												
Nephi	4.4	0.5	19	25	24	13	0	49	49	48	45	44
Ephraim	3.9	0.5	15	19	29	26	32	42	44	43	39	39
Holden	3.8	0.2	6	8	6	20	16	54	54	52	48	46
Milford	4.1	1.1	16	24	29	27	15	51	52	50	47	46
Manderfield	5.0	0.8	8	22	24	23	10	43	47	46	44	42
Circleville	2.0	0.7	22	8	6	8	8	50	50	50	45	
Panguitch	2.2	0.4	13	26	18	19	30	41	42	41	40	40
Cave Valley	8.5	1.2	0	5	5	6	7	52	52	53	50	47
Vermillion	4.2	0.5	0	7	7	12	8	46	48	50	47	43
Spooky	2.4	0.3	5	5	6	11	0	58	57	57	52	52

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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.

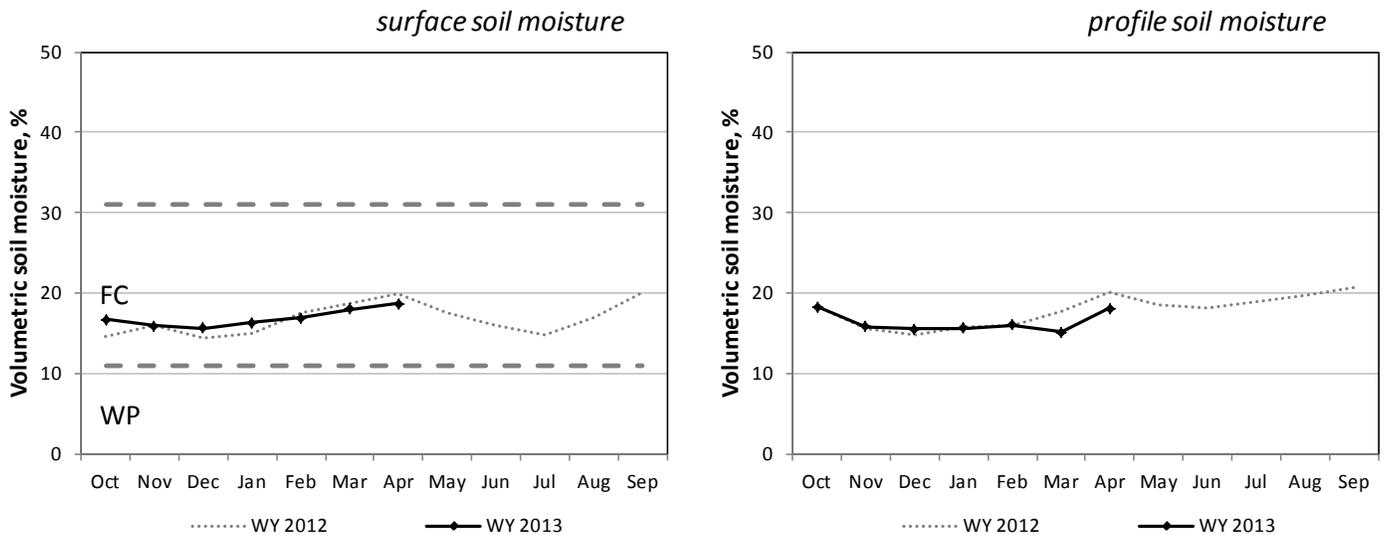
Western and Dixie

Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	<i>in.</i>	<i>in.</i>	<i>volume %</i>					<i>°F</i>				
WESTERN												
Grouse Creek	3.9	0.2	13	23	25	29	29	46	46	47	42	42
Park Valley	4.5	0.1	8	13	22	27	25	47	47	47	44	42
Goshute	3.3	0.3	14	6	35	25	30	48	50	50	46	43
Dugway	2.6	0.0	20	28	39		12	54	56	55	50	48
Tule Valley	3.2	0.5	15	15	25	23	10	49	54	56	55	51
Hal's Canyon	1.5	0.3	0	9	13	10	8	50	53	56	51	48
Enterprise	3.8	0.8	7	36	32	17	16	51	55	54	50	47
DIXIE												
Sand Hollow	3.8	0.4	0	2	3	5	0	58	64	66	63	60

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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.

Utah Climate and Water Report

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

Report Content

1) Climate and Water Information – Soil Climate Analysis Network

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- c) Uintah Basin
- d) Southeast
- e) South Central
- f) Western and Dixie

2) General Hydrological Conditions

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

Utah Hydrologic Summary

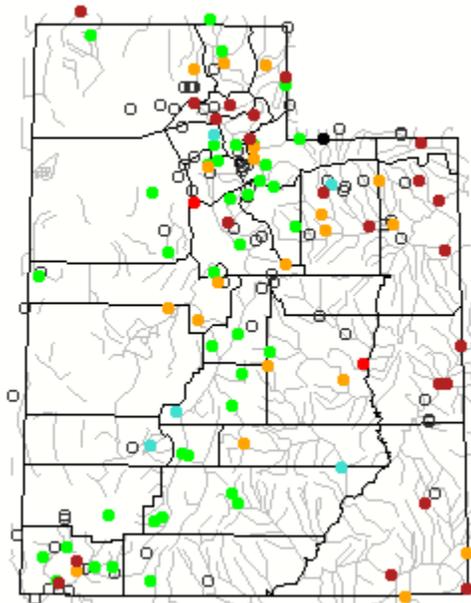
April 1, 2013

Current Conditions

Snowpacks continue to decline as temperatures warm and storms are elusive. Soil moisture values are dry in the southern and eastern portions of the state and near normal in the north. Precipitation across the state was much below average for March (53%) which brings seasonal precipitation (Oct-Mar) to 77%. Snowpack across the state is below normal at 67% of median similar to last year. Reservoir storage is much lower than last year at 71% of capacity compared to 88%. Overall, water supply conditions are below normal statewide.

Current Utah Stream Flow - Courtesy US Geological Survey

Monday, April 01, 2013 15:30ET



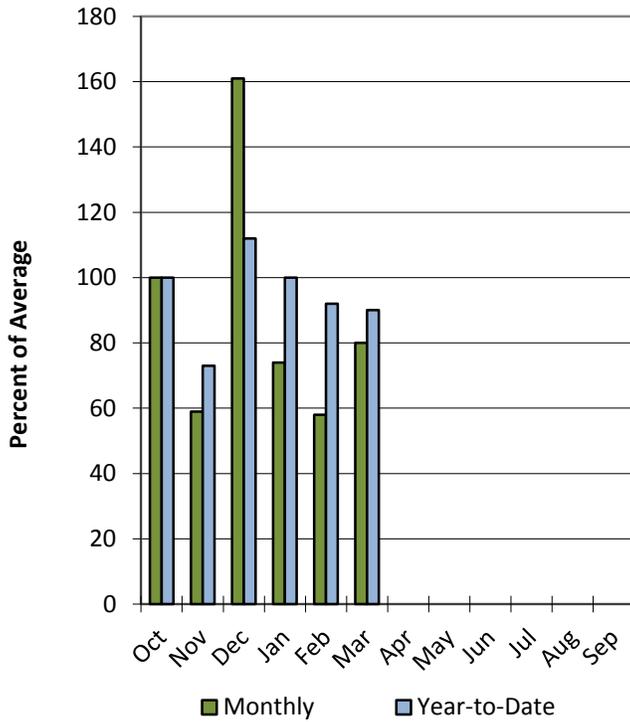
Explanation - Percentile classes							
●	●	●	●	●	●	●	○
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not ranked

Raft River Basin

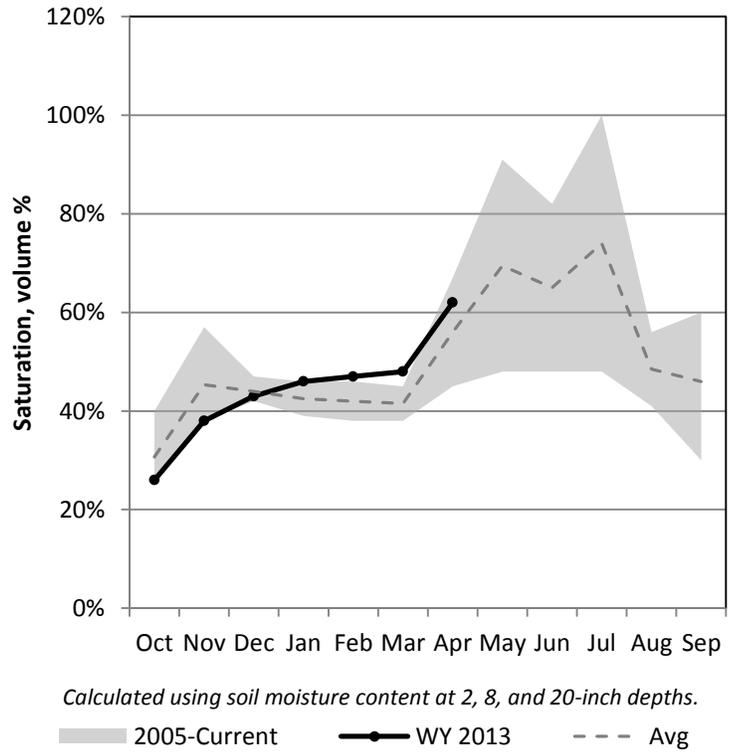
4/1/2013

Precipitation in March was below average at 80%, which brings the seasonal accumulation (Oct-Mar) to 90% of average. Soil moisture is at 62% compared to 67% last year.

Precipitation



Soil Moisture

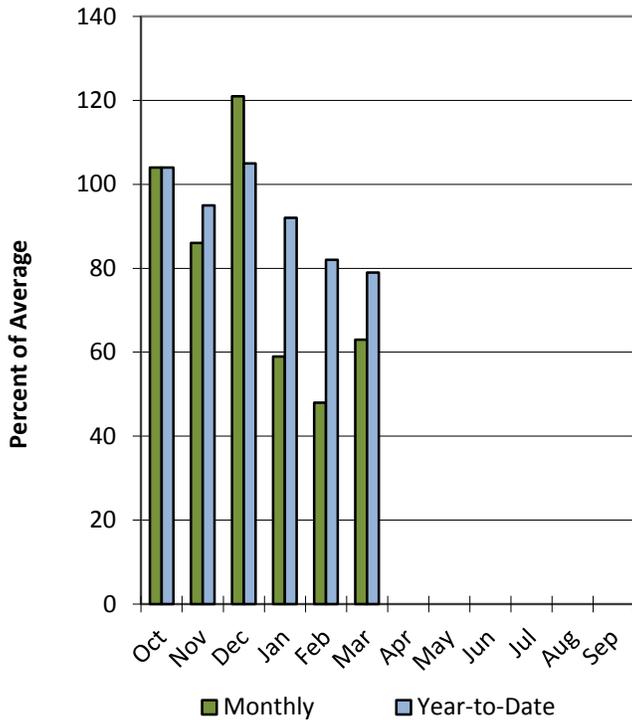


Bear River Basin

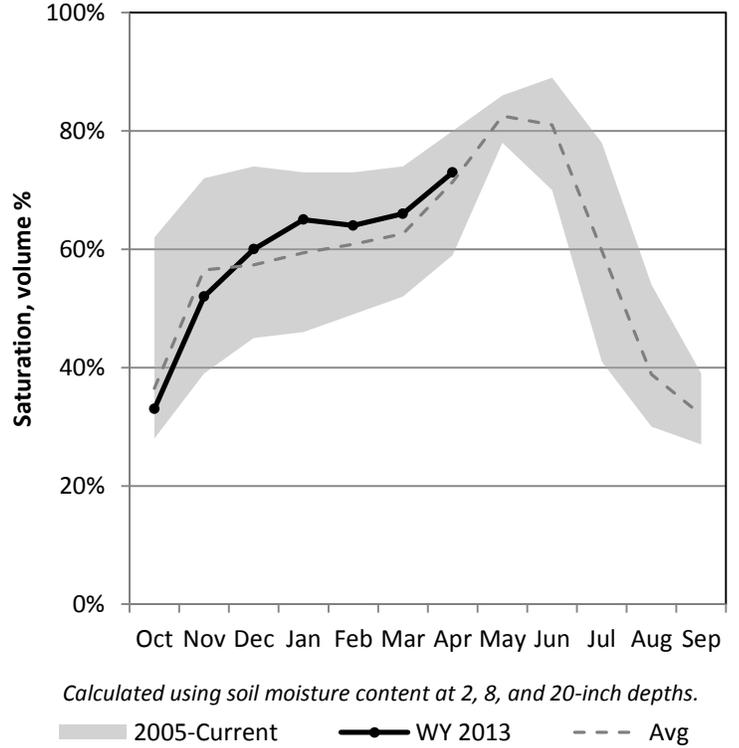
4/1/2013

Precipitation in March was much below average at 63%, which brings the seasonal accumulation (Oct-Mar) to 79% of average. Soil moisture is at 73% compared to 80% last year. Reservoir storage is at 69% of capacity, compared to 89% last year. The water availability index for the Bear River is 50%.

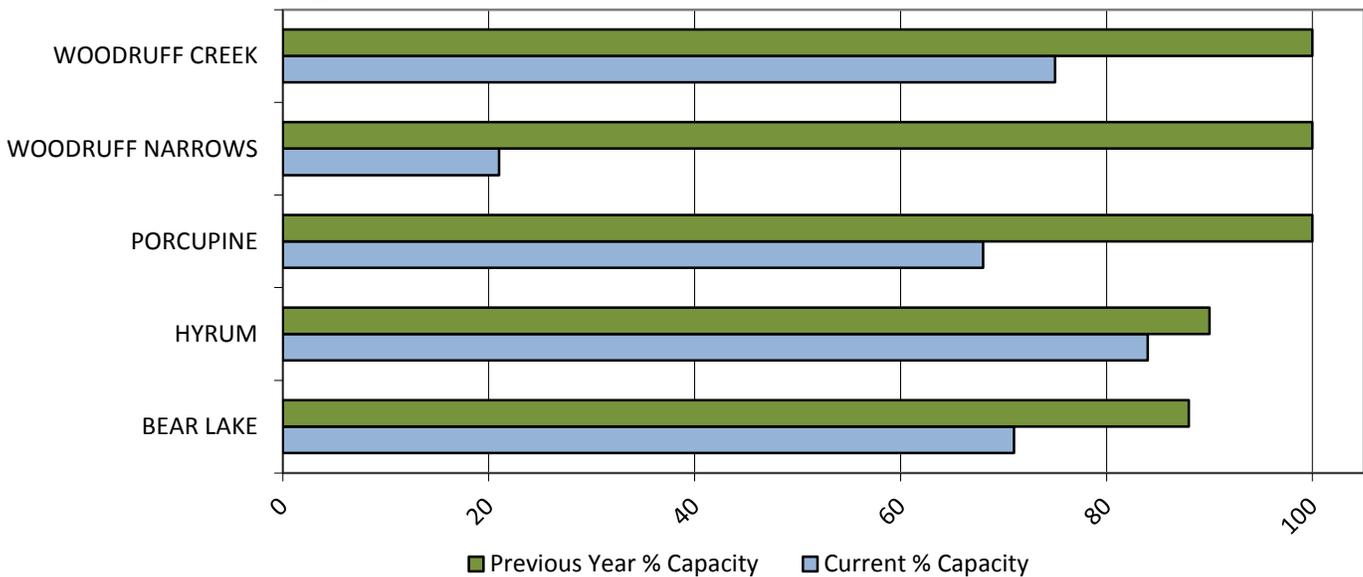
Precipitation



Soil Moisture



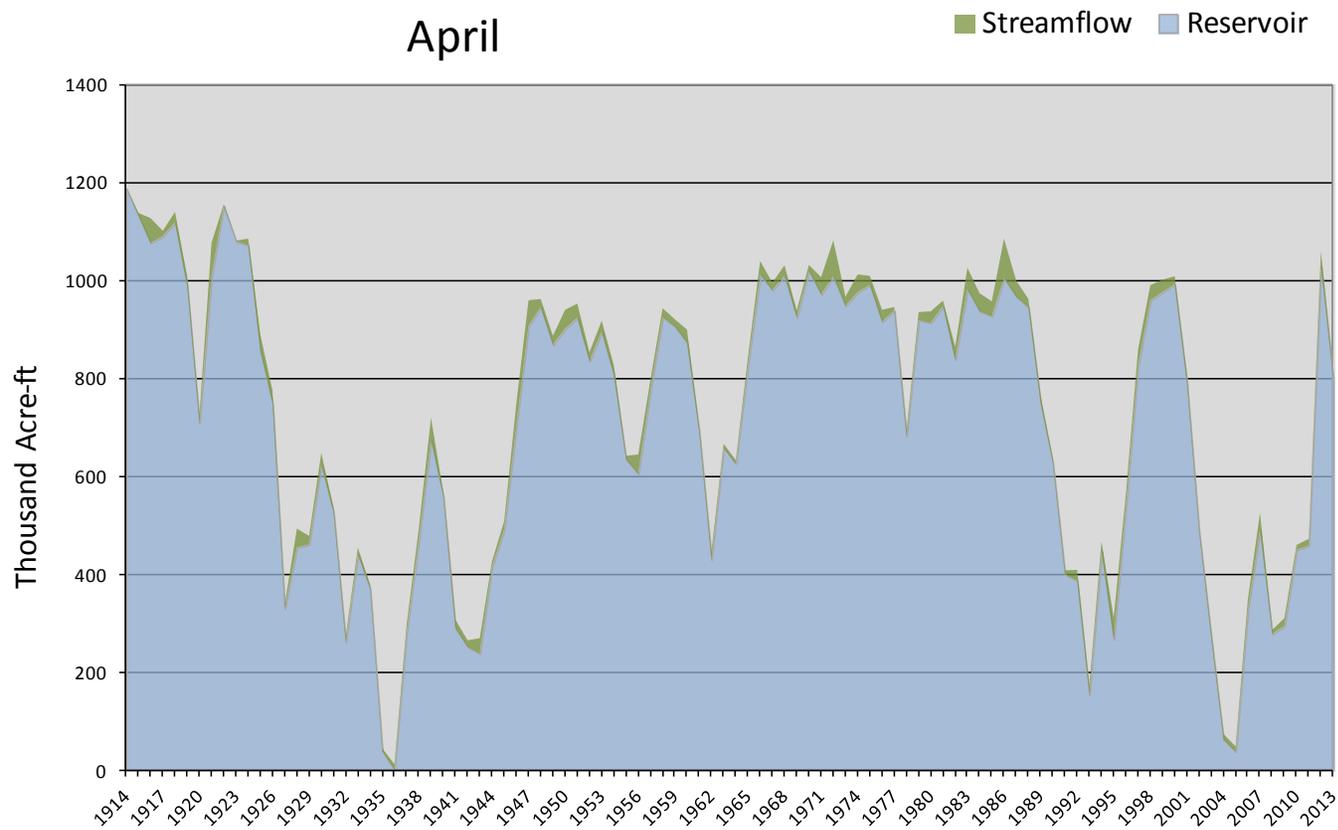
Reservoir Storage



April 1, 2013	Water Availability Index					
Basin or Region	March EOM* Bear Lake	March accumulated inflow to Bear Lake (<i>observed</i>)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	<i>KAF</i> [^]	<i>KAF</i>	<i>KAF</i>		%	
Bear River	801	9	810	-0.04	50	57, 01, 54, 65

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

Bear Lake - Water Availability Index
April

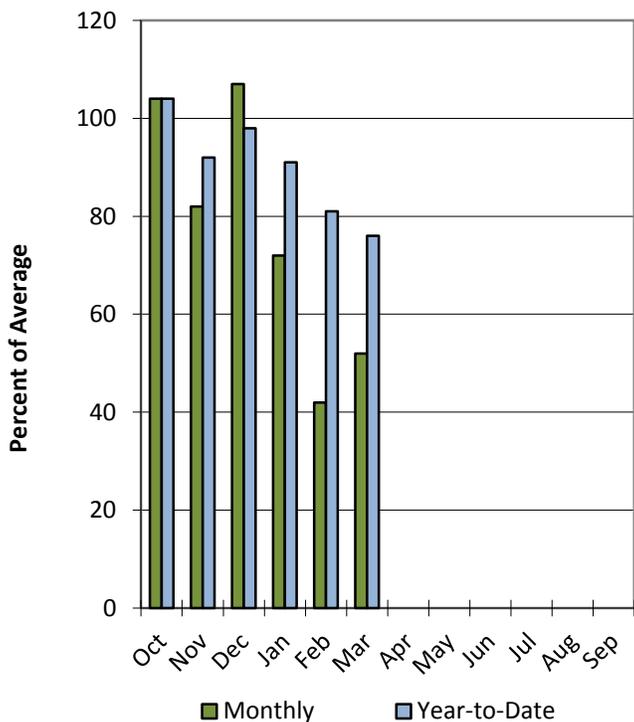


Weber & Ogden River Basins

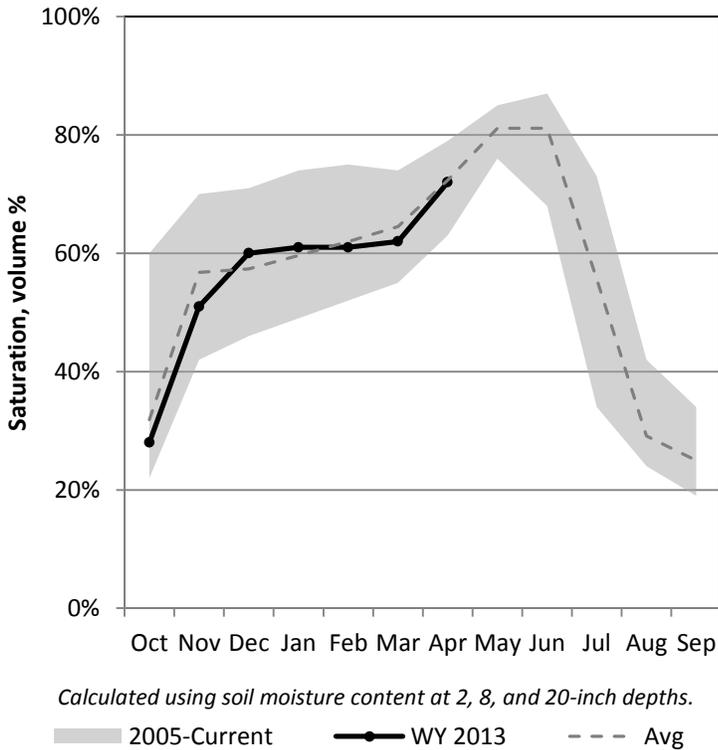
4/1/2013

Precipitation in March was much below average at 52%, which brings the seasonal accumulation (Oct-Mar) to 76% of average. Soil moisture is at 72% compared to 79% last year. Reservoir storage is at 58% of capacity, compared to 86% last year. The water availability index for the Ogden River is 32% and 18% for the Weber River.

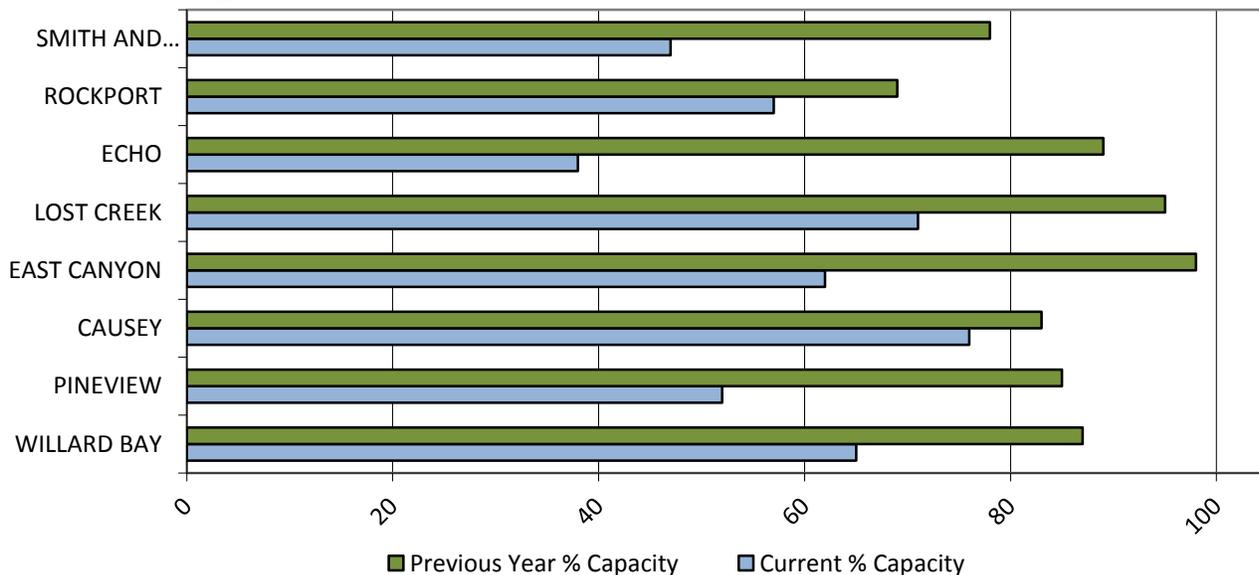
Precipitation



Soil Moisture



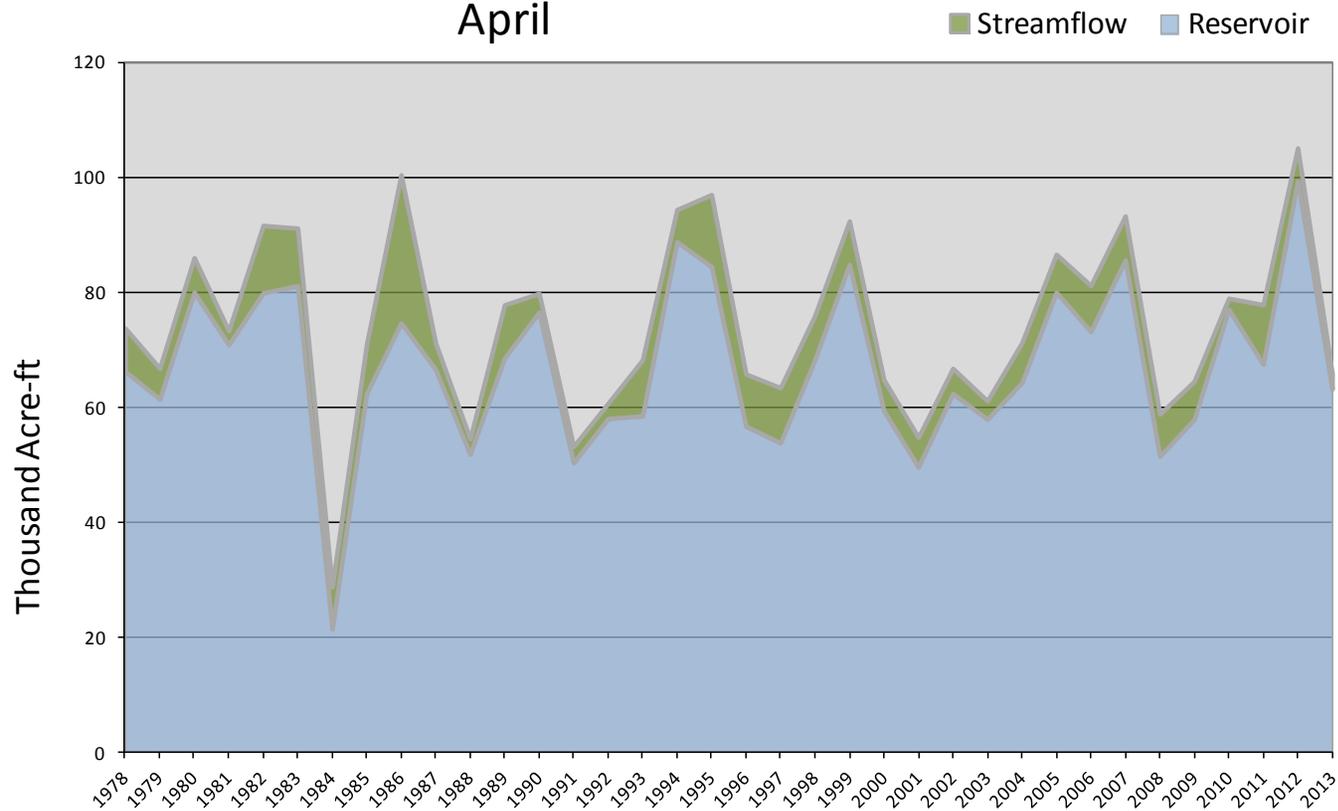
Reservoir Storage



April 1, 2013		Water Availability Index				
Basin or Region	March EOM* Pine View & Causey	March accumulated flow at South Fork Ogden (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Ogden River	63.2	2.7	65.9	-1.46	32	00, 96, 02, 79

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

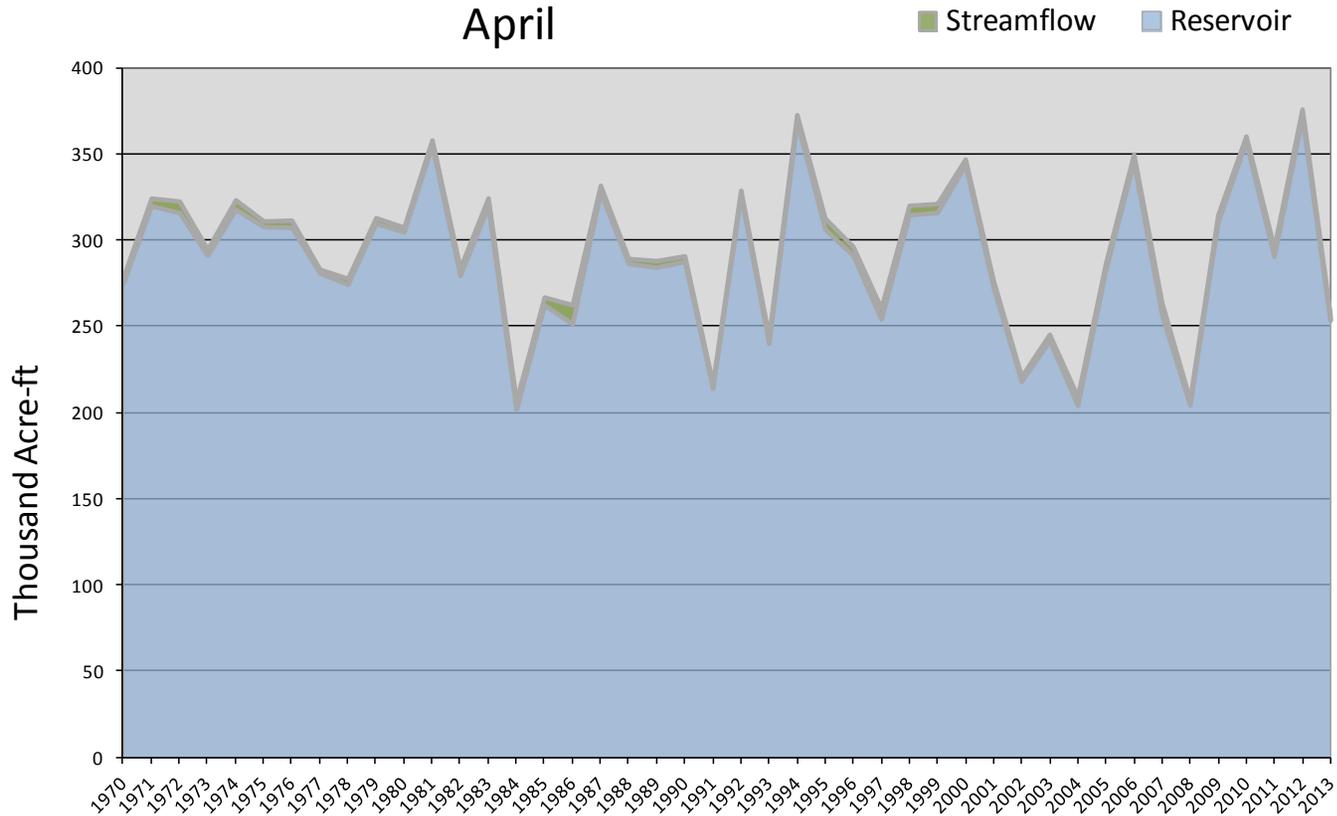
Ogden River - Water Availability Index
April



April 1, 2013	Water Availability Index					
Basin or Region	March EOM* Reservoirs	March accumulated flow at Weber near Oakley (<i>observed</i>)	Reservoirs + Streamflow	WAI [#]	Percentile	Years with similar WAI
	<i>KAF</i> [^]	<i>KAF</i>	<i>KAF</i>		%	
Weber River	254	3.3	257	-2.69	18	93, 03, 97, 86

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

Weber River - Water Availability Index
April

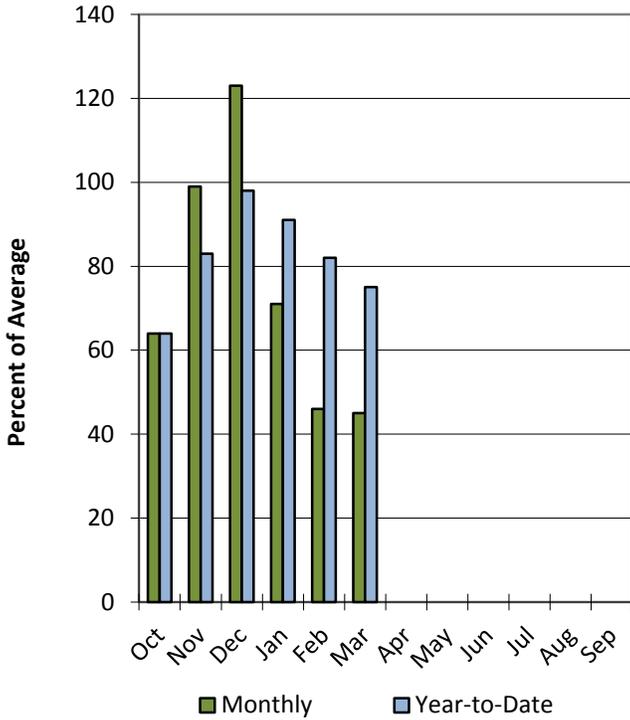


Provo & Jordan River Basins

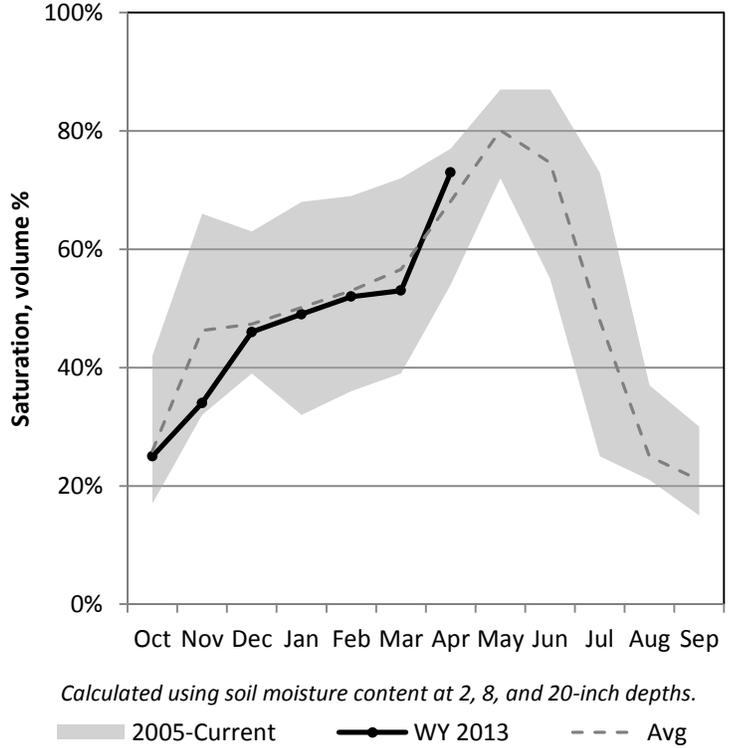
4/1/2013

Precipitation in March was much below average at 45%, which brings the seasonal accumulation (Oct-Mar) to 75% of average. Soil moisture is at 73% compared to 70% last year. Reservoir storage is at 80% of capacity, compared to 92% last year. The water availability index for the Provo River is 0.21%.

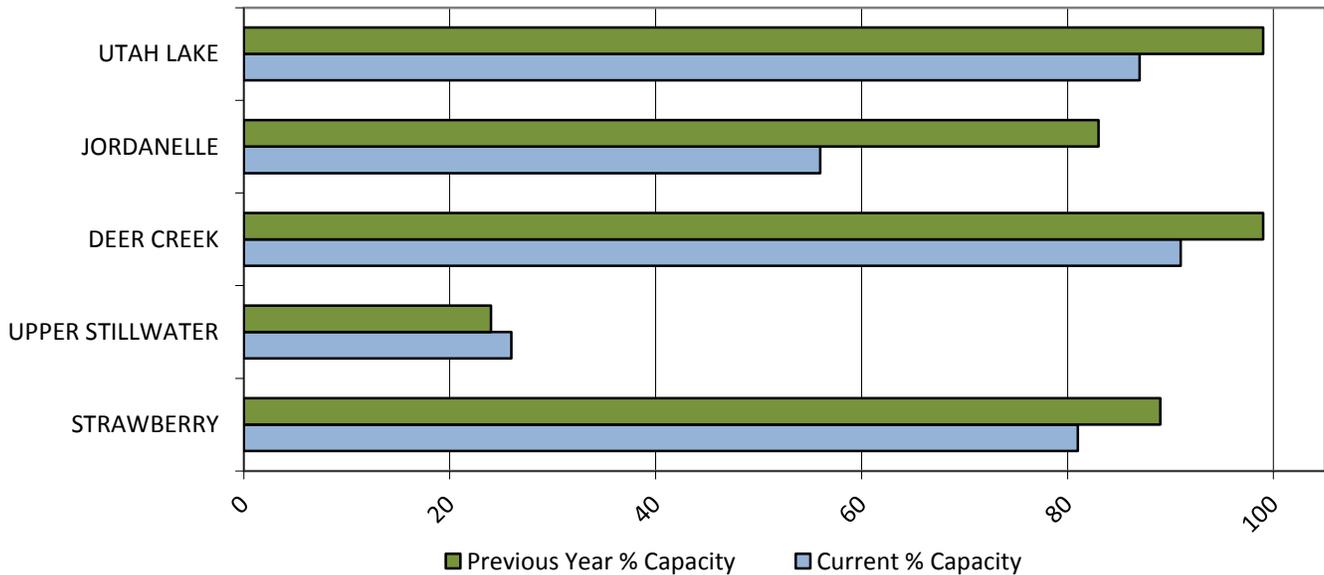
Precipitation



Soil Moisture

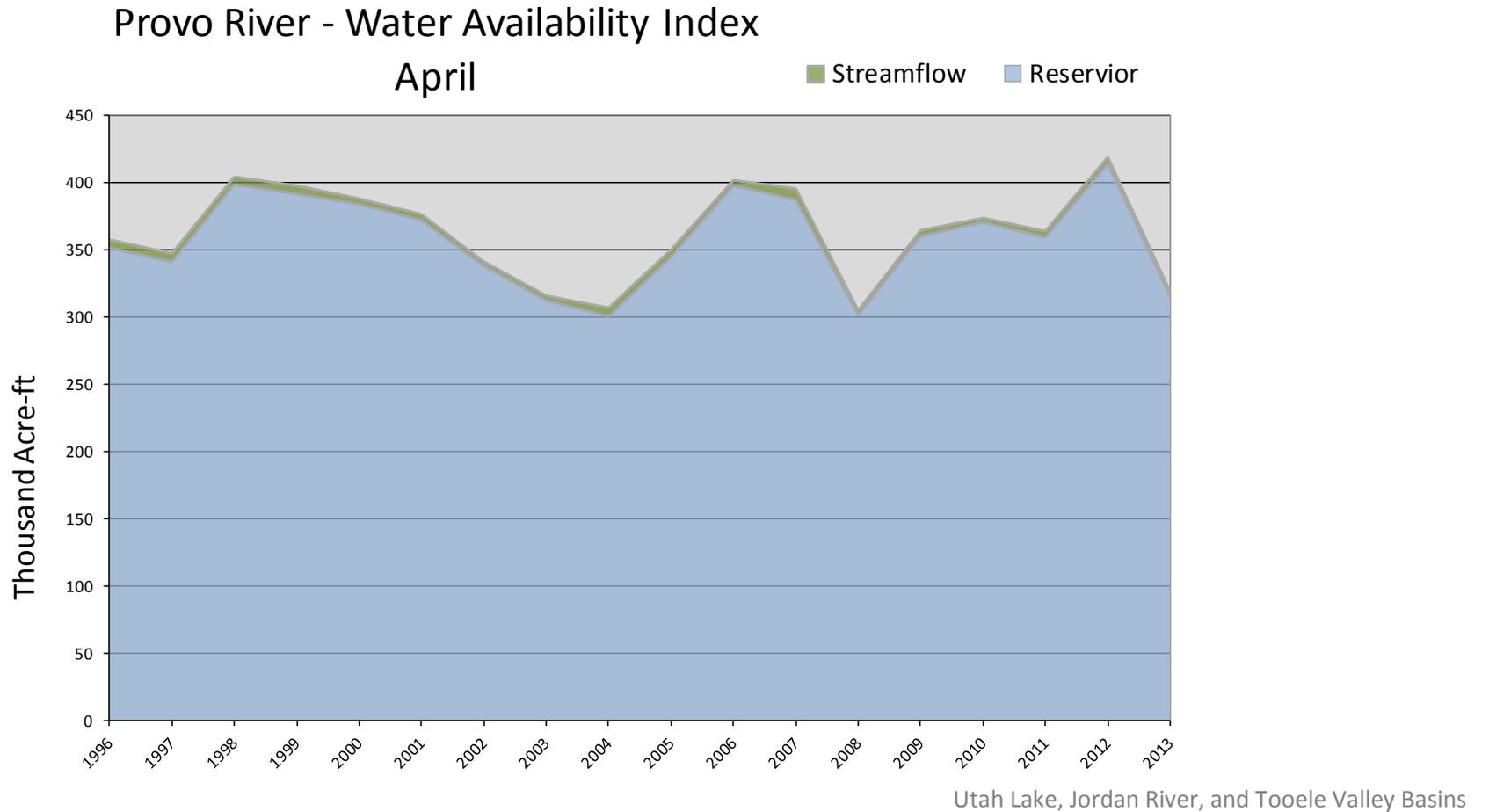


Reservoir Storage



April 1, 2013	Water Availability Index					
Basin or Region	March EOM* Deer Creek, Jordanelle	March accumulated flow Provo River at Woodland (<i>observed</i>)	Reservoir + Streamflow	WAI [#]	Percentile	Years with similar WAI
	<i>KAF</i> [^]	<i>KAF</i>	<i>KAF</i>		%	
Provo	315	3.0	318	-2.41	21%	97,02,03,04

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

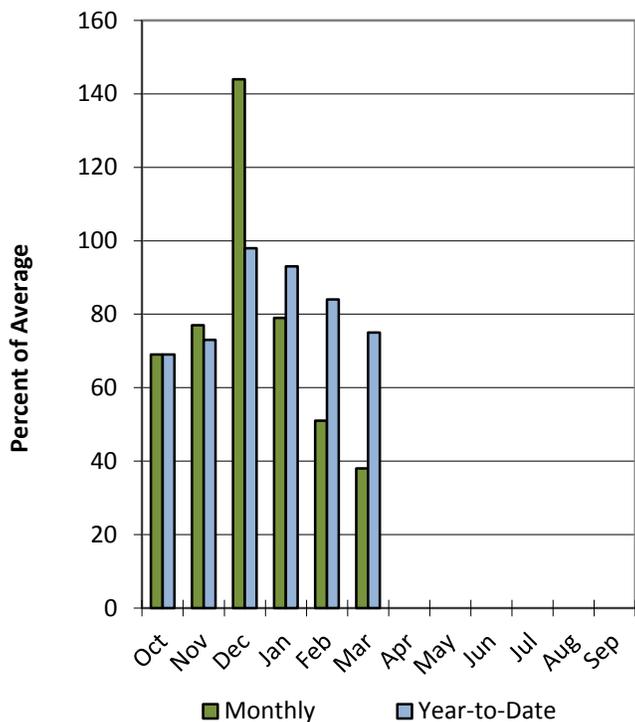


Tooele & Vernon Creek Basins

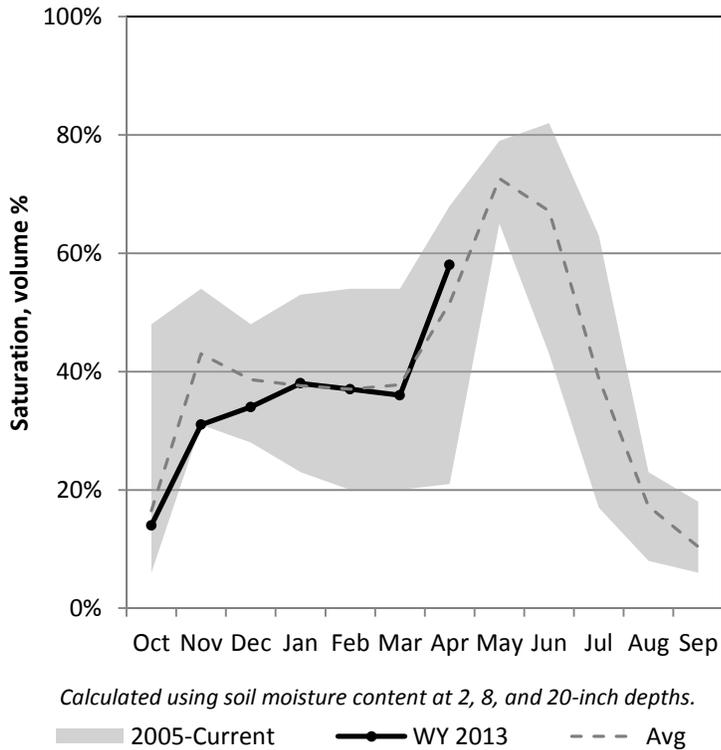
4/1/2013

Precipitation in March was much below average at 38%, which brings the seasonal accumulation (Oct-Mar) to 75% of average. Soil moisture is at 58% compared to 68% last year. Reservoir storage is at 59% of capacity, compared to 98% last year.

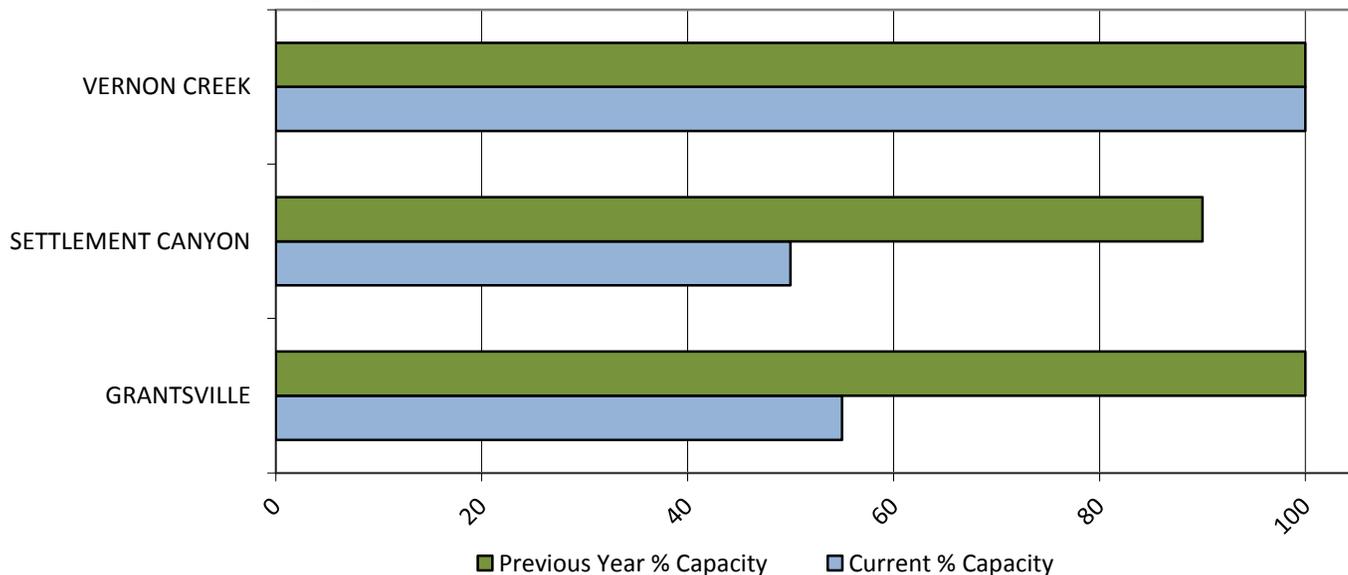
Precipitation



Soil Moisture



Reservoir Storage

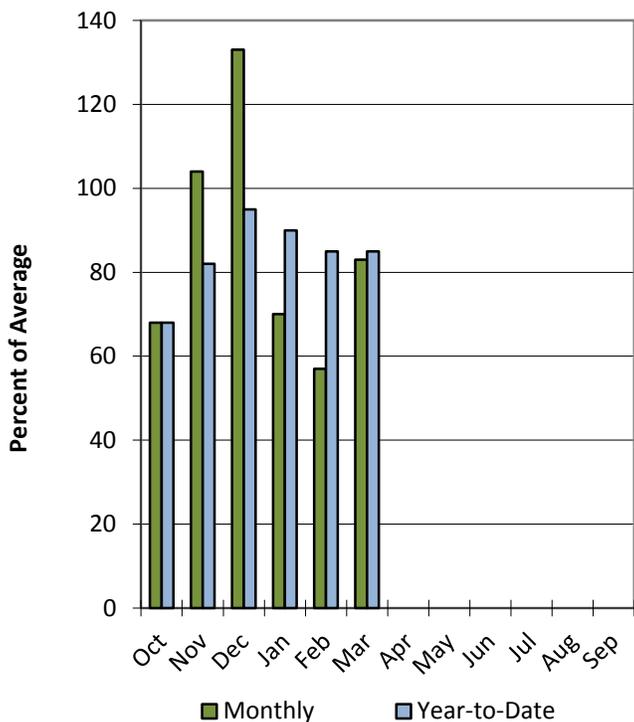


Northeastern Uintah Basin

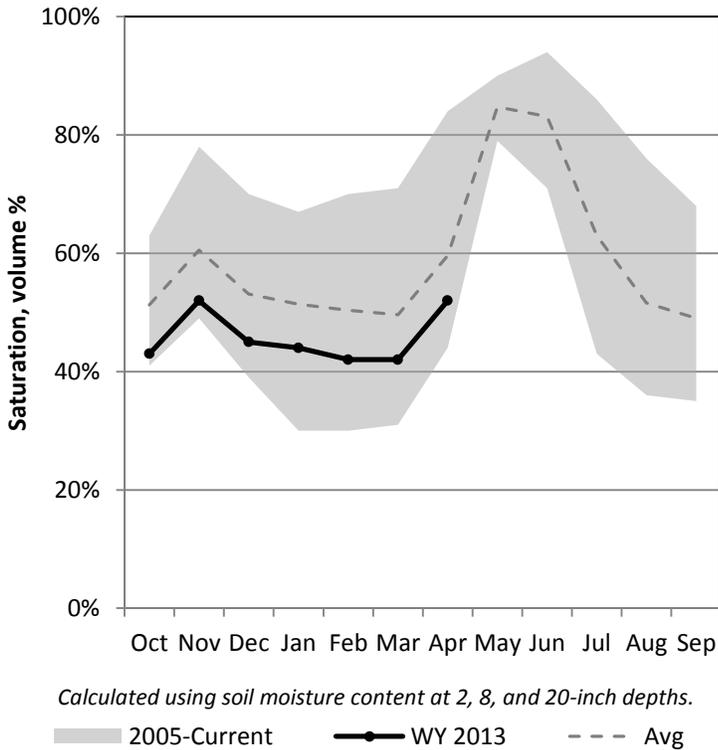
4/1/2013

Precipitation in March was below average at 83%, which brings the seasonal accumulation (Oct-Mar) to 85% of average. Soil moisture is at 52% compared to 84% last year. Reservoir storage is at 79% of capacity, compared to 86% last year.

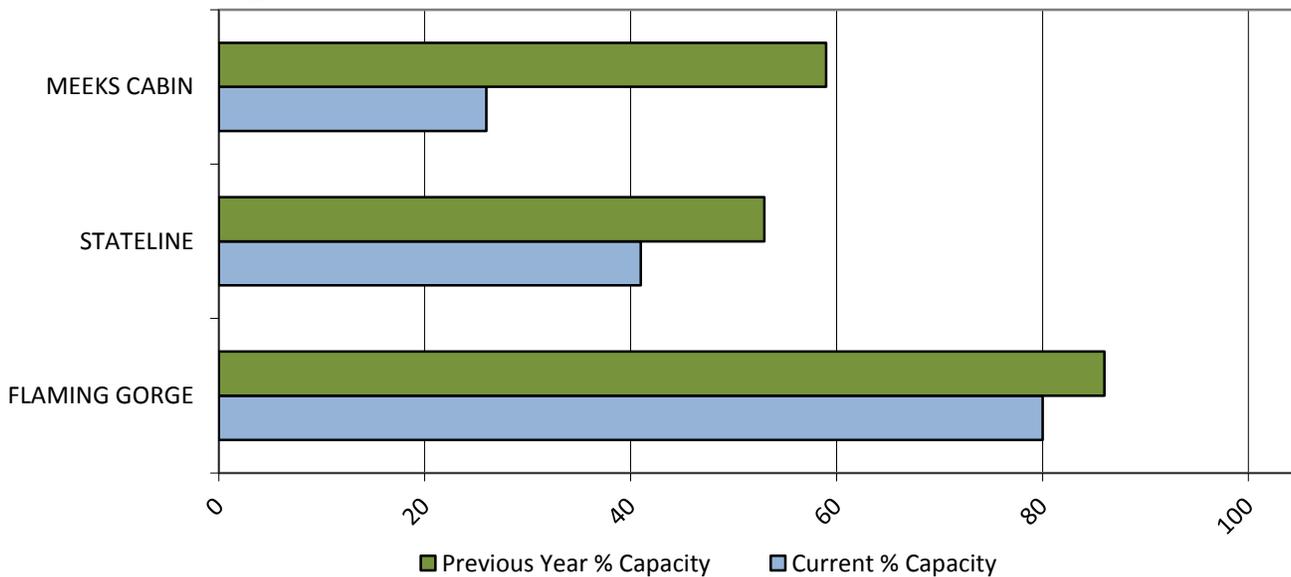
Precipitation



Soil Moisture



Reservoir Storage

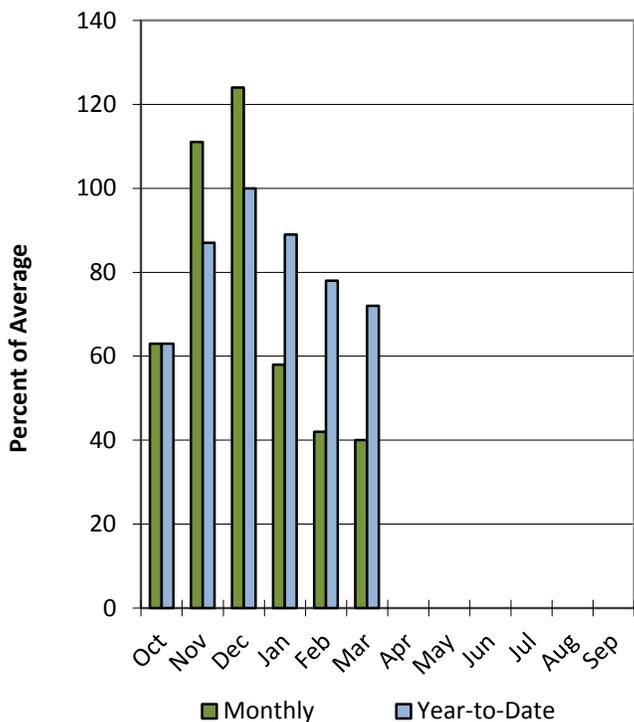


Duchesne River Basin

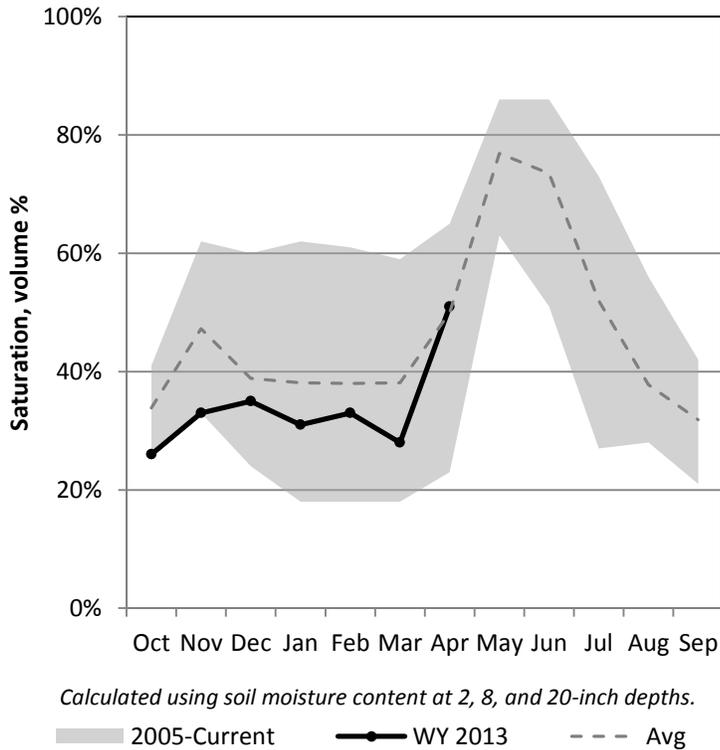
4/1/2013

Precipitation in March was much below average at 40%, which brings the seasonal accumulation (Oct-Mar) to 72% of average. Soil moisture is at 51% compared to 64% last year. Reservoir storage is at 79% of capacity, compared to 89% last year. The water availability index for the Western Uintahs is 20% and 14% for the Eastern Uintahs.

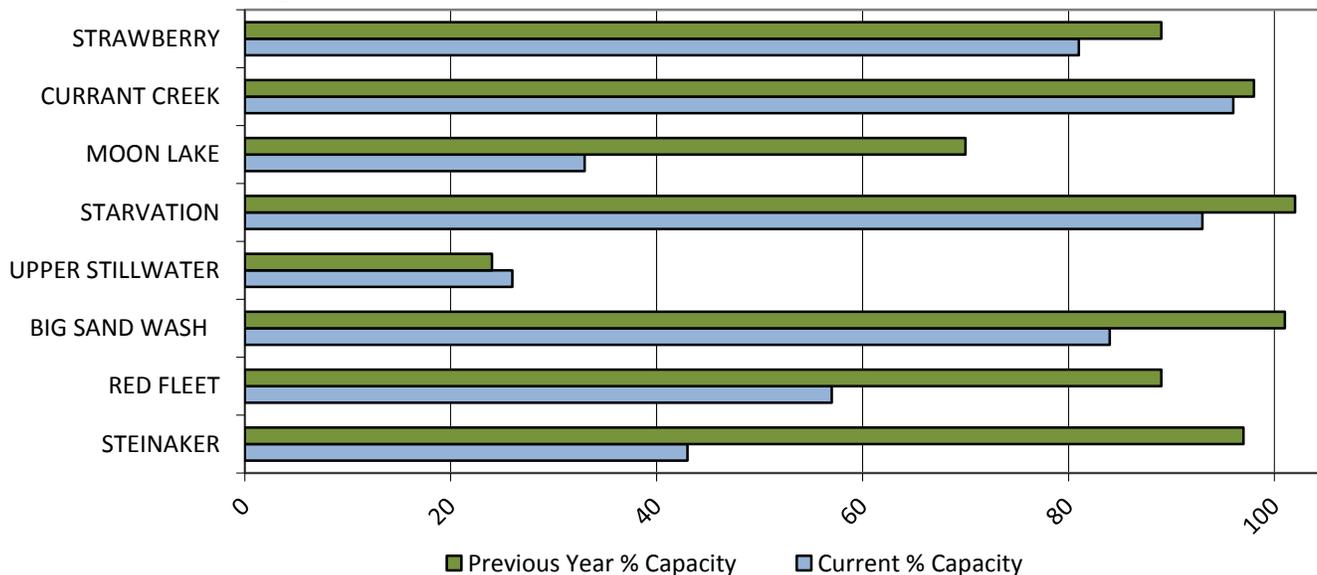
Precipitation



Soil Moisture



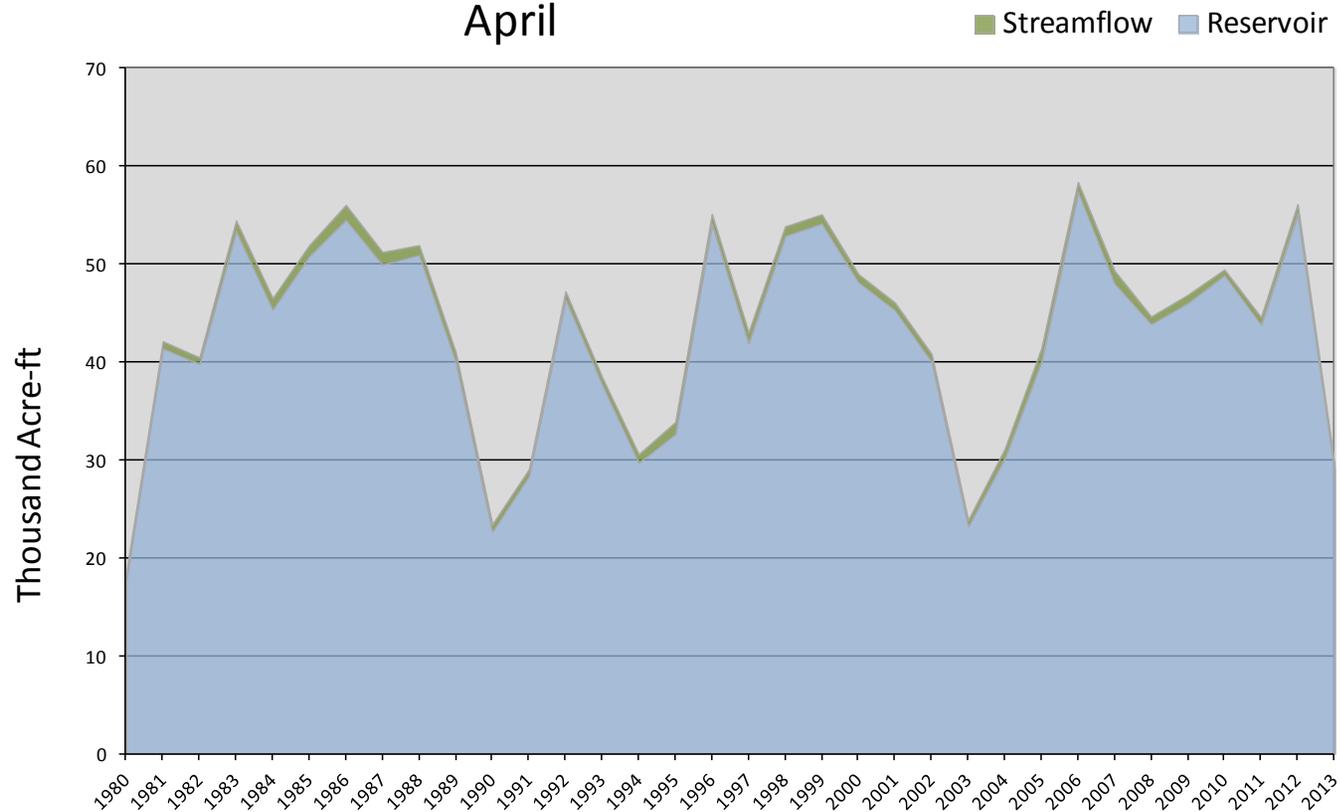
Reservoir Storage



April 1, 2013		Water Availability Index				
Basin or Region	March EOM* Red Fleet and Steinaker	March accumulated flow Big Brush Creek (<i>observed</i>)	Reservoir + Streamflow	WAI [#]	Percentile	Years with similar WAI
	<i>KAF</i> [^]	<i>KAF</i>	<i>KAF</i>		%	
Eastern Uintah	29.2	0.6	29.8	-2.98	14	03, 91, 94, 04

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

Eastern Uintah - Water Availability Index
April

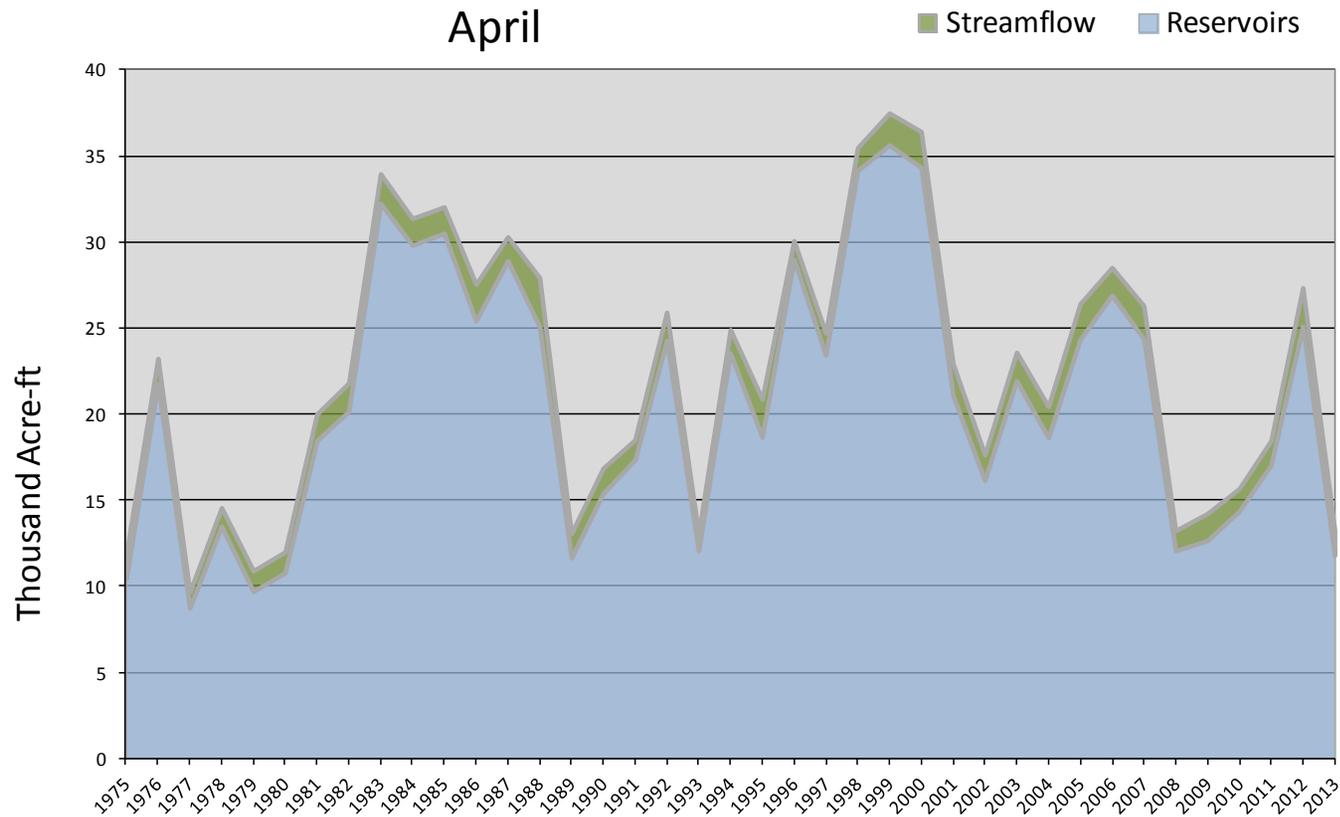


April 1, 2013						
Water Availability Index						
Basin or Region	March EOM* Moon Lake	March accumulated flow Lake Fork Creek above Moon Lake (<i>observed</i>)	Reservoir + Streamflow	WAI [#]	Percentile	Years with similar WAI
	<i>KAF</i> [^]	<i>KAF</i>	<i>KAF</i>		%	
Moon Lake	11.8	1.5	13.3	-2.50	20	89, 08, 09, 78

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

Moon Lake - Water Availability Index

April

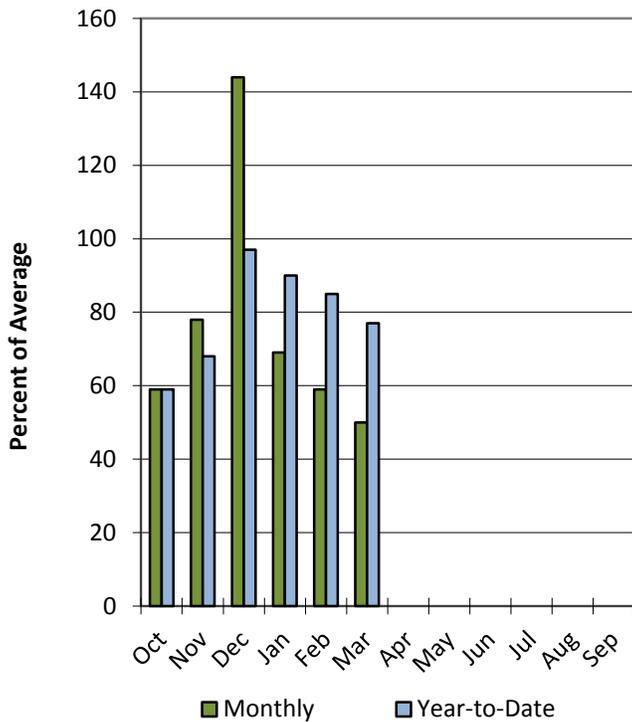


Price & San Rafael Basins

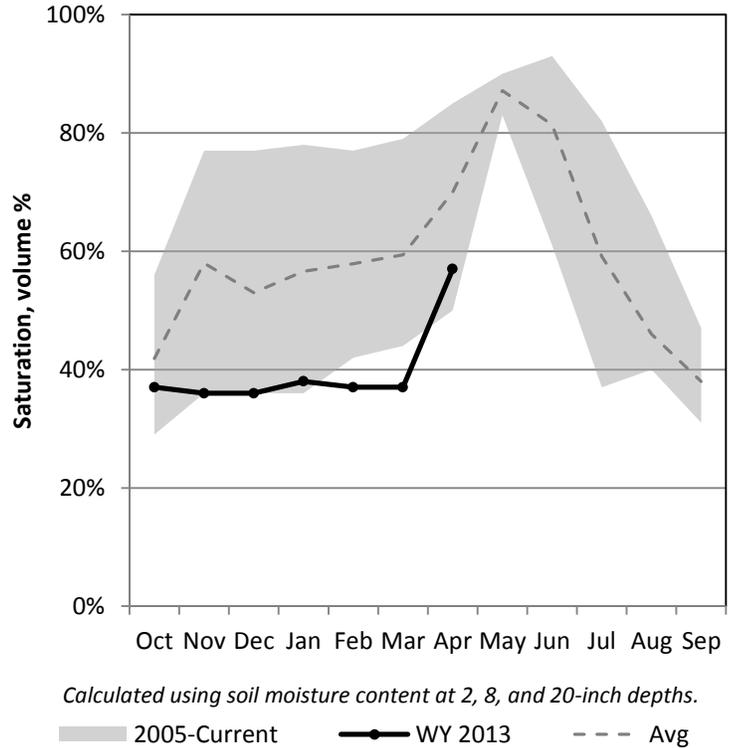
4/1/2013

Precipitation in March was much below average at 50%, which brings the seasonal accumulation (Oct-Mar) to 77% of average. Soil moisture is at 57% compared to 85% last year. Reservoir storage is at 48% of capacity, compared to 80% last year. The water availability index for the Price River is 45%, and 23% for Joe's Valley.

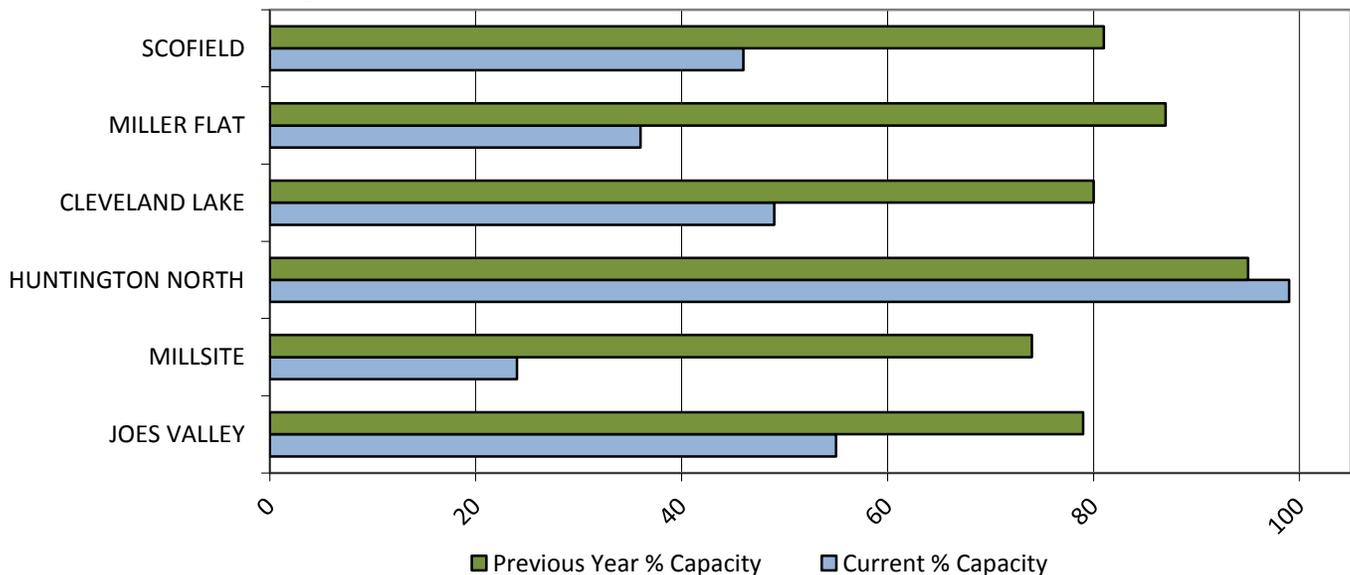
Precipitation



Soil Moisture



Reservoir Storage



April 1, 2013

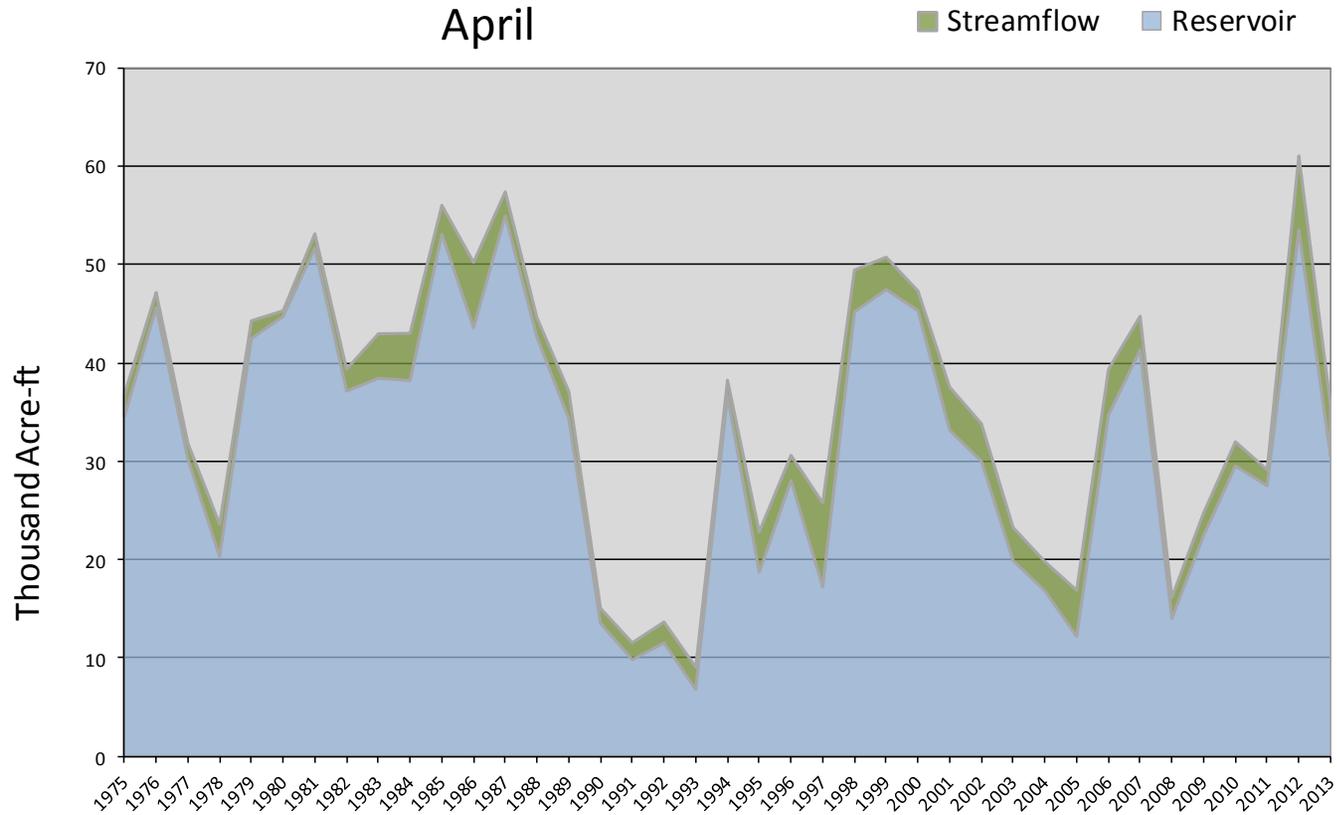
Water Availability Index

Basin or Region	March EOM*	March accumulated	Reservoir +	WAI [#]	Percentile	Years with similar WAI
	Scofield	inflow to Scofield (calculated)	Streamflow			
	KAF [^]	KAF	KAF		%	
Price River	30.5	5.1	35.6	-0.42	45	10, 02, 75, 89

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

Price River - Water Availability Index

April



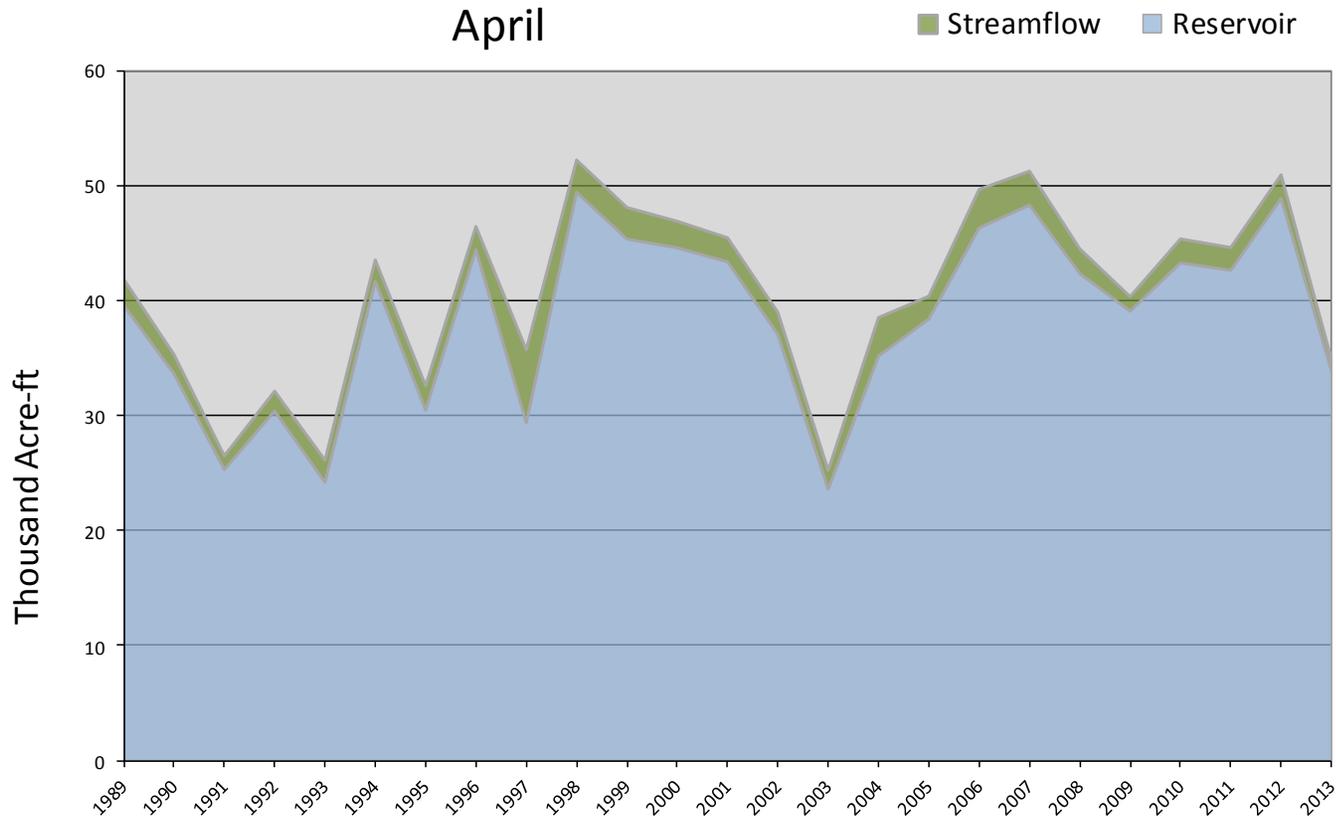
April 1, 2013

Water Availability Index

Basin or Region	March EOM* Joe's Valley	March accumulated inflow to Joe's Valley (calculated)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Joe's Valley	33.9	1.0	34.9	-2.24	23	92, 95, 90, 97

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

Joe's Valley - Water Availability Index April

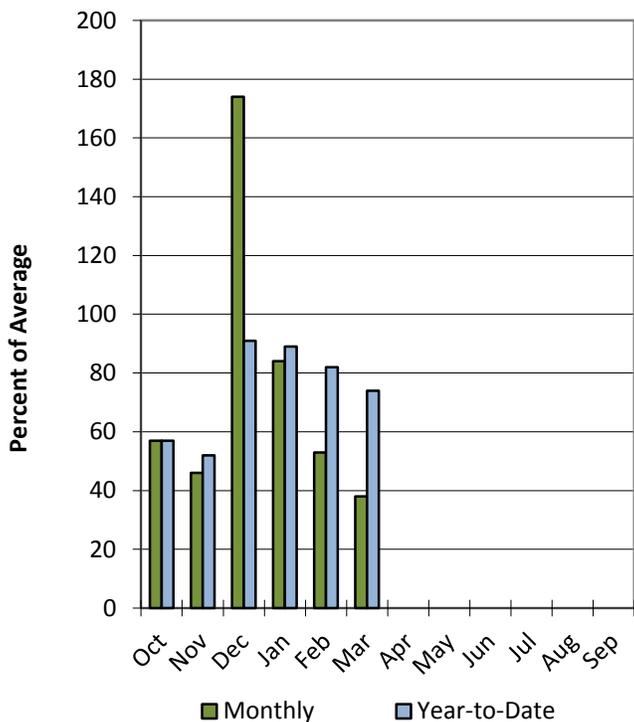


Southeastern Utah Basin

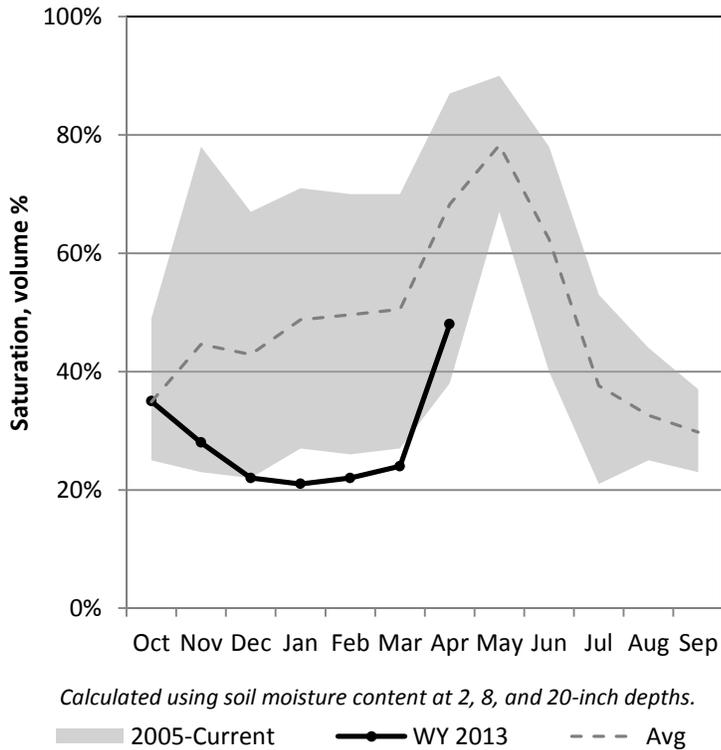
4/1/2013

Precipitation in March was much below average at 38%, which brings the seasonal accumulation (Oct-Mar) to 74% of average. Soil moisture is at 48% compared to 87% last year. Reservoir storage is at 18% of capacity, compared to 78% last year. The water availability index for Moab is 4%.

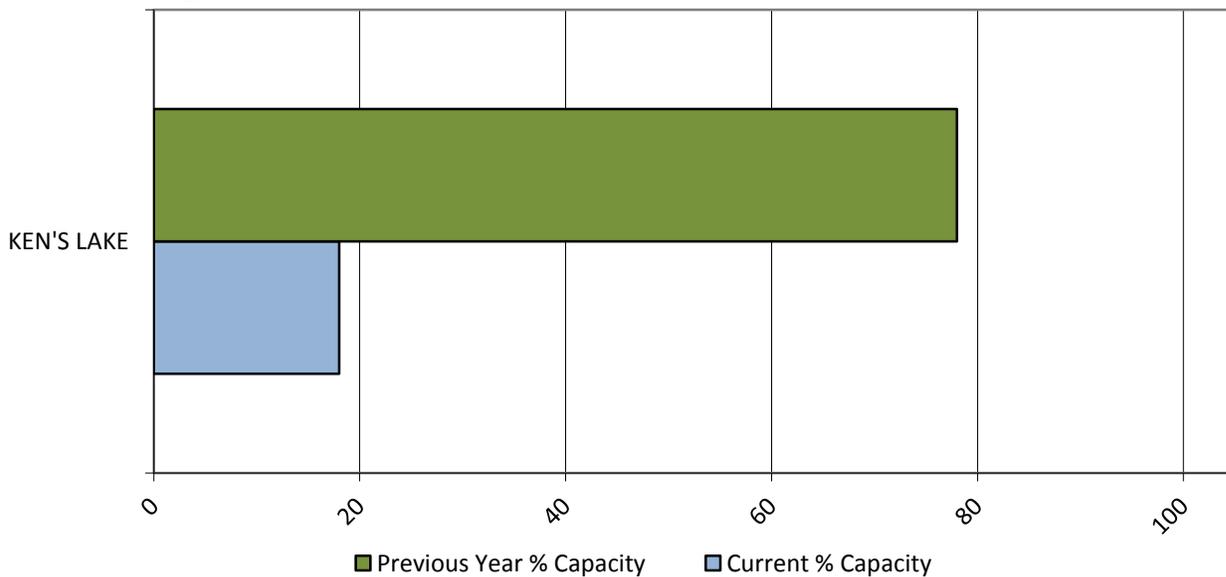
Precipitation



Soil Moisture



Reservoir Storage



April 1, 2013

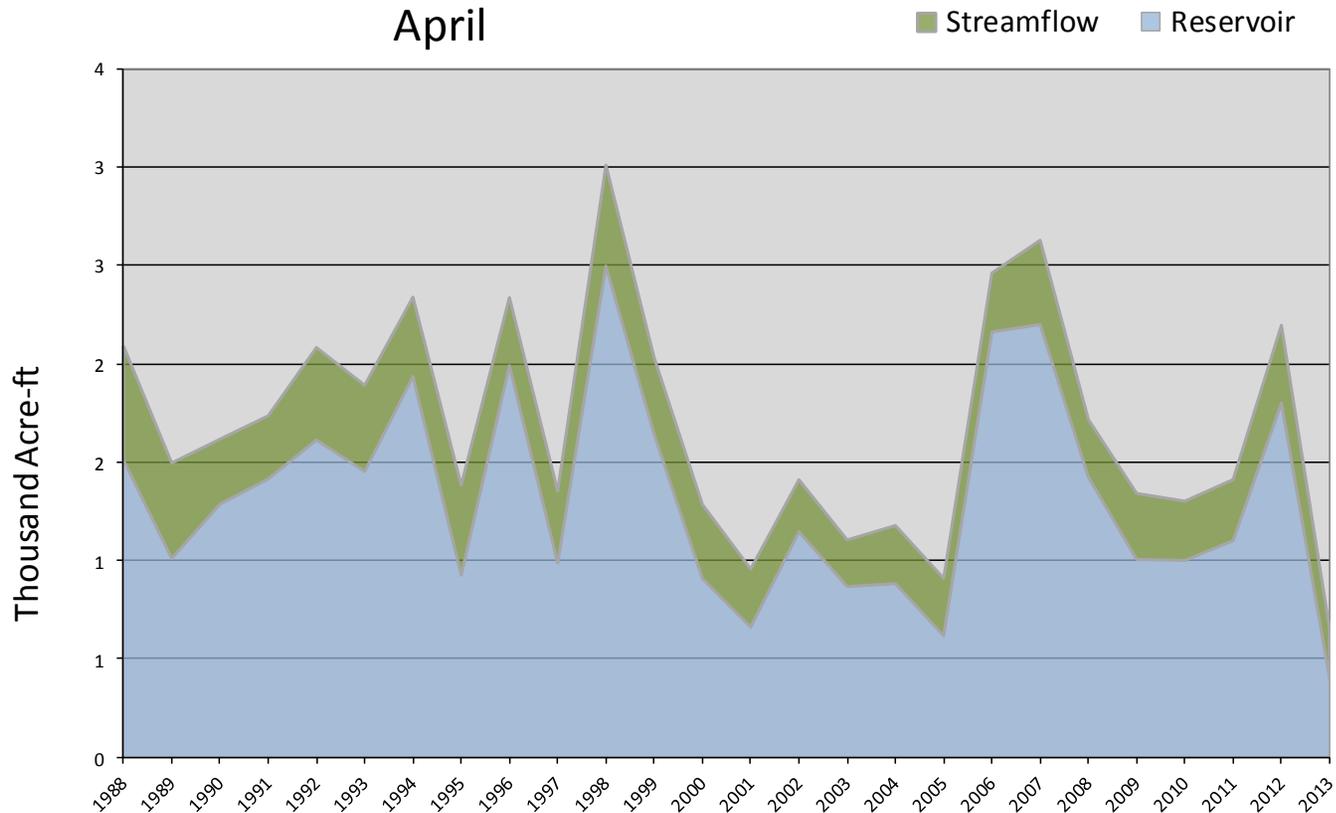
Water Availability Index

Basin or Region	March EOM* Ken's Lake Reservoir	March accumulated flow Mill Creek at Sheley (<i>observed</i>)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Moab	0.4	0.3	0.7	-3.86	4	05, 01

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

Moab - Water Availability Index

April

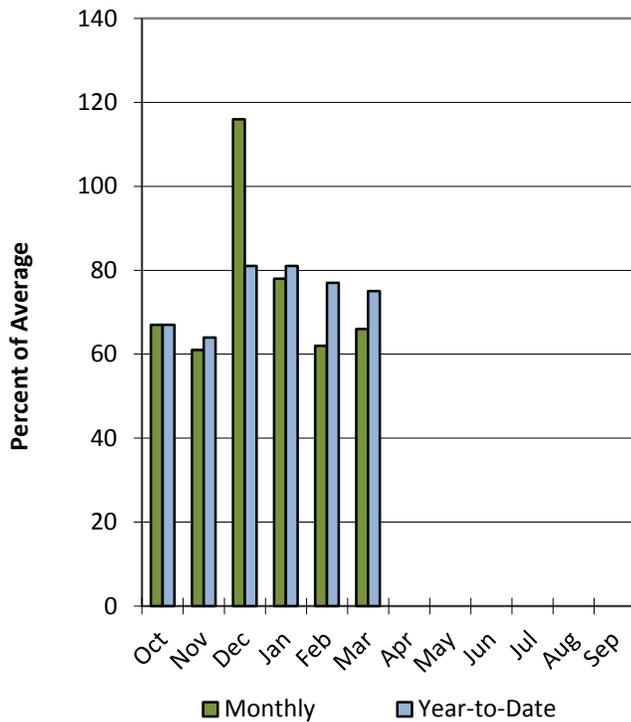


Dirty Devil Basin

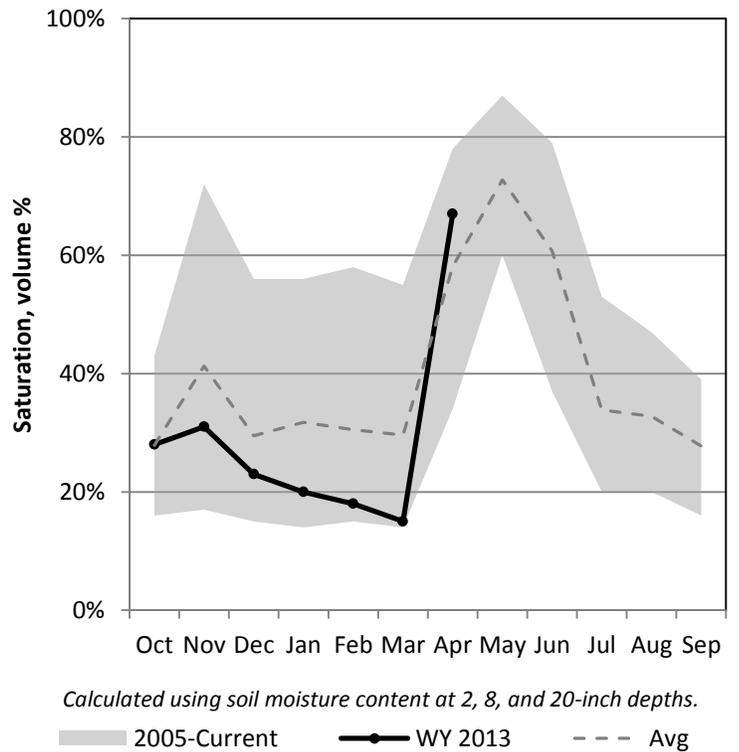
4/1/2013

Precipitation in March was much below average at 66%, which brings the seasonal accumulation (Oct-Mar) to 75% of average. Soil moisture is at 67% compared to 70% last year.

Precipitation



Soil Moisture

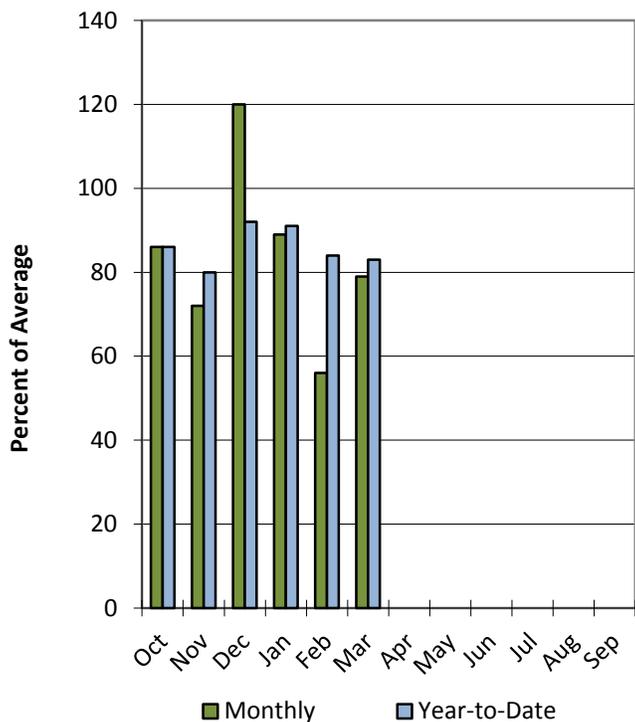


Escalante River Basin

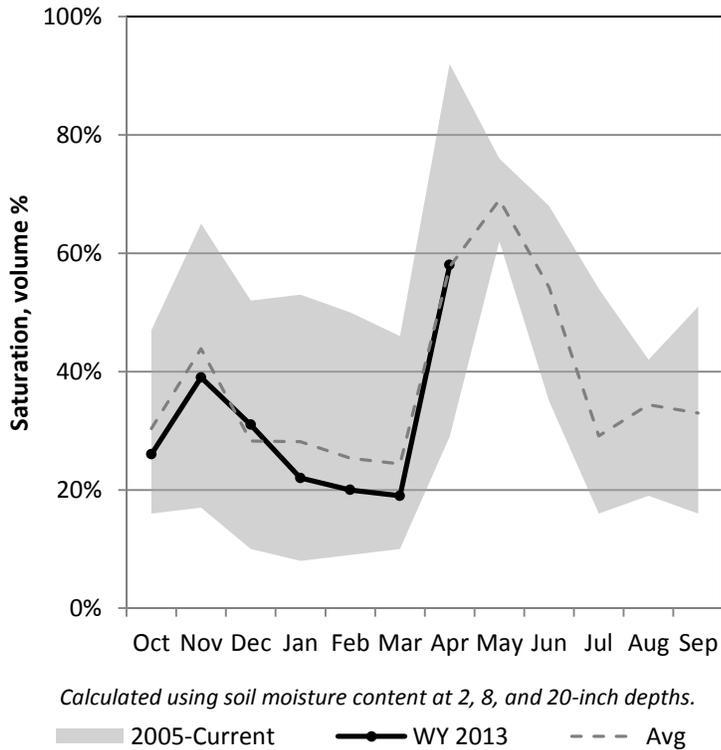
4/1/2013

Precipitation in March was below average at 79%, which brings the seasonal accumulation (Oct-Mar) to 83% of average. Soil moisture is at 58% compared to 84% last year.

Precipitation



Soil Moisture

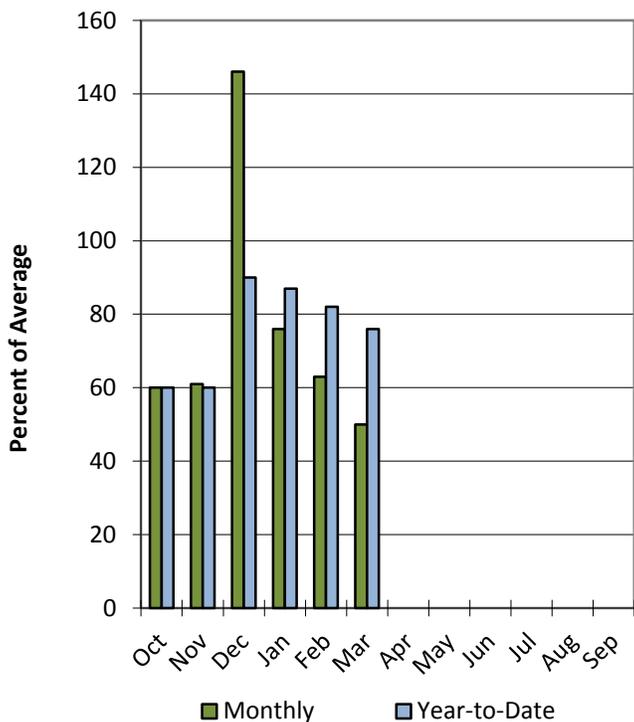


San Pitch River Basin

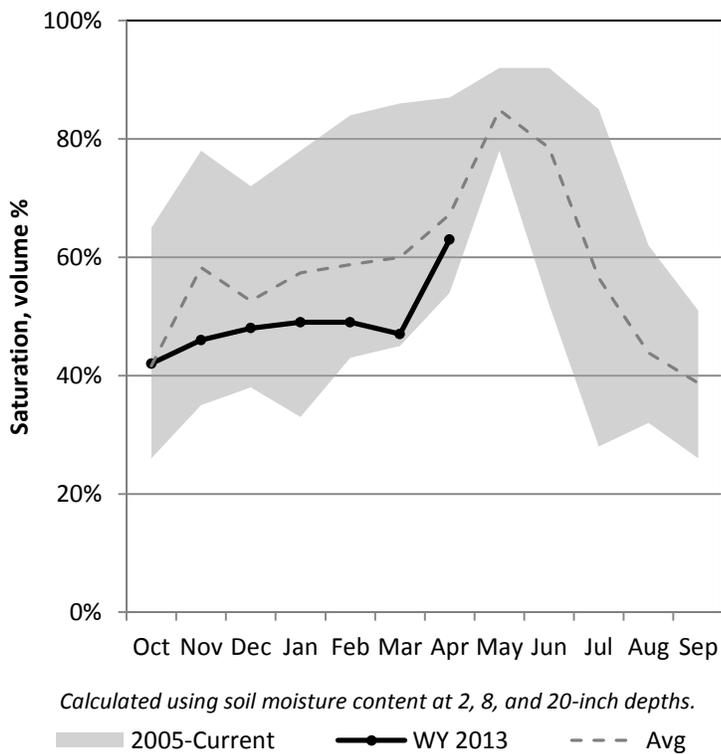
4/1/2013

Precipitation in March was much below average at 50%, which brings the seasonal accumulation (Oct-Mar) to 76% of average. Soil Moisture is at 63% compared to 79% last year. Reservoir storage is at 43% of capacity, compared to 101% last year.

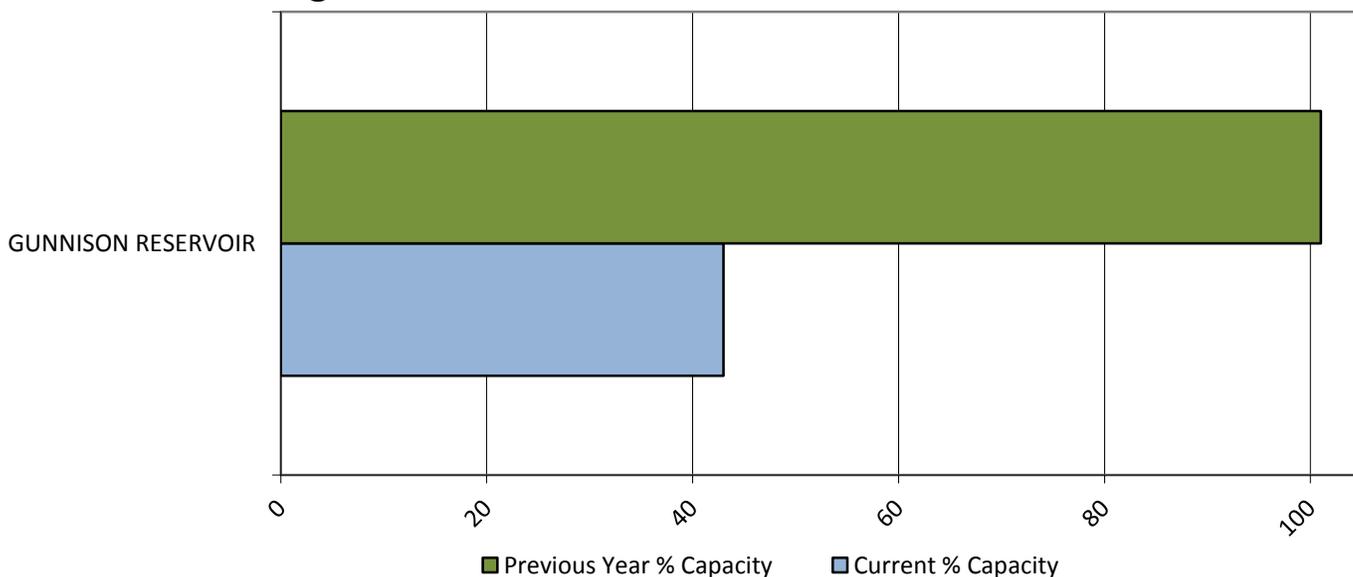
Precipitation



Soil Moisture



Reservoir Storage

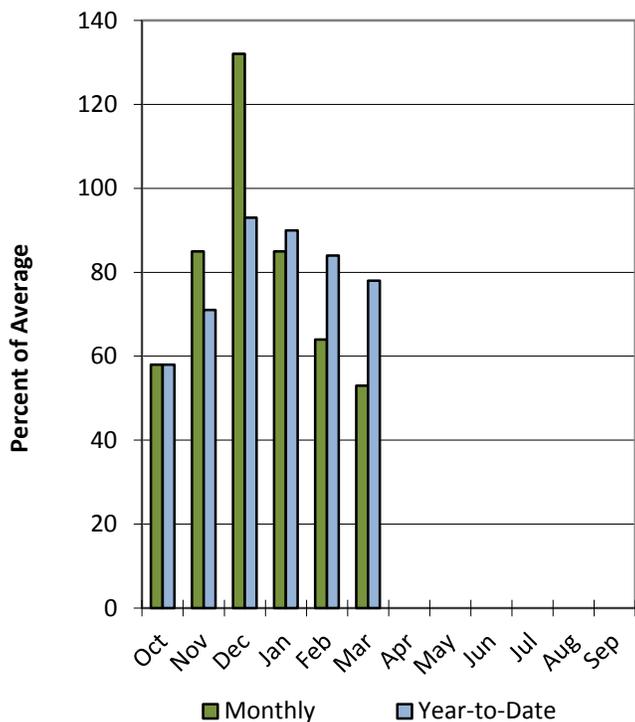


Upper Sevier River Basin

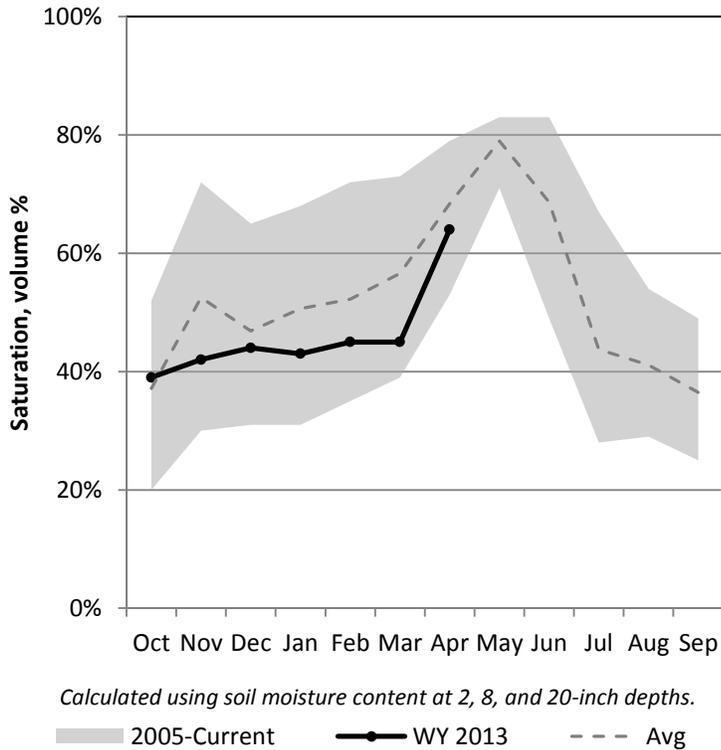
4/1/2013

Precipitation in March was much below average at 53%, which brings the seasonal accumulation (Oct-Mar) to 78% of average. Soil moisture is at 64% compared to 74% last year. Reservoir storage is at 75% of capacity, compared to 85% last year. The water availability index for the Upper Sevier is 62%.

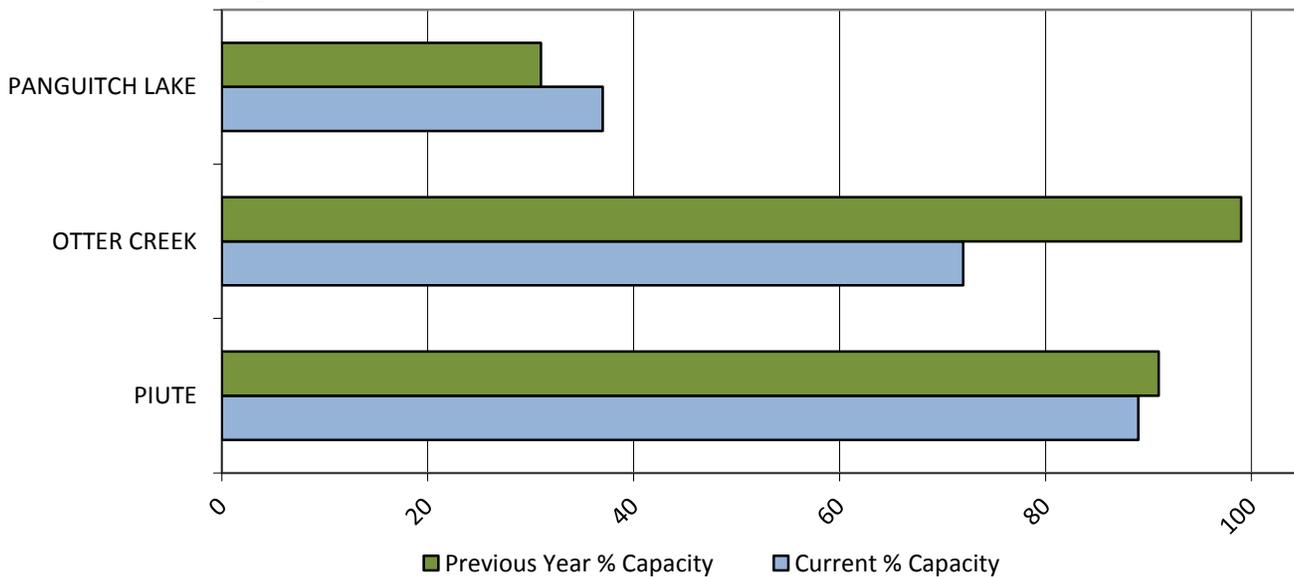
Precipitation



Soil Moisture



Reservoir Storage

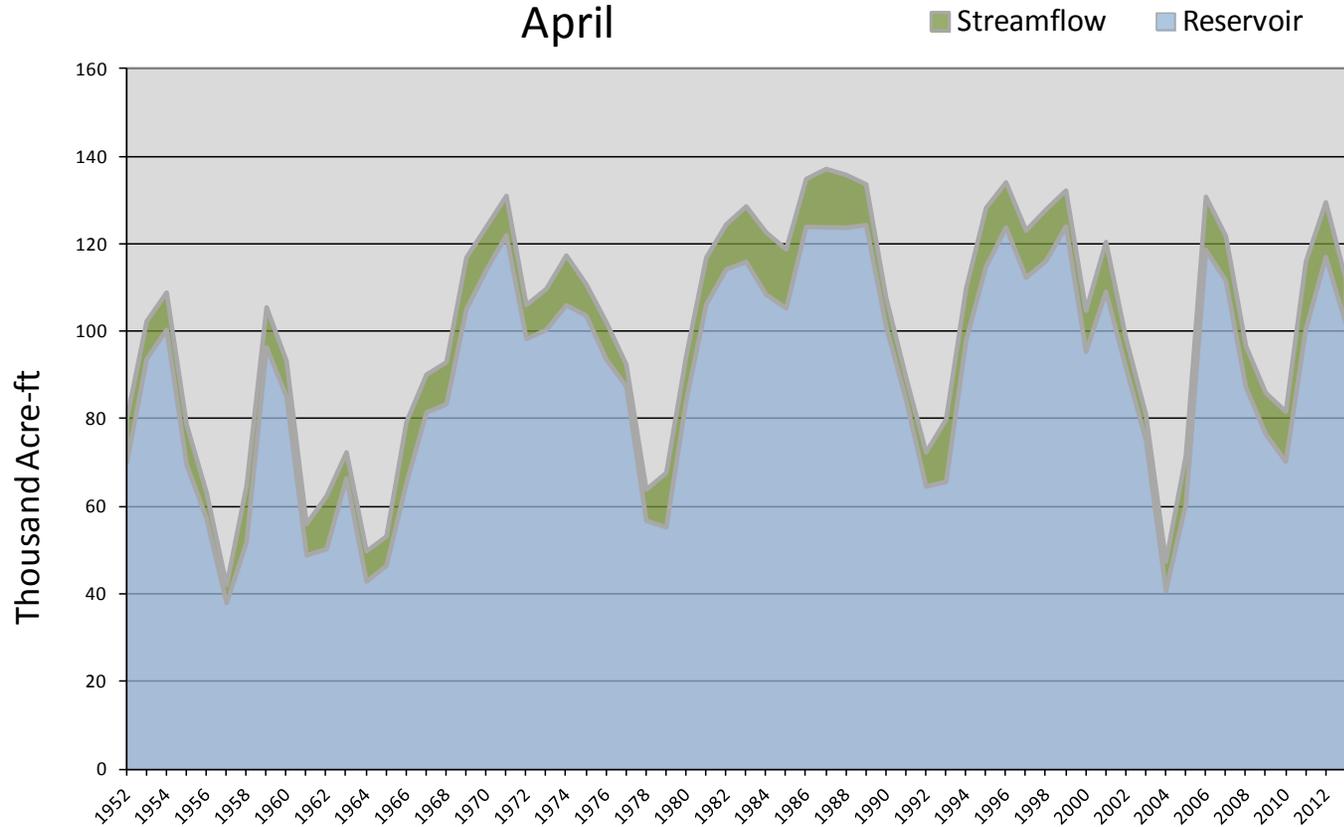


April 1, 2013		Water Availability Index				
Basin or Region	March EOM* Otter Creek and Piute	March accumulated flow at Kingston (<i>observed</i>)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	<i>KAF</i> [^]	<i>KAF</i>	<i>KAF</i>		%	
Upper Sevier River	102.0	10.1	112.1	0.99	62	94, 75, 11, 81

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

Upper Sevier River - Water Availability Index

April

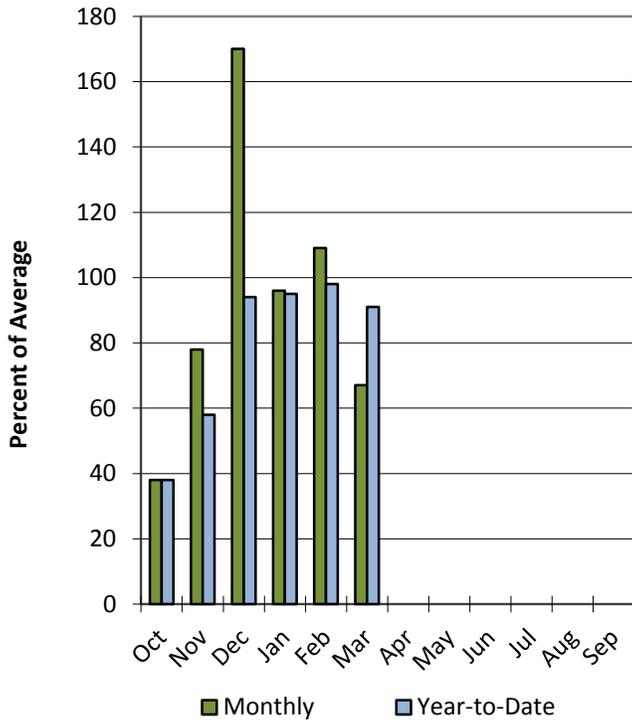


Lower Sevier River Basin

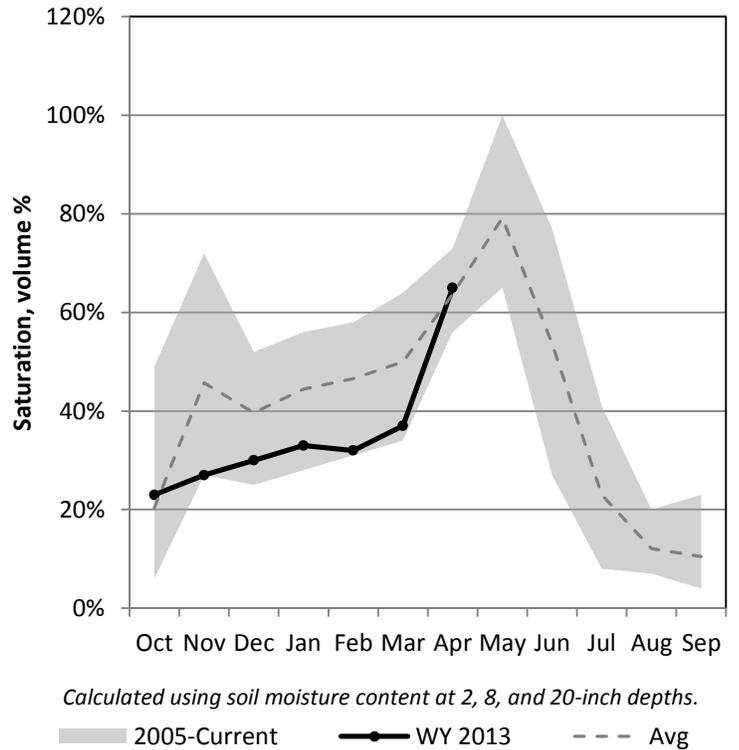
4/1/2013

Precipitation in March was much below average at 67%, which brings the seasonal accumulation (Oct-Mar) to 91% of average. Soil moisture is at 65% compared to 64% last year. Reservoir storage is at 73% of capacity, compared to 99% last year. The water availability index for the Lower Sevier is 45%.

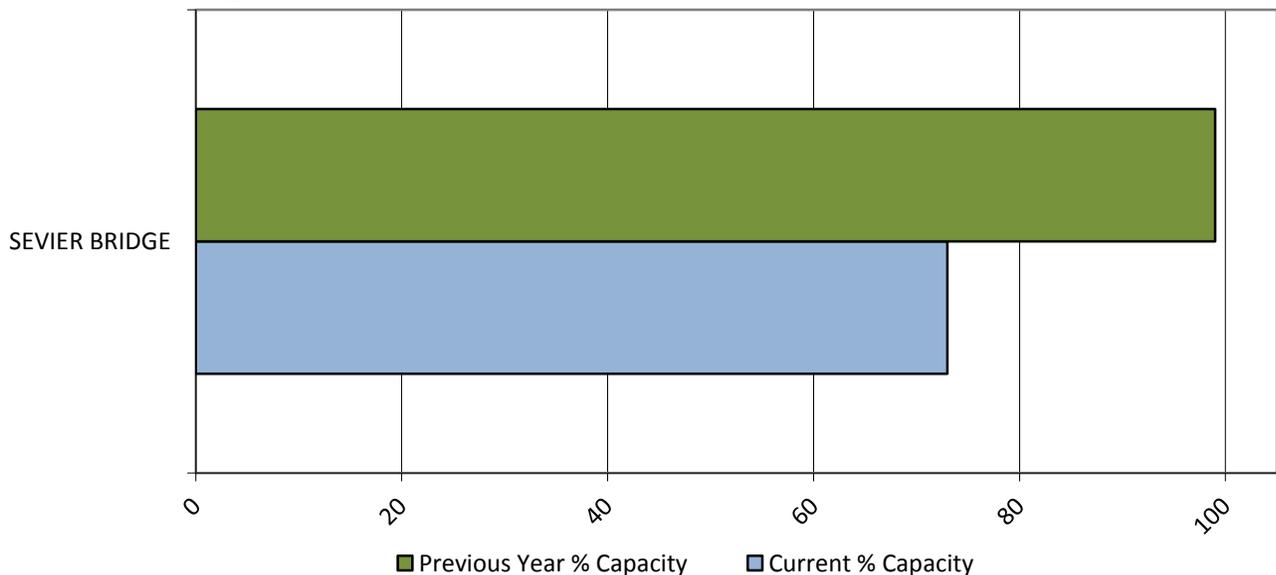
Precipitation



Soil Moisture



Reservoir Storage

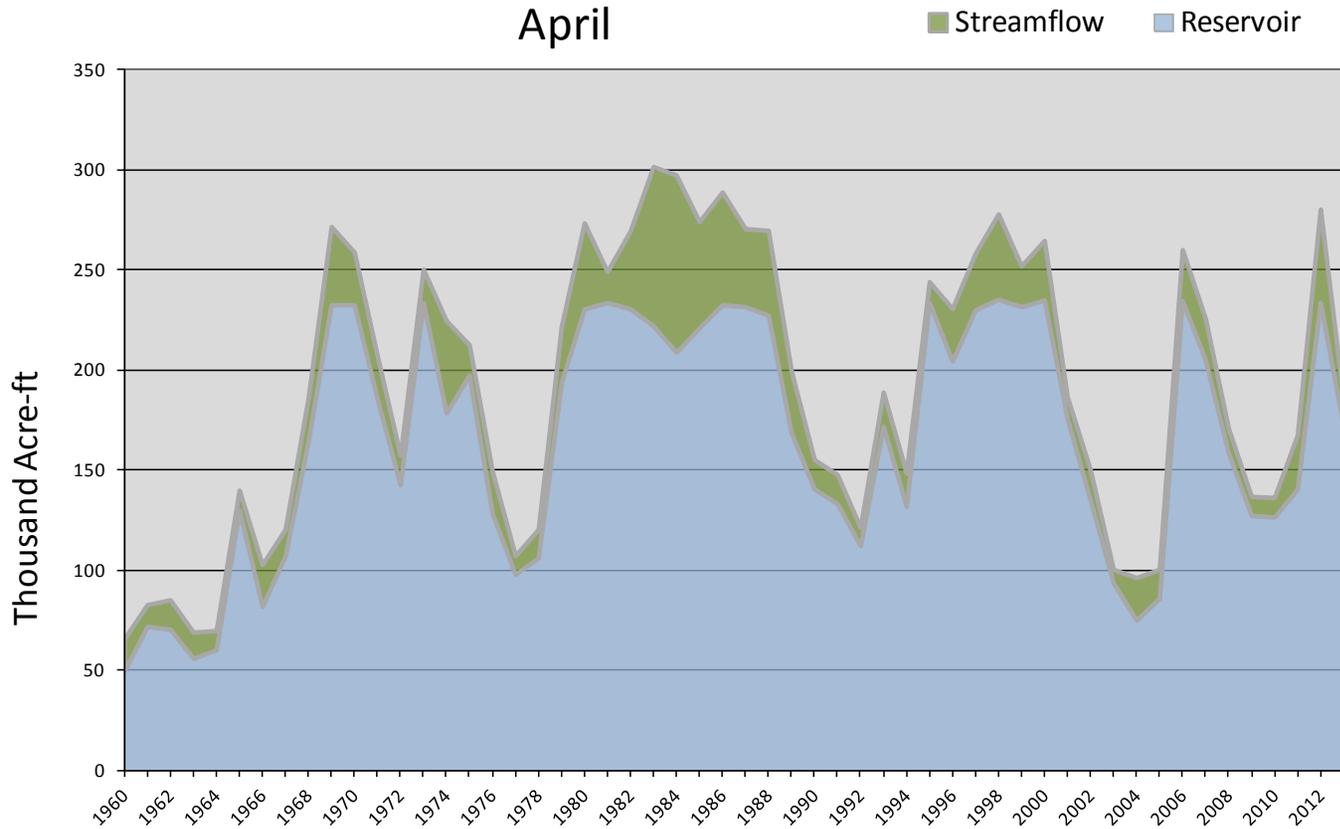


April 1, 2013		Water Availability Index				
Basin or Region	March EOM* Sevier Bridge	March accumulated flow Sevier at Gunnison (<i>observed</i>)	Reservoir + Streamflow	WAI [#]	Percentile	Years with similar WAI
	<i>KAF</i> [^]	<i>KAF</i>	<i>KAF</i>		%	
Lower Sevier River	172.0	13.6	185.6	-0.38	45	11, 08, 68, 01

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

Lower Sevier River - Water Availability Index

April

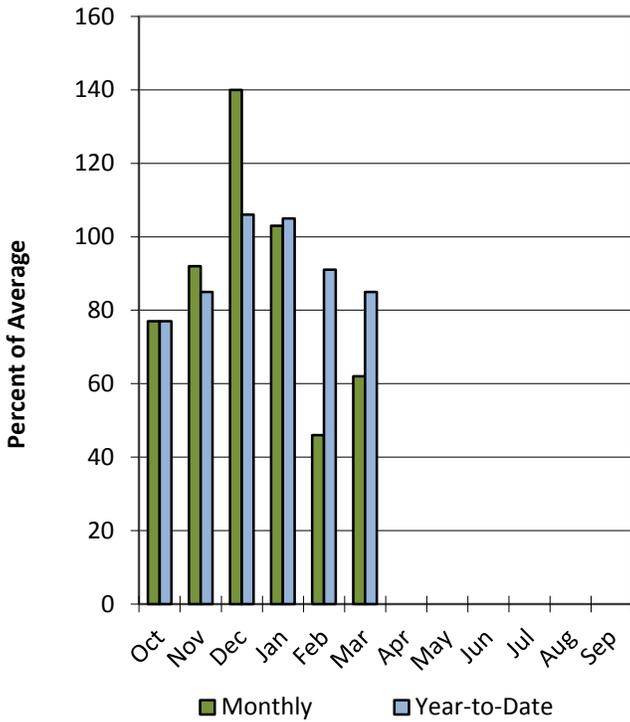


Beaver River Basin

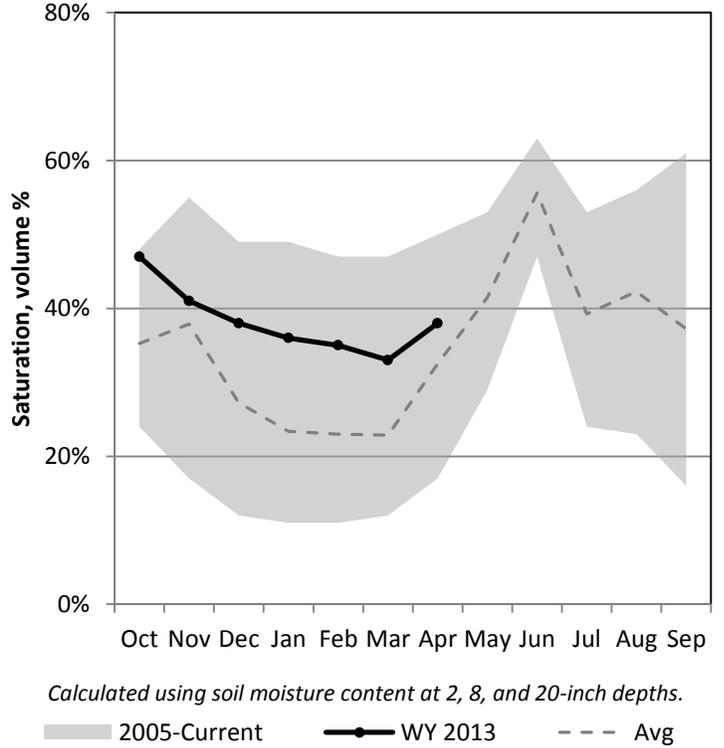
4/1/2013

Precipitation in March was much below average at 62%, which brings the seasonal accumulation (Oct-Mar) to 85% of average. Soil moisture is at 38% compared to 43% last year. Reservoir storage is at 63% of capacity, compared to 108% last year. The water availability index for the Beaver River is 51%.

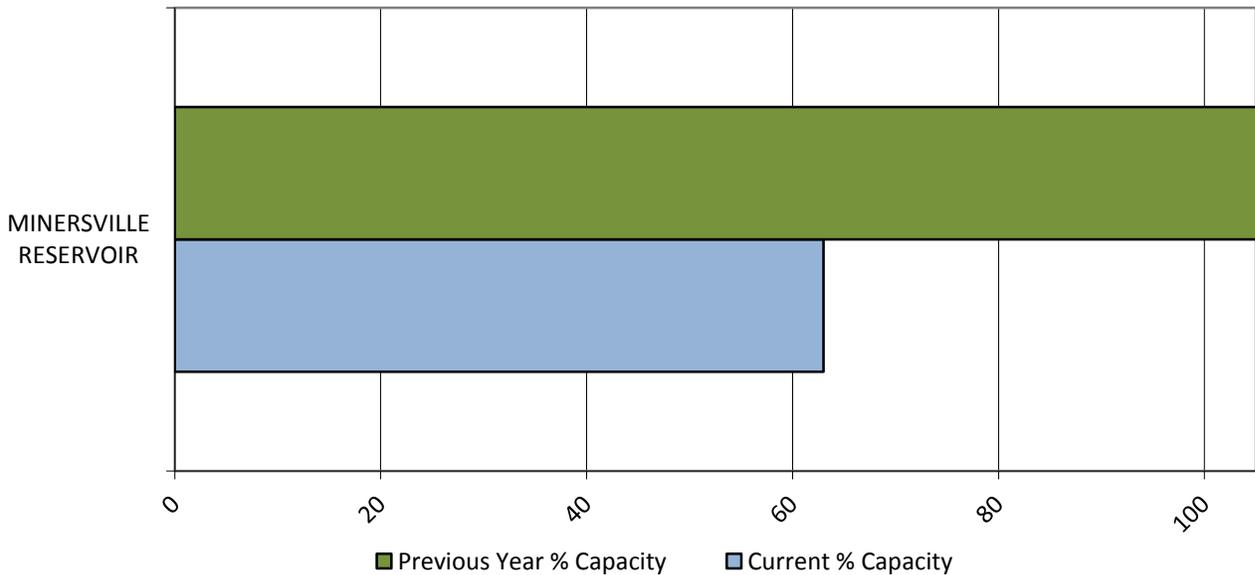
Precipitation



Soil Moisture



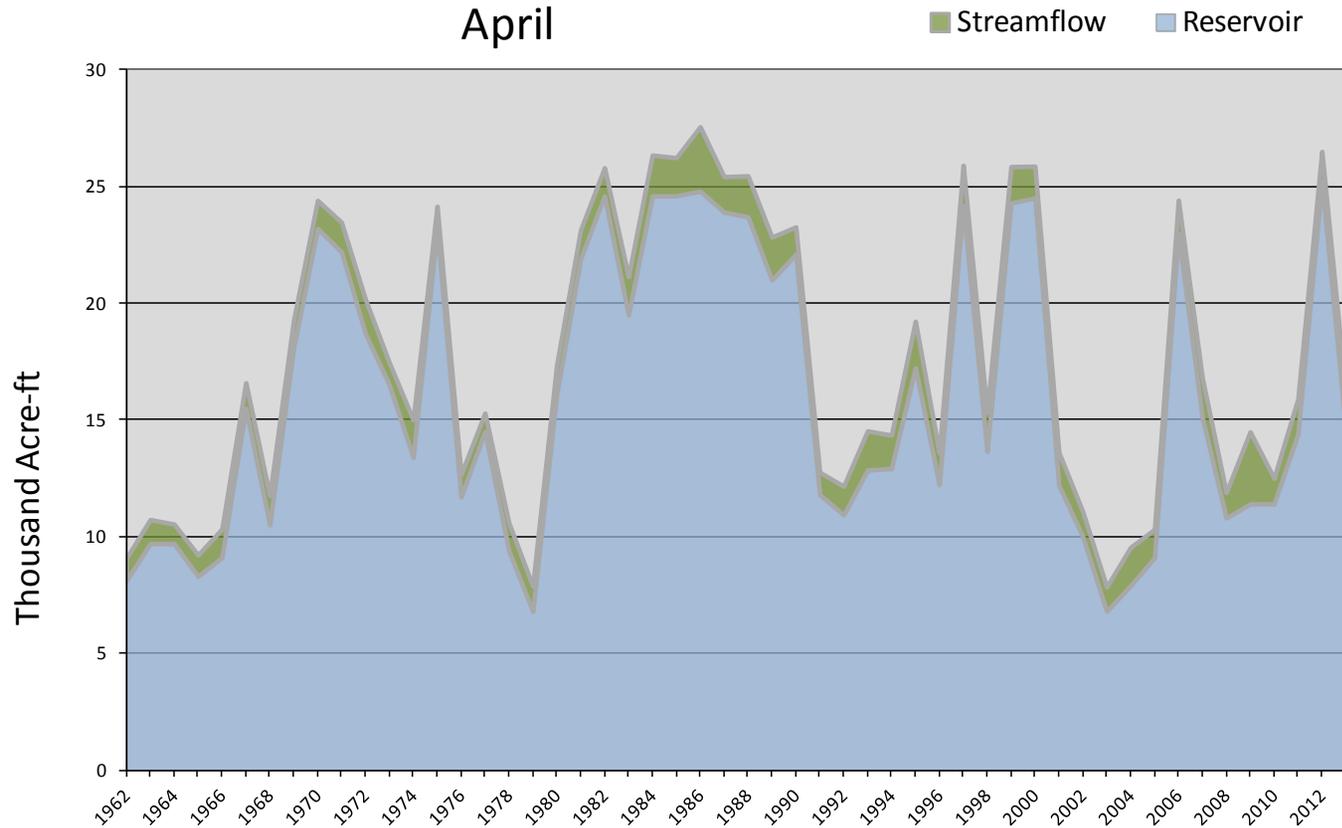
Reservoir Storage



April 1, 2013		Water Availability Index				
Basin or Region	March EOM* Minersville Reservoir	March accumulated flow Beaver River at Beaver (<i>observed</i>)	Reservoir + Streamflow	WAI [#]	Percentile	Years with similar WAI
	<i>KAF</i> [^]	<i>KAF</i>	<i>KAF</i>		%	
Beaver	14.6	1.5	16.1	0.08	51	98, 11, 67, 07

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

Beaver River - Water Availability Index
April

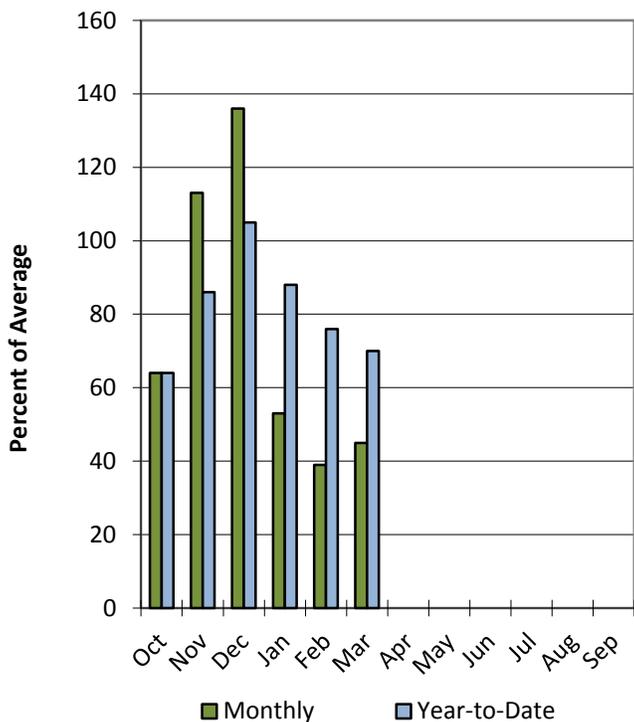


Southwestern Utah Basin

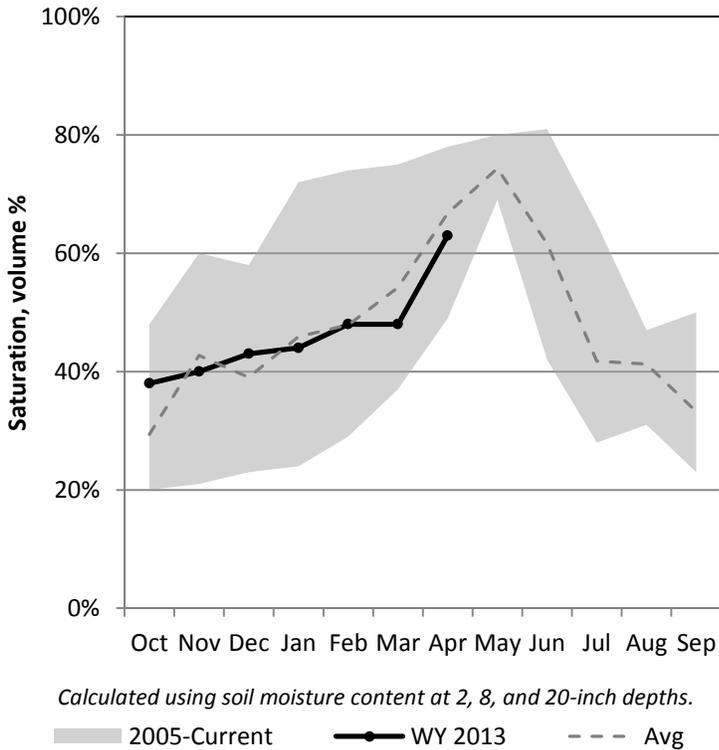
4/1/2013

Precipitation in March was much below average at 45%, which brings the seasonal accumulation (Oct-Mar) to 70% of average. Soil moisture is at 63% compared to 68% last year. Reservoir storage is at 48% of capacity, compared to 64% last year. The water availability index for the Virgin River is 12%.

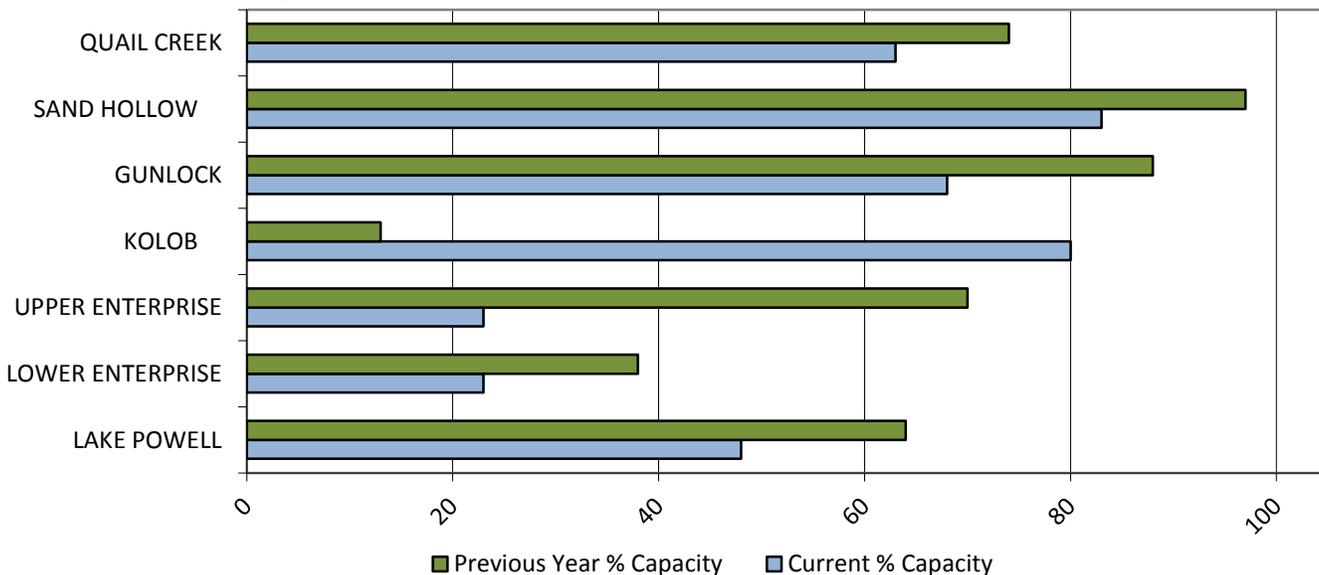
Precipitation



Soil Moisture



Reservoir Storage



April 1, 2013

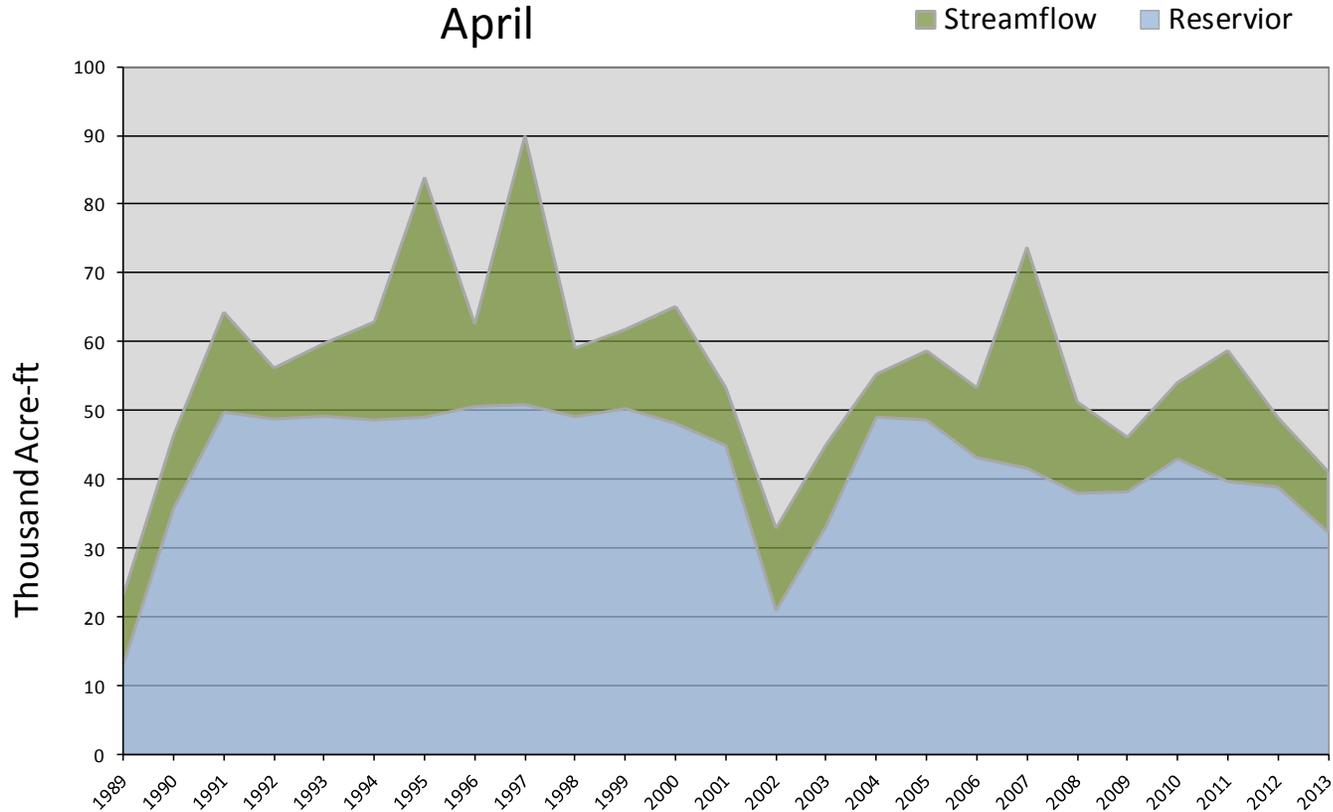
Water Availability Index

Basin or Region	March EOM* Reservoir	March accumulated flow Virgin and Santa Clara Rivers (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Southwest	32.3	8.8	41.1	-3.21	12	09,03,02,89

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

Southwest - Water Availability Index

April



4/1/2013

Water Availability Index

Basin or Region	March EOM* Reservoirs	Observed February stream flow	Reservoir + Streamflow	WAI [#]	Percentile	Years with similar WAI
	<i>KAF</i> [^]	<i>KAF</i>	<i>KAF</i>		%	
Bear River	801	9	810	-0.04	50	57, 01, 54, 65
Ogden River	63	3	66	-1.46	32	00, 96, 02, 79
Weber River	254	3	257	-2.69	18	93, 03, 97, 86
Provo	315	3	318	-2.41	0.21	97,02,03,04
West Uintah Basin	12	1	13	-2.50	20	89, 08, 09, 78
Eastern Uintah	29.2	0.6	30	-2.98	14	03, 91, 94, 04
Price River	30.5	5.1	35.6	-0.42	45	10, 02, 75, 89
Joe's Valley	33.9	1.0	34.9	-2.24	23	92, 95, 90, 97
Moab	0.4	0.3	0.7	-3.86	4	05, 01
Upper Sevier River	102	10	112	0.99	62	94, 75, 11, 81
Lower Sevier River	172	14	186	-0.38	45	11, 08, 68, 01
Beaver River	14.6	1.5	16.1	0.08	51	98, 11, 67, 07
Virgin River	32.3	8.8	41.1	-3.21	12	09, 03, 02, 89

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

What is a Water Availability Index?

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

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

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

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

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**Utah Climate and
Water Report**
Natural Resources Conservation Service
Salt Lake City, UT

