

Utah Climate and Water Report

June 2011



Bear River

Near Peterson Park approximately 2 miles east of Tremonton (*photo by Randy Lewis, 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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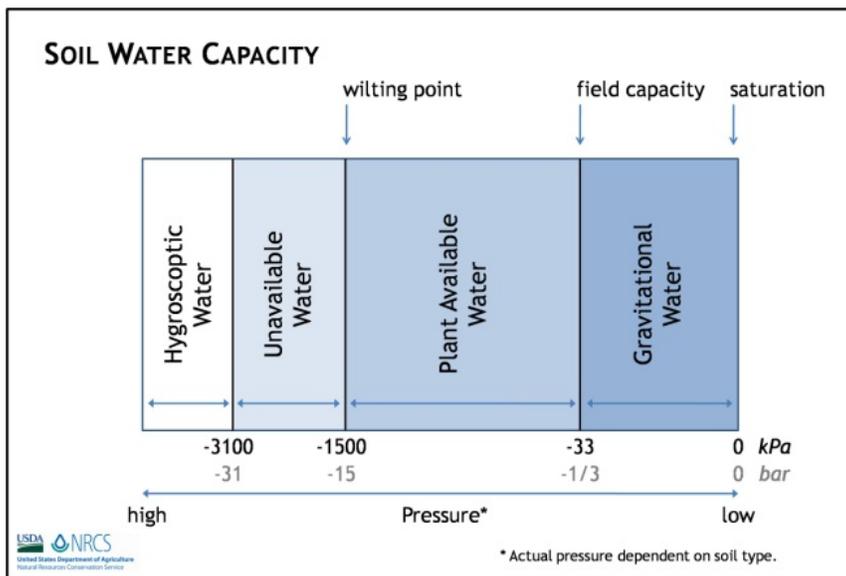
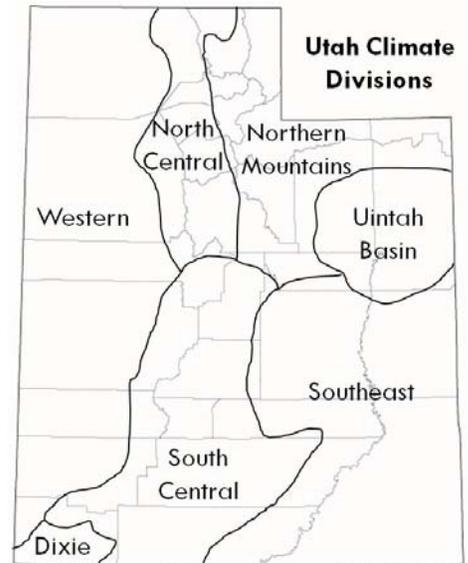
- a) SNOTEL Current Snow Water Equivalent (SWE) % of Normal
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- i) E. Garfield, Kane, Washington, and Iron Co.
 - Water Availability Index

Climate and Water Information

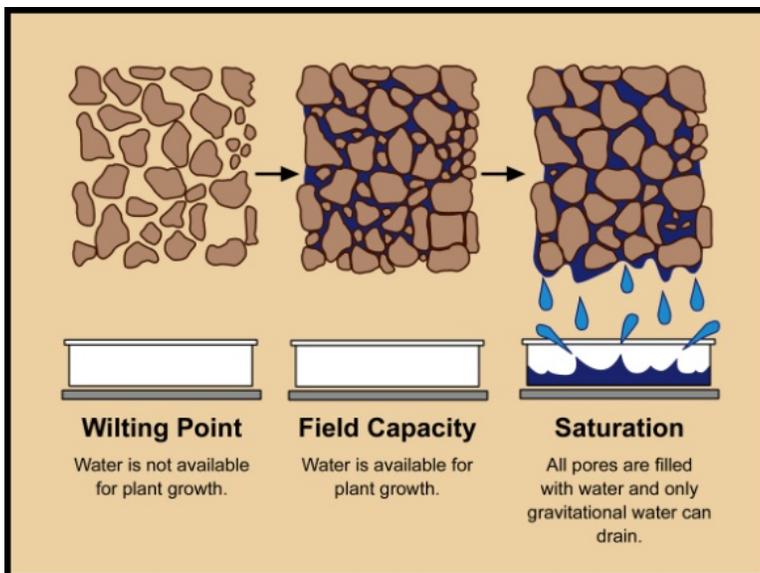
Soil Climate Analysis Network

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

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



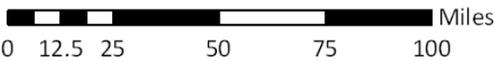
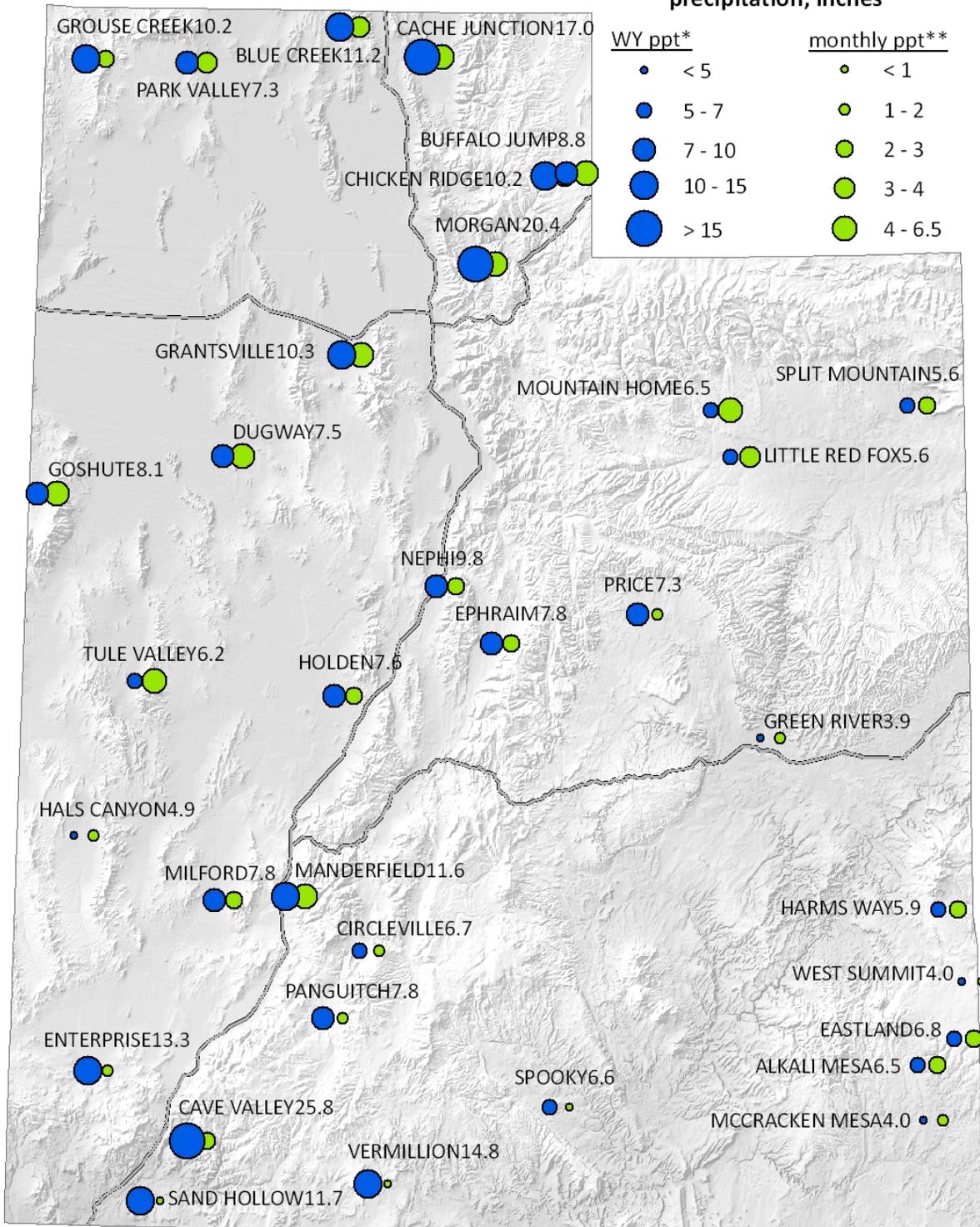
Explanation of soil water capacity definitions. Field capacity (FC) and wilting point (WP) are calculated in the laboratory for each soil horizon. The amount of water held between field capacity and wilting point is plant available.



Visual explanation of soil water capacity definitions.

Utah SCAN Water Year Precipitation *

updated June 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)

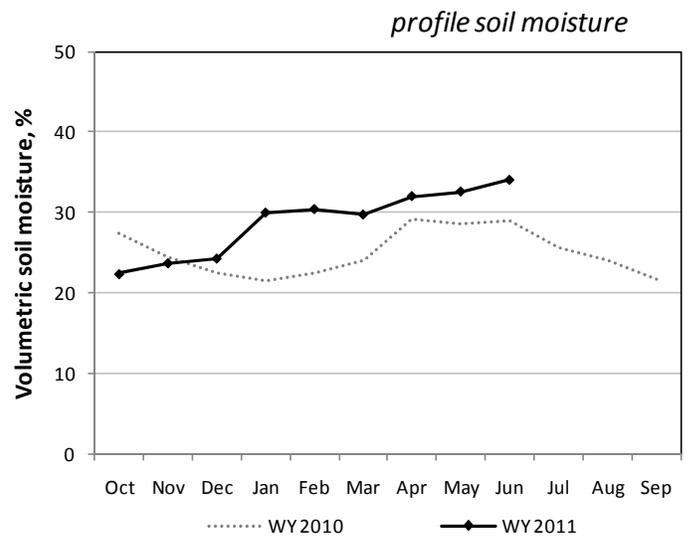
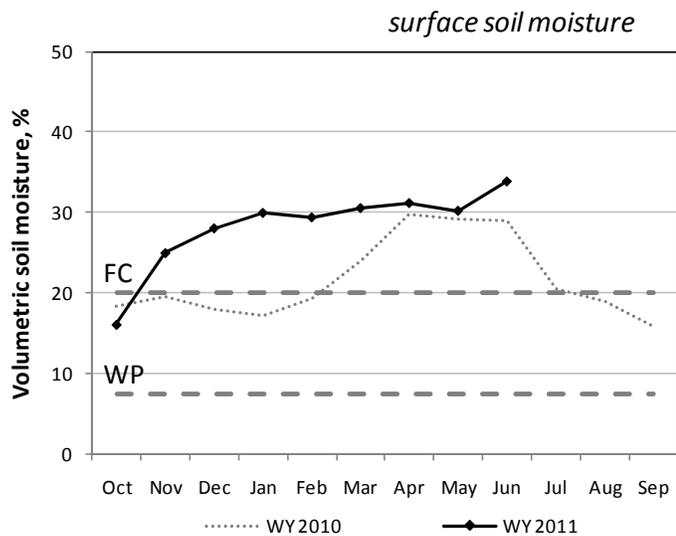
North Central

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"
		<i>in.</i>	<i>in.</i>	<i>° F</i>	<i>volume %</i>					<i>° F</i>				
NORTH CENTRAL														
Blue Creek	<i>Box Elder</i>	11.2	3.3	39	27	30	38	36	25	42	46	46	44	44
Cache Junction	<i>Cache</i>	17.0	4.2	38	36	40	45	39	41	44	46	46	44	44
Grantsville	<i>Tooele</i>	10.3	4.9	41	12	1	25	36	25	46	51	52	50	51

*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

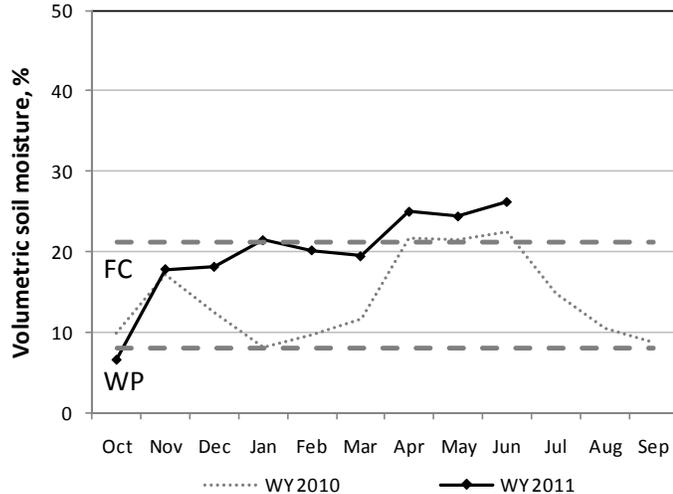
Soil Climate Analysis Network (SCAN)

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"
		<i>in.</i>	<i>in.</i>	<i>° F</i>	<i>volume %</i>					<i>° F</i>				
NORTHERN MOUNTAINS														
Chicken Ridge	<i>Morgan</i>	10.2	3.9	32	23	15	25	20	29	33	33	33	33	33
Buffalo Jump	<i>Rich</i>	8.8	4.1	32	20	27	25	29	-	40	42	42	41	-
Morgan	<i>Morgan</i>	20.4	4.3	38	24	26	29	17	8	44	44	46	45	43

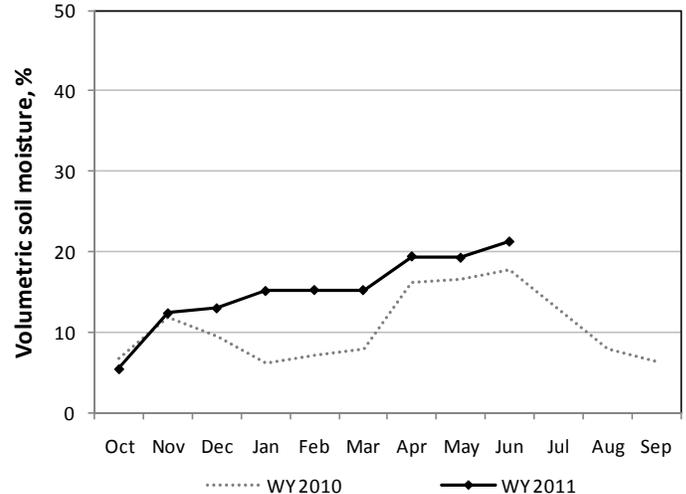
*since October 1, 2010. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

Northern Mountains

surface soil moisture



profile soil moisture



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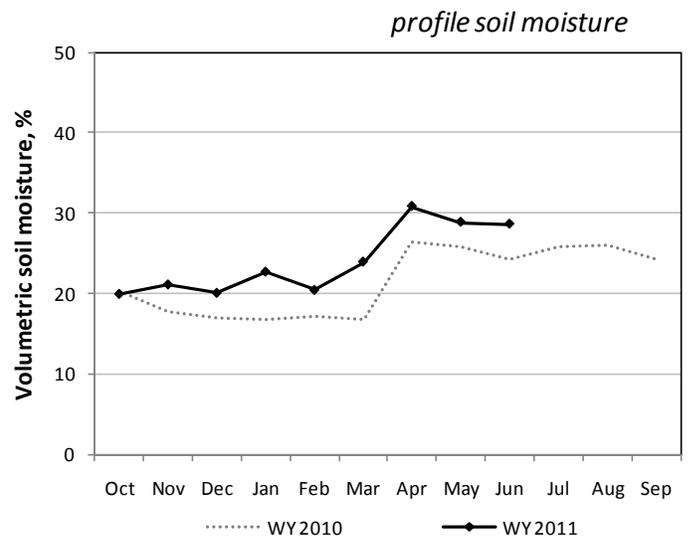
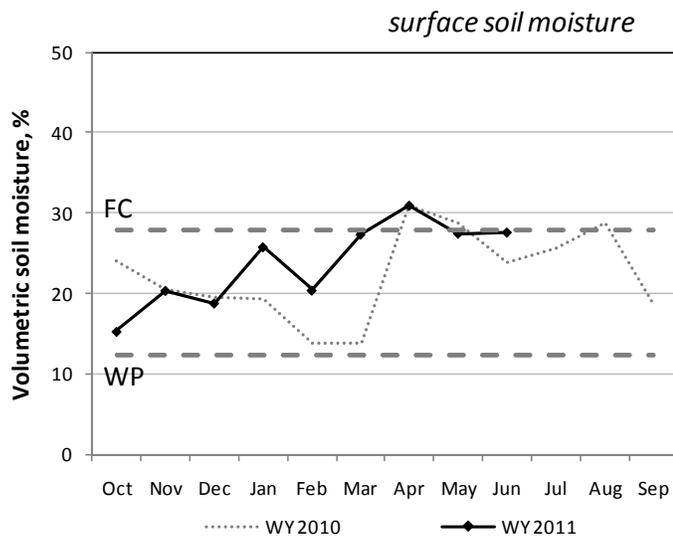
Uintah Basin

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"
		<i>in.</i>	<i>in.</i>	<i>° F</i>	<i>volume %</i>					<i>° F</i>				
UINTAH BASIN														
Mountain Home	<i>Duchesne</i>	6.5	5.1	32	27	36	39	34	29	40	41	42	42	43
Little Red Fox	<i>Duchesne</i>	5.6	3.0	38	5	32	39	36	44	40	48	49	49	47
Split Mountain	<i>Uintah</i>	5.6	2.3	40	11	22	20	22	11	43	48	50	49	48

*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 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

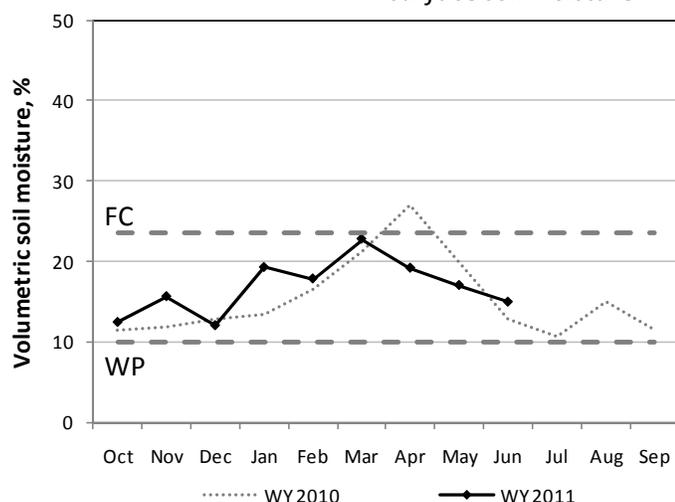
Soil Climate Analysis Network (SCAN)

Site name	County	Precip to Date*	Monthly Precip	Avg Air Temp	Soil Moisture					Soil Temperature				
					2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
		<i>in.</i>	<i>in.</i>	<i>° F</i>	<i>volume %</i>					<i>° F</i>				
SOUTHEAST														
Price	<i>Carbon</i>	7.3	1.9	38	0	14	20	14	17	44	48	49	49	49
Green River	<i>Emery</i>	3.9	1.1	49	6	9	9	5	9	56	59	61	58	56
Harm's Way	<i>San Juan</i>	5.9	2.0	33	19	8	28	26	11	40	37	44	45	46
West Summit	<i>San Juan</i>	4.0	0.5	31	21	25	21	15	20	38	40	45	44	46
Eastland	<i>San Juan</i>	6.8	2.7	33	23	22	22	31	34	41	45	46	46	47
Alkali Mesa	<i>San Juan</i>	6.5	2.6	38	16	19	18	19	14	44	44	48	49	48
McCracken Mesa	<i>San Juan</i>	4.0	1.8	43	14	15	16	16	14	50	55	57	55	54

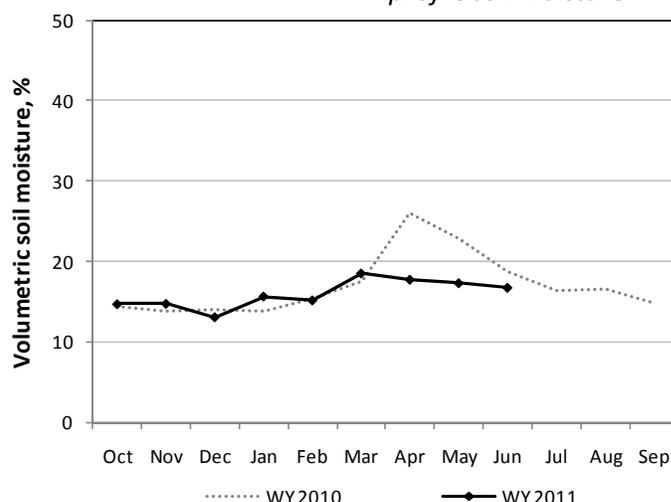
*since October 1, 2010. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

Southeast

surface soil moisture



profile soil moisture



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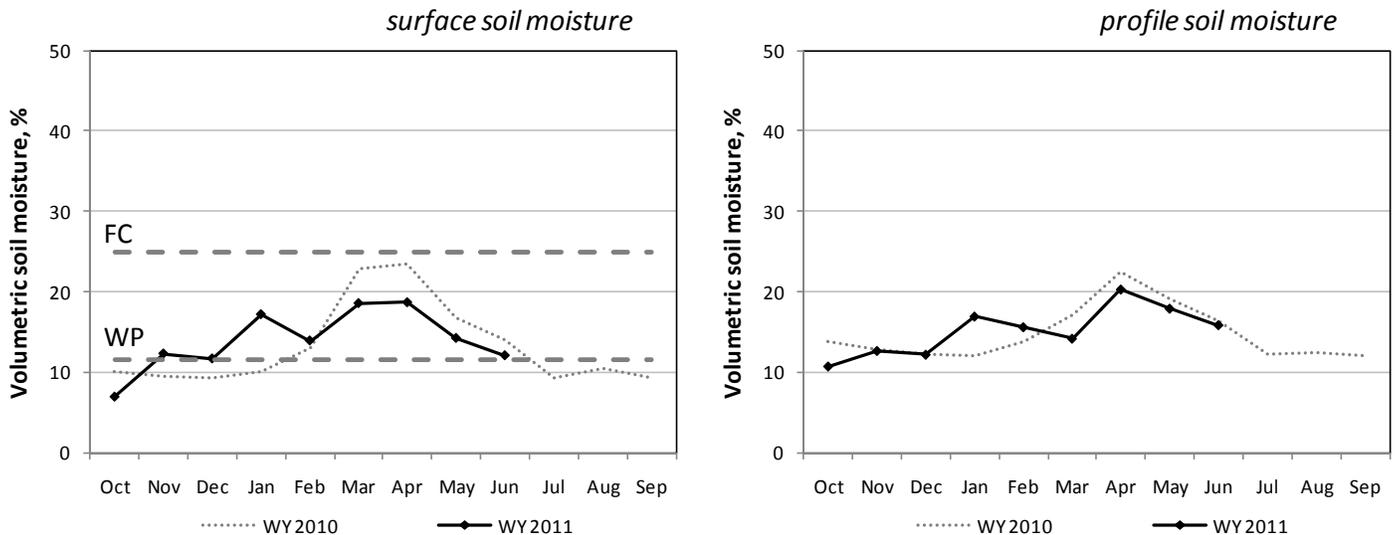
South Central

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"
		<i>in.</i>	<i>in.</i>	<i>° F</i>	<i>volume %</i>					<i>° F</i>				
SOUTH CENTRAL														
Nephi	<i>Juab</i>	9.8	3.0	37	19	22	22	15	nd	46	46	47	46	46
Ephraim	<i>Sanpete</i>	7.8	2.2	37	10	18	26	26	41	39	45	46	44	44
Holden	<i>Millard</i>	7.6	2.8	36	7	8	8	20	18	45	47	48	48	49
Milford	<i>Beaver</i>	7.8	2.7	37	16	24	24	36	15	49	51	49	48	49
Manderfield	<i>Beaver</i>	11.6	4.3	34	12	25	25	22	9	42	46	47	46	45
Circleville	<i>Piute</i>	6.7	1.4	34	31	14	15	23	8	46	45	48	47	47
Panguitch	<i>Garfield</i>	7.8	1.1	34	9	23	20	29	33	41	43	43	44	44
Cave Valley	<i>Washington</i>	25.8	2.2	40	0	5	6	6	7	46	48	51	51	49
Vermillion	<i>Kane</i>	14.8	0.8	38	0	6	8	14	25	38	44	49	47	46
Spooky	<i>Kane</i>	6.6	0.4	43	3	2	4	25	4	54	53	55	55	54

*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



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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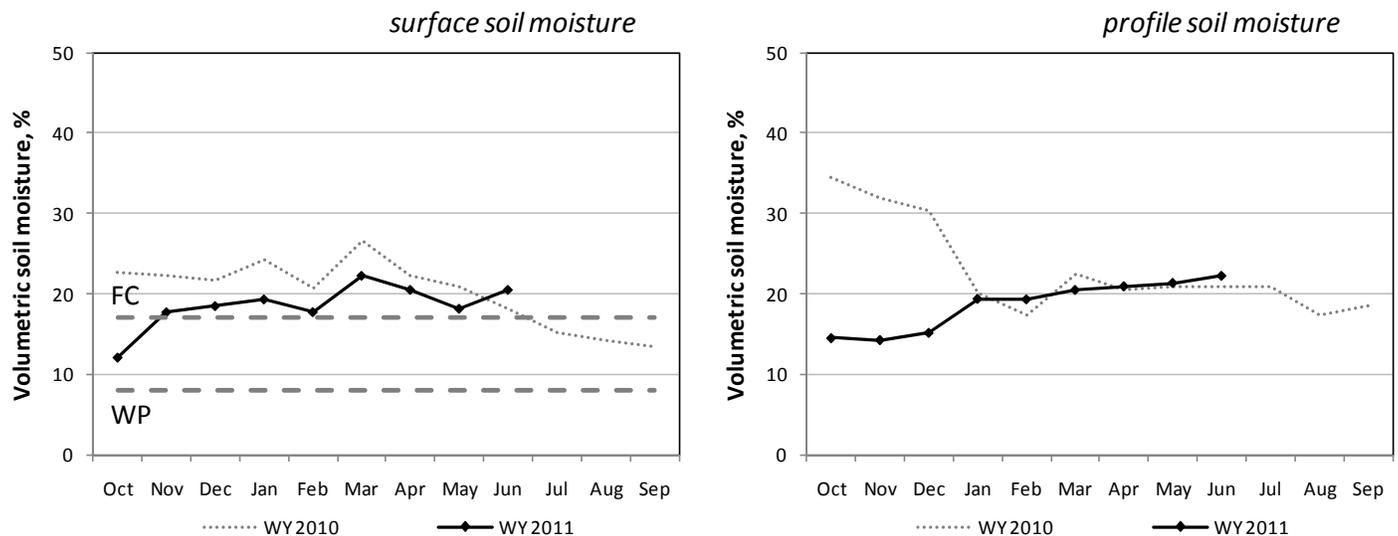
Western and Dixie

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"
		<i>in.</i>	<i>in.</i>	<i>° F</i>	<i>volume %</i>					<i>° F</i>				
WESTERN														
Grouse Creek	<i>Box Elder</i>	10.2	2.8	36	14	25	29	31	33	39	44	46	43	43
Park Valley	<i>Box Elder</i>	7.3	3.9	37	5	11	20	29	25	39	43	47	46	46
Goshute	<i>Tooele</i>	8.1	6.5	35	15	31	13	45	42	37	43	48	45	45
Dugway	<i>Tooele</i>	7.5	4.5	43	19	28	36	nd	13	45	49	50	48	48
Tule Valley	<i>Millard</i>	6.2	5.5	43	19	16	23	22	8	46	53	59	56	55
Hal's Canyon	<i>Millard</i>	4.9	1.8	42	0	9	12	13	8	44	51	56	53	52
Enterprise	<i>Washington</i>	13.3	1.7	37	11	37	34	29	33	46	51	50	50	50
DIXIE														
Sand Hollow	<i>Washington</i>	11.7	0.5	55	0	3	3	4	3	53	62	65	64	63

*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



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.

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	#								
	°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

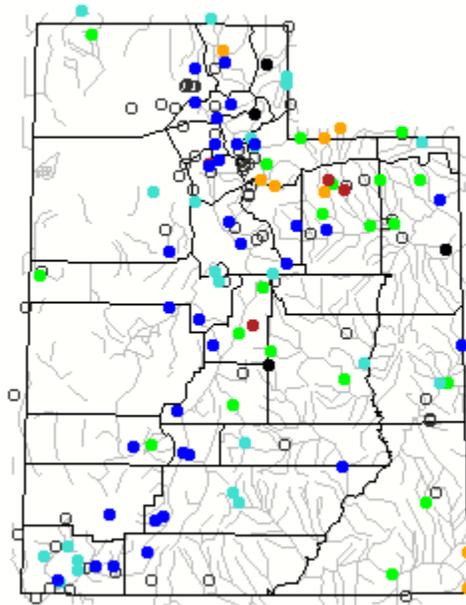
June 1, 2011

Current Conditions

May precipitation across Utah has been extremely high over most of the state. Many areas are unable to actually work the soil, plant or fertilize due to the extremely wet conditions. There is agricultural flooding along many rivers and streams. Many rivers and streams across the state are running in the upper 10% of recorded flows. Snowpacks in northern Utah are at record high levels, in some cases approaching 600% of normal. Reservoir storage is psychotic – they are either full and spilling or near empty in an attempt to mitigate flood conditions. Soil moisture uniformly across the state are extremely high – at or above recorded levels. At this point, too much water of all things, is the problem and it will likely get worse from an inundation viewpoint. Southern Utah has been melting snow at a reasonable rate over the past month whereas in northern Utah, snowmelt is really just beginning.

Current Utah Streamflow - Courtesy US Geological Survey

Wed., June 01, 2011 11:30ET



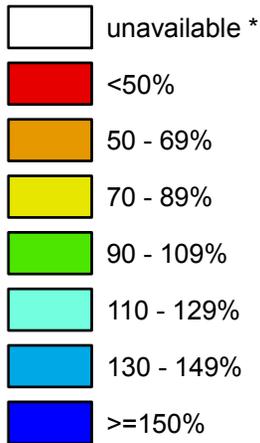
Explanation - Percentile classes							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not ranked

Utah

SNOTEL Current Snow Water Equivalent (SWE) % of Normal

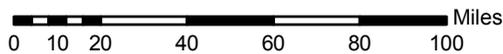
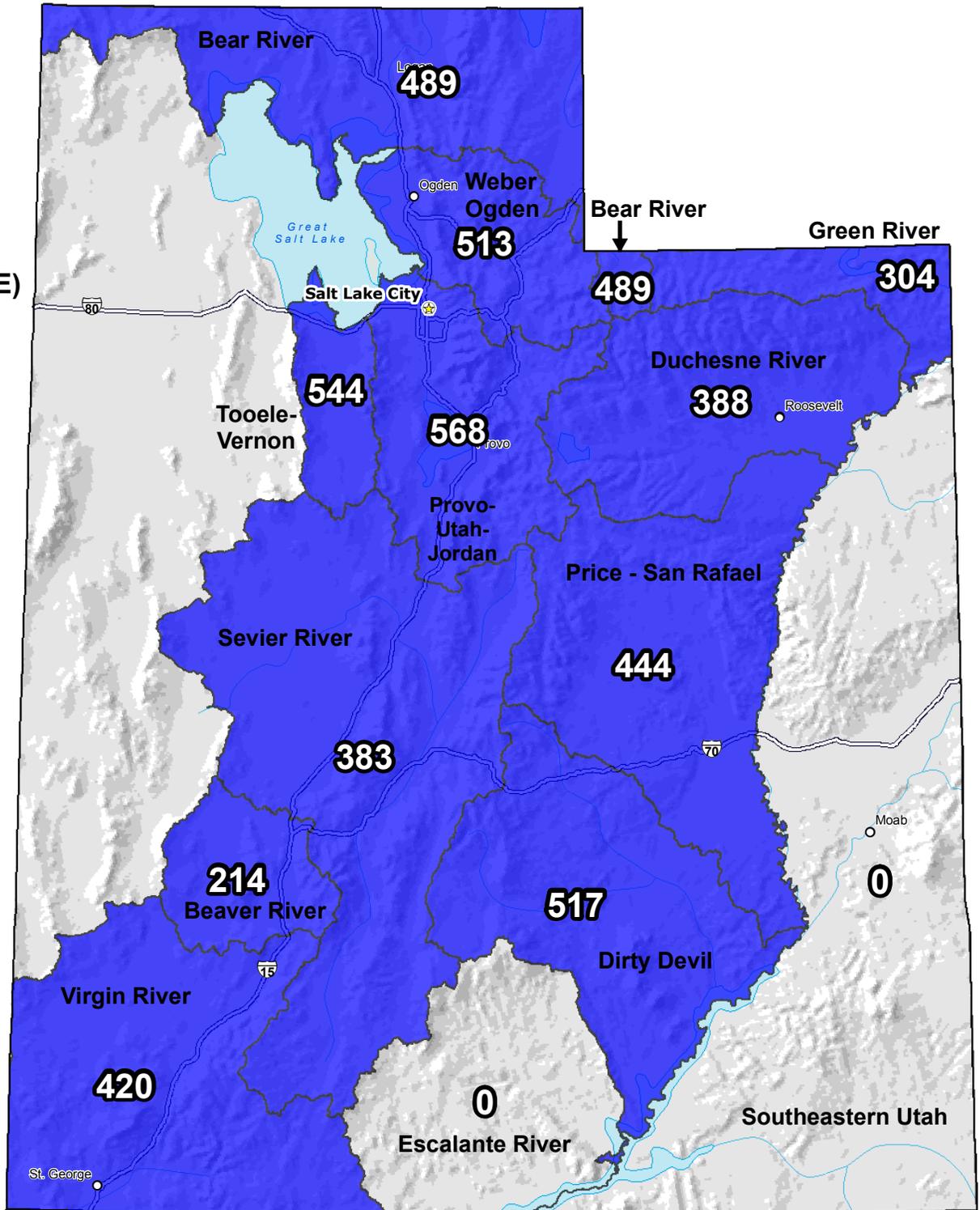
Jun 01, 2011

**Snow Water Equivalent (SWE)
Basin-wide
Percent of
1971-2000
Normal**



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

**Provisional Data
Subject to Revision**



The snow water equivalent percent of normal represents the current snow water equivalent 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).

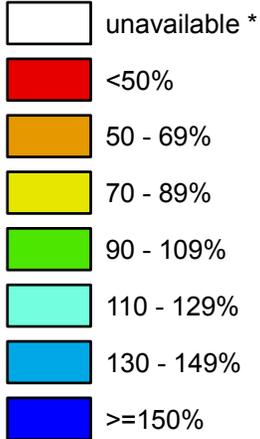
Prepared by the USDA/NRCS National Water and Climate Center
Portland, Oregon <http://www.wcc.nrcs.usda.gov/gis/>
Based on data from <http://www.wcc.nrcs.usda.gov/reports/>
Science contact: Jim.Marron@por.usda.gov 503 414 3047

Utah

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

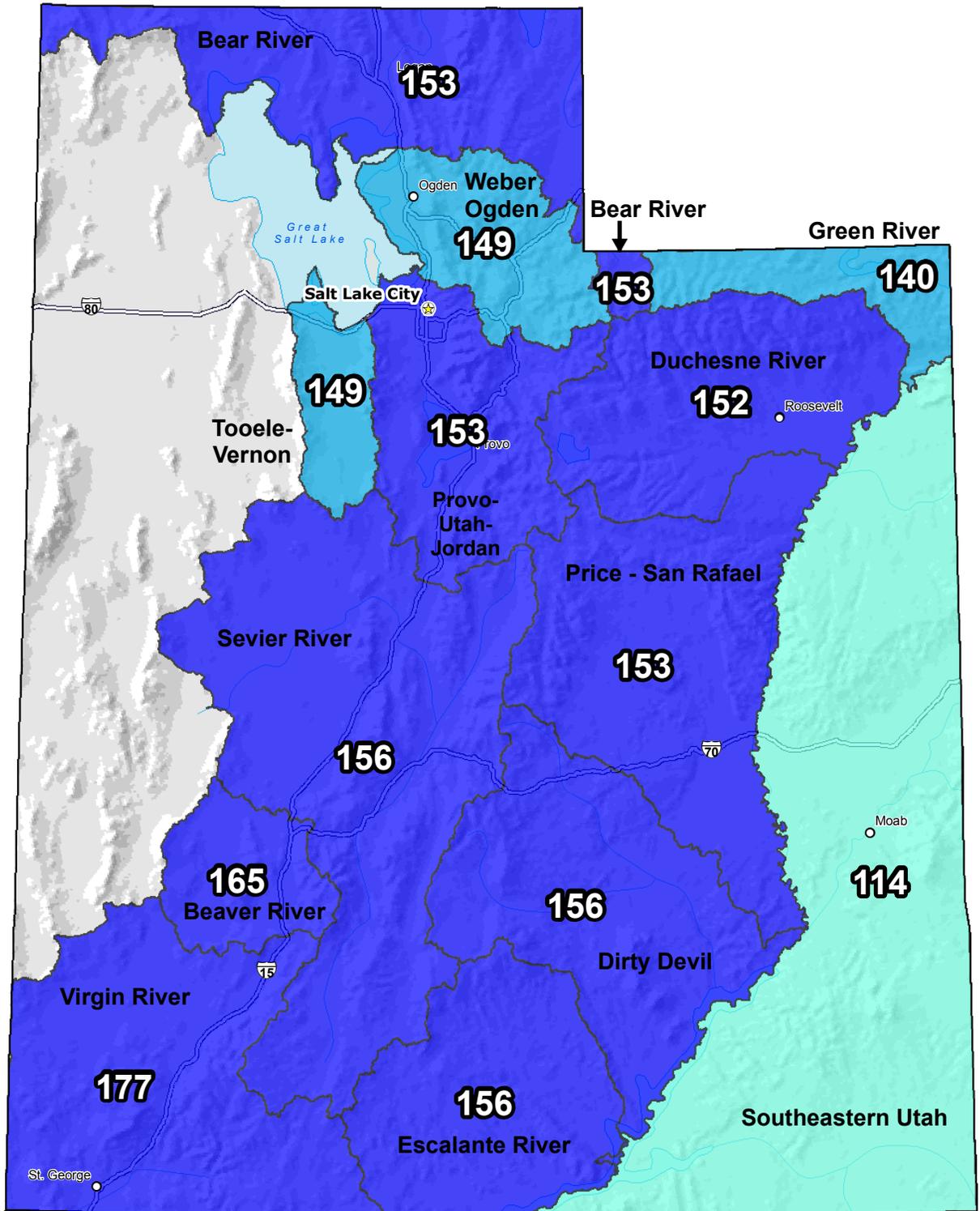
Jun 01, 2011

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



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

**Provisional Data
Subject to Revision**



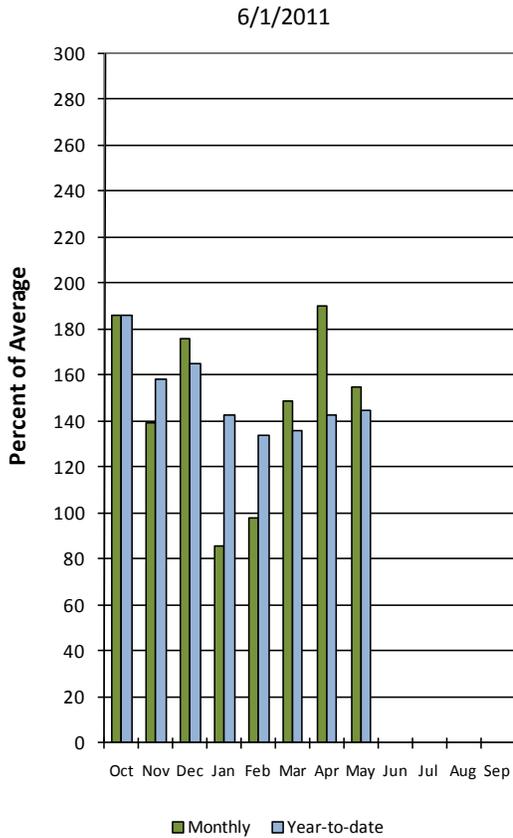
The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by 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

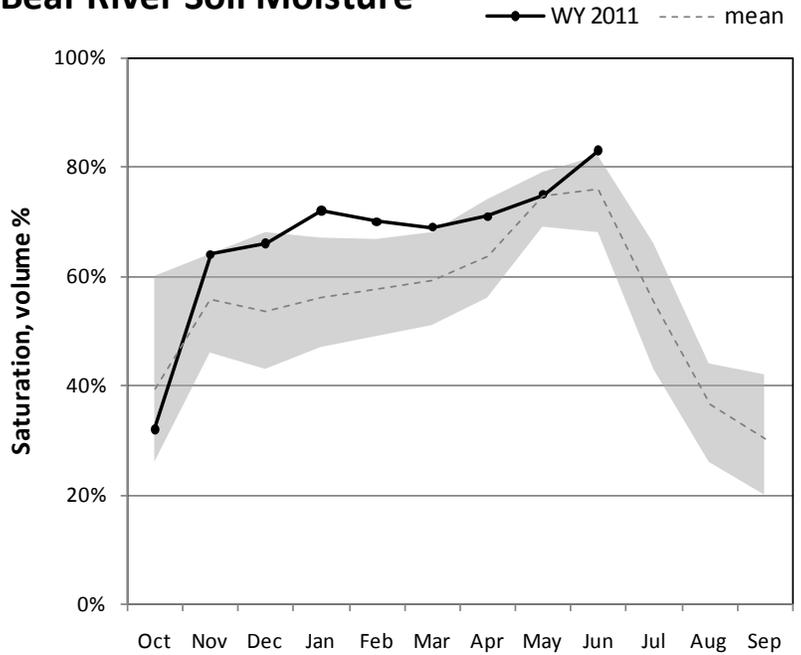
Bear River Basin June 1, 2011

Precipitation in May was much above average at 155% which brings the water year accumulation to 145%. Reservoir storage is low at 61% of capacity, which is 19% higher than this time last year. Soil moisture is at 83% compared to 78% last year.

Bear River Precipitation

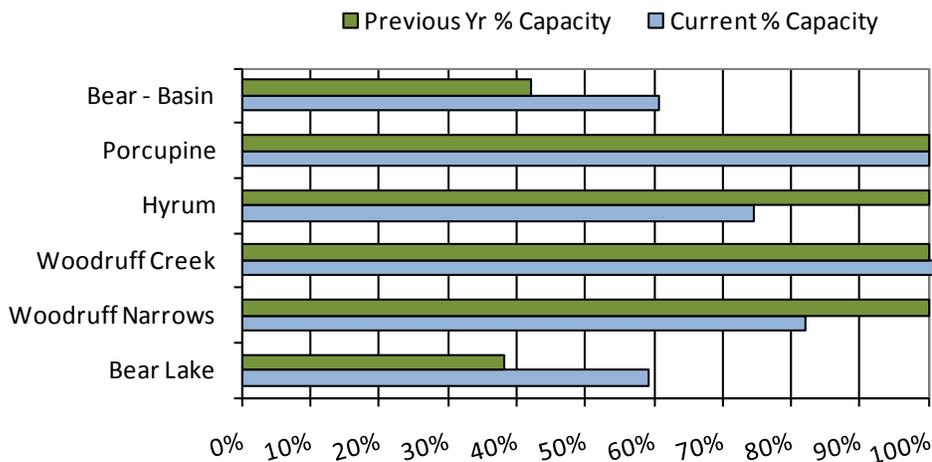


Bear River Soil Moisture



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.

June Bear River Reservoir Storage



June 1, 2011

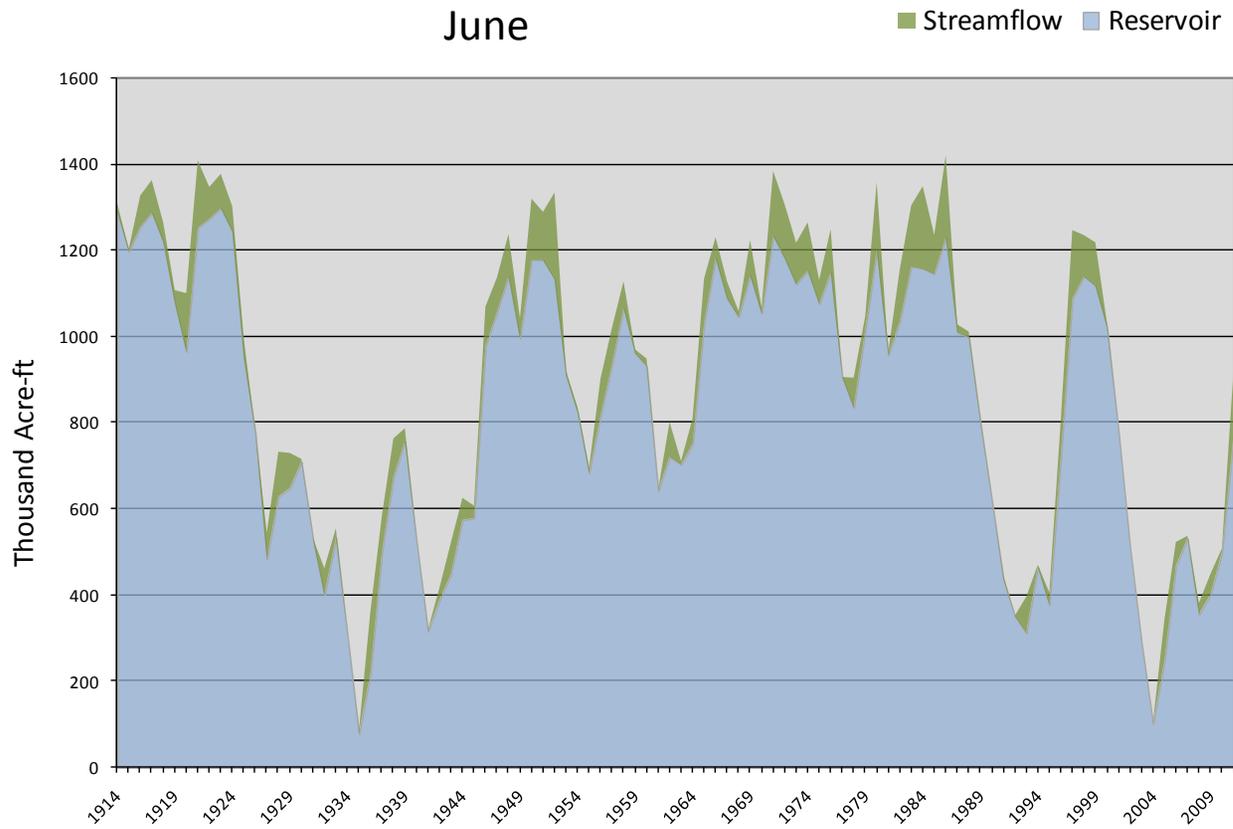
Water Availability Index

Basin or Region	May EOM* Bear Lake	May accumulated inflow to Bear Lake (<i>observed</i>)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Bear River	770	147	917	-0.09	49	78,77,53,60

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

Bear Lake - Surface Water Supply Index

June

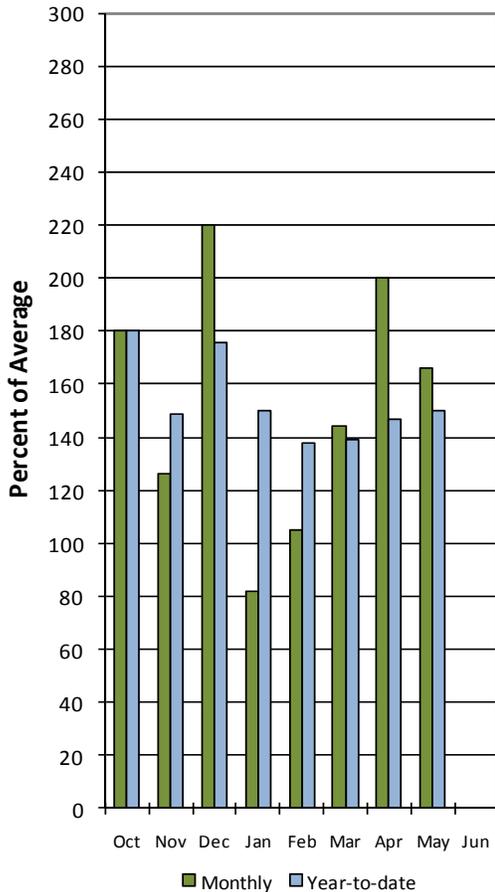


Weber and Ogden River Basin June 1, 2011

Precipitation in May was much above average at 166% which brings the water year accumulation to 150%. Reservoir storage is at 82% of capacity, which is 10% lower than this time last year. Soil moisture is at 79% compared to 73% last year.

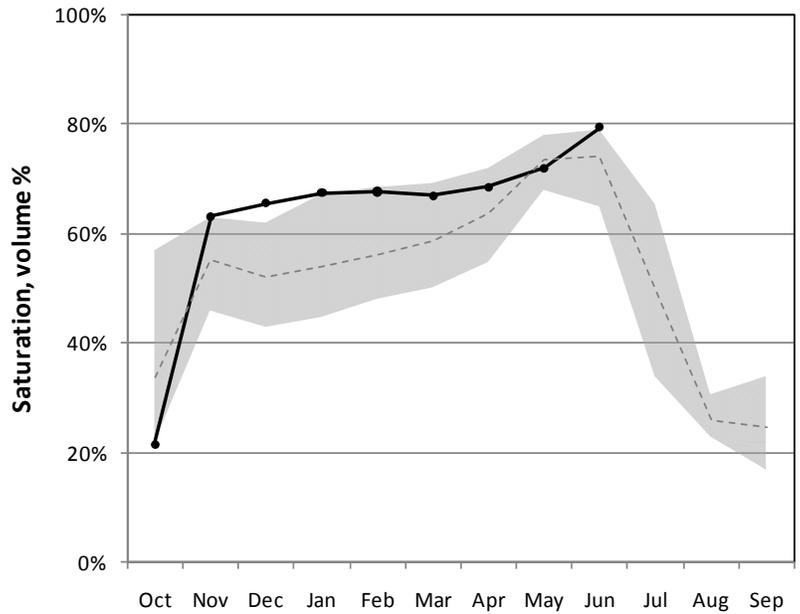
Weber River Precipitation

6/1/2011



Weber River Soil Moisture

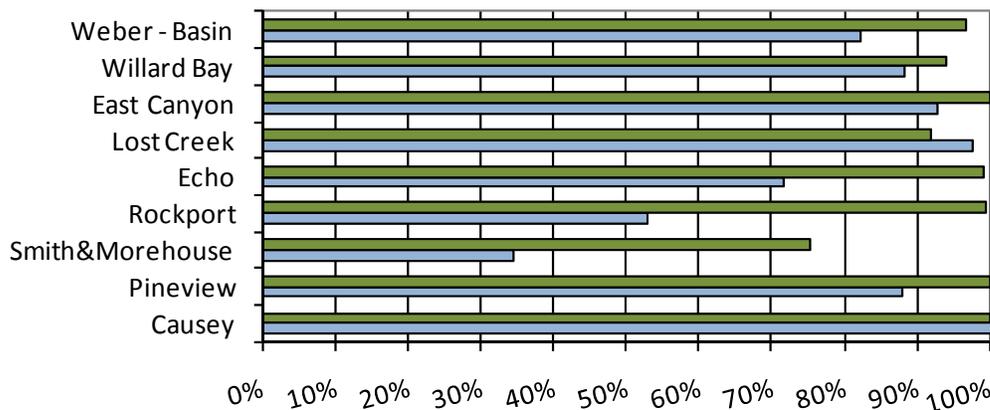
—●— WY 2011 - - - - mean



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.

June Weber Basin Reservoir Storage

■ Previous Yr % Capacity ■ Current % Capacity



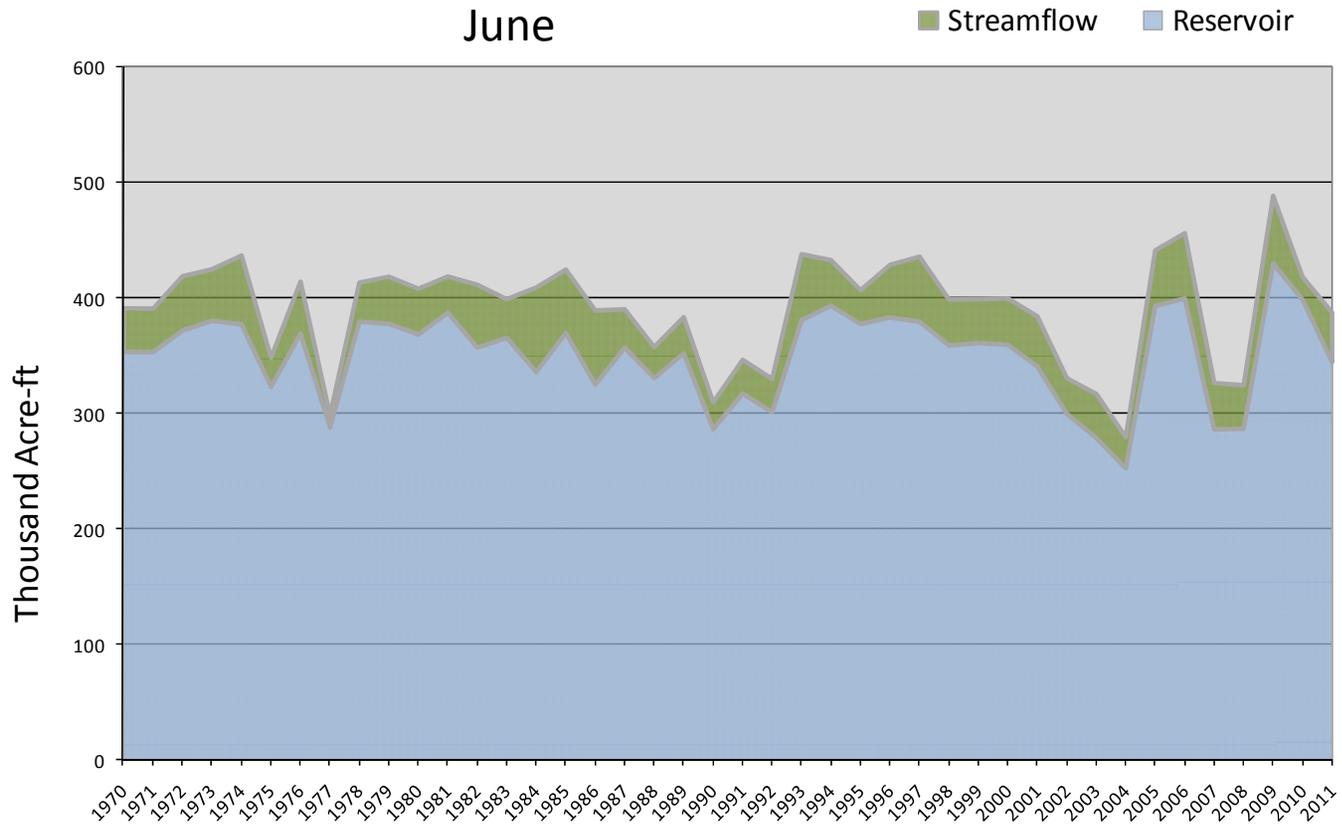
June 1, 2011

Water Availability Index

Basin or Region	May EOM* Reservoirs	May accumulated flow at Weber near Oakley (observed)	Reservoirs + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Weber River	346	43.0	388	-1.45	33	89, 01, 86, 87

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

Weber River - Water Availability Index



June 1, 2011

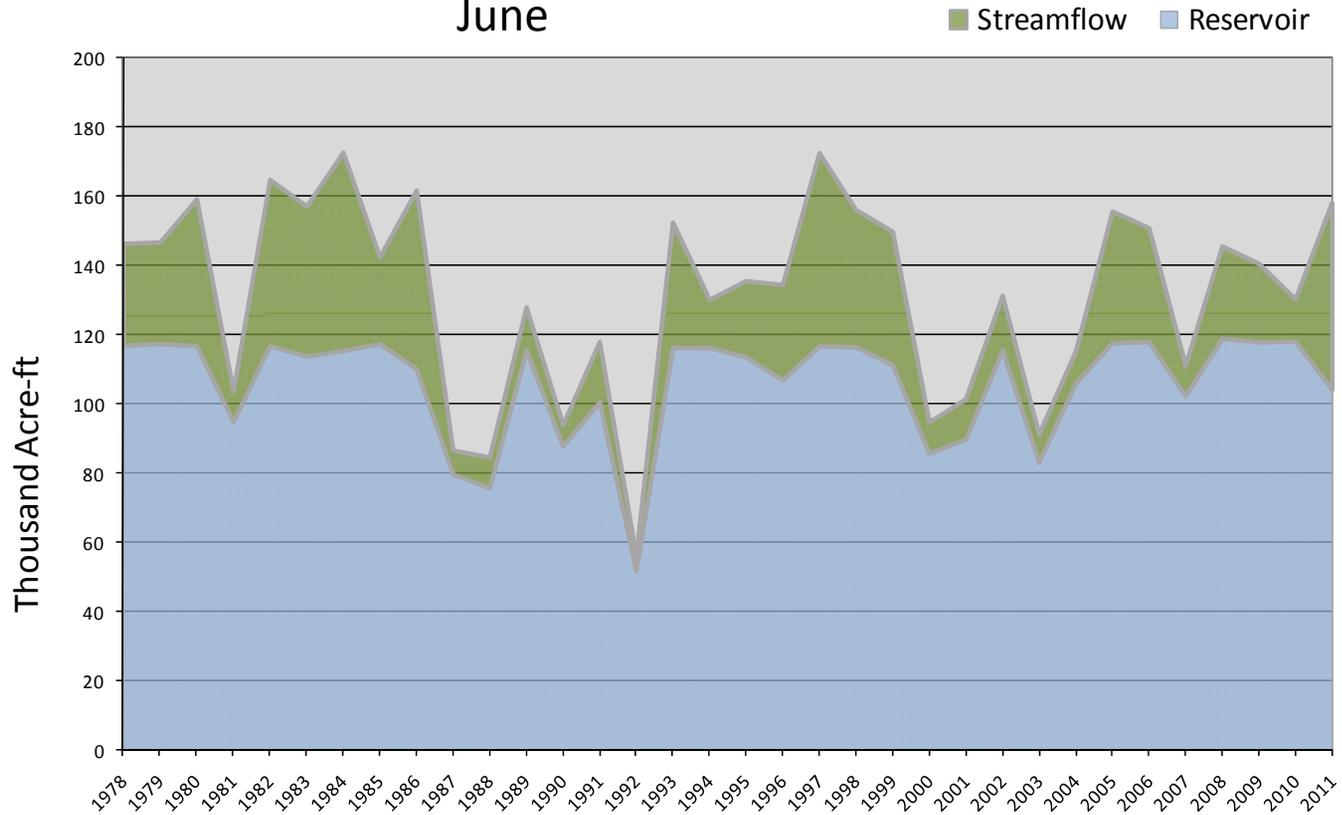
Water Availability Index

Basin or Region	May EOM* Pine View & Causey	May accumulated flow at South Fork Ogden (<i>observed</i>)	Reservoir + Streamflow	WAI [#]	Percentile	Years with similar WAI
	KAF [^]	KAF	KAF		%	
Ogden River	104	54.0	158	2.74	83	98, 83, 80, 86

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

Ogden River - Water Availability Index

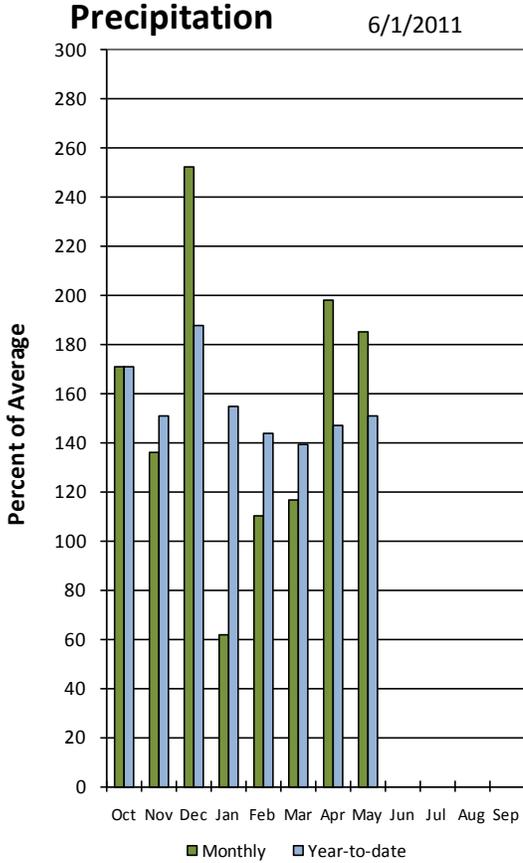
June



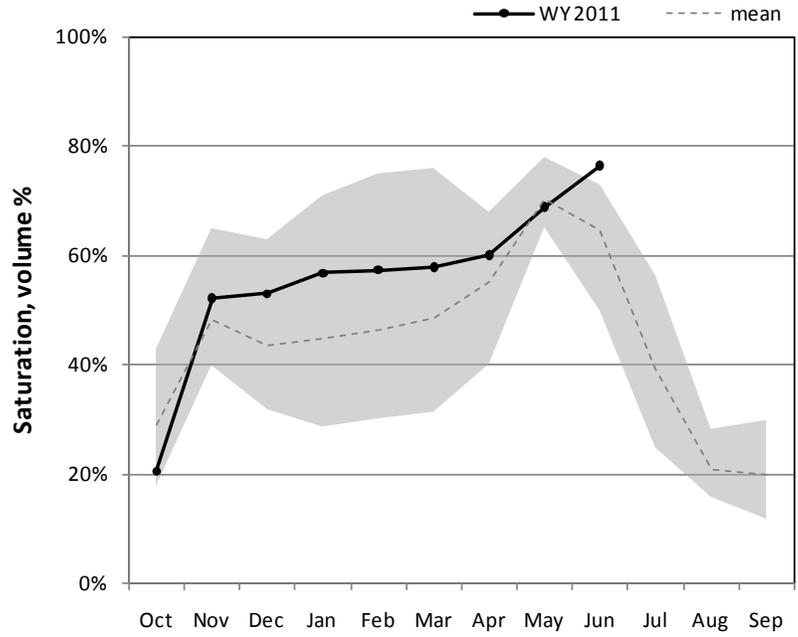
Utah Lake, Jordan River, & Tooele Valley Basins June 1, 2011

Precipitation in May was much above average at 185%, bringing water year accumulation to 151%. Reservoir storage is at 101% of capacity, which is 9% more than this time last year. Soil moisture is at 76% compared to 70% last year at this time.

Jordan / Provo River

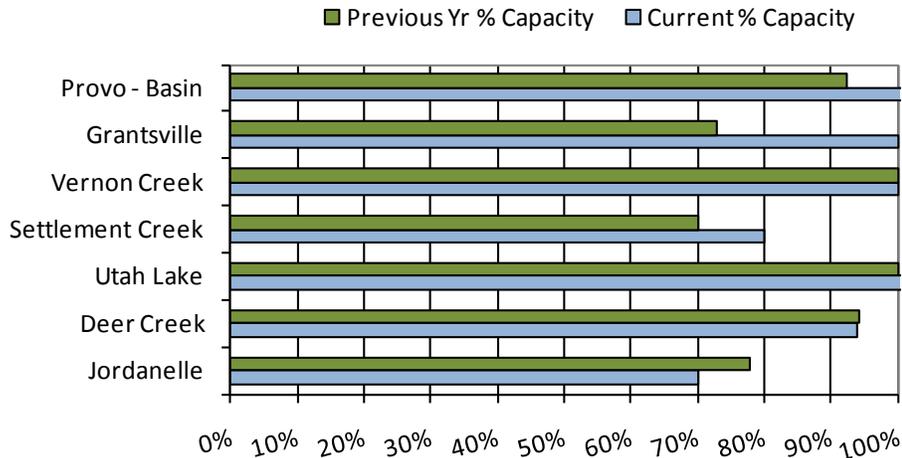


Jordan / Provo River Soil Moisture



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.

June Provo River Reservoir Storage



June 1, 2011

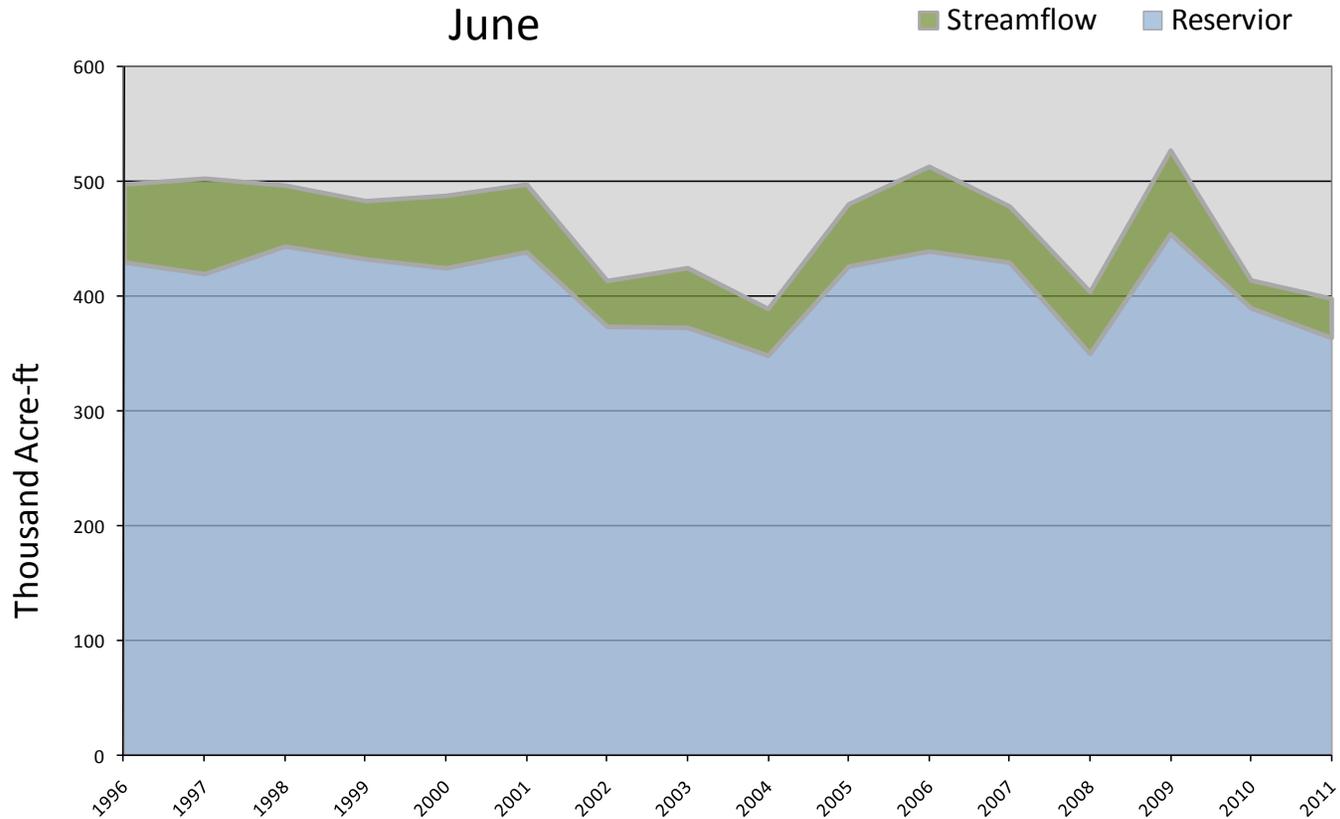
Water Availability Index

Basin or Region	May EOM* Deer Creek, Jordanelle	May accumulated flow Provo River at Woodland (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Provo	365	34.1	399	-3.19	12%	04,08,02,10

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

Provo River - Water Availability Index

June



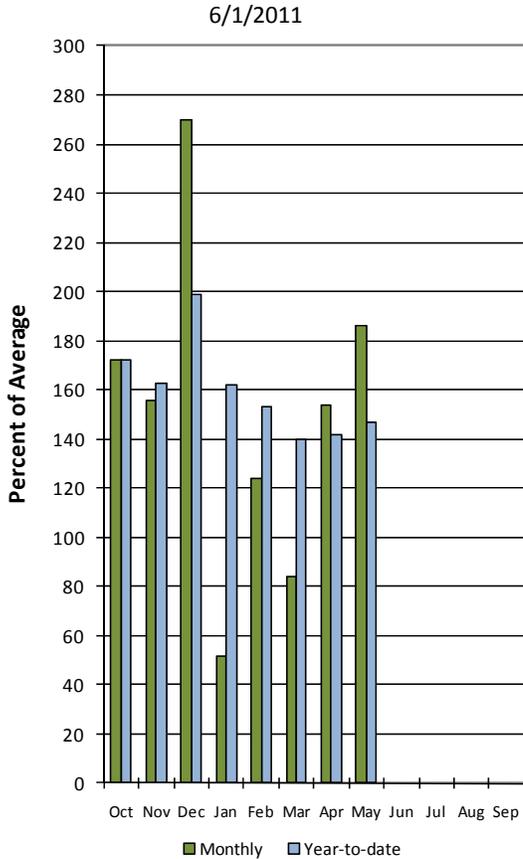
Utah Lake, Jordan River, and Tooele Valley Basins

Uintah Basin and Dagget SCDs

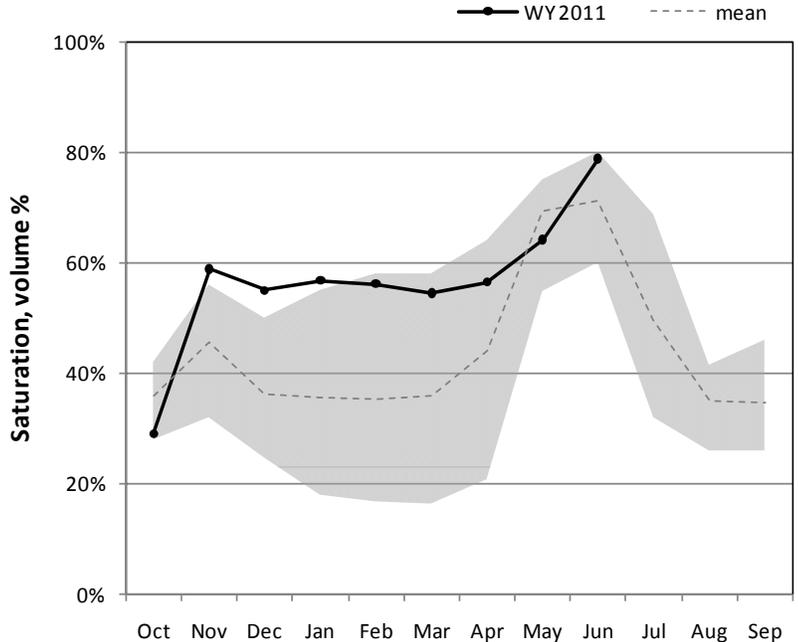
June 1, 2011

Precipitation in May was much above average at 186%, bringing the water year accumulation to 147%. Reservoir storage is at 88% of capacity, the same as this time last year. Soil moisture is at 79% compared to 64% last year.

Uintah Precipitation

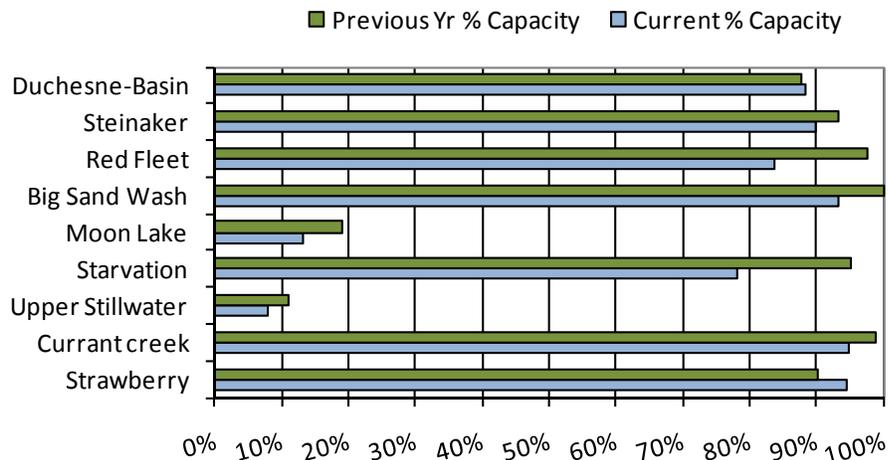


Uintah Basin Soil Moisture



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.

June Uintah Basin Reservoir Storage



June 1, 2011

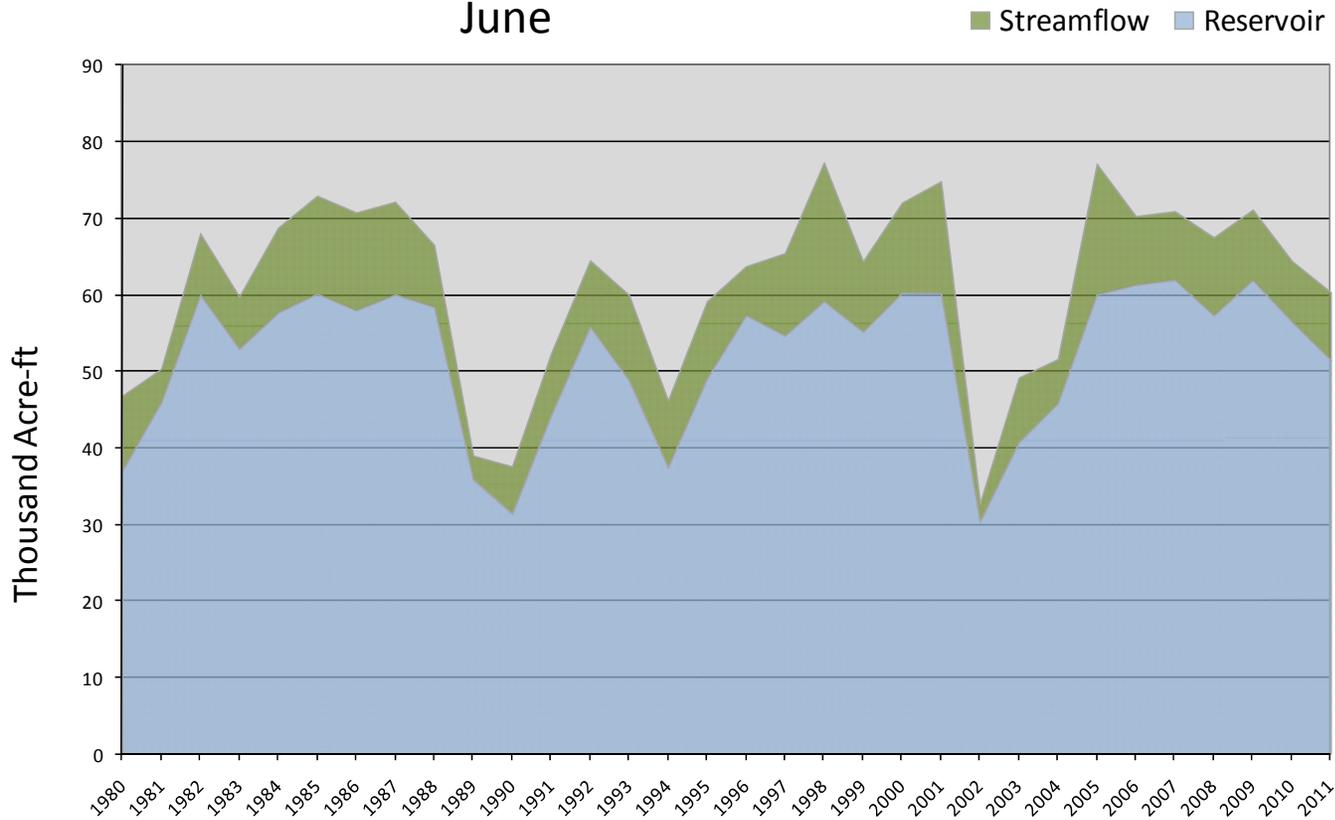
Water Availability Index

Basin or Region	May EOM* Red Fleet and Steinaker	May accumulated flow Big Brush Creek (<i>observed</i>)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Eastern Uintah	51.5	8.9	60.4	-0.88	39	83, 93, 96, 99

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

Eastern Uintah - Water Availability Index

June



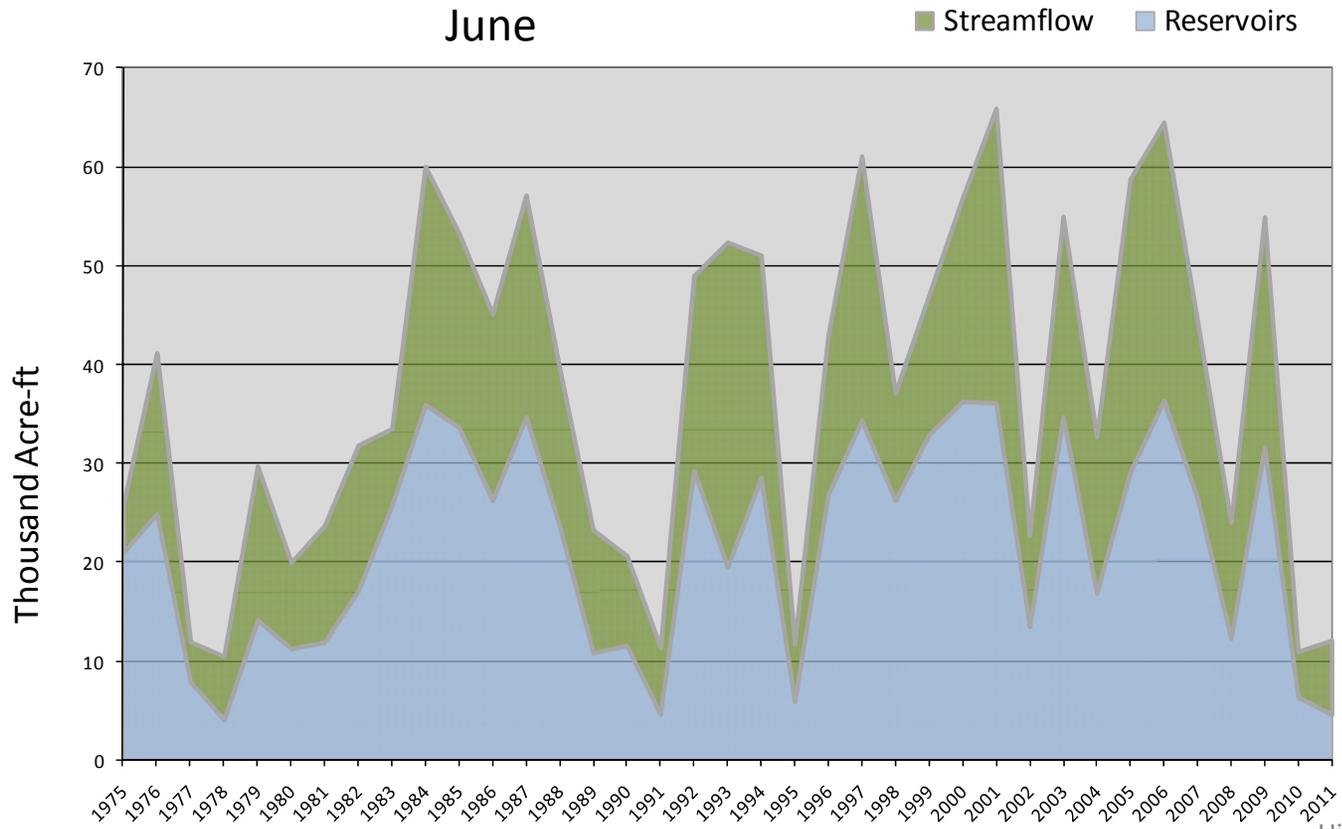
June 1, 2011

Water Availability Index

Basin or Region	May EOM* Moon Lake	May accumulated flow Lake Fork Creek above Moon Lake (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Moon Lake	4.7	7.5	12.2	-2.85	16	95, 77, 80, 90

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

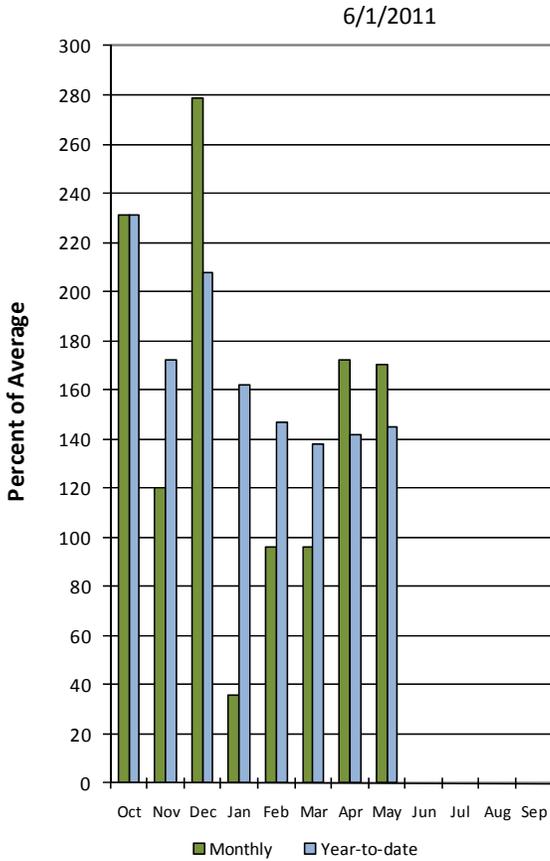
Moon Lake - Water Availability Index



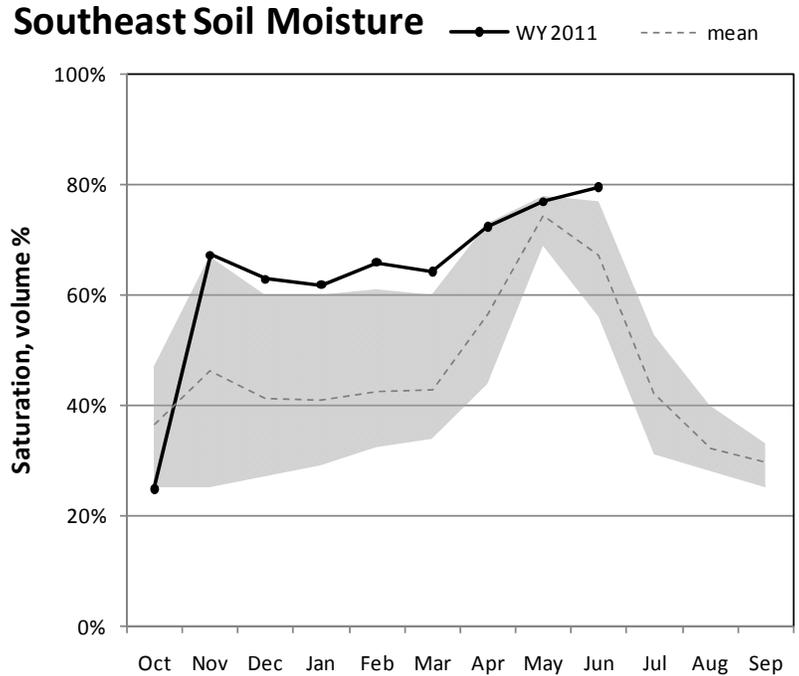
Southeast – Carbon, Emery, Wayne, Grand, and San Juan Counties June 1, 2011

Precipitation in May was much average at 170%, bringing the water year accumulation to 145%. Reservoir storage is at 68% of capacity, which is 2% higher at this time last year. Soil moisture is at 79% compared to 72% last year.

Southeast Utah Precipitation

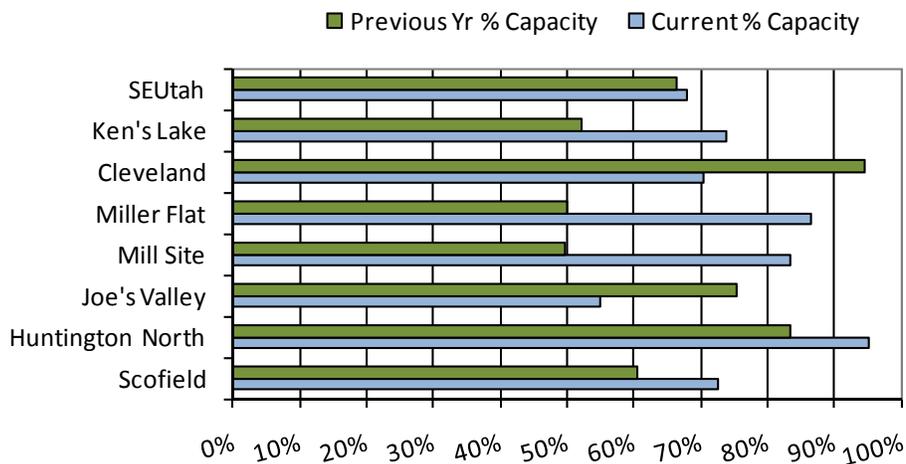


Southeast Soil Moisture



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.

June Southeast Utah Reservoir Storage



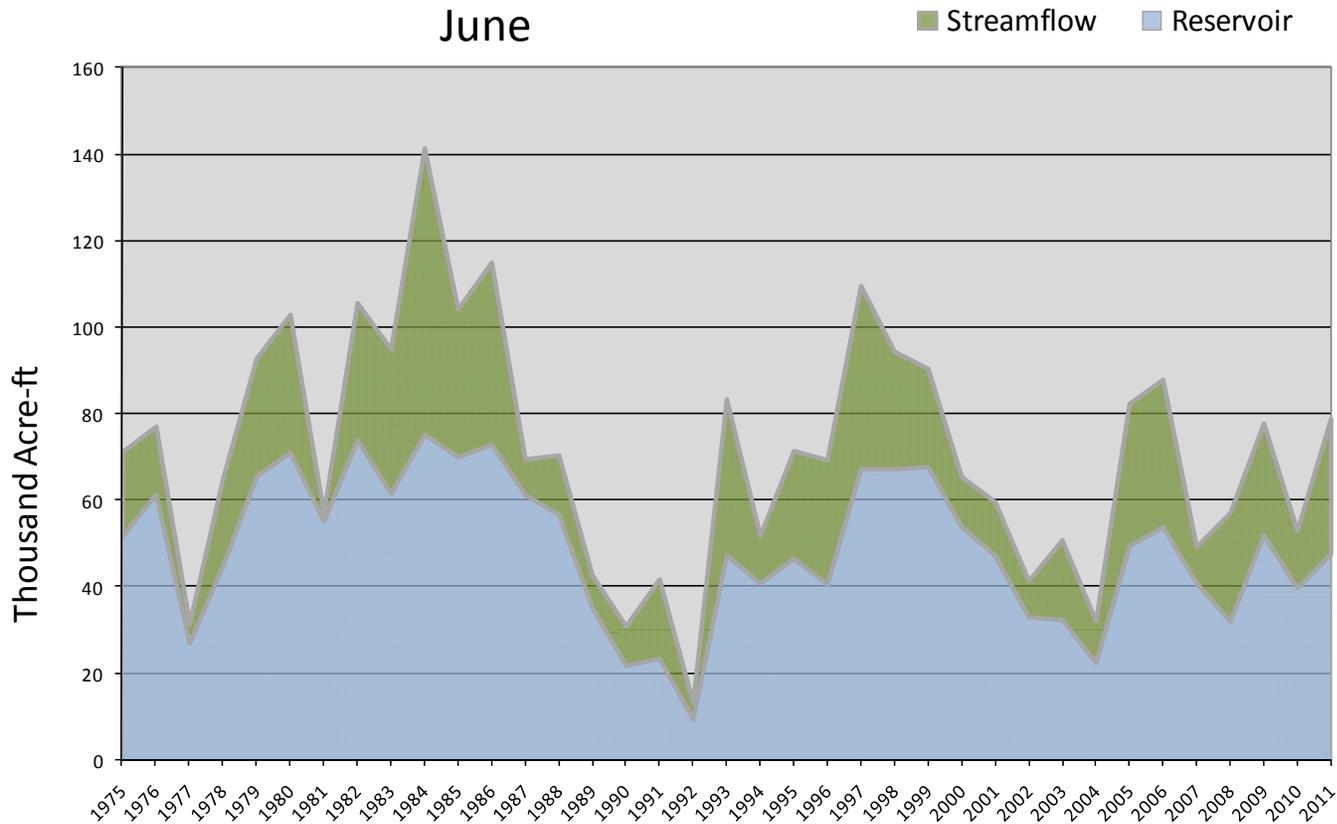
June 1, 2011

Water Availability Index

Basin or Region	May EOM* Scofield	May accumulated inflow to Scofield (<i>calculated</i>)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Price River	47.8	31.2	79.0	1.10	63	76, 09, 05, 93

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

Price River - Water Availability Index



June 1, 2011

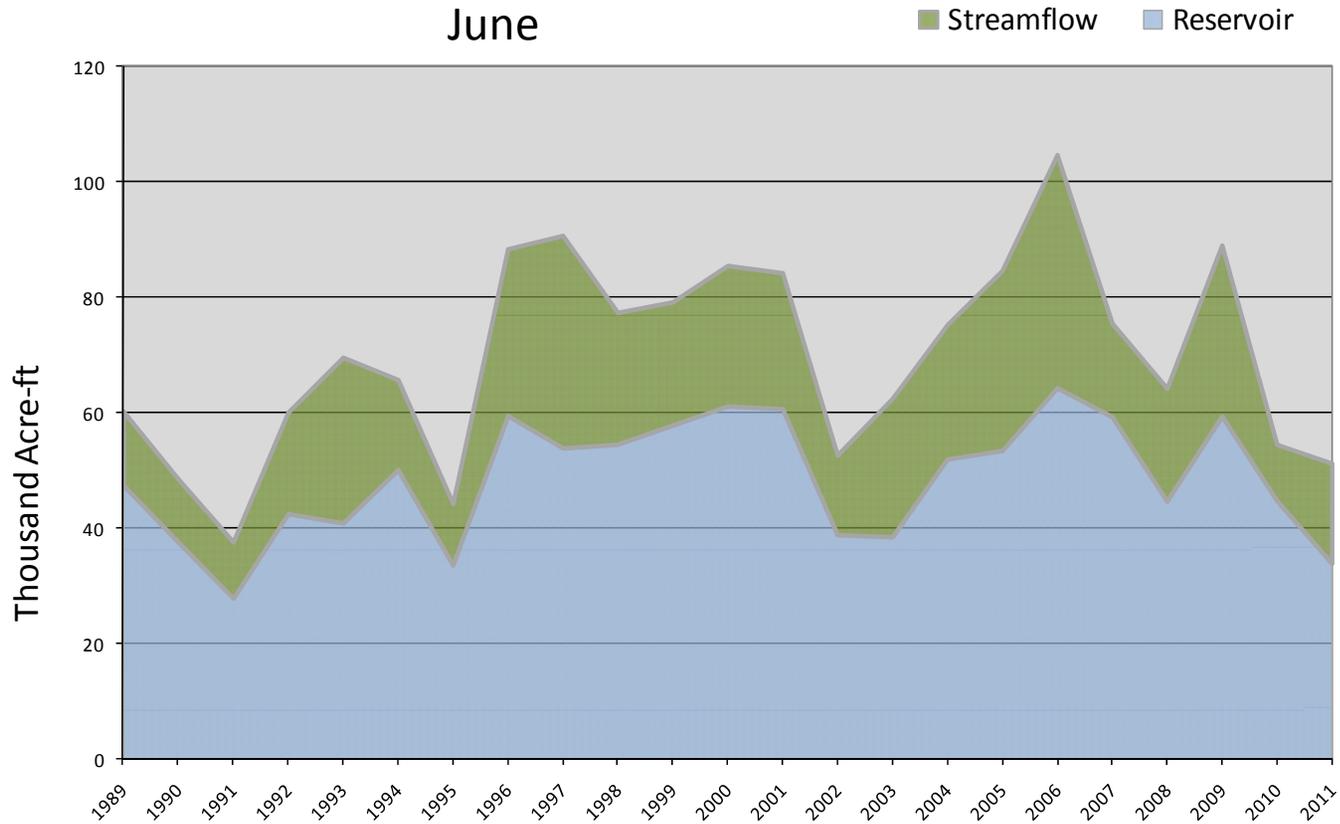
Water Availability Index

Basin or Region	May EOM* Joe's Valley	May accumulated inflow to Joe's Valley (calculated)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Joe's Valley	33.8	17.4	51.2	-2.78	17	95, 90, 02, 10

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

Joe's Valley - Water Availability Index

June



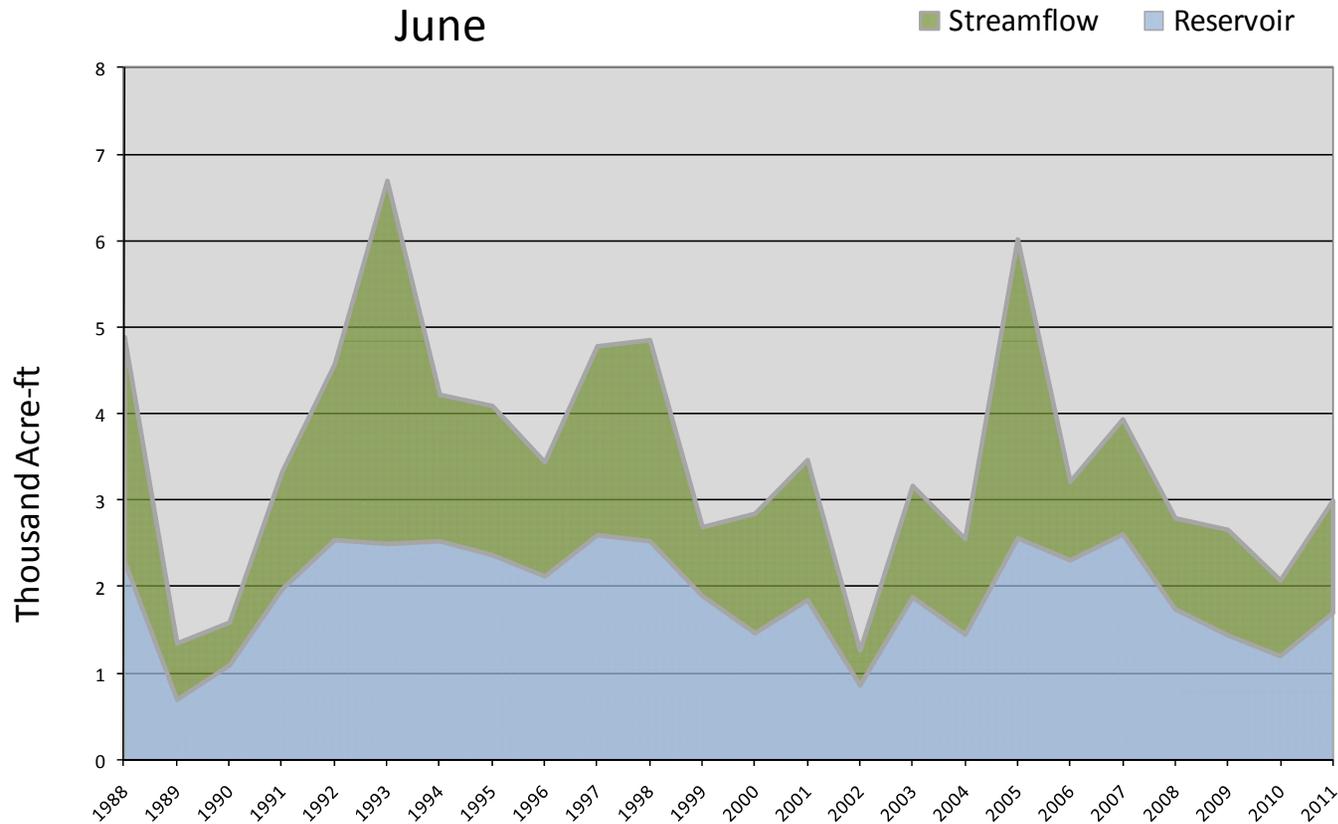
June 1, 2011

Water Availability Index

Basin or Region	May EOM* Ken's Lake Reservoir	May accumulated flow Mill Creek at Sheley (<i>observed</i>)	Reservoir + Streamflow	WAI [#]	Percentile	Years with similar WAI
	KAF [^]	KAF	KAF		%	
Moab	1.7	1.3	3.0	-0.83	40	08, 00, 03, 06

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

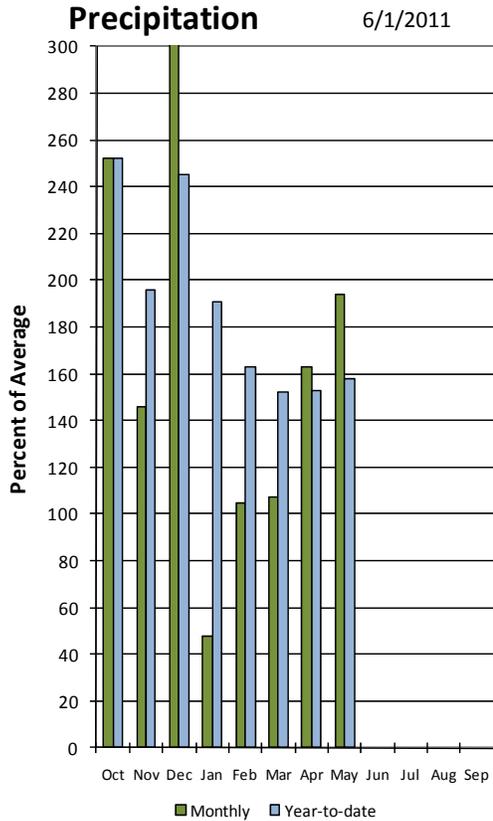
Moab - Water Availability Index



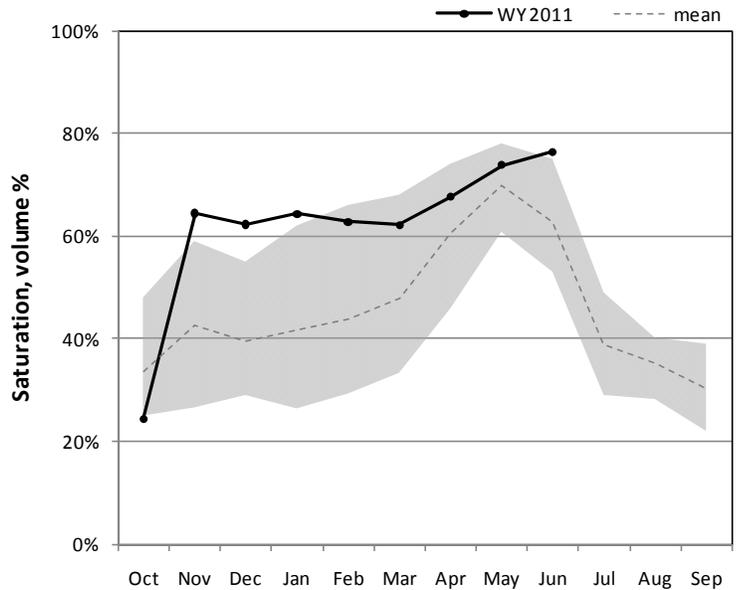
Sevier and Beaver River Basins June 1, 2011

Precipitation in May was much above average at 194%, which brings the seasonal accumulation (Oct-May) to 158% of average. Reservoir storage is high at 90% of capacity, 37% more than last year. Soil moisture increased slightly over last month and last year: current 76%, last month – 74% and last year -71% of saturation.

Sevier /Beaver River



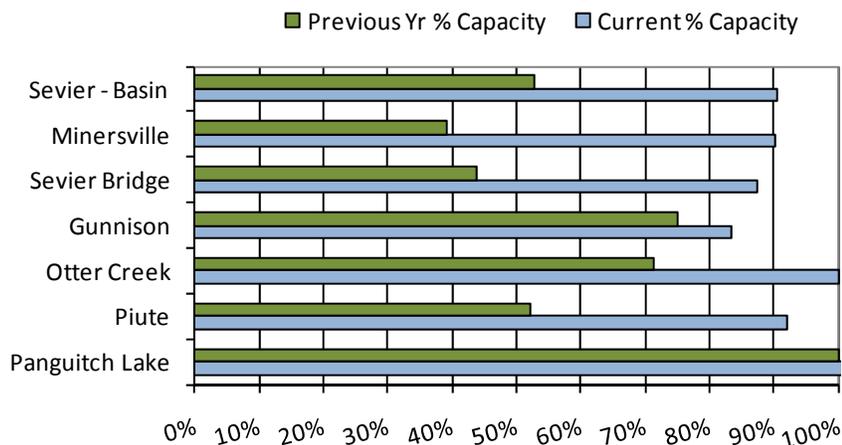
Sevier / Beaver River Soil Moisture



Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep

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.

June Sevier River Reservoir Storage



June 1, 2011

Water Availability Index

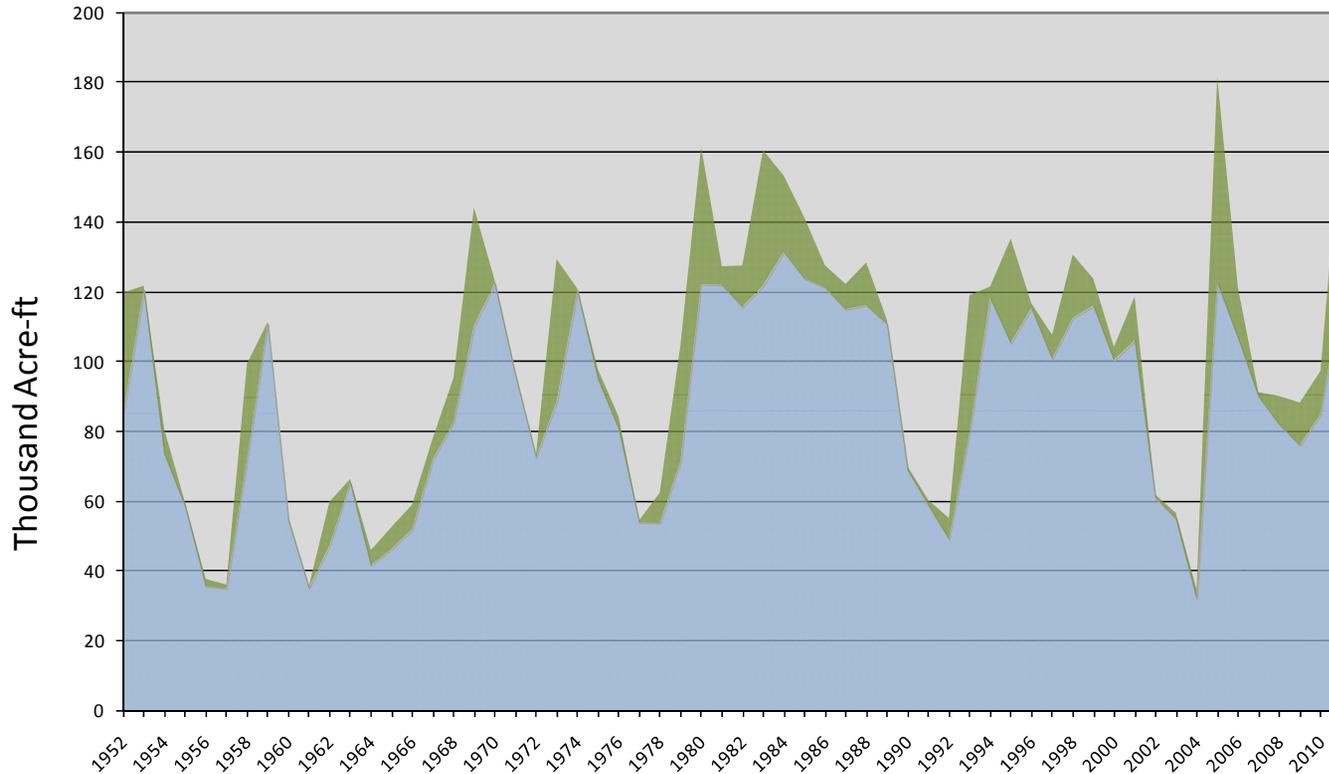
Basin or Region	May EOM* Otter Creek and Piute	May accumulated flow at Kingston (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Upper Sevier River	119	47.2	166	3.89	97	83,80,05

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

Upper Sevier River Water Availability Index

June

■ Streamflow ■ Reservoir



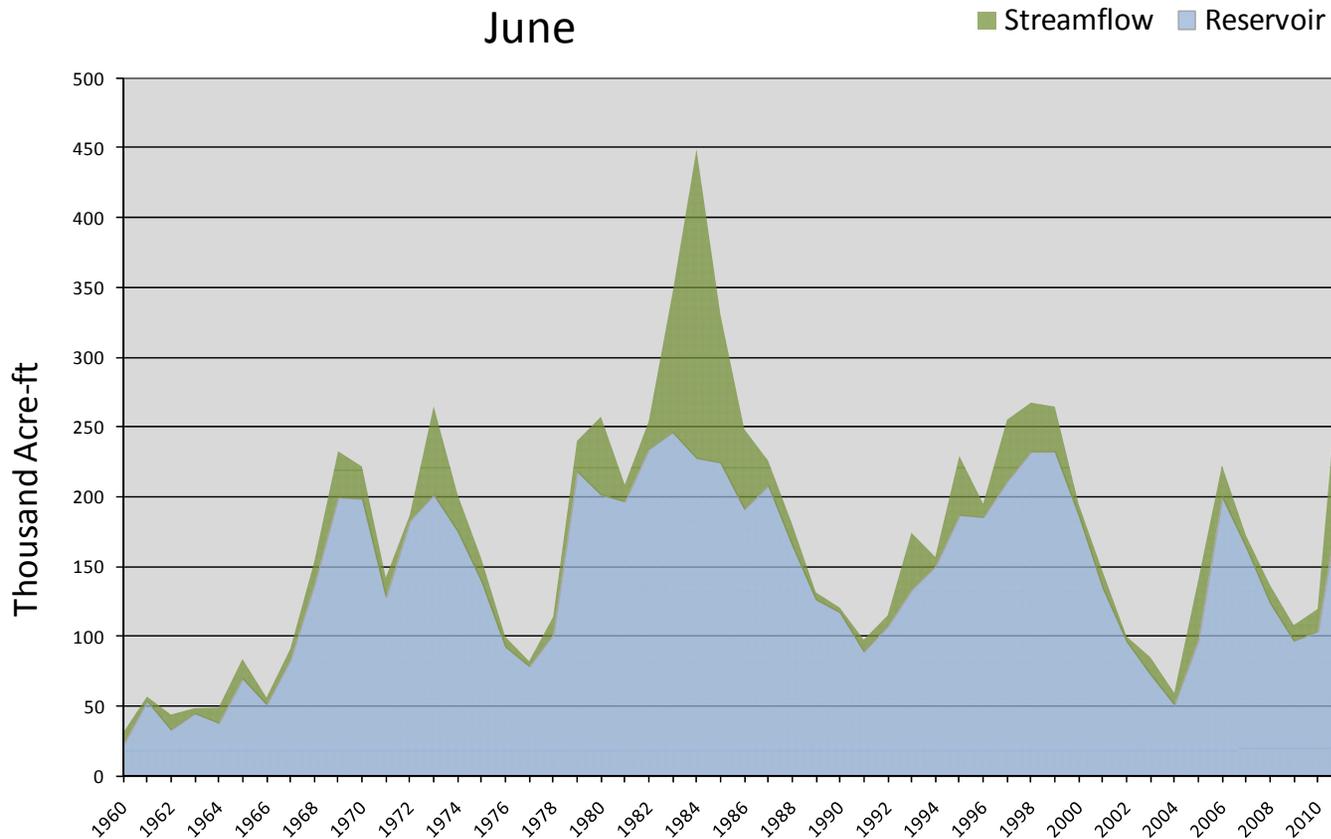
June 1, 2011

Water Availability Index

Basin or Region	May EOM* Sevier Bridge	May accumulated flow Sevier at Gunnison (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Lower Sevier River	206	105	311	3.54	92	73,98,85,83

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

Lower Sevier River Water Availability Index June



Sevier and Beaver River Basins

June 1, 2011

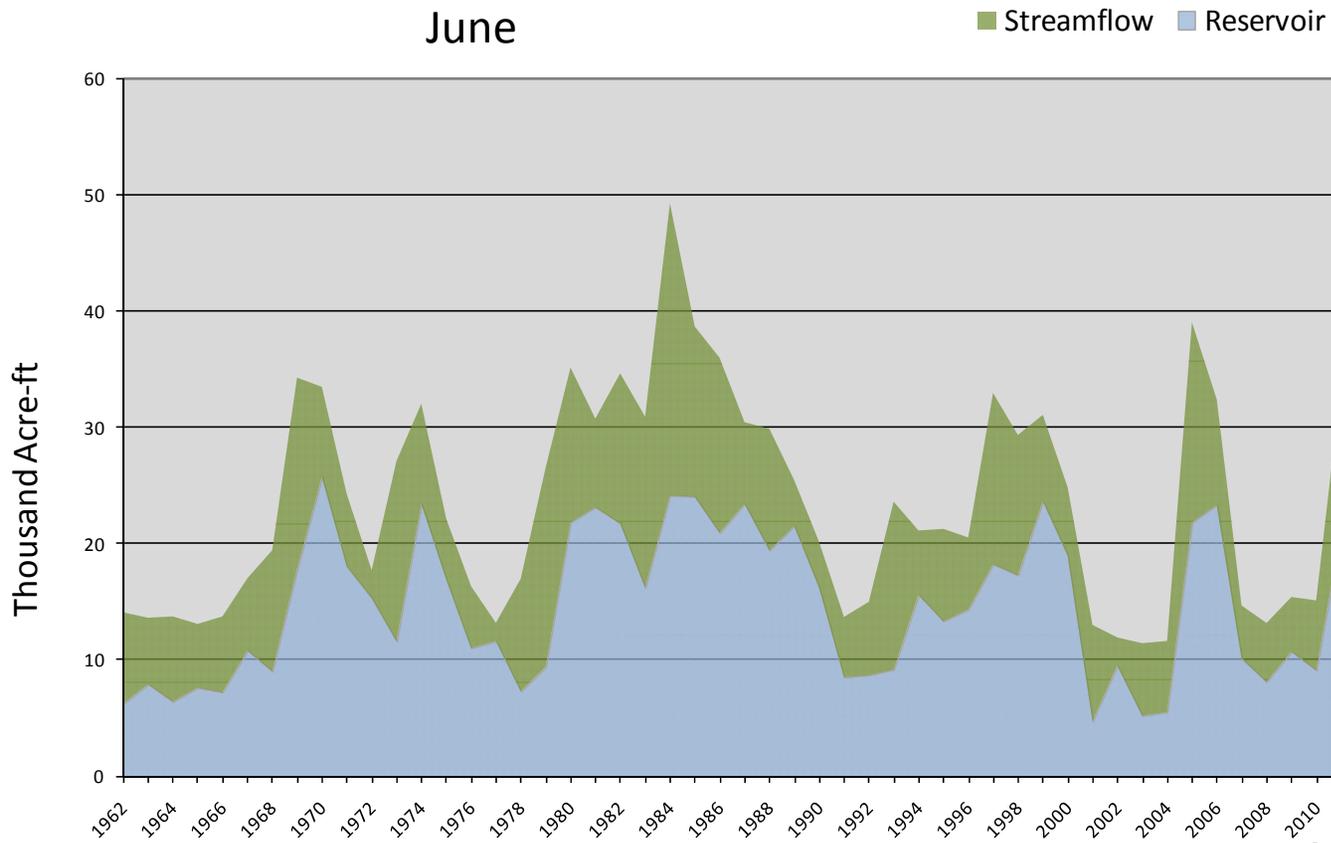
Water Availability Index

Basin or Region	May EOM* Minersville Reservoir	May accumulated flow Beaver River at Beaver (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Beaver	21.0	12.6	33.6	2.86	84	97,70,69,82

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

Beaver River Water Availability Index

June

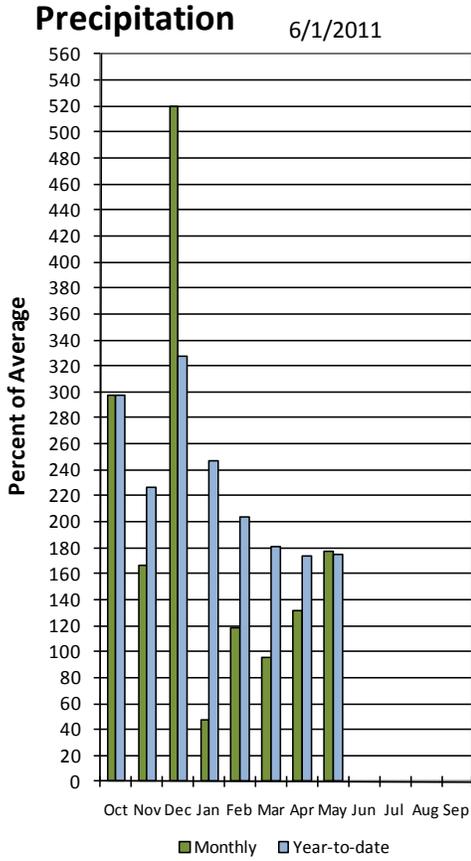


Sevier and Beaver River Basins

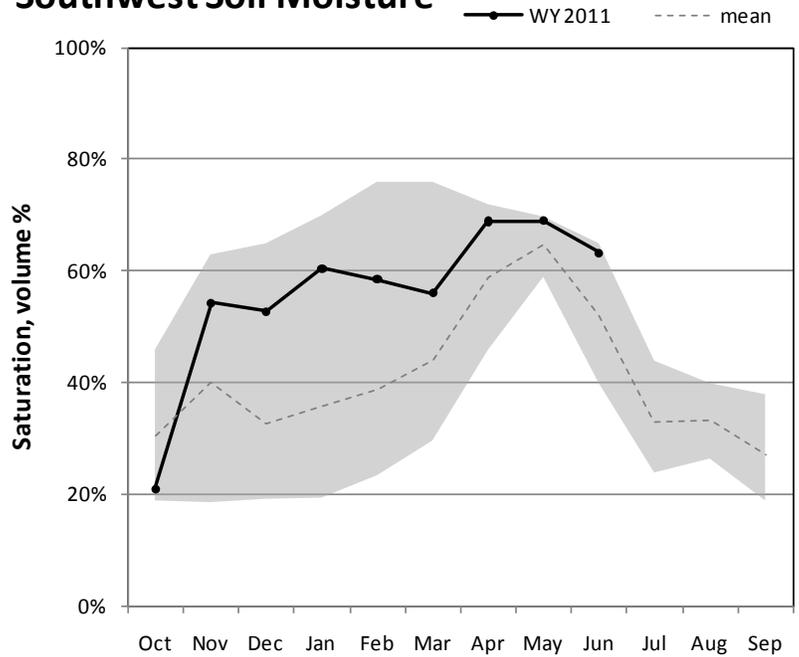
Southwest – E. Garfield, Kane, Washington, & Iron Counties June 1, 2011

Precipitation in May was much above average at 177%, bringing water year accumulation to 175%. Reservoir storage is at 89% of capacity, 19% higher than last year at this time. Soil moisture is at 63% compared to 60% at this time last year.

Southwest Utah

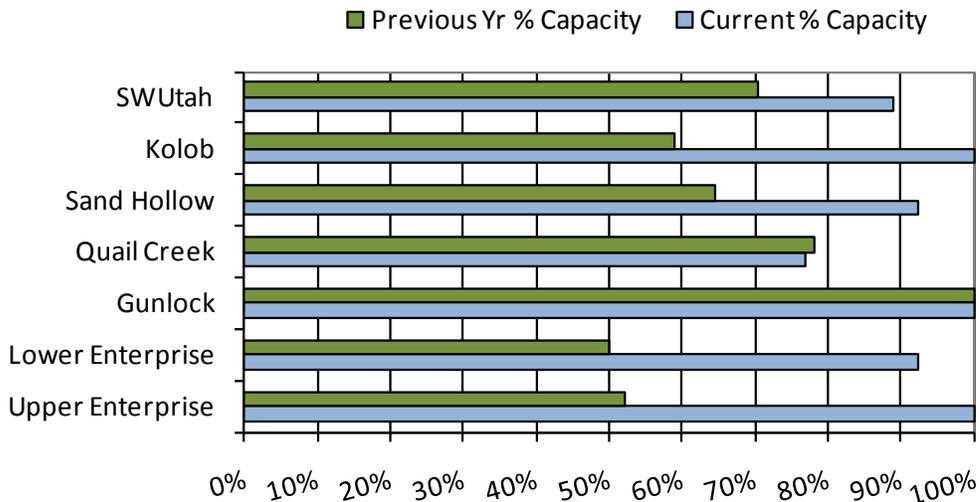


Southwest Soil Moisture



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.

June Southwest Utah Reservoir Storage



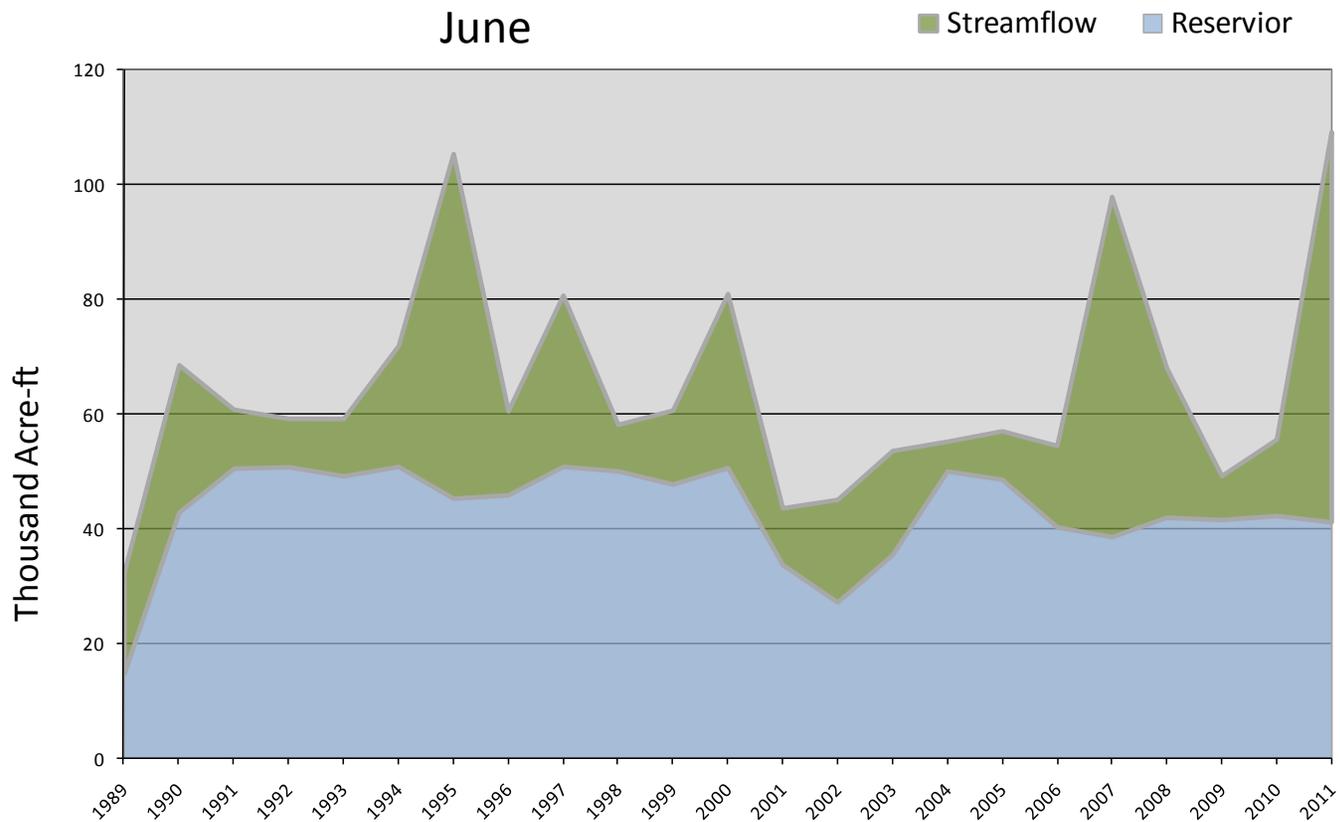
June 1, 2011

Water Availability Index

Basin or Region	May EOM* Reservoir	May accumulated flow Virgin and Santa Clara Rivers (<i>observed</i>)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	<i>KAF</i> [^]	<i>KAF</i>	<i>KAF</i>		%	
Southwest	41.2	68.2	109.4	3.82	96%	95, 00, 07, 97

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

Southwest - Water Availability Index June



Issued by

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

Released by

Sylvia Gillen
State Conservationist
Natural Resources Conservation Service
Salt Lake City, Utah

Prepared by

Snow Survey Staff
Randall Julander, Supervisor
Troy Brosten, Hydrologist
Timothy Bardsley, Hydrologist
Mike Bricco, Hydrologist
Beau Uriona, Hydrologist
Karen Vaughan, Soil Scientist
Bob Nault, Electronics Technician



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Snow Survey, USDA, NRCS
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

