

Utah Climate and Water Report

May 2011



Hobble Creek Snow Course

Bob Nault manually sampling the snow course (*photo by Troy Brosten, 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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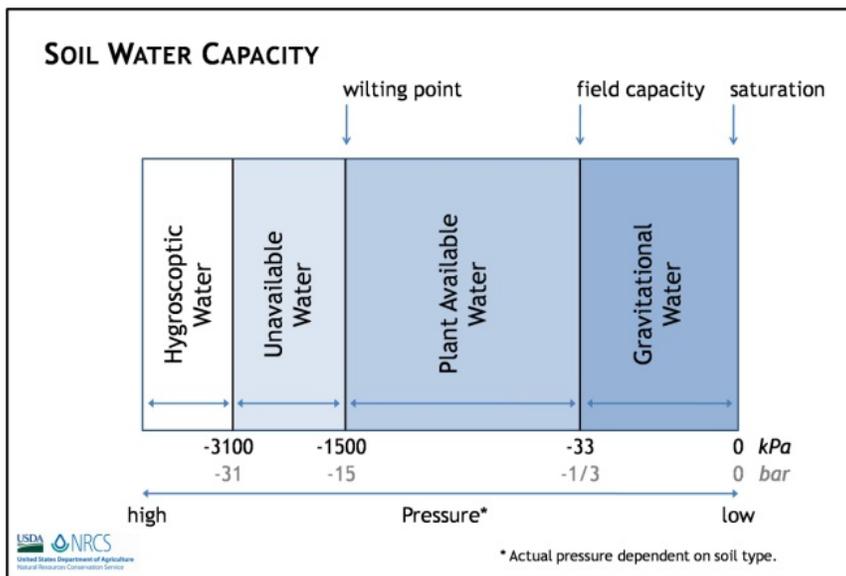
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 - Water Availability Index

Climate and Water Information

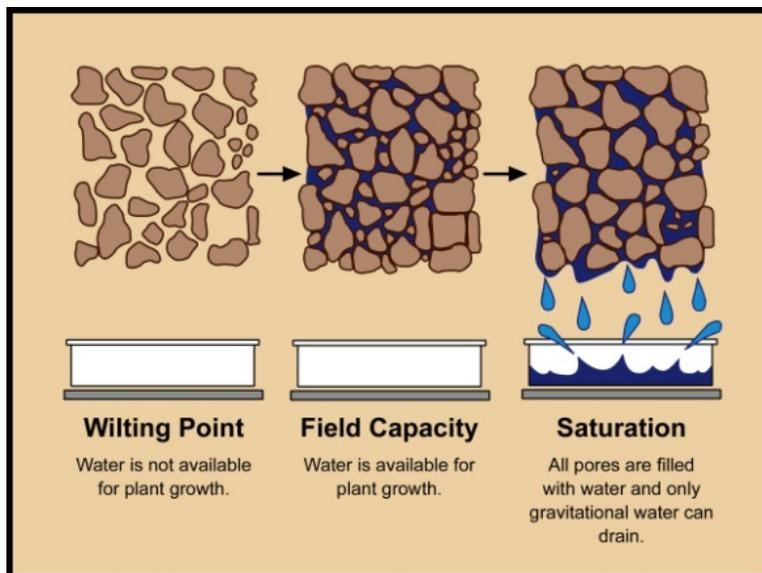
Soil Climate Analysis Network

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.



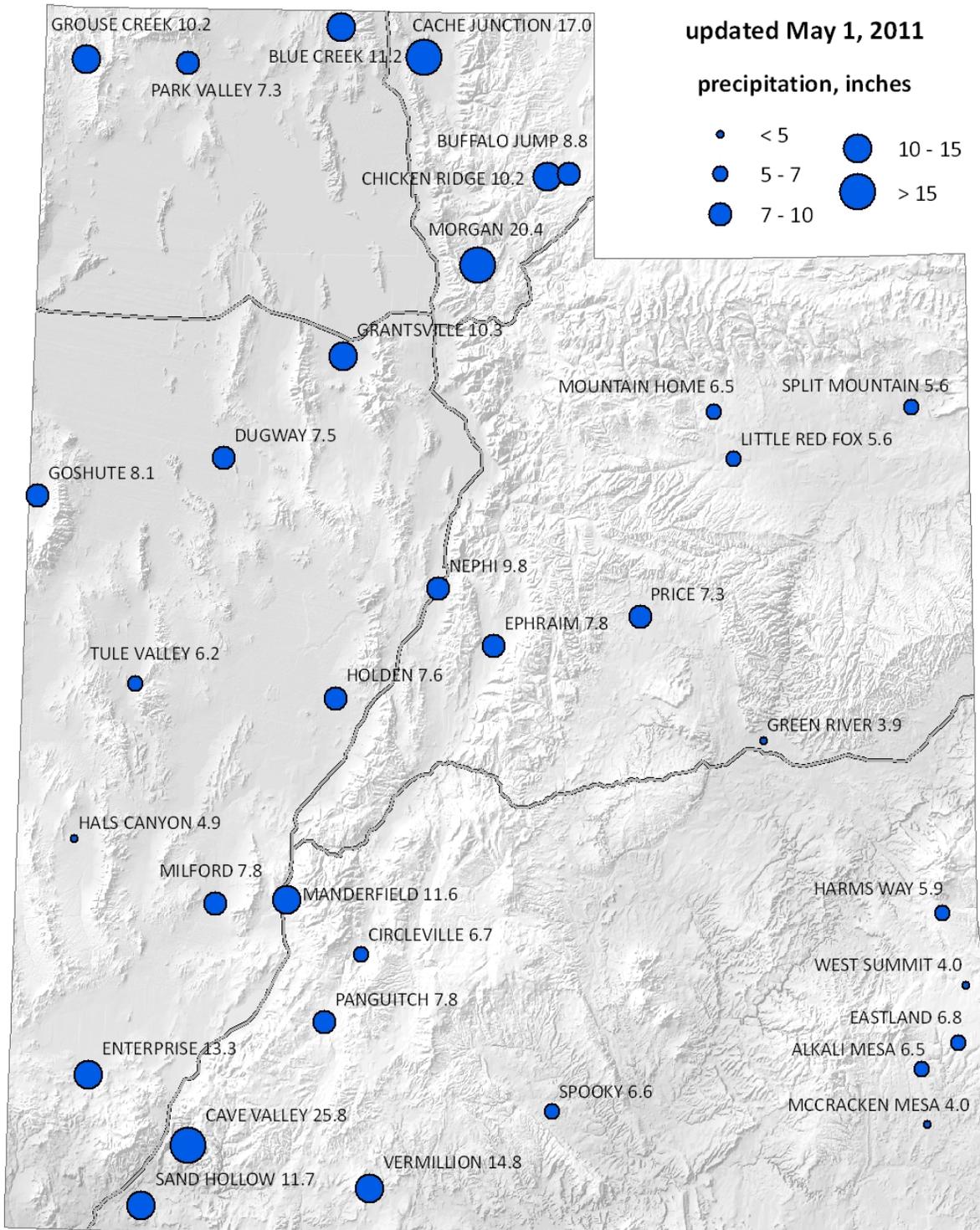
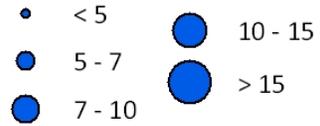
Visual explanation of soil water capacity definitions.

Utah SCAN Water Year Precipitation *



updated May 1, 2011

precipitation, inches



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

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)

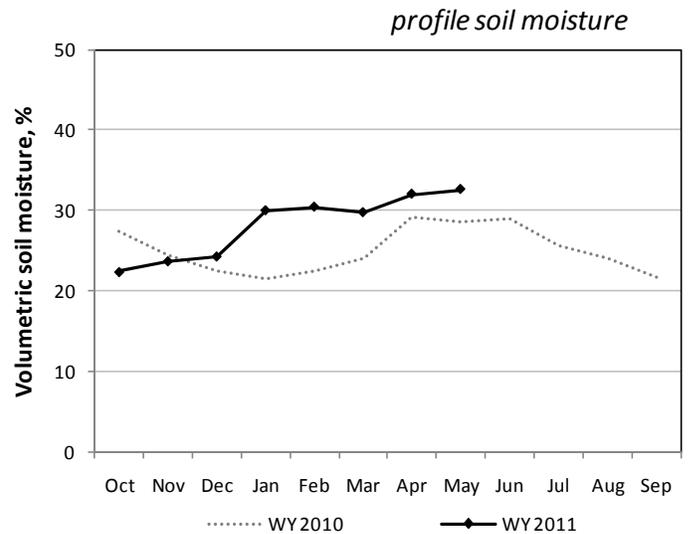
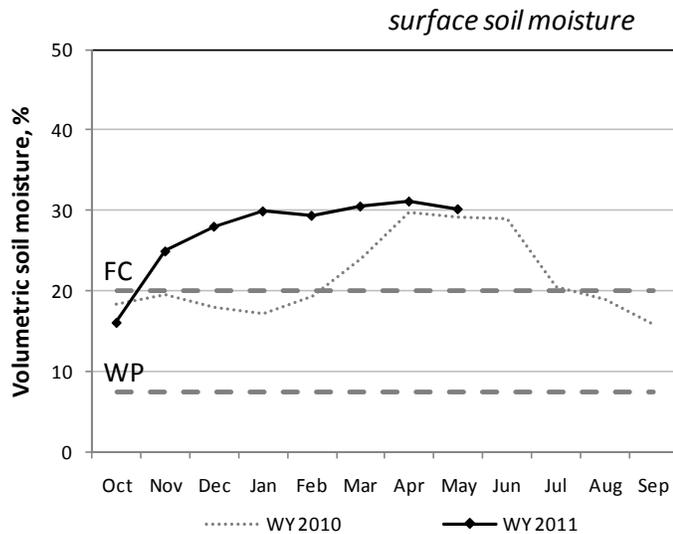
North Central

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	1.1	39	27	30	38	36	25	42	46	46	44	44
Cache Junction	<i>Cache</i>	17.0	3.9	38	36	40	45	39	41	44	46	46	44	44
Grantsville	<i>Tooele</i>	10.3	3.2	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

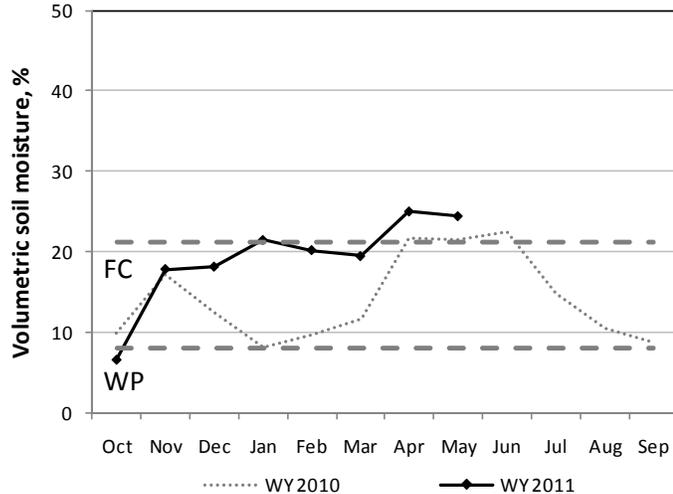
Soil Climate Analysis Network (SCAN)

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	3.0	32	23	15	25	20	29	33	33	33	33	33
Buffalo Jump	<i>Rich</i>	8.8	2.4	32	20	27	25	29	-	40	42	42	41	-
Morgan	<i>Morgan</i>	20.4	4.9	38	24	26	29	17	8	44	44	46	45	43

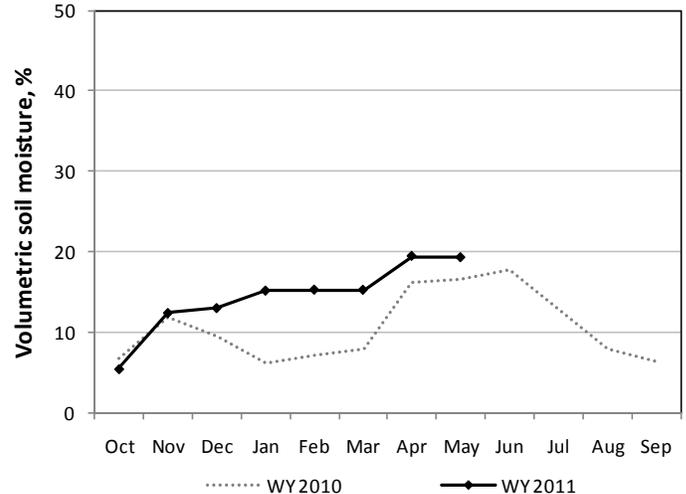
*since October 1, 2010. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

Northern Mountains

surface soil moisture



profile soil moisture



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

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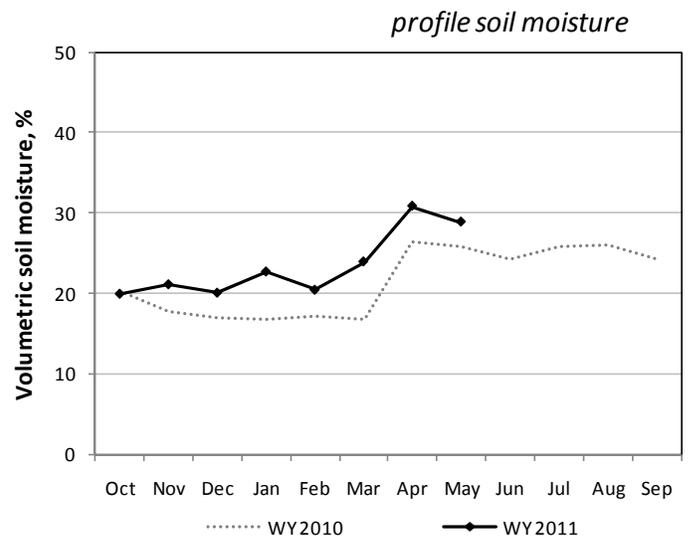
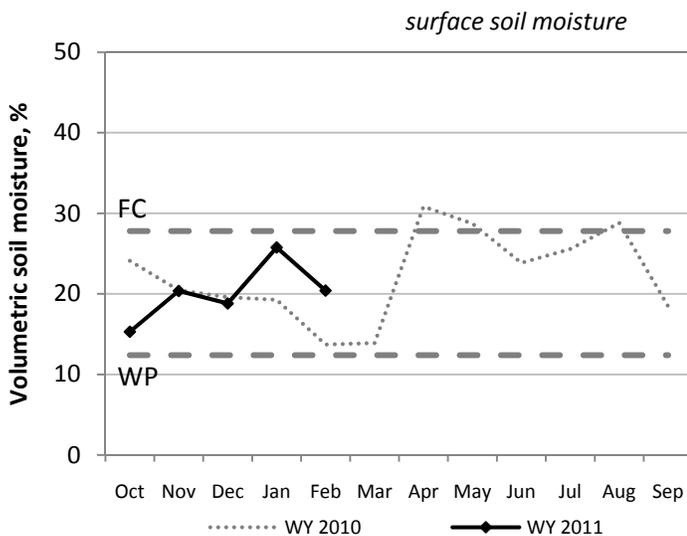
Uintah Basin

Soil Climate Analysis Network (SCAN)

Site name	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	1.2	32	27	36	39	34	29	40	41	42	42	43
Little Red Fox	<i>Duchesne</i>	5.6	0.6	38	5	32	39	36	44	40	48	49	49	47
Split Mountain	<i>Uintah</i>	5.6	0.6	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



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Southeast

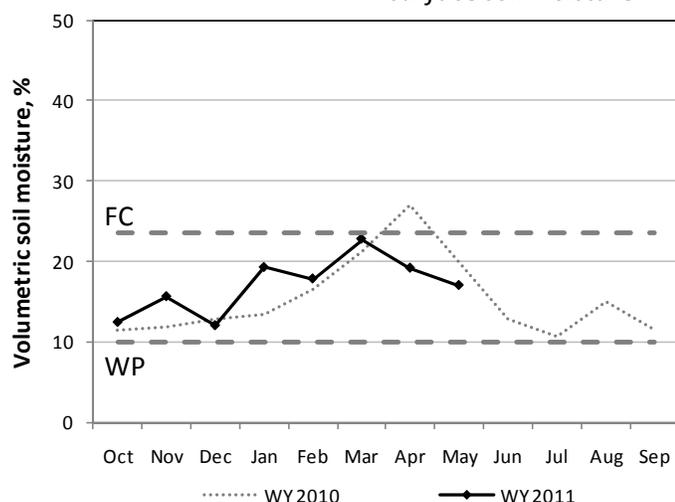
Soil Climate Analysis Network (SCAN)

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	0.6	38	0	14	20	14	17	44	48	49	49	49
Green River	<i>Emery</i>	3.9	0.4	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	1.3	31	21	25	21	15	20	38	40	45	44	46
Eastland	<i>San Juan</i>	6.8	1.4	33	23	22	22	31	34	41	45	46	46	47
Alkali Mesa	<i>San Juan</i>	6.5	1.4	38	16	19	18	19	14	44	44	48	49	48
McCracken Mesa	<i>San Juan</i>	4.0	0.6	43	14	15	16	16	14	50	55	57	55	54

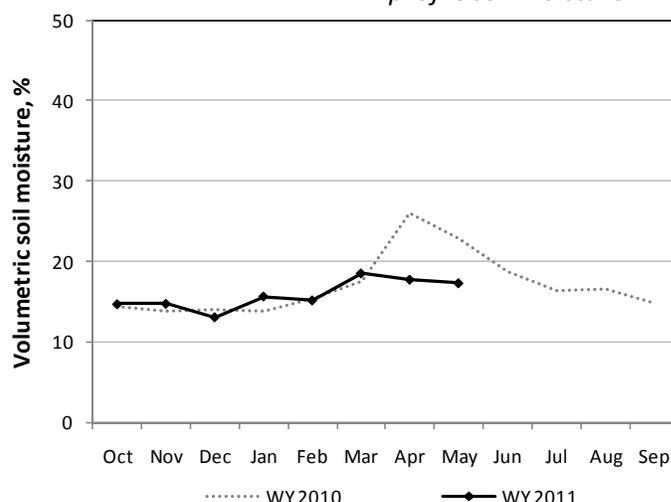
*since October 1, 2010. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

Southeast

surface soil moisture



profile soil moisture



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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.

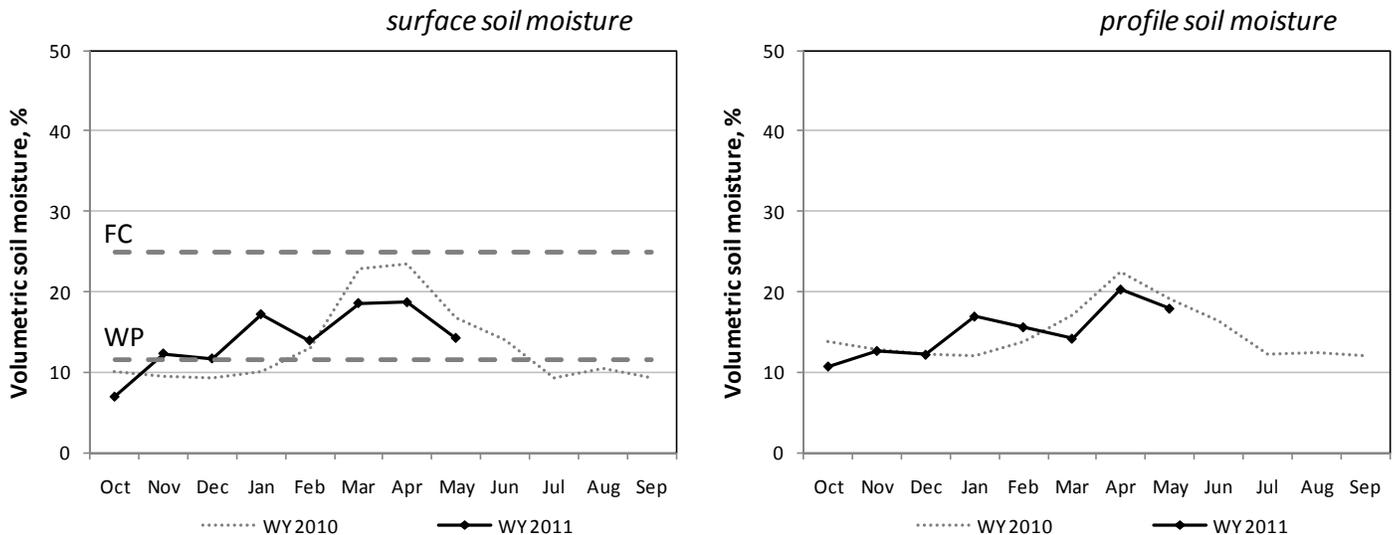
South Central

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"
		<i>in.</i>	<i>in.</i>	<i>° F</i>	<i>volume %</i>					<i>° F</i>				
SOUTH CENTRAL														
Nephi	<i>Juab</i>	9.8	1.5	37	19	22	22	15	nd	46	46	47	46	46
Ephraim	<i>Sanpete</i>	7.8	1.2	37	10	18	26	26	41	39	45	46	44	44
Holden	<i>Millard</i>	7.6	1.2	36	7	8	8	20	18	45	47	48	48	49
Milford	<i>Beaver</i>	7.8	1.2	37	16	24	24	36	15	49	51	49	48	49
Manderfield	<i>Beaver</i>	11.6	1.7	34	12	25	25	22	9	42	46	47	46	45
Circleville	<i>Piute</i>	6.7	1.1	34	31	14	15	23	8	46	45	48	47	47
Panguitch	<i>Garfield</i>	7.8	0.9	34	9	23	20	29	33	41	43	43	44	44
Cave Valley	<i>Washington</i>	25.8	1.3	40	0	5	6	6	7	46	48	51	51	49
Vermillion	<i>Kane</i>	14.8	0.5	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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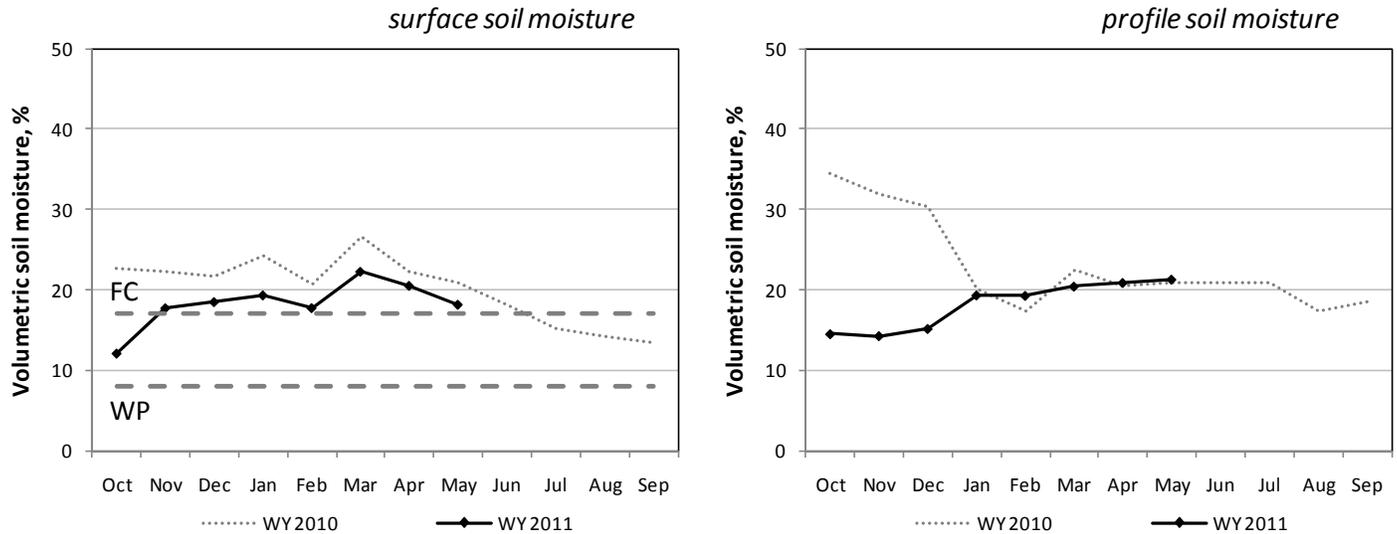
Western and Dixie

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	1.6	36	14	25	29	31	33	39	44	46	43	43
Park Valley	<i>Box Elder</i>	7.3	0.8	37	5	11	20	29	25	39	43	47	46	46
Goshute	<i>Tooele</i>	8.1	2.1	35	15	31	13	45	42	37	43	48	45	45
Dugway	<i>Tooele</i>	7.5	1.7	43	19	28	36	nd	13	45	49	50	48	48
Tule Valley	<i>Millard</i>	6.2	1.5	43	19	16	23	22	8	46	53	59	56	55
Hal's Canyon	<i>Millard</i>	4.9	0.9	42	0	9	12	13	8	44	51	56	53	52
Enterprise	<i>Washington</i>	13.3	1.1	37	11	37	34	29	33	46	51	50	50	50
DIXIE														
Sand Hollow	<i>Washington</i>	11.7	0.8	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

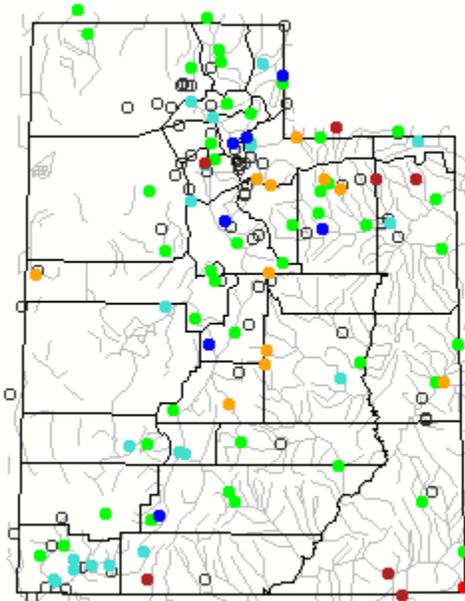
May 1, 2011

Current Conditions

Soil moisture values across the state are extremely high – at or above recorded levels. Precipitation across the state was much above normal for April (132%-200%). Snowpacks on the Bear, Weber and Provo Basins (193%-207%) are well above historic maximums and near that on the Uintah Basin (181%). Snowpacks in southern Utah are much above average (146%-189%). Streamflows in southern Utah have generally been very high – Sevier River at Kingston recorded 28.6 thousand acre feet and the previous high for April streamflow was in 2005 at 23.7 thousand acre feet. Reservoir storage is generally high across the state as well. All things considered – high snowpack, high soil moisture and excellent reservoir storage – the water supply outlook across is very good.

Current Utah Streamflow - Courtesy US Geological Survey

Tue., May 03, 2011 10:30ET



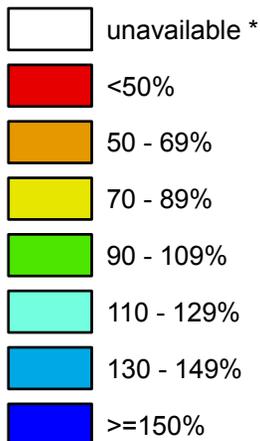
Explanation - Percentile classes							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not ranked

Utah

SNOTEL Current Snow Water Equivalent (SWE) % of Normal

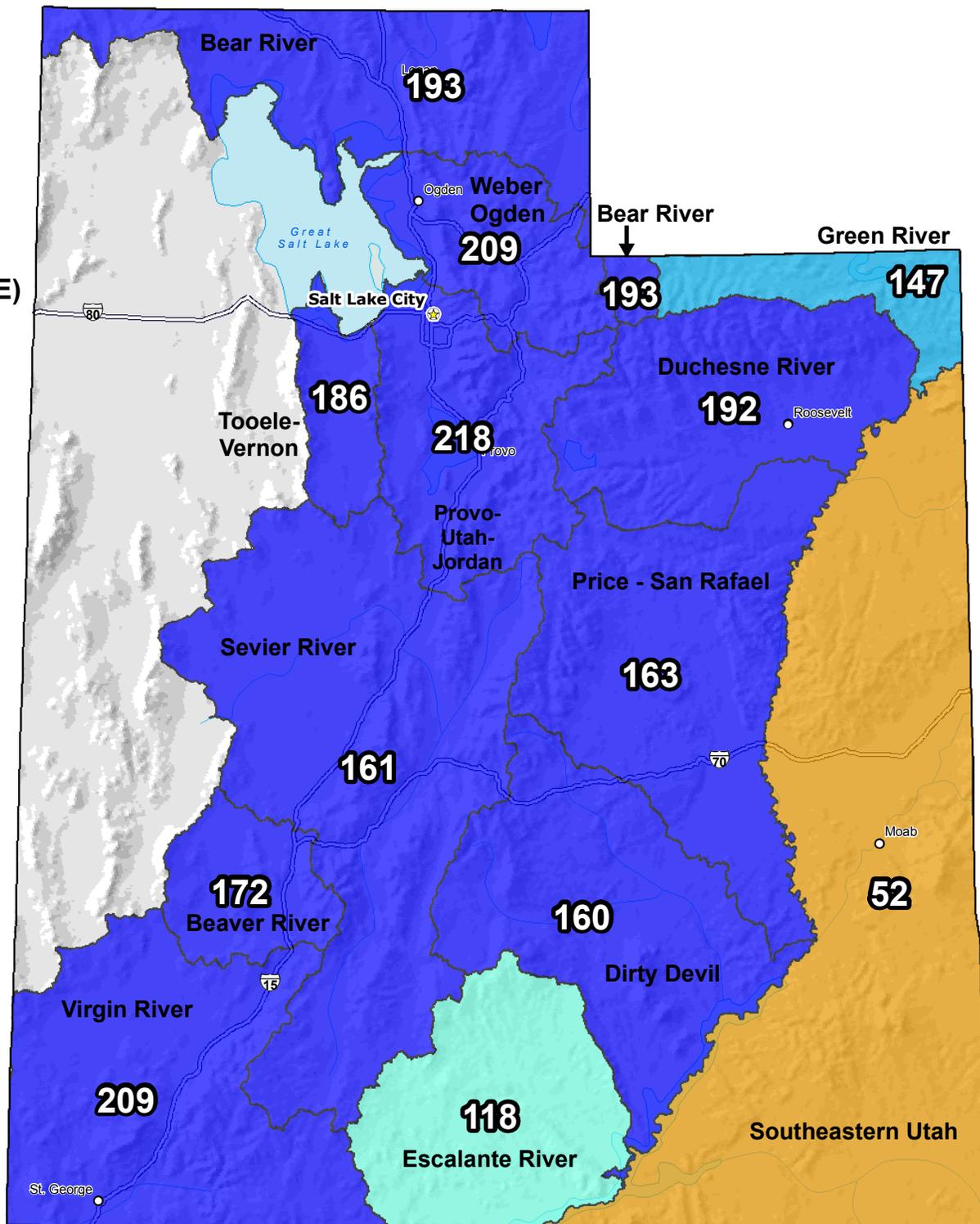
May 01, 2011

**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).

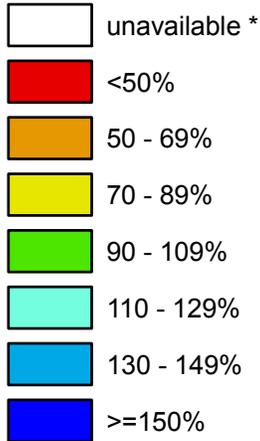
Prepared by the USDA/NRCS National Water and Climate Center
Portland, Oregon <http://www.wcc.nrcs.usda.gov/gis/>
Based on data from <http://www.wcc.nrcs.usda.gov/reports/>
Science contact: Jim.Marron@por.usda.gov 503 414 3047

Utah

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

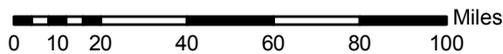
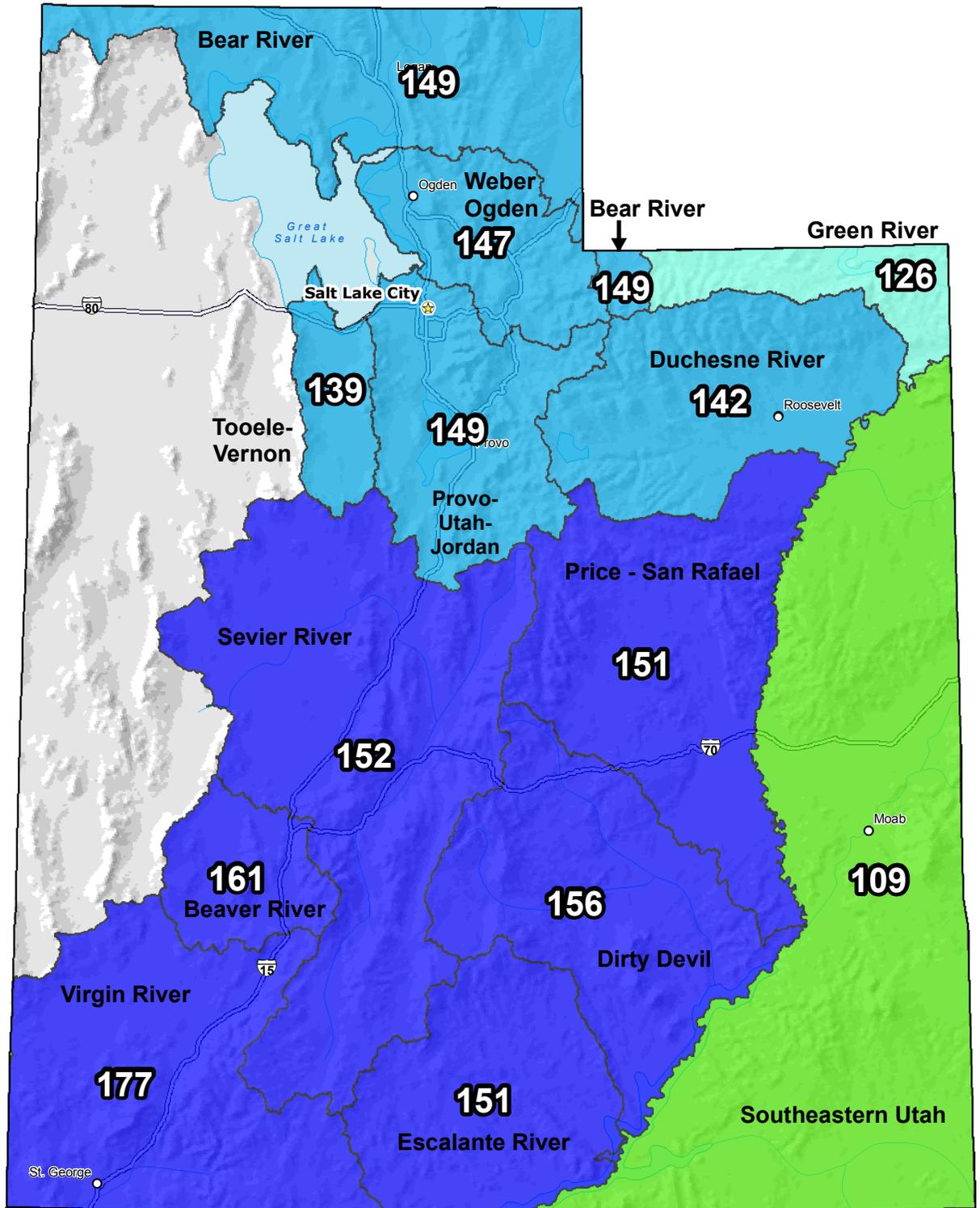
May 01, 2011

**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**



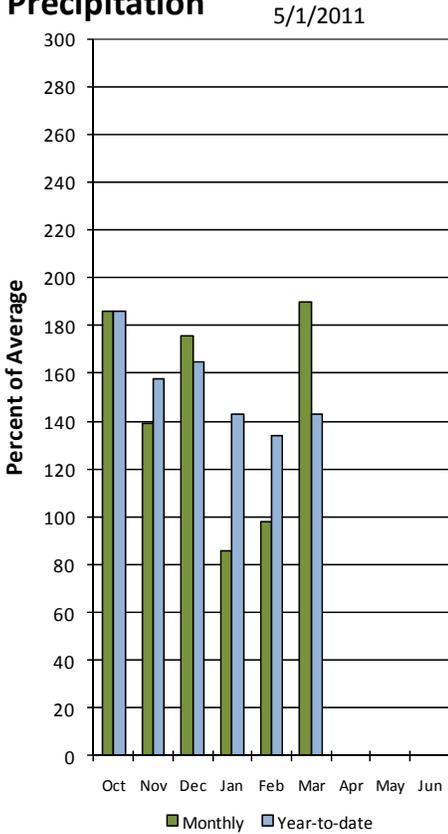
The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

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

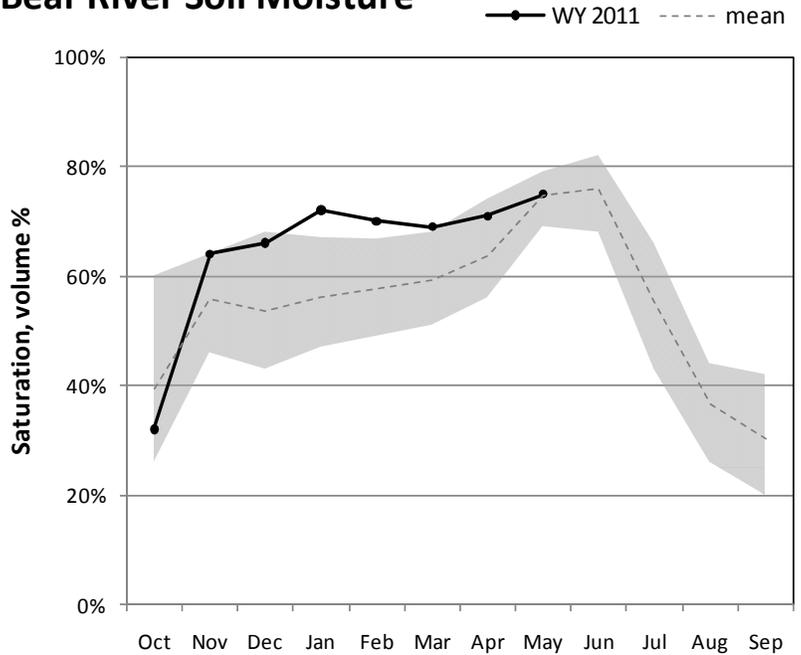
Bear River Basin May 1, 2011

Precipitation in April was much above average at 190% which brings the water year accumulation to 143%. Reservoir storage is low at 47% of capacity, which is 6% higher than this time last year. Soil moisture is at 75% compared to 71% last year.

Bear River Precipitation

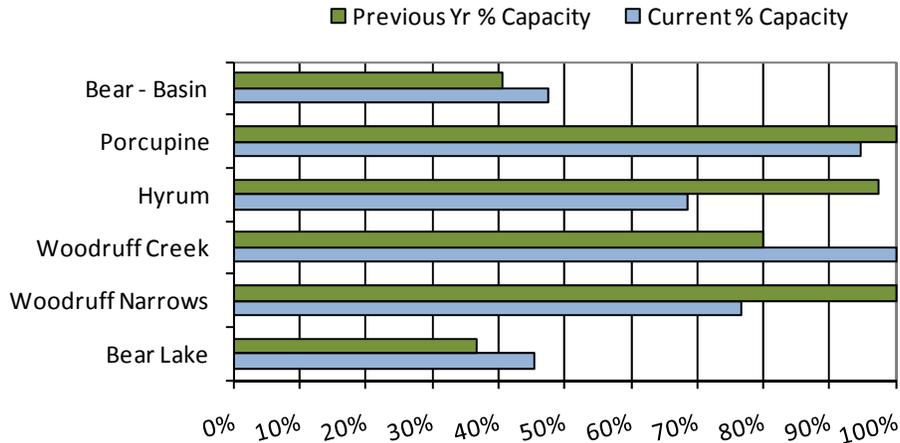


Bear River Soil Moisture



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.

May Bear River Reservoir Storage



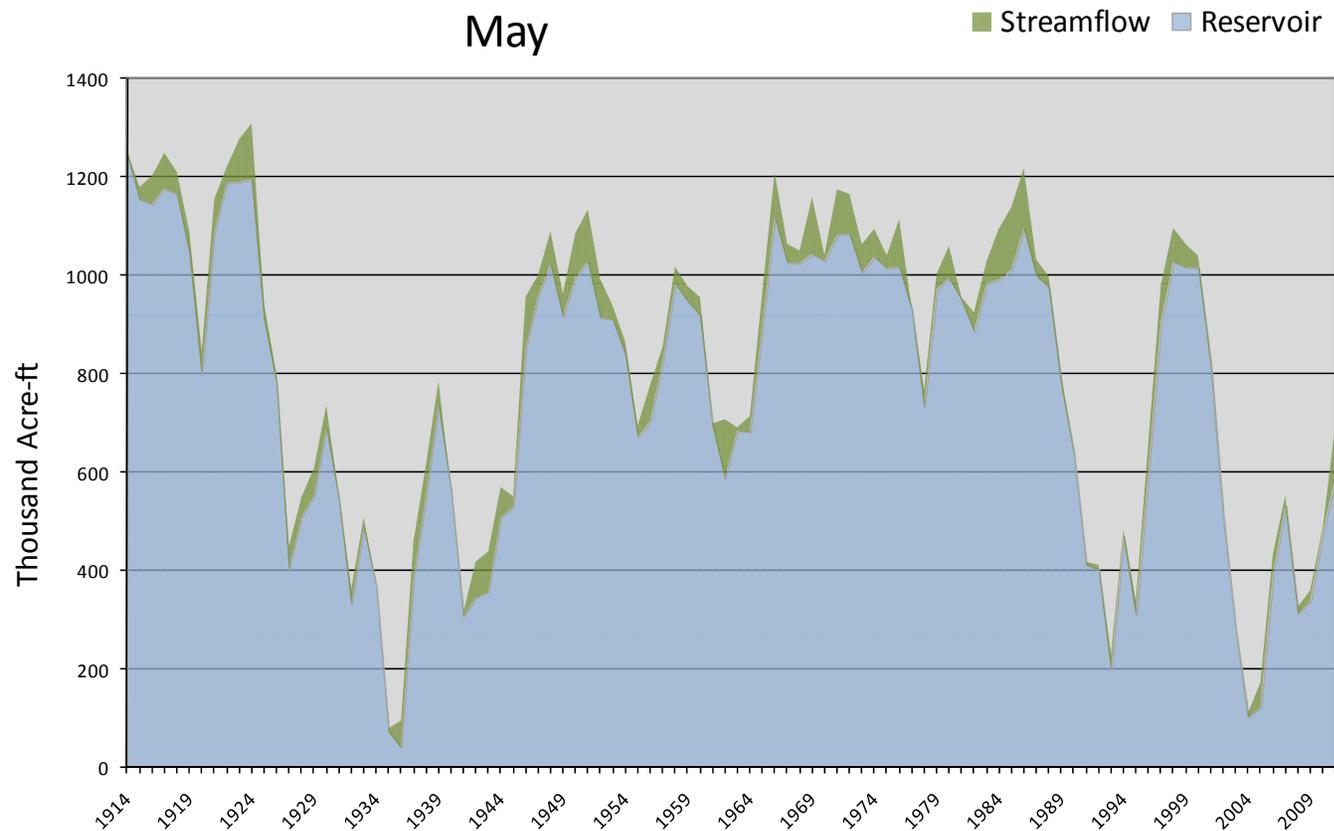
May 1, 2011

Water Availability Index

Basin or Region	April EOM* Bear Lake	April accumulated inflow to Bear Lake (<i>observed</i>)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Bear River	590	104	694	-1.22	35	55,61,63,96

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

Bear River - Surface Water Supply Index May

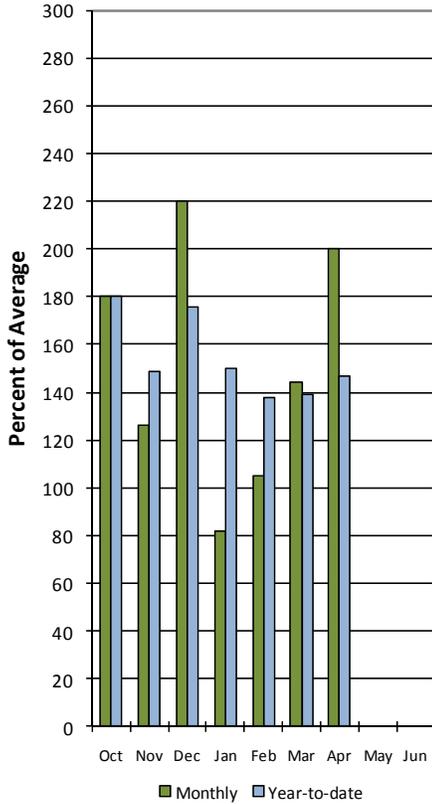


Weber and Ogden River Basin May 1, 2011

Precipitation in April was much above average at 200% which brings the water year accumulation to 147%. Reservoir storage is at 65% of capacity, which is 25% lower than this time last year. Soil moisture is at 72% compared to 68% last year.

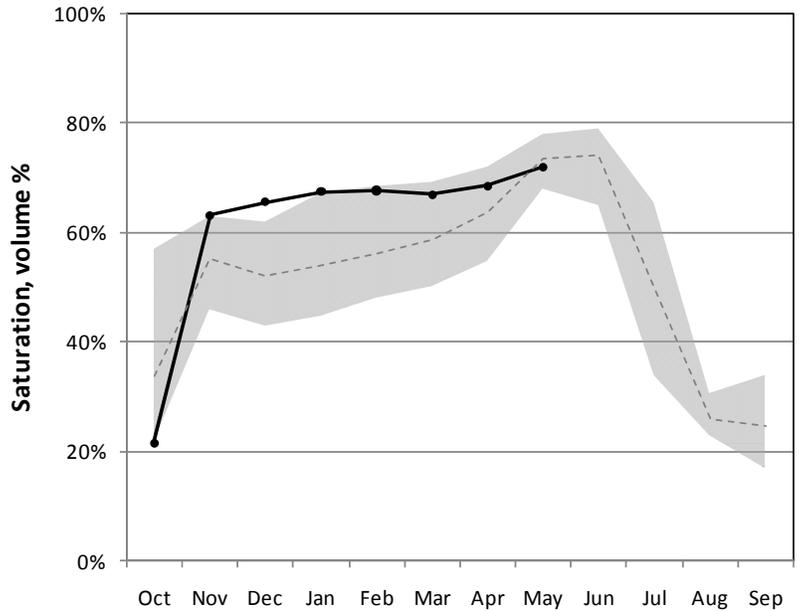
Weber River Precipitation

5/1/2011



Weber River Soil Moisture

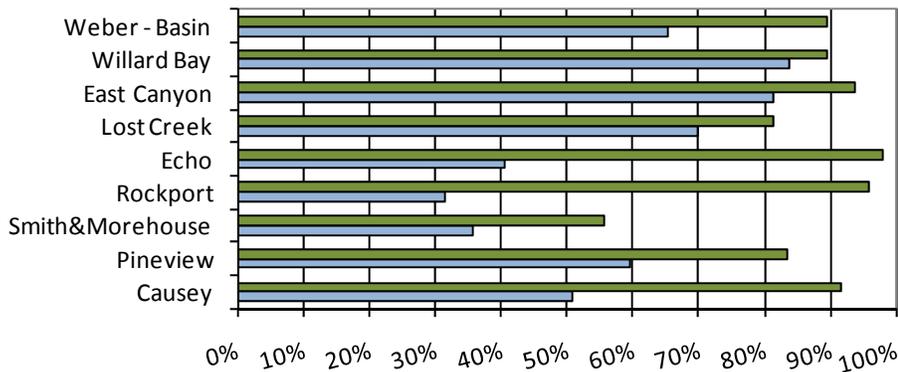
—●— WY 2011 - - - - mean



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.

May Weber Basin Reservoir Storage

■ Previous Yr % Capacity ■ Current % Capacity



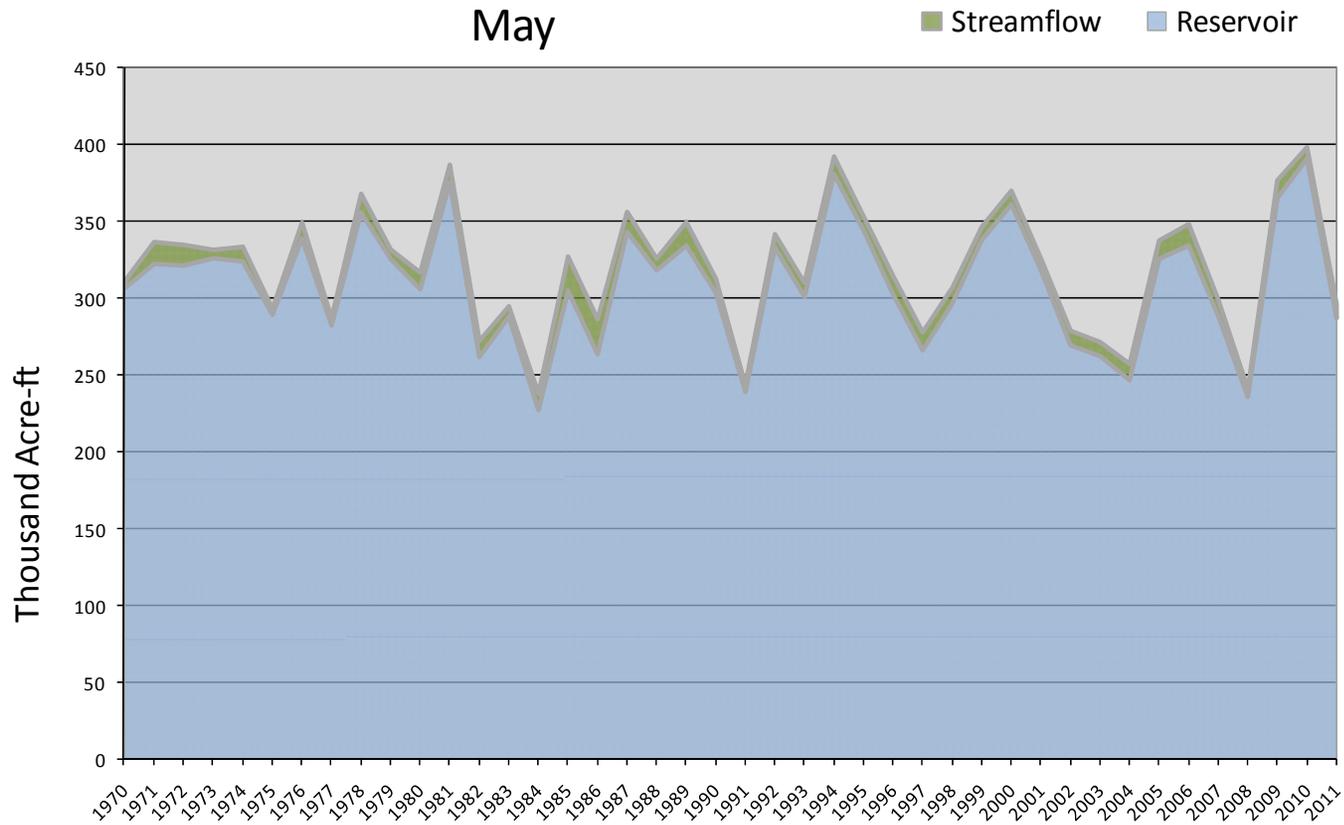
May 1, 2011

Water Availability Index

Basin or Region	April EOM* Reservoirs	April accumulated flow at Weber near Oakley (observed)	Reservoirs + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Weber River	288	9.3	297	-1.65	30	75,83,98,07

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

Weber River - Water Availability Index May



May 1, 2011

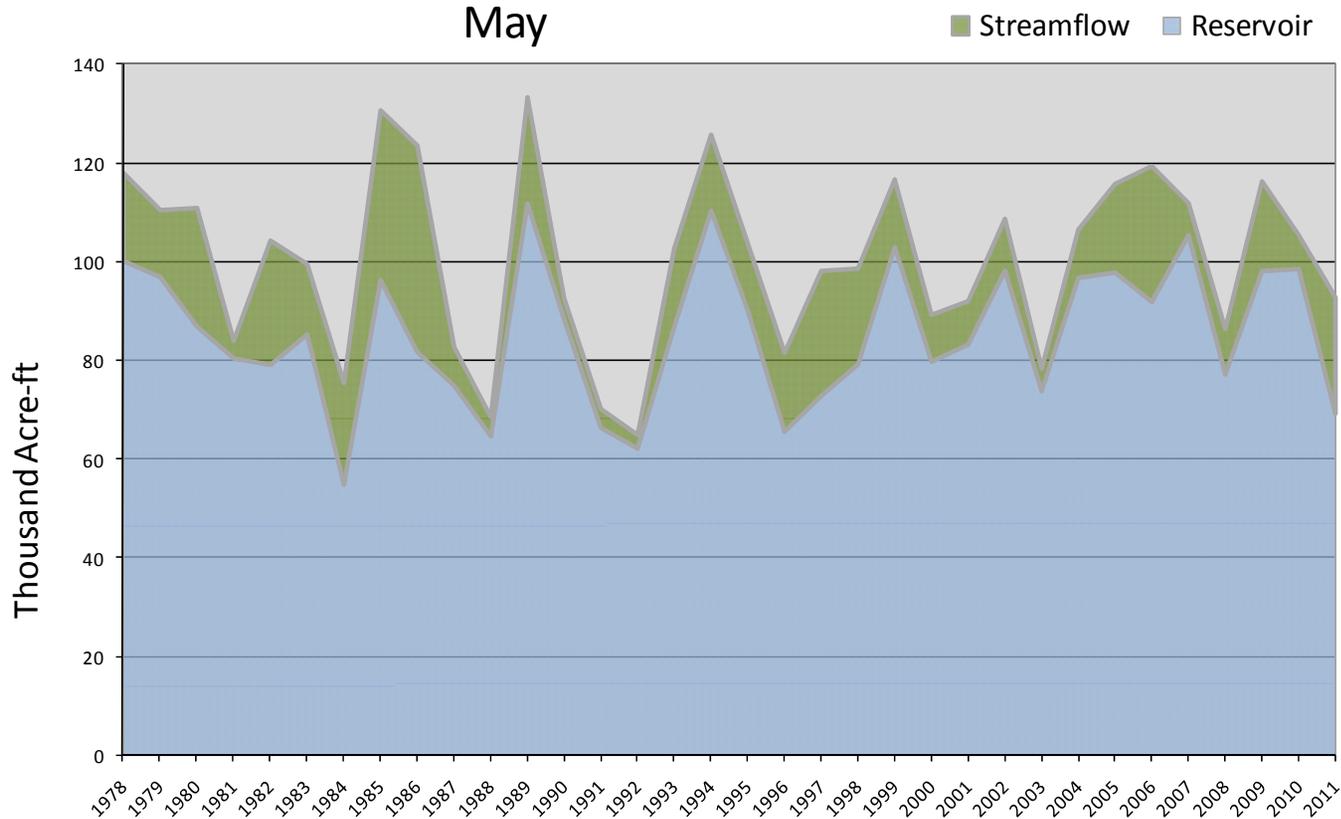
Water Availability Index

Basin or Region	April EOM* Pine View & Causey	April accumulated flow at South Fork Ogden (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Ogden River	69.2	23.5	92.7	-1.07	37	90,97,98,01

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

Ogden River - Water Availability Index

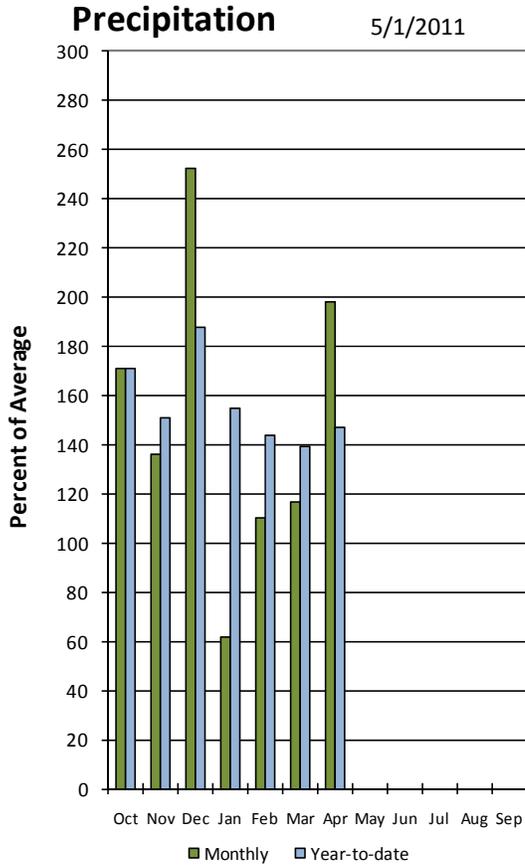
May



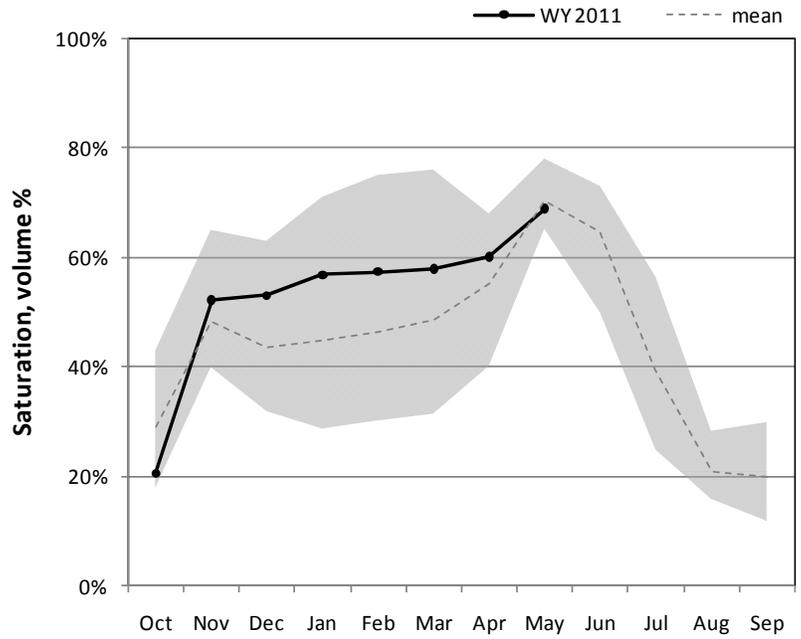
Utah Lake, Jordan River, & Tooele Valley Basins May 1, 2011

Precipitation in April was much above average at 198%, bringing water year accumulation to 147%. Reservoir storage is at 93% of capacity, which is 2% more than this time last year. Soil moisture is at 69% compared to 64% last year at this time.

Jordan / Provo River

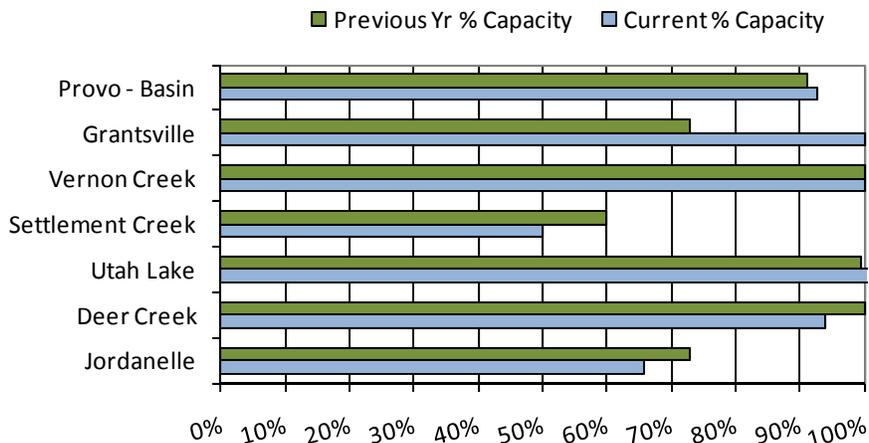


Jordan / Provo River Soil Moisture



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.

May Provo River Reservoir Storage



May 1, 2011

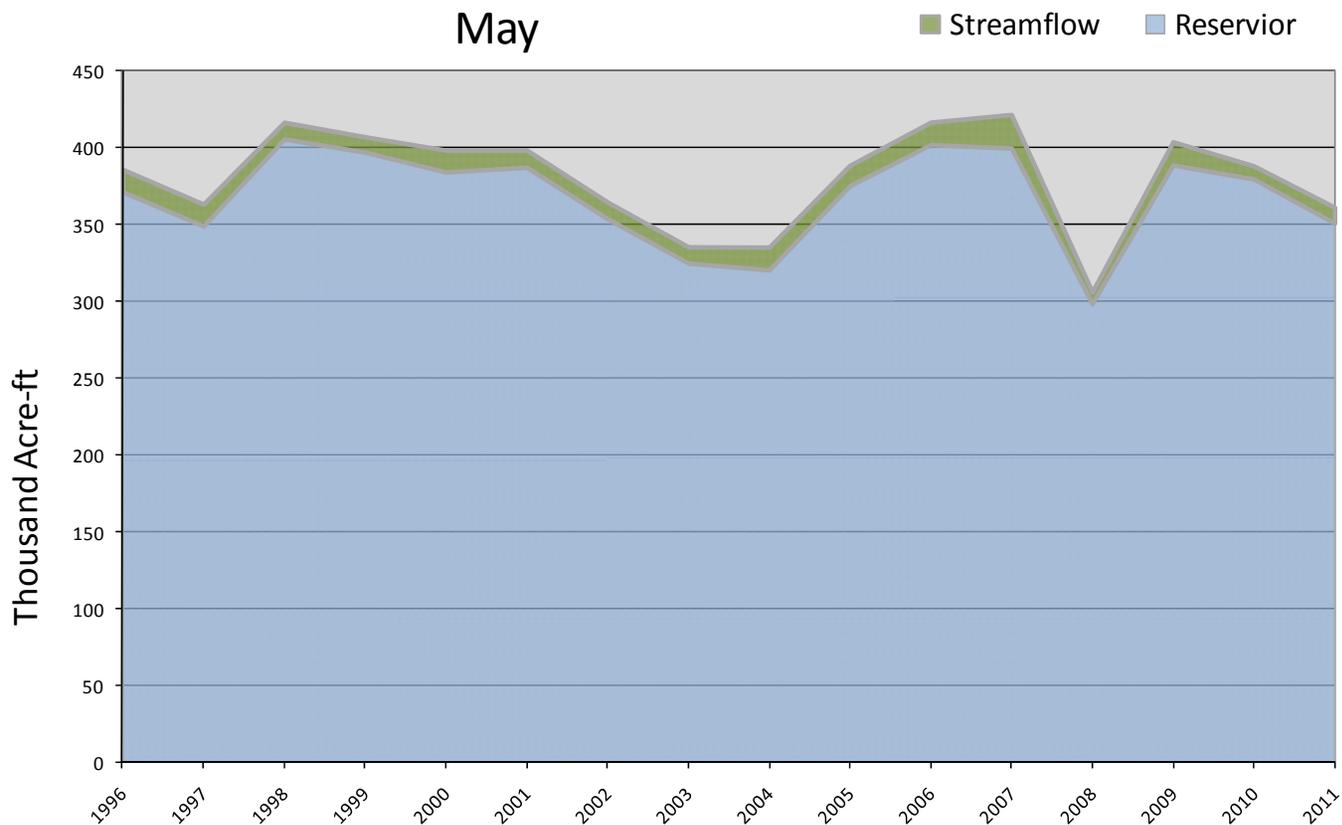
Water Availability Index

Basin or Region	April EOM* Deer	April accumulated	Reservoir +	WAI [#]	Percentile	Years with similar
	Creek, Jordanelle	flow Provo River				
		at Woodland				
		(observed)				
	KAF [^]	KAF	KAF		%	
Provo	351	10.3	361	-2.21	24%	02, 97, 03, 04

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

Provo River - Water Availability Index

May

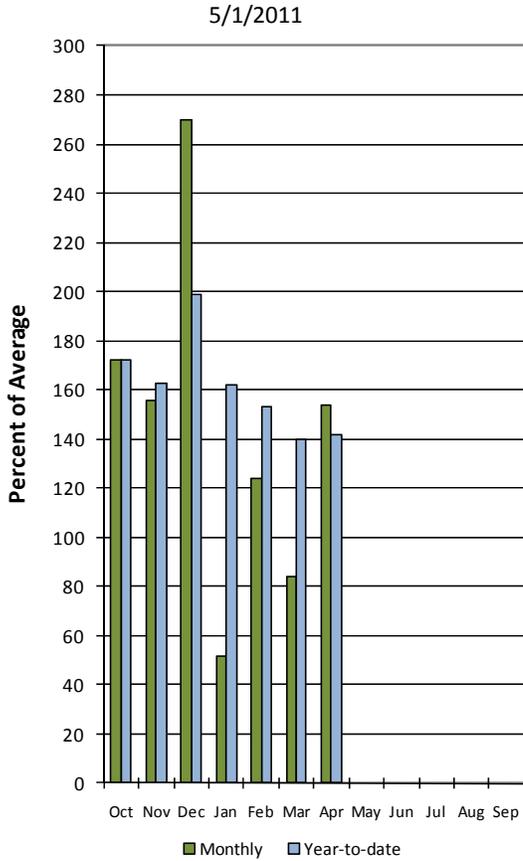


Utah Lake, Jordan River, and Tooele Valley Basins

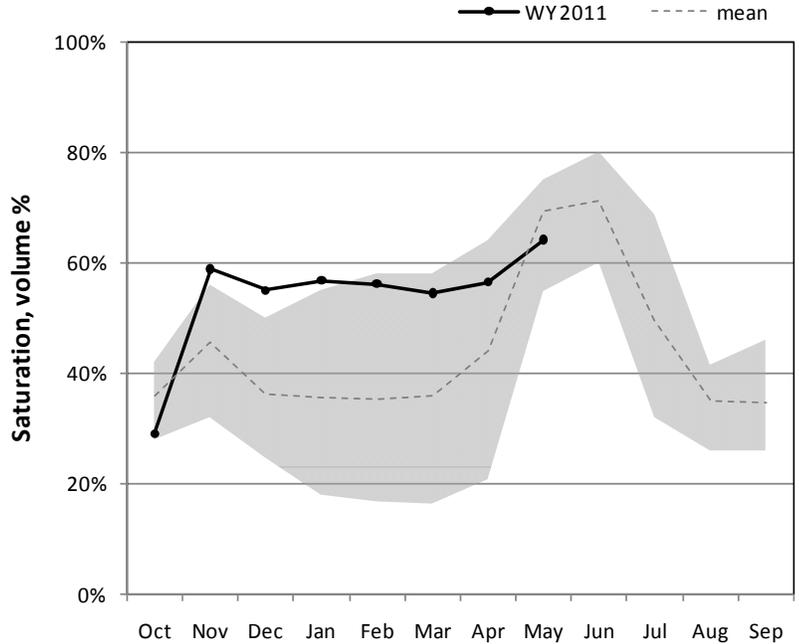
Uintah Basin and Dagget SCDs May 1, 2011

Precipitation in April was much above average at 154%, bringing the water year accumulation to 142%. Reservoir storage is at 81% of capacity, which is 6% lower this time last year. Soil moisture is at 64% compared to 55% last year.

Uintah Precipitation

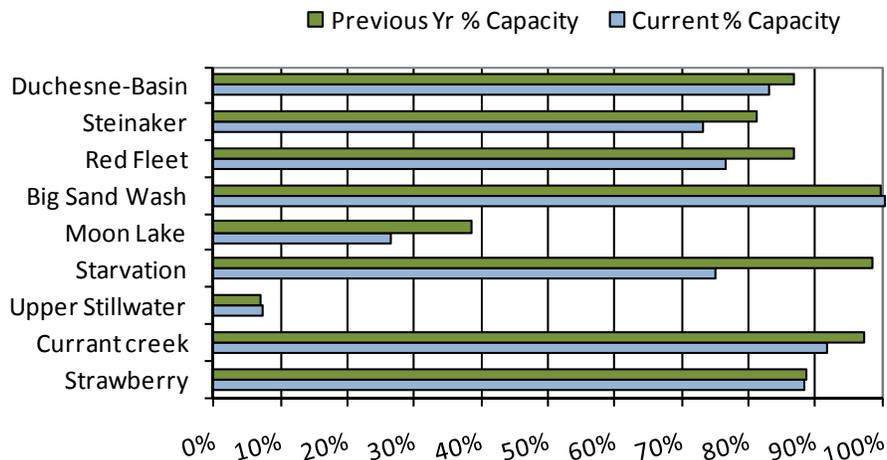


Uintah Basin Soil Moisture



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.

May Uintah Basin Reservoir Storage



May 1, 2011

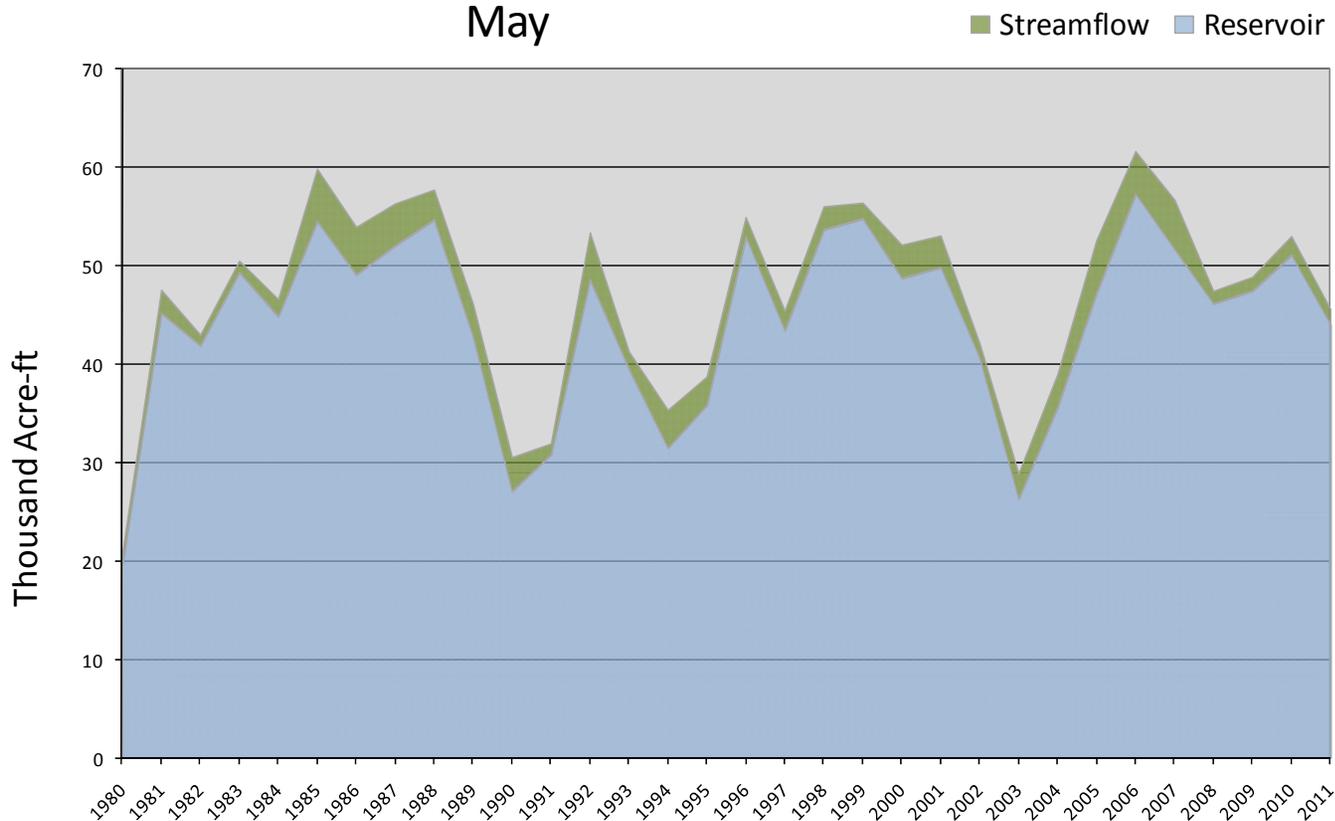
Water Availability Index

Basin or Region	April EOM* Red Fleet and Steinaker	April accumulated flow Big Brush Creek (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Eastern Uintah	44.1	1.5	46	-0.63	42	89, 84, 08, 81

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

Eastern Uintah - Water Availability Index

May



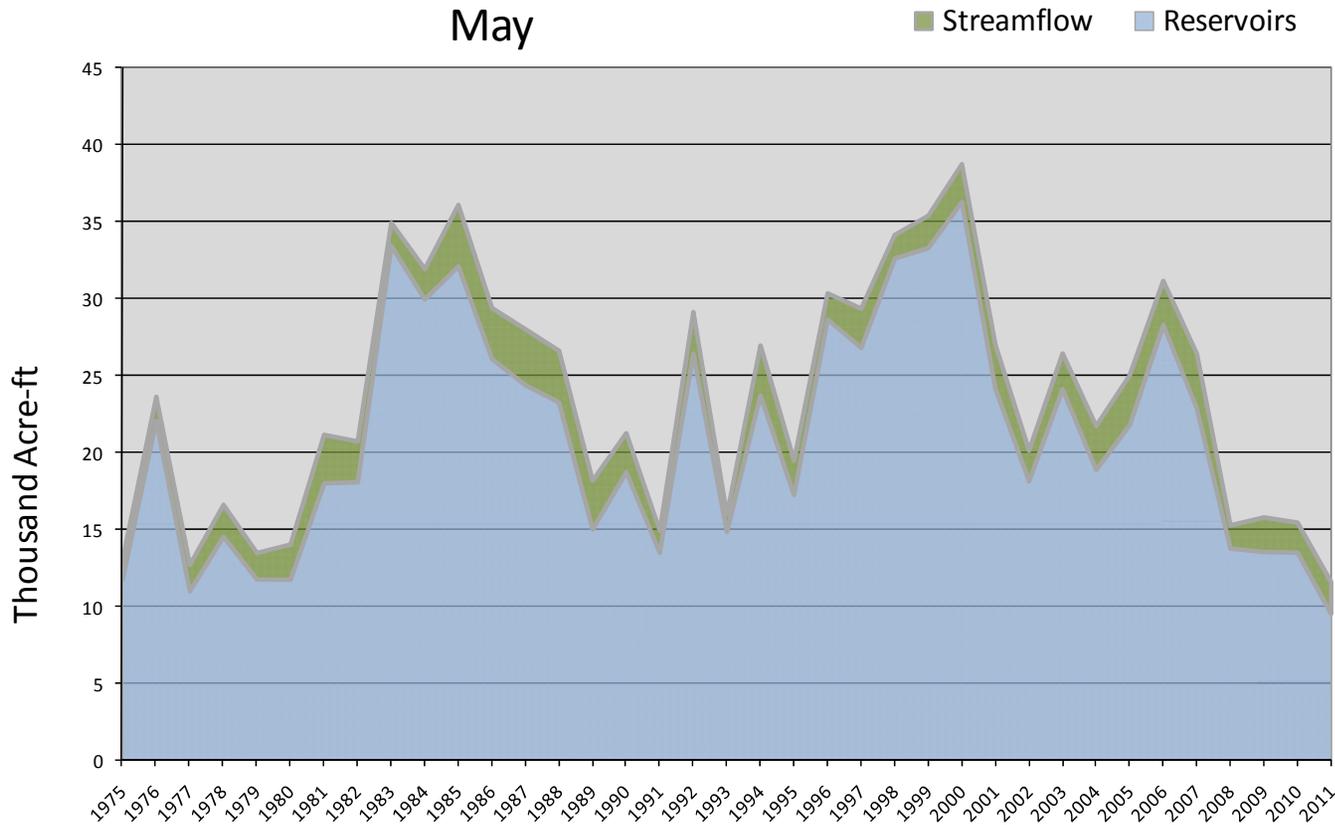
May 1, 2011

Water Availability Index

Basin or Region	April EOM* Moon Lake	April accumulated flow Lake Fork Creek above Moon Lake (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Moon Lake	9.5	2.1	11.6	-3.95	3	77, 75, 79, 80

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

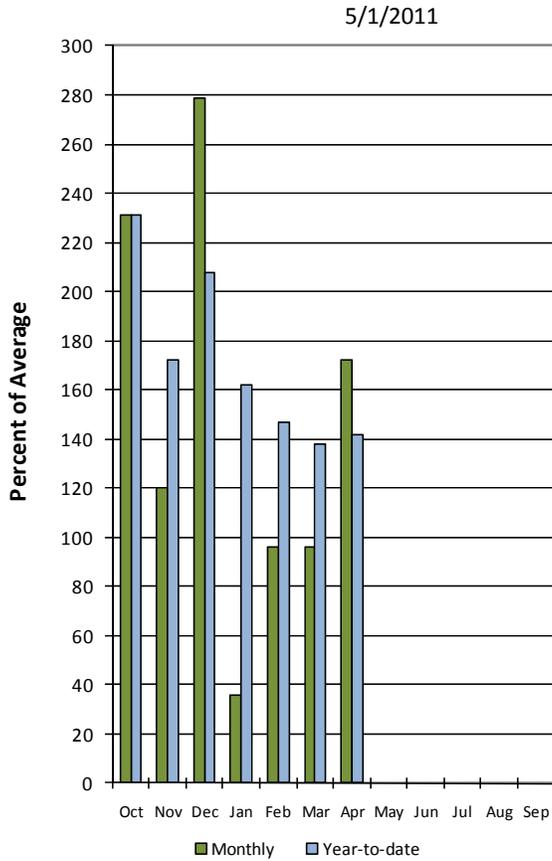
Moon Lake - Water Availability Index



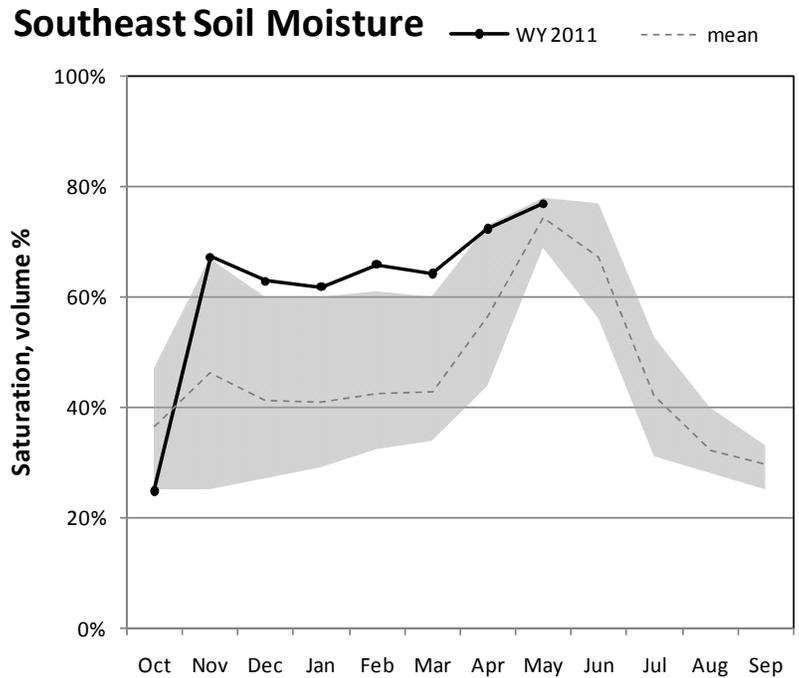
Southeast – Carbon, Emery, Wayne, Grand, and San Juan Counties May 1, 2011

Precipitation in April was much average at 172%, bringing the water year accumulation to 142%. Reservoir storage is at 53% of capacity, which is 7% lower at this time last year. Soil moisture is at 77% compared to 69% last year.

Southeast Utah Precipitation

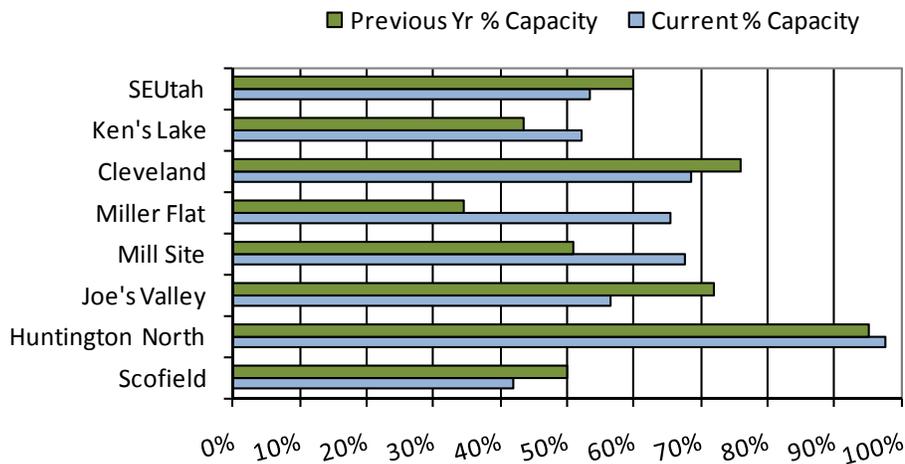


Southeast Soil Moisture



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.

May Southeast Utah Reservoir Storage



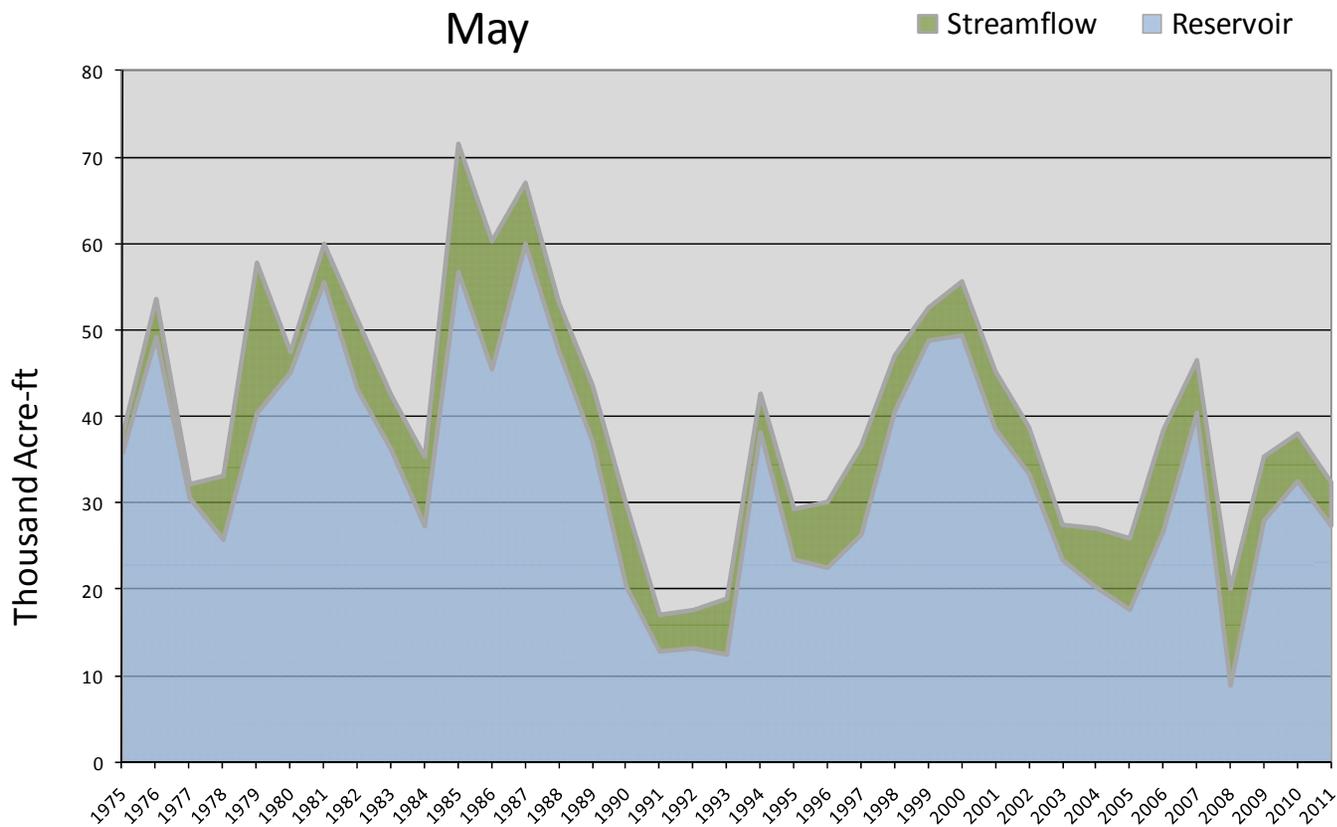
May 1, 2011

Water Availability Index

Basin or Region	April EOM* Scofield	April accumulated inflow to Scofield (<i>calculated</i>)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Price River	27.5	5.0	32.5	-1.54	32	96, 77, 78, 84

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

Price River - Water Availability Index



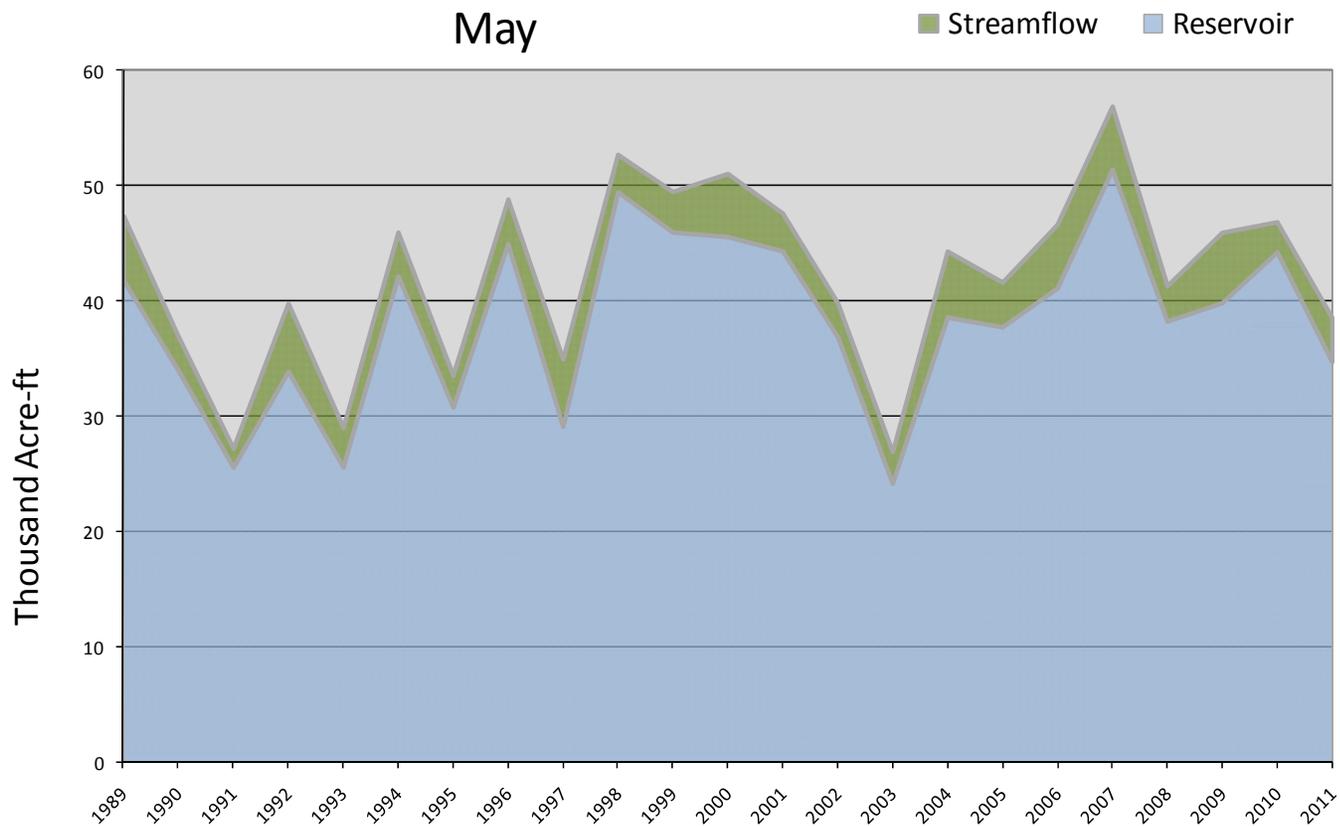
May 1, 2011

Water Availability Index

Basin or Region	April EOM* Joe's Valley	April accumulated inflow to Joe's Valley (calculated)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Joe's Valley	34.8	3.8	38.6	-1.74	29	97, 90, 92, 02

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

Joe's Valley - Water Availability Index



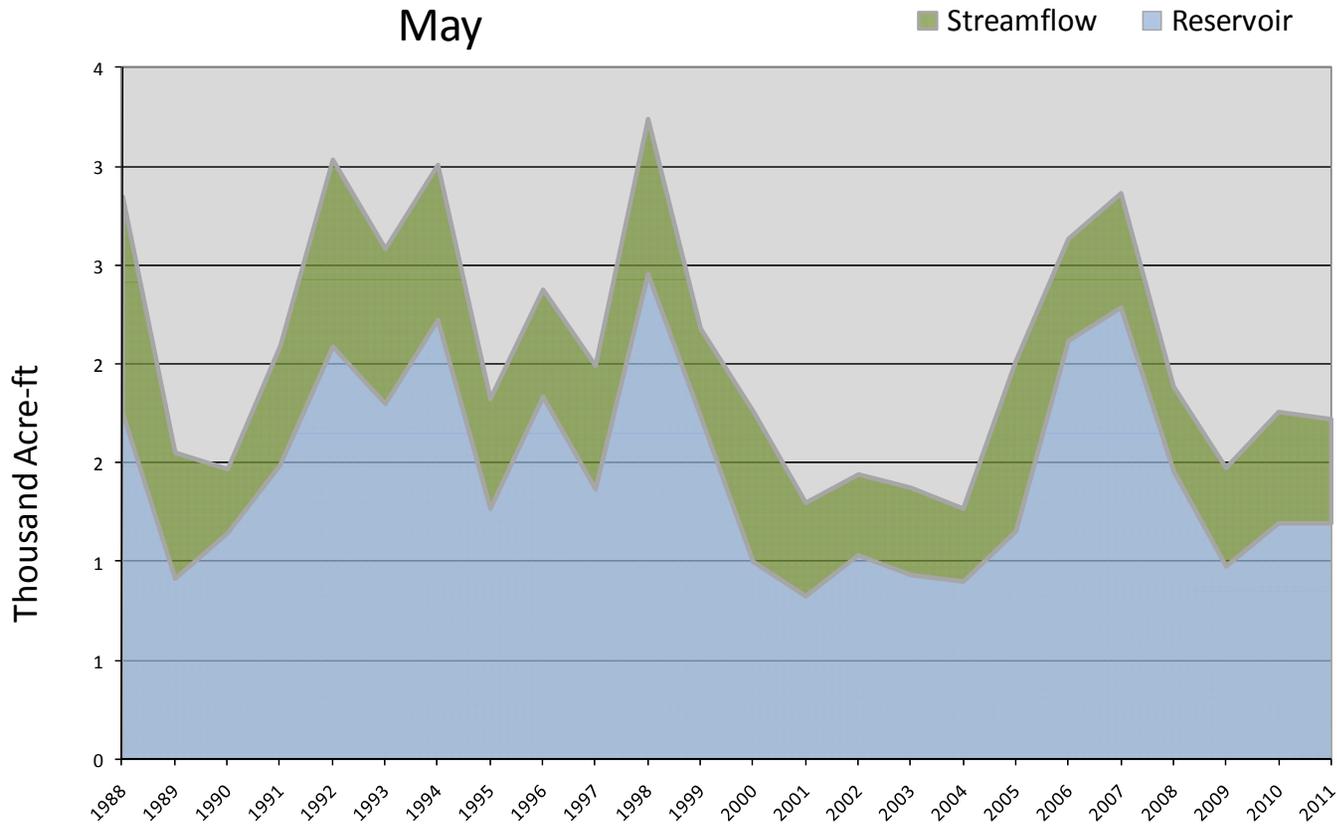
May 1, 2011

Water Availability Index

Basin or Region	April			WAI [#]	Percentile	Years with similar WAI
	April EOM* Ken's Lake Reservoir	accumulated flow Mill Creek at Sheley (<i>observed</i>)	Reservoir + Streamflow			
	KAF [^]	KAF	KAF		%	
Moab	1.2	0.5	1.7	-1.50	32	09, 89, 10, 00

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

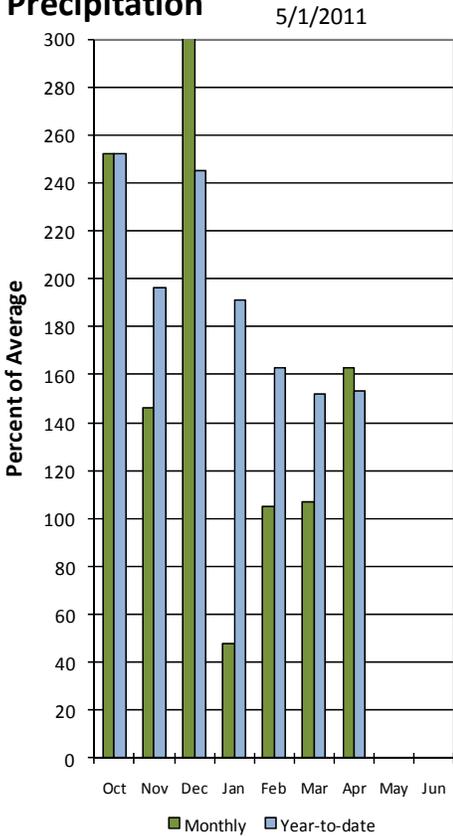
Moab - Water Availability Index



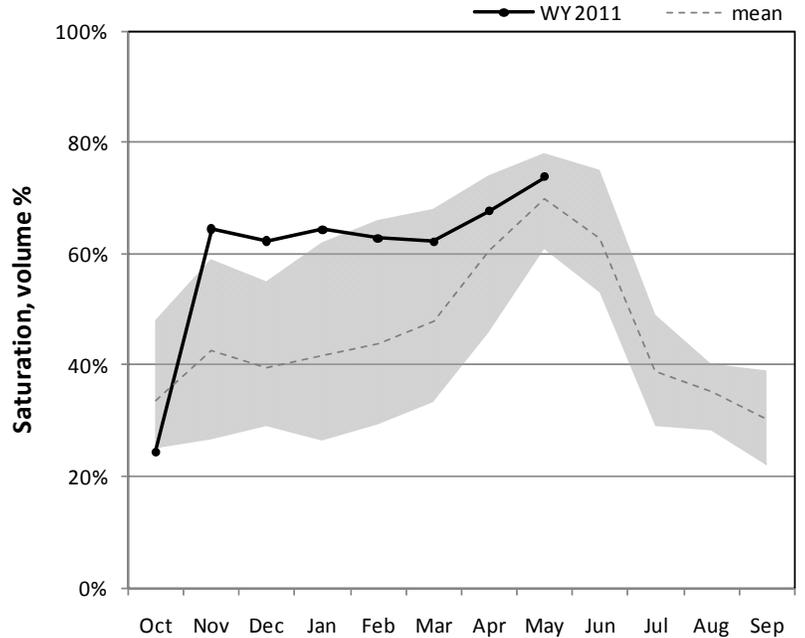
Sevier and Beaver River Basins May 1, 2011

Precipitation in April was much above average at 163%, which brings the seasonal accumulation (Oct-Apr) to 153% of average. Reservoir storage is high at 82% of capacity, 25% more than last year. Soil moisture is near saturation across the basin. Streamflows are well above average and expected to increase. Preliminary analysis and provisional data indicate that April flow for the Sevier River nr Kingston may be the second highest since 1915.

Sevier River Precipitation

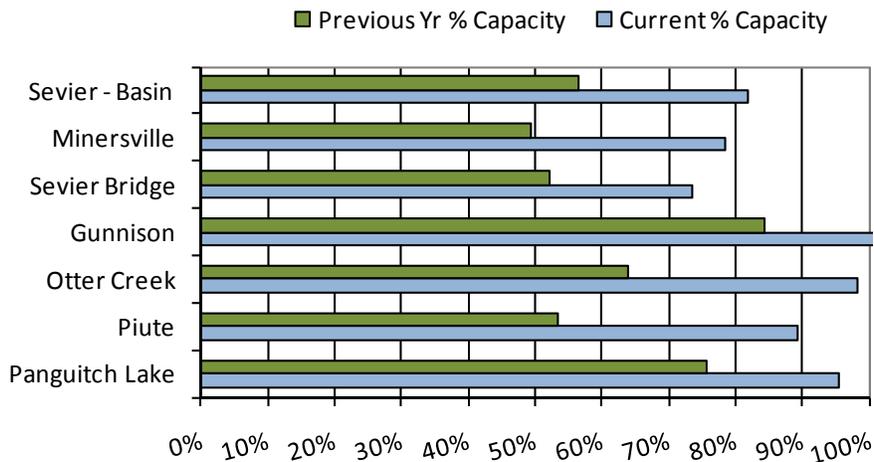


Sevier / Beaver River Soil Moisture



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.

May Sevier River Reservoir Storage



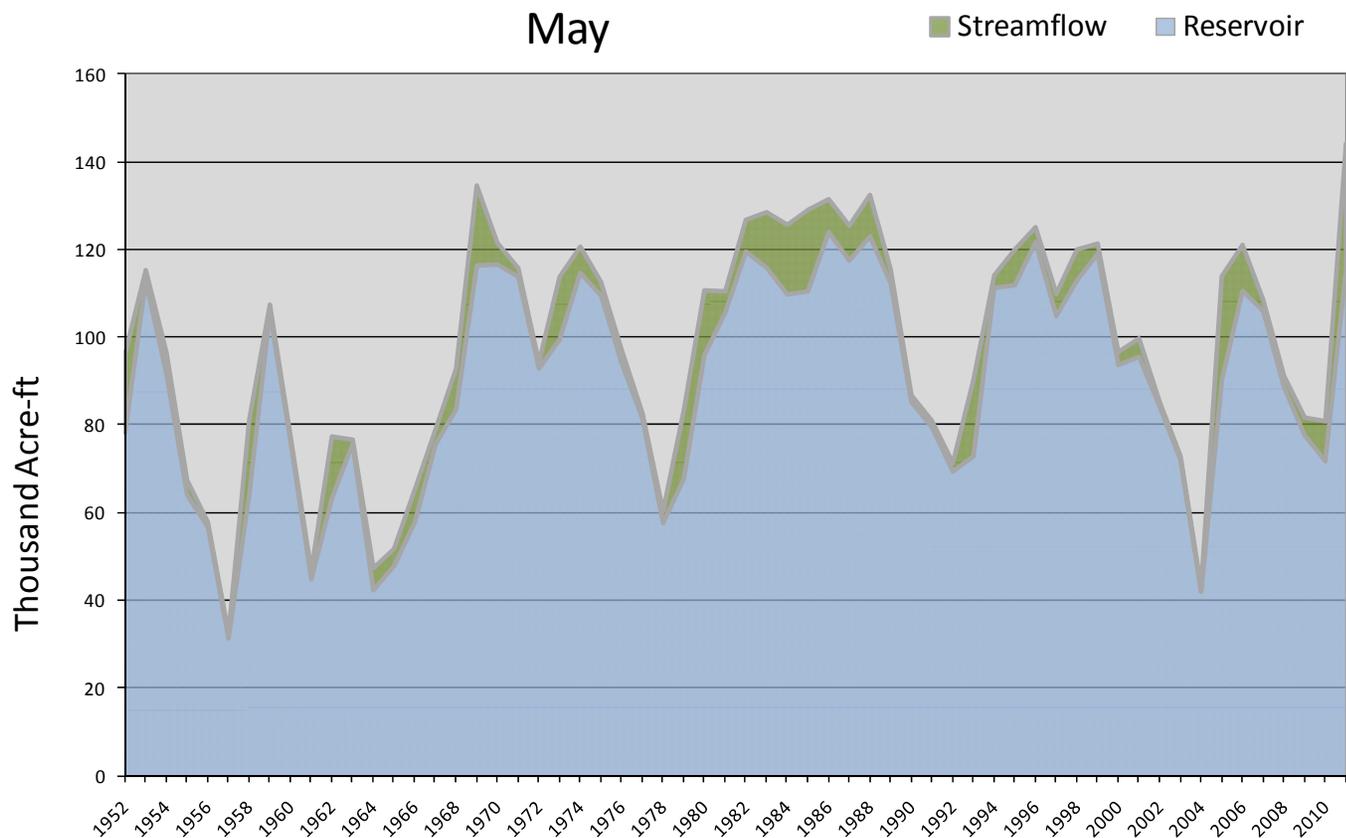
May 1, 2011

Water Availability Index

Basin or Region	April EOM* Otter Creek and Piute	April accumulated flow at Kingston <i>(observed)</i>	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF			
Upper Sevier River	115.7	28.6	144.3	4.03	98	88,69

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

Upper Sevier River - Water Availability Index



May 1, 2011

Water Availability Index

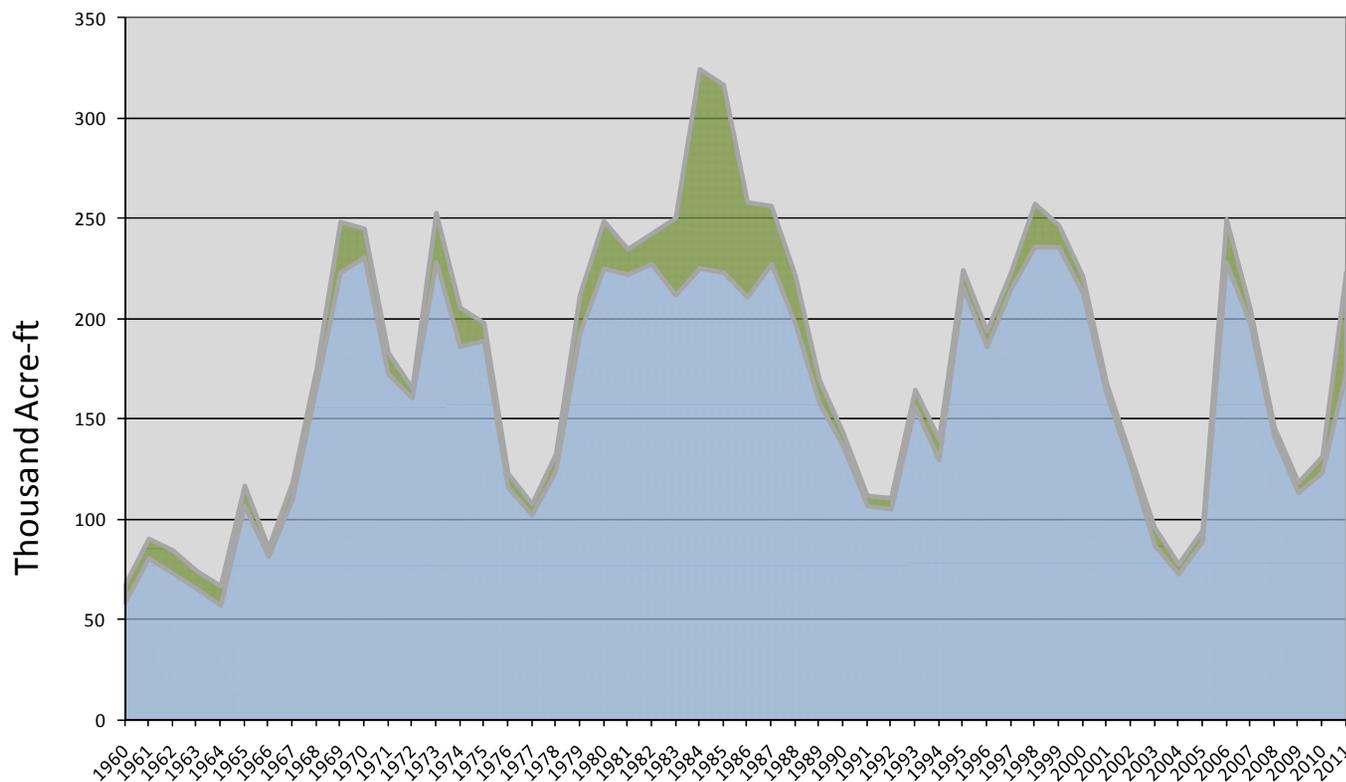
Basin or Region	April EOM* Sevier Bridge	April accumulated flow Sevier at Gunnison (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Lower Sevier River	173.6	50.0	223.6	1.65	70	88,97,95,81

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

Lower Sevier River - Water Availability Index

May

■ Streamflow ■ Reservoir



Sevier and Beaver River Basins

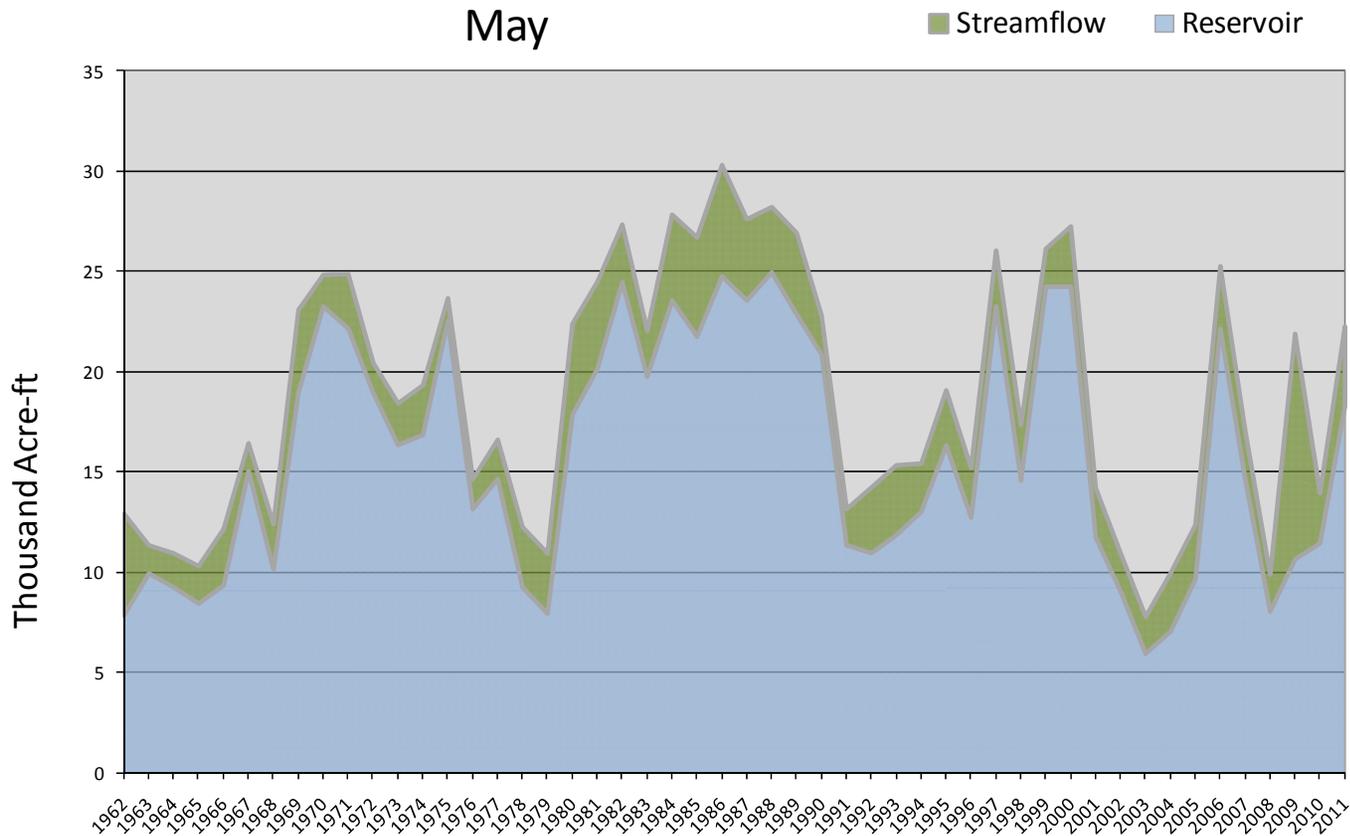
May 1, 2011

Water Availability Index

Basin or Region	April EOM* Minersville Reservoir	April accumulated flow Beaver River at Beaver (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Beaver	18.3	4.0	22.3	1.06	63	09,83,80,90

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

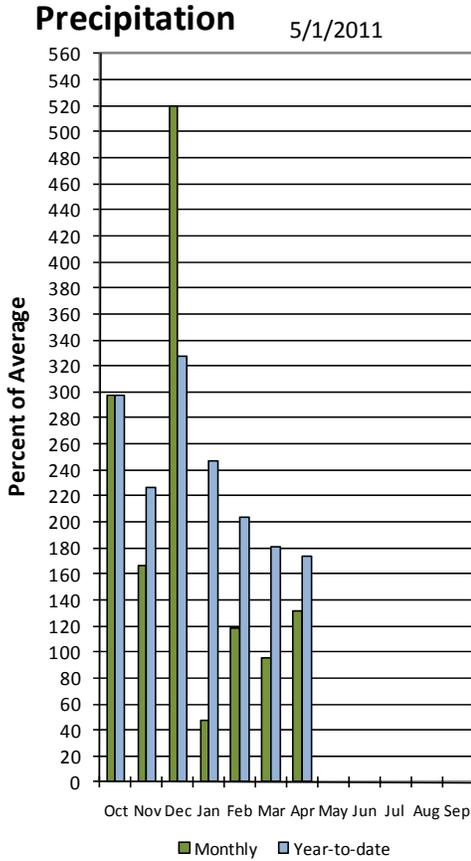
Beaver River - Water Availability Index



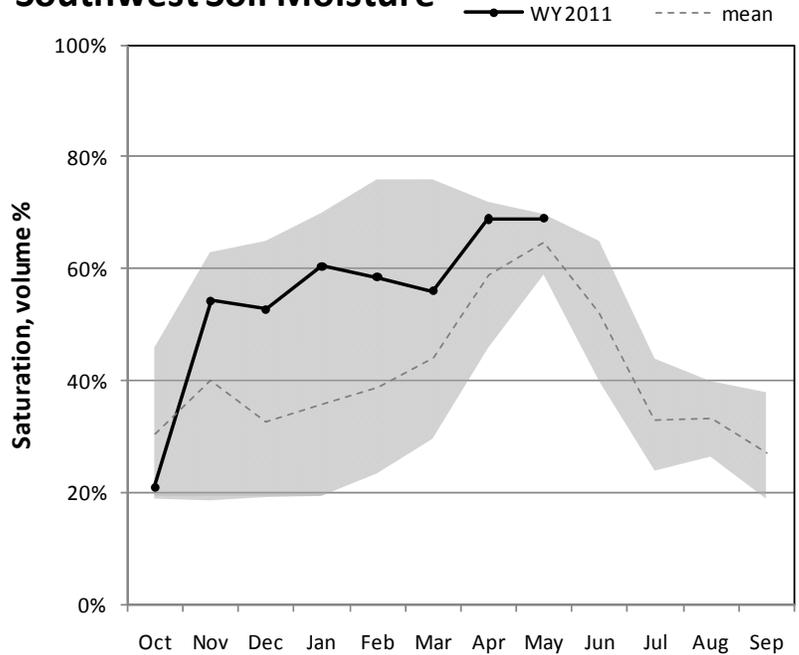
Southwest – E. Garfield, Kane, Washington, & Iron Counties May 1, 2011

Precipitation in April was above average at 132%, bringing water year accumulation to 174%. Reservoir storage is at 89% of capacity, 17% higher than last year at this time. Soil moisture is at 69% compared to 70% at this time last year.

Southwest Utah

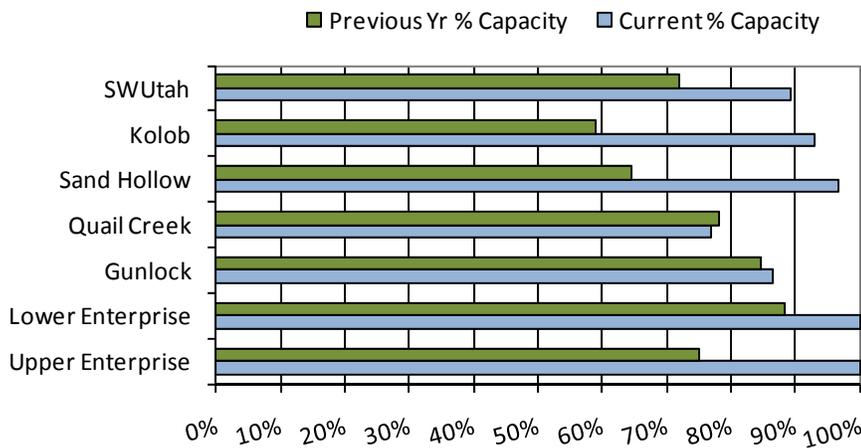


Southwest Soil Moisture



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.

May Southwest Utah Reservoir Storage



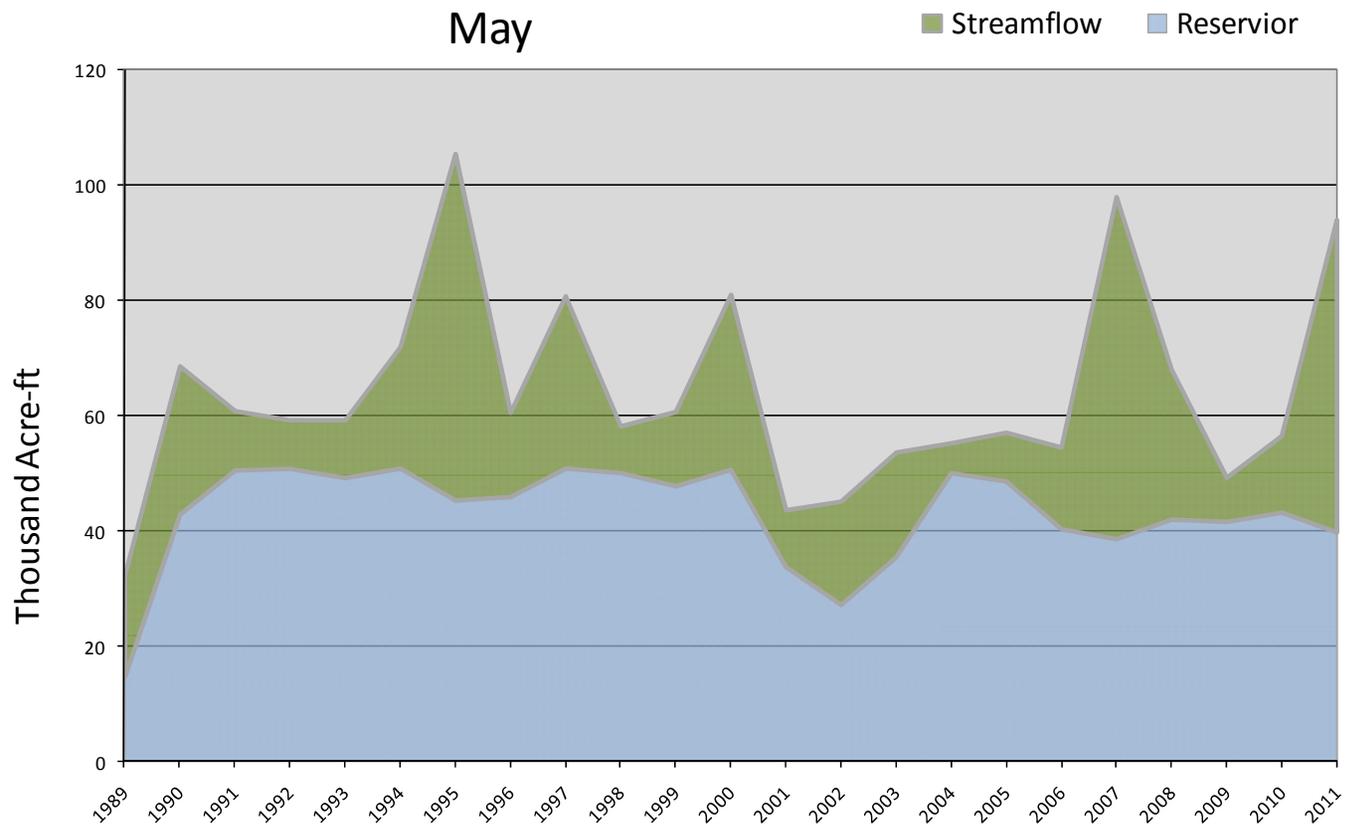
May 1, 2011

Water Availability Index

Basin or Region	April EOM* Reservoir	April accumulated flow Virgin and Santa Clara Rivers (observed)	Reservoir + Streamflow	WAI [#]	Percentile	Years with similar WAI
	KAF [^]	KAF	KAF		%	
Southwest	39.8	54.3	94.1	3.13	88%	95, 07, 00, 97

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

Southwest - Water Availability Index



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Utah Climate and Water Report

Natural Resources Conservation Service
Salt Lake City, UT

