Utah Climate and Water Report

July 2012

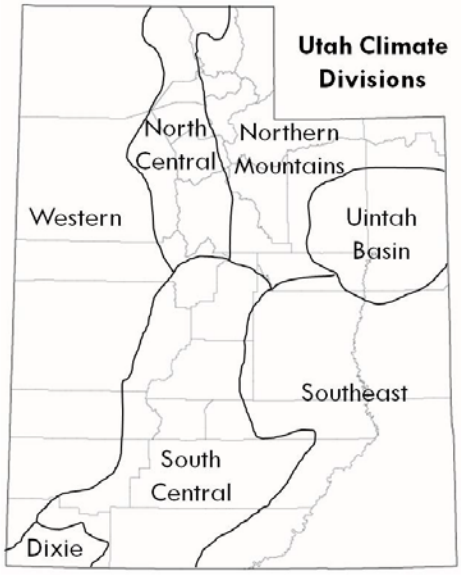
Box Creek Fire on Monroe Mountain, Utah June 2012.
Photo by Randy Julander

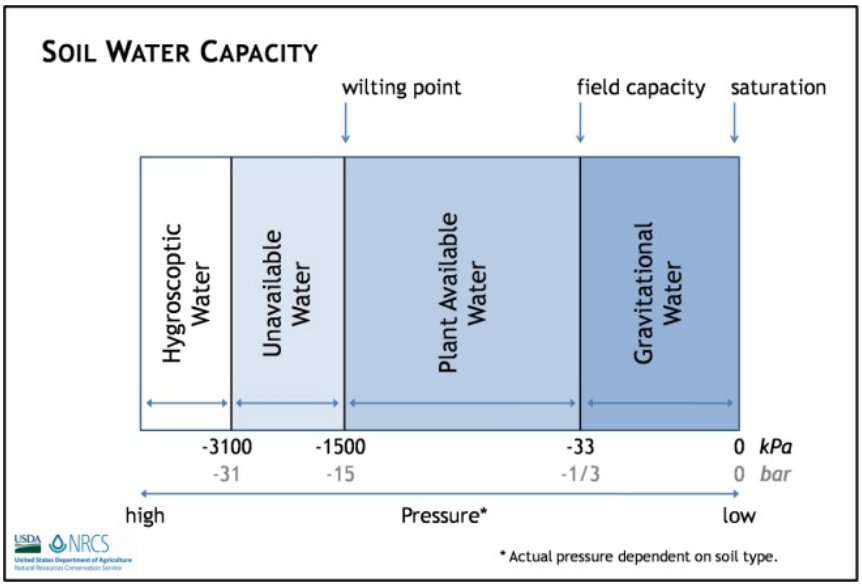
Climate and Water Information

Soil Climate Analysis Network

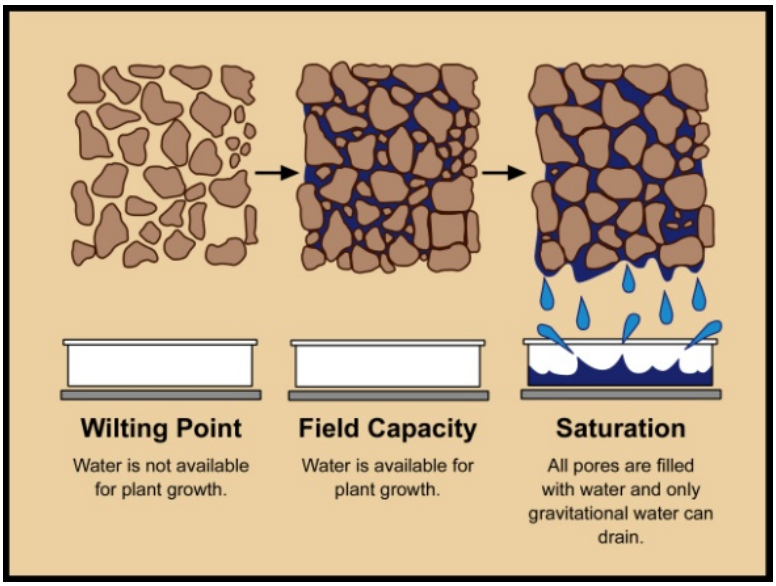
Soil Climate Analysis Network (SCAN) stations are primarily located on low- to mid-elevation, agriculturally important landscapes that maintain representative soils. Elevations range from 3,000 to 7,000 ft. The SCAN network provides real-time soil moisture and temperature data coupled with additional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

http://www.wcc.nrcs.usda.gov/scan/Utah/utah.html

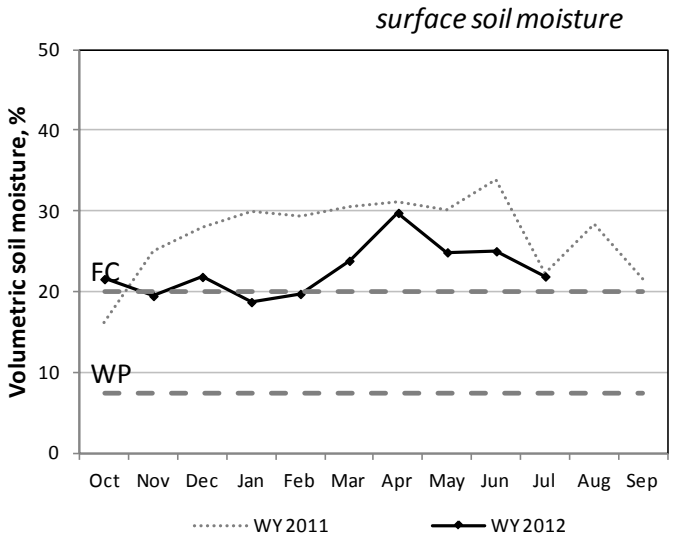
North Central

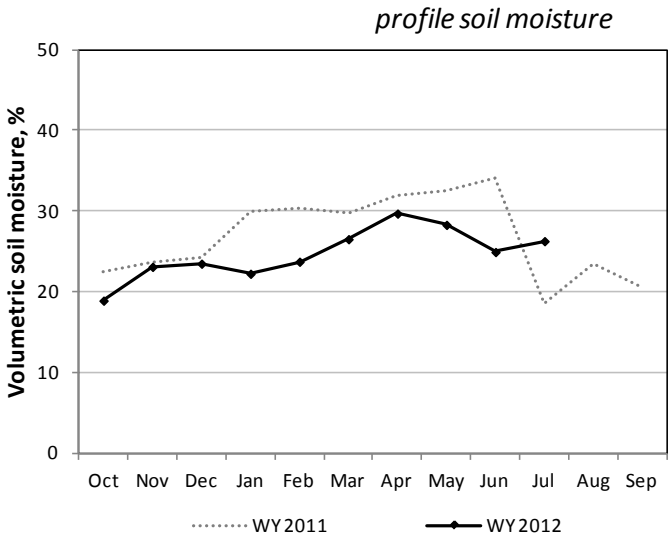
Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	in.	*in.*	*volume %*					*° F*				
NORTH CENTRAL												
Blue Creek	8.9	0.3	10	17	24	25	18	78	80	78	70	62
Cache Junction	11.3	0.1	23	22	37	34	36	66	67	64	60	54
Grantsville	5.7	0.0	0	16	26	30		82	82	78	70	56

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

North Central





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http://www.wcc.nrcs.usda.gov/scan/Utah/utah.html

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"
	in.	*in.*	*volume %*					*°F*				
NORTHERN MOUNTAINS												
Chicken Ridge	5.2	0.0	0	7	9	13	13	62	63	63	58	54
Buffalo Jump	4.1	0.0	3	10	10	8	-	76	76	72	64	-
Morgan	10.0	0.0	3	5	11	7	9	73	74	71	65	62

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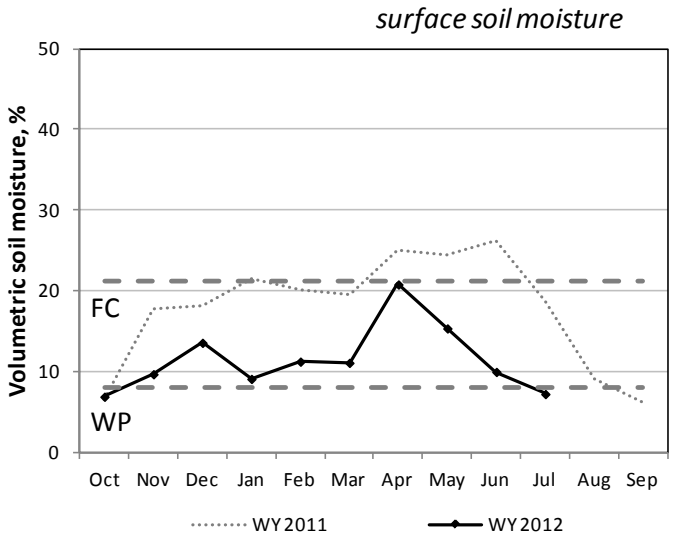
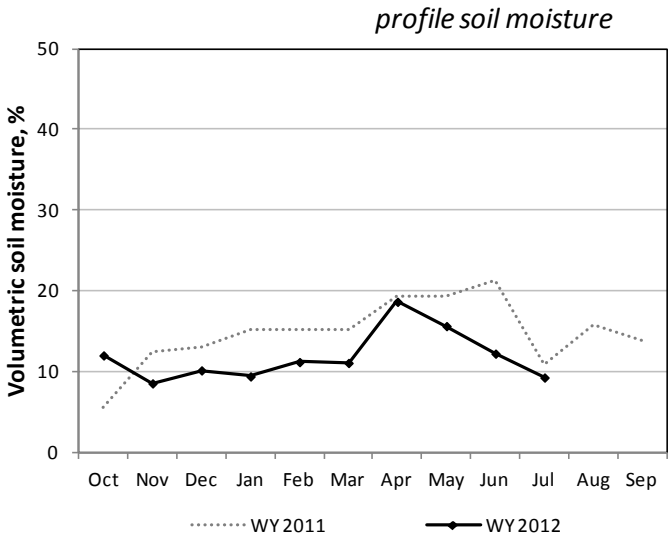
Northern Mountains





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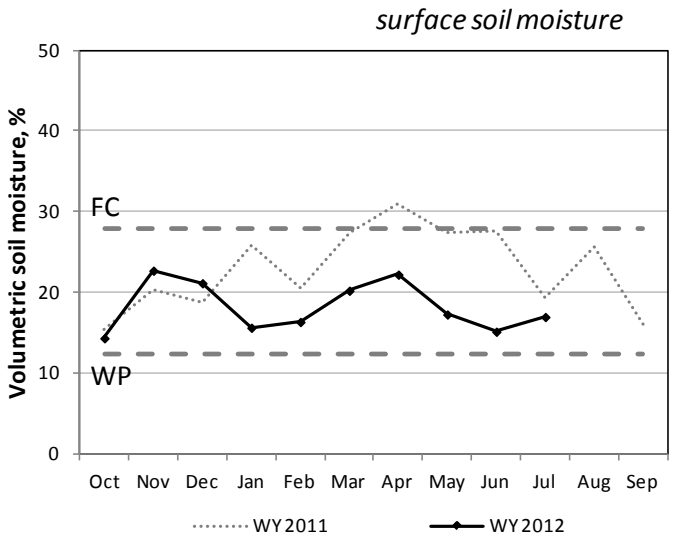
Uintah Basin

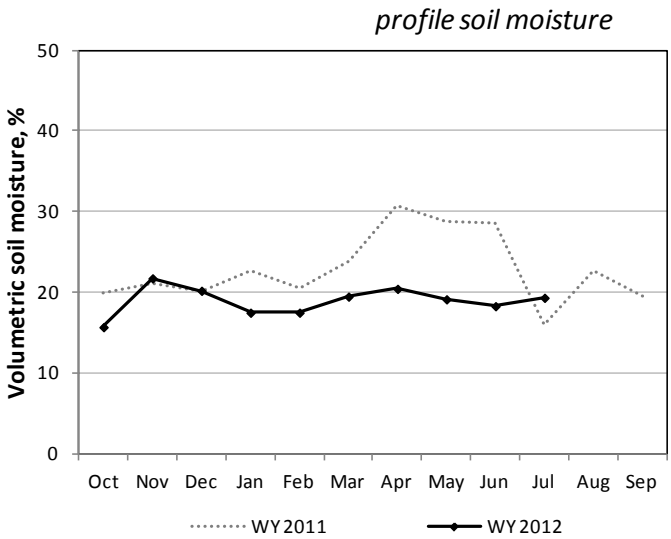
Soil Climate Analysis Network (SCAN)

Site name	Precip to Date*	Monthly Precip	Soil Moisture					Soil Temperature				
			2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
	in.	*in.*	*volume %*					*°F*				
UINTAH BASIN												
Mountain Home	5.1	0.8	16	22	23	19	12	64	65	64	61	57
Little Red Fox	2.9	0.0	2	12	19	25	26	73	80	79	72	66
Split Mountain	3.4	0.2						0	0	0	0	0

* 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





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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"
	in.	*in.*	*volume %*					*°F*				
SOUTHEAST												
Price	3.2	0.0	0	7	14	19	22	81	85	85	77	72
Green River	2.3	0.0	4	7	9	7	11	87	89	89	83	76
Harm's Way	3.1	0.1	4	0	14	15	7	79	76	79	73	66
West Summit	3.1	0.0	4	10	13	17	18	76	80	80	72	66
Eastland	4.2	0.1	8	11	9	25	23	74	75	76	69	65
Alkali Mesa	5.6	0.1	5	7	15	19	14	78	79	79	74	69
McCracken Mesa	4.0	0.2	13	10	13	18	14	76	84	86	77	72

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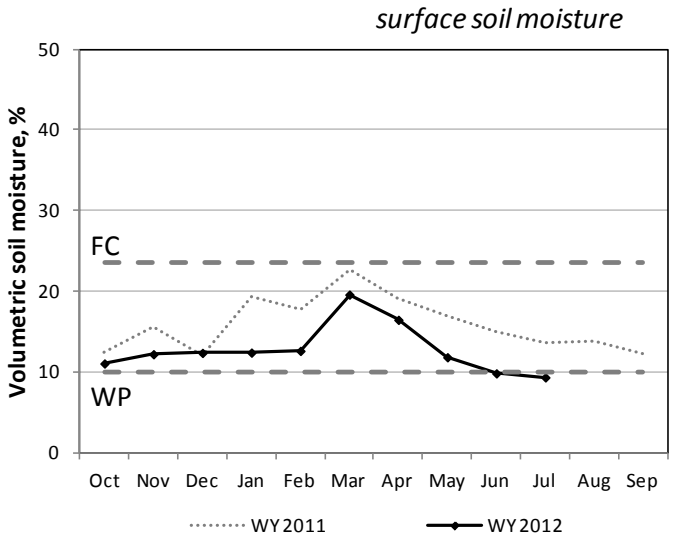
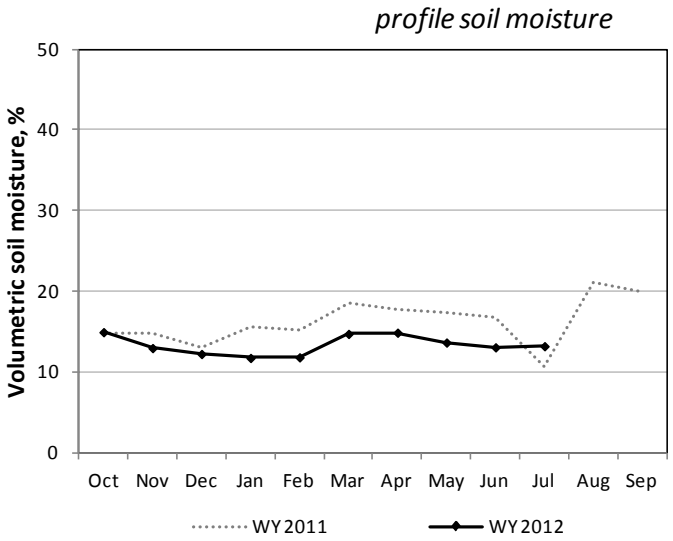
Southeast





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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"
	in.	*in.*	*volume %*					*° F*				
SOUTH CENTRAL												
Nephi	8.5	0.0	9	15	15	8	7	76	77	76	71	65
Ephraim	4.6	0.0	2	7	16	18	35	67	69	68	61	58
Holden	4.4	0.0	2	4	2	14	15	82	82	79	73	68
Milford	4.0	0.0	6	20	23	31	18	84	81	77	72	66
Manderfield	4.7	0.0	0	9	13	12	6	74	78	76	70	64
Circleville	2.5	0.0	6	4	7	10	9	84	84	80	69	
Panguitch	3.1	0.0	2	17	13	21	25	71	71	69	63	57
Cave Valley	9.9	0.0	0	1	0	0	0	77	79	80	70	65
Vermillion	5.5	0.0	0	0	2	4	8	75	80	77	69	63
Spooky	3.4	0.0	2	1	4	13	2	90	91	85	77	73

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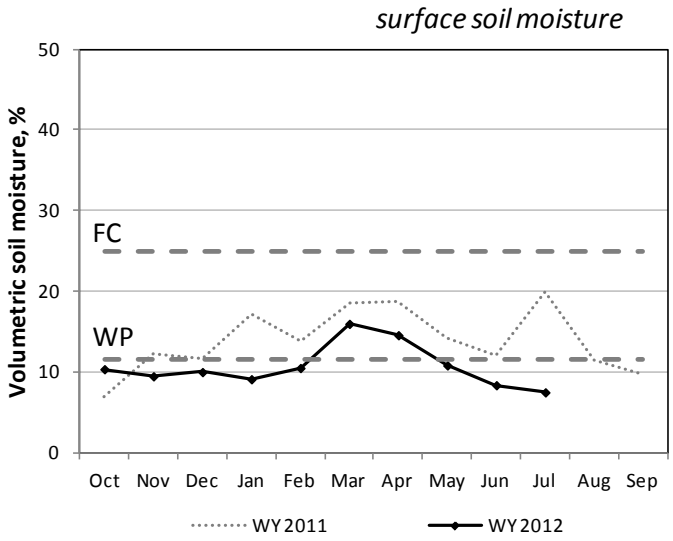
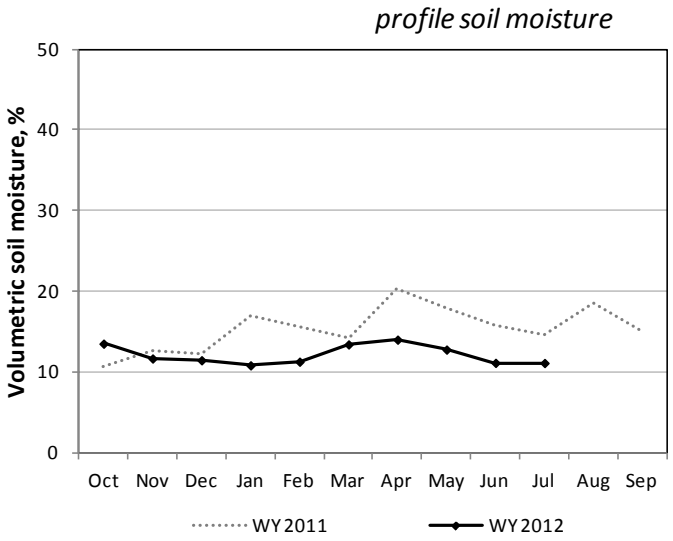
South Central





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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"
	in.	*in.*	*volume %*					*°F*				
WESTERN												
Grouse Creek	6.7	0.3	1	6	14	17	17	74	77	76	68	63
Park Valley	4.6	0.0	0	0	14	38	26	73	78	77	71	64
Goshute	3.0	0.0	5	21	57	40	36	70	77	78	71	65
Dugway	3.9	0.0	14	28	38	36	15	78	79	77	70	68
Tule Valley	3.5	0.0	7	10	25	19	11	80	89	90	85	80
Hal's Canyon	2.8	0.0	1	0	8	11	9	79	84	85	74	69
Enterprise	4.8	0.0	4	20	21	14	15	74	77	76	71	65
DIXIE												
Sand Hollow	4.8	0.4	0	0	1	1	0	88	96	96	85	80

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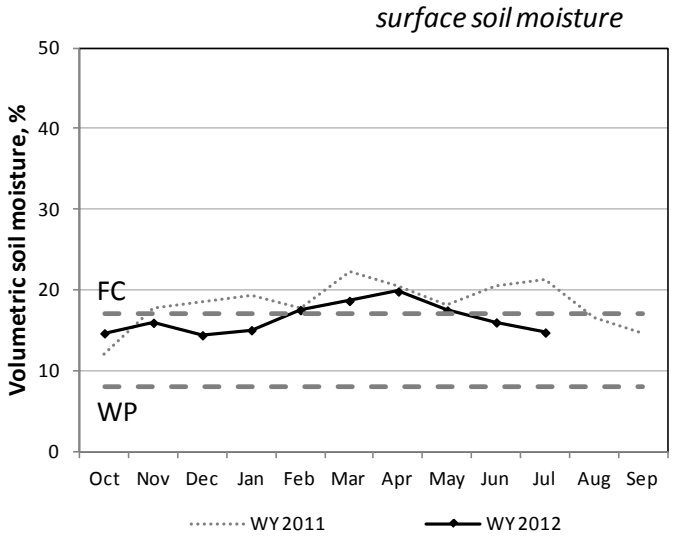
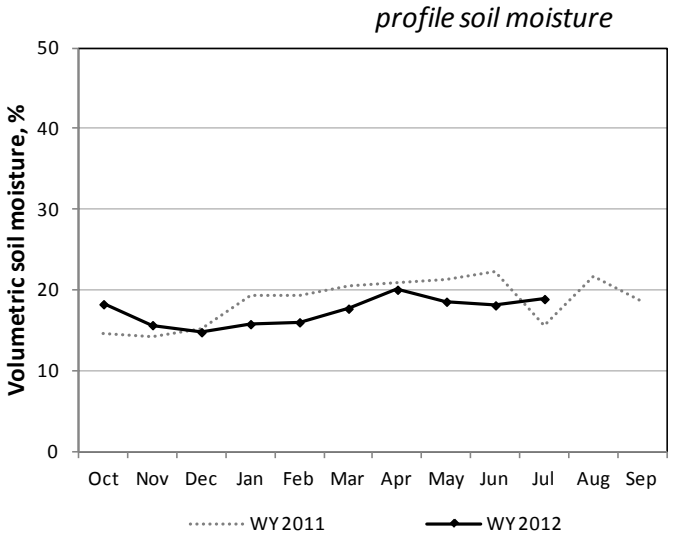
Western & Dixie





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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

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b) North Central
c) Northern Mountains
d) Uintah Basin
e) Southeast
f) South Central
g) Western and Dixie
h) 2010 Minimum Soil Temperatures at Utah SCAN sites

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

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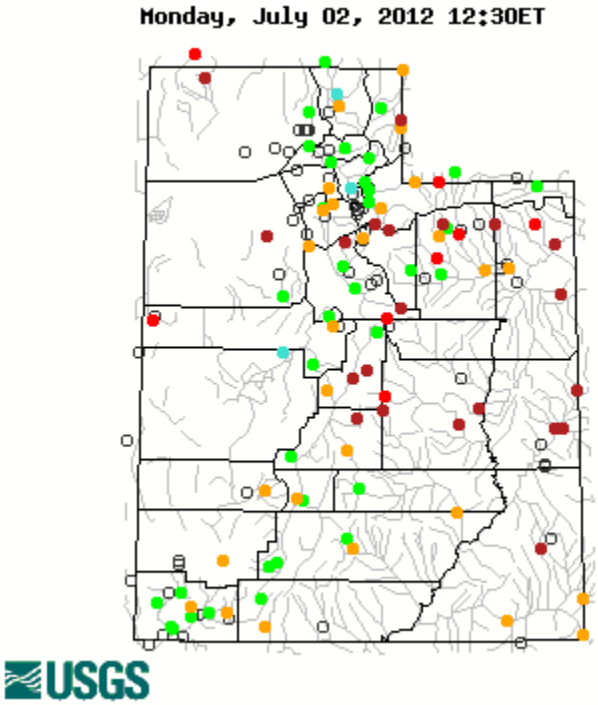
Utah Hydrologic Summary

July 1, 2012

Current Conditions

Current runoff, as shown in the USGS graphic below, remains well below average for all natural flow points. There are 27 points that are flowing below 10% of normal. Points shown in green (near normal conditions) are primarily where reservoir releases keep streamflows higher. Soil Moisture is currently at the bottom of historically observed July 1 values across the entire state. Utah watersheds are dry and getting dryer. June precipitation ranged from 1% on the Sevier to 11% over the Uintahs. Many sites in southern Utah have gone between 60 and 80 days without measureable precipitation. Reservoir storage is declining rapidly, near 78% of capacity across the state, down 10% from last month. Forage production in all areas of the state and especially at lower elevations has been extremely poor due to the lack of spring and early summer precipitation. Those with reservoir storage will have generally adequate water supply while those reliant on direct stream flow can expect shortages for the remainder of the summer and fall.

Current Utah Streamflow - Courtesy US Geological Survey



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

Forage Production

The spring and early summer of 2012 have been exceptionally dry. Many SCAN and SNOTEL sites have gone between 30 and 75 days without measurable precipitation (0.1 inch or greater). This has resulted in far less than normal forage production in most areas. While lower elevation areas seem to have been impacted the most, higher elevations have also suffered substantially from drought stress. The lack of forage production in the winter ranges may have substantial impacts when herds are returned this fall. Ranchers may need to plan strategies on how to deal with reduced forage production on winter ranges such as the potential of supplemental feed or reduced herd size. This problem may be compounded if summer grazing allotments are curtailed and animals are forced to return early.

Here are observations and analyses of some NRCS Range Management Specialists.

Carbon and Emery Counties

"I have made several observations on range conditions this year in Carbon and Emery counties. Each observation has been pretty indicative of the next.

I went to one particular ranch in Carbon County on June 20th at the request of the producer with the intention of completing UT-2 Forms for forage production estimates and stocking rate calculations. I was already concerned prior to my visit with the ability to conduct the inventory based on range observations made in other areas. I explained to the producer that my calculations were going to be considerably lower than the average year due to the drought conditions. Typically, the non-native seeded vegetation in this particular area has reached its production potential by mid to late June. Records indicate that the current precipitation level is only at approximately 24 percent of normal and the area has only received approximately 2/10 of an inch of rain since February. I was unable to conduct forage inventory because practically all of the grasses were dried and brown throughout the ranch. Very few, if any, green leaves were present on the grass plants making it extremely difficult to differentiate between this year's and last year's growth. Typically, even when the forage is dormant, you can tell the difference because the current year's growth is typically yellow in color and the previous year's growth is gray in color, but everything was so dry it was difficult to distinguish this year's production.

A majority of the native and non-native grasses in Carbon and Emery counties greened up early in the spring, and due to the lack of moisture and hot, high winds, produced minimal forage before drying and turning brown. Seed production was limited on most grasses and occurred much earlier than on a normal year. I believe the likelihood of range plant mortality is high for this year based on the extreme plant conditions in as early as the month of June, particularly at lower to mid elevations."

Jeff Fenton
Rangeland Management Specialist
USDA/NRCS, Price, UT

Iron, Garfield and Kane Counties

"As we all know, things here are dry as a bone. I spent some time last week looking at production in Iron, Garfield and Kane Counties. Things aren't looking good. Overall, on lower rangelands (uplands and lower) we are looking at 20% to

45% of ESD production values. In many cases the grasses haven't even tried to go to seed, or if they did, the seed heads either aborted or are very much reduced in size.

Most of the producers I've spoken to say they are blowing right through their rangeland pastures. The only saving grace we might have is that we have a lot of standing residue from last year's banner production, but there won't be much feed value in that, just dry matter. Folks will need to put out a lot of supplement if they are feeding on pastures with lots of this standing dead feed.

Mountain pastures are faring better than lower ranges, but production is still down. If people are managing at the top end of carrying capacity on their allotments they will end up overgrazing or coming home early. Those relying on irrigated pasture should be ok, unless irrigation water supplies run short. If they are relying on semi-desert or upland rangeland sites they will likely end up buying hay or needing to sell cows."

Jeremiah Armstrong
Rangeland Management Specialist
USDA/NRCS, /Cedar City, UT

Sanpete, Sevier, Wayne, and Piute Counties

"Range conditions in Sanpete, Sevier, Wayne, and Piute counties continue to be dry and unproductive. In the lower elevations much of the perennial range grass has dried out and will not recover with summer rains. Most of the grass in the higher elevation foothills and mountains is also drying out. Some perennial grasses, however, remain green and with sufficient rainfall the higher elevations will potentially produce more forage.

Overall lack of precipitation is negatively influencing grazing lands throughout the area. Water holes and springs in some portions of Wayne County have begun to dry out reducing the grazable acreage of the summer range. Dry conditions are aiding wildfires on summer ranges in north Sanpete. Reduction in forage production and grazable acreage will likely cause some producers to remove livestock form summer allotments early. As producers contemplate coming off their summer allotments early, they are faced with the question of how to feed livestock on fall and winter ranges that do not have sufficient forage.

Due to warm days and freezing nights during the month of May, many of the alfalfa and grass hay crops produced less hay than average on the first cutting. Meanwhile, water shortages and insects continue to negatively impact hay production. With the supply of hay being low and the demand high, the option of feeding hay to compensate for unproductive winter ranges may not be economically feasible. Producers that cannot water their hay fields enough to justify the inputs of another cutting may want to consider grazing the fields this fall and winter as an alternative to cutting."

Travis L. Thomason
Area Conservationist
USDA/NRCS, /Richfield, UT

Juab, Millard and Beaver Counties

"The rangeland conditions in Juab, Millard, and Beaver Counties are as dry as any in the state. Luckily, on most rangelands dominated by perennials, there was residual forage from last year, moderating, to a degree, the lack of plant growth due to a hot, dry spring. The grass started to senesce prematurely in early May on semi-desert sites. These grasses have been dormant for the last couple of months which has decreased forage quality and nutritional value. On

some of the upland sites, particularly around Cove Fort, the grass still has some green leaves and forage production does not appear to be as affected as other areas. The forage production on annual rangelands has been greatly reduced due to the dry conditions. Most of the rangelands in Juab, Millard, and Beaver are extremely susceptible to wildfires. Because of the decrease in production and/or presence of wildfires, some of the ranchers are planning to move their livestock from their summer range to their fall pasture already. Winter pastures may be used up before the fall is over."

Burke Davenport
Rangeland Management Specialist
USDA/NRCS Fillmore, Utah

Box Elder County

"Due to drought condition Box Elder county forage production is hurting. There has been very little production on the desert and semi-desert areas. There was a slight green-up this spring, but common forage grasses matured with only two to three inches of leaf tissue. The majority of the standing forage currently remaining is 2011 growth, It will be low quality for livestock returning in the fall. Mountain zones are varied due to spotty rain events this spring. In general the mountain zones are far below average forage production."

Travis Mote
Rangeland Management Specialist
USDA/NRCS Tremonton, Utah

Rich County Range Conditions

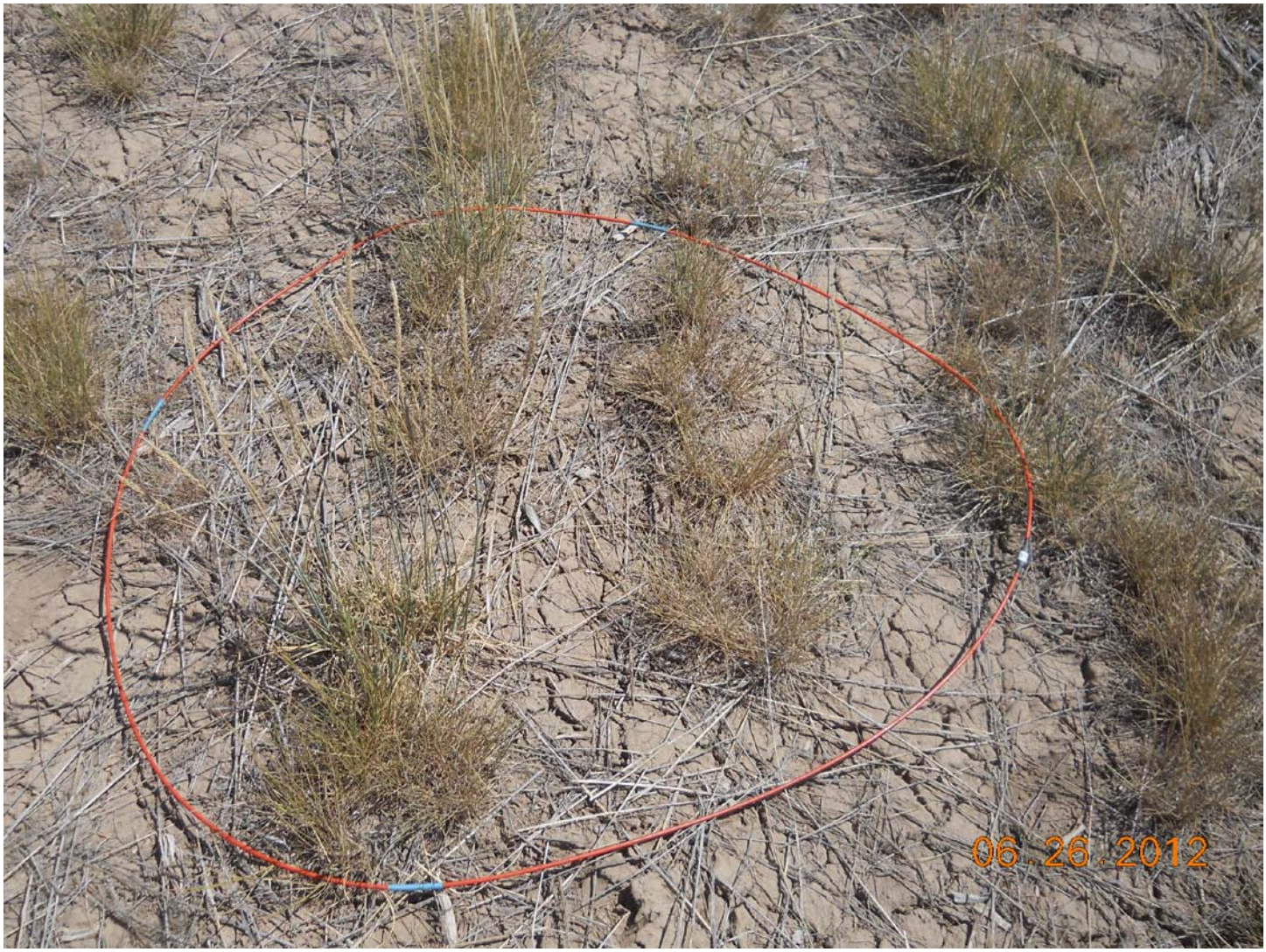
"Growing conditions on lower elevation rangeland in Rich County have not been favorable this year. Earlier in the growing season when soil moisture was available, temperatures were too low to allow much growth. Now that temperatures are higher soil moisture is too low for growth. Currently lower elevation rangeland has very little forage production, and soil moisture is low enough that grasses are dormant. Higher elevation rangeland is in better shape than lower elevations. Currently there is still a lot of forage available at higher elevations. Grass at higher elevations sites has produced seed heads, so future forage production will be limited.

Currently producers still have livestock turned out on the rangeland. If current weather conditions persist, livestock on lower elevation pastures will have to be moved to higher elevation ground, or will have to be moved to fall pastures here shortly."

Jamison Jewkes
Rangeland Management Specialist
USDA/NRCS Randolph, Utah

An example of poor forage production in southern Utah. Photo by Jeremiah Armstrong.

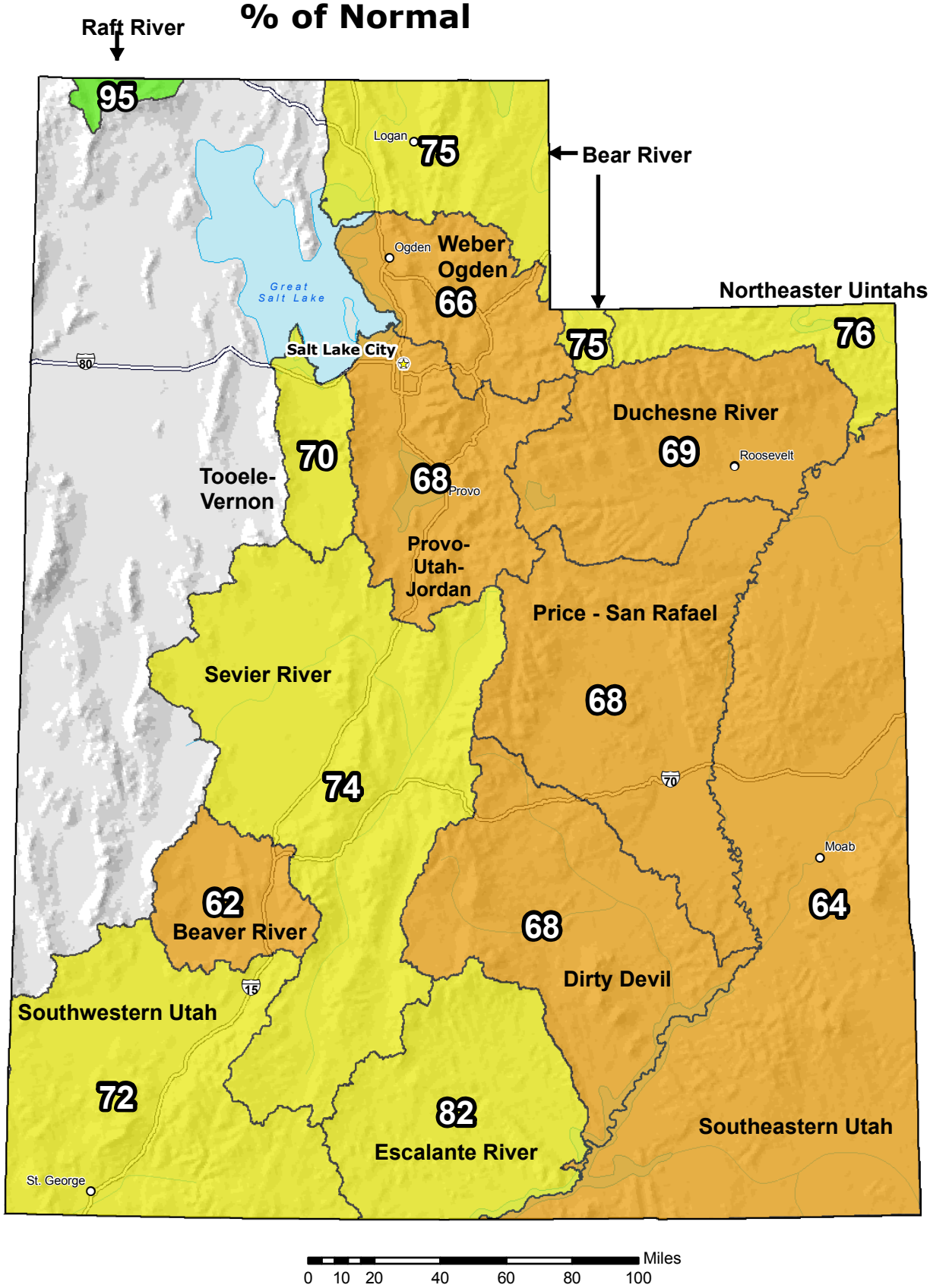
Current grasses gone to seed at only a few inches height, southern Utah. Photo by Jeremiah Armstrong.



Current year's forage with some of last year's production on the ground in southern Utah – note the difference in length. Photo by Jeremiah Armstrong.

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

Jul 01, 2012



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

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

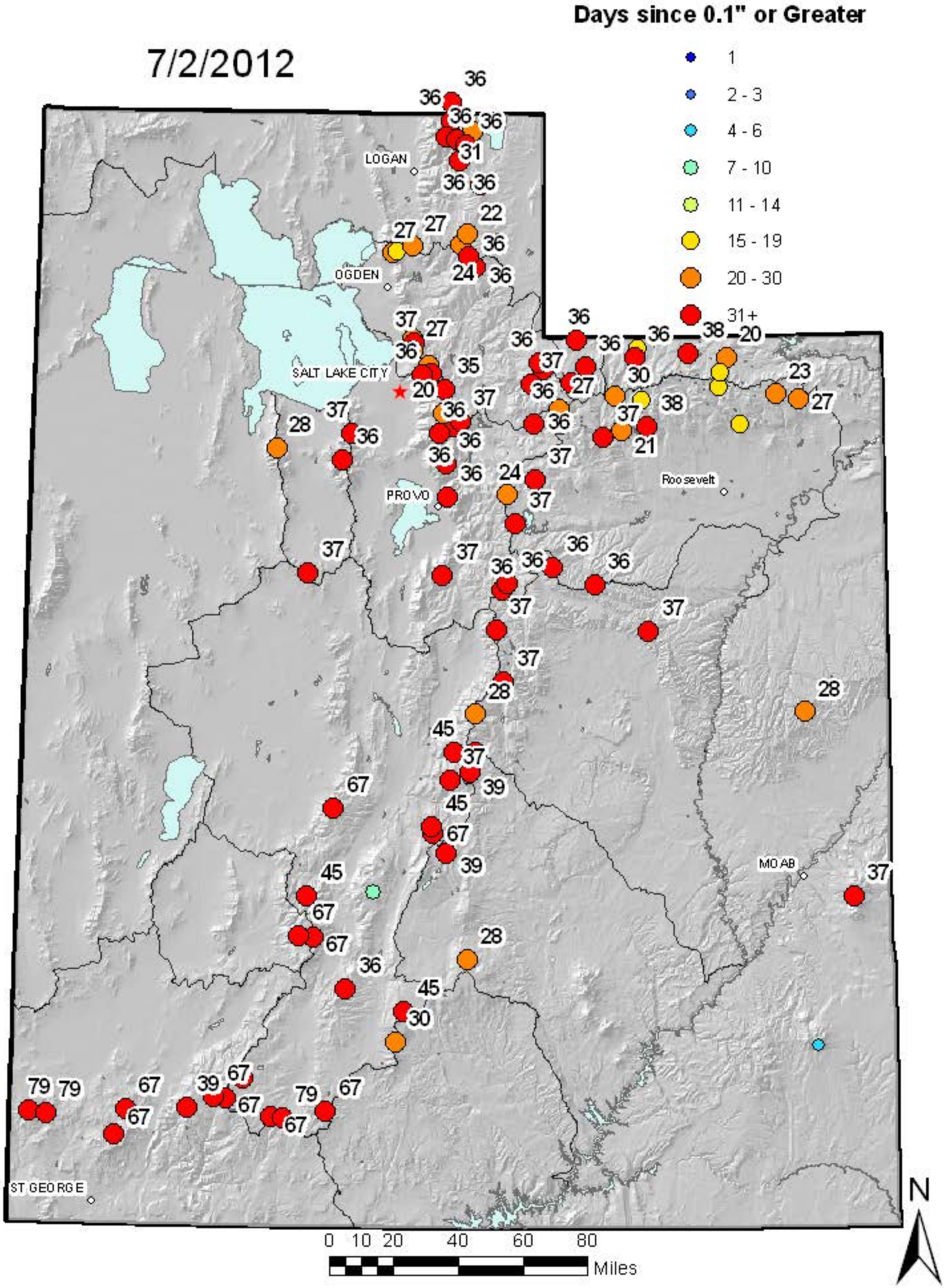
* *Data unavailable at time of posting or measurement is not representative at this time of year*

Provisional Data Subject to Revision

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

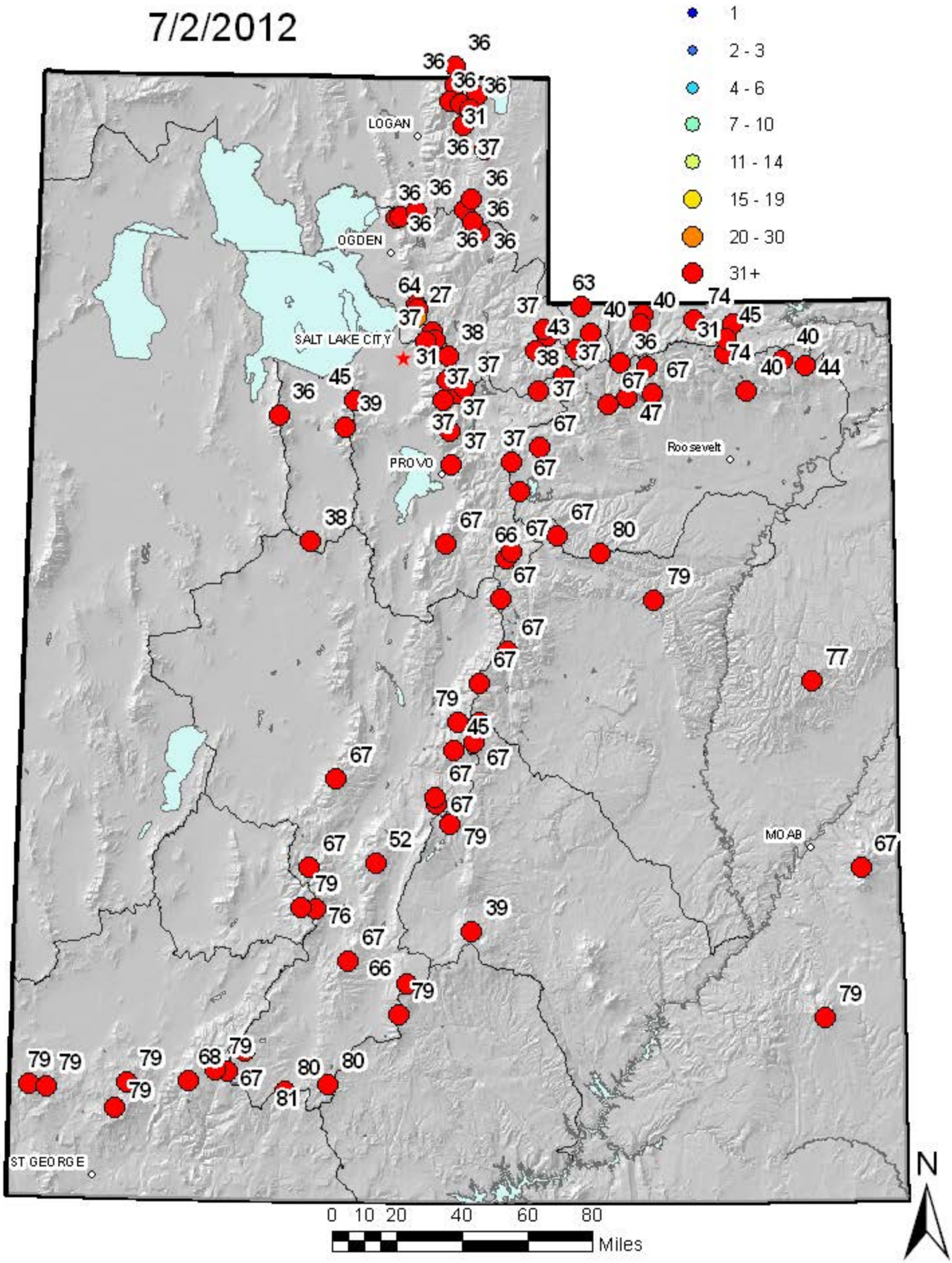
Days Since Measureable Precipitation



Days Without Precipitation

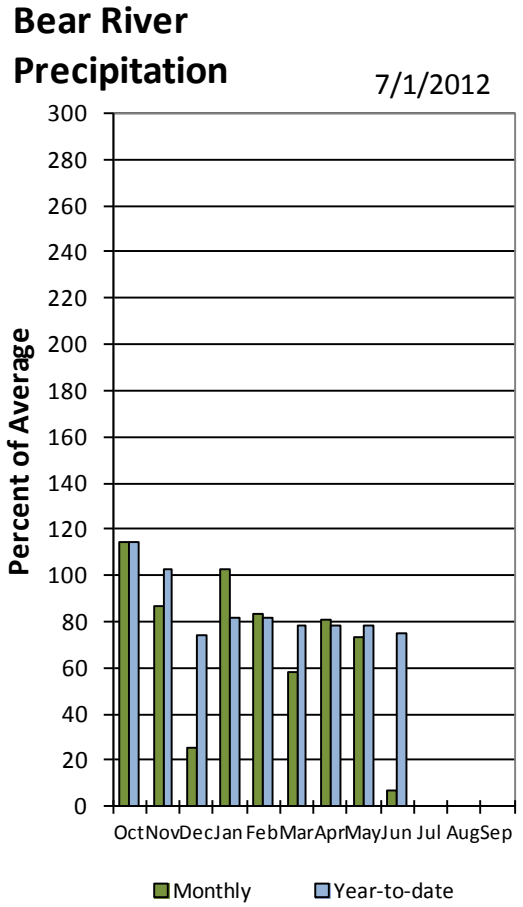
Days since 0.5" Accumulated Precipitation

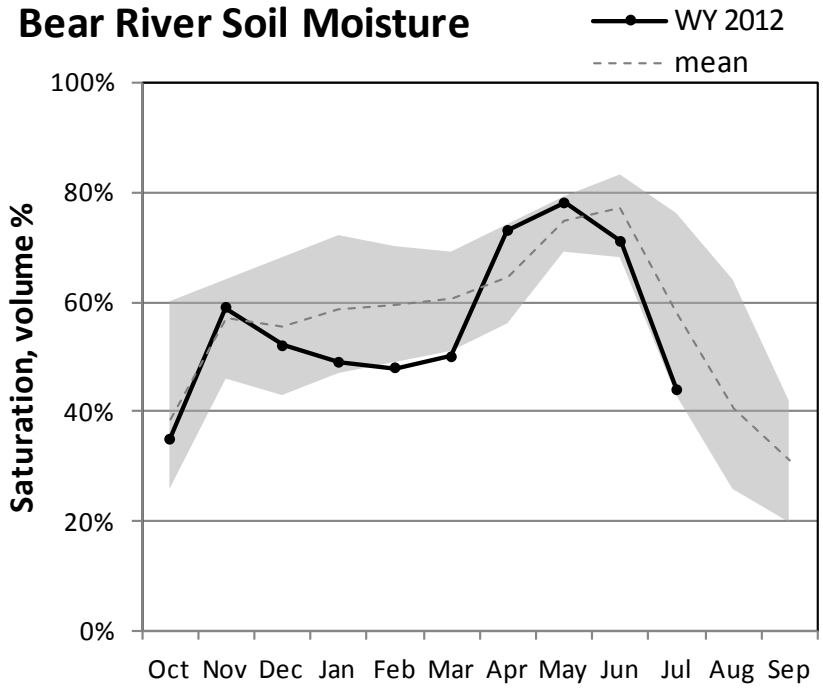
7/2/2012



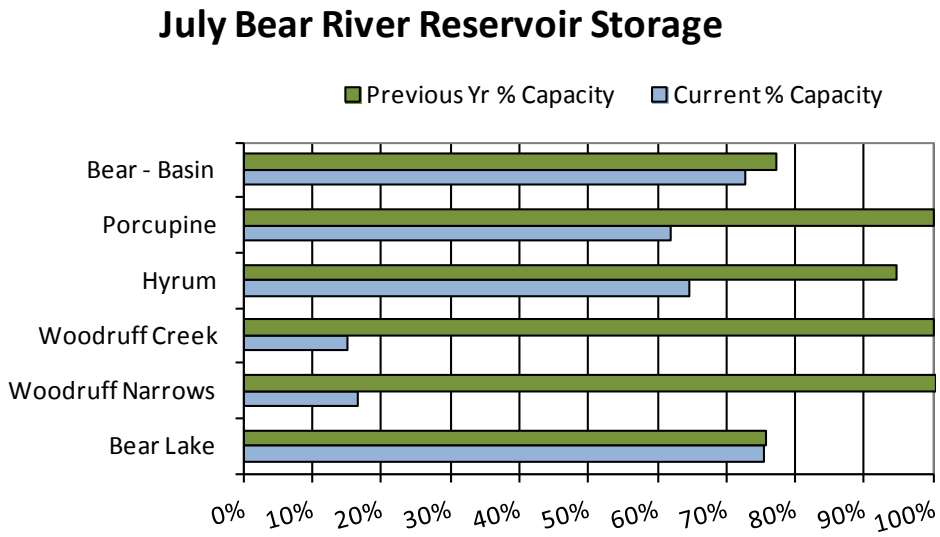
Bear River Basin
July 1, 2012

Precipitation in June was much below average at 2% which brings the water year accumulation to 67%. Reservoir storage is average at 73% of capacity, which is 4% lower than this time last year. Soil moisture is at 44% compared to 76% last year.



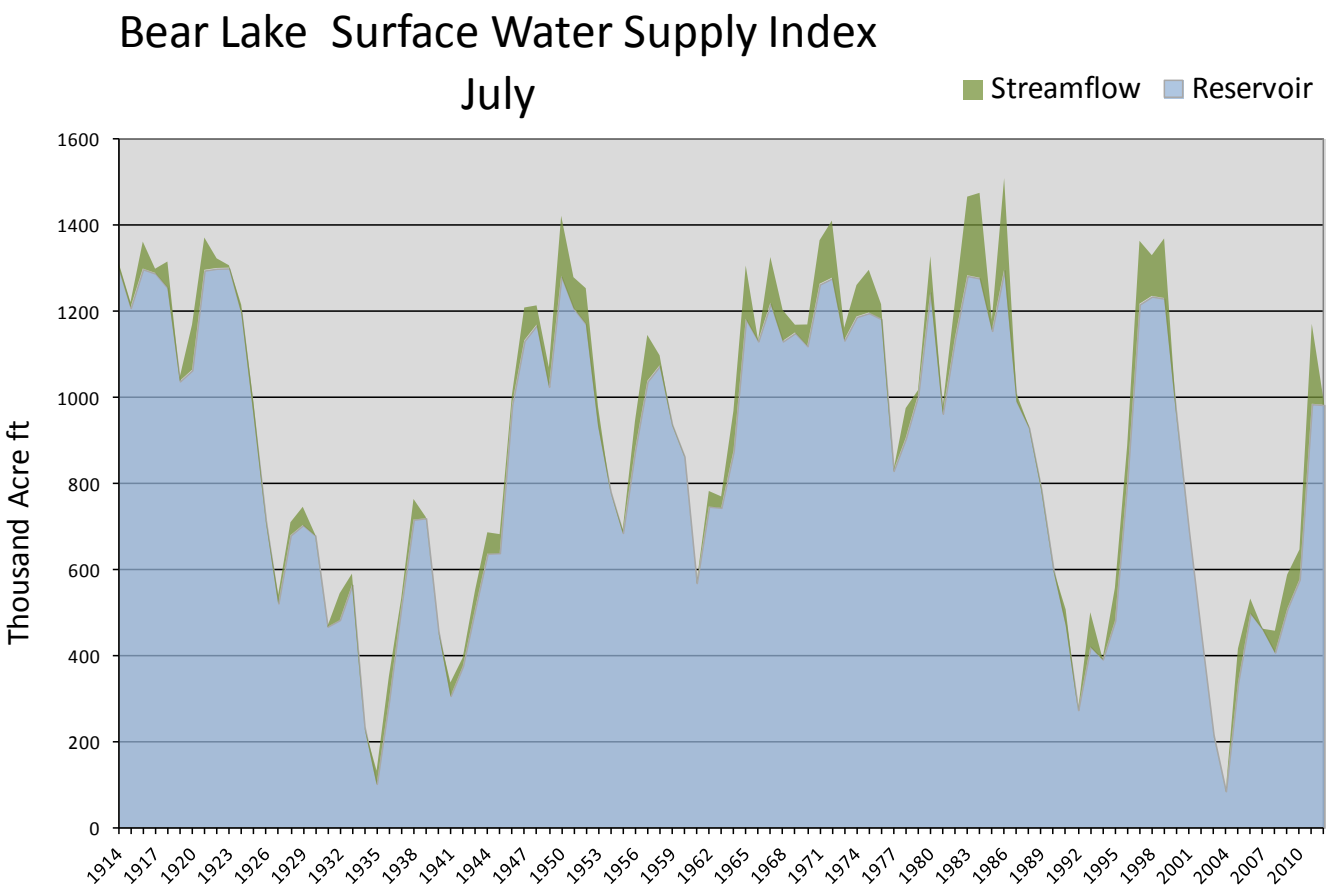


Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.



July 1, 2012	**Water Availability Index**					
Basin or Region	June EOM* Bear Lake	June accumulated inflow to Bear Lake (*observed*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Bear River	**984**	**3**	**987**	**0.33**	**54**	**53, 81, 25, 46**

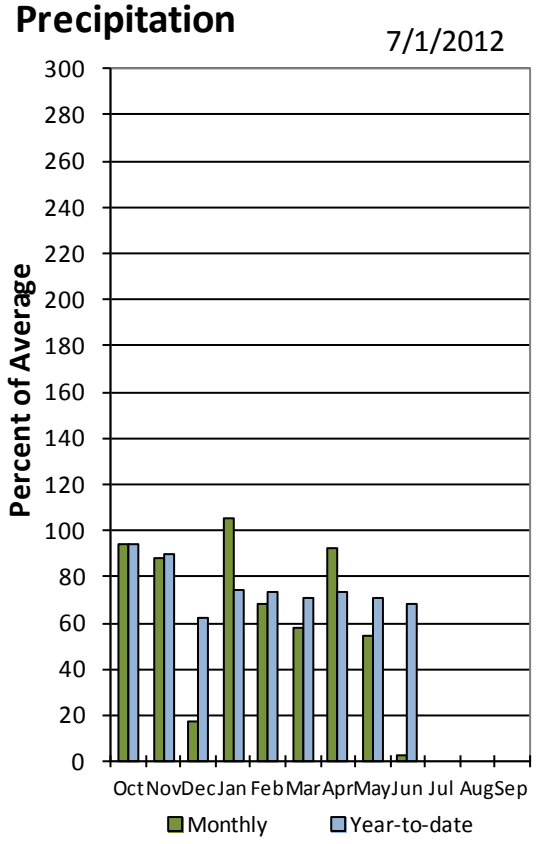
**EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.*



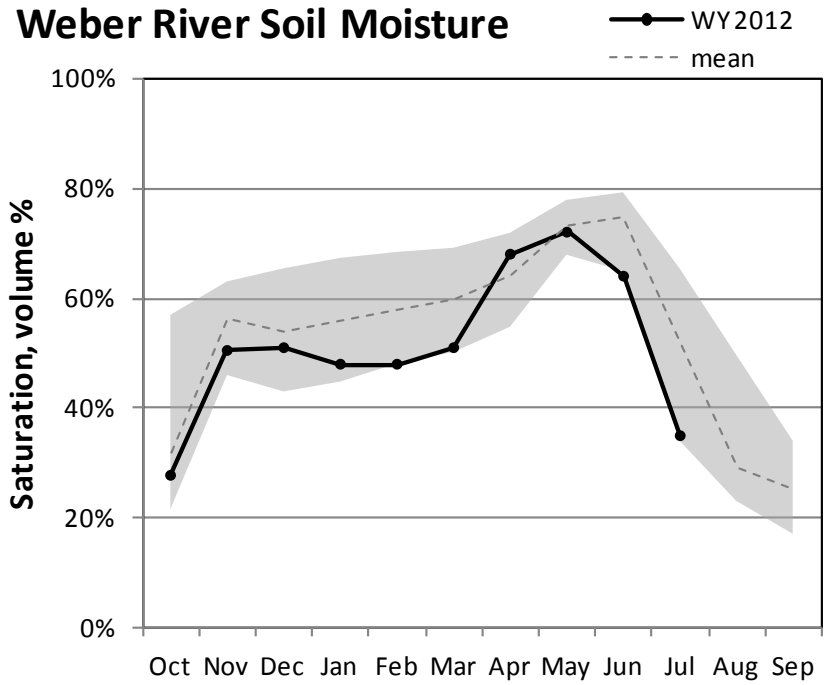
Weber and Ogden River Basin
July 1, 2012

Precipitation in June was much below average at 3% which brings the water year accumulation to 68%. Reservoir storage is at 77% of capacity, which is 17% lower than this time last year. Soil moisture is at 35% compared to 65% last year.

Weber River Precipitation

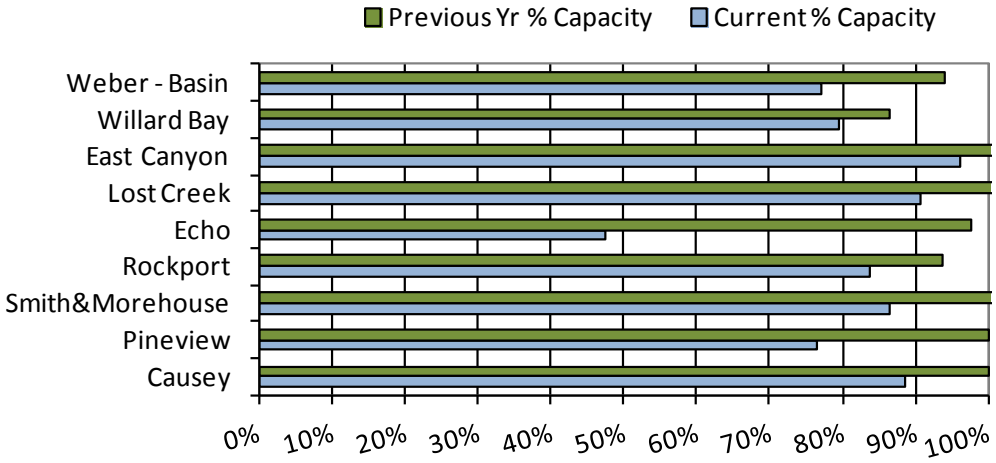


Weber River Soil Moisture



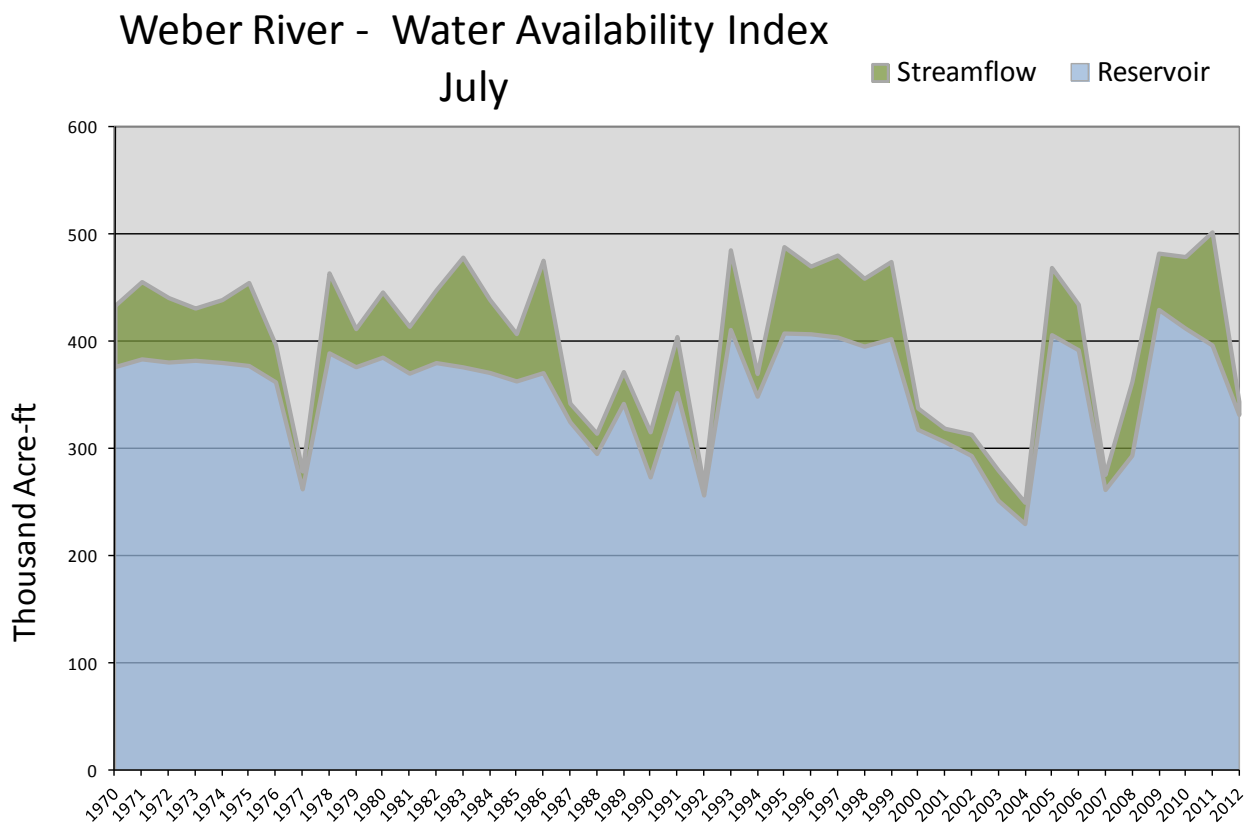
Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

July Weber Basin Reservoir Storage



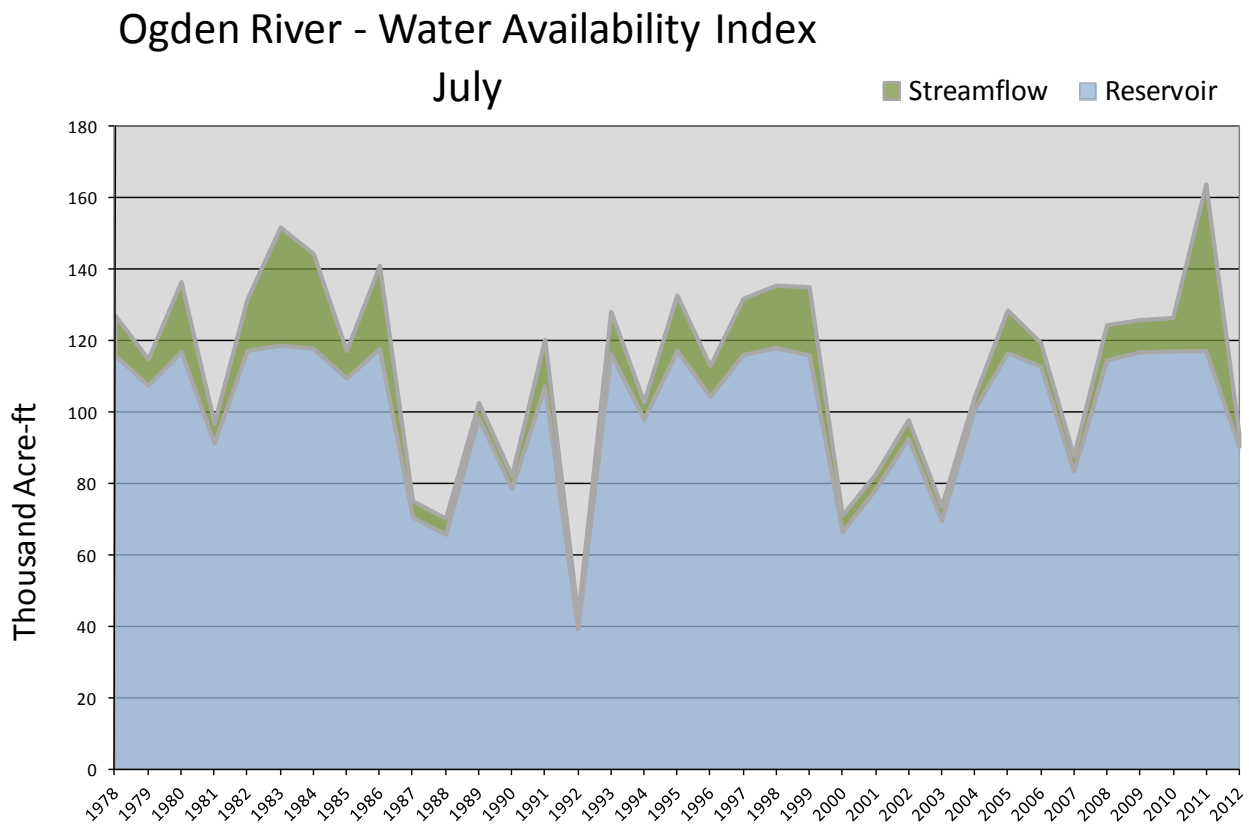
July 1, 2012	**Water Availability Index**					
Basin or Region	June EOM* Reservoirs	June accumulated flow at Weber near Oakley (*observed*)	Reservoirs + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Weber River	**332**	**12**	**344**	**-1.89**	**27**	**00, 87, 08, 94**

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



July 1, 2012	**Water Availability Index**					
Basin or Region	June EOM* Pine View & Causey	June accumulated flow at South Fork Ogden (*observed*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Ogden River	**91**	**3.6**	**95**	**-2.08**	**25**	**07, 01, 81, 02**

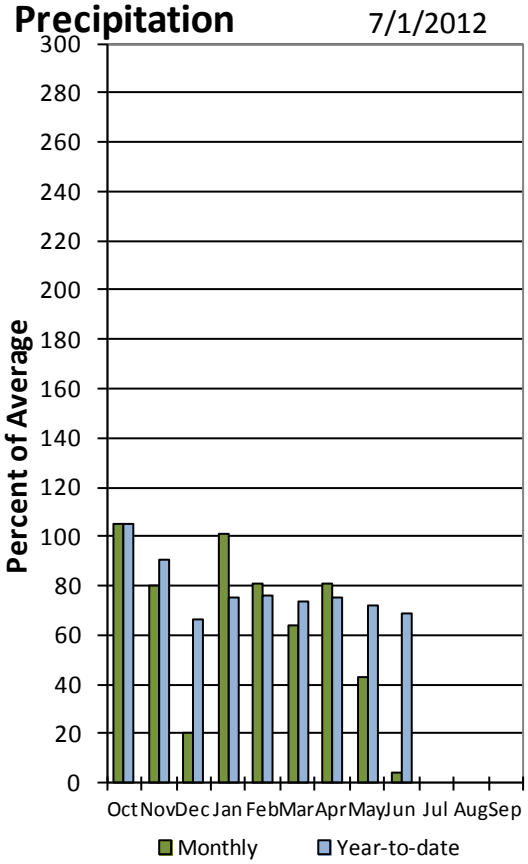
**EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.*



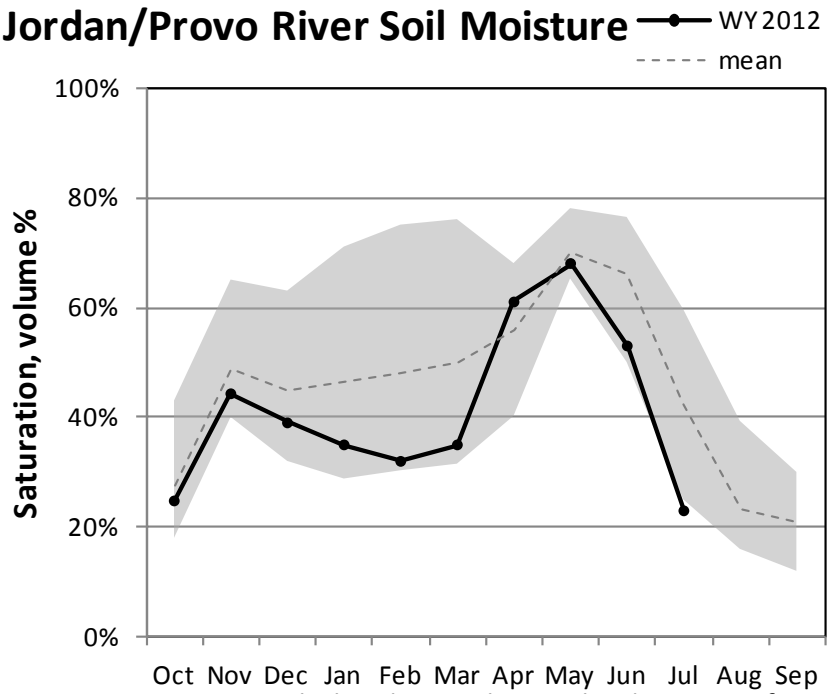
Utah Lake, Jordan River, & Tooele Valley Basins
July 1, 2012

Precipitation in June was below average at 4%, bringing water year accumulation to 69%. Reservoir storage is at 87% of capacity, which is 21% less than this time last year. Soil moisture is at 23% compared to 60% last year at this time.

Jordan / Provo River Precipitation

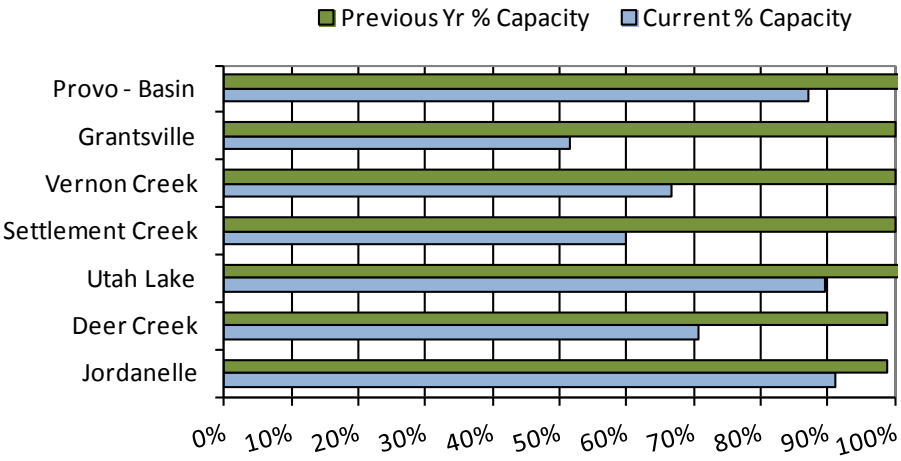


Jordan/Provo River Soil Moisture



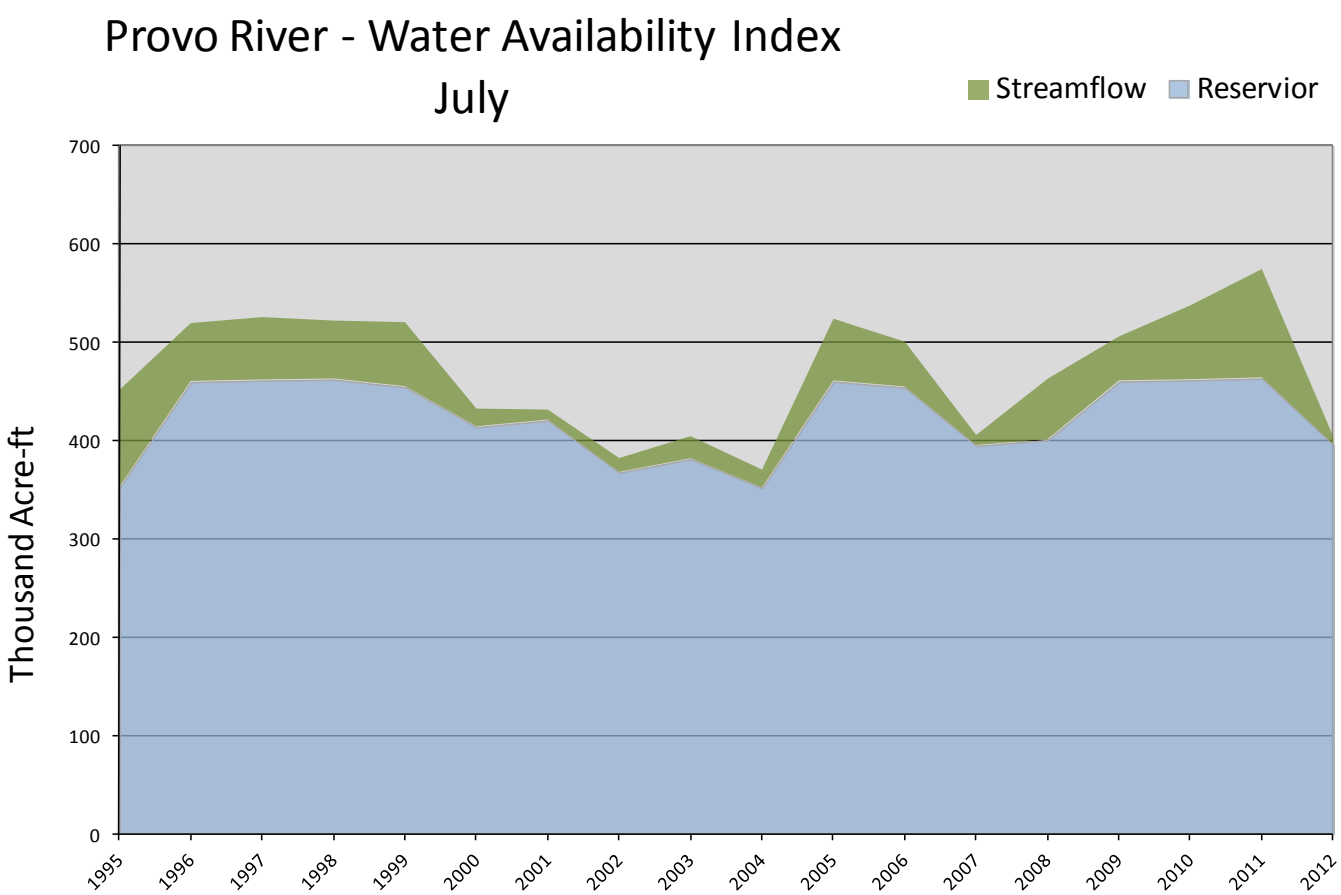
Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

July Provo River Reservoir Storage



July 1, 2012	**Water Availability Index**					
Basin or Region	June EOM* Deer Creek, Jordanelle	June accumulated flow Provo River at Woodland (*observed*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Provo	**396**	**7.7**	**404**	**-2.85**	**16**	**02, 04, 03, 07**

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

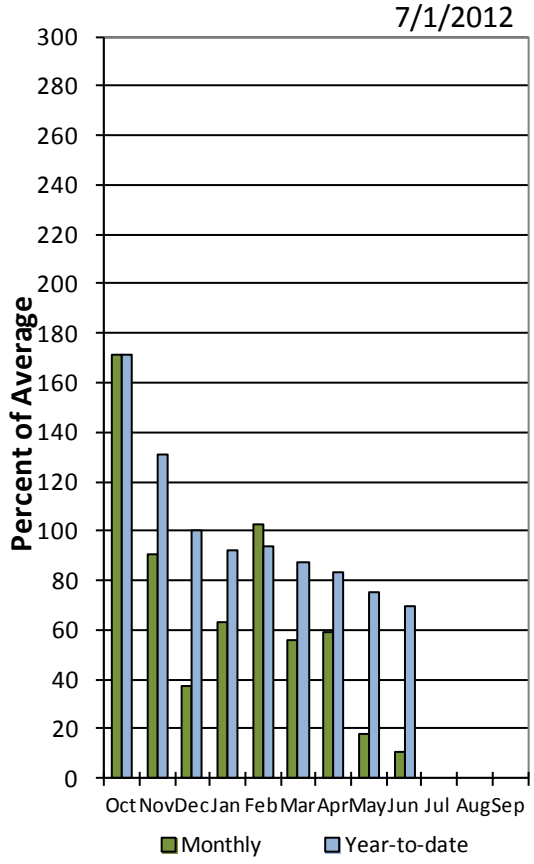


Uintah Basin and Dagget SCDs

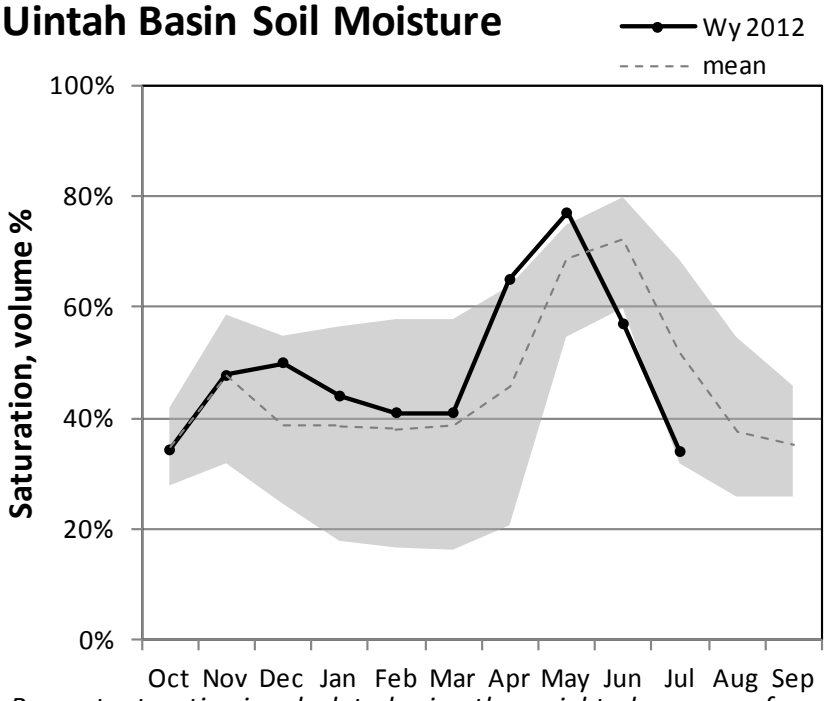
July 1, 2012

Precipitation in June was much below average at 11%, bringing the water year accumulation to 70%. Reservoir storage is at 83% of capacity, 17% lower at this time last year. Soil moisture is at 34% compared to 66% last year.

Uintah Precipitation

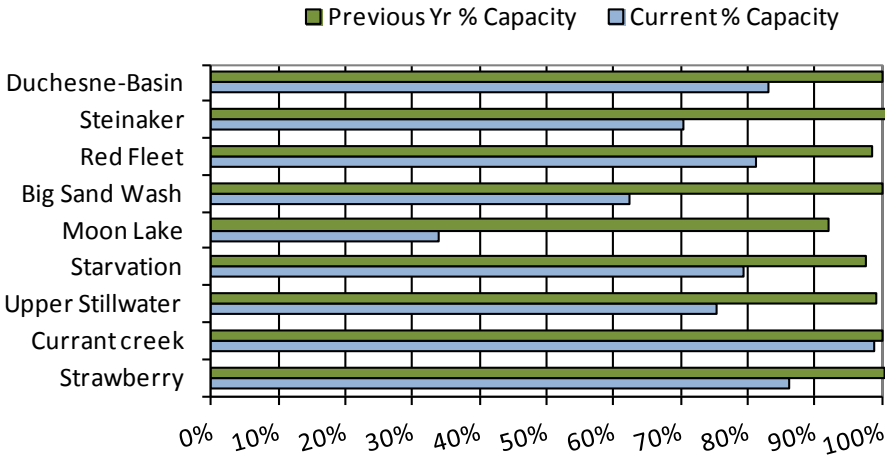


Uintah Basin Soil Moisture



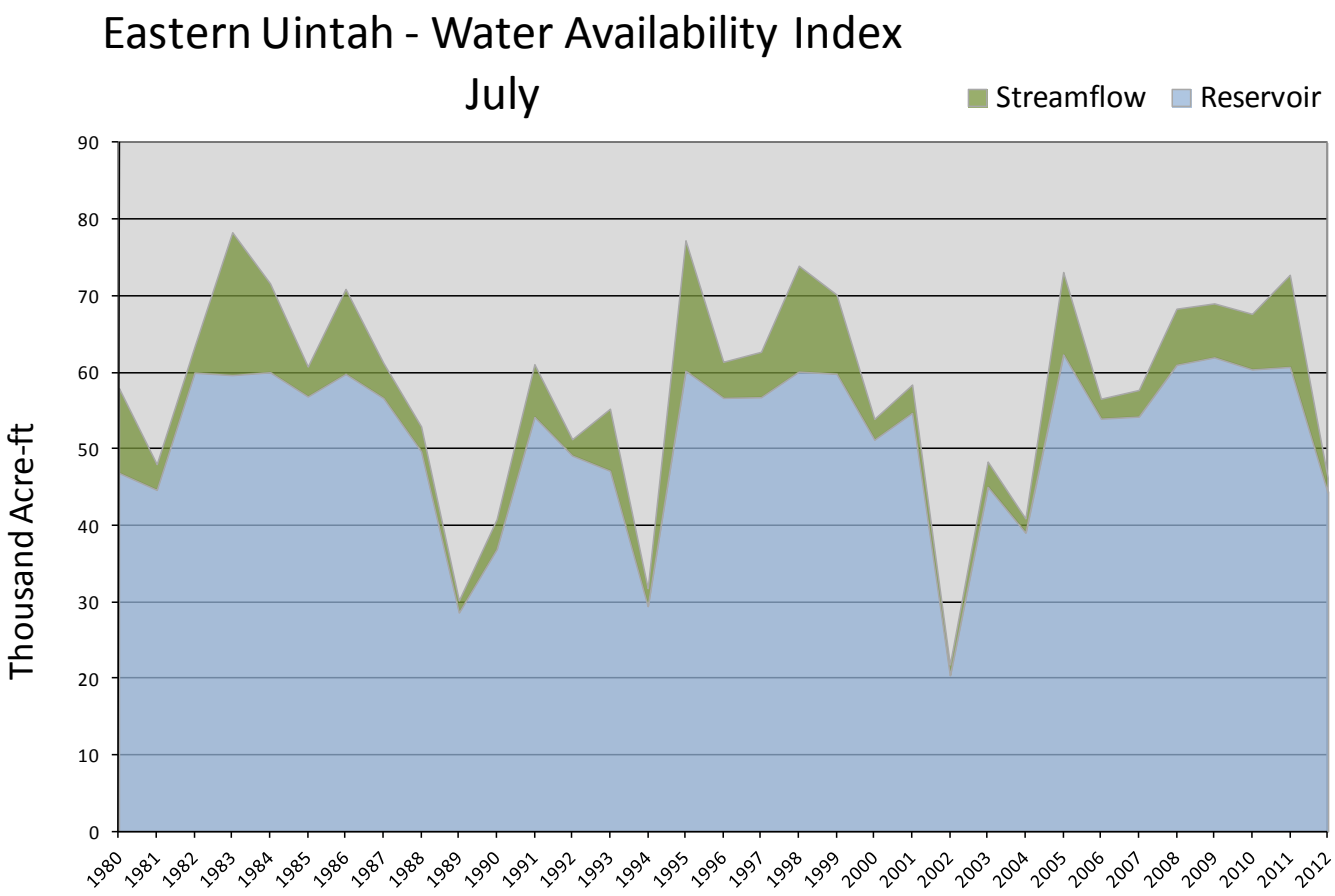
Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

July Uintah Basin Reservoir Storage



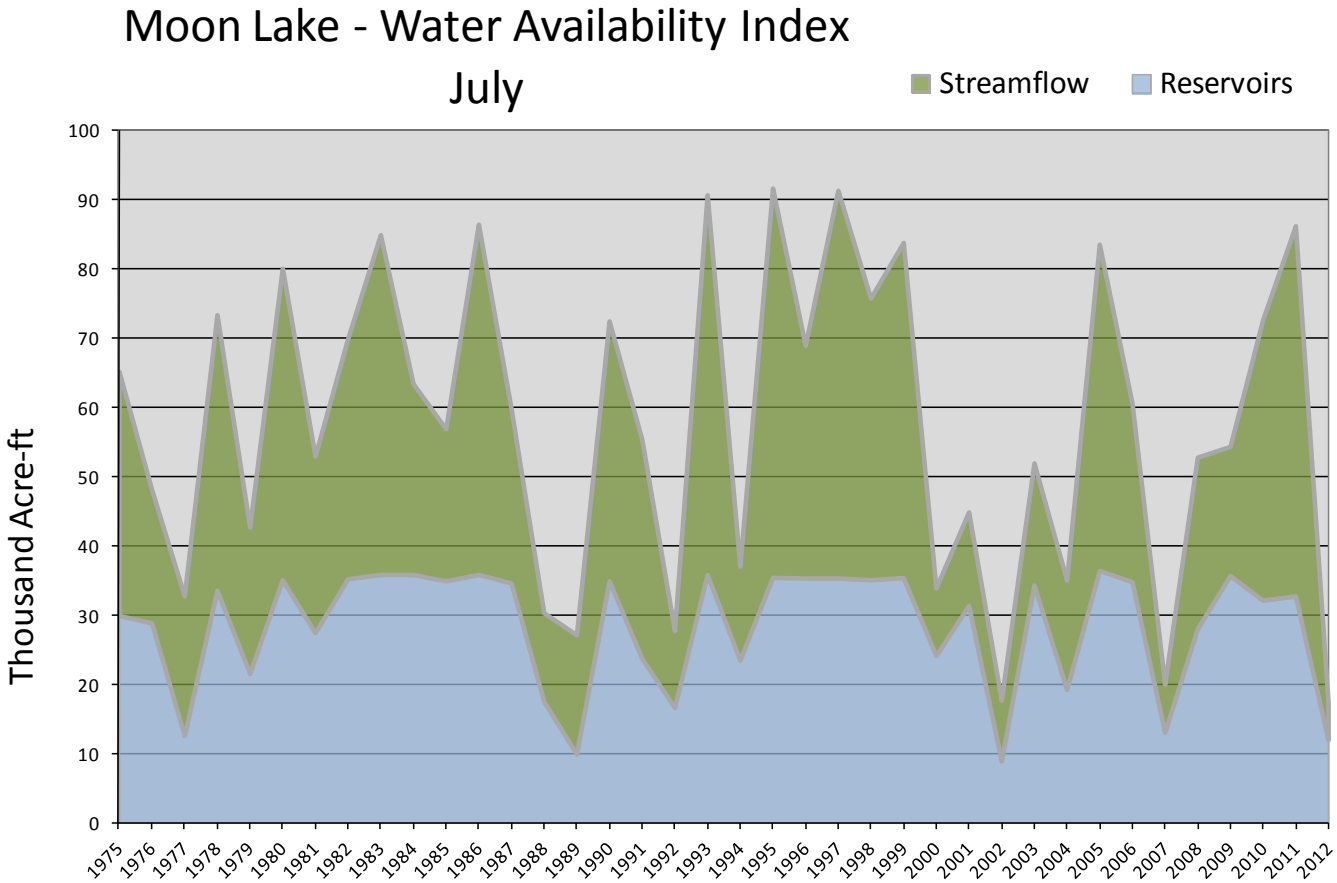
July 1, 2012	**Water Availability Index**					
Basin or Region	June EOM* Red Fleet and Steinaker	June accumulated flow Big Brush Creek (*observed*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Eastern Uintah	**44.4**	**1.9**	**46.3**	**-2.70**	**18**	**90, 04, 81, 03**

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



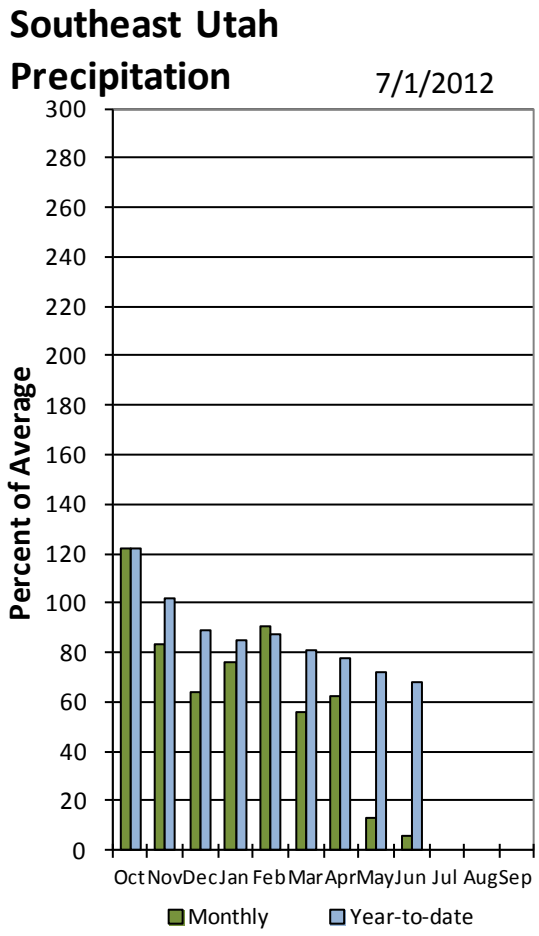
July 1, 2012	**Water Availability Index**					
Basin or Region	June EOM* Moon Lake	June accumulated flow Lake Fork Creek above Moon Lake (*observed*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Moon Lake	**12.1**	**5.3**	**17.4**	**-3.95**	**3**	**02, 07**

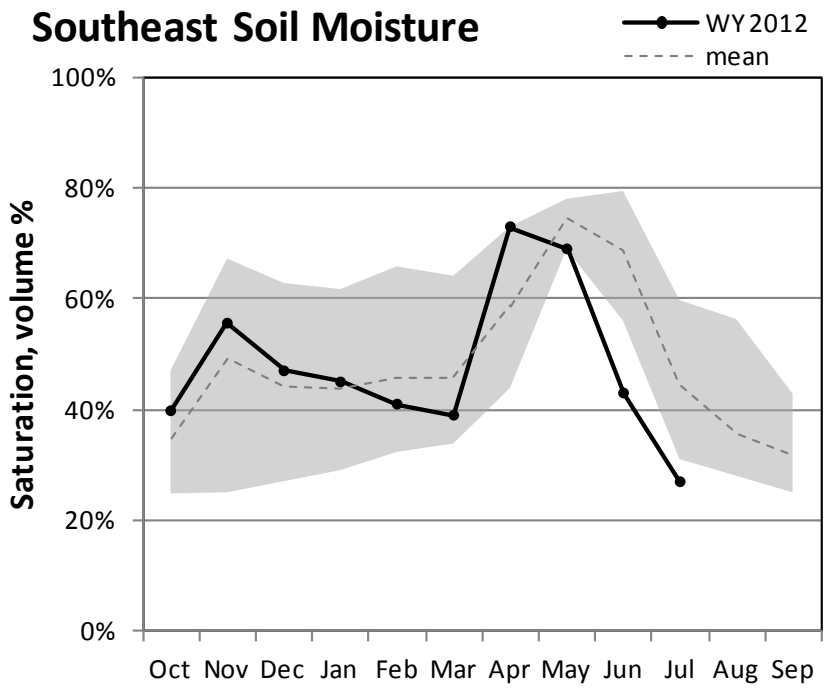
**EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.*



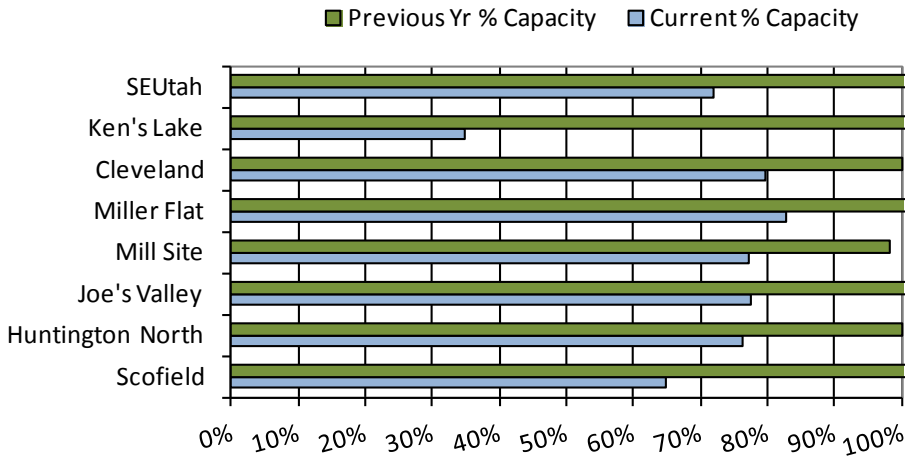
Southeast – Carbon, Emery, Wayne, Grand, and San Juan Counties
July 1, 2012

Precipitation in June was much below average at 6%, bringing the water year accumulation to 68%. Reservoir storage is at 72% of capacity, which is 32% lower than at this time last year. Soil moisture is at 27% compared to 60% last year.



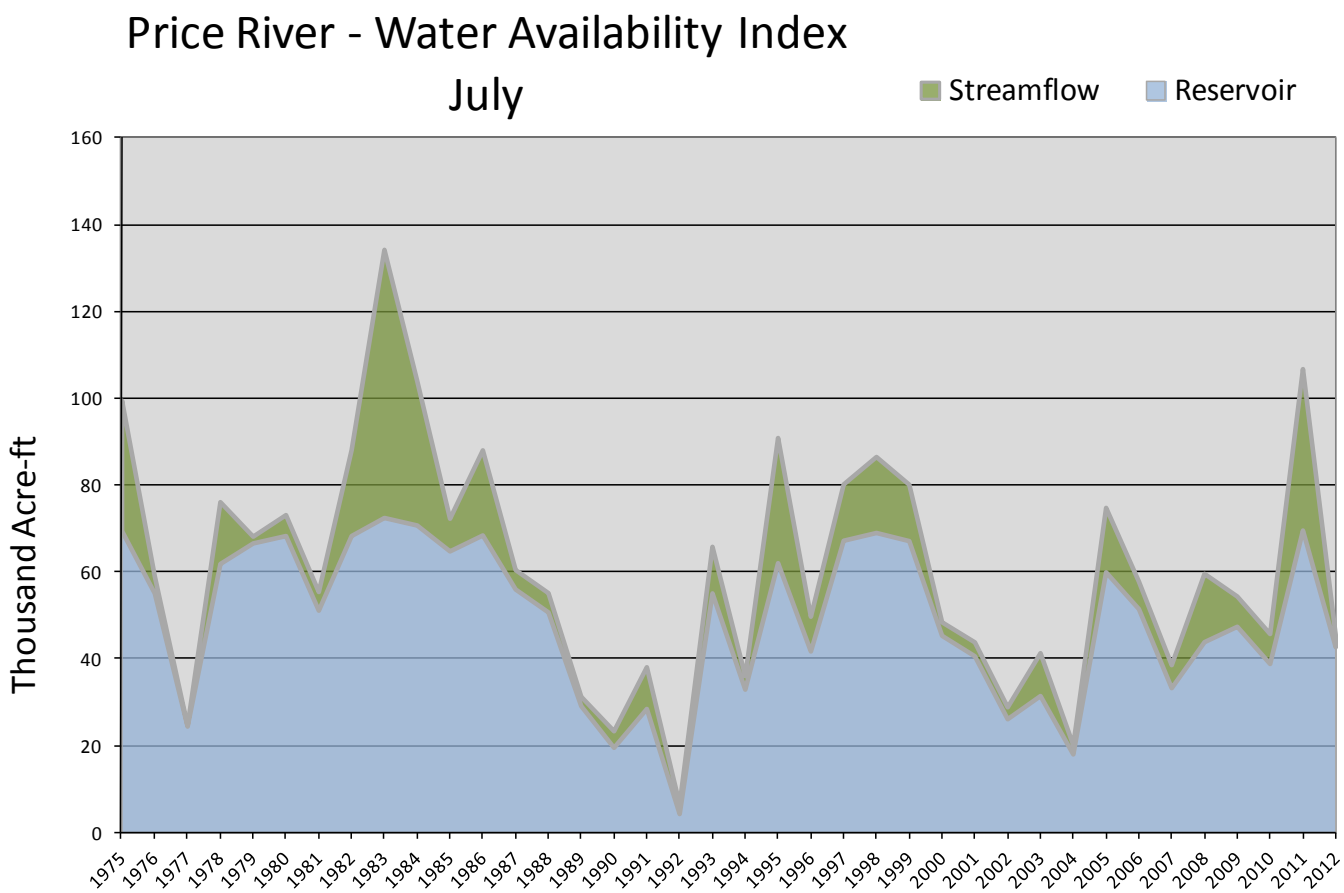


Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.



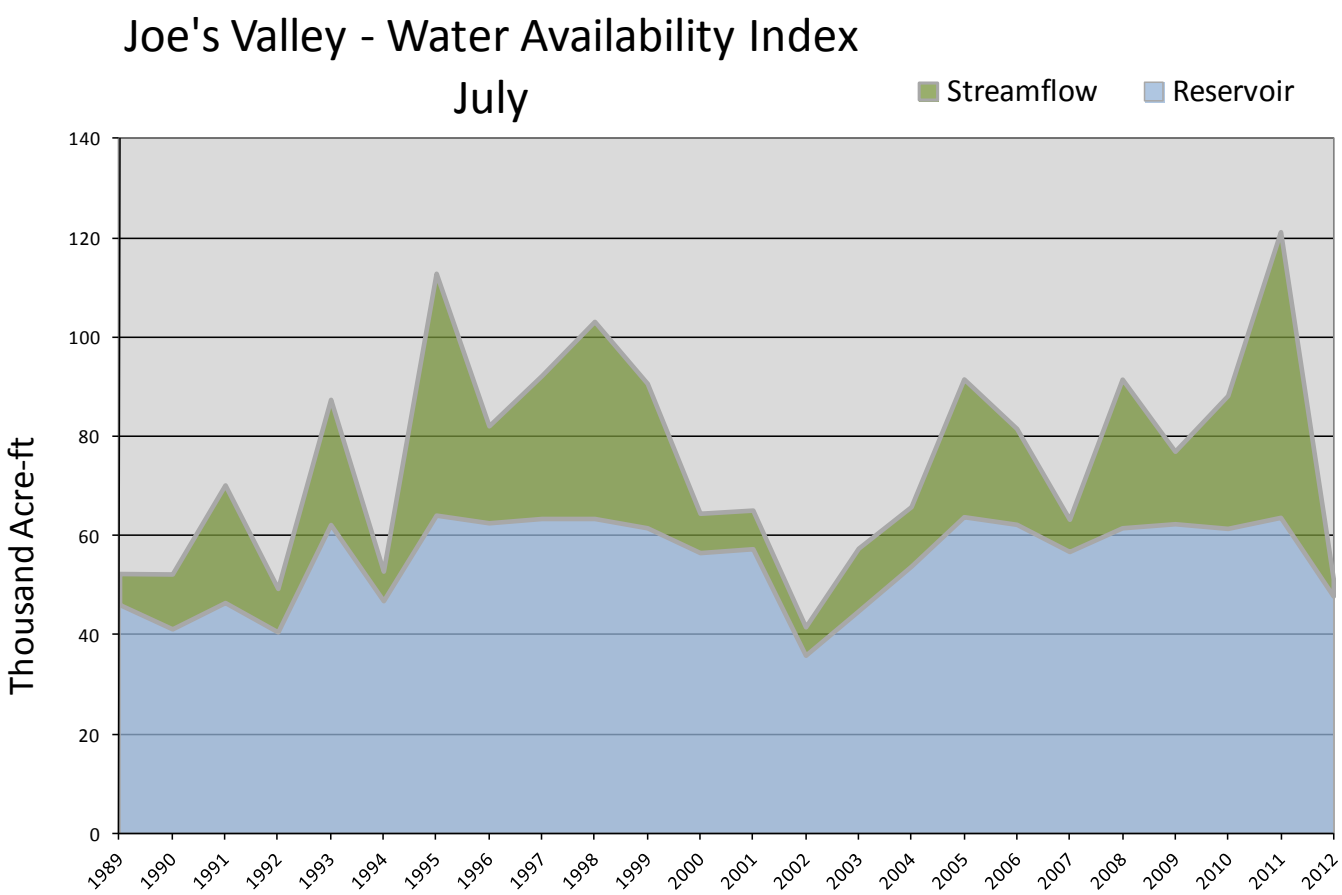
July 1, 2012	**Water Availability Index**					
Basin or Region	June EOM* Scofield	June accumulated inflow to Scofield (*calculated*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Price River	**42.7**	**2.7**	**45.4**	**-1.60**	**31**	**03, 01, 10, 00**

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



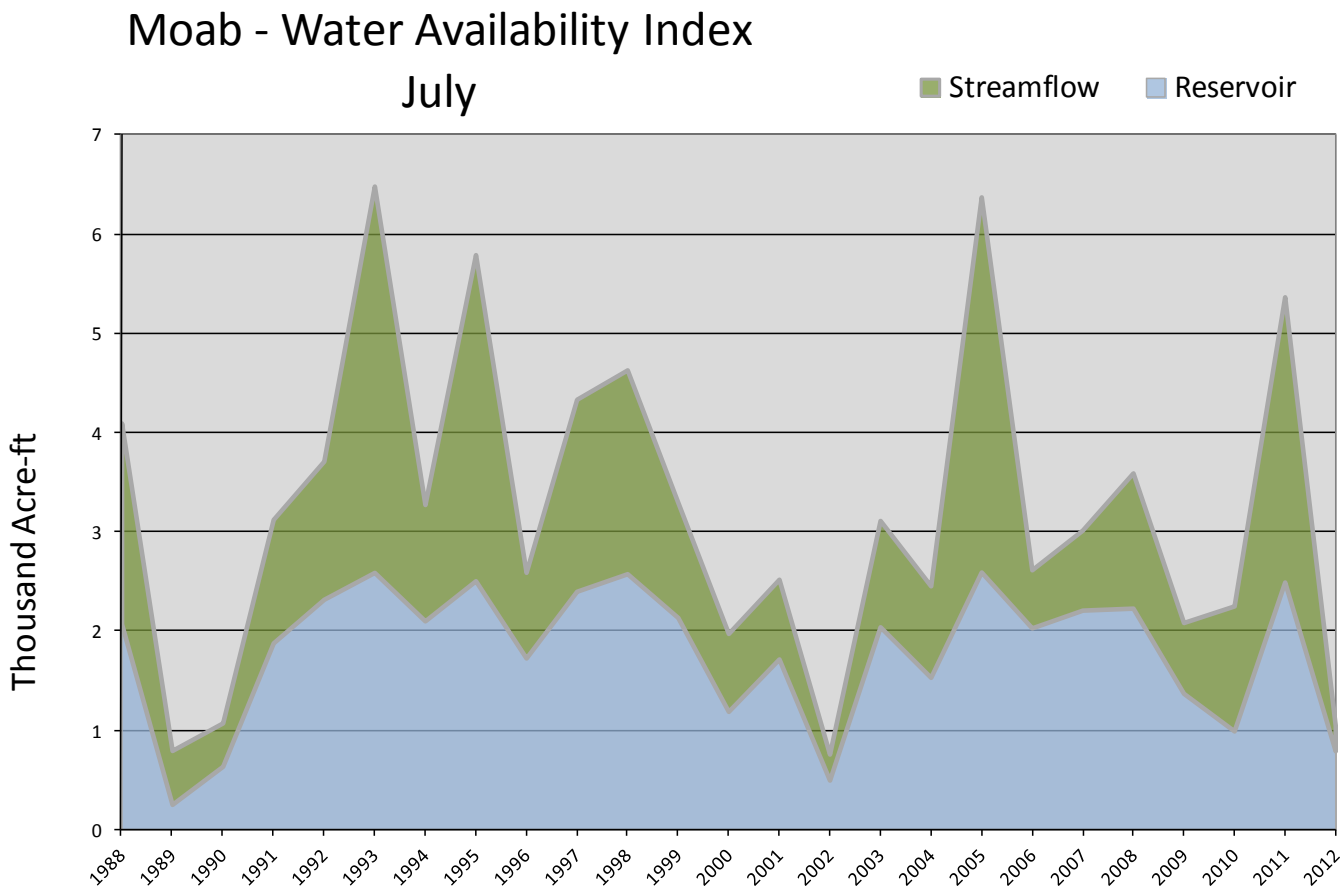
July 1, 2012	**Water Availability Index**					
Basin or Region	June EOM* Joe's Valley	June accumulated inflow to Joe's Valley (*calculated*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Joe's Valley	**47.8**	**3.5**	**51.3**	**-3.17**	**12**	**02, 92, 90, 89**

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



July 1, 2012	**Water Availability Index**					
Basin or Region	June EOM* Ken's Lake Reservoir	June accumulated flow Mill Creek at Sheley (*observed*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Moab	**0.8**	**0.3**	**1.1**	**-3.21**	**12**	**02, 89, 90, 00**

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



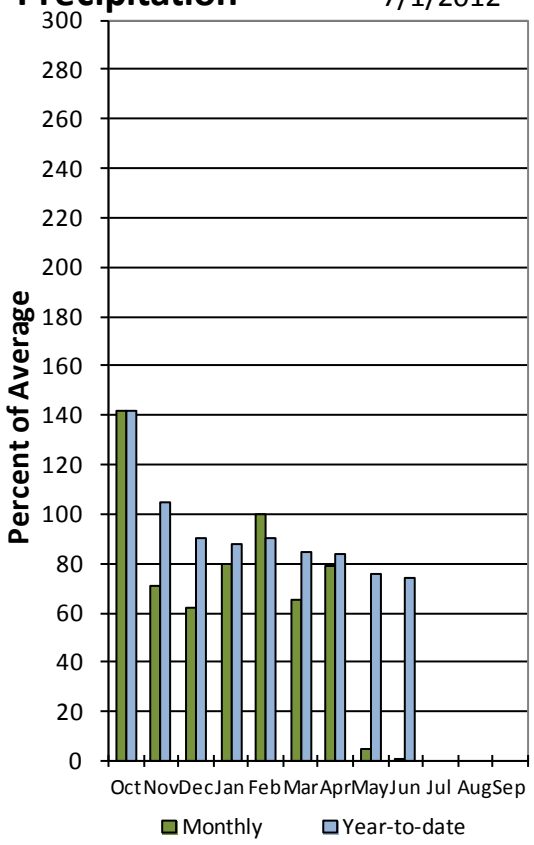
Sevier and Beaver River Basins

July 1, 2012

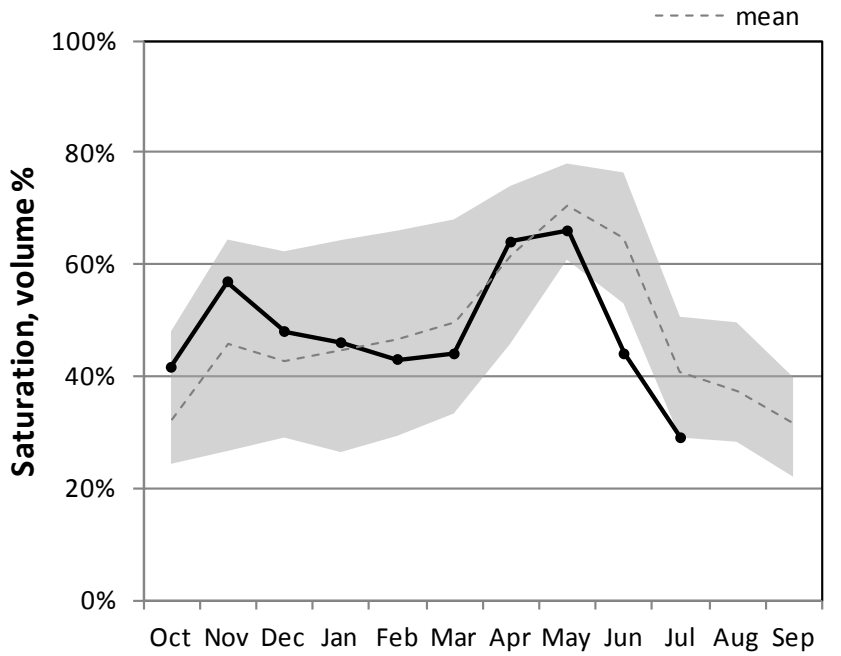
Precipitation in June didn't happen. Seriously- it didn't happen. 1% of average. The only site that accidently got some rain was Widtsoe #3 with 0.1 inch, which brings the seasonal accumulation (Oct-Jun) to 74% of average. Reservoir storage is at 59% of capacity, 34% less than last year. Soil moisture is as dry as any historical observations: current 29%, last month - 44% and last year - 51% of saturation.

Sevier /Beaver River Precipitation

7/1/2012

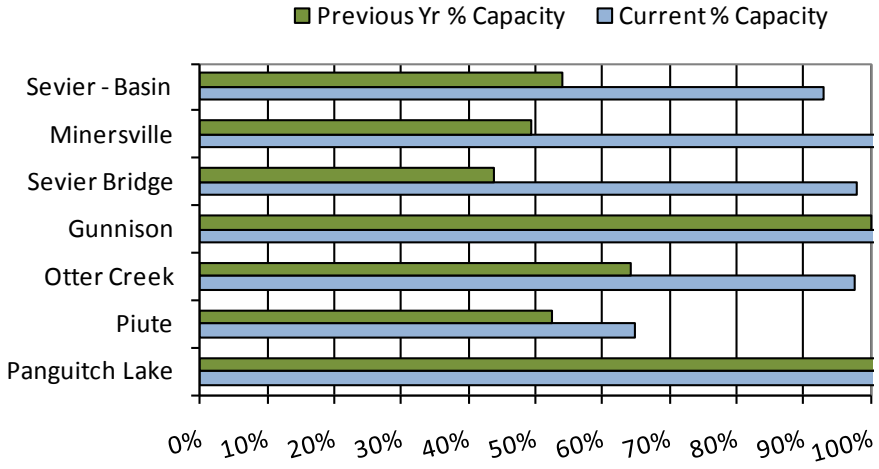


Sevier/Beaver River Soil Moisture



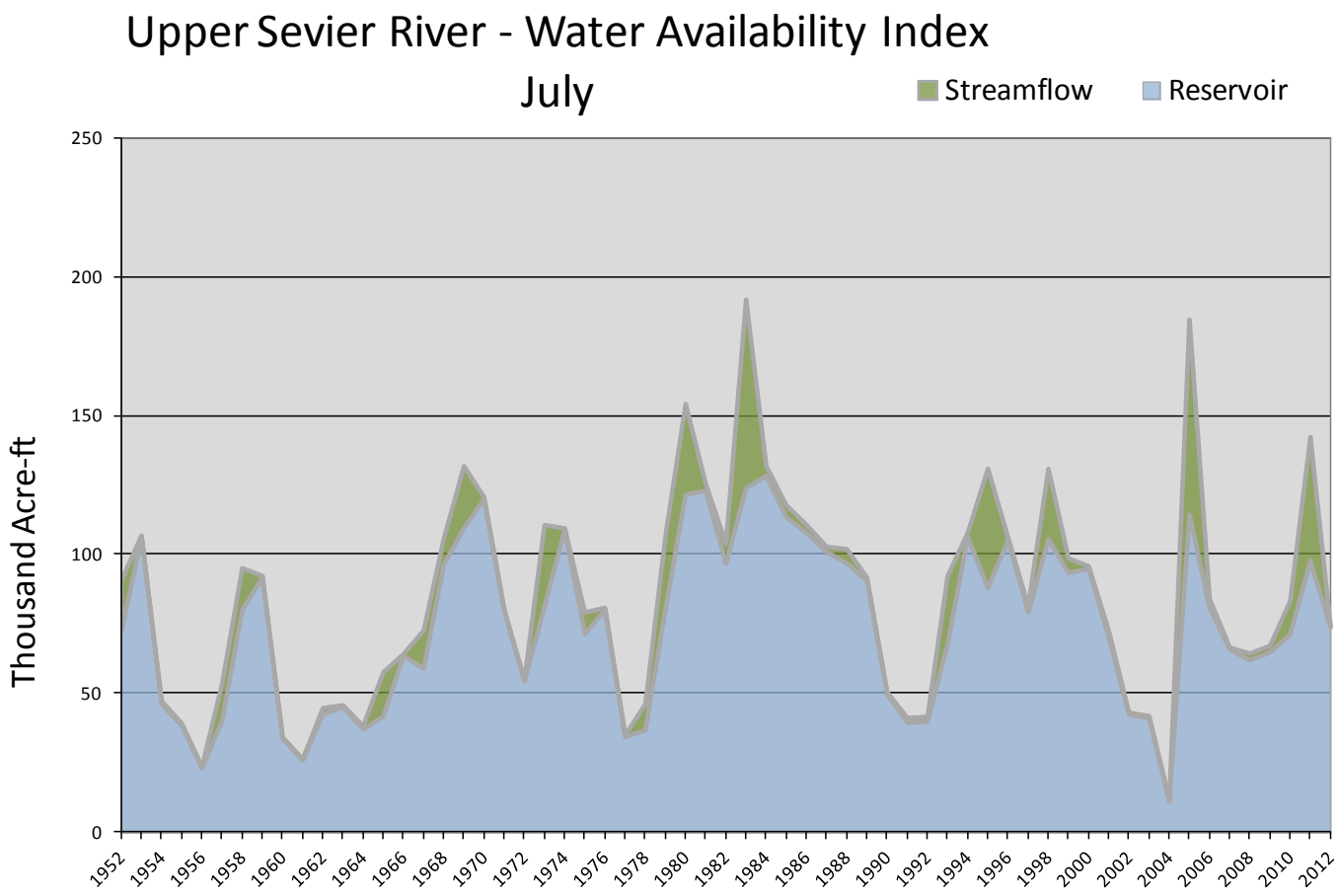
Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

July Sevier River Reservoir Storage



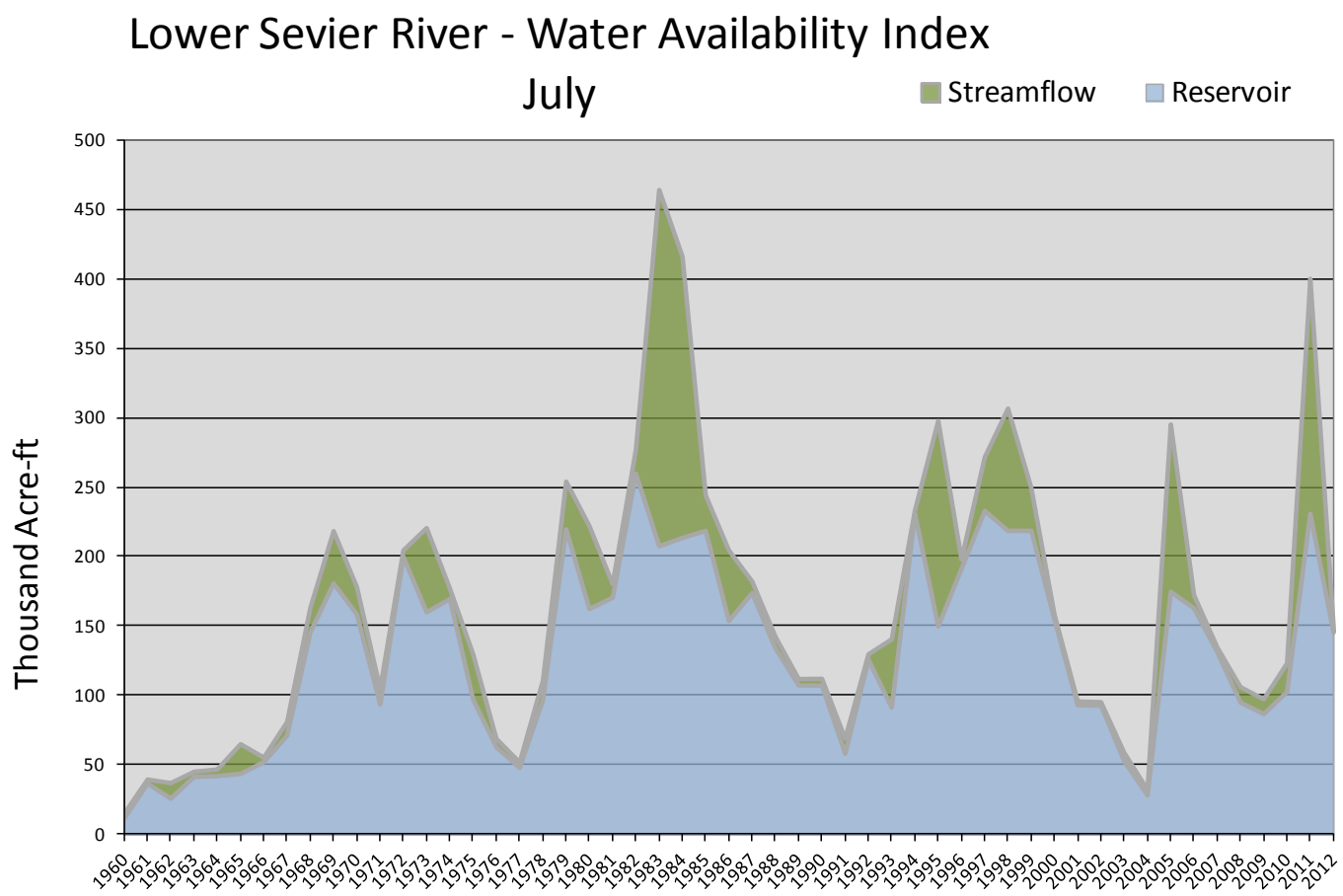
July 1, 2012	**Water Availability Index**					
Basin or Region	June EOM* Otter Creek and Piute	June accumulated flow at Kingston (*observed*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Upper Sevier River	**73.8**	**0.6**	**74.4**	**-0.67**	**42**	**01,67,75,71**

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



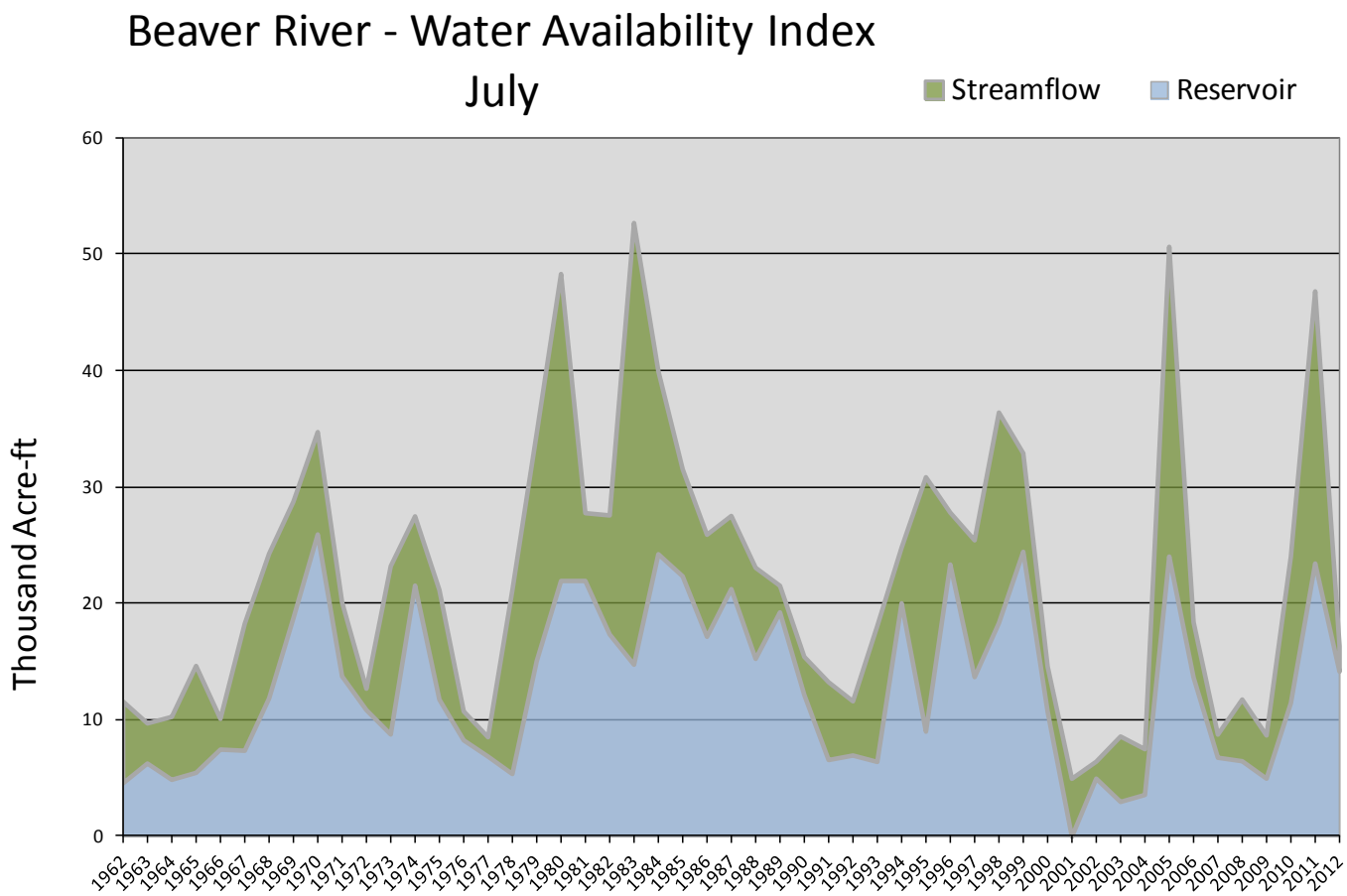
July 1, 2012	**Water Availability Index**					
Basin or Region	June EOM* Sevier Bridge	June accumulated flow Sevier at Gunnsion (*observed*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Lower Sevier River	**146.0**	**4.3**	**150.3**	**0.15**	**52**	**93,88,00,68**

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



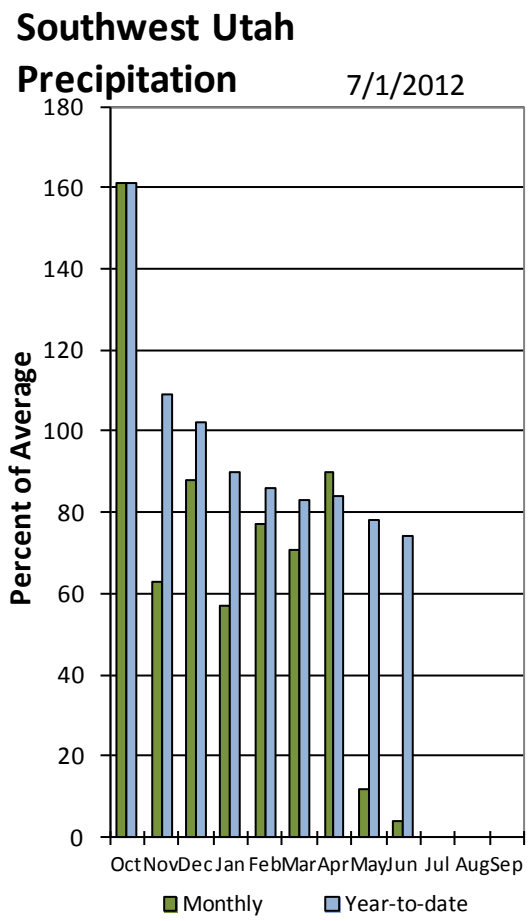
July 1, 2012	**Water Availability Index**					
Basin or Region	June EOM* Minersville Reservoir	June accumulated flow Beaver River at Beaver (*observed*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Beaver	**14.2**	**2.2**	**16.4**	**-0.96**	**38**	**65,90,93,67**

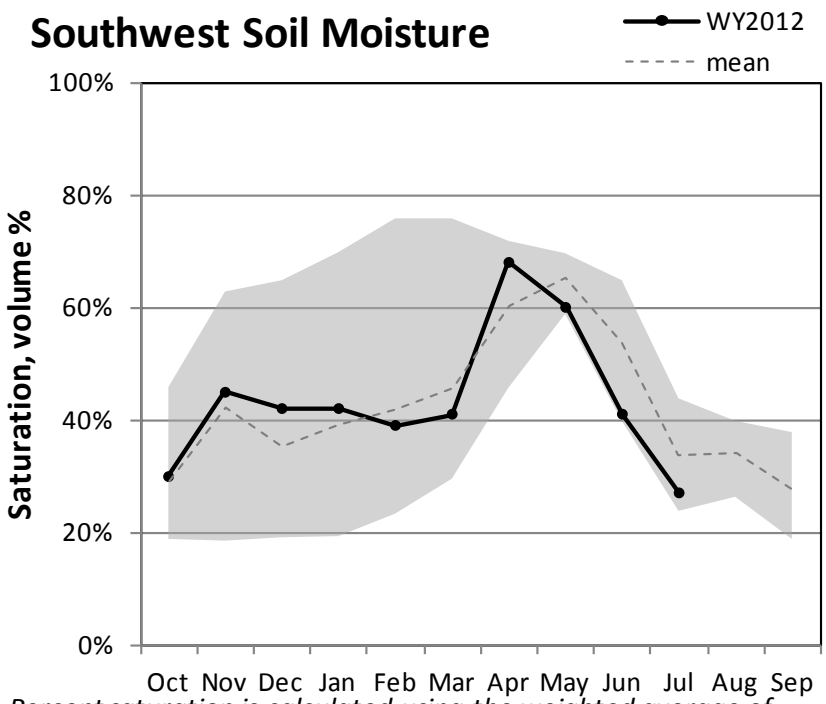
**EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.*



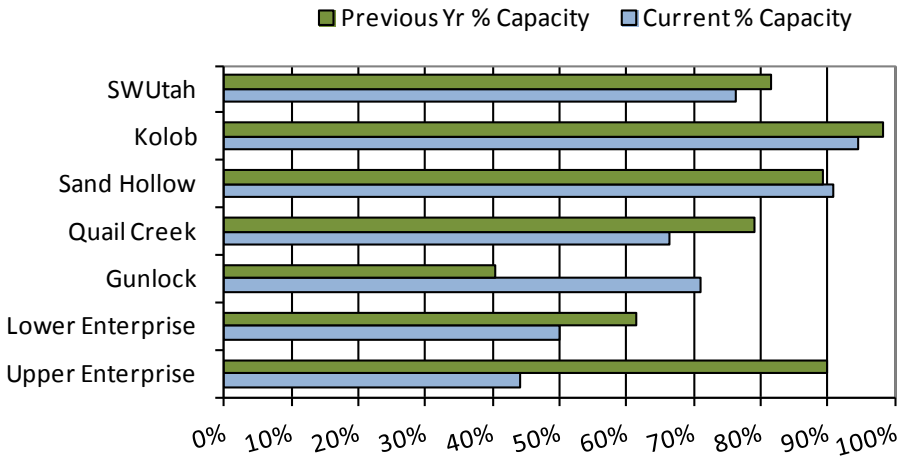
Southwest – E. Garfield, Kane, Washington, & Iron Counties
July 1, 2012

Precipitation in June was much below average at 6%, bringing water year accumulation to 68%. Reservoir storage is at 76% of capacity, 5% lower than last year at this time. Soil moisture is at 27% compared to 40% at this time last year.



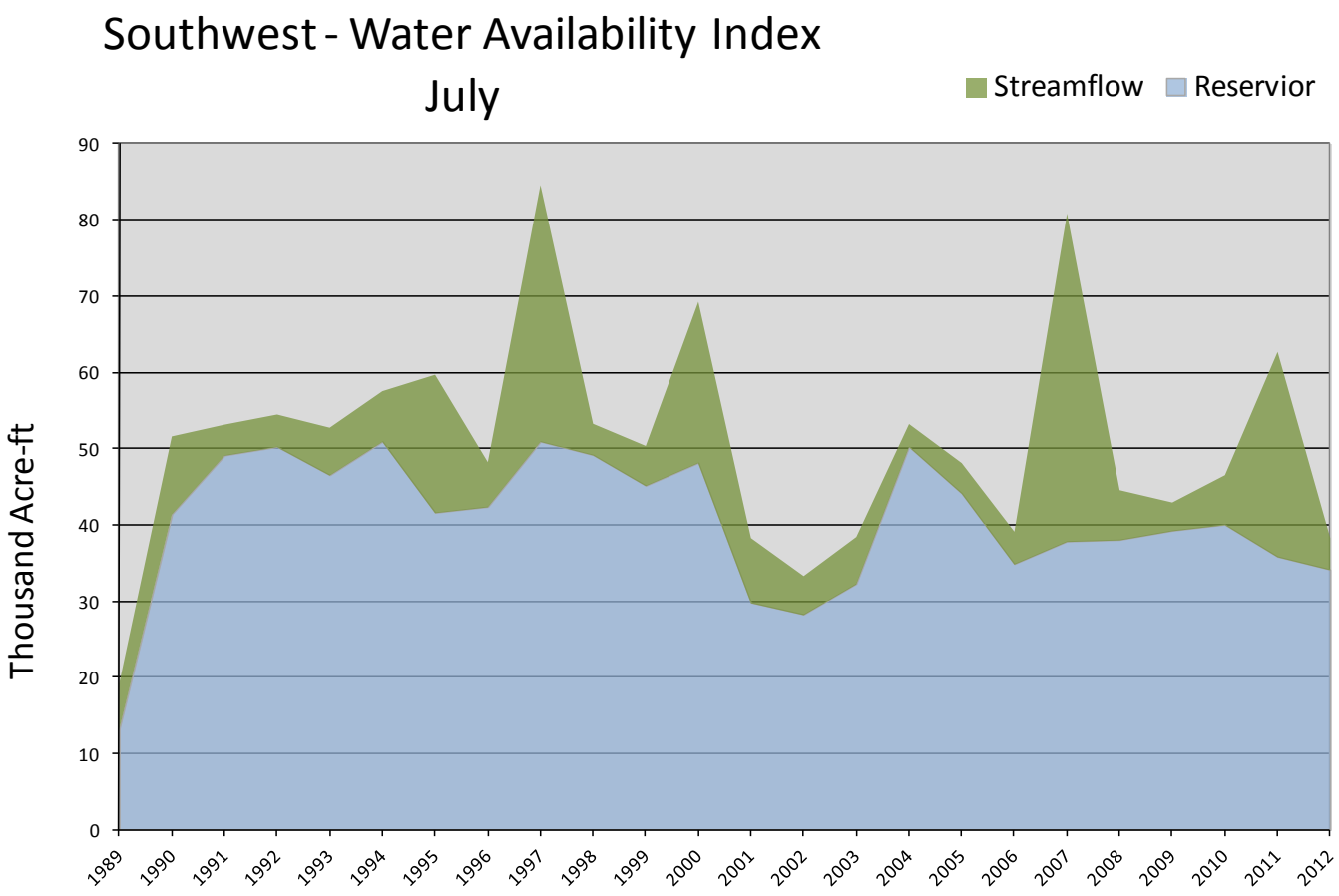


Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.



July 1, 2012	**Water Availability Index**					
Basin or Region	June EOM* Reservoir	June accumulated flow Virgin and Santa Clara Rivers (*observed*)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	*KAF^*	*KAF*	*KAF*		*%*	
Southwest	**34.1**	**4.2**	**38.3**	**-2.83**	**16**	**01, 02, 06, 06**

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



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Utah Climate and Water Report

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